

# **Guide to the Text Alignment Network, Version 2021**

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# Part I. General overview

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# Chapter 1. Introduction

## Overview

The Text Alignment Network (TAN) is a framework that allows users, working independently and collaboratively, to share, find, create, edit, and explore digital texts and annotations.

A customized extension of Text Encoding Initiative (TEI) [<http://tei-c.org>] XML, TAN is particularly suited for organizing and aligning texts with multiple versions (copies, translations, paraphrases), and for creating and editing text annotations such as quotations, translation clusters (word-to-word), and linguistic features.

The foundation of TAN is a suite of XML formats, each designed for a specific task. The extensive valid routines maximize the syntactic and semantic interoperability of texts, annotations, and language resources. TAN comes with applications and utilities that open new frontiers in scholarly publishing, research, and teaching.

Why use TAN?

Extensive error checking. Built-in TAN validation rules go well beyond the customary error-checking performed by other formats. Files linked in the network "talk" to each other, to let users know about changes and updates. More than one hundred types of content-based errors are checked. Through Schematron Quick Fixes, many of the problems can be corrected in a matter of seconds.

Time-saving utilities. Enjoy enhanced editing functions in Oxygen XML Editor's Author mode. Highly customizable TAN utilities help you create, edit, and maintain TEI and TAN files. For example:

- *Body Builder*: write rules to convert plain text or Word docx files into a preferred TAN/TEI structure and markup.
- *Body Remodeler*: incrementally restructure a text to imitate an existing TAN/TEI file. In conjunction with Oxygen Author tools, this utility can save hours of labor in creating a collection of many versions of the same work.
- *Body Sync*: update a TAN/TEI file so its transcription exactly matches that of another TAN/TEI file.
- *TAN-Alm Builder*: generate lexico-morphological data for a TAN/TEI file.

Pathbreaking applications. Core TAN applications, written in XSLT, provide cutting-edge tools for textual research and analysis. For example:

- *Diff+*: identify, analyze, and visualize text differences between any number of versions of a text.
- *Parabola*: juxtapose in a single interactive HTML page all the versions of a work, along with annotations.
- *Tangram*: identify quotations, paraphrases, and common text between two groups of texts.

Intuitive text referencing. Unlike TEI, HTML, or other markup systems that rely heavily upon arbitrary identifiers that can be difficult to navigate and maintain, TAN points to text portions using familiar reference systems, or user-customized tokenization rules.

Application development. TAN is built upon an extensive and robust XSLT function library, one of the few of its kind. Do you already use Natural Language Toolkit [<https://www.nltk.org/>], Classical

Language Toolkit [<http://cltk.org/>], or comparable packages in programming languages to develop tools for textual and linguistic research? Do you have to process, analyze, and transform texts that are in tree structures? With more than 250 public functions, covering a range of tasks, from numerics to maps, checksums to tree manipulation, the TAN function library might have everything you need, and more, and help you stay within an XML environment. Many TAN functions are extremely useful, even outside of TEI or TAN.

Semantic Web. TAN was designed at the outset to ensure that texts and their annotations would be rooted in the practices of the Semantic Web. Unlike many other formats, whose attribute values are almost always only human-readable, most TAN file components are tied to URIs, making them suitable for use in Semantic Web applications.

## Rationale and purpose

Scholars frequently work with numerous versions of texts. Sometimes the original version has been lost, or survives only fragmentarily, and can be studied only through later translations, paraphrases, or quotations. Even when an original survives, its later versions are often worth study, revealing as they do something of how words, concepts, and works were preserved, altered, or combined by generations and cultures who created, read, and circulated the versions.

Such textual comparison requires texts whose words, sentences, paragraphs, and other segments are aligned. Such alignment can be challenging. Some versions might be defective, or follow an idiosyncratic sequence. One editor may have divided the text according to a system not easily applied to other versions. Identifying which words or phrases in a translation and its original correspond might result in complex, overlapping spans. And even larger segments such as sentences and paragraphs may not line up well. Further, every version of a text is part of a much larger, complex history of text reuse, and a complete study of that context requires engagement with other works and other languages, and collaboration across projects and fields of study.

Text Alignment Network (TAN) XML facilitates the exchange of multiple versions of texts and annotations on those texts. TAN syntax is suitable for humans to read and edit, expressive enough to allow scholars to register doubt and nuance, and sufficiently structured to permit complex computer-based queries across independent datasets. TAN is not a single format, but rather a suite of formats, one task per format. Because nearly all TAN data must be expressed in way that computers can parse, the information can be used in semantic web applications (see the section called “Resource Description Framework (RDF) and Linked Open Data”).

TAN has been designed to support two kinds of scholarly activity: creation and research.

When we create our primary sources or analyze them, we normally want what we create to be useful to our colleagues. TAN was designed to assist scholarly creative activities such as:

- Creating and sharing a transcription of a particular version of a textual work that it is more likely to align with any other TAN version of that text created by someone else;
- Creating an index of quotations that is semantically rich and can be applied to any other version of the quoting or quoted works;
- Specifying exactly (e.g., word-for-word) where a source and its translation correspond, even with overlapping or ambiguous relationships, or where doubt or alternative possibilities of alignment need to be expressed;
- Listing the grammatical features of every word in a text or a language in a way that allows it to be compared easily against other languages and texts.

Shared TAN files form a decentralized, interoperable corpus of texts, a kind of Internet of primary sources and annotations. As this TAN-compliant corpus spreads into different linguistic, chronological, and geographical regions, third-party tools and applications can expand the repertoire of research questions beyond any single corpus, to help scholars fruitfully investigate broader, comparative questions such as:

- For classical Greek texts, how were words with the root *-ιστημι* (“stand”) translated into ancient Latin? In what specific ways did the vocabulary of technical terms shift from pre-Christian translations into later, Christian ones?
- How do the reformed Chinese translation technique of Sanskrit Buddhist texts, attested by Dao An (312-385 CE), compare to reforms in the seventh and eighth centuries of Syriac translations of Greek texts?
- How do Arabic translations of Greek texts from the Abbasid period differ from contemporaneous translations from Sanskrit into Arabic?
- Can an anonymous English translation of a modern French novel be identified with known translators from that period?
- How do present-day translations of official United Nations documents differ across languages?

Neither the TAN format nor its applications answer such questions. But they can be used to start to work on answers, because the TAN function library includes many cutting-edge algorithms that cannot be found in other programming libraries, whether XSLT or not. What the Natural Language Toolkit [<https://www.nltk.org/>] (or the related Classical Language Toolkit [<http://cltk.org/>]) is for digital humanists using Python, TAN aspires to be for those using XSLT. For more on the function library see the section called “Using TAN functions”.

## About the format

TAN differs from other text formats such as HTML, Microsoft Word, PDF, or Docbook. Each of those formats are interoperable only in the sense that any file can be reliably opened and displayed by the same software. Despite such software compatibility, the content, structured by each user, looks very different from one file to the next. If you receive from different people two versions of a particular literary work in the same file format (e.g., Word or PDF), there would be little likelihood that you could align them in a new document without a lot of extra work. These are presentation formats, designed to let the creator use his or her imagination to shape, structure, and present the material in highly stylized, creative ways. The formats are *laissez faire*, concerned mainly to ensure that each component is rendered properly, without regard for the meaning of those components.

Creating a text in TAN is like opening a word processor and telling it, “I don’t care how the text looks. I want to ensure that it is in a meaningful structure that corresponds to any other version of that text. The appearance, which could take thousands of directions, can be worried about later.”

The closest analogue to the TAN formats is the XML format developed by the Text Encoding Initiative, whose design catalyzed and continues to inspire the development of TAN. *TAN is, in fact, a customized extension of TEI.* TAN takes a handful of TEI concepts and extends them via stand-off annotation, to allow for overlapping annotations, to engage with the Semantic Web, and to support cross-project interoperability. TAN reduces some of the repetition that tends to be necessary in TEI files. For more on comparisons between TAN and TEI see the section called “The Text Encoding Initiative”.

Some other caveats:

- Although TAN comes with an extensive library of functions and templates, it is not what most people think of as a tool or application. It is not customer, off-the-shelf software. It does not come with graphic interface. Rather, it is a package of XML resources, particularly in XSLT, that allows programmers and developers to create customized applications and tools. If you work with an XML editor like Oxygen, your editing experience will be greatly enhanced by the TAN function library, which was designed in Oxygen, and optimized for it.
- The TAN formats are specialized. They are not meant to replace other common text formats such as TEI, Docbook, and so forth, or other alignment formats such as XLIFF or TMX. Converting a TAN file into these formats is usually straightforward, but will usually entail loss. Conversely, most conversions from one of these formats into TAN will not entail loss, but will be imperfect or incomplete, because many of these formats lack the data required by TAN. Conversion must be given careful thought, and can only be semiautomated.
- Each TAN format has a restricted field of inquiry, defined and explained in these guidelines. TAN is not for everyone. For example, if you are working on developing a transcription that imitates a particular print edition, you are better off using only TEI, or a version of TEI that you have customized. But once you want to bring that transcription into close comparison with other versions and study it intertextually, then TAN might be ideal.

## Participation

Changes are made regularly to TAN, mainly in its development branch [<https://github.com/textalign/TAN-2021/tree/dev>]. If you have a TAN library, sharing it with other participants, particularly via Git, will help developers test any changes that have been made to the function library, and encourage others to contribute to your project.

The TAN project is by no means finished. This version TAN merely scratches the surface of what is possible. New participants to test, use, and develop TAN's schemas, functions, guidelines, and applications are welcome. Inquiries about participation should be sent to the project director, Joel Kalvesmaki [<http://kalvesmaki.com/>], by email: `director` at `textalign.net`.

Official announcements are made by email (Google Group) [<http://groups.google.com/group/textalign?hl=en>] and by Twitter [<https://twitter.com/textalign>].

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# Chapter 2. Starting off with the TAN format

If you think you are ready to jump in and get going, try the section called “Installation and local setup”. But if you are new to markup languages, or unfamiliar or uncomfortable with acronyms and technical terms such as *XML*, *RDF*, *XPath*, and *Unicode*, you should start with this chapter, which uses a simple example to illustrate the steps typically taken to create and edit TAN files, and to introduce new terminology. By the end of this chapter, you will have a sense of how to create and edit a small collection of TAN transcriptions and alignments.<sup>1</sup>

The chapter touches on a number of general concepts that are discussed only briefly. If you find a particular term new or confusing, follow the prompts for further reading. If you are already familiar with basic markup concepts, you should at least skim through the chapter, because TAN approaches some old problems in new ways.

## Creating TAN transcription and alignment data

Let us take a simple example, that of aligning two English versions of the nursery rhyme *Ring-a-ring-a-roses*, sometimes known as *Ring around the Rosie*. Our goal here is to publish two versions of the nursery rhyme in the TAN format so that they are most likely alignable with any other TAN version of the poem that might appear.<sup>2</sup>

We begin by finding previously published versions that haven’t been digitized. In this case we have taken an interest in the versions published in 1881 [<http://lcn.loc.gov/12032709>] and 1987 [<http://lcn.loc.gov/87042504>] (one published in the U.K. and the other, the U.S.). Each of these books have other rhymes, but we’ve decided to focus upon one nursery rhyme, so we type up (transcribe) that poem and nothing else:

Table 2.1. Ring around the Rosie

1881 (U.K.) version	1987 (U.S.) version
Ring-a-ring-a-roses,	Ring-a-round the rosie,
A pocket full of posies;	A pocket full of posies,
Hush! Hush! Hush! Hush!	Ashes! Ashes!
We’re all tumbled down.	We all fall down.

We must be sure to save each of the two transcriptions as plain text. Do not bother with a word processor (Word, OpenOffice, Google Docs, and so forth), which is too fancy for our needs. Word processors sometimes generate erroneous data, even when you export to plain text. And we are not concerned with italics, colors, fonts, margins, and so forth. We would be better off with a text editor [[http://en.wikipedia.org/wiki/Text\\_editor](http://en.wikipedia.org/wiki/Text_editor)], which opens and saves only text. But even those do not check to see if the rules of the TAN format have been followed. So the best tool is an XML editor [[http://en.wikipedia.org/wiki/XML\\_editor](http://en.wikipedia.org/wiki/XML_editor)], which like a text editor takes and creates only text. An XML editor is designed to follow the rules of XML, and so saves a lot of typing, and prevents many

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<sup>1</sup>In the TAN system, [Definition: a *transcription* is a plain digital text that replicates a text found somewhere else, usually reproducing its script and spelling]. The following—“In pluribus unum”—is a (partial) transcription of a United States dollar. The term should be distinguished from [Definition: a *transliteration*, which is a transcription rendered in a script other than the original]. For example, *εν πληροφοριες ουνεμ*, would be a Greek transliteration of the previous transcription.

<sup>2</sup>Although the TAN examples below look much like files in the `examples` subdirectory of the TAN library, they have been adjusted, to explain the formats better.



errors. More important, an XML editor will tell us when our TAN file is invalid, and will provide important help as we edit.<sup>3</sup>

Our first task is to get these two versions into separate files with the appropriate markup. Each TAN transcription file has two major parts: a head and a body. For now, we focus on only the second part, the body, as well as a few of the necessary preliminary lines that stand at the opening of the file, before both the head and the body. First, the i88i (U.K.) version:

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-model href="http://textalign.net/release/TAN-2020/schemas/TAN-T.rnc"
  type="application/relax-ng-compact-syntax"?>
<?xml-model href="http://textalign.net/release/TAN-2020/schemas/TAN-T.sch"
  type="application/xml" schematypens="http://purl.oclc.org/dsdl/schematron"?>
<TAN-T xmlns="tag:textalign.net,2015:ns" TAN-version="2021"
  id="tag:parkj@textalign.net,2015:ring01">
  <head>
    . . . . .
  </head>
  <body xml:lang="eng">
    <div type="line" n="1">Ring-a-ring-a-roses,</div>
    <div type="line" n="2">A pocket full of posies;</div>
    <div type="line" n="3">Hush! Hush! Hush! Hush!</div>
    <div type="line" n="4">We're all tumbled down.</div>
  </body>
</TAN-T>
```

And now the i987 (U.S.) version:

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-model href="http://textalign.net/release/TAN-2020/schemas/TAN-T.rnc"
  type="application/relax-ng-compact-syntax"?>
<?xml-model href="http://textalign.net/release/TAN-2020/schemas/TAN.sch"
  type="application/xml" schematypens="http://purl.oclc.org/dsdl/schematron"?>
<TAN-T xmlns="tag:textalign.net,2015:ns" TAN-version="2021"
  id="tag:parkj@textalign.net,2015:ring02">
  <head>
    . . . . .
  </head>
  <body xml:lang="eng">
    <div type="1" n="1">Ring-a-round the rosie,</div>
    <div type="1" n="2">A pocket full of posies,</div>
    <div type="1" n="3">Ashes! Ashes!</div>
    <div type="1" n="4">We all fall down.</div>
  </body>
</TAN-T>
```

The examples above are in eXtensible Markup Language (XML). XML lets you take a text or a collection of data and structure it with angle brackets, < and >. In the examples above, such markup is in boldface.

<sup>3</sup>Software suitable for your needs comes in many styles and prices. In addition to the links in the paragraph above, you may wish to visit the comparative lists published on Wikipedia for both text editors [[http://en.wikipedia.org/wiki/Comparison\\_of\\_text\\_editors](http://en.wikipedia.org/wiki/Comparison_of_text_editors)] and XML editors [[http://en.wikipedia.org/wiki/Comparison\\_of\\_XML\\_editors](http://en.wikipedia.org/wiki/Comparison_of_XML_editors)]. TAN was developed using Oxygen [<https://www.oxygenxml.com>], which is very powerful. If you are a new user, you are likely to find it overwhelming. Take advantage of tutorials and documentation associated with the XML editor you have chosen.

Each file begins with a prolog, the first few lines that begin with `<?`. The first line simply states that what follows is an XML document. The next two lines in each example are processing instructions that point to the schemas: files that will be used to check to see whether or not our XML follows TAN rules, a process called validation. We will skip the details of those first five lines. They will be identical, or nearly so, from one TAN file to the next. We can simply cut and paste them when we want to start a new TAN file.

After the prolog comes an opening tag, signified by an angle bracket followed by a letter, here `<TAN-T>`. That opening tag, `<TAN-T . . . >` is answered by a closing tag, `</TAN-T>`, the last line. An opening tag and a closing tag mark the beginning and the end of one of the most important parts of an XML document, the element. For now, you can think of an element as a chunk of data. Every element is marked by a pair of tags. In this example, `<head>` is answered by `</head>`, `<body>` by `</body>` and each `<div . . . >` by `</div>`. Any element that has an opening tag must have a closing tag. If an element doesn't have anything between its opening and closing tags, the two of them can be collapsed into a single tag. That is, `<a></a>` can be simplified to `<a/>` (such empty elements are illustrated below).

Elements and processing instructions are two of the seven basic XML ingredients, called nodes. The other five node types are text, comment, attribute, namespace, and document, some of which we will meet below. The element node is arguably the most important type. You will see it most often, and it is absolutely required for anything to be well-formed XML. Every XML file must have at least one element. (But it does not have to have attributes, text, comments, or processing instructions.)

Elements nest within or beside each other, but they never overlap or interlock. That is, you *cannot* have `<a><b>overlap</a></b>`. The prohibition on overlapping elements is one of the cardinal rules of XML. The no-overlap rule keeps XML files tidy, and makes it easier for developers to write efficient applications.

Any two nearby elements normally relate to each other either by one nesting inside the other or by one being adjacent to the other. Because of these different close relationships, every XML file can be thought of as a tree, with the root at the trunk and the nested elements as branches, terminating in metaphorical leaves—those elements that do not contain any other elements. It is helpful to use the tree metaphor when we describe the path we take, toward either the leaves or the root. In these guidelines, we may use the terms *rootward* and *leafward* when we want to trace movement up and down the levels of hierarchy in an XML document. You may also encounter the corresponding terms *outermost* and *innermost*. The metaphor is strengthened by the XML rule that there can be but only one root element, i.e., the element that contains all other elements and is contained by none. In our examples above the root element is named `TAN-T`.

An XML document tree can also be profitably thought of as a family. Family names provide the most common terminology to describe the relationship between elements. In our examples above, `<TAN-T>` is the parent of `<body>`, and `<body>` is the parent of the four `<div>` elements. Likewise, each `<div>` is the child of `<body>`, and `<body>` is the child of `<TAN-T>`. Distant parental relationships can be described with the terms ancestor and descendant. `<TAN-T>` is the ancestor of every element it encompasses, and every element encompassed by `<TAN-T>` is its descendant. Paratactic relationships are also important. `<head>` and `<body>` are siblings to each other, and every `<div>` is a sibling to every other `<div>`. The terms "following" and "preceding" are the most common ways to describe the relationship of one sibling to another.

You may notice that some characters are inside opening tags, but not closing ones. In the opening tags for the `<TAN-T>`, `<body>`, and `<div>` elements there appear sets of pairs: a word and something within quotation marks, each of them separated by an equals sign. These stretches of text are called attributes. On the left side of the equals sign is the attribute name, and on the right side, within the quotation marks, is the attribute value. In the example above `<TAN-T>` has three attributes, `@xmlns`, `@TAN-version`, and `@id` (it is customary to signal attributes by writing `@`). We will skip `@xmlns` for

now. It looks like an attribute, but it's really a pseudo-attribute, because it specifies the namespace of the XML file. Namespaces are an important but advanced topic, not discussed in this chapter. (See the section called "Namespaces".)

The value of `@TAN-version` indicates that the 2021 version of TAN is being used.

`@id` is quite important. Every TAN file has an `@id` that uniquely names and permanently identifies the document itself. It should not be changed, even if we make edits. If you change the filename or a copy of it winds up being incorporated into another project, a stable `@id` will be quite important for finding it. An `@id` should be unique. The only time the value should be repeated in a file is when you are pointing to another version of the same file.

In the `<TAN-T>`, the value of `@id` must always be what is called a tag uniform resource name (tag URN). A tag URN begins with `tag:`, followed by an email address or domain name that we own or owned. It is okay to use an obsolete address or domain; its purpose is to allow users to identify you, perhaps centuries from now, not to contact you. But you can use a current email address if you want to be contacted by those who use your file. After that email address or domain name comes a comma (no spaces) and a date on which we owned it, in the form of numbers for the year, year + month, or year + month + date, each item joined by hyphens, e.g., `2014-12-31`. If we leave off a day value, it is assumed to be `01`, the first of the month; if we leave off the month value it is assumed to be `01`, January.

In the examples above, `parkj@textalign.net, 2015` points to our fictive self, Jenny Park, who owned that particular email address on the stroke of midnight (Coordinated Universal Time) January 1, 2015. After that comes a colon, and then any name we wish to assign to the file.

We have anticipated a simple collection of texts, so we've called the files `ring01` and `ring02`. If we run out of names, or want to restart, we can simply use a new email-date preface, e.g., `parkj@textalign.net, 2015-01-02`. Or we could change the way we build our tag URNs.

Tag URNs are very useful. You do not need permission to create one. You don't need to register them. You are in control. You also signal who is responsible for the file. Hundreds of years from now, when that email will be defunct or perhaps owned by someone else, users might still be able to identify who was responsible.

The element `<body>` contains our transcription. `@xml:lang`, required, specifies the principal language of the transcribed text. We use the standard 3-letter abbreviation for English. We could have used `en`, but the 2-letter convention supports only a handful of languages. (See the section called "Languages" for more.)

Our transcription has been divided into four `<div>` elements. How we divide up the work is entirely up to us. But we must make sure that every bit of text is enclosed by a leaf `<div>` (i.e., one that contains no other `<div>`). Every `<div>` must be the parent of only other `<div>`s, or none at all. No `<div>` may mix text and other elements. An exception is made for text that is nothing but space (the space bar, the tab, or the new line). Space-only text can be mixed with elements as needed, which means that a TAN file can be indented however you like, without changing its meaning.

The values of `@type` and `@n` indicate, respectively, the type of division and the name of the division. We have used `line` in the first example, but we could easily have also used `1` (as we did in the second) or `1n` or any other phrase that we think will be intuitive to other users. The value is arbitrary, but gets explained by what is in the header (we will how below). We have used arabic numerals for the values of `@n`, but the value, once again, could have been anything. Here we've opted for a reference system that seems intuitive and will most likely apply to multiple versions of the work. But the Arabic numerals are not required. We could have used Roman numerals, or some other numbering or naming scheme that is standard in the field. The idea is to use the term that is most like what other people encoding a different version of the same text might use.

Aside from the <head> element (discussed below), that's all we need in the TAN-T transcription. We can now move to alignment and annotation.

We now turn to a second TAN format, TAN-A. Whereas the first two examples, TAN-T, had to do with texts and transcriptions, TAN-A has to do with alignment and annotation. The TAN-A format allows us to align and annotate as many transcriptions as we wish, and to make claims about them. Let's begin, once again temporarily skipping <head>. Significant differences from the previous two TAN-T files are emphasized:

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-model href="http://textalign.net/release/TAN-2018/schemas/TAN-A.rnc"
  type="application/relax-ng-compact-syntax"?>
<?xml-model href="http://textalign.net/release/TAN-2018/schemas/TAN.sch"
  type="application/xml" schematypens="http://purl.oclc.org/dsdl/schematron"?>
<TAN-A xmlns="tag:textalign.net,2015:ns" TAN-version="2021"
  id="tag:parkj@textalign.net,2015:ring-alignment">
  <head>
    . . . . .
  </head>
  <body/>
</TAN-A>
```

In the prolog, the first line is identical to the first line of our transcription files. The second and third lines, the processing instructions, are identical, except that href of the first of these points to the validation file specific to the TAN-A format. Even the fourth line looks like the two TAN-T files, other than the new name for the root element, <TAN-A>, and the new value for @id.

The penultimate line, <body/>, is an empty element, and is equivalent to an opening tag immediately followed by a closing tag, i.e., <body></body>. The alternative form, <body/>, is a more succinct way to say that an element contains nothing. It will become apparent, when we discuss <head> below, why our <body> can be empty.

Let's look at a third TAN format, TAN-A-tok. This particular alignment file allows you to state precise which words in one text correspond with the words in another. Because of this precision, they can take more time to create. But we even start, we need to decide what kind of relationship holds between the two texts. Let us pretend, for the sake of example, that the 1987 version is a direct descendant (and therefore variation) of the 1881 one. So our task is to show exactly what words or phrases in the older version correspond to those of the newer one. We will simplify here, and exclude punctuation (some linguists legitimately treat punctuation as words in their own right). The term word is notoriously difficult to define, so we will call them *tokens*, to avoid false connotations (hence the name of the file, TAN-A-tok, to refer to alignment of tokens).

We now create a TAN-A-tok file:

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-model href="http://textalign.net/release/TAN-2020/schemas/TAN-A-tok.rnc"
  type="application/relax-ng-compact-syntax"?>
<?xml-model href="http://textalign.net/release/TAN-2020/schemas/TAN.sch"
  type="application/xml" schematypensrc="http://purl.oclc.org/dsdl/schematron"?>
<TAN-A-tok xmlns="tag:textalign.net,2015:ns"
  id="tag:parkj@textalign.net,2015:TAN-A-tok,ring01+ring02">
  <head>
    . . . . .
  </head>
  <body reuse-type="general_adaptation" bitext-relation="B-descends-from-A">
    <!-- Examples of picking tokens by number -->
```

```
<align>
  <tok src="ring1881" ref="1" pos="1"/>
  <tok src="ring1987" ref="1" pos="1"/>
</align>
<align>
  <tok src="ring1881" ref="1" pos="2"/>
  <tok src="ring1987" ref="1" pos="2"/>
</align>
<align>
  <tok src="ring1881" ref="1" pos="3"/>
  <tok src="ring1987" ref="1" pos="3"/>
</align>
<align>
  <tok src="ring1881" ref="1" pos="4"/>
  <tok src="ring1987" ref="1" pos="4"/>
</align>
<align>
  <tok src="ring1881" ref="1" pos="5"/>
  <tok src="ring1987" ref="1" pos="5"/>
</align>
<!-- Examples of picking tokens by value -->
<align>
  <tok src="ring1881" ref="2" val="A"/>
  <tok src="ring1987" ref="2" val="A"/>
</align>
<align>
  <tok src="ring1881" ref="2" val="pocket"/>
  <tok src="ring1987" ref="2" val="pocket"/>
</align>
<align>
  <tok src="ring1881" ref="2" val="full"/>
  <tok src="ring1987" ref="2" val="full"/>
</align>
<align>
  <tok src="ring1881" ref="2" val="of"/>
  <tok src="ring1987" ref="2" val="of"/>
</align>
<align>
  <tok src="ring1881" ref="2" val="posies"/>
  <tok src="ring1987" ref="2" val="posies"/>
</align>
<!-- Examples of picking ranges of tokens -->
<align>
  <tok src="ring1881" ref="3" pos="1, 2"/>
  <tok src="ring1987" ref="3" pos="1"/>
</align>
<align>
  <tok src="ring1881" ref="3" pos="3 - 4"/>
  <tok src="ring1987" ref="3" pos="2"/>
</align>
<align>
  <tok src="ring1881" ref="4" pos="1"/>
  <tok src="ring1987" ref="4" pos="1"/>
</align>
```

```

<align>
  <tok src="ring1881" ref="4" pos="2"/>
</align>
<align>
  <tok src="ring1881" ref="4" pos="3"/>
  <tok src="ring1987" ref="4" pos="2"/>
</align>
<!-- examples of using "last" -->
<align>
  <tok src="ring1881" ref="4" pos="last-1"/>
  <tok src="ring1987" ref="4" pos="last-1"/>
</align>
<align>
  <tok src="ring1881" ref="4" ord="last"/>
  <tok src="ring1987" ref="4" ord="last"/>
</align>
</body>
</TAN-A-tok>

```

Once again, the first four lines, the prolog and root element, should look familiar, with the only significant changes being the names of the validation files, the name of the root element (<TAN-A-tok>), and the value of @id.

The heart of the data is <body>, which has two key attributes, @reuse-type, which describes the activity that was performed to change one version into the other, and @bitext-relation, which specifies how one book relates to the other. Our two values, general\_adaptation and B-descends-from-A, are arbitrary names that we define in the <head> (discussed later). (To understand the concepts behind reuse types and bitext relations, see the section called “Token-based annotations and alignments (<TAN-A-tok>”).

You will also notice some lines that begin <!-- and end -->. These are comments, and can be placed within or beside any element, and can enclose any text we like, including line breaks. You may put a comment anywhere you like, as long as it is not inside a tag or attribute.

<body> is the parent of one or more <align> elements, each of which correlates a set of tokens in each of the two texts, pointed to by its <tok> children. Each <tok> has, in this example, three attributes. @src takes a nickname (an @id reference) that points to one of the two transcriptions; we have used ring1881 and ring1987 for our two texts, but we could have just as easily used anything else such as a and b, or uk and us. @ref has a value that points to a specific <div> in the source TAN-T transcription; and @pos or @val specify which token is intended, either by word number (@pos) or text of the actual word (@val). Either technique is fine, and @pos and @val can be mixed, as in the example. It is generally a good idea to use @val, because if you fix a typo, changing the number of tokens in the underlying transcription, @val might not be affected; with @pos alone, you can't. You may also notice that the comma and hyphen can be used in @pos to point to multiple words within the same <div>, and that last and last-X (where X is a digit) can be used to point to a token by position counting from the end of a <div>.

Each <align> can establish one-to-one, one-to-many, many-to-one, or many-to-many relationships between tokens from the two texts. A token may feature in multiple <align> elements. And if an <align> has <tok> elements belonging to only one source, such as in the fourth-to-last <align> above, we have what is called, in these guidelines, a *one-sided alignment*. This one-sided alignment indicates that the second word of line four of the 1881 version is excluded from the act that we have called adaptation. If this were a translation, it would be as if we were saying that this word was excluded from the translation. (A one-sided alignment containing tokens only of the later source might point to words that the translator added, i.e., what in translation studies is called *explicitation*.)

If in our TAN-A-tok file we say nothing about a particular word in one of the sources, that silence should not be interpreted to mean that it has no counterpart in the other source. As creators of this file, we make no claim to providing an exhaustive account, and we are under no obligation to indicate every word-for-word correspondence. If we fail to mention certain words, all that can be implied is that we opted not to say anything about them.

We could have aligned the two texts in different ways. Perhaps further study will reveal that we were in error to associate the second "ring" with "round" in line 1. We can make corrections, even after publication, and notify other users of our data about the change. There are also ways to express doubt or alternative opinions, and to credit (or blame) the person making the assertion. We can even correlate fragments of tokens (letters, prefixes, infixes, or suffixes). All these more advanced uses are discussed at the section called "Token-based annotations and alignments (<TAN-A-tok>)".

## TAN metadata (<head>)

At this point, we have finished four TAN files: two transcriptions (TAN-T), one macro-alignment file (TAN-A), and one micro-alignment file (TAN-A-tok). We've avoided discussing the <head> in each of them until now. Before getting into details, some important concepts need to be covered first.

Unlike <body>, which carries the raw data, <head> contains what is oftentimes called metadata. That is, <head> contains data about the data that is in <body>. Because the TAN format is intended primarily to serve scholars, and because the format is heavily regulated (that is, there are numerous validation rules that supplement the standard XML ones), the metadata requirements are stricter than they are for Word documents, HTML, TEI, or other formats you might know better. They are stricter even than TEI rules. (But you'll be offered help that the TEI rules do not.) Scholars who find our file expect to know some things about it before they can responsibly use it. For example, what are the sources we have used? Who produced the data? When? What changes or adjustments have been made? What licenses govern the use of the data? The questions are not difficult to answer, but they require thought, care, and some time to answer.

Some metadata questions apply only to one TAN format. For example, in a TAN-A-tok file, we ask what relationship holds between the two sources. But that question makes no sense for a TAN-T file, which is merely a transcription. Some questions apply universally across all TAN files, no matter what kind of data. TAN has been designed so that each <head>, no matter the format, handles metadata consistently. This reduces potential confusion, and helps other people using our data to find the information they want. More important, what we write in one file can be referenced by another, without duplication, and so will reduce the chance of errors. There is an old programmer's adage, *Don't repeat yourself*, oftentimes abbreviated DRY. The TAN format encourages you to be as DRY as possible.<sup>4</sup>

Another TAN principle is that each <head> should focus exclusively upon scope of the data in <body>, and not on other things. For example, in a TAN-T file, we are concerned only about the transcription, so our metadata too should be concerned only with the transcription. We should indicate its source, but because our file is not about the source itself, so we don't need to describe it further. We are not library catalogers, nor should we be. A TAN-T file is for transcribing, not for curating bibliographical data. Our obligation is merely to point a reader to complete and authoritative information, found elsewhere.

TAN was also designed under the principle that all metadata should be useful to both humans and computers. For our example above, we must describe the work we have chosen (*Ring around the Rosie*) in a way that is comprehensible not just to the reader but to the computer. Computers have a difficult time with ordinary human names, so we have to approach the task in a special way.

---

<sup>4</sup>The opposite of DRY is WET: *write everything twice or we enjoy typing*.

Take for example the 1881 book we have used for our first transcription. For the human reader we can write something like "Kate Greenaway, *Mother Goose*, New York, G. Routledge and sons [1881]". But this human-readable string is too complex and syntactically opaque for computers and algorithms. A more computer-friendly identifier would be international standard book numbers (ISBNs), which distinguish the 1984 version of *Mother Goose* illustrated by Kayoko Okumura from the one of the same year illustrated by William Joyce. The ISBNs for the Okumura version, 0671493159, and for Joyce's, 0394865340, can be converted into a machine-actionable string called universal resource names (URNs). The tag URN we made earlier is just one of many types of URNs. In this case we can create an ISBN URN as follows: `urn:isbn:0-671493159` and `urn:isbn:0-394865340`. (Our 1881 version was published before the ISBN program was introduced. We will see below another way to give it a different kind of URN.)

There are different URNs for different things: journals (via ISSNs, `urn:issn:...`), articles (DOIs, `urn:doi:...`), movies (ISANs, `urn:isan:...`), and so forth, which means that anyone can use them to refer unambiguously to a particular kind of thing. URN naming schemes must be registered with the Internet Assigned Numbers Authority (IANA) to ensure permanent, persistent, unique names for various types of things. It is okay for something to be assigned more than one URN, but never acceptable for one URN to be applied to more than one thing. (See IANA's registry [<https://www.iana.org/assignments/urn-namespaces/urn-namespaces.xhtml>] and the section called "`$tan:official-urn-namespaces`" for a complete list of official URN schemes.)

All URNs are simply names. They don't tell you where an object is. To provide a unique *location* we have universal resource locators (URLs), e.g., `http://academia.edu`. Like URNs, URLs are also centrally regulated, with individuals or organizations buying the rights to domain names from a central registry (usually through a third-party vendor).

Both URNs and URLs can be thought of as the same type of thing, namely, a universal resource identifier (URI), sometimes called an international resource identifier (IRI). An IRI is a type of URN that allows any alphabet in Unicode, not just Latin. URIs/IRIs are, in essence, nothing more than the set of all URNs and URLs. These four acronyms are easily confused and conflated, even by veterans. URIs and IRIs are basically the same thing, and they encompass URNs and URLs, a relationship and function that can be remembered by the last letter in each acronym: URIs/IRIs Incorporate both Locators (URL) and Names (URN).

If those acronyms are confusing, don't worry. For our purposes, they are pretty much all the same, and from this point onward we'll stick with the term IRI (unless we really mean a location to find a file, which we'll call a URL).

IRIs are essential to a system frequently called the semantic web or linked (open) data, which uses them as the basis for a simple universal data model. The semantic web allows one to make assertions that computers can "understand." If people, working independently, happen to use the same IRIs to describe the same things, then computers can be programmed to make associations between disparate, heterogeneous datasets. For example, if one scholar claims through IRIs that X is the mother of Y, and another claims in a different dataset that Y is the mother of Z, a computer can infer that X is the grandmother of Z, without the two scholars being aware of each other's work. The computer can also check for contradictions (e.g., someone claiming that Z is the mother of Y). When many scholars begin to use IRIs in their data, the result is a network that allows us or anyone else to discover connections across disciplines and projects, and to make discoveries that transcend any single project.

TAN has been designed to be semantic-web friendly, and so requires in its `<head>` almost all data to be not just human-readable but also computer-readable, normally as an IRI.

Our first task, then, in writing the `<head>` sections of our four TAN files is to look for IRI vocabulary that will be familiar to those most likely to use our files. In trying to find suitable IRIs, we will find that the persons, things, and concepts we want to describe will range from the highly familiar to the unfamiliar.



*Highly familiar:* The two books that provide the basis of our transcription are catalogued and generally well known. A number of services provided by librarians provide controlled IRI vocabularies that can be used by anyone to unambiguously identify a particular version of a book. WorldCat [<http://www.worldcat.org>] (run by OCLC) and the Library of Congress [<http://catalog.loc.gov>] are good examples. In our case, we have found Library of Congress IRIs for both editions of *Mother Goose*: <http://lccn.loc.gov/12032709> and <http://lccn.loc.gov/87042504>. Observe that these two IRIs are also, perhaps confusingly, URLs (locations). If we paste these strings into our Web browser, we retrieve a record that describes the book. This locator does not lead us to the book itself, only to information *about* the book. Nevertheless, the Library of Congress has decided to make this URL also a name for the book, which means that it does double duty, both as a location for a Web page with information, and as a name for a book. This practice that can easily confuse anyone new to the semantic web, because such URLs name in reality two types of things: an entity and a web resource to learn more about that entity. The idea is that hundreds of years from now, when the web page no longer exists, the name will still be valid.

In the TAN system, you can apply as many IRIs to a concept as you like. In fact, it is a good practice to find and add as many IRIs as you think worthwhile, just in case someone can't figure out what you're trying to identify. Just make sure that any IRI you copy unambiguously points to the thing you have in mind.

We now have IRIs for the sources. Let's now find an IRI for the work, *Ring around the Rosie*. The work is widely known, and even has a Wikipedia entry [[http://en.wikipedia.org/wiki/Ring\\_a\\_Ring\\_o%27\\_Roses](http://en.wikipedia.org/wiki/Ring_a_Ring_o%27_Roses)]. That Wikipedia entry is a benefit. The Universities of Leipzig and Mannheim and Openlink Software have collaborated on a project called DBPedia [<http://wiki.dbpedia.org/About>], which provides a unique URN for every Wikipedia entry in the major languages, and these can be used for naming. The DBPedia IRI in this case is [http://dbpedia.org/resource/Ring\\_a\\_Ring\\_o%27\\_Roses](http://dbpedia.org/resource/Ring_a_Ring_o%27_Roses). Once again, this is both a name and a locator. It names a specific, intangible, abstract work, namely, a nursery rhyme that we've called *Ring around the Rosie*, no matter what specific version. But if you put that IRI into your browser, you will get back more information about that named object.

*Familiar to specialists:* We will need to have IRIs for some of the people who edited the file. Here we're not interested in the authors of the books we transcribed. We are interested in identifying the people who helped make the TAN files themselves. Most people who write and edit TAN files will not be well-known, public figures. If they are, and if they are famous enough to have a Wikipedia entry, then a DBPedia IRI could be used. Or if some of the contributors are also published authors, there is a good chance that they are listed in the databases of either VIAF [<http://viaf.org>] or ISNI [<http://isni.org>], both of which publish unique IRIs for authors, editors, and other persons identified in online catalogues curated by libraries around the world.

Most contributors to TAN files, however, will not be listed in these databases. In those cases, we can name these participants with an IRI that we "own." We have already done something like this by assigning tag URNs to our four TAN files (the value of `@id` in the root element). Our editors can do the same thing. If a student Robin Smith has been helping with proofreading, Robin can take an email address (even one that doesn't work any more) and a date when the email address was used and construct a tag URN such as `tag:smith.robin@example.com,2012:self`. This has a slight drawback in that we cannot type this string into our browser to find out more about this particular Robin, but it at least allows us to assign a name that will not be confused as another Robin Smith, for example the one identified by ISNI as <http://isni.org/isni/0000000043306406>. (If we want to go a step further, Robin could mint a URN from a domain name that she owns, and set up a linked data service that offers more information, human- and computer-readable. But this is not required, and it can be a hassle to set up and maintain.)

Let's take a more difficult challenge for locating an IRI, that of describing the `@bitext-relation` in our TAN-A-tok file. `@bitext-relation` draws from the discipline of stemmatology, which

studies how manuscripts were copied, one to another, and tries to place these manuscripts in a chain of transmission, a kind of historical stemma (tree). We have to find an IRI that describes the relationship that we claim holds between two text-bearing objects. Making that clear is important, because our perspective about the relationship between the two books affects the decisions we make when we align words, and other scholars using our files will want to know what assumptions we had when we aligned the two texts.

For the sake of illustration we posit that the version published in the 1987 *Mother Goose* is a direct but not immediate descendant of the 1881 version. Because no suitable IRI vocabulary yet exists for the relationships between texts, TAN itself has coined an IRI that can be used by anyone wishing to declare that, given two ordered sources, the second descends from the first through an unknown number of intermediaries: `tag:textalign.net,2015:bitext-relation:a/x+/b`. (The arbitrary symbol / signifies a step from one version to the next, and the x+ represents one or more versions as intermediate steps.) We'll use that one for now.

We face a similar issue when thinking about text reuse, `@reuse-type`. Here we are concerned with creative activities such as translation, paraphrase, adaptation, and so forth. We generally consider the 1987 version to be an adaptation of the 1881 version. And there are no stable, well-published IRI vocabularies for text reuse. So we adopt an IRI that is part of TAN's standard vocabulary, `tag:textalign.net,2015:reuse-type:adaptation:general`.

In the previous two cases, we could have come up with our own vocabulary. But the idea behind the semantic web is to use common, familiar vocabulary whenever possible. That's the same principle that led us to structure and label the poem in four consecutively numbered lines. We adopt conventions we expect others will likely follow. The built-in TAN vocabulary simply gives us a convenient lingua franca for describing some important, abstract concepts. For other examples of IRIs coined by TAN, see Chapter 11, *Official TAN vocabularies*.

*Generally unfamiliar:* Some things or concepts will be unknown to very few people, perhaps even us. If we plan to refer to that thing or concept often, it is preferable to coin a tag URN, as described above. But in some cases, we might find that a tag URN we minted for some concept or thing was, in hindsight, misleading or poorly constructed, because we had only superficially thought about the category.

One other possibility is to assign a randomly generated IRI called a universally unique identifier (UUID), e.g., `urn:uuid:3fd9cece-b246-4556-b229-48f22a5ae2e0`. UUID URNs are very useful. The likelihood that a randomly generated UUID will be identical to any existing UUID is astronomically improbable, making them reliably unique names for anything (barring someone copying and reusing that UUID URN to name some other object or concept). Numerous free UUID generators can be found online.

To humans, a UUID on its own is meaningless, unmemorable, and rather ugly. But it is a start. We always have the option, later, of supplementing it with other IRIs. It's perfectly fine to assign multiple IRIs to one object or concept. But the reverse is never true. One should never use one IRI to identify more than one object or concept.<sup>5</sup>

## Creating TAN metadata (<head>)

Now that we have explored various IRI vocabularies for concepts related to our files concerning *Ring-a-ring-a-roses*, we can now complete the metadata in our four TAN files. Let us start with the TAN-T file of the 1881 version:

```
<TAN-T xmlns="tag:textalign.net,2015:ns" TAN-version="2021"
```

---

<sup>5</sup>There is an exception when the IRI names a single class that has multiple objects or concepts. But even then, it should name only one class, not two or more of them.

```

id="tag:parkj@textalign.net,2015:ring01">
<head>
  <name>TAN transcription of Ring a Ring o' Roses</name>
  <master-location
    href="http://textalign.net/release/TAN-2020/examples/ring-o-roses.eng.
  <license licensor="park">
    <IRI>http://creativecommons.org/licenses/by/4.0/</IRI>
    <name>Attribution 4.0 International</name>
  </license>
  <work>
    <IRI>http://dbpedia.org/resource/Ring_a_Ring_o%27_Roses</IRI>
    <name>"Ring a Ring o' Roses" or "Ring Around the Rosie"</name>
  </work>
  <source>
    <IRI>http://lccn.loc.gov/12032709</IRI>
    <name>Kate Greenaway, Mother Goose, New York, G. Routledge and sons [1
  </source>
  <vocabulary-key>
    <person xml:id="park">
      <IRI>tag:parkj@textalign.net,2015:self</IRI>
      <name>Jenny Park</name>
    </person>
    <div-type xml:id="line">
      <IRI>http://dbpedia.org/resource/Line_(poetry)</IRI>
      <name>line of poetry</name>
    </div-type>
    <role xml:id="creator">
      <IRI>http://schema.org/creator</IRI>
      <name xml:lang="eng">creator</name>
    </role>
  </vocabulary-key>
  <file-resp who="park"/>
  <resp roles="creator" who="park"/>
  <change when="2014-08-13" who="park">Started file</change>
  <to-do/>
</head>
. . . . .
</TAN-T>

```

<name>, the human readable counterpart to the @id that is inside the root element, can be anything. And we can supply more than one <name>, in case we wish to provide alternative names of the file, or translations of them.

One or more <master-location>s provide URLs where master versions of the file are kept (and maintained). We provide this as a courtesy to others who might be using our data. Anyone who validates their local copy of the file will be warned if it does not match the master version, and they will be told of the most recent changes. With a couple of keystrokes, they can update their local copy to match the master. This one-way communication system lets us silently and conveniently notify other users of changes. We do not have to keep track of who is using our file, and users do not have to pester us with questions about what changed when.

<master-location> is mandatory only if we are finished with our to-do list, which is specified at <to-do>. If that element is empty, then we imply that we do not know anything further that should be done to the file. Conversely, any elements in <to-do> specify what remains to be done, and details will be returned to other users. That way you can release data that is useful but not completely

perfect, and let users know about its deficiencies. This approach is ideal for formats such as TAN-A-tok, where you might have released only some of the data, and you are working on the rest.

One day the link in `<master-location>` will be dead. But perhaps a copy of our file will be in circulation elsewhere. The document `@id` in the root element provides a way to identify files, independent of links, and perhaps locate them in unexpected places.

`<license>` specifies the license under which we are releasing our data. This element has nothing to do with the copyright of the source we have used (although, having been published in 1881, the book is clearly in the public domain). That is, we are specifying what rights are attached to the data, not its source, i.e., if we have placed additional strictures on the content in `<body>`. In this example, we have released the data under a creative commons license. The child element `<IRI>` specifies a Creative Commons IRI, and `<name>` is the human-readable form.

`@licensor` specifies who has granted the license, in this case our fictive Jenny Park (see below).

The conjunction of `<IRI>` and `<name>`, the IRI + name pattern, recurs throughout TAN files. They are used provide identifiers for vocabulary items. In an element that takes the IRI + name pattern, we may include as many children `<IRI>`s or `<name>`s as we like. But if we do so, we are stating that they are synonymous, i.e., that they all name the same thing. (Once again, an IRI is unique, so it should never be used to identify more than one thing.)

`<work>` uses the IRI + name pattern to name the work we have chosen to transcribe. `<source>` points, through its IRI + name pattern, to a computer- and human-readable description of the book we have chosen.

`<vocabulary-key>` contains vocabulary that we are using in our file. Inside, we can place more vocabulary items, and attach locally unique ids. For example, an IRI + name pattern is used for `<person>`, which identifies through a tag URN Jenny Park. The value of `@xml:id` allows us to use `park` any time we want to mention Jenny. In fact, we already have, at `@licensor`. Any mention of `park` will point to the appropriate item in `<vocabulary-key>`.

There are a few other parts of `<vocabulary-key>`. `<div-type>` specifies an IRI + name pattern for line divisions, and the value of `@xml:id` means that we can use `line` any time we want to invoke the concept. Similarly, we have a `<role>`. The `<IRI>` value of `<role>` comes from the vocabulary of schema.org [<http://schema.org>], which is maintained by Bing, Google, and Yahoo! in conjunction with the W<sub>3</sub>C (the nonprofit organization dedicated to universal Internet standards), but we could have used Dublin Core or some other IRI vocabulary describing behaviors, responsibilities, and roles.

After the `<vocabulary-key>`, we get into parts of the file that specify who did what, when. First is a `<file-resp>`, whose value of `@who, park`, indicates that Jenny Park is the one primarily responsible for the file. `<resp>` specifies further who was responsible for doing what.<sup>6</sup>

Remember that `<head>` is focused on the data, not its sources, so the claim that Jenny Park is the creator pertains only to the data. No inference should be made about who was responsible for the printed source. If someone wants to know anything about the book, they should pursue the IRI identifier we have provided under `<source>`.

`<change>` has attributes `@when` and `@who` to specify who made the change and when. The value of `@when` is always a date or a date + time, formatted according to the ISO standard syntax:

---

<sup>6</sup>If you decide to modify someone else's TAN file, you should credit / blame yourself for the changes. Your first point of order should be to add a `<person>` to the `<vocabulary-key>`, identifying yourself. You can then either add a `<change>` (see below) or a `<resp>` (you might need to specify a `<role>` in the `<vocabulary-key>`). You should not change the document's `@id`, unless your changes are so significant that it becomes altogether a new document, *your* document. TAN does not try to broker the age-old problem of determining the point at which a thing becomes something altogether different (e.g., the Ship of Theseus problem [[https://en.wikipedia.org/wiki/Ship\\_of\\_Theseus](https://en.wikipedia.org/wiki/Ship_of_Theseus)]). Use your best intuition.

[YYYY]-[MM]-[DD] or [YYYY]-[MM]-[DD]T[HH]:[MM]:[SS].@who always carries an IDref that points to a person or organization. <change> does not take the IRI + name pattern, or even any children at all. It takes simply a plain-text description of what changed.

So now we have finished one transcription file's metadata. You may have found it to represent a lot of typing: many names, IRIs, and so forth. Is there any way to shorten that load? Yes, there is. TAN is a *vocabulary-based* format. That is, there are standard vocabulary items that come with the TAN format, and you can design your own vocabulary, so that you can shorten the work involved, and to adhere to the best DRY principles.

Our second example will look similar to the first one, but notice some shortcuts:

```
<TAN-T xmlns="tag:textalign.net,2015:ns" TAN-version="2021"
  id="tag:parkj@textalign.net,2015:ring02">
  <head>
    <name>TAN transcription of Ring around the Rosie</name>
    <master-location>ring-o-roses.eng.1987.xml</master-location>
    <license which="by 4.0" licensor="park"/>
    <work>
      <IRI>http://dbpedia.org/resource/Ring_a_Ring_o%27_Roses</IRI>
      <name>Ring around the Rosie</name>
    </work>
    <source>
      <IRI>http://lccn.loc.gov/87042504</IRI>
      <name>Mother Goose, from nursery to literature / by Gloria T. Delama, 198
    </source>
    <adjustments>
      <normalization which="no hyphens"/>
    </adjustments>
    <vocabulary-key>
      <div-type xml:id="1" which="line (verse)"/>
      <person xml:id="park" roles="creator">
        <IRI>tag:parkj@textalign.net,2015:self</IRI>
        <name xml:lang="eng">Jenny Park</name>
      </person>
    </vocabulary-key>
    <resp roles="creator" who="park"/>
    <change when="2014-10-24" who="park">Started file</change>
    <comment when="2014-10-24" who="park">See p. 39 of source.</comment>
    <to-do/>
  </head>
  . . . . .
</TAN-T>
```

In this example, <name>, <master-location>, and <source> have been modified to describe this file. Note, we haven't had to change <work>.

<license> looks different, but in reality it is identical to our previous example, and that is because the IRI + name pattern has been replaced with @which. You may replace any IRI + name pattern with @which; its value must match a <name> in customized or standard vocabulary (a TAN-voc file). In this case, "by 4.0" points to TAN's standard vocabulary for licenses (see the section called "TAN keywords for types of rights (<license>)"). Here is what that looks like under the hood:

```
<TAN-voc xmlns="tag:textalign.net,2015:ns" TAN-version="2021"
  id="tag:textalign.net,2015:tan-voc:licenses">
```

```

. . . . .
<body affects-element="license">
  <item>
    <IRI>http://creativecommons.org/licenses/by/4.0/</IRI>
    <IRI>tag:textalign.net,2015:license:by/4.0/</IRI>
    <name>by 4.0</name>
    <desc>attribution 4.0 international</desc>
  </item>
. . . . .
</body>
</TAN-voc>

```

Because the validation rules for TAN-voc files require every `<name>` to be unique, that element can be treated as a unique identifier, similar to `@xml:id`. We could have repeated the `<license>` from the previous TAN-T file. But the `@which` method is much quicker, cleaner, and DRY.

Before `<vocabulary-key>` comes a new element, `<adjustments>`, which contains a `<normalization>` statement whose `@which` says `no hyphens`. That too points to a standard TAN vocabulary for normalizations: an IRI + name pattern for eliminating discretionary hyphens (see the section called “TAN keywords for types of normalizations (`<normalization>`)”). Here’s what that vocabulary item looks like (invisible to you, but you can look at it any time you like in the `vocabularies` subdirectory of the TAN files):

```

<TAN-voc xmlns="tag:textalign.net,2015:ns" TAN-version="2021" id="tag:textalign.net
. . . . .
<body affects-element="normalization">
  <item>
    <IRI>tag:textalign.net,2015:normalization:hyphens-discretionary-removed</IRI>
    <name>no hyphens</name>
    <desc>Discretionary word-break line-end hyphens have been deleted.</desc>
  </item>
. . . . .
</body>
</TAN-voc>

```

As you might have inferred, the element `<normalization>` specifies how we have changed the data, namely, that we have opted to remove word-break line-end hyphenation. In other transcriptions we could use `<normalization>` to declare other kinds of changes we felt compelled to make, such as removing editorial comments or footnote signals. A healthy list of `<normalization>`s is a courtesy to users of our data, some of whom might passionately care about keeping or removing line-end hyphenation.

Back to our example. `<div-type>` has a new value for `@xml:id`, the letter `l`, and in it too the IRI + name pattern has been replaced by `@which`, whose value, `line (poetry)`, is a standard vocabulary item (see the section called “TAN keywords for types of divisions (`<div-type>`)”).<sup>7</sup>

There is also a new `<comment>` element, which is built much the same as `<change>`. (A `<change>`, after all, is just a comment about what has been changed.)

That seems to be all there is. But if you’ve been attentive, you will have noticed that `<role>` from our first TAN-T file (inside `<vocabulary-key>`) is missing. That’s because we don’t need it, based on the same principle that lets us resolve `@which`. A vocabulary `<name>` can be invoked not only in `@which`, but in any attribute that points to values of `@xml:id`, in this case `@roles`. There is already

<sup>7</sup>A line of poetry is to be contrasted with a physical line on the page. Some lines of poetry take up two or more physical lines. For the physical line you would specify: `which="line (physical)"`.

a standard TAN vocabulary item with the `<name>` `creator`, so we can use it directly without having to declare an intermediate vocabulary item with an `@xml:id`. If we had defined something else in `<vocabulary-key>` with a `@xml:id` of `creator`, that item would take precedence and override the built-in TAN vocabulary. But we haven't, so the standard TAN vocabularies are the default.

## Building TAN vocabulary

The first TAN-T transcription had a longer `<head>` than the second one did, and that is because for the former we used an explicit method, that of specifying every IRI and name, and then in the latter adopted shortcuts that took advantage of TAN vocabulary. TAN vocabularies are meant not merely to be a convenience; they are intended to avoid problems that beset projects that create many files with repeated data patterns. When (not if) you make changes to one file, you shouldn't have to remember all the other places where you might need to make the same changes. Move repeating data patterns to one master place, and let the other files point to that pattern. Then, when we need to make changes, we do so only once, at the master location. Stay DRY.

The previous examples drew from standard TAN vocabulary, which is written in one of the other TAN formats, TAN-voc. There is a whole collection of standard TAN-voc files in the project subdirectory called `vocabularies`. We can write our own TAN-voc files, to collect the vocabulary items that we will use repeatedly from one file to the next. For example:

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-model href="../../../schemas/TAN-voc.rnc" type="application/relax-ng-compact-syntax" />
<?xml-model href="../../../schemas/TAN.sch" type="application/xml"
  schematypens="http://purl.oclc.org/dsdl/schematron"?>
<TAN-voc xmlns="tag:textalign.net,2015:ns" TAN-version="2021"
  id="tag:parkj@textalign.net,2015:TAN-voc:standard">
  <head>
    <name>Keywords for TAN files edited by Jenny Park</name>
    <license licensor="park" which="by 4.0"/>
    <vocabulary-key>
      <person which="Jenny Park" xml:id="park"/>
    </vocabulary-key>
    <file-resp who="park"/>
    <resp roles="creator" who="park"/>
    <change when="2019-10-08" who="park">Started file</change>
    <to-do>
      <comment when="2020-01-04" who="park">Need to check files for new voca
    </to-do>
  </head>
  <body>
    <group affects-element="person">
      <item>
        <IRI>tag:parkj@textalign.net,2015:self</IRI>
        <name xml:lang="eng">Jenny Park</name>
      </item>
    </group>
    <item affects-element="work">
      <IRI>http://dbpedia.org/resource/Ring_a_Ring_o%27_Roses</IRI>
      <name>Ring a Ring o' Roses</name>
      <name>Ring Around the Rosie</name>
    </item>
  </body>
</TAN-voc>
```

In this example case, updates have been made to @id and <name>, and a <comment> has been added to <to-do>. The most significant difference is the <body>, which has two <item>s, one of which is wrapped in a <group>. Each @affects-element specifies one or more names of elements that the enclosed items affect, and the <item>s have the standard IRI + name pattern. <group>s may nest as you like.

The difference between a grouped and ungrouped <item> is purely a matter of taste and convenience. The example above illustrates both methods. Whether you group your items or you do not, the practical effect does not change.

The <vocabulary-key> has a <person> whose @which points to the body of the first <item>. That is, a TAN-voc file can draw from its own <body> for vocabulary, without repeating it in <vocabulary-key>.

Let's return to the <head>s of our two TAN-T files, and see how to incorporate our new TAN-voc vocabulary file.

```
<TAN-T xmlns="tag:textalign.net,2015:ns" TAN-version="2021"
  id="tag:parkj@textalign.net,2015:ring01">
  <head>
    <name>TAN transcription of Ring a Ring o' Roses</name>
    <master-location
      href="http://textalign.net/release/TAN-2020/examples/ring-o-roses.eng.
    <license which="by 4.0" licensor="park"/>
    <work which="Ring around the Rosie"/>
    <source>
      <IRI>http://lccn.loc.gov/12032709</IRI>
      <name>Kate Greenaway, Mother Goose, New York, G. Routledge and sons [1
    </source>
    <vocabulary>
      <IRI>tag:parkj@textalign.net,2015:TAN-voc:standard</IRI>
      <name>Vocabulary for TAN files edited by Jenny Park</name>
      <location href="TAN-voc/park-projects.TAN-voc.xml" accessed-when="2020-
    </vocabulary>
    <vocabulary-key>
      <person xml:id="park" which="Jenny Park"/>
      <div-type xml:id="line" which="line (verse)"/>
    </vocabulary-key>
    <file-resp who="park"/>
    <resp roles="creator" who="park"/>
    <change when="2014-08-13" who="park">Started file</change>
    <to-do/>
  </head>
  . . . . .
</TAN-T>

<TAN-T xmlns="tag:textalign.net,2015:ns" TAN-version="2021"
  id="tag:parkj@textalign.net,2015:ring02">
  <head>
    <name>TAN transcription of Ring around the Rosie</name>
    <master-location>ring-o-roses.eng.1987.xml</master-location>
    <license which="by 4.0" licensor="park"/>
    <work which="Ring around the Rosie"/>
    <source>
      <IRI>http://lccn.loc.gov/87042504</IRI>
```



```

    <name>Mother Goose, from nursery to literature / by Gloria T. Delama, 198
  </source>
  <vocabulary>
    <IRI>tag:parkj@textalign.net,2015:TAN-voc:standard</IRI>
    <name>Vocabulary for TAN files edited by Jenny Park</name>
    <location href="TAN-voc/park-projects.TAN-voc.xml" accessed-when="2020-01
  </vocabulary>
  <adjustments>
    <normalization which="no hyphens"/>
  </adjustments>
  <vocabulary-key>
    <div-type xml:id="l" which="line (verse)"/>
    <person xml:id="park" which="Jenny Park"/>
  </vocabulary-key>
  <resp roles="creator" who="park"/>
  <change when="2014-10-24" who="park">Started file</change>
  <comment when="2014-10-24" who="park">See p. 39 of source.</comment>
  <to-do/>
</head>
. . . . .
</TAN-T>

```

In each TAN-T file, a new `<vocabulary>` points to the project TAN-voc vocabulary file we have just created. Along with the customary IRI + name pattern is a new element, `<location>`, which specifies where the digital file was accessed and when (through `@accessed-when`). We may include as many of these `<location>` elements as we wish, with the most preferred or reliable one at the top. The validation process will consult only the first one that leads to an available document. The `@accessed-when` value is important, because TAN files talk to each other. The validator will look for changes in the file since we last accessed it, and if any changes are found, a warning with a summary of the changes will be returned. It is then up to us to determine if the alterations merit any action on our part.

Similarly, anyone using or depending upon our file will be notified of any changes we make, through the same validation process.

Once the `<vocabulary>` is in place, we can draw from our predefined vocabulary. Our revised versions of the `<head>`s are a bit more DRY, and certainly more compact and easier to read. The longer the TAN file, the more noticeable the improvement. And when our library grows into dozens, hundreds, or thousands of files, we'll be grateful that a change that affects all the files needs to be made only once.

In general, when you share your files with other people, you need to make sure that you also share your vocabulary files too. There is an alternative method, that of sending what is called a resolved TAN file, which encapsulates all the vocabulary, but that is a slightly more advanced topic. See the section called "TAN validation".

Now that we have created the metadata for our transcriptions, let's turn to the alignment files. Those `<head>`s will look slightly different, because they are not concerned with transcriptions per se. We start with the TAN-A file:

```

<TAN-A xmlns="tag:textalign.net,2015:ns" TAN-version="2021"
  id="tag:parkj@textalign.net,2015:ring-alignment">
  <head>
    <name>div-based alignment of multiple versions of Ring o Roses</name>
    <master-location href="http://textalign.net/release/TAN-2020/examples/TAN-A

```

```

<license which="by_4.0" licenser="park"/>
<source xml:id="eng-uk">
  <IRI>tag:parkj@textalign.net,2015:ring01</IRI>
  <name>Transcription of ring around the roses in English (UK)</name>
  <location href="../../ring-o-roses.eng.1881.xml" accessed-when="2015-03-10">
</source>
<source xml:id="eng-us">
  <IRI>tag:parkj@textalign.net,2015:ring02</IRI>
  <name>Transcription of ring around the roses in English (US)</name>
  <location href="../../ring-o-roses.eng.1987.xml" accessed-when="2014-08-13">
</source>
<vocabulary-key>
  <person xml:id="park" which="Jenny Park"/>
</vocabulary-key>
<resp who="park" roles="creator"/>
<change when="2014-08-14" who="park">Started file</change>
<to-do>
  <comment when="2018-08-09-04:00" who="park">Finish file.</comment>
</to-do>
</head>
. . . . .
</TAN-A>

```

Much of the code above will look similar to the previous two examples. The file's `<name>` and `<master-location>` are updated. Just like TAN-T files have `<source>`s, so TAN-A files do as well, except that those sources are always TAN-T transcription files, and they take the IRI + name + location pattern we saw above in `<vocabulary>`. Because alignment files take only TAN transcription files as sources, each `<source>`'s `<IRI>` always takes the `@id` value of the target TAN-T transcription file. `<name>` is arbitrary. It may replicate exactly the title found in the transcription file, or it may be modified, perhaps to harmonize better with the descriptions of the other source names, or the role of the source within the TAN-A file. Our TAN-A file could contain any number of `<source>`s, and not necessarily for the same work. The order in which we put the `<source>`s does not necessarily mean anything.

This `<head>` explains why the `<body>` of our TAN-A file is allowed to be empty. We have already specified which sources are to be aligned and where they are to be found. Any user or processor of a TAN-A file may assume that every `<div>` in every source should be automatically aligned upon the basis of shared values of `@n`.

Meanwhile we turn to our fourth file, TAN-A-tok, whose `<head>` might look like this:

```

<TAN-A-tok xmlns="tag:textalign.net,2015:ns" id="tag:parkj@textalign.net,2015:TAN-
<head>
  <name>token-based alignment of two versions of Ring o Roses</name>
  <master-location
    href="http://textalign.net/release/TAN-2020/examples/TAN-A-tok/ringorose
  <license which="by-nc-nd_4.0" rights-holder="park"/>
  <token-definition src="ring1881 ring1987" which="letters"/>
  <source xml:id="eng-uk">
    <IRI>tag:parkj@textalign.net,2015:ring01</IRI>
    <name>Transcription of ring around the roses in English (UK)</name>
    <location href="../../ring-o-roses.eng.1881.xml" accessed-when="2015-03-1
  </source>
  <source xml:id="eng-us">
    <IRI>tag:parkj@textalign.net,2015:ring02</IRI>

```

```

    <name>Transcription of ring around the roses in English (US)</name>
    <location href=" ../ring-o-roses.eng.1987.xml" accessed-when="2014-08-1
</source>
<vocabulary-key>
  <bitext-relation xml:id="B-descends-from-A" which="a/x+/b"/>
  <person xml:id="park" which="Jenny Park"/>
</vocabulary-key>
  <change when="2015-01-20" who="park">Started file</change>
</head>
. . . . .
</TAN-A-tok>

```

The TAN-A-tok <head> looks similar to the previous examples, except that <vocabulary-key> has some new content.

<bitext-relation> states through @which or an IRI + name pattern the stemmatic relationship we think holds between the two sources. We have used @which and the value a/x+/b, pointing to a standard TAN vocabulary item for bitext relations:

```

<TAN-voc xmlns="tag:textalign.net,2015:ns" TAN-version="2021"
  id="tag:textalign.net,2015:tan-voc:bitext-relation">
. . . . .
  <item>
    <IRI>tag:textalign.net,2015:bitext-relation:a/x+/b</IRI>
    <name>a/x+/b</name>
    <desc>direct descent, B descends from A, one or more mediaries</desc>
  </item>
. . . . .
</TAN-voc>

```

<token-definition> specifies how we have defined our word tokens. @src has more than one value, specifying that the same tokenization rule should be applied to both sources. @which points to this standard TAN vocabulary item:

```

<TAN-voc xmlns="tag:textalign.net,2015:ns" TAN-version="2021"
  id="tag:textalign.net,2015:tan-voc:tokenizations">
. . . . .
  <item>
    <token-definition pattern="[\w&#xad;&#x200b;&#x200d;]+"/>
    <name>letters</name>
    <name>letters only</name>
    <name>general word characters only</name>
    <name>general ignore punctuation</name>
    <name>gwo</name>
    <desc>General tokenization pattern for any language, words only. Non-
      such as punctuation are ignored.</desc>
  </item>
. . . . .
</TAN-voc>

```

Up until now, all vocabulary items have taken the IRI + name pattern. The one above does not have an IRI, only a <token-definition> with a @pattern. The value of @pattern, which may look like gibberish, is a regular expression. "Regular" here does not mean ordinary; rather it relates to Latin *regula*, rule. Regular expressions are rule-based patterned text searches. This particular pattern says that a token is defined as any contiguous string of word characters (\w), soft hyphens (&#xad;),

zero-width spaces (&#x200b;), or zero-width joiners (&#x200d;). This is TAN's default tokenization pattern, and it will be assumed for any TAN-A-tok file that lacks a <token-definition>. TAN adopts this default to capture what we commonly mean in ordinary conversation by "word." When we refer someone to the nth word in a sentence, we most often ignore punctuation marks. For more on token definitions see the section called "Defining words and tokens" and the section called "TAN keywords for types of token definitions (<token-definition>)". See also the section called "Regular expressions".

In our <vocabulary-key> we could have also included a <reuse-type>, but we have intentionally omitted it here, because we have <body bitext-relation="B-descends-from-A" reuse-type="general\_adaptation">. The value for @reuse-type, general\_adaptation, corresponds to a <name> in a standard TAN vocabulary item for reuse types. We don't need to invoke a <reuse-type> in the <vocabulary-key> because we are going directly to the name of the vocabulary item. Notice that general\_adaptation has an underscore instead of a space. That's because <reuse-type> can take multiple values, which are signified by spaces. So spaces in names need to be replaced by an underscore, or a hyphen if we prefer. The values of <name> are never case-sensitive, and the space, hyphen, and underscore are treated as equivalent. (@id values, on the other hand, are always case-sensitive, and never have spaces.)

## Aligning across projects

We now have a collection of five TAN files: two TAN-T transcriptions, a TAN-A alignment/annotation file, a TAN-A-tok word-for-word alignment file, and a TAN-voc file for vocabulary shared across the files.

Let us imagine what it might be like to connect our TAN collection to a TAN file made by someone else. Let us assume that we have found elsewhere, in a German project, a TAN transcription of a work that looks quite similar to our own:

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-model href="http://textalign.net/release/TAN-2020/schemas/TAN-T.rnc"
  type="application/relax-ng-compact-syntax"?>
<?xml-model href="http://textalign.net/release/TAN-2020/schemas/TAN.sch"
  type="application/xml" schematypens="http://purl.oclc.org/dsdl/schematron"?>
<TAN-T xmlns="tag:textalign.net,2015:ns" id="tag:hans@beispiel.com,2014:ringel">
  <head>
    <name>TAN Transkription, Ringelreihen mit Riederfallen</name>
    <master-location>http://beispiel.com/TAN-T/ringel.xml</master-location>
    <license>
      <IRI>http://creativecommons.org/licenses/by/4.0/</IRI>
      <name>Creative Commons Namensnennung 4.0 International Lizenz</name>
      <desc>Dieses Werk ist lizenziert unter einer Creative Commons Namensnennu
        International Lizenz.</desc>
    </license>
    <licensor who="schmidt"/>
    <work>
      <IRI>tag:beispiel.com,2014:texte:holderbusch</IRI>
      <name>"Die Kinder auf dem Holderbusch"</name>
    </work>
    <version>
      <IRI>urn:uuid:31648039-3dbb-49b9-b66e-9bd2cd11630e</IRI>
      <name>zweite Version</name>
    </version>
    <numerals priority="letters"/>
  </head>
  <body>
    <bitext-relation="B-descends-from-A" reuse-type="general_adaptation">
      <text>
        <token-definition>
          <name>word</name>
          <token-pattern>[^\s\p{Z}]+</token-pattern>
        </token-definition>
      </text>
    </bitext-relation>
  </body>
</TAN-T>
```

```

<source>
  <IRI>http://www.worldcat.org/oclc/4574384</IRI>
  <name>Franz Magnus Böhme, Deutsches Kinderlied und Kinderspiel: Volksüber
    aus allen Landen deutscher Zunge, gesammelt, geordnet und mit Angabe d
    Leipzig, 1897.</name>
</source>
<adjustments>
  <normalization>
    <IRI>tag:kalvesmaki@gmail.com,2014:normalization:hyphens-discretionary
    <name>Keine Bindestriche</name>
  </normalization>
</adjustments>
<vocabulary-key>
  <div-type xml:id="Zeile">
    <IRI>http://dbpedia.org/resource/Gedichtzeile</IRI>
    <name>Gedichtzeile</name>
  </div-type>
  <div-type which="poem" xml:id="Gedicht"/>
  <person xml:id="schmidt" roles="Produzent">
    <IRI>tag:hans@beispiel.com,2014:selbst</IRI>
    <name xml:lang="eng">Hans Schmidt</name>
  </person>
  <role xml:id="Produzent">
    <IRI>http://schema.org/producer</IRI>
    <name xml:lang="eng">Produzent</name>
  </role>
</vocabulary-key>
<file-resp who="schmidt"/>
<resp who="schmidt" roles="Produzent"/>
<change when="2014-08-13" who="schmidt">Anfang</change>
<comment when="2014-08-13" who="schmidt">unten auf der Z. 438, recht</commen
<to-do/>
</head>
<body xml:lang="deu">
  <div type="Gedicht" n="1">
    <div type="Zeile" n="a">Ringel, Ringel, Reihe!</div>
    <div type="Zeile" n="b">Sind der Kinder dreie,</div>
    <div type="Zeile" n="c">Sitzen auf dem Holderbuch,</div>
    <div type="Zeile" n="e">Schreien alle: husch, husch, husch!</div>
  </div>
</body>
</TAN-T>

```

It seems that this 19th-century German version is quite similar to our two English versions. We have some alignment options open to us. Two more sets of word-for-word alignments would be interesting, but remember, just because we find a text that nicely aligns with others does not mean that we *must* align them, or that for a given alignment we must align *everything*. In this case, we choose not to worry about word-for-word alignments, and we focus here only on the TAN-A alignment, so that, for example, we can use the built-in TAN application to display the three versions in parallel, a reading tool to study more closely intertextual relationships.

To that end, we first observe some differences between this transcription and our other two. First, the value of `<work>` is not the one we have given our two versions. Second, `<numerals>` specifies by its value for `@priority` that any ambiguous numerals should be interpreted as letter numerals, not

Roman (that's important, e.g., for a <div> with an @n value c, which could mean 3 [a, b, c, ...] or the Roman numeral for 100). Next, the lines are wrapped in a <div> for the whole poem (Gedicht) and they have been lettered instead of numbered. And last, the editor seems to have made a typographical error, making the last line e instead of the expected d). These five differences typify inconsistencies one commonly finds in digital texts from different projects of the same work.<sup>8</sup>

These are points we can easily reconcile in our TAN-A file, which we now expand to include the German version. We make the following adjustments (emphasized):

```
<TAN-A xmlns="tag:textalign.net,2015:ns" TAN-version="2021"
  id="tag:parkj@textalign.net,2015:ring-alignment">
<head>
  <name>div-based alignment of multiple versions of Ring o Roses</name>
  <master-location href="http://textalign.net/release/TAN-2020/examples/TAN-A
  <license which="by_4.0" licensor="park"/>
  <source xml:id="eng-uk">
    <IRI>tag:parkj@textalign.net,2015:ring01</IRI>
    <name>Transcription of ring around the roses in English (UK)</name>
    <location href=" ../ring-o-roses.eng.1881.xml" accessed-when="2015-03-10"
  </source>
  <source xml:id="eng-us">
    <IRI>tag:parkj@textalign.net,2015:ring02</IRI>
    <name>Transcription of ring around the roses in English (US)</name>
    <location href=" ../ring-o-roses.eng.1987.xml" accessed-when="2014-08-13"
  </source>
  <source xml:id="ger">
    <IRI>tag:beispiel.com,2014:ringel</IRI>
    <name>Transcription of an ancestor of Ring around the roses in German</n
    <location accessed-when="2014-08-22">http://beispiel.com/TAN-T/ringel.xml
    <location accessed-when="2014-08-22"> ../TAN-T/ring-o-roses.deu.1897.xml
  </source>
  <adjustments src="ger">
    <skip div-type="Gedicht"/>
    <rename n="e" by="-1"/>
  </adjustments>
  <vocabulary-key>
    <person xml:id="park" which="Jenny Park"/>
    <alias id="ring" idrefs="ger eng-us"/>
  </vocabulary-key>
  <resp who="park" roles="creator"/>
  <change when="2014-08-14" who="park">Started file</change>
  <change when="2014-08-22" who="park">Added German version.</change>
  <to-do>
    <comment when="2018-08-09-04:00" who="park">Finish file.</comment>
  </to-do>
</head>
. . . . .
</TAN-A>
```

<sup>8</sup>There are a few other differences in this third transcription that do not affect our alignment. <version> is used to distinguish different versions of the same work found on the same text-bearing object. That is, if we are transcribing a bilingual edition, we can use <version> to specify which of the two versions we are encoding. Notice that the <IRI> value is a UUID. In this case the editor was not prepared to deploy a formal IRI naming scheme (perhaps using a tag URN) that would be satisfactory for work-versions. Also, the <div-type> is defined as <http://dbpedia.org/resource/Gedichtzeile> (Gedichtzeile = line of poetry), so it doesn't intersect with our IRIs for the vocabulary item line. But <div-type> is not used to align versions, and validation isn't affected, so we do not concern ourselves here with trying to reconcile the different IRIs.

The first major change is the insertion of a third `<source>`, pointing to the new file and specifying its name and IRI. Note that two `<location>`s have been provided, one for the original and another for a local copy we have saved. Validation will take into account only the first document available. If we wanted to work primarily off our local copy, we would have put that `<location>` first. By placing it second, we allow the validation engine to work primarily off the master version and therefore look for updates and changes. If that version is unavailable, validation will be made against second, local copy.

`<adjustments>` specifies through its `@src` that only the German version should be adjusted by the contained instructions. The enclosed `<skip>` says, in effect, to ignore the wrapping `<div>` for purposes of alignment. The `<rename>` takes care of the apparent typographical error, and anchors the German version to the U.S. one. Note that the German version uses `e`, but we have used `5`. But we could have used `e`, or even the Roman numeral `v`, had we wished to. Every TAN file's numeration system is evaluated locally, independent of any external files. We need not reconcile the `a`, `b`, and `c @n` values in the German version, because these will be automatically treated as equivalent to `1`, `2`, and `3`. The TAN format supports four numeration systems other than Arabic numerals: Roman numerals (uppercase or lowercase), alphabetic numerals (`a`, `b`, `c`, ..., `z`, `aa`, `bb`, ...), and digit-alphabet combinations (e.g., `1a`, `1e`, `4g`) or alphabet-digit combinations (e.g., `a4`, `a5`, `b5`). The last two systems are interpreted as a two-tier numbering system.

The second major change, to address the German version's different value of `<work>`, is the addition of an `<alias>`, which allows us to assign one or more vocabulary items a common id. Whenever the value `ring` is used, it stands in for `ger` and `eng-us`, which point to the two TAN-T files. You may be familiar with this concept from critical editions, where a siglum, e.g., `A` might stand for several other sigla, e.g., `a`, `b`, and `c`. So every time you see something said about `A`, you know that by implication it is true of `a`, `b`, and `c`.

Every TAN-T file has only one work and only one written source. So if you wish to make a claim about a particular work or source, you can use a TAN-T's id as a surrogate. That is, the `@id` in `<source>` can stand in to represent either the work or the book or manuscript from which the text has been taken. So if we make claims in our TAN-A file about a written source or a work, `ring` would assert the claim to be true for the works pointed to by the German and the U.S. version. (We do not need to specifically mention `eng-uk` in the `<alias>`, since it has the same work IRI as the U.S. version does.)<sup>9</sup>

The last major insertion is a new `<change>`, documenting when we made the alterations. Its `@when` effectively updates the version of our TAN-A file.

With these additions, the German version is now aligned with the other two. We could have made our work simpler just by directly modifying our local copy of the German version. But such a change would not have affected the master copy. What happens when the owner of the German file makes changes? At that point we be faced with version conflict: changes in the original, and our own changes in the copy. We would struggle to reconcile the differences. And we would have to repeat that exercise every time the German file was updated. By keeping our local copy of the German file unchanged, and making simple adjustments in our TAN-A file, we can keep our local copy synchronized with the master file and yet make the adjustments needed to coordinate with ours.

The purpose statement in these guidelines says that TAN was "designed to maximize the syntactic and semantic interoperability of texts, annotations, and language resources." Here we see the importance of the qualifier "maximize." In no world will there ever be (nor should there be, it seems) a single, indisputable way to divide a given work. The TAN format does not change that reality. Rather, it provides a convergent ecosystem in which different practices can be easily reconciled, to help ed-

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<sup>9</sup>Alternatively, instead of `<alias>`, we could simply have adjusted our TAN-voc file, adding the German version's `<IRI>` value to the appropriate vocabulary item, and use that id.

itors and authors enhance cross-project interoperability without artificially forcing conformity, or suppressing legitimately different outlooks.

Perhaps Hans Schmidt, the producer of the German version, can be contacted (e.g., through his tag URN). We do so, and we suggest that he modify the version to make it align better. Perhaps he has reasons for labeling the lines with letters, and perhaps he is reluctant to explicitly identify this poem with *Ring around the Rosie*. That is within his rights. But the conversation might lead to our pointing out that n="e" should probably be n="d" and that there is an apparent typographic error in the last line. Or perhaps we're the ones in error. (The original, printed book has the poem twice on page 438, one with the spelling "Holderbuch" at line 3, the other, "Holderbusch".) If Schmidt chooses to correct his master file, he can add a new <change>, and thereby tacitly notify anyone else using the file that corrections have been made.

At this point we have a network of six TAN files, five from our collection and one from outside. Although simple and small, this network could be extended to address some creative and complex research questions. Applications based on XSLT stylesheets could be used to automatically align the versions for reading and study, or to perform statistical analysis.

What you've read so far is only a cursory introduction to TAN features. Study the rest of these guidelines, as well as example TAN libraries, and you will find numerous ways to develop TAN files, and to use them to enhance your research, teaching, and writing.



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## Part II. Detailed description

This part of the guidelines provides a detailed description of the design and structure of the formats of the Text Alignment Network. The material follows the organization of the schema files (kept in the `schemas` subdirectory), so both can be studied in tandem.

Chapter 3, *General underpinnings* outlines, in a non-technical way, the principles and technical foundations of the TAN format.

Chapter 4, *Common patterns and structures*, Chapter 5, *Class-1 TAN files, representations of textual objects (scripta)*, Chapter 6, *Class-2 TAN files, annotations of texts*, and Chapter 7, *Class-3 TAN Files, Varia* describe each TAN format, class by class. Each chapter starts with theory or scholarly context before expanding on technical points.

The chapters in this part have been written with the assumption that you have already read the previous part (Part I, “General overview”) and that you have already started to create or edit a TAN collection.

Because readers will come from different specialties, all acronyms, abbreviations, and concepts are defined and explained, albeit tersely, to explain how they affect the use of TAN. Suggestions for further reading are provided for those who want a more thorough introduction to a topic.

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# Chapter 3. General underpinnings

This chapter retains something of the introductory spirit of the previous one by providing an overview of the fundamental principles and technologies behind TAN. The goal is to explain the design of the format. Although this chapter assumes on your part no prior knowledge of any particular technology, it is also not meant to be a tutorial. Links to further reading will take you to good introductory material.

## Design principles

The TAN formats have been designed around a few basic principles:

### Scholarly habits

- Be patient.
- Simplify.
- Stay focused.
- Don't repeat yourself.
- Don't state the obvious.
- Use familiar conventions.

### Scholarly freedom

- Express doubt.
- Offer alternatives.
- Exercise independence.
- Invite interdependence.

### Scholarly responsibility

- Declare your assumptions.
- Make your work citable.
- Satisfy scholars' expectations:
  - Who did what when?
  - What are your sources?
  - How do you define your terms?
  - What alterations have you made to your sources?
  - What rights do I have to use your material?

### General utility

- Use stable technology.
- Keep design predictable, consistent.

- Make each datum human readable.
- Make each datum computer actionable.

## Format organization

The Text Alignment Network is a modular suite of XML encoding formats, each one designed for a specific type of textual data, divided into three classes: texts (class 1), text alignments and annotations (class 2), and everything else (class 3).

Class 1: representations of textual objects, i.e., transcriptions. (See note on transcriptions versus transliterations.) Each transcription file contains the text of a single work from a single text-bearing object (which we term *scriptum*; see the section called “Domain model”), whether physical or digital. There are two types of transcription file: a standard generic format (TAN-T) and a gentle customization of TEI All (TAN-TEI). These two types are differentiated by the root element, <TAN-T> and <TEI> respectively.

Class 2: annotations on class-1 texts, and alignment declarations. There are two types of alignment, one for broad, general alignments and another for granular, word-for-word alignments. The former, with <TAN-A> as the root element, aligns any number (one or more) of class-1 files, and allows one to annotate those files. The latter, <TAN-A-tok>, aligns only pairs of class-1 files, on a word-for-word basis. Lexico-morphology files, <TAN-A-lm>, are used to encode the lexical and morphological (or part-of-speech) forms of individual words from a single class-1 file, or of a language in general.

Class 3: everything else. <TAN-voc> collects and labels vocabulary items used in other TAN files. TAN catalog files have the root element <collection>, and they index locally available TAN files, and selective parts of their metadata. <TAN-mor> is used to define the grammatical categories or features of a given language and to specify rules for lexico-morphological codes in dependent TAN-A-lm files.

TAN adopts a *stand-off* approach to annotation or markup. In the alternative method, *inline* markup, which you may be familiar with from TEI or HTML, an annotation is applied directly to the base text, e.g., <p>He said <quote>"Jump!"</quote></p>, where the inner element <quote> annotates the third word.

In stand-off annotation, however, <p>He said "Jump!"</p> would be left as-is, and somewhere else there would be an annotation that states that the third word is a quotation. If the stand-off annotation is in the same file, it is an *internal stand-off* annotation. If the annotation is in a different file, it is an *external stand-off* annotation.

For many common, simple cases, inline annotation is simple, convenient, and straightforward. But as inline annotations are added, the benefits slowly diminish. When parts of a file attract multiple markup elements, the file can become difficult to read and navigate.

Stand-off annotation provides several benefits:

- An editor can focus on a limited set of closely related questions.
- A source text without inline annotations is less cluttered, and therefore easier to read, than one with inline annotations.
- Editors can work on separate annotation files based upon the same master transcription file, even if they have very different research interests.
- A single annotation refer to two or more texts (e.g., identification of quotations), and not have to prioritize, or be located in any single one.

- Complementary or competing annotations can be made, and those annotations may point to concurrent or overlapping spans of text (a major problem for in-line annotation, where according to XML rules no element may interlock or overlap with another).
- A corpus of stand-off external annotation files become, collectively, a complex dataset, supporting lines of research that might not have been anticipated by any single project.
- Editorial labor can be conducted without central coordination, as individuals work at their own pace, independently.
- When an error is found in a transcription file, it can be corrected in a single place, in the master. Anyone using a copy of that master file will be notified in the validation process of changes that have been made and they can deal with them accordingly.
- Any data file can be updated independent of any other that points to it, or to which it points.
- Cross-file links required in stand-off annotation networks files, which can then be combined and transformed in any number of ways to produce a wide variety of derivative documents (e.g., collated versions, statistical analysis).

The stand-off approach works toward a principle often valued in computer science, that of the disaggregation of data. That is, in a master format, data of a particular type should not be entangled with other types of data. It can later be reaggregated in all kinds of ways, but that is an end product, not the way master data should be stored and managed. It is analogous to the way any well-run kitchen keeps its ingredients separate, until it is time to cook or bake a variety of products. We keep separate our flour, eggs, sugar, and so forth, until we find out what a recipe calls for, at which point we combined those ingredients in a variety of ways. It would be terrible if you were asked to make muesli (or granola), and found that someone had already turned the ingredients you wanted into a cake!

Stand-off annotation is not without problems and vulnerabilities. For example:

- When (not if) the base text changes, the editor is unaware of how that change will affect any stand-off annotations.
- Not having the annotated text and an the annotation in the same reading space can be an inconvenience.
- When searching for, or querying, the base text, standoff annotations can be difficult or impossible to incorporate to refine a selection.
- When using the material for other purposes, it can be cumbersome or challenging to reintegrate annotations with the base text.
- Linking an annotation to its base text requires extra work and maintenance. Normally this involves building and administering a library of identifiers. Adding and removing ids, or checking them for errors, can be time-consuming and confusing.

These are important challenges, but TAN validation rules have been designed to mitigate such problems. The last problem listed above is perhaps the greatest barrier to stand-off annotation. TAN approaches pointing in a much different way that is closer to current scholarly habits. See the section called “Class 2 pointer syntax: referencing texts”.

Furthermore, TEI inline annotations are supported. In general, you are encouraged to use TEI inline annotations where they are simple and make sense. But when the markup accumulates, threatens to create overlapping structures, or pose other difficulties, TAN class 2 files can be an ideal way to build and curate annotations.

## Assumptions in the creation of TAN data

All creators and users of TAN files are expected to share few basic assumptions.

First, all TAN-compliant data is to be understood as largely *derivative*. That is, data files express no originality or creativity independent of their sources (but see below about interpretation). A TAN file should be created with the intent of adhering as closely as possible to some model or archetype. For example, a transcription is assumed to replicate faithfully some earlier digital edition or text-bearing material object (e.g., stone, papyrus, manuscript, printed book for written text; audiovisual media for oral or performative texts). Morphological files and alignment files should describe as clearly and as reliably as possible their source transcriptions. *In creating and publishing a TAN file you claim to have offered a good-faith representation or description of something; in using a TAN file, you hold the creator to that expectation.*

Second, all core TAN files are *interpretive*. That is, they are permeated by editorial assumptions and opinions that might not be shared by everyone. If there is any resemblance of originality or creativity in a TAN file it is in that interpretive outlook. For example, if you edit a transcription file you must decide how to handle unusual letterforms and other visible marks. Your decisions will be influenced by your perspective on the original text and its native writing system, and how you interpret and use Unicode. If you write an alignment file, you must make decisions about what factors caused one text to be transformed into another. Lexicomorphological files require you to commit to one or more grammars and dictionaries, which adopt certain perspectives on language, and you must discern how best to handle cases of vagueness and ambiguity. No TAN file ever stands completely outside the interpretive act. *In creating and publishing a TAN file you claim to have disclosed as best you can the assumptions behind your interpretive outlook; in using a TAN file, you hold the creator to that expectation.*

Third, all core TAN files are *applicable*. That is, the interpretive impulse is assumed to be coupled with an equally strong desire to make the data as useful to as many users as possible, even those who may not share your assumptions or interpretation. TAN files are intended for intertextual comparison, so idiosyncrasies of a particular text-bearing object will be regarded by some users as either uninteresting or an obstacle. A creator of a transcription file should normalize and segment texts, adopting the most widely used reference systems, so as to optimize the alignment process. Morphological files should depend whenever possible upon commonly accepted grammars and lexica. Alignment files should work with comprehensible categories of text reuse. No TAN file will always be applicable to everyone, but it should be as suitable to as many as possible, for as many purposes as possible. *In creating a TAN file you claim to use common, shared conventions whenever possible, and to note any departures; in using a TAN file, you hold the creator to that expectation.*

Fourth, TAN data is to be considered *accurate, but not necessarily precise or complete*. For example, if a TAN-A file claims that the opening of Plato's *Republic* book 3 quotes from Homer's *Iliad*, the claim is true and accurate, but is neither precise nor complete. Parts of the opening of book 3 are certainly not quotations, and the whole of the *Iliad* is not quoted in the *Republic*. Or take a TAN-A-tok file. The token-for-token alignment of two texts might be selective, and focus only on the points of interest to the editor. Although the TAN formats permit a great deal of both precision and comprehensiveness, neither is mandated, except where explicitly noted by the TAN specifications. *In creating a TAN file you claim to make accurate assertions; in using a TAN file, you should hold the creator to that expectation, but you must assess for yourself how precise and complete it is.*

## Core technology

TAN depends upon a set of relatively stable technologies. Those technologies and the underlying terminology are briefly explained below, with attention paid to interpretive decisions that affect validation rules.

# Unicode

## What is it?

Unicode is the worldwide standard for the encoding, representation, and exchange of digital texts. The standard is maintained by a nonprofit consortium whose goal is to represent all the world's writing systems, living and historical. The Unicode standard allows us to share texts in any alphabet, syllabary, or ideographic system reliably, regardless of how that text is rendered (e.g., fonts, display).

With more than 128,000 characters, Unicode is almost as complex as human writing itself. The entire sequence of characters is divided into blocks, each one reserved, more or less, for a particular script or group of characters. Within each block, characters may be grouped further. Each character is assigned a single number called a codepoint.

Codepoints are numbered according to the hexadecimal system (base 16), which uses the digits 0 through 9 and the letters A through F. (The decimal number 10 is hexadecimal A; decimal 11 = hex B; decimal 17 = hex 10; decimal 79 = hex 4F.) It is helpful to think of Unicode as a very long table of sixteen columns, a glyph in each square; this is illustrated nicely in this article [<http://en.wikibooks.org/wiki/Unicode/Character.reference/0000-0FFF>].

It is common to refer to Unicode characters by their value and perhaps by their name. The value customarily starts "U+" and continues with the hexadecimal value, usually at least four hexadecimal characters. When the official Unicode name is given, it is normally in uppercase. Examples:

Table 3.1. Unicode characters

Character	Unicode value	Unicode name
" "	U+0020	SPACE
®	U+00AE	REGISTERED SIGN
ю	U+044E	CYRILLIC SMALL LETTER YU

In an XML file, nearly any Unicode codepoint may be used, either by typing or pasting the character directly, or by using XML entities. An XML entity is a proxy for some other text, marked by an ampersand, some text, and then the semicolon. For example, `&amp;` represents the ampersand and `&lt;` stands for `<`. To access specific Unicode characters an entity may start `&#x` followed by the hexadecimal codepoint (if you prefer to work with decimal codepoints, leave off the `x`). For example, the XML hex entity `&#x44E;` (or `&#1102;` in decimal) is a proxy for the Cyrillic small letter `yu`.

## Unicode normalization

Unicode rules provide guidance on how text should be normalized, to identify equivalent variations. For example, the character `o` (U+006F: LATIN SMALL LETTER O) followed by the combining accent `¨` (U+0308: COMBINING DIAERESIS) should be treated as identical in meaning to the single character `ö` (U+00F6: LATIN SMALL LETTER O WITH DIAERESIS). There are two codepoints that could be used for the Greek question mark (`;`), and normalization converts the less preferred codepoint to the other.

TAN validation rules require all data to be normalized according to the Unicode NFC algorithm (the most common of the four normalization methods). Any text in a TAN file that is not NFC normalized will be marked as invalid. A supplied Schematron Quick Fix will let users automatically normalize text (for editing tools such as Oxygen that support Schematron Quick Fixes). This enforcement of NFC normalization helps to make sure that texts are fairly compared.



## Unicode characters with special interpretation

The characters U+200B ZERO WIDTH SPACE, U+200D ZERO WIDTH JOINER, and U+00AD SOFT HYPHEN placed at the end of a leaf `<div>`, perhaps followed by space that will be ignored (see below), signal that the text is to be joined with any subsequent text (i.e., the next leaf `<div>`). Accordingly, any TAN function that needs to extract text from a leaf `<div>` structure will delete from the end of its text the U+200B, U+200D, or U+00AD character and its trailing space. (By contrast, text from a leaf `<div>` that does not end this way will first be space-normalized, then a single space will be appended.) Because these special line-end characters are difficult to distinguish visually from spaces and hyphens, their XML entities, `&#x200b;`, `&#x200d;`, and `&#xad;` should be preferred in any XML output.

Much has been written about the different ways U+00AD SOFT HYPHEN has been or should be used and interpreted. Debate will no doubt continue. TAN design assumes that the soft hyphen marks a place in a word where a line break has occurred, is allowed to occur, or both. In situations where the text is printed or displayed, any soft hyphen that does not mark a word broken by a line should not be displayed.

## Combining characters

At the core level of conformance, Unicode does not dictate whether combining characters (accents, modifying symbols) should be counted independently, or as part of a base character, nor do core XML technologies. In most cases, this point is negligible. But it can affect regular expressions and XPath expressions (see below).

Two of the class-2 formats allow the counting of characters. Such counting is assumed to be made exclusively of individual base (non-combining) characters (each perhaps followed by one or more combining characters). Therefore one character is defined as the regular expression `\P{M}\P{M}*`, bound to global variable the section called “`$tan:char-regex`”. Any numerical reference made in a TAN file to an individual character, i.e., through `@chars`, is interpreted by counting only non-combining characters. When the *n*th character is requested, TAN functions will return the *n*th base character along with any combining characters that immediately follow.

For example, `ābĉd` consists of four base characters, interleaved with three combining characters, technically seven total. But `@chars`, which counts characters, there are a maximum of four characters. A value of `1` picks both the base character and its combining character, `ā`.

TAN rules stipulate that combining characters must have a preceding base character. Any `<div>` that, after any initial space, starts with a combining character will be marked as invalid. See also Regular Expressions and Combining Characters.

## Unicode points not allowed

Because TAN files are not scriptum-oriented (see the section called “Domain model”), the following characters will generate an error if found in a TAN file:

- U+00A0 NO-BREAK SPACE
- U+2000 EN QUAD
- U+2001 EM QUAD
- U+2002 EN SPACE
- U+2003 EM SPACE

- U+2004 THREE-PER-EM SPACE
- U+2005 FOUR-PER-EM SPACE
- U+2006 SIX-PER-EM SPACE
- U+2007 FIGURE SPACE
- U+2008 PUNCTUATION SPACE
- U+2009 THIN SPACE
- U+200A HAIR SPACE

## Further reading

- Unicode Consortium [<http://unicode.org>]
- Unicode [<http://en.wikipedia.org/wiki/Unicode>] (Wikipedia)

# eXtensible Markup Language (XML)

## What is it?

Defined by the W<sub>3</sub>C, the eXtensible Markup Language (XML) is a markup language that that can be extended to allow anyone to define the structure and rules of a document type. For a quick, simple introduction to XML see Chapter 2, *Starting off with the TAN format*. XML is one of many formats that can be described as tree-based formats. Others include JSON, HTML, YAML, and Markdown. All of the preceding formats can be expressed in XML, but not the other way around. This does not mean that XML is inherently superior. (For some purposes, it is overkill.) But it does mean that XML is the lingua franca for treelike data structures. For more on the relationship between XML and other treelike formats, especially JSON, see the Invisible Markup Community Group [<https://www.w3.org/community/ixml/>].

## Schemas and validation

TAN validation files are found in the `schemas` subdirectory.

Each TAN file is validated by two types of schema files, one dealing with major rules concerning structure and data type, written in RELAX-NG, the other with more complex, detailed rules, written in Schematron.

The RELAX-NG rules are written primarily in compact syntax (`*.rnc`), and then converted to XML syntax (`*.rng`). For TAN-TEI, the special format One Document Does it all (`TAN-TEI.odd`) is used to adjust the rules for TEI All. The ODD file is then processed by TEI stylesheets into compact and XML RELAX-NG formats.

The Schematron files are generally quite short. The primary work is done by an extensive function library written in XSLT. For the most part, the Schematron files arbitrate between the file and the validation results calculated by the TAN function library. For a detailed overview of this process, see the section called “TAN validation”.

Some validation engines that process a valid TAN-compliant TEI file may return an error such as `conflicting ID-types for attribute "who" of element "comment" from namespace "tag:textalign.net, 2015:ns"`. Such a message alerts you to the fact that by mixing TEI and TAN namespaces, you open yourself up to the possibility of conflicting `xml:id` values. It

is your responsibility to ensure that you have not assigned duplicate identifiers. An XML editor may be configured to ignore this discrepancy. (In Oxygen XML editor go to Options > Preferences... > XML > XML Parser > RELAX NG and uncheck the box ID/IDREF.)

## Space characters and normalization

By default in XML, unless otherwise specified, consecutive space characters (space, tab, newline, and carriage return) are considered equivalent to a single space. This gives editors the freedom to format XML documents as they like, balancing human readability against compactness. In XML, space normalization is performed by stripping leading and trailing whitespace and replacing sequences of one or more whitespace character with a single space, `&#x20;`.

All TAN formats assume space normalization, with an extra caveat for leaf `<div>`s. Initial space is always stripped. If a leaf `<div>` ends in the soft hyphen or the zero width joiner (see the section called “Unicode characters with special interpretation”) the character is suppressed along with any ending space, otherwise the text is normalized to end in a single space character (whether or not there are space characters in the leaf `<div>` itself).

If retention of multiple spaces or spaces of specific sizes is important for your files and research, then you should not be working with the TAN format, which cannot be used to replicate the appearance of a scriptum (see the section called “Domain model”). Pure TEI (and not TAN-TEI) is a better alternative, since it allows for a literal use of space, and supports the creation of scriptum-oriented XML files. Once you finish with that scriptum-oriented transcription, you might be ready to prepare a second one oriented toward intertextual analysis, at which point TAN would be ideal.

For more on space see guidance in the W<sub>3</sub>C recommendation [<https://www.w3.org/TR/REC-xml/#sec-white-space>].

## Mixed, non-mixed, and semi-mixed content

In many popular XML formats such as TEI, XHTML, and Docbook some elements allow a mixture of elements and non-space text as children, e.g., `<div>Some <span>text</span></div>`. These are called mixed content models. The TAN formats, aside from TAN-TEI, are committed to a non-mixed content model, e.g., `<div><span>Some </span><span>text</span></div>`. Non-space text nodes and elements are never siblings. The practical effect of this decision is TAN files may be indented as you like, and whitespace text may be placed anywhere, without altering the meaning. The exception are TAN-TEI files, which allow any kind of TEI constructions, including mixed content. Many projects do not consider the implications of how they render space, however, and you should study the topic closely.

An expanded TAN file (see the section called “TAN validation”) may include what we term a semi-mixed content model, in which any element may have one and only one non-space text node along with any children elements. That non-space text node may appear at the beginning or the end of the children nodes. This applies only to the expansion of TAN files, not to TAN files themselves.

## Namespaces

### What are they?

XML allows users to create document types of whatever kind. One person may wish to use the element `<band>` to refer to a musical group; another might use this element to encode radio frequencies. Perhaps someone wishes to mention a musical group and a radio frequency in the same document, which would entail mixing two very different types of elements, each named `band`. XML allows users to mix vocabularies, even when those vocabularies use the same element names. Disam-

biguation is accomplished by associating an element name with a kind of family name. That family name is an IRI (see the section called “Identifiers and their use (IRIs, URIs, URLs, URNs, UUIDs)” below). The actual full name of an element, then, is the local name plus the IRI that qualifies its meaning, e.g., `band{http://music-example.com/terms/}` and `band{http://frequency-example.com/terms/}`.

The IRI—the family name—is called the *namespace*, a term that might seem vague or confusing. It has nothing to do with space. It is merely a term of art to qualify a name. In the world there are many cities that have the same name. We use the name of the state, region, or even country to explain which city we mean. As region names are to city names, so namespaces are to element (and some attribute) names.

Namespaces can be declared in an XML document. When they appear, they look a lot like attributes. (They aren’t.) They take the form `xmlns="http://music-example.com/terms/"` (this defines the default namespace) or `xmlns:[PREFIX]="http://frequency-example.com/terms/"` (this assigns a namespace to a prefix) placed inside an opening tag. For example, `<band xmlns="http://music-example.com/terms/">...</band>` declares `http://music-example.com/terms/` to be the default namespace for `<band>` and all descendants, unless explicitly overridden.

To return to our example, different `<band>`s can be combined through namespaces:

```
<band xmlns="http://music-example.com/terms/">
  <band xmlns="http://radio-frequency-example.com/terms/">
    ...
  </band>
</band>
```

```
<band xmlns="http://music-example.com/terms/"
  xmlns:e2="http://radio-frequency-example.com/terms/">
  <e2:band >
    ...
  </e2:band>
</band>
```

```
<e1:band xmlns:e1="http://music-example.com/terms/"
  xmlns:e2="http://radio-frequency-example2.com/terms/">
  <e2:band >
    ...
  </e2:band>
</e1:band>
```

Namespaces allow us to mix elements as we like. But it also means that when you point to, or refer to an element, you should always be aware of what its namespace is.

## TAN namespace and prefix

The TAN namespace is `tag:textalign.net,2015:ns`. The recommended prefix is `tan`. The namespace does not change from one version of TAN to another.

The TAN-TEI format uses as its default the TEI namespace, `http://www.tei-c.org/ns/1.0`, normally given the prefix `tei`. But in a TAN-TEI file, the head and its descendants are in the TAN namespace.

All TAN functions and core global parameters and variables are set in the TAN namespace.

## The Text Encoding Initiative

### What is it?

The Text Encoding Initiative (TEI; <http://www.tei-c.org/index.xml>) is a consortium of scholars and scholarly organizations that maintains the rules and documentation behind a collection of XML formats intended for encoding texts. TEI files have been used widely by libraries, museums, publishers, and individual scholars to prepare and publish texts for online research, teaching, and preservation. In addition to the guidelines themselves, the Consortium provides a variety of resources [<http://www.tei-c.org/Support/Learn/>] and training events [<http://members.tei-c.org/Events>] for learning TEI, information on projects using the TEI [<http://www.tei-c.org/Activities/Projects/>], a bibliography of TEI-related publications [[http://www.tei-c.org/Activities/SIG/Education/tei\\_bibliography.xml](http://www.tei-c.org/Activities/SIG/Education/tei_bibliography.xml)], and software [<http://www.tei-c.org/Tools/>].

TEI provided the impetus for the creation of TAN, and continues to inspire its development. TEI was designed to be highly customizable, to suit the needs of individuals or communities of practice. One of the TAN formats, TAN-TEI, is one such customization, based as it is on an ODD file that is in the same directory as the rest of the schemas. TAN-TEI schemas are generated on the basis of the official TEI All schema that is available at the time of release.

TAN-TEI files and standard, out-of-the-box TEI All files are not automatically interchangeable. TAN-TEI expects all metadata to be human- and computer-readable, whereas TEI metadata is geared primarily to human readability. TAN-TEI tightly regulates the structure of the text, whereas TEI allows for a variety of structures. In any conversion process to and from TEI and TAN-TEI, some human intervention may be required, and conversion in either direction may entail loss.

For more about the strictures placed upon the TEI All schema see the section called “Transcriptions using the Text Encoding Initiative (<TEI>)”. See also Chapter 4, *Common patterns and structures* and Chapter 5, *Class-1 TAN files, representations of textual objects (scripta)*.

### Further reading

- Text Encoding Initiative [<http://www.tei-c.org/>]

### Data types

Being written purely in XML technologies, TAN uses data types defined in the W<sub>3</sub>C’s official specifications [<https://www.w3.org/TR/xmlschema-2/>], e.g., strings, booleans, integers. The following data types require some special comments.

### Languages

TAN adopts for language identification Best Common Practices (BCP) 47, which standardizes identifiers for languages and scripts. For most users of TAN, this will be a simple two- or three-letter abbreviation, sometimes supplemented with a hyphen and an abbreviation designating a script or regional subtag. For example, `eng`, `eng-UK`, and `eng-UK-Cyr1` refer, respectively, to English (in general), English from the United Kingdom, and English from the United Kingdom written in the Cyrillic script. As a general rule, values of this type should begin with a three-letter language code, preferably lowercase. (The two-letter codes cover only a few dozen languages; the three-letter codes support thousands of them.)

ISO codes for human languages appear in `@xml:lang` and `<for-lang>`. The former states what language the enclosed text is in. The latter is an empty element that simply points to a specific lan-

guage. For example, `<for-lang>` in the context of a TAN-mor file indicates which languages the file was written for.

TAN has several global variables and functions useful for working with language codes. See the section called “language”.

## Dates and times

For dates and dates + times, TAN adopts the corresponding XML data types, which follow ISO syntax. That syntax begins with years (the largest unit) and ends with days, seconds, or fractions of seconds (the smallest).

The simplest date takes this form: `YYYY-MM-DD`. If a time is included, it is specified by continuing the string, first with a `T` (for time) then the form `hh:mm:ss.SSS(Z|[-+]hh:mm)`. For example, the following is `2016-09-20T20:38:27.141-04:00` is an ISO date-time for Tuesday, September 20, 2016 at 8:38 p.m., Eastern Time Zone.

## Further reading

- BCP 47 official specifications [<http://tools.ietf.org/rfc/bcp/bcp47>]
- BPC 47 technical details [<http://www.w3.org/TR/xmlschema-2/#language>]
- W3C specification [<https://www.w3.org/TR/xmlschema-2/#dateTime>]
- Wikipedia entry on ISO 8601 [<https://en.wikipedia.org/wiki/ISO.8601>]

## Identifiers and their use (IRIs, URIs, URLs, URNs, UUIDs)

TAN makes extensive use of the following identifiers:

- *IRI*: Internationalized Resource Identifier, a generalization of the URI system, allowing the use of Unicode; defined by RFC 3987 [<http://www.ietf.org/rfc/rfc3987.txt>]
- *URI*: Uniform Resource Identifier, a string of characters used to identify a name or a resource; defined by RFC 3986 [<https://tools.ietf.org/html/rfc3986>]
- *URL*: Uniform Resource Locator, a URI that identifies a Web resource and the communication protocol for retrieving the resource.
- *URN*: Uniform Resource Name, a term that originally referred to persistent names that used a bare `urn:scheme`, but is now applied to a variety of systems that have registered with the IANA. URNs are generally best thought of as a subset of URIs.
- *UUID*: Universally Unique Identifier, a computer-generated 128-bit number that may be attached as an identifier to any entity. UUIDs can be built into a URN by prefixing them with `urn:`.

The TAN format makes extensive use of all the above. See also the section called “Tag URNs”.

## Resource Description Framework (RDF) and Linked Open Data

### What are they?

Identifiers are used in many contexts for many purposes. One such purpose is called Linked Open Data (LOD), also known as the Semantic Web, which aims to allow cross-project interoperability

of data. It relies upon a very simple data model called Resource Description Framework (RDF), recommended by the World Wide Web Consortium (W3C). The term "Resource"—the R in RDF—refers to any person, place, concept—anything at all, whether you think of it as a resource or not. "Description" is overly specific, too, since RDF was designed to support general assertions, descriptive or not. Perhaps it is easiest to think of RDF as a standardized way to make assertions, as if the name were simply "Assertion Framework." It is a way to make claims about things in the world.

The RDF data model rests upon the concept of a statement, made of three parts: subject, predicate, and object. Subjects and predicates take identifiers that name things. The object may take an identifier or just data. As people independently identify concepts with the same URLs, they create RDF datasets can be combined, synthesized, and compared. RDF statements found across the web allow inferences no individual project could ever anticipate.

The Semantic Web recommends the use of URLs as identifiers. That way, if a computer encounters a URL naming a concept, it can be programmed go to the web resource and retrieve other RDF statements, recursively. So URL identifiers look like a web page address (e.g., `http://...`), but they are first and foremost names for things. Ideally, those URLs will still name those things after the domain name expires and the web resource cannot be found.

Although RDF statements must be made of only three components, it is possible in a roundabout way to create more complex assertions. In one technique, the assertion itself is given a URL, and then RDF statements are made about the assertion. Such assertions are in some cases not easily integrated with other RDF statements. Users who query an RDF database will not find relevant complex RDF statements unless they build their queries to anticipate such situations (or the query engine has been customized).

## TAN claims and RDF

Much of TAN can be converted to RDF statements. In fact, TAN may be one of the most human-friendly ways to read and write RDF. For example, consider how one might express "Person X's name is 'Dave Smith.'" Compare this snippet (taken from `http://linkeddatatool.com/editions/1.0/`), written in Turtle, the RDF syntax generally regarded as the most human-readable, ...

```
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .
@prefix foaf: <http://xmlns.com/foaf/0.1/> .

<http://biglynx.co.uk/people/dave-smith>
rdf:type foaf:Person ;
foaf:name "Dave Smith" .
```

...with the TAN equivalent:

```
<person>
  <IRI>http://biglynx.co.uk/people/dave-smith</IRI>
  <name>Dave Smith</name>
</person>
```

These TAN and RDF expressions are interchangeable.

But in more complex claims, it is, at this time, not clear whether all assertions in TAN can be losslessly converted to the RDF model. Every class-2 file makes a claim about the text, and there must always be attached to the claim someone that must be blamed or credited for the assertion. TAN also permits such claims to be modified through traditional adverbs. This is best seen in the TAN-A `<claim>`, which allows a person to nuance a claim to a degree that is difficult or impossible to express in traditional RDF. For example, RDF does not allow one to say "Person X is not the author of text Y," but TAN does.

TAN claims can also be quite complex. Whereas the standard RDF claim consists of three components—subject, predicate, object—most TAN claims have more. Every TAN claim must have at the minimum: a claimant (no RDF counterpart; the person, organization, or algorithm that asserts the claim), a subject (counterpart to RDF subject), and a verb (counterpart to RDF predicate). Verbs can be defined to permit, require, or disallow other claim components, such as adverbs or objects, many of which are permitted by default. Most TAN claims involve more than three components, so converting a TAN claim to RDF requires creating a complex RDF statement. In many cases, this requires the use of RDF\* instead of RDF (link below).

Many TAN claims involve textual subjects or objects. References to parts of text can be quite complex, and they must be made with reference to other entities. It doubtful whether a given specific textual subject or object can be satisfactorily reduced to an unambiguous IRI, because such an IRI would need to include a mechanism to resolve the meaning of the syntax. Such an IRI must not only explain the work’s reference system, but also identify the chosen version, scriptum, and perhaps token definition and numeration system. Many texts have more than one “canonical” reference system, so an IRI might point to two different textual passages, thereby breaking a cardinal rule of IRIs: although an entity may be given multiple IRIs, it is *never* acceptable for an IRI to be ambiguous. There is, at present, no widely accepted solution to this problem, although attempts have been made through CTS URNs and DTS URNs.

For more details see the section called “General annotations and alignments (<TAN-A>)” and <claim>.

## Further reading

- W<sub>3</sub>C recommendation [<https://www.w3.org/RDF/>]
- Linked Data [<http://linkeddata.org/>]
- Linked Open Vocabularies [<http://lov.okfn.org/dataset/lov/>]
- RDF\* [<https://w3c.github.io/rdf-star/cg-spec/2021-02-18.html>]
- CTS URNs [<https://www.homermultitext.org/hmt-docs/cite/cts-urn-overview.html>]
- DTS URNs [<https://distributed-text-services.github.io/specifications/>]

## Tag URNs

TAN files make extensive use of tag URNs (see the section called “Identifiers and their use (IRIs, URIs, URLs, URNs, UUIDs)”). In fact, TAN’s namespace is itself a tag URN (the section called “Namespaces”). A tag URN [<http://www.taguri.org>] has two parts:

1. Namespace. `tag:` + an e-mail address or domain name owned by the person or organization that has authorized the creation of the TAN file + , + an arbitrary day on which that address or domain name was owned + :. The day is expressed in the form YYYY-MM-DD, YYYY-MM, or YYYY. A missing MM or DD is implicitly assigned the value of 01.
2. Name of the subject. An arbitrary string (unique to the namespace chosen) chosen by the namespace owner as a label for subject (e.g., the file, a work, a scriptum). If you are providing a tag URN for a TAN file, that name can be the same as the filename, but it is a good practice not to do so, because filenames need to be changed. You should pick a name that is at least somewhat intelligible to human readers. It is a good idea to build a name via categories, from most general to most specific. For example `tag:pat@example.com,2014:work:aristotle-pseudo:secreta-secretorum` might be used as an IRI to name the work the *Secret of Secrets* attributed to Aristotle. A TAN file that transcribes a particular version of this text might look like this:



```
tag:pat@example.com,2014:transcription:scriptum:badawi-1954:work:secrets.
```

Although you may use any tag URN coined by someone else, when you create a tag URN, you may use only namespaces you own or owned.

Care should be taken in choosing the name, because you are the sole guarantor of its uniqueness. *It is permissible for something to have multiple identifiers, but never acceptable for an identifier to name more than one thing.* It is a good practice to keep a master checklist of tag URNs you have created. If you find yourself forgetting, or think you run the risk of creating duplicate tag URNs, you should start afresh by creating a new namespace for your tag URNs, if only by changing the date in the tag URN namespace.

### Example 3.1. Tag URNs

```
tag:jan@example.com,1999-01-31:TAN-T001
tag:example.com,2001-04:work:usc22.1
tag:evagriusponticus.net,2014:tan-a-lm:Evagrius_Praktikos_grc_Guillaumonts
tag:bbrb@example.org,1995-04-01:pos-grc
```

The first example comes from someone who owned the email address `jan@example.com` on January 31, 1999 (at the stroke of midnight, Universal Coordinated Time). The other examples follow a similar logic. The namespace of the second and third examples are tied to the owners of specific domain names. The 2014 in the third example is shorthand for the first second of January 1, 2014.

TAN files are identified and named via tag URNs, not URLs, for several reasons:

- **Permanence.** Authors of TAN data are creating files that are meant to be relevant for decades and centuries from now, well after most domain names today have changed ownership or fallen into obsolescence, and well after the creators are dead. URLs are not designed for such longevity.
- **Responsibility.** The TAN format requires every piece of data to be attributable to someone (a person, a group of persons, or an algorithm). A tag URN connects the identifier with the responsible person or group. URLs cannot identify the person or organization responsible for the name.
- **Accessibility.** Tag URNs have almost no barriers. They can be created by anyone who has an email address. No one has to register with a central authority. You can begin naming anything you want, any time you want, without anyone's approval, and without paying anything.
- **Ease.** Tag URNs are easy to use. All you need is an email address, which is very easy to get. You can use a domain name too, but many potential TAN authors never have owned a domain name, and never will, barring them from creating or publishing linked open data under the classic model, where you coin URLs in a domain you own. Many of those who do own domain names cannot or do not wish to configure, populate, maintain, and troubleshoot servers with the referral mechanisms recommended by Semantic Web advocates (see the section called "Resource Description Framework (RDF) and Linked Open Data").
- **Scholarly citation norms.** In the Semantic Web, the conflation of URL *qua* name with URL *qua* location is considered by many a virtue because the single string does double duty, both naming the resource and pointing to a location where more can be learned. Although the combination is elegant from the perspective of an engineer, it is confusing to many others. URLs are commonly thought to be merely locations for data, not names for things. It also goes against an important principle in scholarly citation practices, namely, the name of a publication should always be distinguished from where it might be found.

Further reading:

- RFC 4151 [<https://tools.ietf.org/html/rfc4151>], the official definition of tag URNs

## Regular expressions

Regular expressions are patterns for searching text. The term *regular* here does not mean ordinary. Rather, alluding to the Latin root *regula* (rule), it refers to a rule-based method of finding and replacing text through patterns. Regular expressions come in different flavors, and have several layers of complexity. TAN regular expressions adhere closely to the recommendation of XSLT 3.0 [<http://www.w3.org/TR/xslt-3.0/#regular-expressions>] (XML Schema Datatypes plus some extensions), and outlined in XPath Functions 3.1 [<https://www.w3.org/TR/xpath-functions-3.1/#regex-syntax>].

### ⚠ Caution

XML Schema Datatypes define regular expressions differently than do Perl, one of the most common forms of regular expression. For example, the pipe symbol, |, is treated as a word character in XML regular expressions (\w), but the opposite is true for Perl. For convenience, here are the codepoints in the range U+0020..U+00FF that are considered word characters according to XML (and therefore TAN):

Word characters (\w): \$ + 0 1 2 3 4 5 6 7 8 9 < = > A B C D E F G H I J K  
L M N O P Q R S T U V W X Y Z ^ ` a b c d e f g h i j k l m n o p q  
r s t u v w x y z | ~ ¢ £ ¤ ¥ ¦ § ¨ © ª « ¬ ® ¯ ° ± ² ³ ´ µ ¶ · ¸ ¹ º ¼ ½ ¾  
À Á Â Ã Ä Å Æ Ç È É Ê Ë Ì Í Î Ï Ð Ñ Ò Ó Ô Õ Ö × Ø Ù Ú Û Ü Ý Þ ß à á  
â ã ä å æ ç è é ê ë ì í î ï ð ñ ò ó ô õ ö ÷ ø ù ú û ü ý þ ÿ

Non-word characters (\W): ! " # % & ' ( ) \* , - . / : ; ? @ [ \ ] \_  
{ } ¡ ¢ « ¶ · » ¿

The placement of some of these characters may seem to you counterintuitive or wrong. But at this point complaining will not change the conventions. Any apparent mistakes are definitive ones. Just familiarize yourself with the conventions.

A regular expression search pattern is treated just like a normal search pattern until the computer reaches a special character: . [ ] \ | ^ \$ ? \* + { } ( ). Here is a brief key to how those special characters behave in regular expressions when they are first found. (Some of these special characters change their meaning if they are found inside square brackets; on this point, see the recommended reading below):

Table 3.2. Special characters in regular expressions

Sym- bol	Meaning
.	any character
	or (union)
^	start of line or string (doesn't capture any characters)
?	zero or one
*	zero or more
+	one or more
[ ]	a class of characters
( )	a group
^	beginning of a line or string (doesn't capture any characters)

Sym- bol	Meaning
\$	end of a line or string (doesn't capture any characters)

If you need to use any of those special characters as characters in their own right, then you need to escape them, by prefixing the character with an escape character, \.

Table 3.3. Special characters in regular expressions

Sym- bol	Meaning
\\	backslash (an escaped escape character)
\^	a caret sign (must be escaped with the \)
\\$	dollar sign (escaped)
\(	opening parenthesis (escaped)
\[	opening square bracket (escaped)

The escape character appearing before some letters accesses certain classes of characters:

Table 3.4. Special characters in regular expressions

Sym- bol	Meaning
\w	any word character
\W	any nonword character
\s	any of the four standard spacing characters: space (U+0020), tab (U+0009), newline (U+000A), carriage return (U+000D)
\S	anything not a spacing character
\d	any digit (0-9)
\D	anything not a digit
\p{Is Gu- jarati}	any character from the Unicode block named Gujarati

Some examples of regular expressions:

Table 3.5. Examples of Regular Expressions

Expres- sion	Meaning	What the expression matches when applied to "Wi-fi, good. A_hem* isn't!"
^.+\$	one whole line of characters	"Wi-fi, good. A_hem* isn't!"
[ae]	a or e	"e"
[a-e]	a, b, c, d, or e	"d", "e"
[^ae]+	one or more characters that are anything except a or e	"Wi-fi, good. A_h", "m* isn't!"

Expression	Meaning	What the expression matches when applied to "Wi-fi, good. A_hem* isn't!"
.i	any character followed by i.	"Wi", "fi", " i"
(.i)	when a character followed by an i is found treat it as a capture group (used only in a search pattern)	"Wi", "fi", " i"
[aeiou]	any lowercase vowel along with every word character that follows	"i", "i", "ood", "em", "isn"
[t*].	any t or * and the following character	"*", "t!" Note that the asterisk, if inside a character class, represents itself.
\s+	one or more space characters	" ", " ", " "
\w+	one or more word characters	"Wi", "fi", "good", "A_hem", "isn", "t"
\W+	match one or more nonword characters	"," , " , " . " , "*" , "" , "!"
[^q]+	one or more characters that are not a q	"Wi-fi, good. A_hem* isn't!"

The examples above provide a taste of how regular expressions are constructed and read.

## ❗ Regular Expressions and Combining Characters

A regular expressions might be ambiguous in the context of combining characters. Suppose we have a string of three characters, áb (i.e., an acute accent over the a; the codepoints are, in XML entities, `&#x61 ; &#x301 ; &#x62 ;`). The regular expression `a .` will in some search engines include the b and others not.

Unicode has differentiated three levels of support for regular expressions (see official report [<http://www.unicode.org/reports/tr18/>]). Only level-one conformance in XPath and therefore TAN is guaranteed. Combining characters fall in level two. In TAN, character counts depend exclusively upon base characters, not combining ones (see the section called "Combining characters").

TAN includes several functions that usefully extend XML regular expressions. See the section called "regular expressions".

Further reading:

- Various tutorials on Regular Expressions [<http://www.google.com/search?q=tutorial+regular+expressions>]
- Wikipedia, Regular Expressions [[http://en.wikipedia.org/wiki/Regular\\_expression](http://en.wikipedia.org/wiki/Regular_expression)]
- Regular Expressions in XSLT 3.0 [<http://www.w3.org/TR/xslt-30/#regular-expressions>]
- Unicode and Regular Expressions [<http://www.unicode.org/reports/tr18/>]
- XML Schema Datatypes [<http://www.w3.org/TR/xmlschema-2/#regexs>]
- A New \u: Extending XPath Regular Expressions for Unicode [<http://www.balisage.net/Proceedings/vol25/html/Kalvesmakior/BalisageVol25-Kalvesmakior.html>]

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# Chapter 4. Common patterns and structures

This chapter provides general background to the elements and attributes that are common to all TAN files. For more detailed discussion, see Chapter 12, *TAN patterns, elements, and attributes defined*.

This chapter does not discuss TAN catalog files, on which see the section called “TAN Catalog Files (collection)”.

## Common patterns

### IRI + name pattern

Both humans and computers need to read and write TAN metadata. Very often what is readable to humans is unreadable to computers, and vice versa. So the TAN format requires that all metadata be provided whenever possible in both forms. Although this rule may appear to introduce redundancy and therefore opportunities for error, the clarity is critical. It is the only way at present to ensure that any person or algorithm that approaches the data can parse and use it. In addition, doubly expressed metadata provides a safeguard much like a checksum: human- and computer-readable descriptions should comport. Any discrepancy signals a problem that should be checked.

Some metadata, such as that inside `<comment>` or `<change>`, are neither easily nor profitably translated into a computer-actionable string. In such cases only the human-readable form is required. Other metadata involve regular expressions (e.g., `@pattern`) or ISO-compliant dates (e.g., `@when`), both of which are well formed and are usually human-legible. Such data are not repeated, although they may be explained via `<desc>` or `<comment>`.

Those exceptions aside, all other metadata takes what is called the *IRI + name* pattern: one or more `<IRI>`s followed by one or more `<name>`s then zero or more `<desc>`s. This is the core pattern for nearly all TAN vocabulary items.

### Digital entity metadata pattern

Some entities identified by the the section called “IRI + name pattern” will be digital resources. In those cases, the IRI + name pattern is extended.

There must be one or more `<location>`s, with `@href` and `@accessed-when`, which signals where the resource is and when it was last consulted. In validation, only the first document available will be used. Extra `<location>`s might prove helpful for applications.

There may be an optional `<checksum>`, to more accurately specify which version of a file was consulted.

If the entity is a TAN file, then `<IRI>` must be a valid tag URN that matches the `@id` value of the TAN file being referred to. Because there is only one `@id` in a TAN file, any IRI + name pattern that points to it will have only one `<IRI>`. If the entity is not a TAN file, then any IRI may be used, including its resolved URL.

`@accessed-when` states when a file was last accessed. During validation, the target file will be checked. Any changes before that date will be ignored; those after will be reported, normally as warnings. See the section called “TAN file versions”.

All these requirements may seem excessive, since in other formats (HTML, TEI), to refer to another file one needs simply a link, via `@href` or `@src`. But TAN files are meant to be valid long after their

creation, when `@href` points to broken links. An `<IRI>` might allow one to find a missing file. It also helps specify which file is intended. Sometimes one file gets overwritten by a different one.

## Edit stamp

Most TAN elements allow for an optional edit stamp, an `@ed-who` and an `@ed-when`, stating who created or edited the enclosed data and when. Neither attribute is allowed without the other.

`@ed-when` is one of the attributes that help determine a file's version. See the section called "TAN file versions".

An edit stamp is much like a `<change>` without a narrative. The attributes simply mark the element where a change has been made. If a description of the alteration is considered necessary, `<change>` should be used.

## Overall structure

All TAN-compliant files, no matter the type or class, follow a common basic structure: (1) a prolog normally with at two processing instruction nodes; (2) a root element; and (3) a head, a body, and an optional `teiHeader` and tail.

*Prolog and processing instruction nodes:* The standard prolog of every XML file should begin: `<?xml version="1.0" encoding="UTF-8"?>`<sup>1</sup>

After that come two processing instructions specifying the two schema files required for validation

- `<?xml-model href="[PATH]/[ROOT-ELEMENT-NAME].rng OR c]"?>`
- `<?xml-model href="[PATH]/TAN.sch"?>`

The first processing instruction node points to the RELAX-NG schema that declares the major, structural rules. The second points to the finely tuned rules, written in Schematron. Both processing instructions are required, except in systems where those processing instructions are implicitly understood (e.g., an Oxygen project or framework). `[PATH]` represents the pathname to the schema file, whether local or on a server, and `[ROOT-ELEMENT-NAME]` stands for the name of the file's root element (the element that is the ancestor of all other elements in the document and the descendant of none). It is your choice whether you use `.rnc` or `.rng` as the extension for the RELAX-NG schema. The former is the compact syntax and the latter, the XML format. They are equivalent. The schemas are written initially in the compact sequence, then converted to the XML format.

TAN files permit three different levels of Schematron validation: `terse`, `normal`, and `verbose`. A phase may be specified with a pseudoattribute `phase` in the prolog, e.g., `<?xml-model href="TAN.sch" phase="verbose"?>`. But it is customary not to specify the phase, since most users will want to pick the level of validation desired at a given time. `Verbose` takes the longest time, and `terse` the shortest. `Verbose` provides the most feedback, `terse` the least. But some files will not show any difference in results from one phase to the next. For more on validation, see the section called "TAN validation".

*Root element:* The name of the root element identifies the type of TAN file:

Table 4.1. Root TAN elements

Root element name	Type of data	TAN class
<code>&lt;TAN-T&gt;</code>	plain text transcriptions	<code>t</code>

<sup>1</sup>XML version 1.1 is a permissible alternative, and `encoding="UTF-8"` is optional.

Root element name	Type of data	TAN class
<TEI>	TEI transcriptions	1
<TAN-A>	division-based alignments and annotations	2
<TAN-A-tok>	token-based alignments	2
<TAN-A-lm>	lexico-morphological annotations	2
<TAN-mor>	part of speech / morphology patterns	3
<TAN-voc>	glossaries	3
<collection>	catalog of TAN files	3

2

Each root element takes a mandatory @id and @TAN-version. On @id, see below. @TAN-version must be 2021, the current version of TAN.

All TAN elements fall under the namespace `tag:textalign.net,2015:ns`. In most cases, the namespace is declared in the root element. (The only exceptions are TAN-TEI transcription files, which take as a default namespace `http://www.tei-c.org/ns/1.0` everywhere but in /TEI/head, which takes the TAN namespace.) For more about namespaces, see the section called “Namespaces”.

*Root element children:* Most root elements take two mandatory children: <head> and <body>, the latter containing data and the former, metadata (data about the data). Root elements of TAN-TEI files take three children: <teiHeader>, <head>, and <text>. The apparent duplication of a head element is necessary: the <teiHeader> does not satisfy TAN metadata requirements, and the TAN header does not try to do what the teiHeader does. See the section called “Transcriptions using the Text Encoding Initiative (<TEI>)”.

All TAN files may take one final optional child, <tail>, a private use element that allows any well-formed XML. It was introduced initially to experiment with methods in improving the efficiency of validation and applications, but it can be used for a variety of tasks or applications. Nothing in a TAN file should be dependent upon the <tail>. That is, if you are editing a TAN file and you add a <tail>, assume that it will be disregarded by other users. Similarly, you may delete any TAN file’s <tail> without consequence.

## Identifying TAN files: @id

Every TAN file requires in its root element an @id, which must take the form of a tag URN (see the section called “Tag URNs” for syntax). The file’s @id is the primary way other TAN files will refer to it, and it may be used in RDFa, JSON-LD, and linked open data (see the section called “Identifiers and their use (IRIs, URIs, URLs, URNs, UUIDs)”).

A tag URN begins with a namespace component, and concludes with the identifying string. The namespace of @id must match at least one other tag URN namespace from the <IRI> of a <person> identified by <file-resp>. See the section called “Responsibility”.

In choosing a value for @id you might imitate the filename, but this is normally not a good idea, since files are frequently renamed, often with good reason. A TAN file’s @id should not be changed,

<sup>2</sup><collection> is provided here only to complete the table. None of the material in this chapter applies to this special class 3 format. See the section called “TAN Catalog Files (collection)”.



especially after public release. The name should remain permanent and stable, even if flaws in the name are recognized.

On occasion during editing, it will become clear that revisions are so deep that the file is altogether a different kind of thing. If a previous version has been published, then coining a new `@id` is advised, to make a clean break. You may document the connection by supplying `<predecessor>`, which establishes a line of ancestry.

If you take someone else's data and alter it then you should *not* change the `@id`. To ensure that you are credited with any revisions you make to the file (if you are allowed—see `<license>`), you should add yourself as a `<person>` and then document your alterations through `<change>` or `@ed-when` and `@ed-who`. You might also add a `<predecessor>` element, pointing to the previous version of the file.

The `@id` is the only file-specific metadatum positioned outside `<head>`. It is placed as rootward in the document as possible to make clear that it names the entire document.

## TAN file versions

The version of a TAN file is identified by the most recent date in a file's `@when`, `@ed-when`, and `@accessed-when`.

Whenever you change a TAN file that has already been published, provide at least an edit stamp (the section called “Edit stamp”) in the part of the file you changed, or add a new `<comment>` or `<change>`, so that anyone validating a TAN file dependent upon yours will be warned that changes have been made. The user may then either continue to process the file (the changes may be minor or inconsequential) or pause and see if anything on their end needs to be changed.

## Attribute inheritability and priority

Some attributes affect not merely their parent element but all their parent's descendents. This phenomenon is called *inheritability*.

Some attributes are non-inheritable. That is, the attribute relates only to the parent element. Examples: `@pattern`, `@flags`. If TAN schema documentation for an attribute does not state anything about the inheritability of an attribute's values, it should be treated as non-inheritable.

Most inheritable attributes are weakly inheritable. That is, inheritance stops at any descendant that has the same attribute. For example, `@xml:lang` set to `eng` specifies that its text nodes are in English, but it might contain another element whose `@xml:lang` is set `lat`. If text has multiple ancestors with different `@xml:langs`, the closest (leafward-most) is the only one that counts.

Other inherited attributes are cumulative. That is, their values combine as one goes from root to leaf. For example, if an element with `@cert` wraps another, and each one has a `@cert` value of `0.5`, it means that claim behind the wrapped element has only 25% certainty. `@n` in a `<div>` is indirectly cumulative for the purposes of resolving values of `@ref`. Any given `<div>` has one or more implied references, formed by all permutations of concatenating values of inherited `@ns`. Cumulative inherited attributes are infrequent, and the documentation specifies how each one behaves.

Some attributes within the same element have interpretive priority. `@claimant`, for example, has priority over `@cert`. That is, the two attributes in the same element are to be interpreted to mean: “`@claimant` has `@cert` confidence about the following claim:....” It does not mean that one is uncertain whether the claimant made the claim.

## Defining words and tokens

At the heart of interaction between class-1 and class-2 files is the need to identify words. This poses a problem at the outset. The term *word* is notoriously difficult to define, no matter the context or language. For example, "New York" and "didn't" can each be reasonably defined as being either one or two words. Furthermore, some scholars consider punctuation to be words (e.g., commas in modern prose, representing "and"), whereas others ignore them as being anachronistic or capricious (e.g., medieval manuscripts or modern editions of ancient texts). In the end, the many meanings for "word" reflects the diversity of scholarship.

TAN follows the field of corpus linguistics and avoids *word* in favor of the proximate term *token*—one or more characters defined not according to grammar but according to a regular expression (see the section called "Regular expressions").

In TAN, a token is purely a string definition, used to segment and to point. A token in TAN does not entail any linguistic categories. Neither editors nor users of TAN data should infer that a `<tok>` points to a morpheme, a lexeme, or any other linguistic entity. There will frequently be a fortuitous correlation between the two, but it is not guaranteed.

TAN was developed with a concern for ancient literature, where punctuation is generally ignored as being late or not central to the text. Happily, even in contemporary use, most people ignore punctuation when they count words. Therefore the default `<token-definition>` defines a token as being any continuous string of word characters (`\w`), the soft hyphen, the zero-width space, or the zero-width joiner, formally defined by the section called "`$tan:token-definition-default`":

```
<token-definition regex="[ \w&#xad; &#x200b; &#x200d; ]+ "/>
```

This pattern closely resembles what is ordinarily thought of as words, but perhaps with some surprises (see above, the section called "Regular expressions"). If no `<token-definition>` is explicitly given, the default token definition above will be used.

If you are working with modern texts, where punctuation might be important to name and number, try the built-in keyword `letters` and `punctuation`:

```
<token-definition regex="[ \w&#xad; &#x200b; &#x200d; ]+ | [ ^\w&#xad; &#x200b; &#x200d; \s ]
```

This expression defines a token as a sequence of word characters or any single character that is neither a word nor a space. The string `( I go ! )` would have five tokens: `(`, `I`, `go`, `!`, and `)`.

For other standard TAN token definitions see the section called "TAN keywords for types of token definitions (`<token-definition>`)"`<token-definition>`s. You may customize your own `<token-definition>`. But keep in mind that TAN files were meant to be shared across fields and disciplines. You should define tokens in a way users of your texts expect. Two class-2 TAN annotation files with different tokenization systems can be challenging to collate.

## Metadata (`<head>`)

No matter how much one TAN format differs from another, the metadata follows the same basic structure. Anyone getting a TAN file, no matter its class or type, is assumed to want to know, and therefore to find easily and predictably, the following:

1. the stable name of the file;
2. its version;

3. its sources;
4. other files upon which it depends or otherwise has an important relationship;
5. the most significant parts of the editorial history;
6. the linguistic or scholarly conventions that have been adopted in creating and editing the data;
7. the license, i.e., who holds what rights to the data, and what kind of reuse is allowed.
8. the persons, organizations, or entities that helped create the data, and the roles played by each.

To answer these questions completely, consistently, and predictably, the `<head>`, a mandatory child of the root element, takes a common pattern across all TAN formats, making TAN files predictable across a variety of formats. The TAN `<head>`, intended to be concise and focused, compels you to provide metadata for the data that is governed by `<body>`, but it does not accommodate metadata for the metadata. TAN metadata centers on the data itself and not on other things. For example, `<head>` requires you name the people who helped create or edit the data, but you are not expected to tell us about them. Merely give good `<IRI>`s to point to authoritative sources that provide background information.<sup>3</sup>

In what follows we provide a general overview of the TAN `<head>`, focusing on its general structure, and some of the principles that affect other parts of the TAN ecosystem.

## Key Information

Key information about the file as a whole is the first section of a `<head>`. This includes `<name>`, perhaps one or more `<desc>`s, and perhaps one or more `<master-location>`s, which point to locations for authoritative versions. `<master-location>` is optional, but not if `<to-do>` (see below) is empty.

## Key Declarations

Each `<head>` in a TAN file has a declaration section, pertaining to how the file should be used: `<license>` and `<numerals>`.

`<license>` stipulates the license(s) under which the persons or organizations listed in its `@license` are releasing the data. The license applies only to the data in `<body>`, not to its sources. The distinction is important, and helpful. It is much easier for you to decide and state the rights and license behind your own work than to speak for others. Declaring who holds what rights over your source(s) may be not only difficult but risky, and is therefore optional, best handled in a `<desc>` or `<comment>`.

When using a TAN file, you should investigate the entire chain of rights. You may find discrepancies between the license of a TAN file and that of its sources. For example, you might create a complete TAN-based lexico-morphological analysis of a 20th-century novel, and legitimately release the TAN data under a public domain license, even though the novel itself is under copyright. Users must be aware of and respect licenses, and know that the license in a TAN file may not be the license of its sources.

TAN adopts the Creative Commons licenses as its default license vocabulary. See the section called “TAN keywords for types of rights (`<license>`)”.

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<sup>3</sup>The principles above explain why the TEI extension of TAN requires two heads, one for TEI and the other for TAN. The `<teiHeader>` supports the creation of metadata that has little or no relevance to the content of `<body>`, has its own unique structure, has very few metadata that are required, and is not designed to incorporate IRIs. Although `<teiHeader>` and TAN's `<head>` overlap in some respects, they cannot be mapped onto each other. Each has a different purpose, so both must be retained.

`<numerals>` may be used to declare whether an ambiguous numeral should be interpreted as an alphabetic numeral or a Roman numeral (default). See the entry for `<numerals>` as well as the section on numeration systems.

Many TAN files allow in this section `<token-definition>`, which specifies a definition for tokens, perhaps tailored via `@src` to a specific class-2 file. See the section called “Defining words and tokens” and `<token-definition>`.

## Networked Files

The third major section of `<head>` accommodates links and references to other files. Some files are essential to processing the TAN file, while others are less important.

The two most critical types of files are marked by `<inclusion>` and `<vocabulary>`. The files pointed to by these elements should be considered constituent parts of the dependent TAN file. In the validation process, failure to access any one of them (calculated recursively) is a fatal error.

`<inclusion>` and `<vocabulary>` were developed to reduce duplication (and therefore potential error) in collections of TAN files. Many if not most TAN files are created alongside or in the context of a project, where certain data patterns are repeated. Explicit repetition from one file to the next makes them prone to error. Changes might be made in one file but not in another, introducing version conflicts. `<inclusion>` and `<vocabulary>` provide a specialized method of inclusion that leads to cleaner, smaller files.

In general, you should first try using `<vocabulary>`, which points to TAN-voc files that collect vocabulary items common to the project. If that element does not do what you want, then try `<inclusion>`. It is normally easier to diagnose a complex set of `<vocabulary>`s than a complex set of `<inclusion>`s.

## Vocabularies

Oftentimes, from one file to the next, an editor needs to refer repeatedly to a common set of things, e.g., manuscripts, works of literature, or persons who helped edit the files.

Projects are advised to create their own `<TAN-voc>` files, populated with commonly used vocabulary. Once set up, the TAN-voc file must be linked to via a `<vocabulary>` in the `<head>` of each TAN file that draws from the vocabulary. Vocabulary items can then be invoked either by pointing to `<name>` values, or by assigning an `@xml:id` to a vocabulary item placed in the `<head>`'s `<vocabulary-key>`. If you draw upon `<name>`, you may make alterations to capitalization. Hyphens, spaces, and underscores are treated as interchangeable. Capitalization and spelling of `@xml:id`, however, must be strictly followed.

Vocabulary (TAN-voc) files tend to require frequent change and expansion, so it is recommended that you depend upon only those TAN-voc files that are part of your project, and not those from a different project.

In the host file, any attribute that takes multiple IDrefs, e.g., `@who`, `@type`, `@subject`, may take a mixture of values that refer to numerous vocabulary items via `@xml:id` or `<name>`. But in these attributes spaces are reserved to delimit multiple values, which means that if you refer to a `<name>`, spaces must be replaced with the underscore or hyphen. A `@which` in the host file, however, can take no more than one value, so using spaces is fine.

`@id` and `@xml:id` are case-sensitive, and do not allow spaces. `@which` and therefore `<name>` are not case-sensitive, and the space, hyphen, and underscore are equivalent.

If you point to `@id` or `@xml:id` you must respect case and punctuation. If you are pointing to a `<name>` you can ignore case, and you should probably replace the space with a `.`

TAN includes a number of standard vocabulary (TAN-voc) files for a variety of concepts commonly used in textual scholarship (see Chapter 11, *Official TAN vocabularies*). Vocabulary items have been defined for more than one hundred types of textual divisions, and any of these can be invoked simply by using their names (see the section called “TAN keywords for types of divisions (`<div-type>`)”).

`<vocabulary>` itself may take `@which`, but only to point to one of the extra TAN vocabularies listed in the section called “TAN vocabulary items for extra vocabularies (`<vocabulary>`)”. You cannot point to a customized TAN-voc file via `@which`. This restriction avoids some complexity in the validation routine. See the section called “Extra `@n` vocabulary” on how to use this feature.

Files pointed to by `<vocabulary>` are considered an essential part of any TAN file. Failure to find the target file will throw a fatal error during validation.

## Inclusions

Whereas vocabularies do not change the host document, inclusions do. Unlike other forms of inclusion you might be familiar with, TAN inclusion is targeted at select elements, *never* an entire file. TAN inclusion is a two-step process.

First, a TAN file is linked to, and therefore made available for inclusion, via `<inclusion>`s (inside `<head>`). Like `<vocabulary>`, an `<inclusion>` does nothing on its own. It merely points to a file that is eligible for inclusions. No actual inclusions occur until the next step.

Second, select parts of the included file are invoked in the dependent file. To do so, insert an element X in a valid location, but with nothing but `@include`, with one or more values (space-delimited), each pointing to an `@xml:id` values of an `<inclusion>`. In the validation process, that element X will be replaced with all element Xs found in the inclusion file, resolved recursively, and ignoring duplications (deeply equal elements).

For example, a TAN-T file might have a `<div include="poem1">`. The validation routine will replace that element with every rootmost `<div>` in the included file called `poem1`.

Any host file that includes elements from another file inherits any vocabulary associated with the inclusion, and along with it `@xml:id` values. This may result in IDrefs pointing to two or more distinct vocabulary items, which may be a benefit or a hindrance. Be familiar with the items you are including.

TAN inclusion is very practical for texts. Textual works commonly nest inside each other. By setting up your `class-1` files as a series of inclusions, you can reduce validation time, both in the file and in `class-2` files that depend upon the transcriptions. See the `examples` subdirectory for a sample of a Gospel of Matthew including the Sermon on the Mount including the Lord’s Prayer.

The inclusion technique is also especially useful for vocabulary (TAN-voc) files. A single master TAN-voc file can include other vocabulary files, each devoted to a particular type of item (e.g., one for works, one for scripta). Project files then need to link merely to the master TAN-voc file.

You can include a TAN file that itself includes other TAN files. Inclusion is recursive. In any recursive system, circularity is fatal. That is true for TAN inclusion as well, but only within the scope of specified element names. It is perfectly legal for two files to include each other, as long as they do not try to include (directly or indirectly) the same elements, or try to consult each other to resolve any vocabulary.

Files pointed to by `<inclusion>` are considered an essential part of any TAN file. Failure to find the target file will throw a fatal error during validation.

## Other related files

A TAN file may point to a number of other types of files. The more that are mentioned, the richer the network. `<predecessor>` and `<successor>` point to versions of the file that precede and postdate it.

`<source>` is another type of related file, but it may or may not link to another file. In class-2 files `<source>` always points to a class-1 TAN file. In class-1 and class-3 files, `<source>` may point either to a file or to a scriptum (see the section called “Domain model”).

`<see-also>` can be used to point to any file that has some relationship to a TAN file. The required `@relationship` points to one or more `<relationship>` vocabulary items. There is no standard TAN vocabulary for relationships. Normally, when a file-to-file relationship is considered important, it becomes a full-fledged standard TAN element.

Some TAN formats allow special types of related files (e.g., `<redivision>` and `<model>` for class-1 files). See metadata descriptions under specific classes or formats.

## Adjustments

The fourth major section of `<head>`, which is optional, consists of `<adjustments>`, which specifies changes that have been made (class 1), or should be made (class 2), to the sources.

In class-1 files, these consist of `<normalization>`s and `<replace>`s; see the section called “Normalizing transcriptions”.

Class-2 files allow `<skip>`, `<rename>`, `<equate>`, and `<reassign>` as adjustments; see the section called “Class 2 metadata (`<head>`)”.

## Local vocabulary items and ID assignments: `<vocabulary-key>`

The fifth major part of `<head>`, `<vocabulary-key>`, allows you to declare any vocabulary items specific to the file. It also allows you to take vocabulary items existing in other TAN-voc files (whether defined in `<vocabulary>` or standard TAN vocabulary), and assign them `@xml:ids` that are valid only in the current file. Anything in `<vocabulary-key>`, and any TAN-voc files pointed to via `<vocabulary>`, will overwrite default TAN vocabulary.

These id assignments can be supplemented with `<alias>`s, which are used to assign an id to one or more ids. This practice resembles what text editors do when naming groups of manuscripts. Each manuscript is given a siglum, say a single lowercase Greek or Latin letter, and the manuscripts are grouped together into families, with each family given its own siglum, say an uppercase letter. If the editor wishes to indicate that a whole family of manuscripts departs from a particular reading, the family siglum is all that is needed. An `<alias>` works much the same way, and can be used for any vocabulary items. For example, if a textual division can be legitimately called both a rubric and a heading, you could assign `rubr` and `hd` as ids in the `<vocabulary-key>` to the vocabulary items for the rubric and the heading, and then insert `<alias xml:id="rubrichead" idrefs="rubr hd">`. Then, in that file, `<div n="1" type="rubrichead">` would identify that `<div>` as being both a rubric and a head.

Unlike other pointing attributes, the `@idrefs` of an `<alias>` cannot point to the `<name>` value of vocabulary items. They can refer only to the id values of locally defined instances of `@xml:id`. This restriction reduces confusion, and avoids some complexity in the resolution and validation of a TAN file.

`<alias>`s may recurse, as long as there is no circularity. That is, `@idrefs` in an `<alias>` may refer to any `@xml:id` or `@id`, not only to a vocabulary item but to another `<alias>`.

In most cases `<alias>` should refer to items of the same type. In a few situations mixed groups do not pose a problem, for example mixing `<person>`s, `<algorithm>`s, and `<organization>`s. TAN validation will indicate whether mixed typology introduces errors.

Because `@xml:id` may not contain certain types of characters, such as common punctuation marks, and because `<alias>` must be able to coin unusual ids (especially for grammatical features), `@id` may be used instead of `@xml:id` in `<alias>`.

## Responsibility

The sixth section of a `<head>` declares who is responsible for the file. It consists of a `<file-resp>` and one or more `<resp>`s. The persons, organizations, or algorithms pointed to in `<file-resp>` must include at least one who has a tag URN whose namespace matches the namespace in the tag URN of the root element's `@id`.

This requirement strengthens the effort to make sure that each TAN file is associated with the person or persons who are or were responsible for the file. `<person>`s so identified by `<file-resp>` are called primary agents, and are bound to the global variable `$primary-agents`. If a claim is made in a TAN file, and no `@claimant` is explicitly declared, it is assumed that the `$primary-agents` are making the claim.

## Change log

The change log, the seventh section of the `<head>` consists of one or more `<change>`s, which provide a partial history of the file. The entire history is calculated from every attribute that has a date or `timeDate` value, which can be fetched via the function `tan:get-doc-history()` or the global variable `$doc-history`.

The change log is an effective way to communicate with those who might use your files. In all likelihood, a user will download from the master location a local copy. You might make changes or updates to your master copy. Anyone depending upon a copy will be warned, during Schematron validation, of each `<change>` that postdates the value of their `@accessed-when`. If you have introduced an important or disruptive change, you can mark your `<change>` with `@flag`, that allows the following values: `warning` (default value), `error`, `info`, `fatal`. By marking a change as `info`, you lower the level of a change's importance; `error` raises the level. The value `fatal` will halt the validation process in the dependent file altogether.

If you receive change messages during validation, and you want to stop them, merely update the value of `@accessed-when` to the current date.

## Pending work

The last section of a `<head>` lists all pending tasks that yet need to be applied to a file. These are itemized as a list of `<comment>`s in `<to-do>`. A file with an empty `<to-do>` is assumed to be no longer in progress, so there must be a `<master-location>` provided.

Like the change log, the `<to-do>` effectively communicates cautionary notes to those who might use your files. Anyone depending upon a copy will be warned, during Schematron validation, of each item in the list. The report is not dependent upon when the file was last consulted (`@accessed-when`), because this is a collection of standing, unresolved issues.

One benefit of `<todo>` is that you can release your material before it is finished. Other users will have fair warning about what is imperfect or incomplete.



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# Chapter 5. Class-1 TAN files, representations of textual objects (*scripta*)

This chapter provides general background to class-1 TAN files and their elements and attributes. For detailed discussion of individual elements or attributes, see Chapter 12, *TAN patterns, elements, and attributes defined*.

Class 1 TAN files preserve segmented transcriptions of books, manuscripts, papyri, stones, or any other objects with writing on them—collectively termed here *scripta* (sg. *scriptum*). Class-1 files are the foundation of any TAN project. No TAN-A-tok or TAN-A-lm file can be created without at least one class-1 file, and most TAN-A files depend upon many of them.

There are two types of class-1 formats, identified by the root element. <TAN-T> is a simple, generic format, with plain text inside a simple tree structure. <TEI> (also referred to in this manual as TAN-T(EI)), on the other hand, can be complex and highly expressive. Because the two formats function almost identically, the generic TAN-T format is described first, followed by supplemental comments on TAN-TEI.

## Principles and assumptions

### General

(For more general principles and assumptions applying to all TAN files, not just class 1, see the section called “Design principles”.)

Class-1 formats are designed for faithful but judiciously normalized digital transcriptions. Each TAN-T(EI) file is devoted exclusively to a single version of a single work found in a single scriptum (text-bearing object), segmented and uniquely labeled with a single, preferably familiar, reference system.

Editors of TAN-T(EI) files should be able to read, write, and proofread texts in the languages of the transcriptions. They should understand the texts well enough to segment them and label them according to the conventions used for those works. They should be able to distinguish the text of a primary source from its editorial apparatus. They should be familiar with normalizing conventions for texts from the period, language, and culture. They should know how the transcription might be used in other scholarly fields, e.g., translation studies, corpus linguistics.

Editors need not understand everything about their texts, and they need not have any specialized skill in grammar or lexicography. They need not know the morphology of individual words, or how individual parts of the text have been translated. Those skills are more profitably applied to other TAN formats.

TAN-T(EI) editors stand at the foundation level of the Text Alignment Network. Because other files will depend upon TAN-T(EI) files, careful proofreading is important. Eliminating as many typographical errors as possible before publication will maximize the utility of a TAN-T(EI) file. On the other hand, TAN has been designed with the assumption that most files in circulation have typographical errors that can and should be corrected as they are found. If you are aware that a text needs proofreading, but you still want to make it available, simply leave a <comment> in the <to-do> part of the <head>.

If you are creating a TAN-T(EI) file, you are doing so primarily to facilitate alignment and annotation, which requires use of a suitable reference system (see reference systems). Transcription files

should be segmented and labeled according to a reference system that is familiar and can be easily applied to other versions of the same text in other languages. If possible, semantic mileposts (clauses, sentences, paragraphs, chapters) should be prioritized over visual (lines, columns, pages, volumes). Any transcription can be furnished multiple reference systems, but it is advisable to do so on the basis of separate files, linked by <redivision>s in the <head>. See the section called “One reference system”.

## Domain model

Contributors and users of TAN files must sharply distinguish between a scriptum (text-bearing object) and a conceptual work, e.g., between a specific printed copy of the *Iliad* and the *Iliad* conceived generally. The former has materiality (digital files are treated here as being material) and the latter does not. Even though both are constitutively necessary for any transcription, the two are always differentiated in the TAN-T(EI) format: <source> and @src point to physical exemplars; <work>, @work, and <version> to the conceptual. Adherence to this distinction is quite important.

Some readers may be reminded at this point of the domain model defined by the Functional Requirements for Bibliographical Records (FRBR), which identifies in its Group 1 (Products of intellectual & artistic endeavor) four types of entities: *work*, *expression*, *manifestation*, and *item*. A work is “a distinct intellectual or artistic creation” and an expression is the conceptual, immaterial realization of a work. Both *work* and *expression* are terms for conceptual, non-material entities. A manifestation, on the other hand, is “the physical embodiment of an expression” and an item is a single exemplar of a manifestation.<sup>1</sup>

Table 5.1. Examples of FRBR Group 1 Entities

Work	Expression	Manifestation	Item
<i>Iliad</i>	Caroline Alexander’s English translation of the <i>Iliad</i> .	the print run identified with ISBN 978-0062046284	A specific copy
The Psalms	The (Hebrew) Masoretic Psalter	The 1820 printing of George Offor’s edition of the Hebrew Psalms	Biblioteca Palatina Cod. Parm. 1699
<i>A River Runs Through It</i>	Norman MacClean’s original version	Print run ISBN 0226500608	Author’s personal print copy
	The 1992 film version	Blue Ray disc UPC code 004339632533	Reference print CGB 7432-7438 (deposited in the Library of Congress)

TAN’s domain model differs slightly. The most important difference is abandonment of FRBR’s *expression*, which was found to be problematic when developing sample TAN data. The term *expression* was intended to describe a conceptual, non-material entity, but the FRBR guidelines defined and explained it in vague or material terms.<sup>2</sup> Even the very term *expression* and FRBR’s preferred syn-

<sup>1</sup>Quotations in this section come from International Federation of Library Associations and Institutions, *Functional Requirements for Bibliographic Records: Final Report*, amended and corrected (February 2009), <http://www.ifla.org/VII/s13/frbr/>.

<sup>2</sup>The problems are illustrated by wording in the specifications: “*Expression* encompasses, for example, the specific words, sentences, paragraphs, etc. that result from the realization of a work in the form of a text....defined, however, so as to exclude aspects of physical form, such as typeface and page layout, that are not integral to the intellectual or artistic realization of the work as such.” (ibid., p. 19, emphasis added) That is, *expression* includes integral aspects of physical form (e.g., typeface that is integral to the realization). “Inasmuch as the form of expression is an inherent characteristic of the expression, any change in form (e.g., from alpha-numeric notation to spoken word) results in a new expression.” (p. 20, emphasis added)

onym, *realization*, imply materiality (nothing can be expressed or realized without a material medium). Further, FRBR's *expression* does not easily handle creative adaptations of works that are themselves arguably works in their own right. For example, Euripides' *Medea* was adapted several centuries later by Seneca the Younger. Seneca's *Medea* is arguably merely an expression, yet it has itself been subject to various editions and performances, i.e., expressions. But FRBR does not accommodate expressions of expressions. If Seneca's *Medea* is treated as a work in its own right, its expression relationship to Euripides' origin is lost, since FRBR does not accommodate works that are expressions of other works.

In the TAN domain model, *expression* is altogether dropped. There is only one type of conceptual, non-material entity, namely, a work.

The term *version* in TAN is applied to a work that substantially follows some other work, e.g., translations and adaptations. But such versions are themselves still works. One work is indicated to be the version of another in a class-1 file through the `<work>` and `<version>` declarations.

As for material entities, FRBR's *manifestation* and *item* are combined in TAN through the term *scriptum*. A scriptum is a text-bearing object, e.g., book, manuscript, pamphlet, tombstone, traffic sign, digital file (digital media is interpreted as being material). When *scriptum* is used in a TAN file, it points either to a single physical item or to a set of physical items that for all intents and purposes are indistinguishable (i.e., a scriptum reproduced mechanically). A scriptum that points to a manuscript points only to that one particular manuscript. But a scriptum that points to a printed book or a digital file is understood as applying to all copies of that printed book or digital file.

There is at present no formal mechanism to specify whether a scriptum points to one object or a set of objects. The distinction must be inferred from a scriptum's IRI + name pattern. In cases of potential ambiguity, it is up to creators of a TAN file to assign to the scriptum IRIs that avoid confusion. For example, to point to Edward Gibbon's personally annotated copy of the 1763 edition of Herodotus (now held by the Wren Library, Trinity College, Cambridge University), one should not use <https://lccn.loc.gov/92189906> or <http://www.worldcat.org/oclc/27188122>, which point to the set of all copies. In this case, one may need to mint their own IRI, based on the Wren Library's acquisition number, RW.50.15.

In summary, the TAN domain model defines two kinds of entities: works and scripta. Works, which are immaterial, conceptual entities, may contain other works, or they may be versions of other works or work-versions. Scripta, which are material entities, may contain other scripta, and they may refer either to a single object or to a set of copies. A work may be instantiated in many scripta, and similarly, a scriptum may contain many works. Most work-scriptum relationships can be inferred from the `<head>` of a class-1 file, and they may be expressed in a `<TAN-A>` file.

Table 5.2. Examples of TAN Entities

Work	Scriptum
<i>Iliad</i> Caroline Alexander's English translation of the <i>Iliad</i> .	the print run identified with ISBN 978-0062046284 a specific copy
The Psalms The (Hebrew) Masoretic Psalter	The 1820 printing of George Offor's edition of the Hebrew Psalms Biblioteca Palatina Cod. Parm. 1699
Norman MacClean's <i>A River Runs Through It</i> The 1992 film <i>A River Runs Through It</i>	Print run ISBN 0226500608 Author's personal print copy

Work	Scriptum
	Blue Ray disc UPC code 004339632533
	Reference print CGB 7432-7438 (deposited in the Library of Congress)

## One version, one work, one scriptum, one reference system

*Every TAN-T(EI) file must be restricted to a transcription of a single version of a single work found on a single scriptum, segmented and labeled according to a single reference system.*

The principle above is critical to the success of the network. It reduces the risk of confusion and simplifies the files. It follows the generally advisable principle, that complex data should be disaggregated into several different simple data structures. Different types of complexity can be built later, as needed.

### One scriptum

Each TAN-T(EI) file must transcribe one and only one text-bearing object or scriptum. It may be a digital file, a book, a manuscript, a stone, a sign, or a bottlecap. If the object you've chosen has been made mechanically and is virtually indistinguishable from other objects created by the same process (e.g., copies of a printed book or copies of a digital file), then the entire set of copies (what some cataloguers call a *manifestation*) is to be regarded as the scriptum.

Identifying and naming a scriptum might require an editor's discernment and judgment. For example, some manuscripts have been split up, their parts now residing in multiple libraries around the world; other manuscripts are composites, made of several manuscripts. In such cases, you may need to define your scriptum in a way that might not match the way others define it. But the decision is your prerogative, not theirs. You have both the right and responsibility to define your object in the way that you think will most benefit users of your files.

The scriptum is declared via `<source>`, which either takes the IRI + name pattern, or points to a `<scriptum>` vocabulary item. It is a good idea to name your scriptum with an `<IRI>` value in the form of an http URL that points to a detailed entry in a library catalogue. Doing so allows users to retrieve extensive, structured bibliographical information. You also save yourself the hassle of having to write a detailed, structured bibliographical description. If a URL cannot be found for `<IRI>`, you may simply coin a tag URN or a UUID. Alternatively, if you find another TAN file that uses the same scriptum-source, you can add its `<name>`s and `<IRI>`s with the existing IRI + name pattern. Multiple `<name>`s and `<IRI>`s for a vocabulary time are encouraged.

If you need to specify exactly where on a scriptum a work-version appears (e.g., page range), `<comment>` or `<desc>` should be used.

### One Work

The transcription must be restricted to a single creative work, identified by `<work>` (part of the declarations section of `<head>`).

Many scripta have more than one work. Identifying the creative work you transcribe is, once again, your prerogative. Suppose the scriptum you have is a Bible. You define the work. Perhaps you wish to encode the entire Bible and treat it as a single work. Or maybe you wish to treat only the New Testament as the work, or the Tetraevangelion, or the Gospel of Matthew, or a specific episode in that gospel, or merely the Beatitudes. Use whichever work you like, but make sure that the TAN-T(EI) file contains nothing but the work you have declared. It should be a complete representation

of what is found on the object, even if only partially preserved, and respect as far as is practical the order of the text in the scriptum.

Normally the order the text appears in the scriptum will match the logical order provided by the reference system (see below). But when there are discrepancies, the order of the scriptum should take priority.

The requirement to provide the entirety of the work-version as found on the scriptum is a significant departure from the fourth principle of the section called “Assumptions in the creation of TAN data”, which allows for incomplete assertions or data. *The transcription in a class-I file should include the entirety of the work-version chosen, within the particular scriptum.* If you are aware that the transcription is incomplete, leave a <comment> to that effect in the <head>’s <to-do>, identifying which portions are missing from the transcription.

Well-known works may have a suitable IRI already assigned to them, say by means of a DBpedia [<http://wiki.dbpedia.org/About>] entry. Most works have not been assigned IRIs or are named in IRI vocabularies that are not well known. You may assign any work your own URN, through a UUID or a tag URN.

## One version

The transcription must be restricted to a single version of the work, identified perhaps by <version> (part of the declarations section of <head>). In most cases, <version> is unnecessary, because <work> in conjunction with <source> will normally identify a particular work-version. But if the source carries multiple versions (e.g., a bilingual edition of a text), then <version> should be included, to specify which version has been transcribed. <version> can also be used to declare explicitly that the work mentioned in <version> is a version of the work mentioned in <work>.

If you have a scriptum with multiple versions of a work, and you wish to transcribe them all, each version should be given its own separate TAN-T(EI) file.

There may be cases where individual textual divisions are repeated, not so much because they represent a different version, but because they are variants that are integral to the work-version chosen. For example, an edition of a poem may occasionally have a line that is repeated by the editor as a possible local variation. Creating a separate file for such individual cases would be both impractical and misleading. Standard TAN vocabulary for div types includes as a standard item *variant*, to accommodate occasional variants. For example:

```
. . . . .
<div type="title" n="title">
  <div type="variant" n="orig">The Place</div>
  <div type="variant" n="subscript" xml:lang="grc"># #####</div>
</div>
. . . . .
```

Notes should be included only if they are an integral part of the primary work (i.e., by the same author, not by a later editor). If you think the notes to a work are important, and legitimately a work in their own right, consider putting them in their own TAN-T(EI) file, or converting them to claims in a TAN-A file.

Very few work-versions have IRIs. It is advisable to assign a tag URN or a UUID. If the IRI you have used for <work> is in a namespace that you own or control, then you are entitled to modify it, and you may wish merely to add a suffix to the work IRI. For example, you might have `tag:urn:example.com,2001:work:a` defined for the work; a 1987 German translation might be specified as `tag:urn:example.com,2001:work:a:ver:1987:deu`.

## One reference system

Every TAN transcription must be segmented into a hierarchy of labeled divisions, defined in the `<body>` through `<div>`s and their `@n` values.

Those divisions, whenever possible, should align with the reference system that prevails for the work across different versions or translations, in what is sometimes called a canonical reference system. Because even the most familiar reference system admits degrees and dispute, the term *canonical* is problematic. It is avoided in these guidelines. We refer simply to a work's *reference system*.

If you have your choice, preference should be given to reference systems that follow the semantic contours of the work, not the physical features of a particular scriptum. Chapter, paragraph, and sentence numbers are preferable to volume, page, and line numbers, because other versions of the work (e.g., translations, paraphrases) will only roughly, if at all, follow a reference system based on features found in a particular scriptum.

Sometimes a scriptum-based reference system is inescapable, or is the most common reference system for a work (e.g., Porphyry's commentary on Aristotle's *Categories*). It is perfectly acceptable to adopt that system, but it may entail more labor during the alignment process. Translations using this system will rarely correspond to the points of division.

If a given work has more than one common reference system (e.g., the works of Plato and Aristotle, which have two reference systems—logical and scriptum-oriented—both of which are standard and important), then one good practice is to create two class-1 files with identical transcriptions, each one structured by its own reference system. Place in each file a `<redivision>` pointing to the other. When you validate either file in the verbose phase, you will be notified if there are textual discrepancies between the transcriptions. If you are using Oxygen or another XML editor that supports Schematron Quick Fixes, you will be provided a way to update one text to match the other with just a few keystrokes.

Having two or more alternatively divided editions can be quite useful. They could serve as the basis for reference cross-indexes, or to help convert other versions of the work from one reference system to the other.

Alternatively, you can use the TAN-TEI approach. Choose one reference system as the primary way to label your `<div>`s, and convert the other references to anchors such as `<pb>`, `<cb>`, `<lb>`, `<milestone>`. Under this method, the logical references (those based on logical units such as paragraphs, chapters, sections) are best given to the `<div>`s, and the material ones to the anchors. Bear in mind, however, that typological semantics are diminished with anchors, and there is no convenient way to retain hierarchical structures, or disambiguate one anchor-based reference scheme from another.

If there is a good reference system, but the divisions are overly lengthy, you may introduce subdivisions. But there is no guarantee that the provisional subdivisions you introduce will be adopted by other editors who create or edit TAN versions of the same work. Editors working independently upon the same text and subdividing it will likely produce their own schemes. Class-2 formats provide a mechanism via `<adjustments>` to reconcile some basic differences. But a discordant scheme might be best handled simply by creating a copy, and restructuring it according to the preferred system, making sure related files refer to each other through `<redivision>`.

If a work does not have a reference system, or if you think that the ones that exist are inadequate or misguided, create one of your own. If you develop your own reference system, be sure to design it so that it can be easily applied to any version of the work, including translations. Prefer logical divisions of text over scriptum-based ones.

TAN supports five major methods of reference numeration:

1. Arabic numerals. 1, 2, 3, etc.
2. Roman numerals. Values up to 5000, utilizing i, v, x, l, c, d, and m, uppercase or lowercase, with liberal syntactic rules (within a roman numeral, any digit preceding one of a higher value will be deducted from the total value; all others are added).
3. Alphabetic sequences. The 26-letter Latin alphabet, with numbers higher than 26 (or any multiple of 26) beginning with the letter a incrementally repeated, e.g., y (25), z, (26), aa (27), bb (28), ... aaa (53). Uppercase or lowercase allowed.<sup>3</sup>
4. Arabic numerals + alphabetic sequences. Arabic numerals followed immediately by an alphabetic sequence. The second item is to be calculated as a subsequence of the first item, with the lack of a second item taking highest priority. E.g., 4, 4a, 4b, 4c...
5. Alphabetic sequences + Arabic numerals: As above, but with alphabetic sequence preceding Arabic numerals.

See `tan:letter-to-number()` and references there to TAN functions for converting numbering systems.

The TAN validation process attempts to convert all values of `@n` to Arabic numerals. Some values are ambiguously Roman numerals or alphabetic sequences. For example, `c` could mean 3 (alphabetic sequence) or 100 (Roman numeral). Such numerals are assumed to be Roman, unless you supply in the `<head>` a `<numerals>` and assign `@priority` to specify `letters` (or `roman`, the implicit, default value).

## Extra `@n` vocabulary

Sometimes `@n` is given not values consisting not of numerals but of names, commonly to identify works within works, e.g., poems within a cycle, books in the Bible, or Surahs of the Qur'an. For non-numerical values of `@n`, different conventions are a common problem. The abbreviation chosen by one person or project is rarely the same as that adopted by the next. To avoid this long-standing issue, you may want to use extra TAN vocabulary for `@n`. If you include in the head of your TAN file `<vocabulary which="bible eng" />`, then any non-numeric values of `@n` will be checked against the corresponding TAN-voc file (in this case, the TAN-voc file at `/vocabularies/extra/n.bible.eng.tan-voc.xml`, one of several available in that directory). This, in turn, will allow other files to refer to that `<div>` by any other `<name>` that is a synonym. For example, in a class-1 file pointing to the TAN English Bible vocabulary above, a `<div type="book" n="matt">...</div>` would be regarded as containing the work the Gospel of Matthew. Any class-2 file that refers to that class-1 file as a source may use any synonym listed in the extra vocabulary file `n.bible.eng.tan-voc.xml`, i.e., `Mt`, `Mat`, `Matt`, or `Matthew` (or their lowercase equivalents). An extra benefit of this method is that such `<div>`s are also marked as works in their own right, identified by the `<IRI>`s of the target TAN vocabulary items.

If you use extra TAN vocabulary, it is recommended you include in the declarations section of your `<head>` an `<n-alias>`. This element, along with its `@div-type`, specifies exactly which types of `<div>`s are eligible for this kind of aliasing on `@n`. Technically, it is not necessary, but including it can considerably speed the validation process on long files.

The goal behind the extra vocabularies is to eliminate the need to worry about what abbreviations are used to name well-known, unnumbered `<div>`s. It is hoped that in future releases of TAN these

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<sup>3</sup>This is not the hexavigesimal (base 26) system, where a is 0, b is 1, z is 25, aa is 00, ab is 01, etc.

extra vocabularies will grow in number and quality. You can write your own TAN-voc file to build your own set of n aliases. The standard extra TAN @n vocabularies should provide a good model:

- the section called “commonly used vocabulary for the bible (<work>@n)”
- the section called “vocabulario de uso común para la biblia (<work>@n)”
- the section called “Commonly used names for Surahs in the Quran, incorporating English and Arabic. (<work>@n)”
- the section called “Commonly used vocabulary in English for divs that are unnamed, first system (@n)”

## Normalizing transcriptions

You should declare how you have normalized the transcription via <adjustments> and its children, e.g., <normalization> or <replace>. (For suggestions on values for <normalization> see the section called “TAN keywords for types of normalizations (<normalization>”).)

Generally speaking, normalization entails the suppression of things extraneous to or separable from the work-version you have chosen. You are encouraged to omit parenthetical editorial insertions (especially quotation references inserted by a modern editor), stray handwritten remarks, discretionary word-breaking hyphens, editorial comments, inserted cross-references, and reference numerals (page numbers, section numbers, etc.). If chapter 4 of a text begins “4.” or “IV” then leave out that labeling numeral—you’ve already indicated it in @n, so there’s no need to clutter the transcription with it. Remember, scholars who use your file will be concerned with things like word-for-word alignments and lexico-morphological analysis, and putting in a modern editor’s “4” might contaminate research results. For the same reason, you should resolve ligatures and correct unintended typographical errors.

The goal is a transcription whose text is free of the interpretive voice of later editors. You should remove from the text anything that is not part of the work proper and would interfere with detailed word-for-word alignment, or would require extra preprocessing or postprocessing work for other users. If you are breaking a transcription into individual lines, and you are required to break a word, do so with either the soft hyphen (&#xad;), the zero-width space (&#x200b;), or the zero-width joiner (&#x200d;). TAN processors will automatically normalize the space of every leaf <div>. If either of those special characters are found at the end then it will be deleted and the text from the next leaf <div> (if there is one) will immediately follow without intervening space; if those two characters do not occur at the end, then a space, &#x20;, will be added at the end. Regardless of how a leaf div ends, the rest of its space will be normalized. For more details, see the section called “Space characters and normalization”.

In a digital source, variable lengths of special spacing marks (e.g., General Punctuation U+2000..U+200B) and other Unicode points not allowed by TAN (see the section called “Unicode points not allowed”) should be converted to ordinary characters, and superscript combining Roman letters (U+0363..U+036F) should probably be converted to their non-combining counterparts. All Unicode must be normalized to NFC forms (see the section called “Unicode normalization”).

In some ambiguous areas, you can use TAN-TEI both to normalize and to preserve what is in the scriptum. Suppose, for example, a manuscript has reference numerals that are *sui generis*. That is, these reference numbers do not correspond to the “canonical” reference scheme, and are scribal adjustments to the text’s structure (sometimes mistaken). On the one hand, such reference numerals are metadata, and should arguably be deleted; on the other, they are part of the text, and witness to how a text was read and changed over time. A middle-ground approach would move these references



to TAN-TEI's `<milestone rend="[TEXT]">`, substituting [TEXT] for the reference text. In that way, the numerals are properly removed from the main text, but the information is retained. Generally speaking, TEI's `@rend` is an excellent way to remove something from a transcription while keeping it in the file.

Overall, normalization is a difficult, understudied topic. Scholars are not in the habit of documenting everything they normalize. Many have so internalized their normalization principles that they are unaware of them. Not all decisions will be clear-cut. You may justly hesitate before normalizing orthography, punctuation, accentuation, or capitalization. Some aspects of Unicode that permit different conventions may need special consideration. You may need to deliberate on whether an unusual or rarely used Unicode character might be misinterpreted or hinder searches. Document any decisions in the `<adjustments>`.

Whether you use `<normalization>` or `<replace>` is up to you. The former can be used to apply a class of changes to a vocabulary item. The latter provides a precise, regular-expression-based method of describing exactly what has been changed, and the order in which those changes took place. A `<replace>` might help users to better understand the path that led from the input to the output, but the process cannot be reverse-engineered to produce the original. If it is important to document exactly what the pre-normalized version of a text was like, use `<predecessor>` or a similar element available in the key links section of the `<head>` (see the section called "Other related files") to point to the original.

If you find it very difficult to bring yourself to normalize to the depth advised above, try first making a (non-TAN) TEI file, and create the transcription you have in mind as the ideal. Once that is finished, create a second, TAN version, and be more aggressive in your normalization, with `<see-also>` pointing to the first approach.

## Normalizing annotations

The footnotes or endnotes in a scriptum should be normalized. Many, most, or all should likely be deleted. Before deciding, distinguish between those that are an intrinsic part of the work you're transcribing from those that aren't. Those that aren't can be removed, or they can be put into a separate TAN-T(EI) file, perhaps linking the two through `<see-also>`, and hopefully structuring both files with the same reference system, to facilitate alignment. Another way to approach the task is to convert some or all of the notes you're removing into `<TAN-A> <claim>`s.

Footnotes, endnotes, glosses, or marginalia that are intrinsic parts of the work present special challenges for encoding in general, and normalization in particular.

First is the issue of connecting an annotation to the text annotated. When we encounter a superscript number—a note signal—while reading the text of a printed book, we infer that we are being invited to find a companion footnote that comments on the text we have just read. But specifically what text? Is it only the preceding word? Is it a word or phrase that occurs earlier in the sentence? Does the annotation cover earlier sentences, the entire paragraph, or even prior paragraphs? For some notes, identifying the text being annotated requires interpretation.

In a digital file, the connection between an annotation and its text cannot be so vague; it requires a decision and a commitment. Here are three possible ways to approach annotations in a TAN file:

1. Use the `<note>` feature of TAN-TEI (see related TEI documentation [<http://www.tei-c.org/release/doc/tei-p5-doc/en/html/ref-note.html>]). This will allow you to connect the annotation to merely an anchor in the text, i.e., to no text whatsoever.

```
<div n="1" type="p">
  <p>The process occurred in New York, among other places.<ref rend="1"/>
```

```
<note><p><ref rend="1"/>On New York, see: X.</p></note>
</p>
</div>
```

2. Move each annotation into a `<div>` with a `@type` that implies that it is an annotation (e.g., `scholium`) and place it immediately after the `<div>` it annotates.

```
<div n="1" type="p">The process occurred in New York, among other places.</div>
<div n="n1" type="footnote">On New York, see: X.</div>
```

Note in the example above that `n1` is used to make sure that 1 unambiguously points to only one `<div>`.

3. As #2, but also write a `<TAN-A>` file that more precisely connects each annotation to the text it annotates.

```
<claim verb="annotates">
  <subject src="text" ref="n1"/>
  <object src="text">
    <from-tok ref="1" val="The"/>
    <through-tok ref="1" val="York"/>
  </object>
</claim>
```

The first option is expeditious, and will allow you to be as precise or imprecise as you like. Validation is not affected, but you should be aware that the `<note>` will be treated as a constituent part of its parent `<div>`. The second option is also relatively easy, but it entails a decrease in precision. The third option provides immense precision, permits multiple annotations on the same text range, and allows notes to target overlapping ranges of text. But the task could be time-consuming, if only because you will need to determine the range of text targeted by each annotation, and the targeted text might be quite messy or vague. You will need to take stock of how precise and comprehensive you choose to make your connections. (See also accuracy, precision, and comprehensiveness.)

Remember that the note signals in the main text and in the footnote area are metadata meant to help readers link corresponding passages of texts and, in the spirit of normalizing, should be deleted. In a TAN-TEI file you can replace a note signal with `<ref>` (see above).

## Class 1 metadata

The `<head>` of a class-1 file is much like that of other formats, with some extra options.

In the key declarations area (see the section called “Key Declarations”), class-1 files may allow `<n-alias>`. See the section called “One reference system” for context on how to use this element.

In the section devoted to links to other digital resources (see the section called “Networked Files”), class-1 files allow several extra types of files.

One `<model>` is allowed, to point to another class-1 file that provides a model for the reference system that has been adopted. The model should be the same work. It may be in a different language, or come from a different source/scriptum. During verbose validation, any differences between a class-1 file and its model will be presented as warnings, since small differences are nearly always inevitable.

Zero or more `<redivision>`s are allowed. Each one points to an alternative transcription that restructures the same transcription in according to a different reference system. A class-1 file and any redivisions must have identical text in the `<body>`. `<redivision>` is an important alternative

to the knotty, longstanding problem that besets texts that admit multiple reference systems. In a traditional TEI file, one must adopt a primary reference system, and add other reference systems through milestone-like anchors. TEI anchors do not have the semantic underpinnings needed to cycle through the milestones from one primary reference system from one to another. The TAN alternative is to encode same transcription in multiple files, one per reference system, linked through `<redivision>`. This may appear to contradict another principle, that one should not repeat themselves. But that is the easier principle to repair. During verbose validation, a file's text will be checked against every `<redivision>`, and specific areas that differ will be flagged. Should users wish, a Schematron Quick Fix will allow a user to synchronize a local file against a redivided version.

Zero or more `<annotation>`s point to class-2 files that use the file as a `<source>`. This type of linked resource is helpful for keeping track of key alignments and annotations.

Zero or more `<companion-version>`s point to different versions of the same work in the same scriptum. This feature is useful for correlating multiple versions of a work that appear in a single scriptum, e.g., the original text and a facing translation in a bilingual edition.

The adjustment section of the `<head>` (see the section called "Adjustments") allows zero or more `<normalization>`s and `<replace>`. See the section called "Normalizing transcriptions".

## Class 1 data

The sole purpose of the `<body>` of a class-1 file is to contain an ordered, segmented transcription of a single version of a single work from a scriptum. `<body>` must take `@xml:lang`, specifying the predominant language of the text. If a change in language occurs in a descendant `<div>`, ensure that its `@xml:lang` also changes.

`<body>` takes one or more `<div>`s, each of which govern either other `<div>`s, or text (or TEI elements), but never both. TAN files adopt a non-mixed content model (see the section called "Mixed, non-mixed, and semi-mixed content").

The term *leaf div* refers to those `<div>`s that contain only text, and not other `<div>`s.

Within this treelike structure of `<div>`s, the concatenation of `@n` values, starting from the most rootward `<div>`, provides the reference system used by class-2 files to refer to parts of TAN-T(EI) files. A given `<div>` may have more than one reference, if its `@n` or any `@n` it inherits has multiple values. Every permutation is calculated, and they are treated as synonymous ways to refer to that `<div>`.

The rule of combinatorial inheritance also applies when `@n` has as its value a range of numbers. For example, if `@n` has the value "1-3" then it will match for 1, 2, and 3. Such ranges are important for translations, where there might not be precise one-to-one correlation with the divisions in the original. Applications that handle texts with one-to-many alignment mappings can use different strategies to reconcile the differences. See `tan:merge-expanded-docs()` for discussion.

In previous versions of TAN, there was a requirement that each leaf `<div>` should have a unique reference. That requirement has been relaxed, because there are cases where non-unique leaf `<div>`s are required.<sup>4</sup>In a TAN-T(EI) file, for any two `<div>`s that share the same reference, it is not allowed that one be a leaf `<div>` and the other not. To do otherwise would entail a mixed content model. It is also further assumed that all `<div>`s that share the same reference are consecutive, constituent

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<sup>4</sup>Some *scripta* are encoded such that leaf `div`s are broken up (see Bodéüs's edition of Aristotle's *Categories*, at 2a35, 2b5, and 2b6b). And some translations must be encoded so that leaf `div`s interleave. Further, one TAN-T's leaf `div`s might easily become another TAN-T's non-leaf `div`s, and vice versa. The distinction between leaf and non-leaf `div` is arbitrary, so both types should be expected to adhere to the same kind of reference system rules.

parts of the same `<div>`. That is, any two `<div>`s with the same reference are not alternatives to each other, but are rather disjoint parts. For true alternatives, see discussion above on using `variant` in `@type`.

## Transcriptions using the Text Encoding Initiative (`<TEI>`)

This section is to be read in conjunction with Chapter 5, *Class-1 TAN files, representations of textual objects (scripta)* and the section called “The Text Encoding Initiative”, which address related technical issues.

### TAN-TEI

Some creators and editors of transcriptions will find the rather stripped-down TAN-T format inadequate. Some may wish to mark up the text further. Some may already have a library of transcriptions whose annotations are desirable to keep, even if uninteresting to every user. In these cases, you should use TAN-TEI, a customization of the Text Encoding Initiative (TEI) format, which is well known for its expressiveness, its stability, its flexibility, and its widespread use in textual scholarship.

TEI was designed to be maximally expressive and flexible, to serve the detailed needs of scholars in the humanities. In serving this mission, TEI has come to define more than five hundred different elements, and more than two hundred attributes (roughly six times more than are defined in TAN). Of course, any given TEI file uses only a small subset of those elements and attributes, and TEI itself comes in different flavors, from TEI Lite, which uses only 75 attributes and 140 elements, to TEI All, which opens up almost the entire library.

Although TEI XML is oftentimes described as a standard, it lacks characteristics one normally expects of a standard. It is very flexible, admits flavors and interpretation, and is best used when it is customized. Individuals and projects may define their own subset of TEI elements, to constrict or expand the allowable rules as they see fit. TAN-TEI is one of those customizations, based on TEI All. The major difference between TEI All and TAN-TEI is that the latter imposes extra strictures, to ensure that transcriptions are maximally likely to be interchangeable with other TAN-TEI files.

All TEI files are validated against a TEI-conformant schema [<https://www.tei-c.org/release/doc/tei-p5-doc/en/html/ST.html#STIN>] normally as an XML DTD, RELAX NG, or W3C Schema. TAN’s TEI-conformant schema is based upon the `TAN-TEI.odd` file in the `schemas` directory, converted to a RELAX-NG file, `TEI.rnc` and `TEI.rng`, to define the structural rules of TAN-TEI files. There is an additional layer of validation, through the related Schematron process (`TEI.sch`), which performs detailed validation not possible in a TEI-conformant schema. In the discussion below, it is important to distinguish between structural validation and Schematron validation. See the section called “TAN validation”.

### TEI customization

TAN’s customization of the TEI can be summarized as follows (the default namespace in this section is the TEI namespace, `http://www.tei-c.org/ns/1.0`):

Table 5.3. Synopsis of TAN-TEI customization

TEI element	Strictures
<code>&lt;TEI&gt;</code>	<ul style="list-style-type: none"><li>• must have <code>@id</code> with tag URN</li></ul>

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TEI element	Structures
	<ul style="list-style-type: none"> <li>• must have @TAN-version</li> <li>• takes a new child element, &lt;head&gt;, placed between &lt;teiHeader&gt; and &lt;text&gt;; it and its descendants must be in the TAN namespace, xmlns:tan="tag:textalign.net,2015:ns"</li> </ul>
<text>	<ul style="list-style-type: none"> <li>• There are no extra strictures, but during Schematron validation (not RELAX-NG), this element and any children &lt;front&gt; and &lt;back&gt; will be ignored. Of its children, only &lt;body&gt; will be Schematron validated.</li> </ul>
<body>	<ul style="list-style-type: none"> <li>• must take @xml:lang</li> <li>• any non-&lt;div&gt; children will be ignored during Schematron validation; most often only &lt;div&gt; should be children</li> <li>• contents must be restricted to a single version of a single work</li> <li>• any and all text nodes will be treated as part of the transcription</li> </ul>
<div>	<ul style="list-style-type: none"> <li>• may encompass a textual division of whatever size you like (TEI defines &lt;div&gt; as being larger than block-like or paragraph-like textual divisions; TAN's &lt;div&gt; is much more like HTML's).</li> <li>• must take elements; either they all are &lt;div&gt;s (perhaps interleaved with anchors such as &lt;pb&gt;) or none of them are &lt;div&gt;s (non-mixed model)</li> <li>• must take @type and @n (or only @include)</li> <li>• @type may take multiple values, space delimited, pointing via IDref to a vocabulary item</li> <li>• @n allows synonyms, sequences, and ranges, and must match the regular expression defined by \$tan:attr-n-regex. If @n is to be given more than one value, those items must be separated by a space or a comma. A hyphen-minus, - (U+002D, the most common form of hyphen), always has special meaning in @n, specifying a range. This feature is useful for cases where a &lt;div&gt; straddles more than one standard reference number (e.g., a translation of Aristotle that cannot be easily tied to Bekker numbers). If you need to use a hyphen-like character in an @n that does not specify a range of numbers, consider - (U+2010 HYPHEN), - (U+2011 NON-BREAKING HYPHEN), – (U+2012 FIGURE DASH), – (U+2013 EN DASH), or − (U+2212 MINUS SIGN).</li> </ul>

TAN-TEI files have two heads, each designed for different purposes. Whereas the TAN <head> is meant to be brief and restricted to only those matters relevant to the transcription, the <teiHeader> permits quite an expansive range of metadata, and may be used to encode a variety of things, including those that are tangential or irrelevant to the data. Unlike the TAN <head>, whose data is designed to be both computer- and human-readable, <teiHeader> was designed for data to be read principally by humans; although it can accommodate IRIs, it was not designed around them. Further, a TAN <head> can never be empty and valid; a bare-bones <teiHeader> with no actual text content, such as the following, is considered valid:

```
<teiHeader>
  <fileDesc>
    <titleStmt><title/></titleStmt>
    <publicationStmt><p/></publicationStmt>
```

```
<sourceDesc><p/></sourceDesc>
</fileDesc>
</teiHeader>
```

TAN's Schematron validation process ignores the contents of `<teiHeader>`, since its contents are unpredictable and therefore not reliably parsable. If your `<teiHeader>` has any kind of metadata that needs to appear in the TAN `<head>` (see the section called "Metadata (`<head>`)" and the section called "Principles and assumptions"), the conversion needs to be performed manually, since (as mentioned above) the two headers are incommensurate, and writing each one requires a different mentality.

In a TAN-TEI file, the TAN `<head>` must be in the TAN namespace, i.e., `<head xmlns="tag:textalign.net,2015:ns">`. Alternatively you might write `<tan:head xmlns:tan="tag:textalign.net,2015:ns">`, but this would require all descendant elements to be prefixed `tan:`.

Within any leaf `<div>`, you may use whatever TEI markup you wish, to whatever level of depth or complexity. Most users of your TAN-TEI file will be interested in the text; only a subset will care about any markup within leaf `<div>`s.

TEI files are flexible, permitting different approaches to markup. A TAN-TEI file should not be scriptum-oriented, i.e., it should not try to replicate how the text appears or looks on the object. That is because the TAN-TEI file will be used in intertextual comparisons, where the transcription is compared to transcriptions from a wide variety of sources.

## Converting TEI to TAN-TEI

You may have a TEI file that you wish to convert to TAN-TEI. As a matter of practicality, it is helpful to envision the conversion process as falling in three steps:

1. Structure: insert new processing instructions (pointing to files to perform TAN-TEI structural and Schematron validation); adjust root element by supplying a tag URN for `@id` and `@TAN-version`.
2. Metadata: create new `<head xmlns="tag:textalign.net,2015:ns">` and populate it.
3. Data: edit `<body>` to make sure all text nodes are restricted to the content of a single version of a single work; restructure `<body>` content into nesting `<div>`s with correct `@type` and `@n` values.

It has been the experience of those who have made TEI to TAN-TEI conversions that step 2 is the most time-consuming, particularly in finding suitable IRIs. But step 3 should not be underestimated, either. Many people write TEI files with a focus on the original textual object, and they do not normalize to the level expected in a TAN file. Some TEI files have been written with little attention paid to space and space normalization. Some TEI files are so laden with annotations that the text is impossible to read. In general, the more simple the TEI file the better, with annotations pushed to external files.

Some TEI markup is already implicit, or is easily calculable (e.g., `<w>` to mark words, which should already comport with the tokenization declared in the `<head>`; users of `<w>` easily lose track of where space is and isn't). Some TEI markup can be expressed in a class-2 file (e.g., lexico-morphological data, which should be expressed in a TAN-A-lm file).

If you have a TEI odd file that you wish to preserve, but incorporate the TAN .odd file, you may be able to do this manually, integrating your odd file with TAN's. In the future, an application may be written to assist in this process. When you write your new odd file, you will want to generate a set of .rng

or .rnc files and place them in the TAN schemas directory. Be sure to give them a unique name, something other than TEI.\* or TAN-TEI.\*, so that your generated schema files do not overwrite the standard TAN ones.

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# Chapter 6. Class-2 TAN files, annotations of texts

This chapter provides general background to class-2 TAN files. For detailed discussion of individual elements and attributes see Chapter 12, *TAN patterns, elements, and attributes defined*.

There are three types of class-2 files:

1. TAN-A files provide broad, macroscopic alignment of multiple versions of any number of works. It also supports a wide variety of annotations on texts.
2. TAN-A-tok files provide narrow, microscopic alignment of any two class-1 files, annotating word-for-word or character-for-character correspondences between the two texts.
3. TAN-A-lm files express annotations pertaining to lexico-morphology (grammatical part-of-speech), for either a single class-1 file or a language in general.

In translation studies, it is common to use the term *source* (or *sources*) to refer to a translated text and the term *target* to refer to the translation. TAN, however, has been designed for situations where it may not be clear which text is the target and which is the source. Further, there is a more generic use of *source* and *target* that prevails in many other contexts. In these guidelines, therefore, the term *target* never refers to a text as such (rather, it normally refers to a file that is being pointed to), and when we use the word *source*, we are referring only to one of the class-1 files upon which a class 2 alignment depends.

## Common elements

### Class 2 metadata (<head>)

Class-2 files share a few common features in their metadata, mostly to facilitate the human-friendly reference system discussed below.

All class-2 files have as their sources nothing other than class-1 files. Therefore each <source> must take the the section called “Digital entity metadata pattern”.

Editors of class-2 files must be able to name or number word-tokens in a transcription, and to determine an appropriate definition of “token,” via an optional <token-definition>. See the section called “Defining words and tokens”.

Inevitably, some class 1 sources for the same work will differ from each other. Perhaps works or div types were not defined with the same IRIs, or perhaps one version follows an idiosyncratic reference system. If sources need to be reconciled, alterations may be specified in <adjustments>, which stipulates a set of actions that should be applied to the sources that have been named. The following adjustment actions are supported:

1. <skip>, to allow you to ignore specific <div>s, deeply or shallowly.
2. <rename>, to allow you to rename specific <div>s.
3. <equate>, to allow you to provisionally establish some @n values as being synonymous.
4. <reassign>, to allow you to split leaf <div>s and move their parts elsewhere in the structure.

These adjustment actions allow you to reconcile discordant sources without changing them directly.



Skips, renames, and equates are first applied to the source as received. If a particular source `<div>` is the target of more than one adjustment action, only the first one will be applied according to action priority: `<skip>`, `<rename>` based on `@ref`, `<rename>` based on `@n`, then `<equate>`. This action priority also corresponds to the amount of time needed to process the adjustments. Numerous `<skip>` actions are applied very quickly. Numerous `<reassign>`s however can be time-consuming, because it requires tokenizing the text.

Because of this priority order, some actions might not be performed. For example, if you deeply skip a `<div>`, no renaming adjustments will be made to its children.

Skips, renames, and equates are applied in one pass, based on the original reference system, then `<reassign>`s are applied to the newly adjusted source. If you rename a `div`, then want to reassign it, you must do so based on the new name, not the original.

Each adjustment action adds time to the validation routines. On lengthy texts these can become quite time-consuming. Take, for example, the Tanakh / Old Testament in Hebrew, Greek Septuagint, and English (King James Version). Each of these differs from the other in the names of books, and the numeration of some chapters and verses (primarily the books of Psalms, Jeremiah, Joel, and Hosea). To completely reconcile these three versions requires at least 1 `<skip>`, 237 `<rename>`s and 3 `<equate>`s, and 31 `<reassign>`s. Applying these actions to all three versions can take about two minutes (tested on computer with an Intel i5-8250U, 12 GB ram), before any other significant validation checks on anything inside the `<body>` of the class-2 file.<sup>1</sup> If such processing times are unacceptable, you are advised to keep `<adjustments>`s to a minimum or to apply them to relatively small texts.

Further, adjustment actions were intended primarily to address common irregularities between files, to apply some last minute touches, or perhaps to drop certain parts of texts. Adjustments were not designed to provide extensive, deep corrections. If a source must be changed in numerous places to reconcile it with other sources, you should create a new version of the source, reorganized as you prefer. Then in both the new and original versions of the class-1 files insert `<redivision>`, `<predecessor>`, `<successor>`, or `<see-also>` to link the two versions.

There is a TAN application that remodels one text in the image of another. See `applications/remodel/remodel_text.xsl`. The output of that application requires editing, but it can reduce the amount of work required. TAN tools for Oxygen's author mode can also be used to correct that newly segmented text.

## Class 2 data (`<body>`)

Data types differ greatly between the class 2 formats. However, they all share one thing in common: the `<body>` consists of a series of claims, and responsibility for those claims should be attributed to the persons, organizations, or algorithms making the claims. Therefore, each `<body>` may take `@claimant` and perhaps `@claim-when`, specifying by `IDref` who should be credited or blamed with the material. If either attribute is missing, it is assumed that the claims are the responsibility of the persons listed in `<file-resp>`. The values of `@claimant` and `@claim-when` are weakly inheritable.

## Class 2 pointer syntax: referencing texts

The class 2 formats have been designed to be human readable, particularly text references. In ordinary conversation, when referring to specific parts of a work, we prefer to use the numbers or names of pages, paragraphs, sentences, lines, words, letters, and so forth, and sometimes relational words (e.g., "first"). We might say, for example, "See page 4, second paragraph, the last four words." Some-

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<sup>1</sup>In earlier generations of TAN, this process took upwards of an hour.

times we quote the very text itself: "See page 4, second paragraph, first sentence, second occurrence of 'pull'."

Those familiar conventions are the basis for the TAN pointer syntax, which differs from other pointer systems (e.g., URLs, XPath, and XPointer). TAN pointers apply common reference terminology to four strata of a text: works, divisions, word tokens, and characters. *Works*, defined above (see the section called "One Work"), are declared by the *source* (which may not have more than one work). *Divisions* are defined by the `<div>` structure of each source. *Tokens* are words of the text in those divisions, defined according to one or more `<token-definition>`s declared in the class-2 file. And *characters* are defined as individual base letters in a word token (any modifier character is treated in concert with the last preceding base character; see the section called "Combining characters").

This approach not only makes the syntax human readable but mitigates the effect of changes to the sources. For example, if a `<div>` is deleted, moved, or changed, the alteration affects only references specific to that `<div>` and its descendants; the rest of the reference system remains intact.

The four parts of TAN's reference system are explained below, but you should consult other parts of the guidelines, or study TAN examples, to see how they are used in practice.

## Referencing works: @work

This section applies only to TAN-A files, because the other class-2 files do not make claims about works *per se*.

TAN-A files refer to works via meaningful IDrefs that point to the class-1 sources that transcribe the work/work-version, e.g., `work="hamlet"`. The reference is understood to apply not merely to that particular source, but to any TAN-T file that claims to transcribe that work or work-version. (On the relationship between works and work-versions see the section called "Domain model".) Thus, the id of the source-scriptum becomes a proxy or alias for the work.

Any work may also be defined through a vocabulary item `<work>`, either locally in the `<vocabulary-key>` or in a TAN-voc file linked via `<vocabulary>`. The work would then be referred to by `@xml:id` or `<name>` of the particular vocabulary item.

## Referencing textual divisions: @ref

Portions of text, i.e., `<div>`s, perhaps altered if `<adjustments>`s have been invoked (see the section called "Metadata (`<head>`)"), are pointed to via `@ref`. A `@ref` is constructed by taking the values of `@n` in the `<div>` in question along with its ancestor `<div>`s, and joining them with non-word characters. For example, `@ref="I.1.1.1"` might point to the following:

```
<div type="act" n="1">
  <div type="scene" n="1">
    <div type="line" n="1">
      . . . . .
    </div>
    . . . . .
  </div>
  . . . . .
</div>
```

A `@ref` can express sequences and ranges of `<div>`s. In the example `ref="1.2-4, 1.5"`, the hyphen and comma, which are reserved to signify ranges and series, are reserved. A hyphen always means "from...through" and a comma always means "and". In the TAN format, commas are always paratactic, not hypotactic. For example, if referring to Hamlet, `ref="I, 2, 3"` is not a single reference to `<div>`, act I scene 2 line 3, but rather three of them: act I, act 2, and act 3 (notice how the

commas in the attribute value behave like the commas in the written phrase). If you mean to say act I, scene 2, line 3 try `ref="I.2.3"` or `ref="I 2 3"`.

The periods (full stops) in `@ref="I.1.1"` are hypotactic markers, but they are arbitrary, and could be replaced with any mix of non-word character you like (except the hyphen or comma), including spaces, e.g., `ref="I:1 1"`. The numeral system is also arbitrary. You may use any supported numeration system (see section on numeration systems), even if the source uses a different one. Semantic equivalents to the preceding example are `ref="A I i"` and `ref="1:a:I"`. Just remember, if you use either the Roman numeral system or alphabetic sequences, include a `<numerals>` in the `<head>` to specify which system should prevail in case of ambiguities (e.g., whether `c` means 3 or 100). Roman numerals are the default, but it is a good idea to be explicit.

## Referencing tokens: `@pos` and `@val`

To point to a token one normally uses `<tok>`, with one or more attributes, in three possible configurations:

1. *@val* or *@rgx* alone: one or more tokens are pointed to by value. For example, `val = "bird"`, points to every occurrence of the token `bird`; `rgx = "b.+d"` finds every word that begins with a `b`, ends with a `d`, and has some characters in-between. Every value of `@rgx` is implicitly bound to the beginning and end of the string (see below).
2. *@pos* alone: one or more tokens are pointed to by numerical position, via one or more digits, or the phrase `last` or `last-` plus a digit, joined by hyphens or commas. For example, `2, 4-6, last-2 - last` refers to the second, fourth, fifth, sixth, antepenult, penult, and final tokens in a passage. The numerical value to which the keyword `last` resolves depends upon the context length.
3. *@val* or *@rgx* combined with *@pos*: a combination of the previous two methods. For example, `@val="bird" @pos="2, 4"` picks the second and fourth occurrences of the token `bird`.

During Schematron validation, if `@pos` is missing, it is assumed to mean `*` or `1 - last`; if neither `@val` nor `@rgx` appear, the assumption is `@rgx` with value `.` + (any characters). That is, by default, `@pos` points to every instance and `@val/@rgx` to every token.

When using `@pos` make sure you know the context. For example, the attribute combination `val="bird" pos="last-1"` will produce an error if the token `bird` does not occur at least two times in the given context.

It is advisable to use `@val` or perhaps `@rgx`, and not merely `@pos`. If your source's text changes, and there is no `@val`, it may be difficult to determine the original intent of a claim, to determine whether changes need to be made. `@val` is easier than `@rgx` to process in applications, particularly when compiling statistics or estimating probabilities. Furthermore, `@val` is generally speaking more efficient to process than is `@rgx`. A `@rgx` is more efficient only if it replaces numerous instances of `@val`.

`@rgx` is a regular expression that must match an entire word-token. For example, `@rgx="re.d"` will match the tokens "rend" and "read" but will not match "already", "rends", or "bread". If you wish to allow for characters at the beginning or end, use `".*re.d.*"`. For more on regular expressions, see the section called "Regular expressions".

## Referencing characters: `@chars`

Individual letters are always specified by `@chars`, which points to a specific position, e.g., `chars="2, 7, last"`. Combining characters are excluded from these counts; see the section called "Combining characters".

## General annotations and alignments (<TAN-A>)

TAN-A is the format for macroscopic, division-based alignment and annotations of class-1 sources. It allows you to align any number of versions of any number of works on the basis of <div>s. The A also stands for annotations, because the TAN-A format allows you to make general assertions, usually but not necessarily about texts. TAN-A is a type of advanced RDF for textual scholarship (see the section called “Resource Description Framework (RDF) and Linked Open Data”).

### Root element and header

The root element of a TAN division-based alignment file is <TAN-A>.

TAN-A’s <head> has zero or more <source>s.

Any concepts that will be mentioned in the <claim>s (the only children of <body>) need to be supplied in <vocabulary-key> or an associated TAN-voc file invoked by <vocabulary>.

### Data (<body>)

The <body> of a TAN-A file takes, in addition to the customary optional attributes (see the section called “Edit stamp”), @claimant, @object, @subject, or @verb, stipulating the default values for any enclosed claims.

The rest of the body consists of zero or more <claim>s, each of which represents one or more claims. Claims can be made about a variety of things, e.g.,:

- to index quotations and allusions;
- to specify the subjects and topics dealt with particular textual passages;
- to connect commentary or notes from one source to another;
- to indicate where other scripta have different readings (apparatus criticus);
- to establish work-version relationships.

<claim>’s data model is inspired by the Resource Description Framework (RDF; see the section called “Resource Description Framework (RDF) and Linked Open Data”), where each statement consists of three items termed a subject, a predicate, and an object. The first and third are thought of as nodes, and the second as a connector (or edge) between the nodes. RDF adopts a graph model, where the connector (edge) always links exactly two nodes.

RDF is adequate for a limited range of scholarly assertions. An RDF statement lacks context or qualifiers. No simple RDF statement, called a triple, can indicate who made the assertion, or when, or if it was uttered with any doubt or nuance. Sometimes we wish to claim a bare negation, e.g., “Aristotle was not the author of *De mundo*”—which cannot be expressed in RDF.

Any TAN claim that is exported to any RDF format should adopt the principles of RDF\*, which allows for complex, reified RDF statements. As of this writing, the specifications for RDF\* are still being written.

TAN’s <claim> extends the graph RDF model into a hypergraph, where the connector (edge) links two or more nodes. The following adjustments are made:

- I. Every claim *must* have at least one claimant, some person, organization, or algorithm to be credited/blamed for the assertion.

2. Every claim *must* have at least one subject, the topic of the claim.
3. Every claim *must* have at least one verb (in RDF called *predicate*), specifying something about the subject.
4. Every claim may have at least one adverb, qualifying the verb.
5. Every claim may assert a level or range of certainty, between zero and one, reflecting how certain the claimant is of the claim.
6. Every claim may have at least one object, an entity or value expected by the verb.
7. Every claim may have at least one temporal qualifier, restricting the claim to a specific time.
8. Every claim may have at least one locative qualifier, restricting the claim to a specific geographical region.
9. Every claim may have other components specially defined by the verb. Currently, this entails for select verbs a language qualifier (`@in-lang, <in-lang>`) and a reference qualifier (`<at-ref>`).

Items 1-3 above are required parts of any claim. Items 4-9 may be rendered as being required, optional, or disallowed by a `<verb>`'s definition. For example, a `<verb>` representing an idea that in normal discourse is intransitive (e.g., sleep) can be defined such that `<object>` is not allowed.

Furthermore, a `<verb>` may be defined to restrict what kinds of objects or subjects are allowed. For example, the standard TAN verb `lacks_text_at` (see `vocabularies/verbs.TAN-voc.xml`) is defined to allow only scripta as a subject. No objects are allowed. Rather, a `<claim>` with this verb expects one or more `<at-ref>`s, which restricts the claim to a particular passage in a TAN-T file. Examples:

A `<verb>` can specify that an object must be data, and it can also define the type of data allowed and its permitted lexical form. `<verb>`s take a special extension to their IRI + name pattern, permitting constraints that specify what is allow, required, or prohibited. Some examples of `<verb>` vocabulary items:

#### Example 6.1. Examples of verb vocabulary items

```
<verb xml:id="wrote">
  <IRI>http://rdaregistry.info/Elements/u/P60663</IRI>
  <name>is author of</name>
  <constraints>
    <subject status="required" item-type="person"/>
    <object status="required" item-type="work version"/>
  </constraints>
</verb>
. . . . .
<verb group="zero_objects">
  <IRI>tag:textalign.net,2015:verb:lacks-text</IRI>
  <name>lacks text</name>
  <name>lacks text at</name>
  <desc>At the <at-ref>, the textual entity referred to by the subject lacks
    any text. The claim takes no object.</desc>
  <constraints>
    <subject status="required" item-type="scriptum"/>
    <object status="disallowed"/>
    <at-ref status="required"/>
  </constraints>
</verb>
```

```
</verb>
. . . . .
<verb xml:id="survives-in-original-language">
  <IRI>tag:kalvesmaki.com,2014:verb:work-survives-in-original-language</IRI>
  <name>original work is extant to what degree</name>
  <desc>This verb is used to describe the degree to which a work survives in the
    original language of composition. It takes as object an xs:double between 0
    representing the approximate percentage that is extant. This property does not
    stipulate how close to the first or earliest version the extant material
    is.</desc>
  <constraints>
    <subject status="required" item-type="work version"/>
    <object status="required" content-datatype="double"
      content-lexical-constraint="[01]\.0*|0\.\d+"/>
  </constraints>
</verb>
```

Other examples of <verb>s can be found at `vocabularies/verbs.TAN-voc.xml`.

Claims may refer to other claims. That is, <claim>s can nest inside each other (e.g., X claims that Y claims that Z claims that...). Or a <claim> may take an @xml:id, whose value can then be cited as the object or subject of any other <claim>.

If a <claim> is about a work or source in general, as a whole, one or more IDrefs may be placed in @subject or @object. But if the claim is about a specific part of the textual object, then more information is needed, so the attributes cannot be used.

Such textual references come in three flavors: assertions pertaining to a work, assertions pertaining to a work in only some versions, and assertions pertaining to scripta. In the first case, <subject> or <object> must take @work, with IDrefs pointing to vocabulary items for <work>s. In the second case, @src is used, pointing by IDref to the applicable <source>s. In the third case @scriptum is used, pointing to vocabulary items for <scriptum>. Remember, you may combine commonly grouped IDrefs in an <alias>.

A @work means that the claim applies to any versions of the work, whether a source or not; a @src specifies that the claim applies only to the specific <source>s, and not to every possible version. In each case, <subject> or <object> may be given more attributes and elements to restrict the claim to specific parts of the work or source, with @ref, <tok>, @val, @pos, and @chars, following the conventions used in pointing to parts of texts (see the section called “Class 2 pointer syntax: referencing texts”).

If a <subject> or <object> points via @scriptum to a scriptum, specifying the claim necessarily takes a different approach than that used for @work or @src. Bear in mind, it is encouraged in these guidelines to avoid scriptum-oriented methods of dividing class 1 files. Therefore, clarifying a portion of a scriptum (e.g., a particular manuscript folio number) requires an apparatus that likely does not correspond to a TAN file. Therefore, a <subject> or <object> with a @scriptum can be restricted to a particular region through descendant <div>s that specify via @n and @type specific parts of the scriptum. These scriptum filters, unlike TAN-T <div>s, are always empty; their sole purpose is to point in native terms to a specific region on a scriptum.

Multiple values in any component of a <claim> are distributed, which means that one <claim> might contain multiple assertions. For example, <claim subject="A B" verb="taught promoted" object="X Y Z" /> has within it twelve claims (the combinatory permutations of the three attributes' individual values). The exception to this general rule is @adverb, whose multiple values are taken as ampliative and restrictive. For example, <claim subject="A" adver-

b="probably not" verb="taught" object="X" /> is a single claim, not two, even though @adverb has two values.

A limited set of verbs have been defined in standard TAN vocabulary; see the section called “TAN keywords for verbs (<verb>)”. The strictures defined in these verbs are checked during Schematron validation. For a brief discussion on defining your own verbs in a TAN-voc file see the section called “Data (<body>)”.

Aspects of the discussion can be illustrated with select examples of claims:

### Example 6.2. Examples of claims

```
<claim subject="cpg2440-syr" verb="translates" object="cpg2440"/>
. . . . .
<claim subject="#" adverb="perhaps" verb="reads">
  <at-ref src="grc" ref="1 a 5">
    <tok pos="1-2"/>
  </at-ref>
  <object>### #####</object>
</claim>
. . . . .
<claim subject="cpg2430" verb="has-incipit">
  <object xml:lang="grc">##### μ## ##### ##### ### ## ##### ##### ## ## ###
  #####μ###</object>
</claim>
. . . . .
<claim verb="edits" adverb="partially" object="cpg2430">
  <subject which="Muyldermans_1932">
    <div n="84-89, 91-92" type="page"/>
  </subject>
</claim>
. . . . .
<claim verb="paraphrases">
  <subject work="pr" ref="13"/>
  <object work="nt" ref="1Th 2:6"/>
</claim>
. . . . .
<claim verb="quotes">
  <subject src="grc-Mu1931" ref="I 87"/>
  <object work="lxx" ref="Wis 13:5"/>
</claim>
. . . . .
<claim verb="alludes_to">
  <subject work="KG" ref="II 86"/>
  <object work="lxx" ref="Ex 25:30"/>
  <object work="nt" ref="Heb 9:2"/>
</claim>
```

## Token-based annotations and alignments (<TAN-A-tok>)

TAN-A-tok files facilitate the microscopic alignment of two related sources. The format is intended to allow you to specify exactly where, how, and why two transcriptions align, and to do so on the most

granular level possible. TAN-A-tok files also allow you to express levels of confidence or alternative opinions. A TAN-A-tok file takes two class-1 sources, which should be two different versions of the same work. Most often, one will be a translation of the other, but the format can be used for two versions of the text in the same language, e.g., paraphrase, revision.

Creators and editors of TAN-A-tok files should be able to read the languages of their sources and to explain as precisely as possible the relationship between the two sources. They should be prepared to think about and specify types of textual reuse. TAN-A-tok files tend to be more demanding to create and edit than TAN-A files are because of the level of detail involved.

To simplify the file, token alignment is restricted to two texts, referred to jointly as a *bitext*. Each half of the bitext must be a TAN-T(EI) file. It is assumed that those two sources share some special relationship, direct or indirect, and relate through one or more types of textual reuse: translation, paraphrase, commentary, and so forth. Some of these bitexts, such as literal translations, may line up quite nicely word for word. Others, such as paraphrases, may line up sporadically, vaguely, ambiguously, or, in places, not at all. Annotating a bitext is oftentimes not easy, and requires you to consider and declare assumptions you have made in two key areas: the relationship that holds between two scripta and the types of reuse that was involved in turning one version into the other (or a common ancestor into both).

Relationship of sources' scripta. What is the physical relationship or history that connects the two sources' scripta? Is one a direct descendant (copy) of the other? If not, what common ancestor do they share? Here you should consider the material aspect of the bitext, because you are trying to answer how object A's text relates to object B's. See the section called "TAN keywords for types of bitext relations (<bitext-relation>").

Types of reuse. What categories of text reuse do you consider operative? Users of your data should be informed of the paradigm you bring to your analysis. You may wish to keep your categories non-descript and somewhat vague, using generic terms such as *translation*, *paraphrase*, *quotation*, without much specificity. On the other hand, you may subscribe to a detailed view of text reuse. Perhaps you have adopted field-specific categories such as *obligatory explicitation*, *optional explicitation*, *pragmatic explicitation*, or *translation-inherent explicitation*. You may also wish to declare secondary types of reuse, such as *scribal omission* or *dittography*, to declare secondary types of reuse that may have intervened. You must declare at least one type of reuse. Or you may use those that are built into the TAN format. See the section called "TAN keywords for types of bitext reuse (<reuse-type>").

## Root Element and Header

The root element of a token-based alignment file is <TAN-A-tok>.

The TAN-A-tok header builds upon the core and class 2 headers (see the section called "Metadata (<head>)" and the section called "Class 2 metadata (<head>)").

TAN-A-tok files take exactly two <source>s. The sequence is arbitrary. Each <source> must take an @xml:id.

<vocabulary-key> takes, in addition to all the elements allowed in class-2 files (see the section called "Class 2 metadata (<head>)" ), two elements unique to TAN-A-tok: <bitext-relation> and <reuse-type>. The former describes the genealogical relationship between each source's scripta. The second attends to the qualitative aspect of the bitext relationship. See above.

## Data (<body>)

The <body> of a TAN-A-tok file takes, in addition to the customary optional attributes (see the section called "Edit stamp"), required @bitext-relation and @reuse-type, which take one or



more IDrefs from `<bitext-relation>` and `<reuse-type>`, indicating the default values that govern the alignment.

`<body>` has only one type of child: one or more `<align>`s, each of which collects sets of `<tok>`s from one or both sources, known collectively as a *token cluster*. Clusters may overlap, to handle translations in which words fall in one-to-one, one-to-many, many-to-one, and many-to-many relationships. The independence of token clusters allows you to register differences of opinion about the same set of tokens. An `<align>` may take an `@xml:id`, in case you or someone else wishes to refer to a particular `<align>`.

Nothing should be inferred from silence in a TAN-A-tok file. There is no requirement that everything in a source *must* be encoded or described. In writing and editing a TAN-A-tok file you do not commit yourself to saying everything possible about the bitext. You might choose to encode only a few token clusters. Tokens that are not referred to should not be interpreted as gaps in a translation. All that can be inferred is that the creators and editors of the TAN-A-tok file have said nothing about the tokens. (See discussion on comprehensiveness.) In fact it is oftentimes preferable to have a TAN-A-tok file that points to only a selection of tokens; a file with tens of thousands of `<align>`s could take a very long time to validate, or to process in applications.

Any token may be a member of as many `<align>`s as you like. In fact, this is preferred if you wish to register competing claims or alternatives.

If you wish to declare that one or more words in a source were omitted from a translation or inserted into one—that is, words in one source have no match in the other—you must do so through a *one-sided alignment*, i.e., a token cluster that has tokens from only one source. A one-sided alignment implies insertions or omissions.

If there are multiple values in `@reuse-type` or `@bitext-relation`, the intersection, not the union, of those values is to be understood. For example, `reuse-type="translation paraphrase"` would indicate that the token cluster results from an activity that is both translation and paraphrase, not one or the other. If a particular `<align>` might be one reuse type or the other, but not both, then create two `<align>`s, qualifying each one with a different value for `@reuse-type`. Then add `@cert`, indicating through a decimal number between 0 and 1 how confident you are that that particular reuse-type is accurate. `@cert2` can also be added, in case you do not want to commit yourself to such a precise number.

Commonly, `<tok>`s include `@ref`, pointing to a leaf `<div>`. But this is not required. The `@ref` may point to a `<div>` that takes other `<div>`s, or `@ref` may be altogether absent. If a `<tok>` lacks a `@ref` then it means that the claim is true for all instances of that word in the source, no matter where found.

### Example 6.3. Examples of TAN-A-tok anas

```
<align>
  <tok src="ring1881" ref="2" val="pocket"/>
  <tok src="ring1987" ref="2" val="pocket"/>
</align>
. . . . .
<align reuse-type="stylistic_minus">
  <tok src="grc" ref="Col 1 4" pos="11 - 12"/>
  <tok src="syr" ref="Col 1 4" pos="7" chars="last-2 - last"/>
</align>
```

## Lexico-morphology (<TAN-A-lm>)

TAN-A-lm files are used to annotate a class-1 source by specifying the lexical and morphological properties of its tokens or morphemes.

Every TAN-A-lm file has two different types of dependencies: a class 1 source (optional) and the grammatical rules defined in one or more TAN-mor files. This section therefore should be read in close conjunction with the section called “Morphological Concepts and Patterns (TAN-mor)”.

TAN-A-lm files are either *source-specific* or *language-specific*.

Source-specific TAN-A-lm files depend exclusively upon one class-1 source. Source-specific TAN-A-lm files are useful for closely analyzing the grammatical properties of the words in one particular text. Well-curated source-specific TAN-A-lm files are enormously useful for other applications, e.g., quotation detection. Any source-specific TAN-A-lm file can be converted into a language-specific one, to be used as noted below.

Language-specific TAN-A-lm files depend upon an unknown number of sources. Some language-specific TAN-A-lm files might be based upon a small, specific corpus, perhaps just one text. Others might rely upon a vast, general one. Language-specific TAN-A-lm files are useful for building language resources for computer applications. Many language-specific TAN-A-lm files become the basis for a local language catalog, which can be used to populate a new source-specific TAN-A-lm file.

### Principles and assumptions

Editors of TAN-A-lm files should understand the vocabulary and grammar of the languages of their sources. They should have a good sense of the rules established by the lexical and grammatical authorities adopted. They should be familiar with the conventions and assumptions of the TAN-mor files being used.

Although you must assume the point of view of a particular grammar and lexicon, you need not hold to a single one. In addition, you may bring to the analysis your own expertise and supply lexical headwords unattested in published authorities.

Although TAN-A-lm files are simple, they can be laborious to write and edit, more than any other type of TAN file. They can also be hard to read if the morphological codes are cryptic. It is customary for an editor of a TAN-A-lm file to use tools to create and edit the data.

### Root Element and Header

The root element of a lexico-morphological file is TAN-A-lm.

If the file is source-specific, <source> points to the one and only TAN-T(EI) file that is the object of analysis. If the file is language-specific, <for-lang> is used in the declarations section of the <head> to indicate the languages that are covered.

For highly inflected languages, language-specific TAN-A-lm files can be enormous in size or quantity. To improve performance when validating and processing numerous or large language-specific TAN-A-lm files, the <head> may also include <tok-starts-with> and <tok-is>. It is common for language-specific TAN-A-lm files to be cataloged in a <collection> file. These become part of the local language catalog, bound to the global parameter \$tan:lang-catalog-map, found in parameters/params-application-language.xsl. By including in that parameter your collections to language-specific TAN-A-lm files, you open up those resources to use in a variety of other applications. In that <collection> file, the individual <doc>s that point to lan-

guage-specific TAN-A-lm files should include as children any `<tok-starts-with>` and `<tok-is>` as in the original.

Example 6.4. Example of a catalog entry for a language-specific TAN-A-lm file

```
<doc href="lat-tan-a-lm-abu.xml" TAN-version="2021"
  id="tag:kalvesmaki.com,2015:tan-a-lm:lat:perseus:abu"
  lexicon="LS" morphology="perseus-dik" claimant="xslt1" root="TAN-A-lm">
  <name xmlns="tag:textalign.net,2015:ns">Perseus lexico-morphological permutation
  devoted exclusively to abu</name>
  <license xmlns="tag:textalign.net,2015:ns" which="Attribution-ShareAlike 3.0 Unp
  licensor="perseus"/>
  <for-lang xmlns="tag:textalign.net,2015:ns">lat</for-lang>
  <tok-starts-with xmlns="tag:textalign.net,2015:ns">Abu</tok-starts-with>
  <tok-starts-with xmlns="tag:textalign.net,2015:ns">abu</tok-starts-with>
  <tok-starts-with xmlns="tag:textalign.net,2015:ns">abú</tok-starts-with>
</doc>
```

Conversion from a source-specific TAN-A-lm to a language-specific one is a one-way operation. There is at present no mechanism for automatically reconstructing the corpus that underlies a language-specific TAN-A-lm file.

`<vocabulary-key>` takes the elements other class-2 files take (see the section called “Class 2 metadata (`<head>`)”). It also permits two elements unique to TAN-A-lm: `<lexicon>` (optional) and `<morphology>` (mandatory). Any number of lexica and morphologies may be declared; the order is inconsequential.

There is, at present, no TAN format for lexica and dictionaries. So even if a digital form of a dictionary is identified through the the section called “Digital entity metadata pattern”, the Schematron validation routine will not attempt to check the TAN-A-lm data against the lexical authorities cited.

Because you or other TAN-A-lm editors are likely to be authorities in your own right, `<person>` can be treated as if a `<lexicon>`, and be referred to by `@lexicon`.

## Data (`<body>`)

The `<body>` of a TAN-A-lm file takes, in addition to the customary optional attributes found in other TAN files (see the section called “Edit stamp”), `@lexicon` and `@morphology`, to specify the default lexicon and grammar.

`<body>` has only one type of child: one or more `<ana>`s (short for analysis), each of which matches one or more tokens (`<tok>`) to one or more lexemes or morphological assertions (`<lm>`), which takes zero or more `<l>`s followed by one or more `<m>`s).

An `<ana>` may take a `@tok-pop`, to specify the number of tokens that the assertion applies to. This is particularly helpful for language-specific files based upon a limited corpus of texts, where the underlying data for the assertion might be difficult or impossible to retrieve. The token population can be used to calibrate levels of certainty, or to compare statistical profiles of one TAN-A-lm file against another.

If you wish to point to a linguistic token that straddles more than one token, you should use multiple `<tok>`s, wrapping them in a `<group>`.

Any token may be the object of as many `<ana>`s as you like. In fact, this is preferred if you wish to register competing claims or alternatives.

Claims within an `<ana>` are distributed. That is, every combination of `<l>` and `<m>` (governed by `<lm>`) is asserted to be true for every `<tok>` or `<group>`.

If an `<lm>` lacks an `<l>`, the token value its itself, calculated by each `<tok>`, is taken to be the default value of the lexeme.

All assertions are assumed to be made with 100% confidence unless `@cert` is invoked. This still holds even when a `<tok>` is the subject of multiple `<ana>`s, because it is possible to be completely confident that a given word has two different grammatical profiles in the target text (e.g., puns, wordplay).

Many TAN-A-lm files will be generated by an algorithm that automatically lists all possible morphological values of each token. It is advised that such automatic calculations always include in their output `@cert`, with weighted values. That is, if an algorithm identifies two possible lexico-morphological profiles for a word, but one occurs nine times more than the other, then it is advised that this be reflected in the two resultant elements, e.g.: `<lm cert="0.9">...</lm>` and `<lm cert="0.1">...</lm>`. If an algorithm is written with a more sophisticated way to weigh possibilities, then adjust the value of `@cert` accordingly. Be certain that the `<algorithm>` is credited in the `<vocabulary-key>` and in a `<resp>`.

As with TAN-A-tok files, not every word needs to be explained or described. In fact, this is often-times undesirable, to avoid files that are overly long and time-consuming to validate or process.

A TAN-A-lm file is rendered more efficient when claims can be grouped. If a particular token invariably has a single lexico-morphological profile, this can be declared once, in a `<tok>` that does not have `@ref`. If the token has a particular profile in a given region of text, it can be specified through a `@ref` that encompasses the specified region. You do not need to provide a `<tok>` for every token, which would entail restricting `@ref` to leaf divs. You may do so, but such an approach can result in very long files that are time-consuming to validate, process, and edit. It is more advantageous to declare lexico-morphological properties more generally, thereby replacing numerous leaf-div `<tok>`s.

The benefits in processing time are significant. In early versions of TAN, the lexico-morphological values of the Greek Septuagint (8.3 MB) were converted to a TAN-A-lm file of 407,811 `<tok>`s, one per token per leaf div, grouped in 52,703 `<ana>`s (25.8 MB). Early 2020 validation routines took about 25 minutes (2018 validation routines took hours). The long processing time is due primarily to the TAN-A-lm file itemizing every single token in the text. That same file was revised to be more declarative along the lines advocated above. If a particular token had only one lexico-morphological profile throughout the text, then every instance was reduced to a single `<ana>`, with no `@ref` in `<tok>`. When a particular token value had different lexico-morphological profiles, `@ref` targeted the rootmost `<div>` that encompassed them all. This revision resulted in a smaller file (15.8 MB; 158,376 `<tok>`s in 54,335 `<ana>`s) that validated in about a third of the time (8.5 minutes).

In general, there is always a trade-off between convenience and efficiency. If your priority is speed, you should break a large file into several smaller ones, perhaps recombining them in a master file via `<inclusion>` (see the section called “Networked Files”).

Applications can be written to convert TAN-A-lm `<m>` data from one morphological system to another. This is a two-step process facilitated by the functions `tan:morphological-code-conversion-maps()` and `tan:convert-morphological-codes()`. See documentation in these guidelines or in `functions/language/TAN-fn-language-extended.xsl`.

### Example 6.5. Examples of TAN-A-lm data

```
<ana>
  <group>
    <tok ref="1" pos="1 - last-1"/>
```

```
</group>
<lm>
  <l>ring-a-ring-a-rose</l>
  <m>NNS</m>
</lm>
</ana>
. . . . .
<ana>
  <tok ref="10 6 3 2" pos="4"/>
  <tok ref="10 6 3 3" pos="15"/>
  <tok ref="10 6 4 2" pos="37"/>
  <lm>
    <l>#####</l>
    <m>n e - s - - - m g -</m>
  </lm>
</ana>
. . . . .
<ana>
  <tok val="#####"/>
  <lm>
    <l>#####</l>
    <m cert="0.358311302048909457">p d - s - - - m d</m>
    <m cert="0.241688697951090546">p d - s - - - n d</m>
    <m cert="0.2">p - - s - - - m d</m>
    <m cert="0.2">p - - s - - - n d</m>
  </lm>
</ana>
. . . . .
<ana>
  <tok val="ABERRO"/>
  <tok val="Aberro"/>
  <tok val="aberro"/>
  <lm>
    <l>aberro</l>
    <m>v - l s p i a</m>
  </lm>
</ana>
```

---

# Chapter 7. Class-3 TAN Files, Varia

This chapter provides general background to class-3 TAN files, which are devoted to formats that do not fit the other two classes. For detailed discussion of specific elements and attributes, see Chapter 12, *TAN patterns, elements, and attributes defined*.

## Vocabulary (TAN-voc)

All too often, a project has a set of vocabulary it draws from time and again. To repeat the the section called “IRI + name pattern” can be both tedious and treacherous. If a project with hundreds of TAN files decides to change or augment its vocabulary it could take a long time to find and make all the changes, everywhere and consistently.

The TAN-voc format addresses that problem. It is intended to allow a project to define, edit, and augment the IRI + name patterns for recurrent vocabulary. TAN includes several standard TAN-voc files under the subdirectory *vocabularies*, supporting commonly used concepts such as token definitions, div types, licenses, and many more. For a complete list of predefined TAN keywords, see Chapter 11, *Official TAN vocabularies*

It is quite common for a person or team to build vocabulary items gradually while developing a corpus, which means that TAN-voc files tend to change and grow. You can organize your vocabulary in whatever manner makes sense. You might create one large TAN-voc file that has all your project’s vocabulary. Or you might break out the vocabulary, one file per type. Each approach has strengths and weaknesses. If you break your vocabulary into many files, you should designate one of them as your point of main import, and include the other TAN-voc files via `<inclusion>s` (along with `<group include="[IDREFS]" />` or `<item include="[IDREFS]" />`, pointing to the IDrefs of the included TAN-voc files). Doing so prevents you from having to insert numerous `<vocabulary>s` in your other TAN files.

For more details on how this format relates to other TAN formats, see the section called “Networked Files”.

## Root Element and Head

A TAN-voc file has `<TAN-voc>` as the root element.

The `<vocabulary-key>` of a TAN-voc file takes, in addition to core vocabulary items, any number of `<group-type>s`.

A TAN-voc file may draw directly from the vocabulary in its body, as if it were referring to itself via `<vocabulary>`.

## Data (<body>)

The `<body>` of a TAN-voc file consists simply of `<item>s` or `<verb>s`, perhaps gathered into groups via `<group>` or `@group`. These groups have, at present, no effect upon other TAN files that use them, but they have been valuable in certain applications. For example, the standard TAN-voc file for `<div-type>` (*vocabularies/div-types.TAN-voc.xml*) groups textual division types into a rudimentary typology that allows applications to be designed to decide programmatically whether a particular division should be treated as a block or inline element, or whether it should be indented.

The `@affects-attribute` or `@affects-element`, both weakly inheritable, defines the scope of the vocabulary items, i.e., what elements or attributes can the items be legitimately used for. The vocabulary item will be eligible only for specified attributes or elements.

Nearly all `<item>`s in a TAN-voc file contain the IRI + name pattern or a derived pattern. The only exceptions are `<item>`s pertaining to token definitions, which instead of `<IRI>`s take `<token-definition>`s. See the section called “Defining words and tokens”.

`<verb>` includes, in addition to the IRI + name pattern, the option to have `<constraints>` added. Those constraints define what components are permitted in any `<claim>` that uses the `<verb>`. At this time, verb constraints are an experimental feature. Only those constraints that mirror standard TAN vocabulary for verbs, `vocabularies/verbs.TAN-voc.xml`, will be supported during validation. Study that file for examples of how to build a `<verb>`. See the section called “Data (`<body>`)” on the use of verbs in a TAN-A file.

## Morphological Concepts and Patterns (TAN-mor)

TAN-mor files are used to delineate the morphological characteristics or features of a given language, to assign codes to those features, and to define rules governing the application of those codes. It is a kind of schema language for the grammar of human languages.

The format allows specificity, flexibility, and responsiveness. Grammatical rules may be constructed to return warnings and error messages to users who use a code or pattern incorrectly, or not in accordance with best practices. Such rules may be qualified, or made contingent upon certain conditions.

This chapter should be read in close conjunction with the section called “Lexico-morphology (`<TAN-A-lm>`)”.

## Principles and Assumptions

Certain assumptions and recommendations are made regarding morphology files, complementing the more general ones; see the section called “Design principles”.

TAN-mor files are restricted exclusively to describing the categories and rules for the grammar of a natural language. Editors of these files should be well versed with the grammar of the languages they are describing, and generally acquainted with how the grammars of comparable languages work.

The TAN-mor format has been designed under the assumption that patterns of word inflection and formation can be categorized, classified, named, and described. It has also been assumed that scholars may reasonably differ, perhaps radically, on how grammatical features should be defined and applied. TAN-mor allows scholars to declare clearly their operative assumptions and views. It is up to other users to decide whether or not to adopt them.

The TAN-mor format has also been designed to cater to two different approaches to morphological codes: categorized or uncategorized.

Categorized codes are interpreted according to position. `a b c` would mean something different than `c b a`. For example, Perseus (<http://www.perseus.tufts.edu/hopper/>) has traditionally categorized codes for morphological analysis of Greek, Latin, and other highly inflected languages. Every code has ten positions, each one corresponding to a major grammatical category, with the first two being the major and minor parts of speech, and the subsequent categories devoted to person, number, tense, and so forth. Each word that is analyzed must have a value, even if a hyphen or null. A `d` in one position means something different from a `d` in another.

Uncategorized codes, on the other hand, assign one unique code to each grammatical feature. In this approach, codes may be combined and arranged at will. `a b c` would be identical to `c b a`. This approach is viable for any language (including highly inflected ones such as Greek or Latin), but it is in practice most often applied to languages that are not highly inflected, e.g., the Brown and Penn sets for English.

TAN-mor morphological codes may not include either the space or the hyphen, and unlike IDrefs, they are case insensitive. For example, the codes `NOUN` and `noun` are interchangeable.

## Root Element and Header

The root element of a morphological rule file is `<TAN-mor>`.

Zero or more `<source>`s refer to the grammars or related works that account for the morphological rules. If the categories, codes, and rules are not based upon any published work, then `<source>` may be omitted. Any TAN-mor file without a source may be inferred to be based upon the personal knowledge of the persons or organizations identified in `<file-resp>`.

A language declaration is made in the header: one or more `<for-lang>`s.

## Data (`<body>`)

The `<body>` of a TAN-mor file takes the customary optional attributes found in other TAN files (see the section called “Edit stamp”).

`<body>` contains interleaved rules and grammatical codes, either categorized or not.

Grammatical rules consist of a series of `<rule>`s, perhaps filtered by attribute tests, and perhaps filtered by children `<where>`s with attribute tests. These tests are evaluated against the context various `<m>`s in a dependent TAN-A-lm file.

Attribute tests are as follows:

- `@m-matches` (regular expression): `<m>` matches the pattern.
- `@tok-matches` (regular expression): one of the values of `<tok>` in the given `<ana>` matches the pattern (regular expression).
- `@m-has-codes` (space-delimited strings): `<m>` has the specified feature codes.
- `@m-has-how-many-codes` (integer): `<m>` has the given number of feature codes.

If all the attributes in a `<rule>` or any of its children `<where>`s evaluate true against a context, then the process allows the actual rules to be evaluated. Those rules are found in the enclosed `<assert>`s or `<report>`s, which declare rules that must be followed, or must never be followed, by any dependent TAN-A-lm file.

An `<assert>` and `<report>` will be checked only if the conditions declared by the attributes in the enclosing `<where>` are met :

An `<assert>` also has one or more of the truth conditions above. If the test proves false in a given `<m>` then the `<m>` will be marked as erroneous and the message included by the `<assert>` should be returned.

`<report>` has the same effect, but the test looks for the opposite boolean value: the error and message will be returned only if the test proves true.



Mixed with the rules are codes, either categorized or not.

If categorized, there are zero or more `<category>`s. Each one sorts `<code>`s into groups, assigning them `<val>` that are unique within the `<category>`. Sequence is important. The first `<category>` defines the features allowed in the first code position, the second in the second, and so forth.

If not categorized, then there are simply one or more `<code>`s. Each `<code>` has a `@feature` that points to one or more vocabulary items for a grammatical feature, either by IDref or by name.

TAN has a standard vocabulary file for grammatical features: `vocabularies/features.TAN-voc.xml`. This vocabulary file encodes 746 grammatical features declared in the OLiA Reference Model for Morphology, Morphosyntax and Syntax (<http://purl.org/olia/olia.owl>). See the section called “TAN keywords for features (`<feature>`)”.

`<code>` must have a `<val>`, which contains the actual code used, and it may take one or more `<desc>`s, to explain how the grammatical features should be interpreted for a given language. This is the ideal place to provide examples.

In addition to examples below, see sample TAN-mor files in the `examples` directory.

### Example 7.1. Examples of rules and codes

```
<rule m-has-how-many-codes="2-10">
  <report m-matches="^c">A conjunction has no other inflectional
    properties.</report>
  <report m-matches="^r">A preposition has no other inflectional
    properties.</report>
  <report m-matches="^i">An interjection has no other inflectional
    properties.</report>
  <report m-matches="^y">An acronym has no other inflectional properties.</report>
</rule>
. . . . .
<rule m-matches="^. i">
  <assert m-matches="^[dp]">An interrogative must be either a determiner (d) or a
    pronoun (p).</assert>
</rule>
. . . . .
<code feature="accusative"><val>accusative</val></code>
<code feature="nominative"><val>nominative</val></code>
<code feature="case_dative"><val>dative</val></code>
<code feature="case_genitive"><val>genitive</val></code>
<code feature="case_vocative"><val>vocative</val></code>
. . . . .
<category feature="feature_person">
  <code feature="first"><val>1</val></code>
  <code feature="second"><val>2</val></code>
  <code feature="third"><val>3</val></code>
</category>
```

## TAN Catalog Files (collection)

TAN catalog files are used to locate relevant TAN files and to support the XSLT function `collection()`. They catalog or index any TAN files within a local directory and perhaps its subdirectories.

These catalog files must always be named `catalog.tan.xml`. They depart from all other TAN files in their structure. They have no namespace. They have neither body nor head. Rather, they are patterned off the `catalog.xml` description provided by Saxonica (<https://www.saxonica.com>).

Any XML file passed to the stylesheet `applications/create/create_TAN_catalog_file.xsl` will automatically generate one of these files, cataloging all the files in the local directory.

The root element of a catalog file is `<collection>`, with children `<doc>`s that hold simple meta-data about the TAN files that are in a directory and its subdirectories. Only TAN files may be registered in a `<doc>`. A `<doc>` may include other material such as each file's resolved `<head>`, but this is not mandated.

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## **Part III. Using the Text Alignment Network**

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# Chapter 8. Working with TAN files

This chapter presents ways to manage, create, edit, and share TAN files. These suggestions, based upon the experience of users, are both brief and general. To get into specifics, read the other chapters in this part of the guidelines, as well as the appendixes.

## Installation and local setup

The TAN suite can be downloaded from a master data repository listed at <http://textalign.net/>. The project has been developed using the version-control software Git. Whether you download the files directly or you use Git, place the TAN code wherever is most convenient on your computer. No extra steps are necessary. Once you've downloaded the files, you have everything you need.<sup>1</sup>

Unlike many other applications, you do not install the TAN suite, and you do not have to put it in a specific place on your local drive. There is no executable file in the suite. You will work with TAN through Oxygen, another XML editor, a text editor, or (if you are a power user) the command line.

You will be creating and editing TAN files. Those files may be set up in whatever directory structure you prefer. Because TAN files are part of a network, they are meant to be shared and interlinked. So it is beneficial to develop predictable directory structures. However you organize your TAN files, keep them separate from the suite of core TAN files.

Many TAN projects will involve dozens of versions of a particular work, and it is easy to get confused as to what file does what. Naming files becomes a challenge (the filename, not the `@id`, on which see the section called "Identifying TAN files: `@id`"). In projects with many text versions, it is recommended that your names for class-1 files start with an acronym or short abbreviation for the author and work, followed by the language code, the last name of the editor/author of the scriptum, the date when the scriptum was created or published. If you have a transcription that has been redivided into multiple TAN files linked to each other via `<redivision>`, the reference system might need to be mentioned in the filename. Some suggestive examples:

- `ar.cat.grc.1949.minio-paluello.ref-logical.xml`: Aristotle's *Categories*, in Greek, from the 1949 edition by Minio Paluello, following a reference system based on semantic units (paragraphs, sentences, independent clauses).
- `apocr.eng.kjv.1760.xml`: apocrypha, English, King James Version, 1760 edition. If the file adopted an unusual reference system, that would be important to include in the name.
- `tlg0059.tlg031.perseus-grc1-P1.Ti.xml`: Plato's *Timaeus* in Greek. This filename has some duplication in that the catalog number `tlg0059` already implies `P1` and `tlg031`, `Ti`, but only an elite few know the meaning of the numerical codes used by the Thesaurus Linguae Graecae.
- `p1.ti.grc.1905.burnet.stephanus.xml`: Plato's *Timaeus* in Greek, Burnet's 1905 edition divided into a system that approximates Stephanus numbers.<sup>2</sup>

---

<sup>1</sup>The one exception pertains to the `output/js` directory, which has Javascript libraries that are designed to handle certain types of output from TAN applications. Documentation in a TAN application will let you know what Javascript dependencies are required.

<sup>2</sup>Many classicists refer to Stephanus numbers in Plato's corpus and Bekker numbers in Aristotle's as canonical, as if the systems are immutable and unambiguous. But any edition that claims to follow Stephanus or Bekker numbers always makes slight adjustments to that system. Words do not always break exactly where they do in the 19th-century edition, and words and phrases here and there get transposed, inserted, or deleted, inevitably throwing off the lineation. Making one's edition conform exactly to the original line numbers is frequently a fool's errand.

Some TAN applications, such as the section called “Diff+”, use filenames to order output. If you wish your class-1 files to be read in chronological order according to source, then it is a good practice to put the date in ISO form (YYYY(-MM(-DD)?)?), placed before any alphabetizable elements that are less important.

In sum, a good sequence for ordering components in a filename would be: collection, work, language/version, date, editor/author, reference system.

Class-2 files are tougher. They unite multiple files and concepts, so comprehensive filenames could become very long or unpredictably structured. One approach is to make sure that each class-2 file is given a brief but meaningful name that points to the research question that motivated its creation. Some examples:

- `ar.cat.grc.1949.minio-paluello-sem-TAN-LM-sample.xml`: a sample of lexi-co-morphological data for Aristotle’s *Categories*, in Greek. Each source-specific TAN-A-lm file has no more than one source, so including the source in the filename does not pose a challenge.
- `nt.grc-syr.selections.TAN-A-tok.xml`: a selection of word-for-word correspondences between the Syriac and Greek New Testaments.
- `plato.general.TAN-A.xml`: a general alignment and annotation file concerning Plato’s works.

Class-3 filenames are a bit easier. It is recommended that TAN-mor files begin with the language code then an acronym for the person or group responsible for creating the rules and codes. TAN-voc files are written generally to serve a specific project or collection, so the collection name and the type of vocabulary should suffice. Examples:

- `eng.example.com,2014.1.xml`: tagging scheme #1 for English, by the owner of the domain `example.com` in 2014.
- `ar.cat.general.TAN-voc.xml`: general vocabulary items serving a project dealing with Aristotle’s *Categories*.

If you have a local copy of someone else’s TAN collection, and you wish to create TAN files that depend on them, you will in all likelihood use relative URLs pointing to copies of the files stored locally. If those files have `<master-location>`s pointing to their master copies, you should occasionally validate them, to see if there have been any updates.

If you need to move a TAN file from one directory to another, you should think about any internal links that might need to be updated. A standard TAN utility, the section called “File Copier”, will copy a file for you and update any relative values of `@href`. That application does not delete the old file, because file deletion is treated as a security risk in XSLT.

## Working with Oxygen XML Editor

If you use an advanced XML editor such as Oxygen, you should edit your TAN collection through a project file, which will help you easily administer your TAN files and validate them automatically. Included with the standard TAN suite is a basic Oxygen project file, `TAN.xpr`. Use it as-is, or make a copy and configure it to your tastes. You will find that under Configure Transformation Scenarios there are preinstalled generic options for the standard TAN utilities and applications.

When you open a TAN file in Author mode, you will find a variety of editing tools, primarily for class-1 files. Browse the options in the menu, the toolbars, and the context-click menu, to see what is possible. In a future version of TAN, more documentation will be provided on how to use these tools.

The project file discussed above relies upon an Oxygen framework file, `tan.frameworks`, which drives the functionality of the project. If you have another project already underway, you can incorporate the `tan.frameworks` file directly, combining it with your other Oxygen tools.

## Creating and populating TAN files

TAN is a representational format. Every TAN file models some source. If those sources are non-digital, it is a relatively straightforward task to create and populate a TAN file. Just start editing, using a template (e.g., a file from the `examples` directory). In some cases, you might benefit by starting with an algorithm. For example, optical character recognition (OCR) on an edition might give you a dirty but useful start for a TAN-T file. Applying OCR to a printed index of quotations might be the first step to a TAN-A file. Despite the computer's assistance, the majority of the task will be spent in correcting any conversions. Thoughtful attention is needed to making these files suitable for use.

In many other cases, you want to take something that already exists digitally and convert it into a TAN format. Many times, when you find a Word file, a web page, or a plain text file that can serve as the basis for a TAN file, the first impulse is to copy the desired content, paste it into the body of a new TAN file, then manually adjust and correct it. That solution is quick and easy, but short-sighted. You may find only hours into the task that you made a major mistake, but that it happened so early in the process, you cannot backtrack. Perhaps you have accidentally deleted all punctuation when you didn't mean to. Or you eliminated line breaks that you didn't realize at the time were useful signals about where `<div>`s should be separated.

Even if all goes well, after all that hard work you might discover that the pre-TAN data sources you started out with have been updated, and other things have been corrected. If any significant time has elapsed, you may have forgotten what procedure you followed to convert the data. And even if you do remember, you will have to repeat the steps again, and dread the day when those pre-TAN sources are updated yet again.

Save yourself time and hassle. Stop fixing files by hand. Instead, build a system to convert the files. Create an automated or semiautomated workflow that can be applied when needed, so that pre-TAN files can be channeled at will into your TAN library. This approach to the editorial task takes some extra investment at the outset, but in the long run it can save you many hours of labor.

A very useful utility is the section called "Body Builder", which allows you to create a list of changes to be made to a particular document, to convert it to TAN-T or TAN-TEI (or even generic TEI). Or if you or a project member has experience in XSLT, develop your own stylesheets.

When you find mistakes such as those described above, no harm is done. You can simply adjust the Body Builder configuration or XSLT file and re-run your process, each time getting better and better results. This approach requires extra work, initially. Establishing a stable transformation process can be time-consuming, since it requires repeated sequences of trial, error, and diagnosis. But the investment pays off in the long run, especially if you are dealing with dozens, hundreds, or thousands of files. The routines you write for one set of files might be useful for the next.

## TAN validation

### The process

TAN files are validated when the file, along with its associated TAN schemas, are passed to a validation engine. Validation can be set up either by pointing explicitly to the schemas within a TAN file (via `<?xml-model ?>` statements in the prolog), or by setting up an Oxygen project or framework

to automatically apply the schemas to TAN files (see the section called “Installation and local setup”). There are two types of TAN validation.

First, the file structure is checked against RELAX-NG files that define the attributes, elements, and patterns that are allowed or required in a given TAN format. These files are kept in the `schemas` project subdirectory, according to format name. If you are editing a TAN-T file, for example, its RELAX-NG schema is `schemas/TAN-T.rnc`.<sup>3</sup>

The second type of validation uses Schematron to apply rules that cannot be expressed in RELAX-NG, e.g., no `@when` should have a date in the future. More than one hundred types of errors are checked during Schematron validation. For a comprehensive list see `./functions/errors/TAN-errors.xml` and Chapter 14, *Errors*. Some of these errors can be quite time-consuming for a computer to check. For example, if a `class-1` file has a `<redivision>`, the text should be identical. On short texts, the comparison can be made in seconds; on longer ones it might take minutes (see next section, on efficiency). Therefore Schematron validation allows three different levels: terse, normal, and verbose. The names reflect not only how fast each phase takes but how much feedback is provided.

The Schematron files themselves are rather small. The majority of the work is done by the TAN function library, which takes the file, resolves it, and expands it, inserting errors and help messages along the way. A greatly reduced version of the expanded file, containing only warnings and errors, is then passed back to the Schematron processor as a global variable. The Schematron processor returns as messages any errors or warnings found in the generated file, and any suggested corrections as Schematron Quick Fixes.

For more details about the TAN validation process, see the section called “The mechanics of validation”.

## Efficiency

TAN’s Schematron validation specifies a process that is much more computationally intensive than is its RELAX-NG counterpart. The longer and more complex your TAN file and its dependencies, the longer it will take to validate. Files such as the Ring-a-roses examples in the `examples` subdirectory will take a split second to validate, but a TAN-T file of the Old Testament of the King James Version has been known to take about 25 seconds to validate in the normal phase, and the whole Bible, about a minute. A TAN-A-lm file with a full morphological analysis of a very long TAN-T file will take a much longer time to validate.

Tests were performed on TAN-A file that had three very large TAN-T sources (each about 1.6 MB and 8,100 elements). If the TAN-A file had 125 claims, Schematron validation under the normal phase took about 13 seconds (run on Oxygen 22.1 on a Windows 10 laptop on Intel i5-8250U @ 1.60GHz). When the number of claims was expanded to 546, the same process took 63 seconds. When the file had 5,421 claims, the file took 78 minutes, 45 seconds to validate.<sup>4</sup>

The figures above are a very significant improvement over the time required in the 2018 version, and no doubt future versions of TAN will bring optimizations to the validation process. Nevertheless, you may need to make decisions that pit speed against convenience. If you want validation to be quick, break files into smaller ones, perhaps to be joined later in a single TAN file via `<inclu-`

<sup>3</sup>The RELAX-NG files are written principally in the compact syntax (`.rnc`), then converted to XML syntax (`.rng`). The TAN-TEI format is an exception. Behind the schema `schemas/TAN-TEI.rnc` is a master file `schemas/TAN-TEI.odd`. This file, linked as it is with the other RELAX-NG files, is processed by TEI stylesheets to generate the master `TAN-TEI.rnc` and `TAN-TEI.rng` files that validate TAN-TEI files. The ODD file is processed against TEI All, the largest of the TEI formats, in the version available at the time of the release of a given TAN version.

<sup>4</sup>Much of the extra time is due to the Schematron evaluation process, not the preparatory work performed by the TAN function library. The library component of the three tests above took up 8.3 seconds, 27.1 seconds, and 23 minutes 57 seconds, respectively. The time complexity of the Schematron component grows faster than does that of the XSLT.



sion>s. Validating ten component files each with ten thousand elements will take aggregately less time than validating one long file with one hundred thousand elements. Had the example TAN-A file mentioned above been split into 43 different files, the time required for validating the entire collection would have been reduced by 88%.

## Sharing TAN files

TAN files have been designed to be shared and linked, just like any network of files. Most often, TAN files will be created and distributed as collections, not single files.

One way to distribute a collection is to make it available as a repository via Git or some other version control software (VCS). This approach has many advantages. You can collaborate with a wide variety of people, and preserve an editorial history that allows you to branch or backtrack, if needed. VCS features and tools are extremely fast and useful.

Collections may also be distributed through shared syncing services (e.g., Drive, Box, or Dropbox), or put on a Web server. In the latter case, it may be difficult for users to browse or download your collection of TAN files wholesale. In that case, you may wish to expose the collection as a compressed ZIP archive. This saves on your server's bandwidth, and it still exposes the files for XML processing. But a ZIP archive is not suitable for linking from one TAN file to another, nor is it appropriate as a target of <master-location>. Unpacking a compressed file requires writing to the disk, which is treated as a security risk during validation. Such zipped archives are good ways to distribute a collection, but they should not be used as a primary repository or a master location.

When you share a TAN file, make sure to include its dependencies, the files pointed to by <vocabulary> or <inclusion>. If you are simply trying to email a single file, you could send a resolved version, which does not require any other dependencies (see the section called "Resolution").

---

# Chapter 9. Using TAN Applications and Utilities

TAN files are suited for dozens of types of applications. A few have been developed and successfully tested on select projects. The most mature of these have been provided in the subdirectories `applications` and `utilities`.

Utilities are designed to assist in import, export, creating, and editing TAN files. They tend to support straightforward tasks, and the code is relatively stable.

Applications, on the other hand, support study and research. Most of these take a set of TAN files, process them, and create interactive, dynamic HTML files that let you study and analyze textual features and relationships. Applications can have quite complicated code bases, and tend to have features that are not fully supported, or are in the planning phase.

TAN utilities and applications are written in XSLT. XSLT, which stands for XSL Transformations, version 3.0,<sup>1</sup> is very powerful, and has a distinctive syntax and design. Many people do not know how even to begin to use it. Even some seasoned programmers approaching XSLT for the first time can find it baffling or impenetrable. An XSLT application is rather different from others that may be more familiar to you.

This chapter begins with a basic orientation to XSLT. You may not be ready to write anything in XSLT, but you can begin to read and understand an XSLT file. We then look at how to run an XSLT application, and then look at the standard TAN utilities and applications.

## First things to know about XSLT

### The process

In most computer applications, the expected rules are rather straightforward. Given zero or more inputs, zero or more outputs are returned. Many times the application is driven by a graphical user interface (GUI), to allow the user to configure the application.

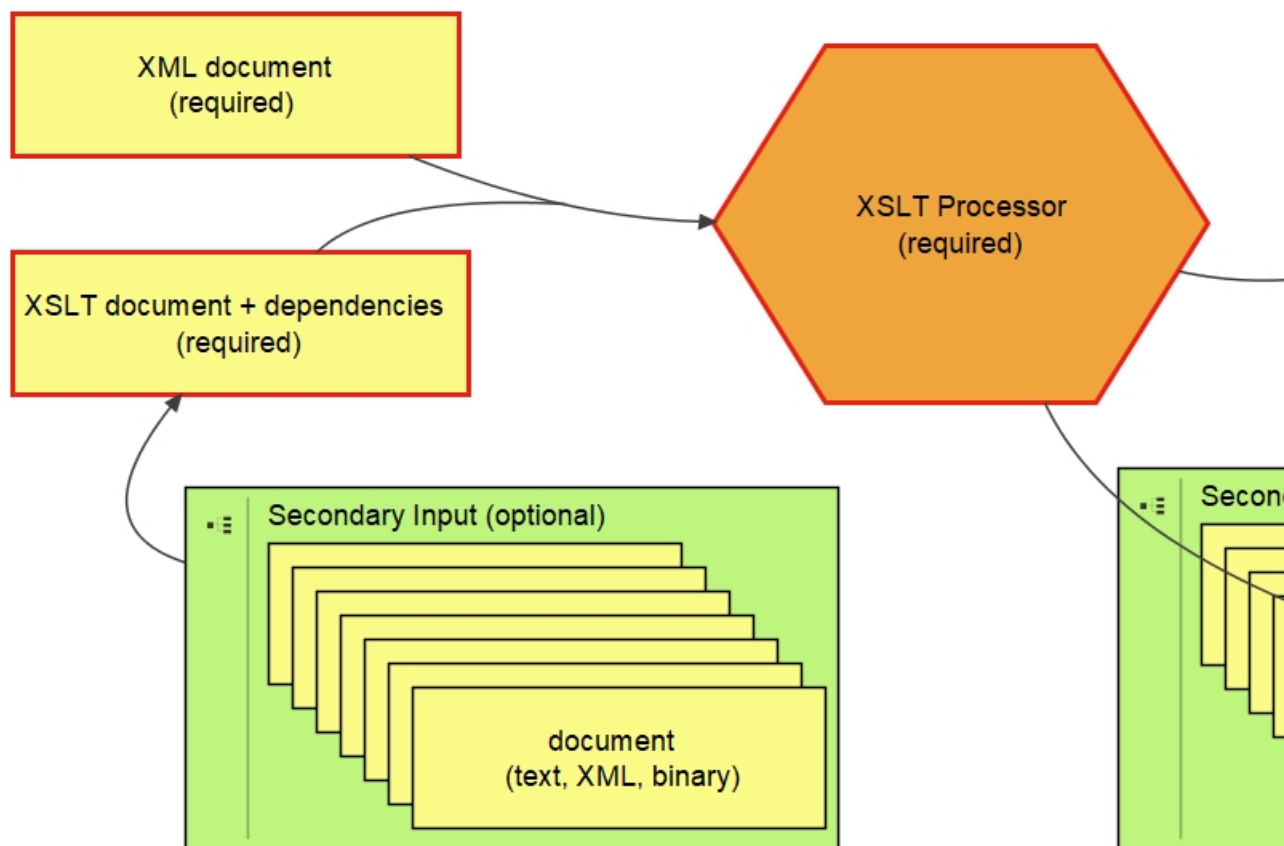
XSLT applications do not have a GUI. They also have a somewhat different approach to input and output. In the classic approach to XSLT, the input consists of an XSLT stylesheet and an XML file, passed to a processor. But there is opportunity for secondary input. And classically there is one output, but XSLT provides the opportunity to create secondary outputs. The basic model is depicted here:<sup>2</sup>

---

<sup>1</sup>XSL, which stands for Extensible Stylesheet Language, was the predecessor language.

<sup>2</sup>The classic view presented here does not take into account another way of configuring an XSLT application, where a particular starting point is designated, the initial template. In those cases, primary input is unnecessary.

Figure 9.1. The classic XSLT process



In the classic XSLT process, there are three key requirements:

1. an XML file, to catalyze the process;
2. a master XSLT file, to declare the rules that should be followed;
3. an XSLT processor.

The process begins, actually, with the processor, which is normally given URLs that specify where to find the input, the stylesheet, and where to place the output. The processor fetches the XSLT stylesheet, and looks for any associated components. After compiling the master stylesheet and its dependencies, the rules are applied to the catalyzing XML file. Along the way, the processor may fetch secondary input documents, if the XSLT file so instructs.

After all the rules have been applied, the processor saves the primary result document—if there is one—to the specified target URL. If the XSLT rules state that secondary result documents should be saved at certain locations, the processor does so.

Therefore, in any XSLT operation, there are really two possible types of input and two types of output. We use the terms *primary input* for the catalyzing XML file and *secondary input* for input that is added during the process. We use the term *primary output* for the main result tree and *secondary output* for any other output created along the way. The terms *primary* and *secondary* refer only to their

position in the process, not their importance to the application. Indeed, there are XSLT applications where the secondary input and secondary output are far more important than the catalyzing input or primary output. Sometimes the primary input does not matter at all, and sometimes there is no primary output.

You will normally have direct control over the primary input, because you will need to select an XML file to catalyze the process. But any control you might exercise over the secondary input could be hidden. The application might derive secondary input based upon your primary input, or it might provide parameters, to allow you to control the secondary input.

Likewise, you normally have full control over where the primary output should go. But you may not have that kind of control over the secondary output. You may or may not have control over that.

When you get an XSLT file, try to understand first of all what kinds of input is expected, and what types of output are returned, and where. In general, if there is not good documentation and the XSLT does not come from a trusted source, do not try to run it.

## Syntax

XSLT is itself an XML document, and can be treated in every way as an XML document. If there is something you can do to an XML document, you can do it to an XSLT file too.

The XML syntax makes the code somewhat more verbose than the syntax of other languages. Many of the instructions are placed in elements, which frequently have opening and closing tags. Unless otherwise specified, white space is flexible, and the document can be reformatted and indented as one likes. Most XSLT files are indented, but in most cases that indentation can be changed or removed without affecting the output.

XML in general uses namespaces, to allow mixed vocabularies. So too, XSLT files can interleave elements from different namespaces. In general, most XSLT files do not define a default namespace: that is up to the designer to do. All the XSLT elements are in the namespace `http://www.w3.org/1999/XSL/Transform`, and bound to the prefix `xsl`.

Because an XSLT file is itself XML, then it can be designed to be the primary input of an XSLT process, even its own. Running an XSLT file against itself can be useful in cases where the primary input is irrelevant.

## Modular design

An XSLT file may invoke other XSLT files, or be invoked by them, through the `<xsl:import>` and `<xsl:include>` instructions. Inclusions and imports are recursive: the processor looks not just for the ones it imports/includes, but the ones they import/include, and so forth.

The modular approach to XSLT allows developers to be more efficient and effective when writing code. Routines that serve one process well can serve another. But it also means that when you first open up an XSLT file, you do not understand what it does until you trace the chain of `<xsl:import>` and `<xsl:include>` instructions, and find all the stylesheets it depends.

That process can be cumbersome, but straight-forward. More challenging is asking yourself whether the file you began with is a master stylesheet (the intended starting point for a process), or if it is itself a dependency. You may not be able to tell, without documentation. Tracing these lines of dependence is important, because you need to find the appropriate starting point, and understand how it relates to the network of XSLT files.

## Declarative statements

In most programming languages, you write a list of things for the computer to do, in a specified order, governed by conditional branching. This list-like approach to programming is called imperative programming.

XSLT has imperative components, but at its heart, it is a declarative programming language. That is, an XSLT programmer writes not a list of steps to be followed but rather a set of rules or principles that should be observed. It is up to the processor to determine the most efficient path to honor those rules or principles.

Imperative and declarative programming can be compared to real-world examples. Suppose you have a pile of candies that need to be sorted. Imperative programming is like telling a child: get one candy; if it is like such-and-such, put it here; repeat. Declarative programming is like telling that same child, I do not care how you do it, but make sure that the final groups look like such-and-such.

If you are familiar with Cascading Style Sheets (CSS) you might appreciate better how the XSLT programmer approaches a task. In CSS, styling instructions are provided by selector patterns that match certain elements within the HTML file. CSS instructions can frequently be placed in different groups and orders, and with different levels of specificity, to infer priority. It is up to the browser to take those rules and find the most efficient way to apply the styles. Such a declarative approach allows the writer of CSS to efficiently write, edit, and maintain some rather complex code.

Because of its declarative approach, the order of an XSLT's root element children is flexible. Most often, order does not matter. The children of the root element, called declarations, are special, because they stipulate the rules or principles that should be followed. All of the declarations of the stylesheet's modules are also taken into consideration. Which means that when you are reading a particular section of an XSLT file, you might think you understand what is being done. But there may be declarations in other parts of the file or its inclusions/imports that affect whether the particular component you are looking at is called, or in what priority.

As a general rule of thumb, when you read an XSLT file to understand what it does, do not put much importance on the order of its declarations. They will not be followed in that order. There are cases where order is important, but coming freshly to an XSLT file, try to get a bird's-eye overview of all the components. Look at all the declarations, wherever they are found. As you read, don't look for the application's steps. Try to understand the intended outcome.

## Variables and parameters

In most programming languages, you can write something like the following pseudocode...

```
x = 1
x = x - 1
return x
```

...and expect the output 0. The variable `x` starts with the value 1, but then changes, because variables are mutable.

In XSLT, variables and parameters are immutable. You cannot change the value of a variable or parameter. A variable can be destroyed (and along with it, its value), and then a new instantiation of the variable can be created, but once again, within its life (scope), it does not change. If you see two `<xsl:param>` or two `<xsl:variable>` instructions that create variables with the same name, they are in different scopes (or the XSLT is invalid).

Both variables and parameters might be in a namespace. If there is a colon in the name, the variable or parameter is bound to a particular namespace. Check the prefix to see its namespace.

As a user of an XSLT stylesheet, you should not worry too much about any XSLT variables. Certainly, you can change them if you want, but at that point you are stepping into the role of developer. We assume here you are interested primarily in using, not altering, an XSLT application. Your should focus, instead, upon parameters, but only a certain kind: global, relevant parameters.

Global parameters are found exclusively as children of a root element. That is, they are declarations (see previous section). Any parameters that are more deeply nested are local parameters, and you shouldn't change them.

Not all global parameters are relevant. If you have a master stylesheet that includes another one, that stylesheet may have global parameters that are designed to accommodate some other including XSLT application. Normally, you will know which global parameters are relevant for your purposes only by studying the file's documentation, or its code.

Every global parameter is a developer's invitation to the user to configure the XSLT application. Some parameters exercise an enormous influence over the type of output; others have no effect whatsoever; yet others might cause the application to crash if you put in the wrong value. Before you try to change a parameter, you should understand something about data types. See the section called "Configuring global parameters".

## XPath language

XSLT relies upon a sublanguage called XPath, which is itself a proper subset of another powerful XML programming language, XQuery. You will most commonly read or use XPath expressions in the context of the `@select` attribute in various XSLT instruction elements.

XPath is an enormous topic, and well worth learning. Because this chapter is geared to helping new users quickly get comfortable with using and configuring an XSLT application, we introduce here some very common, useful XPath expressions. They are presented according to four basic concepts: navigation, filter expressions (predicates), operators, and functions.

## Navigation

Every XML file is a tree, and at the heart of XPath is a language for traversing that tree. XPath gets its name, because it was designed to provide a path from one point to many. An XPath expression always assumes some kind starting point for the path. That starting point is called the *context*, which is commonly a node inside an XML tree.

Because this short guide is aimed at users who are configuring global parameters, we will assume in our examples here that the context is the primary input XML document. That means that the context is the document node of the primary input.

When an XPath expression begins with a single slash, the document node is selected. The following example shows how to bind to the global parameter `$doc-a` the document node of the primary input.

```
<xsl:param name="doc-a" as="document-node()" select=""/>
```

Once you start an XPath expression, you add to it by adding new components. This builds the path of traversal. Commonly you want to traverses downward through the tree, toward the leaves. You do this most frequently by element name. If it is in a namespace, you either need to start with the appropriate prefix, or else use an asterisk (represents any prefix), followed by a colon. The following example selects the `<tei:TEI>` root element of the primary input XML document. If the root element is not named `TEI` and it is not in the namespace bound to the prefix `tei`, then you will get an error, because this global parameter expects exactly one item, no more, no less.

```
<xsl:param name="tei-root-element" as="element()" select="tei:TEI"/>
```

The previous example would have worked as well with `/tei:TEI`, which says, in effect, go to the document node, then go to the element TEI. We have left it off because we are assuming that the document node of the primary input document is the context (i.e., the assumed starting point for an XPath expression). Another XPath expression comparable to the example above would be `*:TEI`, which selects the root element if its name is TEI, regardless of what namespace it is in.

The nested elements of the tree can be traversed by separating element names with the slash. The following example navigates from the document node leafward to the TEI's body, three levels deep. This example also shows how to use the asterisk alone, which stands for any element.

```
<xsl:param name="tei-text" as="element()?" select="tei:TEI/*/tei:body"/>
```

If you want to go deeply into the document, and select a variety of elements, you can do so with the double-slash operator, which navigates down to all descendants.

```
<xsl:param name="tei-abs" as="element()*" select="tei:TEI//tei:ab"/>
```

The example above selects every `<ab>` in a TEI document. If one `<ab>` nests inside another, both are picked.

To select an attribute, use the `@` sign. In the following example the XPath expression points to an attribute that is bound to a namespace via the prefix `xml`. One commonly finds `@xml:id`, `@xml:lang`, `@xml:space`, but most of the attributes you encounter will not have namespaces, even if their parent elements have them.

```
<xsl:param name="tan-t-lang" as="attribute()" select="tan:TAN-T/tan:body/@xml:lang"/>
```

To select any attribute, use `@*`. The following example selects all the attributes in `<change>` elements in a TAN file. Note the use of the asterisk for the root element. This expression will work no matter which TAN format is used.

```
<xsl:param name="change-attrs" as="attribute()+ " select="*/tan:head//tan:change/@*"/>
```

You can use parentheses and commas to group and add nodes. In this example, the XPath expression points to the TAN `<body>`, then selects all the children comment nodes, text nodes, and elements.

```
<xsl:param name="interesting-nodes" as="item()*" select="*/tan:body/(text(), comment(), element())"/>
```

There is a slightly simpler way to do the preceding example, and it also finds any processing instructions:

```
<xsl:param name="interesting-nodes" as="item()*" select="*/tan:body/node()"/>
```

In an XPath expression `node()` finds everything except attributes and namespaces.

There is much, much more about XPath navigation, but the samples above should get you started. See XPath 3.1 [<https://www.w3.org/TR/2017/REC-xpath-31-20170321/>] for comprehensive, technical coverage.

## Filter expressions (predicates)

An XPath expression that traverses a tree might return more nodes than you want. You can reduce what is captured by applying a predicate, which is an XPath expression that filters results. A predicate consists of an XPath expression enclosed by two square brackets, inserted in the middle of, or at

the end of, another XPath expression. The predicate must be placed in an XPath expression immediately to the right of the step you want to filter. For every context node found, the predicate will be evaluated as a boolean. If the predicate is true, the node is retained, otherwise it is discarded.

A very simple example shows how to pick the second <div> in the body of a TAN-T file:

```
<xsl:param name="second-div" as="element()?" select="tan:TAN-T/tan:body/tan:div[2]" />
```

This predicate, [ 2 ], returns true if a given node is the second child <div> of <body>. The simple numeral 2 in the filter expression is actually shorthand for a slightly longer expression based on XPath functions (discussed below), [ position() eq 2 ].

The next example finds every <div> that has an attribute of @xml:lang.

```
<xsl:param name="second-div" as="element()*" select="tan:TAN-T/tan:body//tan:div[@xml:lang]" />
```

This predicate, too is shorthand for [ exists(@xml:lang) ], another XPath function.

Predicates may nest. Any nesting predicate still takes as its context the step immediately to the left. This example finds every TEI <div> tag, but only if it has a <p> that has a <quote>.

```
<xsl:param name="divs-with-quoting-ps" as="element()*"
  select="tei:TEI/tei:text/tei:body//tei:div[tei:p[tei:quote]]" />
```

Predicates may chain, simply by appending predicates. The following example reduces the previous example to the first instance.

```
<xsl:param name="divs-with-quoting-ps" as="element()*"
  select="tei:TEI/tei:text/tei:body//tei:div[tei:p[tei:quote]][1]" />
```

The position of chained predicates is important. Whereas the preceding example filtered the <div>s then picked the first one, the next example finds the first <div> (one that does not have a preceding sibling <div>), and retains it only if it has a <p> with a <quote>.

```
<xsl:param name="divs-with-quoting-ps" as="element()*"
  select="tei:TEI/tei:text/tei:body//tei:div[1][tei:p[tei:quote]]" />
```

The previous two examples look very similar, but they produce very different results.

Predicates may be placed anywhere in an XPath expression. The following gets all top-level <div>s only if the root element has an @TAN-version, a distinctive marker of all TAN files.

```
<xsl:param name="top-level-divs" as="element()*"
  select="*[@TAN-version]/*/*:body/*:div" />
```

## Operator expressions

We have already seen some basic XPath operator expressions, namely, in the comma and the parentheses. XPath has many more operator expressions, some of which should be immediately recognizable: + for addition, - for subtraction, \* for multiplication, and div for division. (The slash is not used for division, to avoid clashes with the step separator.) The keyword to, with an integer on either side (the smaller on the left), creates a range, e.g., ( 1 to 10 ).

XPath also has comparison expressions. Although < and > can be used for "less than" and "greater than", those symbols interfere with XML syntax. Instead, use the expressions lt and gt. The expressions le and ge can also be used, to mean less than or equal to, and greater than or equal to, respectively.



For checking equality, you will most often use the = expression. There is also eq, but this can be used only to compare exactly two items. The = is very powerful, because it will return true if there is any item in the sequence on the left hand side that is equal to any item in the sequence on the right. Consider for example, an XPath statement that compares two sequences, each with two integers: (1, 2) = (2, 3). The statement is true because there is at least one pair of equal items. Because the expression = is used so frequently to compare sequences, you might think of it as meaning "overlaps with."

Complex expressions can be combined with and, or, and grouped with parentheses, as needed.

As you work with XSLT global parameters, you will find that most operator expressions are used within the filtering predicates. The following finds all <div>s with an attribute @type whose value is "chapter".

```
<xsl:param name="chapter-divs" as="element()*" select="//*:div[@type = 'chapter']"
```

This expression finds the top-level divs in 2nd, 3rd, 4th, and 8th place:

```
<xsl:param name="some-divs" as="element()*" select="//*:body/*:div[position() = (2
```

The following example returns any <div> whose values of @n and @type match.

```
<xsl:param name="dupl-n-and-type-divs" as="element()*" select="//*:div[@type = @n]
```

## Functions

XPath expressions become enormously powerful when combined with the language's 155 standard functions. You have already seen two of them, position() and exists(). In a brief survey like this, it is possible to illustrate only a few of the most common standard functions you are likely to use when configuring the global parameters of an XSLT application.

last(): returns an integer representing the size of the context. The following examples contain an implicit position() eq, just the same as the filter expression example above, with [2].

```
<xsl:param name="last-div" as="element()?" select="//*:body/*:div[last()]" />
  <xsl:param name="penultimate-div" as="element()?" select="//*:body/*:div[las
```

count(): returns the number of items in a sequence. The following returns all TAN-T <div>s that have more than three children <div>s.

```
<xsl:param name="populous-divs" as="element()*" select="//tan:div[count(tan:div) g
```

not(): returns true if the expression it contains is false, or false if it is true. This function is very widely used, to great effect. The first example below finds all leaf divs, and the second, all leaf elements:

```
<xsl:param name="leaf-divs" as="element()*" select="//*:div[not(*:div)]" />
  <xsl:param name="leaf-elements" as="element()*" select="//*[not(*)]" />
```

Whereas the = operator is very popular, its counterpart, !=, is not used very much, because its results tend to be uninteresting. The true complement of = comes with not(), as illustrated in this example, which retrieves all <div>s that are not of a certain type:

```
<xsl:param name="certain-divs" as="element()*"
  select="//*:div[not(@type = ('ep', 'title', 'pref'))]" />
```

lower-case()/upper-case(): converts a string to all lowercase / uppercase values. This example looks for any text node that has a certain value, but only after it has been rendered lowercase.

```
<xsl:param name="some-elements" as="text()*" select="//text()[lower-case(.) = 'a b c']"/>
```

Note the use of the period, which is shorthand for the context item.

`normalize-space()`: takes a string, removing all space from the beginning and end, and replacing any consecutive block of intermediary space with a single space. This function is very useful when you wish to compare texts that may be indented. The preceding example might have missed some text nodes that had initial or trailing space. It can be adjusted as follows:

```
<xsl:param name="some-elements" as="text()*"
  select="//text()[normalize-space(lower-case(.)) = 'a b c']"/>
```

Many times XPath functions must call each other. You may nest them, as in the example above, or you may use pointing syntax, `=>`. Use the syntax you are most comfortable with.

```
<xsl:param name="some-elements" as="text()*"
  select="//text()[(lower-case(.) => normalize-space()) = 'a b c']"/>
```

`contains()` / `starts-with()` / `ends-with()`: tests to see if the string in the first parameter contains / starts with / ends with the string in the second. The following finds all elements that contain the text "straw":

```
<xsl:param name="some-elements" as="element()*" select="//*[contains(., 'straw')]"/>
```

`contains-token()`: tests to see if the string in the first parameter has as one of its "words" the string in the second, based on segmenting the first string at blocks of space. The preceding example would have picked up "strawberry"; in the next example, using `contains-token()`, "strawberry" would not be selected:

```
<xsl:param name="some-elements" as="element()*" select="//*[contains-token(., 'strawberry')]"/>
```

`matches()`: tests to see if the string in the first parameter matches the second, which is a regular expression. Several TAN applications rely heavily upon regular expressions, which provide very powerful way of finding and replacing text. See the section called "Regular expressions". The following example finds any text node with one of the seven weekday names in English:

```
<xsl:param name="text-nodes-with-weekdays" as="text()*"
  select="//text()[matches(., '(Sun|Mon|Tue|Wednes|Thurs|Fri|Satur)day')]"/>
```

There are, of course, many, many more XPath functions. For the complete list, along with all the specifications, see XPath Functions and Operators 3.1 [<https://www.w3.org/TR/xpath-functions-31/>].

## Configuring and running an XSLT application

### Configuring global parameters

Once you have determined the master XSLT stylesheet for the application, you may want to configure it by adjusting the values given to the global parameters. You have several possible strategies:

1. Work with a configuration file. If you are comfortable writing some simple XSLT code, you might create a small XSLT file that has nothing but an `<xsl:import>` whose `@href` value points to the original stylesheet. Copy from the master XSLT stylesheet only those `<xsl:param>`s that you want to change. This method is quick to set up and easy to use, but it also means that you do not have immediate access to documentation.

2. Overwrite the values in the master XSLT stylesheet directly. This method is quick, but it also means that you might not easily restore the original settings, unless you make a backup copy. Also, if you are using configuration files, their default values will change. That could be good or bad, depending upon your setup.
3. Work from a copy of the master XSLT file. This method allows you to customize the entire application, and consult as needed the original settings in the master file. Like configuration files (see above), you can make new copies for new situations emerge. You should make certain that any working copies are in the same subdirectory as the original, to keep links intact.
4. Manage transformations from Oxygen. Oxygen XML Editor has a powerful feature, Configure Transformation Scenarios, which allows you to create custom configurations for an XSLT application. Oxygen has good documentation on how to use this flexible feature, which can be combined with any of the preceding three options. Oxygen allows you not only to configure the parameters but to manage input and output. One drawback is that you are presented with *all* the global parameters that can be found, whether or not they are really relevant. Documentation associated with a particular parameter may be missing or truncated. You should use this feature in conjunction with any documentation that comes with the XSLT application.

Whatever method you adopt for configuration, first find the relevant global parameters. Once you have them, you should always ensure you understand what type of data is expected, and in what quantity.

*Data types.* XSLT is a strongly typed programming language. The data that is bound to variables and parameters are always at least implicitly typed. Many variables or parameters specify exactly what kind of data is expected. Those that do not are assigned some default type by the XSLT processor. Most data types you encounter will be of two sorts: atomic types, and nodes. Examples of atomic types are integers, booleans, strings, and dates. Examples of nodes are elements, attributes, comments, and processing instructions. There are other types, but we will focus here on the most common.

*Quantities.* In XSLT, there are four quantity categories: (1) zero or one; (2) exactly one; (3) zero or more; (4) one or more. Each of these are specified by adding to a data-type declaration a quantifier: ?, nothing, \*, and +.

Table 9.1. Quantifiers and data types

Quantity	Symbol	Atomic type example	Node type example
zero or one	?	<code>xs:string?</code>	<code>element()?</code>
exactly one	none	<code>xs:boolean</code>	<code>document-node()</code>
zero or more	*	<code>xs:dateTime*</code>	<code>attribute()*</code>
one or more	+	<code>xs:integer+</code>	<code>comment()+</code>

Below are some of the more common data types you will find in global parameters, along with several examples going from simple values up to more complex assignments based upon XPath expressions or XSLT constructions. For more background, see the section called “XPath language”. Focus is placed upon data types and quantities expected in select TAN applications and utilities.

*Strings.* A string is a concatenated sequence of characters. Even when the value consists only of Arabic numerals, a string will be read and interpreted as a text, not as an integer.

In the following example, the string value is specified by the single quotation marks within the double quotation marks. The double-quotation marks delimit the value of the attribute, and the single-quotation marks specify that the value is a string. If you did not include the single quotation

marks, it would be interpreted as an XPath expression pointing to the name of a child element within the context.

```
<xsl:param name="text-a-to-compare" as="xs:string?" select="'Every day'"/>
```

When more than one string is expected, the strings should be separated by a comma. It is also common to surround the series with parentheses, for visual clarity. This example assigns to the parameter a sequence of two strings.

```
<xsl:param name="text-a-to-compare" as="xs:string+" select="('day', 'night')"/>
```

In the next example, @select is replaced by the text node within the parameter. This technique can be useful if the value expected will be space-normalized, and you want to wrap text, and you do not need to create multiple strings.

```
<xsl:param name="text-a-to-compare" as="xs:string?">>Every day</xsl:param>
```

The next example takes the primary input XML and converts it to a string. Such conversion is called *casting*. Keep in mind that the context node of any global parameter is the primary input XML document.

```
<xsl:param name="text-a-to-compare" as="xs:string" select="string(())/>
```

Perhaps you need to supply a path to some input. The following example traverses the tree to a particular @href within the primary input. The string value in that attribute will be treated like a URL, and it will be resolved relative to the base URI of the primary input.

```
<xsl:param name="path-to-source" as="xs:string"
  select="resolve-uri(/*/tan:head/tan:predecessor/tan:location/@href, base-uri(
```

If a parameter allows multiple values, and you need to change those values frequently, you might want to bind options to global parameters or global variables of your own creation...

```
<xsl:variable name="dir-1-path" as="xs:string" select="'../../novels/book-a'"/>
<xsl:variable name="dir-2-path" as="xs:string" select="'test/comparanda'"/>
<xsl:variable name="dir-3-path" as="xs:string" select="'test/logs'"/>
<xsl:variable name="dir-4-path" as="xs:string" select="'../brown/texts'"/>
```

...then update the master global parameter on a case-by-case-basis.

```
<xsl:param name="secondary-input-relative-uri-directories" as="xs:string+"
  select="$dir-1-path, $dir-4-path"/>
```

The preceding example allows you to quickly change from one set of data to another.

**Booleans.** A boolean is a true/false value. If a parameter expects a boolean, you should use some XPath expression that can be cast to a boolean, even if it is a simple one, such as true() or false(). If you need to express the value as a string, it should be either "true", "false", "o", or "r".

```
<param name="ignore-comments" as="xs:boolean" select="false()"/>
<param name="preoptimize-string-order" as="xs:boolean" select="'true'"/>
```

**Integers.** To supply an integer, you need only use numerals, perhaps preceded by a hyphen if it is negative. You should not use quotation marks, or the parameter's child text node. There will be no confusion of the integer with an XPath step, because no element's name may begin with a digit.

```
<xsl:param name="start-at-depth" as="xs:integer" select="1"/>
```

```
<xsl:param name="ngram-auras" as="xs:integer+" select="(2, 1)"/>
```

Decimals. Decimals are much like integers, but require decimal points. If the decimal is between 1.0 and -1.0, the decimal point must be preceded by a zero, e.g., -0.99.

```
<xsl:param name="diff-threshold-of-interest" as="xs:decimal" select="0.2"/>
```

Elements. If a global parameter expects elements as input, you must construct them inline, or provide an XPath expression that directs the processor to the elements in question. The following example shows how to construct a parameter that might be fed into `tan:batch-replace()`.

```
<xsl:param name="additional-batch-replacements" as="element()">
  <replace pattern="(\d\d)/(\d\d)/(\d\d\d\d)" replacement="$3-$1-$2"
    message="Converted U.S.-style date to ISO-style"/>
</xsl:param>
```

The parameter used in the previous example might need to be given numerous elements. In those cases it might be convenient to put them in a separate XML file and point to it, with an XPath expression:

```
<xsl:param name="additional-batch-replacements" as="element()"
  select="doc('batch-replacements.xml')/*/tan:replace"/>
```

## Starting the XSLT process

Running an XSLT application can be done in several ways. As noted above, at the heart of the process is the XSLT processor. The goal is to find the means to feed the primary input and the master stylesheet into the processor, and to tell the processor where to place the output.

From the command line. Processors such as Saxon allow you to initiate the process from the command line.

- *Windows:*

1. Press the Windows key;
2. Type "cmd" and click "Command Prompt";
3. Type the letter of the drive where you plan to run the process, followed by a colon, e.g., e:
4. Using the command `cd` navigate to the directory where your files are, e.g., `cd myfiles`.

- *Macintosh:*

1. Open the Shell app;
2. Using the command `cd` navigate to the directory where your files are, e.g., `cd E:/myfiles`. From there, follow the instructions provided by the vendor of the XSLT processor. Saxon provides instructions for its product at <https://www.saxonica.com/documentation10/index.html#!using-xslt/commandline>. A simple command-line instruction might look like the following:

```
java -cp "E:/xslt processors/saxon-he-10.0.jar" -s:init.xml -xsl:app.xml
-o:primary-output.xml
```

From Oxygen XML Editor. Oxygen provides numerous ways to initiate the XSLT process, including the following:

- *XSLT Debugger Perspective*. This editing mode changes the appearance of Oxygen, putting eligible primary input files on the left, XSLT files in the middle, and an output pane on the right. You can choose the processor you prefer, and pick your primary input and master stylesheet. Running the application provides interactive output, with many diagnostic tools, letting you learn how the output came about.
- *Transformation Scenarios*. You can choose configure transformation scenarios, and create a highly customized set of conditions for running an XSLT application.

These methods, and other more sophisticated approaches, are described by the vendor in their documentation, <https://www.oxygenxml.com/>.

## TAN utilities and applications

All TAN utilities and applications share the same basic architecture. Once you have figured out how to use one TAN application, you are well on your way to being able to use the others as well. Each TAN utility and application has its own purpose, which means that its expected input and output will differ quite a bit from the others. Nevertheless, all TAN utilities and applications share a common set of features, to assist users.

### Application/utility setup

All TAN utilities are in the `utilities` directory of the TAN files; the applications are in the `applications` directory. Within those directories, there is one subdirectory per utility or application. And within that subdirectory, there are only two XSLT file, accompanied perhaps by further subdirectories. One of the XSLT files has "configuration" in the name, and it allows you to customize a particular application or utility for your projects. The other XSLT file is the master stylesheet for the utility or application in question, and it has the same name as its parent directory. Subdirectories contain the heart of the code, and other important dependencies.

The file structure is designed to make quite clear the main point of entry. Having a directory with so few files should hopefully inspire you to fill it up with copies designed for specific situations.

### The master stylesheet

All master stylesheets for TAN utilities and applications share a common structure. They are designed to be as user-friendly as possible, and to focus exclusively on configuration settings that the user may want to change.

1. Preamble. Every master stylesheet begins with a long series of comments, indicating the name of the application, its version (an ISO date), its name, and a brief description of what it does. The preamble includes a statement of the intended primary input, secondary input, primary output, and secondary output. Cautionary notes may be included. If the utility or application has areas that are known to need development, these will be listed.
2. Global parameters. After the preamble a series of global parameters are presented. Each one is preceded by a comment that explains the expected value. The parameters may be organized in blocks according to stages or topics. Some of the parameters may be localized versions of global parameters that are defined in standard TAN parameters declared by files in the main directory `parameters`. The values in the master stylesheet of the application will take precedence over the default values.
3. Import statement. At the end of the master stylesheet is an `<xsl:import>` statement, pointing to the core stylesheet. That instruction may be followed as well by other comments and declarations that users should not change.

## The core stylesheet

Every master stylesheet points via its import statement to a single XSLT file in the `incl` subdirectory. That XSLT file is the core stylesheet. As an everyday user of the application, you will find this core stylesheet to be of little or no importance. But anyone doing any kind of customization or development should be aware of how it works, and this description is aimed at those developers.

Each core stylesheet follows a common structure. It begins with `<xsl:include>` instructions that point to the TAN function library, and perhaps other important components.

Next come metadata about the application: its name, its IRI, a change message to be reported, and a variety of descriptions about the application, and its expected input and output. A change log and a list of features to work on may be included. The dates within those parameters dictate the version of the application. All this metadata is used in several ways: to populate the comments of the master stylesheet, to populate the contents of these guidelines, and perhaps to supplement the output. The master data is here in the stylesheet. The development branch of the TAN project includes a maintenance directory. Within it is a Schematron file that makes sure that the master and core stylesheets of any given utility or application are synchronized.

After the metadata come the XSLT declarations that drive the process. The output for most TAN utilities and applications require multiple ordered stages. A given stage might have a strong declarative element, but the stages themselves are set carefully in a sequence, signposted by global variables that incrementally build the primary or secondary output.

At the end of the core stylesheet are two unnamed templates. Each one points to the document node of the primary input XML file, and so one of the two will always be the initial, starting template. The first of these templates is for diagnostics and is controlled by a static parameter that allows a developer to turn it on or off. It normally reports back the values of the global variables, set in process order. If that first template is turned off, then the second one takes over, and it drives the messaging system, the primary output tree (bound to some global variable), and initiates any processes necessary for `<xsl:result-document>` instructions required to generate secondary output.

Any primary or secondary output that results in a TAN file *must* be credited to or blamed upon the application or utility. The metadata for the application will be added to the output TAN file's vocabulary, and an appropriate entry will be added to the change log.

## TAN Utilities

Standard TAN utilities are designed to get material into TAN or TEI formats, and to do complex editing tasks within TAN or TEI. These tools can save you many hours of editing.

Each section below is generated automatically from the master file that drives the process. Any global parameters that are referred to in the discussion are explained in the file itself.

### Body Builder

*Location:*    `utilities/Body%20Builder/Body%20Builder.xsl`    [`../utilities/Body%20Builder/Body%20Builder.xsl`]

Suppose you have texts, aspects of whose syntax, structure, or format correspond to TAN or TEI elements or markup. This application allows you to write regular-expression-based rules to convert that text into a TAN or TEI format. Input consists of one or more files in plain text, XML, or Word docx. The input is processed against each rule, in order of appearance, progressively structuring the

text. Body Builder is intended for intermediate and advanced users who are comfortable with regular expressions and XML markup. The application is ideal for cases where complex, numerous, or lengthy documents need to be converted into TAN or TEI, as well as for developing workflows where live, ever-changing work needs to be regularly pushed into a TAN or TEI format.

Version 2021-07-13

This master stylesheet is the public interface for the application. The parameters you will most likely want to change are listed and documented below, to help you customize the application to suit your needs. If you are relatively new to XSLT, or TAN applications, see Using TAN Applications and Utilities in the TAN Guidelines for general instructions. If you want to avoid changing the master application file, use the accompanying configuration file. Or make a copy of this file and edit and run it directly. Or create and configure a transformation scenario in Oxygen, defining the relevant parameters as you like. If you are comfortable with XSLT, try creating your own stylesheet, then import this one, and customize the process. To access the code base, follow the link in the `<xsl:include>` at the bottom of this file.

#### Description

*Primary input:* a TAN-T or TAN-TEI file that represents a target template for the parsed content coming from the secondary input

*Secondary input:* one or more non-TAN files in plain text, XML, or Word format (docx); perhaps configuration files for the parameters

*Primary output:* the primary output with its contents replaced by a tree parsed by applying rules to the source

*Secondary output:* none

This application is intended to help users convert a text to TAN-T, TAN-TEI, or TAN-A. This is a difficult task, mainly because the source text could be either plain text, an XML file, or a Word document, which requires either going from unstructured to structured text, or from one type of structure to another. If a Word document, the formatting might mean something, or it might not. Structure might be embedded in the text, or in formatting, or both. Users tend to be inconsistent and incomplete, and the docx format has challenges not apparent to the user. The XML structure in a Word file might break up adjacent text identically formatted, because it is preserving a record of editing history, or noting where the cursor was when the document was last edited. In sum, one should not take for granted the challenge of building a pipeline from pre-TAN/TEI files to TAN/TEI ones!

The "plain" text itself poses challenges. We assume that there are in the text various numerals or words that signal reference numbers. But there are thousands of ways an editor might choose to use those reference numbers. Some editors interleave into a single document multiple overlapping or competing reference systems. A TAN file allows only one primary tree, so only one of those reference systems can be used.

Body Builder handles these problems by allowing the editor to declare a sequence of patterns in the text that are the key to the textual hierarchy. To build that sequence of patterns properly, you must have a very good command of regular expressions. To get you started, some examples have been provided, based on actual conversions into TAN from challenging real-world documents.

This utility has been designed based on select test cases, and there are no doubt many ways it could be developed and enhanced. If you encounter a problem, raise a ticket in the GitHub account.

Some assumptions:



- If the catalyzing input file is not a TAN file, then a fallback, generic TAN file should be used; the specific one is determined by parameters below.
- If the catalyzing input file is TAN-T, that means the output will be as well, and only the structured but plain text will be returned, because TAN-T does not have any internal markup.
- If the catalyzing input file is TAN-TEI, the TAN-TEI output will be structured text, with select internal markup. To coordinate the features of your text with specific TEI markup may require testing with the parameters below.
- If the catalyzing input is TAN-A, then output will consist of nothing, at the moment. When this feature is eventually supported, the output TAN-A file will contain structured annotations on the text. This option will be supported only for Word files, whose comments will be interpreted as TAN-A claims.

Some tips:

- Build the parameters incrementally. You will find that two or three of the parameters below are a challenge to get right, especially for complicated documents. Begin with one or two components, test the output, then add more components.
- If building up the components in `$main-text-to-markup`, start with the most general rule first, but put it at the end of the list. Incrementally add more specific rules, placing them before the more general ones.
- If you find that the output doesn't match what you intended, try commenting out some of the elements in `$main-text-to-markup`.
- Look out for problems in your source document. Sometimes this application results in erroneous output not because of the application, but because the input is not what you expected. In fact, if you are working with live documents that others are providing you, this application may help you identify inconsistencies and problems in that input.
- If there are certain recurrent errors, you can actually plan for them. See the separate CLIO configuration file, which inserts the illegal `<unexpected>` to signal a problem.

Nota bene:

- Many input files will be full of internal inconsistency and error. Do not take results at face value. Scrutinize the output. Sometimes this will reveal that the problem originates with the input: typos, inconsistencies, bad formatting, etc. If you see errors in the input, you can either (1) fix the input or (2) customize this application to make those changes during processing. Option 2 is definitely to be preferred if the source text is a live, working document that you have little control over, and there is even the slightest chance it might be revised, and need to be processed again.
- This application works well with a TAN file that points to the source file in question, via `<source>` or `<predecessor>`. As that source file gets updated, the TAN file can be re-processed through this application, to refresh the results.
- Currently, this application focuses only select Word docx components: the main text, comments, deletions, insertions. No support is yet provided for the header, footer, footnotes, endnotes.
- This application was developed in tandem with two sets of actual workflows, whose results have been documented in the files in the config subdirectory. No doubt other concrete examples will cause this application to grow and change, or bring out bugs. Feel free to register problems or feature requests via github.

Warning: certain features have yet to be implemented

- Anchor comments to gaps between characters, so they are not lost when the anchored text is lost.
- Support HTML input
- Support ODT input
- Let the default template be a document with the root element body.
- Support parsing of docx endnotes and footnotes.
- Demonstrate how to convert a raw index to TAN-A.

## Body Remodeler

*Location:* utilities/Body%20Remodeler/Body%20Remodeler.xsl [../utilities/Body%20Remodeler/Body%20Remodeler.xsl]

Suppose you have a text in a well-structured TAN-T file, and you want to use it to model the structure of another version of that same work. This application will take the input, and infuse the text into the structure of the model, using the proportionate lengths of the model's text as a guide where to break the new text. Any two versions of a single work, particularly translations, paraphrases, and other versions, rarely correlate. A translator may begin a work being relatively verbose, and become more economical in later parts. Such uneven correlation means that one-to-one modeling is not a good strategy for aligning the new text. Rather, one should start with the topmost structures and working progressively toward the smallest levels. Body Remodeler supports such an incremental approach, and allows you to restrict the remodeling activity to certain parts of a text. When used in tandem with the TAN editing tools for Oxygen, which allow you to push and pull words, clauses, and sentences from one leaf div to another, you will find that Body Builder can save you hours of editorial work.

Version 2021-07-13

This master stylesheet is the public interface for the application. The parameters you will most likely want to change are listed and documented below, to help you customize the application to suit your needs. If you are relatively new to XSLT, or TAN applications, see *Using TAN Applications and Utilities* in the TAN Guidelines for general instructions. If you want to avoid changing the master application file, use the accompanying configuration file. Or make a copy of this file and edit and run it directly. Or create and configure a transformation scenario in Oxygen, defining the relevant parameters as you like. If you are comfortable with XSLT, try creating your own stylesheet, then import this one, and customize the process. To access the code base, follow the link in the `<xsl:include>` at the bottom of this file.

Description

*Primary input:* preferably a TAN-T or TAN-TEI file

*Secondary input:* a TAN-T or TAN-TEI file that has model div and reference system

*Primary output:* the model, with its div structure intact, but the text replaced with the text of the input, allocated to the new div structure proportionate to the model's text length

*Secondary output:* none

Nota bene:

- If the catalyzing input file is not a class-1 file, but just an XML file, it will be read for its string value. The output will be a copy of the model with the string proportionately allocated to its body components.
- If you remodel a set of sibling leaf divs but exclude certain intervening leaf divs from being remodeled, the entire remodel will be placed at the location of the first leaf div only. That is, that area of the remodel will be consolidated, and the text will no longer reflect the original order.
- Because this application produces TAN output, metadata will be supplied to the output, along with a change entry, crediting/blaming the application.
- Comparison is made with the model on the basis of resolved, not expanded, class 1 files, and any matches involving @n or @n-built references will be on the basis of resolved numerals.
- Although the model can be a TAN-TEI file, refining the output will not be possible using the TAN Oxygen editor tools, because pushing a word, clause, or sentence from one leaf div to another will inevitably require splitting and rejoining the host elements. Such a utility is possible, but would require resources for development.

Warning: certain features have yet to be implemented

- Support the complete-the-square method (model has a redivision that matches the input's div structure)
- Test, troubleshoot against various TEI models

Strategies for use

*Method:* gentle increments

Use this method in tandem with the TAN editing tools in Oxygen, where you can easily push and pull entire words, clauses, and sentences from one leaf div to another. When you are editing (##2, 5), place the model in a parallel window.

1. Run plain text against the model.
2. Edit the output, focusing only on getting the top-level divisions correct.
3. Change the parameter `$preserve-matching-ref-structures-up-to-what-level` to 1.
4. Run the edited input against the model again. Your top-level divisions should remain intact.
5. Edit the output, focusing only on getting the 2nd-level divisions correct.
6. Repeat ##3-5 through the rest of the hierarchy.

*Working with non-XML input:* You might have text from some non-XML source that you want to feed into this method. If you can get down to the plain text, put it into any XML file, and run it through this application, changing the parameter `$model-uri-relative-to-catalyzing-input` to specify exactly where the model is. You'll get the model with the text infused. It will need a lot of metadata editing, but at least you'll have a good start for structuring the body.

## Body Sync

*Location:* utilities/Body%20Sync/Body%20Sync.xsl [../utilities/Body%20Sync/Body%20Sync.xsl]

Version 2021-07-07

This master stylesheet is the public interface for the application. The parameters you will most likely want to change are listed and documented below, to help you customize the application to suit your needs. If you are relatively new to XSLT, or TAN applications, see *Using TAN Applications and Utilities* in the TAN Guidelines for general instructions. If you want to avoid changing the master application file, use the accompanying configuration file. Or make a copy of this file and edit and run it directly. Or create and configure a transformation scenario in Oxygen, defining the relevant parameters as you like. If you are comfortable with XSLT, try creating your own stylesheet, then import this one, and customize the process. To access the code base, follow the link in the `<xsl:include>` at the bottom of this file.

#### Description

*Primary input:* a class 1 file with a redivision element in the head

*Secondary input:* the redivision

*Primary output:* the primary input, with the text of its body revised to match the text in the chosen redivision

*Secondary output:* none

Nota bene:

- The comparison can be made only on the basis of space-normalized comparisons, which means that the output will have leaf divs without any internal indentation.
- If there are any special end-of-div characters to insert, they will be rendered as hexadecimal code-point entities.
- Comments and processing instructions inside the body will be retained. If you choose to mark alterations, make sure there aren't already some in your file, otherwise it will all get mixed up.

## Catalog Creator

*Location:* utilities/Catalog%20Creator/Catalog%20Creator.xsl [../utilities/Catalog%20Creator/Catalog%20Creator.xsl]

Version 2021-07-07

This master stylesheet is the public interface for the application. The parameters you will most likely want to change are listed and documented below, to help you customize the application to suit your needs. If you are relatively new to XSLT, or TAN applications, see *Using TAN Applications and Utilities* in the TAN Guidelines for general instructions. If you want to avoid changing the master application file, use the accompanying configuration file. Or make a copy of this file and edit and run it directly. Or create and configure a transformation scenario in Oxygen, defining the relevant parameters as you like. If you are comfortable with XSLT, try creating your own stylesheet, then import this one, and customize the process. To access the code base, follow the link in the `<xsl:include>` at the bottom of this file.

#### Description

*Primary input:* any XML file

*Secondary input:* none

*Primary output:* perhaps diagnostics

*Secondary output:* a new catalog file for select files in the input file's directory, and perhaps subdirectories; if the collection is TAN-only, the filename will be catalog.tan.xml, otherwise it will be catalog.xml

Every catalog file is an XML file with a root element `<collection>` with children elements `<doc>`. Both `<collection>` and `<doc>` are in no namespace. `<doc>` can contain anything, but it is arbitrary.

*Nota bene:*

- Files with the name catalog.tan.xml and catalog.xml will be ignored.
- Only files available as an XML document will be catalogued.

## File Copier

*Location:* utilities/File%20Copier/File%20Copier.xsl [../utilities/File%20Copier/File%20Copier.xsl]

Version 2021-07-07

This master stylesheet is the public interface for the application. The parameters you will most likely want to change are listed and documented below, to help you customize the application to suit your needs. If you are relatively new to XSLT, or TAN applications, see Using TAN Applications and Utilities in the TAN Guidelines for general instructions. If you want to avoid changing the master application file, use the accompanying configuration file. Or make a copy of this file and edit and run it directly. Or create and configure a transformation scenario in Oxygen, defining the relevant parameters as you like. If you are comfortable with XSLT, try creating your own stylesheet, then import this one, and customize the process. To access the code base, follow the link in the `<xsl:include>` at the bottom of this file.

Description

*Primary input:* any XML file

*Secondary input:* none (but see parameters)

*Primary output:* none

*Secondary output:* the file copied to the target location, but with all relative `@hrefs` revised in light of the target location

*Nota bene:*

- Links are based on common constructs. Resolution of `@href` is applied everywhere, but `@src`, only in HTML files.
- Processing instructions will be parsed for values assigned to any href pseudo-attribute.

## TAN-A-Im Builder

*Location:* utilities/TAN-A-Im%20Builder/TAN-A-Im%20Builder.xsl [../utilities/TAN-A-Im%20Builder/TAN-A-Im%20Builder.xsl]

Well-curated lexico-morphological data is highly valuable for a variety of applications such as quotation detection, stylometric analysis, and machine translation. This application will process any TAN-T or TAN-TEI file through existing TAN-A-lm language libraries, and online search services, looking for the best lexico-morphological profiles for the file's tokens.

Version 2021-09-06

This master stylesheet is the public interface for the application. The parameters you will most likely want to change are listed and documented below, to help you customize the application to suit your needs. If you are relatively new to XSLT, or TAN applications, see Using TAN Applications and Utilities in the TAN Guidelines for general instructions. If you want to avoid changing the master application file, use the accompanying configuration file. Or make a copy of this file and edit and run it directly. Or create and configure a transformation scenario in Oxygen, defining the relevant parameters as you like. If you are comfortable with XSLT, try creating your own stylesheet, then import this one, and customize the process. To access the code base, follow the link in the `<xsl:include>` at the bottom of this file.

#### Description

*Primary input:* a class 1 file

*Secondary input:* a TAN-A-lm template; language catalogs; perhaps language search services

*Primary output:* a new TAN-A-lm file freshly populated with lexicomorphological data, sorted with unmatched tokens at the top, followed by ambiguous ones, followed by non-ambiguous ones

*Secondary output:* none

*Optimization strategies adopted:*

- Minimize the number of times files in the language catalog must be consulted and resolved
- A hit on `@val` in a local TAN-A-lm file precludes any follow-up searches based `@rgx` or online search services

*Nota bene:*

- There must be access to a language catalog, i.e., a collection of TAN-A-lm files that are language specific.
- The TAN-A-lm is relied upon as dictating the settings for the file, e.g., tokenization pattern, TAN-mor morphology, etc.
- We assume that a search for lexico-morphological data will entail a lot of different TAN-A-lm files with a number of conventions. Codes found in language catalogs must be converted to TAN-standardized feature names, and then reconverted into the codeset of choice, dictated by the `<morphology>` in the template TAN-A-lm file.

Warning: certain features have yet to be implemented

- What if the `@xml:lang` of the input doesn't match TAN-mor or language catalog files?
- What if a morphology has `@which`? Will it still work?
- Ensure the responsible repopulation of the metadata of the template
- Support false value for `$retain-morphological-codes-as-is`

## TAN-A-lm Calibrator

*Location:* utilities/TAN-A-lm%20Calibrator/TAN-A-lm%20Calibrator.xsl [../utilities/TAN-A-lm%20Calibrator/TAN-A-lm%20Calibrator.xsl]

This application is useful when editing TAN-A-lm files. Very frequently, when using local language resources to generate a fresh TAN-A-lm file for a class-1 file, the results are very dirty. Cleaning up the file normally involves deleting many entries, so that alternative options' certainty rates no longer add to a whole i.o. Or perhaps certainty has not even been set, and it needs to be added. This application will refresh the certainty rates of a TAN-A-lm, making it more useful for applications that rely on certainty rates for scoring, such as Tangram. A second way this may be useful is for edits to language-specific TAN-A-lm file, where you might be recalibrating the certainty values of some lm combinations. Perhaps a wordform that has ten lexicomorphological resolutions, each one with a detailed `@cert` value. You want to promote one of the options as being slightly more probable, but you do not want to recalculate all the values so they add to i.o. You can increase or decrease the `@cert` value of an option, then run the file through this application to recalibrate all entries so they add to i.o. certainty.

Version 2021-07-07

This master stylesheet is the public interface for the application. The parameters you will most likely want to change are listed and documented below, to help you customize the application to suit your needs. If you are relatively new to XSLT, or TAN applications, see *Using TAN Applications and Utilities* in the TAN Guidelines for general instructions. If you want to avoid changing the master application file, use the accompanying configuration file. Or make a copy of this file and edit and run it directly. Or create and configure a transformation scenario in Oxygen, defining the relevant parameters as you like. If you are comfortable with XSLT, try creating your own stylesheet, then import this one, and customize the process. To access the code base, follow the link in the `<xsl:include>` at the bottom of this file.

### Description

*Primary input:* any TAN-A-lm file

*Secondary input:* none

*Primary output:* the TAN-A-lm file with certainty recalibrated

*Secondary output:* none.

*Warning:* certain features have yet to be implemented

- Look at ways to adjust tok certainty

*Nota bene:*

- Input is not resolved ahead of time, so inclusions are ignored.
- Calibration is not applied to `<tok>`, only to `<lm>s` within any `<ana>`. The certainty of `<tok>` is difficult to calibrate because of the complexities involved in `@ref`, `@rgx`, and `@chars` .. A future version of this application may support that feature.

## Updater

*Location:* utilities/Updater/Updater.xsl [../utilities/Updater/Updater.xsl]

This master stylesheet is the public interface for the application. The parameters you will most likely want to change are listed and documented below, to help you customize the application to suit your needs. If you are relatively new to XSLT, or TAN applications, see *Using TAN Applications and Utilities* in the TAN Guidelines for general instructions. If you want to avoid changing the master application file, use the accompanying configuration file. Or make a copy of this file and edit and run it directly. Or create and configure a transformation scenario in Oxygen, defining the relevant parameters as you like. If you are comfortable with XSLT, try creating your own stylesheet, then import this one, and customize the process. To access the code base, follow the link in the `<xsl:include>` at the bottom of this file.

Version 2021-07-07

Description

*Primary input:* any TAN file version 2020

*Secondary input:* none

*Primary output:* the TAN file converted to the latest version

*Secondary output:* none

*Nota bene:*

- To convert TAN files from a version earlier than 2020, use applications released with prior alpha versions.

## TAN Applications

Standard TAN applications are designed to take TAN or TEI files and create output that allows users to study particular aspects of the text through interaction, statistics, and visualization. These are advanced, complex programs, and not all the intended features may have been implemented.

Because of their power, these applications have numerous parameters for configuration. You are encouraged to read closely the documentation in the application to determine how to make the application work for your particular goals.

Each section below is generated automatically from the master file that drives the process. Any global parameters that are referred to in the discussion are explained in the file itself.

### Diff+

*Location:* applications/Diff+/Diff+.xsl [../applications/Diff+/Diff+.xsl]

Version 2021-09-06

Take any number of versions of a text, compare them, and view and study all the text differences in an HTML page. The HTML output allows you to see precisely where one version differs from the other. A small Javascript library allows you to change focus, remove versions, and explore statistics that show quantitatively how close the versions are to each other. Parameters allow you to make normalizations before making the comparison, and to weigh statistics accordingly. This application has been used not only for individual comparisons, but for more demanding needs: to analyze changes in documents passing through a multistep editorial workflow, to compare the quality of OCR results, and to study the relationship between ancient/medieval manuscripts (stemmatology).



Examples of output:

- <https://textalign.net/output/CFR-2017-title1-vol1-compared.xml> XML master output file, comparing four years of the United States Code of Federal Regulations, vol. 1
- <https://textalign.net/output/CFR-2017-title1-vol1-compared.html> HTML comparison of four years of the United States Code of Federal Regulations, vol. 1
- <https://textalign.net/output/diff-grc-2021-02-08-five-versions.html> Comparison of results from four OCR processes against a benchmark, classical Greek
- <https://textalign.net/cliio/darwin-3diff.html> Comparison of three editions of Darwin's works, sample
- <https://textalign.net/cliio/hom-01-coll-ignore-uv.html> Comparison of five versions of Griffolini's translation of John Chrysostom's Homily 1 on the Gospel of John

This master stylesheet is the public interface for the application. The parameters you will most likely want to change are listed and documented below, to help you customize the application to suit your needs. If you are relatively new to XSLT, or TAN applications, see *Using TAN Applications and Utilities* in the TAN Guidelines for general instructions. If you want to avoid changing the master application file, use the accompanying configuration file. Or make a copy of this file and edit and run it directly. Or create and configure a transformation scenario in Oxygen, defining the relevant parameters as you like. If you are comfortable with XSLT, try creating your own stylesheet, then import this one, and customize the process. To access the code base, follow the link in the `<xsl:include>` at the bottom of this file.

#### Description

This is a MIRU Stylesheet (MIRU = Main Input Resolved URIs)

*Primary input:* any XML file, including this one (input is ignored)

*Secondary input:* one or more files

*Primary output:* perhaps diagnostics

*Secondary output:* for each detectable language in the secondary input: (1) an XML file with the results of `tan:diff()` or `tan:collate()`, infused with select statistical analyses; (2) a rendering of #1 in an interactive, visually engaging HTML form

#### *Nota bene:*

- This application is useful only if the input files have different versions of the same text in the same language.
- The XML output is a straightforward result of `tan:diff()` or `tan:collate()`, perhaps wrapped by an element that also includes prepended statistical analysis.
- The HTML output has been designed to work with specific JavaScript and CSS files, and the HTML output will not render correctly unless you have set up dependencies correctly. Currently, the HTML output is directed to the TAN output subdirectory, with the HTML pointing to the appropriate javascript and CSS files in the `js` and `css` directories.

Warning: certain features have yet to be implemented

- Revise process that reinfuses a class 1 file with a diff/collate into a standard extra TAN function.

- Add parameter to allow serialization of input XML, for closer comparison of XML structures.

This application currently just scratches the surface of what is possible. New features are planned! Some desiderata:

1. Support a single TAN-A as the catalyst or MIRU provider, allowing `<alias>` to define the groups.
2. Support MIRUs that point to non-TAN files, e.g., plain text, docx, xml.
3. Allow one to decide whether Venn diagrams should adjust the common area or not.
4. Enhance options on statistics.

## Parabola

*Location:* applications/Parabola/Parabola.xsl [../applications/Parabola/Parabola.xsl]

*Version* 2021-07-20

This application allows you to take a library of TAN/TEI files with multiple versions of each work and present them in an interactive HTML page.

This master stylesheet is the public interface for the application. The parameters you will most likely want to change are listed and documented below, to help you customize the application to suit your needs. If you are relatively new to XSLT, or TAN applications, see *Using TAN Applications and Utilities* in the TAN Guidelines for general instructions. If you want to avoid changing the master application file, use the accompanying configuration file. Or make a copy of this file and edit and run it directly. Or create and configure a transformation scenario in Oxygen, defining the relevant parameters as you like. If you are comfortable with XSLT, try creating your own stylesheet, then import this one, and customize the process. To access the code base, follow the link in the `<xsl:include>` at the bottom of this file.

*Examples of output:*

- <http://textalign.net/output/aristotle-categories-ref-bekker-page-col-line.html> Aristotle, Categories, in eight versions, six languages
- <https://textalign.net/output/cpg%204425.TAN-A-div-2018-03-09.html> Homilies on the Gospel of John, John Chrysostom, four versions, two languages
- <https://evagriusponticus.net/cpg2430/cpg2430-full-for-reading.html> The Praktikos by Evagrius of Pontus, three languages, with Bible quotations
- <https://textalign.net/quran/quran.ara+grc+syr+lat+deu+eng.html> Qur'an in eighteen versions, six languages

*Description*

*Primary input:* a TAN-A file

*Secondary input:* its sources expanded

*Primary output:* an interactive HTML page with the versions of the chosen work grouped and arranged in parallel, with annotations

*Secondary output:* none

This flagship TAN application was the catalyst for TAN itself. It was developed not only for highly polished, finalized web publication, but to support complex editorial processes. The impetus was a project of five scholars translating into English an ancient text that survives only fragmentarily in its original Greek, and that was translated into Syriac several times. The team intended to translate into English the Greek fragments that survive, as well as the Syriac translations, and to do so with rigorous consistency. In passages where the author (Evagrius of Pontus) quoted from Scripture or Aristotle, they needed to be able to consult the Greek or Syriac text behind the quoted source. Such demands required a shared digital infrastructure to coordinate roughly forty different versions, including the team's working English translations, which were changing week to week. Parabola was indispensable.

Nota bene:

- This application has many fine-tuned configuration options. Read through the whole file to see what is available.
- This application processes a single work, assumed to be that of the first <source> in the catalyzing TAN-A file. If you want a different source, move the relevant <source> to the first position.

Warning: certain features have yet to be implemented

- Simplify the routine. This was converted from an inferior workflow, and still takes too many passes to get to the output.
- Annotations need a lot of work. They should be placed into the merge early. In fact, the whole workflow needs to be revised, with most structural work finished before attempting to convert to HTML.
- Develop output option using nested HTML divs, to parallel the existing output that uses HTML tables
- Integrate diff/collate into cells, on both the global and local level.
- Develop the css bar to allow users to click source id labels on and off.
- Add labels for divs higher than version wrappers.
- Consider merging based upon the resolved file, not its expansion.

## TAN Out

*Location:* applications/TAN%20Out/TAN%20Out.xsl [./applications/TAN%20Out/TAN%20Out.xsl]

Version 2021-09-06

This utility exports a TAN or TEI file to other media. Currently only HTML is supported, optimized for JavaScript and CSS within the output/js and output/css directories in the TAN file structure.

This utility quickly renders a TAN or TEI file as HTML. It has been optimized for JavaScript and CSS within the output/js and output/css in the TAN file structure.

This master stylesheet is the public interface for the application. The parameters you will most likely want to change are listed and documented below, to help you customize the application to suit your needs. If you are relatively new to XSLT, or TAN applications, see Using TAN Applications and Utilities in the TAN Guidelines for general instructions. If you want to avoid changing the master application file, use the accompanying configuration file. Or make a copy of this file and edit and run

it directly. Or create and configure a transformation scenario in Oxygen, defining the relevant parameters as you like. If you are comfortable with XSLT, try creating your own stylesheet, then import this one, and customize the process. To access the code base, follow the link in the `<xsl:include>` at the bottom of this file.

#### Description

*Primary input:* any TAN or TEI file

*Secondary input:* none

*Primary output:* if no destination filename is specified, an HTML file

*Secondary output:* if a destination filename is specified, an HTML file at the target location

#### Nota bene:

- This application can be used to generate primary or secondary output, depending upon how parameters are configured (see below).

#### Warning: certain features have yet to be implemented

- Need to wholly overhaul the default CSS and JavaScript files in `output/css` and `output/js`
- Need to build parameters to allow users to drop elements from the HTML DOM.
- Need to enrich output message with parameter settings.
- Need to support export to `odt`.
- Need to support export to `docx`.
- Need to support export to plain text.

## Tangram

*Location:* `applications/Tangram/Tangram.xml` [`../applications/Tangram/Tangram.xml`]

This application searches for and scores clusters of words shared across two groups of texts, allowing you to look for quotations, paraphrases, or shared topics. When configured correctly, Tangram can also find idioms and collocations. Each input file, which may come in a variety of formats (TAN, TEI, other XML formats, plain text, Word documents) must be assigned to one or both of two groups, each group representing a work. Members of a work-group can be from different languages. Users can specify how many ngrams ("words") should be found, and how far apart they can be from each other. Ngram order is disregarded (e.g., ngram "shear", "blue", "sheep" would match ngram "sheep", "blue", "shear"). Tangram first normalizes and tokenizes each text according to language rules. Each token is converted to one or more aliases. If lexico-morphological data is available through a TAN-A-lm file, or if there is a TAN-A-lm language library for the language of the text being processed, a token may be replaced by multiple lexemes (e.g., "rung" would attract aliases "ring" and "rung"); otherwise, a case-insensitive generic form of the word is used. Then each text in group 1 is compared to each text in group 2 that shares the same language. For each pair of texts, Tangram identifies clusters of tokens that share the same alias. It then consolidates adjacent clusters of ngrams, and scores the results based upon several criteria. Grouped clusters are then converted into a primitive TAN-A file consisting of claims that identify parallel passages of each pair of texts, and the output is rendered as sortable HTML, to facilitate better study of the results. Tangram was written primarily to support quotation detection in ancient Greek and Latin texts, which has rather demanding requirements.

Because of these objectives, Tangram frequently operates in quadratic or cubic time, so can be quite time-consuming to run. A feature allows the user to save intermediate stages as temporary files, to reduce processing time.

Version 2021-09-06

This master stylesheet is the public interface for the application. The parameters you will most likely want to change are listed and documented below, to help you customize the application to suit your needs. If you are relatively new to XSLT, or TAN applications, see Using TAN Applications and Utilities in the TAN Guidelines for general instructions. If you want to avoid changing the master application file, use the accompanying configuration file. Or make a copy of this file and edit and run it directly. Or create and configure a transformation scenario in Oxygen, defining the relevant parameters as you like. If you are comfortable with XSLT, try creating your own stylesheet, then import this one, and customize the process. To access the code base, follow the link in the `<xsl:include>` at the bottom of this file.

#### Description

*Primary input:* any XML file, including this one (input is ignored)

*Secondary input:* one or more files allocated to two groups; perhaps temporary files; perhaps TAN-A-Im files, either associated with secondary input, or part of a language catalog

*Primary output:* perhaps diagnostics

*Secondary output:* (1) an XML file with TAN-A claims identifying quotations or parallels, with the most likely at the top; (2) an HTML file that renders #1 in a more legible format.

Warning: certain features have yet to be implemented

- Support the method pioneered by Shmidman, Koppel, and Porat: <https://arxiv.org/abs/1602.08715v2>
- Make sure texts run against themselves work.
- Incorporate simpler tablesorter javascript

*Nota bene:*

- This application is one of the most experimental, and may not perform as expected. It has been successfully tested on several dozen classical Greek texts.
- A file may be placed in both groups, to explore cases of self-quotation or repetition.
- This process can take a very long time for lengthy texts, particularly at the stage where a 1gram gets added to an Ngram, because the process takes quadratic time. Many messages could appear during `tan:add-1gram()`, updating progress through perhaps long routines. It is recommended that you save intermediate steps, to avoid having to repeat steps on subsequent runs.

*Processing time example:* two texts in group 1 of about 4.4K and 2.6K words against a single text in group 2 of about 137K words took 319 seconds to build up to a set of unconsolidated token aliases. One text from group 1 had an associated TAN-A-Im annotation and the text from group 2 did as well. There was a TAN-A-Im library associated with the language (Greek). When the program was run again without changing parameters, it took only 11 seconds to get to that same stage, because of the saved temporary files. That same set of texts took 1,219 seconds (20 minutes) to develop into a 3gram, with chops at common Greek stop words and skipping the most common 1% token aliases.

When run again, based on temporary files, it took only 23 seconds. That is, saving intermediate steps could save you hours of time.

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# Chapter 10. Developing with TAN

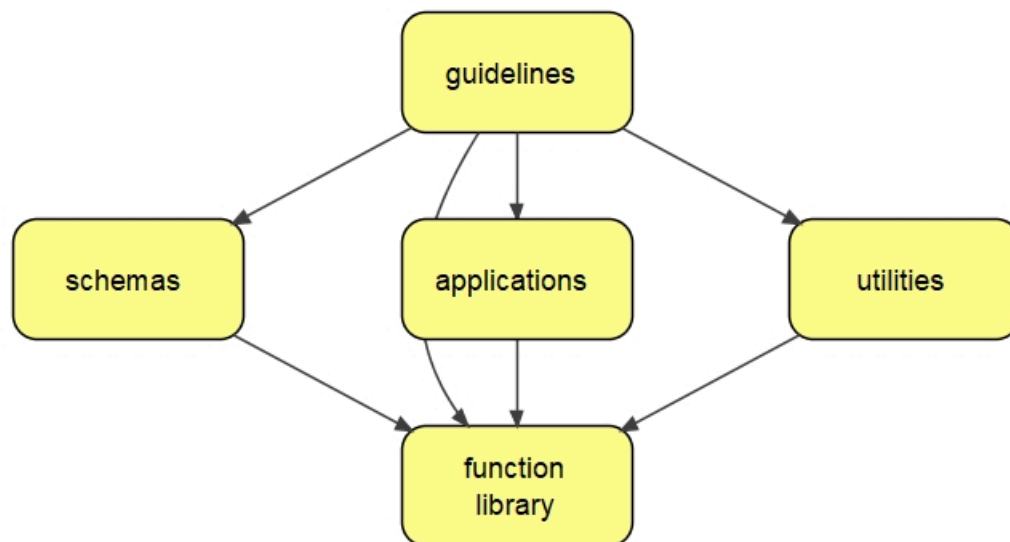
This chapter addresses anyone who wants to develop their own applications using TAN. Some may want to experiment, revise, or extend the code that already exists. Others may be developing their own XQuery or XSLT application, and intend to use select TAN functions. Yet others may want to customize the standard TAN applications or utilities, perhaps as part of a pipeline or workflow, or for populating a website.

TAN is very developer-friendly. The function library is one of the richest, largest of its kind. If you are accustomed to doing natural language processing through the Natural Language Toolkit [<https://www.nltk.org/>], Classical Language Toolkit [<http://cltk.org/>], or a comparable package, you may find that TAN has the building blocks you need to do the same activities within an XSLT or XQuery environment.

## General design features

All TAN digital assets are organized primarily by role. At the heart of TAN is its function library. This library is the foundation for the schemas that validate TAN files, as well as applications and utilities. All of those resources contribute to a large share of the content in these guidelines.

Figure 10.1. TAN dependencies



The TAN function library is so named because it relies heavily upon functions. But, because it is written in XSLT, there are also global parameters, global variables, templates, keys, and other declarations. Certain design principles have been adopted when designing and organizing these declarations.

Validation mode. The TAN function library was designed first and foremost to drive the validation process. That process prioritizes dispensing with parts of the primary input file no longer needed for error-checking. As the TAN function library grew to supporting utilities and applications, a sharp distinction needed to be drawn between processing for validation and processing for other purposes. The static global parameter `$tan:validation-mode-on` exerts a significant influence upon

many operations. Files in the `functions` subdirectory whose names include the keyword `extended` are excluded from the package when validation mode is on. By default validation mode is off, fetching everything in the TAN function library.

Named templates. In general, functions have been preferred over named templates. This allows TAN operations to be used in XPath expressions, and contributes to more concise code. Named templates have been used only when result documents need to be created, or when tunnel parameters need to be preserved.

Functions. All functions have their visibility declared `public` or `private`. You are welcome to use private functions, but keep in mind that they are generally specialized. Some functions have parallel cached and non-cached versions, to support environments where memoized functions are not allowed. Many functions have multiple versions based on the number of parameters (arity). Lower-arity functions contain comments that point to the highest-arity version, which is fully annotated by enclosed comments. We place them inside the `<xsl:function>`, so that if a function needs to be copied or moved, the documentation always accompanies it. Documentation shares a common structure: first, the intended input; second, the intended output; third, other notes; finally: `kw:` with a comma-delimited list of keywords categorizing the function.

Template modes. Every template mode has an associated `<xsl:mode>` declaration, which always defines the default behavior of the template. To reduce the chance of interference with XSLT applications that might include the library, there is only one template that defines behavior for all template modes (`mode=" #all "`), at a very low priority, for elements that contain validation error messages. That means that you can use `<xsl:include>` or `<xsl:import>` without worrying about conflicts with template modes in your host application. All mode names are set in the TAN namespace, to avoid conflicts with dependent resources.

Keys. For convenience, all keys are kept in files at `functions/setup`.

Character maps. For convenience, all character maps are kept in files at `functions/setup`.

Global parameters. Most global parameters are invitations to the user to configure the environment, and they are placed in the main `parameters` directory. A few global parameters are reserved for technical processes, and they are kept in files at `functions/setup`. All global parameters are bound to the TAN namespace. The exception to this general rule of thumb are the global parameters unique to specific utilities and applications; they are placed in no namespace. Doing this has helped solidify the boundaries of the TAN function library.

Global variables. Development work revealed that global variables, even those that were not used, frequently slowed the validation process. Therefore global variables are kept to a minimum within the standard components, but are used more extensively in the extended components. Each global variable is bound to the TAN namespace. Those whose values rely upon the primary input file are constructed under the assumption that the primary input file is a TAN file.

For more specific explanation of individual components see Chapter 13, *TAN functions, templates, global variables, and keys*.

## Using TAN functions

TAN's extensive function library, which drives the validation process, provides a foundation for application development in XSLT. If you are writing an XSLT application, simply point via `<xsl:include>` or `<xsl:import>` to `functions/TAN-function-library.xsl`. That's it. You now have access to the complete TAN function library. If you are developing for XQuery, you can access any of the functions via `fn:transform()`, taking care to set up that function's parameters correctly. See <https://www.w3.org/TR/xpath-functions-31/#func-transform>.



Some relatively complex TAN functions may be affected by the settings in the subdirectory `parameters`. Otherwise, the functions have been designed to be as orthogonal as possible.

There are so many TAN functions, you may not know where to begin. Discovering what is available will take some time and study. You could simply browse the XSLT files that constitute the function library. Or you can use the autocomplete feature in Oxygen's editing mode. Either method will provide a complete but perhaps chaotic experience. These guidelines provide a more accessible starting point. Begin with the grouped index: the section called "Functions by group". Find a topic or function you are interested in, and follow the links.

## The mechanics of validation

In many cases, developers will want to work with TAN files, either as input or as output. But TAN files have a number of distinctive constructions: two different methods of inclusion (see the section called "Networked Files"), space-normalization rules (see the section called "Space characters and normalization"), numeration systems (see the section called "One reference system"), tokenization systems (see the section called "Defining words and tokens"), and pointing systems (see the section called "Class 2 pointer syntax: referencing texts"). You can work directly with raw TAN files, but you run the risk of misinterpreting the file.

Every TAN file is definitively interpreted through the TAN functions that undergird the Schematron validation process (see the section called "TAN validation"). That process is a core part of the standard TAN utilities and applications, and it determines the nature of some of the more important global variables.

Every TAN file is subject to two major transformations, both for validation and for applications.

## Resolution

The first transformation *resolves* the file. The goal is to get the file into a state where it can be understood on its own terms. A resolved TAN file contains all its relevant vocabulary and components. It can be evaluated without having to consult the files referred to by `<vocabulary>` or `<inclusion>` dependencies. (See the section called "Networked Files" for background on TAN's approach to inclusion.) This process also does some basic file-specific normalization; it will:

1. Prepare the file. This includes stamping the root element with a base URI (the path location of the file), evaluating `<alias>`, and inserting into every element a `@q` that contains a identifier unique to the element. This identifier is used by the Schematron file to match an element with any error messages in the corresponding element in the XSLT output.
2. Insert required components from `<vocabulary>`s or `<inclusion>`s using the following method:
  - a. Relevant external vocabulary items are inserted into the `<head>`, either as descendants of the appropriate `<vocabulary>` or if derived from TAN standard vocabulary as new `<tan-vocabulary>` elements immediately following the `<vocabulary-key>`. All vocabulary items are imprinted with an `<id>` corresponding to an `@xml:id` from any corresponding entry from `<vocabulary-key>`, to facilitate rapid retrieval of vocabulary. Any vocabulary `<name>` that is not normalized is duplicated with a name-normalized copy (signaled by `@norm`): lower-case, hyphens and underscores changed to spaces, and space-normalized.
  - b. Any element with an `@include` is replaced by the elements of the same name found in the target inclusion document (constructed recursively if need be). In addition, `<inclusion>` (in the head) is populated with any vocabulary items required to resolve the newly included material (recursively, if need be). This last point is important, because all `idrefs` must be interpreted

in light of the original context. Included idrefs are made available to the host document, so when you use `<inclusion>` you must ensure there are no id conflicts.

3. Normalize all numbers in original components (i.e., excluding included elements or vocabulary items) as Arabic numerals.

Files are resolved recursively. That is, no `<vocabulary>` or `<inclusion>` components are incorporated or processed until the files pointed to are themselves first resolved.

Numerals fall at the end of the process because they might need to be resolved in light of resolved vocabulary and inclusions.

The description above is necessarily generalized. For details consult the function library, particularly the `functions/resolution` directory. In cases of conflict between the code and the description above, the code should be given priority.

## Expansion

The second transformation *expands* the resolved file. You must resolve a TAN file before you try to expand it. The goal behind expansion is to unpack the components of a resolved document and identify any errors along the way (see the master list of errors [`./functions/errors/TAN-errors.xml`]). There are three levels of expansion, corresponding to the three levels of Schematron validation: terse, normal, and verbose.

In terse expansion, for each value of an attribute, an element with the attribute's name is placed within the parent (e.g., `@type="a b"` produces `<type>a</type>` and `<type>b</type>`). If the value is an IDref, and it points to an alias, a copy is made for the idref of each target vocabulary item. If an idref does not point to a vocabulary item of the expected type, an error message is also copied in the parent. Any values that are ranges are expanded, if need be. Select networked files are checked for basic validity. Class-2 files undergo a extra rounds of processing during terse validation: sources are adjusted if need be, and then checked against references in the host class-2 file. (See the section called "Class 2 pointer syntax: referencing texts".) In terse expansion, all pointing mechanisms are checked. Because of this basic requirement, some terse expansion can take a long time on lengthy files, or ones with complex `<adjustments>`.

Normal expansion builds on terse expansion by interrogating networked files more closely. Any errors that were reported during the terse stage but were suppressed to avoid clutter are enabled.

Verbose expansion generally attends to procedures that are complex, or are not essential parts of a validation report. For example, a `<model>` of a class-1 file will be checked, to find references that one has but is lacking in the other. A class-1 `<redivision>` will be analyzed, to make sure that the two transcriptions are identical. A catalog file in the same directory will be checked, to see if it has faulty entries.

Many errors lend themselves to solutions that can be recommended by the TAN function library. Some solutions are returned to the Schematron validation method as Schematron Quick Fixes (SQFs). XML editors that are equipped to handle SQFs (e.g., Oxygen XML Editor) can then prompt users to quickly fix an errant section. For example, if text has not been NFC Unicode-normalized, an SQF will allow a user to make the change in two clicks. Thus, TAN validation does not merely tell you what the problems are; it tries to help fix them.

The term "expansion" describes the process but possibly not the output. If the global parameter `$tan:validation-mode-on` is true, then in the course of expanding the file the TAN templates will abandon any parts that are no longer needed. The output is normally much smaller than the input file, restricted as it is to the root element, which merely wraps errors, warnings, or fixes. So although during validation the file is really being expanded, at the end only a small portion of the

expanded file is returned to the Schematron processor, to expedite validation. But if `$tan:validation-mode-on` is false (the default value), the entire expanded file and its dependencies are returned. Such output can be very useful in applications.

The preceding description about expansion is necessarily generalized. For details consult the function library, especially `functions/expansion`.

## Using TAN global variables

The global variables in the TAN function library provide quick access to some important material. For a complete list of global variables, with detailed lists of dependencies and dependents, see Chapter 13, *TAN functions, templates, global variables, and keys*. That technical appendix will not provide the context necessary to identify some of the key features of the global variables, which this section attempts to provide.

As noted above, the primary task of the TAN function library is to drive the validation process, described in the previous section. If you are developing an application that begins with a TAN file, whether as primary or secondary input, it is often best to start with it in its resolved or expanded state. If that TAN file is the primary (catalyzing) input, use the global variables `$tan:self-resolved` and `$tan:self-expanded`. If it is secondary input, use `tan:resolve-doc()` and `tan:expand-doc()`. You must resolve a TAN file before you attempt to expand it.

For a class-2 file, `$tan:self-expanded`, or the output of `tan:expand-doc()`, is a sequence of documents, starting with an expansion of the class-2 file, followed by expansions of its dependencies (TAN-T or TAN-mor). Its expanded class-1 sources will be tokenized where required, and marked with anchors for each reference in the class-2 file. If a token straddles leaf `<div>`s, the token will be reconstituted by moving the tail of the token up. These expanded sources are excellent candidates for other types of transformation. For example, HTML pages can be created to integrate class-2 annotations and their class-1 sources, in a variety of ways.

Even when the validation mode is turned off (default), the validation phase (terse, normal, verbose) plays a significant role in the results of expansion. At the terse and normal phases, an expanded class-2 file will contain expanded versions of both the host file and its sources.

At the verbose level, an expanded TAN-A file will conclude its `$tan:self-expanded` sequence with one or more documents with a root element `<TAN-T_merge>`, one file per detected work. A TAN-T\_merge file has one `<head>` per class-1 source that has been merged, and the `<body>` contains a master set of `<div>`s that merge all the other sources' `<div>`s that share the same reference, after all `<adjustments>` have been made. Each leaf `<div>` in each source appears in the appropriate place, but as a child of a common `<div>` that encompasses all other leaf `<div>`s with the same reference. For each version's leaf `div`, `@type` is changed to `#version`, and other markers signify which source it corresponds to. A TAN-T\_merge file is a good basis building parallel displays (e.g., the section called "Parabola") or statistical analyses. These merge files can be created on an ad hoc basis through the function `tan:merge-expanded-docs()`, applied to individual class-1 files, after expansion.

If your application uses a TAN file as the primary input, you may want to take advantage of some other important global (see the section called "Networked Files"):

Table 10.1. Global variables for networked files

	Raw (first document available)	Resolved	Expanded
<code>&lt;inclusion&gt;</code>	—	<code>\$inclusions-resolved</code>	—

	Raw (first document available)	Resolved	Expanded
<vocabulary>	—	<code>\$vocabular-ies-resolved</code>	—
<source>	—	<code>\$sources-resolved</code>	<code>\$self-expanded[tan:TAN-T]</code>
<see-also>	<code>\$see-alsos-1st-da</code>	<code>\$see-alsos-resolved</code>	—

The column labeled "raw" lists variables that hold the first documents available, without alteration. Variables in the next column hold the resolved form, following the same process described above for `$tan:self-resolved`. The resolved forms of `<inclusion>` and `<vocabulary>` are sufficient for validation, therefore they do not have expanded versions. Expanded sources are always bundled with their class-2's `$tan:self-expanded`.

For most applications, a resolved file is a sufficient starting point. But even then, there will be places where you will want to fetch the vocabulary bound to a particular attribute or element. One of the more important functions to familiarize yourself with is `tan:vocabulary()`, which can be used to get the IRI + name pattern of a specific node, or to get all the vocabulary available for a given type.

Some developers will find even `tan:vocabulary()` a hassle to use. Consider setting the global parameter `$tan:distribute-vocabulary` (default `false`) to `true`. If that happens, whenever an attribute with an `idref` appears, it will be imprinted with the corresponding IRI + name pattern for the referred vocabulary item. Exercise this option with care: the expanded document will grow significantly larger.

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# Part IV. Appendixes

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# Chapter 11. Official TAN vocabularies

In this section are collected all official TAN vocabularies, i.e., values of `@which` predefined by TAN for certain elements. Remember, these vocabularies are not `@xml:id` values, and do not fall under the same restrictions. They may contain punctuation, spaces, and so forth. For more on the use of these vocabularies, see `@which`, specific elements, or various examples.

The vocabularies that begin `n.` and are located in the subdirectory `/vocabularies/extra` are `extra`, and they must be explicitly invoked in a TAN file by means of `<vocabulary which="[VOCABULARY NAME]">` in the declarations section of `<head>`.

The contents of this chapter have been generated automatically. In case of errors or inconsistencies, the master files should be consulted.

## TAN keywords for types of bitext relations (`<bitext-relation>`)

List of standardized terms used for types of bitext relations.

Master location: <http://textalign.net/release/TAN-2021/vocabularies/bitext-relations.TAN-voc.xml>

Table 11.1. TAN keywords for types of bitext relations

names	IRIs	Comments
unclear unclear relation	<code>tag:textalign.net,2015:bitext-relation:unclear</code>	The relationship between one source text and the other is unclear.
a/b b/a	<code>tag:textalign.net,2015:bitext-relation:a/b b/a</code>	direct unmediated descent, unknown direction
a/b	<code>tag:textalign.net,2015:bitext-relation:a/b</code>	direct unmediated descent, B descends from A
b/a	<code>tag:textalign.net,2015:bitext-relation:b/a</code>	direct unmediated descent, A descends from B
x y,x//a,y//b	<code>tag:textalign.net,2015:bitext-relation:x y,x//a,y//b</code>	A and B directly descend from X and Y, respectively, where Y is a major alteration (e.g., translation, paraphrase, adaptation) of X.
x y,x//b,y//a	<code>tag:textalign.net,2015:bitext-relation:x y,x//b,y//a</code>	B and A directly descend from X and Y, respectively, where Y is a major alteration (e.g., translation, paraphrase, adaptation) of X.
a/x/b b/x/a	<code>tag:textalign.net,2015:bitext-relation:a/x/b b/x/a</code>	direct descent, unknown direction, one intermediary

names	IRIs	Comments
	text-relation:a/x/b b/x/a	
a/x/b	tag:textal-ign.net,2015:bi-text-relation:a/x/b	direct descent, B descends from A, one mediary
b/x/a	tag:textal-ign.net,2015:bi-text-relation:b/x/a	direct relationship, A descends from B, one mediary
a/x+/b b/x+/a	tag:textal-ign.net,2015:bi-text-relation:a/x+/b b/x+/a	direct descent, unknown direction, one or more mediaries
a/x+/b	tag:textal-ign.net,2015:bi-text-relation:a/x+/b	direct descent, B descends from A, one or more mediaries
b/x+/a	tag:textal-ign.net,2015:bi-text-relation:b/x+/a	direct relationship, A descends from B, one or more mediaries
/a,/b	tag:textal-ign.net,2015:bi-text-relation:/a,/b	common parent
/a,/x/b	tag:textal-ign.net,2015:bi-text-relation:/a,/x/b	parent of A is grandparent of B
/b,/x/a	tag:textal-ign.net,2015:bi-text-relation:/b,/x/a	parent of B is grandparent of A
/x/a,/x/b	tag:textal-ign.net,2015:bi-text-relation:/x/a,/x/b	A and B have a common grandparent
/a,/x*/b	tag:textal-ign.net,2015:bi-text-relation:/a,/x*/b	parent of A is ancestor of B
/x*/a,/b	tag:textal-ign.net,2015:bi-text-relation:/x*/a,/b	parent of B is ancestor of A
/x*/a,/x*/b	tag:textal-ign.net,2015:bi-text-relation:/x*/a,/x*/b	common ancestor

## TAN keywords for types of divisions (<div-type>)

Definitive list of key terms used for textual divisions.

Master location: <http://textalign.net/release/TAN-2021/vocabularies/div-types.TAN-voc.xml>

Table II.2. TAN keywords for types of divisions

names	IRIs	Comments
abstract summary tei abstract	<p>tag:textal-ign.net,2015:div-type:abstract</p> <p>tag:textal-ign.net,2015:div-type:equiv:tei:abstract</p> <p><a href="http://dbpedia.org/resource/Abstract_(summary)">http://dbpedia.org/resource/Abstract_(summary)</a></p>	
act	<p><a href="http://dbpedia.org/resource/Act_(drama)">http://dbpedia.org/resource/Act_(drama)</a></p> <p>tag:textal-ign.net,2015:div-type:act</p>	A division or unit of a theatre work, including a play, film, opera, and musical theatre
ad praeterea	<p>tag:textal-ign.net,2015:div-type:adpraeterea</p>	division used particularly by Thomas Aquinas
addendum appendix	<p>tag:textal-ign.net,2015:div-type:addendum</p> <p><a href="http://dbpedia.org/resource/Addendum">http://dbpedia.org/resource/Addendum</a></p>	
address (postal) xhtml address	<p>tag:textal-ign.net,2015:div-type:address_(postal)</p> <p>tag:textal-ign.net,2015:div-type:equiv:xhtml:address</p> <p><a href="http://dbpedia.org/resource/Address_(geography)">http://dbpedia.org/resource/Address_(geography)</a></p>	
afterword	<p>tag:textal-ign.net,2015:div-type:afterword</p> <p><a href="http://dbpedia.org/resource/Afterword">http://dbpedia.org/resource/Afterword</a></p>	
alphabetic entry alphabetic section	<p>tag:textal-ign.net,2015:div-type:alphabetic-section</p>	Applied to works that have alphabetical divisions.



names	IRIs	Comments
amendment	tag:textal-ign.net,2015:div-type:amendment	
apologia apology	tag:textal-ign.net,2015:div-type:apologia  <a href="http://dbpedia.org/resource/Apologia">http://dbpedia.org/resource/Apologia</a>	
apophthegm saying sententia	tag:textal-ign.net,2015:div-type:apophthegm	Found in saying collections, such as the Apophthegmata patrum. This category encompasses a number of different terms that are sometimes differentiated, but are difficult for most people to distinguish.
apparatus criticus critical apparatus	tag:textal-ign.net,2015:div-type:apparatus_criticus  <a href="http://dbpedia.org/resource/Critical_apparatus">http://dbpedia.org/resource/Critical_apparatus</a>	Section of a critical edition, usually at the bottom of the page, indicating variant readings in the manuscript tradition
apparatus fontium	tag:textal-ign.net,2015:div-type:apparatus_fontium	Section of a critical edition, usually at the bottom of the page, indicating parallel textual sources
āya aya āyah ayah	tag:textal-ign.net,2015:div-type:#aya  <a href="http://dbpedia.org/resource/Ayah">http://dbpedia.org/resource/Ayah</a>	
bibliographic citation tei bibl xhtml cite	tag:textal-ign.net,2015:div-type:bibliographic_citation  tag:textal-ign.net,2015:div-type:equiv:xhtml:cite  tag:textal-ign.net,2015:div-type:equiv:tei:bibl  <a href="http://dbpedia.org/resource/Citation">http://dbpedia.org/resource/Citation</a>	

names	IRIs	Comments
bibliography	<p>tag:textal-ign.net,2015:div-type:bibliography</p> <p><a href="http://dbpedia.org/resource/Bibliography">http://dbpedia.org/resource/Bibliography</a></p>	
bismillah	<p>tag:textal-ign.net,2015:div-type:bismillah</p> <p><a href="http://dbpedia.org/resource/Bismillah">http://dbpedia.org/resource/Bismillah</a></p>	
block quote xhtml blockquote	<p>tag:textal-ign.net,2015:div-type:blockquote</p> <p>tag:textal-ign.net,2015:div-type:equiv:xhtml:blockquote</p> <p><a href="http://dbpedia.org/resource/Block_quotation">http://dbpedia.org/resource/Block_quotation</a></p>	Equivalent to TEI <quote> that is, quote in mixed content.
book	<p>tag:textal-ign.net,2015:div-type:book</p> <p><a href="http://dbpedia.org/resource/Book">http://dbpedia.org/resource/Book</a></p>	Conceptual book, not a physical one. For the physical one, see codex.
canon (law)	<p>tag:textal-ign.net,2015:div-type:canon:law</p>	
canon (music)	<p>tag:textal-ign.net,2015:div-type:canon:music</p>	
caption tei figdesc xhtml caption	<p>tag:textal-ign.net,2015:div-type:caption</p> <p>tag:textal-ign.net,2015:div-type:equiv:tei:figDesc</p> <p>tag:textal-ign.net,2015:div-type:equiv:xhtml:caption</p> <p><a href="http://dbpedia.org/resource/Photo_caption">http://dbpedia.org/resource/Photo_caption</a></p>	

names	IRIs	Comments
castlist dramatis personae tei castlist	<p>tag:textal-ign.net,2015:div-type:castlist</p> <p>tag:textal-ign.net,2015:div-type:dramatis-personae</p> <p>tag:textal-ign.net,2015:div-type:equiv:tei:castList</p> <p><a href="http://dbpedia.org/resource/Dramatis_personae">http://dbpedia.org/resource/Dramatis_personae</a></p>	A list of cast members = tei:castList
castlist item tei castitem	<p>tag:textal-ign.net,2015:div-type:castlist-item</p> <p>tag:textal-ign.net,2015:div-type:equiv:tei:castItem</p>	An entry within a castlist = tei:castItem
castlist item actor tei actor	<p>tag:textal-ign.net,2015:div-type:castlist-item-actor</p> <p>tag:textal-ign.net,2015:div-type:equiv:tei:actor</p>	An actor mentioned in a castlist = tei:actor
castlist item role tei role	<p>tag:textal-ign.net,2015:div-type:castlist-item-role</p> <p>tag:textal-ign.net,2015:div-type:equiv:tei:role</p>	A role within a castlist item = tei:role
castlist item role description tei roledesc	<p>tag:textal-ign.net,2015:div-type:castlist-item-role-description</p> <p>tag:textal-ign.net,2015:div-type:equiv:tei:roleDesc</p>	A role description within a castlist item = tei:roleDesc
causa	tag:textal-ign.net,2015:div-type:causa	Division in medieval western literature
cento	tag:textal-ign.net,2015:div-type:cento	

names	IRIs	Comments
	<a href="http://dbpedia.org/resource/Cento_(poetry)">http://dbpedia.org/resource/Cento_(poetry)</a>	
century	tag:textal-ign.net,2015:div-type:century	A textual division that contains one or more chapters or segments.
chapter capitulum	tag:textal-ign.net,2015:div-type:chapter  <a href="http://dbpedia.org/resource/Chapter_(books)">http://dbpedia.org/resource/Chapter_(books)</a>	
character tei c	tag:textal-ign.net,2015:div-type:character  tag:textal-ign.net,2015:div-type:equiv:tei:c  <a href="http://dbpedia.org/resource/Character_(computing)">http://dbpedia.org/resource/Character_(computing)</a>	
clause (grammatical) tei cl	tag:textal-ign.net,2015:div-type:clause_(grammatical)  tag:textal-ign.net,2015:div-type:equiv:tei:cl  <a href="http://dbpedia.org/resource/Clause">http://dbpedia.org/resource/Clause</a>	See also independent clause
clause (legal)	tag:textal-ign.net,2015:div-type:clause_(legal)  <a href="http://dbpedia.org/resource/Provision_(contracting)">http://dbpedia.org/resource/Provision_(contracting)</a>	
colophon	tag:textal-ign.net,2015:div-type:colophon  <a href="http://dbpedia.org/resource/Colophon">http://dbpedia.org/resource/Colophon</a>	

names	IRIs	Comments
column (table)	tag:textal-ign.net,2015:div-type:column_(table)	
comment	tag:textal-ign.net,2015:div-type:comment	
conclusion	tag:textal-ign.net,2015:div-type:conclusion  <a href="http://dbpedia.org/resource/Conclusion_(book)">http://dbpedia.org/resource/Conclusion_(book)</a>	
couplet	tag:textal-ign.net,2015:div-type:couplet  <a href="http://dbpedia.org/resource/Couplet">http://dbpedia.org/resource/Couplet</a>	
declamation	tag:textal-ign.net,2015:div-type:declamation  <a href="http://dbpedia.org/resource/Declamation">http://dbpedia.org/resource/Declamation</a>	
dedication	tag:textal-ign.net,2015:div-type:dedication  <a href="http://dbpedia.org/resource/Dedication_(publishing)">http://dbpedia.org/resource/Dedication_(publishing)</a>	
definition list xhtml dl	tag:textal-ign.net,2015:div-type:definition_list  tag:textal-ign.net,2015:div-type:equiv:xhtml:dl	
demonstratio	tag:textal-ign.net,2015:div-type:demonstratio	
dialexis	tag:textal-ign.net,2015:div-type:dialexis	

names	IRIs	Comments
dialogue	tag:textal-ign.net,2015:div-type:dialogue	
dictionary entry tei entry	tag:textal-ign.net,2015:div-type:dictionary_entry  tag:textal-ign.net,2015:div-type:equiv:tei:entry	
dictum ante canonem dictum ante capitulum	tag:textal-ign.net,2015:div-type:dictum_ante_canonem	Terminology used of medieval works, e.g., Gratian.
dictum post canonem dictum post capitulum	tag:textal-ign.net,2015:div-type:dictum_post_canonem	Terminology used of medieval works, e.g., Gratian.
discourse	tag:textal-ign.net,2015:div-type:discourse	
distinctio	tag:textal-ign.net,2015:div-type:distinctio	Terminology used of medieval works, e.g., Gratian.
dithyramb	tag:textal-ign.net,2015:div-type:dithyramb  <a href="http://dbpedia.org/resource/Dithyramb">http://dbpedia.org/resource/Dithyramb</a>	
endnote	tag:textal-ign.net,2015:div-type:endnote	
ennead	tag:textal-ign.net,2015:div-type:ennead  <a href="http://dbpedia.org/resource/The_Enneads">http://dbpedia.org/resource/The_Enneads</a>	A set of nine treatises, applied to the extant writings of Plotinus, or to imitative corpora.
entry	tag:textal-ign.net,2015:div-type:entry	A section in a larger work customarily called entries, e.g., an encyclopedia, a dictionary.
epigram	tag:textal-ign.net,2015:div-type:epigram  <a href="http://dbpedia.org/resource/Epigram">http://dbpedia.org/resource/Epigram</a>	

names	IRIs	Comments
epigraph tei epigraph	tag:textal-ign.net,2015:div-type:epigraph  tag:textal-ign.net,2015:div-type:equiv:tei:epigraph  <a href="http://dbpedia.org/resource/Epigraph_(literature)">http://dbpedia.org/resource/Epigraph_(literature)</a>	
epilogue	tag:textal-ign.net,2015:div-type:epilogue  <a href="http://dbpedia.org/resource/Epilogue">http://dbpedia.org/resource/Epilogue</a>	Some may equate this with postscript.
excerpt	tag:textal-ign.net,2015:div-type:excerpt	
exordium	tag:textal-ign.net,2015:div-type:exordium	
explicit	tag:textal-ign.net,2015:div-type:explicit	
fable	tag:textal-ign.net,2015:div-type:fable  <a href="http://dbpedia.org/resource/Fable">http://dbpedia.org/resource/Fable</a>	
footnote	tag:textal-ign.net,2015:div-type:footnote	
footer running footer	tag:textal-ign.net,2015:div-type:footer	
fragment	tag:textal-ign.net,2015:div-type:fragment  <a href="http://dbpedia.org/resource/Literary_fragment">http://dbpedia.org/resource/Literary_fragment</a>	A collection of fragments may be defined rather generally, to mean only direct quotations of a writing otherwise lost, or it may refer to paraphrases or summaries. If a distinction is made, use testimony for the latter.

names	IRIs	Comments
gloss	tag:textal-ign.net,2015:div-type:gloss  http://dbpedia.org/resource/Gloss_(annotation)	
glossary	tag:textal-ign.net,2015:div-type:glossary  http://dbpedia.org/resource/Glossary	
half line (verse)	tag:textal-ign.net,2015:div-type:half-line_(verse)	Understood to be a semantic division, not a physical line break, for which see line (physical)
header running header	tag:textal-ign.net,2015:div-type:header	
heading tei head	tag:textal-ign.net,2015:div-type:heading  tag:textal-ign.net,2015:div-type:equiv:tei:head	
heading level 1 xhtml h1	tag:textal-ign.net,2015:div-type:heading_level_1  tag:textal-ign.net,2015:div-type:equiv:xhtml:h1	
heading level 2 xhtml h2	tag:textal-ign.net,2015:div-type:heading_level_2  tag:textal-ign.net,2015:div-type:equiv:xhtml:h2	
heading level 3 xhtml h3	tag:textal-ign.net,2015:div-type:heading_level_3  tag:textal-ign.net,2015:div-type:equiv:xhtml:h3	



names	IRIs	Comments
heading level 4 xhtml h4	tag:textal-ign.net,2015:div-type:heading_level_4  tag:textal-ign.net,2015:div-type:equiv:xhtml:h4	
heading level 5 xhtml h5	tag:textal-ign.net,2015:div-type:heading_level_5  tag:textal-ign.net,2015:div-type:equiv:xhtml:h5	
heading level 6 xhtml h6	tag:textal-ign.net,2015:div-type:heading_level_6  tag:textal-ign.net,2015:div-type:equiv:xhtml:h6	
history	tag:textal-ign.net,2015:div-type:history	Some literary works are composed of items called histories, e.g., pseudo-Nonnus, Scholia mythologica.
homily	tag:textal-ign.net,2015:div-type:homily  <a href="http://dbpedia.org/resource/Homily">http://dbpedia.org/resource/Homily</a>	
hymn	tag:textal-ign.net,2015:div-type:hymn  <a href="http://dbpedia.org/resource/Hymn">http://dbpedia.org/resource/Hymn</a>	
hypothesis	tag:textal-ign.net,2015:div-type:hypothesis  <a href="http://dbpedia.org/resource/Hypothesis_(drama)">http://dbpedia.org/resource/Hypothesis_(drama)</a>	
idyll	tag:textal-ign.net,2015:div-type:idyll	

names	IRIs	Comments
	<a href="http://dbpedia.org/resource/Idyll">http://dbpedia.org/resource/Idyll</a>	
incipit	tag:textal-ign.net,2015:div-type:incipit  <a href="http://dbpedia.org/resource/Incipit">http://dbpedia.org/resource/Incipit</a>	
independent clause	tag:textal-ign.net,2015:div-type:independent_clause  <a href="https://dbpedia.org/resource/Independent_clause">https://dbpedia.org/resource/Independent_clause</a>	used to identify two or more sentence parts that have a subject and predicate and function as a sentence.
index	tag:textal-ign.net,2015:div-type:index  <a href="http://dbpedia.org/resource/Index_(publishing)">http://dbpedia.org/resource/Index_(publishing)</a>	
index entry	tag:textal-ign.net,2015:div-type:index_entry	
introduction	tag:textal-ign.net,2015:div-type:introduction  <a href="http://dbpedia.org/resource/Introduction_(book)">http://dbpedia.org/resource/Introduction_(book)</a>	Some may equate this type with prologue.
lecture	tag:textal-ign.net,2015:div-type:lecture  <a href="http://dbpedia.org/resource/Lecture">http://dbpedia.org/resource/Lecture</a>	
lemma (dictionary) headword	tag:textal-ign.net,2015:div-type:lemma:dictionary	

names	IRIs	Comments
	<a href="http://dbpedia.org/resource/Headword">http://dbpedia.org/resource/Headword</a>	
lemma (scholion)	tag:textal-ign.net,2015:div-type:lemma:scholion	A word or phrase quoted from a text that is being annotated by a scholium.
letter epistle	tag:textal-ign.net,2015:div-type:letter	
line (verse) line (poetry) tei l	tag:textal-ign.net,2015:div-type:line:verse  tag:textal-ign.net,2015:div-type:equiv:tei:l  <a href="http://dbpedia.org/resource/Line_(poetry)">http://dbpedia.org/resource/Line_(poetry)</a>	
list tei list	tag:textal-ign.net,2015:div-type:list  tag:textal-ign.net,2015:div-type:equiv:tei:list  <a href="http://dbpedia.org/resource/Enumeration">http://dbpedia.org/resource/Enumeration</a>	
list item xhtml li	tag:textal-ign.net,2015:div-type:list_item  tag:textal-ign.net,2015:div-type:equiv:xhtml:li	
litany	tag:textal-ign.net,2015:div-type:litany  <a href="http://dbpedia.org/resource/Litany">http://dbpedia.org/resource/Litany</a>	
morpheme tei m	tag:textal-ign.net,2015:div-type:morpheme  tag:textal-ign.net,2015:div-type:equiv:tei:m	

names	IRIs	Comments
	<a href="http://dbpedia.org/resource/Morpheme">http://dbpedia.org/resource/Morpheme</a>	
note tei note	<p>tag:textal-ign.net,2015:div-type:note</p> <p>tag:textal-ign.net,2015:div-type:equiv:tei:note</p> <p><a href="http://dbpedia.org/resource/Note_(typography)">http://dbpedia.org/resource/Note_(typography)</a></p>	Notes placed anywhere, including footnotes and endnotes.
objection	<p>tag:textal-ign.net,2015:div-type:objection</p> <p><a href="http://dbpedia.org/resource/Objection_(argument)">http://dbpedia.org/resource/Objection_(argument)</a></p>	
octet	tag:textal-ign.net,2015:div-type:octet	
ode	<p>tag:textal-ign.net,2015:div-type:ode</p> <p><a href="http://dbpedia.org/resource/Ode">http://dbpedia.org/resource/Ode</a></p>	
opusculum	tag:textal-ign.net,2015:div-type:opusculum	
oracle	tag:textal-ign.net,2015:div-type:oracle	
oration	tag:textal-ign.net,2015:div-type:oration	
ordered list xhtml ol	<p>tag:textal-ign.net,2015:div-type:ordered_list</p> <p>tag:textal-ign.net,2015:div-type:equiv:xhtml:ol</p>	
paeon	tag:textal-ign.net,2015:div-type:paeon	

names	IRIs	Comments
	<a href="http://dbpedia.org/resource/Paean">http://dbpedia.org/resource/Paean</a>	
paragraph tei p xhtml p	tag:textal-ign.net,2015:div-type:paragraph  tag:textal-ign.net,2015:div-type:equiv:tei:p  tag:textal-ign.net,2015:div-type:equiv:xhtml:p  <a href="http://dbpedia.org/resource/Paragraph">http://dbpedia.org/resource/Paragraph</a>	
parenthetical gloss parenthetical aside parenthetical comment inline gloss	tag:textal-ign.net,2015:div-type:gloss:parenthetical	
phrase tei phr	tag:textal-ign.net,2015:div-type:phrase  tag:textal-ign.net,2015:div-type:equiv:tei:phr  <a href="http://dbpedia.org/resource/Phrase">http://dbpedia.org/resource/Phrase</a>	
play	tag:textal-ign.net,2015:div-type:play  <a href="http://dbpedia.org/resource/Play_(theatre)">http://dbpedia.org/resource/Play_(theatre)</a>	
poem	tag:textal-ign.net,2015:div-type:poem  <a href="http://dbpedia.org/resource/Poetry">http://dbpedia.org/resource/Poetry</a>	
postface	tag:textal-ign.net,2015:div-type:postface	

names	IRIs	Comments
	<a href="http://dbpedia.org/resource/Postface">http://dbpedia.org/resource/Postface</a>	
postscript	tag:textal-ign.net,2015:div-type:postscript  <a href="http://dbpedia.org/resource/Postscript">http://dbpedia.org/resource/Postscript</a>	Some may equate this with epilogue.
prayer	tag:textal-ign.net,2015:div-type:prayer  <a href="http://dbpedia.org/resource/Prayer">http://dbpedia.org/resource/Prayer</a>	
preface	tag:textal-ign.net,2015:div-type:preface  <a href="http://dbpedia.org/resource/Preface">http://dbpedia.org/resource/Preface</a>	Some may equate this with prologue.
progymnasma	tag:textal-ign.net,2015:div-type:progymnasma  <a href="http://dbpedia.org/resource/Progymnasmata">http://dbpedia.org/resource/Progymnasmata</a>	
prologue prolegomenon	tag:textal-ign.net,2015:div-type:prologue  <a href="http://dbpedia.org/resource/Prologue">http://dbpedia.org/resource/Prologue</a>	Some may equate this with introduction.  Some may equate this with preface.
proverb	tag:textal-ign.net,2015:div-type:proverb  <a href="http://dbpedia.org/resource/Proverb">http://dbpedia.org/resource/Proverb</a>	
psalm	tag:textal-ign.net,2015:div-type:psalm  <a href="http://dbpedia.org/resource/Psalm">http://dbpedia.org/resource/Psalm</a>	

names	IRIs	Comments
punctuation character tei pc	tag:textal-ign.net,2015:div-type:punctuation_character  tag:textal-ign.net,2015:div-type:equiv:tei:pc	
quatrain	tag:textal-ign.net,2015:div-type:quatrain  <a href="http://dbpedia.org/resource/Quatrain">http://dbpedia.org/resource/Quatrain</a>	
question	tag:textal-ign.net,2015:div-type:question  <a href="http://dbpedia.org/resource/Question">http://dbpedia.org/resource/Question</a>	
refrain	tag:textal-ign.net,2015:div-type:refrain  <a href="http://dbpedia.org/resource/Refrain">http://dbpedia.org/resource/Refrain</a>	
respondeo	tag:textal-ign.net,2015:div-type:respondeo	division used particularly by Thomas Aquinas
rubric	tag:textal-ign.net,2015:div-type:rubric  <a href="http://dbpedia.org/resource/Rubric">http://dbpedia.org/resource/Rubric</a>	
scene	<a href="http://dbpedia.org/resource/Scene_(drama)">http://dbpedia.org/resource/Scene_(drama)</a>  tag:textal-ign.net,2015:div-type:scene	A unit of action, often a subdivision of an act
scholium scholion	tag:textal-ign.net,2015:div-type:scholium  <a href="http://dbpedia.org/resource/Scholia">http://dbpedia.org/resource/Scholia</a>	

names	IRIs	Comments
section	tag:textal-ign.net,2015:div-type:section  <a href="http://dbpedia.org/resource/Section_(typography)">http://dbpedia.org/resource/Section_(typography)</a>	A generic block of text.
sed contra	tag:textal-ign.net,2015:div-type:sectra	division used particularly by Thomas Aquinas
sentence tei s	tag:textal-ign.net,2015:div-type:sentence  tag:textal-ign.net,2015:div-type:equiv:tei:s  <a href="http://dbpedia.org/resource/Sentence_(linguistics)">http://dbpedia.org/resource/Sentence_(linguistics)</a>	
sestet	tag:textal-ign.net,2015:div-type:sestet  <a href="http://dbpedia.org/resource/Sestet">http://dbpedia.org/resource/Sestet</a>	
song	tag:textal-ign.net,2015:div-type:song  <a href="http://dbpedia.org/resource/Song">http://dbpedia.org/resource/Song</a>	
sonnet	tag:textal-ign.net,2015:div-type:sonnet  <a href="http://dbpedia.org/resource/Sonnet">http://dbpedia.org/resource/Sonnet</a>	
stage direction tei stage	tag:textal-ign.net,2015:div-type:stage_direction  tag:textal-ign.net,2015:div-type:equiv:tei:stage	



names	IRIs	Comments
stanza	tag:textal-ign.net,2015:div-type:stanza  <a href="http://dbpedia.org/resource/Stanza">http://dbpedia.org/resource/Stanza</a>	Similar to TEI <lg type="stanza">
strophe	tag:textal-ign.net,2015:div-type:strophe  <a href="http://dbpedia.org/resource/Strophe">http://dbpedia.org/resource/Strophe</a>	
subchapter	tag:textal-ign.net,2015:div-type:subchapter	Divisions of a chapter, perhaps without name or label.
subfragment	tag:textal-ign.net,2015:div-type:subfragment	
subsection	tag:textal-ign.net,2015:div-type:subsection	Divisions of a section, perhaps without name or label.
subtitle	tag:textal-ign.net,2015:div-type:subtitle	
subsubtitle	tag:textal-ign.net,2015:div-type:subsubtitle	
sūra sura surah	tag:textal-ign.net,2015:div-type:s#ra  <a href="http://dbpedia.org/resource/Surah">http://dbpedia.org/resource/Surah</a>	
syllogism	tag:textal-ign.net,2015:div-type:syllogism  <a href="http://dbpedia.org/resource/Syllogism">http://dbpedia.org/resource/Syllogism</a>	
table tei table xhtml table	tag:textal-ign.net,2015:div-type:table  tag:textal-ign.net,2015:div-type:equiv:tei:table	

names	IRIs	Comments
	<p>tag:textal-ign.net,2015:div-type:equiv:xhtml:table</p> <p>http://dbpedia.org/resource/Table_(information)</p>	
table body xhtml tbody	<p>tag:textal-ign.net,2015:div-type:table_body</p> <p>tag:textal-ign.net,2015:div-type:equiv:xhtml:tbody</p>	
table cell table data cell tei cell xhtml td	<p>tag:textal-ign.net,2015:div-type:table_cell</p> <p>tag:textal-ign.net,2015:div-type:equiv:tei:cell</p> <p>tag:textal-ign.net,2015:div-type:equiv:xhtml:td</p>	
table footer xhtml tfoot	<p>tag:textal-ign.net,2015:div-type:table_footer</p> <p>tag:textal-ign.net,2015:div-type:equiv:xhtml:tfoot</p>	
table header xhtml thead	<p>tag:textal-ign.net,2015:div-type:table_header</p> <p>tag:textal-ign.net,2015:div-type:equiv:xhtml:thead</p>	
table header cell xhtml th	<p>tag:textal-ign.net,2015:div-type:table_header_cell</p> <p>tag:textal-ign.net,2015:div-type:equiv:xhtml:th</p>	
table row tei row	<p>tag:textal-ign.net,2015:div-type:table_row</p>	

names	IRIs	Comments
xhtml tr	<p>tag:textal-ign.net,2015:div-type:equiv:tei:row</p> <p>tag:textal-ign.net,2015:div-type:equiv:xhtml:tr</p>	
tercet	<p>tag:textal-ign.net,2015:div-type:tercet</p> <p><a href="http://dbpedia.org/resource/Tercet">http://dbpedia.org/resource/Tercet</a></p>	
term definition xhtml dd	<p>tag:textal-ign.net,2015:div-type:term_definition</p> <p>tag:textal-ign.net,2015:div-type:equiv:xhtml:dd</p>	
term to be defined xhtml dt	<p>tag:textal-ign.net,2015:div-type:term_to_be_defined</p> <p>tag:textal-ign.net,2015:div-type:equiv:xhtml:dt</p>	
testimony testamentum	<p>tag:textal-ign.net,2015:div-type:testimony</p>	A literary fragment where the author is only loosely quoted or paraphrased.
tetralogy	<p>tag:textal-ign.net,2015:div-type:tetralogy</p> <p><a href="http://dbpedia.org/resource/Tetralogy">http://dbpedia.org/resource/Tetralogy</a></p>	
title tei title	<p>tag:textal-ign.net,2015:div-type:title</p> <p>tag:textal-ign.net,2015:div-type:equiv:tei:title</p> <p><a href="http://dbpedia.org/resource/Title_(publishing)">http://dbpedia.org/resource/Title_(publishing)</a></p>	

names	IRIs	Comments
treatise	tag:textal-ign.net,2015:div-type:tristich  http://dbpedia.org/resource/Tristich	
tristich	tag:textal-ign.net,2015:div-type:treatise  http://dbpedia.org/resource/Treatise	
unordered list xhtml ul	tag:textal-ign.net,2015:div-type:unordered_list  tag:textal-ign.net,2015:div-type:equiv:xhtml:ul	
variant variation	tag:textal-ign.net,2015:div-type:variant	An alternative rendition of a message. It is assumed that every variant will have at least one sibling.
verse (poetry)	tag:textal-ign.net,2015:div-type:verse_(poetry)  http://dbpedia.org/resource/Verse_(poetry)	
verse (scripture)	tag:textal-ign.net,2015:div-type:verse_(scripture)	
vita life	tag:textal-ign.net,2015:div-type:vita  http://dbpedia.org/resource/Hagiography	A biography of a historical person; although frequently used of medieval saints, the term may apply broadly (e.g., the vita of Aeschylus that begins the scholia)
word tei w	tag:textal-ign.net,2015:div-type:word  tag:textal-ign.net,2015:div-type:equiv:tei:w	

names	IRIs	Comments
	<a href="http://dbpedia.org/resource/Word">http://dbpedia.org/resource/Word</a>	
book (physical) codex tei cd	tag:textal-ign.net,2015:div-type:codex  <a href="http://dbpedia.org/resource/Codex">http://dbpedia.org/resource/Codex</a>	
column (page) tei cb	tag:textal-ign.net,2015:div-type:column_(page)  <a href="http://dbpedia.org/resource/Column_(typography)">http://dbpedia.org/resource/Column_(typography)</a>  tag:textal-ign.net,2015:div-type:equiv:tei:cb	
fascicle	tag:textal-ign.net,2015:div-type:fascicle  <a href="http://dbpedia.org/resource/Serial_(literature)">http://dbpedia.org/resource/Serial_(literature)</a>	One of several installments of a book or volume.
folio	tag:textal-ign.net,2015:div-type:folio  <a href="http://dbpedia.org/resource/Recto_and_verso">http://dbpedia.org/resource/Recto_and_verso</a>	
gathering quire book signature tei gb	tag:textal-ign.net,2015:div-type:gathering  <a href="http://dbpedia.org/resource/Section_(book-binding)">http://dbpedia.org/resource/Section_(book-binding)</a>  tag:textal-ign.net,2015:div-type:equiv:tei:gb	
line (physical) tei lb	tag:textal-ign.net,2015:div-type:line,physical	A physical line of text on the page, physical. Do not be confused with a

names	IRIs	Comments
	tag:textal-ign.net,2015:div-type:equiv:tei:lb	line of poetry, which may take multiple physical lines.
page tei pb	tag:textal-ign.net,2015:div-type:page  tag:textal-ign.net,2015:div-type:equiv:tei:pb  <a href="http://dbpedia.org/resource/Page_(paper)">http://dbpedia.org/resource/Page_(paper)</a>	
papyrus	tag:textal-ign.net,2015:div-type:papyrus  <a href="http://dbpedia.org/resource/Papyrus">http://dbpedia.org/resource/Papyrus</a>	
side	tag:textal-ign.net,2015:div-type:side	A side of a scriptum, such for a folio.
subcolumn	tag:textal-ign.net,2015:div-type:subcolumn	Divisions of a column. Many early large books with two columns per page were printed with a few letters marking the vertical axis of the column, to make referencing easier. This is seen, for example, in the Patrologia Latina and Patrologia Graeca.
tome	tag:textal-ign.net,2015:div-type:tome  <a href="http://dbpedia.org/resource/Tome">http://dbpedia.org/resource/Tome</a>	A large codex or book. It may be divided into volumes.
volume	tag:textal-ign.net,2015:div-type:volume  <a href="http://dbpedia.org/resource/Volume_(bibliography)">http://dbpedia.org/resource/Volume_(bibliography)</a>	A scriptum, normally a printed book, that is a (usually numbered or labeled) member of a set of scripta, e.g., the volumes in an encyclopedia.
part	tag:textal-ign.net,2015:div-type:part	A generic division of a larger actual unit. Can be conceptual or physical.

## TAN keywords for features (<feature>)

This file contains in TAN-voc format the core vocabulary adopted by OLiA for parts of speech:  
<http://purl.org/olia/olia.owl>.

Master location: <http://textalign.net/release/TAN-2021/vocabularies/features.TAN-voc.xml>

Table 11.3. TAN keywords for features

names	IRIs	Comments
abbreviation	<a href="http://purl.org/olia/olia.owl#Abbreviation">http://purl.org/olia/olia.owl#Abbreviation</a>  tag:textalign.net,2015:feature:Abbreviation	
accusative	<a href="http://purl.org/olia/olia.owl#Accusative">http://purl.org/olia/olia.owl#Accusative</a>  tag:textalign.net,2015:feature:Accusative	EAGLES  In nominative-accusative languages, accusative case marks certain syntactic functions, usually direct objects. ( <a href="http://www...[61]...iveCase.htm">http://www...[61]...iveCase.htm</a> [ <a href="http://www.sil.org/linguistics/glossaryoflinguisticterms/WhatIsAccusative-Case.htm">http://www.sil.org/linguistics/glossaryoflinguisticterms/WhatIsAccusative-Case.htm</a> ] 17.11.06)
acronym	<a href="http://purl.org/olia/olia.owl#Acronym">http://purl.org/olia/olia.owl#Acronym</a>  tag:textalign.net,2015:feature:Acronym	EAGLES category Residual with Type="Acronym".  An acronym is an abbreviation, such as NATO, laser, and ABC, written as the initial letter or letters of words, and pronounced on the basis of this abbreviated written form. Acronyms are used most often to abbreviate names of organizations and long or frequently referenced terms. ( <a href="http://en...[16]...iki/Acronym">http://en...[16]...iki/Acronym</a> [ <a href="http://en.wikipedia.org/wiki/Acronym">http://en.wikipedia.org/wiki/Acronym</a> ] 19.09.06)
adjectival	<a href="http://purl.org/olia/olia.owl#Adjectival">http://purl.org/olia/olia.owl#Adjectival</a>  tag:textalign.net,2015:feature:Adjectival	<a href="http://purl.org/olia/olia.owl#Adjectival">http://purl.org/olia/olia.owl#Adjectival</a> [ <a href="http://purl.org/olia/olia.owl#Adjectival">http://purl.org/olia/olia.owl#Adjectival</a> ]  In MULTTEXT-East a characteristic of attributive pronouns and abbreviated adjectives, e.g., in Ukrain-

names	IRIs	Comments
		<p>ian e.g., абичий/= бозна-чий/          = будь-чий/= дечий/= хтозна-          чий/= чий-будь/= чий-небудь/=          чийсь/=, абичийого/абичий аби          до чийого/абичий бозна-чийого/          бозна-чий будь-чийого/будь-          чий дечийого/дечий хтозна-          чийого/хтозна-чий чийого-будь/          чий-будь чийого-небудь/чий-          небудь чийогось/чийсь,          абичийого/абичий бозна-          чийого/бозна-чий будь-чийого/          будь-чий дечийого/дечий          хтозна-чийого/хтозна-чий          чийого-будь/чий-будь чийого-          небудь/чий-небудь чийогось/          чийсь, абичийому/абичий          абичиему/абичий абичийм/          абичий аби на чийому/абичий          аби на чиему/абичий аби на          чийм/абичий бозна на чийому/          бозна-чий бозна на чиему/          бозна-чий бозна на чийм/бозна-          чий будь-чийому/будь-чий будь-          чиему/будь-чий будь-чийм/будь-          чий будь на чийому/будь-          чий будь на чиему/будь-          чий будь на чийм/будь-чий          дечийому/дечий дечиему/дечий          дечийм/дечий де на чийому/          дечий де на чиему/дечий,          абичийому/абичий абичиему/          абичий бозна-чийому/бозна-          чий бозна-чиему/бозна-чий          будь-чийому/будь-чий будь-          чиему/будь-чий дечийому/          дечий дечиему/дечий хтозна-          чийому/хтозна-чий хтозна-          чиему/хтозна-чий чийому-будь/          чий-будь чиему-будь/чий-будь          чийому-небудь/чий-небудь          чиему-небудь/чий-небудь          чийомусь/чийсь чиемусь/чийсь,          абичийому/абичий абичиему/          абичий бозна-чийому/бозна-          чий будь-чийому/будь-чий будь-          чиему/будь-чий дечийому/          дечий хтозна-чийому/хтозна-          чий чийому-будь/чий-будь          чийому-небудь/чий-небудь          чийомусь/чийсь, абичию/          абичий бозна-чию/бозна-чий</p>



names	IRIs	Comments
		будь-чию/будь-чий дечию/ дечий хтозна-чию/хтозна-чий чию-будь/чий-будь чию-небудь/ чий-небудь чиюсь/чийсь, абичия/абичий бозна-чия/ бозна-чий будь-чия/будь-чий дечия/дечий хтозна-чия/хтозна- чий чия-будь/чий-будь чия- небудь/чий-небудь чиясь/чийсь, абичие/абичий бозна-чие/ бозна-чий будь-чие/будь-чий дечие/дечий хтозна-чие/хтозна- чий чие-будь/чий-будь чие- небудь/чий-небудь чиесь/чийсь ( <a href="http://pur...[32]...">http://pur...[32]...</a> #Adjectival [ <a href="http://purl.org/olia/mte/multext-east.owl#Adjectival">http://purl.org/olia/mte/multext-east.owl#Adjectival</a> ])
adjective	<a href="http://purl.org/olia/olia.owl#Adjective">http://purl.org/olia/olia.owl#Adjective</a>  tag:textal-ign.net,2015:feature:Adjective  <a href="http://dbpedia.org/resource/Adjective">http://dbpedia.org/resource/Adjective</a>	EAGLES top-level category Adjective (AJ).  An Adjective is a noun-modifying expression that specifies the properties or attributes of the nominal referent. ( <a href="http://www...[58]...jective.htm">http://www...[58]...jective.htm</a> [ <a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAnAdjective.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAnAdjective.htm</a> ] 18.9.06)
adjective attributive attributive adjective	<a href="http://purl.org/olia/olia.owl#AttributiveAdjective">http://purl.org/olia/olia.owl#AttributiveAdjective</a>  tag:textal-ign.net,2015:feature:AttributiveAdjective	EAGLES Adjective with Use="Attributive".  An attributive adjective is an adjective that qualifies or modifies a noun and that precedes the noun, e.g. "a delicious apple", "a short letter". ( <a href="http://en...[18]...i/Adjective">http://en...[18]...i/Adjective</a> [ <a href="http://en.wikipedia.org/wiki/Adjective">http://en.wikipedia.org/wiki/Adjective</a> ] 18.09.06)
adjective ordinal ordinal adjective	<a href="http://purl.org/olia/olia.owl#OrdinalAdjective">http://purl.org/olia/olia.owl#OrdinalAdjective</a>  tag:textal-ign.net,2015:feature:OrdinalAdjective	<a href="http://www...[16]...cat/DC-1338">http://www...[16]...cat/DC-1338</a> [ <a href="http://www.isocat.org/datcat/DC-1338">http://www.isocat.org/datcat/DC-1338</a> ]  Adjective expressing a numeric ranking. ( <a href="http://www...[16]...cat/DC-1338">http://www...[16]...cat/DC-1338</a> [ <a href="http://www.isocat.org/dat">http://www.isocat.org/dat</a> -

names	IRIs	Comments
		cat/DC-1338] Cf. "second", "next", "last"  subClassOf adjective (dcif:isA)
adjective participle participle adjective	<a href="http://purl.org/olia/olia.owl#ParticipleAdjective">http://purl.org/olia/olia.owl#ParticipleAdjective</a>  tag:textal-ign.net,2015:feature:ParticipleAdjective	<a href="http://www...[16]...cat/DC-1598">http://www...[16]...cat/DC-1598</a> [ <a href="http://www.isocat.org/datcat/DC-1598">http://www.isocat.org/datcat/DC-1598</a> ]  Adjective based on a verb. ( <a href="http://www...[16]...cat/DC-1598">http://www...[16]...cat/DC-1598</a> [ <a href="http://www.isocat.org/datcat/DC-1598">http://www.isocat.org/datcat/DC-1598</a> ])  subClassOf adjective (dcif:isA)
adjective participle past past participle adjective	<a href="http://purl.org/olia/olia.owl#PastParticipleAdjective">http://purl.org/olia/olia.owl#PastParticipleAdjective</a>  tag:textal-ign.net,2015:feature:PastParticipleAdjective	<a href="http://www...[16]...cat/DC-1596">http://www...[16]...cat/DC-1596</a> [ <a href="http://www.isocat.org/datcat/DC-1596">http://www.isocat.org/datcat/DC-1596</a> ]  Adjective based on a past participle. ( <a href="http://www...[16]...cat/DC-1596">http://www...[16]...cat/DC-1596</a> [ <a href="http://www.isocat.org/datcat/DC-1596">http://www.isocat.org/datcat/DC-1596</a> ])  subClassOf participleAdjective (dcif:isA)
adjective participle present present participle adjective	<a href="http://purl.org/olia/olia.owl#PresentParticipleAdjective">http://purl.org/olia/olia.owl#PresentParticipleAdjective</a>  tag:textal-ign.net,2015:feature:PresentParticipleAdjective	<a href="http://www...[16]...cat/DC-1597">http://www...[16]...cat/DC-1597</a> [ <a href="http://www.isocat.org/datcat/DC-1597">http://www.isocat.org/datcat/DC-1597</a> ]  Adjective based on a present participle. ( <a href="http://www...[16]...cat/DC-1597">http://www...[16]...cat/DC-1597</a> [ <a href="http://www.isocat.org/datcat/DC-1597">http://www.isocat.org/datcat/DC-1597</a> ])  subClassOf participleAdjective (dcif:isA)
adjective possessive possessive adjective	<a href="http://purl.org/olia/olia.owl#PossessiveAdjective">http://purl.org/olia/olia.owl#PossessiveAdjective</a>  tag:textal-ign.net,2015:feature:PossessiveAdjective	<a href="http://pur...[41]...veAdjective">http://pur...[41]...veAdjective</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#PossessiveAdjective">http://purl.org/olia/mte/multext-east.owl#PossessiveAdjective</a> ]  A PossessiveAdjective is an denominal adjective, often derived from a ProperNoun, that serves to indicate possession in most Slavic languages. Unlike a genitival construction, a posses-

names	IRIs	Comments
		<p>sive adjective shows agreement with its head noun. (Chiarcos)</p> <p>Adjective/Type="possessive" are denominal, not pronominal expressions of possession (Ivan A Derzhanski, email 2010/06/09). Therefore not to be confused with Pronoun/Type=adjectival(a) (Bulgarian only), for words like <i>умно</i> /cleverly, wisely, sensibly/, which are derived from adjectives. (Dimitrova et al. 2009) e.g., Slovene <i>dušikovima/dušikov</i>, <i>Marsovi/Marsov</i>, Slovak <i>vojvodova/vojvodov</i>, <i>vojvodove/vojvodov</i>, <i>vojvodovej/vojvodov</i>, <i>vojvodovho/vojvodov</i>, <i>vojvodovi/vojvodov</i>, <i>vojvodovmu/vojvodov</i>, <i>vojvodovo/vojvodov</i>, <i>vojvodovom/vojvodov</i>, <i>vojvodovou/vojvodov</i>, Serbian <i>evroazijske/evroazijska</i>, <i>evroazijskih/evroazijski</i>, <i>Goldštajn</i>, <i>govornikov</i>, <i>Jehovine/Jehovin</i>, <i>malabarskom/malabarski</i>, <i>O'Brajenov</i>, <i>O'Brajenovog/O'Brajenov</i>, <i>oficirov</i>, Czech <i>Riegrovými/Riegrův</i>, <i>Stradellovými/Stradellův</i>, <i>Tristanovou/Tristanův</i>, <i>Wagnerových/Wagnerův</i>, <i>Wagnerovým/Wagnerův</i>, <i>Weberovi/Weberův</i>, <i>Weberových/Weberův</i>, <i>Wertherovi/Wertherův</i>, <i>Winstonovi/Winstonův</i> (<a href="http://pur...[41]...veAdjective">http://pur...[41]...veAdjective</a> [<a href="http://purl.org/olia/mte/multext-east.owl#PossessiveAdjective">http://purl.org/olia/mte/multext-east.owl#PossessiveAdjective</a>])</p>
<p>adjective predicative predicative adjective</p>	<p><a href="http://purl.org/olia/olia.owl#PredicativeAdjective">http://purl.org/olia/olia.owl#PredicativeAdjective</a></p> <p>tag:textal-ign.net,2015:feature:PredicativeAdjective</p>	<p>EAGLES Adjective with Use="Predicative".</p> <p>A predicative adjective is one which functions as part of the predicate of a sentence. This means that it is linked to the noun by a verb, often a copula (such as to be). (<a 484="" 514="" 937="" 951"="" data-label="Page-Footer" href="http://en.&lt;/a&gt;&lt;/p&gt; &lt;/td&gt; &lt;/tr&gt; &lt;/tbody&gt; &lt;/table&gt; &lt;/div&gt; &lt;div data-bbox="> <p>186</p> </a></p>

names	IRIs	Comments
		...[18]...i/Adjective [http://en.wikipedia.org/wiki/Adjective] 18.09.06)
adjective qualifier qualifier adjective	http://purl.org/olia/olia.owl#QualifierAdjective  tag:textal-ign.net,2015:feature:QualifierAdjective	http://www...[17]...at/DC-1477, [http://www.isocat.org/datcat/DC-1477,] http://pur...[44]...veAdjective [http://purl.org/olia/mte/multext-east.owl#QualificativeAdjective]  Adjective used to qualify. (http://www...[16]...cat/DC-1477 [http://www.isocat.org/datcat/DC-1477])  subClassOf adjective (dcif:isA)
adjective relational relational adjective	http://purl.org/olia/olia.owl#RelationalAdjective  tag:textal-ign.net,2015:feature:RelationalAdjective	cf. OrdinalAdjective  The Slovene adjective expresses three main ideas: quality (qualitative adjectives, kakovostni pridevniki), relation (relational adjectives, vrstni pridevniki) and possession (possessive adjectives, svojilni pridevniki). Relational adjectives express type, class or numerical sequence of a noun. For instance: kemijska in fizikalna sprememba (chemical and physical change), fotografski aparat (photographic device (=camera)). (http://en...[24]...ene_grammar [http://en.wikipedia.org/wiki/Slovene.grammar])
adjective substantive substantive adjective	http://purl.org/olia/olia.owl#SubstantiveAdjective  tag:textal-ign.net,2015:feature:SubstantiveAdjective	http://www...[16]...cat/DC-1394 [http://www.isocat.org/datcat/DC-1394]  An adjective that modifies an implied, but not expressed, noun. When translating such an adjective into English, you must supply the missing noun. (www.southwestern.edu/~carlg/Latin.Web/glossary.html; http://www...[16]...cat/DC-1394 [http://

names	IRIs	Comments
		<p><a href="http://www.isocat.org/dat-cat/DC-1394">www.isocat.org/dat-cat/DC-1394</a>) (Chiarcos: this seems to pertain to nominalization)</p>
<p>adjunct syntactic syntactic adjunct</p>	<p><a href="http://purl.org/olia/olia.owl#SyntacticAdjunct">http://purl.org/olia/olia.owl#SyntacticAdjunct</a></p> <p>tag:textalign.net,2015:feature:SyntacticAdjunct</p>	<p>Prototypically, an optional (morpho)syntactic constituent. 'Satellites are not ... required by the predicate; they give optional further information pertaining to additional features of the SoA ..., the location of the SoA ..., the speaker's attitude towards or evaluation of the propositional content ..., or the character of the speech act...' (Dik, 1997:87) (<a href="http://lan...[58]...cticAdjunct">http://lan...[58]...cticAdjunct</a> [<a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#syntacticAdjunct">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#syntacticAdjunct</a>])</p> <p>The category adjunct (ADJ) is assigned to those constituents that appear as optional additions, be it to the main verb or to a given noun. This means that they can be left out freely without a change in grammaticality or a significant change in meaning. In "John called Mary (from school) (with his cell phone)" the optional additions "from school" and "with his cell phone" are such optional additions that can be left out freely. Adjuncts are generally used to convey additional information about the time, place, manner, or cause of the event or situation described by the clause (see below). That is, they restrict the class of events/ situations described by the clause to a subset. If required the category ADJ can be split up into semantic subcategories, that are annotated in layer semantic roles (time, location, etc.). (Dipper et al. 2007, §4.3.3)</p> <p><a href="http://lan...[58]...cticAdjunct">http://lan...[58]...cticAdjunct</a> [<a href="http://lan-">http://lan-</a></p>

names	IRIs	Comments
		guagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#syntacticAdjunct]
adjunction	<p><a href="http://purl.org/olia/olia.owl#Adjunction">http://purl.org/olia/olia.owl#Adjunction</a></p> <p>tag:textal-ign.net,2015:feature:Adjunction</p>	<p>PTB Bracketing Guidelines, Santorini (1991)</p> <p>The term "adjunction structure" refers to structures which would be represented by tree diagrams of the general form in (9). The defining characteristic of adjunction structures is that a node X dominates another instance of X. (Santorini 1991)</p>
adposition	<p><a href="http://purl.org/olia/olia.owl#Adposition">http://purl.org/olia/olia.owl#Adposition</a></p> <p>tag:textal-ign.net,2015:feature:Adposition</p>	<p>EAGLES top-level category Adposition (AP).</p> <p>An adposition is a cover term for prepositions, postpositions and circumpositions. It expresses a grammatical and semantic relation to another unit within a clause. (<a href="http://www...[60]...sition.htm">http://www...[60]...sition.htm</a>, [<a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAnAdposition.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAnAdposition.htm</a>], <a href="http://en...[19].../Adposition">http://en...[19].../Adposition</a> [<a href="http://en.wikipedia.org/wiki/Adposition">http://en.wikipedia.org/wiki/Adposition</a>] 19.09.06) The majority of cases of adpositions we have to consider in European languages are prepositions. (<a href="http://www...[59]...0000000000">http://www...[59]...0000000000</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annotate/node17.html#SECTION00062200000000000000">http://www.ilc.cnr.it/EAGLES96/annotate/node17.html#SECTION00062200000000000000</a>] 19.09.06)</p>
adverb	<p><a href="http://purl.org/olia/olia.owl#Adverb">http://purl.org/olia/olia.owl#Adverb</a></p> <p>tag:textal-ign.net,2015:feature:Adverb</p> <p><a href="http://dbpedia.org/resource/Adverb">http://dbpedia.org/resource/Adverb</a></p>	<p>EAGLES top-level category Adverb (AV). Skipped subconcepts ParticleAdverb and GeneralAdverb: ParticleAdverb is better described by the join of particles or adverbs rather than positing an independent category; GeneralAdverb is merely the complement of DegreeAdverb.</p>

names	IRIs	Comments
		<p>An adverb is a part of speech that serves to modify non-nominal parts of speech, i.e., verbs, adjectives (including numbers), clauses, sentences and other adverbs. Modifiers of nouns are primarily determiners and adjectives. (<a href="http://en.wiktionary.org/wiki/Adverb">http://en.wiktionary.org/wiki/Adverb</a>)</p>
<p>adverb adjectival adjectival adverb</p>	<p><a href="http://purl.org/olia/olia.owl#AdjectivalAdverb">http://purl.org/olia/olia.owl#AdjectivalAdverb</a></p> <p>tag:textal-ign.net,2015:feature:AdjectivalAdverb</p>	<p><a href="http://purl.org/olia/mte/multext-east.owl#AdjectivalAdverb">http://purl.org/olia/mte/multext-east.owl#AdjectivalAdverb</a></p> <p>An adjectival adverb is an adverb that is formally identical to an adjective. (MTE v4, <a href="http://purl.org/olia/mte/multext-east.owl#AdjectivalAdverb">http://purl.org/olia/mte/multext-east.owl#AdjectivalAdverb</a>)</p>
<p>adverb causal causal adverb</p>	<p><a href="http://purl.org/olia/olia.owl#CausalAdverb">http://purl.org/olia/olia.owl#CausalAdverb</a></p> <p>tag:textal-ign.net,2015:feature:CausalAdverb</p>	<p><a href="http://purl.org/olia/mte/multext-east.owl#CausalAdverb">http://purl.org/olia/mte/multext-east.owl#CausalAdverb</a></p> <p>Adverb/Type="causal" is used in the Hungarian MTE v4, but no examples are provided. (<a href="http://purl.org/olia/mte/multext-east.owl#CausalAdverb">http://purl.org/olia/mte/multext-east.owl#CausalAdverb</a>)</p>
<p>adverb degree degree adverb</p>	<p><a href="http://purl.org/olia/olia.owl#DegreeAdverb">http://purl.org/olia/olia.owl#DegreeAdverb</a></p>	<p>EAGLES Adverb with Adverb-Type="Degree".</p> <p>Any adverb which modifies an adjective, an ad-</p>

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:DegreeAdverb	verb, a verbal particle, a preposition, a conjunction or a determiner is a degree adverb. ( <a href="http://xle...[44]...tionEN.doc">http://xle...[44]...tionEN.doc</a> , [ <a href="http://xlex.uni-muenster.de/Portal/MTPE/tagsetDescriptionEN.doc">http://xlex.uni-muenster.de/Portal/MTPE/tagsetDescriptionEN.doc</a> ,] p. 113, 8.1 Degree Adverbs 23.09.06) Also known as specifier adverb ( <a href="http://www...[39]..._tagset.php">http://www...[39]..._tagset.php</a> [ <a href="http://www.unlweb.net/unlarium/dictionary/export.tagset.php">http://www.unlweb.net/unlarium/dictionary/export.tagset.php</a> ])
adverb demonstrative demonstrative adverb	<a href="http://purl.org/olia/olia.owl#DemonstrativeAdverb">http://purl.org/olia/olia.owl#DemonstrativeAdverb</a>  tag:textal-ign.net,2015:feature:DemonstrativeAdverb	<a href="http://pur...[33]...onstrative">http://pur...[33]...onstrative</a> , [ <a href="http://purl.org/olia/urdu.owl#AdverbialDemonstrative">http://purl.org/olia/urdu.owl#AdverbialDemonstrative</a> ,] <a href="http://pur...[37]...ativeAdverb">http://pur...[37]...ativeAdverb</a> [ <a href="http://purl.org/olia/emille.owl#DistalDemonstrativeAdverb">http://purl.org/olia/emille.owl#DistalDemonstrativeAdverb</a> ]  Pronominal adverb derived from a demonstrative stem (Ch. Chiarcos)
adverb exclamatory exclamatory adverb	<a href="http://purl.org/olia/olia.owl#ExclamatoryAdverb">http://purl.org/olia/olia.owl#ExclamatoryAdverb</a>  tag:textal-ign.net,2015:feature:ExclamatoryAdverb	EAGLES WHAdverb with Wh-Type="Exclamatory".  An ExclamatoryAdverb seves to express exclamation, cf. how in "How well everyone played!" Exclamative sentences or exclamatives An exclamatory sentence or exclamation is generally a more emphatic form of statement, in particular, they are used are used to express strong feelings (Latin exclamare : "to call out, to cry out"). ( <a href="http://eng...[56]...ntence.html">http://eng...[56]...ntence.html</a> [ <a href="http://english.unitecnology.ac.nz/resources/resources/exp.lang/sentence.html">http://english.unitecnology.ac.nz/resources/resources/exp.lang/sentence.html</a> ] 07.05.07, <a href="http://en...[31]...inguistics">http://en...[31]...inguistics</a> ) [ <a href="http://en.wikipedia.org/wiki/Sentence_(linguistics)">http://en.wikipedia.org/wiki/Sentence_(linguistics)</a> ] 07.05.07)



names	IRIs	Comments
adverb interrogative interrogative adverb	<a href="http://purl.org/olia/olia.owl#InterrogativeAdverb">http://purl.org/olia/olia.owl#InterrogativeAdverb</a>  tag:textal-ign.net,2015:feature:InterrogativeAdverb	EAGLES Adverb with Wh-Type="Interrogative".  Interrogative adverbs are used to introduce questions, e.g. "When are you coming?" (Angelika Adam)
adverb location location adverb	<a href="http://purl.org/olia/olia.owl#LocationAdverb">http://purl.org/olia/olia.owl#LocationAdverb</a>  tag:textal-ign.net,2015:feature:LocationAdverb	ILPOSTS, <a href="http://purl.org/olia/ilposts.owl#LocationAdverb">http://purl.org/olia/ilposts.owl#LocationAdverb</a> [http://purl.org/olia/ilposts.owl#LocationAdverb]
adverb manner manner adverb	<a href="http://purl.org/olia/olia.owl#MannerAdverb">http://purl.org/olia/olia.owl#MannerAdverb</a>  tag:textal-ign.net,2015:feature:MannerAdverb	ILPOSTS, <a href="http://purl.org/olia/ilposts.owl#MannerAdverb">http://purl.org/olia/ilposts.owl#MannerAdverb</a> [http://purl.org/olia/ilposts.owl#MannerAdverb]
adverb modifier modifier adverb	<a href="http://purl.org/olia/olia.owl#ModifierAdverb">http://purl.org/olia/olia.owl#ModifierAdverb</a>  tag:textal-ign.net,2015:feature:ModifierAdverb	<a href="http://purl.org/olia/mte/multext-east.owl#ModifierAdverb">http://purl.org/olia/mte/multext-east.owl#ModifierAdverb</a> [http://purl.org/olia/mte/multext-east.owl#ModifierAdverb]  Adverb/Type="modifier" is used in the English, Romanian and Hungarian MTE v4 specs. For Romanian, Adverb/Type="modifier" applies to adverbs which can have predicative role, that is they can govern a subordinate sentence (ex. Firește că o știu -- Certainly I know it). Here (for uniformity within a multilingual environment), they are squeezed into the modifier class. (MTE v4) e.g., better (en) ( <a href="http://purl.org/olia/mte/multext-east.owl#ModifierAdverb">http://purl.org/olia/mte/multext-east.owl#ModifierAdverb</a> )
adverb negative negative adverb	<a href="http://purl.org/olia/olia.owl#NegativeAdverb">http://purl.org/olia/olia.owl#NegativeAdverb</a>	<a href="http://purl.org/olia/mte/multext-east.owl#NegativeAdverb">http://purl.org/olia/mte/multext-east.owl#NegativeAdverb</a> [http://purl.org/olia/mte/multext-east.owl#NegativeAdverb]

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:NegativeAdverb	to be modelled as SemanticRole (cf. CausalAdverb)?  Adverb/Type="negative" are used in the Serbian and Romanian MTE v4 specs, e.g., for Romanian nicăieri - nowhere, niciodată - never. (MTE v4) ( <a href="http://purl.org/olia/mte/multext-east.owl#NegativeAdverb">http://purl.org/olia/mte/multext-east.owl#NegativeAdverb</a> )
adverb pronominal pronominal adverb	<a href="http://purl.org/olia/olia.owl#PronominalAdverb">http://purl.org/olia/olia.owl#PronominalAdverb</a>  tag:textal-ign.net,2015:feature:PronominalAdverb	EAGLES Adverb with Adverb-Type="Pronominal". Against the EAGLES definition given below, pronominal adverbs can but don't have to be used for pronominal references, thus this special and diachronically important case is better described by the join of this with personal pronoun.  Pronominal adverbs substitute for a preposition (which is incorporated into them) and an NP, cf. English therefore lit. "for this (reason, ...)", German deswegen lit. "because of this (reason, ...)". ( <a href="http://www.ode235.html">http://www.ode235.html</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/elm.de/node235.html">http://www.ilc.cnr.it/EAGLES96/elm.de/node235.html</a> ] 21.09.06, examples Ch. Chiarcos)
adverb relative relative adverb	<a href="http://purl.org/olia/olia.owl#RelativeAdverb">http://purl.org/olia/olia.owl#RelativeAdverb</a>  tag:textal-ign.net,2015:feature:RelativeAdverb	EAGLES Adverb with Wh-Type="Relative".  The value relative is used for adverbs in clear relative cases as in: "The place 'where' I met you.", "The reason 'why' I did it." ( <a href="http://www.en.ps.gz">http://www.en.ps.gz</a> , [ <a href="http://www.ilc.cnr.it/EAGLES96/pub/eagles/lexicons/elm.en.ps.gz">http://www.ilc.cnr.it/EAGLES96/pub/eagles/lexicons/elm.en.ps.gz</a> ] p.33, 07.05.07)
adverb verbal verbal adverb	<a href="http://purl.org/olia/olia.owl#VerbalAdverb">http://purl.org/olia/olia.owl#VerbalAdverb</a>	<a href="http://purl.org/olia/mte/erbalAdverb">http://purl.org/olia/mte/erbalAdverb</a> [ <a href="http://purl.org/olia/mte/">http://purl.org/olia/mte/</a> ]

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:VerbalAdverb	multext-east.owl#VerbalAdverb]  Adverb/Type="verbal" applies to adverbs derived from from verbs (verbal adverbs) in the Serbian, Macedonian and Hungarian MTE v4 specs. Macedonian verbal adverbs (gerunds) like odejki are thus not considered as verbal forms, but as Adverb/Type="verbal". (MTE v4) ( <a href="http://pur...[34]...erbalAdverb">http://pur...[34]...erbalAdverb</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#VerbalAdverb">http://purl.org/olia/mte/multext-east.owl#VerbalAdverb</a> ])
adverbial	<a href="http://purl.org/olia/olia.owl#Adverbial">http://purl.org/olia/olia.owl#Adverbial</a>  tag:textal-ign.net,2015:feature:Adverbial	Bies et al. 1995  -ADV (adverbial) — marks a constituent other than ADVP or PP when it is used adverbially (e.g., NPs or free (“headless”) relatives). However, constituents that themselves are modifying an ADVP generally do not get -ADV. (Bies et al. 1995)
adverbs whtype whtype adverbs	<a href="http://purl.org/olia/olia.owl#WHTypeAdverbs">http://purl.org/olia/olia.owl#WHTypeAdverbs</a>  tag:textal-ign.net,2015:feature:WHTypeAdverbs	TODO: rename to WHTypeAdverb  EAGLES Adverb with Polarity="Wh-type".  See remarks on WHPronoun, this is actually a language-specific trait and should probably be removed.  Adverb that serves to express interrogativity, exclamation or that serves to link a subordinate clause to the matrix clause. (Ch. Chiarcos)
affix	<a href="http://purl.org/olia/olia.owl#Affix">http://purl.org/olia/olia.owl#Affix</a>  tag:textal-ign.net,2015:feature:Affix	<a href="http://www...[16]...cat/DC-1234">http://www...[16]...cat/DC-1234</a> [ <a href="http://www.iso-cat.org/datcat/DC-1234">http://www.iso-cat.org/datcat/DC-1234</a> ]  Letter or group of letters which are added to a word to make a new word. (Sue Ellen Wright; <a href="http://www...[16]...cat/DC-1234">http://www...[16]...cat/DC-1234</a> [ <a href="http://www...[16]...cat/DC-1234">http://www...[16]...cat/DC-1234</a> ])

names	IRIs	Comments
		<a href="http://www.isocat.org/datcat/DC-1234">www.isocat.org/datcat/DC-1234</a> )
anchored temporally not not temporally anchored	<a href="http://purl.org/olia/olia.owl#NotTemporallyAnchored">http://purl.org/olia/olia.owl#NotTemporallyAnchored</a>  tag:textal-ign.net,2015:feature:NotTemporallyAnchored	A replacement for TDS Habitual that is modelled here as an Aspect: Habitual tense pertains to verbs which refer to an action that occurs repeatedly. ( <a href="http://lan...[55]...bitualTense">http://lan...[55]...bitualTense</a> [ <a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#habitualTense">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#habitualTense</a> ])  To be used for actions that are not bound to a particular reference point.
animacy other other animacy	<a href="http://purl.org/olia/olia.owl#OtherAnimacy">http://purl.org/olia/olia.owl#OtherAnimacy</a>  tag:textal-ign.net,2015:feature:OtherAnimacy	<a href="http://www...[16]...cat/DC-1953">http://www...[16]...cat/DC-1953</a> [ <a href="http://www.isocat.org/datcat/DC-1953">http://www.isocat.org/datcat/DC-1953</a> ]  Perceived as related to animacy, but without specific reference to the previous items. (ISO12620; <a href="http://www...[16]...cat/DC-1953">http://www...[16]...cat/DC-1953</a> [ <a href="http://www.isocat.org/datcat/DC-1953">http://www.isocat.org/datcat/DC-1953</a> ])  subClassOf animacy (dcif:conceptualDomain)
animate	<a href="http://purl.org/olia/olia.owl#Animate">http://purl.org/olia/olia.owl#Animate</a>  tag:textal-ign.net,2015:feature:Animate	<a href="http://www...[16]...cat/DC-1911">http://www...[16]...cat/DC-1911</a> [ <a href="http://www.isocat.org/datcat/DC-1911">http://www.isocat.org/datcat/DC-1911</a> ]  Perceived as alive. (ISO12620; <a href="http://www...[16]...cat/DC-1911">http://www...[16]...cat/DC-1911</a> [ <a href="http://www.isocat.org/datcat/DC-1911">http://www.isocat.org/datcat/DC-1911</a> ])  subClassOf animacy (dcif:conceptualDomain)
annotation of unit unit of annotation	<a href="http://purl.org/olia/olia.owl#UnitOfAnnotation">http://purl.org/olia/olia.owl#UnitOfAnnotation</a>  tag:textal-ign.net,2015:feature:UnitOfAnnotation	
anticausative	<a href="http://purl.org/olia/olia.owl#Anticausative">http://purl.org/olia/olia.owl#Anticausative</a>	<a href="http://pur...[26]...ticausative">http://pur...[26]...ticausative</a> [ <a href="http://purl.org/linguistics/gold/">http://purl.org/linguistics/gold/</a> ]

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:Anticausative	Anticausative] This is a semantic manipulation of the verb frame (and thus limited to a specific semantic class of verbs) rather than a grammatical device for the manipulation of argument structure, therefore classified as Active here.  An intransitive verb is derived from a basically transitive one with the direct object of the transitive verb corresponding to the subject of the intransitive. (Siewierska 1988:267) ( <a href="http://purl.org/linguistics/gold/Anticausative">http://purl.org/linguistics/gold/Anticausative</a> )
antipassive	<a href="http://purl.org/olia/olia.owl#Antipassive">http://purl.org/olia/olia.owl#Antipassive</a>  tag:textal-ign.net,2015:feature:Antipassive	<a href="http://purl.org/linguistics/gold/Antipassive">http://purl.org/linguistics/gold/Antipassive</a> [http://purl.org/linguistics/gold/Antipassive]  Derives an intransitive verb from a transitive stem whereby the original agent (only) is cross-referenced by the absolutive markers on the verb and the original patient, if it appears, is in an oblique phrase. (England 1983:110) ( <a href="http://purl.org/linguistics/gold/Antipassive">http://purl.org/linguistics/gold/Antipassive</a> )
antipassive absolutive absolutive antipassive	<a href="http://purl.org/olia/olia.owl#AbsolutiveAntipassive">http://purl.org/olia/olia.owl#AbsolutiveAntipassive</a>  tag:textal-ign.net,2015:feature:AbsolutiveAntipassive	<a href="http://purl.org/linguistics/gold/AbsolutiveAntipassive">http://purl.org/linguistics/gold/AbsolutiveAntipassive</a> [http://purl.org/linguistics/gold/AbsolutiveAntipassive]  An Antipassive in which the P or logical object is suppressed or overtly absent. (Klaiman 1991:232) ( <a href="http://purl.org/linguistics/gold/AbsolutiveAntipassive">http://purl.org/linguistics/gold/AbsolutiveAntipassive</a> )
antipassive focus focus antipassive	<a href="http://purl.org/olia/olia.owl#FocusAntipassive">http://purl.org/olia/olia.owl#FocusAntipassive</a>	<a href="http://purl.org/linguistics/gold/FocusAntipassive">http://purl.org/linguistics/gold/FocusAntipassive</a> [http://purl.org/linguistics/gold/FocusAntipassive]

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:FocusAntipassive	Blocks the P or logical object (basic absolutive) nominal from being assigned Focus salience. Topic salience is available for assignment to various arguments, including the P, but Focus salience is always assigned to A, and is therefore inaccessible to P or any other nominal. (Klaiman 1991:236) ( <a href="http://purl.org/linguistics/gold/FocusAntipassive">http://purl.org/linguistics/gold/FocusAntipassive</a> )
antipassive incorporating incorporating antipassive	<a href="http://purl.org/olia/olia.owl#IncorporatingAntipassive">http://purl.org/olia/olia.owl#IncorporatingAntipassive</a>  tag:textal-ign.net,2015:feature:IncorporatingAntipassive	<a href="http://purl.org/linguistics/gold/IncorporatingAntipassive">http://purl.org/linguistics/gold/IncorporatingAntipassive</a>  Blocks the P or logical object (basic absolutive) nominal from being assigned Focus salience. This correlates with the P's morphosyntactic downgrading, whereby it becomes insusceptible to any informational salience assignment. (Klaiman 1991:236) ( <a href="http://purl.org/linguistics/gold/IncorporatingAntipassive">http://purl.org/linguistics/gold/IncorporatingAntipassive</a> )
antipassive nonabsolutive nonabsolutive antipassive	<a href="http://purl.org/olia/olia.owl#NonabsolutiveAntipassive">http://purl.org/olia/olia.owl#NonabsolutiveAntipassive</a>  tag:textal-ign.net,2015:feature:NonabsolutiveAntipassive	<a href="http://purl.org/linguistics/gold/NonabsolutiveAntipassive">http://purl.org/linguistics/gold/NonabsolutiveAntipassive</a>  An Antipassive in which the P or logical object is overtly downgraded. (Klaiman 1991:232) ( <a href="http://purl.org/linguistics/gold/NonabsolutiveAntipassive">http://purl.org/linguistics/gold/NonabsolutiveAntipassive</a> )
aurist	<a href="http://purl.org/olia/olia.owl#Aorist">http://purl.org/olia/olia.owl#Aorist</a>  tag:textal-ign.net,2015:feature:Aorist	<a href="http://www.iso-cat.org/datcat/DC-1240">http://www.iso-cat.org/datcat/DC-1240</a>  Simple past tense that is predominantly used for narration. Both the perfective and the imperfective forms can be used in the aorist without

names	IRIs	Comments
		any restrictions. ( <a href="http://www.helsinki.fi/~bontchev/grammar/index.html">www.helsinki.fi/~bontchev/grammar/index.html</a> ; <a href="http://www...[16]...cat/DC-1240">http://www...[16]...cat/DC-1240</a> [ <a href="http://www.isocat.org/datcat/DC-1240">http://www.isocat.org/datcat/DC-1240</a> ])
apocope	<a href="http://purl.org/olia/olia.owl#Apocope">http://purl.org/olia/olia.owl#Apocope</a>  tag:textal-ign.net,2015:feature:Apocope	<a href="http://www...[16]...cat/DC-2254">http://www...[16]...cat/DC-2254</a> [ <a href="http://www.isocat.org/datcat/DC-2254">http://www.isocat.org/datcat/DC-2254</a> ]  deletion of the final element in a word ( <a href="http://www...[16]...cat/DC-2254">http://www...[16]...cat/DC-2254</a> [ <a href="http://www.isocat.org/datcat/DC-2254">http://www.isocat.org/datcat/DC-2254</a> ])
apposition	<a href="http://purl.org/olia/olia.owl#Apposition">http://purl.org/olia/olia.owl#Apposition</a>  tag:textal-ign.net,2015:feature:Apposition	Apposition is a relation between two phrases: (i) the nucleus phrase and (2) an appositive phrase, generally set o by punctuation, which modifies the nucleus phrase. An example of apposition is given in (@II). (II) Ryukichi Imai, Japan's ambassador to Mexico, agrees that Mexico may be too eager. Here, Ryukichi Imai is the nucleus phrase, and the phrase enclosed in commas, Japan's ambassador to Mexico, is the appositive. Instances of apposition should be represented as adjunction structures (see Section 3.1). (Santorini 1991)  added in accordance with TIGER, definition according to PTB Bracketing Guidelines (Santorini 1991)
argument expletive expletive argument	<a href="http://purl.org/olia/olia.owl#ExpletiveArgument">http://purl.org/olia/olia.owl#ExpletiveArgument</a>  tag:textal-ign.net,2015:feature:ExpletiveArgument	Three different expletive usages [of the German expletive pronouns] are traditionally distinguished: formal subject or object (expletive argument), correlate of an extraposed clausal argument (expletive correlate), and Vorfeld-es (structural expletive) (cf. (Eisenberg 1999 2001), (Pütz 1986)). ... The formal subject obligatorily occurs with weather verbs, e.g. "Es regnet" and unpersonal

names	IRIs	Comments
		<p>or agentless constructions such as "Es gibt so eine Buchung" or "Es geht um populäre Unterhaltung." Some verbs optionally permit an expletive subject but also occur with referential subjects such as "Max/Es kopft an der Tür." A formal object is found in constructions like "jmd. legt es an auf etw." or "jmd. verdirbt es mit jmdm." In all examples mentioned, es functions as a grammatical argument without semantic contribution, i.e. it does not refer to a person, object, or event. (Telljohann et al. 2009, p.60f)</p> <p>TüBa-D/Z</p>
<p>argument measure measure argument</p>	<p><a href="http://purl.org/olia/olia.owl#MeasureArgument">http://purl.org/olia/olia.owl#MeasureArgument</a></p> <p>tag:textal-ign.net,2015:feature:MeasureArgument</p>	<p>added in conformance with TIGER</p> <p>TODO: check definition</p> <p>added in conformance with TIGER</p>
<p>argument syntactic syntactic argument</p>	<p><a href="http://purl.org/olia/olia.owl#SyntacticArgument">http://purl.org/olia/olia.owl#SyntacticArgument</a></p> <p>tag:textal-ign.net,2015:feature:SyntacticArgument</p>	<p>added to account for TIGER edge labels with syntactic function</p> <p>An inherent (morpho)syntactic constituent subcategorized for by a predicate.&lt;br/&gt; 'Arguments are those terms which are required by some predicate in order to form a complete nuclear predication. They are essential to the integrity of the SoA designated by the predicate frame. If we leave them out, the property/relation designated by the predicate is not fulfilled or satisfied.' (Dik, 1997:86f)&lt;br/&gt; &gt; An argument can be a controller in an agreement relation. (<a href="http://lan...[65]...ument">http://lan...[65]...ument</a>)&lt;br/&gt; [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#syntacticArgument">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#syntacticArgument</a>)]&lt;br/&gt;] The category ARG is assigned to those syntactic con-</p>



names	IRIs	Comments
		<p>stituents that appear as obligatory complements to the main verb. This means that they cannot be left out without a change in grammaticality or a significant change in meaning. (Dipper et al. 2007, §4.3.3)</p>
<p>art prep fused fused prep art</p>	<p><a href="http://purl.org/olia/olia.owl#FusedPrepArt">http://purl.org/olia/olia.owl#FusedPrepArt</a></p> <p>tag:textal-ign.net,2015:feature:FusedPrepArt</p>	<p>EAGLES Adposition with Type="FusedPrepArt"</p> <p>The additional value Fused prep-art is for the benefit of those who do not find it practical to split fused words such as French au (= à + le) into two text words. This very common phenomenon of a fused preposition + article in West European languages should preferably, however, be handled by assigning two tags to the same orthographic word (one for the preposition and one for the article). (<a href="http://www...[38]...html#oav1ap">http://www...[38]...html#oav1ap</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annote/noder8.html#oavrap">http://www.ilc.cnr.it/EAGLES96/annote/noder8.html#oavrap</a>] 19.09.06)</p>
<p>article</p>	<p><a href="http://purl.org/olia/olia.owl#Article">http://purl.org/olia/olia.owl#Article</a></p> <p>tag:textal-ign.net,2015:feature:Article</p>	<p>EAGLE top-level category "Article" (AT): In Eagles articles are subsumed under determiners and kept as a separate class. It is a sub-class of determiners which is disjoint with the other determiner classes. (<a href="http://www...[36]...7.html#recn">http://www...[36]...7.html#recn</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annote/noder17.html#recn">http://www.ilc.cnr.it/EAGLES96/annote/noder17.html#recn</a>] 18.09.06) Modelled here as subclass of Determiner because of its syntactic function.</p> <p>An article is a member of a small class of determiners that identify a noun's definite or indefinite reference, and the new or given status. (<a href="http://www...[56]...Article.htm">http://www...[56]...Article.htm</a> [<a href="http://www.sil.org/linguistics/GlossaryOfLinguis-">http://www.sil.org/linguistics/GlossaryOfLinguis-</a></p>

names	IRIs	Comments
		ticTerms/WhatIsAnArticle.htm] 02.05.07)
article definite definite article	<a href="http://purl.org/olia/olia.owl#DefiniteArticle">http://purl.org/olia/olia.owl#DefiniteArticle</a>  tag:textal-ign.net,2015:feature:DefiniteArticle	EAGLES Article with Article-Type="Definite".  A definite article is used before singular and plural nouns that refer to a particular member of a group. ( <a href="http://en.wikipedia.org/wiki/Article">http://en.wikipedia.org/wiki/Article</a> )
article definite clitic clitic definite article	<a href="http://purl.org/olia/olia.owl#CliticDefiniteArticle">http://purl.org/olia/olia.owl#CliticDefiniteArticle</a>  tag:textal-ign.net,2015:feature:CliticDefiniteArticle	cf. <a href="http://purl.org/olia/mte/multext-east.owl#CliticDistalDeterminer">http://purl.org/olia/mte/multext-east.owl#CliticDistalDeterminer</a>  clitic definite determiner, e.g., in Macedonian, Bulgarian, and Romanian
article definite full full definite article	<a href="http://purl.org/olia/olia.owl#FullDefiniteArticle">http://purl.org/olia/olia.owl#FullDefiniteArticle</a>  tag:textal-ign.net,2015:feature:FullDefiniteArticle	<a href="http://www.iso-cat.org/datcat/DC-1928">http://www.iso-cat.org/datcat/DC-1928</a>  For definiteness, when a specific form is the syntactic subject of the clause. (DFKI; <a href="http://www.iso-cat.org/datcat/DC-1928">http://www.iso-cat.org/datcat/DC-1928</a> )  DCR: "full article" in dcif:conceptualDomain definiteness, remodelled as a property of DefiniteArticles here
article definite short short definite article	<a href="http://purl.org/olia/olia.owl#ShortDefiniteArticle">http://purl.org/olia/olia.owl#ShortDefiniteArticle</a>  tag:textal-ign.net,2015:feature:ShortDefiniteArticle	<a href="http://www.iso-cat.org/datcat/DC-1927">http://www.iso-cat.org/datcat/DC-1927</a> (short article)  For definiteness, when a specific form is not the syntactic subject of the clause. ( <a href="http://www.iso-cat.org/datcat/DC-1927">http://www.iso-cat.org/datcat/DC-1927</a> )

names	IRIs	Comments
		<p><a href="http://www.isocat.org/dat-cat/DC-1927">www.isocat.org/dat-cat/DC-1927</a>)</p> <p>DCR: subClassOf definiteness (dcif:conceptualDomain)</p>
<p>article indefinite</p> <p>indefinite article</p>	<p><a href="http://purl.org/olia/olia.owl#IndefiniteArticle">http://purl.org/olia/olia.owl#IndefiniteArticle</a></p> <p>tag:textal-ign.net,2015:feature:IndefiniteArticle</p>	<p>EAGLES Article with Article-Type="Indefinite".</p> <p>An indefinite article is used before singular nouns that refer to any member of a group. (<a href="http://en...[30]...8grammar%29">http://en...[30]...8grammar%29</a> [<a href="http://en.wikipedia.org/wiki/Article.%28grammar%29">http://en.wikipedia.org/wiki/Article.%28grammar%29</a>] 18.09.06)</p>
<p>article nonspecific</p> <p>nonspecific article</p>	<p><a href="http://purl.org/olia/olia.owl#NonspecificArticle">http://purl.org/olia/olia.owl#NonspecificArticle</a></p> <p>tag:textal-ign.net,2015:feature:NonspecificArticle</p>	<p>introduced in analogy with SpecificArticle</p> <p>"By 'specific' and 'non-specific' I intend the difference between the two readings of English indefinites like (3): (3) I'm looking for a deer. In the specific reading there is a particular deer, say Bambi, that I am looking for. In the non-specific reading I will be happy to find any deer. Von Heusinger (2002) likes the test in English of inserting 'certain' after the 'a' to fix the specific reading. In either reading of (3) a deer is being introduced as a new discourse referent. This is opposed to 'definite' which requires a previous pragmatic instantiation as in 'I'm looking for the deer.' In English both the readings of (3) are indefinite. In Klallam, the specific demonstratives are neither definite nor indefinite." (Montler, Timothy. 2007. Klallam demonstratives. Papers ICSNL XLVII. The 42nd International Conference on Salish and Neighbouring Language, pp. 409-425. University of British Columbia Working Papers in Linguistics, Volume 20; on specific vs. nonspecific determiners in Klallam, a Salish language, <a href="http://mon...">http://mon...</a>)</p>

names	IRIs	Comments
		[ 23 ]...mDemons .pdf [http://montler.net/papers/KlallamDemons.pdf])
article partitive partitive article	http://purl.org/olia/olia.owl#PartitiveArticle  tag:textal-ign.net,2015:feature:PartitiveArticle	TODO: Check relationship with PartitiveDeterminer  EAGLES Article with Article-Type="Partitive". (optional for French)  A partitive article indicates an indefinite quantity of a mass noun; there is no partitive article in English, though the words some or any often have that function. An example is French du / de la / des, as in Voulez-vous du café? ("Do you want some coffee?" or "Do you want coffee"). (http://en...[ 26 ]...e_(grammar) [http://en.wikipedia.org/wiki/Article_(grammar)] 19.09.06)
article possessive possessive article	http://purl.org/olia/olia.owl#PossessiveArticle  tag:textal-ign.net,2015:feature:PossessiveArticle	http://pur...[ 39 ]...siveArticle [http://purl.org/olia/mte/multext-east.owl#PossessiveArticle]  not to be confused with PoesiveDeterminer  In Romanian, the possessive article (also called genitival article) is an element in the structure of the possessive pronoun, of the ordinal numeral (e.g. al meu (mine) and al treilea (the third)), and of the indefinite genitive forms of the nouns (e.g. capitol al cărții (chapter of the book)), e.g., -al/al, a/al, ai/al, al, ale/al, alor/al (http://pur...[ 39 ]...siveArticle [http://purl.org/olia/mte/multext-east.owl#PossessiveArticle])
article specific specific article	http://purl.org/olia/olia.owl#SpecificArticle	introduced to account for the specific determiner in Farsi (http://pur...[ 46 ]...cDeterminer [http://purl.org/olia/mte/

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:SpecificArticle	<p>multext-east.owl#CliticSpecificDeterminer])</p> <p>”By ‘specific’ and ‘non-specific’ I intend the difference between the two readings of English indefinites like (3): (3) I’m looking for a deer. In the specific reading there is a particular deer, say Bambi, that I am looking for. In the non-specific reading I will be happy to find any deer. Von Heusinger (2002) likes the test in English of inserting ‘certain’ after the ‘a’ to fix the specific reading. In either reading of (3) a deer is being introduced as a new discourse referent. This is opposed to ‘definite’ which requires a previous pragmatic instantiation as in ‘I’m looking for the deer.’ In English both the readings of (3) are indefinite. In Klallam, the specific demonstratives are neither definite nor indefinite.” (Montler, Timothy. 2007. Klallam demonstratives. Papers ICSNL XLVII. The 42nd International Conference on Salish and Neighbouring Language, pp. 409-425. University of British Columbia Working Papers in Linguistics, Volume 20; on specific vs. nonspecific determiners in Klallam, a Salish language, <a href="http://mon...[23]...mDemons.pdf">http://mon...[23]...mDemons.pdf</a> [<a href="http://montler.net/papers/KlallamDemons.pdf">http://montler.net/papers/KlallamDemons.pdf</a>])</p>
<p>article specific clitic</p> <p>clitic specific article</p>	<p><a href="http://purl.org/olia/olia.owl#CliticSpecificArticle">http://purl.org/olia/olia.owl#CliticSpecificArticle</a></p> <p>tag:textal-ign.net,2015:feature:CliticSpecificArticle</p>	<p><a href="http://pur...[46]...cDeterminer">http://pur...[46]...cDeterminer</a> [<a href="http://purl.org/olia/mte/multext-east.owl#CliticSpecificDeterminer">http://purl.org/olia/mte/multext-east.owl#CliticSpecificDeterminer</a>]</p> <p>Persian does have an article, but it marks specificity rather than definiteness. The Persian article is similar to the Balkan one (a clitic of pronominal origin that’s written together with the</p>

names	IRIs	Comments
		word), except that it isn't exactly definite (you can even see it described as an indefinite article). (Ivan A. Derzhanski, p.c. 2010/06/18)
aspect cessative cessative aspect	<a href="http://purl.org/olia/olia.owl#CessativeAspect">http://purl.org/olia/olia.owl#CessativeAspect</a>  tag:textal-ign.net,2015:feature:CessativeAspect	<a href="http://www...[16]...cat/DC-2001">http://www...[16]...cat/DC-2001</a> [ <a href="http://www.isocat.org/datcat/DC-2001">http://www.isocat.org/datcat/DC-2001</a> ]  Aspect that expresses the cessation of an event or state. (SIL; <a href="http://www...[16]...cat/DC-2001">http://www...[16]...cat/DC-2001</a> [ <a href="http://www.isocat.org/datcat/DC-2001">http://www.isocat.org/datcat/DC-2001</a> ])  subClassOf aspect (dcif:conceptualDomain)
aspect continuous continuous aspect	<a href="http://purl.org/olia/olia.owl#ContinuousAspect">http://purl.org/olia/olia.owl#ContinuousAspect</a>  tag:textal-ign.net,2015:feature:ContinuousAspect	<a href="http://pur...[23].../Continuous">http://pur...[23].../Continuous</a> [ <a href="http://purl.org/linguistics/gold/Continuous">http://purl.org/linguistics/gold/Continuous</a> ]  Similar to progressive, however an aspect is continuous versus progressive when it is anchored to non-punctual time reference (Salaberry 2002:264). ( <a href="http://pur...[23].../Continuous">http://pur...[23].../Continuous</a> [ <a href="http://purl.org/linguistics/gold/Continuous">http://purl.org/linguistics/gold/Continuous</a> ])
aspect durative durative aspect	<a href="http://purl.org/olia/olia.owl#DurativeAspect">http://purl.org/olia/olia.owl#DurativeAspect</a>  tag:textal-ign.net,2015:feature:DurativeAspect	<a href="http://pur...[21]...ld/Durative">http://pur...[21]...ld/Durative</a> [ <a href="http://purl.org/linguistics/gold/Durative">http://purl.org/linguistics/gold/Durative</a> ]  Events which involve some duration (Bhat 1999:58). ( <a href="http://pur...[21]...ld/Durative">http://pur...[21]...ld/Durative</a> [ <a href="http://purl.org/linguistics/gold/Durative">http://purl.org/linguistics/gold/Durative</a> ])
aspect dynamic dynamic aspect	<a href="http://purl.org/olia/olia.owl#DynamicAspect">http://purl.org/olia/olia.owl#DynamicAspect</a>  tag:textal-ign.net,2015:feature:DynamicAspect	<a href="http://lan...[58]...icityAspect">http://lan...[58]...icityAspect</a> [ <a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#dynamicityAspect">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#dynamicityAspect</a> ]  dynamic aspect ( <a href="http://lan...[58]...icityAspect">http://lan...[58]...icityAspect</a> [ <a href="http://linguagelink.let.uu.nl/tds/">http://linguagelink.let.uu.nl/tds/</a> ])

names	IRIs	Comments
		onto/LinguisticOntology.owl#dynamicityAspect])
aspect frequentive frequentive aspect	<p><a href="http://purl.org/olia/olia.owl#FrequentiveAspect">http://purl.org/olia/olia.owl#FrequentiveAspect</a></p> <p>tag:textalign.net,2015:feature:FrequentiveAspect</p>	<p><a href="http://purl.org/linguistics/gold/Frequentive">http://purl.org/linguistics/gold/Frequentive</a> [http://purl.org/linguistics/gold/Frequentive]</p> <p>Events which are frequently repeated, differs from habitual in that it can only be based upon the observation of several occurrences of the event concerned, whereas habitual can be based upon the observation of a single occurrence (Bhat 1999: 53). (<a href="http://purl.org/linguistics/gold/Frequentive">http://purl.org/linguistics/gold/Frequentive</a>)</p>
aspect habitual habitual aspect	<p><a href="http://purl.org/olia/olia.owl#HabitualAspect">http://purl.org/olia/olia.owl#HabitualAspect</a></p> <p>tag:textalign.net,2015:feature:HabitualAspect</p>	<p><a href="http://purl.org/linguistics/gold/Habitual">http://purl.org/linguistics/gold/Habitual</a> [http://purl.org/linguistics/gold/Habitual] (as Aspect), <a href="http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#habitualTense">http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#habitualTense</a> [http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#habitualTense] (as Tense), modelled as an aspect here (temporally unmarked Habitual should be modelled as NotTemporallyAnchored)</p> <p>Habitual tense pertains to verbs which refer to an action that occurs repeatedly. (<a href="http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#habitualTense">http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#habitualTense</a>) Refers to the internal temporal contour of a situation — a repeated situation that occupies a large slice of time. Can be based on the observation of a single occurrence. (Bhat 1999:177) (<a href="http://purl.org/linguistics/gold/Habitual">http://purl.org/linguistics/gold/Habitual</a>)</p>

names	IRIs	Comments
aspect imperfective imperfective aspect	<p><a href="http://purl.org/olia/olia.owl#ImperfectiveAspect">http://purl.org/olia/olia.owl#ImperfectiveAspect</a></p> <p>tag:textal-ign.net,2015:feature:ImperfectiveAspect</p>	<p>EAGLES, <a href="http://lan...[61]...tiveAspect">http://lan...[61]...tiveAspect</a>, [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#imperfectiveAspect">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#imperfectiveAspect</a>], <a href="http://pur...[25]...mperfective">http://pur...[25]...mperfective</a> [<a href="http://purl.org/linguistics/gold/Imperfective">http://purl.org/linguistics/gold/Imperfective</a>]</p> <p>The Imperfective aspect is an aspect that expresses an event or state, with respect to its internal structure, instead of expressing it as a simple whole. (<a href="http://www...[65]...eAspect.htm">http://www...[65]...eAspect.htm</a> [<a href="http://www.sil.org/linguistics/glossaryoflinguisticterms/WhatIsImperfectiveAspect.htm">http://www.sil.org/linguistics/glossaryoflinguisticterms/WhatIsImperfectiveAspect.htm</a>] 17.11.06) The imperfective aspects ... do not view the situation as bounded, but rather as ongoing in either a durative, continuative or habitual sense (Bybee 1985:21) (<a href="http://lan...[60]...ctiveAspect">http://lan...[60]...ctiveAspect</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#imperfectiveAspect">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#imperfectiveAspect</a>]) A viewpoint aspect which encodes the speaker's lack of attention to the endpoints of the situation referred to. Imperfective aspect is the prototypical mode of presentation for states (Michaelis 1998:xiv). (<a href="http://pur...[25]...mperfective">http://pur...[25]...mperfective</a> [<a href="http://purl.org/linguistics/gold/Imperfective">http://purl.org/linguistics/gold/Imperfective</a>])</p>
aspect inceptive inceptive aspect	<p><a href="http://purl.org/olia/olia.owl#InceptiveAspect">http://purl.org/olia/olia.owl#InceptiveAspect</a></p> <p>tag:textal-ign.net,2015:feature:InceptiveAspect</p>	<p><a href="http://pur...[22]...d/Inceptive">http://pur...[22]...d/Inceptive</a> [<a href="http://purl.org/linguistics/gold/Inceptive">http://purl.org/linguistics/gold/Inceptive</a>]</p> <p>InceptiveAspect, also called the ingressive, encodes the beginning portion of some event (Bybee 1985: 147, 149; Payne 1997: 240; Bhat 1999:176). (<a href="http://pur...">http://pur...</a>)</p>



names	IRIs	Comments
		[ 22 ]...d/Inceptive [http://purl.org/linguistics/gold/Inceptive]
aspect iterative iterative aspect	<p>http://purl.org/olia/olia.owl#IterativeAspect</p> <p>tag:textal-ign.net,2015:feature:IterativeAspect</p>	<p>http://pur...[ 22 ]...d/Iterative [http://purl.org/linguistics/gold/Iterative]</p> <p>IterativeAspect, also called repetitives, encodes a number of events of the same type that are repeated on a particular occasion. The time interval which is relevant to the iterative is relatively shorter than in the case of the habitual (Bybee 1985: 150; Bybee, Perkins and Pagliuca 1994: 127). Portrays events repeated on the same occasion (like the iterative knocking on the door) (Bhat 1999: 53) (http://pur...[ 22 ]...d/Iterative [http://purl.org/linguistics/gold/Iterative])</p>
aspect perfective perfective aspect	<p>http://purl.org/olia/olia.owl#PerfectiveAspect</p> <p>tag:textal-ign.net,2015:feature:PerfectiveAspect</p>	<p>EAGLES, http://pur...[ 23 ].../Perfective [http://purl.org/linguistics/gold/Perfective]</p> <p>The perfective aspects (inceptive, punctual and completive) view the situation as a bounded entity, and often put an emphasis on its beginning or end. (Bybee 1985:21) (http://lan...[ 58 ]...ctiveAspect [http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#perfectiveAspect])</p> <p>The Perfective aspect is an aspect that expresses a temporal view of an event or state as a simple whole, apart from the consideration of the internal structure of the time in which it occurs. (http://www...[ 63 ]...eAspect.htm [http://www.sil.org/linguistics/glossaryoflinguisticterms/WhatIsPerfectiveAspect.htm] 17.11.06) A viewpoint aspect which encodes the speak-</p>

names	IRIs	Comments
		er's willingness to attend to the endpoints of the situation referred to. Perfective aspect is the canonical mode of presentation for events (Michaelis 1998:xv). ( <a href="http://pur...[23].../Perfective">http://pur...[23].../Perfective</a> [ <a href="http://purl.org/linguistics/gold/Perfective">http://purl.org/linguistics/gold/Perfective</a> ])
aspect phasal phasal aspect	<a href="http://purl.org/olia/olia.owl#PhasalAspect">http://purl.org/olia/olia.owl#PhasalAspect</a>  tag:textal-ign.net,2015:feature:PhasalAspect	<p><a href="http://lan...[54]...haseAspect">http://lan...[54]...haseAspect</a>, [<a href="http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#phaseAspect">http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#phaseAspect</a>], <a href="http://pur...[19]...gold/Phasal">http://pur...[19]...gold/Phasal</a> [<a href="http://purl.org/linguistics/gold/Phasal">http://purl.org/linguistics/gold/Phasal</a>]</p> <p>A set of aspectual distinctions involving relations between a background situation (the reference situation) and a situation located relative to the reference situation (the denoted situation). In English, phasal distinctions are expressed by auxiliary-headed constructions, like the inceptive, progressive, and perfect constructions, whose head verbs express the aspectual class of the denoted situation. The aspectual class of the denoted situation differs from that of the reference situation (Michaelis 1998:xv). An event may have a beginning and an end, a middle portion (continuing or changing), and also an ensuing result or an altered state. These are considered to be the various “phases” of an event. A speaker may talk about an event from the point of view of any of these individual phases, and his language may have inflectional (or other type of) markers for representing these distinctions. Since such markers indicate distinctions in the temporal structure of an event, we may regard them as belonging to the category of aspect. It has been suggested (Dik 1989: 186)</p>

names	IRIs	Comments
		that these may be grouped under a subcategory (or “level”) of aspect called “phasal aspect”. (Bhat 1999:49) ( <a href="http://purl.org/linguistics/gold/Phasal">http://purl.org/linguistics/gold/Phasal</a> )
aspect progressive progressive aspect	<a href="http://purl.org/olia/olia.owl#ProgressiveAspect">http://purl.org/olia/olia.owl#ProgressiveAspect</a>  tag:textal-ign.net,2015:feature:ProgressiveAspect	<a href="http://purl.org/linguistics/gold/Progressive">http://purl.org/linguistics/gold/Progressive</a> [http://purl.org/linguistics/gold/Progressive]  ProgressiveAspect, also called the continuative or the durative, encodes a single event as an ongoing process. Thus, states cannot generally be encoded with the progressive (Comrie 1976: 32-35; Bybee, Perkins and Pagliuca 1994: 127-139; Payne 1997: 240). An exponent of phasal aspect which expresses a stative situation that holds during the time at which an event is occurring (e. g., He is fixing the fence) (Michaelis 1998:xv). ( <a href="http://purl.org/linguistics/gold/Progressive">http://purl.org/linguistics/gold/Progressive</a> )
aspect purposive purposive aspect	<a href="http://purl.org/olia/olia.owl#PurposiveAspect">http://purl.org/olia/olia.owl#PurposiveAspect</a>  tag:textal-ign.net,2015:feature:PurposiveAspect	adapted from ILPOSTS (for Indian languages), <a href="http://purl.org/olia/ilposts.owl#PurposiveAspect">http://purl.org/olia/ilposts.owl#PurposiveAspect</a>  The purposive aspect appears to add the notion of intention or probability, both negative and positive. (Steckley, 2007, p. 14, about Huron) (John Steckley, 2007, Words of the Huron, Wilfrid Laurier Univ. Press)
aspect quantificational quantificational aspect	<a href="http://purl.org/olia/olia.owl#QuantificationalAspect">http://purl.org/olia/olia.owl#QuantificationalAspect</a>  tag:textal-ign.net,2015:feature:QuantificationalAspect	<a href="http://purl.org/linguistics/gold/Quantificational">http://purl.org/linguistics/gold/Quantificational</a> , [http://lan...[60]...ativeAspect [http:// <a href="http://language.link.let.uu.nl/tds/">language.link.let.uu.nl/tds/</a>

names	IRIs	Comments
		<p>onto/LinguisticOntology.owl#quantitativeAspect]</p> <p>A speaker may report an event as occurring once only (semelfactive) or several times (iterative); he may view it as a specific event or as part of a general habit of carrying out similar events; he may also differentiate between different degrees of frequency with which the event occurs. The markers that a given language provides for one or more of these meaning distinctions can be grouped under a subcategory called “quantificational aspect”, as all of them refer to the quantitative aspect of the event concerned (Bhat 1999:53). (<a href="http://purl.org/linguistics/gold/Quantificational">http://purl.org/linguistics/gold/Quantificational</a>)</p>
<p>aspect relevance</p> <p>relevance aspect</p>	<p><a href="http://purl.org/olia/olia.owl#RelevanceAspect">http://purl.org/olia/olia.owl#RelevanceAspect</a></p> <p>tag:textal-ign.net,2015:feature:RelevanceAspect</p>	<p><a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#relevanceAspect">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#relevanceAspect</a></p> <p>relevance aspect (<a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#relevanceAspect">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#relevanceAspect</a>)</p>
<p>aspect semelfactive</p> <p>semelfactive aspect</p>	<p><a href="http://purl.org/olia/olia.owl#SemelfactiveAspect">http://purl.org/olia/olia.owl#SemelfactiveAspect</a></p> <p>tag:textal-ign.net,2015:feature:SemelfactiveAspect</p>	<p><a href="http://purl.org/linguistics/gold/Semelfactive">http://purl.org/linguistics/gold/Semelfactive</a></p> <p>Momentaneous, without an inherent end-point, as sneeze (Michaelis 1998:xvi). (<a href="http://purl.org/linguistics/gold/Semelfactive">http://purl.org/linguistics/gold/Semelfactive</a>)</p>
<p>aspect simple</p> <p>simple aspect</p>	<p><a href="http://purl.org/olia/olia.owl#SimpleAspect">http://purl.org/olia/olia.owl#SimpleAspect</a></p>	<p>ILPOSTS, <a href="http://purl.org/olia/ilposts.owl#SimpleAspect">http://purl.org/olia/ilposts.owl#SimpleAspect</a></p>

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:SimpleAspect	<p>TODO: check whether this is properly defined</p> <p>non-progressive, non-purposive aspect (for Indian languages defined by <a href="http://pur...[25]...impleAspect">http://pur...[25]...impleAspect</a> [<a href="http://purl.org/olia/ilposts.owl#SimpleAspect">http://purl.org/olia/ilposts.owl#SimpleAspect</a>])</p>
aspect terminative terminative aspect	<p><a href="http://purl.org/olia/olia.owl#TerminativeAspect">http://purl.org/olia/olia.owl#TerminativeAspect</a></p> <p>tag:textal-ign.net,2015:feature:TerminativeAspect</p>	<p><a href="http://pur...[24]...Terminative">http://pur...[24]...Terminative</a> [<a href="http://purl.org/linguistics/gold/Terminative">http://purl.org/linguistics/gold/Terminative</a>]</p> <p>Denotes the termination of an event (Bhat 1999: 92). (<a href="http://pur...[24]...Terminative">http://pur...[24]...Terminative</a> [<a href="http://purl.org/linguistics/gold/Terminative">http://purl.org/linguistics/gold/Terminative</a>])</p>
aspect unaccomplished unaccomplished aspect	<p><a href="http://purl.org/olia/olia.owl#UnaccomplishedAspect">http://purl.org/olia/olia.owl#UnaccomplishedAspect</a></p> <p>tag:textal-ign.net,2015:feature:UnaccomplishedAspect</p>	<p><a href="http://www...[16]...cat/DC-2217">http://www...[16]...cat/DC-2217</a> [<a href="http://www.iso-cat.org/datcat/DC-2217">http://www.iso-cat.org/datcat/DC-2217</a>]</p> <p>aspect that expresses an event or state that is not finished. (<a href="http://www...[16]...cat/DC-2217">http://www...[16]...cat/DC-2217</a> [<a href="http://www.iso-cat.org/datcat/DC-2217">http://www.iso-cat.org/datcat/DC-2217</a>])</p> <p>subClassOf aspect (dcif:conceptualDomain)</p>
aspect view of point point of view aspect	<p><a href="http://purl.org/olia/olia.owl#PointOfViewAspect">http://purl.org/olia/olia.owl#PointOfViewAspect</a></p> <p>tag:textal-ign.net,2015:feature:PointOfViewAspect</p>	<p><a href="http://lan...[57]...PointAspect">http://lan...[57]...PointAspect</a> [<a href="http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#viewPointAspect">http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#viewPointAspect</a>]</p> <p>point of view aspect (<a href="http://lan...[57]...PointAspect">http://lan...[57]...PointAspect</a> [<a href="http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#viewPointAspect">http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#viewPointAspect</a>])</p>
atransitive	<p><a href="http://purl.org/olia/olia.owl#Atransitive">http://purl.org/olia/olia.owl#Atransitive</a></p> <p>tag:textal-ign.net,2015:feature:Atransitive</p>	<p>Chiarcos</p> <p>A predicate/verb that takes no argument. English "to rain" is semantically atransitive, hence, an expletive is to be used in</p>

names	IRIs	Comments
		"it's raining", cf. van Valin and Lapolla (1997).
attribute genitive genitive attribute	<a href="http://purl.org/olia/olia.owl#GenitiveAttribute">http://purl.org/olia/olia.owl#GenitiveAttribute</a>  tag:textal-ign.net,2015:feature:GenitiveAttribute	added in conformance to the TIGER scheme  TODO: check definition  added in conformance to the TIGER scheme
auxiliary be be auxiliary	<a href="http://purl.org/olia/olia.owl#BeAuxiliary">http://purl.org/olia/olia.owl#BeAuxiliary</a>  tag:textal-ign.net,2015:feature:BeAuxiliary	<a href="http://www...[16]...cat/DC-1246">http://www...[16]...cat/DC-1246</a> [ <a href="http://www.isocat.org/datcat/DC-1246">http://www.isocat.org/datcat/DC-1246</a> ]  Verb used to link the subject of a sentence and its noun or adjective complement or complementing phrase in certain languages. This verb could be used also to form the passive voice. ( <a href="http://www.wordreference.com/English/definition.asp?en=be-&gt;4">www.wordreference.com/English/definition.asp?en=be -&gt; 4</a> ); <a href="http://www...[16]...cat/DC-1246">http://www...[16]...cat/DC-1246</a> [ <a href="http://www.isocat.org/datcat/DC-1246">http://www.isocat.org/datcat/DC-1246</a> ]  subClassOf partOfSpeech (dcif:conceptualDomain)
auxiliary have have auxiliary	<a href="http://purl.org/olia/olia.owl#HaveAuxiliary">http://purl.org/olia/olia.owl#HaveAuxiliary</a>  tag:textal-ign.net,2015:feature:HaveAuxiliary	<a href="http://www...[16]...cat/DC-1299">http://www...[16]...cat/DC-1299</a> [ <a href="http://www.isocat.org/datcat/DC-1299">http://www.isocat.org/datcat/DC-1299</a> ]  The verb have as an auxiliary. ( <a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAnAuxiliaryVerb.htm">www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAnAuxiliaryVerb.htm</a> ; <a href="http://www...[16]...cat/DC-1299">http://www...[16]...cat/DC-1299</a> [ <a href="http://www.isocat.org/datcat/DC-1299">http://www.isocat.org/datcat/DC-1299</a> ])  subClassOf partOfSpeech (dcif:conceptualDomain)
bracket angle close close angle bracket	<a href="http://purl.org/olia/olia.owl#CloseAngleBracket">http://purl.org/olia/olia.owl#CloseAngleBracket</a>  tag:textal-ign.net,2015:feature:CloseAngleBracket	PTB bracketing guidelines, Santorini 1991  > *RAB* Right angle bracket (Santorini 1991)

names	IRIs	Comments
bracket angle open open angle bracket	<a href="http://purl.org/olia/olia.owl#OpenAngleBracket">http://purl.org/olia/olia.owl#OpenAngleBracket</a>  tag:textal-ign.net,2015:feature:OpenAngleBracket	PTB bracketing guidelines, Santorini 1991  < *LAB* Left angle bracket (Santorini 1991)
bracket close close bracket	<a href="http://purl.org/olia/olia.owl#CloseBracket">http://purl.org/olia/olia.owl#CloseBracket</a>  tag:textal-ign.net,2015:feature:CloseBracket	<a href="http://www...[16]...cat/DC-2083">http://www...[16]...cat/DC-2083</a> [ <a href="http://www.iso-cat.org/datcat/DC-2083">http://www.iso-cat.org/datcat/DC-2083</a> ]  Punctuation that is graphically represented by ] ( <a href="http://www...[16]...cat/DC-2083">http://www...[16]...cat/DC-2083</a> [ <a href="http://www.iso-cat.org/datcat/DC-2083">http://www.iso-cat.org/datcat/DC-2083</a> ])
bracket curly close close curly bracket	<a href="http://purl.org/olia/olia.owl#CloseCurlyBracket">http://purl.org/olia/olia.owl#CloseCurlyBracket</a>  tag:textal-ign.net,2015:feature:CloseCurlyBracket	<a href="http://www...[16]...cat/DC-2085">http://www...[16]...cat/DC-2085</a> [ <a href="http://www.iso-cat.org/datcat/DC-2085">http://www.iso-cat.org/datcat/DC-2085</a> ]  Punctuation that is graphically represented by ] ( <a href="http://www...[16]...cat/DC-2085">http://www...[16]...cat/DC-2085</a> [ <a href="http://www.iso-cat.org/datcat/DC-2085">http://www.iso-cat.org/datcat/DC-2085</a> ])
bracket curly open open curly bracket	<a href="http://purl.org/olia/olia.owl#OpenCurlyBracket">http://purl.org/olia/olia.owl#OpenCurlyBracket</a>  tag:textal-ign.net,2015:feature:OpenCurlyBracket	<a href="http://www...[16]...cat/DC-2084">http://www...[16]...cat/DC-2084</a> [ <a href="http://www.iso-cat.org/datcat/DC-2084">http://www.iso-cat.org/datcat/DC-2084</a> ]  Punctuation that is graphically represented as [ ( <a href="http://www...[16]...cat/DC-2084">http://www...[16]...cat/DC-2084</a> [ <a href="http://www.iso-cat.org/datcat/DC-2084">http://www.iso-cat.org/datcat/DC-2084</a> ])
bracket open open bracket	<a href="http://purl.org/olia/olia.owl#OpenBracket">http://purl.org/olia/olia.owl#OpenBracket</a>  tag:textal-ign.net,2015:feature:OpenBracket	<a href="http://www...[16]...cat/DC-2082">http://www...[16]...cat/DC-2082</a> [ <a href="http://www.iso-cat.org/datcat/DC-2082">http://www.iso-cat.org/datcat/DC-2082</a> ]  Punctuation that is represented graphically as [ ( <a href="http://www...[16]...cat/DC-2082">http://www...[16]...cat/DC-2082</a> [ <a href="http://www.iso-cat.org/datcat/DC-2082">http://www.iso-cat.org/datcat/DC-2082</a> ])
bracket sentence left left sentence bracket	<a href="http://purl.org/olia/olia.owl#LeftSentenceBracket">http://purl.org/olia/olia.owl#LeftSentenceBracket</a>  tag:textal-ign.net,2015:fea-	In a German clause, the finite verb can appear in three different positions: verb-second, verb-initial, and verb-final. Only in verb-final clauses the verb complex consisting of the finite

names	IRIs	Comments
	ture:LeftSentence-Bracket	verb and non-finite verbal elements forms a unit. The discontinuous positioning of the verbal elements in verb-first and verb-second clauses is the traditional reason for structuring German clauses into fields. The positions of the verbal elements form the Satzklammer (sentence bracket) which divides the sentence into a Vorfeld (initial field), a Mittelfeld (middle field), and a Nachfeld (final field). The Vorfeld and the Mittelfeld are divided by the linke Satzklammer (left sentence bracket), which is the finite verb, the rechte Satzklammer (right sentence bracket) is the verb complex between the Mittelfeld and the Nachfeld. (Telljohann et al. 2009, p.13)
bracket square close close square bracket	<a href="http://purl.org/olia/olia.owl#CloseSquareBracket">http://purl.org/olia/olia.owl#CloseSquareBracket</a>  tag:textal-ign.net,2015:feature:CloseSquareBracket	PTB bracketing guidelines, Santorini 1991  ] *RSB* Right square bracket (Santorini 1991)
bracket square open open square bracket	<a href="http://purl.org/olia/olia.owl#OpenSquareBracket">http://purl.org/olia/olia.owl#OpenSquareBracket</a>  tag:textal-ign.net,2015:feature:OpenSquareBracket	PTB bracketing guidelines, Santorini 1991  [ *LSB* Left square bracket (Santorini 1991)
bullet	<a href="http://purl.org/olia/olia.owl#Bullet">http://purl.org/olia/olia.owl#Bullet</a>  tag:textal-ign.net,2015:feature:Bullet	<a href="http://www...[16]...cat/DC-1438">http://www...[16]...cat/DC-1438</a> [ <a href="http://www.isocat.org/datcat/DC-1438">http://www.isocat.org/datcat/DC-1438</a> ]  Sign used to mark an item in a list. ( <a href="http://www...[16]...cat/DC-1438">http://www...[16]...cat/DC-1438</a> [ <a href="http://www.isocat.org/datcat/DC-1438">http://www.isocat.org/datcat/DC-1438</a> ])  subClassOf partOfSpeech (dcif:conceptualDomain)
case abessive	<a href="http://purl.org/olia/olia.owl#AbessiveCase">http://purl.org/olia/olia.owl#AbessiveCase</a>	<a href="http://pur...[22]...d/Abessive">http://pur...[22]...d/Abessive</a> , [ <a href="http://purl.org/">http://purl.org/</a>



names	IRIs	Comments
abessive case	tag:textal-ign.net,2015:feature:AbessiveCase	linguistics/gold/Abessive,] http://www...[16]...cat/ DC-1223 [http://www.isocat.org/datcat/DC-1223]  AbessiveCase expresses the lack or absence of the referent of the noun it marks. It has the meaning of the English preposition 'without' (Pei and Gaynor 1954: 3,35; Gove, et al. 1966: 3). (http://pur...[21]...ld/Abessive [http://purl.org/linguistics/gold/Abessive])
case ablative ablative case	http://purl.org/olia/olia.owl#AblativeCase  tag:textal-ign.net,2015:feature:AblativeCase	http://pur...[22]...d/ Ablative, [http://purl.org/linguistics/gold/Ablative,] http://www...[16]...cat/ DC-1224 [http://www.isocat.org/datcat/DC-1224]  Case used to indicate locative or instrumental function. (http://www...[16]...cat/DC-1224 [http://www.isocat.org/datcat/DC-1224]) AblativeCase expresses that the referent of the noun it marks is the location from which another referent is moving. It has the meaning 'from'. (http://pur...[21]...ld/Ablative [http://purl.org/linguistics/gold/Ablative])
case absolutive absolutive case	http://purl.org/olia/olia.owl#AbsolutiveCase  tag:textal-ign.net,2015:feature:AbsolutiveCase	TDS Ontology, http://www...[16]...cat/DC-1225 [http://www.isocat.org/datcat/DC-1225]  Absolutive case marks the first argument of an intransitive verb and the second argument of a transitive verb in ergative-absolutive languages. (http://lan...[56]...olutiveCase [http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#absolutiveCase])

names	IRIs	Comments
case adessive adessive case	<a href="http://purl.org/olia/olia.owl#AdessiveCase">http://purl.org/olia/olia.owl#AdessiveCase</a>  tag:textal-ign.net,2015:feature:AdessiveCase	<a href="http://purl.org/olia/olia.owl#AdessiveCase">http://purl.org/olia/olia.owl#AdessiveCase</a> [http://purl.org/linguistics/gold/Adessive,] <a href="http://www.isocat.org/datcat/DC-1228">http://www.isocat.org/datcat/DC-1228</a> [http://www.isocat.org/datcat/DC-1228]  AdessiveCase expresses that the referent of the noun it marks is the location near/at which another referent exists. It has the meaning of 'at' or 'near' (Crystal 1997: 8). ( <a href="http://purl.org/olia/olia.owl#AdessiveCase">http://purl.org/olia/olia.owl#AdessiveCase</a> [http://purl.org/linguistics/gold/Adessive])
case aditive aditive case	<a href="http://purl.org/olia/olia.owl#AditiveCase">http://purl.org/olia/olia.owl#AditiveCase</a>  tag:textal-ign.net,2015:feature:AditiveCase	TODO: rename to Additive-Case  <a href="http://www.isocat.org/datcat/DC-1229">http://www.isocat.org/datcat/DC-1229</a> [http://www.isocat.org/datcat/DC-1229]  Case expressing "to" in Basque studies. ( <a href="http://www.isocat.org/datcat/DC-1229">http://www.isocat.org/datcat/DC-1229</a> [http://www.isocat.org/datcat/DC-1229])
case allative allative case	<a href="http://purl.org/olia/olia.owl#AllativeCase">http://purl.org/olia/olia.owl#AllativeCase</a>  tag:textal-ign.net,2015:feature:AllativeCase	<a href="http://purl.org/olia/olia.owl#AllativeCase">http://purl.org/olia/olia.owl#AllativeCase</a> [http://purl.org/linguistics/gold/Allative,] <a href="http://www.isocat.org/datcat/DC-1236">http://www.isocat.org/datcat/DC-1236</a> [http://www.isocat.org/datcat/DC-1236]  AllativeCase expresses motion to or toward the referent of the noun it marks (Pei and Gaynor 1954: 6,9,216; Lyons 1968: 299; Crystal 1985: 1213; Gove, et al. 1966: 55,2359). ( <a href="http://purl.org/olia/olia.owl#AllativeCase">http://purl.org/olia/olia.owl#AllativeCase</a> [http://purl.org/linguistics/gold/Allative])
case benefactive benefactive case	<a href="http://purl.org/olia/olia.owl#BenefactiveCase">http://purl.org/olia/olia.owl#BenefactiveCase</a>  tag:textal-ign.net,2015:feature:BenefactiveCase	<a href="http://purl.org/olia/olia.owl#BenefactiveCase">http://purl.org/olia/olia.owl#BenefactiveCase</a> [http://purl.org/linguistics/gold/Benefactive,] <a href="http://www.isocat.org/datcat/DC-1247">http://www.isocat.org/datcat/DC-1247</a> [http://www.isocat.org/datcat/DC-1247]

names	IRIs	Comments
		BenefactiveCase expresses that the referent of the noun it marks receives the benefit of the situation expressed by the clause (Crystal 1980: 43; Gove, et al. 1966: 203). ( <a href="http://purl.org/linguistics/gold/Benefactive">http://purl.org/linguistics/gold/Benefactive</a> )
case causative causative case	<a href="http://purl.org/olia/olia.owl#CausativeCase">http://purl.org/olia/olia.owl#CausativeCase</a>  tag:textal-ign.net,2015:feature:CausativeCase	Case which expresses that the referent of the noun it marks is the cause of the situation expressed by the clause. ( <a href="http://www.isocat.org/datcat/DC-1253">http://www.isocat.org/datcat/DC-1253</a> )  <a href="http://www.isocat.org/datcat/DC-1253">http://www.isocat.org/datcat/DC-1253</a>
case comitative comitative case	<a href="http://purl.org/olia/olia.owl#ComitativeCase">http://purl.org/olia/olia.owl#ComitativeCase</a>  tag:textal-ign.net,2015:feature:ComitativeCase	<a href="http://purl.org/linguistics/gold/Comitative">http://purl.org/linguistics/gold/Comitative</a> ;  ComitativeCase expresses accompaniment. It carries the meaning 'with' or 'accompanied by' (Anderson, Stephen 1985: 186; Pei and Gaynor 1954: 42; Dixon, R. 1972: 12; Gove, et al. 1966: 455). ( <a href="http://purl.org/linguistics/gold/Comitative">http://purl.org/linguistics/gold/Comitative</a> )
case contablative contablative case	<a href="http://purl.org/olia/olia.owl#ContablativeCase">http://purl.org/olia/olia.owl#ContablativeCase</a>  tag:textal-ign.net,2015:feature:ContablativeCase	<a href="http://purl.org/linguistics/gold/Contablative">http://purl.org/linguistics/gold/Contablative</a>  ContablativeCase expresses that the referent of the noun it marks is the location from near which another referent is moving. It has the meaning 'from near'. ( <a href="http://purl.org/linguistics/gold/Contablative">http://purl.org/linguistics/gold/Contablative</a> )

names	IRIs	Comments
		<a href="http://purl.org/linguistics/gold/Contablative">purl.org/linguistics/gold/Contablative</a> )
case contallative contallative case	<a href="http://purl.org/olia/olia.owl#Contallative-Case">http://purl.org/olia/olia.owl#Contallative-Case</a>  tag:textal-ign.net,2015:feature:ContallativeCase	<a href="http://purl.org/linguistics/gold/Contallative">http://pur...[25]...ontallative</a> [ <a href="http://purl.org/linguistics/gold/Contallative">http://purl.org/linguistics/gold/Contallative</a> ]  ContallativeCase expresses that something is moving toward the vicinity of the referent of the noun it marks. It has the meaning 'towards the vicinity of'. ( <a href="http://purl.org/linguistics/gold/Contallative">http://pur...[25]...ontallative</a> [ <a href="http://purl.org/linguistics/gold/Contallative">http://purl.org/linguistics/gold/Contallative</a> ])
case conterminative conterminative case	<a href="http://purl.org/olia/olia.owl#Conterminative-Case">http://purl.org/olia/olia.owl#Conterminative-Case</a>  tag:textal-ign.net,2015:feature:Conterminative-Case	<a href="http://purl.org/linguistics/gold/Conterminative">http://pur...[27]...terminative</a> [ <a href="http://purl.org/linguistics/gold/Conterminative">http://purl.org/linguistics/gold/Conterminative</a> ]  ConterminativeCase expresses the notion of something moving into the vicinity of the referent of the noun it marks, but not through that region. It has the meaning 'moving into the vicinity of'. ( <a href="http://purl.org/linguistics/gold/Conterminative">http://pur...[27]...terminative</a> [ <a href="http://purl.org/linguistics/gold/Conterminative">http://purl.org/linguistics/gold/Conterminative</a> ])
case contlative contlative case	<a href="http://purl.org/olia/olia.owl#Contlative-Case">http://purl.org/olia/olia.owl#Contlative-Case</a>  tag:textal-ign.net,2015:feature:ContlativeCase	<a href="http://purl.org/linguistics/gold/Contlative">http://pur...[23].../Contlative</a> [ <a href="http://purl.org/linguistics/gold/Contlative">http://purl.org/linguistics/gold/Contlative</a> ]  ContlativeCase expresses that the referent of the noun it marks is the location in the vicinity of which another referent is moving. It has the meaning 'in the vicinity of'. ( <a href="http://purl.org/linguistics/gold/Contlative">http://pur...[23].../Contlative</a> [ <a href="http://purl.org/linguistics/gold/Contlative">http://purl.org/linguistics/gold/Contlative</a> ])
case dative dative case	<a href="http://purl.org/olia/olia.owl#DativeCase">http://purl.org/olia/olia.owl#DativeCase</a>  tag:textal-ign.net,2015:feature:DativeCase	EAGLES  Dative case marks indirect objects (for languages in which they are held to exist), or nouns having the role of a recipient (as of things given), a beneficiary of an action, or a posses-

names	IRIs	Comments
		<p>sor of an item. (<a href="http://www...[57]...iveCase.htm">http://www...[57]...iveCase.htm</a> [<a href="http://www.sil.org/linguistics/glossaryoflinguisticterms/WhatIsDative-Case.htm">http://www.sil.org/linguistics/glossaryoflinguisticterms/WhatIsDative-Case.htm</a>] 17.11.06)</p>
<p>case delative delative case</p>	<p><a href="http://purl.org/olia/olia.owl#DelativeCase">http://purl.org/olia/olia.owl#DelativeCase</a></p> <p>tag:textal-ign.net,2015:feature:DelativeCase</p>	<p><a href="http://pur...[22]...d/Delative">http://pur...[22]...d/Delative</a>, [<a href="http://purl.org/linguistics/gold/Delative">http://purl.org/linguistics/gold/Delative</a>,] <a href="http://www...[16]...cat/DC-1268">http://www...[16]...cat/DC-1268</a> [<a href="http://www.iso-cat.org/datcat/DC-1268">http://www.iso-cat.org/datcat/DC-1268</a>]</p> <p>DelativeCase expresses motion downward from the referent of the noun it marks (Pei and Gaynor 1954: 53; Gove, et al. 1966: 595). (<a href="http://pur...[21]...ld/Delative">http://pur...[21]...ld/Delative</a> [<a href="http://purl.org/linguistics/gold/Delative">http://purl.org/linguistics/gold/Delative</a>])</p>
<p>case direct direct case</p>	<p><a href="http://purl.org/olia/olia.owl#DirectCase">http://purl.org/olia/olia.owl#DirectCase</a></p> <p>tag:textal-ign.net,2015:feature:DirectCase</p>	<p><a href="http://pur...[32]...#DirectCase">http://pur...[32]...#DirectCase</a> [<a href="http://purl.org/olia/mte/multext-east.owl#DirectCase">http://purl.org/olia/mte/multext-east.owl#DirectCase</a>]</p> <p>In the Romanian case system the value 'direct' conflates 'nominative' and 'accusative', e.g., -acea/accel, -aceasta/acesta, -această/acest (<a href="http://pur...[32]...#DirectCase">http://pur...[32]...#DirectCase</a> [<a href="http://purl.org/olia/mte/multext-east.owl#DirectCase">http://purl.org/olia/mte/multext-east.owl#DirectCase</a>])</p>
<p>case distributive distributive case</p>	<p><a href="http://purl.org/olia/olia.owl#DistributiveCase">http://purl.org/olia/olia.owl#DistributiveCase</a></p> <p>tag:textal-ign.net,2015:feature:DistributiveCase</p>	<p><a href="http://pur...[38]...ibutiveCase">http://pur...[38]...ibutiveCase</a> [<a href="http://purl.org/olia/mte/multext-east.owl#DistributiveCase">http://purl.org/olia/mte/multext-east.owl#DistributiveCase</a>]</p> <p>The distributive case is used on nouns for the meanings of per or each, e.g., Hungarian egyenként/egy, hetenként/hét, ilyenként/ily, kéthetenként/kéthét, rekordonként/rekord, tömbönként/tömb, vércsopontonként/vércsoport In Hungarian it is -nként and expresses the manner when some-</p>

names	IRIs	Comments
		<p>thing happens to each member of a set one by one (e.g., fejenként "per head", esetenként "in some case"), or the frequency in time (hetenként "once a week", tízpercenként "every ten minutes"). In the Finnish language, this adverb type is rare, even rarer in the singular. Its ending is -tain/-täin. The basic meaning is "separately for each". For example, maa ("country") becomes maittain for an expression like Laki ratifioidaan maittain ("The law is ratified separately in each country"). It can be used to distribute the action to frequent points in time, e.g., päivä (day) has the plural distributive päivittäin (each day). It can mean also "in (or with) regard to the (cultural) perspective" when combined with a word referring to an inhabitant (-lais-). Frequently Finns (suomalaiset) say that suomalaisittain tuntuu oudolta, että, or "in the Finnish perspective, it feels strange that". (<a href="http://purl.org/olia/mte/multext-east.owl#Distributive-Case">http://purl.org/olia/mte/multext-east.owl#Distributive-Case</a>, <a href="http://en.wikipedia.org/wiki/Distributive_case">http://en.wikipedia.org/wiki/Distributive_case</a>)</p>
<p>case elative elative case</p>	<p><a href="http://purl.org/olia/olia.owl#ElativeCase">http://purl.org/olia/olia.owl#ElativeCase</a>  tag:textal-ign.net,2015:feature:ElativeCase</p>	<p><a href="http://purl.org/olia/olia.owl#ElativeCase">http://purl.org/olia/olia.owl#ElativeCase</a>, [<a href="http://purl.org/linguistics/gold/Elative">http://purl.org/linguistics/gold/Elative</a>], <a href="http://www.iso-cat.org/datcat/DC-1276">http://www.iso-cat.org/datcat/DC-1276</a>, [<a href="http://www.iso-cat.org/datcat/DC-1276">http://www.iso-cat.org/datcat/DC-1276</a>] note that the latter conflates ElativeDegree and ElativeCase</p> <p>ElativeCase expresses that the referent of the noun it marks is the location out of which another referent is moving. It has the meaning 'out of' (Lyons 1968: 299; Pei and Gaynor 1954: 64; Crystal 1985: 106; Gove, et</p>

names	IRIs	Comments
		al. 1966: 730). ( <a href="http://purl.org/linguistics/gold/Elative">http://purl.org/linguistics/gold/Elative</a> )
case equative equative case	<a href="http://purl.org/olia/olia.owl#EquativeCase">http://purl.org/olia/olia.owl#EquativeCase</a>  tag:textal-ign.net,2015:feature:EquativeCase	<a href="http://www...[16]...cat/DC-1279">http://www...[16]...cat/DC-1279</a> [ <a href="http://www.iso-cat.org/datcat/DC-1279">http://www.iso-cat.org/datcat/DC-1279</a> ]  Case that expresses likeness or identity to the referent of the noun it marks. It can have meaning, such as: 'as', 'like', or 'in the capacity of'. ( <a href="http://www...[16]...cat/DC-1279">http://www...[16]...cat/DC-1279</a> [ <a href="http://www.isocat.org/datcat/DC-1279">http://www.isocat.org/datcat/DC-1279</a> ])
case ergative ergative case	<a href="http://purl.org/olia/olia.owl#ErgativeCase">http://purl.org/olia/olia.owl#ErgativeCase</a>  tag:textal-ign.net,2015:feature:ErgativeCase	TDS Ontology  In ergative-absolutive languages, the ergative case identifies the subject of a transitive verb. In such languages, the ergative case is typically marked (most salient), while the absolutive case is unmarked. ( <a href="http://lan...[54]...rgativeCase">http://lan...[54]...rgativeCase</a> [ <a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#ergativeCase">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#ergativeCase</a> ] with reference to <a href="http://en...[22]...gative_case">http://en...[22]...gative_case</a> [ <a href="http://en.wikipedia.org/wiki/Ergative_case">http://en.wikipedia.org/wiki/Ergative_case</a> ]).
case essive essive case	<a href="http://purl.org/olia/olia.owl#EssiveCase">http://purl.org/olia/olia.owl#EssiveCase</a>  tag:textal-ign.net,2015:feature:EssiveCase	<a href="http://pur...[20]...old/Essive">http://pur...[20]...old/Essive</a> , [ <a href="http://purl.org/linguistics/gold/Essive">http://purl.org/linguistics/gold/Essive</a> ,] <a href="http://www...[16]...cat/DC-1281">http://www...[16]...cat/DC-1281</a> [ <a href="http://www.isocat.org/datcat/DC-1281">http://www.isocat.org/datcat/DC-1281</a> ]  EssiveCase expresses that the referent of the noun it marks is the location at which another referent exists (Lyons 1968: 299,301; Gove, et al. 1966: 778; Crystal 1985: 112; Blake 1994: 154-5). ( <a href="http://pur...[19]...gold/Essive">http://pur...[19]...gold/Essive</a> [ <a href="http://purl.org/linguistics/gold/Essive">http://purl.org/linguistics/gold/Essive</a> ])

names	IRIs	Comments
		<a href="http://purl.org/linguistics/gold/Essive">purl.org/linguistics/gold/Essive</a> ]
case factive factive case	<a href="http://purl.org/olia/olia.owl#FactiveCase">http://purl.org/olia/olia.owl#FactiveCase</a>  tag:textal-ign.net,2015:feature:FactiveCase	<a href="http://purl.org/olia/mte/multext-east.owl#FactiveCase">http://pur...[33]... FactiveCase</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#FactiveCase">http://purl.org/olia/mte/multext-east.owl#FactiveCase</a> ]  case category of the Hungarian MULTEXT-East scheme, e.g., amilyenné/amilyen, azzá/az, erődde/erő, jelmezeiv/jelmez, jelükké/jel, kevésse/keves, Kissé/Kiss, legjelentéktelenebbeké/jelentéktelen (hu) ( <a href="http://purl.org/olia/mte/multext-east.owl#FactiveCase">http://pur...[33]... FactiveCase</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#FactiveCase">http://purl.org/olia/mte/multext-east.owl#FactiveCase</a> ])
case formal formal case	<a href="http://purl.org/olia/olia.owl#FormalCase">http://purl.org/olia/olia.owl#FormalCase</a>  tag:textal-ign.net,2015:feature:FormalCase	<a href="http://purl.org/olia/mte/multext-east.owl#FormalCase">http://pur...[32]... #FormalCase</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#FormalCase">http://purl.org/olia/mte/multext-east.owl#FormalCase</a> ]  In Hungarian, 'essive-formal' is in some descriptions simply called 'formal', with the affix <i>-képp(en)</i> and meaning ('in the form of ...', they probably meant when they came up with the term). In the Hungarian MULTEXT-East scheme, <i>essive-formal</i> and <i>formal</i> are distinguished. (Ivan A. Derzhanski, email 2010/06/15, <a href="http://purl.org/olia/mte/multext-east.owl#FormalCase">http://pur...[38]...1Case</a> )  [ <a href="http://purl.org/olia/mte/multext-east.owl#FormalCase">http://purl.org/olia/mte/multext-east.owl#FormalCase</a> ] 
case formal essive essive formal case	<a href="http://purl.org/olia/olia.owl#EssiveFormalCase">http://purl.org/olia/olia.owl#EssiveFormalCase</a>  tag:textal-ign.net,2015:feature:EssiveFormalCase	<a href="http://purl.org/olia/mte/multext-east.owl#EssiveFormalCase">http://pur...[38]... eFormalCase</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#EssiveFormalCase">http://purl.org/olia/mte/multext-east.owl#EssiveFormalCase</a> ]  The Hungarian "formativus, or <i>essivus-formalis</i> '-ként' ... usually expresses a position, task and manner of the person or the thing." (Nose 2003), e.g., Hungarian 'katonaként' -> [serves] as



names	IRIs	Comments
		<p>a soldier. (Csaba Oravecz, email 2010/06/15)&lt;br/&gt;&lt;br/&gt; "Haspelmath &amp; Buchholz (1998:321) explained the function of the essive case as "role phrases". Role phrases represent the role of the function in which a participant appears. They regard the role phrases as adverbial." (Nose 2003, p. 117)&lt;br/&gt; In the Hungarian language this case combines the Essive case and the Formal case, and it can express the position, task, state (e.g. "as a tourist"), or the manner (e.g. "like a hunted animal"). The status of the suffix -ként in the declension system is disputed for several reasons. First, in general, Hungarian case suffixes are absolute word-final, while -ként permits further suffixation by the locative suffix -i. Second, most Hungarian case endings participate in vowel harmony, while -ként does not. For these reasons, many modern analyses of the Hungarian case system, starting with László Antal's "A magyar esetrendszer" (1961) do not consider the essive/formal to be a case. (<a href="http://en...[33]..._case">http://en...[33]..._case</a>)&lt;br/&gt; [<a href="http://en.wikipedia.org/wiki/Essive-formal_case">http://en.wikipedia.org/wiki/Essive-formal_case</a>]&lt;br/&gt; cf. Masahiko Nose (2003), Adverbial Usage of the Hungarian Essive Case</p>
<p>case genitive genitive case</p>	<p><a href="http://purl.org/olia/olia.owl#GenitiveCase">http://purl.org/olia/olia.owl#GenitiveCase</a>  tag:textal-ign.net,2015:feature:GenitiveCase</p>	<p>EAGLES-recommended case feature  Genitive case signals that the referent of the marked noun is the possessor of the referent of another noun, e.g. "the man's foot". In some languages, genitive case may express an associative relation between the marked noun and another noun. (<a href="http://www...[59]...iveCase.htm">http://www...[59]...iveCase.htm</a> [<a href="http://www.sil.org/">http://www.sil.org/</a>])</p>

names	IRIs	Comments
		linguistics/glossaryoflinguisticterms/WhatIsGenitive-Case.htm] 17.11.06)
case illative illative case	<a href="http://purl.org/olia/olia.owl#IllativeCase">http://purl.org/olia/olia.owl#IllativeCase</a>  tag:textal-ign.net,2015:feature:IllativeCase	<a href="http://pur...[22]...d/Illative">http://pur...[22]...d/Illative</a> ; [ <a href="http://purl.org/linguistics/gold/Illative">http://purl.org/linguistics/gold/Illative</a> ]; <a href="http://www...[16]...cat/DC-1303">http://www...[16]...cat/DC-1303</a> [ <a href="http://www.iso-cat.org/datcat/DC-1303">http://www.iso-cat.org/datcat/DC-1303</a> ]  IllativeCase expresses that the referent of the noun it marks is the location into which another referent is moving. It has the meaning 'into' (Lyons 1968: 299; Gove, et al. 1966: 1126; Crystal 1985: 152). ( <a href="http://pur...[21]...ld/Illative">http://pur...[21]...ld/Illative</a> [ <a href="http://purl.org/linguistics/gold/Illative">http://purl.org/linguistics/gold/Illative</a> ])
case inablative inablative case	<a href="http://purl.org/olia/olia.owl#Inablative-Case">http://purl.org/olia/olia.owl#Inablative-Case</a>  tag:textal-ign.net,2015:feature:InablativeCase	<a href="http://pur...[23].../Inablative">http://pur...[23].../Inablative</a> [ <a href="http://purl.org/linguistics/gold/Inablative">http://purl.org/linguistics/gold/Inablative</a> ]  InablativeCase expresses that the referent of the noun it marks is the location from within which another referent is moving. It has the meaning 'from within'. ( <a href="http://pur...[23].../Inablative">http://pur...[23].../Inablative</a> [ <a href="http://purl.org/linguistics/gold/Inablative">http://purl.org/linguistics/gold/Inablative</a> ])
case inallative inallative case	<a href="http://purl.org/olia/olia.owl#Inallative-Case">http://purl.org/olia/olia.owl#Inallative-Case</a>  tag:textal-ign.net,2015:feature:InallativeCase	<a href="http://pur...[23].../Inallative">http://pur...[23].../Inallative</a> [ <a href="http://purl.org/linguistics/gold/Inallative">http://purl.org/linguistics/gold/Inallative</a> ]  InallativeCase expresses that something is moving toward the region that is inside the referent of the noun it marks. It has the meaning 'towards in(side)'. ( <a href="http://pur...[23].../Inallative">http://pur...[23].../Inallative</a> [ <a href="http://purl.org/linguistics/gold/Inallative">http://purl.org/linguistics/gold/Inallative</a> ])
case inessive inessive case	<a href="http://purl.org/olia/olia.owl#InessiveCase">http://purl.org/olia/olia.owl#InessiveCase</a>	<a href="http://pur...[22]...d/Inessive">http://pur...[22]...d/Inessive</a> , [ <a href="http://purl.org/linguistics/gold/Inessive">http://purl.org/linguistics/gold/Inessive</a> ], <a href="http://www...[16]...cat/">http://www...[16]...cat/</a>

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:InessiveCase	DC-1311 [ <a href="http://www.isocat.org/datcat/DC-1311">http://www.isocat.org/datcat/DC-1311</a> ]  InessiveCase expresses that the referent of the noun it marks is the location within which another referent exists. It has the meaning of 'within' or 'inside' (Lyons 1968: 299; Gove, et al. 1966: 1156; Crystal 1985: 156). X in Y. ( <a href="http://purl.org/linguistics/gold/Inessive">http://purl.org/linguistics/gold/Inessive</a> )
case instrumental instrumental case	<a href="http://purl.org/olia/olia.owl#Instrumental-Case">http://purl.org/olia/olia.owl#Instrumental-Case</a>  tag:textal-ign.net,2015:feature:InstrumentalCase	TDS Ontology, <a href="http://lan...[71]...rammatical">http://lan...[71]...rammatical</a> ; [ <a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#instrumental-Case-grammatical">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#instrumental-Case-grammatical</a> ]; GOLD, <a href="http://purl.org/linguistics/gold/Instrumental">http://purl.org/linguistics/gold/Instrumental</a> ; [ <a href="http://www...[16]...cat/DC-1316">http://www...[16]...cat/DC-1316</a> ] [ <a href="http://www.isocat.org/datcat/DC-1316">http://www.isocat.org/datcat/DC-1316</a> ]  InstrumentalCase indicates that the referent of the noun it marks is the means of the accomplishment of the action expressed by the clause ( <a href="http://purl.org/linguistics/gold/Instrumental">http://purl.org/linguistics/gold/Instrumental</a> )
case interablative interablative case	<a href="http://purl.org/olia/olia.owl#InterablativeCase">http://purl.org/olia/olia.owl#InterablativeCase</a>  tag:textal-ign.net,2015:feature:InterablativeCase	<a href="http://purl.org/linguistics/gold/Interablative">http://purl.org/linguistics/gold/Interablative</a> [ <a href="http://purl.org/linguistics/gold/Interablative">http://purl.org/linguistics/gold/Interablative</a> ]  InterablativeCase expresses that the referent of the noun it marks is the location from between which another referent is moving. It has the meaning 'from inbetween'. ( <a href="http://purl.org/linguistics/gold/Interablative">http://purl.org/linguistics/gold/Interablative</a> )

names	IRIs	Comments
case interallative interallative case	<p><a href="http://purl.org/olia/olia.owl#InterallativeCase">http://purl.org/olia/olia.owl#InterallativeCase</a></p> <p>tag:textal-ign.net,2015:feature:InterallativeCase</p>	<p><a href="http://purl.org/linguistics/gold/Interallative">http://purl.org/linguistics/gold/Interallative</a> [http://purl.org/linguistics/gold/Interallative]</p> <p>InterallativeCase expresses that something is moving toward the region that is in the middle of the referent of the noun it marks. It has the meaning 'towards the middle of'. (<a href="http://purl.org/linguistics/gold/Interallative">http://purl.org/linguistics/gold/Interallative</a>)</p>
case interessive interessive case	<p><a href="http://purl.org/olia/olia.owl#InteressiveCase">http://purl.org/olia/olia.owl#InteressiveCase</a></p> <p>tag:textal-ign.net,2015:feature:InteressiveCase</p>	<p><a href="http://purl.org/linguistics/gold/Interessive">http://purl.org/linguistics/gold/Interessive</a> [http://purl.org/linguistics/gold/Interessive]</p> <p>InteressiveCase expresses that the referent of the noun it marks is the location between which another referent exists. It has the meaning of 'between'. (<a href="http://purl.org/linguistics/gold/Interessive">http://purl.org/linguistics/gold/Interessive</a>)</p>
case interlative interlative case	<p><a href="http://purl.org/olia/olia.owl#InterlativeCase">http://purl.org/olia/olia.owl#InterlativeCase</a></p> <p>tag:textal-ign.net,2015:feature:InterlativeCase</p>	<p><a href="http://purl.org/linguistics/gold/Interlative">http://purl.org/linguistics/gold/Interlative</a> [http://purl.org/linguistics/gold/Interlative]</p> <p>InterlativeCase expresses that the referent of the noun it marks is the location between which another referent is moving. It has the meaning 'to the middle of'. (<a href="http://purl.org/linguistics/gold/Interlative">http://purl.org/linguistics/gold/Interlative</a>)</p>
case interminative interminative case	<p><a href="http://purl.org/olia/olia.owl#InterminativeCase">http://purl.org/olia/olia.owl#InterminativeCase</a></p> <p>tag:textal-ign.net,2015:feature:InterminativeCase</p>	<p><a href="http://purl.org/linguistics/gold/Interminative">http://purl.org/linguistics/gold/Interminative</a> [http://purl.org/linguistics/gold/Interminative]</p> <p>'into in(side of)'. (<a href="http://purl.org/linguistics/gold/Interminative">http://purl.org/linguistics/gold/Interminative</a>)</p>

names	IRIs	Comments
case interterminative interterminative case	<p><a href="http://purl.org/olia/olia.owl#InterterminativeCase">http://purl.org/olia/olia.owl#InterterminativeCase</a></p> <p>tag:textal-ign.net,2015:feature:Interterminative-Case</p>	<p><a href="http://purl.org/linguistics/gold/Interminative">http://pur...[26]...terminative</a> [<a href="http://purl.org/linguistics/gold/Interminative">http://purl.org/linguistics/gold/Interminative</a>]</p> <p>InterterminativeCase expresses the notion of something moving into the middle of the referent of the noun it marks, but not through it. It has the meaning 'into the middle of'. (<a href="http://purl.org/linguistics/gold/Interminative">http://pur...[26]...terminative</a> [<a href="http://purl.org/linguistics/gold/Interminative">http://purl.org/linguistics/gold/Interminative</a>])</p>
case intertranslative intertranslative case	<p><a href="http://purl.org/olia/olia.owl#IntertranslativeCase">http://purl.org/olia/olia.owl#IntertranslativeCase</a></p> <p>tag:textal-ign.net,2015:feature:Intertranslative-Case</p>	<p><a href="http://purl.org/linguistics/gold/Intertranslative">http://pur...[29]...translative</a> [<a href="http://purl.org/linguistics/gold/Intertranslative">http://purl.org/linguistics/gold/Intertranslative</a>]</p> <p>IntertranslativeCase expresses the notion of something moving along a trajectory between the referent of the noun it marks. It has the meaning 'along the in between'. (<a href="http://purl.org/linguistics/gold/Intertranslative">http://pur...[29]...translative</a> [<a href="http://purl.org/linguistics/gold/Intertranslative">http://purl.org/linguistics/gold/Intertranslative</a>])</p>
case intranslative intranslative case	<p><a href="http://purl.org/olia/olia.owl#IntranslativeCase">http://purl.org/olia/olia.owl#IntranslativeCase</a></p> <p>tag:textal-ign.net,2015:feature:IntranslativeCase</p>	<p><a href="http://purl.org/linguistics/gold/Intranslative">http://pur...[26]...translative</a> [<a href="http://purl.org/linguistics/gold/Intranslative">http://purl.org/linguistics/gold/Intranslative</a>]</p> <p>IntranslativeCase expresses the notion of something moving through the referent of the noun it marks. It has the meaning 'along through'. (<a href="http://purl.org/linguistics/gold/Intranslative">http://pur...[26]...translative</a> [<a href="http://purl.org/linguistics/gold/Intranslative">http://purl.org/linguistics/gold/Intranslative</a>])</p>
case lative lative case	<p><a href="http://purl.org/olia/olia.owl#LativeCase">http://purl.org/olia/olia.owl#LativeCase</a></p> <p>tag:textal-ign.net,2015:feature:LativeCase</p>	<p><a href="http://purl.org/linguistics/gold/Lative">http://pur...[20]...old/Lative</a>; [<a href="http://purl.org/linguistics/gold/Lative">http://purl.org/linguistics/gold/Lative</a>]; <a href="http://www.isocat.org/cat/DC-1323">http://www...[16]...cat/DC-1323</a> [<a href="http://www.isocat.org/cat/DC-1323">http://www.isocat.org/cat/DC-1323</a>]</p>

names	IRIs	Comments
		LativeCase expresses 'motion up to the location of,' or 'as far as' the referent of the noun it marks (Pei and Gaynor 1954: 121; Gove, et al. 1966: 1277). ( <a href="http://purl.org/linguistics/gold/Lative">http://purl.org/linguistics/gold/Lative</a> [ <a href="http://purl.org/linguistics/gold/Lative">http://purl.org/linguistics/gold/Lative</a> ])
case locational locational case	<a href="http://purl.org/olia/olia.owl#Locational-Case">http://purl.org/olia/olia.owl#Locational-Case</a>  tag:textal-ign.net,2015:feature:LocationalCase	<a href="http://purl.org/linguistics/gold/Locational">http://purl.org/linguistics/gold/Locational</a> [ <a href="http://purl.org/linguistics/gold/Locational">http://purl.org/linguistics/gold/Locational</a> ]  Category of case that denotes that the referent of the noun it marks is a location. ( <a href="http://purl.org/linguistics/gold/Locational">http://purl.org/linguistics/gold/Locational</a> )
case locative locative case	<a href="http://purl.org/olia/olia.owl#LocativeCase">http://purl.org/olia/olia.owl#LocativeCase</a>  tag:textal-ign.net,2015:feature:LocativeCase	<a href="http://www.iso-cat.org/datcat/DC-1326">http://www.iso-cat.org/datcat/DC-1326</a> [ <a href="http://www.iso-cat.org/datcat/DC-1326">http://www.iso-cat.org/datcat/DC-1326</a> ]  Case that indicates a final location of action or a time of the action. ( <a href="http://www.iso-cat.org/datcat/DC-1326">http://www.iso-cat.org/datcat/DC-1326</a> )
case malefactive malefactive case	<a href="http://purl.org/olia/olia.owl#Malefactive-Case">http://purl.org/olia/olia.owl#Malefactive-Case</a>  tag:textal-ign.net,2015:feature:MalefactiveCase	<a href="http://purl.org/linguistics/gold/Malefactive">http://purl.org/linguistics/gold/Malefactive</a> [ <a href="http://purl.org/linguistics/gold/Malefactive">http://purl.org/linguistics/gold/Malefactive</a> ]  Opposite of BenefactiveCase; used when the marked noun is negatively affected in the clause. ( <a href="http://purl.org/linguistics/gold/Malefactive">http://purl.org/linguistics/gold/Malefactive</a> )
case multiplicative multiplicative case	<a href="http://purl.org/olia/olia.owl#MultiplicativeCase">http://purl.org/olia/olia.owl#MultiplicativeCase</a>  tag:textal-ign.net,2015:feature:MultiplicativeCase	<a href="http://purl.org/olia/mte/multext-east.owl#MultiplicativeCase">http://purl.org/olia/mte/multext-east.owl#MultiplicativeCase</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#MultiplicativeCase">http://purl.org/olia/mte/multext-east.owl#MultiplicativeCase</a> ]  A case used in the Hungarian MULTEXT-East scheme, e.g., tizenegyedszer/tizenegyed, tucatszor/tucacat, tizedred-

names	IRIs	Comments
		<p>szertízred (hu) (<a href="http://pur...[40]...icativeCase">http://pur...[40]...icativeCase</a> [<a href="http://purl.org/olia/mte/multext-east.owl#MultiplicativeCase">http://purl.org/olia/mte/multext-east.owl#MultiplicativeCase</a>])</p> <p>The multiplicative case is a grammatical case used for marking a number of something ("three times"). The case is found in the Hungarian language, for example nyolc (eight), nyolcszor (eight times). The case appears also in Finnish as an adverbial (adverb-forming) case. Used with a cardinal number it denotes the number of actions; for example, <i>visi</i> (five) -&gt; <i>viidesti</i> (five times). Used with adjectives it refers to the mean of the action, corresponding the English suffix <i>-ly</i>: <i>kaunis</i> (beautiful) -&gt; <i>kauniisti</i> (beautifully). It is also used with a small number of nouns: <i>leikki</i> (play) -&gt; <i>leikisti</i> (just kidding, not really). In addition, it acts as an intensifier when used with a swearword: <i>piru</i> -&gt; <i>pirusti</i>. (<a href="http://en...[28]...cative_case">http://en...[28]...cative_case</a> [<a href="http://en.wikipedia.org/wiki/Multiplicative_case">http://en.wikipedia.org/wiki/Multiplicative_case</a>])</p>
case oblique oblique case	<p><a href="http://purl.org/olia/olia.owl#ObliqueCase">http://purl.org/olia/olia.owl#ObliqueCase</a></p> <p>tag:textal-ign.net,2015:feature:ObliqueCase</p>	<p><a href="http://www...[17]...at/DC-1336">http://www...[17]...at/DC-1336</a>; [<a href="http://www.isocat.org/datcat/DC-1336">http://www.isocat.org/datcat/DC-1336</a>]; in EAGLES applied to non-subject pronouns in English and Dutch</p> <p>Case that is used when a noun is the object of a verb or a proposition, except for nominative and vocative case. (<a href="http://www...[16]...cat/DC-1336">http://www...[16]...cat/DC-1336</a> [<a href="http://www.isocat.org/datcat/DC-1336">http://www.isocat.org/datcat/DC-1336</a>])</p>
case partitive partitive case	<p><a href="http://purl.org/olia/olia.owl#PartitiveCase">http://purl.org/olia/olia.owl#PartitiveCase</a></p> <p>tag:textal-ign.net,2015:feature:PartitiveCase</p>	<p>TDS ontology; <a href="http://pur...[23].../Partitive">http://pur...[23].../Partitive</a>; [<a href="http://purl.org/linguistics/gold/Partitive">http://purl.org/linguistics/gold/Partitive</a>]; <a href="http://www...[16]...cat/DC-2003">http://www...[16]...cat/DC-2003</a> [<a href="http://www...[16]...cat/DC-2003">http://www...[16]...cat/DC-2003</a>]</p>

names	IRIs	Comments
		<p><a href="http://www.isocat.org/dat-cat/DC-2003">www.isocat.org/dat-cat/DC-2003</a></p> <p>The partitive case is a grammatical case which denotes "partialness", "without result", or "without specific identity". (<a href="http://lan...[55]...rtitiveCase">http://lan...[55]...rtitiveCase</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#partitiveCase">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#partitiveCase</a>] with reference to <a href="http://en...[18]...i/Partitive">http://en...[18]...i/Partitive</a> [<a href="http://en.wikipedia.org/wiki/Partitive">http://en.wikipedia.org/wiki/Partitive</a>]) PartitiveCase expresses the partial nature of the referent of the noun it marks, as opposed to expressing the whole unit or class of which the referent is a part. This case may be found in items such as the following: existential clauses, nouns that are accompanied by numerals or units of measure, or predications of material from which something is made. It often has a meaning similar to the English word 'some' (Pei and Gaynor 1954: 161; Richards, Platt, and Weber 1985: 208; Quirk, et al. 1985: 249; Gove, et al. 1966: 1648; Sebeok 1946: 1214). (<a href="http://pur...[22]...d/Partitive">http://pur...[22]...d/Partitive</a> [<a href="http://purl.org/linguistics/gold/Partitive">http://purl.org/linguistics/gold/Partitive</a>])</p>
<p>case perlative perlative case</p>	<p><a href="http://purl.org/olia/olia.owl#PerlativeCase">http://purl.org/olia/olia.owl#PerlativeCase</a></p> <p>tag:textalign.net,2015:feature:PerlativeCase</p>	<p><a href="http://pur...[22]...d/Perlative">http://pur...[22]...d/Perlative</a> [<a href="http://purl.org/linguistics/gold/Perlative">http://purl.org/linguistics/gold/Perlative</a>]</p> <p>PerlativeCase expresses that something moved 'through', 'across', or 'along' the referent of the noun that is marked (Blake 1998: 38, 203). (<a href="http://pur...[22]...d/Perlative">http://pur...[22]...d/Perlative</a> [<a href="http://purl.org/linguistics/gold/Perlative">http://purl.org/linguistics/gold/Perlative</a>])</p>
<p>case possessed possessed case</p>	<p><a href="http://purl.org/olia/olia.owl#PossessedCase">http://purl.org/olia/olia.owl#PossessedCase</a></p>	<p><a href="http://pur...[22]...d/Possessed">http://pur...[22]...d/Possessed</a> [<a href="http://purl.org/linguistics/gold/Possessed">http://purl.org/linguistics/gold/Possessed</a>]</p>



names	IRIs	Comments
	tag:textal-ign.net,2015:feature:PossessedCase	PossessedCase is used to mark the noun whose referent is possessed by the referent of another noun. ( <a href="http://purl.org/linguistics/gold/Possessed">http://purl.org/linguistics/gold/Possessed</a> )
case prepositional prepositional case	<a href="http://purl.org/olia/olia.owl#PrepositionalCase">http://purl.org/olia/olia.owl#PrepositionalCase</a>  tag:textal-ign.net,2015:feature:PrepositionalCase	Prepositional case is an in EAGLES optional value of CaseFeature for Spanish pronouns and determiners. ( <a href="http://www.ilc.cnr.it/EAGLES96/annotate/node19.html#oav2v">http://www.ilc.cnr.it/EAGLES96/annotate/node19.html#oav2v</a> )  In many grammars, the term "prepositional case" is to refer to case marking that only occurs in combination with prepositions. Normally, this is an oblique case, e.g., the Russian 6th case, also referred to as "locative". (Ch. Chiarcos)
case prolative prolative case	<a href="http://purl.org/olia/olia.owl#ProlativeCase">http://purl.org/olia/olia.owl#ProlativeCase</a>  tag:textal-ign.net,2015:feature:ProlativeCase	<a href="http://www.iso-cat.org/datcat/DC-1368">http://www.iso-cat.org/datcat/DC-1368</a>  Case for a noun or a pronoun that expresses motion within a place or a period of time needed for an event. ( <a href="http://www.isocat.org/datcat/DC-1368">http://www.isocat.org/datcat/DC-1368</a> )
case proprietive proprietive case	<a href="http://purl.org/olia/olia.owl#ProprietiveCase">http://purl.org/olia/olia.owl#ProprietiveCase</a>  tag:textal-ign.net,2015:feature:ProprietiveCase	TDS Ontology, <a href="http://lan...[69]...grammatical">http://lan...[69]...grammatical</a>  Proprietive case marks a possessional relation, i.e. 'having' something. ( <a href="http://lan...[69]...grammatical">http://lan...[69]...grammatical</a> )

names	IRIs	Comments
<p>case purposive</p> <p>purposive case</p>	<p><a href="http://purl.org/olia/olia.owl#PurposiveCase">http://purl.org/olia/olia.owl#PurposiveCase</a></p> <p>tag:textal-ign.net,2015:feature:PurposiveCase</p>	<p>added in accordance with the ILPOSTS tagset for a case marker (postposition) in Indian languages, cf. <a href="http://pur...[26]...rposiveCase">http://pur...[26]...rposiveCase</a> [<a href="http://purl.org/olia/ilposts.owl#PurposiveCase">http://purl.org/olia/ilposts.owl#PurposiveCase</a>]</p> <p>Purposive marks the goal of an activity, e.g., 'going out FOR (i.e. to catch) KANGAROOS'; 'call them FOR (i.e. to eat) FOOD'. The common purposive suffix -gu is a recurrent suffix on verbs ... The purposive case suffix is often used on a nominalised clause (and this may possibly be the origin of the verbal purposive). (Dixon 2002, p.134, on purposive case in [several] Australian languages) R.M.W. Dixon (2002), Australian Languages. CUP, Cambridge</p>
<p>case sociative</p> <p>sociative case</p>	<p><a href="http://purl.org/olia/olia.owl#SociativeCase">http://purl.org/olia/olia.owl#SociativeCase</a></p> <p>tag:textal-ign.net,2015:feature:SociativeCase</p>	<p>adopted from <a href="http://www...[16]...cat/DC-1388">http://www...[16]...cat/DC-1388</a> [<a href="http://www.isocat.org/dat-cat/DC-1388">http://www.isocat.org/dat-cat/DC-1388</a>]</p> <p>TODO: check whether this is really different from comitative</p> <p>Case related to the person in whose company the action is carried out, or to any belongings of people which take part in the action. (<a href="http://www...[16]...cat/DC-1388">http://www...[16]...cat/DC-1388</a> [<a href="http://www.isocat.org/dat-cat/DC-1388">http://www.isocat.org/dat-cat/DC-1388</a>])</p>
<p>case subablative</p> <p>subablative case</p>	<p><a href="http://purl.org/olia/olia.owl#SubablativeCase">http://purl.org/olia/olia.owl#SubablativeCase</a></p> <p>tag:textal-ign.net,2015:feature:SubablativeCase</p>	<p><a href="http://pur...[24]...Subablative">http://pur...[24]...Subablative</a> [<a href="http://purl.org/linguistics/gold/Subablative">http://purl.org/linguistics/gold/Subablative</a>]</p> <p>SubablativeCase expresses that the referent of the noun it marks is the location from under which another referent is moving. It has the meaning 'from under'. (<a href="http://pur...[24]...Subablative">http://pur...[24]...Subablative</a> [<a href="http://purl.org/linguistics/gold/Subablative">http://purl.org/linguistics/gold/Subablative</a>])</p>

names	IRIs	Comments
		<a href="http://purl.org/linguistics/gold/Subablative">purl.org/linguistics/gold/Subablative</a> ])
case suballative suballative case	<a href="http://purl.org/olia/olia.owl#Suballative-Case">http://purl.org/olia/olia.owl#Suballative-Case</a>  tag:textal-ign.net,2015:feature:SuballativeCase	<a href="http://pur...[24]...Suballative">http://pur...[24]...Suballative</a> [ <a href="http://purl.org/linguistics/gold/Suballative">http://purl.org/linguistics/gold/Suballative</a> ]  SuballativeCase expresses that something is moving toward the region that is under the referent of the noun it marks. It has the meaning 'towards the region that is under'. ( <a href="http://pur...[24]...Suballative">http://pur...[24]...Suballative</a> [ <a href="http://purl.org/linguistics/gold/Suballative">http://purl.org/linguistics/gold/Suballative</a> ])
case subessive subessive case	<a href="http://purl.org/olia/olia.owl#SubessiveCase">http://purl.org/olia/olia.owl#SubessiveCase</a>  tag:textal-ign.net,2015:feature:SubessiveCase	<a href="http://pur...[22]...d/Subessive">http://pur...[22]...d/Subessive</a> [ <a href="http://purl.org/linguistics/gold/Subessive">http://purl.org/linguistics/gold/Subessive</a> ]  SubessiveCase expresses that the referent of the noun it marks is the location under which another referent exists. It has the meaning of 'under' or 'beneath'. ( <a href="http://pur...[22]...d/Subessive">http://pur...[22]...d/Subessive</a> [ <a href="http://purl.org/linguistics/gold/Subessive">http://purl.org/linguistics/gold/Subessive</a> ])
case sublative sublative case	<a href="http://purl.org/olia/olia.owl#SublativeCase">http://purl.org/olia/olia.owl#SublativeCase</a>  tag:textal-ign.net,2015:feature:SublativeCase	<a href="http://pur...[23].../Sublative">http://pur...[23].../Sublative</a> ; [ <a href="http://purl.org/linguistics/gold/Sublative">http://purl.org/linguistics/gold/Sublative</a> ]; <a href="http://www...[16]...cat/DC-1392">http://www...[16]...cat/DC-1392</a> [ <a href="http://www.iso-cat.org/datcat/DC-1392">http://www.iso-cat.org/datcat/DC-1392</a> ]  SublativeCase expresses that the referent of the noun it marks is the location under which another referent is moving toward. It has the meaning 'towards the underneath of'. ( <a href="http://pur...[22]...d/Sublative">http://pur...[22]...d/Sublative</a> [ <a href="http://purl.org/linguistics/gold/Sublative">http://purl.org/linguistics/gold/Sublative</a> ])
case subterminative subterminative case	<a href="http://purl.org/olia/olia.owl#SubterminativeCase">http://purl.org/olia/olia.owl#SubterminativeCase</a>  tag:textal-ign.net,2015:fea-	<a href="http://pur...[27]...terminative">http://pur...[27]...terminative</a> [ <a href="http://purl.org/linguistics/gold/Subterminative">http://purl.org/linguistics/gold/Subterminative</a> ]

names	IRIs	Comments
	ture:Subterminative-Case	SubterminativeCase expresses the notion of something moving into the region under the referent of the noun it marks, but not through that region. It has the meaning 'into the region under'. ( <a href="http://purl.org/linguistics/gold/Subterminative">http://purl.org/linguistics/gold/Subterminative</a> )
case subtranslative subtranslative case	<a href="http://purl.org/olia/olia.owl#SubtranslativeCase">http://purl.org/olia/olia.owl#SubtranslativeCase</a>  tag:textal-ign.net,2015:feature:Subtranslative-Case	<a href="http://purl.org/linguistics/gold/Subtranslative">http://purl.org/linguistics/gold/Subtranslative</a> [http://purl.org/linguistics/gold/Subtranslative]  SubtranslativeCase expresses the notion of something moving along a trajectory underneath the referent of the noun it marks. It has the meaning 'along the region underneath'. Unfortunate name clash with 'Superlative' as a feature of adjectives. ( <a href="http://purl.org/linguistics/gold/Subtranslative">http://purl.org/linguistics/gold/Subtranslative</a> )
case superablative superablative case	<a href="http://purl.org/olia/olia.owl#SuperablativeCase">http://purl.org/olia/olia.owl#SuperablativeCase</a>  tag:textal-ign.net,2015:feature:SuperablativeCase	<a href="http://purl.org/linguistics/gold/Superablative">http://purl.org/linguistics/gold/Superablative</a> [http://purl.org/linguistics/gold/Superablative]  Superablative expresses that the referent of the noun it marks is the location from over which another referent is moving. It has the meaning 'from over'. ( <a href="http://purl.org/linguistics/gold/Superablative">http://purl.org/linguistics/gold/Superablative</a> )
case superallative superallative case	<a href="http://purl.org/olia/olia.owl#SuperallativeCase">http://purl.org/olia/olia.owl#SuperallativeCase</a>  tag:textal-ign.net,2015:feature:SuperallativeCase	<a href="http://purl.org/linguistics/gold/Superallative">http://purl.org/linguistics/gold/Superallative</a> [http://purl.org/linguistics/gold/Superallative]  SuperallativeCase expresses that something is moving toward the region that is above the referent of the noun it marks. It has the

names	IRIs	Comments
		meaning 'towards the region that is over'. ( <a href="http://purl.org/linguistics/gold/Superallative">http://purl.org/linguistics/gold/Superallative</a> )
case superessive superessive case	<a href="http://purl.org/olia/olia.owl#Superessive-Case">http://purl.org/olia/olia.owl#Superessive-Case</a>  tag:textal-ign.net,2015:feature:SuperessiveCase	<a href="http://purl.org/linguistics/gold/Superessive">http://purl.org/linguistics/gold/Superessive</a> , [ <a href="http://www.isocat.org/dcat/DC-1396">http://www.isocat.org/dcat/DC-1396</a> ] [ <a href="http://www.isocat.org/dcat/DC-1396">http://www.isocat.org/dcat/DC-1396</a> ]  SuperessiveCase expresses that the referent of the noun it marks is the location on which another referent exists. It has the meaning of 'on' or 'upon'. (Pei and Gaynor 1954: 207, Gove, et al. 1966: 2293). ( <a href="http://purl.org/linguistics/gold/Superessive">http://purl.org/linguistics/gold/Superessive</a> )
case superlative superlative case	<a href="http://purl.org/olia/olia.owl#Superlative-Case">http://purl.org/olia/olia.owl#Superlative-Case</a>  tag:textal-ign.net,2015:feature:SuperlativeCase	<a href="http://purl.org/linguistics/gold/Superlative">http://purl.org/linguistics/gold/Superlative</a> [ <a href="http://purl.org/linguistics/gold/Superlative">http://purl.org/linguistics/gold/Superlative</a> ]  SuperlativeCase expresses that the referent of the noun it marks is the location onto which another referent is moving. It has the meaning of 'onto'. Unfortunate name clash with 'Superlative' as a property of adjectives. ( <a href="http://purl.org/linguistics/gold/Superlative">http://purl.org/linguistics/gold/Superlative</a> )
case superterminative superterminative case	<a href="http://purl.org/olia/olia.owl#Superterminative-Case">http://purl.org/olia/olia.owl#Superterminative-Case</a>  tag:textal-ign.net,2015:feature:Superterminative-Case	<a href="http://purl.org/linguistics/gold/Superterminative">http://purl.org/linguistics/gold/Superterminative</a> [ <a href="http://purl.org/linguistics/gold/Superterminative">http://purl.org/linguistics/gold/Superterminative</a> ]  SuperterminativeCase expresses the notion of something moving into the region over the referent of the noun it marks, but not through that region. It has the meaning 'into the region over'. ( <a href="http://purl.org/linguistics/gold/Superterminative">http://purl.org/linguistics/gold/Superterminative</a> )

names	IRIs	Comments
		[29]...terminative [http://purl.org/linguistics/gold/Superterminative]
case supertranslative supertranslative case	http://purl.org/olia/olia.owl#SupertranslativeCase  tag:textal-ign.net,2015:feature:SupertranslativeCase	http://pur...[29]...translative [http://purl.org/linguistics/gold/Supertranslative]  SupertranslativeCase expresses the notion of something moving along a trajectory above the referent of the noun it marks. It has the meaning 'along the region over'. (http://pur...[29]...translative [http://purl.org/linguistics/gold/Supertranslative])
case temporalis temporalis case	http://purl.org/olia/olia.owl#TemporalisCase  tag:textal-ign.net,2015:feature:TemporalisCase	http://pur...[36]...poralisCase [http://purl.org/olia/mte/multext-east.owl#TemporalisCase]  The so-called Temporalis Case is formed in Hungarian with -kor. Expresses a point of time or a period. (http://mem...[34]...suffix.html [http://member.melbpc.org.au/~tma-jlath/form-suffix.html])
case terminative terminative case	http://purl.org/olia/olia.owl#TerminativeCase  tag:textal-ign.net,2015:feature:TerminativeCase	http://pur...[29]...nativeCase, [http://purl.org/linguistics/gold/TerminativeCase,] http://www...[16]...cat/DC-1401 [http://www.isocat.org/dat-cat/DC-1401]  Case that indicates to what or where something ends. (http://www...[16]...cat/DC-1401 [http://www.isocat.org/dat-cat/DC-1401]) TerminativeCase expresses the notion of something into but not further than (ie, not through) the referent of the noun it marks. It has the meaning 'into but not through'. (http://pur...

names	IRIs	Comments
		[28]...inativeCase [http://purl.org/linguistics/gold/TerminativeCase])
case translative translative case	http://purl.org/olia/olia.owl#TranslativeCase  tag:textal-ign.net,2015:feature:TranslativeCase	http://pur...[25]...ranslative, [http://purl.org/linguistics/gold/Translative,] http://www...[16]...cat/DC-1406 [http://www.isocat.org/cat/DC-1406]  TranslativeCase expresses that the referent of the noun, or the quality of the adjective, that it marks is the result of a process of change (Lyons 1968: 299301, Gove, et al. 1966: 813,2429, Sebeok 1946: 17, Hakulinen 1961: 70). X along, across Y. (http://pur...[24]...Translative [http://purl.org/linguistics/gold/Translative])
case vocative vocative case	http://purl.org/olia/olia.owl#VocativeCase  tag:textal-ign.net,2015:feature:VocativeCase	EAGLES-recommended case feature  Vocative case marks a noun whose referent is being addressed. (http://www...[59]...iveCase.htm [http://www.sil.org/linguistics/glossaryoflinguisticterms/WhatIsVocative-Case.htm] 17.11.06)
category morphological morphological category	http://purl.org/olia/olia.owl#MorphologicalCategory  tag:textal-ign.net,2015:feature:MorphologicalCategory	
category morphosyntactic morphosyntactic category	http://purl.org/olia/olia.owl#MorphosyntacticCategory  tag:textal-ign.net,2015:feature:MorphosyntacticCategory	

names	IRIs	Comments
causative	<p><a href="http://purl.org/olia/olia.owl#Causative">http://purl.org/olia/olia.owl#Causative</a></p> <p>tag:textal-ign.net,2015:feature:Causative</p>	<p>TODO: rename to CausativeVoice</p> <p><a href="http://pur...[23].../Causative">http://pur...[23].../Causative</a>, [<a href="http://purl.org/linguistics/gold/Causative">http://purl.org/linguistics/gold/Causative</a>,] cf. Anticausative</p> <p>Expressing the causation of an action. (<a href="http://pur...[22]...d/Causative">http://pur...[22]...d/Causative</a> [<a href="http://purl.org/linguistics/gold/Causative">http://purl.org/linguistics/gold/Causative</a>])</p>
character	<p><a href="http://purl.org/olia/olia.owl#Character">http://purl.org/olia/olia.owl#Character</a></p> <p>tag:textal-ign.net,2015:feature:Character</p>	
circumposition	<p><a href="http://purl.org/olia/olia.owl#Circumposition">http://purl.org/olia/olia.owl#Circumposition</a></p> <p>tag:textal-ign.net,2015:feature:Circumposition</p>	<p>EAGLES adposition with optional attribute Type="Circumposition". The relationship between circumpositions and pre-/postpositions in EAGLES is not clear. We do not prohibit Circumpositions from being Prepositions or Postpositions, though the EAGLES feature assignment (with all optional values implemented) would possibly rule this out. (Chiarcos)</p> <p>A circumposition is an adposition with a part before the noun phrase and a part after. It is much less common than prepositions or postpositions. (<a href="http://en...[23]...cumposition">http://en...[23]...cumposition</a> [<a href="http://en.wikipedia.org/wiki/Circumposition">http://en.wikipedia.org/wiki/Circumposition</a>] 19.09.06)</p>
class agreement numeral numeral agreement class	<p><a href="http://purl.org/olia/olia.owl#NumeralAgreementClass">http://purl.org/olia/olia.owl#NumeralAgreementClass</a></p> <p>tag:textal-ign.net,2015:feature:NumeralAgreementClass</p>	



names	IRIs	Comments
classifier	<p><a href="http://purl.org/olia/olia.owl#Classifier">http://purl.org/olia/olia.owl#Classifier</a></p> <p>tag:textal-ign.net,2015:feature:Classifier</p>	<p>Added for compatibility with the SFB632 annotation guidelines.</p> <p>A classifier is a word or affix that expresses the classification of a noun. (<a href="http://www...[58]...ssifier.htm">http://www...[58]...ssifier.htm</a> [<a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAClassifier.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAClassifier.htm</a>] 19.09.06) Classifiers are a very typical feature of sign languages. In some Asian languages, classifiers are used as particles to combine a noun with a numeral, e.g. chin. <i>san ge ren</i> 'three pieces of people', 'three people' (Bußmann 2002, under Klassifikator) Bharati et al. (2006, for Indian languages) group Classifiers together with Quantifiers and Numerals, but they do not provide a detailed characterization of this class. Akshar Bharati, Dipti Misra Sharma, Lakshmi Bai, Rajeev Sangal (2006), AnnCorra : Annotating Corpora. Guidelines For POS And Chunk Annotation For Indian Languages, Tech. Rep., Language Technologies Research Centre IIT, Hyderabad, version of 15-12-2006, <a href="http://ltr...[26]...delines.pdf">http://ltr...[26]...delines.pdf</a> [<a href="http://ltrc.iit.ac.in/tro3r/posguidelines.pdf">http://ltrc.iit.ac.in/tro3r/posguidelines.pdf</a>]</p>
clause	<p><a href="http://purl.org/olia/olia.owl#Clause">http://purl.org/olia/olia.owl#Clause</a></p> <p>tag:textal-ign.net,2015:feature:Clause</p>	
clause complement complement clause	<p><a href="http://purl.org/olia/olia.owl#Complement-Clause">http://purl.org/olia/olia.owl#Complement-Clause</a></p> <p>tag:textal-ign.net,2015:feature:ComplementClause</p>	<p>Santorini 1991</p> <p>In noun phrases like the fact that she is late, the subordinate clause that she is late is a complement of the noun fact and should not be confused with a relative clause. (Note that the</p>

names	IRIs	Comments
		<p>embedded clause she is late is not missing a constituent; by contrast, in a relative clause construction like the TV that she bought the other day, the clause that she bought the other day is incomplete.) The entire noun phrase should be bracketed as a sister of the head noun. (NP the fact (SBAR that (S (NP she) (VP is (ADJP late)))))) (Santorini 1991)</p>
<p>clause conditional conditional clause</p>	<p><a href="http://purl.org/olia/olia.owl#ConditionalClause">http://purl.org/olia/olia.owl#ConditionalClause</a></p> <p>tag:textal-ign.net,2015:feature:ConditionalClause</p>	<p><a href="http://lan...[59]...ionalClause">http://lan...[59]...ionalClause</a> [<a href="http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#conditionalClause">http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#conditionalClause</a>]</p> <p>Conditional clauses refer to a hypothetical situation, in English they are introduced by 'if' or 'unless'. (<a href="http://lan...[59]...ionalClause">http://lan...[59]...ionalClause</a> [<a href="http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#conditionalClause">http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#conditionalClause</a>])</p>
<p>clause coordinate coordinate clause</p>	<p><a href="http://purl.org/olia/olia.owl#CoordinateClause">http://purl.org/olia/olia.owl#CoordinateClause</a></p> <p>tag:textal-ign.net,2015:feature:CoordinateClause</p>	<p>adopted from <a href="http://lan...[58]...inateClause">http://lan...[58]...inateClause</a> [<a href="http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#coordinateClause">http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#coordinateClause</a>]</p> <p>A coordinate clause is a clause belonging to a series of two or more clauses which are not syntactically dependent on one another, and are joined by means of a coordinate conjunction, a connective or parataxis. (<a href="http://www...[64]...eClause.htm">http://www...[64]...eClause.htm</a> [<a href="http://www.sil.org/linguistics/glossaryoflinguisticterms/WhatIsACoordinateClause.htm">http://www.sil.org/linguistics/glossaryoflinguisticterms/WhatIsACoordinateClause.htm</a>]).</p>
<p>clause cosubordinate cosubordinate clause</p>	<p><a href="http://purl.org/olia/olia.owl#CosubordinateClause">http://purl.org/olia/olia.owl#CosubordinateClause</a></p> <p>tag:textal-ign.net,2015:fea-</p>	<p><a href="http://lan...[71]...inateClause">http://lan...[71]...inateClause</a> [<a href="http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#non-embeddedSubordinateClause">http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#non-embeddedSubordinateClause</a>] Termed "cosubordination" here in accordance</p>

names	IRIs	Comments
	ture:Cosubordinate- Clause	with van Valin and LaPolla (1997)
clause finite finite clause	<a href="http://purl.org/olia/olia.owl#FiniteClause">http://purl.org/olia/olia.owl#FiniteClause</a>  tag:textal- ign.net,2015:fea- ture:FiniteClause	
clause finite with conjunction subordinating  subordinating conjunction with finite clause	<a href="http://purl.org/olia/olia.owl#SubordinatingConjunctionWithFiniteClause">http://purl.org/olia/olia.owl#SubordinatingConjunctionWithFiniteClause</a>  tag:textal- ign.net,2015:fea- ture:SubordinatingCon- junctionWithFinite- Clause	EAGLES  For example, in German the subordinating conjunction "weil" introduces a clause with a finite verb. ( <a href="http://www...[37]...html#oav2u">http://www...[37]...html#oav2u</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annotate/node19.html#oav2u">http://www.ilc.cnr.it/EAGLES96/annotate/node19.html#oav2u</a> ] 17.11.06)
clause main main clause	<a href="http://purl.org/olia/olia.owl#MainClause">http://purl.org/olia/olia.owl#MainClause</a>  tag:textal- ign.net,2015:fea- ture:MainClause	MainClause is the class of clauses that can stand on their own as a full, independent sentence. If a sentence contains any embedded clauses, the main clause is understood as the matrix plus the embedded clauses. In the sentence 'John thinks that Mary is sick', 'John thinks that Mary is sick' is the main clause [Crystal 2001, 23]. ( <a href="http://pur...[23].../MainClause">http://pur...[23].../MainClause</a> [ <a href="http://purl.org/linguistics/gold/MainClause">http://purl.org/linguistics/gold/MainClause</a> ]) The independent clause can stand by itself as a grammatically viable simple sentence. Multiple independent clauses can be joined (usually with a comma and a coordinating conjunction) to form a compound sentence ( <a href="http://lan...[52]...#mainClause">http://lan...[52]...#mainClause</a> [ <a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#mainClause">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#mainClause</a> ] with reference to <a href="http://en...[15]...wiki/Clause">http://en...[15]...wiki/Clause</a> [ <a href="http://en.wikipedia.org/wiki/Clause">http://en.wikipedia.org/wiki/Clause</a> ]).
clause relative relative clause	<a href="http://purl.org/olia/olia.owl#RelativeClause">http://purl.org/olia/olia.owl#RelativeClause</a>	<a href="http://lan...[56]...ativeClause">http://lan...[56]...ativeClause</a> [ <a href="http://linguagelink.let.uu.nl/tds/">http://linguagelink.let.uu.nl/tds/</a>

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:RelativeClause	<p>onto/LinguisticOntology.owl#relativeClause]</p> <p>A relative clause is a subordinate clause that modifies a noun. For example, the noun phrase [the man who wasn't there] contains the noun [man], which is modified by the relative clause [who wasn't there] (<a href="http://lan...[56]...ativeClause">http://lan...[56]...ativeClause</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#relativeClause">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#relativeClause</a>] with reference to <a href="http://en...[24]...tive_clause">http://en...[24]...tive_clause</a> [<a href="http://en.wikipedia.org/wiki/Relative_clause">http://en.wikipedia.org/wiki/Relative_clause</a>] and Dik 1997) There are three different types of relative clauses in English (be careful not to confuse relative clauses and complement clauses): (i) wh-relative clauses (a guy who(m) I know), (ii) that-relative clauses (a guy that I know), and (iii) zero relative clauses (a guy I know). (Santorini 1991)</p>
<p>clause relative reduced</p> <p>reduced relative clause</p>	<p><a href="http://purl.org/olia/olia.owl#ReducedRelativeClause">http://purl.org/olia/olia.owl#ReducedRelativeClause</a></p> <p>tag:textal-ign.net,2015:feature:ReducedRelativeClause</p>	<p>Santorini 1991</p> <p>RRC (reduced relative clause) Reduced relative clauses are adjoined to the NP they modify. (Bies et al. 1995) We will use the term "reduced relative clause" to refer to participial or adjectival constituents of the type illustrated in (@26). (26) He bought two watches designed by Paloma Picasso. Reduced relative clauses should be bracketed as adjunction structures. The structure of ( 26) is thus as in (@27). Note that the reduced relative clause, which is headed by a participle, is bracketed as a VP. (27) (S (NP He) (VP bought (NP (NP two watches) (VP designed (PP by (PNP (PNP Paloma) (PNP Picasso)))))) .) (Santorini 1991)</p>

names	IRIs	Comments
<p>clause subordinate</p> <p>subordinate clause</p>	<p><a href="http://purl.org/olia/olia.owl#SubordinateClause">http://purl.org/olia/olia.owl#SubordinateClause</a></p> <p>tag:textalign.net,2015:feature:SubordinateClause</p>	<p>Subclassification here follows the functional subclassification of subordinate clauses in the TDS ontologies. GOLD proposes an alternative syntax-based subclassification (yet without documentation or explanation) in <code>AdjunctSubordinate</code> and <code>ComplementSubordinate</code>. (<a href="http://purl.org/linguistics/gold/ComplementSubordinate">http://purl.org/linguistics/gold/ComplementSubordinate</a>, <a href="http://purl.org/linguistics/gold/AdjunctSubordinate">http://purl.org/linguistics/gold/AdjunctSubordinate</a>)</p> <p><code>SubordinateClause</code> is the class of clauses that cannot stand on their own as sentences. A matrix clause combined with a subordinate clause form a main clause. In the sentence 'John thinks that Mary is sick', 'Mary is sick' is the subordinate clause. (<a href="http://purl.org/linguistics/gold/SubordinateClause">http://purl.org/linguistics/gold/SubordinateClause</a>)</p> <p>Dependent clauses (which are also sometimes referred to as subordinate clauses) cannot stand alone as sentences. They usually begin with subordinating conjunctions. A sentence with an independent clause and any number of dependent clauses is referred to as a complex sentence. One with two or more independent clauses and any number of dependent clauses is referred to as a compound-complex sentence (<a href="http://en.wikipedia.org/wiki/Clause">http://en.wikipedia.org/wiki/Clause</a>, cf. <a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#subordinateClause">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#subordinateClause</a>).</p> <p>A subordinate clause is</p>

names	IRIs	Comments
		an embedded construction which contains a finite verb form. ( <a href="http://lan...[68]...onstruction">http://lan...[68]...onstruction</a> [ <a href="http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#finiteEmbeddedConstruction">http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#finiteEmbeddedConstruction</a> ])
clause subordinate adverbial adverbial subordinate clause	<a href="http://purl.org/olia/olia.owl#AdverbialSubordinateClause">http://purl.org/olia/olia.owl#AdverbialSubordinateClause</a>  tag:textal-ign.net,2015:feature:AdverbialSubordinateClause	Subordinate clauses with adverbial function are annotated as ADV, e.g. "Tom sleeps when the sun rises." (Dipper et al. 2007, §4.3.6)  added in conformance with the SFB632 Annotation Guidelines (Dipper et al. 2007)
cleft it it cleft	<a href="http://purl.org/olia/olia.owl#ItCleft">http://purl.org/olia/olia.owl#ItCleft</a>  tag:textal-ign.net,2015:feature:ItCleft	PTB bracketing guidelines (Santorini 1991, Bies et al. 1995)  -CLF (cleft) — marks it-clefts ("true" clefts) and may be added to the labels S, SINV, or SQ. See section 16 [Clefts]. (SQ-CLF Was (NP-SBJ it) (NP-PRD (NP John's) car) (SBAR (WHNP-6 o) (S (NP-SBJ you) (VP borrowed (NP *T*-6)))) ?) (Bies et al. 1995) S-CLF (it-cleft or "true" cleft) Declarative it-clefts are labeled S-CLF, expletive it is tagged as the surface subject (-SBJ), the SBAR is attached at VP-level, and a trace is coindexed to the wh-complementizer of the clefted portion. (See section 16 [Clefts] for more information.) (Bies et al. 1995)
clitic	<a href="http://purl.org/olia/olia.owl#Clitic">http://purl.org/olia/olia.owl#Clitic</a>  tag:textal-ign.net,2015:feature:Clitic	<a href="http://www...[16]...cat/DC-1903">http://www...[16]...cat/DC-1903</a> [ <a href="http://www.iso-cat.org/datcat/DC-1903">http://www.iso-cat.org/datcat/DC-1903</a> ] (cliticness), <a href="http://pur...[32]...#Cliticness">http://pur...[32]...#Cliticness</a> [ <a href="http://purl.org/olia/mt/multext-east.owl#Cliticness">http://purl.org/olia/mt/multext-east.owl#Cliticness</a> ]  Categorization of the different types of clitics (MultText-East; <a href="http://www...[16]...cat/DC-1903">http://www...[16]...cat/DC-1903</a> [ <a 484="" 514="" 937="" 953"="" data-label="Page-Footer" href="http://&lt;/a&gt;&lt;/td&gt; &lt;/tr&gt; &lt;/tbody&gt; &lt;/table&gt; &lt;/div&gt; &lt;div data-bbox="> <p>245</p> </a>

names	IRIs	Comments
		<a href="http://www.isocat.org/datcat/DC-1903">www.isocat.org/datcat/DC-1903</a> )
clitic bound bound clitic	<a href="http://purl.org/olia/olia.owl#BoundClitic">http://purl.org/olia/olia.owl#BoundClitic</a>  tag:textal-ign.net,2015:feature:BoundClitic	<a href="http://www...[16]...cat/DC-1933">http://www...[16]...cat/DC-1933</a> [ <a href="http://www.isocat.org/datcat/DC-1933">http://www.isocat.org/datcat/DC-1933</a> ] (bound as value of cliticness <a href="http://www...[18]...t/DC-1933">http://www...[18]...t/DC-1933</a> ), [ <a href="http://www.isocat.org/datcat/DC-1933">http://www.isocat.org/datcat/DC-1933</a> ),] originally from MULTEXT-East, see <a href="http://pur...[34]...oundClitic">http://pur...[34]...oundClitic</a> , [ <a href="http://purl.org/olia/mte/multext-east.owl#BoundClitic">http://purl.org/olia/mte/multext-east.owl#BoundClitic</a> ,] but note that as it is used in MULTEXT-East, BoundClitic is ambiguous between "being" a bound clitic and "containing a bound clitic". Here, only the first aspect is preserved, is is thus a subclass of CliticElement.  Linked to a particular element. ( <a href="http://www...[16]...cat/DC-1933">http://www...[16]...cat/DC-1933</a> [ <a href="http://www.isocat.org/datcat/DC-1933">http://www.isocat.org/datcat/DC-1933</a> ])  subClassOf cliticness (dcif:conceptualDomain)
clitic demanding element element demanding clitic	<a href="http://purl.org/olia/olia.owl#ElementDemandingClitic">http://purl.org/olia/olia.owl#ElementDemandingClitic</a>  tag:textal-ign.net,2015:feature:ElementDemandingClitic	<a href="http://pur...[37]...ndingClitic">http://pur...[37]...ndingClitic</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#DemandingClitic">http://purl.org/olia/mte/multext-east.owl#DemandingClitic</a> ]  Expression representing a lexeme with cliticization whose clitics are, however, represented as a separate token
clitic with element element with clitic	<a href="http://purl.org/olia/olia.owl#ElementWithClitic">http://purl.org/olia/olia.owl#ElementWithClitic</a>  tag:textal-ign.net,2015:feature:ElementWithClitic	<a href="http://pur...[40]...WithClitic">http://pur...[40]...WithClitic</a> " [ <a href="http://purl.org/olia/mte/multext-east.owl#ElementWithClitic">http://purl.org/olia/mte/multext-east.owl#ElementWithClitic</a> "]  Expression representing a lexeme together with its clitics (Chiarcos)

names	IRIs	Comments
clitic without element element without clitic	<p><a href="http://purl.org/olia/olia.owl#ElementWithoutClitic">http://purl.org/olia/olia.owl#ElementWithoutClitic</a></p> <p>tag:textal-ign.net,2015:feature:ElementWithoutClitic</p>	<p><a href="http://purl.org/olia/mte/multext-east.owl#ElementWithoutClitic">http://purl.org/olia/mte/multext-east.owl#ElementWithoutClitic</a> [http://purl.org/olia/mte/multext-east.owl#ElementWithoutClitic]</p> <p>Expression representing a lexeme without any clitics (i.e. because of the absence of cliticization or because the clitic is represented separately) (Chiarcos)</p>
cliticization	<p><a href="http://purl.org/olia/olia.owl#Cliticization">http://purl.org/olia/olia.owl#Cliticization</a></p> <p>tag:textal-ign.net,2015:feature:Cliticization</p>	<p><a href="http://www.glottopedia.de/index.php/Cliticization">http://www.glottopedia.de/index.php/Cliticization</a>; [http://www.glottopedia.de/index.php/Cliticization]; <a href="http://www.iso-cat.org/datcat/DC-1903">http://www.iso-cat.org/datcat/DC-1903</a> [http://www.iso-cat.org/datcat/DC-1903] (cliticness), <a href="http://purl.org/olia/mte/multext-east.owl#Cliticness">http://purl.org/olia/mte/multext-east.owl#Cliticness</a> [http://purl.org/olia/mte/multext-east.owl#Cliticness].</p> <p>Note that Cliticization covers only one aspect of the original MULTEXT-East (and ISOcat) definitions of cliticness, i.e., that an element is a clitic</p> <p>In morphosyntax, cliticization is a process by which a complex word is formed by attaching a clitic to a fully inflected word. Example: In Je t'aime, t' is the clitic attached to aime. (<a href="http://www.glottopedia.de/index.php/Cliticization">http://www.glottopedia.de/index.php/Cliticization</a>) Note that cliticization can also be understood as the process of an independent word developing into a clitic. This is not the meaning intended here, as the OLiA ontologies are currently not applied to the description of diachronic processes. (Chiarcos)</p>
collective	<p><a href="http://purl.org/olia/olia.owl#Collective">http://purl.org/olia/olia.owl#Collective</a></p> <p>tag:textal-ign.net,2015:feature:Collective</p>	<p>Normally realized by derivation rather than inflection, unless other evidence is provided, OLiA follows *both* the modelling of EAGLES (Collective rdf:type Number)</p>



names	IRIs	Comments
		and the modelling of the MTE ontology (Collective rdf:type MorphologicalDerivation, cf. <a href="http://purl.org/olia/mte/multext-east.owl#Collective">http://purl.org/olia/mte/multext-east.owl#Collective</a> )
collocation	<a href="http://purl.org/olia/olia.owl#Collocation">http://purl.org/olia/olia.owl#Collocation</a>  tag:textal-ign.net,2015:feature:Collocation	<a href="http://purl.org/olia/mte/multext-east.owl#Collocation">http://purl.org/olia/mte/multext-east.owl#Collocation</a>  A collocation is any habitually linked group of words - a kind of lexical partnership, e.g. 'fish and chips', 'salt and pepper', 'don't mention it', 'it's nothing...', 'Oh well!', 'bangers and mash'... and so on. Many idioms or idiomatic phrases exhibit collocation, e.g. in a jiffy. ( <a href="http://www.ionsa-m.htm">http://www.ionsa-m.htm</a> [ <a href="http://www.englishbiz.co.uk/grammar/main_files/definitionsa-m.htm">http://www.englishbiz.co.uk/grammar/main_files/definitionsa-m.htm</a> ])
colon	<a href="http://purl.org/olia/olia.owl#Colon">http://purl.org/olia/olia.owl#Colon</a>  tag:textal-ign.net,2015:feature:Colon	<a href="http://www.iso-cat.org/datcat/DC-1439">http://www.iso-cat.org/datcat/DC-1439</a> [ <a href="http://www.iso-cat.org/datcat/DC-1439">http://www.iso-cat.org/datcat/DC-1439</a> ]  Sign with two vertical points that is used in writing and printing to introduce an explanation, example or quotation. (Gil Francopoulo; <a href="http://www.iso-cat.org/datcat/DC-1439">http://www.iso-cat.org/datcat/DC-1439</a> )  subClassOf partOfSpeech (dcif:conceptualDomain)
colon semi semi colon	<a href="http://purl.org/olia/olia.owl#SemiColon">http://purl.org/olia/olia.owl#SemiColon</a>  tag:textal-ign.net,2015:feature:SemiColon	<a href="http://www.iso-cat.org/datcat/DC-1446">http://www.iso-cat.org/datcat/DC-1446</a> [ <a href="http://www.iso-cat.org/datcat/DC-1446">http://www.iso-cat.org/datcat/DC-1446</a> ]  Sign (;) usually used to separate phrases. ( <a href="http://www.iso-cat.org/datcat/DC-1446">http://www.iso-cat.org/datcat/DC-1446</a> )  subClassOf partOfSpeech (dcif:conceptualDomain)

names	IRIs	Comments
comma	<p><a href="http://purl.org/olia/olia.owl#Comma">http://purl.org/olia/olia.owl#Comma</a></p> <p>tag:textal-ign.net,2015:feature:Comma</p> <p><a href="http://dbpedia.org/resource/Comma">http://dbpedia.org/resource/Comma</a></p>	<p><a href="http://www...[16]...cat/DC-1448">http://www...[16]...cat/DC-1448</a> [<a href="http://www.isocat.org/datcat/DC-1448">http://www.isocat.org/datcat/DC-1448</a>]</p> <p>Mark (,) used in writing to show a short pause or to separate items in a list. (Longman DCE 2005; <a href="http://www...[16]...cat/DC-1448">http://www...[16]...cat/DC-1448</a> [<a href="http://www.isocat.org/datcat/DC-1448">http://www.isocat.org/datcat/DC-1448</a>])</p> <p>subClassOf partOfSpeech (dcif:conceptualDomain)</p>
comma inverted inverted comma	<p><a href="http://purl.org/olia/olia.owl#InvertedComma">http://purl.org/olia/olia.owl#InvertedComma</a></p> <p>tag:textal-ign.net,2015:feature:InvertedComma</p>	<p><a href="http://www...[17]...at/DC-1443">http://www...[17]...at/DC-1443</a>, [<a href="http://www.isocat.org/datcat/DC-1443">http://www.isocat.org/datcat/DC-1443</a>,] used as left-parenthetical punctuation in German single quotes</p> <p>Inverted comma. (<a href="http://www...[16]...cat/DC-1443">http://www...[16]...cat/DC-1443</a> [<a href="http://www.isocat.org/datcat/DC-1443">http://www.isocat.org/datcat/DC-1443</a>])</p> <p>subClassOf partOfSpeech (dcif:conceptualDomain)</p>
comparative	<p><a href="http://purl.org/olia/olia.owl#Comparative">http://purl.org/olia/olia.owl#Comparative</a></p> <p>tag:textal-ign.net,2015:feature:Comparative</p>	<p>EAGLES, <a href="http://www...[16]...cat/DC-1421">http://www...[16]...cat/DC-1421</a> [<a href="http://www.isocat.org/datcat/DC-1421">http://www.isocat.org/datcat/DC-1421</a>]</p> <p>The comparative is the form of an adjective or adverb which denotes the degree or grade by which a person, thing, or other entity has a property or quality greater or less in extent than that of another. In English the structure of a comparative consists normally of the positive form of the adjective or adverb, plus the suffix -er, or (especially in the case of longer words) the modifier "more" (or "less") before the adjective or adverb. The form is usually completed by "than" and the noun which is being compared, e.g. "he is taller than his father is", or "the village is less picturesque than the</p>

names	IRIs	Comments
		town near by is". ( <a href="http://en...[20]...Comparative">http://en...[20]...Comparative</a> [ <a href="http://en.wikipedia.org/wiki/Comparative">http://en.wikipedia.org/wiki/Comparative</a> ] 17.11.06)
comparative with with comparative	<a href="http://purl.org/olia/olia.owl#WithComparative">http://purl.org/olia/olia.owl#WithComparative</a>  tag:textal-ign.net,2015:feature:WithComparative	EAGLES  For example, in German the subordinating conjunction "als" is followed by various kinds of comparative clause (including clauses without finite verbs). ( <a href="http://www...[37]...html#oav2u">http://www...[37]...html#oav2u</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annotate/noder9.html#oav2u">http://www.ilc.cnr.it/EAGLES96/annotate/noder9.html#oav2u</a> ] 17.11.06)
comparative with conjunction subordinating subordinating conjunction with comparative	<a href="http://purl.org/olia/olia.owl#SubordinatingConjunctionWithComparative">http://purl.org/olia/olia.owl#SubordinatingConjunctionWithComparative</a>  tag:textal-ign.net,2015:feature:SubordinatingConjunctionWithComparative	EAGLES  For example, in German the subordinating conjunction "als" is followed by various kinds of comparative clause (including clauses without finite verbs). ( <a href="http://www...[37]...html#oav2u">http://www...[37]...html#oav2u</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annotate/noder9.html#oav2u">http://www.ilc.cnr.it/EAGLES96/annotate/noder9.html#oav2u</a> ] 17.11.06)
complement syntactic syntactic complement	<a href="http://purl.org/olia/olia.owl#SyntacticComplement">http://purl.org/olia/olia.owl#SyntacticComplement</a>  tag:textal-ign.net,2015:feature:SyntacticComplement	A complement is a phrase that fits a particular slot in the syntax requirements of a parent phrase ( <a href="http://en...[37]...guistics%29">http://en...[37]...guistics%29</a> [ <a href="http://en.wikipedia.org/wiki/Complement.%28linguistics%29">http://en.wikipedia.org/wiki/Complement.%28linguistics%29</a> ]). An additional (morpho)syntactic constituent that may be subcategorized for by the predicate. ( <a href="http://lan...[61]...cComplement">http://lan...[61]...cComplement</a> [ <a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#syntacticComplement">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#syntacticComplement</a> ])  The complement is attached inside the VP, NP, ADJP, or PP. Verbs: The term "complement" as it is used here refers to: 1. internal arguments such as NP objects, S and SBAR with no

names	IRIs	Comments
		<p>adverbial dash tags (including some if-clauses, as in I wonder if the Cubs are winning), and quoted constituents (including SINV and FRAG) 2. the passive logical-subject by-phrase 3. VP 4. constituents tagged -BNF, -CLR, -DTV, -PRD, and -PUT (S (NP-SBJ-<sub>i</sub> the guide) (VP was (VP given (NP *-<sub>i</sub>) (PP-DTV to (NP Arthur) (PP by (NP-LGS Ford)))))) Nouns: Since it is difficult to consistently annotate an argument/adjunct distinction, all PP modifiers of nouns are Chomsky-adjoined to the NP: (NP (NP a teacher) (PP of (NP chemistry))) Adjectives: Except in comparatives, any modifier following an adjective is bracketed as a complement. (ADJP eager/likely/ready (S to believe anything)) Prepositions: The NP or S complement of a preposition is placed inside the PP. (Bies et al. 1995)</p> <p>according to the PennTreebank definition (Bies et al. 1995), arguments are complements</p>
<p>complementizer zero zero complementizer</p>	<p><a href="http://purl.org/olia/olia.owl#ZeroComplementizer">http://purl.org/olia/olia.owl#ZeroComplementizer</a></p> <p>tag:textalign.net,2015:feature:ZeroComplementizer</p>	<p>added in conformance with PTB bracketing guidelines (Santorini 1991)</p> <p>o Zero represents a zero complementizer (= subordinating conjunction); it may need to be deleted. The zero complementizer is generally the counterpart of the overt complementizer that. Example: Iâ<sup>1</sup>m sure o heâ<sup>1</sup>ll be here any minute. ... o stands in for overt subordinating conjunctions like that in tensed subordinate clauses, including relative clauses. So the relative clause the man I saw should be bracketed as follows: (NP (NP the man) (SBAR o (S (NP I) (VP saw) (NP T)))) (Santorini 1991)</p>

names	IRIs	Comments
<p>complex verbal</p> <p>verbal complex</p>	<p><a href="http://purl.org/olia/olia.owl#VerbalComplex">http://purl.org/olia/olia.owl#VerbalComplex</a></p> <p>tag:textal-ign.net,2015:feature:VerbalComplex</p>	<p>In a German clause, the finite verb can appear in three different positions: verb-second, verb-initial, and verb-final. Only in verb-final clauses the verb complex consisting of the finite verb and non-finite verbal elements forms a unit. The discontinuous positioning of the verbal elements in verb-first and verb-second clauses is the traditional reason for structuring German clauses into fields. The positions of the verbal elements form the Satzklammer (sentence bracket) which divides the sentence into a Vorfeld (initial field), a Mittelfeld (middle field), and a Nachfeld (final field). The Vorfeld and the Mittelfeld are divided by the linke Satzklammer (left sentence bracket), which is the finite verb, the rechte Satzklammer (right sentence bracket) is the verb complex between the Mittelfeld and the Nachfeld. (Telljohann et al. 2009, p.13) The Verbkomplex is a sequence of verb forms. In verb-second and verb-first clauses it consists of one or more non-finite elements or - depending on the verb - of a separable prefix. In verb-final clauses it also contains the finite verb. The rule for the linear order in general is: right determines left. If there is a finite verb in the verb complex, it is usually the right-most element. (Telljohann et al. 2009, p.15)</p>
<p>conjugated</p>	<p><a href="http://purl.org/olia/olia.owl#Conjugated">http://purl.org/olia/olia.owl#Conjugated</a></p> <p>tag:textal-ign.net,2015:feature:Conjugated</p>	<p><a href="http://www...[16]...cat/DC-2207">http://www...[16]...cat/DC-2207</a> [<a href="http://www.iso-cat.org/datcat/DC-2207">http://www.iso-cat.org/datcat/DC-2207</a>]</p> <p>Property of a verbal form when inflected (<a href="http://www...[16]...cat/DC-2207">http://www...[16]...cat/DC-2207</a> [<a href="http://www.iso-cat.org/datcat/DC-2207">http://www.iso-cat.org/datcat/DC-2207</a>])</p>

names	IRIs	Comments
conjunct	<a href="http://purl.org/olia/olia.owl#Conjunct">http://purl.org/olia/olia.owl#Conjunct</a> tag:textal-ign.net,2015:feature:Conjunct	TIGER edge label CJ TIGER edge label CJ
conjunct sentence has has sentence conjunct	<a href="http://purl.org/olia/olia.owl#hasSentenceConjunct">http://purl.org/olia/olia.owl#hasSentenceConjunct</a> tag:textal-ign.net,2015:feature:hasSentenceConjunct	<a href="http://purl.org/olia/mte/multext-east.owl#SentenceCoordinatingConjunct">http://pur...[53]...Conjunction</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#SentenceCoordinatingConjunct">http://purl.org/olia/mte/multext-east.owl#SentenceCoordinatingConjunct</a> ]
conjunct word has has word conjunct	<a href="http://purl.org/olia/olia.owl#hasWordConjunct">http://purl.org/olia/olia.owl#hasWordConjunct</a> tag:textal-ign.net,2015:feature:hasWordConjunct	<a href="http://purl.org/olia/mte/multext-east.owl#WordCoordinatingConjunct">http://pur...[49]...Conjunction</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#WordCoordinatingConjunct">http://purl.org/olia/mte/multext-east.owl#WordCoordinatingConjunct</a> ]
conjunct has has conjunct	<a href="http://purl.org/olia/olia.owl#hasConjunct">http://purl.org/olia/olia.owl#hasConjunct</a> tag:textal-ign.net,2015:feature:hasConjunct	<a href="http://purl.org/olia/mte/multext-east.owl#CoordinatingConjunctionConjunctType">http://pur...[58]...onjunctType</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#CoordinatingConjunctionConjunctType">http://purl.org/olia/mte/multext-east.owl#CoordinatingConjunctionConjunctType</a> ]
conjunction	<a href="http://purl.org/olia/olia.owl#Conjunction">http://purl.org/olia/olia.owl#Conjunction</a> tag:textal-ign.net,2015:feature:Conjunction	EAGLES top-level concept Conjunction (C). A conjunction is a word that syntactically links words or larger constituents, and expresses a semantic relationship between them. ( <a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAConjunction.htm">http://www...[59]...unction.htm</a> [ <a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAConjunction.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAConjunction.htm</a> ] 19.09.06)
conjunction coordinating coordinating conjunction	<a href="http://purl.org/olia/olia.owl#CoordinatingConjunction">http://purl.org/olia/olia.owl#CoordinatingConjunction</a> tag:textal-ign.net,2015:feature:CoordinatingConjunction	
conjunction coordinating correlative	<a href="http://purl.org/olia/olia.owl#CorrelativeConjunction">http://purl.org/olia/olia.owl#CorrelativeConjunction</a>	EAGLES, <a href="http://purl.org/olia/mte/multext-east.owl#CorrelativeConjunction">http://pur...[56]...Conjunction</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#CorrelativeConjunction">http://purl.org/olia/mte/</a>

names	IRIs	Comments
correlative coordinating conjunction	<p>CoordinatingConjunction</p> <p>tag:textal-ign.net,2015:feature:CorrelativeCoordinatingConjunction</p>	<p>multext-east.owl#CorrelativeCoordinatingConjunction]</p> <p>Conjunction/Coord_Type="correlat" (Romanian). In Romanian, there are three kinds of conjunctions depending on their usage: as such or together with other conjunctions or adverbs: (1) simple, between conjuncts: Ion ori Maria (John or Mary); (2) repetitive, before each conjunct: fie Ion fie Maria fie... (either John or Mary or...) (3) correlative, before a conjoined phrase, it requires specific coordinators between conjuncts: atât mama cât și tata (both mother and father). (MTE v4, <a href="http://pur...[56]...Conjunction">http://pur...[56]...Conjunction</a> [<a href="http://purl.org/olia/mte/multext-east.owl#CorrelativeCoordinatingConjunction">http://purl.org/olia/mte/multext-east.owl#CorrelativeCoordinatingConjunction</a>])</p> <p>When the same word is also placed before the first conjunct, as in French "ou...ou...", the former occurrence is given the Correlative value and the latter the Simple value. (<a href="http://www...[38]...html#oav1av">http://www...[38]...html#oav1av</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oaviav">http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oaviav</a>] 17.11.06)</p>
conjunction coordinating initial initial coordinating conjunction	<p><a href="http://purl.org/olia/olia.owl#InitialCoordinatingConjunction">http://purl.org/olia/olia.owl#InitialCoordinatingConjunction</a></p> <p>tag:textal-ign.net,2015:feature:InitialCoordinatingConjunction</p>	<p>EAGLES</p> <p>When two distinct words occur, as in German "weder...noch...", then the first is given the Initial value. (<a href="http://www...[38]...html#oav1av">http://www...[38]...html#oav1av</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oaviav">http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oaviav</a>] 17.11.06)</p>
conjunction coordinating initial non non initial coordinating conjunction	<p><a href="http://purl.org/olia/olia.owl#NonInitialCoordinatingConjunction">http://purl.org/olia/olia.owl#NonInitialCoordinatingConjunction</a></p> <p>tag:textal-ign.net,2015:fea-</p>	<p>EAGLES</p> <p>When two distinct words occur, as in German weder...noch..., then the second is given the Non-initial</p>

names	IRIs	Comments
	ture:NonInitialCoordinatingConjunction	value. ( <a href="http://www...[38]...html#oav1av">http://www...[38]...html#oav1av</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oaviav">http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oaviav</a> ] 17.II.06)
conjunction coordinating repetitive repetitive coordinating conjunction	<a href="http://purl.org/olia/olia.owl#RepetitiveCoordinatingConjunction">http://purl.org/olia/olia.owl#RepetitiveCoordinatingConjunction</a> tag:textal-ign.net,2015:feature:RepetitiveCoordinatingConjunction	<a href="http://pur...[55]...Conjunction">http://pur...[55]...Conjunction</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#RepetitiveCoordinatingConjunction">http://purl.org/olia/mte/multext-east.owl#RepetitiveCoordinatingConjunction</a> ]  Conjunction/Coord_Type="repetit" (Romanian). In Romanian, there are three kinds of conjunctions depending on their usage: as such or together with other conjunctions or adverbs: (1) simple, between conjuncts: Ion ori Maria (John or Mary); (2) repetitive, before each conjunct: fie Ion fie Maria fie... (either John or Mary or...) (3) correlative, before a conjoined phrase, it requires specific coordinators between conjuncts: atât mama cât și tata (both mother and father). (MTE v4, <a href="http://pur...[55]...Conjunction">http://pur...[55]...Conjunction</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#RepetitiveCoordinatingConjunction">http://purl.org/olia/mte/multext-east.owl#RepetitiveCoordinatingConjunction</a> ])
conjunction coordinating simple simple coordinating conjunction	<a href="http://purl.org/olia/olia.owl#SimpleCoordinatingConjunction">http://purl.org/olia/olia.owl#SimpleCoordinatingConjunction</a> tag:textal-ign.net,2015:feature:SimpleCoordinatingConjunction	EAGLES, <a href="http://pur...[51]...Conjunction">http://pur...[51]...Conjunction</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#SimpleCoordinatingConjunction">http://purl.org/olia/mte/multext-east.owl#SimpleCoordinatingConjunction</a> ]  Simple applies to the regular type of coordinator occurring between conjuncts: German und, for example. ( <a href="http://www...[38]...html#oav1av">http://www...[38]...html#oav1av</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oaviav">http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oaviav</a> ] 17.II.06)  In the Romanian MTE v4 specs, Conjunction/Coord_Type="simple" is defined in contrast to repetitive and cor-



names	IRIs	Comments
		relative coordinating conjunctions. In Romanian, there are three kinds of conjunctions depending on their usage: as such or together with other conjunctions or adverbs: (1) simple, between conjuncts: Ion ori Maria (John or Mary); (2) repetitive, before each conjunct: fie Ion fie Maria fie... (either John or Mary or...) (3) correlative, before a conjoined phrase, it requires specific coordinators between conjuncts: atât mama cât și tata (both mother and father). (MTE v4), e.g., așa.că, va.să.zică (ro) ( <a href="http://purl.org/olia/mte/multext-east.owl#SimpleCoordinatingConjunction">http://purl.org/olia/mte/multext-east.owl#SimpleCoordinatingConjunction</a> )
conjunction subordinating subordinating conjunction	<a href="http://purl.org/olia/olia.owl#SubordinatingConjunction">http://purl.org/olia/olia.owl#SubordinatingConjunction</a>  tag:textal-ign.net,2015:feature:SubordinatingConjunction	EAGLES Conjunction with Type="Subordinating". The language- (German-) specific EAGLES feature "subord-type" was originally modelled as MorphosyntacticFeature, when integrating the MULTEXT-East ontology, it was remodelled within the taxonomy  Subordinating conjunctions, also called subordinators, are conjunctions that introduce a dependent clause. ( <a href="http://en.wikipedia.org/wiki/Grammatical_conjunction">http://en.wikipedia.org/wiki/Grammatical_conjunction</a> ) 19.09.06)
constituent	<a href="http://purl.org/olia/olia.owl#Constituent">http://purl.org/olia/olia.owl#Constituent</a>  tag:textal-ign.net,2015:feature:Constituent	<a href="http://www.linguistics-ontology.org/gold/2008/SyntacticConstruction">http://www.linguistics-ontology.org/gold/2008/SyntacticConstruction</a> [47]...  Constituents correspond to a GOLD SyntacticConstruction: SyntacticConstruction is the class of grammar units that have syntactic structure, i.e., consisting of more than one syntactic word or construction in a syntactic configuration. [Crys-

names	IRIs	Comments
		<p>tal 1980, 85-86]. (<a href="http://www...[25]...g/gold/2008">http://www...[25]...g/gold/2008</a> [<a href="http://www.linguistics-ontology.org/gold/2008">http://www.linguistics-ontology.org/gold/2008</a>]) Corresponds to units of annotation in the EAGLES recommendations for syntactic annotation (<a href="http://www...[59]...00000000000">http://www...[59]...00000000000</a> [<a href="http://www.ilc.cnr.it/EAGLES96/segsasgi/node29.html#SECTION00520000000000000000">http://www.ilc.cnr.it/EAGLES96/segsasgi/node29.html#SECTION00520000000000000000</a>])</p>
<p>constituent adnominal adnominal constituent</p>	<p><a href="http://purl.org/olia/olia.owl#AdnominalConstituent">http://purl.org/olia/olia.owl#AdnominalConstituent</a></p> <p>tag:textalign.net,2015:feature:AdnominalConstituent</p>	<p><a href="http://lan...[57]...nalModifier">http://lan...[57]...nalModifier</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#nominalModifier">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#nominalModifier</a>]</p> <p>TODO: rename to AdnominalModifier</p> <p>Each element in a construction is called adnominal that modifies a nominal, such as, all types of attributives, such as adjectives, possessives, prepositional attributes and relative clauses, such as the beautiful house; the neighbour's house, the house at the sea, the house, that I want. (<a href="http://lan...[57]...nalModifier">http://lan...[57]...nalModifier</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#nominalModifier">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#nominalModifier</a>])</p> <p>Adnominal wird jedes Element in einer Konstruktion bezeichnet, das der Modifizierung eines Nomens dient, d.h. alle Formen von Attributen wie Adjektive, Genitivattribute, Präpositionalattribute, Relativsätze. Zum Beispiel, das schöne Haus; das Haus des Nachbars; das Haus am See; das Haus, das ich mir schon immer gewünscht habe. (<a href="http://www...[44]...p/Adnominal">http://www...[44]...p/Adnominal</a> [<a href="http://www.uni-trier.de/uni/fb2/ldv/">http://www.uni-trier.de/uni/fb2/ldv/</a>])</p>

names	IRIs	Comments
		ldv_wiki/index.php/Adnominal))
construction embedded finite non non finite embedded construction	<a href="http://purl.org/olia/olia.owl#NonFiniteEmbeddedConstruction">http://purl.org/olia/olia.owl#NonFiniteEmbeddedConstruction</a> tag:textal-ign.net,2015:feature:NonFiniteEmbeddedConstruction	An embedded construction which contains a non-finite verb form ( <a href="http://lan...[72]...onstruction">http://lan...[72]...onstruction</a> [ <a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#non-finiteEmbeddedConstruction">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#non-finiteEmbeddedConstruction</a> ] with reference to Dik 1997)
construction syntactic syntactic construction	<a href="http://purl.org/olia/olia.owl#SyntacticConstruction">http://purl.org/olia/olia.owl#SyntacticConstruction</a> tag:textal-ign.net,2015:feature:SyntacticConstruction	
contraction	<a href="http://purl.org/olia/olia.owl#Contraction">http://purl.org/olia/olia.owl#Contraction</a> tag:textal-ign.net,2015:feature:Contraction	Uby POS, undocumented, <a href="http://pur...[11].../ubyPos.owl">http://pur...[11].../ubyPos.owl</a> [ <a href="http://purl.org/olia/ubyPos.owl">http://purl.org/olia/ubyPos.owl</a> ] no definition given
coordination	<a href="http://purl.org/olia/olia.owl#Coordination">http://purl.org/olia/olia.owl#Coordination</a> tag:textal-ign.net,2015:feature:Coordination	As has already been shown in some of the preceding examples, the issue of coordination necessarily arises: how is coordination to be represented in terms of constituency? Different approaches have been taken, and in the example analyses given in this document, we have chosen to take a traditional approach, showing the coordinated constituents at the same level, with the conjunction between them (see also 47 and 48): (51) [NP [NP John NP] and [NP Mary NP] NP] (52) She went [PP [PP to the library PP] or [PP to the cafeteria PP] PP] (53) He works [ADVP [ADVP very slowly ADVP] but [ADVP very meticulously ADVP] ADVP] However, in practice, in an automated parsing system, this is not an easy differentiation to make, and in some existing schemes, a slightly less satisfac-

names	IRIs	Comments
		<p>tory solution has been found, viz. analysing coordination in a similar fashion to subordination. Most constituents (both phrases and clauses) can be coordinated, but the extent to which this is possible will differ across languages. The conjuncts may be marked as such by separate descriptors: NPtex2htmlwrap_inline4084 etc. However, there are many occasions where the conjuncts are not of the same formal category, or where they do not correspond to an entire phrasal or clausal constituent. There is much to be said, in these cases, or perhaps for all cases of coordination, for the use of a generalised label applied to all coordinate constituents or conjuncts, e.g. the label CO used in the TOSCA system. We do not offer a definitive solution for the annotation of coordination, and the many variants of coordination will not be considered further in this report. See Sampson (1995: 310f) for a detailed treatment. (<a href="http://www...[31]...node37.html">http://www...[31]...node37.html</a> [<a href="http://www.ilc.cnr.it/EAGLES96/segsasgi/node37.html">http://www.ilc.cnr.it/EAGLES96/segsasgi/node37.html</a>])</p>
copula	<p><a href="http://purl.org/olia/olia.owl#Copula">http://purl.org/olia/olia.owl#Copula</a></p> <p>tag:textalign.net,2015:feature:Copula</p>	<p>Adopted from the SFB632 annotation guidelines. In EAGLES, copulas are not distinguished from auxiliaries, hence represented as such here.</p> <p>A copula is an intransitivity verb which links a subject to a noun phrase, an adjective or an other constituent which expresses the predicate. (<a href="http://www...[54]...ACopula.htm">http://www...[54]...ACopula.htm</a> [<a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsACopula.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsACopula.htm</a>] 19.09.06)</p>

names	IRIs	Comments
correlate expletive expletive correlate	<p><a href="http://purl.org/olia/olia.owl#ExpletiveCorrelate">http://purl.org/olia/olia.owl#ExpletiveCorrelate</a></p> <p>tag:textal-ign.net,2015:feature:ExpletiveCorrelate</p>	<p>Three different expletive usages [of the German expletive pronoun es] are traditionally distinguished: formal subject or object (expletive argument), correlate of an extraposed clausal argument (expletive correlate), and Vorfeld-es (structural expletive) (cf. (Eisenberg 1999 2001), (Pütz 1986)). (Telljohann et al. 2009, p.60)                      Extraposed clausal arguments: "Aber [es] ist übertrieben zu sagen, damit bekäme die FU erst eine Identität." (Telljohann et al. 2009, p.62)</p> <p>TüBa-D/Z</p>
correlative	<p><a href="http://purl.org/olia/olia.owl#Correlative">http://purl.org/olia/olia.owl#Correlative</a></p> <p>tag:textal-ign.net,2015:feature:Correlative</p>	<p>EAGLES</p> <p>When the same word is also placed before the first conjunct, as in French "ou...ou...", the former occurrence is given the Correlative value and the latter the Simple value. (<a href="http://www...[38]...html#oav1av">http://www...[38]...html#oav1av</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annodate/noder8.html#oavrav">http://www.ilc.cnr.it/EAGLES96/annodate/noder8.html#oavrav</a>] 17.11.06)</p>
countable	<p><a href="http://purl.org/olia/olia.owl#Countable">http://purl.org/olia/olia.owl#Countable</a></p> <p>tag:textal-ign.net,2015:feature:Countable</p>	<p>EAGLES, remodelling of MassNoun vs. CommonNoun</p> <p>A countable noun (also count noun) is a noun which can be modified by a numeral and occur in both singular and plural form, as well as co-occurring with quantificational determiners like every, each, several, most, etc.. (<a href="http://en...[23]...ntable_noun">http://en...[23]...ntable_noun</a> [<a href="http://en.wikipedia.org/wiki/Countable_noun">http://en.wikipedia.org/wiki/Countable_noun</a>] 19.09.06)</p>
definite	<p><a href="http://purl.org/olia/olia.owl#Definite">http://purl.org/olia/olia.owl#Definite</a></p> <p>tag:textal-ign.net,2015:feature:Definite</p>	<p>EAGLES, <a href="http://lan...[51]...l#definite">http://lan...[51]...l#definite</a>, [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#definite">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#definite</a>,] <a href="http://www...[16]...cat/DC-2004">http://www...[16]...cat/DC-2004</a></p>

names	IRIs	Comments
		<p>[<a href="http://www.isocat.org/dat-cat/DC-2004">http://www.isocat.org/dat-cat/DC-2004</a>]</p> <p>Value referring to the capacity of identification of an entity. (<a href="http://www...[16]...cat/DC-2004">http://www...[16]...cat/DC-2004</a> [<a href="http://www.isocat.org/dat-cat/DC-2004">http://www.isocat.org/dat-cat/DC-2004</a>]) An entity is specified as definite when it refers to a particularized individual of the species denoted by the noun. (<a href="http://lan...[50]...owl#definite">http://lan...[50]...owl#definite</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#definite">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#definite</a>]) Definite noun phrases are used to refer to entities which are specific and identifiable in a given context. (<a href="http://en...[21]...efiniteness">http://en...[21]...efiniteness</a> [<a href="http://en.wikipedia.org/wiki/Definiteness">http://en.wikipedia.org/wiki/Definiteness</a>] 20.11.06)</p>
<p>degree elative elative degree</p>	<p><a href="http://purl.org/olia/olia.owl#ElativeDegree">http://purl.org/olia/olia.owl#ElativeDegree</a></p> <p>tag:textal-ign.net,2015:feature:ElativeDegree</p>	<p><a href="http://pur...[36]...tiveDegree">http://pur...[36]...tiveDegree</a>, [<a href="http://purl.org/olia/mte/multext-east.owl#ElativeDegree">http://purl.org/olia/mte/multext-east.owl#ElativeDegree</a>], <a href="http://www...[17]...at/DC-1276">http://www...[17]...at/DC-1276</a>, [<a href="http://www.isocat.org/dat-cat/DC-1276">http://www.isocat.org/dat-cat/DC-1276</a>], note that the latter conflates ElativeDegree and ElativeCase</p> <p>MULTEXT-East Degree="elative" (Adjective: Resian, Serbian, Macedonian)&lt;br/&gt; In Semitic languages, ElativeDegree refers to the "adjective of superiority." In some languages such as Arabic, the concepts of comparative and superlative degree of an adjective are merged into a single form, the elative. How this form is understood or translated depends upon context and definiteness. In the absence of comparison, the elative conveys the notion of "greatest",</p>

names	IRIs	Comments
		<p>“supreme.” The elative of <b>كَبِير</b> (kabír, “big”) is <b>أَكْبَر</b> (‘ákbar, “bigger/biggest”, “greater/greatest”). (<a href="http://en...[17]...iki/elative">http://en...[17]...iki/elative</a> [<a href="http://en.wiktionary.org/wiki/elative">http://en.wiktionary.org/wiki/elative</a>]) In Slavic languages, as well, it is pretty standard. I do agree with the definition though, that “the elative conveys the notion of “greatest”, “supreme.”” So, Slovene “lep” is beautiful, “prelep” is very (or supremely) beautiful; I guess the “pre-” prefix could be roughly translated as “over-”. Used in Resian, Serbian, Macedonian. In Slovenian, we banished it, as even “ordinary” degrees are borderline inflection / derivation, but, I think, elative is definitely not inflection. (Tomaž Erjavec, email 2010/06/21)</p> <p>e.g., predivan, prekasan, premanjeg/premali, premanjega/premali, premanjem/premali, premanjemu/premali, premanji/premali (sr)</p> <p>e.g., <b>прешпионска/шпионски</b>, <b>прешпионскава/шпионски</b>, <b>прешпионскана/шпионски</b>, <b>прешпионската/шпионски</b>, <b>прешпионски/шпионски</b>, <b>прешпионскиве/шпионски</b>, <b>прешпионскине/шпионски</b>, <b>прешпионскиов/шпионски</b>, <b>прешпионскион/шпионски</b> (mk)</p>
derivation	<p><a href="http://purl.org/olia/olia.owl#Derivation">http://purl.org/olia/olia.owl#Derivation</a></p> <p>tag:textal-ign.net,2015:feature:Derivation</p>	<p><a href="http://www...[16]...cat/DC-1271">http://www...[16]...cat/DC-1271</a> [<a href="http://www.isocat.org/datcat/DC-1271">http://www.isocat.org/datcat/DC-1271</a>]</p> <p>Change in the form of a linguistic unit, usually modification in the base/root or affixation to create a new word. (Sue Ellen Wright + Gil Francopoulo; <a href="http://www...[16]...cat/DC-1271">http://www...[16]...cat/DC-1271</a> [<a href="http://www.isocat.org/datcat/DC-1271">http://www.isocat.org/datcat/DC-1271</a>])</p>

names	IRIs	Comments
determiner	<p><a href="http://purl.org/olia/olia.owl#Determiner">http://purl.org/olia/olia.owl#Determiner</a></p> <p>tag:textal-ign.net,2015:feature:Determiner</p>	<p>introduced <code>AttributivePronoun</code> as subclass of <code>Determiner</code> (<code>Article</code> is no <code>AttributivePronoun</code>)</p> <p>EAGLES <code>PronounOrDeterminer</code> with <code>category="Determiner"</code></p> <p>Note that <code>"Determiner"</code> in OLiA also covers determiner-like elements in languages without grammaticalized determiner category. This is because <code>AttributePronoun</code> is defined as being in the intersection of <code>Determiner</code> and <code>Pronoun</code>. In languages without grammaticalized determiners, attributive pronouns are, however, not characterized as determiners, but rather as adjectives. In order to provide a uniform modeling of attributive pronouns, they are defined here as being the intersection of <code>Determiner</code> and <code>Pronoun</code>. (Chiarcos)</p> <p>A determiner is a noun modifier that expresses the reference of a noun or noun phrase in the context, including quantity, rather than attributes expressed by adjectives. This part of speech is defined in some languages, such as in English, as it is distinct from adjectives grammatically, though most English dictionaries still identify the determiners as adjectives. (<a href="http://en.wikipedia.org/wiki/Determiner">http://en.wikipedia.org/wiki/Determiner</a> [19] 19.09.06)</p>
determiner demonstrative demonstrative determiner	<p><a href="http://purl.org/olia/olia.owl#DemonstrativeDeterminer">http://purl.org/olia/olia.owl#DemonstrativeDeterminer</a></p> <p>tag:textal-ign.net,2015:feature:DemonstrativeDeterminer</p>	<p>EAGLES <code>Determiner</code> with <code>DetType="Demonstrative"</code>.</p> <p>Demonstratives are deictic expressions (they depend on an external frame of reference) which indicate entities a speaker refers to, and distinguishes those entities from oth-</p>



names	IRIs	Comments
		<p>ers. Demonstratives are usually employed for spatial deixis (using the context of the physical surroundings), but in many languages they double as discourse deictics, referring not to concrete objects but to words, phrases and propositions mentioned in speech. (<a href="http://en...[22]...monstrative">http://en...[22]...monstrative</a> [<a href="http://en.wikipedia.org/wiki/Demonstrative">http://en.wikipedia.org/wiki/Demonstrative</a>] 19.09.06)</p>
<p>determiner emphatic emphatic determiner</p>	<p><a href="http://purl.org/olia/olia.owl#EmphaticDeterminer">http://purl.org/olia/olia.owl#EmphaticDeterminer</a></p> <p>tag:textal-ign.net,2015:feature:EmphaticDeterminer</p>	<p><a href="http://pur...[40]...cDeterminer">http://pur...[40]...cDeterminer</a> [<a href="http://purl.org/olia/mte/multext-east.owl#EmphaticDeterminer">http://purl.org/olia/mte/multext-east.owl#EmphaticDeterminer</a>]</p> <p>Determiner/Type="emphatic" (Romanian)&lt;br/&gt; In Romanian, there are specific forms for the so-called emphatic determiner, which may accompany both a noun and a personal pronoun: fata însăși (the girl herself), also ea însăși (she herself). e.g., însele/însumi, însemi/însumi, însene/însumi, însevă/însumi, înseși/însumi, înseți/însumi, însumi, însuși/însumi, însuți/însumi (<a href="http://pur...[40]...cDeterminer">http://pur...[40]...cDeterminer</a> [<a href="http://purl.org/olia/mte/multext-east.owl#EmphaticDeterminer">http://purl.org/olia/mte/multext-east.owl#EmphaticDeterminer</a>])</p>
<p>determiner exclamatory exclamatory determiner</p>	<p><a href="http://purl.org/olia/olia.owl#ExclamatoryDeterminer">http://purl.org/olia/olia.owl#ExclamatoryDeterminer</a></p> <p>tag:textal-ign.net,2015:feature:ExclamatoryDeterminer</p>	<p>EAGLES Determiner with optional attribute WhType="Exclamatory"</p> <p>A exclamatory determiner is used in combination with a Nominal Phrase in order to create an exclamation (a more emphatic form of statement), e.g. "What a lovely colour!", "What a wonderful day this is!" (<a href="http://www...[44]...m_en.ps.gz">http://www...[44]...m_en.ps.gz</a>, [<a href="http://www.ilc.cnr.it/EAGLES96/pub/eagles/lexicons/elm.en.ps.gz">http://www.ilc.cnr.it/EAGLES96/pub/eagles/lexicons/elm.en.ps.gz</a>], p.27, 07.05.07; <a href="http://en...">http://en...</a></p>

names	IRIs	Comments
		[32]...nguistics), [http://en.wikipedia.org/wiki/Sentence.(linguistics),] 07.05.07)
determiner indefinite indefinite determiner	http://purl.org/olia/olia.owl#IndefiniteDeterminer  tag:textal-ign.net,2015:feature:IndefiniteDeterminer	EAGLES Determiner with Det-Type="Indefinite"  An indefinite determiner is a determiner that expresses a referent's indefinite number or amount, i.e. "some", "any", "many". (http://www...[58]...ntifier.htm [http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAQuantifier.htm] 22.09.06) Note that here, a separate top-level class Quantifier has been introduced that covers expressions of number and amount as *semantic* concepts. Plural indefinite determiners are thus to be modeled as IndefiniteDeterminer and Quantifier.
determiner interrogative interrogative determiner	http://purl.org/olia/olia.owl#InterrogativeDeterminer  tag:textal-ign.net,2015:feature:InterrogativeDeterminer	
determiner negative negative determiner	http://purl.org/olia/olia.owl#NegativeDeterminer  tag:textal-ign.net,2015:feature:NegativeDeterminer	http://pur...[40]...eDeterminer [http://purl.org/olia/mte/multext-east.owl#NegativeDeterminer]  Determiner/Type="negative" (Romanian)  In Romanian the negative determiner is expressed by the unit nici + indefinite article (e.g. nici un, nici o). (MTE v4) e.g., nici-o/nici_un, nici_o/nici_un, nici_un, nici_un-ei/nici_un, nici_unii/nici_un, nici_unor/nici_un, nici_un-ii/nici_un (http://pur...[40]...eDeterminer [http://purl.org/olia/mte/

names	IRIs	Comments
		multext-east.owl#NegativeDeterminer])
<p>determiner or pronoun</p> <p>pronoun or determiner</p>	<p><a href="http://purl.org/olia/olia.owl#PronounOrDeterminer">http://purl.org/olia/olia.owl#PronounOrDeterminer</a></p> <p>tag:textalign.net,2015:feature:PronounOrDeterminer</p>	<p>EAGLES top-level category PronounOrDeterminer (PD). The existence of this class is, however, controversial. In EAGLES, it has been introduced for reasons of lexical ambiguity in European languages thus it could be described by the joint of Pronoun and Determiner rather than as an independent class. Indeed, at least one fundamental difference is blurred here: Determiners are purely modifiers whereas pronouns contribute independent meaning. This could be adopted here as a criterion for higher-level organization of the OLiA Reference Model. The original EAGLES definition is not very specific about the difference between Pronouns and Determiners. Here, we assume two definitions: * semantic definition of pronouns: Pronouns are bound variables. They are referential. * syntactic definition of determiners: Determiners turn nominal expressions (of type &lt;e,t&gt;) into noun phrases (of type &lt;e&gt;). Note that these definitions are not exclusive (which is why annotation schemes differ in this aspect). Attributive possessive pronouns ('my book', 'their article') are semantically pronouns (they have an independent reference), but syntactically determiners. For the sub-classes, no exclusivity is required as OLiA allows a hybrid ("both") category by multiple inheritance.</p> <p>The parts of speech Pronoun, Determiner and Article heavily overlap in their formal and functional characteristics, and different analyses for different languages entail separating them out in differ-</p>

names	IRIs	Comments
		<p>ent ways. In Eagles, Pronouns and Determiners are placed in one `super-category`. For some descriptions it may be thought best to treat them as totally different parts of speech. (<a href="http://www...[36]...7.html#recp">http://www...[36]...7.html#recp</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annotate/node17.html#recp">http://www.ilc.cnr.it/EAGLES96/annotate/node17.html#recp</a>] 19.09.06)</p>
<p>determiner partitive partitive determiner</p>	<p><a href="http://purl.org/olia/olia.owl#PartitiveDeterminer">http://purl.org/olia/olia.owl#PartitiveDeterminer</a></p> <p>tag:textalign.net,2015:feature:PartitiveDeterminer</p>	<p>EAGLES Determiner with DetType="Partitive".</p> <p>TODO: Check the relationship between PartitiveDeterminer and PartitiveCase: The partitive case is a grammatical case which denotes "partialness", "without result", or "without specific identity" (<a href="http://lan...[56]...titiveCase">http://lan...[56]...titiveCase</a>, [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#partitiveCase">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#partitiveCase</a>], with reference to <a href="http://en...[18]...i/Partitive">http://en...[18]...i/Partitive</a> [<a href="http://en.wikipedia.org/wiki/Partitive">http://en.wikipedia.org/wiki/Partitive</a>]). PartitiveCase expresses the partial nature of the referent of the noun it marks, as opposed to expressing the whole unit or class of which the referent is a part. This case may be found in items such as the following: existential clauses, nouns that are accompanied by numerals or units of measure, or predications of material from which something is made. It often has a meaning similar to the English word 'some'. (GOLD, "Partitive"; see there for references)</p> <p>A partitive determiner indicates an indefinite quantity of a mass noun; there is no partitive article in English, though the words some or any often have that function. (Wilson and Leech 1996)</p>

names	IRIs	Comments
determiner possessive possessive determiner	<a href="http://purl.org/olia/olia.owl#PossessiveDeterminer">http://purl.org/olia/olia.owl#PossessiveDeterminer</a>  tag:textal-ign.net,2015:feature:PossessiveDeterminer	EAGLES Determiner with Det-Type="Possessive".  A possessive determiner is a part of speech that modifies a noun by attributing ownership to someone or something. ( <a href="http://en.wikipedia.org/wiki/Possessive_adjective">http://en.wikipedia.org/wiki/Possessive_adjective</a> [ <a href="http://en.wikipedia.org/wiki/Possessive_adjective">http://en.wikipedia.org/wiki/Possessive_adjective</a> ] 19.09.06)
determiner reflexive reflexive determiner	<a href="http://purl.org/olia/olia.owl#ReflexiveDeterminer">http://purl.org/olia/olia.owl#ReflexiveDeterminer</a>  tag:textal-ign.net,2015:feature:ReflexiveDeterminer	
determiner relative relative determiner	<a href="http://purl.org/olia/olia.owl#RelativeDeterminer">http://purl.org/olia/olia.owl#RelativeDeterminer</a>  tag:textal-ign.net,2015:feature:RelativeDeterminer	
determiner unquitive unquitive determiner	<a href="http://purl.org/olia/olia.owl#UnquitiveDeterminer">http://purl.org/olia/olia.owl#UnquitiveDeterminer</a>  tag:textal-ign.net,2015:feature:UnquitiveDeterminer	<a href="http://purl.org/olia/olia.owl#UnquitiveDeterminer">http://purl.org/olia/olia.owl#UnquitiveDeterminer</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#UnquitiveDeterminer">http://purl.org/olia/mte/multext-east.owl#UnquitiveDeterminer</a> ]  Determiner/Type="exceptional" is applied to the Persian unquitive determiner تنها i.e., "the only" (MTE v4; Hamidreza Kobdani, email 2010/06/15, <a href="http://purl.org/olia/mte/multext-east.owl#UnquitiveDeterminer">http://purl.org/olia/mte/multext-east.owl#UnquitiveDeterminer</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#UnquitiveDeterminer">http://purl.org/olia/mte/multext-east.owl#UnquitiveDeterminer</a> ])
diacritic	<a href="http://purl.org/olia/olia.owl#Diacritic">http://purl.org/olia/olia.owl#Diacritic</a>  tag:textal-ign.net,2015:feature:Diacritic	
diminutive	<a href="http://purl.org/olia/olia.owl#Diminutive">http://purl.org/olia/olia.owl#Diminutive</a>	A diminutive is a formation of a word used to convey

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:Diminutive	<p>a slight degree of the root meaning, smallness of the object or quality named, encapsulation, intimacy, or endearment. It is the opposite of an augmentative. (<a href="http://en.wikipedia.org/wiki/Diminutive">http://en.wikipedia.org/wiki/Diminutive</a>)</p> <p><a href="http://purl.org/olia/mte/multext-east.owl#Diminutive">http://purl.org/olia/mte/multext-east.owl#Diminutive</a>, in MTE v.4 originally modelled as an aspect of Degree, but this is a misplacement. There are languages where Degree and Diminutivity are independent. In Latvian, for example, the diminutive suffix may be attached to an adjective, not only in the positive but in the comparative and superlative degrees (Ruke-Dravina 1953). Velta Ruke-Dravina (1953), Adjectival Diminutives in Latvian. The Slavonic and East European Review 31(77): 452-465</p>
distal	<p><a href="http://purl.org/olia/olia.owl#Distal">http://purl.org/olia/olia.owl#Distal</a></p> <p>tag:textal-ign.net,2015:feature:Distal</p>	<p>added in accordance with <a href="http://purl.org/olia/mte/multext-east.owl#CliticDistalDeterminer">http://purl.org/olia/mte/multext-east.owl#CliticDistalDeterminer</a></p> <p>The referent denoted by a distal demonstrative pronoun (e.g., English that) is usually spatially more remote or discursively less salient as compared to a referent denoted by a proximal demonstrative pronoun (e.g., English this) (Chiarcos)</p>
ditransitive	<p><a href="http://purl.org/olia/olia.owl#Ditransitive">http://purl.org/olia/olia.owl#Ditransitive</a></p> <p>tag:textal-ign.net,2015:feature:Ditransitive</p>	<p>SUSANNE (Sampson 1995)</p> <p>A predicate/verb that takes two arguments, e.g., English "to give", cf. van Valin and Lapolla (1997).</p>

names	IRIs	Comments
dual	<p><a href="http://purl.org/olia/olia.owl#Dual">http://purl.org/olia/olia.owl#Dual</a></p> <p>tag:textal-ign.net,2015:feature: Dual</p>	<p><a href="http://www...[16]...cat/DC-1879">http://www...[16]...cat/DC-1879</a> [<a href="http://www.isocat.org/datcat/DC-1879">http://www.isocat.org/datcat/DC-1879</a>]</p> <p>Form used in some languages to designate two persons or things. (ISO12620; <a href="http://www...[16]...cat/DC-1879">http://www...[16]...cat/DC-1879</a> [<a href="http://www.isocat.org/datcat/DC-1879">http://www.isocat.org/datcat/DC-1879</a>])</p> <p>subClassOf grammaticalNumber (dcif:conceptualDomain)</p>
<p>element clitic</p> <p>clitic element</p>	<p><a href="http://purl.org/olia/olia.owl#CliticElement">http://purl.org/olia/olia.owl#CliticElement</a></p> <p>tag:textal-ign.net,2015:feature: CliticElement</p>	<p><a href="http://www...[16]...cat/DC-1903">http://www...[16]...cat/DC-1903</a> [<a href="http://www.isocat.org/datcat/DC-1903">http://www.isocat.org/datcat/DC-1903</a>] (cliticness), <a href="http://purl.org/olia/mte/multext-east.owl#Cliticness">http://purl.org/olia/mte/multext-east.owl#Cliticness</a> [<a href="http://purl.org/olia/mte/multext-east.owl#Cliticness">http://purl.org/olia/mte/multext-east.owl#Cliticness</a>]</p> <p>Note that Clitic covers only one aspect of the original MULTEXT-East (and ISOCat) definitions of cliticness, i.e., that an element is a clitic</p>
<p>element layout</p> <p>layout element</p>	<p><a href="http://purl.org/olia/olia.owl#LayoutElement">http://purl.org/olia/olia.owl#LayoutElement</a></p> <p>tag:textal-ign.net,2015:feature: LayoutElement</p>	<p>Introduced to account for Bullet <a href="http://www...[16]...cat/DC-1438">http://www...[16]...cat/DC-1438</a> [<a href="http://www.isocat.org/datcat/DC-1438">http://www.isocat.org/datcat/DC-1438</a>]</p>
<p>element null</p> <p>null element</p>	<p><a href="http://purl.org/olia/olia.owl#NullElement">http://purl.org/olia/olia.owl#NullElement</a></p> <p>tag:textal-ign.net,2015:feature: NullElement</p>	
elision	<p><a href="http://purl.org/olia/olia.owl#Elision">http://purl.org/olia/olia.owl#Elision</a></p> <p>tag:textal-ign.net,2015:feature: Elision</p>	<p><a href="http://www...[16]...cat/DC-1277">http://www...[16]...cat/DC-1277</a> [<a href="http://www.isocat.org/datcat/DC-1277">http://www.isocat.org/datcat/DC-1277</a>]</p> <p>The omission of a syllable or vowel at the beginning or end of a word, esp. when a word ending with a vowel is next to one beginning with a vowel. (<a href="http://www.wordreference.com/English/definition.asp?en=elision">www.wordreference.com/English/definition.asp?en=elision</a>; <a href="http://www...[16]...cat/DC-1277">http://www...[16]...cat/DC-1277</a>)</p>

names	IRIs	Comments
		[http://www.isocat.org/dat-cat/DC-1277]
ellipsis	<p>http://purl.org/olia/olia.owl#Ellipsis</p> <p>tag:textalign.net,2015:feature:Ellipsis</p>	<p>added in conformance with PTB bracketing guidelines (Santorini 1991, Bies et al. 1995)</p> <p>*? â' placeholder for ellipsed material ... *? is now available in the following great-tasting flavors: (VP *?), (ADJP-PRD *?), (PP-PRD *), (NP *?), (S *?), (SBAR *?). These act as placeholders for a missing predicate or piece thereof, especially in comparative constructions and other environments where predicate deletion occurs. Although the missing material represented by *? is often identical to another constituent in the same sentence, the two are never coindexed. Postmodifiers of the verb (including traces) may be attached under (VP *?), but not to any other null element, including the other *? null elements and (VP *T*). Note that policy for *?* was never finalized, so its use varies to some extent. In general, *?* is used by the annotators as a last resort (short of the FRAG analysis) for the annotation of clauses with <math>\frac{1}{4}</math>missing <math>\frac{1}{2}</math> material. Nonetheless, there are certain constructions that are particularly likely to contain *?: (Bies et al. 1995)</p>
emphatic	<p>http://purl.org/olia/olia.owl#Emphatic</p> <p>tag:textalign.net,2015:feature:Emphatic</p>	<p>added in accordance with ILPOSTS, cf. http://pur... [41]...Determiner, [http://purl.org/olia/mte/multext-east.owl#EmphaticDeterminer,] http://pur... [38] ...ticPronoun, [http://purl.org/olia/mte/multext-east.owl#EmphaticPronoun,] http://www... [16]...cat/DC-1941 [http://www.isocat.org/dat-</p>



names	IRIs	Comments
		<p>cat/DC-1941] (emphatic pronoun)</p> <p>Pronoun marked to show its importance. (<a href="http://www...[16]...cat/DC-1941">http://www...[16]...cat/DC-1941</a> [<a href="http://www.isocat.org/datcat/DC-1941">http://www.isocat.org/datcat/DC-1941</a>] In Romanian, the so-called emphatic determiner may accompany both a noun and a personal pronoun: fata *însăși* (the girl *herself*), also ea *însăși* (she *herself*). (<a href="http://pur...[40]...cDeterminer">http://pur...[40]...cDeterminer</a> [<a href="http://purl.org/olia/mte/multext-east.owl#EmphaticDeterminer">http://purl.org/olia/mte/multext-east.owl#EmphaticDeterminer</a>]) Emphasis can not only be expressed on nouns and pronouns, but also at verbs, adverbs, adpositions, etc., cf. <a href="http://pur...[21]...wl#Emphasis">http://pur...[21]...wl#Emphasis</a> [<a href="http://purl.org/olia/ilposts.owl#Emphasis">http://purl.org/olia/ilposts.owl#Emphasis</a>]</p>
emphatic non non emphatic	<p><a href="http://purl.org/olia/olia.owl#NonEmphatic">http://purl.org/olia/olia.owl#NonEmphatic</a></p> <p>tag:textal-ign.net,2015:feature:NonEmphatic</p>	<p>added in accordance with ILPOSTS, cf. <a href="http://pur...[41]...Determiner">http://pur...[41]...Determiner</a>, [<a href="http://purl.org/olia/mte/multext-east.owl#EmphaticDeterminer">http://purl.org/olia/mte/multext-east.owl#EmphaticDeterminer</a>,] <a href="http://pur...[37]...aticPronoun">http://pur...[37]...aticPronoun</a> [<a href="http://purl.org/olia/mte/multext-east.owl#EmphaticPronoun">http://purl.org/olia/mte/multext-east.owl#EmphaticPronoun</a>]</p> <p>In languages where emphasis can be grammatically marked, the unmarked form would be considered NonEmphatic, see #Emphatic</p>
entity discourse discourse entity	<p><a href="http://purl.org/olia/olia.owl#DiscourseEntity">http://purl.org/olia/olia.owl#DiscourseEntity</a></p> <p>tag:textal-ign.net,2015:feature:DiscourseEntity</p>	
entity named named entity	<p><a href="http://purl.org/olia/olia.owl#NamedEntity">http://purl.org/olia/olia.owl#NamedEntity</a></p>	<p><a href="http://www...[16]...cat/DC-2275">http://www...[16]...cat/DC-2275</a> [<a href="http://www.isocat.org/datcat/DC-2275">http://www.isocat.org/datcat/DC-2275</a>]</p>

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:NamedEntity	segment of text for which one or many rigid designators stands for the referent (Gil Francopoulo; <a href="http://www...[16]...cat/DC-2275">http://www...[16]...cat/DC-2275</a> [ <a href="http://www.isocat.org/dat-cat/DC-2275">http://www.isocat.org/dat-cat/DC-2275</a> ])
entity orthographic orthographic entity	<a href="http://purl.org/olia/olia.owl#OrthographicEntity">http://purl.org/olia/olia.owl#OrthographicEntity</a>  tag:textal-ign.net,2015:feature:OrthographicEntity	
exclusive	<a href="http://purl.org/olia/olia.owl#Exclusive">http://purl.org/olia/olia.owl#Exclusive</a>  tag:textal-ign.net,2015:feature:Exclusive	
exclusive first first exclusive	<a href="http://purl.org/olia/olia.owl#FirstExclusive">http://purl.org/olia/olia.owl#FirstExclusive</a>  tag:textal-ign.net,2015:feature:FirstExclusive	<a href="http://pur...[28]...tExclusive">http://pur...[28]...tExclusive</a> , [ <a href="http://purl.org/linguistics/gold/FirstExclusive">http://purl.org/linguistics/gold/FirstExclusive</a> ,] modelled as a subconcept of First here  Refers to the speaker and one or more nonparticipants, but not hearer(s). Contrasts with FirstPersonInclusive (Crystal 1997: 285). ( <a href="http://pur...[27]...stExclusive">http://pur...[27]...stExclusive</a> [ <a href="http://purl.org/linguistics/gold/FirstExclusive">http://purl.org/linguistics/gold/FirstExclusive</a> ])
expletive	<a href="http://purl.org/olia/olia.owl#Expletive">http://purl.org/olia/olia.owl#Expletive</a>  tag:textal-ign.net,2015:feature:Expletive	
expletive structural structural expletive	<a href="http://purl.org/olia/olia.owl#StructuralExpletive">http://purl.org/olia/olia.owl#StructuralExpletive</a>  tag:textal-ign.net,2015:feature:StructuralExpletive	Three different expletive usages [of the German expletive pronoun es] are traditionally distinguished: formal subject or object (expletive argument), correlate of an extraposed clausal argument (expletive correlate), and Vorfeld-es (structural expletive) (cf. (Eisenberg 1999 2001), (Pütz 1986)).

names	IRIs	Comments
		<p>(Telljohann et al. 2009, p.60)                      In German, a purely structural dummy element ... occurs in Vorfeld position only and is not correlated with any argument of the clause. It does not agree with the verb which becomes evident if there is a plural subject in the Mittelfeld: "es zahlen ihn die Völker, deren Menschenrechte angeblich verteidigt werden." It is ungrammatical in the Mittelfeld, e.g. *". . . dass es ihn die Völker zahlen".</p> <p>TüBa-D/Z</p>
expression fixed fixed expression	<p><a href="http://purl.org/olia/olia.owl#FixedExpression">http://purl.org/olia/olia.owl#FixedExpression</a></p> <p>tag:textalign.net,2015:feature:FixedExpression</p>	
expression vocative vocative expression	<p><a href="http://purl.org/olia/olia.owl#VocativeExpression">http://purl.org/olia/olia.owl#VocativeExpression</a></p> <p>tag:textalign.net,2015:feature:VocativeExpression</p>	<p><a href="http://pur...[24]...ocativeForm">http://pur...[24]...ocativeForm</a> [<a href="http://purl.org/olia/tcodex.owl#VocativeForm">http://purl.org/olia/tcodex.owl#VocativeForm</a>]</p> <p>An expression referring to a person to which the utterance is addressed, e.g. Old High German "truhtin", "meister" or "fater". The vocative expression typically occurs outside of the clause and not in an argument position selected by the predicate. (Petrova 2008, see <a href="http://pur...[11].../tcodex.owl">http://pur...[11].../tcodex.owl</a> [<a href="http://purl.org/olia/tcodex.owl">http://purl.org/olia/tcodex.owl</a>])</p>
extraposition	<p><a href="http://purl.org/olia/olia.owl#Extraposition">http://purl.org/olia/olia.owl#Extraposition</a></p> <p>tag:textalign.net,2015:feature:Extraposition</p>	<p>PTB bracketing guidelines, Bies et al. 1995</p> <p>*EXP* — Expletive (extraposition) ... In cases where a clausal subject has been extraposed and replaced by an expletive it, we use a type of pseudo-attach called *EXP*. (In the small ATIS sample included with this release, it is also used for existential there.) Use of *EXP*-at-</p>

names	IRIs	Comments
		tach is discussed in more detail in section 17 [It-Extrapolition]. (S (NP-SBJ (NP It) (SBAR *EXP*-I)) (VP is (ADJP-PRD clear) (PP to (NP me)) (SBAR-I that (S (NP-SBJ this message) (VP is (ADJP-PRD unclear)))))) (Bies et al. 1995)
familiar second second familiar	<a href="http://purl.org/olia/olia.owl#SecondFamiliar">http://purl.org/olia/olia.owl#SecondFamiliar</a>  tag:textal-ign.net,2015:feature:SecondFamiliar	EAGLES PersonalPronoun attribute Politeness="Familiar". The EAGLES attribute politeness (polite/ familiar) is limited to second-person pronouns.  In several European languages exist special forms of pronouns for polite or respectful reference, e.g. Dutch u and Spanish usted. The feature Second-Familiar applies to the corresponding unmarked forms for informal conversation in such languages. ( <a href="http://www...[37]...html#oav1p">http://www... [37]...html#oav1p</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oavrp">http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oavrp</a> ] 19.09.06)
feature animacy animacy feature	<a href="http://purl.org/olia/olia.owl#AnimacyFeature">http://purl.org/olia/olia.owl#AnimacyFeature</a>  tag:textal-ign.net,2015:feature:AnimacyFeature	
feature aspect aspect feature	<a href="http://purl.org/olia/olia.owl#AspectFeature">http://purl.org/olia/olia.owl#AspectFeature</a>  tag:textal-ign.net,2015:feature:AspectFeature	
feature case case feature	<a href="http://purl.org/olia/olia.owl#CaseFeature">http://purl.org/olia/olia.owl#CaseFeature</a>  tag:textal-ign.net,2015:feature:CaseFeature	Skipped EAGLES case feature values Uninflected (uninformative), and NonGenitive (= complement of Genitive). As for TDS case feature values, only "grammaticalCase" has been adopted. As for GOLD case feature values, everything has been adopted, although it seems that some of these cases are actually semantic (theta) roles, i.e., "case"

names	IRIs	Comments
		<p>in the sense of Fillmore (1966), e.g., BenefactiveCase.</p> <p>TODO: rename all subconcepts to ...Case</p> <p>Note that also Indian case markers were included here (ILPOSTS). These are described differently, either as postpositions or as grammatical cases.</p>
feature clusivity clusivity feature	<p><a href="http://purl.org/olia/olia.owl#ClusivityFeature">http://purl.org/olia/olia.owl#ClusivityFeature</a></p> <p>tag:textal-ign.net,2015:feature:ClusivityFeature</p>	
feature countability countability feature	<p><a href="http://purl.org/olia/olia.owl#CountabilityFeature">http://purl.org/olia/olia.owl#CountabilityFeature</a></p> <p>tag:textal-ign.net,2015:feature:CountabilityFeature</p>	
feature definiteness definiteness feature	<p><a href="http://purl.org/olia/olia.owl#DefinitenessFeature">http://purl.org/olia/olia.owl#DefinitenessFeature</a></p> <p>tag:textal-ign.net,2015:feature:DefinitenessFeature</p>	<p>Skipped EAGLES "Unmarked" definiteness that was only introduced "to handle the suffixed definite article in Danish: e.g. "haven" ('the garden'); "havet" ('the sea')." (<a href="http://www...[36]...9.html#oav2">http://www...[36]...9.html#oav2</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annotate/node19.html#oav2">http://www.ilc.cnr.it/EAGLES96/annotate/node19.html#oav2</a>] 16.11.06)</p> <p>TODO: use this property to define Definite/IndefiniteArticle</p>
feature degree degree feature	<p><a href="http://purl.org/olia/olia.owl#DegreeFeature">http://purl.org/olia/olia.owl#DegreeFeature</a></p> <p>tag:textal-ign.net,2015:feature:DegreeFeature</p>	
feature emphasis emphasis feature	<p><a href="http://purl.org/olia/olia.owl#EmphasisFeature">http://purl.org/olia/olia.owl#EmphasisFeature</a></p>	<p>in EAGLES and MULT-TEXT-East restricted to pronouns, in ILPOSTS applicable to many different WordClasses,</p>

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:EmphasisFeature	hence modelled as an independent feature, cf. <a href="http://purl.org/olia/ilposts.owl#Emphasis">http://purl.org/olia/ilposts.owl#Emphasis</a> [ <a href="http://purl.org/olia/ilposts.owl#Emphasis">http://purl.org/olia/ilposts.owl#Emphasis</a> ]
feature evaluative evaluative feature	<a href="http://purl.org/olia/olia.owl#EvaluativeFeature">http://purl.org/olia/olia.owl#EvaluativeFeature</a>  tag:textal-ign.net,2015:feature:EvaluativeFeature	
feature evidentiality evidentiality feature	<a href="http://purl.org/olia/olia.owl#EvidentialityFeature">http://purl.org/olia/olia.owl#EvidentialityFeature</a>  tag:textal-ign.net,2015:feature:EvidentialityFeature	
feature frequency and usage usage and frequency feature	<a href="http://purl.org/olia/olia.owl#UsageAndFrequencyFeature">http://purl.org/olia/olia.owl#UsageAndFrequencyFeature</a>  tag:textal-ign.net,2015:feature:UsageAndFrequencyFeature	
feature gender gender feature	<a href="http://purl.org/olia/olia.owl#GenderFeature">http://purl.org/olia/olia.owl#GenderFeature</a>  tag:textal-ign.net,2015:feature:GenderFeature	
feature modality modality feature	<a href="http://purl.org/olia/olia.owl#ModalityFeature">http://purl.org/olia/olia.owl#ModalityFeature</a>  tag:textal-ign.net,2015:feature:ModalityFeature	Mood feature pertains to grammaticalized moods (as expressed in verbal inflection), Modality refers to the underlying concept that can also be manifested by other grammatical or orthographic markers  note that Modality overlaps with SentenceType (cf. InterrogativeModality besides Question, DeclarativeModality vs. DeclarativeSentence, etc.). The main difference between both is the restriction of SentenceType to full sentences as a basis

names	IRIs	Comments
		of analysis. Any updates should maintain this relationship.
feature mood mood feature	<a href="http://purl.org/olia/olia.owl#MoodFeature">http://purl.org/olia/olia.owl#MoodFeature</a>  tag:textal-ign.net,2015:feature:MoodFeature	
feature number number feature	<a href="http://purl.org/olia/olia.owl#NumberFeature">http://purl.org/olia/olia.owl#NumberFeature</a>  tag:textal-ign.net,2015:feature:NumberFeature	TODO: extend with TDS numberProperty and GOLD NumberValue
feature person person feature	<a href="http://purl.org/olia/olia.owl#PersonFeature">http://purl.org/olia/olia.owl#PersonFeature</a>  tag:textal-ign.net,2015:feature:PersonFeature	
feature polarity polarity feature	<a href="http://purl.org/olia/olia.owl#PolarityFeature">http://purl.org/olia/olia.owl#PolarityFeature</a>  tag:textal-ign.net,2015:feature:PolarityFeature	
feature proximity proximity feature	<a href="http://purl.org/olia/olia.owl#ProximityFeature">http://purl.org/olia/olia.owl#ProximityFeature</a>  tag:textal-ign.net,2015:feature:ProximityFeature	
feature reflexivity reflexivity feature	<a href="http://purl.org/olia/olia.owl#ReflexivityFeature">http://purl.org/olia/olia.owl#ReflexivityFeature</a>  tag:textal-ign.net,2015:feature:ReflexivityFeature	TODO: integrate with VoiceFeature (as in the TDS Ontology) implementation
feature register register feature	<a href="http://purl.org/olia/olia.owl#RegisterFeature">http://purl.org/olia/olia.owl#RegisterFeature</a>  tag:textal-ign.net,2015:feature:RegisterFeature	

names	IRIs	Comments
feature separability separability feature	<p><a href="http://purl.org/olia/olia.owl#SeparabilityFeature">http://purl.org/olia/olia.owl#SeparabilityFeature</a></p> <p>tag:textal-ign.net,2015:feature:SeparabilityFeature</p>	
feature specificity specificity feature	<p><a href="http://purl.org/olia/olia.owl#SpecificityFeature">http://purl.org/olia/olia.owl#SpecificityFeature</a></p> <p>tag:textal-ign.net,2015:feature:SpecificityFeature</p>	
feature strength strength feature	<p><a href="http://purl.org/olia/olia.owl#StrengthFeature">http://purl.org/olia/olia.owl#StrengthFeature</a></p> <p>tag:textal-ign.net,2015:feature:StrengthFeature</p>	<p>TODO: link with concept hierarchy</p> <p>TODO: rename to Reduction-Feature</p> <p>merged with <a href="http://purl.org/olia/mte/multext-east.owl#AdjectiveFormation">http://purl.org/olia/mte/multext-east.owl#AdjectiveFormation</a>, [<a href="http://purl.org/olia/mte/multext-east.owl#AdjectiveFormation">http://purl.org/olia/mte/multext-east.owl#AdjectiveFormation</a>,] <a href="http://purl.org/olia/mte/multext-east.owl#ReductionFeature">http://purl.org/olia/mte/multext-east.owl#ReductionFeature</a>: [<a href="http://purl.org/olia/mte/multext-east.owl#ReductionFeature">http://purl.org/olia/mte/multext-east.owl#ReductionFeature</a>:] reduced vs. full inflection</p>
feature tense tense feature	<p><a href="http://purl.org/olia/olia.owl#TenseFeature">http://purl.org/olia/olia.owl#TenseFeature</a></p> <p>tag:textal-ign.net,2015:feature:TenseFeature</p>	<p>Subclassification in absolute, relative and absolute-relative adopted from TDS. Habitual is modelled here as Aspect, in accordance with GOLD, replaced here by NotTemporallyAnchored. Skipped TDS non-presentTense (= complement of Present), <a href="http://purl.org/linguistics/gold/NonFuture">http://purl.org/linguistics/gold/NonFuture</a>, [<a href="http://purl.org/linguistics/gold/NonFuture">http://purl.org/linguistics/gold/NonFuture</a>,] <a href="http://purl.org/linguistics/gold/NonPast">http://purl.org/linguistics/gold/NonPast</a>, [<a href="http://purl.org/linguistics/gold/NonPast">http://purl.org/linguistics/gold/NonPast</a>,] redefined Future and Past as superconcepts to cover different future and past tenses</p>



names	IRIs	Comments
feature type coord coord type feature	<a href="http://purl.org/olia/olia.owl#CoordTypeFeature">http://purl.org/olia/olia.owl#CoordTypeFeature</a>  tag:textal-ign.net,2015:feature:CoordTypeFeature	
feature type inflection inflection type feature	<a href="http://purl.org/olia/olia.owl#InflectionTypeFeature">http://purl.org/olia/olia.owl#InflectionTypeFeature</a>  tag:textal-ign.net,2015:feature:InflectionTypeFeature	In this category, different inflection-relevant features are assembled. Typically, inflection phenomena are language-specific and pertain to different grammatical categories; therefore, this collection is neither to be supposed exhaustive nor are the features necessarily disjoint (e.g., <i>InflectedWithOvertMarker</i> overlaps with <i>StrongInflection</i> or <i>WeakInflection</i> )
feature type reduplication reduplication type feature	<a href="http://purl.org/olia/olia.owl#ReduplicationTypeFeature">http://purl.org/olia/olia.owl#ReduplicationTypeFeature</a>  tag:textal-ign.net,2015:feature:ReduplicationTypeFeature	
feature type referent referent type feature	<a href="http://purl.org/olia/olia.owl#ReferentTypeFeature">http://purl.org/olia/olia.owl#ReferentTypeFeature</a>  tag:textal-ign.net,2015:feature:ReferentTypeFeature	
feature type sentence sentence type feature	<a href="http://purl.org/olia/olia.owl#SentenceTypeFeature">http://purl.org/olia/olia.owl#SentenceTypeFeature</a>  tag:textal-ign.net,2015:feature:SentenceTypeFeature	
feature type subord subord type feature	<a href="http://purl.org/olia/olia.owl#SubordTypeFeature">http://purl.org/olia/olia.owl#SubordTypeFeature</a>  tag:textal-ign.net,2015:feature:SubordTypeFeature	

names	IRIs	Comments
feature valency valency feature	<a href="http://purl.org/olia/olia.owl#ValencyFeature">http://purl.org/olia/olia.owl#ValencyFeature</a>  tag:textal-ign.net,2015:feature:ValencyFeature	
feature voice voice feature	<a href="http://purl.org/olia/olia.owl#VoiceFeature">http://purl.org/olia/olia.owl#VoiceFeature</a>  tag:textal-ign.net,2015:feature:VoiceFeature	
feminine	<a href="http://purl.org/olia/olia.owl#Feminine">http://purl.org/olia/olia.owl#Feminine</a>  tag:textal-ign.net,2015:feature:Feminine	EAGLES, <a href="http://lan...[56]...inineGender">http://lan...[56]...inineGender</a> [ <a href="http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#feminineGender">http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#feminineGender</a> ]  Feminine gender is a grammatical gender that marks nouns, articles, pronouns, etc. that have human or animal female referents, and often marks nouns that have referents that do not carry distinctions of sex. ( <a href="http://www...[38]...html#oav2at">http://www...[38]...html#oav2at</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annotate/node19.html#oav2at">http://www.ilc.cnr.it/EAGLES96/annotate/node19.html#oav2at</a> ] 17.11.06)
field complementizer complementizer field	<a href="http://purl.org/olia/olia.owl#ComplementizerField">http://purl.org/olia/olia.owl#ComplementizerField</a>  tag:textal-ign.net,2015:feature:ComplementizerField	The C-Feld occurs in verb-final clauses in German (exception: the conjunction <i>als</i> in subordinated sentences of comparison <i>als w"are es nie geschehen</i> ). It is obligatorily occupied in finite verb-final clauses if there is no conjunction in the Linke Klammer. In non-finite verb-final clauses the C-position may be empty. This field can be occupied by conjunctions of sentential objects (e.g. <i>da"ß</i> , <i>ob</i> ) or sentence initial conjunctions like <i>um</i> , <i>obwohl</i> , <i>wenn</i> and also by complex interrogative or relative phrases, e.g. <i>...</i> , <i>'um wieviel Geld' geht es dabei?</i> / <i>...</i> , <i>'an der' Max Daniel Professor f"ur</i>

names	IRIs	Comments
		Klavier ist. (Telljohann et al. 2009, p.17)
field coordinator coordinator field	<a href="http://purl.org/olia/olia.owl#CoordinatorField">http://purl.org/olia/olia.owl#CoordinatorField</a>  tag:textal-ign.net,2015:feature:CoordinatorField	The KOORD-field is the field for coordinating particles in the German clause. In contrast to the PARORD-field, it can optionally occur as the left-most element of all clause types. (Telljohann et al. 2009, p.17)
field dislocation left left dislocation field	<a href="http://purl.org/olia/olia.owl#LeftDislocationField">http://purl.org/olia/olia.owl#LeftDislocationField</a>  tag:textal-ign.net,2015:feature:LeftDislocationField	The German Linksversetzungsfeld is a field for the left-dislocated phrase of resumptive constructions. A Linksversetzung is a pendent constituent. It can be regarded as a syntactic anticipation of a part of a sentence (Telljohann et al. 2009, p.16)
field final final field	<a href="http://purl.org/olia/olia.owl#FinalField">http://purl.org/olia/olia.owl#FinalField</a>  tag:textal-ign.net,2015:feature:FinalField	In a German clause, the finite verb can appear in three different positions: verb-second, verb-initial, and verb-final. Only in verb-final clauses the verb complex consisting of the finite verb and non-finite verbal elements forms a unit. The discontinuous positioning of the verbal elements in verb-first and verb-second clauses is the traditional reason for structuring German clauses into fields. The positions of the verbal elements form the Satzklammer (sentence bracket) which divides the sentence into a Vorfeld (initial field), a Mittelfeld (middle field), and a Nachfeld (final field). The Vorfeld and the Mittelfeld are divided by the linke Satzklammer (left sentence bracket), which is the finite verb, the rechte Satzklammer (right sentence bracket) is the verb complex between the Mittelfeld and the Nachfeld. (Telljohann et al. 2009, p.13)
field initial initial field	<a href="http://purl.org/olia/olia.owl#InitialField">http://purl.org/olia/olia.owl#InitialField</a>  tag:textal-ign.net,2015:feature:InitialField	In a German clause, the finite verb can appear in three different positions: verb-second, verb-initial, and verb-final. Only in verb-final clauses the verb complex consisting of the finite

names	IRIs	Comments
		<p>verb and non-finite verbal elements forms a unit. The discontinuous positioning of the verbal elements in verb-first and verb-second clauses is the traditional reason for structuring German clauses into fields. The positions of the verbal elements form the Satzklammer (sentence bracket) which divides the sentence into a Vorfeld (initial field), a Mittelfeld (middle field), and a Nachfeld (final field). The Vorfeld and the Mittelfeld are divided by the linke Satzklammer (left sentence bracket), which is the finite verb, the rechte Satzklammer (right sentence bracket) is the verb complex between the Mittelfeld and the Nachfeld. (Telljohann et al. 2009, p.13)</p> <p>In the canonical sentence, the initial field is the first position in the sentence, hence grouped under Fronting.</p>
<p>field middle middle field</p>	<p><a href="http://purl.org/olia/olia.owl#MiddleField">http://purl.org/olia/olia.owl#MiddleField</a></p> <p>tag:textalign.net,2015:feature:MiddleField</p>	<p>In a German clause, the finite verb can appear in three different positions: verb-second, verb-initial, and verb-final. Only in verb-final clauses the verb complex consisting of the finite verb and non-finite verbal elements forms a unit. The discontinuous positioning of the verbal elements in verb-first and verb-second clauses is the traditional reason for structuring German clauses into fields. The positions of the verbal elements form the Satzklammer (sentence bracket) which divides the sentence into a Vorfeld (initial field), a Mittelfeld (middle field), and a Nachfeld (final field). The Vorfeld and the Mittelfeld are divided by the linke Satzklammer (left sentence bracket), which is the finite verb, the rechte Satzklammer (right sentence bracket) is the verb com-</p>

names	IRIs	Comments
		plex between the Mittelfeld and the Nachfeld. (Telljohann et al. 2009, p.13)
field subordinator subordinator field	<a href="http://purl.org/olia/olia.owl#SubordinatorField">http://purl.org/olia/olia.owl#SubordinatorField</a>  tag:textal-ign.net,2015:feature:SubordinatorField	In the German clause, the PARORD-field is the field for non-coordinating particles which optionally occur as the left-most element of a verb-second clause (Telljohann et al. 2009, p.17)
field topological topological field	<a href="http://purl.org/olia/olia.owl#TopologicalField">http://purl.org/olia/olia.owl#TopologicalField</a>  tag:textal-ign.net,2015:feature:TopologicalField	Topological fields are a descriptive formalism to describe regularities of the makro-structure of sentences, for example, in the traditional description of word order in several Germanic languages (e.g., German, Dutch, Danish). More recently, similar conceptions of topological fields have been further developed in the context of constructivistic grammar formalisms, e.g., Role and Reference Grammar (van Valin and LaPolla 1997).  Telljohann et al. (2009, p.13)
finite with with finite	<a href="http://purl.org/olia/olia.owl#WithFinite">http://purl.org/olia/olia.owl#WithFinite</a>  tag:textal-ign.net,2015:feature:WithFinite	EAGLES  For example, in German the subordinating conjunction "weil" introduces a clause with a finite verb. ( <a href="http://www...[37]...html#oav2u">http://www...[37]...html#oav2u</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annotate/node19.html#oav2u">http://www.ilc.cnr.it/EAGLES96/annotate/node19.html#oav2u</a> ] 17.11.06)
first	<a href="http://purl.org/olia/olia.owl#First">http://purl.org/olia/olia.owl#First</a>  tag:textal-ign.net,2015:feature:First	EAGLES, <a href="http://purl.org/olia/olia.owl#First">http://purl.org/olia/olia.owl#First</a> [ <a href="http://purl.org/olia/olia.owl#First">http://purl.org/olia/olia.owl#First</a> ]  First person deixis is deictic reference that refers to the speaker, or both the speaker and referents grouped with the speaker ( <a href="http://www...[16]...cat/DC-1288">http://www...[16]...cat/DC-1288</a> [ <a href="http://www.iso-cat.org/datcat/DC-1288">http://www.iso-cat.org/datcat/DC-1288</a> ]) cf. gold:First: Refers to the speaker and one or more non-participants, but not hearer(s). Contrasts with First-

names	IRIs	Comments
		PersonInclusive (Crystal 1997: 285). ( <a href="http://pur...[18].../gold/First">http://pur...[18].../gold/First</a> [ <a href="http://purl.org/linguistics/gold/First">http://purl.org/linguistics/gold/First</a> ])
foreign	<a href="http://purl.org/olia/olia.owl#Foreign">http://purl.org/olia/olia.owl#Foreign</a>  tag:textal-ign.net,2015:feature:Foreign	EAGLES Category Residuals with Type="ForeignWord".  A foreign word is a text word which lies outside the traditionally accepted range of grammatical classes, it occurs quite commonly in many texts and very commonly in some. ( <a href="http://www...[34]...e16.html#mr">http://www...[34]...e16.html#mr</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annodate/noder6.html#mr">http://www.ilc.cnr.it/EAGLES96/annodate/noder6.html#mr</a> ] 19.09.06)
form base  base form	<a href="http://purl.org/olia/olia.owl#BaseForm">http://purl.org/olia/olia.owl#BaseForm</a>  tag:textal-ign.net,2015:feature:BaseForm	SUSANNE (Sampson 1995)  Strong inflection is a characteristic of lexemes, not individual tokens. In traditional English tagsets, e.g., SUSANNE or the PennTreeBank tagset, surface ambiguities are normally not resolved. Uninflected forms and forms that have the same form (e.g., "be" as an imperative) are tagged as BaseForm. (Ch. Chiarcos) Since it is impractical (...) to resolve automatically the ambiguity of these six morphological functions, it is a common practice to assign a single value to the base form, or else to assign two values, one for the finite and one for the non-finite functions. Because of this, the tables below show two tagsets: one tagset representing the 6 attribute-values above, and a reduced tagset ('RTags'), which resembles most tagsets so far used for the English language in reducing the six values to two. <a href="http://www...[60]...0000000000">http://www...[60]...0000000000</a> [ <a href="http://www.ilc.cnr.it/EA-GLES96/morphsyn/noder50.html#SECTION00054000000000000000">http://www.ilc.cnr.it/EA-GLES96/morphsyn/noder50.html#SECTION00054000000000000000</a> ] BaseForm is not a characteristic

names	IRIs	Comments
		of lexemes, but specific to certain forms in a complex paradigm.
formula	<p><a href="http://purl.org/olia/olia.owl#Formula">http://purl.org/olia/olia.owl#Formula</a></p> <p>tag:textal-ign.net,2015:feature:Formula</p>	<p>EAGLES category Residual with the attribute Type="Formula".</p> <p>A formula (mathematical formulae) is a text word which lies outside the traditionally accepted range of grammatical classes, it occurs quite commonly in many texts and very commonly in some. (<a href="http://www...[34]...e16.html#mr">http://www...[34]...e16.html#mr</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annodate/noder6.html#mr">http://www.ilc.cnr.it/EAGLES96/annodate/noder6.html#mr</a>] 19.09.06)</p>
fraction	<p><a href="http://purl.org/olia/olia.owl#Fraction">http://purl.org/olia/olia.owl#Fraction</a></p> <p>tag:textal-ign.net,2015:feature:Fraction</p>	<p><a href="http://pur...[37]...talNumeral">http://pur...[37]...talNumeral</a>, [<a href="http://purl.org/olia/mte/multext-east.owl#FractalNumeral">http://purl.org/olia/mte/multext-east.owl#FractalNumeral</a>] <a href="http://pur...[27]...onalNumeral">http://pur...[27]...onalNumeral</a> [<a href="http://purl.org/olia/urdu.owl#FractionalNumeral">http://purl.org/olia/urdu.owl#FractionalNumeral</a>]</p> <p>Numeral/Form="fractional" (Romanian)&lt;br/&gt; In traditional Romanian grammars, FractionalNumeral refers to expressions like treime-one third. (MTE v4, <a href="http://pur...[36]...ctalNumeral">http://pur...[36]...ctalNumeral</a> [<a href="http://purl.org/olia/mte/multext-east.owl#FractalNumeral">http://purl.org/olia/mte/multext-east.owl#FractalNumeral</a>])</p> <p>e.g., <a href="http://pur...[36]...">treisprezecimea/treisprezecime</a>, <a href="http://pur...[36]...">treisprezecimi/treisprezecime</a>, <a href="http://pur...[36]...">treisprezecimii/treisprezecime</a>, <a href="http://pur...[36]...">treisprezecimile/treisprezecime</a>, <a href="http://pur...[36]...">treisprezecimilor/treisprezecime</a>, <a href="http://pur...[36]...">unsprezecimea/unsprezecime</a>, <a href="http://pur...[36]...">unsprezecimi/unsprezecime</a>, <a href="http://pur...[36]...">unsprezecimii/unsprezecime</a>, <a href="http://pur...[36]...">unsprezecimile/unsprezecime</a> (ro, <a href="http://pur...[36]...">http://pur...[36]...</a> <a href="http://purl.org/olia/mte/multext-east.owl#FractalNumeral">ctalNumeral</a> [<a href="http://purl.org/olia/mte/multext-east.owl#FractalNumeral">http://purl.org/olia/mte/multext-east.owl#FractalNumeral</a>])</p>

names	IRIs	Comments
		e.g., <span>بـنـجـمـ/چـهـار يـکـچـهـارم/يـکـيـک</span> (fa, <a href="http://purl.org/olia/mte/multext-east.owl#FractalNumeral">http://purl.org/olia/mte/multext-east.owl#FractalNumeral</a> )
fragment	<a href="http://purl.org/olia/olia.owl#Fragment">http://purl.org/olia/olia.owl#Fragment</a>  tag:textalign.net,2015:feature:Fragment	FRAG marks those portions of text that appear to be clauses, but lack too many essential elements for the exact structure to be easily determined (e.g., answers to questions). Predicate argument structure therefore cannot be extracted from FRAGs. (Bies et al. 1995) Sentence fragments that end with sentence- nal punctuation like Not even an earthquake. should not be bracketed as S, but only with the highest appropriate label in this case, NP. Do not attach such fragments to the preceding or following full sentence. (Santorini 1991)  PTB bracketing guidelines, Santorini 1991, Bies et al. 1995
fronting	<a href="http://purl.org/olia/olia.owl#Fronting">http://purl.org/olia/olia.owl#Fronting</a>  tag:textalign.net,2015:feature:Fronting	T-CODEX (Petrova 2008, <a href="http://purl.org/olia/tcodex.owl#InitialPosition">http://purl.org/olia/tcodex.owl#InitialPosition</a> )  Expression occurs at the left periphery of the sentence. This includes various noncanonical and canonical word order possibilities. (Note that it is not restricted here to noncanonical word order; for noncanonical fronting see subconcepts, e.g., Topicalization.) (Chiarcos)
function syntactic syntactic function	<a href="http://purl.org/olia/olia.owl#SyntacticFunction">http://purl.org/olia/olia.owl#SyntacticFunction</a>  tag:textalign.net,2015:feature:SyntacticFunction	
future	<a href="http://purl.org/olia/olia.owl#Future">http://purl.org/olia/olia.owl#Future</a>	EAGLES, <a href="http://lan...[54]...utureTense">http://lan...[54]...utureTense</a> , [ <a href="http://lan-">http://lan-</a>



names	IRIs	Comments
	tag:textal-ign.net,2015:feature:Future	<p>guagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#futureTense,] <a href="http://pur...[19]...gold/Future">http://pur...[19]...gold/Future</a> [<a href="http://purl.org/linguistics/gold/Future">http://purl.org/linguistics/gold/Future</a>]</p> <p>The future tense refers to events that have yet to happen. (<a href="http://en...[15]...wiki/Future">http://en...[15]...wiki/Future</a> [<a href="http://en.wikipedia.org/wiki/Future">http://en.wikipedia.org/wiki/Future</a>] 17.11.06) The future tense refers to a tense category which places an event in the future. (<a href="http://lan...[53]...futureTense">http://lan...[53]...futureTense</a> [<a href="http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#futureTense">http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#futureTense</a>]) FutureTense locates the situation in question later than the present moment (time of speaking.) (<a href="http://pur...[19]...gold/Future">http://pur...[19]...gold/Future</a> [<a href="http://purl.org/linguistics/gold/Future">http://purl.org/linguistics/gold/Future</a>])</p>
future close close future	<p><a href="http://purl.org/olia/olia.owl#CloseFuture">http://purl.org/olia/olia.owl#CloseFuture</a></p> <p>tag:textal-ign.net,2015:feature:CloseFuture</p>	<p><a href="http://pur...[25]...loseFuture">http://pur...[25]...loseFuture</a>, [<a href="http://purl.org/linguistics/gold/CloseFuture">http://purl.org/linguistics/gold/CloseFuture</a>,] classified as AbsoluteTense here</p> <p>Adopted from GOLD. No definition given.</p>
future hodiernal hodiernal future	<p><a href="http://purl.org/olia/olia.owl#HodiernalFuture">http://purl.org/olia/olia.owl#HodiernalFuture</a></p> <p>tag:textal-ign.net,2015:feature:HodiernalFuture</p>	<p><a href="http://pur...[29]...rnalFuture">http://pur...[29]...rnalFuture</a>, [<a href="http://purl.org/linguistics/gold/HodiernalFuture">http://purl.org/linguistics/gold/HodiernalFuture</a>,] classified as Future here</p> <p>HodiernalFutureTense locates the situation in question after the moment of utterance within the span culturally defined as 'today' (Comrie 1985: 86; Bybee, Perkins, and Pagliuca 1994: 247). (<a href="http://pur...[28]...ernalFuture">http://pur...[28]...ernalFuture</a> [<a href="http://purl.org/linguistics/gold/HodiernalFuture">http://purl.org/linguistics/gold/HodiernalFuture</a>])</p>

names	IRIs	Comments
future hodiernal post post hodiernal future	<p><a href="http://purl.org/olia/olia.owl#PostHodiernalFuture">http://purl.org/olia/olia.owl#PostHodiernalFuture</a></p> <p>tag:textal-ign.net,2015:feature:PostHodiernalFuture</p>	<p><a href="http://purl.org/linguistics/gold/PostHodiernalFuture">http://purl.org/linguistics/gold/PostHodiernalFuture</a>, [http://purl.org/linguistics/gold/PostHodiernalFuture,] classified as Future here</p> <p>PostHodiernalFutureTense locates the situation in question after the span that is culturally defined as 'today' (Bybee, Perkins, and Pagliuca 1994: 247). (<a href="http://purl.org/linguistics/gold/PostHodiernalFuture">http://purl.org/linguistics/gold/PostHodiernalFuture</a>)</p>
future immediate immediate future	<p><a href="http://purl.org/olia/olia.owl#ImmediateFuture">http://purl.org/olia/olia.owl#ImmediateFuture</a></p> <p>tag:textal-ign.net,2015:feature:ImmediateFuture</p>	<p><a href="http://purl.org/linguistics/gold/ImmediateFuture">http://purl.org/linguistics/gold/ImmediateFuture</a> [http://purl.org/linguistics/gold/ImmediateFuture]</p> <p>ImmediateFutureTense, also called 'close future', locates the situation in question shortly after the moment of utterance (Dahl 1985:121; Comrie 1985:94; Bybee, Perkins, and Pagliuca 1994: 244-245). (<a href="http://purl.org/linguistics/gold/ImmediateFuture">http://purl.org/linguistics/gold/ImmediateFuture</a>)</p>
future in future	<p><a href="http://purl.org/olia/olia.owl#FutureInFuture">http://purl.org/olia/olia.owl#FutureInFuture</a></p> <p>tag:textal-ign.net,2015:feature:FutureInFuture</p>	<p><a href="http://purl.org/linguistics/gold/FutureInFuture">http://purl.org/linguistics/gold/FutureInFuture</a>, [http://purl.org/linguistics/gold/FutureInFuture,] classified as absolute-relative tense here.</p> <p>FutureInFutureTense locates the situation in question in the future, relative to a temporal reference point that itself is located in the future relative to the moment of utterance. (<a href="http://purl.org/linguistics/gold/FutureInFuture">http://purl.org/linguistics/gold/FutureInFuture</a>)</p>
future in past	<p><a href="http://purl.org/olia/olia.owl#PastInFuture">http://purl.org/olia/olia.owl#PastInFuture</a></p>	<p><a href="http://purl.org/linguistics/gold/PastInFuture">http://purl.org/linguistics/gold/PastInFuture</a> [http://purl.org/linguistics/gold/PastInFuture]</p>

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:PastInFuture	Locates the situation in question in the future, prior to a reference time in the future.
future near near future	http://purl.org/olia/olia.owl#NearFuture  tag:textal-ign.net,2015:feature:NearFuture	http://pur...[24]...NearFuture, [http://purl.org/linguistics/gold/NearFuture,] classified as Future here  adopted from GOLD, no definition given there (http://pur...[23].../NearFuture [http://purl.org/linguistics/gold/NearFuture])
future remote remote future	http://purl.org/olia/olia.owl#RemoteFuture  tag:textal-ign.net,2015:feature:RemoteFuture	http://pur...[26]...moteFuture, [http://purl.org/linguistics/gold/RemoteFuture,] classified as Future here  RemoteFutureTense locates the situation in question at a time that is considered relatively distant. It is characteristically after the span of time culturally defined as 'tomorrow' (Dahl 1985:121; Comrie 1985:94). (http://pur...[25]...emoteFuture [http://purl.org/linguistics/gold/RemoteFuture])
future simple simple future	http://purl.org/olia/olia.owl#SimpleFuture  tag:textal-ign.net,2015:feature:SimpleFuture	http://pur...[20]...old/Future, [http://purl.org/linguistics/gold/Future,] cf. http://pur...[17]...s/gold/Past [http://purl.org/linguistics/gold/Past]  FutureTense locates the situation in question after the present moment, with no specification on the distance in time. (adapted from the definition of http://pur...[17]...s/gold/Past [http://purl.org/linguistics/gold/Past])
gapping	http://purl.org/olia/olia.owl#Gapping	PTB bracketing guidelines (Santorini 1991)  The term "gapping" refers to a form of coordination in which

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:Gapping	the coordinated phrases after the rst are incomplete. For instance, the gapped equivalent of the full coordination structure in (@r8a) is given in ( r8b). ( r8) a. Mary likes Bach and Susan likes Beethoven. b. Mary likes Bach and Susan, Beethoven. Gapped sequences like Susan, Beethoven should be labelled X. On the other hand, while coordination constructions containing gapped sequences involve coordination of unlike categories, it is clear that the entire coordination structure is a clause; hence, it should be labelled S. (Santorini 1991)
gender animate animate gender	http://purl.org/olia/olia.owl#AnimateGender  tag:textal-ign.net,2015:feature:AnimateGender	http://pur...[20]...old/Animate [http://purl.org/linguistics/gold/Animate]  One of the two grammatical genders, or classes of nouns, the other being inanimate. Membership in the animate grammatical class is largely based on meanings, in that living things, including humans, animals, spirits, trees, and most plants are included in the animate class of nouns (Valentine 2001: 114). (http://pur...[20]...old/Animate [http://purl.org/linguistics/gold/Animate])
gender common common gender	http://purl.org/olia/olia.owl#CommonGender  tag:textal-ign.net,2015:feature:CommonGender	EAGLES  Common is an optional attribute for nouns in EAGLES. The Common gender contrasts with Neuter in a two-gender system e.g. Danish, Dutch. This value is also used for articles, pronouns and determiners especially for Danish. (http://www...[38]...html#oav2at [http://www.ilc.cnr.it/EAGLES96/annotate/node19.html#oav2at] 17.11.06)

names	IRIs	Comments
<p>gender inanimate inanimate gender</p>	<p><a href="http://purl.org/olia/olia.owl#InanimateGender">http://purl.org/olia/olia.owl#InanimateGender</a></p> <p>tag:textal-ign.net,2015:feature:InanimateGender</p>	<p><a href="http://purl.org/linguistics/gold/Inanimate">http://purl.org/linguistics/gold/Inanimate</a> [http://purl.org/linguistics/gold/Inanimate]</p> <p>One of the two grammatical genders, or noun classes, of Nishnaabemwin, the other being animate. Membership in the inanimate grammatical class is largely based on meaning, in that non-living things, such as objects of manufacture and natural 'non-living' things are included in it (Valentine 2001: 114). (<a href="http://purl.org/linguistics/gold/Inanimate">http://purl.org/linguistics/gold/Inanimate</a> [http://purl.org/linguistics/gold/Inanimate])</p>
<p>gerund</p>	<p><a href="http://purl.org/olia/olia.owl#Gerund">http://purl.org/olia/olia.owl#Gerund</a></p> <p>tag:textal-ign.net,2015:feature:Gerund</p>	<p>EAGLES NonFiniteVerb with VerbForm="Gerund"; <a href="http://www.iso.org/iso/catalogue正面/DC-2243">http://www.iso.org/iso/catalogue正面/DC-2243</a> [http://www.iso.org/iso/catalogue正面/DC-2243] (gerundive)</p> <p>property for a non-finite form of a verb other than the infinitive. (<a href="http://www.iso.org/iso/catalogue正面/DC-2243">http://www.iso.org/iso/catalogue正面/DC-2243</a> [http://www.iso.org/iso/catalogue正面/DC-2243]) A gerund is a kind of verbal noun that exists in some languages. In today's English, gerunds are nouns built from a verb with an 'ing' suffix. They can be used as the subject of a sentence, an object, or an object of preposition. They can also be used to complement a subject. Often, gerunds exist side-by-side with nouns that come from the same root but the gerund and the common noun have different shades of meaning. (<a href="http://en.wikipedia.org/wiki/Gerund">http://en.wikipedia.org/wiki/Gerund</a>, [http://en.wikipedia.org/wiki/Gerund,] <a href="http://en.wikibooks.org/wiki/English:Gerund">http://en.wikibooks.org/wiki/English:Gerund</a> [http://en.wikibooks.org/wiki/English:Gerund] 19.09.06) The term <code>gerund</code> is ambiguous: with respect to Latin, in whose gram-</p>

names	IRIs	Comments
		<p>mational tradition it originates, it refers to a deverbal noun, and is needed in this function for Polish as well; in descriptions of some other languages, however, it has been used for an adverbial participle. The two meanings have nothing in common, except that the English <i>.ing-</i> form can translate both. (Ivan A Derzhanski, email 2010/06/09) Here, it is assumed that Gerund refers only to deverbal nouns, cf. <code>NominalNonfiniteVerb</code> in the IIIT tagset (<a href="http://purl.org/olia/iiit.owl#NominalNonFiniteVerb">http://purl.org/olia/iiit.owl#NominalNonFiniteVerb</a>)</p> <p>cf. ILPOSTS <code>NominalParticiple</code>, for Indian languages, there in contrast with <code>AdjectivalParticiple</code>, <code>AdverbialParticiple</code> and <code>ConditionalParticiple</code>, but no definition provided. (<a href="http://purl.org/olia/ilposts.owl#NominalParticiple">http://purl.org/olia/ilposts.owl#NominalParticiple</a>)</p>
head	<p><a href="http://purl.org/olia/olia.owl#Head">http://purl.org/olia/olia.owl#Head</a></p> <p>tag:textalign.net,2015:feature:Head</p>	<p>TIGER edge label HD, definition according to Penn Treebank Bracketing Guidelines (Santorini 1991)</p> <p>Heads are single words that function as the nucleus of a phrase. For instance, the head of the noun phrase <i>John's book</i> is <i>book</i>. <i>Book</i> is also the head of the more complex noun phrase <i>that interesting book that you were telling me about the other day</i>. The head of the verb phrase <i>telling me about the other day</i> is <i>telling</i>. The head of a prepositional phrase is the preposition. (Santorini 1991)</p> <p>TIGER edge label HD</p>

names	IRIs	Comments
head verbal verbal head	<a href="http://purl.org/olia/olia.owl#VerbalHead">http://purl.org/olia/olia.owl#VerbalHead</a>  tag:textal-ign.net,2015:feature:VerbalHead	A Verb (V) at the syntax layer is either a lexical (VLEX) or a copula verb (VCOP) at the POS layer. Modal verbs and auxiliaries are not annotated in the constituent structure. The verb and its arguments are placed at the same CS <sub>n</sub> layer. Raising and control verbs are treated like ordinary verbs. They subcategorize for a sentential complement. (Dipper et al 2007, §3.3.3)  added in conformance with the SFB632 Annotation Guidelines (Dipper et al. 2007)
headline	<a href="http://purl.org/olia/olia.owl#Headline">http://purl.org/olia/olia.owl#Headline</a>  tag:textal-ign.net,2015:feature:Headline	-HLN (headline) — marks headlines and datelines. Note that headlines and datelines always constitute a unit of text that is structurally independent from the following sentence. (Bies et al. 1995)  PTB bracketing guidelines, Bies et al. 1995
honorific	<a href="http://purl.org/olia/olia.owl#Honorific">http://purl.org/olia/olia.owl#Honorific</a>  tag:textal-ign.net,2015:feature:Honorific	<a href="http://www...[16]...cat/DC-2347">http://www...[16]...cat/DC-2347</a> [ <a href="http://www.isocat.org/datcat/DC-2347">http://www.isocat.org/datcat/DC-2347</a> ]  special form of language used when talking about those in positions of social situation ( <a href="http://www...[16]...cat/DC-2347">http://www...[16]...cat/DC-2347</a> [ <a href="http://www.isocat.org/datcat/DC-2347">http://www.isocat.org/datcat/DC-2347</a> ])
honorific non second second non honorific	<a href="http://purl.org/olia/olia.owl#SecondNonHonorific">http://purl.org/olia/olia.owl#SecondNonHonorific</a>  tag:textal-ign.net,2015:feature:SecondNonHonorific	Adopted from ILPOSTS for Indian languages, <a href="http://purl.org/olia/ilposts.owl#NonHonorific">http://purl.org/olia/ilposts.owl#NonHonorific</a> [ <a href="http://purl.org/olia/ilposts.owl#NonHonorific">http://purl.org/olia/ilposts.owl#NonHonorific</a> ]  TOCHECK: is SecondNonHonorific different from SecondFamiliar?
honorific second second honorific	<a href="http://purl.org/olia/olia.owl#SecondHonorific">http://purl.org/olia/olia.owl#SecondHonorific</a>	Adopted from ILPOSTS for Indian languages, <a href="http://purl.org/olia/ilposts.owl#Honorific">http://purl.org/olia/ilposts.owl#Honorific</a> [ <a href="http://purl.org/olia/ilposts.owl#Honorific">http://purl.org/olia/ilposts.owl#Honorific</a> ]

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:SecondHonorific	TOCHECK: is SecondHonorific different from SecondPolite?
human	http://purl.org/olia/olia.owl#Human tag:textal-ign.net,2015:feature:Human	http://pur...[27]...t.owl#Human [http://purl.org/olia/mte/multext-east.owl#Human]
hyphen	http://purl.org/olia/olia.owl#Hyphen tag:textal-ign.net,2015:feature:Hyphen	http://www...[16]...cat/DC-2077 [http://www.isocat.org/datcat/DC-2077] Punctuation that is graphically presented as ””. (http://www...[16]...cat/DC-2077 [http://www.isocat.org/datcat/DC-2077])
image	http://purl.org/olia/olia.owl#Image tag:textal-ign.net,2015:feature:Image	http://www...[16]...cat/DC-2249 [http://www.isocat.org/datcat/DC-2249] graphical representation (http://www...[16]...cat/DC-2249 [http://www.isocat.org/datcat/DC-2249])
imperfect	http://purl.org/olia/olia.owl#Imperfect tag:textal-ign.net,2015:feature:Imperfect	http://www...[16]...cat/DC-1304 [http://www.isocat.org/datcat/DC-1304] Verb tense that refers to action in the past that is incomplete or ongoing. (www.southwestern.edu/~carlg/LatinWeb/glossary.html; http://www...[16]...cat/DC-1304 [http://www.isocat.org/datcat/DC-1304]) subClassOf grammaticalTense (dcif:conceptualDomain)
inanimate	http://purl.org/olia/olia.owl#Inanimate tag:textal-ign.net,2015:feature:Inanimate	http://www...[16]...cat/DC-1952 [http://www.isocat.org/datcat/DC-1952] Perceived as not living. (ISO12620; http://www...[16]...cat/DC-1952 [http://



names	IRIs	Comments
		<p><a href="http://www.isocat.org/datcat/DC-1952">www.isocat.org/datcat/DC-1952</a>)</p> <p>subClassOf animacy (dcif:conceptualDomain)</p>
inclusion zu zu inclusion	<p><a href="http://purl.org/olia/olia.owl#zuInclusion">http://purl.org/olia/olia.owl#zuInclusion</a></p> <p>tag:textal-ign.net,2015:feature:zuInclusion</p>	<p><a href="http://www...[16]...cat/DC-1954">http://www...[16]...cat/DC-1954</a> [<a href="http://www.isocat.org/datcat/DC-1954">http://www.isocat.org/datcat/DC-1954</a>]</p> <p>Inclusion of zu. (DFKI; <a href="http://www...[16]...cat/DC-1954">http://www...[16]...cat/DC-1954</a> [<a href="http://www.isocat.org/datcat/DC-1954">http://www.isocat.org/datcat/DC-1954</a>])</p>
inclusive	<p><a href="http://purl.org/olia/olia.owl#Inclusive">http://purl.org/olia/olia.owl#Inclusive</a></p> <p>tag:textal-ign.net,2015:feature:Inclusive</p>	
inclusive first first inclusive	<p><a href="http://purl.org/olia/olia.owl#FirstInclusive">http://purl.org/olia/olia.owl#FirstInclusive</a></p> <p>tag:textal-ign.net,2015:feature:FirstInclusive</p>	<p><a href="http://pur...[28]...tInclusive">http://pur...[28]...tInclusive</a>, [<a href="http://purl.org/linguistics/gold/FirstInclusive">http://purl.org/linguistics/gold/FirstInclusive</a>,] modelled here as subconcept of First</p> <p>Refers to the speaker, hearer(s) and possibly others. Contrasts with FirstPersonExclusive (Crystal 1997: 285). (<a href="http://pur...[27]...stInclusive">http://pur...[27]...stInclusive</a> [<a href="http://purl.org/linguistics/gold/FirstInclusive">http://purl.org/linguistics/gold/FirstInclusive</a>])</p>
indefinite	<p><a href="http://purl.org/olia/olia.owl#Indefinite">http://purl.org/olia/olia.owl#Indefinite</a></p> <p>tag:textal-ign.net,2015:feature:Indefinite</p>	<p>EAGLES, <a href="http://lan...[52]...#indefinite">http://lan...[52]...#indefinite</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#indefinite">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#indefinite</a>]</p> <p>An entity is specified as indefinite when it refers to a non-particularized individual of the species denoted by the noun. (<a href="http://lan...[52]...#indefinite">http://lan...[52]...#indefinite</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#indefinite">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#indefinite</a>]) Indefinite noun phrases are used to refer to entities which are not specific and identifiable in a</p>

names	IRIs	Comments
		given context. ( <a href="http://en...[21]...efiniteness">http://en...[21]...efiniteness</a> [ <a href="http://en.wikipedia.org/wiki/Definiteness">http://en.wikipedia.org/wiki/Definiteness</a> ] 20.11.06)
infinite with with infinite	<a href="http://purl.org/olia/olia.owl#WithInfinite">http://purl.org/olia/olia.owl#WithInfinite</a>  tag:textal-ign.net,2015:feature:WithInfinite	EAGLES  For example, in German the subordinating conjunction "ohne" ("zu"... ) is followed by an infinitive. ( <a href="http://www...[37]...html#oav2u">http://www...[37]...html#oav2u</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annotate/noder9.html#oav2u">http://www.ilc.cnr.it/EAGLES96/annotate/noder9.html#oav2u</a> ] 17.11.06)
infinite with conjunction subordinating subordinating conjunction with infinite	<a href="http://purl.org/olia/olia.owl#SubordinatingConjunctionWithInfinite">http://purl.org/olia/olia.owl#SubordinatingConjunctionWithInfinite</a>  tag:textal-ign.net,2015:feature:SubordinatingConjunctionWithInfinite	EAGLES  For example, in German the subordinating conjunction "ohne" ("zu"... ) is followed by an infinitive. ( <a href="http://www...[37]...html#oav2u">http://www...[37]...html#oav2u</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annotate/noder9.html#oav2u">http://www.ilc.cnr.it/EAGLES96/annotate/noder9.html#oav2u</a> ] 17.11.06)
infinitive	<a href="http://purl.org/olia/olia.owl#Infinitive">http://purl.org/olia/olia.owl#Infinitive</a>  tag:textal-ign.net,2015:feature:Infinitive	EAGLES NonFiniteVerbs with VerbForm="Infinitive"  An infinitive is the base form of a verb. It is unmarked for inflectional categories such as the following: Aspect, Modality, Number, Person and Tense. ( <a href="http://www...[59]...initive.htm">http://www...[59]...initive.htm</a> [ <a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAnInfinitive.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAnInfinitive.htm</a> ] 19.09.06)
infinitive embedded embedded infinitive	<a href="http://purl.org/olia/olia.owl#EmbeddedInfinitive">http://purl.org/olia/olia.owl#EmbeddedInfinitive</a>  tag:textal-ign.net,2015:feature:EmbeddedInfinitive	<a href="http://lan...[63]...tiveAsHead">http://lan...[63]...tiveAsHead</a> , [ <a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#withInfinitiveAsHead">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#withInfinitiveAsHead</a> ,] <a href="http://pur...[29]...tivalClause">http://pur...[29]...tivalClause</a> [ <a href="http://purl.org/olia/tcodex.owl#InfinitivalClause">http://purl.org/olia/tcodex.owl#InfinitivalClause</a> ]  An infinitive is the head of the embedded construction. ( <a href="http://lan...[62]">http://lan...[62]</a> )

names	IRIs	Comments
		...itiveAsHead [ <a href="http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#withInfinitiveAsHead">http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#withInfinitiveAsHead</a> ] Infinitival relatives. See section 14 [Infinitives] for more information. (NP (NP a movie) (SBAR (WHNP-1 o) (S (NP-SBJ *) (VP to (VP see (NP *T*-1)))))) (Bies et al. 1995)
infix	<a href="http://purl.org/olia/olia.owl#Infix">http://purl.org/olia/olia.owl#Infix</a>  tag:textal-ign.net,2015:feature:Infix	<a href="http://www...[16]...cat/DC-1313">http://www...[16]...cat/DC-1313</a> [ <a href="http://www.isocat.org/datcat/DC-1313">http://www.isocat.org/datcat/DC-1313</a> ]  Affix inserted in the middle of a word to change its meaning or part of speech value. (Sue Ellen Wright; <a href="http://www...[16]...cat/DC-1313">http://www...[16]...cat/DC-1313</a> [ <a href="http://www.isocat.org/datcat/DC-1313">http://www.isocat.org/datcat/DC-1313</a> ])
inflected	<a href="http://purl.org/olia/olia.owl#Inflected">http://purl.org/olia/olia.owl#Inflected</a>  tag:textal-ign.net,2015:feature:Inflected	Chiarcos  see subclasses
inflection mixed mixed inflection	<a href="http://purl.org/olia/olia.owl#MixedInflection">http://purl.org/olia/olia.owl#MixedInflection</a>  tag:textal-ign.net,2015:feature:MixedInflection	EAGLES  German mixed inflection takes its name from the fact that it has endings from both the strong inflection and the weak inflection. The mixed inflection is used after the indefinite article "ein" and after "irgendein" e.g. "(irgend) ein kleines Kind", after "kein" or after possessive pronouns e.g. "ihr kleines Kind". ( <a href="http://www...[83]...Id=Word3132">http://www...[83]...Id=Word3132</a> [ <a href="http://www.canoo.net/services/OnlineGrammar/Wort/Adjektiv/Deklinationstyp/Gemischt.html?MenuId=Word3132">http://www.canoo.net/services/OnlineGrammar/Wort/Adjektiv/Deklinationstyp/Gemischt.html?MenuId=Word3132</a> ] 20.11.06) Mixed inflection is a characteristic of lexemes, not individual tokens.

names	IRIs	Comments
inflection nonreduced nonreduced inflection	<a href="http://purl.org/olia/olia.owl#NonreducedInflection">http://purl.org/olia/olia.owl#NonreducedInflection</a>  tag:textal-ign.net,2015:feature:NonreducedInflection	<a href="http://purl.org/olia/mte/multext-east.owl#CompoundAdjective">http://purl.org/olia/mte/multext-east.owl#CompoundAdjective</a>  Nonreduced adjective inflection of Slavic languages, e.g., Czech nejubožejšími/ubohý, nejevštějšími/vyšší, nejvyššími/vysoký, nejvznešenějšími/vznešený, nejvážnějšími/vážný, nejvýznamnějšími/významný, nejvýznamnějšími/významný, nejvýznamnějšími/významný, největšími/velký ( <a href="http://purl.org/olia/mte/multext-east.owl#CompoundAdjective">http://purl.org/olia/mte/multext-east.owl#CompoundAdjective</a> )
inflection reduced reduced inflection	<a href="http://purl.org/olia/olia.owl#ReducedInflection">http://purl.org/olia/olia.owl#ReducedInflection</a>  tag:textal-ign.net,2015:feature:ReducedInflection	<a href="http://purl.org/olia/mte/multext-east.owl#NominalAdjective">http://purl.org/olia/mte/multext-east.owl#NominalAdjective</a>  Reduced adjective inflection of Slavic languages, e.g., Czech e.g., brillská/brillský, neznámo/neznámý, samo/sám, samy/sám ( <a href="http://purl.org/olia/mte/multext-east.owl#NominalAdjective">http://purl.org/olia/mte/multext-east.owl#NominalAdjective</a> )
inflection strong strong inflection	<a href="http://purl.org/olia/olia.owl#StrongInflection">http://purl.org/olia/olia.owl#StrongInflection</a>  tag:textal-ign.net,2015:feature:StrongInflection	EAGLES  In German (and other Germanic languages), when gender, number and case are not expressed by a determiner, the adjective takes the endings of the strong inflection. ( <a href="http://www.canoo.net/services/OnlineGrammar/Wort/Adjektiv/Deklinationstyp/Stark.html">http://www.canoo.net/services/OnlineGrammar/Wort/Adjektiv/Deklinationstyp/Stark.html</a> ) 20.11.06 Strong inflection is a character-

names	IRIs	Comments
		istic of lexemes, not individual tokens.
inflection weak weak inflection	<a href="http://purl.org/olia/olia.owl#WeakInflection">http://purl.org/olia/olia.owl#WeakInflection</a>  tag:textal-ign.net,2015:feature:WeakInflection	EAGLES  German adjectives take the endings of the weak inflection when a determiner expresses number, gender and case. The weak adjective inflection has only two endings: -e and -en. ( <a href="http://www...[66]...chwach.html">http://www...[66]...chwach.html</a> [ <a href="http://www.canoo.net/services/OnlineGrammar/Wort/Adjektiv/Deklinationstyp/Schwach.html">http://www.canoo.net/services/OnlineGrammar/Wort/Adjektiv/Deklinationstyp/Schwach.html</a> ] 20.11.06) In other Germanic languages, similar systems exist. Weak inflection is a characteristic of lexemes, not individual tokens.
initial	<a href="http://purl.org/olia/olia.owl#Initial">http://purl.org/olia/olia.owl#Initial</a>  tag:textal-ign.net,2015:feature:Initial	EAGLES  When two distinct words occur, as in German "weder...noch...", then the first is given the Initial value. ( <a href="http://www...[38]...html#oav1av">http://www...[38]...html#oav1av</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oaviav">http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oaviav</a> ] 17.11.06)
initial non non initial	<a href="http://purl.org/olia/olia.owl#NonInitial">http://purl.org/olia/olia.owl#NonInitial</a>  tag:textal-ign.net,2015:feature:NonInitial	EAGLES  When two distinct words occur, as in German weder...noch..., then the second is given the Non-initial value. ( <a href="http://www...[38]...html#oav1av">http://www...[38]...html#oav1av</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oaviav">http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oaviav</a> ] 17.11.06)
initialism	<a href="http://purl.org/olia/olia.owl#Initialism">http://purl.org/olia/olia.owl#Initialism</a>  tag:textal-ign.net,2015:feature:Initialism	adopted from ubyPos.owl
interjection	<a href="http://purl.org/olia/olia.owl#Interjection">http://purl.org/olia/olia.owl#Interjection</a>	EAGLES top-level category Interjection (I).

names	IRIs	Comments
	<p>tag:textal-ign.net,2015:feature:Interjection</p> <p>http://dbpedia.org/resource/Interjection</p>	<p>An interjection is a form, typically brief, such as one syllable or word, which is used most often as an exclamation or part of an exclamation. It typically expresses an emotional reaction, often with respect to an accompanying sentence and may include a combination of sounds not otherwise found in the language, e.g. in English: psst; ugh; well, well (<a href="http://www...[61]...jection.htm">http://www...[61]...jection.htm</a> [<a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAnInterjection.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAnInterjection.htm</a>] 19.09.06)</p>
intransitive	<p>http://purl.org/olia/olia.owl#Intransitive</p> <p>tag:textal-ign.net,2015:feature:Intransitive</p>	<p>SUSANNE (Sampson 1995)</p> <p>A predicate/verb that takes one argument, e.g., English "to go", cf. van Valin and Lapolla (1997).</p>
inverse order word word order inverse	<p>http://purl.org/olia/olia.owl#WordOrderInverse</p> <p>tag:textal-ign.net,2015:feature:WordOrderInverse</p>	<p>PTB bracketing guidelines (Santorini 1991, Bies et al. 1995)</p> <p>SINV Inverted declarative sentence, i.e. one in which the subject follows the verb. See Section 5.19. (Santorini 1991) The SINV label is used for subject-auxiliary inversion in the case of negative inversion, conditional inversion, locative inversion, and some topicalizations. ... SINV â' Inverted declarative sentence, i.e. one in which the subject follows the tensed verb or modal. (Bies et al. 1995)</p>
letter	<p>http://purl.org/olia/olia.owl#Letter</p> <p>tag:textal-ign.net,2015:feature:Letter</p>	<p><a href="http://www...[16]...cat/DC-1889">http://www...[16]...cat/DC-1889</a> [<a href="http://www.isocat.org/datcat/DC-1889">http://www.isocat.org/datcat/DC-1889</a>]</p> <p>Letter. (<a href="http://www...[16]...cat/DC-1889">http://www...[16]...cat/DC-1889</a> [<a href="http://www.isocat.org/datcat/DC-1889">http://www.isocat.org/datcat/DC-1889</a>])</p>
lexeme	<p>http://purl.org/olia/olia.owl#Lexeme</p>	<p><a href="http://www...[16]...cat/DC-1325">http://www...[16]...cat/DC-1325</a> [<a href="http://www.isocat.org/datcat/DC-1325">http://www.isocat.org/datcat/DC-1325</a>]</p>

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:Lexeme	Minimal unit of language which : has a semantic interpretation and embodies a distinct cultural concept. (www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsALexeme.htm; http://www...[16]...cat/DC-1325 [http://www.isocat.org/datcat/DC-1325])
macron	http://purl.org/olia/olia.owl#Macron  tag:textal-ign.net,2015:feature:Macron	http://www...[16]...cat/DC-1327 [http://www.isocat.org/datcat/DC-1327]  Mark placed over a long vowel to mark quantity. (www.southwestern.edu/~carlg/LatinWeb/glossary.html; http://www...[16]...cat/DC-1327 [http://www.isocat.org/datcat/DC-1327])
mark question question mark	http://purl.org/olia/olia.owl#QuestionMark  tag:textal-ign.net,2015:feature:QuestionMark	http://www...[16]...cat/DC-1444 [http://www.isocat.org/datcat/DC-1444]  Sign used to express a question. (http://www...[16]...cat/DC-1444 [http://www.isocat.org/datcat/DC-1444])  subClassOf partOfSpeech (dcif:conceptualDomain)
mark question inverted inverted question mark	http://purl.org/olia/olia.owl#InvertedQuestionMark  tag:textal-ign.net,2015:feature:InvertedQuestionMark	http://www...[16]...cat/DC-2088 [http://www.isocat.org/datcat/DC-2088]  Punctuation used in certain languages at the beginning of an interrogative sentence. (http://www...[16]...cat/DC-2088 [http://www.isocat.org/datcat/DC-2088])
marker discourse discourse marker	http://purl.org/olia/olia.owl#DiscourseMarker	Introduced in accordance with the TIGER and TüBa-D/Z annotation schemes (syntactic edge label)

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:DiscourseMarker	Generally, discourse markers are expressions or phrases of greeting, apologizing, thanking, short emotional utterances, and interjections. Their node label is DM. ... Typical discourse markers are: ja, nein, hallo, oh, aha, pst, nunja, gewiß, toll, nun ja, etc. (Telljohann et al. 2009, p. 136)
marker list list marker	http://purl.org/olia/olia.owl#ListMarker  tag:textal-ign.net,2015:feature:ListMarker	PTB bracketing guidelines, Bies et al. 1995)  LST — List marker. (Bies et al. 1995)
marker overt with inflected inflected with overt marker	http://purl.org/olia/olia.owl#Inflected-WithOvertMarker  tag:textal-ign.net,2015:feature:InflectedWithOvertMarker	Chiarcos, motivated by Base-Form in SUSANNE (Sampson 1995) and related schemes; cf. http://pur...[27]...ed-ForGender [http://purl.org/olia/emille.owl#MarkedForGender]  An inflected form with overt morphological marking (as opposed to the base form and lexemes that do not inflect at all).
masculine	http://purl.org/olia/olia.owl#Masculine  tag:textal-ign.net,2015:feature:Masculine	EAGLES, http://lan...[57]...ulineGender [http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#masculineGender]  Masculine gender is a grammatical gender that marks nouns, articles, pronouns, etc. having human or animal male referents, and often marks nouns having referents that do not have distinctions of sex. (http://www...[62]...eGender.htm [http://www.sil.org/linguistics/glossaryoflinguisticterms/WhatIsMasculine-Gender.htm] 17.II.06)
middle deponent deponent middle	http://purl.org/olia/olia.owl#DeponentMiddle	http://pur...[27]...onentMiddle [http://purl.org/linguistics/gold/DeponentMiddle]



names	IRIs	Comments
	tag:textal-ign.net,2015:feature:DeponentMiddle	Action denotes physical/mental disposition of subject. (Siewierska 1988:257) ( <a href="http://pur...[27]...onentMiddle">http://pur...[27]...onentMiddle</a> [ <a href="http://purl.org/linguistics/gold/DeponentMiddle">http://purl.org/linguistics/gold/DeponentMiddle</a> ])
middle nucleonic nucleonic middle	<a href="http://purl.org/olia/olia.owl#NucleonicMiddle">http://purl.org/olia/olia.owl#NucleonicMiddle</a>  tag:textal-ign.net,2015:feature:NucleonicMiddle	<a href="http://pur...[28]...eonicMiddle">http://pur...[28]...eonicMiddle</a> [ <a href="http://purl.org/linguistics/gold/NucleonicMiddle">http://purl.org/linguistics/gold/NucleonicMiddle</a> ]  Object of action belongs to. Moves into, or moves from sphere of subject. (Siewierska 1988:257) ( <a href="http://pur...[28]...eonicMiddle">http://pur...[28]...eonicMiddle</a> [ <a href="http://purl.org/linguistics/gold/NucleonicMiddle">http://purl.org/linguistics/gold/NucleonicMiddle</a> ])
middle plain plain middle	<a href="http://purl.org/olia/olia.owl#PlainMiddle">http://purl.org/olia/olia.owl#PlainMiddle</a>  tag:textal-ign.net,2015:feature:PlainMiddle	<a href="http://pur...[24]...PlainMiddle">http://pur...[24]...PlainMiddle</a> [ <a href="http://purl.org/linguistics/gold/PlainMiddle">http://purl.org/linguistics/gold/PlainMiddle</a> ]  Results of action occur to subject. (Siewierska 1988:257) ( <a href="http://pur...[24]...PlainMiddle">http://pur...[24]...PlainMiddle</a> [ <a href="http://purl.org/linguistics/gold/PlainMiddle">http://purl.org/linguistics/gold/PlainMiddle</a> ])
middle reciprocal reciprocal middle	<a href="http://purl.org/olia/olia.owl#ReciprocalMiddle">http://purl.org/olia/olia.owl#ReciprocalMiddle</a>  tag:textal-ign.net,2015:feature:ReciprocalMiddle	<a href="http://pur...[29]...rocalMiddle">http://pur...[29]...rocalMiddle</a> [ <a href="http://purl.org/linguistics/gold/ReciprocalMiddle">http://purl.org/linguistics/gold/ReciprocalMiddle</a> ]  Referents of plural subject do action to one another. (Siewierska 1988:257) ( <a href="http://pur...[29]...rocalMiddle">http://pur...[29]...rocalMiddle</a> [ <a href="http://purl.org/linguistics/gold/ReciprocalMiddle">http://purl.org/linguistics/gold/ReciprocalMiddle</a> ])
middle reflexive reflexive middle	<a href="http://purl.org/olia/olia.owl#ReflexiveMiddle">http://purl.org/olia/olia.owl#ReflexiveMiddle</a>  tag:textal-ign.net,2015:feature:ReflexiveMiddle	<a href="http://pur...[29]...xiveMiddle">http://pur...[29]...xiveMiddle</a> , [ <a href="http://purl.org/linguistics/gold/ReflexiveMiddle">http://purl.org/linguistics/gold/ReflexiveMiddle</a> ], but the definition given there ("Subjects perform action to self") may be oversimplistic as it entails that ReflectiveMiddle is the *same* as Reflexive. In my current understanding, reflexive mid-

names	IRIs	Comments
		<p>dle is a middle construction that makes use of grammatical devices that normally indicate reflexivity, cf. the definition of ReflexivePassive. The definition given below is a generalization that covers the original definition as well.</p> <p>TODO: Check Siewierska (1988:257)</p> <p>Reflexive middle makes use of grammatical devices that normally indicate reflexivity. (Ch. Chiarcos)</p>
<p>modality abilitative</p> <p>abilitative modality</p>	<p><a href="http://purl.org/olia/olia.owl#AbilitativeModality">http://purl.org/olia/olia.owl#AbilitativeModality</a></p> <p>tag:textal-ign.net,2015:feature:AbilitativeModality</p>	<p>Adopted from ILPOSTS (for Indian languages), <a href="http://pur...[28]...itativeMood">http://pur...[28]...itativeMood</a> [<a href="http://purl.org/olia/ilposts.owl#AbilitativeMood">http://purl.org/olia/ilposts.owl#AbilitativeMood</a>]</p> <p>modality expressed by AbilitativeMood: Abilitative is a mood that indicates ability, comparable to the use of "can" in English. (<a href="http://zbb...[30]...f=7&amp;t=34901">http://zbb...[30]...f=7&amp;t=34901</a> [<a href="http://zbb.spinnwebe.com/view-topic.php?f=7&amp;t=34901">http://zbb.spinnwebe.com/view-topic.php?f=7&amp;t=34901</a>])</p>
<p>modality actional</p> <p>actional modality</p>	<p><a href="http://purl.org/olia/olia.owl#ActionalModality">http://purl.org/olia/olia.owl#ActionalModality</a></p> <p>tag:textal-ign.net,2015:feature:ActionalModality</p>	
<p>modality admonitive</p> <p>admonitive modality</p>	<p><a href="http://purl.org/olia/olia.owl#AdmonitiveModality">http://purl.org/olia/olia.owl#AdmonitiveModality</a></p> <p>tag:textal-ign.net,2015:feature:AdmonitiveModality</p>	<p><a href="http://lan...[60]...iveModality">http://lan...[60]...iveModality</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#admonitiveModality">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#admonitiveModality</a>]</p> <p>Expression of warning (Bybee 1985:22) (<a href="http://lan...[60]...iveModality">http://lan...[60]...iveModality</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#admonitiveModality">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#admonitiveModality</a>])</p>

names	IRIs	Comments
modality causal causal modality	<a href="http://purl.org/olia/olia.owl#CausalModality">http://purl.org/olia/olia.owl#CausalModality</a>  tag:textal-ign.net,2015:feature:CausalModality	Nowak (1996)  In Inuktitut, causality is expressed by verbal inflection. Causal mood signifies causal relationships in a sentence. (Nowak 1996, p.39) Elke Nowak (1996), Transforming the images: Ergativity and transitivity in Inuktitut (Eskimo). Walter de Gruyter, Berlin.
modality conditional conditional modality	<a href="http://purl.org/olia/olia.owl#ConditionalModality">http://purl.org/olia/olia.owl#ConditionalModality</a>  tag:textal-ign.net,2015:feature:ConditionalModality	<a href="http://www...[16]...cat/DC-1258">http://www...[16]...cat/DC-1258</a> [ <a href="http://www.isocat.org/datcat/DC-1258">http://www.isocat.org/datcat/DC-1258</a> ]  In Inuktitut, conditionality is expressed by verbal inflection. Conditional mood signifies conditional relationships in a sentence. (Nowak 1996, p.39) A conditional relation is a logical relation in which the illocutionary act employing one of a pair of propositions is expressed or implied to be true or in force if the other proposition is true. ( <a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAConditionalRelation.htm">www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAConditionalRelation.htm</a> ; <a href="http://www...[16]...cat/DC-1258">http://www...[16]...cat/DC-1258</a> [ <a href="http://www.isocat.org/datcat/DC-1258">http://www.isocat.org/datcat/DC-1258</a> ]) Elke Nowak (1996), Transforming the images: Ergativity and transitivity in Inuktitut (Eskimo). Walter de Gruyter, Berlin.  subClassOf verbFormMood (dcif:conceptualDomain)
modality declarative declarative modality	<a href="http://purl.org/olia/olia.owl#DeclarativeModality">http://purl.org/olia/olia.owl#DeclarativeModality</a>  tag:textal-ign.net,2015:feature:DeclarativeModality	generalization over DeclarativeMood  Pertaining to the mood or mode of a verb form or clause such that it predicates a type of (formal) assertion (OED). ( <a href="http://lan...[61]...iveModality">http://lan...[61]...iveModality</a> [ <a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#declarativeModality">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#declarativeModality</a> ])

names	IRIs	Comments
modality dubitive dubitive modality	<a href="http://purl.org/olia/olia.owl#DubitiveModality">http://purl.org/olia/olia.owl#DubitiveModality</a>  tag:textal-ign.net,2015:feature:DubitiveModality	<a href="http://purl.org/olia/olia.owl#DubitiveModality">http://purl.org/olia/olia.owl#DubitiveModality</a> [http://purl.org/linguistics/gold/Dubitive]  DubitiveMood indicates a speaker's doubt or uncertainty about a proposition (Palmer 2001). ( <a href="http://purl.org/olia/olia.owl#DubitiveModality">http://purl.org/olia/olia.owl#DubitiveModality</a> [http://purl.org/linguistics/gold/Dubitive])
modality imperative imperative modality	<a href="http://purl.org/olia/olia.owl#ImperativeModality">http://purl.org/olia/olia.owl#ImperativeModality</a>  tag:textal-ign.net,2015:feature:ImperativeModality	<a href="http://purl.org/olia/olia.owl#ImperativeModality">http://purl.org/olia/olia.owl#ImperativeModality</a> [http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#imperativeModality]  Pertaining to the mood or mode of a verb form or clause such that it predicates a command, request, or exhortation (OED). ( <a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#imperativeModality">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#imperativeModality</a> )
modality interrogative interrogative modality	<a href="http://purl.org/olia/olia.owl#InterrogativeModality">http://purl.org/olia/olia.owl#InterrogativeModality</a>  tag:textal-ign.net,2015:feature:InterrogativeModality	<a href="http://purl.org/olia/olia.owl#InterrogativeModality">http://purl.org/olia/olia.owl#InterrogativeModality</a> [http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#interrogativeModality]  The interrogative modality serves to indicate interrogative quality. ( <a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#interrogativeModality">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#interrogativeModality</a> )
modality irrealis irrealis modality	<a href="http://purl.org/olia/olia.owl#IrrealisModality">http://purl.org/olia/olia.owl#IrrealisModality</a>  tag:textal-ign.net,2015:feature:IrrealisModality	<a href="http://purl.org/olia/olia.owl#IrrealisModality">http://purl.org/olia/olia.owl#IrrealisModality</a> [http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#irrealisModality]  Irrealis modality indicates the situation to which it pertains is non-actual or non-factual. ( <a href="http://purl.org/olia/olia.owl#IrrealisModality">http://purl.org/olia/olia.owl#IrrealisModality</a> )

names	IRIs	Comments
		...lisModality [http://lan- guagelink.let.uu.nl/tds/ onto/LinguisticOntol- ogy.owl#irrealisModality])
modality irrealis conditional conditional irrealis modality	http://purl.org/olia/ olia.owl#Condition- alIrrealisModality  tag:textal- ign.net,2015:fea- ture:ConditionalIrre- alisModality	ILPOSTS (Indian lan- guages), http://pur...[20]... owl#NonReal [http:// purl.org/olia/ ilposts.owl#NonReal] is re- stricted to conditional partici- ples, hence probably a subtype of ConditionalMood  Conditional Mood (modal- ity) with Irrealis meaning (ILPOSTS)
modality optative optative modality	http://purl.org/olia/ olia.owl#Optative- Modality  tag:textal- ign.net,2015:fea- ture:OptativeModality	http://pur...[22]...d/ Optative, [http://purl.org/ linguistics/gold/Optative,] http://lan...[58]... iveModality [http://lan- guagelink.let.uu.nl/tds/ onto/LinguisticOntol- ogy.owl#optativeModality]  Optative indicates that the speaker wishes or hopes that the expressed proposition be the case (Bybee, Perkins, and Pagliuca 1994: 179; Palmer 2001: 204). (http://pur... [21]...ld/Optative [http:// purl.org/linguistics/gold/ Optative])
modality presumptive presumptive modality	http://purl.org/olia/ olia.owl#Presumptive- Modality  tag:textal- ign.net,2015:fea- ture:PresumptiveModal- ity	adopted from ILPOSTS (http://pur...[28]... umptiveMood [http:// purl.org/olia/ ilposts.owl#Presumptive- Mood]) for Indian languages  The presumptive mood is used in Romanian to express presup- position or hypothesis regard- ing the fact denoted by the verb, as well as other more or less similar attitudes: doubt, curios- ity, concern, condition, indif- ference, inevitability. For exam- ple, acolo s-o fi dus "he might have gone there" shows the ba-

names	IRIs	Comments
		<p>sic presupposition use, while the following excerpt from a poem by Eminescu shows the use both in a conditional clause de-o fi "suppose it is" and in a main clause showing an attitude of submission to fate le-om duce "we would bear". De-o fi una, de-o fi alta... Ce e scris și pentru noi, Bucuroși le-om duce toate, de e pace, de-i război. Be it one, be it the other... Whatever fate we have, We will gladly go through all, be it peace or be it war (<a href="http://en...[34]...Presumptive">http://en...[34]...Presumptive</a> [<a href="http://en.wikipedia.org/wiki/Irrealis_mood#Presumptive">http://en.wikipedia.org/wiki/Irrealis_mood#Presumptive</a>])</p>
<p>modality quotative quotative modality</p>	<p><a href="http://purl.org/olia/olia.owl#Quotative-Modality">http://purl.org/olia/olia.owl#Quotative-Modality</a></p> <p>tag:textal-ign.net,2015:feature:QuotativeModality</p>	<p><a href="http://pur...[32]...#Quotative">http://pur...[32]...#Quotative</a>, [<a href="http://purl.org/olia/mte/multext-east.owl#Quotative">http://purl.org/olia/mte/multext-east.owl#Quotative</a>,] MTE VForm="quotative" (Estonian)</p> <p>A quotative is grammatical device to mark reported speech in some languages (<a href="http://en...[20]...Quotative">http://en...[20]...Quotative</a>), [<a href="http://en.wikipedia.org/wiki/Quotative">http://en.wikipedia.org/wiki/Quotative</a>,] e.g., in Estonian.&lt;br/&gt;'Reportedly, while he was going (in his boat), he turned over.' Ta olevat oma paadiga ümber läinud He was QUOTATIVE his own boat WITH over gone.&lt;br/&gt; (Estonian translation of an example given under <a href="http://www...[67]...den-tial.htm">http://www...[67]...den-tial.htm</a> [<a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAQuotativeEvidential.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAQuotativeEvidential.htm</a>]) (Heiki-Jaan.Kaalep, email 2010/06/22)</p>
<p>modality realis conditional conditional realis modality</p>	<p><a href="http://purl.org/olia/olia.owl#Conditional-RealisModality">http://purl.org/olia/olia.owl#Conditional-RealisModality</a></p> <p>tag:textal-ign.net,2015:fea-</p>	<p>ILPOSTS (Indian languages), <a href="http://pur...[17]...ts.owl#Real">http://pur...[17]...ts.owl#Real</a> [<a href="http://purl.org/olia/ilposts.owl#Real">http://purl.org/olia/ilposts.owl#Real</a>] is restricted to conditional participles, hence probably a subtype of ConditionalMood</p>

names	IRIs	Comments
	<p>ture:ConditionalRealisModality</p>	<p>Conditional Mood (modality) with Realis meaning (ILPOSTS)</p>
<p>modality subjunctive subjunctive modality</p>	<p>http://purl.org/olia/olia.owl#SubjunctiveModality</p> <p>tag:textal-ign.net,2015:feature:SubjunctiveModality</p>	<p>http://pur...[25]...ubjunctive, [http://purl.org/linguistics/gold/Subjunctive,] http://lan...[61]...iveModality [http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#subjunctiveModality]</p> <p>The subjunctive is the mood that is minimally marked as opposed to the indicative and that marks a clause as not directly representing an assertion of the speaker. (http://www...[74]...ido_Servlet [http://www.uni-erfurt.de/sprachwissenschaft/proxy.php?port=8080&amp;file=lido/servlet/LidoServlet] Subjunktiv 18.06.07)</p>
<p>modality timitive timitive modality</p>	<p>http://purl.org/olia/olia.owl#TimitiveModality</p> <p>tag:textal-ign.net,2015:feature:TimitiveModality</p>	<p>http://pur...[21]...ld/Timitive [http://purl.org/linguistics/gold/Timitive]</p> <p>TimitiveMood expresses that the speaker fears something expressed in what is said (Palmer 2001: 13, 22). (http://pur...[21]...ld/Timitive [http://purl.org/linguistics/gold/Timitive])</p>
<p>modifier</p>	<p>http://purl.org/olia/olia.owl#Modifier</p> <p>tag:textal-ign.net,2015:feature:Modifier</p>	<p>added in conformance with TIGER</p> <p>added in conformance with TIGER, equivalent to SyntacticAdjunct, cf. definition by Dipper et al. (2007) there</p>
<p>modifier adjectival adjectival modifier</p>	<p>http://purl.org/olia/olia.owl#AdjectivalModifier</p> <p>tag:textal-ign.net,2015:feature:AdjectivalModifier</p>	<p>http://lan...[60]...valModifier [http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#adjectivalModifier]</p> <p>A nominal is modified by an adjective. (http://lan...[60]...valModifier [http://lan-</p>

names	IRIs	Comments
		guagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#adjectivalModifier))
modifier adverbial adverbial modifier	<p><a href="http://purl.org/olia/olia.owl#AdverbialModifier">http://purl.org/olia/olia.owl#AdverbialModifier</a></p> <p>tag:textal-ign.net,2015:feature:AdverbialModifier</p>	<p><a href="http://lan...[59]...ialModifier">http://lan...[59]...ialModifier</a> [<a href="http://guagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#adverbialModifier">http://guagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#adverbialModifier</a>]</p> <p>An adverbial modifier modifies a verb. (<a href="http://lan...[59]...ialModifier">http://lan...[59]...ialModifier</a> [<a href="http://guagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#adverbialModifier">http://guagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#adverbialModifier</a>])</p>
modifier demonstrative demonstrative modifier	<p><a href="http://purl.org/olia/olia.owl#DemonstrativeModifier">http://purl.org/olia/olia.owl#DemonstrativeModifier</a></p> <p>tag:textal-ign.net,2015:feature:DemonstrativeModifier</p>	<p><a href="http://lan...[63]...iveModifier">http://lan...[63]...iveModifier</a> [<a href="http://guagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#demonstrativeModifier">http://guagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#demonstrativeModifier</a>]</p> <p>A nominal is modified by a demonstrative. (<a href="http://lan...[63]...iveModifier">http://lan...[63]...iveModifier</a> [<a href="http://guagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#demonstrativeModifier">http://guagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#demonstrativeModifier</a>])</p>
modifier nominal post post nominal modifier	<p><a href="http://purl.org/olia/olia.owl#PostNominalModifier">http://purl.org/olia/olia.owl#PostNominalModifier</a></p> <p>tag:textal-ign.net,2015:feature:PostNominalModifier</p>	<p>EAGLES, NPFunction="post-modifying", <a href="http://www...[16]...cat/DC-1945">http://www...[16]...cat/DC-1945</a> [<a href="http://www.isocat.org/datcat/DC-1945">http://www.isocat.org/datcat/DC-1945</a>] (without restriction on nominal heads?)</p> <p>Postmodifying is a function of an adjective that can modify, describe, or qualify a preceding noun. (EAGLES) modification-Type: Refers to the prenominal or postnominal positions of determiners which distinguish different forms. (<a href="http://www...[16]...cat/DC-1931">http://www...[16]...cat/DC-1931</a> [<a href="http://www.isocat.org/datcat/DC-1931">http://www.isocat.org/datcat/DC-1931</a>])</p>
modifier nominal pre pre nominal modifier	<p><a href="http://purl.org/olia/olia.owl#PreNominalModifier">http://purl.org/olia/olia.owl#PreNominalModifier</a></p>	<p>EAGLES, NPFunction="pre-modifying", cf. <a href="http://www...[16]...cat/DC-1943">http://www...[16]...cat/DC-1943</a> [<a href="http://www.isocat.org/datcat/DC-1943">http://www.isocat.org/datcat/DC-1943</a>]</p>



names	IRIs	Comments
	tag:textal-ign.net,2015:feature:PreNominalModifier	<p>www.isocat.org/datcat/DC-1943] (preModifier, but without reference to nominal heads)</p> <p>Premodifying is a function of an adjective that can modify a following noun. (EAGLES) modificationType: Refers to the prenominal or postnominal positions of determiners which distinguish different forms. (<a href="http://www...[16]...cat/DC-1931">http://www...[16]...cat/DC-1931</a> [<a href="http://www.isocat.org/datcat/DC-1931">http://www.isocat.org/datcat/DC-1931</a>])</p>
modifier numeral numeral modifier	<p><a href="http://purl.org/olia/olia.owl#NumeralModifier">http://purl.org/olia/olia.owl#NumeralModifier</a></p> <p>tag:textal-ign.net,2015:feature:NumeralModifier</p>	<p><a href="http://lan...[57]...ralModifier">http://lan...[57]...ralModifier</a> [<a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#numeralModifier">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#numeralModifier</a>]</p> <p>A nominal is modified by a numeral. (<a href="http://lan...[57]...ralModifier">http://lan...[57]...ralModifier</a> [<a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#numeralModifier">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#numeralModifier</a>])</p>
modifier rhetorical rhetorical modifier	<p><a href="http://purl.org/olia/olia.owl#RhetoricalModifier">http://purl.org/olia/olia.owl#RhetoricalModifier</a></p> <p>tag:textal-ign.net,2015:feature:RhetoricalModifier</p>	<p>added in conformance with TIGER</p> <p>added in conformance with TIGER</p> <p>TODO: check definition</p>
mood conditional conditional mood	<p><a href="http://purl.org/olia/olia.owl#ConditionalMood">http://purl.org/olia/olia.owl#ConditionalMood</a></p> <p>tag:textal-ign.net,2015:feature:ConditionalMood</p>	<p><a href="http://www...[16]...cat/DC-1258">http://www...[16]...cat/DC-1258</a> [<a href="http://www.isocat.org/datcat/DC-1258">http://www.isocat.org/datcat/DC-1258</a>]</p> <p>In Inuktitut, conditionality is expressed by verbal inflection. Conditional mood signifies conditional relationships in a sentence. (Nowak 1996, p.39) A conditional relation is a logical relation in which the illocutionary act employing one of a pair of propositions is expressed or implied to be true or in force if the other proposition is true. (<a href="http://www.sil.org/linguis-">www.sil.org/linguis-</a></p>

names	IRIs	Comments
		<p>tics/GlossaryOfLinguisticTerms/WhatIsAConditionalRelation.htm; http://www... [16]...cat/DC-1258 [http://www.isocat.org/dcat/DC-1258] Elke Nowak (1996), Transforming the images: Ergativity and transitivity in Inuktitut (Eskimo). Walter de Gruyter, Berlin.</p> <p>subClassOf verbFormMood (dcif:conceptualDomain)</p>
<p>mood indicative indicative mood</p>	<p><a href="http://purl.org/olia/olia.owl#IndicativeMood">http://purl.org/olia/olia.owl#IndicativeMood</a></p> <p>tag:textalign.net,2015:feature:IndicativeMood</p>	<p>TODO: check relationship with DeclarativeMood</p> <p>The indicative is the unmarked mood. It is used when no special modal nuance in the clause or sentence is intended. It is the default mood of independent declarative and often also of interrogative sentences. (http://www... [74]...ido_Servlet [http://www.uni-erfurt.de/sprachwissenschaft/proxy.php?port=8080&amp;file=lido/servlet/Lido_Servlet] Indikativ 18.06.07) Expression of assertion. (Bybee 1985:22) Pertaining to the mood or mode of a verb form or clause such that it predicates a stated relation of objective fact (OED). (http://lan... [60]...iveModality [http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#indicativeModality])</p> <p>http://pur... [24]... Indicative, [http://purl.org/linguistics/gold/Indicative,] http://lan... [60]...iveModality [http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#indicativeModality]</p>
<p>mood irrealis irrealis mood</p>	<p><a href="http://purl.org/olia/olia.owl#IrrealisMood">http://purl.org/olia/olia.owl#IrrealisMood</a></p>	<p>http://lan... [58]...lisModality [http://language.link.let.uu.nl/tds/</p>

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:IrrealisMood	<p>onto/LinguisticOntology.owl#irrealisModality]</p> <p>Irrealis modality indicates the situation to which it pertains is non-actual or non-factual. (<a href="http://lan...[58]...lisModality">http://lan...[58]...lisModality</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#irrealisModality">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#irrealisModality</a>])</p>
mood irrealis conditional conditional irrealis mood	<p><a href="http://purl.org/olia/olia.owl#ConditionalIrrealisMood">http://purl.org/olia/olia.owl#ConditionalIrrealisMood</a></p> <p>tag:textal-ign.net,2015:feature:ConditionalIrrealisMood</p>	<p>ILPOSTS (Indian languages), <a href="http://pur...[20]...owl#NonReal">http://pur...[20]...owl#NonReal</a> [<a href="http://purl.org/olia/ilposts.owl#NonReal">http://purl.org/olia/ilposts.owl#NonReal</a>] is restricted to conditional participles, hence probably a subtype of ConditionalMood</p> <p>Conditional Mood (modality) with Irrealis meaning (ILPOSTS)</p>
mood optative optative mood	<p><a href="http://purl.org/olia/olia.owl#OptativeMood">http://purl.org/olia/olia.owl#OptativeMood</a></p> <p>tag:textal-ign.net,2015:feature:OptativeMood</p>	<p><a href="http://pur...[22]...d/Optative">http://pur...[22]...d/Optative</a>, [<a href="http://purl.org/linguistics/gold/Optative">http://purl.org/linguistics/gold/Optative</a>], <a href="http://lan...[58]...iveModality">http://lan...[58]...iveModality</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#optativeModality">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#optativeModality</a>]</p> <p>Optative indicates that the speaker wishes or hopes that the expressed proposition be the case (Bybee, Perkins, and Pagliuca 1994: 179; Palmer 2001: 204). (<a href="http://pur...[21]...ld/Optative">http://pur...[21]...ld/Optative</a> [<a href="http://purl.org/linguistics/gold/Optative">http://purl.org/linguistics/gold/Optative</a>])</p>
mood presumptive presumptive mood	<p><a href="http://purl.org/olia/olia.owl#PresumptiveMood">http://purl.org/olia/olia.owl#PresumptiveMood</a></p> <p>tag:textal-ign.net,2015:feature:PresumptiveMood</p>	<p>adopted from ILPOSTS (<a href="http://pur...[28]...umptiveMood">http://pur...[28]...umptiveMood</a> [<a href="http://purl.org/olia/ilposts.owl#PresumptiveMood">http://purl.org/olia/ilposts.owl#PresumptiveMood</a>]) for Indian languages</p> <p>The presumptive mood is used in Romanian to express presupposition or hypothesis regarding the fact denoted by the verb,</p>

names	IRIs	Comments
		<p>as well as other more or less similar attitudes: doubt, curiosity, concern, condition, indifference, inevitability. For example, <i>acolo s-o fi dus</i> "he might have gone there" shows the basic presupposition use, while the following excerpt from a poem by Eminescu shows the use both in a conditional clause <i>de-o fi</i> "suppose it is" and in a main clause showing an attitude of submission to fate <i>le-om duce</i> "we would bear". <i>De-o fi una, de-o fi alta... Ce e scris și pentru noi, Bucuroși le-om duce toate, de e pace, de-i război. Be it one, be it the other... Whatever fate we have, We will gladly go through all, be it peace or be it war</i> (<a href="http://en...[34]...Presumptive">http://en...[34]...Presumptive</a> [<a href="http://en.wikipedia.org/wiki/Irrealis_mood#Presumptive">http://en.wikipedia.org/wiki/Irrealis_mood#Presumptive</a>])</p>
<p>mood realis conditional conditional realis mood</p>	<p><a href="http://purl.org/olia/olia.owl#ConditionalRealisMood">http://purl.org/olia/olia.owl#ConditionalRealisMood</a></p> <p>tag:textal-ign.net,2015:feature:ConditionalRealisMood</p>	<p>ILPOSTS (Indian languages), <a href="http://pur...[17]...ts.owl#Real">http://pur...[17]...ts.owl#Real</a> [<a href="http://purl.org/olia/ilposts.owl#Real">http://purl.org/olia/ilposts.owl#Real</a>] is restricted to conditional participles, hence probably a subtype of ConditionalMood</p> <p>Conditional Mood (modality) with Realis meaning (ILPOSTS)</p>
<p>mood subjunctive subjunctive mood</p>	<p><a href="http://purl.org/olia/olia.owl#SubjunctiveMood">http://purl.org/olia/olia.owl#SubjunctiveMood</a></p> <p>tag:textal-ign.net,2015:feature:SubjunctiveMood</p>	<p><a href="http://pur...[25]...ubjunctive">http://pur...[25]...ubjunctive</a>, [<a href="http://purl.org/linguistics/gold/Subjunctive">http://purl.org/linguistics/gold/Subjunctive</a>,] <a href="http://lan...[61]...iveModality">http://lan...[61]...iveModality</a> [<a href="http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#subjunctiveModality">http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#subjunctiveModality</a>]</p> <p>The subjunctive is the mood that is minimally marked as opposed to the indicative and that marks a clause as not directly representing an assertion of the speaker. (<a href="http://www...[74]...ido_Servlet">http://www...[74]...ido_Servlet</a> [<a href="http://www.uni-erfurt.de/sprachwis-">http://www.uni-erfurt.de/sprachwis-</a></p>

names	IRIs	Comments
		senschaft/proxy.php?port=8080&file=lido/servlet/LidoServlet] Subjunktiv 18.06.07)
mood timitive timitive mood	<a href="http://purl.org/olia/olia.owl#TimitiveMood">http://purl.org/olia/olia.owl#TimitiveMood</a>  tag:textal-ign.net,2015:feature:TimitiveMood	<a href="http://pur...[21]...ld/Timitive">http://pur...[21]...ld/Timitive</a> [ <a href="http://purl.org/linguistics/gold/Timitive">http://purl.org/linguistics/gold/Timitive</a> ]  TimitiveMood expresses that the speaker fears something expressed in what is said (Palmer 2001: 13, 22). ( <a href="http://pur...[21]...ld/Timitive">http://pur...[21]...ld/Timitive</a> [ <a href="http://purl.org/linguistics/gold/Timitive">http://purl.org/linguistics/gold/Timitive</a> ])
morpheme	<a href="http://purl.org/olia/olia.owl#Morpheme">http://purl.org/olia/olia.owl#Morpheme</a>  tag:textal-ign.net,2015:feature:Morpheme	<a href="http://www...[16]...cat/DC-1330">http://www...[16]...cat/DC-1330</a> [ <a href="http://www.isocat.org/datcat/DC-1330">http://www.isocat.org/datcat/DC-1330</a> ]  A morpheme is the smallest meaningful unit in the grammar of a language. ( <a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAMorpheme.htm">www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAMorpheme.htm</a> ; <a href="http://www...[16]...cat/DC-1330">http://www...[16]...cat/DC-1330</a> [ <a href="http://www.isocat.org/datcat/DC-1330">http://www.isocat.org/datcat/DC-1330</a> ])
np of head head of np	<a href="http://purl.org/olia/olia.owl#HeadOfNP">http://purl.org/olia/olia.owl#HeadOfNP</a>  tag:textal-ign.net,2015:feature:HeadOfNP	EAGLES NPFunction="head"  The HeadFunction is a function of an adjective or participle that can serve as the focus of the phrase.
name family family name	<a href="http://purl.org/olia/olia.owl#FamilyName">http://purl.org/olia/olia.owl#FamilyName</a>  tag:textal-ign.net,2015:feature:FamilyName	introduced as generalization over <a href="http://pur...[32]...rSecondName">http://pur...[32]...rSecondName</a> [ <a href="http://purl.org/olia/byPos.owl#nounProperSecondName">http://purl.org/olia/byPos.owl#nounProperSecondName</a> ]  In most European cultures, family names have been introduced into name formulas to identify a person's family, so that individuals with the same given name can be distinguished. (CC)
name given given name	<a href="http://purl.org/olia/olia.owl#GivenName">http://purl.org/olia/olia.owl#GivenName</a>	introduced as generalization over <a href="http://pur...[31]...er-FirstName">http://pur...[31]...er-FirstName</a> [ <a href="http://purl.org/">http://purl.org/</a>

names	IRIs	Comments
	<p>tag:textal-ign.net,2015:feature:GivenName</p>	<p>olia/obyPos.owl#nounProperFirstName]</p> <p>In most European cultures, a given name designates an individual person throughout her/his life span. To distinguish people with the same name but from different families, additional elements have been introduced into name formulas that identify a person's family or ancestry. (CC)</p>
<p>negated non non negated</p>	<p>http://purl.org/olia/olia.owl#NonNegated</p> <p>tag:textal-ign.net,2015:feature:NonNegated</p>	<p>http://pur...[32]...#NonNegated [http://purl.org/olia/mte/multext-east.owl#NonNegated]</p> <p>Non-negated verbs carry no morphological marks of negation. In Resian, negative is always marked as 'no' except for two verbs: 'nīman' / not to have, 'nīsi' / not to be. In Slovak, verbs form negative by prefix 'ne-', with the exception of the verb "byť" (E. "to be") which forms the negative in indicative by using separate particle "nie", e.g. "nie je" (is not). Here, "je" would be marked as negative, despite having positive form. (MTE v4, http://pur...[32]...#NonNegated [http://purl.org/olia/mte/multext-east.owl#NonNegated])</p>
<p>negation</p>	<p>http://purl.org/olia/olia.owl#Negation</p> <p>tag:textal-ign.net,2015:feature:Negation</p>	<p>denotes the negation or the absence (http://www...[16]...cat/DC-1839 [http://www.isocat.org/dacat/DC-1839]) http://pur...[30]...w1#Negated: [http://purl.org/olia/mte/multext-east.owl#Negated:]</p> <p>Negative="yes" encodes negative verbal word-forms in Slavic languages and Estonian. (MTE v4) In Slovak, for example, verbs form negative by prefix 'ne-', with the exception of the verb</p>

names	IRIs	Comments
		<p>"byť" (E. "to be") which forms the negative in indicative by using separate particle "nie", e.g. "nie je" (is not). Here, Slovak "je" would be marked as negative, despite having positive form. In Resian, negative is always marked as 'n' except for two verbs: 'nīman' / not to have, 'nīsi' / not to be. (MTE v4)</p>
<p>negation with conjunction subordinating</p> <p>subordinating conjunction with negation</p>	<p><a href="http://purl.org/olia/olia.owl#SubordinatingConjunctionWithNegation">http://purl.org/olia/olia.owl#SubordinatingConjunctionWithNegation</a></p> <p>tag:textal-ign.net,2015:feature:SubordinatingConjunctionWithNegation</p>	<p><a href="http://purl.org/olia/mte/multext-east.owl#NegativeSubordinatingConjunction">http://pur...[54]...Conjunction</a> [<a href="http://purl.org/olia/mte/multext-east.owl#NegativeSubordinatingConjunction">http://purl.org/olia/mte/multext-east.owl#NegativeSubordinatingConjunction</a>]</p> <p>Conjunction/Sub.Type="negative" (Romanian, Serbian, Russian) In Romanian, each conjunction requires another mood, so that the diversity may be controlled by subcategorisation rules. The attribute Sub.Type distinguishes among the positive and negative conjunctions, providing means to control verbal double negation, (as in case of the negative pronouns, determiners and adverbs): nici NU am venit, nimeni NU vorbește, niciun tren N-a trecut, nicăieri N-am văzut (MTE v4, <a href="http://purl.org/olia/mte/multext-east.owl#PositiveSubordinatingConjunction">http://pur...[54]...Conjunction</a> [<a href="http://purl.org/olia/mte/multext-east.owl#PositiveSubordinatingConjunction">http://purl.org/olia/mte/multext-east.owl#PositiveSubordinatingConjunction</a>])</p>
<p>negation without conjunction subordinating</p> <p>subordinating conjunction without negation</p>	<p><a href="http://purl.org/olia/olia.owl#SubordinatingConjunctionWithoutNegation">http://purl.org/olia/olia.owl#SubordinatingConjunctionWithoutNegation</a></p> <p>tag:textal-ign.net,2015:feature:SubordinatingConjunctionWithoutNegation</p>	<p><a href="http://purl.org/olia/mte/multext-east.owl#PositiveSubordinatingConjunction">http://pur...[54]...Conjunction</a> [<a href="http://purl.org/olia/mte/multext-east.owl#PositiveSubordinatingConjunction">http://purl.org/olia/mte/multext-east.owl#PositiveSubordinatingConjunction</a>]</p> <p>Conjunction/Sub.Type="negative" (Romanian, Serbian, Russian) In Romanian, each conjunction requires another mood, so that the diversity</p>

names	IRIs	Comments
		ty may be controlled by sub-categorisation rules. The attribute Sub_Type distinguishes among the positive and negative conjunctions, providing means to control verbal double negation, (as in case of the negative pronouns, determiners and adverbs): nici NU am venit, nimeni NU vorbește, niciun tren N-a trecut, nicăieri N-am văzut (MTE v4, <a href="http://purl.org/olia/mte/multext-east.owl#PositiveSubordinatingConjunction">http://purl.org/olia/mte/multext-east.owl#PositiveSubordinatingConjunction</a> )
neuter	<a href="http://purl.org/olia/olia.owl#Neuter">http://purl.org/olia/olia.owl#Neuter</a>  tag:textalign.net,2015:feature:Neuter	EAGLES, <a href="http://lan...[54]...euterGender">http://lan...[54]...euterGender</a> [ <a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#neuterGender">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#neuterGender</a> ]  Neuter gender is a grammatical gender that includes those nouns, articles, pronouns, etc. having referents which do not have distinctions of sex, and often includes some which do have a natural sex distinction. ( <a href="http://www...[59]...rGender.htm">http://www...[59]...rGender.htm</a> [ <a href="http://www.sil.org/linguistics/glossaryoflinguisticterms/WhatIsNeuterGender.htm">http://www.sil.org/linguistics/glossaryoflinguisticterms/WhatIsNeuterGender.htm</a> ] 17.11.06)
nominal	<a href="http://purl.org/olia/olia.owl#Nominal">http://purl.org/olia/olia.owl#Nominal</a>  tag:textalign.net,2015:feature:Nominal	Bies et al. 1995  -NOM (nominal) — marks free (“headless”) relatives and gerunds when they act nominally. (See section 9 [WH-Phrases] for more information about free relatives, and section 13 [Gerunds and Participles] for more information about gerunds.) (Bies et al. 1995)
nominative	<a href="http://purl.org/olia/olia.owl#Nominative">http://purl.org/olia/olia.owl#Nominative</a>	EAGLES



names	IRIs	Comments
	tag:textal-ign.net,2015:feature:Nominative	In nominative-accusative languages, nominative case marks clausal subjects and is applies to nouns in isolation. ( <a href="http://www...[61]...iveCase.htm">http://www...[61]...iveCase.htm</a> [ <a href="http://www.sil.org/linguistics/glossaryoflinguisticterms/WhatIsNominative-Case.htm">http://www.sil.org/linguistics/glossaryoflinguisticterms/WhatIsNominative-Case.htm</a> ] 17.11.06)
nonspecific	<a href="http://purl.org/olia/olia.owl#Nonspecific">http://purl.org/olia/olia.owl#Nonspecific</a>  tag:textal-ign.net,2015:feature:Nonspecific	see <a href="http://purl.org/olia/olia.owl#Nonspecific">olia:NonspecificArticle</a> , <a href="http://purl.org/olia/olia.owl#NonspecificPronoun">http://purl.org/olia/olia.owl#NonspecificPronoun</a> [ <a href="http://purl.org/olia/mtext-multext-east.owl#NonspecificPronoun">http://purl.org/olia/mtext-multext-east.owl#NonspecificPronoun</a> ]  ”By ‘specific’ and ‘non-specific’ I intend the difference between the two readings of English indefinites like (3): (3) I’m looking for a deer. In the specific reading there is a particular deer, say Bambi, that I am looking for. In the non-specific reading I will be happy to find any deer. Von Heusinger (2002) likes the test in English of inserting ‘certain’ after the ‘a’ to fix the specific reading. In either reading of (3) a deer is being introduced as a new discourse referent. This is opposed to ‘definite’ which requires a previous pragmatic instantiation as in ‘I’m looking for the deer.’ In English both the readings of (3) are indefinite. In Klallam, the specific demonstratives are neither definite nor indefinite.” (Montler, Timothy. 2007. Klallam demonstratives. Papers ICSNL XLVII. The 42nd International Conference on Salish and Neighbouring Language, pp. 409-425. University of British Columbia Working Papers in Linguistics, Volume 20; on specific vs. nonspecific determiners in Klallam, a Salish language, <a href="http://mon...[23]...mDemos.pdf">http://mon...[23]...mDemos.pdf</a> [ <a href="http://mon...[23]...mDemos.pdf">http://mon...[23]...mDemos.pdf</a> ])

names	IRIs	Comments
		<p>montler.net/papers/KlallamDemons.pdf]) A nonspecific pronoun refers to an unidentified or general entity (e.g., "I saw *someone*", "I saw *everyone*"). A nonspecific pronoun is not, therefore, a personal pronoun, but an indefinite one. (Andrews 2003). Andrews, Richard J. (2003), Introduction to Classical Nahuatl. University of Oklahoma Press. Halliday, M.A.K. (1985), An introduction to Functional Grammar, London: Edward Arnold (<a href="http://purl.org/olia/mte/multext-east.owl#NonspecificPronoun">http://purl.org/olia/mte/multext-east.owl#NonspecificPronoun</a>])</p>
noun	<p><a href="http://purl.org/olia/olia.owl#Noun">http://purl.org/olia/olia.owl#Noun</a></p> <p>tag:textalign.net,2015:feature:Noun</p>	<p>EAGLES top-level category "Noun".</p> <p>A noun, or noun substantive, is a part of speech (a word or phrase) which can co-occur with (in)definite articles and attributive adjectives, and function as the head of a noun phrase. The word "noun" derives from the Latin 'nomen' meaning "name", and a traditional definition of nouns is that they are all and only those expressions that refer to a person, place, thing, event, substance, quality, idea or an appointment. They serve as the subject or object of a verb, and the object of a preposition. (<a href="http://en.wikipedia.org/wiki/Noun">http://en.wikipedia.org/wiki/Noun</a> [19.09.06])</p>
noun common common noun	<p><a href="http://purl.org/olia/olia.owl#CommonNoun">http://purl.org/olia/olia.owl#CommonNoun</a></p> <p>tag:textalign.net,2015:feature:CommonNoun</p>	<p>EAGLES Noun with Type="Common".</p> <p>A common noun is a noun that signifies a non-specific member of a group. (<a href="http://www.sil.org/linguistics/GlossaryOfLinguistics">http://www.sil.org/linguistics/GlossaryOfLinguistics</a></p>

names	IRIs	Comments
		ticTerms/WhatIsACommon-Noun.htm] 19.09.06)
noun countable countable noun	<a href="http://purl.org/olia/olia.owl#CountableNoun">http://purl.org/olia/olia.owl#CountableNoun</a>  tag:textal-ign.net,2015:feature:CountableNoun	EAGLES Noun with Countability="Countable".  A countable noun (also count noun) is a noun which can be modified by a numeral and occur in both singular and plural form, as well as co-occurring with quantificational determiners like every, each, several, most, etc.. ( <a href="http://en.wikipedia.org/wiki/Countable_noun">http://en.wikipedia.org/wiki/Countable_noun</a> ] 19.09.06)
noun diminutive diminutive noun	<a href="http://purl.org/olia/olia.owl#DiminutiveNoun">http://purl.org/olia/olia.owl#DiminutiveNoun</a>  tag:textal-ign.net,2015:feature:DiminutiveNoun	<a href="http://www...[16]...cat/DC-2225">http://www...[16]...cat/DC-2225</a> [ <a href="http://www.isocat.org/datcat/DC-2225">http://www.isocat.org/datcat/DC-2225</a> ]  diminutive noun (MIRACL LSCA; <a href="http://www...[16]...cat/DC-2225">http://www...[16]...cat/DC-2225</a> [ <a href="http://www.isocat.org/datcat/DC-2225">http://www.isocat.org/datcat/DC-2225</a> ])  subClassOf noun (dcif:isA); can be proper name (German Julchen from Julia, Russian Olichka from Olga) or common noun (German Blümchen from Blume "flower", Russian yozhik from yozh "hedgehock")
noun mass mass noun	<a href="http://purl.org/olia/olia.owl#MassNoun">http://purl.org/olia/olia.owl#MassNoun</a>  tag:textal-ign.net,2015:feature:MassNoun	EAGLES Noun with Countability="Mass".  A mass noun (also uncountable noun or non-count noun) can't be modified by a numeral, occur in singular/plural or co-occur with the relevant kind of determiner. ( <a href="http://en.wikipedia.org/wiki/Mass_noun">http://en.wikipedia.org/wiki/Mass_noun</a> ] 19.09.06)
noun proper proper noun	<a href="http://purl.org/olia/olia.owl#ProperNoun">http://purl.org/olia/olia.owl#ProperNoun</a>  tag:textal-ign.net,2015:feature:ProperNoun	

names	IRIs	Comments
noun relation relation noun	<a href="http://purl.org/olia/olia.owl#RelationNoun">http://purl.org/olia/olia.owl#RelationNoun</a>  tag:textal-ign.net,2015:feature:RelationNoun	<a href="http://www...[16]...cat/DC-2226">http://www...[16]...cat/DC-2226</a> [ <a href="http://www.isocat.org/datcat/DC-2226">http://www.isocat.org/datcat/DC-2226</a> ]  relation noun (MIRACL & LSCA; <a href="http://www...[16]...cat/DC-2226">http://www...[16]...cat/DC-2226</a> [ <a href="http://www.isocat.org/datcat/DC-2226">http://www.isocat.org/datcat/DC-2226</a> ])  subClassOf partOfSpeech (dcif:conceptualDomain)
noun spatiotemporal spatiotemporal noun	<a href="http://purl.org/olia/olia.owl#SpatiotemporalNoun">http://purl.org/olia/olia.owl#SpatiotemporalNoun</a>  tag:textal-ign.net,2015:feature:SpatiotemporalNoun	adopted from Ancorra, <a href="http://pur...[31]...emporalNoun">http://pur...[31]...emporalNoun</a> [ <a href="http://purl.org/olia/ancorra.owl#SpatiotemporalNoun">http://purl.org/olia/ancorra.owl#SpatiotemporalNoun</a> ]  NLOC Noun Location This is an entirely new tag introduced to cover an important phenomenon of Indian Languages. Words like 'Age', 'upara', 'pahela', 'bAda', etc. are used in various ways in Hindi. 1. They act as a postposition along with 'ke' e.g. ghade ke upara thAll rakhI HE. ("pot" "on" "plate" "kept" "is") Here 'ke upara' is a post position which is the direct equivalent of the English preposition 'on'. 2. They also act as adverbs. e.g. tuma upara jAo. ("You" "up" "go") Here 'upara' is an adverbial of place. 3. These words also take post positions themselves and so in some sense behave like nouns. e.g. vaHa upara se AyA. ("He" "above" "from" "came") 4. As pointed out in 3. above, these words take postpositions and act as arguments of the verb in the sentence. And they also take a post position to join with a another noun. So in that sense also they behave like nouns. e.g. upara kA HissA ("above" "of" "portion") To tag such words one option is to tag them according to the category to which they belong in

names	IRIs	Comments
		<p>the given sentence. For example in 1. above, the word is occurring as a postposition so can be marked as a postposition. In example 2. above, it is an adverb so can be marked as an adverb and so on. But we feel that these words are more like nouns as is evident from 3. and 4. above, and also if we consider for examples, 'aage', 'upara', etc. as places which are in front, up, etc then we can tag them as nouns. But these are not pure nouns. They are nouns which indicate a location or time. These also function as adverbs or prepositions in a context. So a new tag NLOC is introduced for such words. This tag will cater to a finite set of such words. set: (Age, piche, upara, nIce, bAda, pahale) ("front", "behind", "above", "below", "before") Such words if tagged according to their syntactic function, it will hamper machine learning. So a single tag, NLOC has been devised for such words which indicate location and time. e.g., (upara, Age, pahale, bAda) (IIIT (2007), A Part of Speech Tagger for Indian Languages (POS tagger), Tagset developed at IIIT - Hyderabad after consultations with several institutions through two workshops. available under <a href="http://shiva.iiit.ac.in/SPSAL2007/iiit.tagset.guidelines.pdf">http://shiva.iiit.ac.in/SPSAL2007/iiit.tagset.guidelines.pdf</a>)</p> <p>Noun denoting spatial and temporal expressions "A tag NST has been included to cover an important phenomenon of Indian languages. Certain expressions such as 'Upara' (above/up), 'nIce' (below) 'pahale' (before), 'Age' (front) etc are content words denoting time and</p>

names	IRIs	Comments
		<p>space. These expressions, however, are used in various ways. For example, 5.1.2.1 These words often occur as temporal or spatial arguments of a verb in a given sentence taking the appropriate vibhakti (case marker): h3. vaha Upara so rahA thA . 'he' 'upstairs' 'sleep' 'PROG' 'was' "He was sleepign upstairs". h4. vaha pahale se kamare meM bETHA thA . 'he' 'beforehand' 'from' 'room' 'in' 'sitting' 'was' "He was sitting in the room from beforehand" h5. tuma bAhara bETHo 'you' 'outside' 'sit' "You sit outside". Apart from functioning like an argument of a verb, these elements also modify another noun taking postposition 'kA'. h6. usakA baDZA bhAI Upara ke hisse meM rahatA hE 'his' 'elder' 'brother' 'upstairs' 'of' 'portion' 'in' 'live' 'PRES' "His elder brother lives in the upper portion of the house". 5.1.2.2 Apart from occurring as a nominal expression, they also occur as a part of a postposition along with 'ke'. For example, h7. ghaDZe ke Upara thAI rakhI hE. 'pot' 'of' 'above' 'plate' 'kept' 'is' The plate is kept on the pot". h8. tuma ghara ke bAhara bETHo 'you' 'home' 'of' 'outside' 'sit' "You sit outside the house". 'Upara' and 'bAhara' are parts of complex postpositions 'ke Upara' and 'ke bAhara' in (h6) and (h7) respectively which can be translated into English prepositions 'on' and 'outside'. For tagging such words, one possible option is to tag them according to their syntactic function in the given context. For example in 5.2.2 (h7) above, the word 'Upara' is occurring as part of a postposition or a relation marker. It can, therefore, be marked as a postposition. Similarly, in 5.2.1. (h3)</p>

names	IRIs	Comments
		<p>and (h6) above, it is a noun, therefore, mark it as a noun and so on. Alternatively, since these words are more like nouns, as is evident from 5.2.1 above they can be tagged as nouns in all there occurrences. The same would apply to 'bAhAra' (outside) in examples (h4), (h5) and (h8). However, if we follow any of the above approaches we miss out on the fact that this class of words is slightly different from other nouns. These are nouns which indicate 'location' or 'time'. At the same time, they also function as postpositions in certain contexts. Moreover, such words, if tagged according to their syntactic function, will hamper machine learning. Considering their special status, it was considered whether to introduce a new tag, NST, for such expressions. The following five possibilities were discussed :</p> <ul style="list-style-type: none"> <li>a) Tag both (h5) &amp; (h8) as NN</li> <li>b) Tag both (h5) &amp; (h8) as NST</li> <li>c) Tag (h5) as NN &amp; (h8) as NST</li> <li>d) Tag (h5) as NST &amp; (h8) as PSP</li> <li>e) Tag (h5) as NN &amp; (h8) as PSP</li> </ul> <p>After considering all the above, the decision was taken in favour of (b). The decision was primarily based on the following observations: (i) 'bAhara' in both (h5) and (h8) denotes the same expression (place expression 'outside') (ii) In both (h5) and (h8), 'bAhara' can take a vibhakti like a noun ( bAhara ko bETHo, ghara ke bAhara ko bETHo) (iii) If a single tag is kept for both the usages, the decision making for annotators would also be easier. Therefore, a new tag NST is introduced for such expressions. The tag NST will be used for a finite set of such words in any language. For example, Hindi has Age (front), plche (behind), Upara (above/up-</p>

names	IRIs	Comments
		stairs), nIce (below/down), bA-da (after), pahale (before), an-dara (inside), bAhara (outside) etc.” (Akshar Bharati, Dipti Misra Sharma, Lakshmi Bai, Rajeev Sangal (2006), AnnCorra : Annotating Corpora. Guidelines For POS And Chunk Annotation For Indian Languages, Tech. Rep., Language Technologies Research Centre IIT, Hyderabad, version of 15-12-2006, <a href="http://ltr...[26]...delines.pdf">http://ltr...[26]...delines.pdf</a> [ <a href="http://ltrc.iit.ac.in/tro3r/posguidelines.pdf">http://ltrc.iit.ac.in/tro3r/posguidelines.pdf</a> ])
noun verbal verbal noun	<a href="http://purl.org/olia/olia.owl#VerbalNoun">http://purl.org/olia/olia.owl#VerbalNoun</a>  tag:textal-ign.net,2015:feature:VerbalNoun	Missing in EAGLES, added as subclass of Verb and Noun in accordance with the SFB632 annotation guidelines: VN verbal noun (§4.3.12.2): Some of the Chadic languages have morphologically opaque verbal noun stems in the progressive aspect, i.e. it is not obvious from the morphology that we deal with a deverbal noun, instead of a verb proper. In such cases, use the tag VN.  A verbal noun is a noun formed directly as an inflexion of a verb or a verb stem, sharing at least in part its constructions. This term is applied especially to gerunds, and sometimes also to infinitives and supines. ( <a href="http://en...[20]...Verbal_noun">http://en...[20]...Verbal_noun</a> [ <a href="http://en.wikipedia.org/wiki/Verbal_noun">http://en.wikipedia.org/wiki/Verbal_noun</a> ] 19.09.06)
noun voice voice noun	<a href="http://purl.org/olia/olia.owl#VoiceNoun">http://purl.org/olia/olia.owl#VoiceNoun</a>  tag:textal-ign.net,2015:feature:VoiceNoun	<a href="http://www...[16]...cat/DC-2253">http://www...[16]...cat/DC-2253</a> [ <a href="http://www.isocat.org/datcat/DC-2253">http://www.isocat.org/datcat/DC-2253</a> ]  noun of a voice ( <a href="http://www...[16]...cat/DC-2253">http://www...[16]...cat/DC-2253</a> [ <a href="http://www.isocat.org/datcat/DC-2253">http://www.isocat.org/datcat/DC-2253</a> ])  subClassOf partOfSpeech (dcif:conceptualDomain)



names	IRIs	Comments
number cardinal cardinal number	<a href="http://purl.org/olia/olia.owl#CardinalNumber">http://purl.org/olia/olia.owl#CardinalNumber</a>  tag:textal-ign.net,2015:feature:CardinalNumber	EAGLES Numeral with Type="Cardinal".  A cardinal numeral is a numeral of the class whose members are considered basic in form, used in counting, and used in expressing how many objects are referred to. ( <a href="http://www...[63]...Numeral.htm">http://www...[63]...Numeral.htm</a> [ <a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsACardinalNumeral.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsACardinalNumeral.htm</a> ] 19.09.06)
number count count number	<a href="http://purl.org/olia/olia.owl#CountNumber">http://purl.org/olia/olia.owl#CountNumber</a>  tag:textal-ign.net,2015:feature:CountNumber	<a href="http://pur...[33]...CountNumber">http://pur...[33]...CountNumber</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#CountNumber">http://purl.org/olia/mte/multext-east.owl#CountNumber</a> ]  MULTEXT-East feature Number="count" (Nouns in Serbian, Macedonian, Bulgarian), e.g., Bulgarian <i>яка/як, язовира/язовир, яда/яд, юргана/юрган, юбилея/юбилей, ьгъла/ьгъл</i> ( <a href="http://pur...[33]...CountNumber">http://pur...[33]...CountNumber</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#CountNumber">http://purl.org/olia/mte/multext-east.owl#CountNumber</a> ]))
number ordinal ordinal number	<a href="http://purl.org/olia/olia.owl#OrdinalNumber">http://purl.org/olia/olia.owl#OrdinalNumber</a>  tag:textal-ign.net,2015:feature:OrdinalNumber	EAGLES Numeral with Type="Ordinal".  An ordinal number is a number belonging to a class whose members designate positions in a sequence, e.g. in English "First", "Second", "Third". ( <a href="http://www...[62]...Numeral.htm">http://www...[62]...Numeral.htm</a> [ <a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAOrdinalNumeral.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAOrdinalNumeral.htm</a> ] 19.09.06)
numeral	<a href="http://purl.org/olia/olia.owl#Numeral">http://purl.org/olia/olia.owl#Numeral</a>  tag:textal-ign.net,2015:feature:Numeral	EAGLES top-level category Numeral (NU). Modelled as subclass of Quantifier (a concept that is absent in EAGLES) in accordance with GOLD. DCR subclassification (num-

names	IRIs	Comments
		<p>berBoth, numeralRoman) ignored</p> <p>Subclassification combines syntactic (Ordinal/CardinalNumeral) and morphological (Fraction, ApproximateNumeral) criteria. To be resolved. In the MULTEXT-East ontology, the latter aspect is represented as <a href="http://purl.org/olia/mte/multext-east.owl#MorphologicalFormOfNumeral">http://purl.org/olia/mte/multext-east.owl#MorphologicalFormOfNumeral</a> [http://purl.org/olia/mte/multext-east.owl#MorphologicalFormOfNumeral]</p> <p>A numeral is a word, functioning most typically as an adjective or pronoun, that expresses a number, and relation to the number, such as one of the following: Quantity, Sequence, Frequency, Fraction. (<a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsANumeral.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsANumeral.htm</a>] 19.09.06)</p>
<p>numeral approximate approximate numeral</p>	<p><a href="http://purl.org/olia/olia.owl#ApproximateNumeral">http://purl.org/olia/olia.owl#ApproximateNumeral</a></p> <p>tag:textal-ign.net,2015:feature:ApproximateNumeral</p>	<p><a href="http://purl.org/olia/mte/multext-east.owl#ApproximateNumeral">http://purl.org/olia/mte/multext-east.owl#ApproximateNumeral</a> [http://purl.org/olia/mte/multext-east.owl#ApproximateNumeral]</p> <p>Bulgarian has Numeral/Form=approx(a), used for approximate numerals (десетина / about a ten/, стотина / about a hundred/) (Dimitrova et al. 2009, <a href="http://purl.org/olia/mte/multext-east.owl#ApproximateNumeral">http://purl.org/olia/mte/multext-east.owl#ApproximateNumeral</a> [http://purl.org/olia/mte/multext-east.owl#ApproximateNumeral])</p>
<p>numeral collective collective numeral</p>	<p><a href="http://purl.org/olia/olia.owl#CollectiveNumeral">http://purl.org/olia/olia.owl#CollectiveNumeral</a></p> <p>tag:textal-ign.net,2015:feature:CollectiveNumeral</p>	<p><a href="http://purl.org/olia/mte/multext-east.owl#CollectiveNumeral">http://purl.org/olia/mte/multext-east.owl#CollectiveNumeral</a> [http://purl.org/olia/mte/multext-east.owl#CollectiveNumeral]</p>

names	IRIs	Comments
		<p>Numeral/Type="collect" (Romanian)&lt;br/&gt; In traditional Romanian grammars, expressions like amândoi "both", toți trei "all three" are referred to as collective numerals. (MTE v4, <a href="http://purl.org/olia/mte/multext-east.owl#CollectiveNumeral">http://purl.org/olia/mte/multext-east.owl#CollectiveNumeral</a>)</p> <p>e.g., czworga/czworo, czworgiem/czworo, czworgu/czworo, czworo/czworo, dwoje/dwoje, dwojga/dwoje, dwojgiem/dwoje, dwojgu/dwoje, jedenaścioro/jedenaścioro (pl, <a href="http://purl.org/olia/mte/multext-east.owl#CollectiveNumeral">http://purl.org/olia/mte/multext-east.owl#CollectiveNumeral</a>)</p> <p>e.g., обата, обаяцата, обете, шеесетминава/шеесетмина, шеесетминана/шеесетмина, шеесетмината/шеесетмина, шеснаесетминава/шеснаесетмина, шеснаесетминана/шеснаесетмина, шеснаесетмината/шеснаесетмина (mk, <a href="http://purl.org/olia/mte/multext-east.owl#CollectiveNumeral">http://purl.org/olia/mte/multext-east.owl#CollectiveNumeral</a>)</p> <p>e.g., dvadesetora/dvadesetoro, dvoja/dvoje, dvoje, dvoji/dvoje, dvojih/dvoje, dvojim/dvoje, oboje, tridesetora/tridesetoro, troja/troje (sr, <a href="http://purl.org/olia/mte/multext-east.owl#CollectiveNumeral">http://purl.org/olia/mte/multext-east.owl#CollectiveNumeral</a>)</p> <p>e.g., ambelor/ambii, ambilor/ambii, amânduror/amândoi, amândurora/amândoi, câteșipatru, tuspatru (ro,</p>

names	IRIs	Comments
		<p><a href="http://purl.org/olia/mte/multext-east.owl#CollectiveNumeral">http://purl.org/olia/mte/multext-east.owl#CollectiveNumeral</a> [http://purl.org/olia/mte/multext-east.owl#CollectiveNumeral]</p>
<p>numeral multiple</p> <p>multiple numeral</p>	<p><a href="http://purl.org/olia/olia.owl#MultipleNumeral">http://purl.org/olia/olia.owl#MultipleNumeral</a></p> <p>tag:textal-ign.net,2015:feature:MultipleNumeral</p>	<p>TODO: rename to MultiplicativeNumeral</p> <p><a href="http://purl.org/olia/mte/multext-east.owl#MultipleNumeral">http://purl.org/olia/mte/multext-east.owl#MultipleNumeral</a>; [http://purl.org/olia/urdu.owl#MultiplicativeNumeral]; As "manyfold" fits Ghostwick's definition, MultipleNumeral is modelled as a subclass of Quantifier rather than Numeral. In MULTEXT-East, "Numeral" was extended to coover non-numerical quantifiers, hence the name.</p> <p>A Multiple Numeral serves to define a complex whole, with respect to the number of its parts, e.g., English "twofold", "twice" or "manyfold". Used in morphosyntactic descriptions of, e.g., Romanian, Slovak and Czech. (Joseph Ghostwick [1878], English language -- Grammar, Historical, London, Longmans, Green, and Co.; <a href="http://purl.org/olia/mte/multext-east.owl#MultipleNumeral">http://purl.org/olia/mte/multext-east.owl#MultipleNumeral</a>)</p>
<p>object direct</p> <p>direct object</p>	<p><a href="http://purl.org/olia/olia.owl#DirectObject">http://purl.org/olia/olia.owl#DirectObject</a></p> <p>tag:textal-ign.net,2015:feature:DirectObject</p>	<p><a href="http://purl.org/linguistics/gold/directObject">http://purl.org/linguistics/gold/directObject</a>, [http://www.isocat.org/dcat/DC-1274] [http://www.isocat.org/dcat/DC-1274]</p> <p>A direct object is a grammatical relation that exhibits a combination of certain independent</p>

names	IRIs	Comments
		<p>syntactic properties, such as the following: the usual grammatical characteristics of the patient of typically transitive verbs; particular case marking; a particular clause position; the conditioning of an agreement affix on the verb; the capability of becoming the clause subject in passivization; the capability of reflexivization. The identification of the direct object relation may be further confirmed by finding significant overlap with similar direct object relations previously established in other languages. This may be done by analyzing correspondence between translation equivalents (Crystal 1985: 94; Hartmann and Stork 1972: 155; Mish et al. 1990: 358; Comrie 1989: 66; Andrews, Avery 1985: 68,120,126; Comrie 1985a: 337). (<a href="http://purl.org/linguistics/gold/directObject">http://purl.org/linguistics/gold/directObject</a>)</p>
<p>object indirect indirect object</p>	<p><a href="http://purl.org/olia/olia.owl#IndirectObject">http://purl.org/olia/olia.owl#IndirectObject</a></p> <p>tag:textalign.net,2015:feature:IndirectObject</p>	<p><a href="http://lan...[44]...logy.owl#R">http://lan...[44]...logy.owl#R</a>, [<a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#R">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#R</a>,] <a href="http://www...[16]...cat/DC-1310">http://www...[16]...cat/DC-1310</a> [<a href="http://www.isocat.org/dcat/DC-1310">http://www.isocat.org/dcat/DC-1310</a>]</p> <p>An indirect object is a grammatical relation that is one means of expressing the semantic role of goal and other similar roles. It is proposed for languages in which the role is distinct from the direct object and the oblique object on the basis of multiple independent syntactic or morphological criteria, such as the following: (i) Having a particular case marking, commonly dative (ii) Governing an agreement affix on the verb, such as person or number (iii) Being distinct from oblique relations in that it</p>

names	IRIs	Comments
		may be relativized A noun, pronoun, or noun phrase indicating the recipient or beneficiary of the action of a verb and its direct object ( <a href="http://www...[16]...cat/DC-1310">http://www...[16]...cat/DC-1310</a> [ <a href="http://www.isocat.org/dat-cat/DC-1310">http://www.isocat.org/dat-cat/DC-1310</a> ]) Third argument of a ditransitive verb. Ditransitive recipient (Siewierska 2004:57). ( <a href="http://lan...[43]...ology.owl#R">http://lan...[43]...ology.owl#R</a> [ <a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#R">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#R</a> ])
object prepositional prepositional object	<a href="http://purl.org/olia/olia.owl#PrepositionalObject">http://purl.org/olia/olia.owl#PrepositionalObject</a>  tag:textal-ign.net,2015:feature:PrepositionalObject	Prepositional object  added in conformance with SFB632 annotation guidelines (Dipper et al. 2007, §4.3.4)
object prepositional facultative facultative prepositional object	<a href="http://purl.org/olia/olia.owl#FacultativePrepositionalObject">http://purl.org/olia/olia.owl#FacultativePrepositionalObject</a>  tag:textal-ign.net,2015:feature:FacultativePrepositionalObject	facultative (i.e. optional) prepositional object, e.g., passivized subject (von-phrase)  TüBa-D/Z edge label FOPP
object syntactic syntactic object	<a href="http://purl.org/olia/olia.owl#SyntacticObject">http://purl.org/olia/olia.owl#SyntacticObject</a>  tag:textal-ign.net,2015:feature:SyntacticObject	<a href="http://lan...[57]...acticObject">http://lan...[57]...acticObject</a> [ <a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#syntacticObject">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#syntacticObject</a> ]  In linguistics, the object of a transitive verb is one of its core arguments, which generally represents the target of the verb's action or the undergoer of its effects. In more general terms, an object is a patient. Verbs with no object (as in the sentence "I run") are called intransitive verbs. Those which do take objects are called transitive verbs. Transitive verbs which take only one object are known

names	IRIs	Comments
		<p>as monotransitive. Ditransitive verbs have two objects, a patient and a recipient. (<a href="http://en...[29]...8grammar%29">http://en...[29]...8grammar%29</a> [<a href="http://en.wikipedia.org/wiki/Object_%28grammar%29">http://en.wikipedia.org/wiki/Object_%28grammar%29</a>]). (<a href="http://lan...[57]...acticObject">http://lan...[57]...acticObject</a> [<a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#syntacticObject">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#syntacticObject</a>]) An object, traditionally defined, is either a direct object or an indirect object. An object, in some usages, is any grammatical relation other than subject (Crystal 1985: 211; Hartmann and Stork 1972: 155-156; Mish et al. 1990: 814, Comrie 1989: 66). (<a href="http://pur...[19]...gold/object">http://pur...[19]...gold/object</a> [<a href="http://purl.org/linguistics/gold/object">http://purl.org/linguistics/gold/object</a>])</p>
<p>object transitive transitive object</p>	<p><a href="http://purl.org/olia/olia.owl#TransitiveObject">http://purl.org/olia/olia.owl#TransitiveObject</a></p> <p>tag:textal-ign.net,2015:feature:TransitiveObject</p>	<p><a href="http://lan...[43]...ology.owl#P">http://lan...[43]...ology.owl#P</a> [<a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#P">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#P</a>]</p> <p>Second argument of a transitive verb, transitive object (P) (<a href="http://lan...[43]...ology.owl#P">http://lan...[43]...ology.owl#P</a> [<a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#P">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#P</a>])</p>
<p>obviative third third obviative</p>	<p><a href="http://purl.org/olia/olia.owl#ThirdObviative">http://purl.org/olia/olia.owl#ThirdObviative</a></p> <p>tag:textal-ign.net,2015:feature:ThirdObviative</p>	<p><a href="http://pur...[28]...dObviative">http://pur...[28]...dObviative</a>, [<a href="http://purl.org/linguistics/gold/ThirdObviative">http://purl.org/linguistics/gold/ThirdObviative</a>,] modelled here as a subconcept of Third</p> <p>Obviative refers to one or more non-participants that are in some way further removed from the speaker than other non-participants. (<a href="http://pur...[27]...rdObviative">http://pur...[27]...rdObviative</a> [<a href="http://purl.org/linguistics/gold/ThirdObviative">http://purl.org/linguistics/gold/ThirdObviative</a>])</p>

names	IRIs	Comments
parenthesis close close parenthesis	<p><a href="http://purl.org/olia/olia.owl#CloseParenthesis">http://purl.org/olia/olia.owl#CloseParenthesis</a></p> <p>tag:textal-ign.net,2015:feature:CloseParenthesis</p>	<p><a href="http://www...[16]...cat/DC-1440">http://www...[16]...cat/DC-1440</a> [<a href="http://www.isocat.org/datcat/DC-1440">http://www.isocat.org/datcat/DC-1440</a>]</p> <p>End of a parenthesis pair. (<a href="http://www...[16]...cat/DC-1440">http://www...[16]...cat/DC-1440</a> [<a href="http://www.isocat.org/datcat/DC-1440">http://www.isocat.org/datcat/DC-1440</a>])</p> <p>subClassOf partOfSpeech (dcif:conceptualDomain)</p>
parenthesis open open parenthesis	<p><a href="http://purl.org/olia/olia.owl#OpenParenthesis">http://purl.org/olia/olia.owl#OpenParenthesis</a></p> <p>tag:textal-ign.net,2015:feature:OpenParenthesis</p>	<p><a href="http://www...[16]...cat/DC-1442">http://www...[16]...cat/DC-1442</a> [<a href="http://www.isocat.org/datcat/DC-1442">http://www.isocat.org/datcat/DC-1442</a>]</p> <p>Beginning of a pair of parenthesis. (<a href="http://www...[16]...cat/DC-1442">http://www...[16]...cat/DC-1442</a> [<a href="http://www.isocat.org/datcat/DC-1442">http://www.isocat.org/datcat/DC-1442</a>])</p> <p>subClassOf partOfSpeech (dcif:conceptualDomain)</p>
participle	<p><a href="http://purl.org/olia/olia.owl#Participle">http://purl.org/olia/olia.owl#Participle</a></p> <p>tag:textal-ign.net,2015:feature:Participle</p>	<p>EAGLES NonFinite with VerbForm="Participle".</p> <p>A participle is a lexical item, derived from a verb that has some of the characteristics and functions of both verbs and adjectives. In English, participles may be used as adjectives, and in non-finite forms of verbs. (<a href="http://www...[58]...ticipule.htm">http://www...[58]...ticipule.htm</a> [<a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAParticiple.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAParticiple.htm</a>] 19.09.06) Non-finite form of a verb other than the infinitive that is used in many languages possibly in conjunction with an auxiliary and that functions attributively, predicatively or adverbially. (<a href="http://www...[16]...cat/DC-1341">http://www...[16]...cat/DC-1341</a> [<a href="http://www.isocat.org/datcat/DC-1341">http://www.isocat.org/datcat/DC-1341</a>])</p>
participle adverbial adverbial participle	<p><a href="http://purl.org/olia/olia.owl#AdverbialParticiple">http://purl.org/olia/olia.owl#AdverbialParticiple</a></p>	<p><a href="http://pur...[41]...1Participle">http://pur...[41]...1Participle</a> [<a href="http://purl.org/olia/mte/">http://purl.org/olia/mte/</a>]</p>



names	IRIs	Comments
	tag:textal-ign.net,2015:feature:AdverbialParticiple	multext-east.owl#Adverbial-Participle] Adverb/Type="participle" is used in the Slovene MTE v4 specs, e.g., 'leže' / lying. Slovenian adverbial participles are, however, not attested for Resian. (MTE v4)(http://pur...[41]...lParticiple [http://purl.org/olia/mte/multext-east.owl#Adverbial-Participle])
participle conditional conditional participle	http://purl.org/olia/olia.owl#Conditional-Participle  tag:textal-ign.net,2015:feature:ConditionalParticiple	adopted from ILPOSTS for Indian languages  e.g. Bengali বুঝলে (bujhle) from বুঝা (bojha) "to understand" (http://en...[46]...9D%E0%A6%BE [http://en.wiktionary.org/wiki/%E0%A6%AC%E0%A7%8B%E0%A6%9D%E0%A6%BE])  [In Bengali, t]he Conditional Participle is widely used to convey "if a certain action [pertaining to the parent verb] is done,...". The logic is: "in the case or condition of a certain action being done". Being impersonal, without regard for the doer of the action that caused the condition, it is not declined to suit number or gender. If this doer is not defined in the Bengali condition clause but needs to be stated in a natural-sounding English translation, this is identified and drawn from the second clause. For example:- Student: Teaching Truth in Bengali If you pay attention,* you will learn. manoyog kar*le* tumi shikh-be. * [or, If attention is paid] (http://www...[39]...study49.pdf [http://www.jaspell.co.uk/bengali-course2007/wb149s-tudy49.pdf])

names	IRIs	Comments
		TODO: check whether this could be modelled as Participle and hasMood some ConditionalMood
participle embedded embedded participle	<p><a href="http://purl.org/olia/olia.owl#EmbeddedParticiple">http://purl.org/olia/olia.owl#EmbeddedParticiple</a></p> <p>tag:textal-ign.net,2015:feature:EmbeddedParticiple</p>	<p><a href="http://lan...[63]...ipleAsHead">http://lan...[63]...ipleAsHead</a>, [<a href="http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#withParticipleAsHead">http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#withParticipleAsHead</a>,] <a href="http://pur...[35]...onstruction">http://pur...[35]...onstruction</a> [<a href="http://purl.org/olia/tcodex.owl#ParticipialConstruction">http://purl.org/olia/tcodex.owl#ParticipialConstruction</a>]</p> <p>A participle is the head of the embedded construction. (<a href="http://lan...[62]...cipleAsHead">http://lan...[62]...cipleAsHead</a> [<a href="http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#withParticipleAsHead">http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#withParticipleAsHead</a>]) Participial constructions are used as adjunct clauses in Old High German. As they lack a finite verb form they are kept separately from finite subordinate clauses. (<a href="http://pur...[35]...onstruction">http://pur...[35]...onstruction</a> [<a href="http://purl.org/olia/tcodex.owl#ParticipialConstruction">http://purl.org/olia/tcodex.owl#ParticipialConstruction</a>])</p>
participle past past participle	<p><a href="http://purl.org/olia/olia.owl#PastParticiple">http://purl.org/olia/olia.owl#PastParticiple</a></p> <p>tag:textal-ign.net,2015:feature:PastParticiple</p>	introduced as a shorthand for Participle and hasTense some Past
participle present present participle	<p><a href="http://purl.org/olia/olia.owl#PresentParticiple">http://purl.org/olia/olia.owl#PresentParticiple</a></p> <p>tag:textal-ign.net,2015:feature:PresentParticiple</p>	introduced as a shorthand for Participle and hasTense some Present
particle	<a href="http://purl.org/olia/olia.owl#Particle">http://purl.org/olia/olia.owl#Particle</a>	

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:Particle	
particle affirmative affirmative particle	<p><a href="http://purl.org/olia/olia.owl#AffirmativeParticle">http://purl.org/olia/olia.owl#AffirmativeParticle</a></p> <p>tag:textal-ign.net,2015:feature:AffirmativeParticle</p>	<p><a href="http://www...[16]...cat/DC-1918">http://www...[16]...cat/DC-1918</a> [<a href="http://www.isocat.org/datcat/DC-1918">http://www.isocat.org/datcat/DC-1918</a>]</p> <p>Particle used to express affirmation. (<a href="http://www...[16]...cat/DC-1918">http://www...[16]...cat/DC-1918</a> [<a href="http://www.isocat.org/datcat/DC-1918">http://www.isocat.org/datcat/DC-1918</a>])</p> <p>subClassOf particle (dcif:isA)</p>
particle aspect aspect particle	<p><a href="http://purl.org/olia/olia.owl#AspectParticle">http://purl.org/olia/olia.owl#AspectParticle</a></p> <p>tag:textal-ign.net,2015:feature:AspectParticle</p>	<p><a href="http://pur...[36]...ectParticle">http://pur...[36]...ectParticle</a> [<a href="http://purl.org/olia/mte/multext-east.owl#AspectParticle">http://purl.org/olia/mte/multext-east.owl#AspectParticle</a>]</p> <p>In the Romanian MULTEXT-East scheme, a verbal particle with Particle/Type="aspect" modifies the verbs and carries information on the verb form, i.e., on its aspect (Dan Tufis, email 2010/06/09, <a href="http://pur...[36]...ectParticle">http://pur...[36]...ectParticle</a> [<a href="http://purl.org/olia/mte/multext-east.owl#AspectParticle">http://purl.org/olia/mte/multext-east.owl#AspectParticle</a>])</p>
particle comparative comparative particle	<p><a href="http://purl.org/olia/olia.owl#ComparativeParticle">http://purl.org/olia/olia.owl#ComparativeParticle</a></p> <p>tag:textal-ign.net,2015:feature:ComparativeParticle</p>	<p><a href="http://www...[16]...cat/DC-1922">http://www...[16]...cat/DC-1922</a> [<a href="http://www.isocat.org/datcat/DC-1922">http://www.isocat.org/datcat/DC-1922</a>]</p> <p>Particle used to compare. (<a href="http://www...[16]...cat/DC-1922">http://www...[16]...cat/DC-1922</a> [<a href="http://www.isocat.org/datcat/DC-1922">http://www.isocat.org/datcat/DC-1922</a>])</p> <p>subClassOf particle (dcif:isA)</p>
particle conditional conditional particle	<p><a href="http://purl.org/olia/olia.owl#ConditionalParticle">http://purl.org/olia/olia.owl#ConditionalParticle</a></p> <p>tag:textal-ign.net,2015:feature:ConditionalParticle</p>	<p><a href="http://www...[16]...cat/DC-2230">http://www...[16]...cat/DC-2230</a> [<a href="http://www.isocat.org/datcat/DC-2230">http://www.isocat.org/datcat/DC-2230</a>]</p> <p>conditional particule (MIRACL &amp; LSCA; <a href="http://www...[16]...cat/DC-2230">http://www...[16]...cat/DC-2230</a> [<a href="http://www.isocat.org/datcat/DC-2230">http://www.isocat.org/datcat/DC-2230</a>])</p>

names	IRIs	Comments
		DCR subClassOf particle (dcif:isA)
particle contrastive contrastive particle	<a href="http://purl.org/olia/olia.owl#ContrastiveParticle">http://purl.org/olia/olia.owl#ContrastiveParticle</a>  tag:textal-ign.net,2015:feature:ContrastiveParticle	
particle coordination coordination particle	<a href="http://purl.org/olia/olia.owl#CoordinationParticle">http://purl.org/olia/olia.owl#CoordinationParticle</a>  tag:textal-ign.net,2015:feature:CoordinationParticle	<a href="http://www...[16]...cat/DC-2227">http://www...[16]...cat/DC-2227</a> [ <a href="http://www.isocat.org/datcat/DC-2227">http://www.isocat.org/datcat/DC-2227</a> ]  particle for coordination (MIRACL & LSCA; <a href="http://www...[16]...cat/DC-2227">http://www...[16]...cat/DC-2227</a> [ <a href="http://www.isocat.org/datcat/DC-2227">http://www.isocat.org/datcat/DC-2227</a> ])  subClassOf particle (dcif:isA)
particle distinctive distinctive particle	<a href="http://purl.org/olia/olia.owl#DistinctiveParticle">http://purl.org/olia/olia.owl#DistinctiveParticle</a>  tag:textal-ign.net,2015:feature:DistinctiveParticle	<a href="http://www...[16]...cat/DC-2228">http://www...[16]...cat/DC-2228</a> [ <a href="http://www.isocat.org/datcat/DC-2228">http://www.isocat.org/datcat/DC-2228</a> ]  distinctive particle (MIRACL & LSCA; <a href="http://www...[16]...cat/DC-2228">http://www...[16]...cat/DC-2228</a> [ <a href="http://www.isocat.org/datcat/DC-2228">http://www.isocat.org/datcat/DC-2228</a> ])  subClassOf particle (dcif:isA)
particle emphatic emphatic particle	<a href="http://purl.org/olia/olia.owl#EmphaticParticle">http://purl.org/olia/olia.owl#EmphaticParticle</a>  tag:textal-ign.net,2015:feature:EmphaticParticle	
particle existential existential particle	<a href="http://purl.org/olia/olia.owl#ExistentialParticle">http://purl.org/olia/olia.owl#ExistentialParticle</a>  tag:textal-ign.net,2015:feature:ExistentialParticle	<a href="http://pur...[38]...entialThere">http://pur...[38]...entialThere</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#ExistentialThere">http://purl.org/olia/mte/multext-east.owl#ExistentialThere</a> ]  English existential there is specified as a subtype of pronoun in MTE v4, i.e., Pronoun/Type="exthere" ( <a href="http://pur...[38]...entialThere">http://pur...[38]...entialThere</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#ExistentialThere">http://purl.org/olia/mte/multext-east.owl#ExistentialThere</a> ])

names	IRIs	Comments
		<a href="http://purl.org/olia/mte/multext-east.owl#ExistentialThere">purl.org/olia/mte/multext-east.owl#ExistentialThere</a> )
particle future future particle	<a href="http://purl.org/olia/olia.owl#FutureParticle">http://purl.org/olia/olia.owl#FutureParticle</a>  tag:textalign.net,2015:feature:FutureParticle	<a href="http://www...[17]...at/DC-1919">http://www...[17]...at/DC-1919</a> , [ <a href="http://www.isocat.org/datcat/DC-1919">http://www.isocat.org/datcat/DC-1919</a> ,] taxonomic organization (under VerbalParticle) follows <a href="http://pur...[37]...reParticle">http://pur...[37]...reParticle</a> , [ <a href="http://purl.org/olia/mte/multext-east.owl#FutureParticle">http://purl.org/olia/mte/multext-east.owl#FutureParticle</a> ,] regrouped under TenseMarkingParticle  Particle used in order to express future. ( <a href="http://www...[16]...cat/DC-1919">http://www...[16]...cat/DC-1919</a> [ <a href="http://www.isocat.org/datcat/DC-1919">http://www.isocat.org/datcat/DC-1919</a> ])  subClassOf particle (dcif:isA)
particle infinitive infinitive particle	<a href="http://purl.org/olia/olia.owl#InfinitiveParticle">http://purl.org/olia/olia.owl#InfinitiveParticle</a>  tag:textalign.net,2015:feature:InfinitiveParticle	<a href="http://www...[17]...at/DC-1896">http://www...[17]...at/DC-1896</a> , [ <a href="http://www.isocat.org/datcat/DC-1896">http://www.isocat.org/datcat/DC-1896</a> ,] taxonomic organization follows <a href="http://pur...[40]...iveParticle">http://pur...[40]...iveParticle</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#InfinitiveParticle">http://purl.org/olia/mte/multext-east.owl#InfinitiveParticle</a> ]  Particle used to express infinitive. ( <a href="http://www...[16]...cat/DC-1896">http://www...[16]...cat/DC-1896</a> [ <a href="http://www.isocat.org/datcat/DC-1896">http://www.isocat.org/datcat/DC-1896</a> ])  subClassOf particle (dcif:isA)
particle interrogative interrogative particle	<a href="http://purl.org/olia/olia.owl#InterrogativeParticle">http://purl.org/olia/olia.owl#InterrogativeParticle</a>  tag:textalign.net,2015:feature:InterrogativeParticle	TODO: check relationship with interrogative adverb  <a href="http://www...[16]...cat/DC-1921">http://www...[16]...cat/DC-1921</a> [ <a href="http://www.isocat.org/datcat/DC-1921">http://www.isocat.org/datcat/DC-1921</a> ]  Particle used to express a question. ( <a href="http://www...[16]...cat/DC-1921">http://www...[16]...cat/DC-1921</a> [ <a href="http://www.isocat.org/datcat/DC-1921">http://www.isocat.org/datcat/DC-1921</a> ])

names	IRIs	Comments
		subClassOf particle (dcif:isA)
particle marking tense tense marking particle	<a href="http://purl.org/olia/olia.owl#TenseMarkingParticle">http://purl.org/olia/olia.owl#TenseMarkingParticle</a>  tag:textal-ign.net,2015:feature:TenseMarkingParticle	
particle modal modal particle	<a href="http://purl.org/olia/olia.owl#ModalParticle">http://purl.org/olia/olia.owl#ModalParticle</a>  tag:textal-ign.net,2015:feature:ModalParticle	<a href="http://www...[16]...cat/DC-1920">http://www...[16]...cat/DC-1920</a> [ <a href="http://www.isocat.org/datcat/DC-1920">http://www.isocat.org/datcat/DC-1920</a> ]  TOCHECK: is this definition correct? Could it be that ModalParticle actually means "VerbalParticle marking mood"? (Cf. ModalityMarkingAdverb)  Particle which functions as a modal. ( <a href="http://www...[16]...cat/DC-1920">http://www...[16]...cat/DC-1920</a> [ <a href="http://www.isocat.org/datcat/DC-1920">http://www.isocat.org/datcat/DC-1920</a> ])  subClassOf particle (dcif:isA)
particle morphological morphological particle	<a href="http://purl.org/olia/olia.owl#MorphologicalParticle">http://purl.org/olia/olia.owl#MorphologicalParticle</a>  tag:textal-ign.net,2015:feature:MorphologicalParticle	added in accordance with TIGER MorphologicalParticle  added in accordance with TIGER MorphologicalParticle
particle negative negative particle	<a href="http://purl.org/olia/olia.owl#NegativeParticle">http://purl.org/olia/olia.owl#NegativeParticle</a>  tag:textal-ign.net,2015:feature:NegativeParticle	<a href="http://www...[16]...cat/DC-1894">http://www...[16]...cat/DC-1894</a> [ <a href="http://www.isocat.org/datcat/DC-1894">http://www.isocat.org/datcat/DC-1894</a> ]  Particle used to express negation. (Gil Francopoulo; <a href="http://www...[16]...cat/DC-1894">http://www...[16]...cat/DC-1894</a> [ <a href="http://www.isocat.org/datcat/DC-1894">http://www.isocat.org/datcat/DC-1894</a> ])  subClassOf particle (dcif:isA)
particle possessive possessive particle	<a href="http://purl.org/olia/olia.owl#PossessiveParticle">http://purl.org/olia/olia.owl#PossessiveParticle</a>  tag:textal-ign.net,2015:fea-	<a href="http://www...[16]...cat/DC-1895">http://www...[16]...cat/DC-1895</a> [ <a href="http://www.isocat.org/datcat/DC-1895">http://www.isocat.org/datcat/DC-1895</a> ]  Particle expressing ownership. ( <a href="http://www...[16]...">http://www...[16]...</a> )

names	IRIs	Comments
	ture:PossessiveParticle	cat/DC-1895 [http://www.isocat.org/datcat/DC-1895] subClassOf particle (dcif:isA)
particle preverbal preverbal particle	http://purl.org/olia/olia.owl#PreverbalParticle tag:textal-ign.net,2015:feature:PreverbalParticle	http://www...[16]...cat/DC-1455 [http://www.isocat.org/datcat/DC-1455] (preverbalParticleLmf)
particle relative relative particle	http://purl.org/olia/olia.owl#RelativeParticle tag:textal-ign.net,2015:feature:RelativeParticle	http://www...[16]...cat/DC-2229 [http://www.isocat.org/datcat/DC-2229] relative particle (MIRACL & LSCA; http://www...[16]...cat/DC-2229 [http://www.isocat.org/datcat/DC-2229]) subClassOf particle (dcif:isA)
particle subjunctive subjunctive particle	http://purl.org/olia/olia.owl#SubjunctiveParticle tag:textal-ign.net,2015:feature:SubjunctiveParticle	http://pur...[41]...iveParticle [http://purl.org/olia/mte/multext-east.owl#SubjunctiveParticle] In the Romanian MULTEXT-East scheme, a verbal particle with Particle/Type="future" modifies the verbs and marks the verb as being subjunctive, e.g., s/să, să (Dan Tufis, email 2010/06/09, http://pur...[41]...iveParticle [http://purl.org/olia/mte/multext-east.owl#SubjunctiveParticle])
particle superlative superlative particle	http://purl.org/olia/olia.owl#SuperlativeParticle tag:textal-ign.net,2015:feature:SuperlativeParticle	http://www...[16]...cat/DC-1923 [http://www.isocat.org/datcat/DC-1923] Particle expressing superlative degree. Superlative is the comparison between more than two entities and contrasts with comparative where only two entities are involved and positive where no comparison is implied.

names	IRIs	Comments
		(Crystal 2003; <a href="http://www...[16]...cat/DC-1923">http://www...[16]...cat/DC-1923</a> [ <a href="http://www.isocat.org/dat-cat/DC-1923">http://www.isocat.org/dat-cat/DC-1923</a> ])  subClassOf particle (dcif:isA)
particle verbal verbal particle	<a href="http://purl.org/olia/olia.owl#VerbalParticle">http://purl.org/olia/olia.owl#VerbalParticle</a>  tag:textal-ign.net,2015:feature:VerbalParticle	<a href="http://pur...[36]...balParticle">http://pur...[36]...balParticle</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#VerbalParticle">http://purl.org/olia/mte/multext-east.owl#VerbalParticle</a> ]  A verbal particle modifies the verb and carries information on the verb form (e.g., finiteness, tense and aspect). (Dimitrova et al. 2009, Dan Tufis, email 2010/06/09). In the Bulgarian MTE specs, Particle/Type=verbal (v) is used to form different type of verbal syntactical relationships, e.g. to create future tense (ще говориш), or particles like се, да. (Dimitrova et al. 2009) The Romanian MTE v4 specs provide a more fine-grained subclassification of (verbal) particles (MTE v4, <a href="http://pur...[36]...balParticle">http://pur...[36]...balParticle</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#VerbalParticle">http://purl.org/olia/mte/multext-east.owl#VerbalParticle</a> ])
particle voice voice particle	<a href="http://purl.org/olia/olia.owl#VoiceParticle">http://purl.org/olia/olia.owl#VoiceParticle</a>  tag:textal-ign.net,2015:feature:VoiceParticle	generalization over EAGLES: <a href="http://pur...[37]...iceParticle">http://pur...[37]...iceParticle</a> [ <a href="http://purl.org/olia/eagles.owl#MediopassiveVoiceParticle">http://purl.org/olia/eagles.owl#MediopassiveVoiceParticle</a> ]  E.g., the mediopassive (middle) voice marker se in the Portuguese EAGLES scheme. (Leech and Wilson 1996)
passive deletion agent agent deletion passive	<a href="http://purl.org/olia/olia.owl#AgentDeletionPassive">http://purl.org/olia/olia.owl#AgentDeletionPassive</a>  tag:textal-ign.net,2015:feature:AgentDeletionPassive	<a href="http://pur...[33]...tionPassive">http://pur...[33]...tionPassive</a> [ <a href="http://purl.org/linguistics/gold/AgentDeletionPassive">http://purl.org/linguistics/gold/AgentDeletionPassive</a> ]  The object of the active retains its old case-marking in the passive, the subject of the active



names	IRIs	Comments
		cannot appear in the passive clause, and the passive tends to be semantically active. (Givon 1988:419) ( <a href="http://purl.org/linguistics/gold/AgentDeletionPassive">http://purl.org/linguistics/gold/AgentDeletionPassive</a> )
passive impersonal impersonal passive	<a href="http://purl.org/olia/olia.owl#ImpersonalPassive">http://purl.org/olia/olia.owl#ImpersonalPassive</a>  tag:textal-ign.net,2015:feature:ImpersonalPassive	<a href="http://purl.org/linguistics/gold/ImpersonalPassive">http://purl.org/linguistics/gold/ImpersonalPassive</a>  A Passive that alters the mapping of a nominal to the Subject relation in a basic intransitive structure (Klaiman 1991:23) ( <a href="http://purl.org/linguistics/gold/ImpersonalPassive">http://purl.org/linguistics/gold/ImpersonalPassive</a> )
passive inverse non non inverse passive	<a href="http://purl.org/olia/olia.owl#NonInversePassive">http://purl.org/olia/olia.owl#NonInversePassive</a>  tag:textal-ign.net,2015:feature:NonInversePassive	<a href="http://purl.org/linguistics/gold/NonInversePassive">http://purl.org/linguistics/gold/NonInversePassive</a> Unlike the GOLD definition, Passive is often not clearly distinguished from Inverse: According to Givón (1988), Inverse is characterized by obligatory realization of the suppressed agent, whereas the realization of the agent in a passive construction is optional (or impossible). This restrictive definition of passive does, however, conflict with the use of the term "passive" for European languages. Then, English and German "Passive" would be Inverses. Therefore, Inverse is a subconcept of Passive here. Givón's original Passive is NonInversePassive.  An agent-demoting voice construction where the realization of the demoted agent is not obligatory (against Inverse). In terminological systems that distinguish "InverseVoice" from "Passive" (e.g., Givon, 1988), this is the "Passive" concept. (Ch. Chiarcos) Associated with actions performed on the subject

names	IRIs	Comments
		by an unspecified agent. (McIntosh 1984:108) Refers to the category of verb forms, typically identifies with a specific morphological marking, that encode the derived diatheses in which the agent role is not linked with a subject noun phrase (Shibatani 1995:7) ( <a href="http://purl.org/linguistics/gold/Passive">http://purl.org/linguistics/gold/Passive</a> )
passive locative locative passive	<a href="http://purl.org/olia/olia.owl#LocativePassive">http://purl.org/olia/olia.owl#LocativePassive</a>  tag:textal-ign.net,2015:feature:LocativePassive	<a href="http://purl.org/linguistics/gold/LocativePassive">http://purl.org/linguistics/gold/LocativePassive</a>  An oblique locative nominal assumes the subject relation. (Klaiman 1991:17) ( <a href="http://purl.org/linguistics/gold/LocativePassive">http://purl.org/linguistics/gold/LocativePassive</a> )
passive necessitative necessitative passive	<a href="http://purl.org/olia/olia.owl#NecessitativePassive">http://purl.org/olia/olia.owl#NecessitativePassive</a>  tag:textal-ign.net,2015:feature:NecessitativePassive	<a href="http://purl.org/linguistics/gold/NecessitativePassive">http://purl.org/linguistics/gold/NecessitativePassive</a>  A passive in Irish in which the preposition "with" is used, and a semantic meaning of necessity is added. (Noonan 1994:280) ( <a href="http://purl.org/linguistics/gold/NecessitativePassive">http://purl.org/linguistics/gold/NecessitativePassive</a> )
passive oblique oblique passive	<a href="http://purl.org/olia/olia.owl#ObliquePassive">http://purl.org/olia/olia.owl#ObliquePassive</a>  tag:textal-ign.net,2015:feature:ObliquePassive	<a href="http://purl.org/linguistics/gold/ObliquePassive">http://purl.org/linguistics/gold/ObliquePassive</a>  A Passive in which a basic Oblique nominal assumes the Subject relation in a corresponding nonbasic configuration. Can include locative passives, benefactive passives and instrumental passives. (Klaiman 1991:23) ( <a href="http://purl.org/linguistics/gold/ObliquePassive">http://purl.org/linguistics/gold/ObliquePassive</a> )

names	IRIs	Comments
		<a href="http://purl.org/linguistics/gold/ObliquePassive">purl.org/linguistics/gold/ObliquePassive</a> )
passive personal personal passive	<a href="http://purl.org/olia/olia.owl#PersonalPassive">http://purl.org/olia/olia.owl#PersonalPassive</a>  tag:textal-ign.net,2015:feature:PersonalPassive	<a href="http://purl.org/linguistics/gold/PersonalPassive">http://pur...[28]...onalPassive</a> [ <a href="http://purl.org/linguistics/gold/PersonalPassive">http://purl.org/linguistics/gold/PersonalPassive</a> ]  A Passive in which the argument mapped to Object in a basic structural configuration assumes the Subject relation in a corresponding non-basic configuration. (Klaiman 1991:23) ( <a href="http://purl.org/linguistics/gold/PersonalPassive">http://pur...[28]...onalPassive</a> [ <a href="http://purl.org/linguistics/gold/PersonalPassive">http://purl.org/linguistics/gold/PersonalPassive</a> ])
passive progressive progressive passive	<a href="http://purl.org/olia/olia.owl#ProgressivePassive">http://purl.org/olia/olia.owl#ProgressivePassive</a>  tag:textal-ign.net,2015:feature:ProgressivePassive	<a href="http://purl.org/linguistics/gold/ProgressivePassive">http://pur...[31]...sivePassive</a> [ <a href="http://purl.org/linguistics/gold/ProgressivePassive">http://purl.org/linguistics/gold/ProgressivePassive</a> ]  A passive in Irish in which the preposition "at" is used, and a semantic meaning of progressive tense is found (Noonan 1994:280) ( <a href="http://purl.org/linguistics/gold/ProgressivePassive">http://pur...[31]...sivePassive</a> [ <a href="http://purl.org/linguistics/gold/ProgressivePassive">http://purl.org/linguistics/gold/ProgressivePassive</a> ])
passive reflexive reflexive passive	<a href="http://purl.org/olia/olia.owl#ReflexivePassive">http://purl.org/olia/olia.owl#ReflexivePassive</a>  tag:textal-ign.net,2015:feature:ReflexivePassive	<a href="http://purl.org/linguistics/gold/ReflexivePassive">http://pur...[29]...xivePassive</a> [ <a href="http://purl.org/linguistics/gold/ReflexivePassive">http://purl.org/linguistics/gold/ReflexivePassive</a> ]  A Passive construction which contains reflexive markings. (Siewierska 1988:257) ( <a href="http://purl.org/linguistics/gold/ReflexivePassive">http://pur...[29]...xivePassive</a> [ <a href="http://purl.org/linguistics/gold/ReflexivePassive">http://purl.org/linguistics/gold/ReflexivePassive</a> ])
past	<a href="http://purl.org/olia/olia.owl#Past">http://purl.org/olia/olia.owl#Past</a>  tag:textal-ign.net,2015:feature:Past	EAGLES, <a href="http://lan...[51]...l#pastTense">http://lan...[51]...l#pastTense</a> [ <a href="http://lanaguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#pastTense">http://lanaguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#pastTense</a> ]  The past tense is a verb tense expressing action, activity, state or being in the past. ( <a href="http://en">http://en</a> .

names	IRIs	Comments
		...[19].../Past_tense [http://en.wikipedia.org/wiki/Past_tense] 17.11.06) The past tense refers to a tense category which places an event in the past. (http://lan...[51]...1#pastTense [http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#pastTense])
past hesternal hesternal past	http://purl.org/olia/olia.owl#HesternalPast  tag:textalign.net,2015:feature:HesternalPast	http://pur...[27]...ternalPast, [http://purl.org/linguistics/gold/HesternalPast,] classified as Past here  HesternalPastTense locates the situation in question somewhere in the span beginning with the period defined culturally as 'yesterday' and extends back through some period that is considered nonremote (Comrie 1985:87-88; Dahl 1985:126). (http://pur...[26]...sternalPast [http://purl.org/linguistics/gold/HesternalPast])
past hodiernal hodiernal past	http://purl.org/olia/olia.owl#HodiernalPast  tag:textalign.net,2015:feature:HodiernalPast	http://pur...[27]...iernalPast, [http://purl.org/linguistics/gold/HodiernalPast,] classified as Past here  HodiernalPastTense locates the situation in question before the moment of utterance within the span culturally defined as 'today' (Comrie 1985:87; Dahl 1985:125-126). Contrasts with PreHodiernalPastTense. (http://pur...[26]...diernalPast [http://purl.org/linguistics/gold/HodiernalPast])
past hodiernal pre pre hodiernal past	http://purl.org/olia/olia.owl#PreHodiernalPast	http://pur...[30]...iernalPast, [http://purl.org/linguistics/gold/PreHodiernalPast,] classified as absolute tense

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:PreHodiernalPast	PreHodiernalPastTense locates the situation in question before that of a contrasting HodiernalPastTense. According to Bybee, Perkins, Pagliuca 1994: 98. this category must be defined relative to a HodiernalPastTense. ( <a href="http://purl.org/linguistics/gold/PreHodiernalPast">http://purl.org/linguistics/gold/PreHodiernalPast</a> )
past immediate immediate past	<a href="http://purl.org/olia/olia.owl#ImmediatePast">http://purl.org/olia/olia.owl#ImmediatePast</a> tag:textal-ign.net,2015:feature:ImmediatePast	<a href="http://purl.org/linguistics/gold/ImmediatePast">http://purl.org/linguistics/gold/ImmediatePast</a> , [http://purl.org/linguistics/gold/ImmediatePast,] classified as Past here  ImmediatePastTense locates the situation in question at a time considered very recent in relation to the moment of utterance (Comrie 1985: 87). ( <a href="http://purl.org/linguistics/gold/ImmediatePast">http://purl.org/linguistics/gold/ImmediatePast</a> )
past in future	<a href="http://purl.org/olia/olia.owl#FutureInPast">http://purl.org/olia/olia.owl#FutureInPast</a> tag:textal-ign.net,2015:feature:FutureInPast	<a href="http://purl.org/linguistics/gold/FutureInPast">http://purl.org/linguistics/gold/FutureInPast</a> , [http://purl.org/linguistics/gold/FutureInPast,] classified as absolute-relative tense here  FutureInPastTense locates the situation in question in the future, relative to a contextually determined temporal reference point that itself must be located in the past relative to the moment of utterance. ( <a href="http://purl.org/linguistics/gold/FutureInPast">http://purl.org/linguistics/gold/FutureInPast</a> )
past recent recent past	<a href="http://purl.org/olia/olia.owl#RecentPast">http://purl.org/olia/olia.owl#RecentPast</a> tag:textal-ign.net,2015:feature:RecentPast	<a href="http://purl.org/linguistics/gold/RecentPast">http://purl.org/linguistics/gold/RecentPast</a> [http://purl.org/linguistics/gold/RecentPast]  RecentPastTense locates the situation in question prior to the present moment, but by culturally and situationally de-

names	IRIs	Comments
		<p>finer criteria, usually within the span ranging from yesterday to a week or a few months previous (Comrie 1985:87; Dahl 1985:121-122). (<a href="http://purl.org/linguistics/gold/RecentPast">http://purl.org/linguistics/gold/RecentPast</a>)</p>
<p>past relative relative past</p>	<p><a href="http://purl.org/olia/olia.owl#RelativePast">http://purl.org/olia/olia.owl#RelativePast</a>  tag:textal-ign.net,2015:feature:RelativePast</p>	<p><a href="http://purl.org/linguistics/gold/RelativePast">http://purl.org/linguistics/gold/RelativePast</a>  RelativePastTense locates the situation in question before that of a contextually determined temporal reference point (Comrie 1985: 104). Also called Past-PerfectTense. (<a href="http://purl.org/linguistics/gold/RelativePast">http://purl.org/linguistics/gold/RelativePast</a>)</p>
<p>past remote remote past</p>	<p><a href="http://purl.org/olia/olia.owl#RemotePast">http://purl.org/olia/olia.owl#RemotePast</a>  tag:textal-ign.net,2015:feature:RemotePast</p>	<p><a href="http://purl.org/linguistics/gold/RemotePast">http://purl.org/linguistics/gold/RemotePast</a>, classified as absolute-relative here  RemotePastTense locates the situation in question prior to the present moment, usually more than a few days ago (Dahl 1985:121; Comrie 1985:88). Subsumes notion of PreHesternalPast tense, which locates the situation in question before that of an opposing hesternal past tense. (Bybee, Perkins, Pagliuca 1994: 98). (<a href="http://purl.org/linguistics/gold/RemotePast">http://purl.org/linguistics/gold/RemotePast</a>)</p>
<p>past simple simple past</p>	<p><a href="http://purl.org/olia/olia.owl#SimplePast">http://purl.org/olia/olia.owl#SimplePast</a>  tag:textal-ign.net,2015:feature:SimplePast</p>	<p><a href="http://purl.org/linguistics/gold/Past">http://purl.org/linguistics/gold/Past</a>  PastTense locates the situation in question prior to the present moment, with no specification on the distance in time (Comrie 1985). (<a href="http://purl.org/linguistics/gold/Past">http://purl.org/linguistics/gold/Past</a>)</p>

names	IRIs	Comments
		[17]...s/gold/Past [http://purl.org/linguistics/gold/Past]
paucal	<p>http://purl.org/olia/olia.owl#Paucal</p> <p>tag:textal-ign.net,2015:feature:Paucal</p>	<p>http://www...[16]...cat/DC-1350 [http://www.isocat.org/datcat/DC-1350]</p> <p>TODO: rename to PaucalNumber, because of the existence of PaucalQuantifier in MULTEXT-East</p> <p>Number that specifies 'a few' things. (en2.wikipedia.org/wiki/Paucalnumber; http://www...[16]...cat/DC-1350 [http://www.isocat.org/datcat/DC-1350])</p> <p>subClassOf grammaticalNumber (dcif:conceptualDomain)</p>
perfect	<p>http://purl.org/olia/olia.owl#Perfect</p> <p>tag:textal-ign.net,2015:feature:Perfect</p>	<p>http://www...[17]...at/DC-1351, [http://www.isocat.org/datcat/DC-1351,] modelled as an absolute tense here</p> <p>A verb tense that refers to completed action in the past. It corresponds to three English tenses. (www.southwestern.edu/~carlg/LatinWeb/glossary.html; http://www...[16]...cat/DC-1351 [http://www.isocat.org/datcat/DC-1351])</p>
perfect future future perfect	<p>http://purl.org/olia/olia.owl#FuturePerfect</p> <p>tag:textal-ign.net,2015:feature:FuturePerfect</p>	<p>http://pur...[28]...tiveFuture, [http://purl.org/linguistics/gold/RelativeFuture,] http://www...[16]...cat/DC-1292 [http://www.isocat.org/datcat/DC-1292]</p> <p>RelativeFutureTense locates the situation in question after a contextually determined temporal reference point, regardless of the latter's relation to the moment of utterance. Also called FuturePerfectTense (Comrie 1985:69-71). (http://pur...</p>

names	IRIs	Comments
		<p>[27]...ativeFuture [http://purl.org/linguistics/gold/RelativeFuture]) A verb tense that refers to an action or state of being completed in the future. Translation into English requires the use of the auxiliary verbs will/shall have. (www.southwestern.edu/~carlg/Latin.Web/glossary.html; http://www...[16]...cat/DC-1292 [http://www.isocat.org/datcat/DC-1292]) A tense of verbs describing an action that will have been performed by a certain time. In English this is formed with will have or shall have plus the past participle. (www.wordreference.com/English/definition.asp?en=future+perfect; http://www...[16]...cat/DC-1292 [http://www.isocat.org/datcat/DC-1292])</p>
personal	<p>http://purl.org/olia/olia.owl#Personal</p> <p>tag:textal-ign.net,2015:feature:Personal</p>	<p>http://www...[16]...cat/DC-1946 [http://www.isocat.org/datcat/DC-1946]</p> <p>Property that refers to the person. (http://www...[16]...cat/DC-1946 [http://www.isocat.org/datcat/DC-1946])</p> <p>subClassOf referentType (dcif:conceptualDomain)</p>
phrase	<p>http://purl.org/olia/olia.owl#Phrase</p> <p>tag:textal-ign.net,2015:feature:Phrase</p>	<p>http://pur...[19]...gold/Phrase [http://purl.org/linguistics/gold/Phrase]</p> <p>Phrase is the class of syntactic constructions that consist of one or more syntactic words, but lack the subject-predicate organization of a clause. Phrases get their grammatical characteristics according to what word occupies the head position; thus, all phrases have heads [Crystal 1980, 232-233; Pei and Gaynor 1954, 169; Pike and</p>



names	IRIs	Comments
		Pike 1982, 453]. ( <a href="http://purl.org/linguistics/gold/Phrase">http://purl.org/linguistics/gold/Phrase</a> )
phrase adjective adjective phrase	<a href="http://purl.org/olia/olia.owl#AdjectivePhrase">http://purl.org/olia/olia.owl#AdjectivePhrase</a>  tag:textal-ign.net,2015:feature:AdjectivePhrase	<p><a href="http://purl.org/linguistics/gold/AdjectivePhrase">http://purl.org/linguistics/gold/AdjectivePhrase</a></p> <p>AdjectivePhrase is the class of phrases that have adjectives as heads. (<a href="http://purl.org/linguistics/gold/AdjectivePhrase">http://purl.org/linguistics/gold/AdjectivePhrase</a>)</p> <p>An adjective phrase may consist of an adjective, or a sequence of words in which an adjective is the head of the phrase, as shown in 47 to 50 below. (47) [NP his [ADJP surprisingly thick and hairy ADJP] wrists NP] (48) [NP some [ADJP [ADJP wholly unanticipated ADJP] but [ADJP remotely possible ADJP] ADJP] event NP] (49) [S [NP His speeches NP] [VP are [ADVP always ADVP] [ADJP too long [PP for comfort PP] ADJP] VP] S] (50) [AUX have AUX] [NP you NP] [VP found [NP something [ADJP suitable [PP for [NP your needs NP] PP] ADJP] NP] VP] ? (<a href="http://www.node36.html">http://www...[31]...node36.html</a>) [<a href="http://www.ilc.cnr.it/EAGLES96/segsasgi/node36.html">http://www.ilc.cnr.it/EAGLES96/segsasgi/node36.html</a>])</p>
phrase adverb adverb phrase	<a href="http://purl.org/olia/olia.owl#AdverbPhrase">http://purl.org/olia/olia.owl#AdverbPhrase</a>  tag:textal-ign.net,2015:feature:AdverbPhrase	<p>An adverb phrase may consist of an adverb, or a sequence of words in which an adverb is the head of the phrase. Adverb phrases may function as adverbials, as in 41: (41) [NP Her beautiful white hat NP] [VP was [ADVP very nearly ADVP] ruined VP] or as modifiers of adjectives, as in 42: (42) [NP Il NP] [VP parle [ADVP infinit plus couramment ADVP] VP] or noun phrases, as in 43: (43) [NP They NP] [VP let [NP</p>

names	IRIs	Comments
		<p>me NP] [VP speak VP] [ADVP now and then ADVP] VP] or as the complement of a preposition, as in 44: (44) [ADVP Strangely enough ADVP] , [NP we NP] [VP received [NP a reply NP] [NP the next day NP] VP] Other examples: (45) [NP The book NP] [VP is [ADVP right here ADVP] VP] (46) [ADVP Como [NP resultado [PP de [NP esa trama NP] PP] NP] ADVP] [VP no se lleva [PP a cabo PP] [NP ninguna acción NP] VP] (<a href="http://www...[31]...node35.html">http://www...[31]...node35.html</a> [<a href="http://www.ilc.cnr.it/EAGLES96/segsasg1/node35.html">http://www.ilc.cnr.it/EAGLES96/segsasg1/node35.html</a>])</p>
<p>phrase conjunction conjunction phrase</p>	<p><a href="http://purl.org/olia/olia.owl#ConjunctionPhrase">http://purl.org/olia/olia.owl#ConjunctionPhrase</a></p> <p>tag:textal-ign.net,2015:feature:ConjunctionPhrase</p>	<p>Penn bracketing guidelines, Bies et al. 1995</p> <p>Multi-word conjunction Besides the usual and, or, but, etc., certain prepositions and subordinating conjunctions can be used as coordinating conjunctions. Multi-word coordinating conjunctions are labeled CONJP (see section 7 [Coordination]). ... CONJP — Conjunction Phrase. Used to mark certain “multi-word” conjunctions, such as as well as, instead of. (Bies et al. 1995)</p>
<p>phrase determiner determiner phrase</p>	<p><a href="http://purl.org/olia/olia.owl#DeterminerPhrase">http://purl.org/olia/olia.owl#DeterminerPhrase</a></p> <p>tag:textal-ign.net,2015:feature:DeterminerPhrase</p>	<p>TüBa-D/Z, NOTE: not to be confused with “determiner phrase” in generative grammar, which would be a NounPhrase in most annotation frameworks</p> <p>Certain pronouns serving as determiners in noun phrases may be premodified, for instance, by degree adverbs such as in German “so viele Ältere”, “gar kein Schutz”, etc. In the case of “so viele Ältere”, the premodifying adverb so is attached to the indefinite pronoun viele. Together, they form a determiner phrase (DP), which is attached to the head noun Ältere on</p>

names	IRIs	Comments
		the same level: [so viele] Ältere (Telljohann et al. 2009, p.63)
phrase foreign foreign phrase	<a href="http://purl.org/olia/olia.owl#ForeignPhrase">http://purl.org/olia/olia.owl#ForeignPhrase</a>  tag:textal-ign.net,2015:feature:ForeignPhrase	TüBa-D/Z  Single foreign words are projected to a syntactic level assigned the node label FX, which is an universal label for any syntactic category (phrasal and sentential) in the respective foreign language. (Telljohann et al. 2009, p.44)
phrase headed noun noun headed phrase	<a href="http://purl.org/olia/olia.owl#NounHeadedPhrase">http://purl.org/olia/olia.owl#NounHeadedPhrase</a>  tag:textal-ign.net,2015:feature:NounHeadedPhrase	A NounHeadedPhrase takes a nominal as its (semantic) head. Introduced as a generalization over NounPhrase and PrepositionalPhrase for reasons of consistency with dependency parsers like Connexor where this differentiation is not made.
phrase noun noun phrase	<a href="http://purl.org/olia/olia.owl#NounPhrase">http://purl.org/olia/olia.owl#NounPhrase</a>  tag:textal-ign.net,2015:feature:NounPhrase	NounPhrase is the class of phrases that have nouns as heads. They can play the role of subject in a main clause. ( <a href="http://purl.org/linguistics/gold/NounPhrase">http://purl.org/linguistics/gold/NounPhrase</a> )  At phrase level, the noun phrase is probably the least problematic of the categories to be dealt with. In general, a noun phrase will have a noun or a pronoun as its head, and included within the noun phrase are the determinative elements, any premodification, and any postmodification. The examples below, 14 to 17 show noun phrases with the head noun/pronoun in bold: (14) [NP He NP] was a tiny man (15) [NP his white shirt cuffs NP] (16) [NP his surprisingly thick and hairy wrists NP] (17) [NP some wholly unanticipated but remotely possible event of absorbing interest NP] However, noun phrases may also occur with adjectival heads, as in 18 and 19: (18) [NP The unemployed NP] have had enough (19)

names	IRIs	Comments
		<p>We've beaten [NP the best NP] or with a head which is a cardinal or ordinal number, as in 20 and 21: (20) [NP The ninth NP] is my particular favourite (21) [NP The other seven NP] continued with the trip In 'pro-drop' languages, such as Spanish and Italian, pronominal Subjects are usually not expressed. Depending on the chosen type of analysis, this may require another definition of noun phrase, in order to include 'empty noun phrases', in which the pronoun is not actually present, but may be inferred from the verb ending. A classic constituency test for Noun Phrases is that only whole NPs can be moved within the same sentence. In English, constituents can be preposed to achieve some effect, as in 23 (from Radford 1988: 70): (22) I can't stand your elder sister (23) Your elder sister I can't stand (though your brother's OK). Examples 24 and 25 show that it is not possible to move only part of the NP: (24) *Your elder I can't stand sister (25) *Elder sister, I can't stand your However, this test should be used with caution. It works well in English, but not always in other languages. For example, in 26 Neue Bücher is moved to the beginning of the sentence while keine is left at the end: (26) Neue Bücher habe ich keine new books have I no 'I have not got any new books' (<a href="http://www...[31]...node32.html">http://www...[31]...node32.html</a> [<a href="http://www.ilc.cnr.it/EAGLES96/segsasg1/node32.html">http://www.ilc.cnr.it/EAGLES96/segsasg1/node32.html</a>])</p>
<p>phrase prepositional prepositional phrase</p>	<p><a href="http://purl.org/olia/olia.owl#PrepositionalPhrase">http://purl.org/olia/olia.owl#PrepositionalPhrase</a>  tag:textal-ign.net,2015:fea-</p>	<p>A sequence of a preposition and its complement is a prepositional phrase. The complement of a preposition is usually a noun phrase (see examples 38 to 40), but may also be a clause or an</p>

names	IRIs	Comments
	<p>ture:Preposition- alPhrase</p>	<p>adverb phrase. According to the categories recommended here, a prepositional phrase may be analysed further into preposition and noun phrase. The examples below demonstrate how this further analysis can be a recursive procedure. (38) [PP en [NP sustitucion [PP de [NP los canales correspondientes [PP de [NP 50 budios NP] PP] NP] PP] NP] PP]. (39) [NP Fairbanks NP] [VP hummed [NP a few bars NP] VP] [PP in [NP a voice [VP made resonant [PP by [NP the very weakness [PP of [NP his chest NP] PP] NP] VP] NP] PP]. (40) [PP En [NP el caso [PP de [NP un sistema mixto [PP en [NP el [CL que [VP se utilicen [NP canales [PP con [NP tres velocidades [PP de [NP modulacion NP] PP] diferentes NP] PP] NP] VP] CL] NP] PP] NP] PP] NP] PP] In a language such as Spanish, where a large proportion of the modification of nouns takes the form of a following preposition de and another noun, this recursion is extremely prevalent, as in 40. In cases where the prepositional phrase is complemented by a one word noun phrase, it may be advantageous to leave the analysis at this point, rather than continuing to analyse further by enclosing the complement (see also one-word constituents). (<a href="http://www...[59]...000000000000">http://www...[59]...000000000000</a> [<a href="http://www.ilc.cnr.it/EA-GLES96/segsasg1/node34.html#SECTION00052500000000000000">http://www.ilc.cnr.it/EA-GLES96/segsasg1/node34.html#SECTION00052500000000000000</a>])</p> <p>EAGLES</p>
<p>phrase verb verb phrase</p>	<p><a href="http://purl.org/olia/olia.owl#VerbPhrase">http://purl.org/olia/olia.owl#VerbPhrase</a>  tag:textal-ign.net,2015:feature:VerbPhrase</p>	<p>VerbPhrase is the class of phrases that have verbs as heads. They can play the role of predicate in a main clause. (<a href="http://pur...[23].../">http://pur...[23].../</a>)</p>

names	IRIs	Comments
		<p>VerbPhrase [<a href="http://purl.org/linguistics/gold/VerbPhrase">http://purl.org/linguistics/gold/VerbPhrase</a>]</p> <p>This category is slightly more difficult to define, since there is disagreement over the extent of the verb phrase. In particular, should the verb phrase include only the words that are verbs, or should it also include the complements of the verb? In the examples given in this document, and in the sample texts in the appendices, we have chosen to include the complements, but it must be noted that this is an open issue, and we are in no way implying that this analysis is preferable to the alternative. The choice to be made at this level, i.e. the inclusion or exclusion of verbal complements in the Verb Phrase, is shown by the examples in 27 and 28, 27 showing the inclusion of the complement of the verb in the verb phrase and 28 excluding the complement: (27) He [VP took up [NP a clothes brush NP] VP] (28) He [VP took up VP] [NP a clothes brush NP] An advantage in the type of analysis shown in 27 is that the relative levels of the constituents can be shown to a greater extent -- i.e. complements of the verb are included in the verb phrase, while adjuncts and peripheral adverbials are left at sentence level. However, in a case where an adjunct occurs before the complement of the verb, the approaches used in 27 and 28 would cause problems, since either both the adjunct and the complement would be included as daughters of the verb phrase, or both would be daughters of the sentence, rather than keeping the complement as a daughter of the verb phrase and the adjunct as a sister of the verb</p>

names	IRIs	Comments
		<p>phrase. These problems may be solved by an additional notation, but at some level, arbitrariness is inevitable. Regardless of the choice made over the extent of the Verb Phrase, there arises a problem of discontinuous Verb Phrases. A complex verbal construction may be discontinuous, e.g. the auxiliary and the main verb are separated in inverted constructions in English, or the main verb is positioned at the end of the sentence in German and Dutch. Such discontinuity can be avoided by having different labels and constituents for the auxiliary verb and the main verb, resulting in an analysis as shown in the Dutch example 29 below: (29) [NP Ze NP] [AUX zullen AUX] [ADVP er ADVP] [VP [NP de VN-agenda [PP voor [NP het komende jaar NP] PP] NP] behandelen VP]. and in the English interrogative inverted example 30, using the so-called 'dummy auxiliary' do: (30) [AUX Do AUX] [NP they NP] [VP confide [PP in you PP] VP]? As with Noun Phrases, Verb Phrases can be identified by a constituency test. In strong constituency languages like English, the whole VP can be moved, but not part of it: compare 31 and 32: (31) Give in to blackmail, I never will (32) *Give in, I never will to blackmail However, there are languages in which constituent tests do not work. These will typically be languages with flexible word order, such as Finnish. 33 is an example of a discontinuous VP (Vilkuna 1989: 26): (33) Maaailmaa nähnyt hän on. world-Part seen he is 'He IS a widely-travelled person.' For Finnish, then, evidence for a VP is less convincing than it is for English, and a de-</p>

names	IRIs	Comments
		<p>pendency approach seems the more natural choice. (Covington (1990) provides a parsing strategy for variable word order languages and Covington (1991) for parsing discontinuous constituents, both using a dependency syntax approach.) In Italian also, constituency tests cannot be applied. This can be shown through the distribution of VP-adverbs (e.g. <i>completamente</i> ‘completely’, <i>intenzionalmente</i> ‘intentionally’, <i>attentamente</i> ‘carefully’) and S-adverbs (e.g. <i>probabilmente</i> ‘probably’, <i>certamente</i> ‘certainly’). In English, these different classes of adverbs have a different distribution within the sentence. In contrast, in Italian, the distinct adverb classes cannot be distinguished on the basis of their distribution in the sentence. S-adverbs and VP-adverbs can occur in the same positions within the sentence, as illustrated in examples 34 to 37: (34) <i>Attentamente/certamente, il bambino ascoltò la storia</i> ‘Carefully/certainly, the child listened to the story’ (35) <i>Il bambino attentamente/certamente ascoltò la storia</i> ‘The child carefully/certainly listened to the story’ (36) <i>Il bambino ascoltò attentamente/certamente la storia</i> ‘The child listened carefully/certainly to the story’ (37) <i>Il bambino ascoltò la storia attentamente/certamente</i> ‘The child listened to the story carefully/certainly’ Thus, in Italian as well as other languages, neither the position nor the syntactic context can help to decide whether an adverb is an S-adverb or a VP-adverb; this can only be stated by considering its semantic content and the way it relates to the content of the</p>



names	IRIs	Comments
		predicate or the sentence. This situation has consequences for the success of standard VP-tests. ( <a href="http://www...[31]...node33.html">http://www...[31]...node33.html</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/segsasgi/node33.html">http://www.ilc.cnr.it/EAGLES96/segsasgi/node33.html</a> ])
phrase verb finite finite verb phrase	<a href="http://purl.org/olia/olia.owl#FiniteVerbPhrase">http://purl.org/olia/olia.owl#FiniteVerbPhrase</a>  tag:textal-ign.net,2015:feature:FiniteVerbPhrase	TüBa-D/Z
phrase verb gerund gerund verb phrase	<a href="http://purl.org/olia/olia.owl#GerundVerbPhrase">http://purl.org/olia/olia.owl#GerundVerbPhrase</a>  tag:textal-ign.net,2015:feature:GerundVerbPhrase	Ancorra, <a href="http://pur...[24]...GerundChunk">http://pur...[24]...GerundChunk</a> [ <a href="http://purl.org/olia/ancorra.owl#GerundChunk">http://purl.org/olia/ancorra.owl#GerundChunk</a> ]  VGNN Gerunds A verb chunk having a gerund will be annotated as VGNN. For example, h18a. sharAba ((pInA_VM)).VGNN sehata ke liye hAnikAraka hE. 'liquor' 'drinking' 'heath' 'for' 'harmful' 'is' "Drinking (liquor) is bad for health" h19a. mujhe rAta meM ((khAnA_VM)).VGNN acchA lagatA hai 'to me' 'night' 'in' 'eating' 'good' 'appeals' "I like eating at night" h20a. ((sunane_VM meM.PSP)).VGNN saba kuccha acchA lagatA hE 'listening' 'in' 'all' 'things' 'good' 'appeal' 'is' (Akshar Bharati, Dipti Misra Sharma, Lakshmi Bai, Rajeev Sangal (2006), AnnCorra : Annotating Corpora. Guidelines For POS And Chunk Annotation For Indian Languages, Tech. Rep., Language Technologies Research Centre IIT, Hyderabad, version of 15-12-2006, <a href="http://ltr...[26]...delines.pdf">http://ltr...[26]...delines.pdf</a> [ <a href="http://ltrc.iit.ac.in/tro31/posguidelines.pdf">http://ltrc.iit.ac.in/tro31/posguidelines.pdf</a> ])

names	IRIs	Comments
phrase verb infinitive infinitive verb phrase	<p><a href="http://purl.org/olia/olia.owl#Infinitive-VerbPhrase">http://purl.org/olia/olia.owl#Infinitive-VerbPhrase</a></p> <p>tag:textal-ign.net,2015:feature:Infinitive-VerbPhrase</p>	<p>Ancorra, <a href="http://purl.org/olia/ancorra.owl#Infinitive-VerbPhrase">http://purl.org/olia/ancorra.owl#Infinitive-VerbPhrase</a> [30]</p> <p>VGINF Infinitival Verb Chunk This tag is to mark the infinitival verb form. In Hindi, both, gerunds and infinitive forms of the verb end with a -nA suffix. Since both behave functionally in a similar manner, the distinction is not very clear. However, languages such as Bangla etc have two different forms for the two types. Examples from Bangla are given below. b8. Borabela ((snAna karA)).VGNN SorIrrera pokze BAlo 'Morning' 'bath' 'do-verbal noun' 'healthgen' 'for' 'good' 'Taking bath in the early morning is good for health" b9. bindu Borabela ((snAna karawe)).VGINF BALobAse 'Bindu' 'morning' 'bath' 'take-inf' 'love-3pr' "Bindu likes to take bath in the early morning" In Bangla, the gerund form takes the suffix -A / -Ano, while the infinitive marker is -we. The syntactic distribution of these two forms of verbs is different. For example, the gerund form is allowed in the context of the word darakAra "necessary" while the infinitive form is not, as exemplified below: bio Borabela ((snAna karA)).VGNN darakAra 'Morning' 'bath' 'do-verbal noun' 'necessary' "It is necessary to take bath in the early morning" bii. *Borabela ((snAna karawe)).VGINF darakAra Based on the above evidence from Bangla, the tag VGINF has been included to mark a verb chunk. (Akshar Bharati, Dipti Misra Sharma, Lakshmi Bai, Rajeev Sangal (2006), AnnCorra :</p>

names	IRIs	Comments
		Annotating Corpora. Guidelines For POS And Chunk Annotation For Indian Languages, Tech. Rep., Language Technologies Research Centre IIT, Hyderabad, version of 15-12-2006, <a href="http://ltr...[26]...delines.pdf">http://ltr...[26]...delines.pdf</a> [ <a href="http://ltrc.iit.ac.in/tro3r/posguidelines.pdf">http://ltrc.iit.ac.in/tro3r/posguidelines.pdf</a> ]
phrase verb nonfinite nonfinite verb phrase	<a href="http://purl.org/olia/olia.owl#NonfiniteVerbPhrase">http://purl.org/olia/olia.owl#NonfiniteVerbPhrase</a>  tag:textal-ign.net,2015:feature:NonfiniteVerbPhrase	TüBa-D/Z
phrase whadjective whadjective phrase	<a href="http://purl.org/olia/olia.owl#WHAdjectivePhrase">http://purl.org/olia/olia.owl#WHAdjectivePhrase</a>  tag:textal-ign.net,2015:feature:WHAdjectivePhrase	added in conformance with PTB bracketing guidelines (Santorini 1991, Bies et al. 1995)  WHADJP â Wh-adjective Phrase. Adjectival phrase containing a wh-adverb, as in how hot. (Bies et al. 1995)
phrase whadverb whadverb phrase	<a href="http://purl.org/olia/olia.owl#WHAdverbPhrase">http://purl.org/olia/olia.owl#WHAdverbPhrase</a>  tag:textal-ign.net,2015:feature:WHAdverbPhrase	added in conformance with PTB bracketing guidelines (Santorini 1991, Bies et al. 1995)  WHADVP Wh-adverb phrase. Phrasal category headed by a wh-adverb such as how or why. (Santorini 1991) WHADVP â Wh-adverb Phrase. Introduces a clause with an ADVP gap. May be null (containing the o complementizer) or lexical, containing a wh-adverb such as how or why. (Bies et al. 1995)
phrase whnoun whnoun phrase	<a href="http://purl.org/olia/olia.owl#WHNounPhrase">http://purl.org/olia/olia.owl#WHNounPhrase</a>  tag:textal-ign.net,2015:feature:WHNounPhrase	added in conformance with PTB bracketing guidelines (Santorini 1991, Bies et al. 1995)  WHNP Wh-noun phrase. Noun phrase containing (among other things) a wh-determiner, as in which book or whose daughter, or consisting of a wh-pronoun like who. (Santorini 1991) WHNP â Wh-noun

names	IRIs	Comments
		Phrase. Introduces a clause with an NP gap. May be null (containing the <code>o</code> complementizer) or lexical, containing some wh-word, e.g. <code>who</code> , <code>which</code> <code>book</code> , <code>whose</code> <code>daughter</code> , <code>none</code> of <code>which</code> , or <code>how</code> many <code>leopards</code> . (Bies et al. 1995)
phrase whprepositional whprepositional phrase	<a href="http://purl.org/olia/olia.owl#WHPrepositionalPhrase">http://purl.org/olia/olia.owl#WHPrepositionalPhrase</a>  tag:textal-ign.net,2015:feature:WHPrepositionalPhrase	added in conformance with PTB bracketing guidelines (Santorini 1991, Bies et al. 1995)  WHPP Wh-prepositional phrase. Prepositional phrase containing a wh-determiner, as in <code>by whatever</code> means necessary. (Santorini 1991) WHPP â' Wh-prepositional Phrase. Prepositional phrase containing a wh-noun phrase (such as <code>of which</code> or <code>by whose</code> authority) that either introduces a PP gap or is contained by a WHNP. (Bies et al. 1995)
plural	<a href="http://purl.org/olia/olia.owl#Plural">http://purl.org/olia/olia.owl#Plural</a>  tag:textal-ign.net,2015:feature:Plural	EAGLES  Plural is a grammatical number, typically referring to more than one of the referent in the real world. In English, nouns, pronouns, and demonstratives inflect for plurality. In many other languages, for example German and the various Romance languages, articles and adjectives also inflect for plurality. ( <a href="http://en...[15]...wiki/Plural">http://en...[15]...wiki/Plural</a> [ <a href="http://en.wikipedia.org/wiki/Plural">http://en.wikipedia.org/wiki/Plural</a> ] 17.11.06)
plural broken broken plural	<a href="http://purl.org/olia/olia.owl#BrokenPlural">http://purl.org/olia/olia.owl#BrokenPlural</a>  tag:textal-ign.net,2015:feature:BrokenPlural	<a href="http://www...[16]...cat/DC-2218">http://www...[16]...cat/DC-2218</a> [ <a href="http://www.isocat.org/datcat/DC-2218">http://www.isocat.org/datcat/DC-2218</a> ]  Internal plural that do not have any inflection. ( <a href="http://www...[16]...cat/DC-2218">http://www...[16]...cat/DC-2218</a> [ <a href="http://www.isocat.org/datcat/DC-2218">http://www.isocat.org/datcat/DC-2218</a> ])  subClassOf plural (dcif:isA)

names	IRIs	Comments
point	<p><a href="http://purl.org/olia/olia.owl#Point">http://purl.org/olia/olia.owl#Point</a></p> <p>tag:textal-ign.net,2015:feature:Point</p>	<p><a href="http://www...[16]...cat/DC-1445">http://www...[16]...cat/DC-1445</a> [<a href="http://www.isocat.org/datcat/DC-1445">http://www.isocat.org/datcat/DC-1445</a>]</p> <p>Sign (.) used to expresses the end of a sentence or an abbreviation. (<a href="http://www...[16]...cat/DC-1445">http://www...[16]...cat/DC-1445</a> [<a href="http://www.isocat.org/datcat/DC-1445">http://www.isocat.org/datcat/DC-1445</a>])</p> <p>subClassOf partOfSpeech (dcif:conceptualDomain)</p>
point exclamative exclamative point	<p><a href="http://purl.org/olia/olia.owl#ExclamativePoint">http://purl.org/olia/olia.owl#ExclamativePoint</a></p> <p>tag:textal-ign.net,2015:feature:ExclamativePoint</p>	<p><a href="http://www...[16]...cat/DC-1441">http://www...[16]...cat/DC-1441</a> [<a href="http://www.isocat.org/datcat/DC-1441">http://www.isocat.org/datcat/DC-1441</a>]</p> <p>Special sign (!) usually used in writing to mark exclamation. (<a href="http://www...[16]...cat/DC-1441">http://www...[16]...cat/DC-1441</a> [<a href="http://www.isocat.org/datcat/DC-1441">http://www.isocat.org/datcat/DC-1441</a>])</p> <p>MainPunctuation, not SentenceFinalPunctuation because of the Spanish inverted exclamation point (Chiarcos)</p> <p>subClassOf partOfSpeech (dcif:conceptualDomain)</p>
points suspension suspension points	<p><a href="http://purl.org/olia/olia.owl#SuspensionPoints">http://purl.org/olia/olia.owl#SuspensionPoints</a></p> <p>tag:textal-ign.net,2015:feature:SuspensionPoints</p>	<p><a href="http://www...[16]...cat/DC-1447">http://www...[16]...cat/DC-1447</a> [<a href="http://www.isocat.org/datcat/DC-1447">http://www.isocat.org/datcat/DC-1447</a>]</p> <p>Sequence of three dots having the same meaning as "et cetera" (full form) or "etc" (abbreviated form). (<a href="http://www...[16]...cat/DC-1447">http://www...[16]...cat/DC-1447</a> [<a href="http://www.isocat.org/datcat/DC-1447">http://www.isocat.org/datcat/DC-1447</a>])</p> <p>subClassOf partOfSpeech (dcif:conceptualDomain)</p>
polite second second polite	<p><a href="http://purl.org/olia/olia.owl#SecondPolite">http://purl.org/olia/olia.owl#SecondPolite</a></p> <p>tag:textal-ign.net,2015:feature:SecondPolite</p>	<p>EAGLES PersonalPronoun attribute Politeness="Polite". The EAGLES attribute politeness (polite/ familiar) is limited to second-person pronouns. In French, for example, it is pos-</p>

names	IRIs	Comments
		<p>sible to treat Polite simply as pragmatic values encoded through other attributes - especially person and number. In languages where there are special polite pronoun forms (e.g. Dutch u and Spanish usted), the additional Politeness attribute is required. (<a href="http://www...[37]...html#oav1p">http://www...[37]...html#oav1p</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oavip">http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oavip</a>] 19.09.06)</p> <p>In several European languages exist special forms of pronouns for polite or respectful reference, e.g. Dutch u and Spanish usted. (<a href="http://www...[37]...html#oav1p">http://www...[37]...html#oav1p</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oavip">http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oavip</a>] 19.09.06)</p>
positive	<p><a href="http://purl.org/olia/olia.owl#Positive">http://purl.org/olia/olia.owl#Positive</a></p> <p>tag:textal-ign.net,2015:feature:Positive</p>	<p>EAGLES, <a href="http://www...[16]...cat/DC-1420">http://www...[16]...cat/DC-1420</a> [<a href="http://www.isocat.org/datcat/DC-1420">http://www.isocat.org/datcat/DC-1420</a>]</p> <p>Value used in a comparison relationship when no comparison is involved. (<a href="http://www...[16]...cat/DC-1420">http://www...[16]...cat/DC-1420</a> [<a href="http://www.isocat.org/datcat/DC-1420">http://www.isocat.org/datcat/DC-1420</a>]) The Positive is the form of an adjective or adverb on which comparative and superlative are formed. (<a href="http://en...[17]...ki/Positive">http://en...[17]...ki/Positive</a> [<a href="http://en.wikipedia.org/wiki/Positive">http://en.wikipedia.org/wiki/Positive</a>] 17.11.06)</p>
possessive	<p><a href="http://purl.org/olia/olia.owl#Possessive">http://purl.org/olia/olia.owl#Possessive</a></p> <p>tag:textal-ign.net,2015:feature:Possessive</p>	<p><a href="http://www...[16]...cat/DC-1355">http://www...[16]...cat/DC-1355</a> [<a href="http://www.isocat.org/datcat/DC-1355">http://www.isocat.org/datcat/DC-1355</a>]</p> <p>Relative to the possession or association. (<a href="http://www.wordreference.com/English/definition.asp?en=posessive">www.wordreference.com/English/definition.asp?en=posessive</a>; <a href="http://www...[16]...cat/DC-1355">http://www...[16]...cat/DC-1355</a> [<a href="http://www.isocat.org/datcat/DC-1355">http://www.isocat.org/datcat/DC-1355</a>])</p>

names	IRIs	Comments
		subClassOf referentType (dcif:conceptualDomain)
possible	<a href="http://purl.org/olia/olia.owl#Possible">http://purl.org/olia/olia.owl#Possible</a>  tag:textal-ign.net,2015:feature:Possible	
postposition	<a href="http://purl.org/olia/olia.owl#Postposition">http://purl.org/olia/olia.owl#Postposition</a>  tag:textal-ign.net,2015:feature:Postposition	EAGLES adposition with the optional attribute Type="Preposition".  A postposition is an adposition that occurs after its complement. ( <a href="http://www...[60]...osition.htm">http://www...[60]...osition.htm</a> [ <a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAPostposition.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAPostposition.htm</a> ] 19.09.06)
predicate	<a href="http://purl.org/olia/olia.owl#Predicate">http://purl.org/olia/olia.owl#Predicate</a>  tag:textal-ign.net,2015:feature:Predicate	The predicate is the relation between the Clause and a portion of a clause, excluding the subject, that expresses something about the subject (Crystal 1980: 280; Hartmann and Stork 1972: 182; Pei and Gaynor 1954: 173; Pike and Pike 1982: 40; Mish et al. 1990: 926; Crystal 1985: 241-242). ( <a href="http://pur...[22]...d/predicate">http://pur...[22]...d/predicate</a> [ <a href="http://purl.org/linguistics/gold/predicate">http://purl.org/linguistics/gold/predicate</a> ])  adapted from <a href="http://pur...[22]...d/predicate">http://pur...[22]...d/predicate</a> [ <a href="http://purl.org/linguistics/gold/predicate">http://purl.org/linguistics/gold/predicate</a> ]  Note that most predicates are also (semantic) Heads of the respective clause (cf. van Valin and Lapolla 1997, who, however, use the term "nucleus"). A syntax-centered approach on heads may, however, assign the label Head to an auxiliary. As "head" is ambiguous between a syntactic function (finite verb) and a semantic function (predicate),

names	IRIs	Comments
		a direct association is avoided here.
predicate nominal nominal predicate	<a href="http://purl.org/olia/olia.owl#NominalPredicate">http://purl.org/olia/olia.owl#NominalPredicate</a>  tag:textal-ign.net,2015:feature:NominalPredicate	A nominal predicate (noun or adjective), either with or without copula. The term nominal predicate may be used for the complements of further copulative verbs (cf. small clauses), e.g. "consider", "call", etc. (Dipper et al. 2007, §4.3.5)  added in conformance with SFB632 annotation guidelines (Dipper et al., 2007)
predicate question question predicate	<a href="http://purl.org/olia/olia.owl#QuestionPredicate">http://purl.org/olia/olia.owl#QuestionPredicate</a>  tag:textal-ign.net,2015:feature:QuestionPredicate	Santorini 1991, Bies et al. 1995  SQ â Inverted yes/no question, or main clause of a wh-question, following the wh-phrase in SBARQ. (Bies et al. 1995) SQ  That part of an SBARQ that excludes the wh-word or wh-phrase. See Section 5.32. (Santorini 1991) The SBARQ label marks wh-questions (i.e., those that contain a gap and therefore require a trace). A further level of structure, SQ, contains the inverted auxiliary (if there is one) and the rest of the sentence. The inverted auxiliary in wh-questions is not labeled. ... SQ (See also section 1.2.7.) â inside SBARQ: As described above, inside wh-questions, SQ holds the subject, inverted auxiliary (if any), main verb phrase, and some adjuncts. â yes/no questions: SQ is used for yes/no questions (i.e., those with inversion but no wh-movement). ... â subject-less yes/no questions: In questions where the auxiliary and subject do not appear, the auxiliary is unlabeled and a null subject (NP-SBJ*) is used. ... Note that questions with overt subjects and auxiliaries that show declarative word order are simply labeled S. â Tag questions: Tag questions are treated as an adjunction of



names	IRIs	Comments
		SQ to S. The resulting structure is labeled SQ, since the whole thing is interrogative in nature. The lower SQ is annotated to show predicate deletion; that is, an appropriate null *?* is inserted. (Bies et al. 1995)
predicate verbal verbal predicate	<a href="http://purl.org/olia/olia.owl#VerbalPredicate">http://purl.org/olia/olia.owl#VerbalPredicate</a>  tag:textal-ign.net,2015:feature:VerbalPredicate	The predicate of the clause is represented by a verbal lexeme. (Ch. Chiarcos)  introduced for non-nominal predicates, normally referred to as ``predicate'' (Ch. Chiarcos)
prefix	<a href="http://purl.org/olia/olia.owl#Prefix">http://purl.org/olia/olia.owl#Prefix</a>  tag:textal-ign.net,2015:feature:Prefix	<a href="http://www...[16]...cat/DC-1365">http://www...[16]...cat/DC-1365</a> [ <a href="http://www.isocat.org/datcat/DC-1365">http://www.isocat.org/datcat/DC-1365</a> ]  Affix added before a word to change its meaning or part of speech. (Sue Ellen Wright + Gil Francopoulo; <a href="http://www...[16]...cat/DC-1365">http://www...[16]...cat/DC-1365</a> [ <a href="http://www.isocat.org/datcat/DC-1365">http://www.isocat.org/datcat/DC-1365</a> ])
prefix separable separable prefix	<a href="http://purl.org/olia/olia.owl#SeparablePrefix">http://purl.org/olia/olia.owl#SeparablePrefix</a>  tag:textal-ign.net,2015:feature:SeparablePrefix	TüBa-D/Z  separable verb prefix, e.g., "Auch die Vertreter der AfB [stimmten] den 86 Millionen [zu]."
preposition	<a href="http://purl.org/olia/olia.owl#Preposition">http://purl.org/olia/olia.owl#Preposition</a>  tag:textal-ign.net,2015:feature:Preposition	EAGLES adposition with Type="Preposition".  A preposition is an adposition that occurs before its complement. ( <a href="http://www...[59]...osition.htm">http://www...[59]...osition.htm</a> [ <a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAPreposition.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAPreposition.htm</a> ] 19.09.06)
preposition compound compound preposition	<a href="http://purl.org/olia/olia.owl#CompoundPreposition">http://purl.org/olia/olia.owl#CompoundPreposition</a>  tag:textal-ign.net,2015:feature:CompoundPreposition	<a href="http://www...[16]...cat/DC-1934">http://www...[16]...cat/DC-1934</a> [ <a href="http://www.isocat.org/datcat/DC-1934">http://www.isocat.org/datcat/DC-1934</a> ]  Preposition that is a aggregation of words ( <a href="http://www...[16]...cat/DC-1934">http://www...[16]...cat/DC-1934</a> [ <a href="http://www...[16]...cat/DC-1934">http://www...[16]...cat/DC-1934</a> ])

names	IRIs	Comments
		<p><a href="http://www.isocat.org/datcat/DC-1934">www.isocat.org/datcat/DC-1934</a>)</p> <p>subClassOf preposition (dcif:isA)</p>
<p>preposition fused</p> <p>fused preposition</p>	<p><a href="http://purl.org/olia/olia.owl#FusedPreposition">http://purl.org/olia/olia.owl#FusedPreposition</a></p> <p>tag:textal-ign.net,2015:feature:FusedPreposition</p>	<p><a href="http://www...[16]...cat/DC-1901">http://www...[16]...cat/DC-1901</a> [<a href="http://www.isocat.org/datcat/DC-1901">http://www.isocat.org/datcat/DC-1901</a>]</p> <p>Preposition that is the result of a morphological merge from at least two words. (<a href="http://www...[16]...cat/DC-1901">http://www...[16]...cat/DC-1901</a> [<a href="http://www.isocat.org/datcat/DC-1901">http://www.isocat.org/datcat/DC-1901</a>])</p> <p>subClassOf preposition (dcif:isA)</p>
<p>preposition simple</p> <p>simple preposition</p>	<p><a href="http://purl.org/olia/olia.owl#SimplePreposition">http://purl.org/olia/olia.owl#SimplePreposition</a></p> <p>tag:textal-ign.net,2015:feature:SimplePreposition</p>	<p><a href="http://www...[16]...cat/DC-1900">http://www...[16]...cat/DC-1900</a> [<a href="http://www.isocat.org/datcat/DC-1900">http://www.isocat.org/datcat/DC-1900</a>]</p> <p>Preposition that is a pure simple word in contrast with the notion of fused preposition. (<a href="http://www...[16]...cat/DC-1900">http://www...[16]...cat/DC-1900</a> [<a href="http://www.isocat.org/datcat/DC-1900">http://www.isocat.org/datcat/DC-1900</a>])</p> <p>subClassOf preposition (dcif:isA)</p>
<p>present</p>	<p><a href="http://purl.org/olia/olia.owl#Present">http://purl.org/olia/olia.owl#Present</a></p> <p>tag:textal-ign.net,2015:feature:Present</p>	<p>EAGLES, <a href="http://lan...[54]...resentTense">http://lan...[54]...resentTense</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#presentTense">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#presentTense</a>]</p> <p>Present tense refers to the moment of utterance. (<a href="http://lan...[54]...resentTense">http://lan...[54]...resentTense</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#presentTense">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#presentTense</a>])</p> <p>Present tense refers to the moment of utterance. It often refers to events or states that do not merely coincide with the moment of utterance, such as those that are continuous, habitu-</p>

names	IRIs	Comments
		al, or lawlike. ( <a href="http://www...[59]...ntTense.htm">http://www...[59]...ntTense.htm</a> [ <a href="http://www.sil.org/linguistics/glossaryoflinguisticterms/WhatIsPresent-Tense.htm">http://www.sil.org/linguistics/glossaryoflinguisticterms/WhatIsPresent-Tense.htm</a> ] 17.11.06)
present relative relative present	<a href="http://purl.org/olia/olia.owl#RelativePresent">http://purl.org/olia/olia.owl#RelativePresent</a>  tag:textal-ign.net,2015:feature:RelativePresent	<a href="http://pur...[28]...tivePresent">http://pur...[28]...tivePresent</a> [ <a href="http://purl.org/linguistics/gold/RelativePresent">http://purl.org/linguistics/gold/RelativePresent</a> ]  RelativePresentTense locates the situation in question simultaneously with some contextually determined temporal reference point. ( <a href="http://pur...[28]...tivePresent">http://pur...[28]...tivePresent</a> [ <a href="http://purl.org/linguistics/gold/RelativePresent">http://purl.org/linguistics/gold/RelativePresent</a> ])
present still still present	<a href="http://purl.org/olia/olia.owl#StillPresent">http://purl.org/olia/olia.owl#StillPresent</a>  tag:textal-ign.net,2015:feature:StillPresent	<a href="http://pur...[25]...tillPresent">http://pur...[25]...tillPresent</a> [ <a href="http://purl.org/linguistics/gold/StillPresent">http://purl.org/linguistics/gold/StillPresent</a> ]  StillPresentTense is similar to PresentTense but carries the presupposition that an event or state held before the moment of utterance. In positive declarative clauses, still present tense asserts that the event or state holds at the moment of utterance (Comrie 1985: 54; named changed from 'StillTense'). ( <a href="http://pur...[25]...tillPresent">http://pur...[25]...tillPresent</a> [ <a href="http://purl.org/linguistics/gold/StillPresent">http://purl.org/linguistics/gold/StillPresent</a> ])
process morphological morphological process	<a href="http://purl.org/olia/olia.owl#MorphologicalProcess">http://purl.org/olia/olia.owl#MorphologicalProcess</a>  tag:textal-ign.net,2015:feature:Morphological-Process	
process phonological phonological process	<a href="http://purl.org/olia/olia.owl#PhonologicalProcess">http://purl.org/olia/olia.owl#PhonologicalProcess</a>	

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:Phonological-Process	
pronoun	http://purl.org/olia/olia.owl#Pronoun tag:textal-ign.net,2015:feature:Pronoun	
pronoun abbreviated abbreviated pronoun	http://purl.org/olia/olia.owl#Abbreviated-Pronoun tag:textal-ign.net,2015:feature:AbbreviatedPronoun	http://pur...[32]...#Pronominal [http://purl.org/olia/mte/multext-east.owl#Pronominal]  Abbreviation/Syntactic.Type="pronominal" (Romanian), e.g., d-ta/dumneata, d-tale/dumitale, d-voastră/dumneavoastră, dv./dumneavoastră, dvs./dumneavoastră (http://pur...[32]...#Pronominal [http://purl.org/olia/mte/multext-east.owl#Pronominal])
pronoun allusive allusive pronoun	http://purl.org/olia/olia.owl#AllusivePronoun tag:textal-ign.net,2015:feature:AllusivePronoun	http://www...[16]...cat/DC-2223 [http://www.isocat.org/datcat/DC-2223]  pronoun that have reference to something characterized by allusions. (MIRACLE & LSCA; http://www...[16]...cat/DC-2223 [http://www.isocat.org/datcat/DC-2223]) an invariable pronoun expressing a specific intention by means of unclear term (Khemakhem Aida, 2010-05-10 via isocat-morpho@loria.fr) examples from Arabic (Monica Monachini 2010-05-06 via isocat-morpho@loria.fr): "kam nahaituhu" (how often I forbade him, Hans Wehr), "baas Saar `amra `ashr isniin, gam (= kam) yriid paysikil" (He just turned ten, and here [how] he wants a bicycle, Georgetown University Iraqi Arabic-Eng-

names	IRIs	Comments
		<p>lish Dictionary), "gam (= kam) yurguS immil-faraH" ([how] he jumped for joy, Georgetown University Iraqi Arabic-English Dictionary)</p> <p>subClassOf pronoun (dcif:isA)</p>
<p>pronoun attributive</p> <p>attributive pronoun</p>	<p><a href="http://purl.org/olia/olia.owl#AttributivePronoun">http://purl.org/olia/olia.owl#AttributivePronoun</a></p> <p>tag:textal-ign.net,2015:feature:AttributivePronoun</p>	<p>An attributive pronoun is a pronoun that modifies an NP.</p> <p>In languages with grammaticalized determiners, attributive pronouns are determiners. In languages without grammaticalized determiners, attributive pronouns are described as adjectives. In order to provide a uniform modeling of attributive pronouns, they are defined here as being the intersection of Determiner and Pronoun. Note that this entails that the definition of "Determiner" is broadened to include determiner-like elements in languages without grammatical determiners. (Chiarcos)</p>
<p>pronoun conditional</p> <p>conditional pronoun</p>	<p><a href="http://purl.org/olia/olia.owl#ConditionalPronoun">http://purl.org/olia/olia.owl#ConditionalPronoun</a></p> <p>tag:textal-ign.net,2015:feature:ConditionalPronoun</p>	<p>check for a definition</p> <p><a href="http://www...[16]...cat/DC-2222">http://www...[16]...cat/DC-2222</a> [<a href="http://www.isocat.org/datcat/DC-2222">http://www.isocat.org/datcat/DC-2222</a>]</p> <p>conditional pronoun (MIRACL &amp; LSCA; <a href="http://www...[16]...cat/DC-2222">http://www...[16]...cat/DC-2222</a> [<a href="http://www.isocat.org/datcat/DC-2222">http://www.isocat.org/datcat/DC-2222</a>])</p> <p>subClassOf pronoun (dcif:isA)</p>
<p>pronoun demonstrative</p> <p>demonstrative pronoun</p>	<p><a href="http://purl.org/olia/olia.owl#DemonstrativePronoun">http://purl.org/olia/olia.owl#DemonstrativePronoun</a></p> <p>tag:textal-ign.net,2015:feature:DemonstrativePronoun</p>	<p>EAGLES Pronoun with Pron.-Type="Demonstrative".</p> <p>TODO: This definition is non-satisfactory, cf. Ehlich (1982) for intra-textual ("anadeictic") uses of demonstratives.</p> <p>Demonstrative pronouns are deictic words (they depend on an external frame of reference). They indicate which</p>

names	IRIs	Comments
		<p>entities a speaker refers to, and distinguishes those entities from others. (<a href="http://en.wikipedia.org/wiki/Demonstrative_pronoun">http://en.wikipedia.org/wiki/Demonstrative_pronoun</a> 19.09.06)</p>
<p>pronoun determininal determininal pronoun</p>	<p><a href="http://purl.org/olia/olia.owl#DetermininalPronoun">http://purl.org/olia/olia.owl#DetermininalPronoun</a></p> <p>tag:textal-ign.net,2015:feature:DetermininalPronoun</p>	<p><a href="http://purl.org/olia/mte/multext-east.owl#DetermininalPronoun">http://pur...[39]...inalPronoun</a> [<a href="http://purl.org/olia/mte/multext-east.owl#DetermininalPronoun">http://purl.org/olia/mte/multext-east.owl#DetermininalPronoun</a>]</p> <p>Not to be confused with pronominal determiners</p> <p>The Estonian determininal pronouns <i>_ise_</i>, <i>_end(a)_</i> ‘(one)self.’ combine aspects of emphatic pronouns and reflexive pronouns. It could also be described as an intensifier that is formally identical with the reflexive pronoun or as an emphatic reflexive pronoun. (Ivan A. Derzhanski, Heiki-Jaan Kaalep, <a href="http://purl.org/olia/mte/multext-east.owl#DetermininalPronoun">http://pur...[40]...nalPronoun</a>; [<a href="http://purl.org/olia/mte/multext-east.owl#DetermininalPronoun">http://purl.org/olia/mte/multext-east.owl#DetermininalPronoun</a>]; Insa Gülzow (2006), The acquisition of intensifiers: Emphatic reflexives in English and German child language, Mouton de Gruyter, Berlin, p. 258)</p>
<p>pronoun distributive distributive pronoun</p>	<p><a href="http://purl.org/olia/olia.owl#DistributivePronoun">http://purl.org/olia/olia.owl#DistributivePronoun</a></p> <p>tag:textal-ign.net,2015:feature:DistributivePronoun</p>	<p>adopted from ILPOSTS (for Indian languages), <a href="http://purl.org/olia/ilposts.owl#Distributivity">http://pur...[27]...tributivity</a> [<a href="http://purl.org/olia/ilposts.owl#Distributivity">http://purl.org/olia/ilposts.owl#Distributivity</a>] is a property of Pronominals</p> <p>When the subject is conjoined, the reflexive cannot refer to only one of them. The proform has to be a distributive pronoun, i.e., the reduplicated form, when it has coreference to respective subjects, e.g., <i>*kumaarum.i/Kumar.and umaavum.j/Uma.and tan.i+j/self-poss puunekki/cat.to</i></p>

names	IRIs	Comments
		<p>paalu/milk kuDuttaanaanga/give-pst-aggr. ”*Kumar_i and Uma gave milk to his_i/her_j cat.” (Annamalai 2000, p. 189, on Tamil) Unlike reciprocals, the two parts of a distributive pronoun cannot be considered as two full, independent NPs. In ”awar/1 awar/2”, only ”awar/2” is case marked; ”awar/1” is its citation form. Also, the two parts cannot be separated by intervening material (cf. English ”one another”). (Jayaseelan 2000, p. 149, on Malayalam) (K.A. Jayaseelan, 2000, Lexical anaphors and pronouns in Malayalam, In: Barbara C. Lust, Kashi Wali, James W. Gair, K.V.Subharao (eds.), Lexical Anaphors and Pronouns in Selected South Asian Languages. A Principled Typology, Mouton de Gruyter, Berlin, p. 113-168) (E. Annamalai, 2000, Lexical anaphors and pronouns in Tamil, , In: Barbara C. Lust, Kashi Wali, James W. Gair, K.V.Subharao (eds.), Lexical Anaphors and Pronouns in Selected South Asian Languages. A Principled Typology, Mouton de Gruyter, Berlin, p. 169-216)</p>
<p>pronoun emphatic emphatic pronoun</p>	<p><a href="http://purl.org/olia/olia.owl#EmphaticPronoun">http://purl.org/olia/olia.owl#EmphaticPronoun</a></p> <p>tag:textal-ign.net,2015:feature:EmphaticPronoun</p>	<p><a href="http://www...[16]...cat/DC-1941">http://www...[16]...cat/DC-1941</a> [<a href="http://www.isocat.org/datcat/DC-1941">http://www.isocat.org/datcat/DC-1941</a>]</p> <p>Pronoun marked to show its importance. (<a href="http://www...[16]...cat/DC-1941">http://www...[16]...cat/DC-1941</a> [<a href="http://www.isocat.org/datcat/DC-1941">http://www.isocat.org/datcat/DC-1941</a>])</p> <p>subClassOf pronoun (dcif:isA)</p>
<p>pronoun exclamatory exclamatory pronoun</p>	<p><a href="http://purl.org/olia/olia.owl#ExclamatoryPronoun">http://purl.org/olia/olia.owl#ExclamatoryPronoun</a></p> <p>tag:textal-ign.net,2015:fea-</p>	<p>EAGLES WHPronoun with Wh-Type=”Exclamatory”.</p> <p>An exclamative pronoun is a word which marks an exclamation. (<a href="http://www...[60]...amative.htm">http://www...[60]...amative.htm</a> [<a href="http://www...[60]...amative.htm">http://www...[60]...amative.htm</a>]</p>

names	IRIs	Comments
	<p>ture:ExclamatoryPronoun</p>	<p><a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAnExclamative.htm">www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAnExclamative.htm</a> [19.09.06]</p>
<p>pronoun expletive expletive pronoun</p>	<p><a href="http://purl.org/olia/olia.owl#ExpletivePronoun">http://purl.org/olia/olia.owl#ExpletivePronoun</a></p> <p>tag:textal-ign.net,2015:feature:ExpletivePronoun</p>	<p>Missing in the EAGLES recommendations, added in accordance with the TIGER annotation scheme (for German). As expletive pronouns often (e.g., in German or English) have the form of 3.sg personal pronouns, expletives are modelled here as subclass of ThirdPersonPronoun.</p> <p>TODO: compare with GOLD, modeled as a PartOfSpeechProperty there</p> <p>TODO: revise definition, the GOLD definition applies to copula, too.</p> <p>An expletive (also known as a dummy word) is a part of speech whose members have no meaning, but complete a sentence to make it grammatical [Crystal 1997, 127] (<a href="http://purl.org/olia/olia.owl#Expletive">http://purl.org/olia/olia.owl#Expletive</a> [http://purl.org/linguistics/gold/Expletive]) In European languages, expletives are pronouns. A verbal part of speech that "has no meaning, but complete a sentence to make it grammatical" is a copula (see AuxiliaryVerb).</p>
<p>pronoun impersonal impersonal pronoun</p>	<p><a href="http://purl.org/olia/olia.owl#ImpersonalPronoun">http://purl.org/olia/olia.owl#ImpersonalPronoun</a></p> <p>tag:textal-ign.net,2015:feature:ImpersonalPronoun</p>	<p><a href="http://www.iso-cat.org/datcat/DC-1426">http://www...[16]...cat/DC-1426</a> [<a href="http://www.iso-cat.org/datcat/DC-1426">http://www.iso-cat.org/datcat/DC-1426</a>]</p> <p>Pronoun lacking person referent. (Gil Francopoulo; <a href="http://www...[16]...cat/DC-1426">http://www...[16]...cat/DC-1426</a> [<a href="http://www.iso-cat.org/datcat/DC-1426">http://www.iso-cat.org/datcat/DC-1426</a>]) More precisely, a form of pronoun that denotes the absence of a concrete or specific referent, e.g., German "man". As opposed to IndefinitePronoun, this ref-</p>



names	IRIs	Comments
		<p>erent is not just discourse-new, but generic or hypothetical.</p> <p>subClassOf pronoun (dcif:isA)</p>
pronoun indefinite indefinite pronoun	<p><a href="http://purl.org/olia/olia.owl#IndefinitePronoun">http://purl.org/olia/olia.owl#IndefinitePronoun</a></p> <p>tag:textal-ign.net,2015:feature:IndefinitePronoun</p>	
pronoun interrogative interrogative pronoun	<p><a href="http://purl.org/olia/olia.owl#InterrogativePronoun">http://purl.org/olia/olia.owl#InterrogativePronoun</a></p> <p>tag:textal-ign.net,2015:feature:InterrogativePronoun</p>	
pronoun negative negative pronoun	<p><a href="http://purl.org/olia/olia.owl#NegativePronoun">http://purl.org/olia/olia.owl#NegativePronoun</a></p> <p>tag:textal-ign.net,2015:feature:NegativePronoun</p>	<p><a href="http://www...[16]...cat/DC-1925">http://www...[16]...cat/DC-1925</a> [<a href="http://www.isocat.org/datcat/DC-1925">http://www.isocat.org/datcat/DC-1925</a>]</p> <p>Pronoun used in a context of a negation or for expressing a negation. (<a href="http://www...[16]...cat/DC-1925">http://www...[16]...cat/DC-1925</a> [<a href="http://www.isocat.org/datcat/DC-1925">http://www.isocat.org/datcat/DC-1925</a>])</p> <p>subClassOf pronoun (dcif:isA), reclassification as IndefinitePronoun follows EAGLES and STTS praxis</p>
pronoun nonspecific nonspecific pronoun	<p><a href="http://purl.org/olia/olia.owl#NonspecificPronoun">http://purl.org/olia/olia.owl#NonspecificPronoun</a></p> <p>tag:textal-ign.net,2015:feature:NonspecificPronoun</p>	<p><a href="http://pur...[40]...ificPronoun">http://pur...[40]...ificPronoun</a> [<a href="http://purl.org/olia/mte/multext-east.owl#NonspecificPronoun">http://purl.org/olia/mte/multext-east.owl#NonspecificPronoun</a>]</p> <p>In the Russian MTE v4 specs, Pronoun/Type="nonspecific" marks the following Russian words: весь 'all', всякий 'any, every', сам 'oneself', самый 'the very', каждый 'every, each', иной 'other', любой 'any', другой 'other'. The name "nonspecific" follows Halliday (1985, Section 6.2.1.1). (MTE v4) A nonspecific pronoun refers to an unidentified or general enti-</p>

names	IRIs	Comments
		<p>ty (e.g., "I saw *someone*", "I saw *everyone*"). A nonspecific pronoun is not, therefore, a personal pronoun, but an indefinite one. (Andrews 2003). Andrews, Richard J. (2003), Introduction to Classical Nahuatl. University of Oklahoma Press. Halliday, M.A.K. (1985), An introduction to Functional Grammar, London: Edward Arnold (<a href="http://purl.org/olia/mte/multext-east.owl#NonspecificPronoun">http://purl.org/olia/mte/multext-east.owl#NonspecificPronoun</a>)</p>
<p>pronoun person first first person pronoun</p>	<p><a href="http://purl.org/olia/olia.owl#FirstPersonPronoun">http://purl.org/olia/olia.owl#FirstPersonPronoun</a></p> <p>tag:textalign.net,2015:feature:FirstPersonPronoun</p>	<p>EAGLES Pronoun with Person="First". As only personal and reflexive pronouns show person differentiation, FirstPersonPronoun is modelled as a subclass of PersReflConcept here.</p> <p>A FirstPersonPronoun refers to the speaker, or to both the speaker and referents grouped with the speaker. (<a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsFirstPersonDeixis.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsFirstPersonDeixis.htm</a>] 19.09.06)</p>
<p>pronoun person second second person pronoun</p>	<p><a href="http://purl.org/olia/olia.owl#SecondPersonPronoun">http://purl.org/olia/olia.owl#SecondPersonPronoun</a></p> <p>tag:textalign.net,2015:feature:SecondPersonPronoun</p>	<p>EAGLES Pronoun with Person="Second". According to Mish et al. (1990:878), this pertains to PersonalPronoun only (and ReflexivePronoun as German "dich"), so SecondPersonPronoun is modelled as a PersReflPronoun here.</p> <p>TODO: Person as property</p> <p>Second person deixis means deictic reference to a person or persons identified as addressee. (<a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsSecondPersonDeixis.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsSecondPersonDeixis.htm</a>] 19.09.06)</p>

names	IRIs	Comments
		<p>ticTerms/WhatIsSecondPersonDeixis.htm] 19.09.06)</p>
<p>pronoun person second familiar familiar second person pronoun</p>	<p><a href="http://purl.org/olia/olia.owl#FamiliarSecondPersonPronoun">http://purl.org/olia/olia.owl#FamiliarSecondPersonPronoun</a></p> <p>tag:textal-ign.net,2015:feature:FamiliarSecondPersonPronoun</p>	<p>EAGLES PersonalPronoun with Politeness="Familiar". The EAGLES attribute politeness (polite/ familiar) is limited to second-person pronouns.</p> <p>In several European languages exist special forms of pronouns for polite or respectful reference, e.g. Dutch u and Spanish usted. The concept FamiliarSecondPersonPronoun applies to the corresponding unmarked forms for informal conversation in such languages. (<a href="http://www...[37]...html#oav1p">http://www...[37]...html#oav1p</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oav1p">http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oav1p</a>] 19.09.06)</p>
<p>pronoun person second polite polite second person pronoun</p>	<p><a href="http://purl.org/olia/olia.owl#PoliteSecondPersonPronoun">http://purl.org/olia/olia.owl#PoliteSecondPersonPronoun</a></p> <p>tag:textal-ign.net,2015:feature:PoliteSecondPersonPronoun</p>	<p>EAGLES PersonalPronoun with Politeness="Polite". The EAGLES attribute politeness (polite/ familiar) is limited to second-person pronouns. In French, for example, it is possible to treat Polite simply as pragmatic values encoded through other attributes - especially person and number. In languages where there are special polite pronoun forms (e.g. Dutch u and Spanish usted), the additional Politeness attribute is required. (<a href="http://www...[37]...html#oav1p">http://www...[37]...html#oav1p</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oav1p">http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oav1p</a>] 19.09.06)</p> <p>TODO: Politeness as feature rather than a concept.</p> <p>In several European languages exist special forms of pronouns for polite or respectful reference, e.g. Dutch u and Spanish usted. (<a href="http://www...[37]...html#oav1p">http://www...[37]...html#oav1p</a> [<a 483="" 514="" 937="" 953"="" data-label="Page-Footer" href="http://www.ilc.cnr.it/EAGLES96/an-&lt;/a&gt;&lt;/p&gt; &lt;/td&gt; &lt;/tr&gt; &lt;/tbody&gt; &lt;/table&gt; &lt;/div&gt; &lt;div data-bbox="> <p>378</p> </a></p>

names	IRIs	Comments
		notate/noder8.html#oavip] 19.09.06)
pronoun person third third person pronoun	<a href="http://purl.org/olia/olia.owl#ThirdPersonPronoun">http://purl.org/olia/olia.owl#ThirdPersonPronoun</a>  tag:textal-ign.net,2015:feature:ThirdPersonPronoun	
pronoun personal personal pronoun	<a href="http://purl.org/olia/olia.owl#PersonalPronoun">http://purl.org/olia/olia.owl#PersonalPronoun</a>  tag:textal-ign.net,2015:feature:PersonalPronoun	<p>EAGLES PersReflPronoun with "Special Pronoun-Type"="Personal".</p> <p>TODO: the SIL definition (also used in GOLD) is nonsatisfactory. German reflexive pronouns have person distinction, so this definition actually applies to EAGLES PersReflPronoun rather than EAGLES PersonalPronoun.</p> <p>A personal pronoun is a pronoun that expresses a distinction of person deixis. (<a href="http://www...[63]...Pronoun.htm">http://www...[63]...Pronoun.htm</a> [<a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAPersonalPronoun.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAPersonalPronoun.htm</a>] 19.09.06) Note that (despite the SIL definition), an <code>olia:PersonalPronoun</code> refers to irreflexive personal pronouns. Personal pronoun categories without reflexivity sensitivity should be mapped onto <code>olia:PersReflPronoun</code>. (CC)</p>
pronoun personal affixed affixed personal pronoun	<a href="http://purl.org/olia/olia.owl#AffixedPersonalPronoun">http://purl.org/olia/olia.owl#AffixedPersonalPronoun</a>  tag:textal-ign.net,2015:feature:AffixedPersonalPronoun	<p><a href="http://www...[17]...at/DC-2221">http://www...[17]...at/DC-2221</a>, [<a href="http://www.isocat.org/datcat/DC-2221">http://www.isocat.org/datcat/DC-2221</a>,] modelled as a subclassOf <code>PersonalPronoun</code>, clitic pronouns are weak personal pronouns</p> <p>Personnal pronoun that is affixed. (MIRACL &amp; LSCA; <a href="http://www...[16]...cat/DC-2221">http://www...[16]...cat/DC-2221</a> [<a href="http://www.isocat.org/datcat/DC-2221">http://www.isocat.org/datcat/DC-2221</a>])</p>

names	IRIs	Comments
		subClassOf pronoun (dcif:isA)
pronoun personal strong strong personal pronoun	<p><a href="http://purl.org/olia/olia.owl#StrongPersonalPronoun">http://purl.org/olia/olia.owl#StrongPersonalPronoun</a></p> <p>tag:textal-ign.net,2015:feature:StrongPersonalPronoun</p>	<p><a href="http://www...[16]...cat/DC-1390">http://www...[16]...cat/DC-1390</a> [<a href="http://www.isocat.org/datcat/DC-1390">http://www.isocat.org/datcat/DC-1390</a>]</p> <p>Personal pronoun that can occupy the position after a preposition and/or reinforce a weak personal pronoun. (Eagles; <a href="http://www...[16]...cat/DC-1390">http://www...[16]...cat/DC-1390</a> [<a href="http://www.isocat.org/datcat/DC-1390">http://www.isocat.org/datcat/DC-1390</a>])</p> <p>subClassOf personalPronoun (dcif:isA)</p>
pronoun personal weak weak personal pronoun	<p><a href="http://purl.org/olia/olia.owl#WeakPersonalPronoun">http://purl.org/olia/olia.owl#WeakPersonalPronoun</a></p> <p>tag:textal-ign.net,2015:feature:WeakPersonalPronoun</p>	<p><a href="http://www...[16]...cat/DC-1414">http://www...[16]...cat/DC-1414</a> [<a href="http://www.isocat.org/datcat/DC-1414">http://www.isocat.org/datcat/DC-1414</a>]</p> <p>Personal pronoun that cannot occupy the position after a preposition and/or reinforce a strong personal pronoun. (<a href="http://www...[16]...cat/DC-1414">http://www...[16]...cat/DC-1414</a> [<a href="http://www.isocat.org/datcat/DC-1414">http://www.isocat.org/datcat/DC-1414</a>])</p> <p>subClassOf personalPronoun (dcif:isA)</p>
pronoun possessive possessive pronoun	<p><a href="http://purl.org/olia/olia.owl#PossessivePronoun">http://purl.org/olia/olia.owl#PossessivePronoun</a></p> <p>tag:textal-ign.net,2015:feature:PossessivePronoun</p>	
pronoun reciprocal reciprocal pronoun	<p><a href="http://purl.org/olia/olia.owl#ReciprocalPronoun">http://purl.org/olia/olia.owl#ReciprocalPronoun</a></p> <p>tag:textal-ign.net,2015:feature:ReciprocalPronoun</p>	<p>EAGLES PersReflPronoun with "Special Pronoun-Type"="Reciprocal".</p> <p>A reciprocal pronoun is a pronoun that expresses a mutual feeling or action among the referents of a plural subject. (<a href="http://www...[65]...Pronoun.htm">http://www...[65]...Pronoun.htm</a> [<a href="http://www.sil.org/linguistics/GlossaryOfLinguistics/">http://www.sil.org/linguistics/GlossaryOfLinguistics/</a>])</p>

names	IRIs	Comments
		ticTerms/WhatIsAReciprocalPronoun.htm] 19.09.06)
pronoun refl pers pers refl pronoun	<p><a href="http://purl.org/olia/olia.owl#PersReflPronoun">http://purl.org/olia/olia.owl#PersReflPronoun</a></p> <p>tag:textal-ign.net,2015:feature:PersReflPronoun</p>	<p>EAGLES Pronoun with Pron-Type="Pers/Ref".</p> <p>TODO: This class should be renamed to PersonalPronoun, as it corresponds to the definition of PersonalPronoun in GOLD. Subclasses then should be renamed to ReflexivePronoun and NonreflexivePersonalPronoun.</p> <p>In Eagles personal and reflexive pronouns are brought together as a single value Pers./Refl. (<a href="http://www...[36]...7.html#recp">http://www...[36]...7.html#recp</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annotate/node17.html#recp">http://www.ilc.cnr.it/EAGLES96/annotate/node17.html#recp</a>] 19.09.06)</p>
pronoun reflexive reflexive pronoun	<p><a href="http://purl.org/olia/olia.owl#ReflexivePronoun">http://purl.org/olia/olia.owl#ReflexivePronoun</a></p> <p>tag:textal-ign.net,2015:feature:ReflexivePronoun</p>	<p>EAGLES PersReflPronoun with SpecialPronoun-Type="Reflexive".</p> <p>A reflexive pronoun is a pronoun that has coreference with the subject. (<a href="http://www...[64]...Pronoun.htm">http://www...[64]...Pronoun.htm</a> [<a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAReflexivePronoun.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAReflexivePronoun.htm</a>] 19.09.06)</p>
pronoun relative relative pronoun	<p><a href="http://purl.org/olia/olia.owl#RelativePronoun">http://purl.org/olia/olia.owl#RelativePronoun</a></p> <p>tag:textal-ign.net,2015:feature:RelativePronoun</p>	
pronoun substitutive substitutive pronoun	<p><a href="http://purl.org/olia/olia.owl#SubstitutivePronoun">http://purl.org/olia/olia.owl#SubstitutivePronoun</a></p> <p>tag:textal-ign.net,2015:feature:SubstitutivePronoun</p>	<p>introduced to account for non-attributive pronouns, see olia:AttributivePronoun</p> <p>non-attributive pronoun</p>
pronoun zero	<p><a href="http://purl.org/olia/olia.owl#ZeroPronoun">http://purl.org/olia/olia.owl#ZeroPronoun</a></p>	<p>PTB bracketing guidelines, Santorini 1991, Bies et al. 1995;</p>

names	IRIs	Comments
zero pronoun	tag:textal-ign.net,2015:feature:ZeroPronoun	often considered as extremely weak form of personal pronouns (Ariel 1990; Givón 1995)  * An asterisk represents a zero pronoun; it may need to be deleted. ... * is used to represent the empty subject of gerunds, imperatives and to-infinitive clauses. (Santorini 1991) (NP *) â' arbitrary PRO, controlled PRO, and trace of A-movement (Bies et al. 1995)
proximal	http://purl.org/olia/olia.owl#Proximal  tag:textal-ign.net,2015:feature:Proximal	added in accordance with http://pur...[46]... lDeterminer [http://purl.org/olia/mte/multext-east.owl#CliticProximalDeterminer]  The referent denoted by a distal demonstrative pronoun (e.g., English that) is usually spatially more remote or discursively less salient as compared to a referent denoted by a proximal demonstrative pronoun (e.g., English this) (Chiarcos)
proximative third third proximative	http://purl.org/olia/olia.owl#ThirdProximative  tag:textal-ign.net,2015:feature:ThirdProximative	http://pur...[30]... roximative, [http://purl.org/linguistics/gold/ThirdProximative,] modelled here under Third  Proximative refers to one or more non-participants that are in some way distinct/closer to the speaker than other non-participants. (http://pur...[29]...Proximative [http://purl.org/linguistics/gold/ThirdProximative])
punctuation	http://purl.org/olia/olia.owl#Punctuation  tag:textal-ign.net,2015:feature:Punctuation	EAGLES top-level category Punctuation (PU). For subconcepts, Wilson and Leech (1996) propose two alternative classifications: Here, we implement the more interesting, i.e. position (the alternative is just enumeration of possible signs)

names	IRIs	Comments
		Punctuation marks (PU) are treated here as a part of morphosyntactic annotation, as it is very common for punctuation marks to be tagged and to be treated as equivalent to words for the purposes of automatic tag assignment. ( <a href="http://www...[34]...e16.html#mp">http://www...[34]...e16.html#mp</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annotate/node16.html#mp">http://www.ilc.cnr.it/EAGLES96/annotate/node16.html#mp</a> ] 19.09.06)
punctuation final sentence sentence final punctuation	<a href="http://purl.org/olia/olia.owl#SentenceFinalPunctuation">http://purl.org/olia/olia.owl#SentenceFinalPunctuation</a>  tag:textalign.net,2015:feature:SentenceFinalPunctuation	added in accordance with <a href="http://www...[36]...7.html#recv">http://www...[36]...7.html#recv</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annotate/node17.html#recv">http://www.ilc.cnr.it/EAGLES96/annotate/node17.html#recv</a> ]  SentenceFinalPunctuation are .?! ( <a href="http://www...[36]...7.html#recv">http://www...[36]...7.html#recv</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annotate/node17.html#recv">http://www.ilc.cnr.it/EAGLES96/annotate/node17.html#recv</a> ] 19.09.06)
punctuation interrogative interrogative punctuation	<a href="http://purl.org/olia/olia.owl#InterrogativePunctuation">http://purl.org/olia/olia.owl#InterrogativePunctuation</a>  tag:textalign.net,2015:feature:InterrogativePunctuation	<a href="http://www...[16]...cat/DC-2087">http://www...[16]...cat/DC-2087</a> [ <a href="http://www.isocat.org/datcat/DC-2087">http://www.isocat.org/datcat/DC-2087</a> ]  Punctuation used when the sentence is interrogative. ( <a href="http://www...[16]...cat/DC-2087">http://www...[16]...cat/DC-2087</a> [ <a href="http://www.isocat.org/datcat/DC-2087">http://www.isocat.org/datcat/DC-2087</a> ])
punctuation main main punctuation	<a href="http://purl.org/olia/olia.owl#MainPunctuation">http://purl.org/olia/olia.owl#MainPunctuation</a>  tag:textalign.net,2015:feature:MainPunctuation	<a href="http://www...[16]...cat/DC-2075">http://www...[16]...cat/DC-2075</a> [ <a href="http://www.isocat.org/datcat/DC-2075">http://www.isocat.org/datcat/DC-2075</a> ]  Punctuation that is more important than a secondary punctuation with regards to sentence splitting in a text. ( <a href="http://www...[16]...cat/DC-2075">http://www...[16]...cat/DC-2075</a> [ <a href="http://www.isocat.org/datcat/DC-2075">http://www.isocat.org/datcat/DC-2075</a> ])  subClassOf punctuation (dcif:isA)



names	IRIs	Comments
punctuation medial sentence sentence medial punctuation	<a href="http://purl.org/olia/olia.owl#SentenceMedialPunctuation">http://purl.org/olia/olia.owl#SentenceMedialPunctuation</a>  tag:textal-ign.net,2015:feature:SentenceMedialPunctuation	added in accordance with a suggestion by Wilson and Leech (1996)  SentenceMedialPunctuation are ,;:-.( <a href="http://www...[36]...7.html#recv">http://www...[36]...7.html#recv</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annotate/node17.html#recv">http://www.ilc.cnr.it/EAGLES96/annotate/node17.html#recv</a> ] 19.09.06)
punctuation parenthetical parenthetical punctuation	<a href="http://purl.org/olia/olia.owl#ParentheticalPunctuation">http://purl.org/olia/olia.owl#ParentheticalPunctuation</a>  tag:textal-ign.net,2015:feature:ParentheticalPunctuation	Parenthetical elements are dominated by a node labeled PRN. Punctuation marks that set off a parenthetical (i.e., commas, dashes, parentheses (-LRB- and -RRB-)) are contained within the PRN node. Use of PRN is determined ultimately by individual annotator intuition, though the presence of dashes or parentheses strongly suggests a parenthetical. (Bies et al. 1995)  added in conformance with Penn Treebank Bracketing Guidelines (Bies et al. 1995)
punctuation parenthetical left left parenthetical punctuation  opening parenthetical punctuation	<a href="http://purl.org/olia/olia.owl#LeftParentheticalPunctuation">http://purl.org/olia/olia.owl#LeftParentheticalPunctuation</a>  tag:textal-ign.net,2015:feature:LeftParentheticalPunctuation	TODO: rename to OpeningParentheticalPunctuation to support scripts running from left to right.  added in accordance with a suggestion by Wilson and Leech (1996); <a href="http://www...[16]...cat/DC-2078">http://www...[16]...cat/DC-2078</a> [ <a href="http://www.isocat.org/dataset/DC-2078">http://www.isocat.org/dataset/DC-2078</a> ] (open punctuation)  Beginning of a paired punctuation. ( <a href="http://www...[16]...cat/DC-2078">http://www...[16]...cat/DC-2078</a> [ <a href="http://www.isocat.org/dataset/DC-2078">http://www.isocat.org/dataset/DC-2078</a> ])  TODO: rename to OpenPunctuation
punctuation parenthetical right right parenthetical punctuation	<a href="http://purl.org/olia/olia.owl#RightParentheticalPunctuation">http://purl.org/olia/olia.owl#RightParentheticalPunctuation</a>	TODO: rename to ClosePunctuation to support scripts running from left to right

names	IRIs	Comments
closing parenthetical punctuation	tag:textal-ign.net,2015:feature:RightParentheticalPunctuation	<p><a href="http://www...[16]...cat/DC-2079">http://www...[16]...cat/DC-2079</a> [<a href="http://www.isocat.org/datcat/DC-2079">http://www.isocat.org/datcat/DC-2079</a>]</p> <p>added in accordance with EAGLES suggestions (<a href="http://www...[36]...7.html#recv">http://www...[36]...7.html#recv</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annotate/noder17.html#recv">http://www.ilc.cnr.it/EAGLES96/annotate/noder17.html#recv</a>])</p> <p>End of a paired punctuation. (<a href="http://www...[16]...cat/DC-2079">http://www...[16]...cat/DC-2079</a> [<a href="http://www.isocat.org/datcat/DC-2079">http://www.isocat.org/datcat/DC-2079</a>]) RightParentheticalPunctuation is a punctuation mark which concludes a constituent whose the opening is marked by a LeftParentheticalPunctuation, e.g. ), ] and Spanish ?. (<a href="http://www...[36]...7.html#recv">http://www...[36]...7.html#recv</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annotate/noder17.html#recv">http://www.ilc.cnr.it/EAGLES96/annotate/noder17.html#recv</a> 19.09.06])</p>
punctuation secondary secondary punctuation	<p><a href="http://purl.org/olia/olia.owl#SecondaryPunctuation">http://purl.org/olia/olia.owl#SecondaryPunctuation</a></p> <p>tag:textal-ign.net,2015:feature:SecondaryPunctuation</p>	
quadrial	<p><a href="http://purl.org/olia/olia.owl#Quadrial">http://purl.org/olia/olia.owl#Quadrial</a></p> <p>tag:textal-ign.net,2015:feature:Quadrial</p>	<p><a href="http://www...[16]...cat/DC-2000">http://www...[16]...cat/DC-2000</a> [<a href="http://www.isocat.org/datcat/DC-2000">http://www.isocat.org/datcat/DC-2000</a>]</p> <p>Property related to four elements. (<a href="http://www...[16]...cat/DC-2000">http://www...[16]...cat/DC-2000</a> [<a href="http://www.isocat.org/datcat/DC-2000">http://www.isocat.org/datcat/DC-2000</a>])</p> <p>subClassOf grammaticalNumber (dcif:conceptualDomain)</p>
qualifier	<a href="http://purl.org/olia/olia.owl#Qualifier">http://purl.org/olia/olia.owl#Qualifier</a>	

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:Qualifier	
quantifier	<p>http://purl.org/olia/olia.owl#Quantifier</p> <p>tag:textal-ign.net,2015:feature:Qualifier</p>	<p>A category "Quantifier" is missing in EAGLES, but seems to be conflated with IndefiniteDeterminer. Added as top-level concept in accordance with the SFB632 annotation guidelines. Against the original (and meanwhile corrected) modelling in GOLD, Quantifier is not a sub-concept of Determiner.</p> <p>A quantifier is a determiner that expresses a referent's definite or indefinite number or amount. A quantifier functions as a modifier of a noun, or pronoun. (<a href="http://www...[58]...ntifier.htm">http://www...[58]...ntifier.htm</a> [<a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAQuantifier.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAQuantifier.htm</a>] 19.09.06)</p>
<p>quantifier demonstrative</p> <p>demonstrative quantifier</p>	<p>http://purl.org/olia/olia.owl#DemonstrativeQuantifier</p> <p>tag:textal-ign.net,2015:feature:DemonstrativeQuantifier</p>	<p><a href="http://pur...[45]...eQuantifier">http://pur...[45]...eQuantifier</a> [<a href="http://purl.org/olia/mte/multext-east.owl#DemonstrativeQuantifier">http://purl.org/olia/mte/multext-east.owl#DemonstrativeQuantifier</a>]</p> <p>In the Czech and Slovak MTE v4 specs, Numeral/Class="demonstrative" are items meaning 'this many/much', etc. Strictly speaking, they are pronumerals (pro-quantifiers), but traditional descriptions don't recognise such a category, so they are described variously as pronouns (because they contain a demonstrative element) or as numerals (because their syntactic distribution is that of numerals, or very close)." (Ivan A Derzhanski, email 2010/06/11, <a href="http://pur...[45]...eQuantifier">http://pur...[45]...eQuantifier</a> [<a href="http://purl.org/olia/mte/multext-east.owl#DemonstrativeQuantifier">http://purl.org/olia/mte/multext-east.owl#DemonstrativeQuantifier</a>])</p>

names	IRIs	Comments
<p>quantifier dual</p> <p>dual quantifier</p>	<p><a href="http://purl.org/olia/olia.owl#DualQuantifier">http://purl.org/olia/olia.owl#DualQuantifier</a></p> <p>tag:textal-ign.net,2015:feature: DualQuantifier</p>	<p><a href="http://purl.org/olia/mte/multext-east.owl#DualQuantifier">http://purl.org/olia/mte/multext-east.owl#DualQuantifier</a> [http://purl.org/olia/mte/multext-east.owl#DualQuantifier]</p> <p>Quantifiers that enforce dual agreement (i.e., as with the numeral "2"). Some feminine and neuter body parts in Czech have preserved dual forms, and if the noun is dual, so are its attributes (adjectives, pronouns). So the agreement of the numeral 2 differs formally from 3-4 (Ivan A. Derzhanski, email 2010/06/16, <a href="http://purl.org/olia/mte/multext-east.owl#DualQuantifier">http://purl.org/olia/mte/multext-east.owl#DualQuantifier</a>) Numeral/Class="definite", Numeral/Class="definiter", Numeral/Class="definite234" etc. refer to specific patterns of congruency with Slavic numerals that originate from the difference between Old Slavic singular (definiter), dual (definite2, definite234) and plural (definite). (<a href="http://purl.org/olia/mte/multext-east.owl#DualQuantifier">http://purl.org/olia/mte/multext-east.owl#DualQuantifier</a>)</p>
<p>quantifier indefinite</p> <p>indefinite quantifier</p>	<p><a href="http://purl.org/olia/olia.owl#IndefiniteQuantifier">http://purl.org/olia/olia.owl#IndefiniteQuantifier</a></p> <p>tag:textal-ign.net,2015:feature: IndefiniteQuantifier</p>	<p><a href="http://purl.org/olia/mte/multext-east.owl#IndefiniteQuantifier">http://purl.org/olia/mte/multext-east.owl#IndefiniteQuantifier</a> [http://purl.org/olia/mte/multext-east.owl#IndefiniteQuantifier]</p> <p>In the Czech and Slovak MTE v4 specs, Numeral/Class="indefinite" are items meaning 'several/some', etc. Strictly speaking, they are pronumerals (pro-quantifiers), but traditional descriptions don't recognise such a category, so they are described variously as pronouns or as numerals (because their syntactic distribu-</p>

names	IRIs	Comments
		tion is that of numerals, or very close).” (Ivan A Derzhanski, email 2010/06/11, <a href="http://pur...[42]...eQuantifier">http://pur...[42]...eQuantifier</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#IndefiniteQuantifier">http://purl.org/olia/mte/multext-east.owl#IndefiniteQuantifier</a> ])
quantifier interrogative interrogative quantifier	<a href="http://purl.org/olia/olia.owl#InterrogativeQuantifier">http://purl.org/olia/olia.owl#InterrogativeQuantifier</a>  tag:textal-ign.net,2015:feature:InterrogativeQuantifier	<a href="http://pur...[45]...eQuantifier">http://pur...[45]...eQuantifier</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#InterrogativeQuantifier">http://purl.org/olia/mte/multext-east.owl#InterrogativeQuantifier</a> ]  In the Czech and Slovak MTE v4 pecs, Numeral/Class=”interrogative” are items meaning ‘how many/much’, etc. Strictly speaking, they are pronumerals (pro-quantifiers), but traditional descriptions don’t recognise such a category, so they are described variously as pronouns or as numerals (because their syntactic distribution is that of numerals, or very close).” (Ivan A Derzhanski, email 2010/06/11, <a href="http://pur...[45]...eQuantifier">http://pur...[45]...eQuantifier</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#InterrogativeQuantifier">http://purl.org/olia/mte/multext-east.owl#InterrogativeQuantifier</a> ])
quantifier paucal paucal quantifier	<a href="http://purl.org/olia/olia.owl#PaucalQuantifier">http://purl.org/olia/olia.owl#PaucalQuantifier</a>  tag:textal-ign.net,2015:feature:PaucalQuantifier	<a href="http://pur...[38]...lQuantifier">http://pur...[38]...lQuantifier</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#PaucalQuantifier">http://purl.org/olia/mte/multext-east.owl#PaucalQuantifier</a> ]  Quantifiers that enforce paucal agreement. In many Slavic languages, numerals between 2 and 4 (and some quantifiers) involve a specific agreement patterns that is different from that of smaller and greater numbers. In Russian, for example, genitive singular is requires. These numerals and quantifiers with the same characteristics are referred to here as ”paucal quantifiers”. (cf. David Psetsky, <a href="http://www...[36]...esetsky.pdf">http://www...[36]...esetsky.pdf</a> [ <a href="http://www.u-">http://www.u-</a>

names	IRIs	Comments
		ni-leipzig.de/ -jtrommer/Harvard/peset- sky.pdf])
<p>quantifier plural plural quantifier</p>	<p><a href="http://purl.org/olia/olia.owl#PluralQuantifier">http://purl.org/olia/olia.owl#PluralQuantifier</a></p> <p>tag:textal-ign.net,2015:feature:PluralQuantifier</p>	<p><a href="http://pur...[38]...">http://pur...[38]...</a> lQuantifier [http:// purl.org/olia/mte/ multext-east.owl#PluralQuantifier] Numeral/Class="definite", Numeral/Class="definite", Numeral/Class="definite234" etc. refer to specific patterns of congruency with Slavic numerals that originate from the difference between Old Slavic singular (definite), dual (definite2, definite234) and plural (definite).</p> <p>A PluralQuantifier is a Quantifier (or Numeral) that specifies a large multitude of entities. The agreement pattern of a plural quantifier is different from that of a singular quantifier, but as opposed to DualQuantifier and PaucalQuantifier, PluralQuantifier includes quantifiers that denote arbitrarily large sets of entities. (Chiarcos) The corresponding category in Czech, Polish and Slovak MTE v4 specs is Numeral/Class="definite", that refers to numerals larger than four. (MTE v4)</p>
<p>quantifier pro pro quantifier</p>	<p><a href="http://purl.org/olia/olia.owl#ProQuantifier">http://purl.org/olia/olia.owl#ProQuantifier</a></p> <p>tag:textal-ign.net,2015:feature:ProQuantifier</p>	<p><a href="http://pur...[35]...">http://pur...[35]...</a> oQuantifier [http:// purl.org/olia/mte/ multext-east.owl#ProQuantifier]</p> <p>A ProQuantifier is a quantifier derived from a pronominal element. ProQuantifiers thus partly characterized as pronouns (e.g., as pronominal adverbs) or quantifiers (e.g., "indefinite numeral" as in MTE v.4). (<a href="http://pur...[35]...oQuantifier">http://pur...[35]...oQuantifier</a> [http://purl.org/olia/mte/</p>

names	IRIs	Comments
		multext-east.owl#ProQuantifier])
quantifier relative relative quantifier	<p><a href="http://purl.org/olia/olia.owl#RelativeQuantifier">http://purl.org/olia/olia.owl#RelativeQuantifier</a></p> <p>tag:textal-ign.net,2015:feature:RelativeQuantifier</p>	<p><a href="http://purl.org/olia/mte/multext-east.owl#RelativeQuantifier">http://purl.org/olia/mte/multext-east.owl#RelativeQuantifier</a> [http://purl.org/olia/mte/multext-east.owl#RelativeQuantifier]</p> <p>In the Czech MTE v4 specs, Numeral/Class="relative" are items meaning 'how many/much', 'as many/much' etc. Strictly speaking, they are pronumerals (pro-quantifiers), but traditional descriptions don't recognise such a category, so they are described variously as pronouns or as numerals (because their syntactic distribution is that of numerals, or very close)." (Ivan A Derzhanski, email 2010/06/11, <a href="http://purl.org/olia/mte/multext-east.owl#RelativeQuantifier">http://purl.org/olia/mte/multext-east.owl#RelativeQuantifier</a>)</p>
quantifier singular singular quantifier	<p><a href="http://purl.org/olia/olia.owl#SingularQuantifier">http://purl.org/olia/olia.owl#SingularQuantifier</a></p> <p>tag:textal-ign.net,2015:feature:SingularQuantifier</p>	<p><a href="http://purl.org/olia/mte/multext-east.owl#SingularQuantifier">http://purl.org/olia/mte/multext-east.owl#SingularQuantifier</a> [http://purl.org/olia/mte/multext-east.owl#SingularQuantifier] (MTE v4 Numeral/Class="definite", <a href="http://purl.org/olia/mte/multext-east.owl#SingularQuantifier">http://purl.org/olia/mte/multext-east.owl#SingularQuantifier</a>) Numeral/Class="definite", Numeral/Class="definite2", Numeral/Class="definite234" etc. refer to specific patterns of congruency with Slavic numerals that originate from the difference between Old Slavic singular (definite1), dual (definite2, definite234) and plural (definite).</p> <p>A singular quantifier is a quantifier or a numeral that specifies a single referent from a set. (Chiarcos) In Czech and Slovak MTE v4 specs, the cor-</p>

names	IRIs	Comments
		responding category Numerical/Class="definite" is applied to the numeral "one". (MTE v4)
question	<a href="http://purl.org/olia/olia.owl#Question">http://purl.org/olia/olia.owl#Question</a>  tag:textal-ign.net,2015:feature:Question	Santorini 1991, Bies et al. 1995  There are two types of questions: direct questions (which are main clauses ending with a question mark) and indirect questions (which are subordinate clauses embedded under a verb). In this section, we discuss only direct questions; indirect questions are bracketed as SBARÁ's (see Section 5.17). (Santorini 1991)
question direct direct question	<a href="http://purl.org/olia/olia.owl#DirectQuestion">http://purl.org/olia/olia.owl#DirectQuestion</a>  tag:textal-ign.net,2015:feature:DirectQuestion	
question no yes yes no question	<a href="http://purl.org/olia/olia.owl#YesNoQuestion">http://purl.org/olia/olia.owl#YesNoQuestion</a>  tag:textal-ign.net,2015:feature:YesNoQuestion	Santorini 1991, Bies et al. 1995  There are two types of direct questions: yes-no questions and wh-questions. Yes-no questions should be bracketed as SQ. The auxiliary verb or form of do that precedes the subject in a yes-no question is a child of SQ. Note that yes-no questions need not contain a VP node (Santorini 1991)
quote	<a href="http://purl.org/olia/olia.owl#Quote">http://purl.org/olia/olia.owl#Quote</a>  tag:textal-ign.net,2015:feature:Quote	<a href="http://www...[16]...cat/DC-2081">http://www...[16]...cat/DC-2081</a> [ <a href="http://www.isocat.org/datcat/DC-2081">http://www.isocat.org/datcat/DC-2081</a> ]  Punctuation usually used to surround a quotation. ( <a href="http://www...[16]...cat/DC-2081">http://www...[16]...cat/DC-2081</a> [ <a href="http://www.isocat.org/datcat/DC-2081">http://www.isocat.org/datcat/DC-2081</a> ])
reduplication	<a href="http://purl.org/olia/olia.owl#Reduplication">http://purl.org/olia/olia.owl#Reduplication</a>  tag:textal-ign.net,2015:feature:Reduplication	<a href="http://www...[16]...cat/DC-2346">http://www...[16]...cat/DC-2346</a> [ <a href="http://www.isocat.org/datcat/DC-2346">http://www.isocat.org/datcat/DC-2346</a> ] (reduplication)



names	IRIs	Comments
		process to modify the sense of a word by some operations to repeat the sound of a word. ( <a href="http://www...[16]...cat/DC-2346">http://www...[16]...cat/DC-2346</a> [ <a href="http://www.isocat.org/datcat/DC-2346">http://www.isocat.org/datcat/DC-2346</a> ])
reflexive	<a href="http://purl.org/olia/olia.owl#Reflexive">http://purl.org/olia/olia.owl#Reflexive</a>  tag:textal-ign.net,2015:feature:Reflexive	TODO: integrate with Voice, rename to ReflexiveVoice  A reflexive verb is a verb whose semantic agent and patient (typically represented syntactically by the subject and the direct object) are the same. In many languages, reflexive constructions are rendered by transitive verbs followed by a reflexive pronoun, as in English -self (e. g., She threw herself to the floor.). ( <a href="http://en...[24]...exive_verbs">http://en...[24]...exive_verbs</a> [ <a href="http://en.wikipedia.org/wiki/Reflexive_verbs">http://en.wikipedia.org/wiki/Reflexive_verbs</a> ] 20.11.06)
reflexive non non reflexive	<a href="http://purl.org/olia/olia.owl#NonReflexive">http://purl.org/olia/olia.owl#NonReflexive</a>  tag:textal-ign.net,2015:feature:NonReflexive	TODO: remove  A non-reflexive verb is a verb whose semantic agent and patient (typically represented syntactically by the subject and the direct object) are not the same. ( <a href="http://en...[24]...exive_verbs">http://en...[24]...exive_verbs</a> [ <a href="http://en.wikipedia.org/wiki/Reflexive_verbs">http://en.wikipedia.org/wiki/Reflexive_verbs</a> ] 20.11.06)
register dialect dialect register	<a href="http://purl.org/olia/olia.owl#DialectRegister">http://purl.org/olia/olia.owl#DialectRegister</a>  tag:textal-ign.net,2015:feature:DialectRegister	<a href="http://www...[16]...cat/DC-1990">http://www...[16]...cat/DC-1990</a> [ <a href="http://www.isocat.org/datcat/DC-1990">http://www.isocat.org/datcat/DC-1990</a> ]  Register that is specific to a dialect. ( <a href="http://www...[16]...cat/DC-1990">http://www...[16]...cat/DC-1990</a> [ <a href="http://www.isocat.org/datcat/DC-1990">http://www.isocat.org/datcat/DC-1990</a> ])  subClassOf register (dcif:conceptualDomain)
register facetious facetious register	<a href="http://purl.org/olia/olia.owl#FacetiousRegister">http://purl.org/olia/olia.owl#FacetiousRegister</a>	<a href="http://www...[16]...cat/DC-1991">http://www...[16]...cat/DC-1991</a> [ <a href="http://www.isocat.org/datcat/DC-1991">http://www.isocat.org/datcat/DC-1991</a> ]

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:FacetiousRegister	Register related to an expression that is intended to be clever and funny but that is really silly and annoying. (Longma DCE; <a href="http://www...[16]...cat/DC-1991">http://www...[16]...cat/DC-1991</a> [ <a href="http://www.isocat.org/datcat/DC-1991">http://www.isocat.org/datcat/DC-1991</a> ])  subClassOf register (dcif:conceptualDomain)
register formal formal register	<a href="http://purl.org/olia/olia.owl#FormalRegister">http://purl.org/olia/olia.owl#FormalRegister</a>  tag:textal-ign.net,2015:feature:FormalRegister	<a href="http://www...[16]...cat/DC-1992">http://www...[16]...cat/DC-1992</a> [ <a href="http://www.isocat.org/datcat/DC-1992">http://www.isocat.org/datcat/DC-1992</a> ]  Formal register. (I2620; <a href="http://www...[16]...cat/DC-1992">http://www...[16]...cat/DC-1992</a> [ <a href="http://www.isocat.org/datcat/DC-1992">http://www.isocat.org/datcat/DC-1992</a> ])  subClassOf register (dcif:conceptualDomain)
register house in in house register	<a href="http://purl.org/olia/olia.owl#InHouseRegister">http://purl.org/olia/olia.owl#InHouseRegister</a>  tag:textal-ign.net,2015:feature:InHouseRegister	<a href="http://www...[16]...cat/DC-1993">http://www...[16]...cat/DC-1993</a> [ <a href="http://www.isocat.org/datcat/DC-1993">http://www.isocat.org/datcat/DC-1993</a> ]  Register of terms that are company-specific and not readily recognized outside this environment. (ISOI2620; <a href="http://www...[16]...cat/DC-1993">http://www...[16]...cat/DC-1993</a> [ <a href="http://www.isocat.org/datcat/DC-1993">http://www.isocat.org/datcat/DC-1993</a> ])  subClassOf register (dcif:conceptualDomain)
register ironic ironic register	<a href="http://purl.org/olia/olia.owl#IronicRegister">http://purl.org/olia/olia.owl#IronicRegister</a>  tag:textal-ign.net,2015:feature:IronicRegister	<a href="http://www...[16]...cat/DC-1994">http://www...[16]...cat/DC-1994</a> [ <a href="http://www.isocat.org/datcat/DC-1994">http://www.isocat.org/datcat/DC-1994</a> ]  Register for irony. (I2620; <a href="http://www...[16]...cat/DC-1994">http://www...[16]...cat/DC-1994</a> [ <a href="http://www.isocat.org/datcat/DC-1994">http://www.isocat.org/datcat/DC-1994</a> ])  subClassOf register (dcif:conceptualDomain)
register level bench bench level register	<a href="http://purl.org/olia/olia.owl#BenchLevelRegister">http://purl.org/olia/olia.owl#BenchLevelRegister</a>	<a href="http://www...[16]...cat/DC-1989">http://www...[16]...cat/DC-1989</a> [ <a href="http://www.isocat.org/datcat/DC-1989">http://www.isocat.org/datcat/DC-1989</a> ]

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:BenchLevelRegister	Register of terms used in applications-oriented as opposed to theoretical or academic levels of language. (ISO12620; <a href="http://www...[16]...cat/DC-1989">http://www...[16]...cat/DC-1989</a> [ <a href="http://www.isocat.org/datcat/DC-1989">http://www.isocat.org/datcat/DC-1989</a> ])  subClassOf register (dcif:conceptualDomain)
register neutral neutral register	<a href="http://purl.org/olia/olia.owl#NeutralRegister">http://purl.org/olia/olia.owl#NeutralRegister</a>  tag:textal-ign.net,2015:feature:NeutralRegister	<a href="http://www...[16]...cat/DC-1999">http://www...[16]...cat/DC-1999</a> [ <a href="http://www.isocat.org/datcat/DC-1999">http://www.isocat.org/datcat/DC-1999</a> ]  The register appropriate to general texts or discourse. (ISO12620; <a href="http://www...[16]...cat/DC-1999">http://www...[16]...cat/DC-1999</a> [ <a href="http://www.isocat.org/datcat/DC-1999">http://www.isocat.org/datcat/DC-1999</a> ])  subClassOf register (dcif:conceptualDomain)
register slang slang register	<a href="http://purl.org/olia/olia.owl#SlangRegister">http://purl.org/olia/olia.owl#SlangRegister</a>  tag:textal-ign.net,2015:feature:SlangRegister	<a href="http://www...[16]...cat/DC-1995">http://www...[16]...cat/DC-1995</a> [ <a href="http://www.isocat.org/datcat/DC-1995">http://www.isocat.org/datcat/DC-1995</a> ]  An extremely informal register of a word, term, or text that is used in spoken and everyday language and less commonly in documents. (ISO12620; <a href="http://www...[16]...cat/DC-1995">http://www...[16]...cat/DC-1995</a> [ <a href="http://www.isocat.org/datcat/DC-1995">http://www.isocat.org/datcat/DC-1995</a> ])  subClassOf register (dcif:conceptualDomain)
register taboo taboo register	<a href="http://purl.org/olia/olia.owl#TabooRegister">http://purl.org/olia/olia.owl#TabooRegister</a>  tag:textal-ign.net,2015:feature:TabooRegister	<a href="http://www...[16]...cat/DC-1996">http://www...[16]...cat/DC-1996</a> [ <a href="http://www.isocat.org/datcat/DC-1996">http://www.isocat.org/datcat/DC-1996</a> ]  Register that expresses a situation that people avoid because it is extremely offensive or embarrassing. (ISO12620; <a href="http://www...[16]...cat/DC-1996">http://www...[16]...cat/DC-1996</a> [ <a href="http://www.isocat.org/datcat/DC-1996">http://www.isocat.org/datcat/DC-1996</a> ])

names	IRIs	Comments
		subClassOf register (dcif:conceptualDomain)
register technical technical register	<p><a href="http://purl.org/olia/olia.owl#TechnicalRegister">http://purl.org/olia/olia.owl#TechnicalRegister</a></p> <p>tag:textal-ign.net,2015:feature:TechnicalRegister</p>	<p><a href="http://www...[16]...cat/DC-1997">http://www...[16]...cat/DC-1997</a> [<a href="http://www.isocat.org/datcat/DC-1997">http://www.isocat.org/datcat/DC-1997</a>]</p> <p>The register appropriate to scientific texts or special languages. (ISO12620; <a href="http://www...[16]...cat/DC-1997">http://www...[16]...cat/DC-1997</a> [<a href="http://www.isocat.org/datcat/DC-1997">http://www.isocat.org/datcat/DC-1997</a>])</p> <p>subClassOf register (dcif:conceptualDomain)</p>
register vulgar vulgar register	<p><a href="http://purl.org/olia/olia.owl#VulgarRegister">http://purl.org/olia/olia.owl#VulgarRegister</a></p> <p>tag:textal-ign.net,2015:feature:VulgarRegister</p>	<p><a href="http://www...[16]...cat/DC-1998">http://www...[16]...cat/DC-1998</a> [<a href="http://www.isocat.org/datcat/DC-1998">http://www.isocat.org/datcat/DC-1998</a>]</p> <p>Register of a term or text type that can be characterized as profane or socially unacceptable. (ISO12620; <a href="http://www...[16]...cat/DC-1998">http://www...[16]...cat/DC-1998</a> [<a href="http://www.isocat.org/datcat/DC-1998">http://www.isocat.org/datcat/DC-1998</a>])</p> <p>subClassOf register (dcif:conceptualDomain)</p>
relation	<p><a href="http://purl.org/olia/olia.owl#Relation">http://purl.org/olia/olia.owl#Relation</a></p> <p>tag:textal-ign.net,2015:feature:Relation</p>	
relation dependency dependency relation	<p><a href="http://purl.org/olia/olia.owl#DependencyRelation">http://purl.org/olia/olia.owl#DependencyRelation</a></p> <p>tag:textal-ign.net,2015:feature:DependencyRelation</p>	
relation dominance dominance relation	<p><a href="http://purl.org/olia/olia.owl#DominanceRelation">http://purl.org/olia/olia.owl#DominanceRelation</a></p> <p>tag:textal-ign.net,2015:feature:DominanceRelation</p>	

names	IRIs	Comments
relation lexical lexical relation	<a href="http://purl.org/olia/olia.owl#LexicalRelation">http://purl.org/olia/olia.owl#LexicalRelation</a>  tag:textal-ign.net,2015:feature:LexicalRelation	
relation syntactic syntactic relation	<a href="http://purl.org/olia/olia.owl#SyntacticRelation">http://purl.org/olia/olia.owl#SyntacticRelation</a>  tag:textal-ign.net,2015:feature:SyntacticRelation	TODO: check TDS and GOLD
residual	<a href="http://purl.org/olia/olia.owl#Residual">http://purl.org/olia/olia.owl#Residual</a>  tag:textal-ign.net,2015:feature:Residual	<p>EAGLES top-level category Residual (R) with the exception of its subclass "Unclassified". Unclassified is not represented in the OLiA ontology, as it does not represent information, but the absence of information.</p> <p>From a linguistic point of view, Residuals are a heterogeneous class and so, Residual may overlap with every linguistically motivate annotation concept. Also between subconcepts, overlap may occur (e.g. \LaTeX which is a symbol which can be read as an Acronym or acronyms which are related to Abbreviations, e.g. GNU "Gnu is not Unix")</p> <p>The residual value (R) is assigned to classes of text words which lie outside the traditionally accepted range of grammatical classes, although they occur quite commonly in many texts and very commonly in some. For example: foreign words, or mathematical formulae. It can be argued that these are on the fringes of the grammar or lexicon of the language in which the text is written. Nevertheless, they need to be tagged. (<a href="http://www...[34]...e16.html#mr">http://www...[34]...e16.html#mr</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annote/noder6.html#mr">http://www.ilc.cnr.it/EAGLES96/annote/noder6.html#mr</a>] 19.09.06)</p>

names	IRIs	Comments
		<p>Although words in the Residual category are on the periphery of the lexicon, they may take some of the grammatical characteristics, e.g., of nouns. Acronyms such as IBM are similar to proper nouns; symbols such as alphabetic characters can vary for singular and plural (e.g. How many Ps are there in `psychopath`?), and are in this respect like common nouns. In some languages (e.g. Portuguese) such symbols also have gender. It is quite reasonable that in some tagging schemes some of these classes of word will be classified under other parts of speech. (The Unclassified category applies to word-like text segments which do not easily fit into any of the foregoing values. For example: incomplete words and pause fillers such as er and erm in transcriptions of speech, or written representations of singing such as dum-de-dum. (<a href="http://www...[36]...7.html#recre">http://www...[36]...7.html#recre</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annotate/node17.html#recre">http://www.ilc.cnr.it/EAGLES96/annotate/node17.html#recre</a>] 19.09.06)</p>
<p>role addressee addressee role</p>	<p><a href="http://purl.org/olia/olia.owl#AddresseeRole">http://purl.org/olia/olia.owl#AddresseeRole</a></p> <p>tag:textalign.net,2015:feature:AddresseeRole</p>	<p>added in conformance with PTB vocative, Bies et al. 1995</p> <p>-VOC (vocative) — marks nouns of address, regardless of their position in the sentence. It is not coindexed to the subject and does not get -TPC when it is sentence-initial. (SQ (NP-VOC Mike), would (NP-SBJ you) (INTJ please) (VP close (NP the door))?) (Bies et al. 1995)</p>
<p>role agent agent role</p>	<p><a href="http://purl.org/olia/olia.owl#AgentRole">http://purl.org/olia/olia.owl#AgentRole</a></p> <p>tag:textalign.net,2015:feature:AgentRole</p>	<p><a href="http://lan...[51]...1#agentRole">http://lan...[51]...1#agentRole</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#agentRole">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#agentRole</a>]</p> <p>An agentive role is one in which the actor exerts</p>

names	IRIs	Comments
		some degree of will(-power) in the execution of the event. ( <a href="http://lan...[51]...l#agentRole">http://lan...[51]...l#agentRole</a> [ <a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#agentRole">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#agentRole</a> ])
role benefactor benefactor role	<a href="http://purl.org/olia/olia.owl#BenefactorRole">http://purl.org/olia/olia.owl#BenefactorRole</a>  tag:textalign.net,2015:feature:BenefactorRole	<a href="http://lan...[57]...ficiaryRole">http://lan...[57]...ficiaryRole</a> [ <a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#beneficiaryRole">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#beneficiaryRole</a> ]  A beneficiary (benefactor) instantiates the role of an entity (usually animate) who stands to benefit in some way from the event. Prototypically “benefit” here means “to do or be good to, to be of advantage or profit to; to improve, help forward” in some way. ( <a href="http://lan...[57]...ficiaryRole">http://lan...[57]...ficiaryRole</a> [ <a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#beneficiaryRole">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#beneficiaryRole</a> ])
role cause cause role	<a href="http://purl.org/olia/olia.owl#CauseRole">http://purl.org/olia/olia.owl#CauseRole</a>  tag:textalign.net,2015:feature:CauseRole	Cause indicates the reason why something happens and is often expressed by a PP (because of, with, through etc.). Sometimes this role is close to the role of Instrument. The criterion for the choice of tag CAUSE is if the expression can be paraphrased through a clausal subordinate clause. (Dipper et al. 2007, 5.3.10)  added in conformance with the SFB632 Annotation Guidelines (Dipper et al. 2007)
role comitative comitative role	<a href="http://purl.org/olia/olia.owl#ComitativeRole">http://purl.org/olia/olia.owl#ComitativeRole</a>  tag:textalign.net,2015:feature:ComitativeRole	added in conformance with TIGER edge labels, this is explicitly not defined as a grammatical case  TODO: Check whether to be merged with ComitativeCase  Comitative carries the meaning ‘with’ or ‘accompanied by’ (Anderson, Stephen 1985: 186; Pei and Gaynor 1954: 42; Dixon, R.

names	IRIs	Comments
		1972: 12; Gove, et al. 1966: 455). ( <a href="http://pur...[23].../Comitative">http://pur...[23].../Comitative</a> [ <a href="http://purl.org/linguistics/gold/Comitative">http://purl.org/linguistics/gold/Comitative</a> ]) Comitative applies to an animate entity that accompanies a participant of the action. (Dipper et al. 2007, §5.3.12)
role condition condition role	<a href="http://purl.org/olia/olia.owl#ConditionRole">http://purl.org/olia/olia.owl#ConditionRole</a>  tag:textal-ign.net,2015:feature:ConditionRole	<a href="http://pur...[29]...ionalAdverb">http://pur...[29]...ionalAdverb</a> [ <a href="http://purl.org/olia/tcodex.owl#ConditionalAdverb">http://purl.org/olia/tcodex.owl#ConditionalAdverb</a> ]  Adverbial that denotes a condition. (Petrova and Odebrecht 2011)
role direction direction role	<a href="http://purl.org/olia/olia.owl#DirectionRole">http://purl.org/olia/olia.owl#DirectionRole</a>  tag:textal-ign.net,2015:feature:DirectionRole	added in conformance with PTB bracketing guidelines, Bies et al. (1995)  -DIR (direction) â´ marks adverbials that answer the questions â¼from where?â½ and â¼to where?â½ It implies motion, which can be metaphorical as in â¼...rose 5 pts. to 57-1/2â½ or #â¼increased 70% to 5.8 billion yenâ½ (see section 23 [#â¼Financials-peak#â¼ Conventions]). -DIR is most often used with verbs of motion/transit and financial verbs: (S (NP-SBJ I) (VP flew (PP-DIR from (NP Tokyo)) (PP-DIR to (NP New York)))) (Bies et al. 1995)
role experiencer experiencer role	<a href="http://purl.org/olia/olia.owl#ExperiencerRole">http://purl.org/olia/olia.owl#ExperiencerRole</a>  tag:textal-ign.net,2015:feature:ExperiencerRole	<a href="http://lan...[58]...iencerRole">http://lan...[58]...iencerRole</a> , [ <a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#experiencerRole">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#experiencerRole</a> ,] originally a subconcept of UndergoerMacroRole  An experiencer instantiates the role of an entity (usually animate) who takes the event in through sensory means in some way. ( <a href="http://lan...[57]...riencerRole">http://lan...[57]...riencerRole</a> [ <a href="http://lan-">http://lan-</a>



names	IRIs	Comments
		guagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#experiencerRole])
role extent extent role	<a href="http://purl.org/olia/olia.owl#ExtentRole">http://purl.org/olia/olia.owl#ExtentRole</a>  tag:textal-ign.net,2015:feature:ExtentRole	added in conformance with PTB bracketing guidelines, Bies et al. (1995)  -EXT (extent) â´ marks adverbial phrases that describe the spatial extent of an activity. -EXT was incorporated primarily for cases of movement in financial space, but is also used in analogous situations elsewhere. (S (NP-SBJ the Dow Jones Industrial Average) (VP plunged (NP-EXT 190,58 points))) (S (NP-SBJ She) (VP walked (NP-EXT 5 miles))) Obligatory complements do not receive -EXT: (S (NP-SBJ The sumo wrestler) (VP gained (NP 80 pounds))) Words such as fully and completely are absolutes and do not receive -EXT. (Bies et al. 1995)
role force force role	<a href="http://purl.org/olia/olia.owl#ForceRole">http://purl.org/olia/olia.owl#ForceRole</a>  tag:textal-ign.net,2015:feature:ForceRole	<a href="http://lan...[51]...1#forceRole">http://lan...[51]...1#forceRole</a> [ <a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#forceRole">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#forceRole</a> ]  A force role is one in which the instantiator (the “force”) exerts some degree of energy which initiates (or impacts on) the execution of the event. In contrast to an agent, an instantiator of a force may be an inanimate entity, such as a climactic condition. The non-controlling entity instigating a Process (=Dynamism or Change) (Dik, 1997:118) ( <a href="http://lan...[51]...1#forceRole">http://lan...[51]...1#forceRole</a> [ <a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#forceRole">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#forceRole</a> ])
role goal goal role	<a href="http://purl.org/olia/olia.owl#GoalRole">http://purl.org/olia/olia.owl#GoalRole</a>	<a href="http://lan...[50]...w1#goalRole">http://lan...[50]...w1#goalRole</a> [ <a href="http://linguagelink.let.uu.nl/tds/">http://linguagelink.let.uu.nl/tds/</a>

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:GoalRole	<p>onto/LinguisticOntology.owl#goalRole]</p> <p>A goal role instantiates the (intended) end location (directional path) of an event. (<a href="http://lan...[50]...wl#goalRole">http://lan...[50]...wl#goalRole</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#goalRole">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#goalRole</a>])</p>
role instrument instrument role	<p><a href="http://purl.org/olia/olia.owl#InstrumentRole">http://purl.org/olia/olia.owl#InstrumentRole</a></p> <p>tag:textal-ign.net,2015:feature:InstrumentRole</p>	<p><a href="http://lan...[57]...rumentRole">http://lan...[57]...rumentRole</a>, [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#instrumentRole">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#instrumentRole</a>,] cf. TIGER edge label "Instrumental"</p> <p>SemanticRole added in conformance with TIGER</p>
role location location role	<p><a href="http://purl.org/olia/olia.owl#LocationRole">http://purl.org/olia/olia.owl#LocationRole</a></p> <p>tag:textal-ign.net,2015:feature:LocationRole</p>	<p><a href="http://lan...[55]...cationRole">http://lan...[55]...cationRole</a>, [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#locationRole">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#locationRole</a>,] cf. the TIGER edge label "Locative"</p> <p>Semantic role for the final location of action or a time of the action. (<a href="http://www...[16]...cat/DC-1326">http://www...[16]...cat/DC-1326</a> [<a href="http://www.isocat.org/datcat/DC-1326">http://www.isocat.org/datcat/DC-1326</a>]) Adverbials that indicate place/setting of the event. (PP-LOC on (NP the moon)) May also indicate metaphorical location: (PP-LOC amongst (NP yourselves)) (Bies et al. 1995)</p>
role macro actor actor macro role	<p><a href="http://purl.org/olia/olia.owl#ActorMacroRole">http://purl.org/olia/olia.owl#ActorMacroRole</a></p> <p>tag:textal-ign.net,2015:feature:ActorMacroRole</p>	<p><a href="http://lan...[51]...l#actorRole">http://lan...[51]...l#actorRole</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#actorRole">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#actorRole</a>]</p> <p>The most agentive semantic role of the current clause (van Valin and Lapolla 1997), designated subject (from a semantic point of view)</p>

names	IRIs	Comments
role macro undergoer undergoer macro role	<p><a href="http://purl.org/olia/olia.owl#UndergoerMacroRole">http://purl.org/olia/olia.owl#UndergoerMacroRole</a></p> <p>tag:textal-ign.net,2015:feature:UndergoerMacroRole</p>	<p><a href="http://lan...[55]...dergoerRole">http://lan...[55]...dergoerRole</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#undergoerRole">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#undergoerRole</a>]</p> <p>The least agentive argument of the current clause (van Valin and Lapolla 1997), the designated object (from a semantic perspective).</p>
role malefactor malefactor role	<p><a href="http://purl.org/olia/olia.owl#MalefactorRole">http://purl.org/olia/olia.owl#MalefactorRole</a></p> <p>tag:textal-ign.net,2015:feature:MalefactorRole</p>	<p><a href="http://lan...[57]...ficiaryRole">http://lan...[57]...ficiaryRole</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#maleficiaryRole">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#maleficiaryRole</a>]</p> <p>A maleficiary (malefactor) instantiates the role of an entity (usually animate) who stands to undergoe a misfortune, or be at a disadvantage in some way from the event. (<a href="http://lan...[57]...ficiaryRole">http://lan...[57]...ficiaryRole</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#maleficiaryRole">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#maleficiaryRole</a>])</p>
role manner manner role	<p><a href="http://purl.org/olia/olia.owl#MannerRole">http://purl.org/olia/olia.owl#MannerRole</a></p> <p>tag:textal-ign.net,2015:feature:MannerRole</p>	<p>Manner applies to constituents that denote how something is carried out. Adverbs may also denote manner, however, they are not annotated at any of the syntactic layers. (Dipper et al. 2007, §5.3.11)</p> <p>added in conformance with the SFB632 annotation scheme (Dipper et al. 2007)</p>
role oblique oblique role	<p><a href="http://purl.org/olia/olia.owl#ObliqueRole">http://purl.org/olia/olia.owl#ObliqueRole</a></p> <p>tag:textal-ign.net,2015:feature:ObliqueRole</p>	<p><a href="http://lan...[53]...obliqueRole">http://lan...[53]...obliqueRole</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#obliqueRole">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#obliqueRole</a>]</p> <p>A semantic role which is not straightforward. (<a href="http://lan...[53]...obliqueCase">http://lan...[53]...obliqueCase</a> [<a href="http://linguagelink.let.uu.nl/tds/">http://linguagelink.let.uu.nl/tds/</a></p>

names	IRIs	Comments
		onto/LinguisticOntology.owl#obliqueCase))
role path path role	http://purl.org/olia/olia.owl#PathRole  tag:textal-ign.net,2015:feature:PathRole	added in accordance with TIGER way (directional modifier)  added in accordance with TIGER way (directional modifier)
role patient patient role	http://purl.org/olia/olia.owl#PatientRole  tag:textal-ign.net,2015:feature:PatientRole	http://lan...[53]...patientRole [http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#patientRole]  A patient instantiates the role of an entity which undergoes a change of state (Cruse 2000:284) http://lan...[53]...patientRole [http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#patientRole]
role positioner positioner role	http://purl.org/olia/olia.owl#PositionerRole  tag:textal-ign.net,2015:feature:PositionerRole	http://lan...[56]...itionerRole [http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#positionerRole]  The entity controlling a Position (Dik, 1997:118) (http://lan...[56]...itionerRole [http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#positionerRole])
role possessor possessor role	http://purl.org/olia/olia.owl#PossessorRole  tag:textal-ign.net,2015:feature:PossessorRole	added in conformance with Stanford Parser Dependency Labels  Semantic role as used by the Stanford Dependency Parser
role processed processed role	http://purl.org/olia/olia.owl#ProcessedRole  tag:textal-ign.net,2015:feature:ProcessedRole	http://lan...[55]...ocessedRole [http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#processedRole]  The entity that undergoes a Process (Dik, 1997:118). (http://lan...[55]

names	IRIs	Comments
		...ocessedRole [http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#processedRole]
role purpose purpose role	http://purl.org/olia/olia.owl#PurposeRole  tag:textal-ign.net,2015:feature:PurposeRole	-PRP (purpose or reason) â' marks purpose or reason clauses and PPs. (Bies et al. 1995)  added in conformance with PTB bracketing guidelines (Bies et al. 1995)
role recipient recipient role	http://purl.org/olia/olia.owl#RecipientRole  tag:textal-ign.net,2015:feature:RecipientRole	http://lan...[55]...cipientRole [http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#recipientRole]  A recipient instantiates the role of an entity (usually animate) who recieves an entity in some way from the event. <p> Prototypically "recieve" here means "to take in one's hand, or into one's possession (something held out or offered by another); to take delivery of (a thing) from another" in some way. (OED) </p> (http://lan...[55]...cipientRole [http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#recipientRole])
role semantic semantic role	http://purl.org/olia/olia.owl#SemanticRole  tag:textal-ign.net,2015:feature:SemanticRole	
role source source role	http://purl.org/olia/olia.owl#SourceRole  tag:textal-ign.net,2015:feature:SourceRole	http://lan...[52]...#sourceRole [http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#sourceRole]  A source role instantiates the origin of an event or entity. (http://lan...[52]...#sourceRole [http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#sourceRole])

names	IRIs	Comments
role syntactic syntactic role	<a href="http://purl.org/olia/olia.owl#SyntacticRole">http://purl.org/olia/olia.owl#SyntacticRole</a>  tag:textal-ign.net,2015:feature:SyntacticRole	2010/04/08 merged with EAGLES NPFunction "NPFunction is an additional optional attribute for adjectives. It subsumes the values HeadFunction, Postmodifying and Pre-modifying." ( <a href="http://www...[37]...html#oav1a">http://www...[37]...html#oav1a</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oav1a">http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oav1a</a> ] 20.11.06)
role target target role	<a href="http://purl.org/olia/olia.owl#TargetRole">http://purl.org/olia/olia.owl#TargetRole</a>  tag:textal-ign.net,2015:feature:TargetRole	added as counterpart of SourceRole, see there  The target role instantiates the destination of an event or entity.
role theme theme role	<a href="http://purl.org/olia/olia.owl#ThemeRole">http://purl.org/olia/olia.owl#ThemeRole</a>  tag:textal-ign.net,2015:feature:ThemeRole	added in conformance with SFB632 Theme  TODO: check definition, AFAIK Theme also applies to the third (non-ACTOR, non-UNDERGOER) argument (Ch. Chiarcos)  Theme is a general term covering the notions of patient that means an entity affected by the action, of result that means an entity effected by the action, i.e. which emerges out of the action, or of theme that means an entity effected by the action, i.e. which emerges out of the action. (Dipper et al. 2007: §5.3.3)
role time time role	<a href="http://purl.org/olia/olia.owl#TimeRole">http://purl.org/olia/olia.owl#TimeRole</a>  tag:textal-ign.net,2015:feature:TimeRole	added in conformance with Stanford Parser Dependency Label TIME and SFB632 annotation guidelines (Dipper et al. 2007)  Semantic role corresponding to the label "TIME" used by the Stanford Dependency Parser. Time covers a point or an interval of time at which the action takes place. (Dipper et al. 2007, §5.3.9) -TMP (temporal) — marks temporal or aspectual adverbials that answer the ques-

names	IRIs	Comments
		tions when, how often, or how long. It has some uses that are not strictly adverbial, such as with dates that modify other NPs (see section 11 [Modification of NP]). (Bies et al. 1995)
root	<a href="http://purl.org/olia/olia.owl#Root">http://purl.org/olia/olia.owl#Root</a>  tag:textal-ign.net,2015:feature:Root	<a href="http://www...[16]...cat/DC-2231">http://www...[16]...cat/DC-2231</a> [ <a href="http://www.isocat.org/datcat/DC-2231">http://www.isocat.org/datcat/DC-2231</a> ]  base of a word (MIRACL & LSCA; <a href="http://www...[16]...cat/DC-2231">http://www...[16]...cat/DC-2231</a> [ <a href="http://www.isocat.org/datcat/DC-2231">http://www.isocat.org/datcat/DC-2231</a> ])
second	<a href="http://purl.org/olia/olia.owl#Second">http://purl.org/olia/olia.owl#Second</a>  tag:textal-ign.net,2015:feature:Second	EAGLES, <a href="http://pur...[19]...gold/Second">http://pur...[19]...gold/Second</a> [ <a href="http://purl.org/linguistics/gold/Second">http://purl.org/linguistics/gold/Second</a> ]  Refers to the person(s) the speaker is addressing (Crystal 1997: 285). ( <a href="http://pur...[19]...gold/Second">http://pur...[19]...gold/Second</a> [ <a href="http://purl.org/linguistics/gold/Second">http://purl.org/linguistics/gold/Second</a> ])
sentence	<a href="http://purl.org/olia/olia.owl#Sentence">http://purl.org/olia/olia.owl#Sentence</a>  tag:textal-ign.net,2015:feature:Sentence	
sentence declarative declarative sentence	<a href="http://purl.org/olia/olia.owl#DeclarativeSentence">http://purl.org/olia/olia.owl#DeclarativeSentence</a>  tag:textal-ign.net,2015:feature:DeclarativeSentence	Santorini 1991, Bies et al. 1995  S Simple declarative clause, i.e. one that is not introduced by a (possibly empty) subordinating conjunction or wh-word and that does not exhibit subject-verb inversion. (Santorini 1991) Simple declarative sentences: (S (NP-SBJ Casey) (VP threw (NP the ball))) ... S à ' Simple declarative clause, i.e. one that is not introduced by a (possibly empty) subordinating conjunction or wh-word and that does not exhibit subject-verb inversion. (Bies et al. 1995)
separable	<a href="http://purl.org/olia/olia.owl#Separable">http://purl.org/olia/olia.owl#Separable</a>	EAGLES; note that UbyPos extends separability to particles

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:Separable	A separable verb is a verb that is composed of a verb stem and a separable affix. In some verb forms, the verb appears in one word, whilst in others the verb stem and the affix are separated. German and Dutch are notable for having many separable verbs. For example, the Dutch verb "aankomen" is a separable verb. ( <a href="http://en.wikipedia.org/wiki/Separable_verb">http://en.wikipedia.org/wiki/Separable_verb</a> ) 20.11.06)
separable non non separable	<a href="http://purl.org/olia/olia.owl#NonSeparable">http://purl.org/olia/olia.owl#NonSeparable</a>  tag:textal-ign.net,2015:feature:NonSeparable	EAGLES; note that UbyPos extends separability to particles  Non-separable verbs are not composed of a verb stem and a separable affix. (cf. SeparabilityFeature: Separable)
separator graphical graphical separator	<a href="http://purl.org/olia/olia.owl#GraphicalSeparator">http://purl.org/olia/olia.owl#GraphicalSeparator</a>  tag:textal-ign.net,2015:feature:GraphicalSeparator	
sequel	<a href="http://purl.org/olia/olia.owl#Sequel">http://purl.org/olia/olia.owl#Sequel</a>  tag:textal-ign.net,2015:feature:Sequel	added in accordance with ILPOSTS (for Indian languages), <a href="http://purl.org/olia/ilposts.owl#Sequel">http://purl.org/olia/ilposts.owl#Sequel</a> [http://purl.org/olia/ilposts.owl#Sequel]  Adopted from ILPOSTS for Indian languages. No definition or examples provided: Distance=Sequel ( <a href="http://purl.org/olia/ilposts.owl#Sequel">http://purl.org/olia/ilposts.owl#Sequel</a> )  TODO: provide definition
simple	<a href="http://purl.org/olia/olia.owl#Simple">http://purl.org/olia/olia.owl#Simple</a>  tag:textal-ign.net,2015:feature:Simple	EAGLES  Simple applies to the regular type of coordinator occurring between conjuncts: German und, for ex-



names	IRIs	Comments
		ample. ( <a href="http://www...[38]...html#oav1av">http://www...[38]...html#oav1av</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oaviav">http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oaviav</a> ] 17.11.06)
singular	<a href="http://purl.org/olia/olia.owl#Singular">http://purl.org/olia/olia.owl#Singular</a>  tag:textal-ign.net,2015:feature:Singular	EAGLES  Singular is a grammatical number denoting a unit quantity (as opposed to the plural and other forms). ( <a href="http://en...[17]...ki/Singular">http://en...[17]...ki/Singular</a> [ <a href="http://en.wikipedia.org/wiki/Singular">http://en.wikipedia.org/wiki/Singular</a> ] 17.11.06)
slash	<a href="http://purl.org/olia/olia.owl#Slash">http://purl.org/olia/olia.owl#Slash</a>  tag:textal-ign.net,2015:feature:Slash	<a href="http://www...[16]...cat/DC-1437">http://www...[16]...cat/DC-1437</a> [ <a href="http://www.isocat.org/datcat/DC-1437">http://www.isocat.org/datcat/DC-1437</a> ]  The punctuation sign / ( <a href="http://www...[16]...cat/DC-1437">http://www...[16]...cat/DC-1437</a> [ <a href="http://www.isocat.org/datcat/DC-1437">http://www.isocat.org/datcat/DC-1437</a> ])  subClassOf partOfSpeech (dcif:conceptualDomain)  Parenthetical in Russian (instead of "(, ")"), sentence medial in English
space	<a href="http://purl.org/olia/olia.owl#Space">http://purl.org/olia/olia.owl#Space</a>  tag:textal-ign.net,2015:feature:Space	<a href="http://www...[16]...cat/DC-2189">http://www...[16]...cat/DC-2189</a> [ <a href="http://www.isocat.org/datcat/DC-2189">http://www.isocat.org/datcat/DC-2189</a> ]  Empty area between words, lines or columns ( <a href="http://www...[16]...cat/DC-2189">http://www...[16]...cat/DC-2189</a> [ <a href="http://www.isocat.org/datcat/DC-2189">http://www.isocat.org/datcat/DC-2189</a> ])
specific	<a href="http://purl.org/olia/olia.owl#Specific">http://purl.org/olia/olia.owl#Specific</a>  tag:textal-ign.net,2015:feature:Specific	<a href="http://purl.org/olia/mte/multext-east.owl#CliticSpecificDeterminer">http://purl.org/olia/mte/multext-east.owl#CliticSpecificDeterminer</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#CliticSpecificDeterminer">http://purl.org/olia/mte/multext-east.owl#CliticSpecificDeterminer</a> ]  "By 'specific' and 'non-specific' I intend the difference between the two readings of English indefinites like (3): (3) I'm looking for a deer. In the specific reading there is a particular deer, say Bambi, that I am

names	IRIs	Comments
		looking for. In the non-specific reading I will be happy to find any deer. Von Heusinger (2002) likes the test in English of inserting ‘certain’ after the ‘a’ to fix the specific reading. In either reading of (3) a deer is being introduced as a new discourse referent. This is opposed to ‘definite’ which requires a previous pragmatic instantiation as in ‘I’m looking for the deer.’ In English both the readings of (3) are indefinite. In Klallam, the specific demonstratives are neither definite nor indefinite.” (Montler, Timothy. 2007. Klallam demonstratives. Papers ICSNL XLVII. The 42nd International Conference on Salish and Neighbouring Language, pp. 409-425. University of British Columbia Working Papers in Linguistics, Volume 20; on specific vs. nonspecific determiners in Klallam, a Salish language, <a href="http://mon...[23]...mDemons.pdf">http://mon... [23]...mDemons.pdf</a> [ <a href="http://montler.net/papers/KlallamDemons.pdf">http://montler.net/papers/KlallamDemons.pdf</a> ])
speech direct direct speech	<a href="http://purl.org/olia/olia.owl#DirectSpeech">http://purl.org/olia/olia.owl#DirectSpeech</a>  tag:textal-ign.net,2015:feature:DirectSpeech	added in accordance with TIGER  added in accordance with TIGER
stem	<a href="http://purl.org/olia/olia.owl#Stem">http://purl.org/olia/olia.owl#Stem</a>  tag:textal-ign.net,2015:feature:Stem	<a href="http://www...[16]...cat/DC-1389">http://www...[16]...cat/DC-1389</a> [ <a href="http://www.iso-cat.org/datcat/DC-1389">http://www.iso-cat.org/datcat/DC-1389</a> ]  Root of a word, together with any derivational affixes, to which inflectional affixes are added. ( <a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAStem.htm">www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAStem.htm</a> ; <a href="http://www...[16]...cat/DC-1389">http://www...[16]...cat/DC-1389</a> [ <a href="http://www.iso-cat.org/datcat/DC-1389">http://www.iso-cat.org/datcat/DC-1389</a> ])
strong	<a href="http://purl.org/olia/olia.owl#Strong">http://purl.org/olia/olia.owl#Strong</a>	EAGLES

names	IRIs	Comments
	<p>tag:textal-ign.net,2015:feature:Strong</p>	<p>TODO: rename to StrongPronoun</p> <p>Strong pronouns are different from the weak pronouns (cf. StrengthFeature:Weak)</p>
<p>subject intransitive</p> <p>intransitive subject</p>	<p><a href="http://purl.org/olia/olia.owl#IntransitiveSubject">http://purl.org/olia/olia.owl#IntransitiveSubject</a></p> <p>tag:textal-ign.net,2015:feature:IntransitiveSubject</p>	<p><a href="http://lan...[43]...ology.owl#S">http://lan...[43]...ology.owl#S</a> [<a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#S">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#S</a>]</p> <p>Intransitive argument (S), single argument of an intransitive verb or only argument in a one-place predicate (frame). (<a href="http://lan...[43]...ology.owl#S">http://lan...[43]...ology.owl#S</a> [<a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#S">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#S</a>])</p>
<p>subject syntactic</p> <p>syntactic subject</p>	<p><a href="http://purl.org/olia/olia.owl#SyntacticSubject">http://purl.org/olia/olia.owl#SyntacticSubject</a></p> <p>tag:textal-ign.net,2015:feature:SyntacticSubject</p>	<p><a href="http://lan...[58]...cticSubject">http://lan...[58]...cticSubject</a> [<a href="http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#syntacticSubject">http://language.link.let.uu.nl/tds/onto/LinguisticOntology.owl#syntacticSubject</a>]</p> <p>The subject of a sentence is one of the two main parts of a sentence, the other being the predicate. Providing an adequate definition of the notion of a subject is notoriously difficult, and depends on a range of grammatical properties that may vary from language to language. For this reason, many current grammatical theories avoid using the term, except for purely descriptive purposes, or define it in terms of occupying a particular position in the clause. The term subject refers to the grammatical function an expression may have in relation to other expressions in a sentence, and it should be distinguished from parts of speech, which classify expressions independently of their relations to other constituents of a sentence. The subject of a verb is the argument</p>

names	IRIs	Comments
		which generally refers to the origin of the action or the undergoer of the state shown by the verb. However, this definition depends on the particular language under consideration. In languages where a passive voice exists, the subject of a passive verb may be the target or result of the action. This is a semantic definition. ( <a href="http://en...[28]...(grammar)">http://en...[28]...(grammar)</a> ). [ <a href="http://en.wikipedia.org/wiki/Subject(grammar)">http://en.wikipedia.org/wiki/Subject(grammar)</a> ]. ( <a href="http://lan...[58]...cticSubject">http://lan...[58]...cticSubject</a> [ <a href="http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#syntacticSubject">http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#syntacticSubject</a> ])
subject transitive transitive subject	<a href="http://purl.org/olia/olia.owl#TransitiveSubject">http://purl.org/olia/olia.owl#TransitiveSubject</a>  tag:textal-ign.net,2015:feature:TransitiveSubject	<a href="http://lan...[43]...ology.owl#A">http://lan...[43]...ology.owl#A</a> [ <a href="http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#A">http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#A</a> ]  First argument of a transitive or ditransitive verb. ( <a href="http://lan...[43]...ology.owl#A">http://lan...[43]...ology.owl#A</a> [ <a href="http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#A">http://language-link.let.uu.nl/tds/onto/LinguisticOntology.owl#A</a> ])
suffix	<a href="http://purl.org/olia/olia.owl#Suffix">http://purl.org/olia/olia.owl#Suffix</a>  tag:textal-ign.net,2015:feature:Suffix	<a href="http://www...[16]...cat/DC-1395">http://www...[16]...cat/DC-1395</a> [ <a href="http://www.isocat.org/datcat/DC-1395">http://www.isocat.org/datcat/DC-1395</a> ]  Affix added at the end of the word to change its meaning or part of speech. (Sue Ellen Wright + Gil Francopoulo; <a href="http://www...[16]...cat/DC-1395">http://www...[16]...cat/DC-1395</a> [ <a href="http://www.isocat.org/datcat/DC-1395">http://www.isocat.org/datcat/DC-1395</a> ])
superlative	<a href="http://purl.org/olia/olia.owl#Superlative">http://purl.org/olia/olia.owl#Superlative</a>  tag:textal-ign.net,2015:feature:Superlative	EAGLES, <a href="http://www...[16]...cat/DC-1422">http://www...[16]...cat/DC-1422</a> [ <a href="http://www.isocat.org/datcat/DC-1422">http://www.isocat.org/datcat/DC-1422</a> ]  The superlative of an adjective or adverb is a form of adjective or adverb which indicates

names	IRIs	Comments
		that something has some feature to a greater degree than anything it is being compared to in a given context. ( <a href="http://en...[20]...Superlative">http://en...[20]...Superlative</a> [ <a href="http://en.wikipedia.org/wiki/Superlative">http://en.wikipedia.org/wiki/Superlative</a> ] 17.11.06)
supine	<a href="http://purl.org/olia/olia.owl#Supine">http://purl.org/olia/olia.owl#Supine</a>  tag:textal-ign.net,2015:feature:Supine	EAGLES NonFiniteVerb with VerbForm="Supine".  Supine is a nonfinite form of motion verbs with functions similar to that of an infinitive (Angelika Adams)
symbol	<a href="http://purl.org/olia/olia.owl#Symbol">http://purl.org/olia/olia.owl#Symbol</a>  tag:textal-ign.net,2015:feature:Symbol	EAGLES Category Residual with Type="Symbol".  In morphosyntactic annotation schemes, a symbol is a single graphical sign that occurs in a written text with a conventionalized meaning but that does not represent a phoneme (like ordinary characters), an orthographic sign (punctuation), or a number. (Christian Chiarcos) Symbols such as alphabetic characters can vary for singular and plural (e.g. How many Ps are there in `psychopath?`), and are in this respect like common nouns. In some languages (e.g. Portuguese) such symbols also have gender. ( <a href="http://www...[36]...7.html#recre">http://www...[36]...7.html#recre</a> [ <a href="http://www.ilc.cnr.it/EAGLES96/annotate/node17.html#recre">http://www.ilc.cnr.it/EAGLES96/annotate/node17.html#recre</a> ])
tense absolute absolute tense	<a href="http://purl.org/olia/olia.owl#AbsoluteTense">http://purl.org/olia/olia.owl#AbsoluteTense</a>  tag:textal-ign.net,2015:feature:AbsoluteTense	<a href="http://lan...[55]...soluteTense">http://lan...[55]...soluteTense</a> [ <a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#absoluteTense">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#absoluteTense</a> ]  Absolute tense refers to a time in relation to the moment of utterance. ( <a href="http://lan...[55]...soluteTense">http://lan...[55]...soluteTense</a> [ <a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#absoluteTense">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#absoluteTense</a> ] with

names	IRIs	Comments
		reference to <a href="http://www...[61]...etense.htm">http://www...[61]...etense.htm</a> [ <a href="http://www.sil.org/linguistics/glossaryoflinguisticterms/whatisabsolutetense.htm">http://www.sil.org/linguistics/glossaryoflinguisticterms/whatisabsolutetense.htm</a> ”])
tense perfect past past perfect tense	<a href="http://purl.org/olia/olia.owl#PastPerfectTense">http://purl.org/olia/olia.owl#PastPerfectTense</a>  tag:textalign.net,2015:feature:PastPerfectTense	<a href="http://www...[16]...cat/DC-1348">http://www...[16]...cat/DC-1348</a> [ <a href="http://www.isocat.org/datcat/DC-1348">http://www.isocat.org/datcat/DC-1348</a> ]  Past perfect tense is an absolute-relative tense that refers to a time in the past relative to a reference point, which itself is in the past relative to the moment of utterance ( <a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsPastPerfectTense.htm">www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsPastPerfectTense.htm</a> ; <a href="http://www...[16]...cat/DC-1348">http://www...[16]...cat/DC-1348</a> [ <a href="http://www.isocat.org/datcat/DC-1348">http://www.isocat.org/datcat/DC-1348</a> ])  denoting a tense of verbs used in relating past events where the action had already occurred at the time of the action of a main verb that is itself in a past tense. In English this is a compound tense formed with had plus the past participle ( <a href="http://www.wordreference.com/English/definition.asp?en=past+perfect">www.wordreference.com/English/definition.asp?en=past+perfect</a> ; <a href="http://www...[16]...cat/DC-1348">http://www...[16]...cat/DC-1348</a> [ <a href="http://www.isocat.org/datcat/DC-1348">http://www.isocat.org/datcat/DC-1348</a> ])
tense pluperfect pluperfect tense	<a href="http://purl.org/olia/olia.owl#PluperfectTense">http://purl.org/olia/olia.owl#PluperfectTense</a>  tag:textalign.net,2015:feature:PluperfectTense	<a href="http://pur...[24]...PastInPast">http://pur...[24]...PastInPast</a> , [ <a href="http://purl.org/linguistics/gold/PastInPast">http://purl.org/linguistics/gold/PastInPast</a> ,] classified as absolute-relative tense here.  PastInPast tense locates the situation in question prior to a reference time in the past. Also known as Pluperfect-Tense. ( <a href="http://pur...[23].../">http://pur...[23].../</a> )

names	IRIs	Comments
		PastInPast [ <a href="http://purl.org/linguistics/gold/PastInPast">http://purl.org/linguistics/gold/PastInPast</a> )]
tense relative relative tense	<a href="http://purl.org/olia/olia.owl#RelativeTense">http://purl.org/olia/olia.owl#RelativeTense</a>  tag:textal-ign.net,2015:feature:RelativeTense	<a href="http://lan...[55]...lativeTense">http://lan...[55]...lativeTense</a> [ <a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#relativeTense">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#relativeTense</a> ]  Relative tense is a tense that refers to a time in relation to a contextually determined temporal reference point, regardless of the latter's temporal relation to the moment of utterance. ( <a href="http://lan...[55]...lativeTense">http://lan...[55]...lativeTense</a> [ <a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#relativeTense">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#relativeTense</a> ] with reference to <a href="http://www...[60]...vetense.htm">http://www...[60]...vetense.htm</a> [ <a href="http://www.sil.org/linguistics/glossaryoflinguisticterms/whatisrelativetense.htm">http://www.sil.org/linguistics/glossaryoflinguisticterms/whatisrelativetense.htm</a> ])
tense relative absolute absolute relative tense	<a href="http://purl.org/olia/olia.owl#AbsoluteRelativeTense">http://purl.org/olia/olia.owl#AbsoluteRelativeTense</a>  tag:textal-ign.net,2015:feature:AbsoluteRelativeTense	<a href="http://lan...[63]...lativeTense">http://lan...[63]...lativeTense</a> [ <a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#absoluteRelativeTense">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#absoluteRelativeTense</a> ]  Absolute-relative tense is a tense that (i) refers to a time in relation to a temporal reference point that, in turn, is referred to in relation to the moment of utterance (ii) in which the time and the reference point are not identical, and (iii) the reference point and the moment of utterance are not identical. ( <a href="http://lan...[63]...lativeTense">http://lan...[63]...lativeTense</a> [ <a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#absoluteRelativeTense">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#absoluteRelativeTense</a> ] with reference to <a href="http://www...[68]...vetense.htm">http://www...[68]...vetense.htm</a> [ <a href="http://www.sil.org/linguistics/glossaryoflinguis-">http://www.sil.org/linguistics/glossaryoflinguis-</a>

names	IRIs	Comments
		tictersms/whatisabsoluterelativetense.htm])
text	<a href="http://purl.org/olia/olia.owl#Text">http://purl.org/olia/olia.owl#Text</a> tag:textal-ign.net,2015:feature:Text	<a href="http://www...[16]...cat/DC-1847">http://www...[16]...cat/DC-1847</a> [ <a href="http://www.isocat.org/datcat/DC-1847">http://www.isocat.org/datcat/DC-1847</a> ] Series of sentences expressed in a natural language. (Gil Francopoulo; <a href="http://www...[16]...cat/DC-1847">http://www...[16]...cat/DC-1847</a> [ <a href="http://www.isocat.org/datcat/DC-1847">http://www.isocat.org/datcat/DC-1847</a> ])
text running in title title in running text	<a href="http://purl.org/olia/olia.owl#TitleInRunningText">http://purl.org/olia/olia.owl#TitleInRunningText</a> tag:textal-ign.net,2015:feature:TitleInRunningText	-TTL (title) — is attached to the top node of a title when this title appears inside running text. -TTL implies -NOM. The internal structure of the title is bracketed as usual. (See section 12 [Titles] for more information about the bracketing of titles.) (Bies et al. 1995) PTB bracketing guidelines, Bies et al. 1995
theme ditransitive ditransitive theme	<a href="http://purl.org/olia/olia.owl#DitransitiveTheme">http://purl.org/olia/olia.owl#DitransitiveTheme</a> tag:textal-ign.net,2015:feature:DitransitiveTheme	<a href="http://lan...[43]...ology.owl#T">http://lan...[43]...ology.owl#T</a> [ <a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#T">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#T</a> ] Ditransitive theme (T) (Siewierska 2004:57). ( <a href="http://lan...[43]...ology.owl#T">http://lan...[43]...ology.owl#T</a> [ <a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#T">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#T</a> ])
third	<a href="http://purl.org/olia/olia.owl#Third">http://purl.org/olia/olia.owl#Third</a> tag:textal-ign.net,2015:feature:Third	EAGLES, <a href="http://pur...[18].../gold/Third">http://pur...[18].../gold/Third</a> [ <a href="http://purl.org/linguistics/gold/Third">http://purl.org/linguistics/gold/Third</a> ] Third person is deictic reference to a referent(s) not identified as the speaker or addressee. For example in English "he", "she", "they" or the third person singular verb suffix -s, e.g. in "He sometimes flies." ( <a href="http://www...[64]...nDeixis.htm">http://www...[64]...nDeixis.htm</a> [ <a href="http://www.sil.org/">http://www.sil.org/</a> ])



names	IRIs	Comments
		linguistics/GlossaryOfLinguisticTerms/WhatIsThirdPerson-Deixis.htm] 20.11.06)
token	<p><a href="http://purl.org/olia/olia.owl#Token">http://purl.org/olia/olia.owl#Token</a></p> <p>tag:textal-ign.net,2015:feature:Token</p>	<p><a href="http://www...[16]...cat/DC-1403">http://www...[16]...cat/DC-1403</a> [<a href="http://www.isocat.org/datcat/DC-1403">http://www.isocat.org/datcat/DC-1403</a>]</p> <p>Character string surrounded by separators. (Gil Francopoulo; <a href="http://www...[16]...cat/DC-1403">http://www...[16]...cat/DC-1403</a> [<a href="http://www.isocat.org/datcat/DC-1403">http://www.isocat.org/datcat/DC-1403</a>])</p>
topic hanging hanging topic	<p><a href="http://purl.org/olia/olia.owl#HangingTopic">http://purl.org/olia/olia.owl#HangingTopic</a></p> <p>tag:textal-ign.net,2015:feature:HangingTopic</p>	<p><a href="http://pur...[24]...angingTopic">http://pur...[24]...angingTopic</a> [<a href="http://purl.org/olia/tcodex.owl#HangingTopic">http://purl.org/olia/tcodex.owl#HangingTopic</a>]</p> <p>HangingTopic constructions are closely related to LeftDislocation. Unlike LeftDislocation, the dislocated element and its resuming pronoun do not necessarily agree in case, number and gender. (Petrova and Odebrecht 2011, <a href="http://pur...[24]...angingTopic">http://pur...[24]...angingTopic</a> [<a href="http://purl.org/olia/tcodex.owl#HangingTopic">http://purl.org/olia/tcodex.owl#HangingTopic</a>])</p>
topicalization	<p><a href="http://purl.org/olia/olia.owl#Topicalization">http://purl.org/olia/olia.owl#Topicalization</a></p> <p>tag:textal-ign.net,2015:feature:Topicalization</p>	<p>PTB bracketing guidelines, Bies et al. 1995</p> <p>Topicalization structures are ones where a non-subject immediately precedes a subject, which immediately precedes the verb/auxiliary of the sentence. Two examples: Pizza, John likes. Tomorrow, I will go to the store. Such examples should be bracketed as adjunction structures. (Santorini 1991) -TPC (“topicalized”) — marks elements that appear before the subject in a declarative sentence, but in two cases only: (i) if the fronted element is associated with a *T* in the position of the gap. (ii) if the fronted element is left-dislocated (i.e., it is associated with a resumptive pronoun in</p>

names	IRIs	Comments
		<p>the position of the gap). (See the section on fronted elements in section 1 [Overview of Basic Clause Structure] for more details on the treatment of fronted elements and the section on *T* with fronted elements in section 4 [Null Elements] for more details on the distribution of *T*.) (Bies et al. 1995) Fronted elements are placed inside the top clause level (e.g. S, SINV, SQ, SBAR). (Only certain fronted elements are tagged -TPC: (i) constituents associated with a *T* in the position of the gap and (ii) left-dislocated constituents (those associated with a resumptive pronoun in the position of the gap).) (See section 1 [Overview of Basic Clause Structure] for more details on the treatment of fronted elements.) (Bies et al. 1995)</p>
trace	<p><a href="http://purl.org/olia/olia.owl#Trace">http://purl.org/olia/olia.owl#Trace</a></p> <p>tag:textal-ign.net,2015:feature:Trace</p>	<p>PTB bracketing guidelines, Bies et al. (1995)</p> <p>T Trace. Marks the position where a fronted wh-constituent is interpreted. ... T marks the spot where an argument NP that has been moved by wh-movement or relative clause formation is interpreted. For instance, the relative clause the man that I saw should be bracketed as follows, by analogy to the corresponding simple declarative I saw the man. (NP (NP the man) (SBAR that (S (NP I) (VP saw) (NP T)))) T is also used to represent the empty subjects of as-clauses. (Santorini 1991) *T* â' trace of Aâ<sup>2</sup>-movement (Bies et al. 1995)</p>
transgressive	<p><a href="http://purl.org/olia/olia.owl#Transgressive">http://purl.org/olia/olia.owl#Transgressive</a></p> <p>tag:textal-ign.net,2015:feature:Transgressive</p>	<p><a href="http://www...[16]...cat/DC-1404">http://www...[16]...cat/DC-1404</a> [<a href="http://www.isocat.org/datcat/DC-1404">http://www.isocat.org/datcat/DC-1404</a>]</p> <p>present (action in the same time as of the predicate): The dog going through the house barks.</p>

names	IRIs	Comments
		past (action premature to the one of predicate): He has started to read the book after he had sat down. (ark.wz.cz/cidarke/mverb.html; <a href="http://www...[16]...cat/DC-1404">http://www...[16]...cat/DC-1404</a> [ <a href="http://www.isocat.org/datcat/DC-1404">http://www.isocat.org/datcat/DC-1404</a> ])
transitive	<a href="http://purl.org/olia/olia.owl#Transitive">http://purl.org/olia/olia.owl#Transitive</a>  tag:textal-ign.net,2015:feature:Transitive	SUSANNE (Sampson 1995)  A predicate/verb that takes two arguments, e.g., English "to kiss", cf. van Valin and Lapolla (1997).
trial	<a href="http://purl.org/olia/olia.owl#Trial">http://purl.org/olia/olia.owl#Trial</a>  tag:textal-ign.net,2015:feature:Trial	<a href="http://www...[16]...cat/DC-1407">http://www...[16]...cat/DC-1407</a> [ <a href="http://www.isocat.org/datcat/DC-1407">http://www.isocat.org/datcat/DC-1407</a> ]  Grammatical number referring to 'three things', as opposed to 'singular' and 'plural'. (en2.wikipedia.org/wiki/Trial_number; <a href="http://www...[16]...cat/DC-1407">http://www...[16]...cat/DC-1407</a> [ <a href="http://www.isocat.org/datcat/DC-1407">http://www.isocat.org/datcat/DC-1407</a> ])  subClassOf grammaticalNumber (dcif:conceptualDomain)
type narrative narrative type	<a href="http://purl.org/olia/olia.owl#NarrativeType">http://purl.org/olia/olia.owl#NarrativeType</a>  tag:textal-ign.net,2015:feature:NarrativeType	
typo	<a href="http://purl.org/olia/olia.owl#Typo">http://purl.org/olia/olia.owl#Typo</a>  tag:textal-ign.net,2015:feature:Typo	a mis-typed word  <a href="http://purl.org/olia/mte/multext-east.owl#Typo">http://purl.org/olia/mte/multext-east.owl#Typo</a> [ <a href="http://purl.org/olia/mte/multext-east.owl#Typo">http://purl.org/olia/mte/multext-east.owl#Typo</a> ]
uncountable	<a href="http://purl.org/olia/olia.owl#Uncountable">http://purl.org/olia/olia.owl#Uncountable</a>  tag:textal-ign.net,2015:feature:Uncountable	EAGLES, remodelling of Mass-Noun vs. CommonNoun  A mass noun (also uncountable noun or non-count noun) can't be modified by a numeral, occur in singular/plural or co-occur with the relevant kind of determiner. ( <a href="http://en.">http://en.</a>

names	IRIs	Comments
		<p>...[18]...i/Mass_noun [http://en.wikipedia.org/wiki/Mass_noun] 19.09.06)</p>
<p>uninflected</p>	<p><a href="http://purl.org/olia/olia.owl#Uninflected">http://purl.org/olia/olia.owl#Uninflected</a></p> <p>tag:textal-ign.net,2015:feature:Uninflected</p>	<p>Chiarcos, cf. BaseForm in Susanne (Sampson 1995) and related schemes, and <a href="http://purl.org/olia/emille.owl#UnmarkedForGender">http://purl.org/olia/emille.owl#UnmarkedForGender</a> [http://purl.org/olia/emille.owl#UnmarkedForGender]</p> <p>In many inflecting languages, there occur lexemes whose form does not change throughout the paradigm, e.g., Russian papa "dad". For such forms, the category uninflected may be assigned. However, Uninflected is not to be confused with BaseForm that applies to forms in a paradigm where overt marking exists. Uninflected is a characteristic of lexemes, not individual tokens.</p> <p>For the EMILLE tagset (for Urdu, Hardi 2003), we need the possibility to specify that a lexeme is (un)inflected ([un]marked) *for a specific feature* (e.g., Gender, <a href="http://purl.org/olia/emille.owl#GenderMarking">http://purl.org/olia/emille.owl#GenderMarking</a> [http://purl.org/olia/emille.owl#GenderMarking]). At the moment, this cannot be expressed.</p>
<p>unique</p>	<p><a href="http://purl.org/olia/olia.owl#Unique">http://purl.org/olia/olia.owl#Unique</a></p> <p>tag:textal-ign.net,2015:feature:Unique</p>	<p>EAGLES top-level category Unique (U). "The unique value (U) is applied to categories with a unique or very small membership, such as negative particle, which are 'unassigned' to any of the standard part-of-speech categories. The value unique cannot always be strictly applied, since (for example) Greek has three negative particles ... No subcategories are recommended, although it is expected that tagsets for individual languages will need to identify</p>

names	IRIs	Comments
		<p>such one-member word-classes as Negative particle, Existential particle, Infinitive marker, etc" (<a href="http://www...[31]...node16.html">http://www...[31]...node16.html</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annotate/node16.html">http://www.ilc.cnr.it/EAGLES96/annotate/node16.html</a>]) According to the EAGLES definition and examples, this seems to be closely related to "particle". Particles are uninflected function words, in a broader sense, everything which is not inflected is a particle, i.e. including interjections, in GOLD, uninflected items such as adpositions, conjunctions and interjections are excluded: "A particle is a partOfSpeech whose members do not belong to one of the main classes of words, is invariable, and typically has grammatical or pragmatic meaning." The EAGLES definition emphasizes the invariability of particles.</p> <p>TODO: rename to Particle</p> <p>Unique approximates the linguistic concept "Particle". It covers categories with unique or very small membership, such as negative particle, which are 'unassigned' to any of the standard part-of-speech categories. (<a href="http://www...[34]...e16.html#mp">http://www...[34]...e16.html#mp</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annotate/node16.html#mp">http://www.ilc.cnr.it/EAGLES96/annotate/node16.html#mp</a>] 19.09.06)</p>
<p>unit lexical lexical unit</p>	<p><a href="http://purl.org/olia/olia.owl#LexicalUnit">http://purl.org/olia/olia.owl#LexicalUnit</a></p> <p>tag:textalign.net,2015:feature:LexicalUnit</p>	
<p>unit omitted omitted unit</p>	<p><a href="http://purl.org/olia/olia.owl#OmittedUnit">http://purl.org/olia/olia.owl#OmittedUnit</a></p> <p>tag:textalign.net,2015:feature:OmittedUnit</p>	<p>added in conformance with PTB bracketing guidelines (Santorini 1991, Bies et al. 1995)</p> <p>*U* â' unit ... This element marks the interpreted position of a unit symbol, such as \$,</p>

names	IRIs	Comments
		<p># (British pounds), FFr (French francs), C\$, US\$, HK\$, A\$, M\$, S\$, and NZ\$. It may also appear after % or even cents, when convenient. See section 11 [Modification of NP] for more details on the use of *U*. ... In general, *U* is placed where the word corresponding to the symbol would appear in the string if the text were read aloud. One notable exception is in certain hyphenated compound adjectives, such as a \$5-a-share increase (spoken: <math>\frac{1}{4}</math> five dollar a share increase<math>\frac{1}{2}</math>). Here, the bracketing will usually not reflect the spoken order, with *U* placed as the last element in the ADJP: (NP a (ADJP \$5-a-share *U*) increase) Sometimes, this type may lack the *U* entirely. (Bies et al. 1995)</p>
<p>unit semantic semantic unit</p>	<p><a href="http://purl.org/olia/olia.owl#SemanticUnit">http://purl.org/olia/olia.owl#SemanticUnit</a>  tag:textal-ign.net,2015:feature:SemanticUnit</p>	
<p>usage defined temporally temporally defined usage</p>	<p><a href="http://purl.org/olia/olia.owl#TemporallyDefinedUsage">http://purl.org/olia/olia.owl#TemporallyDefinedUsage</a>  tag:textal-ign.net,2015:feature:TemporallyDefinedUsage</p>	
<p>usage modern modern usage</p>	<p><a href="http://purl.org/olia/olia.owl#ModernUsage">http://purl.org/olia/olia.owl#ModernUsage</a>  tag:textal-ign.net,2015:feature:ModernUsage</p>	<p><a href="http://www...[16]...cat/DC-1962">http://www...[16]...cat/DC-1962</a> [<a href="http://www.isocat.org/datcat/DC-1962">http://www.isocat.org/datcat/DC-1962</a>] (modern)  Currently in use. (<a href="http://www...[16]...cat/DC-1962">http://www...[16]...cat/DC-1962</a> [<a href="http://www.isocat.org/datcat/DC-1962">http://www.isocat.org/datcat/DC-1962</a>])  subClassOf dating (dcif:conceptualDomain)</p>

names	IRIs	Comments
usage old old usage	<p><a href="http://purl.org/olia/olia.owl#OldUsage">http://purl.org/olia/olia.owl#OldUsage</a></p> <p>tag:textal-ign.net,2015:feature:OldUsage</p>	<p><a href="http://www...[16]...cat/DC-1961">http://www...[16]...cat/DC-1961</a> [<a href="http://www.isocat.org/datcat/DC-1961">http://www.isocat.org/datcat/DC-1961</a>]</p> <p>Used in the past. (<a href="http://www...[16]...cat/DC-1961">http://www...[16]...cat/DC-1961</a> [<a href="http://www.isocat.org/datcat/DC-1961">http://www.isocat.org/datcat/DC-1961</a>])</p> <p>subClassOf dating (dcif:conceptualDomain)</p>
used commonly commonly used	<p><a href="http://purl.org/olia/olia.owl#CommonlyUsed">http://purl.org/olia/olia.owl#CommonlyUsed</a></p> <p>tag:textal-ign.net,2015:feature:CommonlyUsed</p>	<p><a href="http://www...[16]...cat/DC-1984">http://www...[16]...cat/DC-1984</a> [<a href="http://www.isocat.org/datcat/DC-1984">http://www.isocat.org/datcat/DC-1984</a>]</p> <p>Said of a term that appears frequently. (ISO12620; <a href="http://www...[16]...cat/DC-1984">http://www...[16]...cat/DC-1984</a> [<a href="http://www.isocat.org/datcat/DC-1984">http://www.isocat.org/datcat/DC-1984</a>])</p> <p>subClassOf frequency (dcif:conceptualDomain)</p>
used infrequently infrequently used	<p><a href="http://purl.org/olia/olia.owl#InfrequentlyUsed">http://purl.org/olia/olia.owl#InfrequentlyUsed</a></p> <p>tag:textal-ign.net,2015:feature:InfrequentlyUsed</p>	<p><a href="http://www...[16]...cat/DC-1985">http://www...[16]...cat/DC-1985</a> [<a href="http://www.isocat.org/datcat/DC-1985">http://www.isocat.org/datcat/DC-1985</a>]</p> <p>Said of a term that does not appear frequently. (ISO12620; <a href="http://www...[16]...cat/DC-1985">http://www...[16]...cat/DC-1985</a> [<a href="http://www.isocat.org/datcat/DC-1985">http://www.isocat.org/datcat/DC-1985</a>])</p> <p>subClassOf frequency (dcif:conceptualDomain)</p>
used rarely rarely used	<p><a href="http://purl.org/olia/olia.owl#RarelyUsed">http://purl.org/olia/olia.owl#RarelyUsed</a></p> <p>tag:textal-ign.net,2015:feature:RarelyUsed</p>	<p><a href="http://www...[16]...cat/DC-1986">http://www...[16]...cat/DC-1986</a> [<a href="http://www.isocat.org/datcat/DC-1986">http://www.isocat.org/datcat/DC-1986</a>]</p> <p>Said of a term that is almost never used. (ISO12620; <a href="http://www...[16]...cat/DC-1986">http://www...[16]...cat/DC-1986</a> [<a href="http://www.isocat.org/datcat/DC-1986">http://www.isocat.org/datcat/DC-1986</a>])</p> <p>subClassOf frequency (dcif:conceptualDomain)</p>

names	IRIs	Comments
utterance	<p><a href="http://purl.org/olia/olia.owl#Utterance">http://purl.org/olia/olia.owl#Utterance</a></p> <p>tag:textal-ign.net,2015:feature:Utterance</p>	<p><a href="http://www...[16]...cat/DC-1409">http://www...[16]...cat/DC-1409</a> [<a href="http://www.isocat.org/datcat/DC-1409">http://www.isocat.org/datcat/DC-1409</a>]</p> <p>Complete unit of talk, bounded by the speaker's silence. (<a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAnUtterance.htm">www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAnUtterance.htm</a>; <a href="http://www...[16]...cat/DC-1409">http://www...[16]...cat/DC-1409</a> [<a href="http://www.isocat.org/datcat/DC-1409">http://www.isocat.org/datcat/DC-1409</a>])</p>
variant geographical geographical variant	<p><a href="http://purl.org/olia/olia.owl#GeographicalVariant">http://purl.org/olia/olia.owl#GeographicalVariant</a></p> <p>tag:textal-ign.net,2015:feature:GeographicalVariant</p>	<p><a href="http://www...[16]...cat/DC-1851">http://www...[16]...cat/DC-1851</a> [<a href="http://www.isocat.org/datcat/DC-1851">http://www.isocat.org/datcat/DC-1851</a>]</p> <p>Description of a specific form used in a certain region as opposed to another form used in another region (<a href="http://www...[16]...cat/DC-1851">http://www...[16]...cat/DC-1851</a> [<a href="http://www.isocat.org/datcat/DC-1851">http://www.isocat.org/datcat/DC-1851</a>])</p>
verb	<p><a href="http://purl.org/olia/olia.owl#Verb">http://purl.org/olia/olia.owl#Verb</a></p> <p>tag:textal-ign.net,2015:feature:Verb</p>	<p>EAGLES top-level category "Verb" (V)</p> <p>A verb is a part of speech that usually denotes action ("bring", "read"), occurrence ("decompose", "glitter"), or a state of being ("exist", "stand"). Depending on the language, a verb may vary in form according to many factors, possibly including its tense, aspect, mood and voice. It may also agree with the person, gender, and/or number of some of its arguments (subject, object, etc.). (<a href="http://en...[13]...g/wiki/Verb">http://en...[13]...g/wiki/Verb</a> [<a href="http://en.wikipedia.org/wiki/Verb">http://en.wikipedia.org/wiki/Verb</a>] 19.09.06)</p>
verb auxiliary auxiliary verb	<p><a href="http://purl.org/olia/olia.owl#AuxiliaryVerb">http://purl.org/olia/olia.owl#AuxiliaryVerb</a></p> <p>tag:textal-ign.net,2015:feature:AuxiliaryVerb</p>	<p>EAGLES Verbs with Status="Auxiliary", <a href="http://www...[16]...cat/DC-1244">http://www...[16]...cat/DC-1244</a> [<a href="http://www.isocat.org/datcat/DC-1244">http://www.isocat.org/datcat/DC-1244</a>]</p>



names	IRIs	Comments
		<p>An auxiliary verb is a verb which accompanies the lexical verb of a verb phrase, and expresses grammatical distinctions not carried by the lexical verb, such as person, number, tense aspect, and voice. (<a href="http://www...[62]...aryVerb.htm">http://www...[62]...aryVerb.htm</a> [<a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAnAuxiliaryVerb.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAnAuxiliaryVerb.htm</a>] 19.09.06) Besides modal verbs ("semiauxiliary") and "strict" auxiliary verbs, also copulas are classified under auxiliary verbs here, as this is a praxis applied in practically every EAGLES-conformant morphosyntactic annotation scheme. Part of speech referring to the set of verbs, subordinate to the main lexical verb which help to make distinction in mood, aspect, voice etc. (Crystal 2003; <a href="http://www...[16]...cat/DC-1244">http://www...[16]...cat/DC-1244</a> [<a href="http://www.isocat.org/dat-cat/DC-1244">http://www.isocat.org/dat-cat/DC-1244</a>])</p>
<p>verb auxiliary strict strict auxiliary verb</p>	<p><a href="http://purl.org/olia/olia.owl#StrictAuxiliaryVerb">http://purl.org/olia/olia.owl#StrictAuxiliaryVerb</a></p> <p>tag:textalign.net,2015:feature:StrictAuxiliaryVerb</p>	<p>Definition in accordance with the SFB632 definition of "auxiliary verb" as non-copular and non-modal verb. In EAGLES, auxiliary verb also seems to be non-modal: In addition to main and auxiliary verbs, it may be useful (e.g. in English) to recognise an intermediate category of semi-auxiliary for such verbs as be going to, have got to, ought to. (<a href="http://www...[37]...html#oav1v">http://www...[37]...html#oav1v</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oaviv">http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oaviv</a>] 20.09.06)</p> <p>Non-modal, non-copular auxiliary verb.</p>
<p>verb conditional conditional verb</p>	<p><a href="http://purl.org/olia/olia.owl#ConditionalVerb">http://purl.org/olia/olia.owl#ConditionalVerb</a></p>	<p>EAGLES finite verb with VerbForm="Conditional".</p> <p>TODO: reimplement with properties</p>

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:ConditionalVerb	A conditional verb is a verb form in many languages. It is used to express degrees of certainty or uncertainty and hypothesis about past, present, or future. Such forms often occur in conditional sentences. ( <a href="http://en.wikipedia.org/wiki/Conditional_mood">http://en.wikipedia.org/wiki/Conditional_mood</a> ] 19.09.06)
verb finite finite verb	<a href="http://purl.org/olia/olia.owl#FiniteVerb">http://purl.org/olia/olia.owl#FiniteVerb</a>  tag:textal-ign.net,2015:feature:FiniteVerb	EAGLES Verb with Finiteness="Finite".  A finite verb is a verb form that occurs in an independent clause, and is fully inflected according to the inflectional categories marked on verbs in the language. ( <a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAFiniteVerb.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAFiniteVerb.htm</a> ] 19.09.06) Property applied to a verb form that can occur on its own in an independent sentence. (Crystal 2003; <a href="http://www.isocat.org/datcat/DC-1287">http://www.isocat.org/datcat/DC-1287</a> ] ( <a href="http://www.isocat.org/datcat/DC-1287">http://www.isocat.org/datcat/DC-1287</a> ))
verb finite non non finite verb	<a href="http://purl.org/olia/olia.owl#NonFiniteVerb">http://purl.org/olia/olia.owl#NonFiniteVerb</a>  tag:textal-ign.net,2015:feature:NonFiniteVerb	EAGLES Verb with Finiteness="Non-finite".  <a href="http://www.isocat.org/datcat/DC-1332">http://www.isocat.org/datcat/DC-1332</a> ] ( <a href="http://www.isocat.org/datcat/DC-1332">http://www.isocat.org/datcat/DC-1332</a> )  Verb forms occurring on their own only in dependent clauses and lacking tense and mood contrasts. (adapted from Crystal 2003; <a href="http://www.isocat.org/datcat/DC-1332">http://www.isocat.org/datcat/DC-1332</a> ] ( <a href="http://www.isocat.org/datcat/DC-1332">http://www.isocat.org/datcat/DC-1332</a> )) A non-finite verb is a verb that is not fully inflected for categories that are marked inflectionally in a language, such as the following: Tense, Aspect, Modality, Num-

names	IRIs	Comments
		ber, Person. ( <a href="http://www...[61]...iteVerb.htm">http://www...[61]...iteVerb.htm</a> [ <a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsANonfiniteVerb.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsANonfiniteVerb.htm</a> ] 19.09.06)
verb imperative imperative verb	<a href="http://purl.org/olia/olia.owl#ImperativeVerb">http://purl.org/olia/olia.owl#ImperativeVerb</a>  tag:textal-ign.net,2015:feature:ImperativeVerb	EAGLES FiniteVerb with VerbForm="Imperative"  An imperative verb is used to express commands, direct requests, and prohibitions. Often, direct use of the imperative mood may appear blunt or even rude, so it is often used with care. Example: "Paul, read that book". ( <a href="http://en...[41]...rative_mood">http://en...[41]...rative_mood</a> [ <a href="http://en.wikipedia.org/wiki/Grammatical_mood#Imperative_mood">http://en.wikipedia.org/wiki/Grammatical_mood#Imperative_mood</a> ] 19.09.06)
verb impersonal impersonal verb	<a href="http://purl.org/olia/olia.owl#ImpersonalVerb">http://purl.org/olia/olia.owl#ImpersonalVerb</a>  tag:textal-ign.net,2015:feature:ImpersonalVerb	<a href="http://www...[16]...cat/DC-1306">http://www...[16]...cat/DC-1306</a> [ <a href="http://www.isocat.org/datcat/DC-1306">http://www.isocat.org/datcat/DC-1306</a> ]  An impersonal verb is a verb that - occurs only in third person singular forms - has no specified agent , and - has a dummy subject or no subject. ( <a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAnImpersonalVerb.htm">www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAnImpersonalVerb.htm</a> ; <a href="http://www...[16]...cat/DC-1306">http://www...[16]...cat/DC-1306</a> [ <a href="http://www.isocat.org/datcat/DC-1306">http://www.isocat.org/datcat/DC-1306</a> ])  (of a verb) having no logical subject. Usually in English the pronoun it is used in such cases as a grammatical subject, as for example in It is raining. (of a pronoun) not denoting a person ( <a href="http://www.wordreference.com/English/definition.asp?en=impersonal">www.wordreference.com/English/definition.asp?en=impersonal</a> ; <a href="http://www...[16]...cat/DC-1306">http://www...[16]...cat/DC-1306</a> [ <a href="http://www.isocat.org/datcat/DC-1306">http://www.isocat.org/datcat/DC-1306</a> ])

names	IRIs	Comments
verb indicative indicative verb	<p><a href="http://purl.org/olia/olia.owl#IndicativeVerb">http://purl.org/olia/olia.owl#IndicativeVerb</a></p> <p>tag:textal-ign.net,2015:feature:IndicativeVerb</p>	<p>EAGLES FiniteVerb with VerbForm="Indicative"</p> <p>Indicative mood is used in factual statements. All intentions in speaking that a particular language does not put into another mood use the indicative. It is the most commonly used mood and is found in all languages. (<a href="http://en.wikipedia.org/wiki/Grammatical_mood#Indicative_mood">http://en.wikipedia.org/wiki/Grammatical_mood#Indicative_mood</a>] 19.09.06)</p>
verb light light verb	<p><a href="http://purl.org/olia/olia.owl#LightVerb">http://purl.org/olia/olia.owl#LightVerb</a></p> <p>tag:textal-ign.net,2015:feature:LightVerb</p>	<p><a href="http://purl.org/olia/mte/multext-east.owl#LightVerb">http://purl.org/olia/mte/multext-east.owl#LightVerb</a>, [http://purl.org/olia/mte/multext-east.owl#LightVerb,] for Farsi</p> <p>In linguistics, a light verb is a verb participating in complex predication that has little semantic content of its own, but provides through inflection some details on the event semantics, such as aspect, mood, or tense. The semantics of the compound, as well as its argument structure, are determined by the head or primary component of the compound, which may be a verb or noun (V+V or V+N compounds). Other names for "light verb" include: vector verb or explicator verb, emphasising its role within the compound; or thin verb or semantically weak verb, emphasising (as with "light") its lack of semantics. A "semantically weak" verb is not to be confused with a "weak verb" as in the Germanic weak inflection. Light verbs are similar to auxiliary verbs in some ways. Most English light verbs occur in V+N forms sometimes called "stretched verbs": for example, take in take a nap, where the primary sense is provided by "nap", and "take" is the</p>

names	IRIs	Comments
		<p>light verb. The light verbs most common in these constructions are also common in phrasal verbs. A verb which is "light" in one context may be "heavy" in another: as with "take" in I will take a book to read. Examples in other languages include the Yiddish geb in geb a helf (literally give a help, "help"); the French faire in faire semblant (lit. make seeming, "pretend"); the Hindi nikal paRA (lit. leave fall, "start to leave"); and the bǎ construction in Chinese.[1] Some verbs are found in many such expressions; to reuse an earlier example, take is found in take a nap, take a shower, take a sip, take a bow, take turns, and so on. Light verbs are extremely common in Indo-Iranian languages, Japanese, and other languages in which verb compounding is a primary mechanism for marking aspectual distinctions. (<a href="http://en.wikipedia.org/wiki/Light_verb">http://en.wikipedia.org/wiki/Light_verb</a>)</p>
<p>verb main main verb</p>	<p><a href="http://purl.org/olia/olia.owl#MainVerb">http://purl.org/olia/olia.owl#MainVerb</a></p> <p>tag:textal-ign.net,2015:feature:MainVerb</p>	<p>to be renamed to LexicalVerb ("main verb" can also mean "head of a finite clause")</p> <p><a href="http://www...[16]...cat/DC-1400">http://www...[16]...cat/DC-1400</a> [<a href="http://www.isocat.org/datcat/DC-1400">http://www.isocat.org/datcat/DC-1400</a>] (main verb)</p> <p>Main verb in contrast to a modal or an auxiliary. (<a href="http://www...[16]...cat/DC-1400">http://www...[16]...cat/DC-1400</a> [<a href="http://www.isocat.org/datcat/DC-1400">http://www.isocat.org/datcat/DC-1400</a>] verb which has its own semantics (<a href="http://www...[17]...at/DC-3004">http://www...[17]...at/DC-3004</a>, [<a href="http://www.isocat.org/datcat/DC-3004">http://www.isocat.org/datcat/DC-3004</a>,] plain-Verb)</p> <p>subClassOf verb (dcif:isA)</p>

names	IRIs	Comments
verb modal modal verb	<p><a href="http://purl.org/olia/olia.owl#ModalVerb">http://purl.org/olia/olia.owl#ModalVerb</a></p> <p>tag:textal-ign.net,2015:feature:ModalVerb</p> <p><a href="http://dbpedia.org/resource/Modal_verb">http://dbpedia.org/resource/Modal_verb</a></p>	<p>Added for compatibility with the SFB632 annotation guidelines. May correspond to the (optional, French-only) EAGLES feature value "semiauxiliary". <a href="http://www...[16]...cat/DC-1329">http://www...[16]...cat/DC-1329</a> [<a href="http://www.isocat.org/dat-cat/DC-1329">http://www.isocat.org/dat-cat/DC-1329</a>]</p> <p>TODO: rename to semiauxiliary, this seems to be a more language-independent term</p> <p>Verb form that is usually used with another verb to express ideas such as possibilities, permission, or intention. (Gil Francopoulo; <a href="http://www...[16]...cat/DC-1329">http://www...[16]...cat/DC-1329</a> [<a href="http://www.isocat.org/dat-cat/DC-1329">http://www.isocat.org/dat-cat/DC-1329</a>]) A modal verb (also modal, modal auxiliary verb, modal auxiliary) is a type of auxiliary verb that is used to indicate modality. The use of auxiliary verbs to express modality is characteristic of Germanic languages. (<a href="http://en...[19].../Modal_verb">http://en...[19].../Modal_verb</a> [<a href="http://en.wikipedia.org/wiki/Modal_verb">http://en.wikipedia.org/wiki/Modal_verb</a>] 19.09.06) In addition to main and auxiliary verbs, it may be useful (e.g. in English) to recognise an intermediate category of semi-auxiliary for such verbs as be going to, have got to, ought to. (<a href="http://www...[37]...html#oav1v">http://www...[37]...html#oav1v</a> [<a href="http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oaviv">http://www.ilc.cnr.it/EAGLES96/annotate/node18.html#oaviv</a>] 20.09.06) The auxiliaries in English subdivide into the primary verbs 'be', 'have', and 'do', which can also function as main verbs, and the modal auxiliaries such as 'can', 'will', and 'would', which are uninflected, and always function as auxiliaries. (<a href="http://www...[60]...0000000000">http://www...[60]...0000000000</a> [<a 483="" 514="" 938="" 953"="" data-label="Page-Footer" href="http://www.il-&lt;/a&gt;&lt;/p&gt; &lt;/td&gt; &lt;/tr&gt; &lt;/tbody&gt; &lt;/table&gt; &lt;/div&gt; &lt;div data-bbox="> <p>429</p> </a></p>

names	IRIs	Comments
		c.cnr.it/EA-GLES96/morphsyn/noder158.html#SECTION00054800000000000000))
verb nominalized nominalized verb	<a href="http://purl.org/olia/olia.owl#NominalizedVerb">http://purl.org/olia/olia.owl#NominalizedVerb</a>  tag:textal-ign.net,2015:feature:NominalizedVerb	<p><a href="http://lan...[63]...1Properites">http://lan...[63]...1Properites</a> [<a href="http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#withNominalProperites">http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#withNominalProperites</a>]</p> <p>A non-finite embedded construction which contains features with nominal properties (<a href="http://lan...[64]...Properites">http://lan...[64]...Properites</a>, [<a href="http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#withNominalProperites">http://languelink.let.uu.nl/tds/onto/LinguisticOntology.owl#withNominalProperites</a>], with reference to Dik 1997)</p>
verb quotative quotative verb	<a href="http://purl.org/olia/olia.owl#QuotativeVerb">http://purl.org/olia/olia.owl#QuotativeVerb</a>  tag:textal-ign.net,2015:feature:QuotativeVerb	<p><a href="http://pur...[32]...#Quotative">http://pur...[32]...#Quotative</a>, [<a href="http://purl.org/olia/mte/multext-east.owl#Quotative">http://purl.org/olia/mte/multext-east.owl#Quotative</a>], MTE VForm="quotative" (Estonian)</p> <p>A quotative is grammatical device to mark reported speech in some languages (<a href="http://en...[20]...Quotative">http://en...[20]...Quotative</a>), [<a href="http://en.wikipedia.org/wiki/Quotative">http://en.wikipedia.org/wiki/Quotative</a>], e.g., in Estonian.&lt;br/&gt;'Reportedly, while he was going (in his boat), he turned over.' Ta olevat oma paadiga ümber läinud He was.QUOTATIVE his.own boat.WITH over gone.&lt;br/&gt;(Estonian translation of an example given under <a href="http://www...[67]...den-tial.htm">http://www...[67]...den-tial.htm</a> [<a href="http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAQuotativeEvidential.htm">http://www.sil.org/linguistics/GlossaryOfLinguisticTerms/WhatIsAQuotativeEvidential.htm</a>]) (Heiki-Jaan Kaalep, email 2010/06/22)</p>
verb subjunctive subjunctive verb	<a href="http://purl.org/olia/olia.owl#SubjunctiveVerb">http://purl.org/olia/olia.owl#SubjunctiveVerb</a>	EAGLES finite verbs with VerbForm="Subjunctive".

names	IRIs	Comments
	tag:textal-ign.net,2015:feature:SubjunctiveVerb	<p>TODO: remodelling by properties</p> <p>A subjunctive verb is typically used to expresses wishes, commands (in subordinate clauses), emotion, possibility, judgment, necessity, and statements that are contrary to fact at present. (<a href="http://en...[25]...nctive_mood">http://en...[25]...nctive_mood</a> [<a href="http://en.wikipedia.org/wiki/Subjunctive_mood">http://en.wikipedia.org/wiki/Subjunctive_mood</a>] 19.09.06)</p>
verbal	<p><a href="http://purl.org/olia/olia.owl#Verbal">http://purl.org/olia/olia.owl#Verbal</a></p> <p>tag:textal-ign.net,2015:feature:Verbal</p>	<p><a href="http://pur...[28]...owl#Verbal">http://pur...[28]...owl#Verbal</a> [<a href="http://purl.org/olia/mte/multext-east.owl#Verbal">http://purl.org/olia/mte/multext-east.owl#Verbal</a>]</p> <p>In MULTEXT-East a characteristic of abbreviated verbs (<a href="http://pur...[28]...owl#Verbal">http://pur...[28]...owl#Verbal</a> [<a href="http://purl.org/olia/mte/multext-east.owl#Verbal">http://purl.org/olia/mte/multext-east.owl#Verbal</a>])</p>
voice active active voice	<p><a href="http://purl.org/olia/olia.owl#ActiveVoice">http://purl.org/olia/olia.owl#ActiveVoice</a></p> <p>tag:textal-ign.net,2015:feature:ActiveVoice</p>	<p><a href="http://lan...[53]...activeVoice">http://lan...[53]...activeVoice</a> [<a href="http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#activeVoice">http://linguagelink.let.uu.nl/tds/onto/LinguisticOntology.owl#activeVoice</a>]</p> <p>When the subject is the agent or actor of the verb, the verb is in the active voice. (<a href="http://en...[26]...tical_voice">http://en...[26]...tical_voice</a> [<a href="http://en.wikipedia.org/wiki/Grammatical_voice">http://en.wikipedia.org/wiki/Grammatical_voice</a>] 17.11.06) Associated with transitivity, when the action is performed by an agent (subject) on another participant (object), or with intransitivity (McIntosh 1984:108). Refers to the category of underived verb forms associated with the basic diathesis: Diathesis=D0 : (X=SUBabs/nom) (Y=DIROBacc) (Shibatani 1995:7) (<a href="http://pur...[19]...gold/Active">http://pur...[19]...gold/Active</a> [<a href="http://purl.org/linguistics/gold/Active">http://purl.org/linguistics/gold/Active</a>])</p>



names	IRIs	Comments
voice direct direct voice	<p><a href="http://purl.org/olia/olia.owl#DirectVoice">http://purl.org/olia/olia.owl#DirectVoice</a></p> <p>tag:textal-ign.net,2015:feature:DirectVoice</p>	<p><a href="http://purl.org/linguistics/gold/DirectVoice">http://purl.org/linguistics/gold/DirectVoice</a> [http://purl.org/linguistics/gold/DirectVoice]</p> <p>Signals that the action proceeds in an ontologically salient way, i.e. that salience is assigned to nominals based on their referent's relative real-world capacities to control situations. (Klaiman 1991:32) (<a href="http://purl.org/linguistics/gold/DirectVoice">http://purl.org/linguistics/gold/DirectVoice</a>)</p>
voice inverse inverse voice	<p><a href="http://purl.org/olia/olia.owl#InverseVoice">http://purl.org/olia/olia.owl#InverseVoice</a></p> <p>tag:textal-ign.net,2015:feature:InverseVoice</p>	<p><a href="http://purl.org/linguistics/gold/InverseVoice">http://purl.org/linguistics/gold/InverseVoice</a> [http://purl.org/linguistics/gold/InverseVoice]</p> <p>Signals when actions proceed from ontologically less salient to more salient participants (Klaiman 1991:32) (<a href="http://purl.org/linguistics/gold/InverseVoice">http://purl.org/linguistics/gold/InverseVoice</a>)</p>
voice inverse nonpromotional nonpromotional inverse voice	<p><a href="http://purl.org/olia/olia.owl#NonpromotionalInverseVoice">http://purl.org/olia/olia.owl#NonpromotionalInverseVoice</a></p> <p>tag:textal-ign.net,2015:feature:NonpromotionalInverseVoice</p>	<p><a href="http://purl.org/linguistics/gold/NonpromotionalInverseVoice">http://purl.org/linguistics/gold/NonpromotionalInverseVoice</a> [http://purl.org/linguistics/gold/NonpromotionalInverseVoice]</p> <p>Involves demotion of the non-topical obviative-agent from subjecthood. (Givón 1994:24) (<a href="http://purl.org/linguistics/gold/NonpromotionalInverseVoice">http://purl.org/linguistics/gold/NonpromotionalInverseVoice</a>)</p>
voice inverse pragmatic pragmatic inverse voice	<p><a href="http://purl.org/olia/olia.owl#PragmaticInverseVoice">http://purl.org/olia/olia.owl#PragmaticInverseVoice</a></p> <p>tag:textal-ign.net,2015:feature:PragmaticInverseVoice</p>	<p><a href="http://purl.org/linguistics/gold/PragmaticInverseVoice">http://purl.org/linguistics/gold/PragmaticInverseVoice</a> [http://purl.org/linguistics/gold/PragmaticInverseVoice]</p> <p>If the agent is more topical than the patient, the direct-active clause is used. If norm is reversed and the patient is more topical,</p>

names	IRIs	Comments
		the inverse clause is used. (Givon 1994:23) ( <a href="http://purl.org/linguistics/gold/PragmaticInverse">http://purl.org/linguistics/gold/PragmaticInverse</a> )
voice inverse promotional promotional inverse voice	<a href="http://purl.org/olia/olia.owl#PromotionalInverseVoice">http://purl.org/olia/olia.owl#PromotionalInverseVoice</a>  tag:textal-ign.net,2015:feature:PromotionalInverseVoice	<a href="http://purl.org/linguistics/gold/PromotionalInverse">http://purl.org/linguistics/gold/PromotionalInverse</a> [http://purl.org/linguistics/gold/PromotionalInverse]  Involves promotion of the topical proximate-patient to subjecthood. (Givon 1994:24) ( <a href="http://purl.org/linguistics/gold/PromotionalInverse">http://purl.org/linguistics/gold/PromotionalInverse</a> )
voice inverse semantic semantic inverse voice	<a href="http://purl.org/olia/olia.owl#SemanticInverseVoice">http://purl.org/olia/olia.owl#SemanticInverseVoice</a>  tag:textal-ign.net,2015:feature:SemanticInverseVoice	<a href="http://purl.org/linguistics/gold/SemanticInverse">http://purl.org/linguistics/gold/SemanticInverse</a> [http://purl.org/linguistics/gold/SemanticInverse]  If the agent outranks the patient on the relevant generic topic hierarchy, the direct-active clause is used. If the relevant norm is reversed and the patient outranks the agent on the relevant hierarchy, the inverse clause is used. (Givon 1994:23) ( <a href="http://purl.org/linguistics/gold/SemanticInverse">http://purl.org/linguistics/gold/SemanticInverse</a> )
voice middle middle voice	<a href="http://purl.org/olia/olia.owl#MiddleVoice">http://purl.org/olia/olia.owl#MiddleVoice</a>  tag:textal-ign.net,2015:feature:MiddleVoice	
voice passive passive voice	<a href="http://purl.org/olia/olia.owl#PassiveVoice">http://purl.org/olia/olia.owl#PassiveVoice</a>  tag:textal-ign.net,2015:feature:PassiveVoice	
voice referential referential voice	<a href="http://purl.org/olia/olia.owl#ReferentialVoice">http://purl.org/olia/olia.owl#ReferentialVoice</a>	<a href="http://purl.org/linguistics/gold/ReferentialVoice">http://purl.org/linguistics/gold/ReferentialVoice</a> , [http://purl.org/linguistics/gold/ReferentialVoice,] classified as

names	IRIs	Comments
	<p>tag:textal-ign.net,2015:feature:ReferentialVoice</p>	<p>Antipassive here in analogy with ObliquePassive</p> <p>entails assignment of the absolutive to certain kinds of arguments other than the logical subjects (A) and objects (P), including the dative, benefactive, malefactive, and possessor. (Klaiman 1991:239) (<a href="http://purl.org/linguistics/gold/ReferentialVoice">http://purl.org/linguistics/gold/ReferentialVoice</a>)</p>
<p>voice reflexive</p> <p>reflexive voice</p>	<p><a href="http://purl.org/olia/olia.owl#ReflexiveVoice">http://purl.org/olia/olia.owl#ReflexiveVoice</a></p> <p>tag:textal-ign.net,2015:feature:ReflexiveVoice</p>	<p><a href="http://languageontology.nl/ontology.owl#reflexiveVoice">http://languageontology.nl/ontology.owl#reflexiveVoice</a></p> <p>The reflexive voice is a grammatical voice in which the subject is both the agent and the patient or recipient. (<a href="http://languageontology.nl/ontology.owl#reflexiveVoice">http://languageontology.nl/ontology.owl#reflexiveVoice</a>)</p>
whcleft	<p><a href="http://purl.org/olia/olia.owl#WHCleft">http://purl.org/olia/olia.owl#WHCleft</a></p> <p>tag:textal-ign.net,2015:feature:WHCleft</p>	<p>PTB bracketing guidelines (Santorini 1991, Bies et al. 1995)</p> <p>Wh-clefts are constructions in which a wh-clause functions as the subject of a sentence. A simple example is What matters is the price. Here, the wh-clause What matters is the subject, and is the price is the predicate. The internal structure of the subject is: (NP (SBAR (WHNP what) (S (NP T) (VP matters)))) (Santorini 1991)</p>
whdeterminer	<p><a href="http://purl.org/olia/olia.owl#WHDeterminer">http://purl.org/olia/olia.owl#WHDeterminer</a></p> <p>tag:textal-ign.net,2015:feature:WHDeterminer</p>	<p>TODO: This class is based on surface criteria of Indo-European languages. In other (and even IE) languages, relative pronouns are partly also derived from non-interrogatives, but rather from demonstratives, cf. English "that". Should be</p>

names	IRIs	Comments
		<p>abandoned unless language-independent evidence for its existence is provided.</p> <p>EAGLES Determiner with Det.-Type="Int./Rel."</p>
whpronoun	<p><a href="http://purl.org/olia/olia.owl#WHPronoun">http://purl.org/olia/olia.owl#WHPronoun</a></p> <p>tag:textal-ign.net,2015:feature:WHPronoun</p>	<p>TODO: Check cross-linguistic validity of this class. This class is based on surface criteria of Indo-European languages. In other (and even IE) languages, relative pronouns are partly also derived from non-interrogatives, but rather from demonstratives, cf. English "that". Should be abandoned unless language-independent evidence for its existence is provided.</p> <p>EAGLES Pronoun with Pron.-Type="Int./Rel."</p>
whquestion direct direct whquestion	<p><a href="http://purl.org/olia/olia.owl#DirectWHQuestion">http://purl.org/olia/olia.owl#DirectWHQuestion</a></p> <p>tag:textal-ign.net,2015:feature:DirectWHQuestion</p>	<p>Santorini 1991, Bies et al. 1995</p> <p>SBARQ Direct question introduced by a wh-word or wh-phrase. See Section 5.32. Indirect questions and relative clauses should be bracketed as SBAR, not SBARQ. (Santorini 1991) Wh-questions should be bracketed as SBARQ. The wh-constituent (whether it is a subject or not) is a child of SBARQ; the rest of the question is an SQ. If the wh-constituent is a subject or an object, the position where it is interpreted should be represented by the empty element T. (Santorini 1991) The SBARQ label marks wh-questions (i.e., those that contain a gap and therefore require a trace). A further level of structure, SQ, contains the inverted auxiliary (if there is one) and the rest of the sentence. The inverted auxiliary in wh-questions is not labeled. ... SBARQ â Direct question introduced by a wh-word or wh-phrase. See section 1 [Overview of Basic Clause Structure]. Indirect</p>

names	IRIs	Comments
		questions and relative clauses should be bracketed as SBAR, not SBARQ. (Bies et al. 1995)
weak	<a href="http://purl.org/olia/olia.owl#Weak">http://purl.org/olia/olia.owl#Weak</a> tag:textal-ign.net,2015:feature:Weak	EAGLES Weak pronouns are helping pronouns many languages have for easily explaining the possessive status of something, to which something belongs. Many languages have different ways to express this. For example, English has distinctive words for all of these: "my", "mine". Germanic languages and Romance languages have the same, but inflect them for gender: (Spanish example) "mío", "mía", "míos" and "mías" ("mine", in the masculine singular, feminine singular, masculine plural, and feminine plural form, respectively). ( <a href="http://en...[21]...eak_pronoun">http://en... [21]...eak_pronoun</a> [ <a href="http://en.wikipedia.org/wiki/Weak_pronoun">http://en.wikipedia.org/wiki/Weak_pronoun</a> ] 20.11.06)
word question question word	<a href="http://purl.org/olia/olia.owl#QuestionWord">http://purl.org/olia/olia.owl#QuestionWord</a> tag:textal-ign.net,2015:feature:QuestionWord	
ing	<a href="http://purl.org/olia/olia.owl#ing">http://purl.org/olia/olia.owl#ing</a> tag:textal-ign.net,2015:feature:ing	Introduced in accordance with EAGLES, where 'Ing' is suggested as a cover term for the Gerund-Participle-Merger in English. This is, however, a language-specific phenomenon and should instead be represented by multiple inheritance from OLiA Reference Model concepts. English verb forms ending in 'ing' that represent either Gerunds or Participles.
interrogative	tag:textal-ign.net,2015:feature:grc:perseus:interrogative	Perseus addition, from classical Greek. To be applied only to determiners and pronouns, quantifiers <a href="http://pur...">http://pur...</a>

names	IRIs	Comments
		[33]...eDeterminer [http://purl.org/olia/olia.owl#InterrogativeDeterminer] http://pur...[30]...tivePronoun [http://purl.org/olia/olia.owl#InterrogativePronoun]
middle passive mediopassive medio passive	tag:textalign.net,2015:feature:voice-middlepassive	Classical Greek verbal form that ambiguously weds middle and passive, the union of http://pur...[21]...MiddleVoice [http://purl.org/olia/olia.owl#MiddleVoice] and http://pur...[22]...as-siveVoice [http://purl.org/olia/olia.owl#PassiveVoice]
gerundive	tag:textalign.net,2015:feature:lat:perseus:gerundive	A distinct Latin form that must be distinguished from the gerund.

## TAN keywords for types of groups (<group-type>)

Definitive list of key terms used for types of groups.

Master location: <http://textalign.net/release/TAN-2021/vocabularies/group-types.TAN-voc.xml>

Table II.4. TAN keywords for types of groups

names	IRIs	Comments
div types	tag:textalign.net,2015:group-type:type:div-types	The group contains items that define groups of division types
attr n attribute n	tag:textalign.net,2015:group-type:type:requires-attribute-n	The group contains items that define groups relevant only in the context of @n
tan lm verb types	tag:textalign.net,2015:group-type:type:verbs	The group contains items that define groups relevant to verbs
does not start new line no new line start inline start not nls not (^n)	tag:textalign.net,2015:group-type:v:no-new-line-start	Text divisions that typically do not begin on a new line

names	IRIs	Comments
no new line end does not end new line inline end not nle not (\n\$)	tag:textal- ign.net,2015:group-type v:no-new-line-end	Text divisions whose termina- tion does not force the next text division to start a new line
start new line new line start nls ^\n	tag:textal- ign.net,2015:group-type v:new-line-start	Text divisions that typically be- gin on a new line
new line end end new line nle \n\$	tag:textal- ign.net,2015:group-type v:new-line-end	Text divisions whose termina- tion forces the next text division to start a new line
start extra leading extra leading start space above	tag:textal- ign.net,2015:group-type v:extra-leading-start	Text divisions that typically be- gin with extra leading (a hori- zontal line of white space)
end extra leading extra leading end space below	tag:textal- ign.net,2015:group-type v:extra-leading-end	Text divisions that typically end with extra leading (a horizontal line of white space)
start new column new column start ncs	tag:textal- ign.net,2015:group-type v:new-column-start	Text divisions that typically be- gin on a new column
new column end end new column nce	tag:textal- ign.net,2015:group-type v:new-column-end	Text divisions whose termina- tion forces the next text division to start a new column
start new page new page start nps	tag:textal- ign.net,2015:group-type v:new-page-start	Text divisions that typically be- gin on a new page
new page end end new page	tag:textal- ign.net,2015:group-type v:new-page-end	Text divisions whose termina- tion forces the next text division to start a new page

names	IRIs	Comments
npe		
logical conceptual	tag:textal- ign.net,2015:group-type v:logical	Text division is based on logical units that do not depend upon scripta for their meaning, e.g., sentence, paragraph. Contrasts with physical, scriptum-based divisions.
scriptum scriptum based object physical material	tag:textal- ign.net,2015:group-type v:scriptum	Text division is based on a physical feature in the scriptum, e.g., page, column, line. Contrasts with logical divisions.
annotation	tag:textal- ign.net,2015:group-type v:annotation	Text division is an annotation. That is, it comments on (and therefore assumes the proximate existence of) some other text. Most annotations are connected with the commented text either by placement or some signalling device (e.g., footnote signals). Excluded from this category are texts that summarize another text. That is, an annotation either adds new material or attempts to make explicit one or more points that are deemed implicit.
status	tag:textal- ign.net,2015:group-type tatus	@n is an arbitrary value indicating the stage of editing for the datum. Possible values: "unchecked"; "to be reviewed"; "questionable". If a datum is completely edited, it is recommended the <group> be avoided altogether.
base	tag:textal- ign.net,2015:group-type	@n is the result of applying <code>stran:string-base(\$i)</code> , where \$i is the value of the token chosen.
root	tag:textal- ign.net,2015:group-type	@n is the root of the token chosen
^. startt a	tag:textal- ign.net,2015:group-type tart1	@n is the first letter of the token chosen



names	IRIs	Comments
^.. start2 ab	tag:textal- ign.net,2015:group-type tart2	@n is the first two letters of the token chosen
^... start3 abc	tag:textal- ign.net,2015:group-type tart3	@n is the first three letters of the token chosen
.\$ end1 z	tag:textal- ign.net,2015:group-type	@n is the last letter of the token chosen
..\$ end2 yz	tag:textal- ign.net,2015:group-type	@n is the last two letters of the token chosen
...\$ end3 xyz	tag:textal- ign.net,2015:group-type	@n is the last three letters of the token chosen
textual passage subject	tag:textal- ign.net,2015:ver- b:group:textual-pas- sage-subject	Verbs whose subjects are spe- cific passages of textual arte- facts (scripta, works, versions, sources).
textual passage object	tag:textal- ign.net,2015:ver- b:group:textual-pas- sage-object	verbs whose objects are spe- cific passages of textual arte- facts (scripta, works, versions, sources).
whole textual artefact subject	tag:textal- ign.net,2015:ver- b:group:textual-arte- fact-subject	Verbs whose subjects are entire textual artefacts (scripta, works, versions, sources).
whole textual artefact object	tag:textal- ign.net,2015:ver- b:group:textual-arte- fact-object	verbs whose objects are entire textual artefacts (scripta, works, versions, sources).
textual artefact subject textual passage or artefact sub- ject textual artefact or passage sub- ject	tag:textal- ign.net,2015:ver- b:group:textual-arte- fact-or- passage-subject	Verbs whose subjects are entire textual artefacts or specific pas- sages of textual artefacts (scrip- ta, works, versions, sources).
textual artefact object	tag:textal- ign.net,2015:ver-	Verbs whose objects are entire textual artefacts or specific pas-

names	IRIs	Comments
textual passage or artefact object textual artefact or passage object	b:group:textual-arte- fact-or-passage-object	sages of textual artefacts (scripta, works, versions, sources).
textual entity subject	tag:textal- ign.net,2015:ver- b:group:textual-enti- ty-subject	verbs whose subjects are creators of texts (persons, organizations) or whole textual artefacts (scripta, works, versions, sources)
textual entity object	tag:textal- ign.net,2015:ver- b:group:textual-enti- ty-object	verbs whose objects are creators of texts (persons, organizations) or whole textual artefacts (scripta, works, versions, sources)
textual subject	tag:textal- ign.net,2015:ver- b:group:textual-sub- ject	verbs whose subjects are text makers or textual artefacts
textual object	tag:textal- ign.net,2015:ver- b:group:textual-object	verbs whose objects are text makers or textual artefacts
claim object	tag:textal- ign.net,2015:ver- b:group:claim-object	verbs whose objects are claims
zero objects	tag:textal- ign.net,2015:ver- b:group:zero-objects	verbs that do not allow objects
one object	tag:textal- ign.net,2015:ver- b:group:one-object	verbs that require only one object
one or more objects	tag:textal- ign.net,2015:ver- b:group:one-or-more- objects	verbs that must take one or more objects
near verbatim	tag:textal- ign.net,2015:ver- b:group:verbatim70-100	verbs where each pair of subject and object textual passages have an agreement of 70% or greater.  If subject and object are in the same language, the quantity is measured by agreement after normalization, ignoring accentuation, capitalization, punctuation, and word spaces. If they are in different languages, the quantity is measured by the number of words in one source that correspond to words in the other.

names	IRIs	Comments
similar	tag:textal-ign.net,2015:verb:group:verbatim40-70	verbs where each pair of subject and object textual passages have an agreement of 40% to 70%  See description for verbatim.
somewhat similar	tag:textal-ign.net,2015:verb:group:verbatim5-40	verbs where each pair of subject and object textual passages have an agreement of 5% to 40%  See description for verbatim.
cf	tag:textal-ign.net,2015:verb:group:confer	verbs that indicate a comparison between subject and object
symmetry	tag:textal-ign.net,2015:verb:group:symmetry	verbs that permit symmetrical inferences  If X [verb] Y then Y [verb] X.
transitivity	tag:textal-ign.net,2015:verb:group:transitivity	verbs that permit transitive inferences  If X [verb] Y and Y [verb] Z then X [verb] Z.
subject postdates object	tag:textal-ign.net,2015:verb:group:subject-postdates-object	verbs whose subjects must postdate objects  If a textual passage is said to quote from another, then the former must postdate the latter.
one locus one at ref	tag:textal-ign.net,2015:verb:group:one-locus  tag:textal-ign.net,2015:verb:group:one-at-ref	verbs that require only one <at-ref> (locus)
one or more loci one or more at refs	tag:textal-ign.net,2015:verb:group:one-or-more-loci  tag:textal-ign.net,2015:verb:group:one-or-more-at-refs	verbs that must take one or more <at-ref>s (loci)
zero or more in langs allows in lang	tag:textal-ign.net,2015:verb:group:allows-in-lang	verbs that permit the element in-lang

## TAN keywords for types of rights (<license>)

This file depends largely upon the vocabulary of Creative Commons

Master location: <http://textalign.net/release/TAN-2021/vocabularies/rights.TAN-voc.xml>

Table 11.5. TAN keywords for types of rights

names	IRIs	Comments
by nc nd 2.0 attribution noncommercial noderivs 2.0 generic	<a href="http://creativecommons.org/licenses/by-nc-nd/2.0/">http://creativecommons.org/licenses/by-nc-nd/2.0/</a>  tag:textalign.net,2015:license:by-nc-nd/2.0/	
by nc nd 3.0 attribution noncommercial noderivs 3.0 unported	<a href="http://creativecommons.org/licenses/by-nc-nd/3.0/">http://creativecommons.org/licenses/by-nc-nd/3.0/</a>  tag:textalign.net,2015:license:by-nc-nd/3.0/	
by nc nd 4.0 attribution noncommercial noderivatives 4.0 international	<a href="http://creativecommons.org/licenses/by-nc-nd/4.0/">http://creativecommons.org/licenses/by-nc-nd/4.0/</a>  tag:textalign.net,2015:license:by-nc-nd/4.0/	
by nc sa 1.0 attribution noncommercial sharealike 1.0 generic	<a href="http://creativecommons.org/licenses/by-nc-sa/1.0/">http://creativecommons.org/licenses/by-nc-sa/1.0/</a>  tag:textalign.net,2015:license:by-nc-sa/1.0/	
by nc sa 2.0 attribution noncommercial sharealike 2.0 generic	<a href="http://creativecommons.org/licenses/by-nc-sa/2.0/">http://creativecommons.org/licenses/by-nc-sa/2.0/</a>  tag:textalign.net,2015:license:by-nc-sa/2.0/	
by nc sa 3.0	<a href="http://creativecommons.org/licenses/by-nc-sa/3.0/">http://creativecommons.org/licenses/by-nc-sa/3.0/</a>	

Official TAN vocabularies

names	IRIs	Comments
attribution noncommercial sharealike 3.0 unported	s.org/licenses/by-nc-sa/3.0/  tag:textal-ign.net,2015:license:by-nc-sa/3.0/	
by nc sa 4.0 attribution noncommercial sharealike 4.0 international	http://creativecommons-s.org/licenses/by-nc-sa/4.0/  tag:textal-ign.net,2015:license:by-nc-sa/4.0/	
by nc 1.0 attribution noncommercial 1.0 generic	http://creativecommons-s.org/licenses/by-nc/1.0/  tag:textal-ign.net,2015:license:by-nc/1.0/	
by nc 2.0 attribution noncommercial 2.0 generic	http://creativecommons-s.org/licenses/by-nc/2.0/  tag:textal-ign.net,2015:license:by-nc/2.0/	
by nc 3.0 attribution noncommercial 3.0 unported	http://creativecommons-s.org/licenses/by-nc/3.0/  tag:textal-ign.net,2015:license:by-nc/3.0/	
by nc 4.0 attribution noncommercial 4.0 international	http://creativecommons-s.org/licenses/by-nc/4.0/  tag:textal-ign.net,2015:license:by-nc/4.0/	
by nd nc 1.0 attribution noderivs noncom- mercial 1.0 generic	http://creativecommons-s.org/licenses/by-nd-nc/1.0/	

names	IRIs	Comments
	tag:textal-ign.net,2015:license:by-nd-nc/1.0/	
by nd 1.0 attribution noderivs 1.0 generic	http://creativecommons.org/licenses/by-nd/1.0/  tag:textal-ign.net,2015:license:by-nd/1.0/	
by nd 2.0 attribution noderivs 2.0 generic	http://creativecommons.org/licenses/by-nd/2.0/  tag:textal-ign.net,2015:license:by-nd/2.0/	
by nd 3.0 attribution noderivs 3.0 unported	http://creativecommons.org/licenses/by-nd/3.0/  tag:textal-ign.net,2015:license:by-nd/3.0/	
by nd 4.0 attribution noderivatives 4.0 international	http://creativecommons.org/licenses/by-nd/4.0/  tag:textal-ign.net,2015:license:by-nd/4.0/	
by sa 1.0 attribution sharealike 1.0 generic	http://creativecommons.org/licenses/by-sa/1.0/  tag:textal-ign.net,2015:license:by-sa/1.0/	
by sa 2.0 attribution sharealike 2.0 generic	http://creativecommons.org/licenses/by-sa/2.0/  tag:textal-ign.net,2015:license:by-sa/2.0/	

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names	IRIs	Comments
by sa 3.0 attribution sharealike 3.0 un-ported	<a href="http://creativecommons-s.org/licenses/by-sa/3.0/">http://creativecommons-s.org/licenses/by-sa/3.0/</a>  tag:textal-ign.net,2015:license:by-sa/3.0/	
by sa 4.0 attribution sharealike 4.0 international	<a href="http://creativecommons-s.org/licenses/by-sa/4.0/">http://creativecommons-s.org/licenses/by-sa/4.0/</a>  tag:textal-ign.net,2015:license:by-sa/4.0/	
by 1.0 attribution 1.0 generic	<a href="http://creativecommons-s.org/licenses/by/1.0/">http://creativecommons-s.org/licenses/by/1.0/</a>  tag:textal-ign.net,2015:license:by/1.0/	
by 2.0 attribution 2.0 generic	<a href="http://creativecommons-s.org/licenses/by/2.0/">http://creativecommons-s.org/licenses/by/2.0/</a>  tag:textal-ign.net,2015:license:by/2.0/	
by 3.0 attribution 3.0 unported	<a href="http://creativecommons-s.org/licenses/by/3.0/">http://creativecommons-s.org/licenses/by/3.0/</a>  tag:textal-ign.net,2015:license:by/3.0/	
by 4.0 attribution 4.0 international	<a href="http://creativecommons-s.org/licenses/by/4.0/">http://creativecommons-s.org/licenses/by/4.0/</a>  tag:textal-ign.net,2015:license:by/4.0/	
devnations 2.0 developing nations license	<a href="http://creativecommons-s.org/licenses/devnations/2.0/">http://creativecommons-s.org/licenses/devnations/2.0/</a>	

names	IRIs	Comments
	tag:textal-ign.net,2015:license:devnations/2.0/	
gpl 2.o gnu general public license	http://creativecommons.org/licenses/GPL/2.0/  tag:textal-ign.net,2015:license:GPL/2.0/	
nc sa i.o noncommercial sharealike i.o generic	http://creativecommons.org/licenses/nc-sa/1.0/  tag:textal-ign.net,2015:license:nc-sa/1.0/	
nc sampling+ i.o noncommercial sampling plus i.o	http://creativecommons.org/licenses/nc-sampling+/1.0/  tag:textal-ign.net,2015:license:nc-sampling+/1.0/	
nc i.o noncommercial i.o generic	http://creativecommons.org/licenses/nc/1.0/  tag:textal-ign.net,2015:license:nc/1.0/	
nd nc i.o noderivs noncommercial i.o generic	http://creativecommons.org/licenses/nd-nc/1.0/  tag:textal-ign.net,2015:license:nd-nc/1.0/	
nd i.o noderivs i.o generic	http://creativecommons.org/licenses/nd/1.0/  tag:textal-ign.net,2015:license:nd/1.0/	



names	IRIs	Comments
sa 1.0 sharealike 1.0 generic	<a href="http://creativecommons.org/licenses/sa/1.0/">http://creativecommons.org/licenses/sa/1.0/</a>  tag:textal-ign.net,2015:license:sa/1.0/	
sampling+ 1.0 sampling plus 1.0	<a href="http://creativecommons.org/licenses/sampling+/1.0/">http://creativecommons.org/licenses/sampling+/1.0/</a>  tag:textal-ign.net,2015:license:sampling+/1.0/	
sampling 1.0	<a href="http://creativecommons.org/licenses/sampling/1.0/">http://creativecommons.org/licenses/sampling/1.0/</a>  tag:textal-ign.net,2015:license:sampling/1.0/	
public mark publicdomain mark 1.0 public domain mark 1.0	<a href="http://creativecommons.org/publicdomain/mark/1.0/">http://creativecommons.org/publicdomain/mark/1.0/</a>  tag:textal-ign.net,2015:license:mark/1.0/	
public zero publicdomain zero 1.0 cco 1.0 universal	<a href="http://creativecommons.org/publicdomain/zero/1.0/">http://creativecommons.org/publicdomain/zero/1.0/</a>  tag:textal-ign.net,2015:license:zero/1.0/	
apache 2.0	<a href="https://www.apache.org/licenses/LICENSE-2.0.html">https://www.apache.org/licenses/LICENSE-2.0.html</a>  tag:textal-ign.net,2015:license:apache-2.0	<a href="https://www...[28]...SE-2.0.html">https://www...[28]...SE-2.0.html</a> [ <a href="https://www.apache.org/licenses/LICENSE-2.0.html">https://www.apache.org/licenses/LICENSE-2.0.html</a> ]

## TAN keywords for types of modals (<modal>)

This file has been created ad hoc to reflect the kind of modal qualifiers that textual scholars habitually employ to nuance their claims. These categories are not to be seen as necessarily correlating with any branch modal logic.

Master location: <http://textalign.net/release/TAN-2021/vocabularies/modals.TAN-voc.xml>

Table 11.6. TAN keywords for types of modals

names	IRIs	Comments
not	<code>tag:textal-ign.net,2015:modal:not</code>	Negates a claim.
possibly	<code>tag:textal-ign.net,2015:modal:possibly</code>	It is possible that the claim is true.
probably	<code>tag:textal-ign.net,2015:modal:probably</code>	It is probable that the claim is true.
improbably	<code>tag:textal-ign.net,2015:modal:improbably</code>	It is improbable that the claim is true.
partially	<code>tag:textal-ign.net,2015:modal:partially</code>	The claim is true for only part of each object.

## commonly used vocabulary for the bible (<work>@n)

Master location: <http://textalign.net/release/TAN-2021/vocabularies/extra/n.bible.eng.tan-voc.xml>

Table 11.7. commonly used vocabulary for the bible

names	IRIs	Comments
bible	<code>tag:textal-ign.net,2015:work:bible</code>  <a href="http://dbpedia.org/resource/Bible">http://dbpedia.org/resource/Bible</a>	
tanakh	<code>tag:textal-ign.net,2015:n-s:work:tanakh</code>  <a href="http://dbpedia.org/resource/Tanakh">http://dbpedia.org/resource/Tanakh</a>	
old testament ot	<code>tag:textal-ign.net,2015:n-s:work:old_testament</code>	

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names	IRIs	Comments
	<a href="http://dbpedia.org/resource/Old_Testament">http://dbpedia.org/resource/Old_Testament</a>	
septuagint lxx	tag:textal-ign.net,2015:n-s:work:septuagint  <a href="http://dbpedia.org/resource/Septuagint">http://dbpedia.org/resource/Septuagint</a>	
new testament nt	tag:textal-ign.net,2015:n-s:work:new_testament  <a href="http://dbpedia.org/resource/New_testament">http://dbpedia.org/resource/New_testament</a>	
apocrypha	tag:textal-ign.net,2015:n-s:work:apocrypha  <a href="http://dbpedia.org/resource/Apocrypha">http://dbpedia.org/resource/Apocrypha</a>	
ge gn gen genesis	tag:textal-ign.net,2015:n-s:work:genesis  <a href="http://dbpedia.org/resource/Book_of_Genesis">http://dbpedia.org/resource/Book_of_Genesis</a>	
ex exod exodus	tag:textal-ign.net,2015:n-s:work:exodus  <a href="http://dbpedia.org/resource/Book_of_Exodus">http://dbpedia.org/resource/Book_of_Exodus</a>	
lv le lev leviticus	tag:textal-ign.net,2015:n-s:work:leviticus  <a href="http://dbpedia.org/resource/Book_of_Leviticus">http://dbpedia.org/resource/Book_of_Leviticus</a>	
nm nu num	tag:textal-ign.net,2015:n-s:work:numbers	

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names	IRIs	Comments
numbers	<a href="http://dbpedia.org/resource/Book_of_Numbers">http://dbpedia.org/resource/Book_of_Numbers</a>	
dt de du deut deuteronomy	tag:textal-ign.net,2015:ns:work:deuteronomy  <a href="http://dbpedia.org/resource/Book_of_Deuteronomy">http://dbpedia.org/resource/Book_of_Deuteronomy</a>	
josh joshua	tag:textal-ign.net,2015:ns:work:joshua  <a href="http://dbpedia.org/resource/Book_of_Joshua">http://dbpedia.org/resource/Book_of_Joshua</a>	
judg jgs judg judges	tag:textal-ign.net,2015:ns:work:judges  <a href="http://dbpedia.org/resource/Book_of_Judges">http://dbpedia.org/resource/Book_of_Judges</a>	
ru rt ruth	tag:textal-ign.net,2015:ns:work:ruth  <a href="http://dbpedia.org/resource/Book_of_Ruth">http://dbpedia.org/resource/Book_of_Ruth</a>	
ism isa isam i sm i sam i samuel i kingdoms i kgdms ikgdms ism	tag:textal-ign.net,2015:ns:work:1_kingdoms  <a href="http://dbpedia.org/resource/1_Samuel">http://dbpedia.org/resource/1_Samuel</a>	I Kingdoms is the LXX name for the book, not to be confused with I Kings, which the LXX calls 3 Kingdoms.

names	IRIs	Comments
i sm i sam i samuel i kingdoms i kgdms ikgdms		
2sm 2sa 2sam 2 sm 2 sam 2 samuel 2 kingdoms 2 kgdms 2kgdms iism iisa ii sm ii sam ii samuel ii kingdoms ii kgdms iikgdms	<p>tag:textal-ign.net,2015:n-s:work:2_kingdoms</p> <p><a href="http://dbpedia.org/resource/2_Samuel">http://dbpedia.org/resource/2_Samuel</a></p>	<p>II Kingdoms is the LXX name for the book, not to be confused with II Kings, which the LXX calls 2 Kingdoms.</p>
1kg 1ki 1kgs 1 kgs 1 kings 3 kingdoms	<p>tag:textal-ign.net,2015:n-s:work:3_kingdoms</p> <p><a href="http://dbpedia.org/resource/1_Kings">http://dbpedia.org/resource/1_Kings</a></p>	<p>'Kings' is the name commonly given, but 'Kingdoms' is the term used by the LXX. The distinction is fortuitous, since the LXX book numbering differs too. E.g., 1 Kings = 3 Kingdoms.</p>

names	IRIs	Comments
3 kgdms 3kgdms ikg iki ikgs i kgs i kings iii kingdoms iii kgdms iiikgdms		
2kg 2ki 2kgs 2 kgs 2 kings 4 kingdoms 4 kgdms 4kgdms iikg iiki iikgs ii kgs ii kings iv kingdoms iv kgdms ivkgdms	tag:textal- ign.net,2015:n- s:work:4_kingdoms  http:// dbpedia.org/re- source/2_Kings	'Kings' is the name commonly given, but 'Kingdoms' is the term used by the LXX. The distinction is fortuitous, since the LXX book numbering differs too. E.g., 1 Kings = 3 Kingdoms.
1ch 1 chr 1chr	tag:textal- ign.net,2015:n- s:work:1_para- leipomenon	

names	IRIs	Comments
i chron i chronicles i para ipara i paraleipomena ich i chr ichr i chron i chronicles i para ipara i paraleipomena	<a href="http://dbpedia.org/resource/1_Chronicles">http://dbpedia.org/resource/1_Chronicles</a>	
2ch 2 chr 2chr 2 chron 2 chronicles 2 para 2para 2 paraleipomena iich ii chr iichr ii chron ii chronicles ii para iipara ii paraleipomena	tag:textal-ign.net,2015:n-s:work:2_paraleipomenon  <a href="http://dbpedia.org/resource/2_Chronicles">http://dbpedia.org/resource/2_Chronicles</a>	

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names	IRIs	Comments
ezr esd ezra esdras	tag:textal-ign.net,2015:n-s:work:ezra  http://dbpedia.org/resource/Book_of_Ezra	
ne neh nehemiah	tag:textal-ign.net,2015:n-s:work:nehemiah  http://dbpedia.org/resource/Book_of_Nehemiah	
iesd iesdr i esdras iesd iesdr i esdras	tag:textal-ign.net,2015:n-s:work:1esdra  http://dbpedia.org/resource/1_Esdras	
2esd 2esdr 2 esdras iiesd iiesdr ii esdras	tag:textal-ign.net,2015:n-s:work:2esdras  http://dbpedia.org/resource/2_Esdras	
tb tob tobit	tag:textal-ign.net,2015:n-s:work:tobias  http://dbpedia.org/resource/Book_of_Tobit	
jdt jth judith	tag:textal-ign.net,2015:n-s:work:judith  http://dbpedia.org/resource/Book_of_Judith	



Official TAN vocabularies

names	IRIs	Comments
est esth esther	tag:textal-ign.net,2015:n-s:work:esther  http://dbpedia.org/resource/Book_of_Esther	
addesth additions to esther	tag:textal-ign.net,2015:n-s:work:additions_to_esther  tag:kalvesmak-i.com,2014:work:bible:additions-to-esther	
imc ima i mac i macc imac imacc i maccabees imc ima i mac i macc imac imacc i maccabees	tag:textal-ign.net,2015:n-s:work:1_maccabees  http://dbpedia.org/resource/1_Maccabees	
2mc 2ma 2 mac 2 macc 2mac 2macc	tag:textal-ign.net,2015:n-s:work:2_maccabees  http://dbpedia.org/resource/2_Maccabees	

Official TAN vocabularies

names	IRIs	Comments
2 maccabees iimc iima ii mac ii macc iimac iimacc ii maccabees		
3mc 3ma 3 mac 3 macc 3mac 3macc 3 maccabees iiimc iiima iii mac iii macc iiimac iiimacc iii maccabees	tag:textal-ign.net,2015:n-s:work:3_maccabees  <a href="http://dbpedia.org/resource/3_Maccabees">http://dbpedia.org/resource/3_Maccabees</a>	
4mc 4ma 4 mac 4 macc 4mac 4macc 4 maccabees	tag:textal-ign.net,2015:n-s:work:4_maccabees  <a href="http://dbpedia.org/resource/4_Maccabees">http://dbpedia.org/resource/4_Maccabees</a>	

names	IRIs	Comments
ivmc ivma iv mac iv macc ivmac ivmacc iv maccabees		
jb job	tag:textal- ign.net,2015:n- s:work:job  <a href="http://dbpedia.org/resource/Book_of_Job">http:// dbpedia.org/re- source/Book_of_Job</a>	
ps psalms pss	tag:textal- ign.net,2015:n- s:work:psalms  <a href="http://dbpedia.org/resource/Psalms">http:// dbpedia.org/re- source/Psalms</a>	
odes	tag:textal- ign.net,2015:n- s:work:odes  <a href="http://dbpedia.org/resource/Book_of_Odes_(Bible)">http:// dbpedia.org/re- source/Book_of_Odes_(Bible)</a>	
pssol psalms of solomon	tag:textal- ign.net,2015:n- s:work:psalm- s_of_solomon  <a href="http://dbpedia.org/resource/Psalms_of_Solomon">http:// dbpedia.org/re- source/Psalm- s_of_Solomon</a>	
pr prv pro prov proverbs	tag:textal- ign.net,2015:n- s:work:proverbs  <a href="http://dbpedia.org/resource/Book_of_Proverbs">http:// dbpedia.org/re- source/Book_of_Proverbs</a>	

Official TAN vocabularies

names	IRIs	Comments
ec qoh eccl eccles qoheleth ecclesiastes	tag:textal-ign.net,2015:n-s:work:ecclesiastes  http://dbpedia.org/resource/Ecclesiastes	
ss sg can song cant song of songs canticle of canticles	tag:textal-ign.net,2015:n-s:work:song_of_songs  http://dbpedia.org/resource/Song_of_Songs	
ws wis wisdom wisdom of solomon	tag:textal-ign.net,2015:n-s:work:wisdom_of_solomon  http://dbpedia.org/resource/Book_of_Wisdom	
sir sirach ecclus ecclesiasticus	tag:textal-ign.net,2015:n-s:work:sirach  http://dbpedia.org/resource/Sirach	
is isa isaiah	tag:textal-ign.net,2015:n-s:work:isaiah  http://dbpedia.org/resource/Book_of_Isaiah	
je jer jeremiah	tag:textal-ign.net,2015:n-s:work:jeremiah  http://dbpedia.org/re-	

names	IRIs	Comments
	source/Book_of_Jeremiah	
epjer epistle of jeremiah letter of jeremiah	tag:textal-ign.net,2015:n-s:work:epistle_of_jeremiah  <a href="http://dbpedia.org/resource/Letter_of_Jeremiah">http://dbpedia.org/resource/Letter_of_Jeremiah</a>	
la lam lamentations	tag:textal-ign.net,2015:n-s:work:lamentaciones  <a href="http://dbpedia.org/resource/Book_of_Lamentations">http://dbpedia.org/resource/Book_of_Lamentations</a>	
ba bar baruch	tag:textal-ign.net,2015:n-s:work:baruch  <a href="http://dbpedia.org/resource/Book_of_Baruch">http://dbpedia.org/resource/Book_of_Baruch</a>	
ez ezk ezek ezekiel	tag:textal-ign.net,2015:n-s:work:ezekiel  <a href="http://dbpedia.org/resource/Book_of_Ezekiel">http://dbpedia.org/resource/Book_of_Ezekiel</a>	
dn da dan daniel	tag:textal-ign.net,2015:n-s:work:daniel  <a href="http://dbpedia.org/resource/Book_of_Daniel">http://dbpedia.org/resource/Book_of_Daniel</a>	
prazar prayer of azariah	tag:textal-ign.net,2015:n-s:work:prayer_of_azariah  <a href="http://dbpedia.org/resource/Prayer_of_Azariah">http://dbpedia.org/resource/Prayer_of_Azariah</a>	

Official TAN vocabularies

names	IRIs	Comments
<p>sus</p> <p>susanna</p>	<p>tag:textal-ign.net,2015:n-s:work:susanna</p> <p><a href="http://dbpedia.org/resource/Susanna_(Book_of_Daniel)">http://dbpedia.org/resource/Susanna_(Book_of_Daniel)</a></p>	
<p>bel</p> <p>bel and the dragon</p>	<p>tag:textal-ign.net,2015:n-s:work:bel_and_the_dragon</p> <p><a href="http://dbpedia.org/resource/Bel_and_the_Dragon">http://dbpedia.org/resource/Bel_and_the_Dragon</a></p>	
<p>man</p> <p>prman</p> <p>prayer of manasseh</p>	<p>tag:textal-ign.net,2015:n-s:work:prayer_of_manasseh</p> <p><a href="http://dbpedia.org/resource/Prayer_of_Manasseh">http://dbpedia.org/resource/Prayer_of_Manasseh</a></p>	
<p>s3y</p> <p>song of the three youths</p> <p>song of the three holy children</p> <p>song of the three holy youths</p>	<p>tag:textal-ign.net,2015:n-s:work:song_of_the_three_holy_children</p> <p><a href="http://dbpedia.org/resource/Song_of_the_Three_Holy_Children">http://dbpedia.org/resource/Song_of_the_Three_Holy_Children</a></p>	
<p>ho</p> <p>hos</p> <p>hosea</p>	<p>tag:textal-ign.net,2015:n-s:work:hosea</p> <p><a href="http://dbpedia.org/resource/Book_of_Hosea">http://dbpedia.org/resource/Book_of_Hosea</a></p>	
<p>jl</p> <p>joel</p>	<p>tag:textal-ign.net,2015:n-s:work:joel</p> <p><a href="http://dbpedia.org/resource/Book_of_Joel">http://dbpedia.org/resource/Book_of_Joel</a></p>	

names	IRIs	Comments
am amos	tag:textal-ign.net,2015:n-s:work:amos  <a href="http://dbpedia.org/resource/Book_of_Amos">http://dbpedia.org/resource/Book_of_Amos</a>	
ob obad obadiah	tag:textal-ign.net,2015:n-s:work:obadiah  <a href="http://dbpedia.org/resource/Book_of_Obadiah">http://dbpedia.org/resource/Book_of_Obadiah</a>	
jon jonah	tag:textal-ign.net,2015:n-s:work:jonah  <a href="http://dbpedia.org/resource/Book_of_Jonah">http://dbpedia.org/resource/Book_of_Jonah</a>	
mi mic micah	tag:textal-ign.net,2015:n-s:work:micah  <a href="http://dbpedia.org/resource/Book_of_Micah">http://dbpedia.org/resource/Book_of_Micah</a>	
na nah nahum	tag:textal-ign.net,2015:n-s:work:nahum  <a href="http://dbpedia.org/resource/Book_of_Nahum">http://dbpedia.org/resource/Book_of_Nahum</a>	
hb hab habakkuk	tag:textal-ign.net,2015:n-s:work:habakkuk  <a href="http://dbpedia.org/resource/Book_of_Habakkuk">http://dbpedia.org/resource/Book_of_Habakkuk</a>	
zep zeph zephaniah	tag:textal-ign.net,2015:n-s:work:zephaniah  <a href="http://dbpedia.org/resource/Book_of_Zephaniah">http://dbpedia.org/resource/Book_of_Zephaniah</a>	

Official TAN vocabularies

names	IRIs	Comments
hg hag haggai	tag:textal-ign.net,2015:n-s:work:haggai  <a href="http://dbpedia.org/resource/Book_of_Haggai">http://dbpedia.org/resource/Book_of_Haggai</a>	
zec zech zechariah	tag:textal-ign.net,2015:n-s:work:zechariah  <a href="http://dbpedia.org/resource/Book_of_Zechariah">http://dbpedia.org/resource/Book_of_Zechariah</a>	
ml mal malachi	tag:textal-ign.net,2015:n-s:work:malachi  <a href="http://dbpedia.org/resource/Book_of_Malachi">http://dbpedia.org/resource/Book_of_Malachi</a>	
mt mat matt matthew	tag:textal-ign.net,2015:n-s:work:matthew  <a href="http://dbpedia.org/resource/Gospel_of_Matthew">http://dbpedia.org/resource/Gospel_of_Matthew</a>	
mk mar mark	tag:textal-ign.net,2015:n-s:work:mark  <a href="http://dbpedia.org/resource/Gospel_of_Mark">http://dbpedia.org/resource/Gospel_of_Mark</a>	
lk lu luke	tag:textal-ign.net,2015:n-s:work:luke  <a href="http://dbpedia.org/resource/Gospel_of_Luke">http://dbpedia.org/resource/Gospel_of_Luke</a>	
jn jo john	tag:textal-ign.net,2015:n-s:work:john  <a href="http://dbpedia.org/resource/Gospel_of_John">http://dbpedia.org/resource/Gospel_of_John</a>	



Official TAN vocabularies

names	IRIs	Comments
ac acts acts of the apostles	tag:textal-ign.net,2015:n-s:work:acts  <a href="http://dbpedia.org/resource/Acts_of_the_Apostles">http://dbpedia.org/resource/Acts_of_the_Apostles</a>	
rm ro rom romans	tag:textal-ign.net,2015:n-s:work:romans  <a href="http://dbpedia.org/resource/Epistle_to_the_Romans">http://dbpedia.org/resource/Epistle_to_the_Romans</a>	
1 CO 1 COR 1CO 1COR 1C 1 corinthians 1corinthians i co i cor ico icor ic i corinthians icorinthians	tag:textal-ign.net,2015:n-s:work:1_corinthians  <a href="http://dbpedia.org/resource/First_Epistle_to_the_Corinthians">http://dbpedia.org/resource/First_Epistle_to_the_Corinthians</a>	
2 CO 2 COR 2CO 2COR 2C 2 corinthians	tag:textal-ign.net,2015:n-s:work:2_corinthians  <a href="http://dbpedia.org/resource/Second_Epistle_to_the_Corinthians">http://dbpedia.org/resource/Second_Epistle_to_the_Corinthians</a>	

names	IRIs	Comments
zcorinthians ii co ii cor iico iicor iic ii corinthians iicorinthians		
ga gal galatians	tag:textal-ign.net,2015:n-s:work:galatians  <a href="http://dbpedia.org/resource/Epistle_to_the_Galatians">http://dbpedia.org/resource/Epistle_to_the_Galatians</a>	
ep eph ephesians	tag:textal-ign.net,2015:n-s:work:ephesians  <a href="http://dbpedia.org/resource/Epistle_to_the_Ephesians">http://dbpedia.org/resource/Epistle_to_the_Ephesians</a>	
php phil philippians	tag:textal-ign.net,2015:n-s:work:philippians  <a href="http://dbpedia.org/resource/Epistle_to_the_Philippians">http://dbpedia.org/resource/Epistle_to_the_Philippians</a>	
co col colossians	tag:textal-ign.net,2015:n-s:work:colossians  <a href="http://dbpedia.org/resource/Epistle_to_the_Colossians">http://dbpedia.org/resource/Epistle_to_the_Colossians</a>	
rth r thes r thess	tag:textal-ign.net,2015:n-s:work:1_thessalonians	

Official TAN vocabularies

names	IRIs	Comments
rthes ithess i thessalonians rthessalonians ith i thes i thess ithes ithess i thessalonians ithessalonians	<a href="http://dbpedia.org/resource/First_Epistle_to_the_Thessalonians">http://dbpedia.org/resource/First_Epistle_to_the_Thessalonians</a>	
2th 2 thes 2 thess 2thes 2thess 2 thessalonians 2thessalonians iith ii thes ii thess iithes iithess ii thessalonians iithessalonians	tag:textal-ign.net,2015:n-s:work:2_thessalonians  <a href="http://dbpedia.org/resource/Second_Epistle_to_the_Thessalonians">http://dbpedia.org/resource/Second_Epistle_to_the_Thessalonians</a>	
it i tm i ti i tim	tag:textal-ign.net,2015:n-s:work:1_timothy  <a href="http://dbpedia.org/re-">http://dbpedia.org/re-</a>	

Official TAN vocabularies

names	IRIs	Comments
itm iti itim i timothy rtimothy it i tm i ti i tim itm iti itim i timothy itimothy	source/First_Epis- tle_to_Timothy	
2t 2 tm 2 ti 2 tim 2tm 2ti 2tim 2 timothy 2timothy iit ii tm ii ti ii tim iitm iiti	tag:textal- ign.net,2015:n- s:work:2_timothy  http:// dbpedia.org/re- source/Second_Epis- tle_to_Timothy	

Official TAN vocabularies

names	IRIs	Comments
iitim ii timothy iitimothy		
ti tit titus	tag:textal-ign.net,2015:n-s:work:titus  http://dbpedia.org/resource/Epistle_to_Titus	
phm phlm philem philemon	tag:textal-ign.net,2015:n-s:work:philemon  http://dbpedia.org/resource/Epistle_to_Philemon	
he heb hebrews	tag:textal-ign.net,2015:n-s:work:hebrews  http://dbpedia.org/resource/Epistle_to_the_Hebrews	
ja jas jam james	tag:textal-ign.net,2015:n-s:work:james  http://dbpedia.org/resource/Epistle_of_James	
ip i pt i pe ipe i pet ipt ipet i peter	tag:textal-ign.net,2015:n-s:work:l_peter  http://dbpedia.org/resource/First_Epistle_of_Peter	

Official TAN vocabularies

names	IRIs	Comments
<p>ipeter</p> <p>ip</p> <p>i pt</p> <p>i pe</p> <p>i pet</p> <p>ipt</p> <p>ipet</p> <p>i peter</p> <p>ipeter</p>		
<p>2p</p> <p>2 pt</p> <p>2 pe</p> <p>2pe</p> <p>2 pet</p> <p>2pt</p> <p>2pet</p> <p>2 peter</p> <p>2peter</p> <p>iip</p> <p>ii pt</p> <p>ii pe</p> <p>ii pet</p> <p>iipt</p> <p>ii pet</p> <p>ii peter</p> <p>iipeter</p>	<p>tag:textal-ign.net,2015:n-s:work:2_peter</p> <p><a href="http://dbpedia.org/resource/Second_Epistle_of_Peter">http://dbpedia.org/resource/Second_Epistle_of_Peter</a></p>	
<p>ij</p> <p>i jn</p> <p>i jo</p>	<p>tag:textal-ign.net,2015:n-s:work:1_john</p> <p><a href="http://dbpedia.org/re-">http://dbpedia.org/re-</a></p>	

Official TAN vocabularies

names	IRIs	Comments
ijn ijo i john ijohn ij i jn i jo ijn ijo i john ijohn	source/First_Epis- tle_of_John	
2j 2 jn 2 jo 2jn 2jo 2 john 2john iij ii jn ii jo iijn iijo ii john iijohn	tag:textal- ign.net,2015:n- s:work:2_john  http:// dbpedia.org/re- source/Second_Epis- tle_of_John	
3j 3 jn 3 jo 3jn	tag:textal- ign.net,2015:n- s:work:3_john  http:// dbpedia.org/re-	

names	IRIs	Comments
3jo 3 john 3john iiij iii jn iii jo iiijn iii jo iii john iiijohn	source/Third_Epis- tle_of_John	
ju jud jude	tag:textal- ign.net,2015:n- s:work:judas  http:// dbpedia.org/re- source/Epistle_of_Jude	
re rv ap rev apoc revelation apocalypse revelation to john	tag:textal- ign.net,2015:n- s:work:revelation  http:// dbpedia.org/re- source/Book_of_Revela- tion	

## vocabulario de uso común para la biblia (<work>@n)

Master location: <http://textalign.net/release/TAN-2021/vocabularies/extra/n.bible.spa.tan-voc.xml>

Table 11.8. vocabulario de uso común para la biblia

names	IRIs	Comments
biblia	tag:textal- ign.net,2015:work:bible	



names	IRIs	Comments
	<a href="http://dbpedia.org/resource/Bible">http://dbpedia.org/resource/Bible</a>	
tanaj	tag:textal-ign.net,2015:n-s:work:tanakh  <a href="http://dbpedia.org/resource/Tanakh">http://dbpedia.org/resource/Tanakh</a>	
antiquo testamento at	tag:textal-ign.net,2015:n-s:work:old_testament  <a href="http://dbpedia.org/resource/Old_Testament">http://dbpedia.org/resource/Old_Testament</a>	
septuaginta lxx	tag:textal-ign.net,2015:n-s:work:septuagint  <a href="http://dbpedia.org/resource/Septuagint">http://dbpedia.org/resource/Septuagint</a>	
nuevo testamento nt	tag:textal-ign.net,2015:n-s:work:new_testament  <a href="http://dbpedia.org/resource/New_testament">http://dbpedia.org/resource/New_testament</a>	
apócrifos	tag:textal-ign.net,2015:n-s:work:apocrypha  <a href="http://dbpedia.org/resource/Apocrypha">http://dbpedia.org/resource/Apocrypha</a>	
gn gén génesis	tag:textal-ign.net,2015:n-s:work:genesis  <a href="http://dbpedia.org/resource/Book_of_Genesis">http://dbpedia.org/resource/Book_of_Genesis</a>	
éx éxod éxodo	tag:textal-ign.net,2015:n-s:work:exodus	

Official TAN vocabularies

names	IRIs	Comments
	<a href="http://dbpedia.org/resource/Book_of_Exodus">http://dbpedia.org/resource/Book_of_Exodus</a>	
lv le lev levítico	tag:textal-ign.net,2015:n-s:work:leviticus  <a href="http://dbpedia.org/resource/Book_of_Leviticus">http://dbpedia.org/resource/Book_of_Leviticus</a>	
nm nu núm números	tag:textal-ign.net,2015:n-s:work:numbers  <a href="http://dbpedia.org/resource/Book_of_Numbers">http://dbpedia.org/resource/Book_of_Numbers</a>	
dt de du deut deuteronomio	tag:textal-ign.net,2015:n-s:work:deuteronomy  <a href="http://dbpedia.org/resource/Book_of_Deuteronomy">http://dbpedia.org/resource/Book_of_Deuteronomy</a>	
jos josué	tag:textal-ign.net,2015:n-s:work:joshua  <a href="http://dbpedia.org/resource/Book_of_Joshua">http://dbpedia.org/resource/Book_of_Joshua</a>	
jc jue jueces	tag:textal-ign.net,2015:n-s:work:judges  <a href="http://dbpedia.org/resource/Book_of_Judges">http://dbpedia.org/resource/Book_of_Judges</a>	
ru rt rut	tag:textal-ign.net,2015:n-s:work:ruth  <a href="http://dbpedia.org/resource/Book_of_Ruth">http://dbpedia.org/resource/Book_of_Ruth</a>	
ism isa	tag:textal-ign.net,2015:n-s:work:1_kingdoms	

Official TAN vocabularies

names	IRIs	Comments
i sm i sam i samuel i reinos ism i sm i sam i samuel i reinos	<a href="http://dbpedia.org/resource/1_Samuel">http://dbpedia.org/resource/1_Samuel</a>	
2sm 2sa 2 sm 2 sam 2 samuel 2 reinos iism iisa ii sm ii sam ii samuel ii reinos	tag:textal-ign.net,2015:n-s:work:2_kingdoms  <a href="http://dbpedia.org/resource/2_Samuel">http://dbpedia.org/resource/2_Samuel</a>	
i re i reyes 3 reinos i re i reyes iii reinos	tag:textal-ign.net,2015:n-s:work:3_kingdoms  <a href="http://dbpedia.org/resource/1_Kings">http://dbpedia.org/resource/1_Kings</a>	
2 re 2 reyes	tag:textal-ign.net,2015:n-s:work:4_kingdoms	

names	IRIs	Comments
4 reinos ii re ii reyes iv reinos	<a href="http://dbpedia.org/resource/2_Kings">http://dbpedia.org/resource/2_Kings</a>	
i cr i cró i crónicas i para ipara i paralipómenos i cr i cró i crónicas i para ipara i paralipómenos	tag:textal-ign.net,2015:n-s:work:1_para-leipomenon  <a href="http://dbpedia.org/resource/1_Chronicles">http://dbpedia.org/resource/1_Chronicles</a>	
2 cr 2 cró 2 crónicas 2 para 2para 2 paralipómenos ii cr ii cró ii crónicas ii para iipara ii paralipómenos	tag:textal-ign.net,2015:n-s:work:2_para-leipomenon  <a href="http://dbpedia.org/resource/2_Chronicles">http://dbpedia.org/resource/2_Chronicles</a>	

Official TAN vocabularies

names	IRIs	Comments
esd esdras i esdras iesd iesd	tag:textal-ign.net,2015:n-s:work:ezra  <a href="http://dbpedia.org/resource/Book_of_Ezra">http://dbpedia.org/resource/Book_of_Ezra</a>	
ne neh nehemías 2 esdras zesd ii esdras iiesd	tag:textal-ign.net,2015:n-s:work:nehemiah  <a href="http://dbpedia.org/resource/Book_of_Nehemiah">http://dbpedia.org/resource/Book_of_Nehemiah</a>	
tb tob tobías	tag:textal-ign.net,2015:n-s:work:tobías  <a href="http://dbpedia.org/resource/Book_of_Tobit">http://dbpedia.org/resource/Book_of_Tobit</a>	
jdt judit	tag:textal-ign.net,2015:n-s:work:judith  <a href="http://dbpedia.org/resource/Book_of_Judith">http://dbpedia.org/resource/Book_of_Judith</a>	
est ester	tag:textal-ign.net,2015:n-s:work:esther  <a href="http://dbpedia.org/resource/Book_of_Esther">http://dbpedia.org/resource/Book_of_Esther</a>	
addest	tag:textal-ign.net,2015:n-s:work:addition-s_to_esther	

Official TAN vocabularies

names	IRIs	Comments
	tag:kalvesmak-i.com,2014:work:bible:additions-to-esther	
imc i mac imac i macabeos imc i mac imac i macabeos	tag:textal-ign.net,2015:n-s:work:1_maccabees  <a href="http://dbpedia.org/resource/1_Maccabees">http://dbpedia.org/resource/1_Maccabees</a>	
2mc 2ma 2 mac 2mac 2 macabeos iimc iima ii mac iimac ii macabeos	tag:textal-ign.net,2015:n-s:work:2_maccabees  <a href="http://dbpedia.org/resource/2_Maccabees">http://dbpedia.org/resource/2_Maccabees</a>	
3mc 3ma 3 mac 3mac 3 macabeos iiimc iiima iii mac iiimac	tag:textal-ign.net,2015:n-s:work:3_maccabees  <a href="http://dbpedia.org/resource/3_Maccabees">http://dbpedia.org/resource/3_Maccabees</a>	

Official TAN vocabularies

names	IRIs	Comments
iii macabeos		
4mc 4ma 4 mac 4mac 4 macabeos ivmc ivma iv mac ivmac iv macabeos	tag:textal-ign.net,2015:n-s:work:4_maccabees  http://dbpedia.org/resource/4_Maccabees	
jb job	tag:textal-ign.net,2015:n-s:work:job  http://dbpedia.org/resource/Book_of_Job	
sal salmos	tag:textal-ign.net,2015:n-s:work:psalms  http://dbpedia.org/resource/Psalms	
odas	tag:textal-ign.net,2015:n-s:work:odes  http://dbpedia.org/resource/Book_of_Odes_(Bible)	
salsol salmos de solomon	tag:textal-ign.net,2015:n-s:work:psalms_of_solomon  http://dbpedia.org/resource/Psalms_of_Solomon	

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names	IRIs	Comments
pr prv pro prov proverbios	tag:textal-ign.net,2015:n-s:work:proverbs  http://dbpedia.org/resource/Book_of_Proverbs	
ec coh ecl cohélet eclesiastés	tag:textal-ign.net,2015:n-s:work:ecclesiastes  http://dbpedia.org/resource/Ecclesiastes	
cc can cant cantar de los cantares	tag:textal-ign.net,2015:n-s:work:song_of_songs  http://dbpedia.org/resource/Song_of_Songs	
sab sabiduría	tag:textal-ign.net,2015:n-s:work:wisdom_of_solomon  http://dbpedia.org/resource/Book_of_Wisdom	
sir si o eclo sirácideso eclesiástico eclesiástico sirácida	tag:textal-ign.net,2015:n-s:work:sirach  http://dbpedia.org/resource/Sirach	
is isa isaías	tag:textal-ign.net,2015:n-s:work:isaiah  http://dbpedia.org/resource/Book_of_Isaiah	
jr jer	tag:textal-ign.net,2015:n-s:work:jeremiah	



names	IRIs	Comments
jeremías	<a href="http://dbpedia.org/resource/Book_of_Jeremiah">http://dbpedia.org/resource/Book_of_Jeremiah</a>	
carta de jeremías	tag:textal-ign.net,2015:n-s:work:epistle_of_jeremiah  <a href="http://dbpedia.org/resource/Letter_of_Jeremiah">http://dbpedia.org/resource/Letter_of_Jeremiah</a>	
la lam lamentaciones	tag:textal-ign.net,2015:n-s:work:lamentaciones  <a href="http://dbpedia.org/resource/Book_of_Lamentations">http://dbpedia.org/resource/Book_of_Lamentations</a>	
ba bar baruc	tag:textal-ign.net,2015:n-s:work:baruch  <a href="http://dbpedia.org/resource/Book_of_Baruch">http://dbpedia.org/resource/Book_of_Baruch</a>	
ez ezequiel	tag:textal-ign.net,2015:n-s:work:ezequiel  <a href="http://dbpedia.org/resource/Book_of_Ezekiel">http://dbpedia.org/resource/Book_of_Ezekiel</a>	
dn da dan daniel	tag:textal-ign.net,2015:n-s:work:daniel  <a href="http://dbpedia.org/resource/Book_of_Daniel">http://dbpedia.org/resource/Book_of_Daniel</a>	
orazar oración de azarías	tag:textal-ign.net,2015:n-s:work:prayer_of_azariah  <a href="http://dbpedia.org/resource/Prayer_of_Azariah">http://dbpedia.org/resource/Prayer_of_Azariah</a>	

names	IRIs	Comments
<p>sus</p> <p>historia de susana</p> <p>susana</p>	<p>tag:textal-ign.net,2015:n-s:work:susanna</p> <p><a href="http://dbpedia.org/resource/Susanna_(Book_of_Daniel)">http://dbpedia.org/resource/Susanna_(Book_of_Daniel)</a></p>	
<p>bel</p> <p>historia de bel y el dragón</p> <p>bel y el dragón</p>	<p>tag:textal-ign.net,2015:n-s:work:bel_and_the_dragon</p> <p><a href="http://dbpedia.org/resource/Bel_and_the_Dragon">http://dbpedia.org/resource/Bel_and_the_Dragon</a></p>	
<p>man</p> <p>orman</p> <p>oración de manasés</p>	<p>tag:textal-ign.net,2015:n-s:work:prayer_of_manasseh</p> <p><a href="http://dbpedia.org/resource/Prayer_of_Manasseh">http://dbpedia.org/resource/Prayer_of_Manasseh</a></p>	
<p>c3j</p> <p>cántico de los tres jóvenes</p>	<p>tag:textal-ign.net,2015:n-s:work:song_of_the_three_holy_children</p> <p><a href="http://dbpedia.org/resource/Song_of_the_Three_Holy_Children">http://dbpedia.org/resource/Song_of_the_Three_Holy_Children</a></p>	
<p>os</p> <p>oseas</p>	<p>tag:textal-ign.net,2015:n-s:work:hosea</p> <p><a href="http://dbpedia.org/resource/Book_of_Hosea">http://dbpedia.org/resource/Book_of_Hosea</a></p>	
<p>jl</p> <p>joel</p>	<p>tag:textal-ign.net,2015:n-s:work:joel</p> <p><a href="http://dbpedia.org/resource/Book_of_Joel">http://dbpedia.org/resource/Book_of_Joel</a></p>	

names	IRIs	Comments
am amós	tag:textal- ign.net,2015:n- s:work:amos  <a href="http://dbpedia.org/resource/Book_of_Amos">http:// dbpedia.org/re- source/Book_of_Amos</a>	
abd abdías	tag:textal- ign.net,2015:n- s:work:obadiah  <a href="http://dbpedia.org/resource/Book_of_Obadiah">http:// dbpedia.org/re- source/Book_of_Obadiah</a>	
jon jonás	tag:textal- ign.net,2015:n- s:work:jonah  <a href="http://dbpedia.org/resource/Book_of_Jonah">http:// dbpedia.org/re- source/Book_of_Jonah</a>	
mi miq miqueas	tag:textal- ign.net,2015:n- s:work:micah  <a href="http://dbpedia.org/resource/Book_of_Micah">http:// dbpedia.org/re- source/Book_of_Micah</a>	
na nah nahúm	tag:textal- ign.net,2015:n- s:work:nahum  <a href="http://dbpedia.org/resource/Book_of_Nahum">http:// dbpedia.org/re- source/Book_of_Nahum</a>	
hb hab habacuc	tag:textal- ign.net,2015:n- s:work:habakkuk  <a href="http://dbpedia.org/resource/Book_of_Habakkuk">http:// dbpedia.org/re- source/Book_of_Habakkuk</a>	
sof sofonías	tag:textal- ign.net,2015:n- s:work:zephaniah  <a href="http://dbpedia.org/resource/Book_of_Zephaniah">http:// dbpedia.org/re- source/Book_of_Zepha- niah</a>	

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names	IRIs	Comments
ag ageo	tag:textal-ign.net,2015:n-s:work:haggai  <a href="http://dbpedia.org/resource/Book_of_Haggai">http://dbpedia.org/resource/Book_of_Haggai</a>	
za zac zacarías	tag:textal-ign.net,2015:n-s:work:zechariah  <a href="http://dbpedia.org/resource/Book_of_Zechariah">http://dbpedia.org/resource/Book_of_Zechariah</a>	
ml mal malaquíás	tag:textal-ign.net,2015:n-s:work:malachi  <a href="http://dbpedia.org/resource/Book_of_Malachi">http://dbpedia.org/resource/Book_of_Malachi</a>	
mt mat mateo	tag:textal-ign.net,2015:n-s:work:matthew  <a href="http://dbpedia.org/resource/Gospel_of_Matthew">http://dbpedia.org/resource/Gospel_of_Matthew</a>	
mc mar marcos	tag:textal-ign.net,2015:n-s:work:mark  <a href="http://dbpedia.org/resource/Gospel_of_Mark">http://dbpedia.org/resource/Gospel_of_Mark</a>	
lu lc lucas	tag:textal-ign.net,2015:n-s:work:luke  <a href="http://dbpedia.org/resource/Gospel_of_Luke">http://dbpedia.org/resource/Gospel_of_Luke</a>	
jn juan	tag:textal-ign.net,2015:n-s:work:john  <a href="http://dbpedia.org/resource/Gospel_of_John">http://dbpedia.org/resource/Gospel_of_John</a>	

names	IRIs	Comments
hch hech hechos de los apóstoles	tag:textal-ign.net,2015:n-s:work:acts  <a href="http://dbpedia.org/resource/Acts_of_the_Apostles">http://dbpedia.org/resource/Acts_of_the_Apostles</a>	
rm ro rom romanos	tag:textal-ign.net,2015:n-s:work:romans  <a href="http://dbpedia.org/resource/Epistle_to_the_Romans">http://dbpedia.org/resource/Epistle_to_the_Romans</a>	
1 co 1 cor 1co 1cor 1c 1 corintios i co i cor ico icor ic i corintios	tag:textal-ign.net,2015:n-s:work:1_corinthians  <a href="http://dbpedia.org/resource/First_Epistle_to_the_Corinthians">http://dbpedia.org/resource/First_Epistle_to_the_Corinthians</a>	
2 co 2 cor 2co 2cor 2c 2 corintios ii co ii cor	tag:textal-ign.net,2015:n-s:work:2_corinthians  <a href="http://dbpedia.org/resource/Second_Epistle_to_the_Corinthians">http://dbpedia.org/resource/Second_Epistle_to_the_Corinthians</a>	

names	IRIs	Comments
iico iicor iic ii corintios		
gá gál gálatas	tag:textal-ign.net,2015:n-s:work:galatians  http://dbpedia.org/resource/Epistle_to_the_Galatians	
ef efesios	tag:textal-ign.net,2015:n-s:work:ephesians  http://dbpedia.org/resource/Epistle_to_the_Ephesians	
fil flp filipenses	tag:textal-ign.net,2015:n-s:work:philippians  http://dbpedia.org/resource/Epistle_to_the_Philippians	
co col colosenses	tag:textal-ign.net,2015:n-s:work:colossians  http://dbpedia.org/resource/Epistle_to_the_Colossians	
i tes itēs i tesalonicenses i tes ites i tesalonicenses	tag:textal-ign.net,2015:n-s:work:1_thessalonians  http://dbpedia.org/resource/First_Epistle_to_the_Thessalonians	

names	IRIs	Comments
2 tes 2tes 2 tesalonicenses ii tes iites ii tesalonicenses	tag:textal-ign.net,2015:n-s:work:2_thessalonians  http://dbpedia.org/resource/Second_Epistle_to_the_Thessalonians	
it I tm I ti I tim itm iti rtim I timoteo it i tm i ti i tim itm iti itim i timoteo	tag:textal-ign.net,2015:n-s:work:1_timothy  http://dbpedia.org/resource/First_Epistle_to_Timothy	
2t 2 tm 2 ti 2 tim 2tm 2ti 2tim	tag:textal-ign.net,2015:n-s:work:2_timothy  http://dbpedia.org/resource/Second_Epistle_to_Timothy	

names	IRIs	Comments
2 timoteo iit ii tm ii ti ii tim iitm iiti iitim ii timoteo		
ti tit tito	tag:textal- ign.net,2015:n- s:work:titus  http:// dbpedia.org/re- source/Epistle_to_Ti- tus	
flm filem filemón	tag:textal- ign.net,2015:n- s:work:philemon  http:// dbpedia.org/re- source/Epis- tle_to_Philemon	
he heb hebreos	tag:textal- ign.net,2015:n- s:work:hebrews  http:// dbpedia.org/re- source/Epis- tle_to_the_Hebrews	
st sant stgo santiago	tag:textal- ign.net,2015:n- s:work:james  http:// dbpedia.org/re- source/Epis- tle_of_James	
ip i pe	tag:textal- ign.net,2015:n- s:work:1_peter	



names	IRIs	Comments
1 ped 1pd 1ped 1 pd 1pe 1 pedro 1p 1 pe 1 ped 1pd 1ped 1 pd 1pe 1 pedro	<a href="http://dbpedia.org/resource/First_Epistle_of_Peter">http://dbpedia.org/resource/First_Epistle_of_Peter</a>	
2p 2 pe 2 ped 2pd 2ped 2 pd 2pe 2 pedro iip ii pe ii ped iipd iiped ii pd iipe	tag:textal-ign.net,2015:ns:work:2_peter  <a href="http://dbpedia.org/resource/Second_Epistle_of_Peter">http://dbpedia.org/resource/Second_Epistle_of_Peter</a>	

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names	IRIs	Comments
ii pedro		
ij i jn ijn i juan ij i jn ijn i juan	tag:textal-ign.net,2015:n-s:work:1_john  http://dbpedia.org/resource/First_Epistle_of_John	
2j 2 jn 2jn 2 juan ijj ii jn iijn ii juan	tag:textal-ign.net,2015:n-s:work:2_john  http://dbpedia.org/resource/Second_Epistle_of_John	
3j 3 jn 3jn 3 juan iiij iii jn iiijn iii juan	tag:textal-ign.net,2015:n-s:work:3_john  http://dbpedia.org/resource/Third_Epistle_of_John	
jds jud judas	tag:textal-ign.net,2015:n-s:work:judas  http://dbpedia.org/resource/Epistle_of_Jude	

names	IRIs	Comments
re	tag:textal-	
rv	ign.net,2015:n-	
ap	s:work:revelation	
rev	http://	
apoc	dbpedia.org/re-	
apocalipsis	source/Book_of_Revela-	
apocalipsis de juan	tion	
revelación de juan		

## Commonly used names for Surahs in the Quran, incorporating English and Arabic. (<work>@n)

Master location: <http://textalign.net/release/TAN-2021/vocabularies/extra/n.quran.eng-ara.tan-voc.xml>

Table II.9. Commonly used names for Surahs in the Quran, incorporating English and Arabic.

names	IRIs	Comments
الفاتحة	tag:textal-	
أم الكتاب	ign.net,2015:n-alias:quran:surah1	
ام الكتاب		
أم القرآن		
ام القرآن		
السبع المثاني		
الحمد		
الشفاء		
سورة الصلوة		
الأساس		
الاساس		
al fātiḥa		
al fatiha		
umm ul kitab		

names	IRIs	Comments
umm ul qur'an as sab' ul mathani al hamd ash shifa' surat as salah al 'asas the opening mother of the book mother of the koran the oft recited seven praise the cure chapter of the prayer the foundation		
البقرة al baqara the cow	tag:textal- ign.net,2015:n-alias:quran:surah2	
آل عمران ال عمران āl 'imrān al 'imran ali imran the house of imran	tag:textal- ign.net,2015:n-alias:quran:surah3	
النساء al nisā' al nisa' an nisa' women	tag:textal- ign.net,2015:n-alias:quran:surah4	
المائدة المائدة	tag:textal- ign.net,2015:n-alias:quran:surah5	

names	IRIs	Comments
al mā'ida al ma'ida al ma'ida the table spread		
الأنعام الانعام al an'ām al an'am al an'am cattle	tag:textal- ign.net,2015:n-alias:quran:surah6	
الأعراف الاعراف al a'rāf al a'raf al a'raf the heights	tag:textal- ign.net,2015:n-alias:quran:surah7	
الأنفال الانفال al anfāl al anfal spoils of war	tag:textal- ign.net,2015:n-alias:quran:surah8	
التوبة البراءة al tawba at tawba al bara'a repentance the absolution	tag:textal- ign.net,2015:n-alias:quran:surah9	
يونس yūnus	tag:textal- ign.net,2015:n-alias:quran:surah10	

names	IRIs	Comments
yunus		
jonah		
هود hūd hud	tag:textal- ign.net,2015:n-alias:quran:surah11	
يوسف yūsuf yusuf joseph	tag:textal- ign.net,2015:n-alias:quran:surah12	
الرعد al ra'd ar ra'd thunder	tag:textal- ign.net,2015:n-alias:quran:surah13	
ابراهيم ابراهيم ibrāhīm ibrahim abraham	tag:textal- ign.net,2015:n-alias:quran:surah14	
الحجر al hijr al hijr the city of stone the rocky plain	tag:textal- ign.net,2015:n-alias:quran:surah15	
النحل النعيم al nahl al nahl an nahl an ni'em the bee	tag:textal- ign.net,2015:n-alias:quran:surah16	

names	IRIs	Comments
the blessings		
الٲسراء الاسراء بني ٲسراءيل بني اسراءيل سبحان al isrā' al isra' al isra' bani isra'eel subhan the night journey the children of israel glory	tag:textal- ign.net,2015:n-alias:quran:surah17	
الكفف al kahf the cave	tag:textal- ign.net,2015:n-alias:quran:surah18	
مريم maryam mary	tag:textal- ign.net,2015:n-alias:quran:surah19	
طه ṭā hā ta ha	tag:textal- ign.net,2015:n-alias:quran:surah20	
الٱنبياء الٱنبياء al anbiyā' al anbiya' al anbiya' the prophets	tag:textal- ign.net,2015:n-alias:quran:surah21	
الحج al hajj	tag:textal- ign.net,2015:n-alias:quran:surah22	

names	IRIs	Comments
al ḥajj al hajj the pilgrimage		
المؤمنون المؤمنون al mu'minūn al mu'minun al mu'minoon the believers	tag:textal- ign.net,2015:n-alias:quran:surah23	
النور al nūr al nur an nur light	tag:textal- ign.net,2015:n-alias:quran:surah24	
الفرقان al furqān al furqan the criterion	tag:textal- ign.net,2015:n-alias:quran:surah25	
الشعراء al shu'arā' al shu'ara' ash shu'ara the poets	tag:textal- ign.net,2015:n-alias:quran:surah26	
النمل al naml an naml the ants	tag:textal- ign.net,2015:n-alias:quran:surah27	
القصص al qasas al qasas	tag:textal- ign.net,2015:n-alias:quran:surah28	



names	IRIs	Comments
the story		
<p>ال عنكبوت</p> <p>al ‘anqabūt</p> <p>al ‘anqabut</p> <p>al ankabut</p> <p>the spider</p>	<p>tag:textal- ign.net,2015:n-alias:quran:surah29</p>	
<p>ال روم</p> <p>al rŭm</p> <p>al rum</p> <p>ar rum</p> <p>byzantium</p>	<p>tag:textal- ign.net,2015:n-alias:quran:surah30</p>	
<p>لقمان</p> <p>luqmān</p> <p>luqman</p>	<p>tag:textal- ign.net,2015:n-alias:quran:surah31</p>	
<p>السجدة</p> <p>المضاجع</p> <p>الم تنزيل</p> <p>al sajda</p> <p>as sajda</p> <p>al madajj’</p> <p>alif lam meem tanzeel</p> <p>prostration</p> <p>the beds</p> <p>alif lam meem revelation</p>	<p>tag:textal- ign.net,2015:n-alias:quran:surah32</p>	
<p>الأحزاب</p> <p>ال احزاب</p> <p>al aḥzāb</p> <p>al ahzab</p> <p>the confederates</p>	<p>tag:textal- ign.net,2015:n-alias:quran:surah33</p>	
<p>سبأ</p>	<p>tag:textal- ign.net,2015:n-alias:quran:surah34</p>	

names	IRIs	Comments
سبا sabā' saba' saba' sheba		
فاطر الملائكة الملائكة fāṭir fatir al mala'ika the originator angels	tag:textal- ign.net,2015:n-alias:quran:surah35	
يس yā sīn ya sin ya seen	tag:textal- ign.net,2015:n-alias:quran:surah36	
الصافات al ṣāffāt al saffat as saffat those ranged in ranks	tag:textal- ign.net,2015:n-alias:quran:surah37	
ص داود ṣād sad dawood david	tag:textal- ign.net,2015:n-alias:quran:surah38	
الزمر الغرف	tag:textal- ign.net,2015:n-alias:quran:surah39	

names	IRIs	Comments
al zumar az zumar al ghuraf the crowds the dwellings		
غافر المؤمن المؤمن الفضل al mu'min ghafir al mu'min al fadhil the forgiver the believer bounty	tag:textal-ign.net,2015:n-alias:quran:surah40	
فصلت حم سجدة المصابيح الأقوات الأقوات fuṣṣilat fussilat ha meem sajda al masabeeh al aquat expounded ha meem prostration lamps	tag:textal-ign.net,2015:n-alias:quran:surah41	

names	IRIs	Comments
means of sustenance		
الشورى حم عسق al shūrā al shura ash shura ha meem 'ain seen coff counsel ha meem ain seen coff	tag:textal- ign.net,2015:n-alias:quran:surah42	
الزخرف al zukhruf az zukhruf gold ornaments	tag:textal- ign.net,2015:n-alias:quran:surah43	
الدخان al dukhān al dukhan ad dukhan smoke	tag:textal- ign.net,2015:n-alias:quran:surah44	
الجاهلية الشريعة al jāthiya al jathiya ash shari'a kneeling the clear path	tag:textal- ign.net,2015:n-alias:quran:surah45	
الأحاف الاحقاف al ahqāf al ahqaf the sand dunes	tag:textal- ign.net,2015:n-alias:quran:surah46	

names	IRIs	Comments
<p>محمّد</p> <p>القتال</p> <p>muḥammad</p> <p>muhammad</p> <p>al qital</p> <p>fighting</p>	<p>tag:textal- ign.net,2015:n-alias:quran:surah47</p>	
<p>الفتح</p> <p>al fath</p> <p>al fath</p> <p>victory</p>	<p>tag:textal- ign.net,2015:n-alias:quran:surah48</p>	
<p>الحجرات</p> <p>al ḥujurāt</p> <p>al hujurat</p> <p>the private chambers</p>	<p>tag:textal- ign.net,2015:n-alias:quran:surah49</p>	
<p>ق</p> <p>الباسقات</p> <p>qāf</p> <p>qaf</p> <p>al basiqat</p> <p>towering</p>	<p>tag:textal- ign.net,2015:n-alias:quran:surah50</p>	
<p>الذاريات</p> <p>al dhāriyāt</p> <p>al dhariyat</p> <p>adh dhariyat</p> <p>the scattering winds</p>	<p>tag:textal- ign.net,2015:n-alias:quran:surah51</p>	
<p>الطور</p> <p>al ṭūr</p> <p>al tur</p> <p>at tur</p> <p>the mountain</p>	<p>tag:textal- ign.net,2015:n-alias:quran:surah52</p>	

names	IRIs	Comments
النجم al najm an najm the star	tag:textal- ign.net,2015:n-alias:quran:surah53	
القمر اقتربت الساعة al qamar iqtarabat as sa'a the moon the hour has drawn near	tag:textal- ign.net,2015:n-alias:quran:surah54	
الرحمن al raḥmān al rahman ar rahman the compassionate	tag:textal- ign.net,2015:n-alias:quran:surah55	
الواقعة al wāqi'a al waqi'a al waqi'a the inevitable	tag:textal- ign.net,2015:n-alias:quran:surah56	
الحديد al ḥadīd al hadid iron	tag:textal- ign.net,2015:n-alias:quran:surah57	
المجادلة الظهار al mujādala al mujadala al mujadila eth thihar	tag:textal- ign.net,2015:n-alias:quran:surah58	

names	IRIs	Comments
she who disputes zihar		
الحشر بنو نضير al ḥashr al hashr banu nadeer the gathering banu nadir	tag:textal- ign.net,2015:n-alias:quran:surah59	
الممتحنة الامتحان المودة al mumtaḥana al mumtahana al mumtahina al imtihan al mawada she who is examined the examination affection	tag:textal- ign.net,2015:n-alias:quran:surah60	
الصف الحواريون عيسى al ṣaff al saff as saff al hawariyoon esa the ranks	tag:textal- ign.net,2015:n-alias:quran:surah61	

names	IRIs	Comments
the apostles		
jesus		
الجمعة al jumu'a al jumu'a the congregation	tag:textal- ign.net,2015:n-alias:quran:surah62	
المنافقون al munāfiqūn al munafiqun the hypocrites	tag:textal- ign.net,2015:n-alias:quran:surah63	
التغابن al taghābun al taghabun at taghabun mutual disposession	tag:textal- ign.net,2015:n-alias:quran:surah64	
الطلاق سورة النساء القصوى al ṭalāq al talaq at talaq surat an nisa' al qusra divorce the shorter chapter of women	tag:textal- ign.net,2015:n-alias:quran:surah65	
التحريم لما تحرم المتحريم سورة النبي al taḥrīm al tahrīm at tahrīm	tag:textal- ign.net,2015:n-alias:quran:surah66	



names	IRIs	Comments
lima tuharrim al mutaharrim surat an nabi forbiddance why do you forbid? the forbidden chapter of the prophet		
الملك تبارك تبارك الذي بيده الملك الامان ع المنجية al mulk tabarak tabarak aladhee biyedihi al mulk al mani' al munjiyya dominion blessed blessed is the one who holds the dominion the shield the savior	tag:textal- ign.net,2015:n-alias:quran:surah67	
القلم al qalam the pen	tag:textal- ign.net,2015:n-alias:quran:surah68	
الحاققة al ḥāqqa al haqqa the undeniable reality	tag:textal- ign.net,2015:n-alias:quran:surah69	

names	IRIs	Comments
<p>المعارج المواقع سأل سال al ma‘ārij al ma‘arij al ma’arij al mawaqi’ sa’ala the ascending ways the impending matters someone asked</p>	<p>tag:textal- ign.net,2015:n-alias:quran:surah70</p>	
<p>نوح nūḥ nuh noah</p>	<p>tag:textal- ign.net,2015:n-alias:quran:surah71</p>	
<p>الجن al jinn the jinn</p>	<p>tag:textal- ign.net,2015:n-alias:quran:surah72</p>	
<p>المزمل al muzzammil the enwrapped one</p>	<p>tag:textal- ign.net,2015:n-alias:quran:surah73</p>	
<p>المثثر al muddaththir al muddathir the covered one</p>	<p>tag:textal- ign.net,2015:n-alias:quran:surah74</p>	
<p>القيامة لأقسام لأقسام al qiyāma</p>	<p>tag:textal- ign.net,2015:n-alias:quran:surah75</p>	

names	IRIs	Comments
al qiyama la uqsimu resurrection i swear		
الانسان الانسان هل أتى هل اتى الدهر الأبرار الابرار al insān al insan hal ataa ad dahr al abrar the human hasn't there come? endless time the pious	tag:textal- ign.net,2015:n-alias:quran:surah76	
المرسلات al mursalāt al mursalat those sent forth	tag:textal- ign.net,2015:n-alias:quran:surah77	
النبأ النبأ المعصرات التسائل al nabā'	tag:textal- ign.net,2015:n-alias:quran:surah78	

names	IRIs	Comments
al naba' an naba' al mu'sirat at tasa'ul the tiding rain clouds questioning one another		
النازعات الساورة الطامة al nāzi'āt al nazi'at an nazi'at es sahira et tomma the snatchers the wide expanse the calamity	tag:textal- ign.net,2015:n-alias:quran:surah79	
عابس الصاخة السفرة 'abasa abasa as saakha as saffara he frowned the piercing cry the scribes	tag:textal- ign.net,2015:n-alias:quran:surah80	
التكوير	tag:textal- ign.net,2015:n-alias:quran:surah81	

names	IRIs	Comments
al takwīr al takwir at takwir the enfolding		
الانفطار الانفطار al infiṭār al infitar the splitting	tag:textal- ign.net,2015:n-alias:quran:surah82	
المطففين al muṭaffifīn al mutaffifin al mutaffifeen the defrauders	tag:textal- ign.net,2015:n-alias:quran:surah83	
الانشقاق الانشقاق انشقاق al inshiqāq al inshiqaq inshaqat the bursting open burst open	tag:textal- ign.net,2015:n-alias:quran:surah84	
البروج al burūj al buruj al burooj the constellations	tag:textal- ign.net,2015:n-alias:quran:surah85	
الطارق al ṭāriq al tariq	tag:textal- ign.net,2015:n-alias:quran:surah86	

names	IRIs	Comments
at tariq the night visitant the morning star		
الأعلى الاعلى al a' lā al a' la al a' la the highest	tag:textal- ign.net,2015:n-alias:quran:surah87	
الغاشية al ghāshiya al ghashiya the overwhelming event	tag:textal- ign.net,2015:n-alias:quran:surah88	
الفجر al ajr al fajr the dawn	tag:textal- ign.net,2015:n-alias:quran:surah89	
البلد al balad the city	tag:textal- ign.net,2015:n-alias:quran:surah90	
الشمس al shams ash shams the sun	tag:textal- ign.net,2015:n-alias:quran:surah91	
الليل al layl al lail the night	tag:textal- ign.net,2015:n-alias:quran:surah92	
الضحى al ḍuhā	tag:textal- ign.net,2015:n-alias:quran:surah93	

names	IRIs	Comments
al duha ad dhuha the morning brightness		
الشرح الانشرح al sharḥ al sharh ash sharh el inshirah expansion solace	tag:textal- ign.net,2015:n-alias:quran:surah94	
التين al tin al tin at teen the fig	tag:textal- ign.net,2015:n-alias:quran:surah95	
العلق اقراً اقرا al 'alaq al alaq ikra' the blood clot read!	tag:textal- ign.net,2015:n-alias:quran:surah96	
القدر al qadr the night of power	tag:textal- ign.net,2015:n-alias:quran:surah97	
البينة لم يكن al bayyina	tag:textal- ign.net,2015:n-alias:quran:surah98	

names	IRIs	Comments
lam yakun the clear proof they will not		
الزلزلة al zalzala az zalzala the earthquake	tag:textal- ign.net,2015:n-alias:quran:surah99	
العديات al 'ādiyāt al 'adiyat al 'adiyat the chargers	tag:textal- ign.net,2015:n-alias:quran:surah100	
القارعة al qārī'a al qari'a al qari'a the catastrophe	tag:textal- ign.net,2015:n-alias:quran:surah101	
التكاثر al takāthur al takathur at takathur vying for increase	tag:textal- ign.net,2015:n-alias:quran:surah102	
العصر al 'aṣr al 'asr al 'asr time	tag:textal- ign.net,2015:n-alias:quran:surah103	
الهمزة al humaza the slanderer	tag:textal- ign.net,2015:n-alias:quran:surah104	



names	IRIs	Comments
الفيل al fil al fil al feel the elephant	tag:textal- ign.net,2015:n-alias:quran:surah105	
قريش quraysh	tag:textal- ign.net,2015:n-alias:quran:surah106	
المعون al mā'ūn al ma'un al ma'oon assistance	tag:textal- ign.net,2015:n-alias:quran:surah107	
الكوثر al kawthar abundance	tag:textal- ign.net,2015:n-alias:quran:surah108	
الكافرون al kāfirūn al kafirun al kafiroon disbelievers	tag:textal- ign.net,2015:n-alias:quran:surah109	
النصر al naṣr al nasr an nasr help	tag:textal- ign.net,2015:n-alias:quran:surah110	
المسد الدهب al masad al lahab palm fiber	tag:textal- ign.net,2015:n-alias:quran:surah111	

names	IRIs	Comments
the flame		
الإخلاص الإخلاص المنفرة النجاة المعرفة المدكفرة نور القرآن نور القرآن al ikhlāṣ al ikhlas al munaffira an najah al ma'rifa al mudhekira nur al quran sincerity casting away deliverance recognition the reminder light of the quran	tag:textal- ign.net,2015:n-alias:quran:surah112	
الفلق al falaq daybreak	tag:textal- ign.net,2015:n-alias:quran:surah113	
الناس al nās al nas an nas	tag:textal- ign.net,2015:n-alias:quran:surah114	

names	IRIs	Comments
mankind		

## Commonly used vocabulary in English for divs that are unnamed, first system (@n)

There are a handful of div types that do not easily lend themselves to values of @n because that type of div is traditionally not labeled or numbered. In practice, @n is given a value that is identical to, or looks a lot like, the value of @type.. This TAN-voc file provides common nomenclature for such unlabeled div types.

Master location: <http://textalign.net/release/TAN-2021/vocabularies/extra/n.unlabeled-divs-1.tan-voc.xml>

Table 11.10. Commonly used vocabulary in English for divs that are unnamed, first system

names	IRIs	Comments
intro introduction pr pro pref praef preface prologue	tag:textalign.net,2015:n-alias:unlabeled-divs-1:intro	This file adopts the assumption that a given div has only one introductory section, whatever it is called.  Such an introduction excludes titles and subtitles.
conc conclusion ep epi epilogue post postscript postface	tag:textalign.net,2015:n-alias:unlabeled-divs-1:conc	This file adopts the assumption that a given div has only one concluding section, whatever it is called.
title ti	tag:textalign.net,2015:n-alias:unlabeled-divs-1:title	

# TAN keywords for types of normalizations (<normalization>)

Definitive list of key terms used for normalizations to texts.

Master location: <http://textalign.net/release/TAN-2021/vocabularies/normalizations.TAN-voc.xml>

Table II.II. TAN keywords for types of normalizations

names	IRIs	Comments
no hyphens	tag:textalign.net,2015:normalization:hyphens-discretionary-removed	Discretionary word-break line-end hyphens have been deleted.
norm space	tag:textalign.net,2015:normalization:space-typographer-converted	General Punctuation spaces (U+2000..U+200B) to regular space have been replaced with regular space. Equivalent to <code>fn:replace('[\x{2000}\x{2001} \x{2002} \x{2003}\x{2004} \x{2005} \x{2006}\x{2007} \x{2008} \x{2009}\x{200A} \x{200B}]','')</code>
no note callouts	tag:textalign.net,2015:normalization:annotation-signals-removed	Footnote or endnote signals (frequently superscript numbers or letters) have been deleted.
no notes	tag:textalign.net,2015:normalization:annotation-content-removed	Footnotes or endnotes have been deleted.
no comments	tag:textalign.net,2015:normalization:comments-editorial-removed	Editorial comments have been deleted.
no pointers	tag:textalign.net,2015:normalization:pointers-reference-removed	Reference pointers to other texts, both internal (cross-references) and external (citations of primary or secondary sources) have been deleted.
no milestones	tag:textalign.net,2015:normalization:milestones-reference-removed	Reference milestones such as page numbers and section numbers have been deleted.
no ligatures	tag:textalign.net,2015:normal-	All ligatures have been converted into constituent letters.

names	IRIs	Comments
	ization:ligatures-converted	
no combining chars	tag:textal-ign.net,2015:normalization:letters-combining-converted	All combining letters (U+0363..U+036F) have been converted to their corresponding ASCII counterpart.
corrected spelling	tag:textal-ign.net,2015:normalization:orthography-corrected	All orthography (spelling) has been tacitly corrected to standard forms.
corrected punctuation	tag:textal-ign.net,2015:normalization:punctuation-corrected	All punctuation has been tacitly corrected to standard forms.
no punctuation	tag:textal-ign.net,2015:normalization:punctuation-removed	All punctuation has been removed.
no quotation marks	tag:textal-ign.net,2015:normalization:quotation-marks-removed	Quotation marks have been removed.
corrected capitalization	tag:textal-ign.net,2015:normalization:capitalization-corrected	All letters have been tacitly capitalized according to standard forms.
changed to lowercase	tag:textal-ign.net,2015:normalization:case-upper-to-lower	All uppercase letters converted to lowercase.
changed to uppercase	tag:textal-ign.net,2015:normalization:case-lower-to-upper	All lowercase letters converted to uppercase.
no music	tag:textal-ign.net,2015:normalization:music-printed-removed	Printed music has been removed.
no prepunctuation space	tag:textal-ign.net,2015:normalization:space-prepunctuation-corrected	All prepunctuation space has been corrected according to standard forms.
normalized unicode unicode nfc unicode normalized	tag:textal-ign.net,2015:normalization:nfc	All non-NFC-compliant Unicode converted to normalized Unicode. Same effect as if applying <code>normalize-unicode()</code> .

names	IRIs	Comments
converted html to tan	tag:textal-ign.net,2015:normalization:html-to-tan-t	HTML converted to TAN-T format
no reference markers	tag:textal-ign.net,2015:normalization:reference-markers-removed	All numbers, letters, or other labels inserted by the author or editor to indicate references (the value ordinarily placed in @n in <div>) removed.
accents normalized	tag:textal-ign.net,2015:normalization:accents-normalized	Accents have been normalized. If missing, they have been supplied. If incorrect, they have been corrected.

## TAN keywords for types of bitext reuse (<reuse-type>)

List of standardized terms used for types of bitext reuse.

Master location: <http://textalign.net/release/TAN-2021/vocabularies/reuse-types.TAN-voc.xml>

Table II.12. TAN keywords for types of bitext reuse

names	IRIs	Comments
translation general translation translation (general)	tag:textal-ign.net,2015:reuse-type:translation	One version is a translation of the other. The quality of the translation is not specified.
literal translation	tag:textal-ign.net,2015:reuse-type:translation:literal	One version is a translation of the other. The quality of the translation is literal.
paraphrastic translation	tag:textal-ign.net,2015:reuse-type:translation:paraphrastic	One version is a translation of the other. The quality of the translation is paraphrastic.
questionable translation	tag:textal-ign.net,2015:reuse-type:translation:questionable	One version is a translation of the other. The quality of the translation is questionable or wrong.
paraphrase	tag:textal-ign.net,2015:reuse-type:phrase	One version is a paraphrase of the other.
general adaptation	tag:textal-ign.net,2015:reuse-type:tation:general	One version is an adaptation of the other. The specific kind of adaptation is not defined.
plus general plus	tag:textal-ign.net,2015:reuse-type:tains	The target language text contains a morpheme or lexeme that is either not in the source

names	IRIs	Comments
plus (general)		language text or is there only implicitly.
stylistic plus plus (stylistic)	tag:textal-ign.net,2015:reuse-type-stylistic	An accretion in a translated text attributable to stylistic preference of the translator. That is, the target language text contains one or more morphemes or lexemes that are in the source language text only implicitly, or are there explicitly but the target language text repeats the feature. Omission of the stylistic plus would not be a violation of grammar, although such an omission may render the target language text unnatural or uncolloquial.
cultural plus plus (cultural)	tag:textal-ign.net,2015:reuse-type-cultural	An accretion in a translated text attributable to the translator's attempt to supply cultural or contextual background that would be lacking in the target readership. That is, the target language text contains one or more morphemes or lexemes that are in the source language text only implicitly, or are there explicitly but require extra words to translate.
minus general minus minus (general)	tag:textal-ign.net,2015:reuse-type-minus	The target language text either lacks, or leaves implicit, a morpheme or lexeme that is explicitly in the source language text.
stylistic minus minus (stylistic)	tag:textal-ign.net,2015:reuse-type-minus:stylistic	An elision in a translated text attributable to stylistic preference of the translator. That is, the target language text lacks, or leaves implicit, one or more morphemes or lexemes that are explicitly in the source language text. Replacement of the stylistic minus with its explicit counterpart would not be a violation of grammar, although such an inclusion may render the target language text unnatural or uncolloquial.
cultural minus minus (cultural)	tag:textal-ign.net,2015:reuse-type-minus:cultural	An elision in a translated text attributable to the translator's attempt to remove cultural or con-

names	IRIs	Comments
		textual background that is already clear to the target readership. That is, the target language text lacks, or leaves implicit, one or more morphemes or lexemes that are in the source language explicitly and that explain a contextual or cultural concept.

## TAN keywords for types of roles (<role>)

This file has been created ad hoc to some basic terms for roles involved in the creation and editing of TAN files.

Master location: <http://textalign.net/release/TAN-2021/vocabularies/roles.TAN-voc.xml>

Table 11.13. TAN keywords for types of roles

names	IRIs	Comments
creator	<a href="http://schema.org/creator">http://schema.org/creator</a> <a href="http://purl.org/dc/terms/creator">http://purl.org/dc/terms/creator</a> tag:textalign.net,2015:role:creator	
publisher	<a href="http://purl.org/dc/elements/1.1/publisher">http://purl.org/dc/elements/1.1/publisher</a> tag:textalign.net,2015:role:publisher	
funder	tag:textalign.net,2015:role:funder	agent that provides money intended to map to tei:funder
sponsor	tag:textalign.net,2015:role:sponsor	agent that sponsors; may or may not involve money intended to map to tei:sponsor
project manager principal editor in chief	tag:textalign.net,2015:role:editor-in-chief tag:textalign.net,2015:role:manager:project	intended to map to tei:principal



Official TAN vocabularies

names	IRIs	Comments
manager	tag:textal-ign.net,2015:role:manager	generic manager; may or may not have a role under another manager
technical manager lead developer	tag:textal-ign.net,2015:role:manager:technical	
editor revisor	http://schema.org/editor  tag:textal-ign.net,2015:role:editor	
developer	tag:textal-ign.net,2015:role:developer	
project assistant assistant	tag:textal-ign.net,2015:role:project-assistant	
advisor	tag:textal-ign.net,2015:role:advisor	
technical advisor	tag:textal-ign.net,2015:role:advisor:technical	
stylesheet	http://www.w3.org/1999/xhtml/vocab#stylesheet  tag:textal-ign.net,2015:role:stylesheet	
proofreader corrector	tag:textal-ign.net,2015:role:proofreader	
encoder	tag:textal-ign.net,2015:role:encoder	The job of encoding a text, e.g., marking text with tags.
keyboarder typist transcriber	tag:textal-ign.net,2015:role:keyboarder	
digitizer ocr operator	tag:textal-ign.net,2015:role:digitizer	
tan converter converter	tag:textal-ign.net,2015:role:tan-converter	Responsible for converting a file into the TAN format.

names	IRIs	Comments
source	tag:textalign.net,2015:role:reference	Person, organization, or algorithm provided data that was adopted, consulted, or used.

## TAN keywords for types of token definitions (<token-definition>)

Definitive list of key terms used to name standard token definitions.

Master location: <http://textalign.net/release/TAN-2021/vocabularies/token-definition-s.TAN-voc.xml>

Table II.14. TAN keywords for types of token definitions

names	pattern	Comments
letters letters only general word characters only general ignore punctuation gwo	<code>[\w]+</code>	General tokenization pattern for any language, words only. Non-letters such as punctuation are ignored.
letters and hyphens	<code>[\w-]+</code>	General tokenization pattern for any language, only word characters (as defined in Unicode) and the hyphen. All other characters are ignored.
letters and apostrophes	<code>[\w']+</code>	General tokenization pattern for any language, only word characters (as defined in Unicode) and the apostrophe variants ' and '. All other characters are ignored. Note, this pattern will produce misleading results for texts that use single quotation marks.
letters hyphens and apostrophes letters apostrophes and hyphens letters, hyphens and apostrophes letters, apostrophes and hyphens	<code>[\w'-]+</code>	General tokenization pattern for any language, only word characters (as defined in Unicode), the hyphen, and the apostrophe variants ' and '. All other characters are ignored. Note, this pattern will produce misleading results for texts that use single quotation marks.

names	pattern	Comments
letters, hyphens, and apostrophes		
letters, apostrophes, and hyphens		
letters and punctuation general non space characters general include punctuation	<code>[\w]+[^\w\s]</code>	General tokenization pattern for any language, treating not only series of letters as word tokens but also individual non-letter characters (e.g., punctuation).
nonspace	<code>\S+</code>	General tokenization pattern for any language, treating any contiguous run of nonspace marks as a word.

## TAN keywords for verbs (<verb>)

Vocabulary below supports commonly used verbs in TAN-A claims involving intertextuality.

Master location: <http://textalign.net/release/TAN-2021/vocabularies/verbs.TAN-voc.xml>

Table II.15. TAN keywords for verbs

names	IRIs	Comments
is author of writes wrote	<code>http://rdaregistry.info/Elements/u/P60663</code>  <code>tag:textalign.net,2015:verb:writes</code>	subject: <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: person</li> </ul> object: <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: work version</li> </ul>
lacks text lacks text at	<code>tag:textalign.net,2015:verb:lacks-text</code>	At the <at-ref>, the textual entity referred to by the subject lacks any text. The claim takes no object.  subject: <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: scriptum</li> </ul> object: <ul style="list-style-type: none"> <li>• status: disallowed</li> </ul> at-ref:

names	IRIs	Comments
		<ul style="list-style-type: none"> <li>• status: required</li> </ul>
reads	tag:textual-ign.net,2015:verb:reads	<p>At the &lt;at-ref&gt;, the textual entity referred to by the subject has the words contained in the object.</p> <p>subject:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: scriptum work version</li> </ul> <p>object:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• content-datatype: string</li> </ul> <p>at-ref:</p> <ul style="list-style-type: none"> <li>• status: required</li> </ul>
matches agrees with	tag:textual-ign.net,2015:verb:agrees-with	<p>The textual entity (the subject) agrees with the reading found at a particular textual passage (the object).</p> <p>subject:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: scriptum work version</li> </ul> <p>object:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref</li> </ul>
parallels	tag:textual-ign.net,2015:verb:parallels	<p>The subject (a textual artefact or passage) is topically or textually parallel to the object (a textual artefact or passage). Any textual relationship that exists may go from roughly similar up through verbatim. Nothing is implied about whether the subject quotes from object, the object from the subject, or neither. Nothing is implied about the chronological priority of the object or subject. The relation-</p>

names	IRIs	Comments
		<p>ship is symmetrical: if A parallels B then B parallels A.</p> <p>subject:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source</li> </ul> <p>object:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source</li> </ul>
quotes	tag:textal-ign.net,2015:verb:quotes	<p>The subject (a textual artefact or passage) reproduces text from the object (a bearer or creator of texts) in verbatim, or near-verbatim fashion. Relationship may be direct or indirect. The subject by implication postdates the object.</p> <p>subject:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source</li> </ul> <p>object:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source person organization algorithm</li> </ul>
paraphrases	tag:textal-ign.net,2015:verb:paraphrases	<p>The subject (a textual artefact or passage) reproduces text from the object (a bearer or creator of texts) without verbatim or near-verbatim accuracy. Relationship may be direct or indirect. The subject by implication postdates the object. Paraphrasing differs from rephrasing in that word changes in the former retain a similar meaning, whereas the latter changes it. For example, "apple" if changed to "fruit" would be a para-</p>

names	IRIs	Comments
		<p>phrase, but if changed to "banana" would be a rephrasing.</p> <p>subject:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source</li> </ul> <p>object:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source person organization algorithm</li> </ul>
rephrases	tag:textal-ign.net,2015:verb:rephrases	<p>The subject (a textual artefact or passage) reproduces text from the object (a bearer or creator of texts) but revises it in such a way as to alter the meaning. Reproduction may be verbatim, near-verbatim, or loose. Relationship may be direct or indirect. The subject by implication postdates the object. Rephrasing differs from paraphrasing in that word changes in the former introduces changes in meaning, whereas the latter does not. For example, "apple" if changed to "banana" would be a rephrasing, but if changed to "fruit" would be a paraphrase.</p> <p>subject:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source</li> </ul> <p>object:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source person organization algorithm</li> </ul>
refers to	tag:textal-ign.net,2015:verb:refers-to	<p>The subject (a textual artefact) refers to the object (a textual artefact or text maker). The ref-</p>

names	IRIs	Comments
		<p>reference is direct (explicit), via a verbatim quotation, number, name of the author, or some other text that explicitly points to the object. The subject postdates the object. See also refers or alludes to.</p> <p>subject:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source</li> </ul> <p>object:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source person organization algorithm</li> </ul>
alludes to	tag:textal-ign.net,2015:verb:alludes-to	<p>The subject (a textual artefact) refers to the object (a textual artefact or text maker). The reference is indirect (implicit), via a verbatim quotation, paraphrase, synonym, or some other text that only indirectly suggests the object. The subject postdates the object. See also refers or alludes to.</p> <p>subject:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source</li> </ul> <p>object:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source person organization algorithm</li> </ul>
alludes or refers to refers or alludes to	tag:textal-ign.net,2015:verb:alludes-or-refers-to	<p>The subject (a textual artefact) refers to the object (a textual artefact or text maker) directly or indirectly. The subject postdates the object. See also refers to, alludes to.</p>

names	IRIs	Comments
		<p>subject:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source</li> </ul> <p>object:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source person organization algorithm</li> </ul>
<p>comments on is commentary in (work)</p>	<p><a href="http://rdaregistry.info/Elements/w/P10116">http://rdaregistry.info/Elements/w/P10116</a></p> <p>tag: textual-ign.net, 2015:verb:comments-on</p>	<p>The subject (a textual artefact) contains or is a set of explanatory or critical notes on the object (also a textual artefact). See <a href="http://rda...[18]...ments/w.xml">http://rda...[18]...ments/w.xml</a> [<a href="http://rdaregistry.info/Elements/w.xml">http://rdaregistry.info/Elements/w.xml</a>]</p> <p>subject:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source</li> </ul> <p>object:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source</li> </ul>
<p>is about discusses</p>	<p><a href="http://schema.org/about">http://schema.org/about</a></p> <p>tag: textual-ign.net, 2015:verb:about</p>	<p>The subject (a textual passage or entity) is about or discusses the object (anything, but oftentimes a topic).</p> <p>subject:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source person organization algorithm</li> </ul> <p>object:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: *</li> </ul>



names	IRIs	Comments
<p>translates</p> <p>is a translation of</p>	<p>tag:textal-ign.net,2015:verb:translates</p> <p>http://purl.org/vocab/frbr/core#translationOf</p>	<p>The subject, in one language or dialect, translates the object, in another language or dialect.</p> <p>subject:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source person organization algorithm</li> </ul> <p>object:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source</li> </ul> <p>in-lang:</p> <ul style="list-style-type: none"> <li>• status: allowed</li> </ul>
<p>transcribes</p> <p>is a transcription of</p>	<p>tag:textal-ign.net,2015:verb:transcribes</p>	<p>The subject transcribes or is a transcription of the object. Both share the same language and script, and the subject was created so as to faithfully render the object. A transcription differs from an edition in that the former focuses on one exemplar and tries to recreate it whereas the latter may have many exemplars, and might take liberties.</p> <p>This category does not include transliterations, where a text replicates another, but using a different script or alphabet.</p> <p>subject:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source person organization algorithm</li> </ul> <p>object:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source</li> </ul>

names	IRIs	Comments
<p>edits</p> <p>is an edition of</p>	<p>tag:textal-ign.net,2015:verb:edits</p>	<p>The subject is an edition of the object. Both share the same language, and the subjects was created so as to render the object in a different form. An edition differs from a transcription in that the latter focuses on one exemplar and tries to recreate it whereas the former may have many exemplars, and might take liberties.</p> <p>subject:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source person organization algorithm</li> </ul> <p>object:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: ref scriptum work version source</li> </ul>
<p>claims</p>	<p>tag:textal-ign.net,2015:verb:claims</p>	<p>The subject, considering a certain claim to be true, asserts it.</p> <p>object:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: claim</li> </ul>
<p>shows</p> <p>supplies evidence that</p>	<p>tag:textal-ign.net,2015:verb:shows</p>	<p>The subject provides reason for believing a certain claim, normally made by someone else.</p> <p>object:</p> <ul style="list-style-type: none"> <li>• status: required</li> <li>• item-type: claim</li> </ul>

## TAN vocabulary items for extra vocabularies (<vocabulary>)

Master location: <http://textalign.net/release/TAN-2021/vocabularies/vocabularies.TAN-voc.xml>

Table II.I6. TAN vocabulary items for extra vocabularies

names	IRIs	Comments
bible eng eng bible commonly used vocabulary in english for the bible	tag:textal-ign.net,2015:tan-voc:n:eng:bible	
biblia spa spa biblia vocabulario de uso común para la biblia	tag:textal-ign.net,2015:tan-voc:n:spa:bible	
quran eng eng quran quran ara ara quran ara eng quran eng ara quran quran ara eng quran eng ara	tag:textal-ign.net,2015:tan-voc:n:ara:quran	Commonly used names for Surahs in the Quran, incorporating English and Arabic.
unlabeled eng unlabeled divs r eng commonly used vocabulary in english for divs that are unnamed, first system	tag:textal-ign.net,2015:tan-voc:n:eng:unlabeled-divs-1	

---

# Chapter 12. TAN patterns, elements, and attributes defined

Each entry below begins with a description of the attribute, element, or pattern, followed by a formal definition and the name of the master file(s) that should be consulted. Dependencies are listed, along with relevant rules that would trigger errors, and examples (if any).

The contents of this chapter have been generated automatically from the RELAX-NG schemas (XML syntax), the error database, and local examples.

The 97 elements and 74 attributes defined in TAN, excluding TEI, are the following:

*TAN-core*@accessed-when <adjustments> <algorithm> <alias> <at-ref> <body> @cert @cert2 <change> <checksum> <comment> <companion-version> <constraints> @content-datatype @content-lexical-constraint <desc> @div-type <div-type> @ed-when @ed-who @exceptions <file-resp> @flag @flags <for-lang> @from @group <group> <group-type> <head> @href @id @idrefs <in-lang> @include <inclusion> <IRI> @item-type <license> @licensor <location> <master-location> @n <name> <numerals> <object> <organization> @pattern @period <period> <person> <place> <predecessor> @priority @relationship <relationship> <resp> <role> @roles <scriptum> <see-also> <source> @status <subject> <successor> <tail> <TAN-T> @TAN-version @to <to-do> <token-definition> @type <value> <verb> <vocabulary> <vocabulary-key> @when <where> @which @who <work> @xml:id @xml:lang

*TAN-class-1*<annotation> <model> <n-alias> <normalization> <redivision> @ref-alias <reference-system> <replace> @replacement @scriptum @type <version> @wf-ready <work>

*TAN-T*<div> <TAN-T>

*TAN-class-2*@by @chars @claim-period @claim-when @claimant <equate> <from-tok> <group> @new <passage> @pos @priority <reassign> @ref <rename> @rgx @shallow <skip> @src <through-tok> <to> <tok> @val

*TAN-A*@adverb <at-ref> <claim> <div> @in-lang <in-lang> <modal> @object <object> <place> @scriptum @subject <subject> <TAN-A> <tok> <topic> <unit> @units @verb <version> @where @work

*TAN-A-tok*<align> @bitext-relation <bitext-relation> @reuse-type <reuse-type> <TAN-A-tok>

*TAN-A-lm*<ana> @def-ref <l> @lexicon <lexicon> <lm> <m> @morphology <morphology> <TAN-A-lm> <tok> <tok-is> @tok-pop <tok-starts-with>

*TAN-class-3*

*TAN-voc*@affects-attribute @affects-element <item> <TAN-voc>

*TAN-mor*<assert> <category> <code> @feature <feature> @m-has-codes @m-has-how-many-codes @m-matches <report> <rule> <TAN-mor> @tok-matches <val>

*catalog.tan*<collection> <doc> @href @id @metadata-resolved @root @stable

# TAN attributes

## @accessed-when

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

The attribute `accessed-when` specifies when an electronic file was last examined

Used by: `~element-location`, `~entity-digital-core-content`

### ! Important

If `@accessed-when` predates one or more dates in a target file, a warning will be returned.

### ⚠ Caution

Future dates are not permitted.

### Example 12.1. @accessed-when

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:semantic-refs" TA
  <head>
    .....
    <model>
      .....
      <name>Categories, Aristotle, Greek text by Minio-Paluello</name>
      <location href="ar.cat.grc.1949.minio-paluello.ref-logical.xml" accessed-
    </model>
    <see-also relationship="alt">
      .....
      <name>Categories, Aristotle, Greek text by Minio-Paluello</name>
      <location href="ar.cat.grc.1949.minio-paluello.ref-scriptum.xml" accessed
    </see-also>
    <redivision>
      .....
      <name>Categories, Aristotle, English translation by E. M. Edghill</name>
      <location href="ar.cat.eng.1926.edghill.ref-scriptum.xml" accessed-when="
    </redivision>
    .....
    <vocabulary-key>
      <algorithm xml:id="xslt2">
        .....
        <name>Stylesheet to create a TAN file.</name>
        <location href="../../applications/convert/convert%20TAN%202018%20to%20TA
      </algorithm>
      .....
    </vocabulary-key>
    .....
  </head>
  .....
</TAN-T>
```

 Note

Taken from `ar.cat.eng.1926.edghill.ref-logical [../../examples/ar.cat.eng.1926.edghill.ref-logical.xml]`

## @adverb

*TAN-A.rng [../../schemas/TAN-A.rng]*

The attribute `adverb` names a `<modal>` that qualifies the claim.

Multiple values of `@adverb` are interpreted to mean "and" with intersection. No distribution takes place. `@adverb="X Y"` specifies that the claim is expressed in both X and Y modes. For example, `adverb="not probably"` means that the claim is probably not true.

The sequence of multiple values of `@adverb` is immaterial. This attribute is not inheritable.

Takes IDrefs to vocabulary items `<modal>`, `<modal>`

Used by: `~element-claim`

 Caution

Every idref in an attribute must point to a vocabulary item (by `@xml:id` or `name`) that is of the appropriate corresponding element.

 Caution

All idrefs in an attribute must be unique.

 Caution

Multiple idrefs in a single attribute should not point to the same entity.

### Example 12.2. @adverb

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:ar.cat.tan-a:claims">
.....
<body claimant="park" claim-period="per2010s">
  <comment when="2017-03-10-05:00" who="park">The next two claims interpret Mi
    apparatus criticus entry for 1a2, which claims that Andronicus and Boe
    omitted ### ##### (based on what Porphyry and Dexippus say) and asser
    reading adopted is found in the seven commentators. The interpretation
    close to M-P's original, and does not fill in important gaps. For exam
    remark comes from his commentary, 1.18 (p. 21.20) and is reliant wholl
    Porphyry preserved in Simplicius's commentary, p. 30.1-2. Furthermore,
    of these texts shows that Porphyry claimed not that Andronicus and Boe
    text, or relied on sources that had omitted it, but that they observed
    manuscripts that had done so.</comment>
  <claim subject="andronicus boethus" adverb="perhaps" verb="om" xml:id="c11a2
    <at-ref src="grc" ref="1 a 2">
    .....
  </at-ref>
```

```
</claim>
<claim subject="# #" verb="shows" object="c11a2a"/>
.....
<claim subject="B" verb="reads">
.....
</claim>
<claim subject="#" adverb="perhaps" verb="reads">
  <at-ref src="grc" ref="1 a 5">
.....
  </at-ref>
  <object>### #####</object>
</claim>
<claim subject="# # # #" verb="matches">
.....
</claim>
.....
</body>
</TAN-A>
```

### Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## @affects-attribute

*TAN-voc.rng* [../schemas/TAN-voc.rng]

The attribute `affects-attribute` names one or more TAN attributes that an item applies to.

This attribute is weakly inheritable. An element will be affected only by the values of the closest `@affects-attribute..`

Currently this attribute may be applied only to `@n..`

Used by: `~body-attributes-non-core`, `~group-attributes-non-core`, `~element-item`

### Example 12.3. @affects-attribute

```
<TAN-voc TAN-version="2021" id="tag:textalign.net,2015:tan-voc:n:eng:bible">
  <head>
.....
  </head>
  <body affects-attribute="n" affects-element="work">
    <item>
.....
    </item>
    <item>
.....
    </item>
    <item>
.....
    </item>
.....
  </body>
.....
</TAN-voc>
```

```
</body>  
</TAN-voc>
```

### Note

Taken from n.bible.eng.tan-voc [../vocabularies/extra/n.bible.eng.tan-voc.xml]

#### Example 12.4. **@affects-attribute**

```
<TAN-voc TAN-version="2021" id="tag:textalign.net,2015:tan-voc:n:spa:bible">  
  <head>  
    .....  
  </head>  
  <body affects-attribute="n" affects-element="work">  
    <item>  
      .....  
    </item>  
    <item>  
      .....  
    </item>  
    <item>  
      .....  
    </item>  
    .....  
  </body>  
</TAN-voc>
```

### Note

Taken from n.bible.spa.tan-voc [../vocabularies/extra/n.bible.spa.tan-voc.xml]

#### Example 12.5. **@affects-attribute**

```
<TAN-voc TAN-version="2021" id="tag:textalign.net,2015:tan-voc:n:eng-ara:quran">  
  <head>  
    .....  
  </head>  
  <body affects-attribute="n" affects-element="work">  
    <item>  
      .....  
    </item>  
    <item>  
      .....  
    </item>  
    <item>  
      .....  
    </item>  
    .....  
  </body>  
</TAN-voc>
```

### Note

Taken from n.quran.eng-ara.tan-voc [../vocabularies/extra/n.quran.eng-ara.tan-voc.xml]



### Example 12.6. @affects-attribute

```
<TAN-voc TAN-version="2021" id="tag:textalign.net,2015:tan-voc:n:eng:unlabeled-div">
  <head>
    .....
  </head>
  <body affects-attribute="n">
    <item>
      .....
    </item>
    <item>
      .....
    </item>
    <item>
      .....
    </item>
  </body>
</TAN-voc>
```

#### Note

Taken from n.unlabeled-divs-1.eng.tan-voc [../vocabularies/extra/n.unlabeled-divs-1.eng.tan-voc.xml]

## @affects-element

*TAN-voc.rng [ ../schemas/TAN-voc.rng ]*

The attribute `affects-element` names one or more TAN elements that an item applies to.

This attribute is weakly inheritable. An element is be affected only by the values of the closest `@affects-element`.

Used by: `~body-attributes-non-core`, `~group-attributes-non-core`, `~element-item`

#### Caution

`@affects-element` may take names only of those TAN elements that accept `@which`

#### Caution

`@affects-element` may take the value "vocabulary" only in official TAN-voc files.

### Example 12.7. @affects-element

```
<TAN-voc TAN-version="2021" id="tag:parkj@textalign.net,2015:TAN-key:ar.cat">
  <head>
    .....
  </head>
  <body affects-element="work">
    <item>
```

```

    .....
    </item>
    <item>
    .....
    </item>
    <item>
    .....
    </item>
    .....
</body>
</TAN-voc>

```

### Note

Taken from ar.cat.TAN-voc [../../examples/TAN-voc/ar.cat.TAN-voc.xml]

### Example 12.8. @affects-element

```

<TAN-voc TAN-version="2021" id="tag:parkj@textalign.net,2015:TAN-voc:standard">
    .....
    <body>
      <group affects-element="person">
        <item>
          .....
        </item>
      </group>
      <item affects-element="work">
        <IRI>http://dbpedia.org/resource/Ring_a_Ring_o%27_Roses</IRI>
        <name>Ring a Ring o' Roses</name>
        <name>Ring Around the Rosie</name>
      </item>
      <item affects-element="organization">
        <IRI>tag:parkj@textalign.net,2015:example-project</IRI>
        <name>Project team for TAN examples</name>
      </item>
      <group affects-element="scriptum source">
        .....
      </group>
    </body>
</TAN-voc>

```

### Note

Taken from park-projects.TAN-voc [../../examples/TAN-voc/park-projects.TAN-voc.xml]

## @bitext-relation

*TAN-A-tok.rng* [../../schemas/TAN-A-tok.rng]

The attribute `bitext-relation` points via `idrefs` to one or more `bitext-relations`. Multiple values are combinatory.

This attribute is weakly inheritable. See the section called “Attribute inheritability and priority”

See the section called “TAN keywords for types of bitext relations (<bitext-relation>)” for standard TAN values.

Takes IDrefs to vocabulary items <bitext-relation>

Used by: ~body-attributes-non-core, ~element-align

### ⚠ Caution

Every idref in an attribute must point to a vocabulary item (by @xml:id or name) that is of the appropriate corresponding element.

### ⚠ Caution

All idrefs in an attribute must be unique.

### ⚠ Caution

Multiple idrefs in a single attribute should not point to the same entity.

### Example 12.9. @bitext-relation

```
<TAN-A-tok TAN-version="2021" id="tag:parkj@textalign.net,2015:TAN-A-tok,ring01+ri
  <head>
    .....
  </head>
  <body bitext-relation="B-descends-from-A" reuse-type="adaptation">
    <align>
      .....
    </align>
    <align>
      .....
    </align>
    <align>
      .....
    </align>
    <align>
      .....
    </align>
  </body>
</TAN-A-tok>
```

### 📖 Note

Taken from ringoroses.o1+o2.token.I [../examples/TAN-A-tok/ringoroses.o1+o2.to-ken.I.xml]

### Example 12.10. @bitext-relation

```
<TAN-A-tok TAN-version="2021" id="tag:parkj@textalign.net,2015:TAN-A-tok,ring01+ri
  <head>
    .....
  </head>
  <body reuse-type="correlationGeneral" bitext-relation="unclear" claimant="xslt2
    <align>
```

```

    .....
    </align>
    <align>
    .....
    </align>
    <align>
    .....
    </align>
    .....
</body>
</TAN-A-tok>

```

### Note

Taken from ringoroses.o1+o3.token.1 [../../examples/TAN-A-tok/ringoroses.o1+o3.token.1.xml]

### Example 12.11. **@bitext-relation**

```

<TAN-A-tok TAN-version="2021" id="tag:parkj@textalign.net,2015:TAN-A-tok,ring01+ri
  <head>
    .....
  </head>
  <body reuse-type="correlationGeneral" bitext-relation="unclear" claimant="xslt2
    <align>
      .....
    </align>
    <align>
      .....
    </align>
    <align>
      .....
    </align>
    <align>
      .....
    </align>
    .....
  </body>
</TAN-A-tok>

```

### Note

Taken from ringoroses.o1+o3.token.2 [../../examples/TAN-A-tok/ringoroses.o1+o3.token.2.xml]

## @by

*TAN-class-2.rng* [../../schemas/incl/TAN-class-2.rng]

The attribute `by` specifies an amount by which a series of `@n` values or the last component in a series of `@ref` values should be incremented or decremented.

Used by: `~complex-rename`

### Caution

`@by` may be applied only to those `@n` and `@ref` values that are calculable as integers.

### Example 12.12. @by

```
<adjustments src="ger">
  <skip div-type="Gedicht"/>
  <rename n="e" by="-1"/>
</adjustments>
```

### Note

Taken from ringoroses.div.1 [../../examples/TAN-A/ringoroses.div.1.xml]

## @cert

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

The attribute `cert` indicates how certain the claimant is of the claims, expressed as a real number from 0 (no certainty) to 1 (complete certainty).

This attribute is taken into account before all other attributes except `@claimant` . . . That is, `@cert` is to be interpreted to mean: “`@claimant` has `@cert` confidence about the following assertion:...”

`@cert` is cumulatively inheritable. Any `@cert` value should be multiplied against all ancestors’ values of `@cert` . . . For example, in a TAN-A-tok file, if an `<align>` has a certainty of 0.6 and a child `<tok>` has a certainty of 0.3, then that `<tok>`’s calculated certainty is 0.18. See the section called “Attribute inheritability and priority”

Any claim inherits as its value of `@cert` the product of every component `@cert` . . . For example, if an `<l>` and an `<m>` in a TAN-A-lm file each have a certainty of 0.5, then the lexico-morphological claim that involves them both has a certainty of 0.25.

Used by: ~certainty-claim

### Example 12.13. @cert

```
<TAN-A-lm TAN-version="2021" id="tag:kalvesmaki.com,2015:tan-a-lm:grc:perseus#">
  .....
  <body lexicon="LSJ" morphology="perseus-dik" claimant="xslt2">
    <ana>
      <tok val="#" cert="0.2"/>
      <tok val="#" cert="0.083333333333333333"/>
      <tok val="#" />
      .....
    </ana>
    <ana>
      <tok val="#" cert="0.083333333333333333"/>
      <tok val="#" />
      <tok val="#" cert="0.142857142857142857"/>
      <tok val="#" cert="0.166666666666666667"/>
      .....
    </ana>
    .....
    <ana>
      <tok val="#" cert="0.083333333333333333"/>
```

```
    <tok val="#" />
    .....
  </ana>
  <ana>
    <tok val="#" cert="0.083333333333333333" />
    <tok val="#" cert="0.142857142857142857" />
    <lm>
      .....
    </lm>
  </ana>
  .....
  <ana>
    <tok val="#" />
    <tok val="#" cert="0.083333333333333333" />
    <tok val="#" />
    .....
  </ana>
</body>
</TAN-A-lm>
```

### Note

Taken from `grc-tan-a-lm-%CE%B1 [../../examples/TAN-A-lm/grc-tan-a-lm-%CE%B1.xml]`

## @cert2

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

The attribute `cert2` provides a second measure of certainty. The value is taken along with `@cert` as being the low or high limit to the range of certainty. See documentation on `@cert ..`

Used by: `~certainty-claim`

### Example 12.14. @cert2

```
<align>
  <tok src="eng" ref="1" pos="5" cert="0.3" cert2="0.2" />
  <tok src="ger" ref="1" pos="3" cert="0.3" />
</align>
```

### Note

Taken from `ringoroses.o1+o3.token.1 [../../examples/TAN-A-tok/ringoroses.o1+o3.token.1.xml]`

## @chars

*TAN-class-2.rng [../../schemas/incl/TAN-class-2.rng]*


The attribute `chars` identifies one or more characters, specified through Arabic numerals, or the keywords 'last' or 'last-X' (where X is a valid number), joined with commas or hyphens.

Examples: '1', 'last', 'last-3 - last-1', '1, 3, 5, 7 - 11, last-8, last'

Used by: `~element-tok-abstract`, `~element-tok-for-claim-no-ref`, `~element-tok-for-claim-with-ref`, `~element-tok-standard`

 **Caution**

Sequences may not include values less than 1.

 **Caution**

Sequences may not include values greater than the maximum allowed.

 **Caution**

Ranges in sequences must go from a lesser value to a greater.

 **Caution**

Every character must be locatable in every token in every ref in every source.

Example 12.15. **@chars**

```
<subject src="eng-uk">
  <tok ref="2" pos="2-3" chars="3-4"/>
  <from-tok ref="1" pos="3"/>
  .....
</subject>
```

 **Note**

Taken from `ringoroses.div.1[../../examples/TAN-A/ringoroses.div.1.xml]`

## **@claim-period**

*TAN-class-2.rng [../../schemas/incl/TAN-class-2.rng]*

The attribute `claim-period` names a vocabulary item that identifies a time when a claim was made.

Takes IDrefs to vocabulary items `<period>`

Used by: `~claimant-attributes`

Example 12.16. **@claim-period**

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:ar.cat.tan-a:claims">
  <head>
    .....
  </head>
  <body claimant="park" claim-period="per2010s">
    <comment when="2017-03-10-05:00" who="park">The next two claims interpret Mi
      apparatus criticus entry for 1a2, which claims that Andronicus and Boe
```

```

omitted ### ##### (based on what Porphyry and Dexippus say) and asser
reading adopted is found in the seven commentators. The interpretation
close to M-P's original, and does not fill in important gaps. For exam
remark comes from his commentary, 1.18 (p. 21.20) and is reliant wholl
Porphyry preserved in Simplicius's commentary, p. 30.1-2. Furthermore,
of these texts shows that Porphyry claimed not that Andronicus and Boe
text, or relied on sources that had omitted it, but that they observed
manuscripts that had done so.</comment>
<claim subject="andronicus boethus" adverb="perhaps" verb="om" xml:id="c11a2
.....
</claim>
<claim subject="# #" verb="shows" object="c11a2a"/>
.....
</body>
</TAN-A>

```

### Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## @claim-when

*TAN-class-2.rng* [../schemas/incl/TAN-class-2.rng]

The attribute `claim-when` identifies a time when a claim was made.

Used by: `~claimant-attributes`

### Example 12.17. @claim-when

```

<body claimant="park" claim-period="per2010s">
  <comment when="2017-03-10-05:00" who="park">The next two claims interpret Mi
  apparatus criticus entry for 1a2, which claims that Andronicus and Boe
  omitted ### ##### (based on what Porphyry and Dexippus say) and asser
  reading adopted is found in the seven commentators. The interpretation
  close to M-P's original, and does not fill in important gaps. For exam
  remark comes from his commentary, 1.18 (p. 21.20) and is reliant wholl
  Porphyry preserved in Simplicius's commentary, p. 30.1-2. Furthermore,
  of these texts shows that Porphyry claimed not that Andronicus and Boe
  text, or relied on sources that had omitted it, but that they observed
  manuscripts that had done so.</comment>
  <claim subject="andronicus boethus" adverb="perhaps" verb="om" xml:id="c11a2
    <at-ref src="grc" ref="1 a 2">
      .....
    </at-ref>
  </claim>
  <claim subject="# #" verb="shows" object="c11a2a"/>
  .....
</body>

```

### Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]



## @claimant

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

The attribute `claimant` points to a `<person>`, `<organization>`, or `<algorithm>` who makes a claim. `@claimant` within `<body>` indicates the default persons to be credited or blamed for an assertion. If `<body>`'s `@claimant` is absent, the default claimant would be the key agents of the file.

This attribute is taken into account before all other attributes. That is, `@claimant` is to be interpreted to mean: "`@claimant` states the following:..." Multiple values of `@claimant` are interpreted to mean "and", resulting in distribution of the claim (e.g., `claimant="x y"` becomes "x claims that..." and "y claims that...").

In a TAN-A file, nested `@claimants` mean that claimant X claims that claimant Y claims that... and so forth.

In other class-2 files, a nested `@claimant` cancels out any inherited `@claimants`.

This attribute is weakly inheritable. See the section called "Attribute inheritability and priority"

Takes IDrefs to vocabulary items `<person>`, `<organization>`, `<algorithm>`

Used by: `~claimant-attributes`

### Example 12.18. @claimant

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:ar.cat.tan-a:claims">
  <head>
    .....
  </head>
  <body claimant="park" claim-period="per2010s">
    <comment when="2017-03-10-05:00" who="park">The next two claims interpret Mi
      apparatus criticus entry for la2, which claims that Andronicus and Boe
      omitted ### ##### (based on what Porphyry and Dexippus say) and asser
      reading adopted is found in the seven commentators. The interpretation
      close to M-P's original, and does not fill in important gaps. For exam
      remark comes from his commentary, 1.18 (p. 21.20) and is reliant wholl
      Porphyry preserved in Simplicius's commentary, p. 30.1-2. Furthermore,
      of these texts shows that Porphyry claimed not that Andronicus and Boe
      text, or relied on sources that had omitted it, but that they observed
      manuscripts that had done so.</comment>
    <claim subject="andronicus boethus" adverb="perhaps" verb="om" xml:id="c11a2
      <at-ref src="grc" ref="1 a 2">
        .....
      </at-ref>
    </claim>
    <claim subject="# #" verb="shows" object="c11a2a"/>
    .....
  </body>
</TAN-A>
```

### Note

Taken from `ar.cat.TAN-A.claims` [*../../examples/TAN-A/ar.cat.TAN-A.claims.xml*]

### Example 12.19. @claimant

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:ar.cat.tan-a">
  <head>
    .....
  </head>
  <body claimant="park">
    <claim verb="concerns" object="predication">
      .....
    </claim>
  </body>
</TAN-A>
```

#### Note

Taken from ar.cat.TAN-A [../examples/TAN-A/ar.cat.TAN-A.xml]

### Example 12.20. @claimant

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:patricius.confessio.tan">
  <head>
    .....
  </head>
  <body claimant="park">
    <claim verb="quotes">
      .....
    </claim>
  </body>
</TAN-A>
```

#### Note

Taken from patricius.confessio.TAN-A [../examples/TAN-A/patricius.confessio.TAN-A.xml]

## @content-datatype

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The attribute `content-datatype` specifies a type of data. This attribute is used in TAN-A claims, and restricts the kind of object a particular verb governs to raw units, not entities definable by the IRI + name pattern. Use this attribute if and only if the verb may not govern objects defined as a vocabulary item.

Used by: `~constraint-content`

#### Caution

Claims involving verbs whose constrained content requires specification of units must use `<object>` or `<subject>` with `@units..`

#### Caution

`<object>` or `<subject>` with `@units` may be used only with verbs with constrained content.

 **Caution**

A claim with a verb that has content constraints must not allow other verbs.

 **Caution**

<subject>' and <object>' content must be castable to any datatype constraints defined by the verb.

Example 12.21. **@content-datatype**

```
<constraints>
  <subject status="required" item-type="scriptum"/>
  <object status="required" content-datatype="integer" content-lexical-constraint="<math>[0-9]</math>"/>
</constraints>
```

 **Note**

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

Example 12.22. **@content-datatype**

```
<constraints>
  <subject status="required" item-type="scriptum work version"/>
  <object status="required" content-datatype="string"/>
  <at-ref status="required"/>
</constraints>
```

 **Note**

Taken from verbs.TAN-voc [../vocabularies/verbs.TAN-voc.xml]

## **@content-lexical-constraint**

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The attribute `content-lexical-constraint` specifies a regular expression that constrains the value of any <object>.

Note that the regular expression will be strictly followed, e.g., "`\d+`" will be satisfied by "ar" (because there is at least one digit). If you wish to constrain the entire value, be sure to use `^` and `$`, e.g., "`^\d+$`".

Used by: `~constraint-content`

 **Caution**

Claims involving verbs whose constrained content requires specification of units must use <object> or <subject> with `@units..`

 **Caution**

<object> or <subject> with `@units` may be used only with verbs with constrained content.

### ⚠ Caution

A claim with a verb that has content constraints must not allow other verbs.

### ⚠ Caution

<subject>s' and <object>s' content must match any lexical constraints defined by the verb.

#### Example 12.23. **@content-lexical-constraint**

```
<constraints>
  <subject status="required" item-type="scriptum"/>
  <object status="required" content-datatype="integer" content-lexical-constraint="integer"/>
</constraints>
```

### 📖 Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## @def-ref

*TAN-A-lm.rng* [../schemas/TAN-A-lm.rng]

The attribute `def-ref` identifies which lexical definition is meant. This attribute is essential in cases where a lexicon has multiple entries for lexemes (lexical headwords) that are identical.

Because there is no TAN format for lexicons, assertions about lexica will not be validated.

Used by: `~element-1`

#### Example 12.24. **@def-ref**

```
<lm>
  <l def-ref="1">##µ#</l>
  <m>v c - - p n a - - </m>
</lm>
```

### 📖 Note

Taken from ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample [../examples/TAN-A-lm/ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample.xml]

## @div-type

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The attribute `div-type` is used by `class-2` files to point to one or more `<div-type>`s in `class-1` files or by `class-1` files to point to `div-type` vocabulary items. Permits multiple values separated by spaces.

Takes IDrefs to vocabulary items `<div-type>`

Used by: ~element-n-alias, ~action-condition-attributes, ~adj-element-skip

### ⚠ Caution

Every div type reference must be valid in every source

#### Example 12.25. @div-type

```
<head>
  .....
  <reference-system type="logical" wf-ready="true"/>
  <n-alias div-type="book"/>
  <work which="matthew"/>
  .....
</head>
```

### 📖 Note

Taken from matt.eng.kjv.1760 [../examples/matt.eng.kjv.1760.xml]

#### Example 12.26. @div-type

```
<adjustments src="fra">
  <skip div-type="summ" shallow="false"/>
  <equate n="ti title"/>
  .....
</adjustments>
```

### 📖 Note

Taken from ar.cat.TAN-A [../examples/TAN-A/ar.cat.TAN-A.xml]

#### Example 12.27. @div-type

```
<adjustments src="ger">
  <skip div-type="Gedicht"/>
  <rename n="e" by="-1"/>
</adjustments>
```

### 📖 Note

Taken from ringoroses.div.i [../examples/TAN-A/ringoroses.div.i.xml]

#### Example 12.28. @div-type

```
<adjustments src="ger">
  <skip div-type="Gedicht"/>
</adjustments>
```

### 📖 Note

Taken from ringoroses.o1+o3.token.i [../examples/TAN-A-tok/ringoroses.o1+o3.token.i.xml]

## @ed-when

*TAN-core.rng [ ../../schemas/incl/TAN-core.rng ]*

The attribute `ed-when` marks the date or time when an element or its content was edited (added or modified)

The value of must always conform to an ISO date or dateTime pattern. See the section called “Dates and times”.

Along with `@ed-who`, this forms the Edit Stamp pattern. See the section called “Edit stamp”

This attribute is weakly inheritable. See the section called “Attribute inheritability and priority”

Used by: `~ed-stamp`

### Caution

Future dates are not permitted.

### Example 12.29. @ed-when

```
<head>
  .....
  <adjustments>
    .....
  </adjustments>
  <vocabulary-key ed-who="park" ed-when="2015-10-31">
    <algorithm xml:id="xslt1">
      .....
    </algorithm>
    <div-type xml:id="1">
      .....
    </div-type>
    <person xml:id="park">
      .....
    </person>
    .....
  </vocabulary-key>
  <file-resp who="park"/>
  .....
</head>
```

### Note

Taken from `ring-o-roses.eng.1987 [ ../../examples/ring-o-roses.eng.1987.xml ]`

### Example 12.30. @ed-when

```
<vocabulary-key>
  <algorithm xml:id="xslt2">
    .....
  </algorithm>
```

```

<morphology xml:id="penn" ed-when="2015-08-20-04:00" ed-who="park">
  <IRI>tag:kalvesmaki.com,2014:tan-r-mor:eng:penn</IRI>
  <name>Penn Treebank tag set</name>
  <location href=" ../TAN-mor/eng.kalvesmaki.com%2C2014.2.xml" accessed-w
</morphology>
<lexicon xml:id="english">
  .....
</lexicon>
.....
</vocabulary-key>

```

### Note

Taken from ring-o-roses.eng.i88i.lm [../examples/TAN-A-lm/ring-o-roses.eng.i88i.lm.xml]

### Example 12.31. @ed-when

```

<head>
  .....
  <comment when="2015-03-10" who="kalvesmaki">Codes developed as a synthesis o
    ftp://ftp.cis.upenn.edu/pub/treebank/doc/tagguide.ps.gz and
    http://www.comp.leeds.ac.uk/amalgam/tagsets/upenn.html</comment>
  <vocabulary-key ed-when="2015-03-03" ed-who="kalvesmaki">
    <algorithm xml:id="xslt2">
      .....
    </algorithm>
    <person xml:id="kalvesmaki">
      .....
    </person>
    <algorithm xml:id="xslt1">
      .....
    </algorithm>
    .....
  </vocabulary-key>
  <file-resp who="kalvesmaki"/>
  .....
</head>

```

### Note

Taken from eng.kalvesmaki.com,2014.2 [../examples/TAN-mor/eng.kalvesmak-  
i.com,2014.2.xml]

### Example 12.32. @ed-when

```

<head>
  .....
  <source>
    .....
  </source>
  <vocabulary-key ed-when="2016-03-31" ed-who="kalvesmaki">
    <person xml:id="kalvesmaki">
      .....
    </person>

```

```

    <algorithm xml:id="xslt2">
      .....
    </algorithm>
    <feature xml:id="c2">
      .....
    </feature>
      .....
    </vocabulary-key>
    <file-resp who="kalvesmaki" />
      .....
  </head>

```

### Note

Taken from `grc.perseus.tan-mor [../../examples/TAN-mor/grc.perseus.tan-mor.xml]`

## @ed-who

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

The attribute `ed-who` refers to one or more `<agent>`s who have edited (added or modified) an element or its content.

Along with `@ed-when`, this forms the Edit Stamp pattern. See the section called “Edit stamp”

This attribute is weakly inheritable. See the section called “Attribute inheritability and priority”

Takes IDrefs to vocabulary items `<person>`, `<organization>`, `<algorithm>`

Used by: `~ed-stamp`

### Caution

Every idref in an attribute must point to a vocabulary item (by `@xml:id` or `name`) that is of the appropriate corresponding element.

### Caution

All idrefs in an attribute must be unique.

### Caution

Multiple idrefs in a single attribute should not point to the same entity.

### Example 12.33. @ed-who

```

<head>
  .....
  <adjustments>
    .....
  </adjustments>
  <vocabulary-key ed-who="park" ed-when="2015-10-31">

```



```

<algorithm xml:id="xslt1">
    .....
</algorithm>
<div-type xml:id="1">
    .....
</div-type>
<person xml:id="park">
    .....
</person>
    .....
</vocabulary-key>
<file-resp who="park" />
    .....
</head>

```

 Note

Taken from ring-o-roses.eng.1987 [../examples/ring-o-roses.eng.1987.xml]

Example 12.34. **@ed-who**

```

<vocabulary-key>
  <algorithm xml:id="xslt2">
    .....
  </algorithm>
  <morphology xml:id="penn" ed-when="2015-08-20-04:00" ed-who="park">
    <IRI>tag:kalvesmaki.com,2014:tan-r-mor:eng:penn</IRI>
    <name>Penn Treebank tag set</name>
    <location href=" ../TAN-mor/eng.kalvesmaki.com%2C2014.2.xml" accessed-w
  </morphology>
  <lexicon xml:id="english">
    .....
  </lexicon>
    .....
</vocabulary-key>

```

 Note

Taken from ring-o-roses.eng.i881.lm [../examples/TAN-A-lm/ring-o-roses.eng.i881.lm.xml]

Example 12.35. **@ed-who**

```

<head>
    .....
  <comment when="2015-03-10" who="kalvesmaki">Codes developed as a synthesis o
    ftp://ftp.cis.upenn.edu/pub/treebank/doc/tagguide.ps.gz and
    http://www.comp.leeds.ac.uk/amalgam/tagsets/upenn.html</comment>
  <vocabulary-key ed-when="2015-03-03" ed-who="kalvesmaki">
    <algorithm xml:id="xslt2">
      .....
    </algorithm>
    <person xml:id="kalvesmaki">
      .....
    </person>

```

```
        <algorithm xml:id="xslt1">
            .....
        </algorithm>
        .....
    </vocabulary-key>
    <file-resp who="kalvesmaki" />
    .....
</head>
```

### Note

Taken from `eng.kalvesmaki.com,2014.2` [`../../examples/TAN-mor/eng.kalvesmak-  
i.com,2014.2.xml`]

### Example 12.36. **@ed-who**

```
<head>
    .....
    <source>
        .....
    </source>
    <vocabulary-key ed-when="2016-03-31" ed-who="kalvesmaki">
        <person xml:id="kalvesmaki">
            .....
        </person>
        <algorithm xml:id="xslt2">
            .....
        </algorithm>
        <feature xml:id="c2">
            .....
        </feature>
        .....
    </vocabulary-key>
    <file-resp who="kalvesmaki" />
    .....
</head>
```

### Note

Taken from `grc.perseus.tan-mor` [`../../examples/TAN-mor/grc.perseus.tan-mor.xml`]

## **@exceptions**

*TAN-core.rng* [`../../schemas/incl/TAN-core.rng`]

The attribute `exceptions` lists strings that should not be interpreted as numerics; this is most commonly used in rare cases where a string label for `@n` or `@ref` might be interpreted as a Roman numeral or a letter numeral

Expected is a space delimited list of atomic values of `@n`. Because `@n` is not case-sensitive, every item in `@exceptions` is as well.

Used by: `<numerals>`

## @feature

*TAN-mor.rng* [*../../schemas/TAN-mor.rng*]

Takes IDrefs to vocabulary items <feature>

Used by: ~element-category, ~element-code

### ⚠ Caution

Every idref in an attribute must point to a vocabulary item (by @xml:id or name) that is of the appropriate corresponding element.

### ⚠ Caution

All idrefs in an attribute must be unique.

### ⚠ Caution

Multiple idrefs in a single attribute should not point to the same entity.

### ⚠ Caution

Codes for features must be case-indifferently unique.

### Example 12.37. @feature

```
<TAN-mor TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-r-mor:eng:penn">
.....
<body>
.....
<rule m-has-codes="' ' . ; :">
.....
</rule>
<code feature="closing_quotation_mark">
  <desc>Examples: ' ''</desc>
  <val>' '</val>
</code>
<code feature="dash">
  <desc>Example: --</desc>
  <val>--</val>
</code>
<code feature="dollar">
  <desc>Examples: Examples: $ -$ --$ A$ C$ HK$ M$ NZ$ S$ U.S.$ US$</desc>
  <val>$</val>
</code>
<code feature="opening_parenthetical_punctuation">
  <desc>Examples: ( [ {</desc>
  <val>[</val>
</code>
<code feature="closing_parenthetical_punctuation">
.....
</code>
```

```
.....  
</body>  
</TAN-mor>
```

### Note

Taken from `eng.kalvesmaki.com,2014.2` [`../../examples/TAN-mor/eng.kalvesmaki.com,2014.2.xml`]

## @flag

*TAN-core.rng* [`../../schemas/incl/TAN-core.rng`]

The attribute `flag` indicates the level of error to be attached to the enclosed message. This attribute is similar to Schematron's `@role`, but under a different name, to avoid confusion with TAN `@roles..`

This attribute is non-inheritable.

Used by: `~condition-pattern`, `~element-change`

### Example 12.38. @flag

```
<head>  
.....  
<change when="2014-10-28" who="park">Created new TAN-TEI file.</change>  
<change when="2017-10-21" who="park" flag="error">The unnecessary top-level  
<change who="xslt1" when="2017-11-02T22:05:03.898-04:00">TAN file updated to  
.....  
</head>
```

### Note

Taken from `ring-o-roses.eng.1951` [`../../examples/ring-o-roses.eng.1951.xml`]

## @flags

*TAN-core.rng* [`../../schemas/incl/TAN-core.rng`]

The attribute `flags` specifies flags to be applied in an XPath function that uses regular expressions.

`s` = dot-all mode; `m` = multi-line mode; `i` = case-insensitive mode; `x` = remove whitespace characters from regular expression; `q` = no metacharacters

For more see <http://www.w3.org/TR/xpath-functions-30/#flags>

This attribute is non-inheritable.

Used by: `~element-replace`, `~element-token-definition`

### Example 12.39. @flags

```
<adjustments>  
.....
```

```
<normalization>
    .....
</normalization>
<replace pattern="--" replacement="-" flags="i"/>
</adjustments>
```

 **Note**

Taken from `gomme.1989.ring-o-roses` [`../examples/gomme.1989.ring-o-roses.xml`]

## @from

`TAN-core.rng` [`../schemas/incl/TAN-core.rng`]

The attribute `from` specifies the beginning of a period of time.

Used by: `<period>`

 **Caution**

Future dates are not permitted.

 **Caution**

`@from` must predate `@to`

### Example 12.40. @from

```
<vocabulary-key>
    .....
    <role xml:id="creator">
        .....
    </role>
    <period xml:id="per2010s" from="2010-01-01" to="2019-12-31"/>
    <period xml:id="late-antiquity">
        .....
    </period>
    .....
</vocabulary-key>
```

 **Note**

Taken from `ar.cat.TAN-A.claims` [`../examples/TAN-A/ar.cat.TAN-A.claims.xml`]

## @group

`TAN-core.rng` [`../schemas/incl/TAN-core.rng`]

The attribute `group` identifies one or more `<group-type>`s under which the parent element, and its children, should be grouped.


This attribute is cumulatively inheritable. An `<item>` is to be associated by all values of `@group` in itself and its ancestors.

Takes IDrefs to vocabulary items <group-type>, <group-type>

Used by: ~element-ana, ~element-align, ~extra-verb-attrs, ~element-item

 **Caution**

Every idref in an attribute must point to a vocabulary item (by @xml:id or name) that is of the appropriate corresponding element.

 **Caution**

All idrefs in an attribute must be unique.

 **Caution**

Multiple idrefs in a single attribute should not point to the same entity.

**Example 12.41. @group**

```
<body affects-element="div-type">
  <group type="logical">
    <item group="line-start line-end leading-start leading-end">
      <IRI>tag:textalign.net,2015:div-type:abstract</IRI>
      <IRI>tag:textalign.net,2015:div-type:equiv:tei:abstract</IRI>
      <IRI>http://dbpedia.org/resource/Abstract_(summary)</IRI>
      .....
    </item>
    <item>
      .....
    </item>
    .....
    <item>
      .....
    </item>
    <item group="page-start page-end">
      <IRI>tag:textalign.net,2015:div-type:afterword</IRI>
      <IRI>http://dbpedia.org/resource/Afterword</IRI>
      <name>afterword</name>
    </item>
    <item>
      .....
    </item>
    .....
    <item>
      .....
    </item>
    <item group="annotation">
      <IRI>tag:textalign.net,2015:div-type:apparatus_criticus</IRI>
      <IRI>http://dbpedia.org/resource/Critical_apparatus</IRI>
      <name>apparatus criticus</name>
      .....
    </item>
    <item group="annotation">
      <IRI>tag:textalign.net,2015:div-type:apparatus_fontium</IRI>
```

```
<name>apparatus fontium</name>
<desc>Section of a critical edition, usually at the bottom of the page
parallel textual sources</desc>
</item>
<item group="line-start line-end">
.....
</item>
.....
</group>
.....
</body>
```

### Note

Taken from div-types.TAN-voc [../../vocabularies/div-types.TAN-voc.xml]

## @href

*catalog.tan.rng* [../../schemas/catalog.tan.rng]

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

The attribute href points to the location of a file. In some contexts, this attribute is permitted only as a temporary measure, to assist editing via Schematron Quick Fixes.

Used by: <doc>, ~element-location, ~element-master-location, ~entity-digital-tan-other-content

### Caution

@href must have <location> or <master-location> as a parent; any other parent will trigger a quick fix to populate the element with the IRI + name pattern of the target file.

### Important

If an @href points to a local file that is not available, a warning will be returned. “@href points to file that is either (1) not available or (2) not valid XML”

### Important

If an @href points to a file that is not local, and no internet is available, a warning will be returned. “No internet access.”

### Important

If the internet is available, and an @href points to a non-local file that is not available, a warning will be returned. “@href points to non-local file that is either (1) not available, (2) not valid XML, or (3) at a server not trusted by the validation engine.”

### Caution

The only @href in a TAN document that may point to another document with the same document id is that of <master-location> or <see-also>

⚠ Caution

No @href should point to the URI of the document itself.

⚠ Caution

An @href that points to a local drive should have "file:/" prepended.

⚠ Caution

No <master-location> may have an @href that points to a compressed archive.

⚠ Caution

Every @href in a catalog.tan.xml file must point to a document that is available.

! Important

@href values in catalog.tan.xml should be unique

Example 12.42. @href

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:semantic-refs" TA
  <head>
    <name>Categories, Aristotle, English translation by E. M. Edghill</name>
    <master-location href="https://raw.githubusercontent.com/textalign/TAN-2021/
    <license licensor="kalvesmaki">
      .....
    </license>
    .....
    <model>
      .....
      <name>Categories, Aristotle, Greek text by Minio-Paluello</name>
      <location href="ar.cat.grc.1949.minio-paluello.ref-logical.xml" accessed-
    </model>
    <see-also relationship="alt">
      .....
      <name>Categories, Aristotle, Greek text by Minio-Paluello</name>
      <location href="ar.cat.grc.1949.minio-paluello.ref-scriptum.xml" accessed
    </see-also>
    <redivision>
      .....
      <name>Categories, Aristotle, English translation by E. M. Edghill</name>
      <location href="ar.cat.eng.1926.edghill.ref-scriptum.xml" accessed-when="
    </redivision>
    .....
  </head>
  .....
</TAN-T>
```

📄 Note

Taken from ar.cat.eng.1926.edghill.ref-logical [../examples/ar.cat.eng.1926.edghill.ref-logi-  
cal.xml]



## @id

*catalog.tan.rng* [../../schemas/catalog.tan.rng]

*Definition 1*

*Definition 2*

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

*Definition 1*

The attribute `id` provides a unique identifier for an `<alias>`. Must be unique within a given file. Must consist only of non-spacing characters.

*Definition 2*

The attribute `id` contains a tag URN that permanently and uniquely names the current file.

For more on the syntax of tag URNs see the section called “Tag URNs”

Used by: `<collection>`, `<doc>`, `~voc-element-alias`, `~TAN-root`

### ⚠ Caution

Every TAN file must have at least one organization or person with an `<IRI>` that is a tag URI whose namespace matches the namespaces of `@id` in the root element.

### ⚠ Caution

`@xml:id` values may not be repeated in the same document.

### ! Important

An `@xml:id` on a vocabulary item need not duplicate a `<name>` (except in a TAN-mor file).

### ⚠ Caution

In a `catalog.tan.xml`, `@id` should match the target’s root element `@id`

### ! Important

Different TAN files should have unique `@ids`..

### ! Important

If a local `catalog.tan.xml` file lacks a reference to a TAN file being validated, a warning will appear.

### Example 12.43. @id

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:semantic-refs" TA
<head>
```

```
.....  
</head>  
<body xml:lang="eng">  
.....  
</body>  
</TAN-T>
```

### Note

Taken from `ar.cat.eng.1926.edghill.ref-logical [../examples/ar.cat.eng.1926.edghill.ref-logical.xml]`

### Example 12.44. @id

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:model-object-refs"  
<head>  
.....  
</head>  
<body xml:lang="eng">  
.....  
</body>  
</TAN-T>
```

### Note

Taken from `ar.cat.eng.1926.edghill.ref-scriptum [../examples/ar.cat.eng.1926.edghill.ref-scriptum.xml]`

### Example 12.45. @id

```
<TAN-T TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-t:ar.cat.fra.1844.saint-  
<head>  
.....  
</head>  
<body xml:lang="fra">  
.....  
</body>  
</TAN-T>
```

### Note

Taken from `ar.cat.fra.1844.saint-hilaire.ref-logical-after-1949 [../examples/ar.cat.fra.1844.saint-hilaire.ref-logical-after-1949.xml]`

### Example 12.46. @id

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.fra.1844.saint-hilaire:semantic-re  
<head>  
.....  
</head>  
<body xml:lang="fra">  
.....  
</body>  
</TAN-T>
```

 Note

Taken from ar.cat.fra.i844.saint-hilaire.ref-logical [../../examples/ar.cat.fra.i844.saint-hilaire.ref-logical.xml]

## @idrefs

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

The attribute `idrefs` contains references to one or more values of `@xml:id` or `@id` in the file

Used by: `~voc-element-alias`

 Caution

`<alias>` references must not be circular.

 Caution

Every value in `@idrefs` must correspond to an `@id` or `@xml:id` in the file.

### Example 12.47. @idrefs

```
<vocabulary-key>
    .....
    <div-type xml:id="v" which="verse (scripture)"/>
    <alias xml:id="test" idrefs="ch v"/>
</vocabulary-key>
```

 Note

Taken from matt.eng.kjv.i760 [../../examples/matt.eng.kjv.i760.xml]

### Example 12.48. @idrefs

```
<head>
    .....
    <vocabulary-key>
        <alias xml:id="all" idrefs="grc eng"/>
        <algorithm xml:id="xslt1">
            .....
        </algorithm>
        .....
        <work xml:id="#.c" which="Explanaciones de comentario graeco Ammonii"/>
        <alias xml:id="#.d" idrefs="# #.c"/>
        <work xml:id="#" which="Lemmata de comentario graeco Ioannis Philoponi"/>
        <work xml:id="#.c" which="Explanaciones de comentario graeco Ioannis Phi
        <alias xml:id="#.d" idrefs="# #.c"/>
        <work xml:id="#" which="Lemmata de comentario graeco Olympiodori"/>
        .....
    </vocabulary-key>
    .....
```

</head>

### Note

Taken from `ar.cat.TAN-A.claims [../../examples/TAN-A/ar.cat.TAN-A.claims.xml]`

## @in-lang

*TAN-A.rng [../../schemas/TAN-A.rng]*

The attribute `in-lang` restricts a claim to a particular language; used with only certain verbs, e.g., "translates"

By default, this feature is disallowed. A verb's `<constraint>` must explicitly require or allow it.

Used by: `~element-claim`, `~in-lang`

### Example 12.49. @in-lang

```
<body claimant="park">
  .....
  <claim verb="lacks_text" subject="böhme">
    .....
  </claim>
  <claim subject="ger" verb="translates" object="eng-uk" in-lang="deu"/>
</body>
```

### Note

Taken from `ringoroses.div.i [../../examples/TAN-A/ringoroses.div.i.xml]`

## @include

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

The attribute `include` signals that the parent element is to be replaced by all elements of the same name found in the referred `<inclusion>`.

A slight exception is made in the case of `<div include=""/>`, where only the rootmost `<div>`s are included (which come with all descendant `<div>`s preserved intact).

Takes IDrefs to vocabulary items `<inclusion>`


Used by: `~inclusion`

### Caution


Every idref in an attribute must point to a vocabulary item (by `@xml:id` or `name`) that is of the appropriate corresponding element.

### Caution


All idrefs in an attribute must be unique.

 **Caution**

Multiple `idrefs` in a single attribute should not point to the same entity.

 **Caution**

For any element with `@include`, at least one element of the same name must be found in target inclusion document.

 **Caution**

Inclusions are integral parts of any TAN file. Access to at least one copy is absolutely mandatory.

**Example 12.50. @include**

```
<body xml:lang="eng">
  .....
  <div n="4" type="ch">
    .....
  </div>
  <div include="serm-mount" />
  <div n="8" type="ch">
    .....
  </div>
  .....
</body>
```

 **Note**

Taken from `matt.eng.kjv.1760 [../examples/matt.eng.kjv.1760.xml]`

**Example 12.51. @include**

```
<div n="6" type="chapter">
  .....
  <div n="9" type="v">After this manner therefore pray ye:</div>
  <div include="lords-prayer" />
  <div n="14" type="v">For if ye forgive men their trespasses, your heavenl
    forgive you:</div>
  .....
</div>
```

 **Note**

Taken from `sermon-on-the-mount.eng.kjv.1760 [../examples/sermon-on-the-mount.en-  
g.kjv.1760.xml]`

**Example 12.52. @include**

```
<TAN-A-lm TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-t:ar.cat.grc.1949.min
<head>
  .....
  <vocabulary-key>
  .....
  .....
```

```

    <group-type xml:id="status" which="status" />
    <person include="rel" />
    <person xml:id="stylesheet">
        .....
    </person>
    .....
</vocabulary-key>
<file-resp include="rel" />
<resp who="xslt2" roles="stylesheet1" />
    .....
</head>
    .....
</TAN-A-lm>

```

### Note

Taken from ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample [../examples/TAN-A-lm/ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample.xml]

## @item-type

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The attribute `item-type` specifies what type of item a verb's object or subject must be. Expected values are names of elements allowed in any vocabulary.

To bind the type to a textual reference in a class-1 source, let the value of `@item-type` be 'ref'; this anticipates a claim with object/subject element with `@ref` (and either `@src` or `@work`).

Used by: `~constraint-item-type`

### Example 12.53. @item-type

```

<head>
    .....
    <vocabulary-key>
        .....
        <verb xml:id="om">
            .....
            <constraints>
                <subject status="required" item-type="person work version scriptum"
                <at-ref status="required" />
                .....
            </constraints>
        </verb>
        <verb xml:id="attests">
            .....
            <constraints>
                <subject status="required" item-type="person work version scriptum"
                <object status="required" item-type="ref" />
            </constraints>
        </verb>
        <verb xml:id="has-length">

```

```
.....  
<constraints>  
  <subject status="required" item-type="scriptum" />  
  <object status="required" content-datatype="integer" content-lexica  
</constraints>  
</verb>  
.....  
</vocabulary-key>  
.....  
</head>
```

### Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## @lexicon

*TAN-A-lm.rng* [../schemas/TAN-A-lm.rng]

The attribute `lexicon` points via `idrefs` to one or more lexicons, persons, organizations, or algorithms.

This attribute is weakly inheritable. See the section called “Attribute inheritability and priority”

Takes `IDrefs` to vocabulary items `<lexicon>`

Used by: `~group-attributes-non-core`, `~body-attributes-non-core`, `~element-ana`, `~element-l`, `~element-lm`

### Caution

Every `idref` in an attribute must point to a vocabulary item (by `@xml:id` or `name`) that is of the appropriate corresponding element.

### Caution

All `idrefs` in an attribute must be unique.

### Caution

Multiple `idrefs` in a single attribute should not point to the same entity.

### Example 12.54. @lexicon

```
<TAN-A-lm TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-t:ar.cat.grc.1949.min  
<head>  
.....  
</head>  
<body lexicon="LSJ Lampe new" morphology="Perseus" claimant="xslt2">  
  <ana tok-pop="2">  
    .....  
  </ana>  
<ana>  
  .....  
</ana>
```

```
</ana>
<ana>
    .....
</ana>
    .....
</body>
</TAN-A-lm>
```

### Note

Taken from `ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample` [`../examples/TAN-A-lm/ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample.xml`]

### Example 12.55. @lexicon

```
<TAN-A-lm TAN-version="2021" id="tag:kalvesmaki.com,2015:tan-a-lm:grc:perseus#">
  <head>
    .....
  </head>
  <body lexicon="LSJ" morphology="perseus-dik" claimant="xslt2">
    <ana>
      .....
    </ana>
    <ana>
      .....
    </ana>
    <ana>
      .....
    </ana>
    <ana>
      .....
    </ana>
  </body>
</TAN-A-lm>
```

### Note

Taken from `grc-tan-a-lm-%CE%B1` [`../examples/TAN-A-lm/grc-tan-a-lm-%CE%B1.xml`]

### Example 12.56. @lexicon

```
<TAN-A-lm TAN-version="2021" id="tag:kalvesmaki.com,2015:tan-a-lm:grc:perseus##">
  <head>
    .....
  </head>
  <body lexicon="LSJ" morphology="perseus-dik" claimant="xslt2">
    <ana>
      .....
    </ana>
  </body>
</TAN-A-lm>
```

### Note

Taken from `grc-tan-a-lm-%CE%B1%CA%B9` [`../examples/TAN-A-lm/grc-tan-a-lm-%CE%B1%CA%B9.xml`]



### Example 12.57. @lexicon

```
<TAN-A-lm TAN-version="2021" id="tag:parkj@textalign.net,2015:ring01-lm">
  <head>
    .....
  </head>
  <body lexicon="english" morphology="penn" claimant="xslt2">
    <ana>
      .....
    </ana>
    <ana>
      .....
    </ana>
    <ana>
      .....
    </ana>
    .....
  </body>
</TAN-A-lm>
```

#### Note

Taken from ring-o-roses.eng.i88l.lm [../examples/TAN-A-lm/ring-o-roses.eng.i88l.lm.xml]

## @licensor

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The attribute `licensor` specifies one or more persons or organizations who hold the rights over the material specified by the parent element (either the data of the current file, or of the source that forms the basis for the data).

For more, see the section called “Key Declarations”

Takes IDrefs to vocabulary items `<person>`, `<organization>`

Used by: `~element-license`

#### Caution

Every idref in an attribute must point to a vocabulary item (by `@xml:id` or `name`) that is of the appropriate corresponding element.

#### Caution

All idrefs in an attribute must be unique.

#### Caution

Multiple idrefs in a single attribute should not point to the same entity.

### Example 12.58. @licensor

```
<head>
```

```
.....
<master-location href="https://raw.githubusercontent.com/textalign/TAN-2021/
<license licensor="kalvesmaki">
  <IRI>http://creativecommons.org/licenses/by/4.0/deed.en_US</IRI>
  <name>Creative Commons Attribution 4.0 International License</name>
  <desc>Exclusive of rights held and licenses offered by rightsholders of t
    sources listed below, this data file, insofar as it constitutes an ind
    licensed under a Creative Commons Attribution 4.0 International Licens
</license>
<work>
  .....
</work>
.....
</head>
```

### Note

Taken from ar.cat.eng.i926.edghill.ref-logical [../examples/ar.cat.eng.i926.edghill.ref-logi-cal.xml]

### Example 12.59. @licensor

```
<head>
.....
<master-location href="https://raw.githubusercontent.com/textalign/TAN-2021/
<license licensor="kalvesmaki">
  <IRI>http://creativecommons.org/licenses/by/4.0/deed.en_US</IRI>
  <name>Creative Commons Attribution 4.0 International License</name>
  <desc>Exclusive of rights held and licenses offered by rightsholders of t
    sources listed below, this data file, insofar as it constitutes an ind
    licensed under a Creative Commons Attribution 4.0 International Licens
</license>
<work>
  .....
</work>
.....
</head>
```

### Note

Taken from ar.cat.eng.i926.edghill.ref-scriptum [../examples/ar.cat.en-g.i926.edghill.ref-scriptum.xml]

### Example 12.60. @licensor

```
<head>
.....
<master-location href="https://raw.githubusercontent.com/textalign/TAN-2021/
<license licensor="kalvesmaki">
  <IRI>http://creativecommons.org/licenses/by/4.0/deed.en_US</IRI>
  <name>Creative Commons Attribution 4.0 International License</name>
  <desc>Exclusive of rights held and licenses offered by rightsholders of t
    sources listed below, this data file, insofar as it constitutes an ind
    licensed under a Creative Commons Attribution 4.0 International Licens
```

```

</license>
<work>
    .....
</work>
    .....
</head>

```

### Note

Taken from `ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949` [`../examples/ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949.xml`]

### Example 12.61. **@licensor**

```

<head>
    .....
<master-location href="https://raw.githubusercontent.com/textalign/TAN-2021/
<license licensor="kalvesmaki">
    <IRI>http://creativecommons.org/licenses/by/4.0/deed.en_US</IRI>
    <name>Creative Commons Attribution 4.0 International License</name>
    <desc>Exclusive of rights held and licenses offered by rightsholders of t
        sources listed below, this data file, insofar as it constitutes an ind
        licensed under a Creative Commons Attribution 4.0 International Licens
</license>
<reference-system type="logical" wf-ready="true"/>
    .....
</head>

```

### Note

Taken from `ar.cat.fra.i844.saint-hilaire.ref-logical` [`../examples/ar.cat.fra.i844.saint-hilaire.ref-logical.xml`]

## **@m-has-codes**

*TAN-mor.rng* [`../schemas/TAN-mor.rng`]

The attribute `m-has-codes` specifies one or more features. Values must be separated by spaces or the padded `+` (a plus sign with surrounding spaces). A plain space is treated as meaning “or” and the padded `+` as meaning “and.” If there is at least one match between the list and the value of the codes in an `<m>` then the condition will be treated as true. The padded plus sign specifies that all the items need to be found in the `<m>`.

For example, `feature-test="A B + C D + E"` means that the condition will be true for a given `<m>` only if that `<m>` has A or (B and C) or (D and E) present as values. This is one of four tests for determining whether to process a `<report>` or `<assert>`

Used by: `~action-condition-attributes`

### Example 12.62. **@m-has-codes**

```

<TAN-mor TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-r-mor:eng:penn">
    .....

```

```

<body>
  .....
  <rule>
    <where m-has-codes="$" />
    <assert tok-matches="$">Only $ may be tagged as a dollar sign.</assert>
  </rule>
  <rule m-has-codes="' ' . ; :">
    <report tok-matches="\w">Nothing marked as punctuation should have word
      characters.</report>
  </rule>
  <code feature="closing_quotation_mark">
    .....
  </code>
  .....
</body>
</TAN-mor>

```

### Note

Taken from [eng.kalvesmaki.com,2014.2](http://eng.kalvesmaki.com,2014.2) [[../examples/TAN-mor/eng.kalvesmaki.com,2014.2.xml](http://../examples/TAN-mor/eng.kalvesmaki.com,2014.2.xml)]

## @m-has-how-many-codes

*TAN-mor.rng* [[../schemas/TAN-mor.rng](http://../schemas/TAN-mor.rng)]

The attribute `m-has-how-many-codes` specifies a range or sequence of integers (e.g., 2-4). If the quantity of features in an `<m>` matches a number from that sequence, the condition is true, and false otherwise. If the keyword 'last' or 'max' is used, the total number of features will be substituted.

This test is useful for non-category based grammars to put a limit on the number of features that can be declared in an `<m>`. This is one of four tests for determining whether to process a `<report>` or `<assert>`

Used by: `~action-condition-attributes`

### Example 12.63. @m-has-how-many-codes

```

<rule m-matches=".+">
  <assert m-has-how-many-codes="1">Features may not be combined.</assert>
</rule>

```

### Note

Taken from [eng.kalvesmaki.com,2014.2](http://eng.kalvesmaki.com,2014.2) [[../examples/TAN-mor/eng.kalvesmaki.com,2014.2.xml](http://../examples/TAN-mor/eng.kalvesmaki.com,2014.2.xml)]

### Example 12.64. @m-has-how-many-codes

```

<body>
  <rule m-has-how-many-codes="2-10">
    <report m-matches="^c">A conjunction has no other inflectional
      properties.</report>
  </rule>
</body>

```

```
<report m-matches="^r">A preposition has no other inflectional
  properties.</report>
<report m-matches="^i">An interjection has no other inflectional
  properties.</report>
  .....
</rule>
<rule m-matches="^e">
  .....
</rule>
  .....
</body>
```

 **Note**

Taken from `grc.perseus.tan-mor [../../examples/TAN-mor/grc.perseus.tan-mor.xml]`

## @m-matches

*TAN-mor.rng [../../schemas/TAN-mor.rng]*

The attribute `m-matches` takes a regular expression. The condition is true only if an `<m>` matches the pattern.

This is one of four tests for determining whether to process a `<report>` or `<assert>`

Used by: `~action-condition-attributes`

### Example 12.65. @m-matches

```
<body>
  <rule m-matches="."+>
    <assert m-has-how-many-codes="1">Features may not be combined.</assert>
  </rule>
  <rule>
    .....
  </rule>
  .....
</body>
```

 **Note**

Taken from `eng.kalvesmaki.com,2014.2 [../../examples/TAN-mor/eng.kalvesmaki.com,2014.2.xml]`

### Example 12.66. @m-matches

```
<body>
  <rule m-has-how-many-codes="2-10">
    <report m-matches="^c">A conjunction has no other inflectional
      properties.</report>
    <report m-matches="^r">A preposition has no other inflectional
      properties.</report>
    <report m-matches="^i">An interjection has no other inflectional
```

```
        properties.</report>
    <report m-matches="^y">An acronym has no other inflectional properties.</
</rule>
    .....
</body>
```

### Note

Taken from `grc.perseus.tan-mor [../../examples/TAN-mor/grc.perseus.tan-mor.xml]`

## @metadata-resolved

*catalog.tan.rng [../../schemas/catalog.tan.rng]*

Used by: <collection>

### Example 12.67. @metadata-resolved

```
<collection stable="true" metadata-resolved="false">
  <doc href="ar.cat.eng.1926.edghill.ref-logical.xml" id="tag:kalvesmaki.com,2014
    .....
  </doc>
  <doc href="ar.cat.eng.1926.edghill.ref-scriptum.xml" id="tag:kalvesmaki.com,201
    .....
  </doc>
  <doc href="ar.cat.fra.1844.saint-hilaire.ref-logical-after-1949.xml" TAN-versio
    .....
  </doc>
  .....
</collection>
```

### Note

Taken from `catalog.tan [../../examples/catalog.tan.xml]`

### Example 12.68. @metadata-resolved

```
<collection stable="true" metadata-resolved="false">
  <doc href="ar.cat.TAN-voc.xml" TAN-version="2020" id="tag:parkj@textalign.net,2
    .....
  </doc>
  <doc href="park-projects.TAN-voc.xml" TAN-version="2020" id="tag:parkj@textalig
    .....
  </doc>
</collection>
```

### Note

Taken from `catalog.tan [../../examples/TAN-voc/catalog.tan.xml]`

## @morphology

*TAN-A-lm.rng [../../schemas/TAN-A-lm.rng]*

The attribute `morphology` points to one or more `<morphology>` IDs

This attribute is inheritable. See the section called “Attribute inheritability and priority”

Takes IDrefs to vocabulary items `<morphology>`

Used by: `~group-attributes-non-core`, `~body-attributes-non-core`, `~element-ana`, `~element-lm`, `~element-m`

### ⚠ Caution

Every idref in an attribute must point to a vocabulary item (by `@xml:id` or `name`) that is of the appropriate corresponding element.

### ⚠ Caution

All idrefs in an attribute must be unique.

### ⚠ Caution

Multiple idrefs in a single attribute should not point to the same entity.

### Example 12.69. `@morphology`

```
<TAN-A-lm TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-t:ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample" >
  <head>
    .....
  </head>
  <body lexicon="LSJ Lampe new" morphology="Perseus" claimant="xslt2">
    <ana tok-pop="2">
      .....
    </ana>
    <ana>
      .....
    </ana>
    <ana>
      .....
    </ana>
    .....
  </body>
</TAN-A-lm>
```

### 📖 Note

Taken from `ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample` [`../examples/TAN-A-lm/ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample.xml`]

### Example 12.70. `@morphology`

```
<TAN-A-lm TAN-version="2021" id="tag:kalvesmaki.com,2015:tan-a-lm:grc:perseus#" >
  <head>
    .....
  </head>
```

```
<body lexicon="LSJ" morphology="perseus-dik" claimant="xslt2">
  <ana>
    .....
  </ana>
  <ana>
    .....
  </ana>
  <ana>
    .....
  </ana>
  .....
</body>
</TAN-A-lm>
```

 **Note**

Taken from `grc-tan-a-lm-%CE%B1[../examples/TAN-A-lm/grc-tan-a-lm-%CE%B1.xml]`

**Example 12.71. @morphology**

```
<TAN-A-lm TAN-version="2021" id="tag:kalvesmaki.com,2015:tan-a-lm:grc:perseus##">
  <head>
    .....
  </head>
  <body lexicon="LSJ" morphology="perseus-dik" claimant="xslt2">
    <ana>
      .....
    </ana>
  </body>
</TAN-A-lm>
```

 **Note**

Taken from `grc-tan-a-lm-%CE%B1%CA%B9[../examples/TAN-A-lm/grc-tan-a-lm-%CE%B1%CA%B9.xml]`

**Example 12.72. @morphology**

```
<TAN-A-lm TAN-version="2021" id="tag:parkj@textalign.net,2015:ring01-lm">
  <head>
    .....
  </head>
  <body lexicon="english" morphology="penn" claimant="xslt2">
    <ana>
      .....
    </ana>
    <ana>
      .....
    </ana>
    <ana>
      .....
    </ana>
    .....
  </body>
```



</TAN-A-lm>

## Note

Taken from ring-o-roses.eng.i88i.lm [../examples/TAN-A-lm/ring-o-roses.eng.i88i.lm.xml]

## @n

*TAN-core.rng [ ../schemas/incl/TAN-core.rng ]*

The attribute `n` names a `<div>` or `<group>`, or refers to a `<div>`'s `@n..`

`@n` may consist of one or more values, space delimited, which are to be treated as synonyms.

Any itemized value of `@n` may be numerical or non-numerical. A numerical value follows one of the supported TAN numeration systems, with commas and hyphens to refer to build sequences or ranges. The order of numerical items in an `@n` are significant. For example `n="6, 8"` signifies that the text straddles reference 6 then 8. But `n="8, 6"` signifies the converse. In the context of a `<div>`, the implication is that in neither case can the text be securely disentangled so as to create one `<div>` for 6 and another for 8.

The hyphen-minus, `-` (U+002D, the most common form of hyphen), is reserved to specify a range. This feature is useful for cases where a `<div>` straddles more than one standard reference number (e.g., a translation of Aristotle that cannot be easily tied to Bekker numbers).

If you need to use a hyphen-like character in an `@n` that does not specify a range, consider `-` (U+2010 HYPHEN), `-` (U+2011 NON-BREAKING HYPHEN), `-` (U+2012 FIGURE DASH), `-` (U+2013 EN DASH), or `-` (U+2212 MINUS SIGN).

The comma is reserved to delimit items in a sequence of references.

The space is reserved to separate synonymous values, or to pad commas and hyphens. If you wish to use a value of `@n` that should not be split at the space, use the underbar, `_`, instead.

`@n` does not permit non-word characters, e.g., the period/full stop or colon. Such non-word characters need to be used by `@ref` to connect `@n`'s.

Because `@n` is used to construct `@ref`, it is indirectly cumulatively inheritable. See the section called "Attribute inheritability and priority".

Extra TAN vocabulary is available for `@n`, to provide built-in aliases. For more on this feature see the section called "Extra `@n` vocabulary". For specific extra vocabulary see the section called "commonly used vocabulary for the bible (`<work>@n`)" the section called "vocabulario de uso común para la biblia (`<work>@n`)" the section called "Commonly used names for Surahs in the Quran, incorporating English and Arabic. (`<work>@n`)" the section called "Commonly used vocabulary in English for divs that are unnamed, first system (`@n`)"

Used by: `~element-div`, `~adj-element-equate`, `~adj-element-skip`, `~simple-rename`, `~complex-rename`, `~group-attributes-core`

## Important

Most div references are unique.

⚠ Caution

An @n taking digit values should not begin with 0.

! Important

An @n's value should not appear in the text.

! Important

A <div>'s reference (self and ancestor @ns, concatenated) should not appear in the text.

⚠ Caution

Any range in either an @n or in a @ref in an adjustment action must be predictably calculated.

⚠ Caution

In adjustment actions involving @n, at least one value should be found in each source.

! Important

The values of @n in <equate> should not have duplicates.

! Important

At least one @n value in an equate should be found in every source.

Example 12.73. @n

```
<body xml:lang="eng">
  <div type="ch" n="1">
    <div type="par" n="1">
      <div type="s" n="1">
        <div type="ic" n="1">Things are said to be named 'equivocally' when
          a common name, the definition corresponding with the name differ
          a real man and a figure in a picture can both lay claim to the n
          'animal';</div>
        <div type="ic" n="2">yet these are equivocally so named, for, thoug
          common name, the definition corresponding with the name differs
        <div type="ic" n="3">For should any one define in what sense each i
          definition in the one case will be appropriate to that case only
        </div>
      <div type="s" n="2">
        .....
      </div>
      <div type="s" n="3">
        .....
      </div>
    </div>
  </div>
  <div type="ch" n="2">
    .....
  </div>
```

```
.....  
</body>
```

### Note

Taken from ar.cat.eng.i926.edghill.ref-logical [../examples/ar.cat.eng.i926.edghill.ref-logical.xml]

## @new

*TAN-class-2.rng* [../schemas/incl/TAN-class-2.rng]

*Definition 1*

The attribute new provides the new name for an @n that is to be renamed.

*Definition 2*

The attribute new provides the new ref for a <div> that is to be renamed.

Used by: ~simple-rename, ~complex-rename

### Caution

In a <rename> the quantity of values in @ref and @new must be identical.

### Caution

@new may not take the same value as what it replaces.

### Caution

No adjustment action should result in the mixing of leaf <div>s and non-leaf <div>s.

### Example 12.74. @new

```
<adjustments src="ger">  
  <skip div-type="Gedicht"/>  
  <rename ref="1 e" new="4"/>  
</adjustments>
```

### Note

Taken from ringoroses.o1+o3.token.2 [../examples/TAN-A-tok/ringoroses.o1+o3.token.2.xml]

## @object

*TAN-A.rng* [../schemas/TAN-A.rng]

The attribute object takes one or more ID refs of vocabulary items that serve as the grammatical object of a claim. For example, if you wish to say that work A is a commentary on work B, then @object would have the ID ref for work B. @object is used for simple idrefs. For complex objects such as data content or textual references you must use <object>.

Multiple values of `@object` are interpreted to mean "and", resulting in distribution of the claim. E.g., `object="X Y"` means the claim is true about X and about Y.

In RDF, the concept of object (the third element of a triple) is required. In TAN, the object is not required, since some `<verb>`s may be intransitive (e.g., "Charlie slept.").

The sequence of multiple values of `@object` are immaterial.

Takes IDrefs to vocabulary items `<algorithm>`, `<organization>`, `<person>`, `<work>`, `<version>`, `<scriptum>`, `<topic>`, `<source>`, `<claim>`

Used by: `~body-content-non-class-2`, `~element-claim`, `~object`

### ⚠ Caution

Every idref in an attribute must point to a vocabulary item (by `@xml:id` or `name`) that is of the appropriate corresponding element.

### ⚠ Caution

All idrefs in an attribute must be unique.

### ⚠ Caution

Multiple idrefs in a single attribute should not point to the same entity.

## Example 12.75. `@object`

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:ar.cat.tan-a:claims">
.....
<body claimant="park" claim-period="per2010s">
.....
  <claim subject="andronicus boethus" adverb="perhaps" verb="om" xml:id="c11a2"
.....
  </claim>
  <claim subject="# #" verb="shows" object="c11a2a"/>
  <claim subject="comm-omnes" verb="attests" period="late_antiquity">
.....
  </claim>
  <claim subject="comm-omnes" verb="attests" xml:id="c11a2b">
.....
  </claim>
  <claim subject="#" verb="shows" object="c11a2b"/>
  <comment when="2017-03-10" who="park">The next three claims assert that the
    ###, is attested to by # # # # but B transposes the words, and perhaps
    well. The claim sticks close to M-P's syntax, and does not fill in sta
    expect an intelligent reader to supply, e.g., that the claim is not th
    translation perhaps transposed the words, but that Boethius was perhap
    more Greek manuscripts that did.</comment>
.....
  <claim verb="refers-to">
.....
  </claim>
  <claim subject="boethius" verb="wrote" object="#" where="Pavia"/>
```

```
<claim subject="n" verb="has_length">
    .....
</claim>
</body>
</TAN-A>
```

### Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

### Example 12.76. @object

```
<body claimant="park">
  <claim verb="concerns" object="predication">
    <subject src="grc" ref="1 1"/>
  </claim>
</body>
```

### Note

Taken from ar.cat.TAN-A [../examples/TAN-A/ar.cat.TAN-A.xml]

## @pattern

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The attribute pattern specifies a regular expression pattern to be searched for or matched. TAN regular expressions support the special escape character `\u[]`.

For more see the section called “Regular expressions” and <https://www.w3.org/TR/xpath-functions-30/#regex-syntax>

Used by: `~element-replace`, `~element-token-definition`

### Example 12.77. @pattern

```
<adjustments>
    .....
  <normalization>
    .....
  </normalization>
  <replace pattern="--" replacement="-" flags="i"/>
</adjustments>
```

### Note

Taken from gomme.1989.ring-o-roses [../examples/gomme.1989.ring-o-roses.xml]

### Example 12.78. @pattern

```
<head>
    .....
  <numerals priority="letters"/>
  <token-definition src="fra" pattern="\S+"/>
```

```
<source xml:id="grc">
    .....
</source>
    .....
</head>
```

### Note

Taken from ar.cat.TAN-A [../examples/TAN-A/ar.cat.TAN-A.xml]

### Example 12.79. **@pattern**

```
<head>
    .....
<license which="by_4.0" licensor="park"/>
<token-definition src="eng-us" pattern="[-\w]+"/>
<source xml:id="eng-uk">
    .....
</source>
    .....
</head>
```

### Note

Taken from ringoroses.div.1 [../examples/TAN-A/ringoroses.div.1.xml]

### Example 12.80. **@pattern**

```
<head>
    .....
<license licensor="kalvesmaki">
    .....
</license>
<token-definition pattern="[\w#]+"/>
<inclusion xml:id="rel">
    .....
</inclusion>
    .....
</head>
```

### Note

Taken from ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample [../examples/TAN-A-lm/ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample.xml]


## **@period**

*TAN-core.rng* [../schemas/incl/TAN-core.rng]


The attribute `period` names via `idrefs` one or more `<period>`s.

Takes `IDrefs` to vocabulary items `<period>`


Used by: `~element-claim`, `~element-resp`

 **Caution**

Every idref in an attribute must point to a vocabulary item (by @xml:id or name) that is of the appropriate corresponding element.

 **Caution**

All idrefs in an attribute must be unique.

 **Caution**

Multiple idrefs in a single attribute should not point to the same entity.

**Example 12.81. @period**

```
<body claimant="park" claim-period="per2010s">
  .....
  <claim subject="# #" verb="shows" object="c11a2a"/>
  <claim subject="comm-omnes" verb="attests" period="late_antiquity">
    <object src="grc" ref="1 a 2">
      .....
    </object>
  </claim>
  <claim subject="comm-omnes" verb="attests" xml:id="c11a2b">
    .....
  </claim>
  .....
</body>
```

 **Note**

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## @pos

*TAN-class-2.rng* [../schemas/incl/TAN-class-2.rng]

*Definition 1*

The attribute `pos` lists one or more items by position, specified through Arabic numerals or the keywords 'last' or 'last-X' (where X is a valid number), joined with commas or hyphens.

Examples: '1', 'last', 'last-3 - last-1', '1, 3, 5, 7 - 11, last-8, last'

For more see the section called "Referencing tokens: @pos and @val"

*Definition 2*

The attribute `pos` lists the position of one item, specified through Arabic numerals and the keyword 'last' or 'last-X' (where X is a valid number).

Examples: '1', 'last', 'last-3 - last-1'

For more see the section called "Referencing tokens: @pos and @val"

Used by: ~tok-selector-attributes-one, ~tok-selector-attributes-many

⚠ Caution

Sequences may not include values less than 1.

⚠ Caution

Sequences may not include values greater than the maximum allowed.

⚠ Caution

Ranges in sequences must go from a lesser value to a greater.

⚠ Caution

Every token must be locatable in every cited ref in every source.

Example 12.82. @pos

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:ar.cat.tan-a:claims">
.....
<body claimant="park" claim-period="per2010s">
.....
  <claim subject="andronicus boethus" adverb="perhaps" verb="om" xml:id="c11a2"
    <at-ref src="grc" ref="1 a 2">
      <tok pos="3-4"/>
    </at-ref>
  </claim>
.....
  <claim subject="comm-omnes" verb="attests" period="late_antiquity">
    <object src="grc" ref="1 a 2">
      <tok pos="3-4"/>
    </object>
  </claim>
  <claim subject="comm-omnes" verb="attests" xml:id="c11a2b">
    <object src="grc" ref="1 a 2">
      <tok pos="3-4"/>
    </object>
  </claim>
.....
  <claim subject="B" verb="reads">
    <at-ref src="grc" ref="1 a 5">
      <tok pos="1-2"/>
    </at-ref>
    .....
  </claim>
  <claim subject="#" adverb="perhaps" verb="reads">
    <at-ref src="grc" ref="1 a 5">
      <tok pos="1-2"/>
    </at-ref>
    .....
  </claim>
```



```
<claim subject="# # # #" verb="matches">
  <object src="grc" ref="1 a 5">
    <tok pos="1-2" />
  </object>
</claim>
.....
</body>
</TAN-A>
```

### Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## @priority

*TAN-class-2.rng* [../schemas/incl/TAN-class-2.rng]

The attribute `priority` specifies where a renamed div or reassigned passage should be placed relative to the target and other renamed divs or reassigned passages. The target is presumed to be a value of `o`. The higher the value of `@priority`, the earlier the passage is placed. Negative integers specify the material should come after the base target.

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The attribute `priority` specifies whether roman numerals should have interpretive priority over letter numerals. For example, should "c" be interpreted as 3 or 100? Default is `roman`.

Used by: `<numerals>`, `~adj-element-reassign`, `~adj-element-rename`

### Example 12.83. @priority

```
<head>
.....
<version>
.....
</version>
<numerals priority="letters" />
<source>
.....
</source>
.....
</head>
```

### Note

Taken from ring-o-roses.deu.i897-prev [../examples/ring-o-roses.deu.i897-prev.xml]

### Example 12.84. @priority

```
<head>
.....
<version>
.....
```

```

</version>
<numerals priority="letters" />
<source>
    .....
</source>
    .....
</head>

```

 **Note**

Taken from ring-o-roses.deu.i897 [../examples/ring-o-roses.deu.i897.xml]

**Example 12.85. @priority**

```

<head>
    .....
    <license licensor="park">
        .....
    </license>
    <numerals priority="letters" />
    <token-definition src="fra" pattern="\S+" />
    .....
</head>

```

 **Note**

Taken from ar.cat.TAN-A [../examples/TAN-A/ar.cat.TAN-A.xml]

**Example 12.86. @priority**

```

<head>
    .....
    <license licensor="park" which="by 4.0" />
    <numerals priority="letters" />
    <source xml:id="conf">
        .....
    </source>
    .....
</head>

```

 **Note**

Taken from patricius.confessio.TAN-A [../examples/TAN-A/patricius.confessio.TAN-A.xml]

## @ref

*TAN-class-2.rng* [../schemas/incl/TAN-class-2.rng]

*Definition 1*

The attribute `ref` lists references to one or more `<div>`s. It consists of one or more simple references joined by commas or hyphens. A simple reference is a string value that points to a single `<div>` by joining one of its values of `@n` with those of its ancestors, e.g., "1 1".

Truncation is allowed. For example, 1 1 - 3 will be interpreted first as 1.1 through 1.3; if that is invalid, it will be interpreted as 1.1 through 3. Another example: '2.4 - 7, 9' and 'ii iv - vii, 9' will be treated as identical, to mean 2.4 through 2.7 and 2.9.

In a range with members of uneven depth, those complete <div>s that are closest to the shallowest member are retrieved. For example, 2 - 4 2 2 might fetch 2, 3, 4.1, and 4.2.1, 4.2.2 (and not 4 as a whole).

For more, see the section called “Referencing textual divisions: @ref”

*Definition 2*

The attribute ref refers to a single <div>. It consists of one simple reference e.g., "1 1".

Used by: ~element-tok-for-claim-with-ref, ~multi-source-whole-div-textual-reference, ~single-div-partial-textual-reference, ~adj-element-skip, ~element-from-tok-with-ref, ~element-passage, ~element-to, ~element-tok-standard, ~element-through-tok-with-ref, ~simple-rename, ~complex-rename

⚠ **Caution**

Every part of a @ref must correspond to a <div> in every source.

⚠ **Important**

If a reference to a work is not found in some sources for that work, a warning will be returned.

⚠ **Caution**

In a @ref range the first reference should precede the second.

⚠ **Caution**

Any range in either an @n or in a @ref in an adjustment action must be predictably calculated.

⚠ **Caution**

In a <rename> the quantity of values in @ref and @new must be identical.

**Example 12.87. @ref**

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:ar.cat.tan-a:claims">
.....
<body claimant="park" claim-period="per2010s">
.....
  <claim subject="andronicus boethus" adverb="perhaps" verb="om" xml:id="c11a2
    <at-ref src="grc" ref="1 a 2">
      <tok pos="3-4"/>
    </at-ref>
  </claim>
.....
  <claim subject="comm-omnes" verb="attests" period="late_antiquity">
    <object src="grc" ref="1 a 2">
      <tok pos="3-4"/>
    </object>
```

```

</claim>
<claim subject="comm-omnes" verb="attests" xml:id="c11a2b">
  <object src="grc" ref="1 a 2">
    <tok pos="3-4"/>
  </object>
</claim>
.....
<claim subject="B" verb="reads">
  <at-ref src="grc" ref="1 a 5">
    <tok pos="1-2"/>
  </at-ref>
  <object>### #####</object>
</claim>
<claim subject="#" adverb="perhaps" verb="reads">
  <at-ref src="grc" ref="1 a 5">
    <tok pos="1-2"/>
  </at-ref>
  <object>### #####</object>
</claim>
.....
</body>
</TAN-A>

```

 **Note**

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## @ref-alias

*TAN-class-1.rng [../schemas/incl/TAN-class-1.rng]*

The attribute `ref-alias` contains one or more supplemental references to a `<div>`. Each reference must have the same number of `@n` values as the `<div>` is deep in the body hierarchy. Each atomic `@n` value inherits the corresponding `div` type. For example, in `<div type="letter" n="1"><div type="section" n="1" ref-alias="3 4">text</div></div>` the `@ref-alias` ensures that the innermost `<div>` is assigned both `1 1` and `3 4` as references, each typed to `letter`, `section`. The values of `@ref-alias` are strongly inheritable by any children `<div>`s.

This feature is intended for parts of a transcription that correspond to more than one section of a work.

Used by: `~element-div`

 **Caution**

Each value in `@ref-alias` must consist of as many `@n` values as the current `div` is deep in the body structure.

### Example 12.88. @ref-alias

```

<div n="43" type="letter">
  <div n="3" type="section" ref-alias="59 3">## ### ## ##### ## #####
    #####, ##### ##### ## ## #####. ##### ## ## #####μ### ## #####

```

```
### ##### #' ##### ## ##### ## ##### ##### ##### ##### # # #####  
##### #####µ##### ## ##### ##### #####. ## ## ##### #####µ# ##  
### #####.</div>  
</div>
```

 Note

Taken from `cpq2437.43.grc.i987.gehin [../../examples/cpg2437.43.grc.i987.gehin.xml]`

## @relationship

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

The attribute `relationship` names via `idrefs` one or more `<relationship>`s

Takes `IDrefs` to vocabulary items `<relationship>`

Used by: `~link-element-see-also`

 Caution

Every `idref` in an attribute must point to a vocabulary item (by `@xml:id` or `name`) that is of the appropriate corresponding element.

 Caution

All `idrefs` in an attribute must be unique.

 Caution

Multiple `idrefs` in a single attribute should not point to the same entity.

### Example 12.89. @relationship

```
<head>  
.....  
<model>  
.....  
</model>  
<see-also relationship="alt">  
  <IRI>tag:kalvesmaki.com,2014:tan-t:ar.cat.grc.1949.minio-paluello:object-  
  <name>Categories, Aristotle, Greek text by Minio-Paluello</name>  
  <location href="ar.cat.grc.1949.minio-paluello.ref-scriptum.xml" accessed  
</see-also>  
<redivision>  
.....  
</redivision>  
.....  
</head>
```

 Note

Taken from `ar.cat.eng.i926.edghill.ref-logical [../../examples/ar.cat.eng.i926.edghill.ref-logical.xml]`

### Example 12.90. @relationship

```
<head>
  .....
  <source>
    .....
  </source>
  <see-also relationship="alt">
    <IRI>tag:kalvesmaki.com,2014:tan-t:ar.cat.grc.1949.minio-paluello:semanti
    <name>Categories, Aristotle, Greek text by Minio-Paluello</name>
    <location accessed-when="2018-12-11-05:00" href="ar.cat.grc.1949.minio-pa
  </see-also>
  <vocabulary-key>
    .....
  </vocabulary-key>
  .....
</head>
```

#### Note

Taken from ar.cat.lat.1961.minio-paluello.ref-scriptum [../examples/ar.cat.lat.1961.minio-paluello.ref-scriptum.xml]

## @replacement

*TAN-class-1.rng* [../schemas/incl/TAN-class-1.rng]

The attribute replacement contains a string used to replace any occurrence of @pattern

Used by: ~element-replace

### Example 12.91. @replacement

```
<adjustments>
  .....
  <normalization>
    .....
  </normalization>
  <replace pattern="--" replacement="--" flags="i"/>
</adjustments>
```

#### Note

Taken from gomme.1989.ring-o-roses [../examples/gomme.1989.ring-o-roses.xml]

## @reuse-type

*TAN-A-tok.rng* [../schemas/TAN-A-tok.rng]

The attribute reuse-type points via idrefs to one or more reuse-types. Multiple values are combinatory.


This attribute is weakly inheritable. See the section called “Attribute inheritability and priority”

Takes IDrefs to vocabulary items <reuse-type>

Used by: ~body-attributes-non-core, ~element-align

 **Caution**

Every idref in an attribute must point to a vocabulary item (by @xml:id or name) that is of the appropriate corresponding element.

 **Caution**

All idrefs in an attribute must be unique.

 **Caution**

Multiple idrefs in a single attribute should not point to the same entity.

**Example 12.92. @reuse-type**

```
<TAN-A-tok TAN-version="2021" id="tag:parkj@textalign.net,2015:TAN-A-tok,ring01+ri
  <head>
    .....
  </head>
  <body bitext-relation="B-descends-from-A" reuse-type="adaptation">
    <align>
      .....
    </align>
    <align>
      .....
    </align>
    <align>
      .....
    </align>
    <align>
      .....
    </align>
  </body>
</TAN-A-tok>
```

 **Note**

Taken from ringoroses.o1+o2.token.I [../examples/TAN-A-tok/ringoroses.o1+o2.to-ken.I.xml]

**Example 12.93. @reuse-type**

```
<TAN-A-tok TAN-version="2021" id="tag:parkj@textalign.net,2015:TAN-A-tok,ring01+ri
  <head>
    .....
  </head>
  <body reuse-type="correlationGeneral" bitext-relation="unclear" claimant="xslt2
    <align>
      .....
    </align>
    <align>
      .....
  </body>
```

```

    </align>
    <align>
        .....
    </align>
    .....
</body>
</TAN-A-tok>

```

### Note

Taken from `ringoroses.o1+o3.token.1 [../../examples/TAN-A-tok/ringoroses.o1+o3.token.1.xml]`

### Example 12.94. **@reuse-type**

```

<TAN-A-tok TAN-version="2021" id="tag:parkj@textalign.net,2015:TAN-A-tok,ring01+ri
<head>
    .....
</head>
<body reuse-type="correlationGeneral" bitext-relation="unclear" claimant="xslt2
    <align>
        .....
    </align>
    <align>
        .....
    </align>
    <align>
        .....
    </align>
    <align>
        .....
    </align>
    .....
</body>
</TAN-A-tok>

```

### Note

Taken from `ringoroses.o1+o3.token.2 [../../examples/TAN-A-tok/ringoroses.o1+o3.token.2.xml]`

## @rgx

`TAN-class-2.rng [../../schemas/incl/TAN-class-2.rng]`

The attribute `rgx` contains a regular expression. In the context of `<tok>` it is an alternative to `@val` and points to a particular word token according to a match on its string value. Values of `@rgx` are case-sensitive. The TAN extension character class `\u[]` may be used.

For more see the section called “Referencing tokens: `@pos` and `@val`”

Used by: `~element-tok-abstract`, `~tok-selector-attributes-one`, `~tok-selector-attributes-many`

### Caution

Attributes that take regular expressions must use escape sequences recognized by XML schema or TAN escape extensions (`\u[]`). See <http://www.w3.org/TR/xmlschema-2/#regexs>



⚠ Caution

Every token must be locatable in every cited ref in every source.

Example 12.95. **@rgx**

```
<align>
  <tok src="eng" ref="4" val="all"/>
  <tok src="ger" ref="4" rgx="alle"/>
</align>
```

📄 Note

Taken from ringoroses.o1+o3.token.2 [../examples/TAN-A-tok/ringoroses.o1+o3.token.2.xml]

## @roles

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The attribute `roles` refers via `idrefs` one or more `<role>s`

Takes `IDrefs` to vocabulary items `<role>`

Used by: `~element-resp`

⚠ Caution

Every `idref` in an attribute must point to a vocabulary item (by `@xml:id` or `name`) that is of the appropriate corresponding element.

⚠ Caution

All `idrefs` in an attribute must be unique.

⚠ Caution

Multiple `idrefs` in a single attribute should not point to the same entity.

Example 12.96. **@roles**

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:semantic-refs" TA
  <head>
    .....
    <file-resp who="kalvesmaki"/>
    <resp who="xslt2" roles="stylesheet1"/>
    <resp roles="editor" who="kalvesmaki"/>
    <resp who="xslt1" roles="stylesheet1"/>
    <change when="2020-12-31" who="kalvesmaki">Added new reference-system declar
    .....
  </head>
  .....
```

</TAN-T>

### Note

Taken from `ar.cat.eng.i926.edghill.ref-logical [../../examples/ar.cat.eng.i926.edghill.ref-logical.xml]`

### Example 12.97. @roles

```
<head>
    .....
    <file-resp who="kalvesmaki" />
    <resp roles="editor" who="kalvesmaki" />
    <resp who="xslt1" roles="stylesheet1" />
    .....
</head>
```

### Note

Taken from `ar.cat.eng.i926.edghill.ref-scriptum [../../examples/ar.cat.eng.i926.edghill.ref-scriptum.xml]`

## @root

`catalog.tan.rng [../../schemas/catalog.tan.rng]`

Used by: <doc>

### Caution

@root should match the target's root element name

## @scriptum

`TAN-A.rng [../../schemas/TAN-A.rng]`

The attribute `scriptum` points to one or more ID refs of vocabulary items that are scripta (text-bearing objects).

Multiple values of @scriptum are interpreted to mean "and", resulting in distribution of the claim.

The sequence of multiple values of @scriptum is immaterial.

`TAN-class-1.rng [../../schemas/incl/TAN-class-1.rng]`

The attribute `scriptum` points to a text-bearing object that forms the basis of the reference system. The reference system must be the primary one used in the scriptum for the type indicated, material or logical. Many scripta have both a primary material system (e.g., pages, columns, lines) as well as a logical one (e.g., chapters, sections, paragraphs).

Takes IDrefs to vocabulary items <scriptum>

Used by: ~scriptum-reference, ~element-reference-system

### Example 12.98. @scriptum

```
<head>
  .....
  <work>
    .....
  </work>
  <reference-system type="material" wf-ready="true" scriptum="bekker" />
  <source>
    .....
  </source>
  .....
</head>
```

#### Note

Taken from ar.cat.grc.1949.minio-paluello.ref-scriptum [../examples/ar.cat.grc.1949.minio-paluello.ref-scriptum.xml]

## @shallow

*TAN-class-2.rng* [../schemas/incl/TAN-class-2.rng]

The attribute `shallow` indicates whether skipping should be done shallowly (default) or deeply

Used by: ~adj-element-skip

### Example 12.99. @shallow

```
<adjustments src="fra">
  <skip div-type="summ" shallow="false" />
  <equate n="ti title" />
  .....
</adjustments>
```

#### Note

Taken from ar.cat.TAN-A [../examples/TAN-A/ar.cat.TAN-A.xml]

## @src

*TAN-class-2.rng* [../schemas/incl/TAN-class-2.rng]

*Definition 1*

The attribute `src` refers via `idref` to only one `<source>`

*Definition 2*

The attribute `src` refers via `idrefs` to one or more `<source>`s

Takes IDrefs to vocabulary items <source>

Used by: ~multi-source-whole-div-textual-reference, ~single-source-partial-div-textual-reference, ~token-definition-attributes, ~action-condition-attributes, ~tok-sources-ref-opt

⚠ Caution

Every idref in an attribute must point to a vocabulary item (by @xml:id or name) that is of the appropriate corresponding element.

⚠ Caution

All idrefs in an attribute must be unique.

⚠ Caution

Multiple idrefs in a single attribute should not point to the same entity.

⚠ Caution

Every part of a @ref must correspond to a <div> in every source.

Example 12.100. @src

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:ar.cat.tan-a:claims">
  <head>
    .....
    <license licensor="park">
      .....
    </license>
    <token-definition src="*" which="letters only"/>
    <vocabulary>
      .....
    </vocabulary>
    .....
  </head>
  <body claimant="park" claim-period="per2010s">
    .....
    <claim subject="andronicus boethus" adverb="perhaps" verb="om" xml:id="c11a2">
      <at-ref src="grc" ref="1 a 2">
        <tok pos="3-4"/>
      </at-ref>
    </claim>
    .....
    <claim subject="comm-omnes" verb="attests" period="late_antiquity">
      <object src="grc" ref="1 a 2">
        <tok pos="3-4"/>
      </object>
    </claim>
    <claim subject="comm-omnes" verb="attests" xml:id="c11a2b">
      <object src="grc" ref="1 a 2">
        <tok pos="3-4"/>
      </object>
    </claim>
  </body>
</TAN-A>
```

```
        </claim>
        .....
    </body>
</TAN-A>
```

### Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## @stable

*catalog.tan.rng* [../schemas/catalog.tan.rng]

Used by: <collection>

### Example 12.101. @stable

```
<collection stable="true" metadata-resolved="false">
  <doc href="ar.cat.eng.1926.edghill.ref-logical.xml" id="tag:kalvesmaki.com,2014
  .....
  </doc>
  <doc href="ar.cat.eng.1926.edghill.ref-scriptum.xml" id="tag:kalvesmaki.com,201
  .....
  </doc>
  <doc href="ar.cat.fra.1844.saint-hilaire.ref-logical-after-1949.xml" TAN-versio
  .....
  </doc>
  .....
</collection>
```

### Note

Taken from catalog.tan [../examples/catalog.tan.xml]

### Example 12.102. @stable

```
<collection stable="true" metadata-resolved="false">
  <doc href="ar.cat.TAN-voc.xml" TAN-version="2020" id="tag:parkj@textalign.net,2
  .....
  </doc>
  <doc href="park-projects.TAN-voc.xml" TAN-version="2020" id="tag:parkj@textalig
  .....
  </doc>
</collection>
```

### Note

Taken from catalog.tan [../examples/TAN-voc/catalog.tan.xml]

### Example 12.103. @stable

```
<collection stable="true">
```

```
<doc href="bitext-relations.TAN-voc.xml" id="tag:textalign.net,2015:tan-voc:bit
.....
</doc>
<doc href="div-types.TAN-voc.xml" id="tag:textalign.net,2015:tan-voc:div-types"
.....
</doc>
<doc href="extra/n.bible.eng.tan-voc.xml" id="tag:textalign.net,2015:tan-voc:n:
.....
</doc>
.....
</collection>
```

### Note

Taken from catalog.tan [../vocabularies/catalog.tan.xml]

### Example 12.104. @stable

```
<collection stable="true">
  <doc href="bitext-relations.TAN-voc.xml" />
  <doc href="catalog.tan.xml" />
  <doc href="div-types.TAN-voc.xml" />
  .....
</collection>
```

### Note

Taken from collection [../vocabularies/collection.xml]

## @status

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The attribute *status* specifies whether an element is required by in any *<claim>* that uses the *<verb>* in question.

Used by: *~element-at-ref-constraint*, *~element-in-lang-constraint*, *~element-object-constraint*, *~element-period-constraint*, *~element-place-constraint*, *~element-subject-constraint*

### Example 12.105. @status

```
<sourceDesc default="false">
  <bibl default="false" status="draft">
    <title type="main">My Name is Patrick</title>
    <title type="subtitle">The Confessio of St Patrick and his Letter t
      Coroticus</title>
    <author>
      .....
    </author>
    .....
  </bibl>
</sourceDesc>
```

### Note

Taken from patricius.confessio.2003.eng [../examples/patricius.confessio.2003.eng.xml]

#### Example 12.106. @status

```
<teiHeader>
  <fileDesc>
    .....
  </fileDesc>
  <revisionDesc status="draft">
    <change when-iso="2015-05-14T16:30:25.958-04:00" status="draft" />
  </revisionDesc>
</teiHeader>
```

### Note

Taken from ring-o-roses.eng.1951 [../examples/ring-o-roses.eng.1951.xml]

#### Example 12.107. @status

```
<constraints>
  <subject status="required" item-type="person work version scriptum"
  <at-ref status="required" />
  .....
</constraints>
```

### Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## @subject

*TAN-A.rng* [../schemas/TAN-A.rng]

The attribute `subject` points to one or more ID refs of vocabulary items in `<head>` that serve as the grammatical subject of a claim. `@subject` within `<body>` indicates the default subject (s) for `<claim>s`. `@subject` is used for idrefs; data content, textual references, or complex objects must be encoded with `<subject>`.

Multiple values of `@subject` are interpreted to mean "and", resulting in distribution of the claim. E.g., `subject="X Y"` means the claim is true about X and about Y.

The sequence of multiple values is immaterial.

Takes IDrefs to vocabulary items `<algorithm>`, `<organization>`, `<person>`, `<work>`, `<version>`, `<scriptum>`, `<topic>`, `<source>`

Used by: `~body-content-non-class-2`, `~element-claim`, `~subject`

### Caution

Every idref in an attribute must point to a vocabulary item (by `@xml:id` or `name`) that is of the appropriate corresponding element.

 **Caution**

All idrefs in an attribute must be unique.

 **Caution**

Multiple idrefs in a single attribute should not point to the same entity.

**Example 12.108. @subject**

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:ar.cat.tan-a:claims">
.....
<body claimant="park" claim-period="per2010s">
  <comment when="2017-03-10-05:00" who="park">The next two claims interpret Mi
    apparatus criticus entry for 1a2, which claims that Andronicus and Boe
    omitted ### ##### (based on what Porphyry and Dexippus say) and asser
    reading adopted is found in the seven commentators. The interpretation
    close to M-P's original, and does not fill in important gaps. For exam
    remark comes from his commentary, 1.18 (p. 21.20) and is reliant wholl
    Porphyry preserved in Simplicius's commentary, p. 30.1-2. Furthermore,
    of these texts shows that Porphyry claimed not that Andronicus and Boe
    text, or relied on sources that had omitted it, but that they observed
    manuscripts that had done so.</comment>
  <claim subject="andronicus boethus" adverb="perhaps" verb="om" xml:id="c11a2
    <at-ref src="grc" ref="1 a 2">
    .....
    </at-ref>
  </claim>
  <claim subject="#" #" verb="shows" object="c11a2a"/>
  <claim subject="comm-omnes" verb="attests" period="late_antiquity">
    <object src="grc" ref="1 a 2">
    .....
    </object>
  </claim>
  <claim subject="comm-omnes" verb="attests" xml:id="c11a2b">
    <object src="grc" ref="1 a 2">
    .....
    </object>
  </claim>
  <claim subject="#" #" verb="shows" object="c11a2b"/>
  .....
</body>
</TAN-A>
```

 **Note**

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

**@TAN-version**

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The attribute TAN-version specifies a version of TAN.



Used by: ~TAN-root

### ! Important

TAN files using a version other than the current version will be marked with a warning.

### ! Important

The @TAN-version for inclusions and vocabularies should match the current version.

#### Example 12.I09. @TAN-version

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:semantic-refs" TA
  <head>
    .....
  </head>
  <body xml:lang="eng">
    .....
  </body>
</TAN-T>
```

### 📄 Note

Taken from ar.cat.eng.1926.edghill.ref-logical [../examples/ar.cat.eng.1926.edghill.ref-logi-  
cal.xml]

#### Example 12.I10. @TAN-version

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:model-object-refs
  <head>
    .....
  </head>
  <body xml:lang="eng">
    .....
  </body>
</TAN-T>
```

### 📄 Note

Taken from ar.cat.eng.1926.edghill.ref-scriptum [../examples/ar.cat.en-  
g.1926.edghill.ref-scriptum.xml]

#### Example 12.I11. @TAN-version

```
<TAN-T TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-t:ar.cat.fra.1844.saint-
  <head>
    .....
  </head>
  <body xml:lang="fra">
    .....
  </body>
</TAN-T>
```

### Note

Taken from `ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949` [`../../examples/ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949.xml`]

#### Example 12.112. **@TAN-version**

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.fra.1844.saint-hilaire:semantic-re
  <head>
    .....
  </head>
  <body xml:lang="fra">
    .....
  </body>
</TAN-T>
```

### Note

Taken from `ar.cat.fra.i844.saint-hilaire.ref-logical` [`../../examples/ar.cat.fra.i844.saint-hilaire.ref-logical.xml`]

## @to

*TAN-core.rng* [`../../schemas/incl/TAN-core.rng`]

The attribute `to` specifies the end of a period of time.

Used by: `<period>`

### Caution

Future dates are not permitted.

### Caution

`@from` must predate `@to`

#### Example 12.113. **@to**

```
<vocabulary-key>
  .....
  <role xml:id="creator">
    .....
  </role>
  <period xml:id="per2010s" from="2010-01-01" to="2019-12-31"/>
  <period xml:id="late-antiquity">
    .....
  </period>
  .....
</vocabulary-key>
```

### Note

Taken from `ar.cat.TAN-A.claims` [`../../examples/TAN-A/ar.cat.TAN-A.claims.xml`]

## @tok-matches

*TAN-mor.rng* [../../schemas/TAN-mor.rng]

The attribute `tok-matches` takes a regular expression. When validating a given `<m>`, a test will be made against each companion `<tok>` (i.e., those `<tok>`s that have the same ancestral `<ana>`). The condition will be treated as true only for those matches with the resolved token value.

This is one of four tests for determining whether to process a `<report>` or `<assert>`

Used by: `~action-condition-attributes`

### Example 12.114. @tok-matches

```
<TAN-mor TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-r-mor:eng:penn">
  .....
  <body>
    .....
    <rule>
      <where m-has-codes="$"/>
        <assert tok-matches="$">Only $ may be tagged as a dollar sign.</assert>
      </rule>
    <rule m-has-codes="' ' . ; :">
      <report tok-matches="\w">Nothing marked as punctuation should have word
        characters.</report>
    </rule>
    .....
  </body>
</TAN-mor>
```

### Note

Taken from `eng.kalvesmaki.com,2014.2` [../../examples/TAN-mor/eng.kalvesmak-  
i.com,2014.2.xml]

## @tok-pop

*TAN-A-lm.rng* [../../schemas/TAN-A-lm.rng]

The attribute `tok-pop` specifies the quantity of tokens that are the subject of the `<ana>`. This attribute is useful for language-specific TAN-A-lm files, where the total number of tokens that formed the set might be lost. It is also useful for calculating the relative probability of token-to-lm combinations.

This attribute is weakly inheritable. See the section called “Attribute inheritability and priority”

Used by: `~element-ana`

### Example 12.115. @tok-pop

```
<body lexicon="LSJ Lampe new" morphology="Perseus" claimant="xslt2">
```

```

<ana tok-pop="2">
  <tok ref="11 2 1 1" pos="1"/>
  <lm>
    .....
  </lm>
</ana>
<ana>
  .....
</ana>
.....
</body>

```

### Note

Taken from `ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample` [`../../examples/TAN-A-lm/ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample.xml`]

## @type

*TAN-class-1.rng* [`../../schemas/incl/TAN-class-1.rng`]

The attribute `type` declares the main type of reference system is being used: material (based on the material features of a scriptum, e.g., page, column, line) or logical (e.g., chapter, paragraph, stanza). This is evaluated primarily against the top level of the reference system

*TAN-core.rng* [`../../schemas/incl/TAN-core.rng`]

The attribute `type` indicates the type of its parent element. In the context of `<div>` it specifies a type of textual unit, identified by a `<div-type>`. In the context of `<group>` it specifies a kind of group identified by a `<group-type>`. In the context of `<category>` it specifies a kind of grammatical feature identified by `<feature>`.

Takes IDrefs to vocabulary items `<div-type>`, `<group-type>`, `<feature>`

Used by: `~element-div`, `~element-reference-system`, `~group-attributes-core`

### Caution

Every idref in an attribute must point to a vocabulary item (by `@xml:id` or `name`) that is of the appropriate corresponding element.

### Caution

All idrefs in an attribute must be unique.

### Caution

Multiple idrefs in a single attribute should not point to the same entity.

### Example 12.116. @type

```
<body xml:lang="eng">
```

```
<div type="ch" n="1">
  <div type="par" n="1">
    <div type="s" n="1">
      <div type="ic" n="1">Things are said to be named 'equivocally' when
        a common name, the definition corresponding with the name differ
        a real man and a figure in a picture can both lay claim to the n
        'animal';</div>
      <div type="ic" n="2">yet these are equivocally so named, for, thoug
        common name, the definition corresponding with the name differs
      <div type="ic" n="3">For should any one define in what sense each i
        definition in the one case will be appropriate to that case only
    </div>
    <div type="s" n="2">
      .....
    </div>
    <div type="s" n="3">
      .....
    </div>
  </div>
</div>
<div type="ch" n="2">
  .....
</div>
.....
</body>
```

### Note

Taken from `ar.cat.eng.1926.edghill.ref-logical [../../examples/ar.cat.eng.1926.edghill.ref-logi-cal.xml]`

## @units

*TAN-A.rng [../../schemas/TAN-A.rng]*

The attribute `units` points to the ID ref of a `<unit>`, identifying the type of unit.

Takes IDrefs to vocabulary items `<unit>`, `<div-type>`

Used by: `~nontextual-reference`

### Caution

Every idref in an attribute must point to a vocabulary item (by `@xml:id` or `name`) that is of the appropriate corresponding element.

### Caution

All idrefs in an attribute must be unique.

### Caution

Multiple idrefs in a single attribute should not point to the same entity.

 **Caution**

Claims involving verbs whose constrained content requires specification of units must use `<object>` or `<subject>` with `@units..`

 **Caution**

`<object>` or `<subject>` with `@units` may be used only with verbs with constrained content.

**Example 12.117. @units**

```
<claim subject="n" verb="has_length">
  <object units="folio">160</object>
</claim>
```

 **Note**

Taken from `ar.cat.TAN-A.claims [../../examples/TAN-A/ar.cat.TAN-A.claims.xml]`

## @val

*TAN-class-2.rng [../../schemas/incl/TAN-class-2.rng]*

The attribute `val` contains a string that points to a word token by its value. Matches are case-, space-, and accent-sensitive.

For more see the section called “Referencing tokens: @pos and @val”

Used by: `~element-tok-abstract`, `~tok-selector-attributes-one`, `~tok-selector-attributes-many`

 **Caution**

Every token must be locatable in every cited ref in every source.

**Example 12.118. @val**

```
<reassign>
  <passage ref="5 4 7 2">
    <from-tok val=":" pos="1"/>
    <through-tok val=":" pos="1"/>
  </passage>
  .....
</reassign>
```

 **Note**

Taken from `ar.cat.TAN-A [../../examples/TAN-A/ar.cat.TAN-A.xml]`

**Example 12.119. @val**

```
<body lexicon="LSJ" morphology="perseus-dik" claimant="xslt2">
  <ana>
```

```
<tok val="#" cert="0.2"/>
<tok val="#" cert="0.083333333333333333"/>
<tok val="#" />
.....
</ana>
<ana>
  <tok val="#" cert="0.083333333333333333"/>
  <tok val="#" />
  .....
</ana>
.....
<ana>
  <tok val="#" cert="0.083333333333333333"/>
  <tok val="#" />
  .....
</ana>
<ana>
  <tok val="#" cert="0.083333333333333333"/>
  <tok val="#" cert="0.142857142857142857"/>
  .....
</ana>
.....
<ana>
  <tok val="#" />
  <tok val="#" cert="0.083333333333333333"/>
  <tok val="#" />
  .....
</ana>
</body>
```

### Note

Taken from `grc-tan-a-lm-%CE%B1 [../examples/TAN-A-lm/grc-tan-a-lm-%CE%B1.xml]`

## @verb

*TAN-A.rng [../schemas/TAN-A.rng]*

The attribute `verb` points to one or more `<verb>`s that serve to assert something of the subject.

The TAN term "verb" is the preferred equivalent to RDF "predicate."

Multiple values of `@verb` are interpreted to mean "and", resulting in distribution of the claim. E.g., `verb="X Y"` means the claim is true for verb X and verb Y. Any claim with multiple verbs must observe the constraints of each verb.

Takes IDrefs to vocabulary items `<verb>`

Used by: `~body-content-non-class-2, ~element-claim`

### Caution

Every idref in an attribute must point to a vocabulary item (by `@xml:id` or `name`) that is of the appropriate corresponding element.

⚠ Caution

All idrefs in an attribute must be unique.

⚠ Caution

Multiple idrefs in a single attribute should not point to the same entity.

⚠ Caution

Every <claim> must have or inherit at least one verb.

⚠ Caution

Every <claim> must respect constraints defined by the verb.

⚠ Caution

No <claim> with a verb that disallows an element may have another verb that requires that same element.

Example 12.120. **@verb**

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:ar.cat.tan-a:claims">
.....
<body claimant="park" claim-period="per2010s">
  <comment when="2017-03-10-05:00" who="park">The next two claims interpret Mi
    apparatus criticus entry for 1a2, which claims that Andronicus and Boe
    omitted ### ##### (based on what Porphyry and Dexippus say) and asser
    reading adopted is found in the seven commentators. The interpretation
    close to M-P's original, and does not fill in important gaps. For exam
    remark comes from his commentary, 1.18 (p. 21.20) and is reliant wholl
    Porphyry preserved in Simplicius's commentary, p. 30.1-2. Furthermore,
    of these texts shows that Porphyry claimed not that Andronicus and Boe
    text, or relied on sources that had omitted it, but that they observed
    manuscripts that had done so.</comment>
  <claim subject="andronicus boethus" adverb="perhaps" verb="om" xml:id="c11a2"
    <at-ref src="grc" ref="1 a 2">
      .....
    </at-ref>
  </claim>
  <claim subject="#" # " verb="shows" object="c11a2a"/>
  <claim subject="comm-omnes" verb="attests" period="late_antiquity">
    <object src="grc" ref="1 a 2">
      .....
    </object>
  </claim>
  <claim subject="comm-omnes" verb="attests" xml:id="c11a2b">
    <object src="grc" ref="1 a 2">
      .....
    </object>
  </claim>
  <claim subject="#" # " verb="shows" object="c11a2b"/>
```



```
.....  
</body>  
</TAN-A>
```

### Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## @wf-ready

*TAN-class-1.rng [../../schemas/incl/TAN-class-1.rng]*

The attribute `wf-ready` specifies whether the class `i` file's reference system is suited for Writing Frigid URIs. Default is false. If `@wf-ready` is true, the class `i` file can be parsed against, and be used to generate, Writing Frigid URIs. A value of true may be supplied only if the following are true:

The scriptum used for the reference system has no more than one logical and no more than one material reference system (the "key reference system," defined by the specifications for Writing Frigid, version 0).

The division of a text unit should result in a unique numbered sequence. That is, in any given enumerable text division sequence (sibling `<div>s` whose values of `@n` can be converted to integers or integer-qualified integers, e.g., 3b), Arabic numerals, Roman numerals, and alphabetic numerals may not be mixed.

It is permitted to divide a key reference system more finely, but only in its innermost (leafmost) structures, not at the branch or root levels.

Used by: `~element-reference-system`

### Example 12.121. @wf-ready

```
<head>  
.....  
<license licenser="kalvesmaki">  
.....  
</license>  
<reference-system type="logical" wf-ready="true"/>  
<work>  
.....  
</work>  
.....  
</head>
```

### Note

Taken from ar.cat.fra.i844.saint-hilaire.ref-logical [../examples/ar.cat.fra.i844.saint-hilaire.ref-logical.xml]

### Example 12.122. @wf-ready

```
<head>
```

```
.....  
<work>  
.....  
</work>  
<reference-system type="logical" wf-ready="true" />  
<source>  
.....  
</source>  
.....  
</head>
```

### Note

Taken from ar.cat.grc.1949.minio-paluello.ref-logical [../examples/ar.cat.grc.1949.minio-paluello.ref-logical.xml]

### Example 12.123. @wf-ready

```
<head>  
.....  
<work>  
.....  
</work>  
<reference-system type="material" wf-ready="true" scriptum="bekker" />  
<source>  
.....  
</source>  
.....  
</head>
```

### Note

Taken from ar.cat.grc.1949.minio-paluello.ref-scriptum [../examples/ar.cat.grc.1949.minio-paluello.ref-scriptum.xml]

### Example 12.124. @wf-ready

```
<head>  
.....  
<work>  
.....  
</work>  
<reference-system type="material" wf-ready="true" />  
<source>  
.....  
</source>  
.....  
</head>
```

### Note

Taken from ar.cat.lat.1961.minio-paluello.ref-scriptum [../examples/ar.cat.lat.1961.minio-paluello.ref-scriptum.xml]

## @when

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

The attribute when indicates a date or date and time

This attribute is weakly inheritable. See the section called “Attribute inheritability and priority”

Used by: ~element-change, ~element-comment

### ⚠ Caution

Future dates are not permitted.

### Example 12.125. @when

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:semantic-refs" TA
  <head>
    .....
    <resp who="xslt1" roles="stylesheet1"/>
    <change when="2020-12-31" who="kalvesmaki">Added new reference-system declar
    <change when="2016-06-22T08:04:25.003-04:00" who="kalvesmaki">Reformatted ac
      model found. Backup made at
      file:/C:/Users/jdkalv/Dropbox/TAN/library/TAN-2018/examples/ar.cat.eng.19
    <change when="2016-01-26-04:00" who="kalvesmaki">Started new file.</change>
    <change who="xslt1" when="2017-11-02T22:29:17.742-04:00">TAN file updated to
    <change who="xslt2" when="2018-08-04T23:55:36.096-04:00">Converted from 2018
    .....
  </head>
  .....
</TAN-T>
```

### 📄 Note

Taken from ar.cat.eng.1926.edghill.ref-logical [../../examples/ar.cat.eng.1926.edghill.ref-logi-cal.xml]

## @where

*TAN-A.rng* [../../schemas/TAN-A.rng]

The attribute where restricts the domain of a <claim> to a specific <place>.

Multiple values of @where are interpreted to mean “or” with union. Unlike most other attributes for <claim>, no distribution takes place. For example, where=“X Y” means the claim occurred in either X or Y or both.

The sequence of multiple values of @where is immaterial.

Takes IDrefs to vocabulary items <place>

Used by: ~element-claim

 **Caution**

Every idref in an attribute must point to a vocabulary item (by @xml:id or name) that is of the appropriate corresponding element.

 **Caution**

All idrefs in an attribute must be unique.

 **Caution**

Multiple idrefs in a single attribute should not point to the same entity.

**Example 12.126. @where**

```
<body claimant="park" claim-period="per2010s">
  .....
  <claim verb="refers-to">
    .....
  </claim>
  <claim subject="boethius" verb="wrote" object="#" where="Pavia"/>
  <claim subject="n" verb="has_length">
    .....
  </claim>
</body>
```

 **Note**

Taken from ar.cat.TAN-A.claims [../../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## @which

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

The attribute `which` points to a single vocabulary item. Reference is made either via `idref` or `<name>`. Because this attribute points to only one vocabulary item, spaces are permitted, if using a vocabulary's `<name>`. Before evaluation `@which` will be name-normalized: spaces, hyphens, and underscores will be treated as identical, and text will be rendered lowercase.

Used by: `~element-token-definition`, `~entity-digital-core-content`, `~entity-nondigital-content`, `~entity-nondigital-with-constraints-content`

 **Caution**

An element's `@which` must have a value that corresponds to a `<name>`, either in a standard TAN vocabulary or an associated TAN-voc file, that is marked as applying to that element.

 **Caution**

A `@which` in a `<vocabulary>` may point only to items in the standard TAN file vocabularies. `TAN-voc.xml`

### Example 12.127. @which

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:semantic-refs" TA
  <head>
    .....
    <adjustments>
      <normalization which="no hyphens"/>
    </adjustments>
    <vocabulary-key>
      .....
      <div-type xml:id="ic">
        .....
      </div-type>
      <div-type xml:id="pt" which="part"/>
      <person xml:id="kalvesmaki">
        .....
      </person>
      .....
      <role xml:id="editor">
        .....
      </role>
      <role xml:id="stylesheet1" which="stylesheet"/>
      <relationship xml:id="alt">
        .....
      </relationship>
    </vocabulary-key>
    .....
  </head>
  .....
</TAN-T>
```

#### Note

Taken from ar.cat.eng.1926.edghill.ref-logical [../examples/ar.cat.eng.1926.edghill.ref-logical.xml]

### Example 12.128. @which

```
<adjustments>
  <normalization which="no hyphens"/>
</adjustments>
```

#### Note

Taken from ar.cat.eng.1926.edghill.ref-scriptum [../examples/ar.cat.eng.1926.edghill.ref-scriptum.xml]

## @who

TAN-core.rng [../schemas/incl/TAN-core.rng]

The attribute who refers via idrefs to a person, organization, or algorithm.

Takes IDrefs to vocabulary items <person>, <organization>, <algorithm>

Used by: ~element-change, ~element-comment, ~element-file-resp, ~element-resp

### ⚠ Caution

Every idref in an attribute must point to a vocabulary item (by @xml:id or name) that is of the appropriate corresponding element.

### ⚠ Caution

All idrefs in an attribute must be unique.

### ⚠ Caution

Multiple idrefs in a single attribute should not point to the same entity.

### Example 12.129. @who

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:semantic-refs" TA
  <head>
    .....
    <vocabulary-key>
      .....
    </vocabulary-key>
    <file-resp who="kalvesmaki" />
    <resp who="xslt2" roles="stylesheet1" />
    <resp roles="editor" who="kalvesmaki" />
    <resp who="xslt1" roles="stylesheet1" />
    <change when="2020-12-31" who="kalvesmaki">Added new reference-system declar
    .....
  </head>
  .....
</TAN-T>
```

### 📄 Note

Taken from ar.cat.eng.1926.edghill.ref-logical [../examples/ar.cat.eng.1926.edghill.ref-logical.xml]

## @work

*TAN-A.rng* [../schemas/TAN-A.rng]

The attribute work refers via idrefs to one or more works. The ensuing claim(s) will be considered to be true of any sources that share the same work.

If you wish to avoid making a claim applying to all other versions of a work, use @src instead.

Multiple values of @work are interpreted to mean "and", resulting in distribution of the claim. E.g., work="X Y" means the claim is true for both work X and work Y.

Takes IDrefs to vocabulary items <source>, <work>

Used by: ~multi-source-whole-div-textual-reference, ~work-version-reference

### ⚠ Caution

Every `idref` in an attribute must point to a vocabulary item (by `@xml:id` or `name`) that is of the appropriate corresponding element.

### ⚠ Caution

All `idrefs` in an attribute must be unique.

### ⚠ Caution

Multiple `idrefs` in a single attribute should not point to the same entity.

### ! Important

If a reference to a work is not found in some sources for that work, a warning will be returned.

#### Example 12.130. @work

```
<claim verb="refers-to">
  <subject src="grc" ref="1 b 25"/>
  <object work="grc" ref="1 a 16"/>
</claim>
```

### 📖 Note

Taken from `ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]`

#### Example 12.131. @work

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:ring01-TAN-A-ring02">
  .....
  <body claimant="park">
    .....
    <claim verb="resembles">
      <subject src="eng-uk">
        .....
        </subject>
        <object work="eng-uk" ref="3-4"/>
      </claim>
    <claim verb="quotes">
      <subject work="ring" ref="1"/>
      <object work="ring" ref="2"/>
    </claim>
    .....
  </body>
</TAN-A>
```

### 📖 Note

Taken from `ringoroses.div.1 [../examples/TAN-A/ringoroses.div.1.xml]`

## @xml:id

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

The attribute `xml:id` identifies an entity described within an element. Must be unique within a given file. Must consist only of word characters.

Used by: `~element-claim`, `~link-element-inclusion`, `~voc-element-alias`, `~voc-element-period`, `~entity-digital-nontan-id`, `~entity-digital-tan-id`, `~entity-nondigital-constrained`, `~entity-nondigital-id`

### ⚠ Caution

`@xml:id` values may not be repeated in the same document.

### ! Important

An `@xml:id` on a vocabulary item need not duplicate a `<name>` (except in a TAN-mor file).

### Example 12.132. @xml:id

```
<head>
.....
<vocabulary-key>
  <algorithm xml:id="xslt2">
    <IRI>tag:textalign.net,2015:stylesheet:convert-tan2018-to-tan2020</IRI>
    <name>Stylesheet to create a TAN file.</name>
    <location href="../../applications/convert/convert%20TAN%202018%20to%20TA
  </algorithm>
  <div-type xml:id="ch">
    <IRI>http://dbpedia.org/resource/Chapter_(books)</IRI>
    <name>chapter</name>
  </div-type>
  <div-type xml:id="par">
    <IRI>http://dbpedia.org/resource/Paragraph</IRI>
    <name xml:lang="eng">paragraph</name>
  </div-type>
  <div-type xml:id="s">
    <IRI>http://dbpedia.org/resource/Sentence_(linguistics)</IRI>
    <name>sentence</name>
  </div-type>
  <div-type xml:id="ic">
    .....
  </div-type>
.....
</vocabulary-key>
.....
</head>
```

### 📖 Note

Taken from `ar.cat.eng.i926.edghill.ref-logical [../../examples/ar.cat.eng.i926.edghill.ref-logical.xml]`



## @xml:lang

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

The attribute `xml:lang` specifies a language code that names the language of the text enclosed by the parent element. Values are inherited by all descendants except for those that have an `@xml:lang` and their descendants.

Values should adhere to BCP (Best Common Practices) 47, <http://www.rfc-editor.org/rfc/bcp/bcp47.txt>. For more details see the section called “Languages”.

Examples: 'eng' (English), 'grc' (classical Greek), 'lat' (Latin)

Used by: ~nontextual-reference, ~body-attributes-non-core, ~element-div, ~metadata-human-readable-attributes

### Example 12.133. @xml:lang

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:semantic-refs" TA
  <head>
    .....
    <vocabulary-key>
      .....
      <div-type xml:id="par">
        <IRI>http://dbpedia.org/resource/Paragraph</IRI>
        <name xml:lang="eng">paragraph</name>
      </div-type>
      .....
      <person xml:id="kalvesmaki">
        .....
        <IRI>tag:kalvesmaki.com,2014:self</IRI>
        <name xml:lang="eng">Joel Kalvesmaki</name>
      </person>
      .....
      <role xml:id="editor">
        <IRI>http://schema.org/editor</IRI>
        <name xml:lang="eng">Editor</name>
      </role>
      .....
    </vocabulary-key>
    .....
  </head>
  <body xml:lang="eng">
    <div type="ch" n="1">
      .....
    </div>
    <div type="ch" n="2">
      .....
    </div>
    <div type="ch" n="3">
      .....
    </div>
    .....
```

```
</body>
</TAN-T>
```

### Note

Taken from ar.cat.eng.1926.edghill.ref-logical [../examples/ar.cat.eng.1926.edghill.ref-logical.xml]

## TAN elements

### <adjustments>

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The element `adjustments` declares alterations. In a class-1 file, it specifies alterations that have been made to the underlying source. In a class-2 file, it specifies alterations that should be made to the class-1 source (s) before processing any claims in the `<body>`.

The sequence of consecutive adjustments matters, in that their contents will be processed first by priority (`<skip>`, `<rename>`, `<equate>`, `<reassign>`), then in document order. The instructions in one `<adjustment>` may render null an instruction in a lower-priority, or subsequent adjustment action.

Used by: `~adjustment-list`

### Caution

Any range in either an `@n` or in a `@ref` in an adjustment action must be predictably calculated.

### Caution

No adjustment action should result in the mixing of leaf `<div>`s and non-leaf `<div>`s.

### Example 12.134. <adjustments>

```
<head>
  .....
  <redivision>
    .....
  </redivision>
  <adjustments>
    <normalization which="no hyphens"/>
  </adjustments>
  <vocabulary-key>
    .....
  </vocabulary-key>
  .....
</head>
```

### Note

Taken from ar.cat.eng.1926.edghill.ref-logical [../examples/ar.cat.eng.1926.edghill.ref-logical.xml]

Example 12.135. **<adjustments>**

```
<head>
  .....
  <model>
    .....
  </model>
  <adjustments>
    <normalization which="no hyphens" />
  </adjustments>
  <vocabulary-key>
    .....
  </vocabulary-key>
  .....
</head>
```

 Note

Taken from ar.cat.eng.1926.edghill.ref-scriptum [../examples/ar.cat.en-  
g.1926.edghill.ref-scriptum.xml]

Example 12.136. **<adjustments>**

```
<head>
  .....
  <model>
    .....
  </model>
  <adjustments>
    <normalization which="no hyphens" />
  </adjustments>
  <vocabulary-key>
    .....
  </vocabulary-key>
  .....
</head>
```

 Note

Taken from ar.cat.fra.1844.saint-hilaire.ref-logical-after-1949 [../exam-  
ples/ar.cat.fra.1844.saint-hilaire.ref-logical-after-1949.xml]

Example 12.137. **<adjustments>**

```
<head>
  .....
  <redivision>
    .....
  </redivision>
  <adjustments>
    <normalization which="no hyphens" />
    <normalization which="no ligatures" />
  </adjustments>
  <vocabulary-key>
```

```
.....  
</vocabulary-key>  
.....  
</head>
```

### Note

Taken from `ar.cat.fra.i844.saint-hilaire.ref-logical [../../examples/ar.cat.fra.i844.saint-hilaire.ref-logical.xml]`

## **<algorithm>**

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

The element `algorithm` contains an IRI + name pattern identifying an algorithm.

The term "algorithm" covers any set of computational instructions. It does not include the hardware used to run the algorithm, nor does it identify any algorithms used to run an algorithm. For example, an algorithm might identify one or more XSLT stylesheets, but it does not identify the engine (e.g., Saxon), catalyzing software (e.g., oXygen), or operating system (e.g., Windows) used to run the algorithm.

Used by: `~voc-element-agent`

### Caution

An element that has a `<location>` and is key for validation should have at least one document available.

### Caution

Every TAN file referred to by way of an element containing `<location>` should have an `@id` that matches the `<IRI>` of the parent of the `<location>`

### Caution

No element may point to a TAN file that has an identical `@id` value; the only exception is `<predecessor>` and `<successor>`.

### Important

If a target file has children items in the `<to-do>` the corresponding comments will be returned as warnings.

### Important

If a target file has a `<successor>` a warning will be returned, noting the update.

### Important

If a target file points only to non-local locations and no internet is available, the following message will be returned. "No internet available."

## ! Important

If an element not essential to validation has no `<location>` that points to a document a warning should be returned.

### Example 12.138. `<algorithm>`

```

<head>
  .....
  <vocabulary-key>
    <algorithm xml:id="xslt2">
      <IRI>tag:textalign.net,2015:stylesheet:convert-tan2018-to-tan2020</IRI>
      <name>Stylesheet to create a TAN file.</name>
      <location href=" ../applications/convert/convert%20TAN%202018%20to%20TA
    </algorithm>
    <div-type xml:id="ch">
      .....
    </div-type>
    .....
    <person xml:id="kalvesmaki">
      .....
    </person>
    <algorithm xml:id="xslt1">
      <IRI>tag:textalign.net,2015:stylesheet:convert-tan2017-to-tan2018</IRI>
      <name>Stylesheet to populate a TAN-A file from collections.</name>
      <location href=" ../applications/convert/convert%20TAN%202017%20to%20TA
    </algorithm>
    <role xml:id="editor">
      .....
    </role>
    .....
  </vocabulary-key>
  .....
</head>

```

## 📄 Note

Taken from `ar.cat.eng.i926.edghill.ref-logical [../examples/ar.cat.eng.i926.edghill.ref-logical.xml]`

### Example 12.139. `<algorithm>`

```

<vocabulary-key>
  .....
  <person xml:id="kalvesmaki">
    .....
  </person>
  <algorithm xml:id="xslt1">
    <IRI>tag:textalign.net,2015:stylesheet:convert-tan2017-to-tan2018</IRI>
    <name>Stylesheet to populate a TAN-A file from collections.</name>
    <location href=" ../applications/convert/convert%20TAN%202017%20to%20TA
  </algorithm>
  <role xml:id="editor">
    .....

```

```

    </role>
    .....
</vocabulary-key>

```

### Note

Taken from ar.cat.eng.i926.edghill.ref-scriptum [../examples/ar.cat.en-  
g.i926.edghill.ref-scriptum.xml]

### Example 12.140. **<algorithm>**

```

<vocabulary-key>
  <algorithm xml:id="xslt2">
    <IRI>tag:textalign.net,2015:stylesheet:convert-tan2018-to-tan2020</IRI>
    <name>Stylesheet to create a TAN file.</name>
    <location href=" ../applications/convert/convert%20TAN%202018%20to%20TA
  </algorithm>
  <div-type xml:id="ch">
    .....
  </div-type>
  .....
</vocabulary-key>

```

### Note

Taken from ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949 [../exam-  
ples/ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949.xml]

## **<alias>**

*TAN-core.rng [ ../../schemas/incl/TAN-core.rng ]*

The element `alias` assigns a single `id` (`@xml:id` or `@id`) to multiple `idrefs`. An `<alias>` effectively groups multiple vocabulary items together. `@xml:id` and `@id` are equivalent alternatives. The latter supports characters disallowed by the former (e.g., colons).

This feature is useful for creating groups of persons, works, scripta, etc., and referring to them. It is inspired by the model of the critical edition, where multiple manuscripts, each of which have their own identifier, can be assigned a family that has its own special siglum.

Because `ids` and `idrefs` are encapsulated within a single file, and because `<alias>` serves exclusively `idrefs`, this element may neither include nor be included.

The sequence of consecutive `<alias>`es is immaterial.

Used by: `~voc-key-core`

### Caution

`<alias>` references must not be circular.

### Caution

Every value in `@idrefs` must correspond to an `@id` or `@xml:id` in the file.

### Example 12.141. **<alias>**

```
<vocabulary-key>
.....
<div-type xml:id="v" which="verse (scripture)"/>
<alias xml:id="test" idrefs="ch v"/>
</vocabulary-key>
```

#### Note

Taken from matt.eng.kjv.1760 [../examples/matt.eng.kjv.1760.xml]

### Example 12.142. **<alias>**

```
<head>
.....
<vocabulary-key>
<alias xml:id="all" idrefs="grc eng"/>
<algorithm xml:id="xslt1">
.....
</algorithm>
.....
<work xml:id="#.c" which="Explanaciones de commentario graeco Ammonii"/>
<alias xml:id="#.d" idrefs="# #.c"/>
<work xml:id="#" which="Lemmata de commentario graeco Ioannis Philoponi"/>
<work xml:id="#.c" which="Explanaciones de commentario graeco Ioannis Phi
<alias xml:id="#.d" idrefs="# #.c"/>
<work xml:id="#" which="Lemmata de commentario graeco Olympiodori"/>
.....
</vocabulary-key>
.....
</head>
```

#### Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## **<align>**

*TAN-A-tok.rng* [../schemas/TAN-A-tok.rng]

The element `align` declares one or more groups of word-tokens that should be aligned with each other. `<align>` specifies that all the tokens invoked for one source collectively align with the tokens in the other. No special meaning is attached to sequences of `<tok>`s that do not follow the source order.

The sequence of consecutive `<align>`s is immaterial.

Used by: `~body-item`

### Example 12.143. **<align>**

```
<TAN-A-tok TAN-version="2021" id="tag:parkj@textalign.net,2015:TAN-A-tok,ring01+ri
```

```

.....
<body bitext-relation="B-descends-from-A" reuse-type="adaptation">
  <align>
    <tok src="ring1881" ref="1" pos="1"/>
    <tok src="ring1987" ref="1" pos="1"/>
  </align>
  <align>
    <tok src="ring1881" ref="1" pos="2"/>
    <tok src="ring1987" ref="1" pos="2"/>
  </align>
  <align>
    <tok src="ring1881" ref="1" pos="3"/>
    <tok src="ring1987" ref="1" pos="3"/>
  </align>
  <align>
    <tok src="ring1881" ref="1" pos="4"/>
    <tok src="ring1987" ref="1" pos="4"/>
  </align>
  <align>
    .....
  </align>
  .....
</body>
</TAN-A-tok>

```

### Note

Taken from ringoroses.o1+o2.token.i [../examples/TAN-A-tok/ringoroses.o1+o2.token.i.xml]

## <ana>

*TAN-A-lm.rng* [../schemas/TAN-A-lm.rng]

The element `ana` contains a one or more assertions about the lexical or morphological properties of one or more tokens.

Claims within an `<ana>` are distributive. That is, every combination of `<l>` and `<m>` within an `<lm>` is claimed to be true for every `<tok>`.

The sequence of consecutive `<ana>`s is immaterial.

Used by: `~body-item`

### Example 12.144. <ana>

```

<TAN-A-lm TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-t:ar.cat.grc.1949.min
.....
<body lexicon="LSJ Lampe new" morphology="Perseus" claimant="xslt2">
  <ana tok-pop="2">
    <tok ref="11 2 1 1" pos="1"/>
    <lm>
      .....

```



```
        </lm>
    </ana>
    <ana>
        <tok ref="10 6 3 2" pos="4"/>
        <tok ref="10 6 3 3" pos="15"/>
        <tok ref="10 6 4 2" pos="37"/>
        .....
    </ana>
    <ana>
        <tok ref="8 3 5 4" pos="6"/>
        <tok ref="8 3 7 3" pos="7"/>
        <lm>
            .....
        </lm>
    </ana>
    <ana>
        <tok ref="7 1 2 1" pos="12"/>
        <tok ref="7 3 1 3" pos="22"/>
        <tok ref="7 3 1 3" pos="24"/>
        .....
    </ana>
    <ana>
        .....
    </ana>
    .....
</body>
</TAN-A-lm>
```

### Note

Taken from `ar.cat.grc.i949.minio-paluello-sem-TAN-A-lm-sample [../../examples/TAN-A-lm/ar.cat.grc.i949.minio-paluello-sem-TAN-A-lm-sample.xml]`

## <annotation>

*TAN-class-1.rng [../../schemas/incl/TAN-class-1.rng]*

The element `annotation` identifies a class-2 file that is an annotation on (and therefore a dependent of) the current file.

The sequence of consecutive `<annotation>`s is immaterial.

Used by: `~networked-files-non-core`

### Caution

`<annotation>` must point to class 2 TAN files

### Caution

An element that has a `<location>` and is key for validation should have at least one document available.

⚠ Caution

Every TAN file referred to by way of an element containing `<location>` should have an `@id` that matches the `<IRI>` of the parent of the `<location>`

⚠ Caution

No element may point to a TAN file that has an identical `@id` value; the only exception is `<predecessor>` and `<successor>`.

! Important

If a target file has children items in the `<to-do>` the corresponding comments will be returned as warnings.

! Important

If a target file has a `<successor>` a warning will be returned, noting the update.

! Important

If a target file points only to non-local locations and no internet is available, the following message will be returned. "No internet available."

⚠ Caution

If a linking element points to a file that must be resolved, that file must be a TAN file.

Example 12.145. **`<annotation>`**

```
<head>
  .....
  <redivision>
    .....
  </redivision>
  <annotation>
    <IRI>tag:parkj@textalign.net,2015:ar.cat.tan-a:claims</IRI>
    <name>Comments and claims on Aristotle's Categories</name>
    <location accessed-when="2021-04-29T11:29:58.992-04:00" href="TAN-A/ar.ca
  </annotation>
  <adjustments>
    .....
  </adjustments>
  .....
</head>
```

📄 Note

Taken from `ar.cat.grc.1949.minio-paluello.ref-scriptum` [`../../examples/ar.cat.grc.1949.minio-paluello.ref-scriptum.xml`]

**`<assert>`**

`TAN-mor.rng` [`../../schemas/TAN-mor.rng`]

The element `assert` names a pattern that, if found to be false in any `<m>` in a dependent TAN-ALM file, will return the enclosed message upon validation of the dependent file, along with an error or warning. Modeled on Schematron `<report>`.

The sequence of consecutive `<assert>`s is immaterial.

Used by: `~element-rule`

### Example 12.146. `<assert>`

```
<TAN-mor TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-r-mor:eng:penn">
  .....
  <body>
    <rule m-matches=".+">
      <assert m-has-how-many-codes="1">Features may not be combined.</assert>
    </rule>
    <rule>
      <where m-has-codes="$"/>
        <assert tok-matches="$">Only $ may be tagged as a dollar sign.</assert>
      </rule>
    .....
  </body>
</TAN-mor>
```

#### Note

Taken from `eng.kalvesmaki.com,2014.2` [`../../examples/TAN-mor/eng.kalvesmaki.com,2014.2.xml`]

### Example 12.147. `<assert>`

```
<rule m-matches="^. i">
  <assert m-matches="^[dp]">An interrogative must be either a determiner (d)
    pronoun (p).</assert>
</rule>
```

#### Note

Taken from `grc.perseus.tan-mor` [`../../examples/TAN-mor/grc.perseus.tan-mor.xml`]

## `<at-ref>`

*TAN-A.rng* [`../../schemas/TAN-A.rng`]

The element `at-ref` restricts a claim to a particular abstract textual reference.

`<at-ref>` was designed primarily to serve claims related to apparatus critici. In traditional critical editions, the main text has an apparatus at the bottom of the page, indicating variations in the manuscript, e.g., "A om." or "A: γάρ". These terse statements are shorthand for: "Manuscript A omits the passage at line X word Y" and "Manuscript A reads γάρ in place of the passage at line X word Y." In those statements, the siglum A refers to the subject, and the reading (or lack thereof) is the object. The qualifier "at line X word Y" is the phrase that corresponds to `<at-ref>`. It functions much like `<where>`, but the geography is textual rather than spatial.

<at-ref> is special, and must be explicitly allowed or required by each <verb> or @verb's IRI + name pattern plus constraints.

<at-ref> contains a textual reference, and will look similar to <subject> or <object> built as a textual reference.

The sequence of consecutive <at-ref>s is immaterial.

*TAN-core.rng [ ../../schemas/incl/TAN-core.rng ]*

The element at-ref specifies whether a verb uses <at-ref> (default: disallowed).

Used by: ~element-claim, ~constraints-on-verb

### Example 12.148. <at-ref>

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:ar.cat.tan-a:claims">
  <head>
    .....
    <vocabulary-key>
      .....
      <verb xml:id="om">
        .....
        <constraints>
          <subject status="required" item-type="person work version scriptum"
            <at-ref status="required"/>
            <object status="disallowed"/>
          </constraints>
        </verb>
      .....
    </vocabulary-key>
    .....
  </head>
  <body claimant="park" claim-period="per2010s">
    .....
    <claim subject="andronicus boethus" adverb="perhaps" verb="om" xml:id="c11a2"
      <at-ref src="grc" ref="1 a 2">
        <tok pos="3-4"/>
      </at-ref>
    </claim>
    .....
    <claim subject="B" verb="reads">
      <at-ref src="grc" ref="1 a 5">
        <tok pos="1-2"/>
      </at-ref>
      <object>### #####</object>
    </claim>
    <claim subject="#" adverb="perhaps" verb="reads">
      <at-ref src="grc" ref="1 a 5">
        <tok pos="1-2"/>
      </at-ref>
      <object>### #####</object>
    </claim>
    .....
  </body>
</TAN-A>
```

```
</body>
</TAN-A>
```

### Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## <bitext-relation>

*TAN-A-tok.rng* [../schemas/TAN-A-tok.rng]

The element `bitext-relation` identifies how the text of one text-bearing object relates to that of another by specifying a relationship, e.g., B is a direct copy of A; B and A descend from a common parent, etc. See the section called “Token-based annotations and alignments (<TAN-A-tok>)” for theoretical background.

In most cases, there will be need for only one of these elements as a vocabulary item. But multiple values may be helpful for cases where a bitext has a complex history, for example, a textual object that was created over time, and in different phases.

This element should not be used to describe any activities (e.g., translation, copying), reserved for <reuse-type>.

For examples see the section called “TAN keywords for types of bitext relations (<bitext-relation>)”

Used by: ~voc-element-non-class-2

### Example 12.149. <bitext-relation>

```
<vocabulary-key>
  <algorithm xml:id="xslt2">
    .....
  </algorithm>
  <bitext-relation xml:id="B-descends-from-A">
    <IRI>tag:textalign.net,2015:bitext-relation:a/x+/b</IRI>
    <name>B descends directly from A, unknown number of intermediaries</name>
    <desc>The 1987 versions is hypothesized to descend somehow from the 18
      mainly for the sake of illustration.</desc>
  </bitext-relation>
  <reuse-type xml:id="adaptation">
    .....
  </reuse-type>
  .....
</vocabulary-key>
```

### Note

Taken from ringoroses.o1+o2.token.I [../examples/TAN-A-tok/ringoroses.o1+o2.token.I.xml]

### Example 12.150. <bitext-relation>

```
<vocabulary-key>
  <algorithm xml:id="xslt2">
```

```

    .....
</algorithm>
<bitext-relation xml:id="unclear">
  <IRI>tag:kalvesmaki@gmail.com,2014:bitext-relation:unclear</IRI>
  <name>The German and English versions bear some relationship, but what
    unclear.</name>
</bitext-relation>
<reuse-type xml:id="correlationGeneral">
  .....
</reuse-type>
.....
</vocabulary-key>

```

 **Note**

Taken from ringoroses.o1+o3.token.1 [../examples/TAN-A-tok/ringoroses.o1+o3.token.1.xml]

Example 12.151. **<bitext-relation>**

```

<vocabulary-key>
  <algorithm xml:id="xslt2">
    .....
  </algorithm>
  <bitext-relation xml:id="unclear">
    <IRI>tag:kalvesmaki@gmail.com,2014:bitext-relation:unclear</IRI>
    <name>The German and English versions bear some relationship, but what
      unclear.</name>
  </bitext-relation>
  <reuse-type xml:id="correlationGeneral">
    .....
  </reuse-type>
  .....
</vocabulary-key>

```

 **Note**

Taken from ringoroses.o1+o3.token.2 [../examples/TAN-A-tok/ringoroses.o1+o3.token.2.xml]

**<body>**

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The element body contains the data of a TAN file.

Used by: ~TAN-root

Example 12.152. **<body>**

```

<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:semantic-refs" TA
  <head>
    .....
  </head>
  <body xml:lang="eng">

```

```

    <div type="ch" n="1">
        .....
    </div>
    <div type="ch" n="2">
        .....
    </div>
    <div type="ch" n="3">
        .....
    </div>
    .....
</body>
</TAN-T>

```

### Note

Taken from `ar.cat.eng.1926.edghill.ref-logical [../../examples/ar.cat.eng.1926.edghill.ref-logical.xml]`

### Example 12.153. **<body>**

```

<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:model-object-refs"
  <head>
    .....
  </head>
  <body xml:lang="eng">
    <div type="p" n="1">
      .....
    </div>
    <div type="p" n="2">
      .....
    </div>
    <div type="p" n="3">
      .....
    </div>
    .....
  </body>
</TAN-T>

```

### Note

Taken from `ar.cat.eng.1926.edghill.ref-scriptum [../../examples/ar.cat.eng.1926.edghill.ref-scriptum.xml]`

### Example 12.154. **<body>**

```

<TAN-T TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-t:ar.cat.fra.1844.saint-
  <head>
    .....
  </head>
  <body xml:lang="fra">
    <div n="ti_1" type="ti">
      .....
    </div>
    <div n="1" type="ch">

```

```

    .....
    </div>
    <div n="2" type="ch">
    .....
    </div>
    .....
  </body>
</TAN-T>

```

### Note

Taken from `ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949` [`../examples/ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949.xml`]

### Example 12.155. **<body>**

```

<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.fra.1844.saint-hilaire:semantic-re
  <head>
    .....
  </head>
  <body xml:lang="fra">
    <div type="ti" n="ti">CATÉGORIES</div>
    <div type="sec" n="1">
      .....
    </div>
    <div type="sec" n="2">
      .....
    </div>
    .....
  </body>
</TAN-T>

```

### Note

Taken from `ar.cat.fra.i844.saint-hilaire.ref-logical` [`../examples/ar.cat.fra.i844.saint-hilaire.ref-logical.xml`]

## **<category>**

*TAN-mor.rng* [`../schemas/TAN-mor.rng`]

The element `category` groups a set of features that share a common grammatical trait such as gender, number, etc. The order of consecutive `<category>`s is important, dictating the sequence in which codes should appear in the values of `<m>` in a dependent TAN-A-Im file.

Used by: `~features-categorized`

### Example 12.156. **<category>**

```

<TAN-mor TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-r-mor:grc:perseus">
  .....
  <body>
    .....
    <rule m-matches="^. v">

```



```

.....
</rule>
<category feature="morphosyntactic_category">
  <code feature="adjective">
    .....
  </code>
  <code feature="conjunction">
    .....
  </code>
  <code feature="adverb">
    .....
  </code>
  .....
</category>
<category feature="secondary_morphosyntactic_category">
  <code feature="article">
    .....
  </code>
  <code feature="adjectival_adverb">
    .....
  </code>
  <code feature="pronoun_reciprocal">
    .....
  </code>
  .....
</category>
<category feature="feature_person">
  <code feature="first">
    .....
  </code>
  <code feature="second">
    .....
  </code>
  <code feature="third">
    .....
  </code>
</category>
<category feature="feature_number">
  <code feature="dual">
    .....
  </code>
  <code feature="plural">
    .....
  </code>
  <code feature="singular">
    .....
  </code>
</category>
<category feature="feature_tense">
  .....
</category>
.....
</body>
</TAN-mor>

```

## Note

Taken from `grc.perseus.tan-mor [../../examples/TAN-mor/grc.perseus.tan-mor.xml]`

## **<change>**

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

The element `change` declares a change made to the current file. Must credit/blame someone, specified by `@who`, and indicate when the change was made, specified by `@when`.

Collectively, `<change>` elements are called the changelog, the revision history of the document.

The editor has discretion as to how long or detailed a `<change>` should be, or how many should be retained in a changelog. Ideally, `<change>`s documenting every published version should be retained.

`<change>` elements may appear in any order, but it is good practice to put the most recent at the top.

### Example 12.157. **<change>**

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:semantic-refs" TA
  <head>
    .....
    <resp who="xslt1" roles="stylesheet1"/>
    <change when="2020-12-31" who="kalvesmaki">Added new reference-system declar
    <change when="2016-06-22T08:04:25.003-04:00" who="kalvesmaki">Reformatted ac
      model found. Backup made at
        file:/C:/Users/jdkalv/Dropbox/TAN/library/TAN-2018/examples/ar.cat.eng.19
    <change when="2016-01-26-04:00" who="kalvesmaki">Started new file.</change>
    <change who="xslt1" when="2017-11-02T22:29:17.742-04:00">TAN file updated to
    <change who="xslt2" when="2018-08-04T23:55:36.096-04:00">Converted from 2018
    .....
  </head>
  .....
</TAN-T>
```

## Note

Taken from `ar.cat.eng.1926.edghill.ref-logical [../../examples/ar.cat.eng.1926.edghill.ref-logical.xml]`

## **<checksum>**

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

The element `checksum` specifies some checksum value of a digital file. This element contains other elements that define the type and value of the checksum. Must begin with an IRI + name pattern that identifies the type of checksum being used (e.g., SHA-1).

This element allows other users to check to see if copies of a file are identical.

No checksums will be generated, checked, or validated by TAN schemas.

Used by: ~entity-digital-core-content

### Example 12.158. **<checksum>**

```
<source>
.....
<name>The Saint Patrick's Confessio Hypertext Stack Project edition</name>
<checksum>
  <IRI>http://dbpedia.org/resource/Sha-1</IRI>
  <name>SHA-1</name>
  <value>91D95564ABDF2B2C1B9EEF016CBA51E8179646CC</value>
</checksum>
<location href="http://www.confessio.ie/sites/confessio.ie/files/download
</source>
```

#### Note

Taken from patricius.confessio.2003.eng [../../examples/patricius.confessio.2003.eng.xml]

## **<claim>**

*TAN-A.rng [ ../../schemas/TAN-A.rng ]*

The element `claim` makes one or more claims (assertions).

Used by: ~body-content-non-class-2, ~complex-object

#### Caution

Claims involving verbs whose constrained content requires specification of units must use `<object>` or `<subject>` with `@units..`

#### Caution

`<object>` or `<subject>` with `@units` may be used only with verbs with constrained content.

#### Caution

A claim with a verb that has content constraints must not allow other verbs.

#### Caution

Every `<claim>` must have or inherit at least one verb.

#### Caution

Every `<claim>` must respect constraints defined by the verb.

#### Caution

No `<claim>` with a verb that disallows an element may have another verb that requires that same element.

Example 12.159. **<claim>**

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:ar.cat.tan-a:claims">
.....
<body claimant="park" claim-period="per2010s">
  <comment when="2017-03-10-05:00" who="park">The next two claims interpret Mi
    apparatus criticus entry for 1a2, which claims that Andronicus and Boe
    omitted ### ##### (based on what Porphyry and Dexippus say) and asser
    reading adopted is found in the seven commentators. The interpretation
    close to M-P's original, and does not fill in important gaps. For exam
    remark comes from his commentary, 1.18 (p. 21.20) and is reliant wholl
    Porphyry preserved in Simplicius's commentary, p. 30.1-2. Furthermore,
    of these texts shows that Porphyry claimed not that Andronicus and Boe
    text, or relied on sources that had omitted it, but that they observed
    manuscripts that had done so.</comment>
  <claim subject="andronicus boethus" adverb="perhaps" verb="om" xml:id="c11a2"
    <at-ref src="grc" ref="1 a 2">
    .....
  </at-ref>
</claim>
<claim subject="#" #" verb="shows" object="c11a2a"/>
<claim subject="comm-omnes" verb="attests" period="late_antiquity">
  <object src="grc" ref="1 a 2">
    .....
  </object>
</claim>
<claim subject="comm-omnes" verb="attests" xml:id="c11a2b">
  <object src="grc" ref="1 a 2">
    .....
  </object>
</claim>
<claim subject="#" #" verb="shows" object="c11a2b"/>
.....
</body>
</TAN-A>
```

 Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

**<code>**

*TAN-mor.rng* [../schemas/TAN-mor.rng]

The element code attaches a grammatical feature to a code, and makes it available to a TAN-A-lm file.

Because vocabulary item for a grammatical feature is language-agnostic, and because a TAN-mor code is language-specific, guidance to the editor of a TAN-A-lm file may be important. Ichildren <desc>s can be used to provide examples or other guidance.

Used by: ~element-category, ~features-uncategorized

## Caution

Codes for features must be case-indifferently unique.

### Example 12.160. `<code>`

```
<TAN-mor TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-r-mor:eng:penn">
  .....
  <body>
    .....
    <rule m-has-codes="' ' ; :">
      .....
    </rule>
    <code feature="closing_quotation_mark">
      <desc>Examples: ' '

```

## Note

Taken from `eng.kalvesmaki.com,2014.2` [`../../examples/TAN-mor/eng.kalvesmak-  
i.com,2014.2.xml`]

## `<collection>`

`catalog.tan.rng` [`../../schemas/catalog.tan.rng`]

## `<comment>`

`TAN-core.rng` [`../../schemas/incl/TAN-core.rng`]

The element `comment` discusses issues relevant to nearby data. Must credit someone, specified by `@who`, and indicate when the comment was made, specified by `@when` ..

Used by: ~element-ana, ~element-lm, ~element-align, ~element-category, ~element-item, ~element-replace, ~element-adjustments, ~element-group, ~element-head, ~element-license, ~element-to-do, ~element-vocabulary-key, ~link-element-inclusion, ~link-element-see-also, ~body-content-core, ~constraints-on-verb, ~entity-digital-nontan-id, ~entity-digital-nontan-no-id, ~entity-digital-tan-id, ~entity-digital-tan-no-id, ~entity-nondigital-constrained, ~entity-nondigital-id, ~entity-nondigital-no-id

Example 12.161. **<comment>**

```
<redivision>
.....
  <location href="ar.cat.eng.1926.edghill.ref-logical.xml" accessed-when="2021-02-12">
    <comment who="kalvesmaki" when="2021-02-12">A scan is available here:
      https://ia600908.us.archive.org/33/items/worksofaristotle01arisuoft/wo
  </redivision>
```

 Note

Taken from ar.cat.eng.1926.edghill.ref-scriptum [../examples/ar.cat.eng.1926.edghill.ref-scriptum.xml]

Example 12.162. **<comment>**

```
<to-do>
  <comment when="2020-04-25" who="kalvesmaki">Text needs to be proofread</comment>
</to-do>
```

 Note

Taken from ar.cat.lat.1961.minio-paluello.ref-scriptum [../examples/ar.cat.lat.1961.minio-paluello.ref-scriptum.xml]

Example 12.163. **<comment>**

```
<TEI TAN-version="2021" id="tag:parkj@textalign.net,2015:gomme.1898.ring-o-roses">
.....
<head>
.....
  <source>
.....
    <name>The traditional games of England, Scotland, and Ireland : with tune
    and methods of playing according to the variants extant and recorded in di
    the Kingdom</name>
    <comment when="2015-03-10" who="park">This work is to be found at vol. 2,
    108-111.</comment>
  </source>
.....
  <to-do>
    <comment when="2018-08-09-04:00" who="park">Finish file.</comment>
  </to-do>
</head>
.....
</TEI>
```

 Note

Taken from `gomme.1989.ring-o-roses` [`../../examples/gomme.1989.ring-o-roses.xml`]

## <companion-version>

*TAN-core.rng* [`../../schemas/incl/TAN-core.rng`]


The element `companion-version` identifies a file closely associated with the current one.

In a class 1 file, `<companion-version>` points to another class 1 file that has a different version of the same work found in the same scriptum.

In class 2 and class 3 files, `<companion-version>` points to a file of the same type, but the nature of the relationship between the two files is not stipulated. It can be used to point to a continuation of a dataset, or to competing one.

The sequence of consecutive `<companion-version>`s is immaterial.

Used by: `~networked-files-core`

 Caution

`<successor>` and `<companion-version>` must point to TAN files of the same type.

 Caution

Class 1 files must share the same source as any redivision or companion version.

 Caution

Class 1 files must share the same work as any model, redivision, or companion version.

### Example 12.164. `<companion-version>`

```
<head>
  .....
  <source xml:id="eng">
    .....
  </source>
  <companion-version>
    <IRI>tag:parkj@textalign.net,2015:ar.cat.tan-a:claims</IRI>
    <name>Comments and claims on Aristotle's Categories</name>
    <location accessed-when="2021-04-29T11:41:57.716-04:00" href="ar.cat.TAN-
  </companion-version>
  <adjustments src="fra">
    .....
  </adjustments>
  .....
</head>
```

 Note

Taken from `ar.cat.TAN-A` [`../../examples/TAN-A/ar.cat.TAN-A.xml`]

## <constraints>

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

The element `constraints` specifies the expectations for a given verb. Any verb without constraints is presumed to be transitive, requiring a subject and an object, allowing adverbs, but disallowing opt-in elements, e.g., `<in-lang>`.

Used by: `~entity-nondigital-with-constraints-content`

### Example 12.165. <constraints>

```
<head>
  .....
  <vocabulary-key>
    .....
    <verb xml:id="om">
      .....
      <desc>This verb is similar to the standard TAN verb
        "lacks", but expands the definition to persons.</desc>
      <constraints>
        <subject status="required" item-type="person work version scriptum"
          <at-ref status="required"/>
        <object status="disallowed"/>
      </constraints>
    </verb>
    <verb xml:id="attests">
      .....
      <desc>This verb is similar to the standard TAN verb
        "matches", but expands the definition to persons.</desc>
      <constraints>
        <subject status="required" item-type="person work version scriptum"
          <object status="required" item-type="ref"/>
      </constraints>
    </verb>
    <verb xml:id="has-length">
      .....
      <desc>This verb is used to describe the how many pages or folios a scr
        is.</desc>
      <constraints>
        <subject status="required" item-type="scriptum"/>
        <object status="required" content-datatype="integer" content-lexica
      </constraints>
    </verb>
    .....
  </vocabulary-key>
  .....
</head>
```

### Note

Taken from `ar.cat.TAN-A.claims` [../../examples/TAN-A/ar.cat.TAN-A.claims.xml]



### Example 12.166. **<constraints>**

```

<item>
  .....
  <name>wrote</name>
  <constraints>
    <subject status="required" item-type="person"/>
    <object status="required" item-type="work version"/>
  </constraints>
</item>

```

#### Note

Taken from verbs.TAN-voc [../vocabularies/verbs.TAN-voc.xml]

## **<desc>**

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The element `desc` provides a human-readable description of a concept, person, or thing referred to by the parent element (or the current document, if the parent element is `<head>`). `<desc>` is, in effect, a `<comment>` about that concept, person, or thing.

Used by: `~element-code`, `~metadata-human-readable`

#### Caution

All text must be normalized (Unicode NFC).

### Example 12.167. **<desc>**

```

<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:semantic-refs" TA
  <head>
    .....
    <license licensor="kalvesmaki">
      .....
      <name>Creative Commons Attribution 4.0 International License</name>
      <desc>Exclusive of rights held and licenses offered by rightsholders of t
        sources listed below, this data file, insofar as it constitutes an ind
        licensed under a Creative Commons Attribution 4.0 International Licens
    </license>
    .....
    <vocabulary-key>
      .....
      <div-type xml:id="ic">
        .....
        <name>independent clause</name>
        <desc>used to identify two or more sentence parts that have a subject
          function as a sentence.</desc>
      </div-type>
    .....
  </vocabulary-key>
  .....

```

```
</head>
.....
</TAN-T>
```

### Note

Taken from `ar.cat.eng.i926.edghill.ref-logical [../../examples/ar.cat.eng.i926.edghill.ref-logical.xml]`

#### Example 12.168. **<desc>**

```
<license licenser="kalvesmaki">
.....
<name>Creative Commons Attribution 4.0 International License</name>
<desc>Exclusive of rights held and licenses offered by rightsholders of t
sources listed below, this data file, insofar as it constitutes an ind
licensed under a Creative Commons Attribution 4.0 International Licens
</license>
```

### Note

Taken from `ar.cat.eng.i926.edghill.ref-scriptum [../../examples/ar.cat.eng.i926.edghill.ref-scriptum.xml]`

#### Example 12.169. **<desc>**

```
<license licenser="kalvesmaki">
.....
<name>Creative Commons Attribution 4.0 International License</name>
<desc>Exclusive of rights held and licenses offered by rightsholders of t
sources listed below, this data file, insofar as it constitutes an ind
licensed under a Creative Commons Attribution 4.0 International Licens
</license>
```

### Note

Taken from `ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949 [../../examples/ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949.xml]`

## **<div>**

*TAN-A.rng [../../schemas/TAN-A.rng]*

The element `div` restricts a claim to a particular passage in a subject or object. In this context `<div>` is especially useful for clarifying which part of a scriptum is meant, e.g., page ranges.

Unlike class-1 `<div>`s, this one takes no text and no inclusions.

The sequence of consecutive `<div>`s in a `<subject>` or `<object>` is important. A `<div>` specifies not only which parts of an `<object>` or `<subject>` are relevant, but the sequence of those parts.

*TAN-T.rng [../../schemas/TAN-T.rng]*

The element `div` marks a textual unit. Contains other `<div>`s or text, but not both (i.e., no mixed content).

TAN's `<div>` differs from the TEI's, in that the latter is intended for the first level or levels of sub-division in the front, body, or back of a text, but not for paragraphs or anonymous blocks. The TAN `<div>` better resembles HTML's, and can be applied to any kind of textual division, even a single character.

Used by: `~element-div`, `~scriptum-filter`, `~body-item`

⚠ **Caution**

All text must be normalized (Unicode NFC).

! **Important**

Most `div` references are unique.

⚠ **Caution**

An `@n` taking digit values should not begin with `o`.

⚠ **Caution**

Every leaf `div` must have at least some non-space text.

⚠ **Caution**

No text may begin with a modifying character.

⚠ **Caution**

No text may have a spacing character followed by a modifying character.

⚠ **Caution**

No text may have Unicode characters that are disallowed, e.g., U+A0, NO BREAK SPACE.

⚠ **Caution**

No reference may point to a mixture of leaf and non-leaf `<div>`s.

! **Important**

An `@n`'s value should not appear in the text.

! **Important**

A `<div>`'s reference (self and ancestor `@ns`, concatenated) should not appear in the text.

⚠ **Caution**

Each value in `@ref-alias` must consist of as many `@n` values as the current `div` is deep in the body structure.

### Example 12.170. **<div>**

```

<body xml:lang="eng">
  <div type="ch" n="1">
    <div type="par" n="1">
      <div type="s" n="1">
        <div type="ic" n="1">Things are said to be named 'equivocally' when
          a common name, the definition corresponding with the name differ
          a real man and a figure in a picture can both lay claim to the n
          'animal';</div>
        <div type="ic" n="2">yet these are equivocally so named, for, thoug
          common name, the definition corresponding with the name differs
        <div type="ic" n="3">For should any one define in what sense each i
          definition in the one case will be appropriate to that case only
        </div>
      <div type="s" n="2">
        .....
      </div>
      <div type="s" n="3">
        .....
      </div>
    </div>
  </div>
  <div type="ch" n="2">
    .....
  </div>
  .....
</body>

```

#### Note

Taken from ar.cat.eng.1926.edghill.ref-logical [../../examples/ar.cat.eng.1926.edghill.ref-logi-  
cal.xml]

## **<div-type>**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

The element `div-type` declares a type of textual division (e.g., title, paragraph, stanza).

For more information, see the section called “One reference system” and the section called “TAN keywords for types of divisions (<div-type>)” for standard TAN values.

Used by: `~voc-element-tan-a`, `~voc-element-class-1`

### Example 12.171. **<div-type>**

```

<head>
  .....
  <vocabulary-key>
    <algorithm xml:id="xslt2">
      .....
    </algorithm>

```

```

<div-type xml:id="ch">
  <IRI>http://dbpedia.org/resource/Chapter_(books)</IRI>
  <name>chapter</name>
</div-type>
<div-type xml:id="par">
  <IRI>http://dbpedia.org/resource/Paragraph</IRI>
  <name xml:lang="eng">paragraph</name>
</div-type>
<div-type xml:id="s">
  <IRI>http://dbpedia.org/resource/Sentence_(linguistics)</IRI>
  <name>sentence</name>
</div-type>
<div-type xml:id="ic">
  <IRI>https://en.wikipedia.org/wiki/Independent_clause</IRI>
  <name>independent clause</name>
  <desc>used to identify two or more sentence parts that have a subject
    function as a sentence.</desc>
</div-type>
<div-type xml:id="pt" which="part"/>
  .....
</vocabulary-key>
  .....
</head>

```

### Note

Taken from `ar.cat.eng.1926.edghill.ref-logical [../examples/ar.cat.eng.1926.edghill.ref-logical.xml]`

## <doc>

`catalog.tan.rng [../schemas/catalog.tan.rng]`

Used by: <collection>

## <equate>

`TAN-class-2.rng [../schemas/incl/TAN-class-2.rng]`

The element `equate` declares an ad hoc equivalence in `@n` values. It behaves like `<alias>` but has scope only over a particular source. For example, `<equate n="pr pref preface introduction"/>` specifies that sources with `<div>` `@n` values of either "pr", "pref", "preface", or "introduction" should be treated as equivalent. Hence, in the `<body>` any `@ref="pr"` will also match a `<div n="introduction"/>`

This element does not imply that the `@n` values are the same. It merely states that, for the purposes of this `class-2` file, they should be treated as equivalent.

Only the first `<equate>` applying to a `<div>` in a given source will be applied.

Used by: `~adjust-class-2`

! Important

Only the first of multiple adjustment actions will be applied. Action priority: skip, ref-based rename, then for every @n n-based rename, equate.

! Caution

In adjustment actions involving @n, at least one value should be found in each source.

! Important

The values of @n in <equate> should not have duplicates.

! Important

At least one @n value in an equate should be found in every source.

Example 12.172. <equate>

```
<adjustments src="fra">
  <skip div-type="summ" shallow="false"/>
  <equate n="ti title"/>
  <reassign>
    .....
  </reassign>
</adjustments>
```

📄 Note

Taken from ar.cat.TAN-A [../examples/TAN-A/ar.cat.TAN-A.xml]

## <feature>

*TAN-mor.rng* [../schemas/TAN-mor.rng]

The element `feature` names, through its IRI + name pattern, a grammatical feature or concept (e.g., plural, subjunctive, 1st person) that is part of a language. In the context of <category> a @code is always included. The first <feature> of a <category>, however, never has a @code, because it describes the grammatical class of the <category>.

The sequence of consecutive <feature>s is immaterial.

See the section called “TAN keywords for features (<feature>)” for a list of standard features.

Used by: ~voc-element-non-class-3

Example 12.173. <feature>

```
<head>
  .....
  <vocabulary-key ed-when="2015-03-03" ed-who="kalvesmaki">
  .....
```

```

<algorithm xml:id="xslt1">
    .....
</algorithm>
<feature xml:id="cl-quo">
    <IRI>tag:textalign.net,2015:morphology:option:quotation-mark-closing</IRI>
    <name>closing quotation mark</name>
    <desc>Examples: ' '</desc>
</feature>
<feature xml:id="dash">
    <IRI>http://dbpedia.org/resource/Dash</IRI>
    <name>dash</name>
    <desc>Examples: --</desc>
</feature>
<feature xml:id="x24">
    <IRI>http://dbpedia.org/resource/Dollar_sign</IRI>
    <name>dollar</name>
    <desc>Examples: $ -$ --$ A$ C$ HK$ M$ NZ$ S$ U.S.$ US$</desc>
</feature>
<feature xml:id="x2E">
    <IRI>tag:textalign.net,2015:morphology:option:punctuation:sentence-clo
    <name>sentence closer</name>
    <desc>Examples: ; . ! ?</desc>
</feature>
<feature xml:id="x3A">
    .....
</feature>
    .....
</vocabulary-key>
    .....
</head>

```

### Note

Taken from [eng.kalvesmaki.com,2014.2](http://eng.kalvesmaki.com,2014.2) [[../examples/TAN-mor/eng.kalvesmaki.com,2014.2.xml](http://eng.kalvesmaki.com,2014.2.xml)]

## <file-resp>

*TAN-core.rng* [[../schemas/incl/TAN-core.rng](http://eng.kalvesmaki.com,2014.2)]

The element `file-resp` specifies the persons, organizations, or algorithms that are primarily responsible for the file. Any unattributed claims or assertions made in the file will be credited to/blamed upon these agents. At least one of these agents must be given an IRI in the namespace of the file `@id`.

Used by: `~resp-list`

### Example 12.174. <file-resp>

```

<head>
    .....
    <vocabulary-key>
        .....
    </vocabulary-key>

```

```
<file-resp who="kalvesmaki" />
<resp who="xslt2" roles="stylesheet1" />
.....
</head>
```

 **Note**

Taken from ar.cat.eng.1926.edghill.ref-logical [../../examples/ar.cat.eng.1926.edghill.ref-logical.xml]

**Example 12.175. <file-resp>**

```
<head>
.....
<vocabulary-key>
.....
</vocabulary-key>
<file-resp who="kalvesmaki" />
<resp roles="editor" who="kalvesmaki" />
.....
</head>
```

 **Note**

Taken from ar.cat.eng.1926.edghill.ref-scriptum [../../examples/ar.cat.eng.1926.edghill.ref-scriptum.xml]

**Example 12.176. <file-resp>**

```
<head>
.....
<vocabulary-key>
.....
</vocabulary-key>
<file-resp who="kalvesmaki" />
<resp who="xslt2" roles="stylesheet1" />
.....
</head>
```

 **Note**

Taken from ar.cat.fra.1844.saint-hilaire.ref-logical-after-1949 [../../examples/ar.cat.fra.1844.saint-hilaire.ref-logical-after-1949.xml]

**Example 12.177. <file-resp>**

```
<head>
.....
<vocabulary-key>
.....
</vocabulary-key>
<file-resp who="kalvesmaki" />
<resp who="xslt2" roles="stylesheet1" />
```



```

.....
</head>

```

### Note

Taken from `ar.cat.fra.i844.saint-hilaire.ref-logical [../../examples/ar.cat.fra.i844.saint-hilaire.ref-logical.xml]`

## <for-lang>

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

The element `for-lang` specifies a language that is being discussed. This element does not identify the language of the text enclosed by the parent element (one must use `@xml:lang` for that purpose).

Values should adhere to BCP (Best Common Practices) 47, <http://www.rfc-editor.org/rfc/bcp/bcp47.txt>. For more details see the section called “Languages”.

Examples: ‘eng’ (English), ‘grc’ (classical Greek), ‘lat’ (Latin). For more see the section called “Languages”

The sequence of consecutive `<for-lang>`s is immaterial.

Used by: `~decl-non-class-2`, `~decl-non-class-3`

### Example 12.178. <for-lang>

```

<head>
.....
<license which="Attribution-ShareAlike 3.0 Unported" licensor="perseus"/>
<for-lang>grc</for-lang>
<tok-is>#</tok-is>
.....
</head>

```

### Note

Taken from `grc-tan-a-lm-%CE%B1 [../../examples/TAN-A-lm/grc-tan-a-lm-%CE%B1.xml]`

### Example 12.179. <for-lang>

```

<head>
.....
<license which="Attribution-ShareAlike 3.0 Unported" licensor="perseus"/>
<for-lang>grc</for-lang>
<tok-starts-with>##</tok-starts-with>
.....
</head>

```

### Note

Taken from `grc-tan-a-lm-%CE%B1%CA%B9 [../../examples/TAN-A-lm/grc-tan-a-lm-%CE%B1%CA%B9.xml]`

### Example 12.180. **<for-lang>**

```
<head>
  .....
  <license licenser="kalvesmaki">
    .....
  </license>
  <for-lang>eng</for-lang>
  <source>
    .....
  </source>
  .....
</head>
```

#### Note

Taken from `eng.kalvesmaki.com,2014.2` [`../../examples/TAN-mor/eng.kalvesmak-  
i.com,2014.2.xml`]

### Example 12.181. **<for-lang>**

```
<head>
  .....
  <license licenser="kalvesmaki">
    .....
  </license>
  <for-lang>grc</for-lang>
  <source>
    .....
  </source>
  .....
</head>
```

#### Note

Taken from `grc.perseus.tan-mor` [`../../examples/TAN-mor/grc.perseus.tan-mor.xml`]

## **<from-tok>**

*TAN-class-2.rng* [`../../../../schemas/incl/TAN-class-2.rng`]

#### *Definition 1*

The element `from-tok` points to a single token that is the start of a range of tokens to be selected from a source, but without `@ref..`

#### *Definition 2*

The element `from-tok` points to a single token that is the start of a range of tokens to be selected from a source, in the context of `@ref..`

Used by: `~text-passage-selector-no-ref`, `~text-passage-selector-with-ref`

 **Caution**

Every token must be locatable in every cited ref in every source.

 **Caution**

In a <reassign>, the token referred to at <from-tok> must precede the one referred to by <through-tok>.

Example 12.I82. **<from-tok>**

```
<passage ref="5 4 7 2">
  <from-tok val=":" pos="1"/>
  <through-tok val=":" pos="1"/>
</passage>
```

 **Note**

Taken from ar.cat.TAN-A [../examples/TAN-A/ar.cat.TAN-A.xml]

Example 12.I83. **<from-tok>**

```
<subject src="eng-uk">
  <tok ref="2" pos="2-3" chars="3-4"/>
  <from-tok ref="1" pos="3"/>
  <through-tok ref="2" pos="1"/>
</subject>
```

 **Note**

Taken from ringoroses.div.I [../examples/TAN-A/ringoroses.div.I.xml]

## **<group>**

*TAN-class-2.rng* [../schemas/incl/TAN-class-2.rng]

The element `group` groups token references that should be treated as referring to but a single token.

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The element `group` collects items that share a common property, defined by the `<group-type>` to which it refers.

Used by: `~element-ana`, `~element-align`, `~body-group`

 **Caution**

`@affects-element` may take names only of those TAN elements that accept `@which`

 **Caution**

`@affects-element` may take the value "vocabulary" only in official TAN-voc files.

Example 12.184. **<group>**

```
<ana>
  <group>
    <tok ref="1" pos="1 - last-1"/>
  </group>
  <lm>
    .....
  </lm>
</ana>
```

 Note

Taken from ring-o-roses.eng.i88l.lm [../examples/TAN-A-lm/ring-o-roses.eng.i88l.lm.xml]

Example 12.185. **<group>**

```
<TAN-voc TAN-version="2021" id="tag:parkj@textalign.net,2015:TAN-key:ar.cat">
  .....
  <body affects-element="work">
    .....
    <item>
      .....
    </item>
    <group>
      <item>
        .....
      </item>
      <item>
        .....
      </item>
    </group>
    <group>
      <item>
        .....
      </item>
      <item>
        .....
      </item>
    </group>
    <group>
      <item>
        .....
      </item>
      <item>
        .....
      </item>
    </group>
    <group>
      <item>
        .....
      </item>
      <item>
        .....
      </item>
    </group>
  </body>
</TAN-voc>
```

 Note

Taken from ar.cat.TAN-voc [../../examples/TAN-voc/ar.cat.TAN-voc.xml]

## <group-type>

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

The element `group-type` names types of `<group>`s. See the section called “TAN keywords for types of groups (`<group-type>`)” for standard TAN values.

Used by: `~voc-element-class-2`, `~voc-element-class-3`

### Example 12.I86. <group-type>

```
<vocabulary-key>
  .....
  <morphology xml:id="Perseus">
    .....
  </morphology>
  <group-type xml:id="status" which="status"/>
  <person include="rel"/>
  .....
</vocabulary-key>
```

 Note

Taken from ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample [../../examples/TAN-A-lm/ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample.xml]

### Example 12.I87. <group-type>

```
<head>
  .....
  <vocabulary-key>
    <group-type xml:id="inline-start" which="no new line start"/>
    <group-type xml:id="inline-end" which="no new line end"/>
    <group-type xml:id="line-start" which="new line start"/>
    <group-type xml:id="line-end" which="new line end"/>
    .....
  </vocabulary-key>
  .....
</head>
```

 Note

Taken from div-types.TAN-voc [../../vocabularies/div-types.TAN-voc.xml]

## <head>

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

The element head contains the metadata (data about the data in the <body>)

For more see the section called “Metadata (<head>)”

Used by: ~TAN-root

### Example 12.188. <head>

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:semantic-refs" TA
  <head>
    <name>Categories, Aristotle, English translation by E. M. Edghill</name>
    <master-location href="https://raw.githubusercontent.com/textalign/TAN-2021/
    <license licensor="kalvesmaki">
      .....
    </license>
    .....
  </head>
  <body xml:lang="eng">
    .....
  </body>
</TAN-T>
```

#### Note

Taken from ar.cat.eng.1926.edghill.ref-logical [../examples/ar.cat.eng.1926.edghill.ref-logi-  
cal.xml]

### Example 12.189. <head>

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:model-object-refs
  <head>
    <name>Categories, Aristotle, English translation by E. M. Edghill</name>
    <master-location href="https://raw.githubusercontent.com/textalign/TAN-2021/
    <license licensor="kalvesmaki">
      .....
    </license>
    .....
  </head>
  <body xml:lang="eng">
    .....
  </body>
</TAN-T>
```

#### Note

Taken from ar.cat.eng.1926.edghill.ref-scriptum [../examples/ar.cat.en-  
g.1926.edghill.ref-scriptum.xml]

### Example 12.190. <head>

```
<TAN-T TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-t:ar.cat.fra.1844.saint-
  <head>
    <name>Realignment of Categories, Aristotle, French translation by J. Barthél
```

```
    Saint-Hilaire</name>
    <master-location href="https://raw.githubusercontent.com/textalign/TAN-2021/
    <license licensor="kalvesmaki">
        .....
    </license>
    .....
</head>
<body xml:lang="fra">
    .....
</body>
</TAN-T>
```

### Note

Taken from `ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949` [`../../examples/ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949.xml`]

### Example 12.191. **<head>**

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.fra.1844.saint-hilaire:semantic-re
<head>
    <name>Categories, Aristotle, French translation by J. Barthélemy Saint-Hilai
    <master-location href="https://raw.githubusercontent.com/textalign/TAN-2021/
    <license licensor="kalvesmaki">
        .....
    </license>
    .....
</head>
<body xml:lang="fra">
    .....
</body>
</TAN-T>
```

### Note

Taken from `ar.cat.fra.i844.saint-hilaire.ref-logical` [`../../examples/ar.cat.fra.i844.saint-hilaire.ref-logical.xml`]

## **<in-lang>**

*TAN-A.rng* [`../../schemas/TAN-A.rng`]

The element `in-lang` restricts a claim to a particular language; used with only certain verbs, e.g., "translates".

Multiple values of `in-lang` are interpreted to mean "and", resulting in distribution of the claim.

By default, `in-lang` is disallowed. A verb's constrained IRI + name pattern must explicitly require or allow it.

*TAN-core.rng* [`../../schemas/incl/TAN-core.rng`]

The element `in-lang` specifies whether a verb uses `in-lang` (default: disallowed).

Used by: ~element-claim, ~in-lang, ~constraints-on-verb

### Example 12.192. **<in-lang>**

```
<constraints>
  .....
  <object status="required" item-type="ref scriptum work version s
    <in-lang status="allowed"/>
</constraints>
```

#### Note

Taken from verbs.TAN-voc [../vocabularies/verbs.TAN-voc.xml]

## **<inclusion>**

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

The element `inclusion` specifies a TAN file that is available for inclusion. An inclusion occurs whenever an element `X` points to this inclusion by means of `@include`. TAN-compliant validators and processors will find every element `X` that is found in the included file (checked recursively, against any inclusions of `X` adopted by the inclusion) and insert them at that place in the dependent document.

Only select elements will be included, not the entire inclusion file. Exactly which elements are included is dictated by `@include` placed in select empty elements.

The presence of an `<inclusion>` does not require its use, although it may add time to the validation process.

The sequence of consecutive `<inclusion>`s is immaterial.

For more, see the section called “Networked Files”

Used by: ~element-ana, ~element-align, ~element-claim, ~element-category, ~element-code, ~element-rule, ~element-div, ~element-item, ~element-replace, ~adj-element-equate, ~adj-element-reassign, ~adj-element-rename, ~adj-element-skip, ~element-group-for-tok, ~element-adjustments, ~element-file-resp, ~element-group, ~element-license, ~element-resp, ~element-to-do, ~element-token-definition, ~link-element-see-also, ~voc-element-period, ~entity-digital-nontan-id, ~entity-digital-nontan-no-id, ~entity-digital-tan-id, ~entity-digital-tan-no-id, ~entity-nondigital-constrained, ~entity-nondigital-id, ~entity-nondigital-no-id, ~networked-files-core

#### Caution

An inclusion must point to a TAN file

#### Caution

For any element with `@include`, at least one element of the same name must be found in target inclusion document.



⚠ Caution

Inclusions are integral parts of any TAN file. Access to at least one copy is absolutely mandatory.

⚠ Caution

Inclusions/vocabularies may not be invoked circularly.

⚠ Caution

The vocabulary of a file may not include it.

! Important

The `@TAN-version` for inclusions and vocabularies should match the current version.

⚠ Caution

An element that has a `<location>` and is key for validation should have at least one document available.

⚠ Caution

Every TAN file referred to by way of an element containing `<location>` should have an `@id` that matches the `<IRI>` of the parent of the `<location>`

⚠ Caution

No element may point to a TAN file that has an identical `@id` value; the only exception is `<predecessor>` and `<successor>`.

! Important

If a target file has children items in the `<to-do>` the corresponding comments will be returned as warnings.

! Important

If a target file has a `<successor>` a warning will be returned, noting the update.

! Important

If a target file points only to non-local locations and no internet is available, the following message will be returned. "No internet available."

⚠ Caution

If a linking element points to a file that must be resolved, that file must be a TAN file.

! Important

If `@accessed-when` predates one or more dates in a target file, a warning will be returned.

### Example 12.193. **<inclusion>**

```
<head>
.....
<work which="matthew"/>
<inclusion xml:id="serm-mount">
  <IRI>tag:parkj@textalign.net,2015:bible:matthew:sermon-on-the-mount</IRI>
  <name>Sermon on the Mount, King James Version of the Bible, 1760 edition</name>
  <location accessed-when="2019-10-09T02:09:11.163-04:00" href="sermon-on-t
</inclusion>
<vocabulary which="bible eng" accessed-when="2019-10-08"/>
.....
</head>
```

#### Note

Taken from [matt.eng.kjv.1760 \[../examples/matt.eng.kjv.1760.xml\]](#)

### Example 12.194. **<inclusion>**

```
<head>
.....
<source which="kjv 1760"/>
<inclusion xml:id="lords-prayer">
  <IRI>tag:parkj@textalign.net,2015:bible:matthew:lords-prayer</IRI>
  <name>Matthew's version of the Lord's Prayer, King James Version of the B
  edition</name>
  <location accessed-when="2019-10-09T02:32:50.973-04:00" href="lords-praye
</inclusion>
<vocabulary-key>
.....
</vocabulary-key>
.....
</head>
```

#### Note

Taken from [sermon-on-the-mount.eng.kjv.1760 \[../examples/sermon-on-the-mount.eng.kjv.1760.xml\]](#)

### Example 12.195. **<inclusion>**

```
<head>
.....
<token-definition pattern="[\w#]+"/>
<inclusion xml:id="rel">
  <IRI>tag:kalvesmaki.com,2014:tan-t:ar.cat.grc.1949.minio-paluello:object-
  <name>Categories, Aristotle, Greek text by Minio-Paluello</name>
  <location href="../ar.cat.grc.1949.minio-paluello.ref-scriptum.xml" acces
</inclusion>
<source>
.....
</source>
.....
```

</head>

### Note

Taken from `ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample [../../examples/TAN-A-lm/ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample.xml]`

## <IRI>

*TAN-core.rng [ ../../schemas/incl/TAN-core.rng ]*

The element IRI contains an International Resource Identifier that names the concept, person, or thing referred to by the parent element.

Any kind of IRIs are allowed: URLs, tag URNs, UUIDs, etc. For names of well-known resources, an HTTP URL identifier might be preferred, to facilitate linked data. If an entity/resource lacks a suitable URL-type name, you may use or coin any other valid IRI, such as a UUID, a tag URN, or an OID. Some concepts may be difficult to find IRIs for.

Sibling <IRI>s are to be treated as names for the same thing, not as names of different things. Loosely, sibling <IRI>s can be thought of as synonymous, but technically they are only poecilonymic. In the terms of Web Ontology Language (<http://www.w3.org/TR/owl-ref/>), sibling <IRI>s cannot be assumed to share the relationship `owl:sameAs`, because they will draw from independent vocabularies that may identify similar concepts differently.

An element given multiple <IRI>s refers to one or more items within the intersection, not the union, of the target concepts. Nevertheless, most interpretations of TAN files will draw inferences based upon the union. That is, if item A is assigned IRI X, item B IRIs X and Y, and item C IRI Y, it is likely that users of the data will infer identity between items A and C.

The sequence of consecutive <IRI>s is immaterial.

The element is named IRI instead of URI to encourage internationalization, and the use of alphabets other than Latin.

An <IRI> from the standard TAN vocabulary may be overridden locally.

For more see the section called “Identifiers and their use (IRIs, URIs, URLs, URNs, UUIDs)”.

Used by: `~entity-digital-core-content`, `~entity-nondigital-content`, `~entity-nondigital-with-constraints-content`

### Caution

An IRI may appear no more than once in a TAN document.

### Caution

An IRI that names a TAN file must match that file’s `@id` exactly.

### Caution

Any IRI beginning `urn:` must continue with a name that is part of the official IANA Registry of URN Namespaces. See RFC 2414, [---

658](https://tools.i-</a></p></div><div data-bbox=)

etf.org/html/rfc8141, and <https://www.iana.org/assignments/urn-namespaces/urn-namespaces.xhtml>

 **Caution**

No file may import vocabularies with items that have duplicate IRIs.

 **Caution**

All text must be normalized (Unicode NFC).

 **Caution**

Every item in a reserved TAN-voc must have at least one IRI with a tag URN in the TAN namespace

**Example 12.196. <IRI>**

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:semantic-refs" TA
<head>
  .....
  <license licensor="kalvesmaki">
    <IRI>http://creativecommons.org/licenses/by/4.0/deed.en_US</IRI>
    <name>Creative Commons Attribution 4.0 International License</name>
    .....
  </license>
  <work>
    <IRI>http://dbpedia.org/resource/Categories_(Aristotle)</IRI>
    <name>Aristotle, Categories</name>
  </work>
  <source>
    <IRI>http://id.lib.harvard.edu/aleph/007901738/catalog</IRI>
    <name>Aristotle: Categoriae & De interpretatione by E.M. Edghill. Analyti
      A.J. Jenkinson. Analytica posteriora / by G.R.G. Mure. Oxford : Claren
    </name>
  </source>
  <model>
    <IRI>tag:kalvesmaki.com,2014:tan-t:ar.cat.grc.1949.minio-paluello:semanti
    <name>Categories, Aristotle, Greek text by Minio-Paluello</name>
    .....
  </model>
  .....
</head>
.....
</TAN-T>
```

 **Note**

Taken from `ar.cat.eng.1926.edghill.ref-logical [../../examples/ar.cat.eng.1926.edghill.ref-logi-cal.xml]`

**<item>**

*TAN-voc.rng [../../schemas/TAN-voc.rng]*

The element `item` provides a container for IRI, names, and descriptions of something. The item is assumed to be a type (or types) of thing indicated by the values of the closest `@affects-attribute` or `@affects-element`.

An `<item>` does not describe verbs, which have special constraints. Use `<verb>` instead.

Used by: `~body-item`

⚠ **Caution**

Names must be unique for vocabulary items assigned to a given element name.

⚠ **Caution**

`@affects-element` may take names only of those TAN elements that accept `@which`

⚠ **Caution**

`@affects-element` may take the value "vocabulary" only in official TAN-voc files.

⚠ **Caution**

Every item in a reserved TAN-voc must have at least one IRI with a tag URN in the TAN namespace

Example 12.197. `<item>`

```
<TAN-voc TAN-version="2021" id="tag:parkj@textalign.net,2015:TAN-key:ar.cat">
.....
<body affects-element="work">
  <item>
    <IRI>http://dbpedia.org/resource/Categories_(Aristotle)</IRI>
    <name xml:lang="fra">Aristote, Catégories</name>
    <name xml:lang="eng">Aristotle, Categories</name>
  </item>
  <item>
    <IRI>tag:parkj@textalign.net,2015:work:porphyry:on-aristotles-categories<
    <name xml:lang="lat">Commentarium graecum Porphyrii</name>
    <name xml:lang="eng">Porphyry's commentary on Aristotle's Categories</nam
  </item>
  <item>
    <IRI>tag:parkj@textalign.net,2015:work:dexippus:on-aristotles-categories<
    <name xml:lang="lat">Commentarium graecum Dexippi</name>
    <name xml:lang="eng">Dexippus's commentary on Aristotle's Categories</nam
  </item>
  <group>
    <item>
      <IRI>tag:parkj@textalign.net,2015:work:ammonius:on-aristotles-categori
      <name xml:lang="lat">Lemmata de commentario graeco Ammonii</name>
      <name xml:lang="eng">Lemmata from Ammonius's commentary on Aristotle's
        Categories</name>
    </item>
  </group>
</body>
</TAN-voc>
```

```

    .....
    </item>
  </group>
  .....
</body>
</TAN-voc>

```

 **Note**

Taken from ar.cat.TAN-voc [../../examples/TAN-voc/ar.cat.TAN-voc.xml]

## <1>

*TAN-A-lm.rng* [../../schemas/TAN-A-lm.rng]

The element 1 names a lexeme, by pointing to the main word entry in the lexicon identified by the element's inherited value(s) of @lexicon.. This element should not be used to point to roots, only to lexical headwords.

In many languages, especially those that are lightly inflected, the lexeme will be identical to the word token itself. If <1> is omitted, the calculated value of <tok> is to be inferred as its value.

The sequence of consecutive <1>s is immaterial.

Used by: ~element-lm

### Example 12.198. <1>

```

<TAN-A-lm TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-t:ar.cat.grc.1949.min
.....
<body lexicon="LSJ Lampe new" morphology="Perseus" claimant="xslt2">
  <ana tok-pop="2">
    .....
    <lm>
      <1>#####</1>
      <m>n e - s - - - f a -</m>
    </lm>
  </ana>
  <ana>
    .....
    <lm>
      <1>#####</1>
      <m>n e - s - - - m g -</m>
    </lm>
  </ana>
  <ana>
    .....
    <lm>
      <1>#####</1>
      <m>v - - - a n p - - -</m>
    </lm>
  </ana>
  <ana>

```

```

.....
<lm>
  <l>#####</l>
  <m>n - - s - - - f n -</m>
</lm>
</ana>
<ana>
  .....
  <lm>
    <l>#####</l>
    <m>n - - s - - - f g -</m>
  </lm>
</ana>
.....
</body>
</TAN-A-lm>

```

### Note

Taken from `ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample [../examples/TAN-A-lm/ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample.xml]`

## <lexicon>

*TAN-A-lm.rng [../schemas/TAN-A-lm.rng]*

The element `lexicon` names a lexicographical authority.

Used by: `~voc-element-non-class-2`

### Example 12.199. <lexicon>

```

<head>
  .....
  <vocabulary-key>
    <algorithm xml:id="xslt2">
      .....
    </algorithm>
    <lexicon xml:id="LSJ">
      <IRI>http://lccn.loc.gov/95032369</IRI>
      <name xml:lang="eng">Liddell-Scott-Jones, 9th ed. plus rev. supplement</name>
    </lexicon>
    <lexicon xml:id="Lampe">
      <IRI>http://lccn.loc.gov/77372171</IRI>
      <name xml:lang="eng">G.H.W. Lampe, A Patristic Greek Lexicon, Oxford 1963</name>
    </lexicon>
    <lexicon xml:id="new">
      <IRI>urn:uuid:d6558d00-8f68-11e3-950a-425861b86ab6</IRI>
      <name xml:lang="eng">Lexicon generated from words in this document not
        any other lexicon.</name>
    </lexicon>
    <morphology xml:id="Perseus">
      .....

```

```

        </morphology>
        .....
    </vocabulary-key>
    .....
</head>

```

### Note

Taken from `ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample` [`../../examples/TAN-A-lm/ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample.xml`]

### Example 12.200. **<lexicon>**

```

<vocabulary-key>
    .....
    <algorithm xml:id="xslt1">
        .....
    </algorithm>
    <lexicon xml:id="LSJ">
        <IRI>http://lccn.loc.gov/95032369</IRI>
        <name>Liddell-Scott-Jones 9+</name>
        <name xml:lang="eng">Liddell-Scott-Jones, 9th ed. plus rev. supplement
    </lexicon>
    <morphology xml:id="perseus-dik">
        .....
    </morphology>
    .....
</vocabulary-key>

```

### Note

Taken from `grc-tan-a-lm-%CE%B1` [`../../examples/TAN-A-lm/grc-tan-a-lm-%CE%B1.xml`]

## **<license>**

*TAN-core.rng* [`../../schemas/incl/TAN-core.rng`]

The element `license` states the license under which the data is distributed and the rights associated with it, exclusive of any rights attached to the source.

Diligently check to ensure that the license you have claimed respects the rights of your sources' rightsholders. It is recommended that you license your data under a license that is similar to or more liberal than the one under which your sources have been released.

For more discussion, see the section called "Key Declarations" and for a list of standard TAN vocabulary, the section called "TAN keywords for types of rights (<license>)"

Used by: `~declaration-core`

### Example 12.201. **<license>**

```
<head>
```



```
.....
<master-location href="https://raw.githubusercontent.com/textalign/TAN-2021/
<license licensor="kalvesmaki">
  <IRI>http://creativecommons.org/licenses/by/4.0/deed.en_US</IRI>
  <name>Creative Commons Attribution 4.0 International License</name>
  <desc>Exclusive of rights held and licenses offered by rightsholders of t
    sources listed below, this data file, insofar as it constitutes an ind
    licensed under a Creative Commons Attribution 4.0 International Licens
</license>
<work>
  .....
</work>
.....
</head>
```

### Note

Taken from ar.cat.eng.i926.edghill.ref-logical [../examples/ar.cat.eng.i926.edghill.ref-logical.xml]

### Example 12.202. **<license>**

```
<head>
.....
<master-location href="https://raw.githubusercontent.com/textalign/TAN-2021/
<license licensor="kalvesmaki">
  <IRI>http://creativecommons.org/licenses/by/4.0/deed.en_US</IRI>
  <name>Creative Commons Attribution 4.0 International License</name>
  <desc>Exclusive of rights held and licenses offered by rightsholders of t
    sources listed below, this data file, insofar as it constitutes an ind
    licensed under a Creative Commons Attribution 4.0 International Licens
</license>
<work>
  .....
</work>
.....
</head>
```

### Note

Taken from ar.cat.eng.i926.edghill.ref-scriptum [../examples/ar.cat.eng.i926.edghill.ref-scriptum.xml]

### Example 12.203. **<license>**

```
<head>
.....
<master-location href="https://raw.githubusercontent.com/textalign/TAN-2021/
<license licensor="kalvesmaki">
  <IRI>http://creativecommons.org/licenses/by/4.0/deed.en_US</IRI>
  <name>Creative Commons Attribution 4.0 International License</name>
  <desc>Exclusive of rights held and licenses offered by rightsholders of t
    sources listed below, this data file, insofar as it constitutes an ind
```

```

        licensed under a Creative Commons Attribution 4.0 International License
    </license>
    <work>
        .....
    </work>
    .....
</head>

```

### Note

Taken from ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949 [../examples/ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949.xml]

### Example 12.204. **<license>**

```

<head>
    .....
    <master-location href="https://raw.githubusercontent.com/textalign/TAN-2021/
    <license licensor="kalvesmaki">
        <IRI>http://creativecommons.org/licenses/by/4.0/deed.en_US</IRI>
        <name>Creative Commons Attribution 4.0 International License</name>
        <desc>Exclusive of rights held and licenses offered by rightsholders of t
            sources listed below, this data file, insofar as it constitutes an ind
            licensed under a Creative Commons Attribution 4.0 International License
        </license>
        <reference-system type="logical" wf-ready="true"/>
    .....
</head>

```

### Note

Taken from ar.cat.fra.i844.saint-hilaire.ref-logical [../examples/ar.cat.fra.i844.saint-hilaire.ref-logical.xml]

## **<lm>**

*TAN-A-lm.rng* [../schemas/TAN-A-lm.rng]

The element `lm` groups lexical or morphological data.

Components within `<lm>` combine with each other and with all sibling `<tok>`s. That is, every `<l>` is asserted against every `<m>` within an `<lm>` is asserted of every `<tok>`.

The sequence of consecutive `<lm>`s is immaterial.

Used by: `~element-ana`

### Example 12.205. **<lm>**

```

<TAN-A-lm TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-t:ar.cat.grc.1949.min
    .....
    <body lexicon="LSJ Lampe new" morphology="Perseus" claimant="xslt2">

```

```

<ana tok-pop="2">
  <tok ref="11 2 1 1" pos="1"/>
  <lm>
    <l>#####</l>
    <m>n e - s - - - f a -</m>
  </lm>
</ana>
<ana>
  .....
  <tok ref="10 6 4 2" pos="37"/>
  <lm>
    <l>#####</l>
    <m>n e - s - - - m g -</m>
  </lm>
</ana>
<ana>
  .....
  <tok ref="8 3 7 3" pos="7"/>
  <lm>
    <l>#####</l>
    <m>v - - - a n p - - -</m>
  </lm>
</ana>
<ana>
  .....
  <tok ref="7 4 9 2" pos="4"/>
  <lm>
    <l>#####</l>
    <m>n - - s - - - f n -</m>
  </lm>
</ana>
.....
</body>
</TAN-A-lm>

```

### Note

Taken from `ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample [../../examples/TAN-A-lm/ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample.xml]`

## <location>

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

The element `location` declares where an electronic file was found and when.

The URL may be absolute or relative to the current document.

The sequence of consecutive `<location>`s is important. During TAN validation, the first `<location>` with an available document will be used, and the following sibling `<location>`s will be ignored.

Used by: `~entity-digital-core-content`

⚠ Caution

@href must have <location> or <master-location> as a parent; any other parent will trigger a quick fix to populate the element with the IRI + name pattern of the target file.

! Important

If an @href points to a local file that is not available, a warning will be returned. “@href points to file that is either (1) not available or (2) not valid XML”

! Important

If an @href points to a file that is not local, and no internet is available, a warning will be returned. “No internet access.”

! Important

If the internet is available, and an @href points to a non-local file that is not available, a warning will be returned. “@href points to non-local file that is either (1) not available, (2) not valid XML, or (3) at a server not trusted by the validation engine.”

⚠ Caution

The only @href in a TAN document that may point to another document with the same document id is that of <master-location> or <see-also>

⚠ Caution

No @href should point to the URI of the document itself.

⚠ Caution

An @href that points to a local drive should have “file:” prepended.

⚠ Caution

An element that has a <location> and is key for validation should have at least one document available.

⚠ Caution

Every TAN file referred to by way of an element containing <location> should have an @id that matches the <IRI> of the parent of the <location>

⚠ Caution

No element may point to a TAN file that has an identical @id value; the only exception is <predecessor> and <successor>.

! Important

If a target file has children items in the <to-do>the corresponding comments will be returned as warnings.

! Important

If a target file has a <successor> a warning will be returned, noting the update.

! Important

If a target file points only to non-local locations and no internet is available, the following message will be returned. "No internet available."

! Caution

If a linking element points to a file that must be resolved, that file must be a TAN file.

! Important

If an element not essential to validation has no <location> that points to a document a warning should be returned.

! Important

If @accessed-when predates one or more dates in a target file, a warning will be returned.

Example 12.206. <location>

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:semantic-refs" TA
<head>
  .....
  <model>
    .....
    <name>Categories, Aristotle, Greek text by Minio-Paluello</name>
    <location href="ar.cat.grc.1949.minio-paluello.ref-logical.xml" accessed-
  </model>
  <see-also relationship="alt">
    .....
    <name>Categories, Aristotle, Greek text by Minio-Paluello</name>
    <location href="ar.cat.grc.1949.minio-paluello.ref-scriptum.xml" accessed
  </see-also>
  <redivision>
    .....
    <name>Categories, Aristotle, English translation by E. M. Edghill</name>
    <location href="ar.cat.eng.1926.edghill.ref-scriptum.xml" accessed-when="
  </redivision>
  .....
  <vocabulary-key>
    <algorithm xml:id="xslt2">
      .....
      <name>Stylesheet to create a TAN file.</name>
      <location href="../applications/convert/convert%20TAN%202018%20to%20TA
    </algorithm>
    .....
  </vocabulary-key>
  .....
</head>
.....
```

</TAN-T>

### Note

Taken from ar.cat.eng.1926.edghill.ref-logical [../examples/ar.cat.eng.1926.edghill.ref-logical.xml]

## <m>

*TAN-A-lm.rng [../schemas/TAN-A-lm.rng]*

The element `m` carries a morphological code that conforms to the rules or patterns defined in the TAN-mor file upon which the data depends.

Codes are space-delimited. If a value of `<m>` violates the rules established by the dependency TAN-mor file, an error will be generated. For more about how codes are built, and how they function, see the section called “Lexico-morphology (<TAN-A-lm>)”.

The sequence of consecutive `<m>`s is immaterial.

Used by: `~element-lm`

### Caution

When using a category-based morphology, the number of feature codes in an `<m>` may not exceed the number of categories.

### Caution

Every feature code in an `<m>` must be found in the target morphology file.

### Caution

Every condition of a relevant dependency morphology `<assert>` (`<report>`) must be true (false) otherwise an error will be returned.

## <master-location>

*TAN-core.rng [../schemas/incl/TAN-core.rng]*

The element `master-location` points to a location where a master copy of the file is to be found. Use of this element entails a commitment to updating the TAN file in that location.

The URL may be absolute or relative to the current document.

`<master-location>` does not disallow the file from being kept, published, or distributed elsewhere. It merely indicates where an authoritative version of the file is to be found.

Used by: `~entity-digital-tan-self-content`

### Caution

Any TAN file without a to-do list will be treated as being no longer in progress and should have at least one `master-location`.

⚠ Caution

@href must have <location> or <master-location> as a parent; any other parent will trigger a quick fix to populate the element with the IRI + name pattern of the target file.

! Important

If an @href points to a local file that is not available, a warning will be returned. “@href points to file that is either (1) not available or (2) not valid XML”

! Important

If an @href points to a file that is not local, and no internet is available, a warning will be returned. “No internet access.”

! Important

If the internet is available, and an @href points to a non-local file that is not available, a warning will be returned. “@href points to non-local file that is either (1) not available, (2) not valid XML, or (3) at a server not trusted by the validation engine.”

⚠ Caution

The only @href in a TAN document that may point to another document with the same document id is that of <master-location> or <see-also>

⚠ Caution

No @href should point to the URI of the document itself.

⚠ Caution

An @href that points to a local drive should have “file:” prepended.

⚠ Caution

No <master-location> may have an @href that points to a compressed archive.

! Important

Files should match the version kept at <master-location>.

Example 12.207. <master-location>

```
<head>
  <name>Categories, Aristotle, English translation by E. M. Edghill</name>
  <master-location href="https://raw.githubusercontent.com/textalign/TAN-2021/
  <license licensor="kalvesmaki">
    .....
  </license>
  .....
</head>
```

 Note

Taken from `ar.cat.eng.1926.edghill.ref-logical` [`../examples/ar.cat.eng.1926.edghill.ref-logical.xml`]

Example 12.208. **<master-location>**

```
<head>
  <name>Categories, Aristotle, English translation by E. M. Edghill</name>
  <master-location href="https://raw.githubusercontent.com/textalign/TAN-2021/
  <license licensor="kalvesmaki">
    .....
  </license>
  .....
</head>
```

 Note

Taken from `ar.cat.eng.1926.edghill.ref-scriptum` [`../examples/ar.cat.eng.1926.edghill.ref-scriptum.xml`]

Example 12.209. **<master-location>**

```
<head>
  <name>Realignment of Categories, Aristotle, French translation by J. Barthélemy
  Saint-Hilaire</name>
  <master-location href="https://raw.githubusercontent.com/textalign/TAN-2021/
  <license licensor="kalvesmaki">
    .....
  </license>
  .....
</head>
```

 Note

Taken from `ar.cat.fra.1844.saint-hilaire.ref-logical-after-1949` [`../examples/ar.cat.fra.1844.saint-hilaire.ref-logical-after-1949.xml`]

Example 12.210. **<master-location>**

```
<head>
  <name>Categories, Aristotle, French translation by J. Barthélemy Saint-Hilari
  <master-location href="https://raw.githubusercontent.com/textalign/TAN-2021/
  <license licensor="kalvesmaki">
    .....
  </license>
  .....
</head>
```

 Note

Taken from `ar.cat.fra.1844.saint-hilaire.ref-logical` [`../examples/ar.cat.fra.1844.saint-hilaire.ref-logical.xml`]



## <modal>

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

The element `modal` contains an IRI + name pattern identifying a modal or adverb that qualifies the verb of an assertion.

See the section called “TAN keywords for types of modals (<modal>)” for standard TAN vocabulary.

Used by: `~voc-element-tan-a`

### Example 12.211. <modal>

```
<vocabulary-key>
.....
<unit xml:id="folio">
.....
</unit>
<modal which="possibly" xml:id="perhaps"/>
<person xml:id="park">
.....
</person>
.....
</vocabulary-key>
```

#### Note

Taken from `ar.cat.TAN-A.claims` [*../../examples/TAN-A/ar.cat.TAN-A.claims.xml*]

## <model>

*TAN-class-1.rng* [*../../schemas/incl/TAN-class-1.rng*]

The element `model` identifies a `class-1` file has been used as a model for how the current file has been segmented and labeled.

A file need not follow its model exactly. Upon verbose validation, differences between the file and its model will be reported only as warnings.

Used by: `~networked-files-non-core`

#### Caution

`<model>` and `<redivision>` must point to `class 1` TAN files

#### Caution

An element that has a `<location>` and is key for validation should have at least one document available.

#### Caution

Every TAN file referred to by way of an element containing `<location>` should have an `@id` that matches the `<IRI>` of the parent of the `<location>`

⚠ **Caution**

No element may point to a TAN file that has an identical @id value; the only exception is <predecessor> and <successor>.

! **Important**

If a target file has children items in the <to-do> the corresponding comments will be returned as warnings.

! **Important**

If a target file has a <successor> a warning will be returned, noting the update.

! **Important**

If a target file points only to non-local locations and no internet is available, the following message will be returned. "No internet available."

⚠ **Caution**

If a linking element points to a file that must be resolved, that file must be a TAN file.

! **Important**

If a class I file diverges from the structure of its model a warning will be generated specifying where differences exist.

⚠ **Caution**

A class I file with a <model> should not declare a <reference-system>, which is inherited from the model.

⚠ **Caution**

Class I files must share the same work as any model, redivision, or companion version.

Example 12.212. <model>

```
<head>
  .....
  <source>
    .....
  </source>
  <model>
    <IRI>tag:kalvesmaki.com,2014:tan-t:ar.cat.grc.1949.minio-paluello:semanti
    <name>Categories, Aristotle, Greek text by Minio-Paluello</name>
    <location href="ar.cat.grc.1949.minio-paluello.ref-logical.xml" accessed-
  </model>
  <see-also relationship="alt">
    .....
  </see-also>
  .....
</head>
```

 Note

Taken from ar.cat.eng.1926.edghill.ref-logical [../examples/ar.cat.eng.1926.edghill.ref-logical.xml]

Example 12.213. **<model>**

```
<head>
  .....
  <redivision>
    .....
  </redivision>
  <model>
    <IRI>tag:kalvesmaki.com,2014:tan-t:ar.cat.grc.1949.minio-paluello:object-
    <name>Categories, Aristotle, Greek text by Minio-Paluello</name>
    <location href="ar.cat.grc.1949.minio-paluello.ref-scriptum.xml" accessed
  </model>
  <adjustments>
    .....
  </adjustments>
  .....
</head>
```

 Note

Taken from ar.cat.eng.1926.edghill.ref-scriptum [../examples/ar.cat.eng.1926.edghill.ref-scriptum.xml]

Example 12.214. **<model>**

```
<head>
  .....
  <redivision>
    .....
  </redivision>
  <model>
    <IRI>tag:kalvesmaki.com,2014:tan-t:ar.cat.grc.1949.minio-paluello:semanti
    <name>Categories, Aristotle, Greek text by Minio-Paluello</name>
    <location href="ar.cat.grc.1949.minio-paluello.ref-logical.xml" accessed-
  </model>
  <adjustments>
    .....
  </adjustments>
  .....
</head>
```

 Note

Taken from ar.cat.fra.1844.saint-hilaire.ref-logical-after-1949 [../examples/ar.cat.fra.1844.saint-hilaire.ref-logical-after-1949.xml]

Example 12.215. **<model>**

```
<head>
```

```

.....
<vocabulary>
  .....
</vocabulary>
<model>
  <IRI>tag:parkj@textalign.net,2015:ring04</IRI>
  <name>TAN transcription of 1790 version of Ring around the Rosie reported
    1883</name>
  <location accessed-when="2021-04-27-04:00" href="ring-o-roses.eng.1951.xml"
</model>
<adjustments>
  .....
</adjustments>
.....
</head>

```

### Note

Taken from ring-o-roses.eng.1987 [../examples/ring-o-roses.eng.1987.xml]

## <morphology>

*TAN-A-lm.rng* [../schemas/TAN-A-lm.rng]

The element `morphology` identifies a dependency `<TAN-mor>` file that defines the parts of speech for a language, the codes for those parts, and the rules for combining them

Used by: `~voc-element-non-class-2`

### Caution

`<morphology>` must point to TAN-mor files.

### Example 12.216. <morphology>

```

<vocabulary-key>
  .....
  <lexicon xml:id="new">
    .....
  </lexicon>
  <morphology xml:id="Perseus">
    <IRI>tag:kalvesmaki.com,2014:tan-r-mor:grc:perseus</IRI>
    <name xml:lang="eng">Perseus Greek morphology</name>
    <location href="../.../library-lm/grc/grc.perseus.tan-mor.xml" acces
  </morphology>
  <group-type xml:id="status" which="status"/>
  .....
</vocabulary-key>

```

### Note

Taken from ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample [../examples/TAN-A-lm/ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample.xml]

Example 12.217. **<morphology>**

```
<vocabulary-key>
  .....
  <lexicon xml:id="LSJ">
    .....
  </lexicon>
  <morphology xml:id="perseus-dik">
    <IRI>tag:kalvesmaki.com,2014:tan-r-mor:grc:perseus</IRI>
    <name xml:lang="eng">Perseus Greek morphology</name>
    <location accessed-when="2020-03-05" href=" ../TAN-mor/grc.perseus.tan-
  </morphology>
  <organization xml:id="perseus">
    .....
  </organization>
  .....
</vocabulary-key>
```

 Note

Taken from `grc-tan-a-lm-%CE%B1 [../examples/TAN-A-lm/grc-tan-a-lm-%CE%B1.xml]`

Example 12.218. **<morphology>**

```
<vocabulary-key>
  .....
  <lexicon xml:id="LSJ">
    .....
  </lexicon>
  <morphology xml:id="perseus-dik">
    <IRI>tag:kalvesmaki.com,2014:tan-r-mor:grc:perseus</IRI>
    <name xml:lang="eng">Perseus Greek morphology</name>
    <location accessed-when="2020-03-05" href=" ../TAN-mor/grc.perseus.tan-
  </morphology>
  <organization xml:id="perseus">
    .....
  </organization>
  .....
</vocabulary-key>
```

 Note

Taken from `grc-tan-a-lm-%CE%B1%CA%B9 [../examples/TAN-A-lm/grc-tan-a-lm-%CE%B1%CA%B9.xml]`

Example 12.219. **<morphology>**

```
<vocabulary-key>
  <algorithm xml:id="xslt2">
    .....
  </algorithm>
  <morphology xml:id="penn" ed-when="2015-08-20-04:00" ed-who="park">
    <IRI>tag:kalvesmaki.com,2014:tan-r-mor:eng:penn</IRI>
    <name>Penn Treebank tag set</name>
```

```
    <location href=" ../TAN-mor/eng.kalvesmaki.com%2C2014.2.xml" accessed-w
  </morphology>
  <lexicon xml:id="english">
    .....
  </lexicon>
    .....
</vocabulary-key>
```

### Note

Taken from ring-o-roses.eng.i881.lm [../examples/TAN-A-lm/ring-o-roses.eng.i881.lm.xml]

## <n-alias>

*TAN-class-1.rng* [../schemas/incl/TAN-class-1.rng]

The element `n-alias` specifies whether aliases for `n` should be applied selectively. For files that use `<vocabulary>` with `@which`, for extra `@n` vocabulary, this element improves the efficiency of validation.

Used by: `~decl-class-1`

### Example 12.220. <n-alias>

```
<head>
  .....
  <reference-system type="logical" wf-ready="true"/>
  <n-alias div-type="book"/>
  <work which="matthew"/>
  .....
</head>
```

### Note

Taken from matt.eng.kjv.i760 [../examples/matt.eng.kjv.i760.xml]

## <name>

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The element `name` provides a human-readable name of a concept, person, or thing referred to by the parent element (or the current document, if the parent element is `<head>`).

A name must be unique within a file for a given class of items. That is, if "page" is the name of a div type, there must be no other div type vocabulary item with that name, but "page" could still be used as the `<name>` of a verb or person.

The sequence of consecutive `<name>`s is immaterial. Some applications may adopt the first `<name>` as the primary one.

Used by: `~metadata-human-readable`

⚠ Caution

All text must be normalized (Unicode NFC).

⚠ Caution

Names must be unique for vocabulary items assigned to a given element name.

⚠ Caution

Names may not duplicate names reserved by standard TAN vocabulary for the affected element.

⚠ Caution

Names may not be duplicates of, case-variants of, or hyphen variants of other names for the same element.

⚠ Caution

Each <name> in standard TAN vocabulary must already be normalized.

Example 12.221. <name>

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:semantic-refs" TA
<head>
  <name>Categories, Aristotle, English translation by E. M. Edghill</name>
  <master-location href="https://raw.githubusercontent.com/textalign/TAN-2021/
  <license licensor="kalvesmaki">
    <IRI>http://creativecommons.org/licenses/by/4.0/deed.en_US</IRI>
    <name>Creative Commons Attribution 4.0 International License</name>
    <desc>Exclusive of rights held and licenses offered by rightsholders of t
      sources listed below, this data file, insofar as it constitutes an ind
      licensed under a Creative Commons Attribution 4.0 International Licens
  </license>
  <work>
    <IRI>http://dbpedia.org/resource/Categories_(Aristotle)</IRI>
    <name>Aristotle, Categories</name>
  </work>
  <source>
    <IRI>http://id.lib.harvard.edu/aleph/007901738/catalog</IRI>
    <name>Aristotle: Categoriae & De interpretatione by E.M. Edghill. Analyti
      A.J. Jenkinson. Analytica posteriora / by G.R.G. Mure. Oxford : Claren
    </name>
  </source>
  .....
  <redivision>
    <IRI>tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:model-object-r
    <name>Categories, Aristotle, English translation by E. M. Edghill</name>
    <location href="ar.cat.eng.1926.edghill.ref-scriptum.xml" accessed-when="
  </redivision>
  .....
</head>
.....
</TAN-T>
```

 Note

Taken from ar.cat.eng.1926.edghill.ref-logical [../examples/ar.cat.eng.1926.edghill.ref-logical.xml]

## <normalization>

*TAN-class-1.rng* [../schemas/incl/TAN-class-1.rng]

The element `normalization` specifies an alteration that has been made to a source file to bring the transcription into conformity with standards or common expectations. This element is used typically for minor corrections, e.g., suppression of discretionary hyphenation. You should declare every normalizing change you have made to the source.

<normalization> is especially helpful in reference to nondigital sources, but it may be made also for digital sources, to declare global changes that would be cumbersome, difficult, or impossible to describe via regular expressions in <replace>.

The sequence of consecutive <normalization> is immaterial.

See the section called “TAN keywords for types of normalizations (<normalization>)” for standard TAN vocabulary for normalizations. For general discussion see the section called “Normalizing transcriptions”

Used by: ~adjust-non-core

### Example 12.222. <normalization>

```
<adjustments>
  <normalization which="no hyphens"/>
</adjustments>
```

 Note

Taken from ar.cat.eng.1926.edghill.ref-logical [../examples/ar.cat.eng.1926.edghill.ref-logical.xml]

### Example 12.223. <normalization>

```
<adjustments>
  <normalization which="no hyphens"/>
</adjustments>
```

 Note

Taken from ar.cat.eng.1926.edghill.ref-scriptum [../examples/ar.cat.eng.1926.edghill.ref-scriptum.xml]

### Example 12.224. <normalization>

```
<adjustments>
  <normalization which="no hyphens"/>
</adjustments>
```



 Note

Taken from ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949 [../examples/ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949.xml]

Example 12.225. **<normalization>**

```
<adjustments>
  <normalization which="no hyphens" />
  <normalization which="no ligatures" />
</adjustments>
```

 Note

Taken from ar.cat.fra.i844.saint-hilaire.ref-logical [../examples/ar.cat.fra.i844.saint-hilaire.ref-logical.xml]

## **<numerals>**

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The element `numerals` specifies how nonarabic numerals should be interpreted, as letter numerals or as Roman numerals.

If `<numerals>` is not present, any ambiguous numerical values are assumed to be Roman.

Used by: `~declaration-core`

Example 12.226. **<numerals>**

```
<head>
  .....
  <version>
    .....
  </version>
  <numerals priority="letters" />
  <source>
    .....
  </source>
  .....
</head>
```

 Note

Taken from ring-o-roses.deu.i897-prev [../examples/ring-o-roses.deu.i897-prev.xml]

Example 12.227. **<numerals>**

```
<head>
  .....
  <version>
    .....
  </version>
  <numerals priority="letters" />
```

```

<source>
    .....
</source>
    .....
</head>

```

 **Note**

Taken from ring-o-roses.deu.i897 [../examples/ring-o-roses.deu.i897.xml]

Example 12.228. **<numerals>**

```

<head>
    .....
<license licensor="park">
    .....
</license>
<numerals priority="letters"/>
<token-definition src="fra" pattern="\S+"/>
    .....
</head>

```

 **Note**

Taken from ar.cat.TAN-A [../examples/TAN-A/ar.cat.TAN-A.xml]

Example 12.229. **<numerals>**

```

<head>
    .....
<license licensor="park" which="by 4.0"/>
<numerals priority="letters"/>
<source xml:id="conf">
    .....
</source>
    .....
</head>

```

 **Note**

Taken from patricius.confessio.TAN-A [../examples/TAN-A/patricius.confessio.TAN-A.xml]

## **<object>**

*TAN-A.rng* [../schemas/TAN-A.rng]

The element `object` points to text references that act as the object of the claim.

Unlike `@object`, which points to any entity via idrefs, `<subject>` is intended exclusively to point to data content or a textual subject.

Each textual `<object>` is interpreted as a single entity, with all textual references encoded by the element treated as a single, grouped passage. The sequence of its contents is therefore significant.

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

The element `object` specifies expectations on a verb's use of object. By default, an object is required.

Used by: `~element-claim`, `~complex-object`, `~constraints-on-verb`

⚠ **Caution**

Claims involving verbs whose constrained content requires specification of units must use `<object>` or `<subject>` with `@units..`

⚠ **Caution**

`<object>` or `<subject>` with `@units` may be used only with verbs with constrained content.

⚠ **Caution**

`<subject>`'s' and `<object>`'s' content must be castable to any datatype constraints defined by the verb.

⚠ **Caution**

`<subject>`'s' and `<object>`'s' content must match any lexical constraints defined by the verb.

Example 12.230. **<object>**

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:ar.cat.tan-a:claims">
  <head>
    .....
    <vocabulary-key>
      .....
      <verb xml:id="om">
        .....
        <constraints>
          .....
          <at-ref status="required"/>
          <object status="disallowed"/>
        </constraints>
      </verb>
      <verb xml:id="attests">
        .....
        <constraints>
          <subject status="required" item-type="person work version scriptum">
            <object status="required" item-type="ref"/>
          </constraints>
        </verb>
      <verb xml:id="has-length">
        .....
        <constraints>
          <subject status="required" item-type="scriptum"/>
          <object status="required" content-datatype="integer" content-lexicality="lexical">
            <object status="required" content-datatype="integer" content-lexicality="lexical">
            </constraints>
          </constraints>
        </verb>
      </verb>
    </vocabulary-key>
  </head>
</TAN-A>
```

```

        </verb>
        .....
    </vocabulary-key>
    .....
</head>
<body claimant="park" claim-period="per2010s">
    .....
    <claim subject="comm-omnes" verb="attests" period="late_antiquity">
        <object src="grc" ref="1 a 2">
            <tok pos="3-4"/>
        </object>
    </claim>
    <claim subject="comm-omnes" verb="attests" xml:id="c11a2b">
        <object src="grc" ref="1 a 2">
            <tok pos="3-4"/>
        </object>
    </claim>
    .....
</body>
</TAN-A>

```

### Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## <organization>

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The element `organization` contains an IRI + name pattern identifying an organization: a group of persons, whether formally incorporated or not.

This term is taken in its loosest sense. "Organization" and "person" are treated as mutually exclusive and exhaustive categories of all human beings, real or fictive. Therefore a tribe or clan, which ordinarily might dislike being thought of as an organization, are nevertheless so classified here.

Used by: ~voc-element-agent

### Example 12.23I. <organization>

```

<vocabulary-key>
    .....
    <morphology xml:id="perseus-dik">
        .....
    </morphology>
    <organization xml:id="perseus">
        <IRI>http://dbpedia.org/resource/Perseus_Project</IRI>
        <name>Perseus Project</name>
    </organization>
    <person xml:id="dik">
        .....
    </person>
    .....
</vocabulary-key>

```

 Note

Taken from grc-tan-a-lm-%CE%B1 [../../examples/TAN-A-lm/grc-tan-a-lm-%CE%B1.xml]

Example 12.232. **<organization>**

```
<vocabulary-key>
  .....
  <morphology xml:id="perseus-dik">
    .....
  </morphology>
  <organization xml:id="perseus">
    <IRI>http://dbpedia.org/resource/Perseus_Project</IRI>
    <name>Perseus Project</name>
  </organization>
  <person xml:id="dik">
    .....
  </person>
  .....
</vocabulary-key>
```

 Note

Taken from grc-tan-a-lm-%CE%B1%CA%B9 [../../examples/TAN-A-lm/grc-tan-a-lm-%CE%B1%CA%B9.xml]

Example 12.233. **<organization>**

```
<vocabulary-key>
  <person which="Jenny Park" xml:id="park"/>
  <organization xml:id="pt" which="Project_team_for_TAN_examples"/>
</vocabulary-key>
```

 Note

Taken from park-projects.TAN-voc [../../examples/TAN-voc/park-projects.TAN-voc.xml]

## **<passage>**

*TAN-class-2.rng [../../schemas/incl/TAN-class-2.rng]*

The element `passage` specifies a textual passage within a single `<div>` that should be reassigned to another `<div>`.

Used by: `~adj-element-reassign`

Example 12.234. **<passage>**

```
<reassign>
  <passage ref="5 4 7 2">
    <from-tok val=":" pos="1"/>
    <through-tok val=":" pos="1"/>
  </passage>
```

```
<to ref="5 4 7 1"/>
</reassign>
```

### Note

Taken from ar.cat.TAN-A [../examples/TAN-A/ar.cat.TAN-A.xml]

## <period>

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

### Definition 1

The element `period` as a constraint specifies expectations on a verb's use of period. By default, a period is optional.

### Definition 2

The element `period` identifies or defines a period of time, either through specific dates or date-Times, or to a vocabulary item that names a more generic period of time.

Used by: ~constraints-on-verb, ~voc-key-core

### Example 12.235. <period>

```
<head>
  .....
  <vocabulary-key>
    .....
    <role xml:id="creator">
      .....
    </role>
    <period xml:id="per2010s" from="2010-01-01" to="2019-12-31"/>
    <period xml:id="late-antiquity">
      <IRI>tag:parkj@textalign.net,2015:period:late-antiquity</IRI>
      <name>late antiquity</name>
      <desc>Roughly starting in the second to fourth century and finishing f
        to ninth, depending upon the context. Late antiquity tends to
        think.</desc>
    </period>
    <place xml:id="pavia">
      .....
    </place>
  </vocabulary-key>
  .....
</head>
```

### Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## <person>

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The element `person` contains an IRI + name pattern identifying an individual human being.

Used by: `~voc-element-agent`

#### Example 12.236. **<person>**

```
<vocabulary-key>
  .....
  <div-type xml:id="pt" which="part"/>
  <person xml:id="kalvesmaki">
    <IRI>http://viaf.org/viaf/299582703</IRI>
    <IRI>tag:kalvesmaki.com,2014:self</IRI>
    <name xml:lang="eng">Joel Kalvesmaki</name>
  </person>
  <algorithm xml:id="xslt1">
    .....
  </algorithm>
  .....
</vocabulary-key>
```

#### Note

Taken from `ar.cat.eng.i926.edghill.ref-logical [../examples/ar.cat.eng.i926.edghill.ref-logical.xml]`

#### Example 12.237. **<person>**

```
<vocabulary-key>
  .....
  <div-type xml:id="1">
    .....
  </div-type>
  <person xml:id="kalvesmaki">
    <IRI>http://viaf.org/viaf/299582703</IRI>
    <IRI>tag:kalvesmaki.com,2014:self</IRI>
    <name xml:lang="eng">Joel Kalvesmaki</name>
  </person>
  <algorithm xml:id="xslt1">
    .....
  </algorithm>
  .....
</vocabulary-key>
```

#### Note

Taken from `ar.cat.eng.i926.edghill.ref-scriptum [../examples/ar.cat.eng.i926.edghill.ref-scriptum.xml]`

#### Example 12.238. **<person>**

```
<vocabulary-key>
  .....
  <div-type xml:id="pt" which="part"/>
```

```
<person xml:id="kalvesmaki">
  <IRI>http://viaf.org/viaf/299582703</IRI>
  <IRI>tag:kalvesmaki.com,2014:self</IRI>
  <name xml:lang="eng">Joel Kalvesmaki</name>
</person>
<role xml:id="editor">
  .....
</role>
.....
</vocabulary-key>
```

### Note

Taken from ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949 [../examples/ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949.xml]

### Example 12.239. **<person>**

```
<vocabulary-key>
  .....
  <div-type xml:id="pt" which="part"/>
  <person xml:id="kalvesmaki">
    <IRI>http://viaf.org/viaf/299582703</IRI>
    <IRI>tag:kalvesmaki.com,2014:self</IRI>
    <name xml:lang="eng">Joel Kalvesmaki</name>
  </person>
  <role xml:id="editor">
    .....
  </role>
  .....
</vocabulary-key>
```

### Note

Taken from ar.cat.fra.i844.saint-hilaire.ref-logical [../examples/ar.cat.fra.i844.saint-hilaire.ref-logical.xml]

## **<place>**

*TAN-A.rng* [../schemas/TAN-A.rng]

The element `place` contains an IRI + name pattern identifying a spatial location, usually somewhere on earth

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The element `place` specifies expectations on a verb's use of place. By default, a place is optional.

Used by: `~voc-element-tan-a`, `~constraints-on-verb`

### Example 12.240. **<place>**

```
<vocabulary-key>
```



```
.....  
<period xml:id="late-antiquity">  
.....  
</period>  
<place xml:id="pavia">  
  <IRI>http://dbpedia.org/resource/Pavia</IRI>  
  <name>Pavia</name>  
</place>  
</vocabulary-key>
```

### Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## <predecessor>

*TAN-core.rng [ ../schemas/incl/TAN-core.rng ]*

The element `predecessor` identifies a file that the current file succeeds. Predecessors may or may not have the same `@id` value.

The sequence of consecutive `<predecessor>`s is immaterial.

Used by: `~networked-files-core`

### Caution

An element that has a `<location>` and is key for validation should have at least one document available.

### Caution

Every TAN file referred to by way of an element containing `<location>` should have an `@id` that matches the `<IRI>` of the parent of the `<location>`

### Caution

No element may point to a TAN file that has an identical `@id` value; the only exception is `<predecessor>` and `<successor>`.

### Important

If a target file has children items in the `<to-do>` the corresponding comments will be returned as warnings.

### Important

If a target file has a `<successor>` a warning will be returned, noting the update.

### Important

If a target file points only to non-local locations and no internet is available, the following message will be returned. "No internet available."

 **Caution**

If a linking element points to a file that must be resolved, that file must be a TAN file.

 **Important**

If an element not essential to validation has no `<location>` that points to a document a warning should be returned.

Example 12.241. **<predecessor>**

```
<head>
  .....
  <source>
    .....
  </source>
  <predecessor>
    <IRI>tag:hans@beispiel.com,2014:ringel</IRI>
    <name>TAN Transkription, Ringelreihen mit Riederfallen</name>
    <location accessed-when="2021-04-29T11:46:36.281-04:00" href="ring-o-rose
  </predecessor>
  <adjustments>
    .....
  </adjustments>
  .....
</head>
```

 **Note**

Taken from ring-o-roses.deu.i897 [../examples/ring-o-roses.deu.i897.xml]

## **<reassign>**

*TAN-class-2.rng [../../../../schemas/incl/TAN-class-2.rng]*

The element `reassign` identifies words and phrases that should be moved from one `<div>` to another in a given source.

Only the first `<reassign>` applying to a `<div>` in a given source will be applied.

Used by: `~adjust-class-2`

 **Caution**

Any range in either an `@n` or in a `@ref` in an adjustment action must be predictably calculated.

 **Caution**

No token may be adjusted by more than one `<reassign>`.

 **Caution**

A `<reassign>` may be applied only to leaf `<div>`s.

⚠ Caution

No adjustment action should result in the mixing of leaf <div>s and non-leaf <div>s.

⚠ Caution

In a <reassign>, the token referred to at <from-tok> must precede the one referred to by <through-tok>.

Example 12.242. <reassign>

```
<adjustments src="fra">
  .....
  <equate n="ti title"/>
  <reassign>
    <passage ref="5 4 7 2">
      .....
    </passage>
    <to ref="5 4 7 1"/>
  </reassign>
</adjustments>
```

📄 Note

Taken from ar.cat.TAN-A [../examples/TAN-A/ar.cat.TAN-A.xml]

## <redivision>

*TAN-class-1.rng [../schemas/incl/TAN-class-1.rng]*

The element `redivision` identifies a class-1 file that has the same work, scriptum, and version, but is segmented according to a different reference system.

The normalized transcriptions of redivided texts must be identical.

The sequence of consecutive <redivision>s is immaterial.

Used by: ~networked-files-non-core

⚠ Caution

<model> and <redivision> must point to class 1 TAN files

⚠ Caution

An element that has a <location> and is key for validation should have at least one document available.

⚠ Caution

Every TAN file referred to by way of an element containing <location> should have an @id that matches the <IRI> of the parent of the <location>

⚠ Caution

No element may point to a TAN file that has an identical @id value; the only exception is <predecessor> and <successor>.

! Important

If a target file has children items in the <to-do> the corresponding comments will be returned as warnings.

! Important

If a target file has a <successor> a warning will be returned, noting the update.

! Important

If a target file points only to non-local locations and no internet is available, the following message will be returned. "No internet available."

⚠ Caution

If a linking element points to a file that must be resolved, that file must be a TAN file.

⚠ Caution

Class I files must share the same source as any redivision or companion version.

⚠ Caution

Class I files must share the same work-version, if supplied, as any redivision.

⚠ Caution

Class I files must have identical transcriptions, after TAN normalization, as any redivision.

⚠ Caution

Class I files must share the same work as any model, redivision, or companion version.

Example 12.243. <redivision>

```
<head>
.....
<see-also relationship="alt">
.....
</see-also>
<redivision>
  <IRI>tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:model-object-r
  <name>Categories, Aristotle, English translation by E. M. Edghill</name>
  <location href="ar.cat.eng.1926.edghill.ref-scriptum.xml" accessed-when="
</redivision>
<adjustments>
.....
</adjustments>
```

```
.....  
</head>
```

### Note

Taken from `ar.cat.eng.1926.edghill.ref-logical [../examples/ar.cat.eng.1926.edghill.ref-logical.xml]`

#### Example 12.244. **<redivision>**

```
<head>  
.....  
<source>  
.....  
</source>  
<redivision>  
  <IRI>tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:semantic-refs<  
  <name>Categories, Aristotle, English translation by E. M. Edghill</name>  
  <location href="ar.cat.eng.1926.edghill.ref-logical.xml" accessed-when="2  
  .....  
</redivision>  
<model>  
.....  
</model>  
.....  
</head>
```

### Note

Taken from `ar.cat.eng.1926.edghill.ref-scriptum [../examples/ar.cat.en-1926.edghill.ref-scriptum.xml]`

#### Example 12.245. **<redivision>**

```
<head>  
.....  
<source>  
.....  
</source>  
<redivision>  
  <IRI>tag:kalvesmaki.com,2014:tan-t:ar.cat.fra.1844.saint-hilaire:semantic  
  <name>Categories, Aristotle, French translation by J. Barthélemy Saint-Hi  
  <location href="ar.cat.fra.1844.saint-hilaire.ref-logical.xml" accessed-w  
  .....  
</redivision>  
<model>  
.....  
</model>  
.....  
</head>
```

### Note

Taken from `ar.cat.fra.1844.saint-hilaire.ref-logical-after-1949 [../exam-1844.saint-hilaire.ref-logical-after-1949.xml]`

### Example 12.246. **<redivision>**

```

<head>
  .....
  <source>
    .....
  </source>
  <redivision>
    <IRI>tag:kalvesmaki.com,2014:tan-t:ar.cat.fra.1844.saint-hilaire:semantic
    <name>Realignment of Categories, Aristotle, French translation by J. Bart
    <location href="ar.cat.fra.1844.saint-hilaire.ref-logical-after-1949.xml"
  </redivision>
  <adjustments>
    .....
  </adjustments>
  .....
</head>

```

#### Note

Taken from `ar.cat.fra.1844.saint-hilaire.ref-logical [../../examples/ar.cat.fra.1844.saint-hilaire.ref-logical.xml]`

## **<reference-system>**

*TAN-class-1.rng [../../schemas/incl/TAN-class-1.rng]*

The element `reference-system` specifies the type of reference system and its basis. The attributes of this element specify the type of reference system (material or logical); point to one or more reference scripta that form the basis of the reference system, and stipulate whether the scripta use that reference system as their key material or logical reference system.

In the absence of this element or any individual attribute, the following values are presumed:

The default reference type, material (i.e., scriptum-based: pages, columns, lines) or logical (based on conceptual divisions), is determined by the types of text units in the topmost tier of `<div>`s.

The default reference scriptum is `<source>`. The reference system is assumed not to be the primary one.

For a class `I` file to be a candidate for Literature Frigid URIs, whether as a target or as a source of creating LF URIs, the reference system must be the key reference system of its type in the reference scriptum.

Used by: `~decl-class-1`

#### Caution

A class `I` file with a `<model>` should not declare a `<reference-system>`, which is inherited from the model.

### Example 12.247. **<reference-system>**

```

<head>

```

```
.....
<license licenser="kalvesmaki">
  .....
</license>
<reference-system type="logical" wf-ready="true"/>
<work>
  .....
</work>
.....
</head>
```

### Note

Taken from ar.cat.fra.1844.saint-hilaire.ref-logical [../examples/ar.cat.fra.1844.saint-hilaire.ref-logical.xml]

### Example 12.248. **<reference-system>**

```
<head>
  .....
  <work>
    .....
  </work>
  <reference-system type="logical" wf-ready="true"/>
  <source>
    .....
  </source>
  .....
</head>
```

### Note

Taken from ar.cat.grc.1949.minio-paluello.ref-logical [../examples/ar.cat.grc.1949.minio-paluello.ref-logical.xml]

### Example 12.249. **<reference-system>**

```
<head>
  .....
  <work>
    .....
  </work>
  <reference-system type="material" wf-ready="true" scriptum="bekker"/>
  <source>
    .....
  </source>
  .....
</head>
```

### Note

Taken from ar.cat.grc.1949.minio-paluello.ref-scriptum [../examples/ar.cat.grc.1949.minio-paluello.ref-scriptum.xml]

### Example 12.250. **<reference-system>**

```
<head>
  .....
  <work>
    .....
  </work>
  <reference-system type="material" wf-ready="true"/>
  <source>
    .....
  </source>
  .....
</head>
```

#### Note

Taken from ar.cat.lat.1961.minio-paluello.ref-scriptum [../examples/ar.cat.lat.1961.minio-paluello.ref-scriptum.xml]

## **<relationship>**

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The element `relationship` specifies a relationship that one document has to another.

Used by: ~voc-key-core

### Example 12.251. **<relationship>**

```
<vocabulary-key>
  .....
  <role xml:id="stylesheet1" which="stylesheet"/>
  <relationship xml:id="alt">
    <IRI>tag:kalvesmaki.com,2014:relationship:diff-work-version</IRI>
    <name>different work version</name>
  </relationship>
</vocabulary-key>
```

#### Note

Taken from ar.cat.eng.1926.edghill.ref-logical [../examples/ar.cat.eng.1926.edghill.ref-logical.xml]

### Example 12.252. **<relationship>**

```
<vocabulary-key>
  .....
  <role xml:id="stylesheet1" which="stylesheet"/>
  <relationship xml:id="alt">
    <IRI>tag:kalvesmaki.com,2014:relationship:diff-work-version</IRI>
    <name>different work version</name>
  </relationship>
  <scriptum xml:id="bekker">
```



```
.....  
</scriptum>  
</vocabulary-key>
```

### Note

Taken from `ar.cat.lat.1961.minio-paluello.ref-scriptum [../../examples/ar.cat.lat.1961.minio-paluello.ref-scriptum.xml]`

## <rename>

*TAN-class-2.rng [../../schemas/incl/TAN-class-2.rng]*

The element `rename` provisionally reassigns values of `@n`'s in class `1` sources, or their calculated ref value, to another value.

A `<rename>` may be applied on the basis of either `@n` or `@ref`, but a ref-based `<rename>` always supersedes an n-based rename. Only the first matching `<rename>` will be applied to a given `<div>` in a source.

A ref-based rename eliminates any alternative values of `@n`, inherited or native. That is, if a `<div>` has `@n="prol pref"` and the rename has `@ref="prol"` and `@new="prologue"` then the alternative value "pref" will be ignored.

Renames override any equate actions. An exception is made when an n-based rename affects one value of `@n` but an equate affects another value. Ref-based renames always override any equate action.

If a `<div>` is renamed such that it needs to be moved elsewhere in the hierarchy, and it matches the reference of another `<div>`, the text from the renamed `<div>` will be added to the end of the target `<div>`.

Used by: `~adjust-class-2`

### Caution

Any range in either an `@n` or in a `@ref` in an adjustment action must be predictably calculated.

### Important

Only the first of multiple adjustment actions will be applied. Action priority: skip, ref-based rename, then for every `@n` n-based rename, equate.

### Caution


In adjustment actions involving `@n`, at least one value should be found in each source.

### Caution


`@by` may be applied only to those `@n` and `@ref` values that are calculable as integers.

### Caution

In a `<rename>` the quantity of values in `@ref` and `@new` must be identical.

 **Caution**

@new may not take the same value as what it replaces.

 **Caution**

No adjustment action should result in the mixing of leaf <div>s and non-leaf <div>s.

Example 12.253. **<rename>**

```
<adjustments src="ger">
  <skip div-type="Gedicht" />
  <rename n="e" by="-1" />
</adjustments>
```

 **Note**

Taken from ringoroses.div.1 [../../examples/TAN-A/ringoroses.div.1.xml]

Example 12.254. **<rename>**

```
<adjustments src="ger">
  <skip div-type="Gedicht" />
  <rename ref="1 e" new="4" />
</adjustments>
```

 **Note**

Taken from ringoroses.o1+o3.token.2 [../../examples/TAN-A-tok/ringoroses.o1+o3.token.2.xml]

## **<replace>**

*TAN-class-1.rng [../../schemas/incl/TAN-class-1.rng]*

The element `replace` contains the equivalent of the XPath `replace()` function plus parameters, indicating a replacement operation that should be, or has been, applied to a digital file.

Multiple `<replace>`s will be assumed to have been implemented in the given order.

The conventions of this element and its children parallel the XPath function `replace()`. See <http://www.w3.org/TR/xpath-functions-30/#func-replace>

The sequence of consecutive `<replace>`s is important, reflecting the order in which replacements occurred. Results may differ depending upon the order of replace operations.

Used by: ~adjust-repl

Example 12.255. **<replace>**

```
<adjustments>
  .....
```

```

<normalization>
  .....
</normalization>
<replace pattern="--" replacement="--" flags="i"/>
</adjustments>

```

### Note

Taken from `gomme.1989.ring-o-roses [../../examples/gomme.1989.ring-o-roses.xml]`

## <report>

*TAN-mor.rng [../../schemas/TAN-mor.rng]*

The element `report` names a pattern that, if found to be true in any `<m>` in a dependent TAN-ALM file, will return the enclosed message upon validation of the dependent file, along with an error or warning. Modeled on Schematron `<report>`.

The sequence of consecutive `<report>`s is immaterial.

Used by: `~element-rule`

### Example 12.256. <report>

```

<rule m-has-codes="' ' . ; :">
  <report tok-matches="\w">Nothing marked as punctuation should have word
  characters.</report>
</rule>

```

### Note

Taken from `eng.kalvesmaki.com,2014.2 [../../examples/TAN-mor/eng.kalvesmaki.com,2014.2.xml]`

### Example 12.257. <report>

```

<body>
  <rule m-has-how-many-codes="2-10">
    <report m-matches="^c">A conjunction has no other inflectional
    properties.</report>
    <report m-matches="^r">A preposition has no other inflectional
    properties.</report>
    <report m-matches="^i">An interjection has no other inflectional
    properties.</report>
    <report m-matches="^y">An acronym has no other inflectional properties.</
  </rule>
  .....
</body>

```

### Note

Taken from `grc.perseus.tan-mor [../../examples/TAN-mor/grc.perseus.tan-mor.xml]`

## <resp>

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

The element `resp` specifies a role held by one or more persons, organizations, or algorithms, perhaps during a specified time period.

The sequence of consecutive `<resp>`s is immaterial.

Used by: `~resp-list`

### Example 12.258. <resp>

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:semantic-refs" TA
  <head>
    .....
    <file-resp who="kalvesmaki"/>
    <resp who="xslt2" roles="stylesheet1"/>
    <resp roles="editor" who="kalvesmaki"/>
    <resp who="xslt1" roles="stylesheet1"/>
    <change when="2020-12-31" who="kalvesmaki">Added new reference-system declar
    .....
  </head>
  .....
</TAN-T>
```

#### Note

Taken from `ar.cat.eng.1926.edghill.ref-logical` [../../examples/ar.cat.eng.1926.edghill.ref-logical.xml]

### Example 12.259. <resp>

```
<head>
  .....
  <file-resp who="kalvesmaki"/>
  <resp roles="editor" who="kalvesmaki"/>
  <resp who="xslt1" roles="stylesheet1"/>
  .....
</head>
```

#### Note

Taken from `ar.cat.eng.1926.edghill.ref-scriptum` [../../examples/ar.cat.eng.1926.edghill.ref-scriptum.xml]

## <reuse-type>

*TAN-A-tok.rng* [../../schemas/TAN-A-tok.rng]

The element `reuse-type` identifies a category of text reuse (e.g., translation, mistranslation, paraphrase, ridicule). See the section called “Token-based annotations and alignments (<TAN-A-tok>)” for theoretical background.

For standard TAN vocabulary items see the section called “TAN keywords for types of bitext reuse (<reuse-type>)”

Used by: ~voc-element-non-class-2

Example 12.260. **<reuse-type>**

```
<vocabulary-key>
  .....
  <bitext-relation xml:id="B-descends-from-A">
    .....
  </bitext-relation>
  <reuse-type xml:id="adaptation">
    <IRI>tag:textalign.net,2015:reuse-type:adaptation:general</IRI>
    <name>general adaptation</name>
  </reuse-type>
  <person xml:id="park">
    .....
  </person>
  .....
</vocabulary-key>
```

 Note

Taken from ringoroses.o1+o2.token.1 [../examples/TAN-A-tok/ringoroses.o1+o2.token.1.xml]

Example 12.261. **<reuse-type>**

```
<vocabulary-key>
  .....
  <bitext-relation xml:id="unclear">
    .....
  </bitext-relation>
  <reuse-type xml:id="correlationGeneral">
    <IRI>tag:kalvesmaki@gmail.com,2014:reuse-type:correlation-general</IRI>
    <name>Texts are generally correlated, but without specifying the relat
  </reuse-type>
  <comment when="2016-02-22-05:00" who="park">The following is equivalent t
    .....
  </vocabulary-key>
```

 Note

Taken from ringoroses.o1+o3.token.1 [../examples/TAN-A-tok/ringoroses.o1+o3.token.1.xml]

Example 12.262. **<reuse-type>**

```
<vocabulary-key>
  .....
  <bitext-relation xml:id="unclear">
    .....
  </bitext-relation>
```

```
<reuse-type xml:id="correlationGeneral">
  <IRI>tag:kalvesmaki@gmail.com,2014:reuse-type:correlation-general</IRI>
  <name>Texts are generally correlated, but without specifying the relat
</reuse-type>
<person xml:id="park">
  .....
</person>
.....
</vocabulary-key>
```

### Note

Taken from ringoroses.o1+o3.token.2 [../../examples/TAN-A-tok/ringoroses.o1+o3.token.2.xml]

## <role>

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

The element `role` specifies a role (responsibility, task, or activity) that one or more `<agent>`s had in creating or editing the data.

A role may be any activity, e.g., editor, funder, supervisor, data-processor, peer reviewer, patron, identified through the enclosed IRI + name pattern.

See the section called “TAN keywords for types of roles (<role>)” for standard TAN vocabulary.

Used by: `~voc-key-core`

### Example 12.263. <role>

```
<head>
  .....
  <vocabulary-key>
    .....
    <algorithm xml:id="xslt1">
      .....
    </algorithm>
    <role xml:id="editor">
      <IRI>http://schema.org/editor</IRI>
      <name xml:lang="eng">Editor</name>
    </role>
    <role xml:id="stylesheet1" which="stylesheet"/>
    <relationship xml:id="alt">
      .....
    </relationship>
  </vocabulary-key>
  .....
</head>
```

### Note

Taken from ar.cat.eng.1926.edghill.ref-logical [../../examples/ar.cat.eng.1926.edghill.ref-logical.xml]

Example 12.264. **<role>**

```

<head>
  .....
  <vocabulary-key>
    .....
    <algorithm xml:id="xslt1">
      .....
    </algorithm>
    <role xml:id="editor">
      <IRI>http://schema.org/editor</IRI>
      <name xml:lang="eng">Editor</name>
    </role>
    <role xml:id="stylesheet1" which="stylesheet"/>
    <scriptum xml:id="bekker">
      .....
    </scriptum>
  </vocabulary-key>
  .....
</head>

```

 Note

Taken from ar.cat.eng.1926.edghill.ref-scriptum [../examples/ar.cat.eng.1926.edghill.ref-scriptum.xml]

## **<rule>**

*TAN-mor.rng* [../schemas/TAN-mor.rng]

The element rule encloses asserts and reports that should be evaluated provided that the conditions specified in the attributes (or children <where> attributes) are true.

The sequence of consecutive <rule>s is immaterial.

Used by: ~TAN-mor-body

Example 12.265. **<rule>**

```

<TAN-mor TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-r-mor:eng:penn">
  .....
  <body>
    <rule m-matches=".">
      <assert m-has-how-many-codes="1">Features may not be combined.</assert>
    </rule>
    <rule>
      <where m-has-codes="$"/>
      <assert tok-matches="$">Only $ may be tagged as a dollar sign.</assert>
    </rule>
    <rule m-has-codes="' ' . ; :">
      <report tok-matches="\w">Nothing marked as punctuation should have word
        characters.</report>
    </rule>
    <code feature="closing_quotation_mark">

```

```

    .....
    </code>
    .....
  </body>
</TAN-mor>

```

### Note

Taken from `eng.kalvesmaki.com,2014.2` [`../../examples/TAN-mor/eng.kalvesmak-i.com,2014.2.xml`]

### Example 12.266. **<rule>**

```

<body>
  <rule m-has-how-many-codes="2-10">
    <report m-matches="^c">A conjunction has no other inflectional
      properties.</report>
    <report m-matches="^r">A preposition has no other inflectional
      properties.</report>
    <report m-matches="^i">An interjection has no other inflectional
      properties.</report>
    .....
  </rule>
  <rule m-matches="^e">
    .....
  </rule>
  .....
</body>

```

### Note

Taken from `grc.perseus.tan-mor` [`../../examples/TAN-mor/grc.perseus.tan-mor.xml`]

## **<scriptum>**

`TAN-core.rng` [`../../schemas/incl/TAN-core.rng`]

The element `scriptum` contains an IRI + name pattern identifying a text-bearing object.

Used by: `~voc-element-tan-a`, `~voc-element-class-1`

### Example 12.267. **<scriptum>**

```

<vocabulary-key>
  .....
  <role xml:id="stylesheet1" which="stylesheet"/>
  <scriptum xml:id="bekker">
    <IRI>http://id.lib.harvard.edu/alma/990017941240203941/catalog</IRI>
    <IRI>http://www.worldcat.org/oclc/490107033</IRI>
    <name>Bekker</name>
    .....
  </scriptum>
</vocabulary-key>

```



 Note

Taken from ar.cat.eng.1926.edghill.ref-scriptum [../examples/ar.cat.eng.1926.edghill.ref-scriptum.xml]

Example 12.268. **<scriptum>**

```
<vocabulary-key>
  .....
  <role xml:id="stylesheet1" which="stylesheet"/>
  <scriptum xml:id="bekker">
    <IRI>http://id.lib.harvard.edu/alma/990017941240203941/catalog</IRI>
    <IRI>http://www.worldcat.org/oclc/490107033</IRI>
    <name>Bekker</name>
    .....
  </scriptum>
</vocabulary-key>
```

 Note

Taken from ar.cat.grc.1949.minio-paluello.ref-logical [../examples/ar.cat.grc.1949.minio-paluello.ref-logical.xml]

Example 12.269. **<scriptum>**

```
<vocabulary-key>
  .....
  <role xml:id="stylesheet1" which="stylesheet"/>
  <scriptum xml:id="bekker">
    <IRI>http://id.lib.harvard.edu/alma/990017941240203941/catalog</IRI>
    <IRI>http://www.worldcat.org/oclc/490107033</IRI>
    <name>Bekker</name>
    .....
  </scriptum>
</vocabulary-key>
```

 Note

Taken from ar.cat.grc.1949.minio-paluello.ref-scriptum [../examples/ar.cat.grc.1949.minio-paluello.ref-scriptum.xml]

Example 12.270. **<scriptum>**

```
<vocabulary-key>
  .....
  <relationship xml:id="alt">
    .....
  </relationship>
  <scriptum xml:id="bekker">
    <IRI>http://id.lib.harvard.edu/alma/990017941240203941/catalog</IRI>
    <IRI>http://www.worldcat.org/oclc/490107033</IRI>
    <name>Bekker</name>
    .....
  </scriptum>
```

</vocabulary-key>

### Note

Taken from ar.cat.lat.1961.minio-paluello.ref-scriptum [../examples/ar.cat.lat.1961.minio-paluello.ref-scriptum.xml]

## <see-also>

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The element `see-also` identifies a file that is related to the current one.

The sequence of consecutive `<see-also>`s is immaterial.

Used by: `~networked-files-core`

### Caution

An element that has a `<location>` and is key for validation should have at least one document available.

### Caution

Every TAN file referred to by way of an element containing `<location>` should have an `@id` that matches the `<IRI>` of the parent of the `<location>`

### Caution

No element may point to a TAN file that has an identical `@id` value; the only exception is `<predecessor>` and `<successor>`.

### Important

If a target file has children items in the `<to-do>` the corresponding comments will be returned as warnings.

### Important

If a target file has a `<successor>` a warning will be returned, noting the update.

### Important

If a target file points only to non-local locations and no internet is available, the following message will be returned. "No internet available."

### Important

If an element not essential to validation has no `<location>` that points to a document a warning should be returned.

### Important

If `@accessed-when` predates one or more dates in a target file, a warning will be returned.

### Example 12.271. **<see-also>**

```

<head>
  .....
  <model>
    .....
  </model>
  <see-also relationship="alt">
    <IRI>tag:kalvesmaki.com,2014:tan-t:ar.cat.grc.1949.minio-paluello:object-
    <name>Categories, Aristotle, Greek text by Minio-Paluello</name>
    <location href="ar.cat.grc.1949.minio-paluello.ref-scriptum.xml" accessed
  </see-also>
  <redivision>
    .....
  </redivision>
  .....
</head>

```

#### Note

Taken from ar.cat.eng.1926.edghill.ref-logical [../examples/ar.cat.eng.1926.edghill.ref-logi-  
cal.xml]

### Example 12.272. **<see-also>**

```

<head>
  .....
  <source>
    .....
  </source>
  <see-also relationship="alt">
    <IRI>tag:kalvesmaki.com,2014:tan-t:ar.cat.grc.1949.minio-paluello:semanti
    <name>Categories, Aristotle, Greek text by Minio-Paluello</name>
    <location accessed-when="2018-12-11-05:00" href="ar.cat.grc.1949.minio-pa
  </see-also>
  <vocabulary-key>
    .....
  </vocabulary-key>
  .....
</head>

```

#### Note

Taken from ar.cat.lat.1961.minio-paluello.ref-scriptum [../examples/ar.cat.lat.1961.minio-  
paluello.ref-scriptum.xml]

## **<skip>**

*TAN-class-2.rng* [../schemas/incl/TAN-class-2.rng]

The element `skip` marks parts of a source that have been ignored or should be skipped, either shallowly (default) or deeply.

Note, the shallow skip of a `<div>` may result in the creation of empty `<div>`s, which will be ignored during validation.

This element is useful for ignoring extraneous divs, e.g., where a source has introduced divs that do not exist in other versions of the same work. For example, a transcription may group the topmost divisions of a text into parts, or may adopt superfluous divisions (e.g., introducing a `<div>` for chapter in the New Testament book Philemon, which does not have more than one chapter, and can be identified purely by verse).

Only the first `<skip>` applying to a `<div>` in a given source will be applied.

Used by: `~adjust-class-2`

### Caution

Any range in either an `@n` or in a `@ref` in an adjustment action must be predictably calculated.

### Important

Only the first of multiple adjustment actions will be applied. Action priority: skip, ref-based rename, then for every `@n` n-based rename, equate.

### Caution

In adjustment actions involving `@n`, at least one value should be found in each source.

### Caution

Every div type reference must be valid in every source

#### Example 12.273. `<skip>`

```
<adjustments src="fra">
  <skip div-type="summ" shallow="false"/>
  <equate n="ti title"/>
  .....
</adjustments>
```

### Note

Taken from `ar.cat.TAN-A` [`../examples/TAN-A/ar.cat.TAN-A.xml`]

#### Example 12.274. `<skip>`

```
<adjustments src="ger">
  <skip div-type="Gedicht"/>
  <rename n="e" by="-1"/>
</adjustments>
```

### Note

Taken from `ringoroses.div.I` [`../examples/TAN-A/ringoroses.div.I.xml`]

#### Example 12.275. `<skip>`

```
<adjustments src="ger">
```

```
<skip div-type="Gedicht" />
</adjustments>
```

### Note

Taken from ringoroses.o1+o3.token.1 [../../examples/TAN-A-tok/ringoroses.o1+o3.token.1.xml]

### Example 12.276. **<skip>**

```
<adjustments src="ger">
  <skip div-type="Gedicht" />
  <rename ref="1 e" new="4" />
</adjustments>
```

### Note

Taken from ringoroses.o1+o3.token.2 [../../examples/TAN-A-tok/ringoroses.o1+o3.token.2.xml]

## **<source>**

```
TAN-core.rng [../../schemas/incl/TAN-core.rng]
```

The element `source` identifies the source upon which the data in the `<body>` of the current file depends.

TAN-T and TAN-A-lm allow only one `<source>`. TAN-A-tok allows exactly two. All other TAN formats require one or more.

The sequence of consecutive `<source>`s is immaterial, but it does dictate the order in which sources are validated and processed.

Used by: `~source-list`

### Caution

An element that has a `<location>` and is key for validation should have at least one document available.

### Caution

Every TAN file referred to by way of an element containing `<location>` should have an `@id` that matches the `<IRI>` of the parent of the `<location>`

### Caution

No element may point to a TAN file that has an identical `@id` value; the only exception is `<predecessor>` and `<successor>`.

### Important


If a target file has children items in the `<to-do>` the corresponding comments will be returned as warnings.

 Important

If a target file has a `<successor>` a warning will be returned, noting the update.

 Important


If a target file points only to non-local locations and no internet is available, the following message will be returned. “No internet available.”

 Caution


If a linking element points to a file that must be resolved, that file must be a TAN file.

 Important

If `@accessed-when` predates one or more dates in a target file, a warning will be returned.

 Caution

A class 1 `<source>` may not point to a TAN file.

 Caution

Sources are integral parts of a class 2 TAN file. Access to at least one non-faulty copy is absolutely mandatory.

Example 12.277. **`<source>`**

```
<head>
  .....
  <work>
    .....
  </work>
  <source>
    <IRI>http://id.lib.harvard.edu/aleph/007901738/catalog</IRI>
    <name>Aristotle: Categoriae & De interpretatione by E.M. Edghill. Analytica
      A.J. Jenkinson. Analytica posteriora / by G.R.G. Mure. Oxford : Clarendon
    </name>
  </source>
  <model>
    .....
  </model>
  .....
</head>
```

 Note

Taken from `ar.cat.eng.1926.edghill.ref-logical [../examples/ar.cat.eng.1926.edghill.ref-logical.xml]`

Example 12.278. **`<source>`**

```
<head>
  .....
```

```

<work>
  .....
</work>
<source>
  <IRI>http://id.lib.harvard.edu/aleph/007901738/catalog</IRI>
  <name>Aristotle: Categoriae & De interpretatione by E.M. Edghill. Analytica
    A.J. Jenkinson. Analytica posteriora / by G.R.G. Mure. Oxford : Clarendon
  </name>
</source>
<redivision>
  .....
</redivision>
.....
</head>

```

### Note

Taken from ar.cat.eng.1926.edghill.ref-scriptum [../examples/ar.cat.eng-1926.edghill.ref-scriptum.xml]

### Example 12.279. **<source>**

```

<head>
  .....
<work>
  .....
</work>
<source>
  <IRI>http://id.lib.harvard.edu/aleph/002773288/catalog</IRI>
  <name>Logique d'Aristote: Traduite en français pour la première fois et a
    notes perpétuelles par J. Barthélemy Saint-Hilaire. Paris : Ladrance,
  </source>
<redivision>
  .....
</redivision>
.....
</head>

```

### Note

Taken from ar.cat.fra.1844.saint-hilaire.ref-logical-after-1949 [../examples/ar.cat.fra.1844.saint-hilaire.ref-logical-after-1949.xml]

### Example 12.280. **<source>**

```

<head>
  .....
<work>
  .....
</work>
<source>
  <IRI>http://id.lib.harvard.edu/aleph/002773288/catalog</IRI>
  <name>Logique d'Aristote: Traduite en français pour la première fois et a
    notes perpétuelles par J. Barthélemy Saint-Hilaire. Paris : Ladrance,

```

```

</source>
<redivision>
    .....
</redivision>
    .....
</head>

```

### Note

Taken from `ar.cat.fra.i844.saint-hilaire.ref-logical [../examples/ar.cat.fra.i844.saint-hilaire.ref-logical.xml]`

## <subject>

*TAN-A.rng [ ../schemas/TAN-A.rng ]*

The element `subject` points to text references that act as the subject of the claim.

Unlike `@subject`, which points to any entity via `idrefs`, `<subject>` is intended exclusively to point to data content or a textual subject.

Each textual `<subject>` is interpreted as a single entity, with all textual references encoded by the element treated as a single, grouped passage. The sequence of its contents is therefore significant.

*TAN-core.rng [ ../schemas/incl/TAN-core.rng ]*

The element `subject` specifies expectations on a verb's use of subject. By default, a subject is required.

Used by: `~element-claim`, `~subject`, `~constraints-on-verb`

### Caution

Claims involving verbs whose constrained content requires specification of units must use `<object>` or `<subject>` with `@units..`

### Caution

`<object>` or `<subject>` with `@units` may be used only with verbs with constrained content.

### Caution

`<subject>`'s and `<object>`'s content must be castable to any datatype constraints defined by the verb.

### Caution

`<subject>`'s and `<object>`'s content must match any lexical constraints defined by the verb.

### Example 12.281. `<subject>`

```

<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:ar.cat.tan-a:claims">
  <head>

```



```
.....
<vocabulary-key>
  .....
  <verb xml:id="om">
    .....
    <constraints>
      <subject status="required" item-type="person work version scriptum"
      <at-ref status="required"/>
      .....
    </constraints>
  </verb>
  <verb xml:id="attests">
    .....
    <constraints>
      <subject status="required" item-type="person work version scriptum"
      <object status="required" item-type="ref"/>
    </constraints>
  </verb>
  <verb xml:id="has-length">
    .....
    <constraints>
      <subject status="required" item-type="scriptum"/>
      <object status="required" content-datatype="integer" content-lexica
    </constraints>
  </verb>
  .....
</vocabulary-key>
.....
</head>
<body claimant="park" claim-period="per2010s">
  .....
  <claim verb="refers-to">
    <subject src="grc" ref="1 b 25"/>
    <object work="grc" ref="1 a 16"/>
  </claim>
  .....
</body>
</TAN-A>
```

### Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## **<successor>**

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

The element `successor` identifies a file that succeeds the current file. Successors may or may not have the same document `@id` value.

The sequence of consecutive `<successor>`s is immaterial.

Used by: `~networked-files-core`

⚠ Caution

<successor> and <companion-version> must point to TAN files of the same type.

⚠ Caution

An element that has a <location> and is key for validation should have at least one document available.

⚠ Caution

Every TAN file referred to by way of an element containing <location> should have an @id that matches the <IRI> of the parent of the <location>

⚠ Caution

No element may point to a TAN file that has an identical @id value; the only exception is <predecessor> and <successor>.

! Important

If a target file has children items in the <to-do> the corresponding comments will be returned as warnings.

! Important

If a target file has a <successor> a warning will be returned, noting the update.

! Important

If a target file points only to non-local locations and no internet is available, the following message will be returned. "No internet available."

⚠ Caution

If a linking element points to a file that must be resolved, that file must be a TAN file.

Example 12.282. <successor>

```
<head>
  .....
  <source>
    .....
  </source>
  <successor>
    <IRI>tag:hans@beispiel.com,2014:ringel</IRI>
    <name>TAN Transkription, Ringelreihen mit Riederfallen</name>
    <location accessed-when="2021-04-29T11:46:04.656-04:00" href="ring-o-rose
  </successor>
  <adjustments>
    .....
  </adjustments>
  .....
```

</head>

### Note

Taken from ring-o-roses.deu.i897-prev [../../examples/ring-o-roses.deu.i897-prev.xml]

## <tail>

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

The element `tail` permits any arbitrary content. This element is suitable as a placeholder for temporary data, especially to improve the efficiency of applications.

Used by: ~TAN-root

### Example 12.283. <tail>

```
<TAN-T TAN-version="2021" id="tag:hans@beispiel.com,2014:ringel">
  .....
  <body xml:lang="deu">
    .....
  </body>
  <tail>

  </tail>
</TAN-T>
```

### Note

Taken from ring-o-roses.deu.i897-prev [../../examples/ring-o-roses.deu.i897-prev.xml]

## <TAN-A>

*TAN-A.rng* [../../schemas/TAN-A.rng]

The element `TAN-A` specifies that the file is a general TAN alignment file. Root element.

### Important

Users should be warned about versions of TAN that are under development. “This version of TAN is under development, and is subject to change. Participants in developing the TAN schemas, functions, and guidelines are welcome. See <http://textalign.net> for details.”

### Important

Users should be warned about TAN files whose last change was made by an algorithm.

### Example 12.284. <TAN-A>

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:ar.cat.tan-a:claims">
  <head>
    .....
  </head>
```

```
<body claimant="park" claim-period="per2010s">
    .....
</body>
</TAN-A>
```

### Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

### Example 12.285. <TAN-A>

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:ar.cat.tan-a">
  <head>
    .....
  </head>
  <body claimant="park">
    .....
  </body>
</TAN-A>
```

### Note

Taken from ar.cat.TAN-A [../examples/TAN-A/ar.cat.TAN-A.xml]

### Example 12.286. <TAN-A>

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:patricius.confessio.tan">
  <head>
    .....
  </head>
  <body claimant="park">
    .....
  </body>
</TAN-A>
```

### Note

Taken from patricius.confessio.TAN-A [../examples/TAN-A/patricius.confessio.TAN-A.xml]

### Example 12.287. <TAN-A>

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:ring01-TAN-A-ring02">
  <head>
    .....
  </head>
  <body claimant="park">
    .....
  </body>
</TAN-A>
```

### Note

Taken from ringoroses.div.i [../examples/TAN-A/ringoroses.div.i.xml]

## <TAN-A-lm>

*TAN-A-lm.rng* [*../../schemas/TAN-A-lm.rng*]

The element `TAN-A-lm` specifies that the file is a TAN file containing lexico-morphology data about a class-`i` source or a language in general. Root element.

### ! Important

Users should be warned about versions of TAN that are under development. “This version of TAN is under development, and is subject to change. Participants in developing the TAN schemas, functions, and guidelines are welcome. See <http://textalign.net> for details.”

### ! Important

Users should be warned about TAN files whose last change was made by an algorithm.

### Example 12.288. <TAN-A-lm>

```
<TAN-A-lm TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-t:ar.cat.grc.1949.minio"
  <head>
    .....
  </head>
  <body lexicon="LSJ Lampe new" morphology="Perseus" claimant="xslt2">
    .....
  </body>
</TAN-A-lm>
```

### 📄 Note

Taken from `ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample` [*../../examples/TAN-A-lm/ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample.xml*]

### Example 12.289. <TAN-A-lm>

```
<TAN-A-lm TAN-version="2021" id="tag:kalvesmaki.com,2015:tan-a-lm:grc:perseus#">
  <head>
    .....
  </head>
  <body lexicon="LSJ" morphology="perseus-dik" claimant="xslt2">
    .....
  </body>
</TAN-A-lm>
```

### 📄 Note

Taken from `grc-tan-a-lm-%CE%B1` [*../../examples/TAN-A-lm/grc-tan-a-lm-%CE%B1.xml*]

### Example 12.290. <TAN-A-lm>

```
<TAN-A-lm TAN-version="2021" id="tag:kalvesmaki.com,2015:tan-a-lm:grc:perseus##">
```

```
<head>
    .....
</head>
<body lexicon="LSJ" morphology="perseus-dik" claimant="xslt2">
    .....
</body>
</TAN-A-lm>
```

### Note

Taken from `grc-tan-a-lm-%CE%B1%CA%B9 [../../examples/TAN-A-lm/grc-tan-a-lm-%CE%B1%CA%B9.xml]`

### Example 12.291. **<TAN-A-lm>**

```
<TAN-A-lm TAN-version="2021" id="tag:parkj@textalign.net,2015:ring01-lm">
  <head>
    .....
  </head>
  <body lexicon="english" morphology="penn" claimant="xslt2">
    .....
  </body>
</TAN-A-lm>
```

### Note

Taken from `ring-o-roses.eng.i881.lm [../../examples/TAN-A-lm/ring-o-roses.eng.i881.lm.xml]`

## **<TAN-A-tok>**

*TAN-A-tok.rng [../../schemas/TAN-A-tok.rng]*

The element `TAN-A-tok` specifies that the file is contains token-to-token alignments between two sources. Root element.

### Important

Users should be warned about versions of TAN that are under development. “This version of TAN is under development, and is subject to change. Participants in developing the TAN schemas, functions, and guidelines are welcome. See <http://textalign.net> for details.”

### Important

Users should be warned about TAN files whose last change was made by an algorithm.

### Example 12.292. **<TAN-A-tok>**

```
<TAN-A-tok TAN-version="2021" id="tag:parkj@textalign.net,2015:TAN-A-tok,ring01+ri
  <head>
    .....
  </head>
  <body bitext-relation="B-descends-from-A" reuse-type="adaptation">
```

```
.....  
</body>  
</TAN-A-tok>
```

### Note

Taken from ringoroses.o1+o2.token.1 [../../examples/TAN-A-tok/ringoroses.o1+o2.token.1.xml]

#### Example 12.293. **<TAN-A-tok>**

```
<TAN-A-tok TAN-version="2021" id="tag:parkj@textalign.net,2015:TAN-A-tok,ring01+ri  
<head>  
.....  
</head>  
<body reuse-type="correlationGeneral" bitext-relation="unclear" claimant="xslt2  
.....  
</body>  
</TAN-A-tok>
```

### Note

Taken from ringoroses.o1+o3.token.1 [../../examples/TAN-A-tok/ringoroses.o1+o3.token.1.xml]

#### Example 12.294. **<TAN-A-tok>**

```
<TAN-A-tok TAN-version="2021" id="tag:parkj@textalign.net,2015:TAN-A-tok,ring01+ri  
<head>  
.....  
</head>  
<body reuse-type="correlationGeneral" bitext-relation="unclear" claimant="xslt2  
.....  
</body>  
</TAN-A-tok>
```

### Note

Taken from ringoroses.o1+o3.token.2 [../../examples/TAN-A-tok/ringoroses.o1+o3.token.2.xml]

## **<TAN-mor>**

*TAN-mor.rng* [../../schemas/TAN-mor.rng]

The element **TAN-mor** specifies that the TAN file contains codes and rules for the parts of speech for a language, the codes for those parts, and the rules for combining them. Root element.

### Important

Users should be warned about versions of TAN that are under development. “This version of TAN is under development, and is subject to change. Participants in developing the TAN schemas, functions, and guidelines are welcome. See <http://textalign.net> for details.”

### ! Important

Users should be warned about TAN files whose last change was made by an algorithm.

#### Example 12.295. <TAN-mor>

```
<TAN-mor TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-r-mor:eng:penn">
  <head>
    .....
  </head>
  <body>
    .....
  </body>
</TAN-mor>
```

### 📄 Note

Taken from `eng.kalvesmaki.com,2014.2` [`../../examples/TAN-mor/eng.kalvesmak-i.com,2014.2.xml`]

#### Example 12.296. <TAN-mor>

```
<TAN-mor TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-r-mor:grc:perseus">
  <head>
    .....
  </head>
  <body>
    .....
  </body>
</TAN-mor>
```

### 📄 Note

Taken from `grc.perseus.tan-mor` [`../../examples/TAN-mor/grc.perseus.tan-mor.xml`]

## <TAN-T>

`TAN-T.rng` [`../../schemas/TAN-T.rng`]

The element `TAN-T` specifies that the TAN file contains a transcription. Root element.

`TAN-core.rng` [`../../schemas/incl/TAN-core.rng`]

### ! Important

Users should be warned about versions of TAN that are under development. “This version of TAN is under development, and is subject to change. Participants in developing the TAN schemas, functions, and guidelines are welcome. See <http://textalign.net> for details.”

### ! Important

Users should be warned about TAN files whose last change was made by an algorithm.



Example 12.297. **<TAN-T>**

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:semantic-refs" TA
  <head>
    .....
  </head>
  <body xml:lang="eng">
    .....
  </body>
</TAN-T>
```

 Note

Taken from ar.cat.eng.1926.edghill.ref-logical [../examples/ar.cat.eng.1926.edghill.ref-logi-  
cal.xml]

Example 12.298. **<TAN-T>**

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.eng.1926.edghill:model-object-refs
  <head>
    .....
  </head>
  <body xml:lang="eng">
    .....
  </body>
</TAN-T>
```

 Note

Taken from ar.cat.eng.1926.edghill.ref-scriptum [../examples/ar.cat.en-  
g.1926.edghill.ref-scriptum.xml]

Example 12.299. **<TAN-T>**

```
<TAN-T TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-t:ar.cat.fra.1844.saint-
  <head>
    .....
  </head>
  <body xml:lang="fra">
    .....
  </body>
</TAN-T>
```

 Note

Taken from ar.cat.fra.1844.saint-hilaire.ref-logical-after-1949 [../exam-  
ples/ar.cat.fra.1844.saint-hilaire.ref-logical-after-1949.xml]

Example 12.300. **<TAN-T>**

```
<TAN-T id="tag:kalvesmaki.com,2014:tan-t:ar.cat.fra.1844.saint-hilaire:semantic-re
  <head>
    .....
  </head>
```

```
<body xml:lang="fra">
  .....
</body>
</TAN-T>
```

### Note

Taken from `ar.cat.fra.i844.saint-hilaire.ref-logical` [`../../examples/ar.cat.fra.i844.saint-hilaire.ref-logical.xml`]

## <TAN-VOC>

*TAN-voc.rng* [`../../schemas/TAN-voc.rng`]

The element `TAN-voc` specifies a TAN file that contains vocabulary items. Root element.

### Important

Users should be warned about versions of TAN that are under development. “This version of TAN is under development, and is subject to change. Participants in developing the TAN schemas, functions, and guidelines are welcome. See <http://textalign.net> for details.”

### Important

Users should be warned about TAN files whose last change was made by an algorithm.

### Caution

The vocabulary of a file may not include it.

#### Example 12.301. <TAN-voc>

```
<TAN-voc TAN-version="2021" id="tag:parkj@textalign.net,2015:TAN-key:ar.cat">
  <head>
    .....
  </head>
  <body affects-element="work">
    .....
  </body>
</TAN-voc>
```

### Note

Taken from `ar.cat.TAN-voc` [`../../examples/TAN-voc/ar.cat.TAN-voc.xml`]

#### Example 12.302. <TAN-voc>

```
<TAN-voc TAN-version="2021" id="tag:parkj@textalign.net,2015:TAN-voc:standard">
  <head>
    .....
  </head>
  <body>
```

```
.....  
</body>  
</TAN-voc>
```

### Note

Taken from park-projects.TAN-voc [../examples/TAN-voc/park-projects.TAN-voc.xml]

### Example 12.303. **<TAN-voc>**

```
<TAN-voc TAN-version="2021" id="tag:textalign.net,2015:tan-voc:bitext-relation">  
  <head>  
    .....  
  </head>  
  <body affects-element="bitext-relation">  
    .....  
  </body>  
</TAN-voc>
```

### Note

Taken from bitext-relations.TAN-voc [../vocabularies/bitext-relations.TAN-voc.xml]

### Example 12.304. **<TAN-voc>**

```
<TAN-voc TAN-version="2021" id="tag:textalign.net,2015:tan-voc:div-types">  
  <head>  
    .....  
  </head>  
  <body affects-element="div-type">  
    .....  
  </body>  
</TAN-voc>
```

### Note

Taken from div-types.TAN-voc [../vocabularies/div-types.TAN-voc.xml]

## **<through-tok>**

*TAN-class-2.rng* [../schemas/incl/TAN-class-2.rng]

### *Definition 1*

The element `through-tok` points to a single token that is the end of a range of tokens to be selected from a source, but without `@ref ..`

### *Definition 2*

The element `through-tok` points to a single token in a single reference that is the end of a range of tokens to be selected from a source, in the context of `@ref ..`

Used by: `~text-passage-selector-no-ref`, `~text-passage-selector-with-ref`

 **Caution**

Every token must be locatable in every cited ref in every source.

 **Caution**

In a <reassign>, the token referred to at <from-tok> must precede the one referred to by <through-tok>.

Example 12.305. **<through-tok>**

```
<passage ref="5 4 7 2">
  <from-tok val=":" pos="1"/>
  <through-tok val=":" pos="1"/>
</passage>
```

 **Note**

Taken from ar.cat.TAN-A [../examples/TAN-A/ar.cat.TAN-A.xml]

Example 12.306. **<through-tok>**

```
<subject src="eng-uk">
  .....
  <from-tok ref="1" pos="3"/>
  <through-tok ref="2" pos="1"/>
</subject>
```

 **Note**

Taken from ringoroses.div.1 [../examples/TAN-A/ringoroses.div.1.xml]

## **<to>**

*TAN-class-2.rng* [../schemas/incl/TAN-class-2.rng]

The element `to` indicates a ref to which the preceding <tok>s should be moved.

Used by: `~adj-element-reassign`

 **Caution**

No adjustment action should result in the mixing of leaf <div>s and non-leaf <div>s.

Example 12.307. **<to>**

```
<reassign>
  <passage ref="5 4 7 2">
    .....
  </passage>
  <to ref="5 4 7 1"/>
</reassign>
```

 Note

Taken from ar.cat.TAN-A [../../examples/TAN-A/ar.cat.TAN-A.xml]

## <to-do>

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

The element `to-do` lists tasks that remain to be done (via `<comment>` children). Lack of content in `<to-do>` suggests that the file is no longer considered a work in progress, but it does not guarantee that the file will not be changed in the future.

An empty `<to-do>` implies stability, so requires a file to have a `<master-location>`.

Used by: `~element-head`

 Caution

Any TAN file without a to-do list will be treated as being no longer in progress and should have at least one `master-location`.

### Example 12.308. <to-do>

```
<head>
  .....
  <change who="xslt2" when="2018-08-04T23:55:36.096-04:00">Converted from 2018
  <to-do/>
</head>
```

 Note

Taken from ar.cat.eng.1926.edghill.ref-logical [../../examples/ar.cat.eng.1926.edghill.ref-logical.xml]

### Example 12.309. <to-do>

```
<head>
  .....
  <change when="2018-07-30-04:00" who="kalvesmaki">updated to 2019 schemas</ch
  <to-do/>
</head>
```

 Note

Taken from ar.cat.eng.1926.edghill.ref-scriptum [../../examples/ar.cat.eng.1926.edghill.ref-scriptum.xml]

### Example 12.310. <to-do>

```
<head>
  .....
  <change who="xslt2" when="2018-08-05T00:03:20.142-04:00">Converted from 2018
```

```
<to-do/>
</head>
```

### Note

Taken from ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949 [../examples/ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949.xml]

### Example 12.311. <to-do>

```
<head>
.....
<change who="xslt2" when="2018-08-05T00:05:17.879-04:00">Converted from 2018
<to-do/>
</head>
```

### Note

Taken from ar.cat.fra.i844.saint-hilaire.ref-logical [../examples/ar.cat.fra.i844.saint-hilaire.ref-logical.xml]

## <tok>

*TAN-A-lm.rng* [../schemas/TAN-A-lm.rng]

The element `tok` points to a token in the abstract, no matter where it is found, either in the source (if there is one) or the language (if there is no source).

The sequence of consecutive `<tok>`s is immaterial, except in the context of `<group>`.

*TAN-A.rng* [../schemas/TAN-A.rng]

#### Definition 1

The element `tok` points to one or more tokens in the context source or reference.

#### Definition 2

The element `tok` points to one or more tokens in the context source.

*TAN-class-2.rng* [../schemas/incl/TAN-class-2.rng]

The element `tok` identifies one or more tokens (words or word fragments). Used by `class-2` files to make claims about specific words.

In `TAN-A` and `TAN-A-tok` files, `<tok>` does not necessarily carry linguistic connotations; in `TAN-A-lm`, it normally does.

Most `<tok>`s are restricted to a single token, or a portion of a single token, perhaps filtered by the value of `@chars`. But they can refer to multiple tokens through multiple values of `@src`, `@ref`, and `@pos`, to save space and perhaps enhance legibility. For example, `<tok src="a b" ref="I.1 - I.3" pos="I-4">` would point to 24 tokens (assuming that the two sources each have at least four tokens in the three references I.1, I.2, and I.3).

If you wish to treat multiple word fragments as a single token, use <group>.

The sequence of consecutive <tok>s is immaterial in the context of TAN-A-lm, and TAN-A-tok, except in the context of <group>, where the sequence dictates how the new token is to be constructed.

The sequence of consecutive <tok>s is important in the context of TAN-A, where the sequence specifies the order in which word tokens should be supplied in the context of the <claim>.

Used by: ~default-tok-element, ~single-div-partial-textual-reference, ~multi-div-partial-textual-reference

### ⚠ Caution

Every token must be locatable in every cited ref in every source.

### ⚠ Caution

Every character must be locatable in every token in every ref in every source.

### Example 12.312. <tok>

```
<TAN-A TAN-version="2021" id="tag:parkj@textalign.net,2015:ar.cat.tan-a:claims">
.....
  <body claimant="park" claim-period="per2010s">
.....
    <claim subject="andronicus boethus" adverb="perhaps" verb="om" xml:id="c11a2"
      <at-ref src="grc" ref="1 a 2">
        <tok pos="3-4"/>
      </at-ref>
    </claim>
.....
    <claim subject="comm-omnes" verb="attests" period="late_antiquity">
      <object src="grc" ref="1 a 2">
        <tok pos="3-4"/>
      </object>
    </claim>
    <claim subject="comm-omnes" verb="attests" xml:id="c11a2b">
      <object src="grc" ref="1 a 2">
        <tok pos="3-4"/>
      </object>
    </claim>
.....
    <claim subject="B" verb="reads">
      <at-ref src="grc" ref="1 a 5">
        <tok pos="1-2"/>
      </at-ref>
.....
    </claim>
    <claim subject="#" adverb="perhaps" verb="reads">
      <at-ref src="grc" ref="1 a 5">
        <tok pos="1-2"/>
      </at-ref>
.....
```

```
    </claim>
    <claim subject="# # # #" verb="matches">
      <object src="grc" ref="1 a 5">
        <tok pos="1-2"/>
      </object>
    </claim>
    .....
  </body>
</TAN-A>
```

### Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## <tok-is>

*TAN-A-lm.rng* [../schemas/TAN-A-lm.rng]

The element `tok-is` specifies an exact value of `@val` of `<tok>`s in the file. Collectively, every `<tok>` should point to at least one `<tok-is>`.

This element is an optional way to improve the efficiency of validation and applications.

The sequence of consecutive `<tok-is>`s is immaterial.

Used by: `~decl-non-class-2`

### Example 12.313. <tok-is>

```
<TAN-A-lm TAN-version="2021" id="tag:kalvesmaki.com,2015:tan-a-lm:grc:perseus#">
  <head>
    .....
    <for-lang>grc</for-lang>
    <tok-is>#</tok-is>
    <tok-is>#</tok-is>
    <tok-is>#</tok-is>
    <tok-is>#</tok-is>
    <tok-is>#</tok-is>
    .....
  </head>
  .....
</TAN-A-lm>
```

### Note

Taken from grc-tan-a-lm-%CE%B1 [../examples/TAN-A-lm/grc-tan-a-lm-%CE%B1.xml]

## <tok-starts-with>

*TAN-A-lm.rng* [../schemas/TAN-A-lm.rng]

The element `tok-starts-with` specifies one opening string that characterizes the `@val` of `<tok>`s in the file.



This element is an optional way to improve the efficiency of validation and applications.

The sequence of consecutive `<tok-is>`s is immaterial.

Used by: `~decl-non-class-2`

#### Example 12.314. `<tok-starts-with>`

```
<TAN-A-lm TAN-version="2021" id="tag:kalvesmaki.com,2015:tan-a-lm:grc:perseus##">
  <head>
    .....
    <for-lang>grc</for-lang>
    <tok-starts-with>##</tok-starts-with>
    <tok-starts-with>##</tok-starts-with>
    <vocabulary-key>
      .....
    </vocabulary-key>
    .....
  </head>
  .....
</TAN-A-lm>
```

#### Note

Taken from `grc-tan-a-lm-%CE%B1%CA%B9` [`../../examples/TAN-A-lm/grc-tan-a-lm-%CE%B1%CA%B9.xml`]

## `<token-definition>`

*TAN-core.rng* [`../../schemas/incl/TAN-core.rng`]

The element `token-definition` defines a word token via a regular expression. The pattern in this element is used to split a string into tokens and non-tokens.

The attributes of this element mirror the parameters for the function `xsl:analyze-string` (see <https://www.w3.org/TR/xslt-30/#element-analyze-string>).

For more see the section called “Defining words and tokens” and for standard TAN vocabulary items see the section called “TAN keywords for types of token definitions (`<token-definition>`)”

Used by: `~decl-class-1`, `~decl-class-2`, `~entity-tok-def`

#### Caution

No source may be given more than one token definition.

#### Example 12.315. `<token-definition>`

```
<head>
  .....
  <license licenser="park">
    .....
```

```
</license>
<token-definition src="*" which="letters only"/>
<vocabulary>
    .....
</vocabulary>
    .....
</head>
```

 **Note**

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

**Example 12.316. <token-definition>**

```
<head>
    .....
    <numerals priority="letters"/>
    <token-definition src="fra" pattern="\S+"/>
    <source xml:id="grc">
        .....
    </source>
    .....
</head>
```

 **Note**

Taken from ar.cat.TAN-A [../examples/TAN-A/ar.cat.TAN-A.xml]

**Example 12.317. <token-definition>**

```
<head>
    .....
    <license which="by_4.0" licensor="park"/>
    <token-definition src="eng-us" pattern="[-\w]+"/>
    <source xml:id="eng-uk">
        .....
    </source>
    .....
</head>
```

 **Note**

Taken from ringoroses.div.I [../examples/TAN-A/ringoroses.div.I.xml]

**Example 12.318. <token-definition>**

```
<head>
    .....
    <license licensor="kalvesmaki">
        .....
    </license>
    <token-definition pattern="[\w#]+"/>
    <inclusion xml:id="rel">
        .....
    </inclusion>
    </head>
```

```

    </inclusion>
    .....
</head>

```

### Note

Taken from ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample [../examples/TAN-A-lm/ar.cat.grc.1949.minio-paluello-sem-TAN-A-lm-sample.xml]

## <topic>

*TAN-A.rng* [../schemas/TAN-A.rng]

The element `topic` contains an IRI + name pattern identifying a topic.

Used by: ~voc-element-tan-a

### Example 12.319. <topic>

```

<vocabulary-key>
  .....
  <verb which="is about" xml:id="concerns"/>
  <topic xml:id="predication">
    <IRI>tag:parkj@textalign.net,2015:topic:predication</IRI>
    <name>predication</name>
    <desc>The act of asserting something about a grammatical subject.</des
  </topic>
</vocabulary-key>

```

### Note

Taken from ar.cat.TAN-A [../examples/TAN-A/ar.cat.TAN-A.xml]

## <unit>

*TAN-A.rng* [../schemas/TAN-A.rng]

The element `unit` contains an IRI + name pattern identifying a unit type (e.g., millimeters, seconds, Euros), to be used in conjunction with `<object>` to specify what quantities measure.

Used by: ~voc-element-tan-a

### Example 12.320. <unit>

```

<vocabulary-key>
  .....
  <verb xml:id="has-length">
    .....
  </verb>
  <unit xml:id="folio">
    <IRI>http://dbpedia.org/resource/Folio</IRI>

```

```
    <name>folio</name>
  </unit>
  <modal which="possibly" xml:id="perhaps"/>
  .....
</vocabulary-key>
```

### Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## <val>

*TAN-mor.rng* [../schemas/TAN-mor.rng]

The element `val` contains the expected value for a morphological code

Used by: `~element-code`

### Example 12.321. <val>

```
<TAN-mor TAN-version="2021" id="tag:kalvesmaki.com,2014:tan-r-mor:eng:penn">
  .....
  <body>
    .....
    <code feature="closing_quotation_mark">
      <desc>Examples: ' '
```

### Note

Taken from eng.kalvesmaki.com,2014.2 [../examples/TAN-mor/eng.kalvesmak-  
i.com,2014.2.xml]

## <value>

*TAN-core.rng* [../schemas/incl/TAN-core.rng]

The element `value` states the value of a `<checksum>`

Used by: `<checksum>`

### Example 12.322. `<value>`

```
<checksum>
  .....
  <name>SHA-1</name>
  <value>91D95564ABDF2B2C1B9EEF016CBA51E8179646CC</value>
</checksum>
```

### Note

Taken from `patricius.confessio.2003.eng [../examples/patricius.confessio.2003.eng.xml]`

## `<verb>`

*TAN-core.rng [../schemas/incl/TAN-core.rng]*

The element `verb` contains an IRI + name pattern identifying a property, relationship, action, or something else that is used to say something about something.

The preferred term "verb" is equivalent to RDF "predicate." The latter term is avoided, since in regular usage "predicate" signifies both a verb and all the words it governs.

See the section called "TAN keywords for verbs (`<verb>`)" for standard TAN vocabulary items.

Used by: `~voc-element-tan-a`, `~body-item`

### Caution

Claims involving verbs whose constrained content requires specification of units must use `<object>` or `<subject>` with `@units..`

### Caution

`<object>` or `<subject>` with `@units` may be used only with verbs with constrained content.

### Caution

A claim with a verb that has content constraints must not allow other verbs.

### Example 12.323. `<verb>`

```
<head>
  .....
  <vocabulary-key>
    .....
    <alias xml:id="comm-omnes" idrefs="# # .d #.d #.d #.d #.d"/>
    <verb which="refers or alludes to" xml:id="refers-to"/>
    <verb xml:id="om">
```

```
<IRI>tag:parkj@textalign.net,2015:verb:omits</IRI>
<name>omits</name>
<name>omits text</name>
.....
</verb>
<verb xml:id="attests">
  <IRI>tag:parkj@textalign.net,2015:verb:attests-to</IRI>
  <name>attests</name>
  <name>attests to</name>
  .....
</verb>
<verb xml:id="has-length">
  <IRI>tag:parkj@textalign.net,2015:verb:scriptum-has-length</IRI>
  <name>has length</name>
  <desc>This verb is used to describe the how many pages or folios a scrip-
    is.</desc>
  .....
</verb>
<unit xml:id="folio">
  .....
</unit>
.....
</vocabulary-key>
.....
</head>
```

### Note

Taken from ar.cat.TAN-A.claims [../examples/TAN-A/ar.cat.TAN-A.claims.xml]

## <version>

*TAN-A.rng* [../schemas/TAN-A.rng]

The element `version` identifies the version of a work. Applicable to sources that contain multiple versions, e.g., original text and facing translations. Like `<work>`, `<version>` points to a conceptual entity, not a physical one.

Very few work-versions have their own URNs. It is advisable to assign a tag URN or a UUID. If you have used an IRI for `<work>` that you are entitled to modify, you may wish to add a suffix that will name the version. If you need to specify exactly where on a text-bearing object a version appears, `<desc>` or `<comment>` should be used.

For background, see the section called “One Work”

*TAN-class-1.rng* [../schemas/incl/TAN-class-1.rng]

The element `version` identifies the version of a work. Applicable to sources that contain multiple versions, e.g., original text and facing translations. Like `<work>`, `<version>` points to a conceptual entity, not a physical one.

In the context of a class I file, the entity identified by `<version>` is assumed to be a version of the entity defined in `<work>`.

Very few work-versions have their own URN names. It is advisable to assign a tag URN or a UUID. If you have used an IRI for <work> that you are entitled to modify, you may wish to add a suffix that will name the version. If you need to specify exactly where on a text-bearing object a version appears, <desc> or <comment> should be used.

For more, see the section called “One Work”

Used by: ~voc-element-tan-a, ~decl-class-1

#### Example 12.324. <version>

```
<head>
  .....
  <work>
    .....
  </work>
  <version>
    <IRI>tag:parkj@textalign.net,2015:version:matthews-version-of-the-lords-p
    <name>Matthew's version of the Lord's Prayer</name>
  </version>
  <vocabulary>
    .....
  </vocabulary>
  .....
</head>
```

#### Note

Taken from lords-prayer.eng.kjv.1760 [../examples/lords-prayer.eng.kjv.1760.xml]

#### Example 12.325. <version>

```
<head>
  .....
  <work>
    .....
  </work>
  <version>
    <IRI>urn:uuid:31648039-3dbb-49b9-b66e-9bd2cd11630e</IRI>
    <name>zweite Version</name>
  </version>
  <numerals priority="letters"/>
  .....
</head>
```

#### Note

Taken from ring-o-roses.deu.1897-prev [../examples/ring-o-roses.deu.1897-prev.xml]

#### Example 12.326. <version>

```
<head>
```

```
.....
<work>
  .....
</work>
<version>
  <IRI>urn:uuid:31648039-3dbb-49b9-b66e-9bd2cd11630e</IRI>
  <name>zweite Version</name>
</version>
<numerals priority="letters"/>
.....
</head>
```

### Note

Taken from ring-o-roses.deu.i897 [../../examples/ring-o-roses.deu.i897.xml]

### Example 12.327. **<version>**

```
<head>
  .....
  <work>
    .....
  </work>
  <version>
    <IRI>tag:parkj@textalign.net,2015:work:ring:version:newell-reported</IRI>
    <name>Ring around the Rosie, second version</name>
    <name>Ring around the Rosie, version reported by Newell</name>
  </version>
  <source>
    .....
  </source>
  .....
</head>
```

### Note

Taken from ring-o-roses.eng.i951 [../../examples/ring-o-roses.eng.i951.xml]

## **<vocabulary>**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

The element `vocabulary` specifies a TAN-voc file that supplies vocabulary items for the host file. For more discussion, see the section called “Vocabulary (TAN-voc)”

The sequence of consecutive `<vocabulary>`s is immaterial.

Used by: `~networked-files-core`, `~vocabulary-list`

### Caution

No file may import vocabularies with items that have duplicate IRIs.



⚠ Caution

<vocabulary> must point to TAN-voc files.

⚠ Caution

Inclusions/vocabularies may not be invoked circularly.

⚠ Caution

The vocabulary of a file may not include it.

! Important

The @TAN-version for inclusions and vocabularies should match the current version.

⚠ Caution

An element that has a <location> and is key for validation should have at least one document available.

⚠ Caution

Every TAN file referred to by way of an element containing <location> should have an @id that matches the <IRI> of the parent of the <location>

⚠ Caution

No element may point to a TAN file that has an identical @id value; the only exception is <predecessor> and <successor>.

! Important

If a target file has children items in the <to-do> the corresponding comments will be returned as warnings.

! Important

If a target file has a <successor> a warning will be returned, noting the update.

! Important

If a target file points only to non-local locations and no internet is available, the following message will be returned. “No internet available.”

⚠ Caution

If a linking element points to a file that must be resolved, that file must be a TAN file.

! Important

If @accessed-when predates one or more dates in a target file, a warning will be returned.

⚠ Caution

An element's @which must have a value that corresponds to a <name>, either in a standard TAN vocabulary or an associated TAN-voc file, that is marked as applying to that element.

⚠ Caution

A @which in a <vocabulary> may point only to items in the standard TAN file vocabularies.TAN-voc.xml

⚠ Caution

Vocabularies are integral parts of a document. Access to at least one version is absolutely mandatory.

Example 12.328. <vocabulary>

```
<head>
  .....
  <version>
    .....
  </version>
  <vocabulary>
    <IRI>tag:parkj@textalign.net,2015:TAN-voc:standard</IRI>
    <name>Keywords for TAN files edited by Jenny Park</name>
    <location href="TAN-voc/park-projects.TAN-voc.xml" accessed-when="2019-10-08" />
  </vocabulary>
  <source which="kjv 1760" />
  .....
</head>
```

📄 Note

Taken from lords-prayer.eng.kjv.1760 [../examples/lords-prayer.eng.kjv.1760.xml]

Example 12.329. <vocabulary>

```
<TAN-T TAN-version="2021" id="tag:parkj@textalign.net,2015:bible:matthew">
  <head>
    .....
    <inclusion xml:id="serm-mount">
      .....
    </inclusion>
    <vocabulary which="bible eng" accessed-when="2019-10-08" />
    <vocabulary>
      <IRI>tag:parkj@textalign.net,2015:TAN-voc:standard</IRI>
      <name>Keywords for TAN files edited by Jenny Park</name>
      <location href="TAN-voc/park-projects.TAN-voc.xml" accessed-when="2019-10-08" />
    </vocabulary>
    <source which="kjv 1760" />
    .....
  </head>
  .....
```

</TAN-T>

### Note

Taken from `matt.eng.kjv.1760` [`../examples/matt.eng.kjv.1760.xml`]

### Example 12.330. **<vocabulary>**

```
<head>
  .....
  <source>
    .....
  </source>
  <vocabulary>
    <IRI>tag:parkj@textalign.net,2015:TAN-voc:standard</IRI>
    <name>Vocabulary for TAN files edited by Jenny Park</name>
    <location href="TAN-voc/park-projects.TAN-voc.xml" accessed-when="2020-01
  </vocabulary>
  <model>
    .....
  </model>
  .....
</head>
```

### Note

Taken from `ring-o-roses.eng.1987` [`../examples/ring-o-roses.eng.1987.xml`]

## **<vocabulary-key>**

*TAN-core.rng* [`../schemas/incl/TAN-core.rng`]

The element `vocabulary-key` contains vocabulary items for the immediate file.

Used by: `~vocabulary-list`

### Example 12.331. **<vocabulary-key>**

```
<head>
  .....
  <adjustments>
    .....
  </adjustments>
  <vocabulary-key>
    <algorithm xml:id="xslt2">
      .....
    </algorithm>
    <div-type xml:id="ch">
      .....
    </div-type>
    <div-type xml:id="par">
      .....
  </vocabulary-key>
  .....
</head>
```

```

        </div-type>
        .....
    </vocabulary-key>
    <file-resp who="kalvesmaki" />
    .....
</head>

```

 **Note**

Taken from ar.cat.eng.i926.edghill.ref-logical [../examples/ar.cat.eng.i926.edghill.ref-logical.xml]

**Example 12.332. <vocabulary-key>**

```

<head>
    .....
    <adjustments>
    .....
</adjustments>
<vocabulary-key>
    <div-type xml:id="p">
    .....
    </div-type>
    <div-type xml:id="c">
    .....
    </div-type>
    <div-type xml:id="l">
    .....
    </div-type>
    .....
</vocabulary-key>
<file-resp who="kalvesmaki" />
    .....
</head>

```

 **Note**

Taken from ar.cat.eng.i926.edghill.ref-scriptum [../examples/ar.cat.eng.i926.edghill.ref-scriptum.xml]

**Example 12.333. <vocabulary-key>**

```

<head>
    .....
    <adjustments>
    .....
</adjustments>
<vocabulary-key>
    <algorithm xml:id="xslt2">
    .....
    </algorithm>
    <div-type xml:id="ch">
    .....
    </div-type>

```

```

    <div-type xml:id="par">
      .....
    </div-type>
    .....
  </vocabulary-key>
  <file-resp who="kalvesmaki"/>
  .....
</head>

```

### Note

Taken from ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949 [../examples/ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949.xml]

### Example 12.334. **<vocabulary-key>**

```

<head>
  .....
  <adjustments>
    .....
  </adjustments>
  <vocabulary-key>
    <algorithm xml:id="xslt2">
      .....
    </algorithm>
    <div-type xml:id="ch">
      .....
    </div-type>
    <div-type xml:id="par">
      .....
    </div-type>
    .....
  </vocabulary-key>
  <file-resp who="kalvesmaki"/>
  .....
</head>

```

### Note

Taken from ar.cat.fra.i844.saint-hilaire.ref-logical [../examples/ar.cat.fra.i844.saint-hilaire.ref-logical.xml]

## **<where>**

*TAN-core.rng [../schemas/incl/TAN-core.rng]*

The element `where` identifies a set of conditions that must be met for any actions to be performed or rules to be evaluated.

For a `<where>` to be considered true, each attribute must evaluate as true for the target context. That is, multiple attributes are evaluated as intersection operators (and), not union (or).

Sibling `<where>`s provide alternative conditions. If the first `<where>` evaluates as true, the condition is considered true. If it does not, then the process is applied again to the second `<where>`. The

sequence of consecutive `<where>`s is immaterial, although they will be processed in document order. It is advisable to start with `<where>`s that are most likely to make a match.

Used by: `~action-complex-condition`

### Example 12.335. `<where>`

```
<rule>
  <where m-has-codes="$" />
  <assert tok-matches="$">Only $ may be tagged as a dollar sign.</assert>
</rule>
```

### Note

Taken from `eng.kalvesmaki.com,2014.2` [`../examples/TAN-mor/eng.kalvesmaki.com,2014.2.xml`]

## `<work>`

*TAN-class-1.rng* [`../../schemas/incl/TAN-class-1.rng`]

The element `work` identifies a creative textual work, understood conceptually, not physically (e.g., Homer’s Iliad, not a particular version or copy of it).

The term “work” is only loosely defined in TAN. Any text that has enough unity to be referred to in ordinary conversation as a single entity may be identified as a work. A work may be composed of other works, be a part of other works, or even overlap with other works. E.g., the Lord’s Prayer, the Gospel of Luke, the Tetravangelion, the New Testament, and the Bible are all valid works, despite the complex relationship between each of them.

This element takes the IRI + name pattern. For more, see the section called “One Work”

*TAN-core.rng* [`../../schemas/incl/TAN-core.rng`]

The element `work` identifies a creative textual work, understood conceptually, not physically (e.g., Homer’s Iliad, not a particular version or copy of it).

The term “work” is only loosely defined in TAN. Any text that has enough unity to be referred to in ordinary conversation as a single entity may be identified as a work. A work may be composed of other works, be a part of other works, or even overlap with other works. E.g., Q, the Lord’s Prayer, the Gospel of Luke, the Tetravangelion, the New Testament, and the Bible are all valid works, despite their complex interrelationships of nesting and spanning one another.

This element takes the IRI + name pattern. For more, see the section called “One Work”

Used by: `~voc-element-tan-a`, `~decl-class-1`, `~voc-element-class-1`

### Example 12.336. `<work>`

```
<head>
  .....
  <license licensor="kalvesmaki">
  .....
```

```
</license>
<work>
  <IRI>http://dbpedia.org/resource/Categories_(Aristotle)</IRI>
  <name>Aristotle, Categories</name>
</work>
<source>
  .....
</source>
.....
</head>
```

 **Note**

Taken from ar.cat.eng.i926.edghill.ref-logical [../examples/ar.cat.eng.i926.edghill.ref-logical.xml]

**Example 12.337. <work>**

```
<head>
  .....
  <license licensor="kalvesmaki">
    .....
  </license>
  <work>
    <IRI>http://dbpedia.org/resource/Categories_(Aristotle)</IRI>
    <name>Aristotle, Categories</name>
  </work>
  <source>
    .....
  </source>
  .....
</head>
```

 **Note**

Taken from ar.cat.eng.i926.edghill.ref-scriptum [../examples/ar.cat.eng.i926.edghill.ref-scriptum.xml]

**Example 12.338. <work>**

```
<head>
  .....
  <license licensor="kalvesmaki">
    .....
  </license>
  <work>
    <IRI>http://dbpedia.org/resource/Categories_(Aristotle)</IRI>
    <name>Aristotle, Categories</name>
  </work>
  <source>
    .....
  </source>
  .....
</head>
```

### 📄 Note

Taken from ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949 [../../examples/ar.cat.fra.i844.saint-hilaire.ref-logical-after-1949.xml]

#### Example 12.339. <work>

```
<head>
  .....
  <reference-system type="logical" wf-ready="true"/>
  <work>
    <IRI>http://dbpedia.org/resource/Categories_(Aristotle)</IRI>
    <name xml:lang="fra">Aristote, Catégories</name>
    <name xml:lang="eng">Aristotle, Categories</name>
  </work>
  <source>
    .....
  </source>
  .....
</head>
```

### 📄 Note

Taken from ar.cat.fra.i844.saint-hilaire.ref-logical [../../examples/ar.cat.fra.i844.saint-hilaire.ref-logical.xml]

## TAN patterns

### ~action-complex-condition

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~action-condition

### ~action-condition

*TAN-A-lm.rng* [../../schemas/TAN-A-lm.rng]

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~element-rule, ~adjust-condition

### ~action-condition-attributes

*TAN-mor.rng* [../../schemas/TAN-mor.rng]

*TAN-class-2.rng* [../../schemas/incl/TAN-class-2.rng]

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]



Used by: `~condition-pattern`, `~element-where`, `~action-simple-condition`

## **~action-simple-condition**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: `~action-condition`

## **~adj-element-equate**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: `~adjust-class-2`

## **~adj-element-reassign**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: `~adjust-class-2`

## **~adj-element-rename**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: `~adjust-class-2`

## **~adj-element-skip**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: `~adjust-class-2`

## **~adjust-class-2**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: `~adjust-non-core`

## **~adjust-class-3**

*TAN-class-3.rng* [*../../../../schemas/incl/TAN-class-3.rng*]

Used by: `~adjust-non-core`

## **~adjust-condition**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: `~element-adjustments`

## **~adjust-core**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: `~element-adjustments`

## **~adjust-non-class-2**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: `~adjust-non-core`

## **~adjust-non-class-3**

*TAN-class-3.rng* [*../../../../schemas/incl/TAN-class-3.rng*]

Used by: `~adjust-non-core`

## **~adjust-non-core**

*TAN-class-1.rng* [*../../../../schemas/incl/TAN-class-1.rng*]

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

*TAN-class-3.rng* [*../../../../schemas/incl/TAN-class-3.rng*]

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: `~element-adjustments`

## **~adjust-repl**

*TAN-class-1.rng* [*../../../../schemas/incl/TAN-class-1.rng*]

Used by: `~adjust-non-core`

## **~adjustment-list**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: `~element-head`

## **~any-attribute**

*catalog.tan.rng* [../../schemas/catalog.tan.rng]

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~any-element

## **~any-content**

*catalog.tan.rng* [../../schemas/catalog.tan.rng]

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: <doc>, ~any-element, ~element-tail

## **~any-element**

*catalog.tan.rng* [../../schemas/catalog.tan.rng]

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~any-content

## **~attr-accessed-when**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~element-location, ~entity-digital-core-content

## **~attr-by**

*TAN-class-2.rng* [../../schemas/incl/TAN-class-2.rng]

Used by: ~complex-rename

## **~attr-cert**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~certainty-claim

## **~attr-cert2**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~certainty-claim

## **~attr-chars**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: ~element-tok-abstract, ~element-tok-for-claim-no-ref, ~element-tok-for-claim-with-ref, ~element-tok-standard

## **~attr-claim-period**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: ~claimant-attributes

## **~attr-claim-when**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: ~claimant-attributes

## **~attr-content-datatype**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~constraint-content

## **~attr-content-lexical-constraint**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~constraint-content

## **~attr-def-ref**

*TAN-A-lm.rng* [*../../../../schemas/TAN-A-lm.rng*]

Used by: ~element-1

## **~attr-ed-when**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~ed-stamp

## **~attr-flags-for-errors**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~condition-pattern, ~element-change

## **~attr-flags-for-functions**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~element-replace, ~element-token-definition

## **~attr-href**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~element-location, ~element-master-location, ~entity-digital-tan-other-content

## **~attr-id-alias**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~voc-element-alias

## **~attr-id-tan**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~TAN-root

## **~attr-id-xml**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~element-claim, ~link-element-inclusion, ~voc-element-alias, ~voc-element-period, ~entity-digital-nontan-id, ~entity-digital-tan-id, ~entity-nondigital-constrained, ~entity-nondigital-id

## **~attr-in-lang**

*TAN-A.rng* [*../../../../schemas/TAN-A.rng*]

Used by: ~in-lang

## **~attr-item-type**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~constraint-item-type

## **~attr-lang-xml**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~nontextual-reference, ~body-attributes-non-core, ~element-div,  
~metadata-human-readable-attributes

## **~attr-n**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~element-div, ~adj-element-equate, ~adj-element-skip, ~simple-re-  
name, ~complex-rename, ~group-attributes-core

## **~attr-new-name**

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

Used by: ~simple-rename, ~complex-rename

## **~attr-new-ref**

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

Used by: ~simple-rename

## **~attr-pattern**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~element-replace, ~element-token-definition

## **~attr-pos-many**

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

Used by: ~tok-selector-attributes-many

## **~attr-pos-one**

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

Used by: ~tok-selector-attributes-one

## **~attr-priority**

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

Used by: ~adj-element-reassign, ~adj-element-rename

## **~attr-ref-alias**

*TAN-class-1.rng* [*../../schemas/incl/TAN-class-1.rng*]

Used by: ~element-div

## **~attr-ref-many**

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

Used by: ~element-tok-for-claim-with-ref, ~multi-source-whole-div-textual-reference, ~adj-element-skip, ~element-tok-standard, ~complex-rename

## **~attr-ref-one**

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

Used by: ~single-div-partial-textual-reference, ~element-from-tok-with-ref, ~element-passage, ~element-to, ~element-through-tok-with-ref, ~simple-rename

## **~attr-replacement**

*TAN-class-1.rng* [*../../schemas/incl/TAN-class-1.rng*]

Used by: ~element-replace

## **~attr-rgx**

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

Used by: ~element-tok-abstract, ~tok-selector-attributes-one, ~tok-selector-attributes-many

## **~attr-scriptum**

*TAN-class-1.rng* [*../../schemas/incl/TAN-class-1.rng*]

Used by: ~element-reference-system

## **~attr-shallow**

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

Used by: ~adj-element-skip

## **~attr-status**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~element-at-ref-constraint, ~element-in-lang-constraint, ~element-object-constraint, ~element-period-constraint, ~element-place-constraint, ~element-subject-constraint

## **~attr-TAN-ver**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~TAN-root

## **~attr-tok-pop**

*TAN-A-lm.rng* [../../schemas/TAN-A-lm.rng]

Used by: ~element-ana

## **~attr-type-ref-system**

*TAN-class-1.rng* [../../schemas/incl/TAN-class-1.rng]

Used by: ~element-reference-system

## **~attr-val**

*TAN-class-2.rng* [../../schemas/incl/TAN-class-2.rng]

Used by: ~element-tok-abstract, ~tok-selector-attributes-one, ~tok-selector-attributes-many

## **~attr-wf-ready**

*TAN-class-1.rng* [../../schemas/incl/TAN-class-1.rng]

Used by: ~element-reference-system

## **~attr-when**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~element-change, ~element-comment



## **~attribute-scope**

*TAN-voc.rng* [*../../../../schemas/TAN-voc.rng*]

Used by: ~body-attributes-non-core, ~group-attributes-non-core, ~element-item

## **~body-attributes-non-core**

*TAN-A-lm.rng* [*../../../../schemas/TAN-A-lm.rng*]

*TAN-A-tok.rng* [*../../../../schemas/TAN-A-tok.rng*]

*TAN-T.rng* [*../../../../schemas/TAN-T.rng*]

*TAN-voc.rng* [*../../../../schemas/TAN-voc.rng*]

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~element-body

## **~body-content-class-1**

*TAN-class-1.rng* [*../../../../schemas/incl/TAN-class-1.rng*]

Used by: ~body-content-non-core

## **~body-content-class-2**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: ~body-content-non-core

## **~body-content-class-3**

*TAN-class-3.rng* [*../../../../schemas/incl/TAN-class-3.rng*]

Used by: ~body-content-non-core

## **~body-content-core**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~element-body

## **~body-content-non-class-1**

*TAN-T.rng* [*../../../../schemas/TAN-T.rng*]

*TAN-class-1.rng* [*../../../../schemas/incl/TAN-class-1.rng*]

Used by: ~body-content-non-core

## **~body-content-non-class-2**

*TAN-A.rng* [*../../../../schemas/TAN-A.rng*]

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: ~body-content-non-core

## **~body-content-non-class-3**

*TAN-mor.rng* [*../../../../schemas/TAN-mor.rng*]

*TAN-voc.rng* [*../../../../schemas/TAN-voc.rng*]

*TAN-class-3.rng* [*../../../../schemas/incl/TAN-class-3.rng*]

Used by: ~body-content-non-core

## **~body-content-non-core**

*TAN-class-1.rng* [*../../../../schemas/incl/TAN-class-1.rng*]

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

*TAN-class-3.rng* [*../../../../schemas/incl/TAN-class-3.rng*]

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~element-body

## **~body-group**

*TAN-class-1.rng* [*../../../../schemas/incl/TAN-class-1.rng*]

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~body-content-non-class-3, ~body-content-non-class-2, ~element-group

## **~body-item**

*TAN-A-lm.rng* [*../../../../schemas/TAN-A-lm.rng*]

*TAN-A-tok.rng* [*../../../../schemas/TAN-A-tok.rng*]

*TAN-T.rng* [*../../../../schemas/TAN-T.rng*]

*TAN-voc.rng* [*../../../../schemas/TAN-voc.rng*]

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~body-content-non-class-1, ~body-content-non-class-3, ~body-content-non-class-2, ~element-group

## **~certainty-claim**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~element-claim, ~tok-cert-opt, ~certainty-stamp

## **~certainty-stamp**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~element-ana, ~element-l, ~element-lm, ~element-m, ~element-tok-abstract, ~element-align

## **~claimant-attributes**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: ~element-ana, ~element-claim, ~body-content-class-2

## **~complex-object**

*TAN-A.rng* [*../../../../schemas/TAN-A.rng*]

Used by: ~object

## **~complex-rename**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: ~adj-element-rename

## **~cond-attr-m-has-codes**

*TAN-mor.rng* [*../../schemas/TAN-mor.rng*]

Used by: ~action-condition-attributes

## **~cond-attr-m-has-how-many-codes**

*TAN-mor.rng* [*../../schemas/TAN-mor.rng*]

Used by: ~action-condition-attributes

## **~cond-attr-m-matches**

*TAN-mor.rng* [*../../schemas/TAN-mor.rng*]

Used by: ~action-condition-attributes

## **~cond-attr-tok-matches**

*TAN-mor.rng* [*../../schemas/TAN-mor.rng*]

Used by: ~action-condition-attributes

## **~condition-pattern**

*TAN-mor.rng* [*../../schemas/TAN-mor.rng*]

Used by: ~element-assert, ~element-report

## **~constraint-content**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~element-object-constraint, ~element-subject-constraint

## **~constraint-item-type**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~element-object-constraint, ~element-subject-constraint

## **~constraints-on-verb**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~entity-nondigital-with-constraints-content

## **~data-certainty**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~attr-cert, ~attr-cert2

## **~data-div-item-ref**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

TAN-core: String for a @ref that specifies a single <div>.

Used by: ~attr-new-ref, ~attr-ref-one

## **~data-div-range-ref**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

TAN-core: String for a @ref that specifies a range of <div>s: one or more data-div-item-ref patterns separated by a hyphen or a comma.

Used by: ~attr-ref-many

## **~data-IRI**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

TAN-core: Any generic IRI identifier.

Used by: ~element-IRI

## **~data-picker-item**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

TAN-core: String that specifies a single item from a sequence: digits or "last (-digit)?" Similar to ~data-picker-sequence..

Used by: ~attr-pos-one

## **~data-picker-sequence**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

TAN-core: String that specifies a range of items in a sequence: digits or "last (-digit)?" joined by hyphens (ranges) or commas. Similar to ~data-picker-item..

Used by: ~cond-attr-m-has-how-many-codes, ~attr-chars, ~attr-pos-many

## **~data-tag-uri**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

TAN-core: Tag URN, mandatory pattern for the IRI name of every TAN file

Used by: ~attr-id-tan

## **~decl-class-1**

*TAN-class-1.rng* [*../../schemas/incl/TAN-class-1.rng*]

Used by: ~declaration-non-core

## **~decl-class-2**

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

Used by: ~declaration-non-core

## **~decl-class-3**

*TAN-class-3.rng* [*../../schemas/incl/TAN-class-3.rng*]

Used by: ~declaration-non-core

## **~decl-non-class-1**

*TAN-class-1.rng* [*../../schemas/incl/TAN-class-1.rng*]

Used by: ~declaration-non-core

## **~decl-non-class-2**

*TAN-A-lm.rng* [*../../schemas/TAN-A-lm.rng*]

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

Used by: ~declaration-non-core

## **~decl-non-class-3**

*TAN-mor.rng* [*../../schemas/TAN-mor.rng*]

*TAN-class-3.rng* [*../../schemas/incl/TAN-class-3.rng*]

Used by: ~declaration-non-core

## **~declaration-core**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~declaration-list

## **~declaration-list**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~element-head

## **~declaration-non-core**

*TAN-class-1.rng* [*../../schemas/incl/TAN-class-1.rng*]

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

*TAN-class-3.rng* [*../../schemas/incl/TAN-class-3.rng*]

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~declaration-list

## **~default-tok-element**

*TAN-A-lm.rng* [*../../schemas/TAN-A-lm.rng*]

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

Used by: ~element-ana, ~element-align, ~element-group-for-tok

## **~doc-attributes**

*catalog.tan.rng* [*../../schemas/catalog.tan.rng*]

Used by: <doc>

## **~ed-stamp**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

TAN-core: Editorial stamp: who created or edited the enclosed data and when.

Used by: ~element-claim, ~element-at-ref, ~element-div, ~element-in-lang,  
~element-object, ~element-subject, ~element-category, ~element-code, ~ele-

ment-rule, ~element-item, ~element-replace, ~adj-element-equate, ~adj-element-reassign, ~adj-element-rename, ~adj-element-skip, ~element-group-for-tok, ~element-passage, ~element-tok-standard, ~element-adjustments, ~element-at-ref-constraint, ~element-body, ~element-change, ~element-file-resp, ~element-group, ~element-head, ~element-in-lang-constraint, ~element-IRI, ~element-license, ~element-location, ~element-master-location, ~element-object-constraint, ~element-period-constraint, ~element-place-constraint, ~element-resp, ~element-subject-constraint, ~element-to-do, ~element-token-definition, ~element-vocabulary-key, ~element-where, ~link-element-inclusion, ~link-element-see-also, ~voc-element-alias, ~voc-element-period, ~certainty-stamp, ~constraints-on-verb, ~entity-digital-nontan-id, ~entity-digital-nontan-no-id, ~entity-digital-tan-id, ~entity-digital-tan-no-id, ~entity-nondigital-constrained, ~entity-nondigital-id, ~entity-nondigital-no-id, ~metadata-human-readable-attributes, ~TAN-root

## **~element-adjustments**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~adjustment-list

## **~element-align**

*TAN-A-tok.rng* [*../../schemas/TAN-A-tok.rng*]

Used by: ~body-item

## **~element-ana**

*TAN-A-lm.rng* [*../../schemas/TAN-A-lm.rng*]

Used by: ~body-item

## **~element-assert**

*TAN-mor.rng* [*../../schemas/TAN-mor.rng*]

Used by: ~element-rule

## **~element-at-ref**

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

Used by: ~element-claim

## **~element-at-ref-constraint**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]



Used by: ~constraints-on-verb

## **~element-body**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~TAN-root

## **~element-category**

*TAN-mor.rng* [../../schemas/TAN-mor.rng]

Used by: ~features-categorized

## **~element-change**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~element-head

## **~element-checksum**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~entity-digital-core-content

## **~element-claim**

*TAN-A.rng* [../../schemas/TAN-A.rng]

Used by: ~body-content-non-class-2, ~complex-object

## **~element-code**

*TAN-mor.rng* [../../schemas/TAN-mor.rng]

Used by: ~element-category, ~features-uncategorized

## **~element-comment**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~element-ana, ~element-lm, ~element-align, ~element-category, ~element-item, ~element-replace, ~element-adjustments, ~element-group, ~element-head, ~element-license, ~element-to-do, ~element-vocabulary-key, ~link-element-inclusion, ~link-element-see-also, ~body-content-core, ~constraints-on-verb, ~entity-digital-nontan-id, ~entity-digital-nontan-no

id, ~entity-digital-tan-id, ~entity-digital-tan-no-id, ~entity-nondigital-constrained, ~entity-nondigital-id, ~entity-nondigital-no-id

## **~element-desc**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~element-code, ~metadata-human-readable

## **~element-div**

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

*TAN-T.rng* [*../../schemas/TAN-T.rng*]

Used by: ~element-div, ~scriptum-filter, ~body-item

## **~element-file-resp**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~resp-list

## **~element-for-lang**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~decl-non-class-2, ~decl-non-class-3

## **~element-from-tok-no-ref**

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

Used by: ~text-passage-selector-no-ref

## **~element-from-tok-with-ref**

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

Used by: ~text-passage-selector-with-ref

## **~element-group**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~body-group

## **~element-group-for-tok**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: ~element-ana, ~element-align

## **~element-head**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~TAN-root

## **~element-in-lang**

*TAN-A.rng* [*../../../../schemas/TAN-A.rng*]

Used by: ~in-lang

## **~element-in-lang-constraint**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~constraints-on-verb

## **~element-IRI**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~entity-digital-core-content, ~entity-nondigital-content, ~entity-nondigital-with-constraints-content

## **~element-item**

*TAN-voc.rng* [*../../../../schemas/TAN-voc.rng*]

Used by: ~body-item

## **~element-l**

*TAN-A-lm.rng* [*../../../../schemas/TAN-A-lm.rng*]

Used by: ~element-lm

## **~element-license**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~declaration-core

## **~element-lm**

*TAN-A-lm.rng* [../../schemas/TAN-A-lm.rng]

Used by: ~element-ana

## **~element-location**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~entity-digital-core-content

## **~element-m**

*TAN-A-lm.rng* [../../schemas/TAN-A-lm.rng]

Used by: ~element-lm

## **~element-master-location**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~entity-digital-tan-self-content

## **~element-n-alias**

*TAN-class-1.rng* [../../schemas/incl/TAN-class-1.rng]

Used by: ~decl-class-1

## **~element-name**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~metadata-human-readable

## **~element-normalization**

*TAN-class-1.rng* [../../schemas/incl/TAN-class-1.rng]

Used by: ~adjust-non-core

## **~element-numerals**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~declaration-core

## **~element-object**

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

Used by: ~complex-object

## **~element-object-constraint**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~constraints-on-verb

## **~element-passage**

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

Used by: ~adj-element-reassign

## **~element-period-constraint**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~constraints-on-verb

## **~element-place-constraint**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~constraints-on-verb

## **~element-reference-system**

*TAN-class-1.rng* [*../../schemas/incl/TAN-class-1.rng*]

Used by: ~decl-class-1

## **~element-replace**

*TAN-class-1.rng* [*../../schemas/incl/TAN-class-1.rng*]

Used by: ~adjust-repl

## **~element-report**

*TAN-mor.rng* [*../../schemas/TAN-mor.rng*]

Used by: ~element-rule

## **~element-resp**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~resp-list

## **~element-rule**

*TAN-mor.rng* [*../../schemas/TAN-mor.rng*]

Used by: ~TAN-mor-body

## **~element-scope**

*TAN-voc.rng* [*../../schemas/TAN-voc.rng*]

Used by: ~body-attributes-non-core, ~group-attributes-non-core, ~element-item

## **~element-subject**

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

Used by: ~subject

## **~element-subject-constraint**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~constraints-on-verb

## **~element-tail**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~TAN-root

## **~element-through-tok-no-ref**

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

Used by: ~text-passage-selector-no-ref

## **~element-through-tok-with-ref**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: ~text-passage-selector-with-ref

## **~element-to**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: ~adj-element-reassign

## **~element-to-do**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~element-head

## **~element-tok-abstract**

*TAN-A-lm.rng* [*../../../../schemas/TAN-A-lm.rng*]

Used by: ~default-tok-element

## **~element-tok-for-claim-no-ref**

*TAN-A.rng* [*../../../../schemas/TAN-A.rng*]

Used by: ~single-div-partial-textual-reference

## **~element-tok-for-claim-with-ref**

*TAN-A.rng* [*../../../../schemas/TAN-A.rng*]

Used by: ~multi-div-partial-textual-reference

## **~element-tok-is**

*TAN-A-lm.rng* [*../../../../schemas/TAN-A-lm.rng*]

Used by: ~decl-non-class-2

## **~element-tok-standard**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: ~default-tok-element

## **~element-tok-starts-with**

*TAN-A-lm.rng* [*../../../../schemas/TAN-A-lm.rng*]

Used by: ~decl-non-class-2

## **~element-token-definition**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~decl-class-1, ~decl-class-2, ~entity-tok-def

## **~element-val**

*TAN-mor.rng* [*../../../../schemas/TAN-mor.rng*]

Used by: ~element-code

## **~element-version**

*TAN-class-1.rng* [*../../../../schemas/incl/TAN-class-1.rng*]

Used by: ~decl-class-1

## **~element-vocabulary-key**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~vocabulary-list

## **~element-where**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~action-complex-condition

## **~element-work**

*TAN-class-1.rng* [*../../../../schemas/incl/TAN-class-1.rng*]

Used by: ~decl-class-1

## **~entity-digital-core-content**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]



Used by: ~link-element-see-also, ~entity-digital-nontan-id, ~entity-digital-nontan-no-id, ~entity-digital-tan-other-content

## **~entity-digital-nontan-id**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~voc-element-arg

## **~entity-digital-nontan-no-id**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~source-content

## **~entity-digital-tan-id**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~voc-element-lexicon, ~voc-element-morphology, ~source-content

## **~entity-digital-tan-no-id**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~link-element-annotation, ~link-element-model, ~link-element-division, ~link-element-re-division, ~source-content, ~link-element-companion-version, ~link-element-predecessor, ~link-element-successor, ~link-element-vocabulary

## **~entity-digital-tan-other-content**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~element-item, ~link-element-inclusion, ~link-element-see-also, ~entity-digital-tan-id, ~entity-digital-tan-no-id

## **~entity-digital-tan-self-content**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~element-head

## **~entity-nondigital-constrained**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~voc-element-verb

## **~entity-nondigital-content**

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

Used by: ~element-item, ~element-checksum, ~element-license, ~entity-nondigital-id, ~entity-nondigital-no-id

## **~entity-nondigital-id**

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

Used by: ~voc-element-lexicon, ~voc-element-brel, ~voc-element-reus, ~voc-element-modal, ~voc-element-place, ~voc-element-topic, ~voc-element-unit, ~voc-element-vers, ~voc-element-feature, ~voc-element-div-type, ~voc-element-group-type, ~voc-element-org, ~voc-element-period, ~voc-element-person, ~voc-element-relationship, ~voc-element-role, ~voc-element-scri, ~voc-element-work

## **~entity-nondigital-no-id**

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

Used by: ~source-content, ~element-normalization, ~element-version, ~element-work

## **~entity-nondigital-with-constraints-content**

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

Used by: ~element-item, ~entity-nondigital-constrained

## **~entity-tok-def**

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

Used by: ~element-item

## **~extra-verb-attrs**

*TAN-voc.rng [../../schemas/TAN-voc.rng]*

*TAN-core.rng [../../schemas/incl/TAN-core.rng]*

Used by: ~voc-element-verb

## **~features-categorized**

*TAN-mor.rng* [*../../../../schemas/TAN-mor.rng*]

Used by: ~TAN-mor-body

## **~features-uncategorized**

*TAN-mor.rng* [*../../../../schemas/TAN-mor.rng*]

Used by: ~TAN-mor-body

## **~group-attributes**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~element-group-for-tok, ~element-group

## **~group-attributes-core**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~group-attributes

## **~group-attributes-non-core**

*TAN-A-lm.rng* [*../../../../schemas/TAN-A-lm.rng*]

*TAN-voc.rng* [*../../../../schemas/TAN-voc.rng*]

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~group-attributes

## **~in-lang**

*TAN-A.rng* [*../../../../schemas/TAN-A.rng*]

Used by: ~element-claim

## **~inclusion**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~element-ana, ~element-align, ~element-claim, ~element-category, ~element-code, ~element-rule, ~element-div, ~element-item, ~element-re-

place, ~adj-element-equate, ~adj-element-reassign, ~adj-element-rename, ~adj-element-skip, ~element-group-for-tok, ~element-adjustments, ~element-file-resp, ~element-group, ~element-license, ~element-resp, ~element-to-do, ~element-token-definition, ~link-element-see-also, ~voc-element-period, ~entity-digital-nontan-id, ~entity-digital-nontan-no-id, ~entity-digital-tan-id, ~entity-digital-tan-no-id, ~entity-nondigital-constrained, ~entity-nondigital-id, ~entity-nondigital-no-id

## **~link-element-annotation**

*TAN-class-1.rng* [*../../schemas/incl/TAN-class-1.rng*]

Used by: ~networked-files-non-core

## **~link-element-companion-version**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~networked-files-core

## **~link-element-inclusion**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~networked-files-core

## **~link-element-model**

*TAN-class-1.rng* [*../../schemas/incl/TAN-class-1.rng*]

Used by: ~networked-files-non-core

## **~link-element-predecessor**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~networked-files-core

## **~link-element-redivision**

*TAN-class-1.rng* [*../../schemas/incl/TAN-class-1.rng*]

Used by: ~networked-files-non-core

## **~link-element-see-also**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~networked-files-core

## **~link-element-source**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~source-list

## **~link-element-successor**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~networked-files-core

## **~link-element-vocabulary**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~networked-files-core, ~vocabulary-list

## **~metadata-human-readable**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~entity-digital-core-content, ~entity-digital-tan-self-content,  
~entity-nondigital-content, ~entity-nondigital-with-constraints-con-  
tent, ~entity-tok-def

## **~metadata-human-readable-attributes**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~element-desc, ~element-name

## **~multi-div-partial-textual-reference**

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

Used by: ~single-source-partial-div-textual-reference

## **~multi-source-whole-div-textual-reference**

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

Used by: ~textual-reference

## **~networked-files**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~element-head

## **~networked-files-core**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~networked-files

## **~networked-files-non-core**

*TAN-class-1.rng* [*../../schemas/incl/TAN-class-1.rng*]

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~networked-files

## **~nondoc-attributes**

*catalog.tan.rng* [*../../schemas/catalog.tan.rng*]

Used by: <doc>

## **~nontextual-reference**

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

Used by: ~element-object, ~element-subject

## **~object**

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

Used by: ~element-claim

## **~ptr-attr-bitext-relation**

*TAN-A-tok.rng* [*../../schemas/TAN-A-tok.rng*]

Used by: ~body-attributes-non-core, ~element-align

## **~ptr-attr-claimant**

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

Used by: ~claimant-attributes

## **~ptr-attr-div-type**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~element-n-alias, ~action-condition-attributes, ~adj-element-skip

## **~ptr-attr-ed-who**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~ed-stamp

## **~ptr-attr-feature**

*TAN-mor.rng* [*../../schemas/TAN-mor.rng*]

Used by: ~element-category, ~element-code

## **~ptr-attr-group**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~element-ana, ~element-align, ~extra-verb-attrs, ~element-item

## **~ptr-attr-idrefs**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~voc-element-alias

## **~ptr-attr-include**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~inclusion

## **~ptr-attr-lexicon**

*TAN-A-lm.rng* [*../../schemas/TAN-A-lm.rng*]

Used by: ~group-attributes-non-core, ~body-attributes-non-core, ~element-ana, ~element-l, ~element-lm

## **~ptr-attr-licensor**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~element-license

## **~ptr-attr-modal**

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

Used by: ~element-claim

## **~ptr-attr-morphology**

*TAN-A-lm.rng* [*../../schemas/TAN-A-lm.rng*]

Used by: ~group-attributes-non-core, ~body-attributes-non-core, ~element-ana, ~element-lm, ~element-m

## **~ptr-attr-object**

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

Used by: ~body-content-non-class-2, ~object

## **~ptr-attr-period**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~element-claim, ~element-resp

## **~ptr-attr-place**

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

Used by: ~element-claim

## **~ptr-attr-relationship**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~link-element-see-also

## **~ptr-attr-reuse-type**

*TAN-A-tok.rng* [*../../schemas/TAN-A-tok.rng*]



Used by: ~body-attributes-non-core, ~element-align

## **~ptr-attr-role**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~element-resp

## **~ptr-attr-scriptum**

*TAN-A.rng* [*../../../../schemas/TAN-A.rng*]

Used by: ~scriptum-reference

## **~ptr-attr-src-many**

*TAN-A-lm.rng* [*../../../../schemas/TAN-A-lm.rng*]

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: ~multi-source-whole-div-textual-reference, ~token-definition-attributes, ~action-condition-attributes, ~tok-sources-ref-opt

## **~ptr-attr-src-one**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: ~single-source-partial-div-textual-reference

## **~ptr-attr-subject**

*TAN-A.rng* [*../../../../schemas/TAN-A.rng*]

Used by: ~body-content-non-class-2, ~subject

## **~ptr-attr-type**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~element-div, ~group-attributes-core

## **~ptr-attr-units**

*TAN-A.rng* [*../../../../schemas/TAN-A.rng*]

Used by: ~nontextual-reference

## **~ptr-attr-verb**

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

Used by: ~body-content-non-class-2, ~element-claim

## **~ptr-attr-which**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~element-token-definition, ~entity-digital-core-content, ~entity-nondigital-content, ~entity-nondigital-with-constraints-content

## **~ptr-attr-who**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~element-change, ~element-comment, ~element-file-resp, ~element-resp

## **~ptr-attr-work**

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

Used by: ~multi-source-whole-div-textual-reference, ~work-version-reference

## **~resp-list**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~element-head

## **~scriptum-filter**

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

Used by: ~scriptum-reference

## **~scriptum-reference**

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

Used by: ~textual-reference

## **~simple-rename**

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

Used by: ~adj-element-rename

## **~single-div-partial-textual-reference**

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

Used by: ~single-source-partial-div-textual-reference

## **~single-source-partial-div-textual-reference**

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

Used by: ~textual-reference

## **~source-content**

*TAN-A-lm.rng* [*../../schemas/TAN-A-lm.rng*]

*TAN-class-1.rng* [*../../schemas/incl/TAN-class-1.rng*]

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

*TAN-class-3.rng* [*../../schemas/incl/TAN-class-3.rng*]

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~link-element-source

## **~source-list**

*TAN-A-lm.rng* [*../../schemas/TAN-A-lm.rng*]

*TAN-A-tok.rng* [*../../schemas/TAN-A-tok.rng*]

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

*TAN-voc.rng* [*../../schemas/TAN-voc.rng*]

*TAN-class-3.rng* [*../../schemas/incl/TAN-class-3.rng*]

TAN-class-3: Class 3 files allow zero or many sources

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: `~networked-files-core`

## **~subject**

*TAN-A.rng* [*../../../../schemas/TAN-A.rng*]

Used by: `~element-claim`

## **~TAN-mor-body**

*TAN-mor.rng* [*../../../../schemas/TAN-mor.rng*]

Used by: `~body-content-non-class-3`

## **~TAN-root**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: `<TAN-A-lm>`, `<TAN-A-tok>`, `<TAN-A>`, `<TAN-mor>`, `<TAN-T>`, `<TAN-voc>`

## **~text-passage-selector-no-ref**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: `~single-div-partial-textual-reference`, `~element-passage`

## **~text-passage-selector-with-ref**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: `~multi-div-partial-textual-reference`

## **~textual-reference**

*TAN-A.rng* [*../../../../schemas/TAN-A.rng*]

Used by: `~element-at-ref`, `~element-object`, `~element-subject`

## **~tok-cert-opt**

*TAN-A.rng* [*../../../../schemas/TAN-A.rng*]

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: ~element-tok-standard

## **~tok-selector-attributes-many**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: ~element-tok-for-claim-no-ref, ~element-tok-for-claim-with-ref,  
~element-tok-standard

## **~tok-selector-attributes-one**

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: ~element-from-tok-no-ref, ~element-from-tok-with-ref, ~element-through-tok-no-ref, ~element-through-tok-with-ref

## **~tok-sources-ref-opt**

*TAN-A-lm.rng* [*../../../../schemas/TAN-A-lm.rng*]

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: ~element-tok-standard

## **~token-definition-attributes**

*TAN-A-lm.rng* [*../../../../schemas/TAN-A-lm.rng*]

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~element-token-definition

## **~voc-element-agent**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~voc-key-core

## **~voc-element-alg**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~voc-element-agent

## **~voc-element-alias**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~voc-key-core

## **~voc-element-brel**

*TAN-A-tok.rng* [../../schemas/TAN-A-tok.rng]

Used by: ~voc-element-non-class-2

## **~voc-element-class-1**

*TAN-class-1.rng* [../../schemas/incl/TAN-class-1.rng]

Used by: ~voc-key-non-core

## **~voc-element-class-2**

*TAN-class-2.rng* [../../schemas/incl/TAN-class-2.rng]

Used by: ~voc-key-non-core

## **~voc-element-class-3**

*TAN-class-3.rng* [../../schemas/incl/TAN-class-3.rng]

Used by: ~voc-key-non-core

## **~voc-element-div-type**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~voc-element-tan-a, ~voc-element-class-1

## **~voc-element-feature**

*TAN-mor.rng* [../../schemas/TAN-mor.rng]

Used by: ~voc-element-non-class-3

## **~voc-element-group-type**

*TAN-core.rng* [../../schemas/incl/TAN-core.rng]

Used by: ~voc-element-class-2, ~voc-element-class-3

## **~voc-element-lexicon**

*TAN-A-lm.rng* [*../../../../schemas/TAN-A-lm.rng*]

Used by: ~voc-element-non-class-2

## **~voc-element-modal**

*TAN-A.rng* [*../../../../schemas/TAN-A.rng*]

Used by: ~voc-element-tan-a

## **~voc-element-morphology**

*TAN-A-lm.rng* [*../../../../schemas/TAN-A-lm.rng*]

Used by: ~voc-element-non-class-2

## **~voc-element-non-class-1**

*TAN-class-1.rng* [*../../../../schemas/incl/TAN-class-1.rng*]

Used by: ~voc-key-non-core

## **~voc-element-non-class-2**

*TAN-A-lm.rng* [*../../../../schemas/TAN-A-lm.rng*]

*TAN-A-tok.rng* [*../../../../schemas/TAN-A-tok.rng*]

*TAN-A.rng* [*../../../../schemas/TAN-A.rng*]

*TAN-class-2.rng* [*../../../../schemas/incl/TAN-class-2.rng*]

Used by: ~voc-key-non-core

## **~voc-element-non-class-3**

*TAN-mor.rng* [*../../../../schemas/TAN-mor.rng*]

*TAN-class-3.rng* [*../../../../schemas/incl/TAN-class-3.rng*]

Used by: ~voc-key-non-core

## **~voc-element-org**

*TAN-core.rng [../../../../schemas/incl/TAN-core.rng]*

Used by: ~voc-element-agent

## **~voc-element-period**

*TAN-core.rng [../../../../schemas/incl/TAN-core.rng]*

Used by: ~voc-key-core

## **~voc-element-person**

*TAN-core.rng [../../../../schemas/incl/TAN-core.rng]*

Used by: ~voc-element-agent

## **~voc-element-place**

*TAN-A.rng [../../../../schemas/TAN-A.rng]*

Used by: ~voc-element-tan-a

## **~voc-element-relationship**

*TAN-core.rng [../../../../schemas/incl/TAN-core.rng]*

Used by: ~voc-key-core

## **~voc-element-reus**

*TAN-A-tok.rng [../../../../schemas/TAN-A-tok.rng]*

Used by: ~voc-element-non-class-2

## **~voc-element-role**

*TAN-core.rng [../../../../schemas/incl/TAN-core.rng]*

Used by: ~voc-key-core

## **~voc-element-scri**

*TAN-core.rng [../../../../schemas/incl/TAN-core.rng]*



Used by: ~voc-element-tan-a, ~voc-element-class-1

## **~voc-element-tan-a**

*TAN-A.rng* [*../../../../schemas/TAN-A.rng*]

Used by: ~voc-element-non-class-2

## **~voc-element-topic**

*TAN-A.rng* [*../../../../schemas/TAN-A.rng*]

Used by: ~voc-element-tan-a

## **~voc-element-unit**

*TAN-A.rng* [*../../../../schemas/TAN-A.rng*]

Used by: ~voc-element-tan-a

## **~voc-element-verb**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~voc-element-tan-a, ~body-item

## **~voc-element-vers**

*TAN-A.rng* [*../../../../schemas/TAN-A.rng*]

Used by: ~voc-element-tan-a

## **~voc-element-work**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~voc-element-tan-a, ~voc-element-class-1

## **~voc-key-core**

*TAN-core.rng* [*../../../../schemas/incl/TAN-core.rng*]

Used by: ~element-vocabulary-key

## **~voc-key-non-core**

*TAN-class-1.rng* [*../../../../schemas/incl/TAN-class-1.rng*]

*TAN-class-2.rng* [*../../schemas/incl/TAN-class-2.rng*]

*TAN-class-3.rng* [*../../schemas/incl/TAN-class-3.rng*]

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~element-vocabulary-key

## **~vocabulary-list**

*TAN-core.rng* [*../../schemas/incl/TAN-core.rng*]

Used by: ~element-head

## **~work-version-reference**

*TAN-A.rng* [*../../schemas/TAN-A.rng*]

Used by: ~textual-reference

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# Chapter 13. TAN functions, templates, global variables, and keys

This chapter provides a technical reference to all the functions, templates, global variables, and keys in the TAN Function Library. It is written primarily for developers who wish to use the TAN function library when programming their own applications.

Dependencies refer exclusively to components of the TAN function library, both the core validation procedures and the extra functions. A variable, function, or template listed as not being relied upon may nevertheless have dependencies in the files in the subdirectories `applications` and `utilities`.

Documentation is relatively good for functions, but not for global variables. For a discussion on important global variables, see the section called “Using TAN global variables”

The contents of this chapter have been generated automatically. In case of errors or inconsistencies, the master files should be consulted.

## Indexes

### Functions by group

#### Arabic

functions related to the Arabic language

See also: `language`

- `tan:ara-to-int()`

#### archives

functions dealing with compressed files: `zip`, `docx`, `xlsx`

- `tan:archive-available()`
- `tan:docx-file-available()`
- `tan:open-archive()`
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- `tan:open-xlsx()`
- `tan:save-archive()`
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- `tan:zip-uris()`

## arrays

functions dealing with arrays

- `tan:array-permutations()`
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- `tan:array-to-xml()`
- `tan:map-to-array()`
- `tan:xml-to-array()`

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functions that create or analyze attributes

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- `tan:attr()`
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## binary

functions that process or produce bits (handled as booleans), `hexBinary`, and `base64Binary`

See also: booleans, numerics

- `tan:base64Binary-to-bits()`
- `tan:base64Binary-to-eight-bit-chars()`
- `tan:base64Binary-to-octets()`
- `tan:bits-to-base64Binary()`
- `tan:bits-to-byte()`
- `tan:bits-to-eight-bit-chars()`
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- `tan:octets-to-base64Binary()`
- `tan:octets-to-bits()`
- `tan:octets-to-hexBinary()`
- `tan:pad-bits()`
- `tan:true()`

## booleans

functions that process or produce booleans

See also: [binary](#)

- `tan:true()`

## checksums

functions that create hashes or checksums

- `tan:checksum-fletcher-16()`
- `tan:checksum-fletcher-32()`
- `tan:checksum-fletcher-64()`
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## codepoints

functions that process or create codepoints

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- `rgx:codepoints-to-string()`
- `tan:string-to-utf-8-octets()`

- `tan:unicode-to-eight-bit-chars()`
- `tan:utf-8-octets-to-string()`

## colors

functions that process colors (handled as arrays of integers)

See also: `html`

- `tan:blend-alpha-value()`
- `tan:blend-color-channel-value()`
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## datatypes

functions that inspect data types

- `tan:data-type-check()`
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## diff

functions that compare two or more strings, or handle the output of `tan:diff()` or `tan:collate()`

- `tan:adjust-diff()`
- `tan:apply-deltas()`
- `tan:collate()`
- `tan:collate-pair-of-sequences()`
- `tan:diff()`
- `tan:diff-or-collate-to-html()`
- `tan:diff-to-collation()`
- `tan:diff-to-delta()`
- `tan:get-diff-output-transpositions()`
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- `tan:levenshtein-distance()`
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## docx

functions that process Word files (docx)

See also: archives, files

- `tan:docx-to-text()`
- `tan:save-docx()`

## expansion

functions that expand TAN files

- `tan:expand-doc()`

## filenames

functions that process file names, file paths, and file uris/urls

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- `tan:absolutize-hrefs()`
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- `tan:revise-hrefs()`
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- `tan:uri-relative-to()`
- `tan:url-is-local()`

## files

functions that find, open, and save files

See also: filenames

- `tan:archive-available()`

- `tan:doc-available()`
- `tan:docx-file-available()`
- `tan:docx-to-text()`
- `tan:expand-doc()`
- `tan:first-loc-available()`
- `tan:get-1st-doc()`
- `tan:merge-expanded-docs()`
- `tan:open-archive()`
- `tan:open-docx()`
- `tan:open-file()`
- `tan:open-raw-archive()`
- `tan:open-xlsx()`
- `tan:resolve-doc()`
- `tan:save-archive()`
- `tan:save-docx()`
- `tan:save-xlsx()`
- `tan:url-is-local()`
- `tan:xlsx-file-available()`
- `tan:zip-uris()`

## Greek

functions related to the Greek language

See also: [language](#)

- `tan:grc-to-int()`
- `tan:greek-graves-to-acutes()`
- `tan:int-to-grc()`

## grouping

functions that group sequences of various items

See also: [merging](#)

- `tan:collate-pair-of-sequences()`
- `tan:group-divs()`



- `tan:group-elements-by-shared-node-values()`
- `tan:integer-groups()`
- `tan:merge-divs()`

## html

functions that create or process HTML components

- `tan:blend-alpha-value()`
- `tan:blend-color-channel-value()`
- `tan:blend-colors()`
- `tan:convert-to-html()`
- `tan:diff-or-collate-to-html()`
- `tan:parse-a-hrefs()`

## identifiers

functions that create or process strings, attributes, or nodes that identify something

- `tan:element-fingerprint()`
- `tan:get-ref()`
- `tan:get-via-q-ref()`
- `tan:stamp-q-id()`

## items

functions that process sequences of items of any type

- `tan:distinct-items()`
- `tan:duplicate-items()`
- `tan:item-type()`
- `tan:longest-ascending-subsequence()`
- `tan:most-common-item()`
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## language

functions that deal with natural languages

See also: Arabic, Greek, Latin, Syriac, lexicomorphology

- `tan:convert-morphological-codes()`

- `tan:greek-graves-to-acutes()`
- `tan:lang-catalog()`
- `tan:lang-code()`
- `tan:lang-name()`
- `tan:lm-data()`
- `tan:morphological-code-conversion-maps()`
- `tan:syriac-marks-to-word-end()`

## Latin

functions related to the Latin language

See also: [language](#)

- `tan:rom-to-int()`

## lexicomorphology

functions that deal with natural languages

See also: [language](#)

- `tan:convert-morphological-codes()`
- `tan:lm-data()`
- `tan:morphological-code-conversion-maps()`
- `tan:search-for-entities()`
- `tan:search-morpheus()`
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## maps

functions that process or create maps

- `tan:array-to-map()`
- `tan:map-contains()`
- `tan:map-entries()`
- `tan:map-invert()`
- `tan:map-keys()`
- `tan:map-put()`
- `tan:map-remove()`
- `tan:map-to-array()`

- `tan:map-to-xml()`
- `tan:xml-to-map()`

## merging

functions that merge various items

See also: [grouping](#)

- `tan:group-divs()`
- `tan:merge-divs()`
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## namespaces

functions that process namespaces

- `tan:get-namespace-map()`
- `tan:namespace()`

## nodes

functions that process nodes (documents, elements, comments, processing instructions, text)

- `tan:add-attributes()`
- `tan:array-to-xml()`
- `tan:attr()`
- `tan:batch-replace-advanced()`
- `tan:chop-tree()`
- `tan:collate-sequences()`
- `tan:convert-to-html()`
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- `tan:copy-of-except()`
- `tan:data-type-check()`
- `tan:distinct-items()`
- `tan:duplicate-items()`
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- `tan:text-join()`
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- `tan:update-TAN-change-log()`
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## numerals

functions that process or numbers expressed in natural language

See also: numerics

- `tan:aaa-to-int()`
- `tan:ara-to-int()`
- `tan:cardinal()`
- `tan:expand-numerical-expression()`
- `tan:grc-to-int()`
- `tan:int-to-aaa()`
- `tan:int-to-grc()`
- `tan:integers-to-expression()`
- `tan:letter-to-number()`
- `tan:ordinal()`
- `tan:rom-to-int()`
- `tan:string-to-numerals()`
- `tan:syr-to-int()`

## numerics

functions that process or create numbers (base-2 binary, octets, integers, hexadecimal, decimals, doubles)

See also: numerals, binary

- `tan:aaa-to-int()`
- `tan:ara-to-int()`
- `tan:base26-to-dec()`
- `tan:base64-to-base64Binary()`
- `tan:base64-to-bin()`
- `tan:base64-to-dec()`
- `tan:base64-to-hex()`
- `tan:base64Binary-to-base64()`
- `tan:base64Binary-to-bin()`
- `tan:base64Binary-to-bits()`
- `tan:base64Binary-to-eight-bit-chars()`
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- `tan:bitwise-rotate()`
- `tan:bitwise-xor()`
- `tan:cardinal()`
- `tan:counts-to-lasts()`
- `tan:dec-to-base26()`
- `tan:dec-to-base64()`
- `tan:dec-to-bin()`
- `tan:dec-to-hex()`
- `tan:dec-to-n()`
- `tan:eight-bit-chars-to-base64Binary()`
- `tan:eight-bit-chars-to-bits()`

- `tan:eight-bit-chars-to-hexBinary()`
- `tan:expand-numerical-expression()`
- `tan:grc-to-int()`
- `tan:hex-to-base64()`
- `tan:hex-to-base64Binary()`
- `tan:hex-to-bin()`
- `tan:hex-to-bits()`
- `tan:hex-to-dec()`
- `tan:hex-to-hexBinary()`
- `tan:hexBinary-to-bin()`
- `tan:hexBinary-to-bits()`
- `tan:hexBinary-to-eight-bit-chars()`
- `tan:hexBinary-to-hex()`
- `tan:hexBinary-to-octets()`
- `tan:int-to-aaa()`
- `tan:int-to-grc()`
- `tan:integer-groups()`
- `tan:integers-to-expression()`
- `tan:last-32-bits()`
- `tan:lengths-to-positions()`
- `tan:letter-to-number()`
- `tan:log2()`
- `tan:longest-ascending-subsequence()`
- `tan:n-to-dec()`
- `tan:number-sort()`
- `tan:numbers-to-portions()`
- `tan:octets-to-base64Binary()`
- `tan:octets-to-bits()`
- `tan:octets-to-hexBinary()`
- `tan:ordinal()`

- `tan:pad-bits()`
- `tan:product()`
- `tan:rom-to-int()`
- `tan:string-to-utf-8-octets()`
- `tan:syr-to-int()`
- `tan:unicode-to-eight-bit-chars()`
- `tan:utf-8-octets-to-string()`

## pointers

functions that process or create pointers relevant to TAN files

- `tan:get-ref()`

## regular expressions

functions that use or expand regular expressions

- `rgx:analyze-string()`
- `rgx:codepoints-to-string()`
- `rgx:escape()`
- `rgx:matches()`
- `rgx:regex-is-valid()`
- `rgx:replace()`
- `rgx:string-base()`
- `rgx:string-to-components()`
- `rgx:string-to-composites()`
- `rgx:tokenize()`
- `tan:satisfies-regexes()`

## resolution

functions that resolve TAN documents or URIs

- `tan:resolve-doc()`
- `tan:resolve-href()`

## search

functions that query search services or process search results



- `tan:search-for-entities()`
- `tan:search-for-persons()`
- `tan:search-for-scripta()`
- `tan:search-morpheus()`
- `tan:search-results-to-IRI-name-pattern()`
- `tan:search-results-to-claims()`
- `tan:search-wikipedia()`

## sequences

functions that process or create sequences of items

- `tan:chop-string()`
- `tan:collate-pair-of-sequences()`
- `tan:collate-sequences()`
- `tan:counts-to-lasts()`
- `tan:expand-numerical-expression()`
- `tan:integers-to-expression()`
- `tan:lengths-to-positions()`
- `tan:longest-ascending-subsequence()`
- `tan:most-common-item()`
- `tan:most-common-item-count()`
- `tan:segment-string()`
- `tan:tokenize-text()`

## serialization

functions that translate data structures or objects into a data format

- `tan:xml-to-string()`

## spacing

functions that process or create space (word spaces, tabs, carriage returns, line feeds)

- `tan:copy-indentation()`
- `tan:fill()`
- `tan:normalize-tree-space()`

- `tan:strip-outer-indentation()`

## statistics

functions that process or create statistics

- `tan:get-diff-stats()`
- `tan:median()`
- `tan:no-outliers()`
- `tan:outliers()`

## strings

functions that process strings

See also: codepoints

- `rgx:analyze-string()`
- `rgx:codepoints-to-string()`
- `rgx:escape()`
- `rgx:matches()`
- `rgx:replace()`
- `rgx:string-base()`
- `rgx:string-to-components()`
- `rgx:string-to-composites()`
- `rgx:tokenize()`
- `tan:acronym()`
- `tan:adjust-diff()`
- `tan:apply-deltas()`
- `tan:batch-replace()`
- `tan:batch-replace-advanced()`
- `tan:chop-diff-output()`
- `tan:chop-string()`
- `tan:collate()`
- `tan:collate-pair-of-sequences()`
- `tan:commas-and-ands()`
- `tan:common-start-or-end-string()`

- `tan:contains-only-once()`
- `tan:diff()`
- `tan:diff-to-collation()`
- `tan:diff-to-delta()`
- `tan:docx-to-text()`
- `tan:ellipses()`
- `tan:fill()`
- `tan:get-collate-stats()`
- `tan:get-diff-output-transpositions()`
- `tan:glob-to-regex()`
- `tan:initial-upper-case()`
- `tan:lcs-distance()`
- `tan:levenshtein-distance()`
- `tan:namespace()`
- `tan:normalize-div-text()`
- `tan:normalize-text()`
- `tan:normalize-unicode()`
- `tan:parse-a-hrefs()`
- `tan:replace-collation()`
- `tan:replace-diff()`
- `tan:reverse-string()`
- `tan:satisfies-regexes()`
- `tan:segment-string()`
- `tan:stamp-diff-with-text-data()`
- `tan:string-length()`
- `tan:string-to-numerals()`
- `tan:substring-after()`
- `tan:substring-before()`
- `tan:text-join()`
- `tan:title-case()`

- `tan:tokenize-div()`
- `tan:tokenize-text()`
- `tan:unique-char()`
- `tan:xml-to-string()`

## Syriac

functions related to the Syriac language

See also: [language](#)

- `tan:syr-to-int()`
- `tan:syriac-marks-to-word-end()`

## tree manipulation

functions that manipulate trees (XML structures or fragments)

- `tan:absolutize-hrefs()`
- `tan:add-attributes()`
- `tan:batch-replace-advanced()`
- `tan:chop-diff-output()`
- `tan:chop-tree()`
- `tan:convert-to-html()`
- `tan:copy-indentation()`
- `tan:copy-of-except()`
- `tan:diff-or-collate-to-html()`
- `tan:docx-to-text()`
- `tan:group-divs()`
- `tan:infuse-tree()`
- `tan:insert-as-first-child()`
- `tan:insert-as-last-child()`
- `tan:make-non-mixed()`
- `tan:merge-divs()`
- `tan:normalize-tree-space()`
- `tan:normalize-unicode()`
- `tan:pluck()`

- `tan:relativize-hrefs()`
- `tan:remove-duplicate-siblings()`
- `tan:restore-chopped-tree()`
- `tan:revise-hrefs()`
- `tan:sequence-to-tree()`
- `tan:shallow-copy()`
- `tan:stamp-diff-with-text-data()`
- `tan:strip-outer-indentation()`
- `tan:tree-to-sequence()`
- `tan:trim-long-text()`
- `tan:trim-long-tree()`
- `tan:wrap-text-nodes()`
- `tan:xml-to-array()`
- `tan:xml-to-map()`

## **uris**

functions that process or create URIs

See also: `filenames`

- `tan:absolutize-hrefs()`
- `tan:base-uri()`
- `tan:catalog-uris()`
- `tan:catalogs()`
- `tan:cfn()`
- `tan:cfne()`
- `tan:collection()`
- `tan:doc-available()`
- `tan:get-uuid()`
- `tan:is-valid-uri()`
- `tan:parse-urls()`
- `tan:relativize-hrefs()`
- `tan:resolve-href()`

- `tan:revise-hrefs()`
- `tan:uri-collection-from-pattern()`
- `tan:uri-directory()`
- `tan:uri-is-relative()`
- `tan:uri-is-resolved()`
- `tan:uri-relative-to()`

## versioning

functions that process versioning in TAN files

- `tan:get-doc-history()`
- `tan:sort-change-log()`
- `tan:update-TAN-change-log()`

## vocabulary

functions that process or create TAN vocabulary

- `tan:attribute-vocabulary()`
- `tan:element-vocabulary()`
- `tan:has-vocab()`
- `tan:search-for-persons()`
- `tan:search-for-scripta()`
- `tan:search-results-to-IRI-name-pattern()`
- `tan:search-wikipedia()`
- `tan:vocabulary()`

## All functions, keys, variables, and templates

The 958 global variables, 11 keys (κ = key), 267 functions, and 180 templates (T = named template; τ = template mode) defined in the TAN function library, are the following:

τ #all

`tan:aaa-to-int()` `tan:absolutize-hrefs()` `tan:acronym()` `tan:add-attributes()` `tan:adjust-diff()` # `adjust-diff-infusion` `$advanced-functions-available` `$tan:all-functions` `$tan:all-head-iris` `$tan:all-selector` `$tan:all-vocabularies` `$tan:alphabet-numeral-keyrgx:analyze-string()` `$tan:annotations-1st-da` `$tan:annotations-resolved` `$tan:apos` `$tan:applications-collection` `$tan:applications-uri-collection` `tan:apply-deltas()` `tan:ara-to-int()` `$tan:arabic-indic-numeral-regex` `tan:archive-available()` `tan:ar-`

ray-permutations() tan:array-to-map() tan:array-to-xml() tan:atom-  
ize-string() tan:attr() \$tan:attr-n-regex tan:attribute-vocabulary() \$at-  
tributes-to-preserve # tan:attrs-by-name

\$base-marker-regex tan:base-uri() \$tan:base26-key tan:base26-to-  
dec() \$tan:base64-key tan:base64-to-base64Binary() tan:base64-to-bin()  
tan:base64-to-dec() tan:base64-to-hex() tan:base64Binary-to-base64()  
tan:base64Binary-to-bin() tan:base64binary-to-bin() tan:base64Bina-  
ry-to-bits() tan:base64Binary-to-eight-bit-chars() tan:base64Binary-to-  
hex() tan:base64Binary-to-octets() tan:batch-replace() tan:batch-re-  
place-advanced() tan:bin-to-base64() tan:bin-to-base64Binary() tan:bin-  
to-bits() tan:bin-to-dec() tan:bin-to-hex() tan:bin-to-hexBinary()  
\$tan:binary-error-key tan:bits-to-base64Binary() tan:bits-to-bin()  
tan:bits-to-byte() tan:bits-to-eight-bit-chars() tan:bits-to-hex()  
tan:bits-to-hexBinary() tan:bits-to-octets() tan:bits-to-word() tan:bit-  
wise-and() tan:bitwise-not() tan:bitwise-or() tan:bitwise-plus() tan:bit-  
wise-rotate() tan:bitwise-xor() tan:blend-alpha-value() tan:blend-col-  
or-channel-value() tan:blend-colors() \$tan:body \$tan:break-marker-regex

tan:cardinal() tan:catalog-uris() tan:catalogs() tan:cfn() tan:cfne()  
\$tan:char-regex \$characters-allowed-in-ucd-names-regex \$characters-to-  
escape-when-converting-string-to-regex tan:checksum-fletcher-16()  
tan:checksum-fletcher-32() tan:checksum-fletcher-64() tan:chop-diff-  
output() tan:chop-string() tan:chop-tree() \$close-group-symbols-regex  
rgx:codepoints-to-string() tan:collate() tan:collate-pair-of-se-  
quences() tan:collate-sequences() tan:collection() tan:commas-and-  
ands() tan:common-end-string() tan:common-start-or-end-string() tan:com-  
mon-start-string() \$composite-marker-regex tan:contains-only-once()  
tan:convert-morphological-codes() tan:convert-to-html() tan:copy-inden-  
tation() tan:copy-of-except() tan:counts-to-lasts()

tan:data-type-check() \$tan:datypes-that-require-unit-specification  
tan:dec-to-base26() tan:dec-to-base64() tan:dec-to-bin() tan:dec-to-  
hex() tan:dec-to-n() \$default-ucd-decomp-db \$default-ucd-decomp-sim-  
ple-db \$default-ucd-names-db \$tan:dhy tan:diff() \$tan:diff-and-coll-  
ate-input-batch-replacements tan:diff-cache() tan:diff-or-collate-to-  
html() # diff-or-collate-to-html-output-pass-1 tan:diff-to-colla-  
tion() tan:diff-to-delta() tan:distinct-items() # tan:div-via-cal-  
culated-ref # tan:div-via-ref # tan:divs-to-reset tan:doc-avail-  
able() \$tan:doc-catalog-uris \$tan:doc-catalogs \$tan:doc-class \$tan:doc-  
filename \$tan:doc-history \$tan:doc-id \$tan:doc-id-namespace \$tan:doc-  
is-error-test \$tan:doc-namespace \$tan:doc-parent-directory \$tan:doc-type  
\$tan:doc-uri \$tan:doc-vocabulary tan:docx-file-available() tan:docx-to-  
text() \$tan:duplicate-head-iris tan:duplicate-items() tan:duplicate-val-  
ues()

tan:eight-bit-chars-to-base64Binary() tan:eight-bit-chars-to-bits()  
tan:eight-bit-chars-to-hexBinary() tan:element-fingerprint() tan:ele-  
ment-vocabulary() # tan:elements-by-name \$tan:elements-supported-by-  
TAN-vocabulary-files # tan:elements-with-attrs-named tan:ellipses()  
\$tan:empty-doc \$tan:empty-element \$tan:english-articles \$tan:eng-  
lish-prepositions \$tan:erroneously-looped-doc \$tan:error-key \$tan:er-  
rors \$tan:errors-to-squelch rgx:escape() \$escapes-in-regex \$tan:exclud-  
ed-class-characters-regex tan:expand-doc() tan:expand-numerical-expres-  
sion() \$tan:extra-vocabulary-files

tan:fill() tan:first-loc-available() \$tan:function-collection \$tan:func-  
tion-collection-base-uri

tan:get-1st-doc() # tan:get-ana # get-chars-by-name tan:get-col-  
late-stats() tan:get-diff-output-transpositions() tan:get-diff-stats()  
tan:get-doc-history() tan:get-namespace-map() tan:get-ref() tan:get-  
uuid() tan:get-via-q-ref() tan:glob-to-regex() \$tan:global-html-attrib-  
utes tan:grc-to-int() \$tan:grc-tokens-without-accents tan:greek-graves-  
to-acutes() \$tan:greek-hundreds-regex \$tan:greek-letter-numeral-regex  
\$tan:greek-tens-regex \$tan:greek-unit-regex tan:group-divs() tan:group-  
elements-by-shared-node-values()

tan:has-vocab() \$tan:hash-error-key \$tan:head \$tan:help-trigger-regex  
\$tan:hex-key tan:hex-to-base64() tan:hex-to-base64Binary() tan:hex-  
to-bin() tan:hex-to-bits() tan:hex-to-dec() tan:hex-to-hexBinary()  
tan:hexBinary-to-bin() tan:hexBinary-to-bits() tan:hexBinary-to-eight-  
bit-chars() tan:hexBinary-to-hex() tan:hexBinary-to-octets()

\$tan:id-idrefs \$tan:inclusions-resolved # infuse-primary-file-with-  
diff-results tan:infuse-tree() tan:initial-upper-case() tan:insert-as-  
first-child() tan:insert-as-last-child() tan:int-to-aaa() tan:int-to-  
grc() tan:integer-groups() tan:integers-to-expression() \$tan:inter-  
net-available tan:is-valid-uri() \$tan:iso-639-3 tan:item-type() #  
tan:item-via-node-name

tan:lang-catalog() tan:lang-code() tan:lang-name() \$languages-support-  
ed tan:last-32-bits() tan:last-change-agent() \$tan:latin-letter-numer-  
al-regex tan:lcs-distance() tan:lengths-to-positions() tan:letter-to-  
number() tan:levenshtein-distance() tan:lm-data() \$tan:local-cata-  
log \$tan:local-TAN-collection \$tan:local-TAN-voc-collection tan:log2()  
tan:longest-ascending-subsequence()

tan:make-non-mixed() tan:map-contains() tan:map-entries() tan:map-in-  
vert() tan:map-keys() tan:map-put() tan:map-remove() tan:map-to-ar-  
ray() tan:map-to-xml() rgx:matches() tan:md5() \$tan:md5-a0 \$tan:md5-  
b0 \$tan:md5-c0 \$tan:md5-d0 \$tan:md5-K \$tan:md5-shifts tan:median()  
tan:merge-divs() tan:merge-expanded-docs() \$tan:model-1st-da \$tan:mod-  
el-resolved \$morpheus-map tan:morphological-code-conversion-maps()  
\$tan:morphologies-expanded \$tan:morphologies-resolved \$tan:most-com-  
mon-indentations tan:most-common-item() tan:most-common-item-count()

tan:n-to-dec() \$tan:n-type \$tan:n-type-label \$tan:n-type-regex  
\$name-marker-regex \$tan:names-of-attributes-that-are-case-indifferent  
\$tan:names-of-attributes-that-may-take-multiple-space-delimited-values  
\$tan:names-of-attributes-that-permit-keyword-last \$tan:names-of-at-  
tributes-that-take-idrefs \$tan:names-of-elements-targeted-by-objects  
\$tan:names-of-elements-targeted-by-subjects \$tan:names-of-ele-  
ments-that-describe-text-bearers \$tan:names-of-elements-that-de-  
scribe-text-creators \$tan:names-of-elements-that-describe-textual-en-  
tities \$tan:names-of-elements-that-make-adjustments \$tan:names-of-ele-  
ments-that-must-always-refer-to-tan-files \$tan:names-of-elements-that-  
take-idrefs \$tan:names-of-elements-that-take-which tan:namespace()  
\$tan:namespaces-and-prefixes \$tan:nested-phrase-close-marker-regex  
\$tan:nested-phrase-marker-regex \$tan:nested-phrase-markers tan:no-out-  
liers() \$tan:nonlatin-letter-numeral-regex tan:normalize-div-text()



```
tan:normalize-name() tan:normalize-text() tan:normalize-tree-space()  
tan:normalize-unicode() $stan:now tan:number-sort() tan:numbers-to-portion  
s() $stan:numeric-conversion-error-key
```

```
$stan:octet-error-key tan:octets-to-base64Binary() tan:octets-to-bits()  
tan:octets-to-hexBinary() $stan:official-urn-namespaces tan:open-  
archive() tan:open-docx() tan:open-file() $open-group-symbols-regex  
tan:open-raw-archive() tan:open-xlsx() tan:ordinal() $stan:orig-self  
$stan:orig-self-validated tan:outliers()
```

```
tan:pad-bits() tan:parse-a-hrefs() tan:parse-urls() tan:path()  
tan:pluck() $stan:pow2-32 $stan:pow2-64 $stan:predecessors-1st-da $stan:pre-  
decessors-resolved $stan:previous-TAN-versions $stan:primary-agents  
tan:product()
```

```
# tan:q-ref $stan:quot
```

```
$stan:redivisions-1st-da $stan:redivisions-resolved $stan:regex-charac-  
ters-not-permitted # tan:regex-group-count rgx:regex-is-valid()  
$stan:regex-name-space-characters tan:relativize-hrefs() tan:remove-du-  
plicate-siblings() rgx:replace() rgx:replace-by-char-name() tan:re-  
place-collation() tan:replace-diff() tan:replace-expanded-class-1-  
body() tan:resolve-doc() tan:resolve-href() tan:restore-chopped-tree()  
tan:reverse-string() tan:revise-hrefs() $stan:rgb-alice-blue $stan:rgb-Al-  
iceBlue $stan:rgb-antique-white $stan:rgb-AntiqueWhite $stan:rgb-Antique-  
White1 $stan:rgb-AntiqueWhite2 $stan:rgb-AntiqueWhite3 $stan:rgb-Antique-  
White4 $stan:rgb-aquamarine $stan:rgb-aquamarine1 $stan:rgb-aquamarine2  
$stan:rgb-aquamarine3 $stan:rgb-aquamarine4 $stan:rgb-azure $stan:rgb-azure1  
$stan:rgb-azure2 $stan:rgb-azure3 $stan:rgb-azure4 $stan:rgb-beige $stan:rgb-  
bisque $stan:rgb-bisque1 $stan:rgb-bisque2 $stan:rgb-bisque3 $stan:rgb-  
bisque4 $stan:rgb-black $stan:rgb-blanched-almond $stan:rgb-BlanchedAl-  
mond $stan:rgb-blue $stan:rgb-blue-violet $stan:rgb-blue1 $stan:rgb-  
blue2 $stan:rgb-blue3 $stan:rgb-blue4 $stan:rgb-BlueViolet $stan:rgb-  
brown $stan:rgb-brown1 $stan:rgb-brown2 $stan:rgb-brown3 $stan:rgb-brown4  
$stan:rgb-burlywood $stan:rgb-burlywood1 $stan:rgb-burlywood2 $stan:rgb-  
burlywood3 $stan:rgb-burlywood4 $stan:rgb-cadet-blue $stan:rgb-CadetBlue  
$stan:rgb-CadetBlue1 $stan:rgb-CadetBlue2 $stan:rgb-CadetBlue3 $stan:rgb-  
CadetBlue4 $stan:rgb-chartreuse $stan:rgb-chartreuse1 $stan:rgb-chartreuse2  
$stan:rgb-chartreuse3 $stan:rgb-chartreuse4 $stan:rgb-chocolate $stan:rgb-  
chocolate1 $stan:rgb-chocolate2 $stan:rgb-chocolate3 $stan:rgb-chocolate4  
$stan:rgb-coral $stan:rgb-coral1 $stan:rgb-coral2 $stan:rgb-coral3 $stan:rgb-  
coral4 $stan:rgb-cornflower-blue $stan:rgb-CornflowerBlue $stan:rgb-corn-  
silk $stan:rgb-cornsilk1 $stan:rgb-cornsilk2 $stan:rgb-cornsilk3 $stan:rgb-  
cornsilk4 $stan:rgb-cyan $stan:rgb-cyan1 $stan:rgb-cyan2 $stan:rgb-cyan3  
$stan:rgb-cyan4 $stan:rgb-dark-blue $stan:rgb-dark-cyan $stan:rgb-dark-gold-  
enrod $stan:rgb-dark-gray $stan:rgb-dark-green $stan:rgb-dark-grey $stan:rgb-  
dark-khaki $stan:rgb-dark-magenta $stan:rgb-dark-olive-green $stan:rgb-  
dark-orange $stan:rgb-dark-orchid $stan:rgb-dark-red $stan:rgb-dark-salmon  
$stan:rgb-dark-sea-green $stan:rgb-dark-slate-blue $stan:rgb-dark-slate-  
gray $stan:rgb-dark-slate-grey $stan:rgb-dark-turquoise $stan:rgb-dark-vio-  
let $stan:rgb-DarkBlue $stan:rgb-DarkCyan $stan:rgb-DarkGoldenrod $stan:rgb-  
DarkGoldenrod1 $stan:rgb-DarkGoldenrod2 $stan:rgb-DarkGoldenrod3 $stan:rgb-  
DarkGoldenrod4 $stan:rgb-DarkGray $stan:rgb-DarkGreen $stan:rgb-Dark-  
Grey $stan:rgb-DarkKhaki $stan:rgb-DarkMagenta $stan:rgb-DarkOliveGreen  
$stan:rgb-DarkOliveGreen1 $stan:rgb-DarkOliveGreen2 $stan:rgb-DarkOlive-
```

Green3 \$tan:rgb-DarkOliveGreen4 \$tan:rgb-DarkOrange \$tan:rgb-DarkOrange1 \$tan:rgb-DarkOrange2 \$tan:rgb-DarkOrange3 \$tan:rgb-DarkOrange4 \$tan:rgb-DarkOrchid \$tan:rgb-DarkOrchid1 \$tan:rgb-DarkOrchid2 \$tan:rgb-DarkOrchid3 \$tan:rgb-DarkOrchid4 \$tan:rgb-DarkRed \$tan:rgb-DarkSalmon \$tan:rgb-DarkSeaGreen \$tan:rgb-DarkSeaGreen1 \$tan:rgb-DarkSeaGreen2 \$tan:rgb-DarkSeaGreen3 \$tan:rgb-DarkSeaGreen4 \$tan:rgb-DarkSlateBlue \$tan:rgb-DarkSlateGray \$tan:rgb-DarkSlateGray1 \$tan:rgb-DarkSlateGray2 \$tan:rgb-DarkSlateGray3 \$tan:rgb-DarkSlateGray4 \$tan:rgb-DarkSlateGrey \$tan:rgb-DarkTurquoise \$tan:rgb-DarkViolet \$tan:rgb-deep-pink \$tan:rgb-deep-sky-blue \$tan:rgb-DeepPink \$tan:rgb-DeepPink1 \$tan:rgb-DeepPink2 \$tan:rgb-DeepPink3 \$tan:rgb-DeepPink4 \$tan:rgb-DeepSkyBlue \$tan:rgb-DeepSkyBlue1 \$tan:rgb-DeepSkyBlue2 \$tan:rgb-DeepSkyBlue3 \$tan:rgb-DeepSkyBlue4 \$tan:rgb-dim-gray \$tan:rgb-dim-grey \$tan:rgb-DimGray \$tan:rgb-DimGrey \$tan:rgb-dodger-blue \$tan:rgb-DodgerBlue \$tan:rgb-DodgerBlue1 \$tan:rgb-DodgerBlue2 \$tan:rgb-DodgerBlue3 \$tan:rgb-DodgerBlue4 \$tan:rgb-firebrick \$tan:rgb-firebrick1 \$tan:rgb-firebrick2 \$tan:rgb-firebrick3 \$tan:rgb-firebrick4 \$tan:rgb-floral-white \$tan:rgb-FloralWhite \$tan:rgb-forest-green \$tan:rgb-ForestGreen \$tan:rgb-gainsboro \$tan:rgb-ghost-white \$tan:rgb-GhostWhite \$tan:rgb-gold \$tan:rgb-gold1 \$tan:rgb-gold2 \$tan:rgb-gold3 \$tan:rgb-gold4 \$tan:rgb-goldenrod \$tan:rgb-goldenrod1 \$tan:rgb-goldenrod2 \$tan:rgb-goldenrod3 \$tan:rgb-goldenrod4 \$tan:rgb-gray \$tan:rgb-gray0 \$tan:rgb-gray1 \$tan:rgb-gray10 \$tan:rgb-gray100 \$tan:rgb-gray11 \$tan:rgb-gray12 \$tan:rgb-gray13 \$tan:rgb-gray14 \$tan:rgb-gray15 \$tan:rgb-gray16 \$tan:rgb-gray17 \$tan:rgb-gray18 \$tan:rgb-gray19 \$tan:rgb-gray2 \$tan:rgb-gray20 \$tan:rgb-gray21 \$tan:rgb-gray22 \$tan:rgb-gray23 \$tan:rgb-gray24 \$tan:rgb-gray25 \$tan:rgb-gray26 \$tan:rgb-gray27 \$tan:rgb-gray28 \$tan:rgb-gray29 \$tan:rgb-gray3 \$tan:rgb-gray30 \$tan:rgb-gray31 \$tan:rgb-gray32 \$tan:rgb-gray33 \$tan:rgb-gray34 \$tan:rgb-gray35 \$tan:rgb-gray36 \$tan:rgb-gray37 \$tan:rgb-gray38 \$tan:rgb-gray39 \$tan:rgb-gray4 \$tan:rgb-gray40 \$tan:rgb-gray41 \$tan:rgb-gray42 \$tan:rgb-gray43 \$tan:rgb-gray44 \$tan:rgb-gray45 \$tan:rgb-gray46 \$tan:rgb-gray47 \$tan:rgb-gray48 \$tan:rgb-gray49 \$tan:rgb-gray5 \$tan:rgb-gray50 \$tan:rgb-gray51 \$tan:rgb-gray52 \$tan:rgb-gray53 \$tan:rgb-gray54 \$tan:rgb-gray55 \$tan:rgb-gray56 \$tan:rgb-gray57 \$tan:rgb-gray58 \$tan:rgb-gray59 \$tan:rgb-gray6 \$tan:rgb-gray60 \$tan:rgb-gray61 \$tan:rgb-gray62 \$tan:rgb-gray63 \$tan:rgb-gray64 \$tan:rgb-gray65 \$tan:rgb-gray66 \$tan:rgb-gray67 \$tan:rgb-gray68 \$tan:rgb-gray69 \$tan:rgb-gray7 \$tan:rgb-gray70 \$tan:rgb-gray71 \$tan:rgb-gray72 \$tan:rgb-gray73 \$tan:rgb-gray74 \$tan:rgb-gray75 \$tan:rgb-gray76 \$tan:rgb-gray77 \$tan:rgb-gray78 \$tan:rgb-gray79 \$tan:rgb-gray8 \$tan:rgb-gray80 \$tan:rgb-gray81 \$tan:rgb-gray82 \$tan:rgb-gray83 \$tan:rgb-gray84 \$tan:rgb-gray85 \$tan:rgb-gray86 \$tan:rgb-gray87 \$tan:rgb-gray88 \$tan:rgb-gray89 \$tan:rgb-gray9 \$tan:rgb-gray90 \$tan:rgb-gray91 \$tan:rgb-gray92 \$tan:rgb-gray93 \$tan:rgb-gray94 \$tan:rgb-gray95 \$tan:rgb-gray96 \$tan:rgb-gray97 \$tan:rgb-gray98 \$tan:rgb-gray99 \$tan:rgb-green \$tan:rgb-green-yellow \$tan:rgb-green1 \$tan:rgb-green2 \$tan:rgb-green3 \$tan:rgb-green4 \$tan:rgb-GreenYellow \$tan:rgb-grey \$tan:rgb-grey0 \$tan:rgb-grey1 \$tan:rgb-grey10 \$tan:rgb-grey100 \$tan:rgb-grey11 \$tan:rgb-grey12 \$tan:rgb-grey13 \$tan:rgb-grey14 \$tan:rgb-grey15 \$tan:rgb-grey16 \$tan:rgb-grey17 \$tan:rgb-grey18 \$tan:rgb-grey19 \$tan:rgb-grey2 \$tan:rgb-grey20 \$tan:rgb-grey21 \$tan:rgb-grey22 \$tan:rgb-grey23 \$tan:rgb-grey24 \$tan:rgb-grey25 \$tan:rgb-grey26 \$tan:rgb-grey27 \$tan:rgb-grey28 \$tan:rgb-grey29 \$tan:rgb-grey3 \$tan:rgb-grey30 \$tan:rgb-grey31 \$tan:rgb-grey32 \$tan:rgb-grey33 \$tan:rgb-grey34 \$tan:rgb-grey35 \$tan:rgb-grey36 \$tan:rgb-grey37 \$tan:rgb-grey38 \$tan:rgb-grey39 \$tan:rgb-grey4 \$tan:rgb-grey40 \$tan:rgb-

grey41 \$tan:rgb-grey42 \$tan:rgb-grey43 \$tan:rgb-grey44 \$tan:rgb-grey45  
\$tan:rgb-grey46 \$tan:rgb-grey47 \$tan:rgb-grey48 \$tan:rgb-grey49 \$tan:rgb-  
grey5 \$tan:rgb-grey50 \$tan:rgb-grey51 \$tan:rgb-grey52 \$tan:rgb-grey53  
\$tan:rgb-grey54 \$tan:rgb-grey55 \$tan:rgb-grey56 \$tan:rgb-grey57 \$tan:rgb-  
grey58 \$tan:rgb-grey59 \$tan:rgb-grey6 \$tan:rgb-grey60 \$tan:rgb-grey61  
\$tan:rgb-grey62 \$tan:rgb-grey63 \$tan:rgb-grey64 \$tan:rgb-grey65 \$tan:rgb-  
grey66 \$tan:rgb-grey67 \$tan:rgb-grey68 \$tan:rgb-grey69 \$tan:rgb-grey7  
\$tan:rgb-grey70 \$tan:rgb-grey71 \$tan:rgb-grey72 \$tan:rgb-grey73 \$tan:rgb-  
grey74 \$tan:rgb-grey75 \$tan:rgb-grey76 \$tan:rgb-grey77 \$tan:rgb-grey78  
\$tan:rgb-grey79 \$tan:rgb-grey8 \$tan:rgb-grey80 \$tan:rgb-grey81 \$tan:rgb-  
grey82 \$tan:rgb-grey83 \$tan:rgb-grey84 \$tan:rgb-grey85 \$tan:rgb-grey86  
\$tan:rgb-grey87 \$tan:rgb-grey88 \$tan:rgb-grey89 \$tan:rgb-grey9 \$tan:rgb-  
grey90 \$tan:rgb-grey91 \$tan:rgb-grey92 \$tan:rgb-grey93 \$tan:rgb-grey94  
\$tan:rgb-grey95 \$tan:rgb-grey96 \$tan:rgb-grey97 \$tan:rgb-grey98 \$tan:rgb-  
grey99 \$tan:rgb-honeydew \$tan:rgb-honeydew1 \$tan:rgb-honeydew2 \$tan:rgb-  
honeydew3 \$tan:rgb-honeydew4 \$tan:rgb-hot-pink \$tan:rgb-HotPink \$tan:rgb-  
HotPink1 \$tan:rgb-HotPink2 \$tan:rgb-HotPink3 \$tan:rgb-HotPink4 \$tan:rgb-  
indian-red \$tan:rgb-IndianRed \$tan:rgb-IndianRed1 \$tan:rgb-IndianRed2  
\$tan:rgb-IndianRed3 \$tan:rgb-IndianRed4 \$tan:rgb-ivory \$tan:rgb-ivory1  
\$tan:rgb-ivory2 \$tan:rgb-ivory3 \$tan:rgb-ivory4 \$tan:rgb-khaki \$tan:rgb-  
khakil \$tan:rgb-khaki2 \$tan:rgb-khaki3 \$tan:rgb-khaki4 \$tan:rgb-lavender  
\$tan:rgb-lavender-blush \$tan:rgb-LavenderBlush \$tan:rgb-LavenderBlush1  
\$tan:rgb-LavenderBlush2 \$tan:rgb-LavenderBlush3 \$tan:rgb-LavenderBlush4  
\$tan:rgb-lawn-green \$tan:rgb-LawnGreen \$tan:rgb-lemon-chiffon \$tan:rgb-  
LemonChiffon \$tan:rgb-LemonChiffon1 \$tan:rgb-LemonChiffon2 \$tan:rgb-  
LemonChiffon3 \$tan:rgb-LemonChiffon4 \$tan:rgb-light-blue \$tan:rgb-light-  
coral \$tan:rgb-light-cyan \$tan:rgb-light-goldenrod \$tan:rgb-light-gold-  
enrod-yellow \$tan:rgb-light-gray \$tan:rgb-light-green \$tan:rgb-light-  
grey \$tan:rgb-light-pink \$tan:rgb-light-salmon \$tan:rgb-light-sea-  
green \$tan:rgb-light-sky-blue \$tan:rgb-light-slate-blue \$tan:rgb-light-  
slate-gray \$tan:rgb-light-slate-grey \$tan:rgb-light-steel-blue \$tan:rgb-  
light-yellow \$tan:rgb-LightBlue \$tan:rgb-LightBlue1 \$tan:rgb-LightBlue2  
\$tan:rgb-LightBlue3 \$tan:rgb-LightBlue4 \$tan:rgb-LightCoral \$tan:rgb-  
LightCyan \$tan:rgb-LightCyan1 \$tan:rgb-LightCyan2 \$tan:rgb-LightCyan3  
\$tan:rgb-LightCyan4 \$tan:rgb-LightGoldenrod \$tan:rgb-LightGoldenrod1  
\$tan:rgb-LightGoldenrod2 \$tan:rgb-LightGoldenrod3 \$tan:rgb-LightGolden-  
rod4 \$tan:rgb-LightGoldenrodYellow \$tan:rgb-LightGray \$tan:rgb-Light-  
Green \$tan:rgb-LightGrey \$tan:rgb-LightPink \$tan:rgb-LightPink1 \$tan:rgb-  
LightPink2 \$tan:rgb-LightPink3 \$tan:rgb-LightPink4 \$tan:rgb-LightSal-  
mon \$tan:rgb-LightSalmon1 \$tan:rgb-LightSalmon2 \$tan:rgb-LightSal-  
mon3 \$tan:rgb-LightSalmon4 \$tan:rgb-LightSeaGreen \$tan:rgb-LightSkyBlue  
\$tan:rgb-LightSkyBlue1 \$tan:rgb-LightSkyBlue2 \$tan:rgb-LightSkyBlue3  
\$tan:rgb-LightSkyBlue4 \$tan:rgb-LightSlateBlue \$tan:rgb-LightSlateGray  
\$tan:rgb-LightSlateGrey \$tan:rgb-LightSteelBlue \$tan:rgb-LightSteel-  
Blue1 \$tan:rgb-LightSteelBlue2 \$tan:rgb-LightSteelBlue3 \$tan:rgb-LightS-  
teelBlue4 \$tan:rgb-LightYellow \$tan:rgb-LightYellow1 \$tan:rgb-LightYel-  
low2 \$tan:rgb-LightYellow3 \$tan:rgb-LightYellow4 \$tan:rgb-lime-green  
\$tan:rgb-LimeGreen \$tan:rgb-linen \$tan:rgb-magenta \$tan:rgb-magenta1  
\$tan:rgb-magenta2 \$tan:rgb-magenta3 \$tan:rgb-magenta4 \$tan:rgb-maroon  
\$tan:rgb-maroon1 \$tan:rgb-maroon2 \$tan:rgb-maroon3 \$tan:rgb-maroon4  
\$tan:rgb-medium-aquamarine \$tan:rgb-medium-blue \$tan:rgb-medium-or-  
chid \$tan:rgb-medium-purple \$tan:rgb-medium-sea-green \$tan:rgb-medi-  
um-slate-blue \$tan:rgb-medium-spring-green \$tan:rgb-medium-turquoise  
\$tan:rgb-medium-violet-red \$tan:rgb-MediumAquamarine \$tan:rgb-Medi-

umBlue \$stan:rgb-MediumOrchid \$stan:rgb-MediumOrchid1 \$stan:rgb-MediumOrchid2 \$stan:rgb-MediumOrchid3 \$stan:rgb-MediumOrchid4 \$stan:rgb-MediumPurple \$stan:rgb-MediumPurple1 \$stan:rgb-MediumPurple2 \$stan:rgb-MediumPurple3 \$stan:rgb-MediumPurple4 \$stan:rgb-MediumSeaGreen \$stan:rgb-MediumSlateBlue \$stan:rgb-MediumSpringGreen \$stan:rgb-MediumTurquoise \$stan:rgb-MediumVioletRed \$stan:rgb-midnight-blue \$stan:rgb-MidnightBlue \$stan:rgb-mint-cream \$stan:rgb-MintCream \$stan:rgb-misty-rose \$stan:rgb-MistyRose \$stan:rgb-MistyRose1 \$stan:rgb-MistyRose2 \$stan:rgb-MistyRose3 \$stan:rgb-MistyRose4 \$stan:rgb-moccasin \$stan:rgb-navajo-white \$stan:rgb-NavajoWhite \$stan:rgb-NavajoWhite1 \$stan:rgb-NavajoWhite2 \$stan:rgb-NavajoWhite3 \$stan:rgb-NavajoWhite4 \$stan:rgb-navy \$stan:rgb-navy-blue \$stan:rgb-NavyBlue \$stan:rgb-old-lace \$stan:rgb-OldLace \$stan:rgb-olive-drab \$stan:rgb-OliveDrab \$stan:rgb-OliveDrab1 \$stan:rgb-OliveDrab2 \$stan:rgb-OliveDrab3 \$stan:rgb-OliveDrab4 \$stan:rgb-orange \$stan:rgb-orange-red \$stan:rgb-orangel \$stan:rgb-orange2 \$stan:rgb-orange3 \$stan:rgb-orange4 \$stan:rgb-OrangeRed \$stan:rgb-OrangeRed1 \$stan:rgb-OrangeRed2 \$stan:rgb-OrangeRed3 \$stan:rgb-OrangeRed4 \$stan:rgb-orchid \$stan:rgb-orchid1 \$stan:rgb-orchid2 \$stan:rgb-orchid3 \$stan:rgb-orchid4 \$stan:rgb-pale-goldenrod \$stan:rgb-pale-green \$stan:rgb-pale-turquoise \$stan:rgb-pale-violet-red \$stan:rgb-PaleGoldenrod \$stan:rgb-PaleGreen \$stan:rgb-PaleGreen1 \$stan:rgb-PaleGreen2 \$stan:rgb-PaleGreen3 \$stan:rgb-PaleGreen4 \$stan:rgb-PaleTurquoise \$stan:rgb-PaleTurquoise1 \$stan:rgb-PaleTurquoise2 \$stan:rgb-PaleTurquoise3 \$stan:rgb-PaleTurquoise4 \$stan:rgb-PaleVioletRed \$stan:rgb-PaleVioletRed1 \$stan:rgb-PaleVioletRed2 \$stan:rgb-PaleVioletRed3 \$stan:rgb-PaleVioletRed4 \$stan:rgb-papaya-whip \$stan:rgb-PapayaWhip \$stan:rgb-peach-puff \$stan:rgb-PeachPuff \$stan:rgb-PeachPuff1 \$stan:rgb-PeachPuff2 \$stan:rgb-PeachPuff3 \$stan:rgb-PeachPuff4 \$stan:rgb-peru \$stan:rgb-pink \$stan:rgb-pink1 \$stan:rgb-pink2 \$stan:rgb-pink3 \$stan:rgb-pink4 \$stan:rgb-plum \$stan:rgb-plum1 \$stan:rgb-plum2 \$stan:rgb-plum3 \$stan:rgb-plum4 \$stan:rgb-powder-blue \$stan:rgb-PowderBlue \$stan:rgb-purple \$stan:rgb-purple1 \$stan:rgb-purple2 \$stan:rgb-purple3 \$stan:rgb-purple4 \$stan:rgb-red \$stan:rgb-red1 \$stan:rgb-red2 \$stan:rgb-red3 \$stan:rgb-red4 \$stan:rgb-rosy-brown \$stan:rgb-RosyBrown \$stan:rgb-RosyBrown1 \$stan:rgb-RosyBrown2 \$stan:rgb-RosyBrown3 \$stan:rgb-RosyBrown4 \$stan:rgb-royal-blue \$stan:rgb-RoyalBlue \$stan:rgb-RoyalBlue1 \$stan:rgb-RoyalBlue2 \$stan:rgb-RoyalBlue3 \$stan:rgb-RoyalBlue4 \$stan:rgb-saddle-brown \$stan:rgb-SaddleBrown \$stan:rgb-salmon \$stan:rgb-salmon1 \$stan:rgb-salmon2 \$stan:rgb-salmon3 \$stan:rgb-salmon4 \$stan:rgb-sandy-brown \$stan:rgb-SandyBrown \$stan:rgb-sea-green \$stan:rgb-SeaGreen \$stan:rgb-SeaGreen1 \$stan:rgb-SeaGreen2 \$stan:rgb-SeaGreen3 \$stan:rgb-SeaGreen4 \$stan:rgb-seashell \$stan:rgb-seashell1 \$stan:rgb-seashell2 \$stan:rgb-seashell3 \$stan:rgb-seashell4 \$stan:rgb-sienna \$stan:rgb-sienna1 \$stan:rgb-sienna2 \$stan:rgb-sienna3 \$stan:rgb-sienna4 \$stan:rgb-sky-blue \$stan:rgb-SkyBlue \$stan:rgb-SkyBlue1 \$stan:rgb-SkyBlue2 \$stan:rgb-SkyBlue3 \$stan:rgb-SkyBlue4 \$stan:rgb-slate-blue \$stan:rgb-slate-gray \$stan:rgb-slate-grey \$stan:rgb-SlateBlue \$stan:rgb-SlateBlue1 \$stan:rgb-SlateBlue2 \$stan:rgb-SlateBlue3 \$stan:rgb-SlateBlue4 \$stan:rgb-SlateGray \$stan:rgb-SlateGray1 \$stan:rgb-SlateGray2 \$stan:rgb-SlateGray3 \$stan:rgb-SlateGray4 \$stan:rgb-SlateGrey \$stan:rgb-snow \$stan:rgb-snow1 \$stan:rgb-snow2 \$stan:rgb-snow3 \$stan:rgb-snow4 \$stan:rgb-spring-green \$stan:rgb-SpringGreen \$stan:rgb-SpringGreen1 \$stan:rgb-SpringGreen2 \$stan:rgb-SpringGreen3 \$stan:rgb-SpringGreen4 \$stan:rgb-steel-blue \$stan:rgb-SteelBlue \$stan:rgb-SteelBlue1 \$stan:rgb-SteelBlue2 \$stan:rgb-SteelBlue3 \$stan:rgb-SteelBlue4 \$stan:rgb-tan \$stan:rgb-tan1 \$stan:rgb-tan2 \$stan:rgb-tan3 \$stan:rgb-tan4 \$stan:rgb-thistle \$stan:rgb-thistle1 \$stan:rgb-thistle2 \$stan:rgb-thistle3 \$stan:rgb-thistle4 \$stan:rgb-toma-

```
to $stan:rgb-tomato1 $stan:rgb-tomato2 $stan:rgb-tomato3 $stan:rgb-toma-
to4 $stan:rgb-turquoise $stan:rgb-turquoise1 $stan:rgb-turquoise2 $stan:rgb-
turquoise3 $stan:rgb-turquoise4 $stan:rgb-violet $stan:rgb-violet-red
$stan:rgb-VioletRed $stan:rgb-VioletRed1 $stan:rgb-VioletRed2 $stan:rgb-Vi-
oletRed3 $stan:rgb-VioletRed4 $stan:rgb-wheat $stan:rgb-wheat1 $stan:rgb-
wheat2 $stan:rgb-wheat3 $stan:rgb-wheat4 $stan:rgb-white $stan:rgb-white-
smoke $stan:rgb-WhiteSmoke $stan:rgb-yellow $stan:rgb-yellow-green $stan:rgb-
yellow1 $stan:rgb-yellow2 $stan:rgb-yellow3 $stan:rgb-yellow4 $stan:rgb-Yel-
lowGreen $stan:rng-collection $stan:rng-collection-without-TEI tan:rom-
to-int() $stan:roman-numeral-regex $stan:ryb-blue $stan:ryb-blue-green
$stan:ryb-blue-purple $stan:ryb-green $stan:ryb-orange $stan:ryb-purple
$stan:ryb-red $stan:ryb-red-orange $stan:ryb-red-purple $stan:ryb-yellow
$stan:ryb-yellow-green $stan:ryb-yellow-orange
```

```
tan:satisfies-regex() tan:satisfies-regexes() tan:save-archive() #
tan:save-archive # tan:save-as tan:save-docx() # tan:save-
docx tan:save-xlsx() # tan:save-xlsx $stan:schema-collection
$stan:schema-uri-collection tan:search-for-entities() tan:search-for-
persons() tan:search-for-scripta() tan:search-morpheus() tan:search-
results-to-claims() tan:search-results-to-IRI-name-pattern() $search-
services tan:search-wikipedia() $stan:see-alsos-1st-da $stan:see-al-
sos-resolved tan:segment-string() $stan:self-expanded $stan:self-ex-
panded-vocabulary $stan:self-resolved $stan:self-resolved-plus $stan:sep-
arator-hierarchy $stan:separator-hierarchy-minor $stan:separator-major
tan:sequence-to-tree() tan:shallow-copy() $stan:shy tan:sort-change-
log() $stan:source-ids $stan:sources-resolved $stan:special-end-div-
chars $stan:special-end-div-chars-regex $stan:src-ids tan:stamp-diff-with-
text-data() tan:stamp-q-id() $stan:stated-validation-phase rgx:string-
base() tan:string-length() rgx:string-to-components() rgx:string-
to-composites() tan:string-to-numerals() tan:string-to-utf-8-octets()
tan:strip-outer-indentation() tan:substring-after() tan:substring-be-
fore() $stan:successors-1st-da $stan:successors-resolved tan:syr-to-int()
$stan:syriac-hundreds-regex $stan:syriac-letter-numeral-pattern tan:syri-
ac-marks-to-word-end() $stan:syriac-tens-regex $stan:syriac-unit-regex
```

```
# tan:shallow-skip $stan:tag-urn-regex-pattern # tan:tan-
a-lm-expansion-terse $stan:tan-classes # tan:temp-mark-and-re-
move-outer-indentations tan:text-join() # tan:text-join #
tan:text-only-copy tan:title-case() # tan:title-case $stan:to-
day-iso $stan:today-MDY # tan:tok-via-val $stan:token-definition-de-
fault $stan:token-definition-letters-and-punctuation $stan:token-defi-
nition-letters-only $stan:token-definition-non-space $stan:token-defini-
tions-reserved rgx:tokenize() tan:tokenize-div() # tan:tokenize-div
tan:tokenize-text() # tan:tree-to-html # tan:tree-to-html-for-attr
tan:tree-to-sequence() # tan:tree-to-sequence # tan:trim-initial-and-
terminal-space tan:trim-long-text() # tan:trim-long-text tan:trim-long-
tree() # tan:trim-long-tree # tan:trim-or-add-text tan:true()
```

```
$stan:TAN-feature-vocabulary $stan:TAN-id-namespace $stan:TAN-namespace
$stan:TAN-regex-version $stan:TAN-version $stan:TAN-version-is-under-develop-
ment $stan:TAN-vocabularies $stan:TAN-vocabularies-vocabulary $stan:TAN-vo-
cabulary-files $stan:TEI-namespace
```

```
$u-item-delimiter-regex tan:unicode-to-eight-bit-chars() $unicode-ver-
sions-supported tan:unique-char() tan:update-TAN-change-log() tan:uri-
```

```
collection-from-pattern() tan:uri-directory() tan:uri-is-relative()
tan:uri-is-resolved() tan:uri-relative-to() tan:url-is-local() $tan:url-
regex tan:utf-8-octets-to-string()

$tan:validation-phase-names $tan:vocabularies-resolved tan:vocabulary()

$tan:white-mask-a10 $tan:white-mask-a20 $tan:white-mask-a30 $tan:white-
mask-a40 $tan:white-mask-a50 $tan:white-mask-a60 $tan:white-mask-a70
$tan:white-mask-a80 $tan:white-mask-a90 tan:wrap-text-nodes()

tan:xlsx-file-available() tan:xml-to-array() tan:xml-to-map() tan:xml-
to-string() $tan:xpath-regex

tan:zip-uris() $tan:zwj $tan:zwspace
```

## Functions, global variables, keys, and named templates

Functions, global variables, keys, and named templates are summarized below, grouped by parent subdirectory from the TAN function directory. For templates called by mode, see the next section.

### Expansion

#### Keys

##### # **tan:divs-to-reset**

*TAN-fn-expand-terse-class-1*

Looks for elements matching `tan:div`

Used by function `tan:expand-doc()`.

Does not rely upon global variables, keys, functions, or templates.

#### Functions

##### **tan:expand-doc()**

*Option 1 (TAN-fn-expand-files)*

```
tan:expand-doc($tan-doc as document-node())? as document-node()*
```

one-parameter version of the fuller one below

Used by variable `$tan:morphologies-expanded`, `$tan:self-expanded`.

Used by template # `tan:core-expansion-verbose`, # `tan:class-1-expansion-verbose-pass-1`.

Used by function `tan:expand-doc()`.

Relies upon `tan:expand-doc`.

*Option 2 (TAN-fn-expand-files)*

```
tan:expand-doc($tan-doc as document-node()?, $target-phase as  
xs:string) as document-node()*
```

two-parameter version of the fuller one below

Used by variable \$tan:morphologies-expanded, \$tan:self-expanded.

Used by template # tan:core-expansion-verbose, # tan:class-1-expansion-verbose-pass-1.

Used by function tan:expand-doc().

Relies upon tan:expand-doc.

*Option 3 (TAN-fn-expand-files)*

```
tan:expand-doc($tan-doc as document-node()?, $target-phase as  
xs:string, $use-validation-mode as xs:boolean)
```

Input: a resolved TAN document, a string indicating a phase of expansion, a boolean indicating whether the function is intended to serve validation

Output: the document and its dependencies expanded to the phase indicated.

If validation mode is true, then the results will be stripped down to root element the bare markers for errors, warnings, and fixes. If validation mode is false, the complete, expanded document and its dependencies will be returned.

Because class 2 files are expanded hand-in-glove with the class 1 files they depend upon, expansion is necessarily synchronized with its dependent sources. The expanded form of the original class-2 document is the first document of the result, and the expanded class-1 or -3 files follow. A TAN-A file expanded verbosely will return a document one TAN-A\_merge file per work detected. TAN-A\_merge files collate into a master reference system all <source>s of the TAN-A file that are versions of that

Related: expansion, files

Used by variable \$tan:morphologies-expanded, \$tan:self-expanded.

Used by template # tan:core-expansion-verbose, # tan:class-1-expansion-verbose-pass-1.

Used by function tan:expand-doc().

Relies upon \$tan:doc-id, \$tan:morphologies-resolved, \$tan:sources-resolved, \$tan:validation-phase-names, tan:expand-doc(), tan:normalize-tree-space, tan:xml-to-string, # tan:catalog-expansion-terse, # tan:class-1-expansion-verbose-pass-1, # tan:class-1-expansion-verbose-pass-2, # tan:class-1-expansion-verbose-pass-3, # tan:class-2-expansion-normal, # tan:class-2-expansion-terse, # tan:class-2-expansion-terse-for-validation, # tan:class-2-expansion-verbose, # tan:core-expansion-normal, # tan:core-expansion-terse, # tan:core-expansion-terse-attributes, # tan:core-expansion-verbose, # tan:dependency-adjustments-pass-1, # tan:dependency-adjustments-pass-2, # tan:mark-dependencies-pass-1, # tan:mark-dependencies-pass-2, # tan:mark-dependencies-pass-2-for-val-

idation, # tan:remove-first-token, # tan:reset-hierarchy, # tan:resolve-reference-tree-numerals, # tan:strip-dependencies-to-markers, # tan:strip-distributed-vocabulary-from-idrefs, # tan:strip-for-validation, # tan:tan-a-lm-expansion-terse.

## Regex

### Variables

#### **\$base-marker-regex**

*TAN-fn-regex-standard*

Definition: '-'

Used by function `rgx:process-regex-escape-u()`.

Does not rely upon global variables, keys, functions, or templates.

#### **\$characters-allowed-in-ucd-names-regex**

*TAN-fn-regex-standard*

Definition: '[-#\(\)a-zA-Z0-9]'

Used by function `rgx:process-regex-escape-u()`.

Does not rely upon global variables, keys, functions, or templates.

#### **\$characters-to-escape-when-converting-string-to-regex**

*TAN-fn-regex-standard*

Definition: '[\.\[\]\|\^\\$\?\*\+\{\}\(\)]'

Used by function `rgx:escape()`.

Does not rely upon global variables, keys, functions, or templates.

#### **\$close-group-symbols-regex**

*TAN-fn-regex-standard*

Definition: '[\]\)\}']

Used by function `rgx:parse-regex()`.

Does not rely upon global variables, keys, functions, or templates.

#### **\$composite-marker-regex**

*TAN-fn-regex-standard*

Definition: '\\+'

Used by function `rgx:process-regex-escape-u()`.



Does not rely upon global variables, keys, functions, or templates.

### **\$default-ucd-decomp-db**

*TAN-fn-regex-standard*

Definition: `rgx:get-ucd-decomp-db()`

Used by function `rgx:string-to-components()`, `rgx:string-to-composites()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$default-ucd-decomp-simple-db**

*TAN-fn-regex-standard*

Definition: `rgx:get-ucd-decomp-simple-db()`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$default-ucd-names-db**

*TAN-fn-regex-standard*

Definition: `rgx:get-ucd-names-db()`

Used by function `rgx:get-chars-by-name()`, `rgx:build-char-replacement-guide()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$escapes-in-regex**

*TAN-fn-regex-standard*

Definition: `'\\[\\.\[\]\|^\$\\?\\*\\+\\{\\}\\(\\)nrtdDsSiIcCwW\d]|\\[pPu]\\{[^\\}]*\\}'`

Used by function `rgx:parse-regex()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$name-marker-regex**

*TAN-fn-regex-standard*

Definition: `'[\\.!]'`

Used by function `rgx:process-regex-escape-u()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$open-group-symbols-regex**

*TAN-fn-regex-standard*

Definition: `[ \\ [ \\ ( \\ { ]`

Used by function `rgx:parse-regex()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$TAN-regex-version**

*TAN-fn-regex-standard*

Definition: `1.0`

No variables, keys, functions, or named templates depend upon this `xsl:variable`.

Does not rely upon global variables, keys, functions, or templates.

### **\$u-item-delimiter-regex**

*TAN-fn-regex-standard*

Definition: `' '`

Used by function `rgx:process-regex-escape-u()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$unicode-versions-supported**

*TAN-fn-regex-standard*

Definition: `5.1, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0, 12.0, 13.0`

Used by function `rgx:best-unicode-version()`.

Does not rely upon global variables, keys, functions, or templates.

## **Keys**

### **# get-chars-by-name**

*TAN-fn-regex-standard*

Looks for elements matching `rgx:char`

No variables, keys, functions, or named templates depend upon this `xsl:key`.

Does not rely upon global variables, keys, functions, or templates.

## **Functions**

### **rgx:analyze-string()**

*Option 1 (TAN-fn-regex-standard)*

`rgx:analyze-string($input as xs:string?, $pattern as xs:string) as element()`

two-parameter version of the fuller one, below

Used by function `rgx:analyze-string()`.

Relies upon `rgx:analyze-string`.

*Option 2 (TAN-fn-regex-standard)*

```
rgx:analyze-string($input as xs:string?, $pattern as xs:string, $flags
as xs:string) as element()
```

Input: three strings

Output: an XML structure that identifies which parts of the first parameter matched or failed to match the regular expression, supplied by the second parameter, taking account flags supplied by the third. In the case of matched substrings, indicates substrings matched each capturing group in the regular expression.

Related: regular expressions, strings

Used by function `rgx:analyze-string()`.

Does not rely upon global variables, keys, functions, or templates.

### **rgx:codepoints-to-string()**

*Option 1 (TAN-fn-regex-standard)*

```
rgx:codepoints-to-string($arg as xs:integer*) as xs:string?
```

one-parameter version of the fuller one below; default XML 1.0

Used by function `rgx:codepoints-to-string()`, `rgx:process-regex-escape-u()`.

Relies upon `rgx:codepoints-to-string`.

*Option 2 (TAN-fn-regex-standard)*

```
rgx:codepoints-to-string($arg as xs:integer*, $xml-1-0 as xs:boolean)
as xs:string?
```

Input: any number of integers

Output: the string value representation, but only if the integers represent valid characters in XML

Like `fn:codepoints-to-string()`, but filters out XML illegal characters

Related: regular expressions, codepoints, strings

Used by function `rgx:codepoints-to-string()`, `rgx:process-regex-escape-u()`.

Does not rely upon global variables, keys, functions, or templates.

### **rgx:escape()**

*TAN-fn-regex-standard*

`rgx:escape($strings as xs:string*) as xs:string*`

Input: any sequence of strings

Output: each string prepared for regular expression searches, i.e., with reserved characters escaped out.

Related: regular expressions, strings

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `$characters-to-escape-when-converting-string-to-regex`.

### **rgx:matches()**

*Option 1 (TAN-fn-regex-standard)*

`rgx:matches($input as xs:string?, $pattern as xs:string) as xs:boolean`

two-param function of the three-param version below

Used by function `rgx:matches()`, `rgx:regex-is-valid()`.

Relies upon `rgx:matches`.

*Option 2 (TAN-fn-regex-standard)*

`rgx:matches($input as xs:string?, $pattern as xs:string, $flags as xs:string) as xs:boolean`

Parallel to `fn:matches()`, but converts `\u{}` into classes. See `rgx:regex()` for details.

Input: three strings

Output: true if the first string matches the regular expression supplied as the second, taking account into flags supplied by the third.

Related: regular expressions, strings

Used by function `rgx:matches()`, `rgx:regex-is-valid()`.

Does not rely upon global variables, keys, functions, or templates.

### **rgx:regex-is-valid()**

*TAN-fn-regex-standard*

`rgx:regex-is-valid($input-regex as xs:string?) as xs:boolean`

Input: a string

Output: true if the string is a valid regular expression, false otherwise

Related: regular expressions

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `rgx:matches`.

### **rgx:replace()**

*Option 1 (TAN-fn-regex-standard)*

```
rgx:replace($input as xs:string?, $pattern as xs:string, $replacement  
as xs:string) as xs:string
```

three-param function of the four-param version below

Used by function `rgx:replace()`.

Relies upon `rgx:replace`.

*Option 2 (TAN-fn-regex-standard)*

```
rgx:replace($input as xs:string?, $pattern as xs:string, $replacement  
as xs:string, $flags as xs:string) as xs:string
```

Parallel to `fn:replace()`, but converts `\u{}` into classes. See `rgx:regex()` for details.

Input: four strings

Output: the `xs:string` that is obtained by replacing each non-overlapping substring of the first parameter given pattern declared by the second with an occurrence, taking into account flags supplied by the fourth.

Related: regular expressions, strings

Used by function `rgx:replace()`.

Does not rely upon global variables, keys, functions, or templates.

### **rgx:replace-by-char-name()**

*Option 1 (TAN-fn-regex-standard)*

```
rgx:replace-by-char-name($string-to-replace as xs:string?, $words-  
in-name-to-drop as xs:string*, $words-in-replacement-char-name as  
xs:string*, $words-not-in-replacement-char-name as xs:string*, $search-  
is-strict as xs:boolean?) as xs:string?
```

five-parameter version of the full function, below

Used by function `rgx:replace-by-char-name()`.

Relies upon `rgx:replace-by-char-name`.

*Option 2 (TAN-fn-regex-standard)*

```
rgx:replace-by-char-name($string-to-replace as xs:string?, $words-  
in-name-to-drop as xs:string*, $words-in-replacement-char-name as  
xs:string*, $words-not-in-replacement-char-name as xs:string*, $search-  
is-strict as xs:boolean?, $version as xs:double) as xs:string?
```

six-parameter version of the full function, below

Used by function `rgx:replace-by-char-name()`.

Relies upon `rgx:replace-by-char-name`.

### **rgx:string-base()**

*Option 1 (TAN-fn-regex-standard)*

```
rgx:string-base($arg as xs:string?) as xs:string?
```

one-param version of the fuller one, below

Used by function `rgx:string-base()`, `rgx:process-regex-escape-u()`.

Relies upon `rgx:string-base`.

*Option 2 (TAN-fn-regex-standard)*

```
rgx:string-base($arg as xs:string?, $version as xs:double) as xs:string?
```

Input: a string and a double

Output: the string, with each character reduced to its base character

This function takes any string and replaces every character with its base Unicode character. This function is useful to prepare a text to be searched without respect. E.g., ##### -> ##### Note, the # is retained because it doesn't decompose. on # one needs to use the flag 'i' (case insensitive) because # case-folds to #. This function is similar to `rgx:string-to-components()`, but strictly enforces a one-for-one replacement, so that it behaves much like `fn:lower-case()` and `fn:upper-case()`, where length is always preserved. To this end, this function is based on `fn:translate()`, simple decomposition databases, which are much smaller and quicker to use than are decomposition databases. The strict one-for-one replacement observes the following character decomposes to a single character, that single character is returned. If decomposes to multiple characters that are identical, that single character is returned. e.g., # to # If a character decomposes to multiple characters, a distinction is made between base and non-base characters:

- Base characters:

```
\p{Lu}\p{Ll}\p{Lt}\p{Lo}\p{N}\p{S}
```

- Non-base characters: \p{Lm}\p{M}\p{P}\p{Z}\p{C} If after non-base

characters are removed there is not exactly one unique decomposed character left, input is retained. The above rules are already reflected in the contents of the simple decomposition database, so do not need to be expressed in this function. For more, see `ucd/ucd-decomp.xsl`.

Related: regular expressions, strings

Used by function `rgx:string-base()`, `rgx:process-regex-escape-u()`.

Does not rely upon global variables, keys, functions, or templates.

### **rgx:string-to-components()**

*Option 1 (TAN-fn-regex-standard)*

```
rgx:string-to-components($arg as xs:string?) as xs:string*
```

one-param version of the fuller one, below

Used by function `rgx:string-to-components()`.

Relies upon `rgx:string-to-components`.

*Option 2 (TAN-fn-regex-standard)*

`rgx:string-to-components($arg as xs:string?, $version as xs:double) as  
xs:string*`

Input: any string; a Unicode version number.

Output: one string per character in the input; if a character lends itself to  
decomposition, its component parts are returned, otherwise the character itself is

This function is the inverse of `rgx:string-to-composites()`.

If you wish to have more control over which components are returned (e.g., exclusi  
of combining marks), consider using either `rgx:string-base()` or the database  
directly: `rgx:get-ucd-decomp-db()`. The each `rgx:char/rgx:b` has `@gc` with the code f  
component's general category

Related: regular expressions, strings

Used by function `rgx:string-to-components()`.

Relies upon `$default-ucd-decomp-db`.

## **rgx:string-to-composites()**

*Option 1 (TAN-fn-regex-standard)*

`rgx:string-to-composites($arg as xs:string?) as xs:string*`

one-parameter version of fuller one, below

Used by function `rgx:string-to-composites()`, `rgx:process-regex-escape-u()`.

Relies upon `rgx:string-to-composites`.

*Option 2 (TAN-fn-regex-standard)*

`rgx:string-to-composites($arg as xs:string?, $version as xs:double) as  
xs:string*`

Input: a string; a version of Unicode (double)

Output: one string per character in the input; that string consists of the charact  
itself followed by all characters that use it as a base

This function is the inverse of `rgx:string-to-components`. E.g., 'Max' - >  
'M#####a<sup>a</sup>àáâãäå#####  
This is useful for preparing regex character classes to broaden a search.

Related: regular expressions, strings

Used by function `rgx:string-to-composites()`, `rgx:process-regex-escape-u()`.

Relies upon `$default-ucd-decomp-db`.

### **rgx:tokenize()**

*Option 1 (TAN-fn-regex-standard)*

```
rgx:tokenize($input as xs:string?, $pattern as xs:string) as xs:string*
```

two-param function of the three-param version below

Used by function `rgx:tokenize()`.

Relies upon `rgx:tokenize`.

*Option 2 (TAN-fn-regex-standard)*

```
rgx:tokenize($input as xs:string?, $pattern as xs:string, $flags as  
xs:string) as xs:string*
```

Parallel to `fn:tokenize()`, but converts `\u{}` into classes. See `rgx:regex()` for details.

Input: three strings

Output: the first string cut into a sequence of strings, with any substring that matches the second parameter treated as a separator, not returned, taking account flags supplied by the third.

Related: regular expressions, strings

Used by function `rgx:tokenize()`.

Does not rely upon global variables, keys, functions, or templates.

## Setup

### Variables

#### **`$tan:all-head-iris`**

*TAN-variables-standard*

Definition: `$tan:head/( * except (tan:inclusion | tan:vocabulary | tan:tan-vocabulary) ) //tan:IRI[not(ancestor::tan:error)]`

Used by variable `$tan:duplicate-head-iris`.

Relies upon `$tan:head`.

#### **`$tan:all-selector`**

*TAN-variables-standard*

Definition: `' * '`

Used by template `# tan:dependency-adjustments-pass-2`, `# tan:core-expansion-terse` `tan:dependency-adjustments-pass-1`.



Does not rely upon global variables, keys, functions, or templates.

### **\$tan:all-vocabularies**

*TAN-variables-standard*

Definition: (`$tan:vocabularies-resolved`, `$tan:TAN-vocabularies`)

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `$tan:TAN-vocabularies`, `$tan:vocabularies-resolved`.

### **\$tan:annotations-1st-da**

*TAN-variables-extended*

Definition: `tan:get-1st-doc($tan:head/tan:annotation)`

Used by variable `$tan:annotations-resolved`.

Relies upon `$tan:head`, `tan:get-1st-doc`.

### **\$tan:annotations-resolved**

*TAN-variables-extended*

Definition: `tan:resolve-doc($tan:annotations-1st-da, false(), tan:attr('relationship', 'annotation'))`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `$tan:annotations-1st-da`, `tan:attr`, `tan:resolve-doc`.

### **\$tan:apos**

*TAN-variables-standard*

Definition: `'`

Used by function `tan:errors-checked-where()`, `tan:variables-checked-where()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:applications-collection**

*TAN-variables-extended*

This variable has a complex definition. See stylesheet for definition.

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `$tan:applications-uri-collection`.

### **\$tan:applications-uri-collection**

*TAN-variables-extended*

Definition: `uri-collection(' ../applications/catalog.xml?on-error=ignore')`

Used by variable `$tan:applications-collection`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:attr-n-regex**

*TAN-variables-standard*

Definition: `'^[\w/_]+([\ - ;]+[\w/_]+)*$'`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:base26-key**

*TAN-variables-standard*

Definition: `('A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J', 'K', 'L', 'M', 'N', 'O', 'P', 'Q', 'R', 'S', 'T', 'U', 'V', 'W', 'X', 'Y', 'Z')`

Used by variable `$tan:base64-key`.

Used by function `tan:dec-to-n()`, `tan:n-to-dec()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:base64-key**

*TAN-variables-standard*

Definition: `($tan:base26-key, 'a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j', 'k', 'l', 'm', 'n', 'o', 'p', 'q', 'r', 's', 't', 'u', 'v', 'w', 'x', 'y', 'z', '0', '1', '2', '3', '4', '5', '6', '7', '8', '9', '+', '/')`

Used by function `tan:dec-to-n()`, `tan:n-to-dec()`.

Relies upon `$tan:base26-key`.

### **\$tan:body**

*TAN-variables-standard*

Definition: `if ($tan:doc-namespace = $tan:TAN-namespace) then $tan:self-resolved/*/(tan:body, tei:text/tei:body) else /*:body`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `$tan:TAN-namespace`, `$tan:doc-namespace`, `$tan:self-resolved`.

### **\$tan:break-marker-regex**

*TAN-variables-standard*

Definition: `[\ |#`

##]

Used by template # `tan:core-expansion-terse` `tan:dependency-adjustments-pass-1`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:char-regex**

*TAN-variables-standard*

Definition: `\P{M}\P{M}*`

Used by template # `tan:class-1-expansion-verbose-pass-3`.

Used by function `tan:chop-diff-output()`, `tan:chop-string()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:datatypes-that-require-unit-specification**

*TAN-variables-standard*

Definition: ('decimal', 'float', 'double', 'integer', 'nonPositiveInteger', 'negativeInteger', 'long', 'nonNegativeInteger', 'positiveInteger')

Used by template # `tan:core-expansion-terse`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:dhy**

*TAN-variables-standard*

Definition:

Used by variable `$tan:shy`, `$tan:special-end-div-chars`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:doc-catalog-uris**

*TAN-variables-standard*

Definition: `tan:catalog-uris/`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `tan:catalog-uris`.

### **\$tan:doc-catalogs**

*TAN-variables-standard*

Definition: `tan:catalogs/`, `$tan:default-validation-phase eq 'verbose'`)

Used by variable `$tan:local-catalog`.

Relies upon `tan:catalogs`.

### **`$tan:doc-class`**

*TAN-variables-standard*

Definition: `tan:class-number($tan:self-resolved)`

No variables, keys, functions, or named templates depend upon this `xsl:variable`.

Relies upon `$tan:self-resolved`.

### **`$tan:doc-filename`**

*TAN-variables-extended*

Definition: `tan:cfne/()`

No variables, keys, functions, or named templates depend upon this `xsl:variable`.

Relies upon `tan:cfne`.

### **`$tan:doc-history`**

*TAN-variables-extended*

Definition: `tan:get-doc-history/()`

No variables, keys, functions, or named templates depend upon this `xsl:variable`.

Relies upon `tan:get-doc-history`.

### **`$tan:doc-id`**

*TAN-variables-standard*

Definition: `/*/@id`

Used by variable `$tan:doc-is-error-test`.

Used by template `# tan:core-expansion-terse tan:dependency-adjustments-pass-1, # tan:check-referred-doc, # tan:core-expansion-terse, # tan:class-1-expansion-verbose-pass-1`.

Used by function `tan:expand-doc()`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:doc-id-namespace`**

*TAN-variables-standard*

Definition: `tan:doc-id-namespace($tan:self-resolved)`

Used by template `# tan:core-expansion-terse`.

Relies upon `$tan:self-resolved`.

### **\$tan:doc-is-error-test**

*TAN-variables-standard*

Definition: `matches($tan:doc-id, '^tag:textalign.net,\d+:error-test')`

Used by template # `tan:core-expansion-terse`.

Relies upon `$tan:doc-id`.

### **\$tan:doc-namespace**

*TAN-variables-standard*

Definition: `namespace-uri(/*)`

Used by variable `$tan:body`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:doc-parent-directory**

*TAN-variables-standard*

Definition: `tan:uri-directorystring($tan:doc-uri)`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `$tan:doc-uri`, `tan:uri-directory`.

### **\$tan:doc-type**

*TAN-variables-standard*

Definition: `local-name(/*)`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:doc-uri**

*TAN-variables-standard*

Definition: `base-uri(/*)`

Used by variable `$tan:local-TAN-collection`, `$tan:doc-parent-directory`.

Used by template # `tan:core-expansion-terse-attributes-to-elements`, # `tan:core-expansion-normal`, # `tan:core-expansion-terse`.

Used by function `tan:update-TAN-change-log()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:doc-vocabulary**

*TAN-variables-standard*

Definition: `tan:vocabulary(), (), ($stan:head, $stan:self-resolved/(tan:TAN-A, tan:TAN-voc)/tan:body))`

Used by function `tan:vocabulary()`.

Relies upon `$stan:head`, `$stan:self-resolved`, `tan:vocabulary`.

### **`$stan:duplicate-head-iris`**

*TAN-variables-standard*

Definition: `tan:duplicate-items$stan:all-head-iris)`

Used by template # `tan:core-expansion-terse`, # `tan:check-referred-doc`.

Relies upon `$stan:all-head-iris`, `tan:duplicate-items`.

### **`$stan:elements-supported-by-TAN-vocabulary-files`**

*TAN-variables-standard*

Definition: `('bitext-relation', 'div-type', 'feature', 'group-type', 'license', 'modal', 'normalization', 'reuse-type', 'role', 'token-definition', 'verb', 'vocabulary')`

No variables, keys, functions, or named templates depend upon this `xsl:variable`.

Does not rely upon global variables, keys, functions, or templates.

### **`$stan:empty-doc`**

*TAN-variables-standard*

This variable has a complex definition. See stylesheet for definition.

Used by template # `tan:get-and-resolve-dependency`, # `tan:check-referred-doc`.

Does not rely upon global variables, keys, functions, or templates.

### **`$stan:empty-element`**

*TAN-variables-standard*

This variable has a complex definition. See stylesheet for definition.

Used by template # `tan:dependency-adjustments-pass-1`, # `tan:core-expansion-terse`, # `tan:check-referred-doc`.

Does not rely upon global variables, keys, functions, or templates.

### **`$stan:erroneously-looped-doc`**

*TAN-variables-standard*

This variable has a complex definition. See stylesheet for definition.

No variables, keys, functions, or named templates depend upon this `xsl:variable`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:error-key**

*TAN-variables-extended*

This variable has a complex definition. See stylesheet for definition.

This error key pertains NOT to validation errors when evaluating TAN files' structures, but to the behavior of TAN functions, mainly when input is not what is

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon \$tan:binary-error-key, \$tan:hash-error-key, \$tan:numeric-conversion-error-key, \$tan:octet-error-key.

### **\$tan:extra-vocabulary-files**

*TAN-variables-standard*

Definition: for \$i in \$tan:TAN-vocabularies-vocabulary/tan:TAN-voc/tan:body/tan:item[tan:location] return tan:get-1st-doc(\$i)

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon \$tan:TAN-vocabularies-vocabulary, tan:get-1st-doc.

### **\$tan:head**

*TAN-variables-standard*

Definition: if (exists(\*/tan:head)) then \$tan:self-resolved/\*/tan:head else /\*/\*:head

Used by variable \$tan:annotations-1st-da, \$tan:see-alsos-1st-da, \$tan:predecessors-1st-da, \$tan:successors-1st-da, \$tan:source-ids, \$tan:all-head-iris, \$tan:primary-agents, \$tan:vocabularies-resolved, \$tan:doc-vocabulary, \$tan:redivisions-1st-da, \$tan:model-1st-da, \$tan:sources-resolved, \$tan:morphologies-resolved, \$tan:src-ids.

Relies upon \$tan:self-resolved.

### **\$tan:hex-key**

*TAN-variables-standard*

Definition: ('0', '1', '2', '3', '4', '5', '6', '7', '8', '9', 'A', 'B', 'C', 'D', 'E', 'F')

Used by function tan:dec-to-n(), tan:n-to-dec().

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:id-ids**

*TAN-variables-standard*

Definition: doc('TAN-ids.xml')

Used by variable `$tan:names-of-attributes-that-take-idrefs`, `$tan:names-of-elements-that-take-idrefs`, `$tan:names-of-elements-targeted-by-subjects`, `$tan:names-of-elements-targeted-by-objects`.

Used by function `tan:target-element-names()`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:inclusions-resolved`**

*TAN-variables-standard*

Definition: `tan:get-and-resolve-dependency(/*/tan:head/tan:inclusion)`

Used by template # `tan:check-referred-doc`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:internet-available`**

*TAN-variables-standard*

This variable has a complex definition. See stylesheet for definition.

Used by template # `tan:cut-faulty-hrefs`, # `tan:core-expansion-terse-attributes-to-elements`, # `tan:check-referred-doc`.

Used by function `tan:search-for-entities()`, `tan:first-loc-available()`, `tan:get-1st-doc()`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:iso-639-3`**

*TAN-variables-extended*

Definition: `doc('../language/iso-639-3.xml')`

Used by function `tan:lang-code()`, `tan:lang-name()`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:local-catalog`**

*TAN-variables-standard*

Definition: `$tan:doc-catalogs[1]`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `$tan:doc-catalogs`.

### **`$tan:local-TAN-collection`**

*TAN-variables-extended*

Definition: `collection(resolve-uri('catalog.tan.xml' || $tan:doc-uri) || '?on-error=warning')`



Used by variable `$tan:local-TAN-voc-collection`.

Relies upon `$tan:doc-uri`.

### **`$tan:local-TAN-voc-collection`**

*TAN-variables-extended*

Definition: `$tan:local-TAN-collection[name(*) = 'TAN-voc']`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `$tan:local-TAN-collection`.

### **`$tan:model-1st-da`**

*TAN-variables-standard*

Definition: `tan:get-1st-doc$tan:head/tan:model[1]`

Used by variable `$tan:model-resolved`.

Relies upon `$tan:head`, `tan:get-1st-doc`.

### **`$tan:model-resolved`**

*TAN-variables-standard*

Definition: `tan:resolve-doc$tan:model-1st-da, false(), tan:attr'relationship', 'model')`

Used by template # `tan:core-expansion-terse`, # `tan:class-1-expansion-verbose-pass-1`.

Relies upon `$tan:model-1st-da`, `tan:attr`, `tan:resolve-doc`.

### **`$tan:morphologies-expanded`**

*TAN-variables-extended*

Definition: `tan:expand-doc$tan:morphologies-resolved, 'terse', false()`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `$tan:morphologies-resolved`, `tan:expand-doc`.

### **`$tan:morphologies-resolved`**

*TAN-variables-standard*

Definition: `for $i in $tan:head/tan:vocabulary-key/tan:morphology return tan:resolve-doctan:get-1st-doc$i), true(), tan:attr'morphology', ($i/@xml:id, '1')[1])`

Used by variable `$tan:morphologies-expanded`.

Used by function `tan:expand-doc()`.

Relies upon `$tan:head`, `tan:attr`, `tan:get-1st-doc`, `tan:resolve-doc`.

### **`$tan:most-common-indentations`**

*TAN-variables-extended*

This variable has a complex definition. See stylesheet for definition.

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `tan:most-common-item`.

### **`$tan:names-of-attributes-that-are-case-indifferent`**

*TAN-variables-standard*

Definition: ('n', 'ref', 'affects-element', 'affects-attribute', 'item-type', 'in-lang')

Used by template # `tan:core-expansion-terse-attributes-to-elements`.

Used by function `tan:normalize-sequence()`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:names-of-attributes-that-may-take-multiple-space-delimited-values`**

*TAN-variables-standard*

Definition: `$tan:names-of-attributes-that-take-idrefs`, ('affects-element', 'affects-attribute', 'item-type')

Used by template # `tan:core-expansion-terse-attributes-to-elements`.

Used by function `tan:normalize-sequence()`.

Relies upon `$tan:names-of-attributes-that-take-idrefs`.

### **`$tan:names-of-attributes-that-permit-keyword-last`**

*TAN-variables-standard*

Definition: ('pos', 'chars', 'm-has-how-many-features')

Used by function `tan:normalize-sequence()`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:names-of-attributes-that-take-idrefs`**

*TAN-variables-standard*

Definition: `$tan:id-idrefs/tan:id-idrefs/tan:id/tan:idrefs/@attribute`

Used by variable `$tan:names-of-attributes-that-may-take-multiple-space-delimited-values`.

Used by template # `tan:core-expansion-terse-attributes`.

Used by function `tan:resolve-doc-loop()`.

Relies upon `$tan:id-idrefs`.

### **`$tan:names-of-elements-targeted-by-objects`**

*TAN-variables-standard*

Definition: `$tan:id-idrefs/tan:id-idrefs/tan:id[tan:idrefs[@attribute = 'object']] / tan:element`

Used by template # `tan:core-expansion-terse`.

Relies upon `$tan:id-idrefs`.

### **`$tan:names-of-elements-targeted-by-subjects`**

*TAN-variables-standard*

Definition: `$tan:id-idrefs/tan:id-idrefs/tan:id[tan:idrefs[@attribute = 'subject']] / tan:element`

Used by template # `tan:core-expansion-terse`.

Relies upon `$tan:id-idrefs`.

### **`$tan:names-of-elements-that-describe-text-bearers`**

*TAN-variables-standard*

Definition: `('scriptum', 'work', 'version', 'source')`

Used by variable `$tan:names-of-elements-that-describe-textual-entities`.

Used by template # `tan:core-expansion-terse`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:names-of-elements-that-describe-text-creators`**

*TAN-variables-standard*

Definition: `('person', 'organization')`

Used by variable `$tan:names-of-elements-that-describe-textual-entities`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:names-of-elements-that-describe-textual-entities`**

*TAN-variables-standard*

Definition: `$tan:names-of-elements-that-describe-text-creators, $tan:names-of-elements-that-describe-text-bearers`

Used by template # `tan:core-expansion-terse`.

Relies upon `$tan:names-of-elements-that-describe-text-bearers`, `$tan:names-of-elements-that-describe-text-creators`.

### **`$tan:names-of-elements-that-make-adjustments`**

*TAN-variables-standard*

Definition: ('skip', 'rename', 'equate', 'reassign')

No variables, keys, functions, or named templates depend upon this `xsl:variable`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:names-of-elements-that-must-always-refer-to-tan-files`**

*TAN-variables-standard*

Definition: ('morphology', 'inclusion', 'vocabulary', 'redivision', 'model', 'successor', 'annotation')

Used by function `tan:must-refer-to-external-tan-file()`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:names-of-elements-that-take-idrefs`**

*TAN-variables-standard*

Definition: `$tan:id-idrefs/tan:id-idrefs/tan:id/tan:idrefs/@element`

No variables, keys, functions, or named templates depend upon this `xsl:variable`.

Relies upon `$tan:id-idrefs`.

### **`$tan:names-of-elements-that-take-which`**

*TAN-variables-standard*

Definition: ('object', 'unit', 'lexicon', 'license', 'see-also', 'work', 'role', 'source', 'group-type', 'morphology', 'source', 'work', 'verb', 'scriptum', 'relationship', 'person', 'period', 'organization', 'div-type', 'algorithm', 'vocabulary', 'successor', 'source', 'predecessor', 'inclusion', 'companion-version', 'token-definition', 'bitext-relation', 'checksum', 'redivision', 'model', 'annotation', 'version', 'normalization', 'item', 'feature', 'version', 'reuse-type', 'topic', 'place', 'modal', 'subject', 'at-ref')

Used by template # `tan:core-expansion-terse`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:namespaces-and-prefixes`**

*TAN-variables-extended*

This variable has a complex definition. See stylesheet for definiton.

Used by template # `tan:tree-to-html`.

Used by function `tan:namespace()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:now**

*TAN-variables-standard*

Definition: `tan:dateTime-to-decimal(current-dateTime())`

Used by template # `tan:core-expansion-terse-attributes-to-elements`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:official-urn-namespaces**

*TAN-variables-standard*

Definition: ('3gpp', '3gpp2', 'adid', 'alert', 'bbf', 'broadband-forum-org', 'cablelabs', 'ccsds', 'cgi', 'clei', 'ddi', 'dev', 'dgiwg', 'dslforum-org', 'dvb', 'ebu', 'eidr', 'epc', 'epcglobal', 'etsi', 'eurosystem', 'example', 'fdc', 'fipa', 'geant', 'globus', 'gsma', 'hbbtnv', 'ieee', 'ietf', 'iptc', 'isan', 'isbn', 'iso', 'issn', 'itu', 'ivis', 'liberty', 'mace', 'mef', 'mpeg', 'mrn', 'nato', 'nbn', 'nena', 'newsml', 'nfc', 'nzl', 'oasis', 'ogc', 'ogf', 'oid', 'oipf', 'oma', 'onf', 'pin', 'publicid', 'reso', 's1000d', 'schac', 'service', 'smpte', 'swift', 'tva', 'uci', 'ucode', 'uuid', 'web3d', 'xmlorg', 'xmpp', 'urn-1', 'urn-2', 'urn-3', 'urn-4', 'urn-5', 'urn-6', 'urn-7')

Used by template # `tan:core-expansion-terse`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:orig-self**

*TAN-variables-standard*

Definition: /

Used by template # `tan:core-expansion-normal`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:predecessors-1st-da**

*TAN-variables-extended*

Definition: `tan:get-1st-doc$tan:head/tan:predecessor)`

Used by variable `$tan:predecessors-resolved`.

Relies upon `$tan:head`, `tan:get-1st-doc`.

### **\$tan:predecessors-resolved**

*TAN-variables-extended*

Definition: `tan:resolve-doc$tan:predecessors-1st-da, false(), tan:attr'relationship', 'predecessor')`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `$tan:predecessors-1st-da, tan:attr, tan:resolve-doc`.

### **\$tan:previous-TAN-versions**

*TAN-variables-standard*

Definition: `('1 dev', '2018', '2020')`

Used by template # `tan:core-expansion-terse tan:dependency-adjustments-pass-1`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:primary-agents**

*TAN-variables-standard*

Definition: `$tan:head/tan:file-resp`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `$tan:head`.

### **\$tan:quot**

*TAN-variables-standard*

Definition: `"`

Used by function `tan:errors-checked-where(), tan:variables-checked-where()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:redivisions-1st-da**

*TAN-variables-standard*

Definition: `tan:get-1st-doc$tan:head/tan:redivision)`

Used by variable `$tan:redivisions-resolved`.

Relies upon `$tan:head, tan:get-1st-doc`.

### **\$tan:redivisions-resolved**

*TAN-variables-standard*

Definition: `for $i in $tan:redivisions-1st-da return tan:resolve-doc$i, false(), tan:attr'relationship', 'redivision')`

Used by template # `tan:core-expansion-terse`, # `tan:class-1-expansion-verbose-pass-1`.

Relies upon `$tan:redivisions-1st-da`, `tan:attr`, `tan:resolve-doc`.

### **`$tan:regex-characters-not-permitted`**

*TAN-variables-standard*

Definition: [ - ]

Used by template # `tan:core-expansion-normal`.

Used by function `tan:normalize-text()`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:regex-name-space-characters`**

*TAN-variables-standard*

Definition: [ \_- ]

Used by function `tan:normalize-text()`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:see-alsos-1st-da`**

*TAN-variables-extended*

Definition: `tan:get-1st-doc$tan:head/tan:see-also)`

Used by variable `$tan:see-alsos-resolved`.

Relies upon `$tan:head`, `tan:get-1st-doc`.

### **`$tan:see-alsos-resolved`**

*TAN-variables-extended*

Definition: `tan:resolve-doc$tan:see-alsos-1st-da, false(), tan:attr'relationship', 'see-also'))`

No variables, keys, functions, or named templates depend upon this `xsl:variable`.

Relies upon `$tan:see-alsos-1st-da`, `tan:attr`, `tan:resolve-doc`.

### **`$tan:self-expanded`**

*TAN-variables-standard*

Definition: `tan:expand-doc$tan:self-resolved)`

Used by variable `$tan:self-expanded-vocabulary`.

Used by template # `tan:imitate-validation`.

Relies upon `$tan:self-resolved`, `tan:expand-doc`.

### **`$tan:self-expanded-vocabulary`**

*TAN-variables-extended*

Definition: `tan:vocabulary(), (), ($tan:self-expanded/(*/tan:head | tan:TAN-A | tan:TAN-voc)/tan:body))`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `$tan:self-expanded`, `tan:vocabulary`.

### **`$tan:self-resolved`**

*TAN-variables-standard*

Definition: `tan:resolve-doc()`

Used by variable `$tan:self-resolved-plus`, `$tan:self-expanded`, `$tan:head`, `$tan:body`, `$tan:doc-class`, `$tan:doc-id-namespace`, `$tan:doc-vocabulary`.

Relies upon `tan:resolve-doc`.

### **`$tan:self-resolved-plus`**

*TAN-variables-extended*

Definition: `tan:normalize-tree-space$tan:self-resolved, true()`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `$tan:self-resolved`, `tan:normalize-tree-space`.

### **`$tan:separator-hierarchy`**

*TAN-variables-standard*

Definition: `' '`

Used by template `# tan:merge-tan-docs`, `# tan:dependency-adjustments-pass-1`, `# tan:check-and-expand-ranges`, `# tan:core-expansion-terse`, `# tan:string-to-numerals`, `# tan:merge-tan-docs tan:merge-tan-doc-leaf-divs`, `# tan:process-appended-div`, `# tan:merge-divs`, `# tan:resolve-reference-tree-numerals`.

Used by function `tan:build-parent-ref-tree()`, `tan:analyze-ref-loop()`, `tan:get-ref()`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:separator-hierarchy-minor`**

*TAN-variables-standard*

Definition: `'#'`

Used by template `# tan:string-to-numerals`.



Does not rely upon global variables, keys, functions, or templates.

### **\$tan:separator-major**

*TAN-variables-standard*

Definition: '##'

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:shy**

*TAN-variables-standard*

Definition: \$tan:dhy

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon \$tan:dhy.

### **\$tan:source-ids**

*TAN-variables-standard*

```
Definition:  if (exists($tan:head/tan:source/@xml:id)) then $tan:head/
tan:source/@xml:id else for $i in (1 to count($tan:head/tan:source))
return string($i)
```

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon \$tan:head.

### **\$tan:sources-resolved**

*TAN-variables-standard*

```
Definition:  for $i in $tan:head/tan:source return tan:resolve-doc-
tan:get-1st-doc($i), true(), tan:attr'src', ($i/@xml:id, '1')[1])
```

Used by template # tan:check-referred-doc.

Used by function tan:expand-doc().

Relies upon \$tan:head, tan:attr, tan:get-1st-doc, tan:resolve-doc.

### **\$tan:special-end-div-chars**

*TAN-variables-standard*

Definition: (\$tan:zwj, \$tan:dhy, \$tan:zwsp)

Used by variable \$tan:special-end-div-chars-regex.

Used by template # tan:tokenize-div, # tan:normalize-tree-space.

Used by function tan:normalize-div-text().

Relies upon `$tan:dhy`, `$tan:zwj`, `$tan:zwspace`.

### **`$tan:special-end-div-chars-regex`**

*TAN-variables-standard*

Definition: `'([\s|| string-join($tan:special-end-div-chars) || '])\s*$'`

Used by template `# tan:tokenize-div`, `# tan:normalize-tree-space`.

Used by function `tan:normalize-div-text()`.

Relies upon `$tan:special-end-div-chars`.

### **`$tan:src-ids`**

*TAN-variables-standard*

This variable has a complex definition. See stylesheet for definition.

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `$tan:head`.

### **`$tan:stated-validation-phase`**

*TAN-variables-standard*

This variable has a complex definition. See stylesheet for definition.

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:successors-1st-da`**

*TAN-variables-extended*

Definition: `tan:get-1st-doc($tan:head/tan:successor)`

Used by variable `$tan:successors-resolved`.

Relies upon `$tan:head`, `tan:get-1st-doc`.

### **`$tan:successors-resolved`**

*TAN-variables-extended*

Definition: `tan:resolve-doc($tan:successors-1st-da, false(), tan:attr('relationship', 'successor'))`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `$tan:successors-1st-da`, `tan:attr`, `tan:resolve-doc`.

### **`$tan:tag-urn-regex-pattern`**

*TAN-variables-standard*

Definition: `'tag:([\-a-zA-Z0-9.\_%+]+@)?[\-a-zA-Z0-9.]+\.[A-Za-z]{2,4},\d{4}(-(0\d|1[0-2]))?(-([0-2]\d|3[01]))?:\S+'`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:tan-classes**

*TAN-variables-standard*

This variable has a complex definition. See stylesheet for definition.

Used by function `tan:class-number()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:TAN-feature-vocabulary**

*TAN-variables-extended*

Definition: `$tan:TAN-vocabularies[tan:TAN-voc/@id = 'tag:textalign.net,2015:tan-voc:features']`

Used by template # `tan:build-morpheus-ana` `tan:build-morpheus-lex`.

Relies upon `$tan:TAN-vocabularies`.

### **\$tan:TAN-id-namespace**

*TAN-variables-standard*

Definition: `'tag:textalign.net,2015'`

Used by template # `tan:core-expansion-terse`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:TAN-namespace**

*TAN-variables-standard*

Definition: `'tag:textalign.net,2015:ns'`

Used by variable `$tan:body`.

Used by template # `tan:core-expansion-terse`, # `tan:check-referred-doc`.

Used by function `tan:resolve-doc-loop()`, `tan:pad-bits()`, `tan:bitwise-xor()`, `tan:bits-to-eight-bit-chars()`, `tan:base64-to-base64Binary()`, `tan:bitwise-or()`, `tan:dec-to-n()`, `tan:bitwise-and()`, `tan:bits-to-octets()`, `tan:hex-to-base64Binary()`, `tan:hex-to-hexBinary()`, `tan:eight-bit-chars-to-hexBinary()`, `tan:octets-to-hexBinary()`, `tan:n-to-dec()`, `tan:bin-to-bits()`, `tan:utf-8-octets-to-string()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:TAN-version**

*TAN-variables-standard*

Definition: 2021

Used by template # `tan:core-expansion-terse` `tan:dependency-adjustments-pass-1`, # `tan:resolve-critical-dependencies-loop`, # `tan:core-expansion-terse`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:TAN-version-is-under-development**

*TAN-variables-standard*

Definition: `false()`

Used by template # `tan:core-expansion-terse` `tan:dependency-adjustments-pass-1`, # `tan:core-expansion-terse`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:TAN-vocabularies**

*TAN-variables-standard*

This variable has a complex definition. See stylesheet for definition.

Used by variable `$tan:TAN-feature-vocabulary`, `$tan:all-vocabularies`, `$tan:TAN-vocabularies-vocabulary`, `$tan:extra-vocabulary-files`, `$tan:token-definitions-reserved`.

Used by template # `tan:check-referred-doc`, # `tan:core-expansion-terse-attributes`, # `tan:resolve-critical-dependencies-loop`, # `tan:core-expansion-terse`, # `tan:first-stamp-shallow-copy`.

Used by function `tan:update-TAN-change-log()`, `tan:has-vocab()`.

Relies upon `$tan:TAN-vocabulary-files`, # `tan:expand-standard-tan-voc`.

### **\$tan:TAN-vocabularies-vocabulary**

*TAN-variables-standard*

Definition: `$tan:TAN-vocabularies[tan:TAN-voc/tan:body[@affects-element = 'vocabulary']]`

Used by variable `$tan:extra-vocabulary-files`.

Relies upon `$tan:TAN-vocabularies`.

### **\$tan:TAN-vocabulary-files**

*TAN-variables-standard*

Definition: `collection('../..//vocabularies/collection.xml')`

Used by variable `$tan:TAN-vocabularies`.

Used by template # `tan:core-expansion-terse`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:TEI-namespace**

*TAN-variables-standard*

Definition: `'http://www.tei-c.org/ns/1.0'`

Used by template # `tan:check-referred-doc`.

Used by function `tan:resolve-doc-loop()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:today-iso**

*TAN-variables-extended*

Definition: `format-date(current-date(), '[Y0001]-[M01]-[D01]')`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:today-MDY**

*TAN-variables-extended*

Definition: `format-date(current-date(), '[MNn] [D], [Y0001]')`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:token-definition-default**

*TAN-variables-standard*

Definition: `$tan:token-definitions-reserved[1]`

Used by template # `tan:dependency-adjustments-pass-2`, # `tan:mark-dependencies-pass-1`, # `tan:core-expansion-terse`.

Used by function `tan:tokenize-text()`.

Relies upon `$tan:token-definitions-reserved`.

### **\$tan:token-definition-letters-and-punctuation**

*TAN-variables-standard*

Definition: `$tan:token-definitions-reserved[../tan:name = 'letters and punctuation']`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `$tan:token-definitions-reserved`.

### **`$tan:token-definition-letters-only`**

*TAN-variables-standard*

Definition: `$tan:token-definitions-reserved[../tan:name = 'letters only']`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `$tan:token-definitions-reserved`.

### **`$tan:token-definition-nonspace`**

*TAN-variables-standard*

Definition: `$tan:token-definitions-reserved[../tan:name = 'nonspace']`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `$tan:token-definitions-reserved`.

### **`$tan:token-definitions-reserved`**

*TAN-variables-standard*

Definition: `$tan:TAN-vocabularies//tan:token-definition`

Used by variable `$tan:token-definition-letters-only`, `$tan:token-definition-letters-and-punctuation`, `$tan:token-definition-nonspace`, `$tan:token-definition-default`.

Relies upon `$tan:TAN-vocabularies`.

### **`$tan:url-regex`**

*TAN-variables-extended*

Definition: `\S+\.\w+`

Used by function `tan:parse-urls()`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:validation-phase-names`**

*TAN-variables-standard*

Definition: `('terse', 'normal', 'verbose')`

Used by function `tan:expand-doc()`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:vocabularies-resolved`**

*TAN-variables-standard*

Definition: `tan:get-and-resolve-dependency($tan:head/(tan:vocabulary,  
tan:key[tan:location]))`

Used by variable `$tan:all-vocabularies`.

Used by template `# tan:check-referred-doc`.

Relies upon `$tan:head`.

### **\$tan:xpath-regex**

*TAN-variables-extended*

Definition: `\{ [ ^ \ ] + ? \}`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:zwj**

*TAN-variables-standard*

Definition: `#`

Used by variable `$tan:special-end-div-chars`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:zwsp**

*TAN-variables-standard*

Definition:

Used by variable `$tan:special-end-div-chars`.

Does not rely upon global variables, keys, functions, or templates.

## **Keys**

### **# tan:attrs-by-name**

*TAN-keys-standard*

Looks for elements matching `@*`

Used by template `# tan:tan-a-lm-expansion-terse`, `# tan:core-expansion-terse-attributes`, `# tan:core-expansion-terse`.

Used by function `tan:expand-doc()`, `tan:resolve-doc-loop()`.

Does not rely upon global variables, keys, functions, or templates.

### **# tan:div-via-calculated-ref**

*TAN-keys-extended*

Looks for elements matching `*:div[@n]`

No variables, keys, functions, or named templates depend upon this xsl:key.

Relies upon `tan:get-ref`.

#### **# tan:div-via-ref**

*TAN-keys-standard*

Looks for elements matching `tan:div`

Used by template `# tan:class-1-expansion-verbose-pass-2`.

Does not rely upon global variables, keys, functions, or templates.

#### **# tan:elements-by-name**

*TAN-keys-standard*

Looks for elements matching `*`

Used by template `# tan:apply-inclusions-and-adjust-vocabulary`.

Does not rely upon global variables, keys, functions, or templates.

#### **# tan:elements-with-attrs-named**

*TAN-keys-standard*

Looks for elements matching `*`

Used by function `tan:resolve-doc-loop()`.

Does not rely upon global variables, keys, functions, or templates.

#### **# tan:get-ana**

*TAN-keys-extended*

Looks for elements matching `tan:ana`

Used by function `tan:lm-data()`.

Does not rely upon global variables, keys, functions, or templates.

#### **# tan:item-via-node-name**

*TAN-keys-standard*

Looks for elements matching `tan:item`

Used by template `# tan:core-expansion-terse`.

Does not rely upon global variables, keys, functions, or templates.

#### **# tan:q-ref**

*TAN-keys-standard*



Looks for elements matching \*

Used by template # `tan:mark-dependencies-pass-2`, # `tan:class-2-expansion-terse` `tan:class-2-expansion-terse-for-validation`.

Used by function `tan:get-via-q-ref()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:tok-via-val`

*TAN-keys-standard*

Looks for elements matching `tan:tok`

Used by template # `tan:mark-dependencies-pass-2-for-validation`.

Does not rely upon global variables, keys, functions, or templates.

## Arrays

### Functions

#### `tan:array-permutations()`

*TAN-fn-arrays-extended*

```
tan:array-permutations($input-array as array(*)) as array(*)
```

Input: any array

Output: an array whose members are sequences representing the permutations of each item in each member in the input array.

Example: `[(1, 2), 'dog']` becomes `[(1, 'dog'), (2, 'dog')]`

The output array will always have a size equal to the product of the item count in input array member, and the output array's members will share the exact same item

Related: `arrays`

Used by function `tan:morphological-code-conversion-maps()`.

Does not rely upon global variables, keys, functions, or templates.

#### `tan:array-to-map()`

*TAN-fn-arrays-extended*

```
tan:array-to-map($array-to-convert as array(*)?, $use-first-items-as-keys as xs:boolean) as map(*)?
```

Input: an array; a boolean

Output: a map; if the boolean is true and the first item in each member of the array is uniquely distinct from all other first items then those first items become the key

of each member becomes the value of the map entry. Otherwise, the constructed map integers from 1 onward as keys with each array member becoming the value of the ma

Related: arrays, maps

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon # `tan:array-to-map`.

### **tan:array-to-xml()**

*TAN-fn-arrays-extended*

```
tan:array-to-xml($arrays-to-convert as array(*)*) as element(*)*
```

Input: any items

Output: any arrays in each item serialized as XML elements; each member of the arr will be wrapped by an `<array:member>` with `@type` specifying the item type it enclos

Related: arrays, nodes

Used by function `tan:collate-pair-of-sequences()`.

Relies upon # `tan:map-and-array-to-xml`.

### **tan:xml-to-array()**

*TAN-fn-arrays-extended*

```
tan:xml-to-array($items-to-array as item(*)*) as array(*)*
```

Input: XML tree fragments

Output: those parts that conform to the output of `tan:array-to-xml()` converted to arrays. Anything in the input tree not matching `array:array` or `array:member` will b skipped, unless it is a member an `array:array` or `array:member`. Anything in the arr will be bound as the type assigned by the value of `@type`

Related: arrays, tree manipulation, nodes

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon # `tan:xml-to-map-and-array`.

## **Booleans**

### **Functions**

#### **tan:true()**

*TAN-fn-booleans*

```
tan:true($string as xs:string*) as xs:boolean*
```

Input: a sequence of strings representing truth values

Output: the same number of booleans; if the string is some approximation of y, yes or true, then it is true, and false otherwise

Related: binary, booleans

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

## Checksums

### Variables

#### **\$tan:hash-error-key**

*TAN-fn-hash-and-check*

This variable has a complex definition. See stylesheet for definition.

Used by variable \$tan:error-key.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:md5-a0**

*TAN-fn-hash-and-check*

Definition: true(), false(), false(), false(), false(), false(), false(), false(), true(), true(), false(), false(), false(), true(), false(), false(), true(), false(), true(), true(), true(), false(), false(), true(), true(), false()

Used by function tan:md5().

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:md5-b0**

*TAN-fn-hash-and-check*

Definition: true(), false(), false(), true(), false(), false(), false(), true(), true(), true(), false(), true(), false(), true(), false(), true(), true(), true(), false(), true(), true(), true(), true(), true(), false(), true(), true(), true()

Used by function tan:md5().

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:md5-c0**

*TAN-fn-hash-and-check*

Definition: false(), true(), true(), true(), true(), true(), true(), true(), false(), false(), true(), true(), true(), false(), true(), true(),

false(), true(), false(), true(), true(), true(), false(), true(),  
false(), false(), false(), true(), true(), false(), false(), true()

Used by function `tan:md5()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:md5-d0**

*TAN-fn-hash-and-check*

Definition: false(), true(), true(), false(), true(), true(), true(),  
false(), false(), false(), true(), false(), true(), false(), true(),  
false(), false(), true(), false(), false(), true(), true(), false(),  
false(), false(), false(), false(), false(), true(), false(), false(),  
false()

Used by function `tan:md5()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:md5-K**

*TAN-fn-hash-and-check*

Definition: 3614090360, 3905402710, 606105819, 3250441966, 4118548399,  
1200080426, 2821735955, 4249261313, 1770035416, 2336552879, 4294925233,  
2304563134, 1804603682, 4254626195, 2792965006, 1236535329, 4129170786,  
3225465664, 643717713, 3921069994, 3593408605, 38016083, 3634488961,  
3889429448, 568446438, 3275163606, 4107603335, 1163531501, 2850285829,  
4243563512, 1735328473, 2368359562, 4294588738, 2272392833, 1839030562,  
4259657740, 2763975236, 1272893353, 4139469664, 3200236656, 681279174,  
3936430074, 3572445317, 76029189, 3654602809, 3873151461, 530742520,  
3299628645, 4096336452, 1126891415, 2878612391, 4237533241, 1700485571,  
2399980690, 4293915773, 2240044497, 1873313359, 4264355552, 2734768916,  
1309151649, 4149444226, 3174756917, 718787259, 3951481745

Used by function `tan:md5()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:md5-shifts**

*TAN-fn-hash-and-check*

Definition: 7, 12, 17, 22, 7, 12, 17, 22, 7, 12, 17, 22, 7, 12, 17, 22,  
5, 9, 14, 20, 5, 9, 14, 20, 5, 9, 14, 20, 5, 9, 14, 20, 4, 11, 16,  
23, 4, 11, 16, 23, 4, 11, 16, 23, 4, 11, 16, 23, 6, 10, 15, 21, 6, 10,  
15, 21, 6, 10, 15, 21, 6, 10, 15, 21

Used by function `tan:md5()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:pow2-32**

*TAN-fn-hash-and-check*

Definition: `xs:double('4.294967296E9')`

Used by function `tan:int-with-mod-2-32-negation()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:pow2-64**

*TAN-fn-hash-and-check*

Definition: `xs:double('1.844674407370955E19')`

Used by function `tan:md5()`.

Does not rely upon global variables, keys, functions, or templates.

## **Functions**

### **tan:checksum-fletcher-16()**

*Option 1 (TAN-fn-hash-and-check)*

```
tan:checksum-fletcher-16($str as xs:string?) as xs:string?
```

one-parameter version of the fuller one, below

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

*Option 2 (TAN-fn-hash-and-check)*

```
tan:checksum-fletcher-16($str as xs:string?, $output-hex as xs:boolean)  
as item()?
```

Input: a string, a boolean

Output: if the second parameter is true, a hexadecimal representation of the Fletcher 16 checksum on the string, otherwise its integer representation

Related: checksums

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

### **tan:checksum-fletcher-32()**

*Option 1 (TAN-fn-hash-and-check)*

```
tan:checksum-fletcher-32($str as xs:string?) as xs:string?
```

one-parameter version of the fuller one, below

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

*Option 2 (TAN-fn-hash-and-check)*

```
tan:checksum-fletcher-32($str as xs:string?, $output-hex as xs:boolean)  
as item()?
```

Input: a string, a boolean

Output: if the second parameter is true, a hexadecimal representation of the Fletcher 32 checksum on the string, otherwise its integer representation

Related: checksums

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

### **tan:checksum-fletcher-64()**

*Option 1 (TAN-fn-hash-and-check)*

```
tan:checksum-fletcher-64($str as xs:string?) as xs:string?
```

one-parameter version of the fuller one, below

Used by template # `tan:diff-to-delta`.

Used by function `tan:get-diff-output-transpositions()`, `tan:apply-deltas()`.

Does not rely upon global variables, keys, functions, or templates.

*Option 2 (TAN-fn-hash-and-check)*

```
tan:checksum-fletcher-64($str as xs:string?, $output-hex as xs:boolean)  
as item()?
```

Input: a string, a boolean

Output: if the second parameter is true, a hexadecimal representation of the Fletcher 64 checksum on the string, otherwise its integer representation

Related: checksums

Used by template # `tan:diff-to-delta`.

Used by function `tan:get-diff-output-transpositions()`, `tan:apply-deltas()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:md5()**

*TAN-fn-hash-and-check*

```
tan:md5($input as xs:string?) as item()*
```

Input: a string

Output: an MD5 checksum for the string

Related: checksums

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `$tan:md5-K`, `$tan:md5-a0`, `$tan:md5-b0`, `$tan:md5-c0`, `$tan:md5-d0`, `$tan:md5-shifts`, `$tan:pow2-64`, `tan:bin-to-bits`, `tan:bin-to-dec`, `tan:bits-to-bin`, `tan:bits-to-byte`, `tan:bits-to-word`, `tan:bitwise-and`, `tan:bitwise-not`, `tan:bitwise-or`, `tan:bitwise-plus`, `tan:bitwise-rotate`, `tan:bitwise-xor`, `tan:dec-to-bin`, `tan:dec-to-hex`, `tan:ellipses`, `tan:reverse-string`, `tan:unicode-to-eight-bit-chars`.

## Cross-references

### Functions

#### **tan:get-via-q-ref()**

*TAN-fn-cross-references*

```
tan:get-via-q-ref($q-ref as xs:string*, $q-reffed-document as document-node(*) as node(*)
```

Input: any number of q-refs, any number of q-reffed documents

Output: the elements corresponding to the q-refs

This function is used by the core validation routine, mainly to find errors in expanded output

Related: identifiers

Used by template # `tan:imitate-validation`.

Does not rely upon global variables, keys, functions, or templates.

## Docx

### Functions

#### **tan:docx-to-text()**

*TAN-fn-docx*

```
tan:docx-to-text($docx-component as item(*) as xs:string?
```

Input: docx component as document nodes

Output: the string value of the component

Related: docx, files, strings, tree manipulation

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon # `tan:archive-to-plain-text`.

## Files

### Variables

#### **\$advanced-functions-available**

*TAN-fn-file-archive-extended*

Definition: `function-available('file:read-binary')` and `function-available('arch:extract-map')` and `function-available('bin:encode-string')`

Used by template # `tan:save-archive`.

Used by function `tan:extract-map()`, `tan:save-docx()`, `tan:save-xlsx()`, `tan:open-archive()`, `tan:archive-available()`, `tan:archive-map-to-xml()`, `tan:open-raw-archive()`, `tan:entries-map()`, `tan:extract-archive-component()`, `tan:save-archive()`, `tan:open-archive-loop()`.

Does not rely upon global variables, keys, functions, or templates.

### Functions

#### **tan:archive-available()**

*Option 1 (TAN-fn-file-archive-extended)*

`tan:archive-available($element-with-attr-href-or-string-with-resolved-uri as item())? as xs:boolean`

Input: any element with an `@href`, or a string value (or something castable to a string)

Output: a boolean indicating whether the document is available

The input url must be resolved.

Related: files, archives

Used by function `tan:xlsx-file-available()`, `tan:docx-file-available()`.

Relies upon `$advanced-functions-available`.

*Option 2 (TAN-fn-file-archive-extended)*

`tan:archive-available($element-with-attr-href-or-string-with-resolved-uri as item())? as xs:boolean`

Input: any element with an `@href`, or a string value (or something castable to a string)

Output: a boolean indicating whether the document is available

Note, this version of the function, i.e., the one without advanced functions, cannot fetch a uri collection from an archive, so the algorithm has to be told what particular component to find. Because it was written for docx and xlsx files, this looks only for the signature `_rels/.rels`.



The input url must be resolved.

We use the protocol jar: because it is recognized both by oXygen and by Saxon run command line

Related: files, archives

Used by function `tan:xlsx-file-available()`, `tan:docx-file-available()`.

Relies upon `$advanced-functions-available`.

### **tan:docx-file-available()**

*TAN-fn-file-archive-extended*

```
tan:docx-file-available($element-with-attr-href-or-string-with-  
resolved-uri as item()?) as xs:boolean
```

Alias for the function below

Related: files, archives

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:archive-available`.

### **tan:first-loc-available()**

*TAN-fn-files-standard*

```
tan:first-loc-available($element-with-href-in-self-or-descendants as  
element()?) as xs:string?
```

Input: An element that is or contains one or more `tan:location` elements

Output: the value of the first `tan:location/@href` to point to a document available resolved. If no location is available nothing is returned.

Related: files

Used by function `tan:get-1st-doc()`.

Relies upon `$tan:internet-available`, `tan:base-uri`, `tan:url-is-local`.

### **tan:get-1st-doc()**

*TAN-fn-files-standard*

```
tan:get-1st-doc($TAN-elements as element()* ) as document-node()*
```

Input: any TAN elements naming files (e.g., `<source>`, `<see-also>`, `<inclusion>`, `<vocabulary>`)

Output: the first document available for each element, plus any relevant error messages.

Related: files

Used by variable `$stan:annotations-1st-da`, `$stan:see-alsos-1st-da`, `$stan:predecessors-1st-da`, `$stan:successors-1st-da`, `$stan:extra-vocabulary-files`, `$stan:redivisions-1st-da`, `$stan:model-1st-da`, `$stan:sources-resolved`, `$stan:morphologies-resolved`.

Used by template `# tan:get-and-resolve-dependency`, `# tan:resolve-critical-dependencies-loop`, `# tan:core-expansion-terse`, `# tan:class-2-expansion-verbose`, `# tan:check-referred-doc`, `# tan:class-1-expansion-verbose-pass-1`, `# tan:core-expansion-normal`.

Used by function `tan:get-1st-doc()`.

Relies upon `$stan:internet-available`, `tan:base-uri`, `tan:catalogs`, `tan:element-vocabulary`, `tan:first-loc-available`, `tan:get-1st-doc()`, `tan:resolve-href`, `tan:shallow-copy`, `tan:uri-relative-to`, `tan:url-is-local`, `tan:xml-to-string`, `# tan:resolve-href`.

## **tan:open-archive()**

*Option 1 (TAN-fn-file-archive-extended)*

```
tan:open-archive($element-with-attr-href-or-string-with-resolved-uri  
as item())? as document-node()*
```

Input: any element with an `@href`, or a string value (or something castable to a string); a string specifying the type of file to be opened

Output: the components of the target docx or xlsx file as a sequence of XML documents (the main `.rels` file first, then the document `.rels`, then the source content types every file ending in `.xml`). To facilitate the reconstruction of the Word file, every extracted document will be stamped with `@_archive-path`, with the local path and name component.

Related: files, archives

Used by function `tan:open-docx()`, `tan:open-xlsx()`.

Relies upon `$advanced-functions-available`, `tan:open-raw-archive`.

*Option 2 (TAN-fn-file-archive-extended)*

```
tan:open-archive($element-with-attr-href-or-string-with-resolved-uri  
as item())? as document-node()*
```

Input: any element with an `@href`, or a string value (or something castable to a string); a string specifying the type of file to be opened

Output: the components of the target docx or xlsx file as a sequence of XML documents (the main `.rels` file first, then the document `.rels`, then the source content types every file ending in `.xml`). To facilitate the reconstruction of the Word file, every extracted document will be stamped with `@_archive-path`, with the local path and name component.

Related: files, archives

Used by function `tan:open-docx()`, `tan:open-xlsx()`.

Relies upon `$advanced-functions-available`.

### **tan:open-docx( )**

*TAN-fn-file-archive-extended*

```
tan:open-docx($element-with-attr-href-or-string-with-resolved-uri as  
item()?) as document-node()*
```

Alias for the function below, `tan:open-archive()`

Related: files, archives

Used by function `tan:open-file()`.

Relies upon `tan:open-archive`.

### **tan:open-file( )**

*Option 1 (TAN-fn-files-extended)*

```
tan:open-file($resolved-urls)
```

1-parameter version of the main one below

Used by function `tan:open-file()`.

Relies upon `tan:open-file`.

*Option 2 (TAN-fn-files-extended)*

```
tan:open-file($resolved-urls, $target-fallback-encoding as xs:string*)  
as document-node()*
```

Input: items that can be resolved as strings; a string

Output: for each resolvable string in the first parameter, if a document is available, the document; if it is not, but unparsed text is available, a document unparsed text wrapped in a root element; otherwise an empty document node. If unparsed text is not available, another attempt will be made on a fallback encoding specified by the `$target-fallback-encoding` parameter.

If the file is plain text that is not XML, it will be wrapped by a root element of a document. That root node will have `@xml:base` pointing to the source url.

If it is a .docx file, the components XML documents of the Word document will be returned.

Related: files

Used by function `tan:open-file()`.

Relies upon `tan:open-docx`.

### **tan:open-raw-archive( )**

*TAN-fn-file-archive-extended*

```
tan:open-raw-archive($element-with-attr-href-or-string-with-  
resolved-uri as item())? as xs:base64Binary?
```

Input: an item pointing to a URI

Output: the contents of the target archive as base 64 binary

This function is basically a padded alternative to `file:read-binary()`

Related: files, archives

Used by function `tan:open-archive()`, `tan:entries-map()`.

Relies upon `$advanced-functions-available`.

### **tan:open-xlsx()**

*TAN-fn-file-archive-extended*

```
tan:open-xlsx($element-with-attr-href-or-string-with-resolved-uri as  
item())? as document-node()*
```

Alias for the function below, `tan:open-archive()`

Related: files, archives

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:open-archive`.

### **tan:save-archive()**

*TAN-fn-file-archive-extended*

```
tan:save-archive($archive-components as document-node()*, $resolved-uri  
as xs:string)
```

surrogate function for the named template, below

Related: files, archives

Used by function `tan:save-docx()`, `tan:save-xlsx()`.

Relies upon `$advanced-functions-available`, # `tan:save-archive`.

### **tan:save-docx()**

*TAN-fn-file-archive-extended*

```
tan:save-docx($archive-components as document-node()*, $resolved-uri as  
xs:string)
```

Alias for the function below

Related: files, archives, docx

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `$advanced-functions-available`, `tan:save-archive`.

### **tan:save-xlsx()**

*TAN-fn-file-archive-extended*

```
tan:save-xlsx($archive-components as document-node)*, $resolved-uri as  
xs:string)
```

Alias for the function below

Related: files, archives

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `$advanced-functions-available`, `tan:save-archive`.

### **tan:url-is-local()**

*TAN-fn-files-standard*

```
tan:url-is-local($url-to-test as xs:string?) as xs:boolean
```

Input: a string representing a URL

Output: true if the URL syntactically appears to be local

Related: files, filenames

Used by template # `tan:core-expansion-terse-attributes-to-elements`, #  
`tan:check-referred-doc`.

Used by function `tan:first-loc-available()`, `tan:get-1st-doc()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:xlsx-file-available()**

*TAN-fn-file-archive-extended*

```
tan:xlsx-file-available($element-with-attr-href-or-string-with-  
resolved-uri as item(?) as xs:boolean
```

Alias for the function below

Related: files, archives

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:archive-available`.

### **tan:zip-uris()**

*TAN-fn-files-extended*

```
tan:zip-uris($uris as xs:string*) as xs:anyURI*
```

Input: any string representing a uri

Output: the same string with 'zip:' prepended if it represents a uri to a file in archive (docx, jar, zip, etc.)

Related: files, archives

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

## Templates

### # tan:save-archive

*Option 1 (TAN-fn-file-archive-extended)*

Input: a sequence of documents that each have @\_archive-path stamped in the root element (the result of tan:open-docx()); a resolved uri for the new Word document

Output: an archive saved at the URL specified by the second parameter

Used by template # tan:save-docx, # tan:save-xlsx.

Used by function tan:save-archive().

Relies upon \$advanced-functions-available, # tan:clean-up-archive.

*Option 2 (TAN-fn-file-archive-extended)*

Input: a sequence of documents that each have @\_archive-path stamped in the root element (the result of tan:open-docx()); a resolved uri for the new Word document

Output: an archive saved at the URL specified by the second parameter

Ordinarily, this template would be a function, but security reasons dictate that <xsl:result-document> always fails in the context of a function.

In this function, the target subdirectory for the archive must already exist, or else you might get an error.

Used by template # tan:save-docx, # tan:save-xlsx.

Used by function tan:save-archive().

Relies upon \$advanced-functions-available, # tan:clean-up-archive.

### # tan:save-as

*TAN-fn-file-output*

Input: any document, perhaps a target URI and target format, and a boolean indicating whether every top-level item should appear on its own line.

The root element's attribute @\_target-uri or @save-as supplies the default value, which may be overwritten.

No variables, keys, functions, or named templates depend upon this xsl:template.

Relies upon # tan:save-file.

## # tan:save-docx

*TAN-fn-file-archive-extended*

No variables, keys, functions, or named templates depend upon this xsl:template.

Relies upon # tan:save-archive.

## # tan:save-xlsx

*TAN-fn-file-archive-extended*

No variables, keys, functions, or named templates depend upon this xsl:template.

Relies upon # tan:save-archive.

# Html

## Variables

### \$attributes-to-preserve

*TAN-fn-html-core*

Definition: ('id', 'class', 'draggable')

Used by template # tan:tree-to-html, # tan:prepare-to-convert-to-html-pass-2.

Does not rely upon global variables, keys, functions, or templates.

### \$tan:excluded-class-characters-regex

*TAN-fn-html-core*

Definition: [&#1;-ÿ-[\s0-9a-zA-Z\_-]]

Used by template # tan:prepare-to-convert-to-html-pass-1.

Does not rely upon global variables, keys, functions, or templates.

### \$tan:global-html-attributes

*TAN-fn-html-core*

Definition: 'accesskey', 'aria-activedescendant', 'aria-atomic', 'aria-autocomplete', 'aria-busy', 'aria-controls', 'aria-current', 'aria-describedby', 'aria-details', 'aria-disabled', 'aria-dropeffect', 'aria-errormessage', 'aria-expanded', 'aria-flowto', 'aria-grabbed', 'aria-haspopup', 'aria-hidden', 'aria-invalid', 'aria-keyshortcuts', 'aria-label', 'aria-labelledby', 'aria-live', 'aria-orientation', 'aria-owns', 'aria-readonly', 'aria-relevant', 'aria-required', 'aria-roledescription', 'autocapitalize', 'autofocus', 'class', 'contenteditable', 'dir', 'draggable', 'enterkeyhint', 'hidden', 'id', 'input-mode', 'is', 'itemid', 'itemprop', 'itemref', 'itemscope', 'itemtype', 'lang', 'nonce', 'onabort', 'onauxclick', 'onblur', 'oncancel', 'on-

canplay', 'oncanplaythrough', 'onchange', 'onclick', 'onclose', 'oncontextmenu', 'oncopy', 'oncuechange', 'oncut', 'ondblclick', 'ondrag', 'ondragend', 'ondragenter', 'ondragleave', 'ondragover', 'ondragstart', 'ondrop', 'ondurationchange', 'onemptied', 'onended', 'onerror', 'onfocus', 'onformdata', 'oninput', 'oninvalid', 'onkeydown', 'onkeypress', 'onkeyup', 'onload', 'onloadeddata', 'onloadedmetadata', 'onloadstart', 'onmousedown', 'onmouseenter', 'onmouseleave', 'onmousemove', 'onmouseout', 'onmouseover', 'onmouseup', 'onpaste', 'onpause', 'onplay', 'onplaying', 'onprogress', 'onratechange', 'onreset', 'onresize', 'onscroll', 'onsecuritypolicyviolation', 'onseeked', 'onseeking', 'onselect', 'onslotchange', 'onstalled', 'onsubmit', 'onsuspend', 'ontimeupdate', 'ontoggle', 'onvolumechange', 'onwaiting', 'onwheel', 'slot', 'spellcheck', 'style', 'tabindex', 'title', 'translate'

Used by template # `tan:tree-to-html`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-alice-blue**

*TAN-fn-html-colors*

Definition: ( 240 , 248 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-AliceBlue**

*TAN-fn-html-colors*

Definition: ( 240 , 248 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-antique-white**

*TAN-fn-html-colors*

Definition: ( 250 , 235 , 215 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-AntiqueWhite**

*TAN-fn-html-colors*

Definition: ( 250 , 235 , 215 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.



### **\$tan:rgb-AntiqueWhite1**

*TAN-fn-html-colors*

Definition: ( 255 , 239 , 219 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-AntiqueWhite2**

*TAN-fn-html-colors*

Definition: ( 238 , 223 , 204 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-AntiqueWhite3**

*TAN-fn-html-colors*

Definition: ( 205 , 192 , 176 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-AntiqueWhite4**

*TAN-fn-html-colors*

Definition: ( 139 , 131 , 120 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-aquamarine**

*TAN-fn-html-colors*

Definition: ( 127 , 255 , 212 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-aquamarine1**

*TAN-fn-html-colors*

Definition: ( 127 , 255 , 212 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-aquamarine2**

*TAN-fn-html-colors*

Definition: ( 118 , 238 , 198 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-aquamarine3**

*TAN-fn-html-colors*

Definition: ( 102 , 205 , 170 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-aquamarine4**

*TAN-fn-html-colors*

Definition: ( 69 , 139 , 116 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-azure**

*TAN-fn-html-colors*

Definition: ( 240 , 255 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-azure1**

*TAN-fn-html-colors*

Definition: ( 240 , 255 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-azure2**

*TAN-fn-html-colors*

Definition: ( 224 , 238 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-azure3**

*TAN-fn-html-colors*

Definition: ( 193 , 205 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-azure4**

*TAN-fn-html-colors*

Definition: ( 131 , 139 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-beige**

*TAN-fn-html-colors*

Definition: ( 245 , 245 , 220 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-bisque**

*TAN-fn-html-colors*

Definition: ( 255 , 228 , 196 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-bisque1**

*TAN-fn-html-colors*

Definition: ( 255 , 228 , 196 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-bisque2**

*TAN-fn-html-colors*

Definition: ( 238 , 213 , 183 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-bisque3**

*TAN-fn-html-colors*

Definition: ( 205 , 183 , 158 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-bisque4**

*TAN-fn-html-colors*

Definition: ( 139 , 125 , 107 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-black**

*TAN-fn-html-colors*

Definition: ( 0 , 0 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-blanched-almond**

*TAN-fn-html-colors*

Definition: ( 255 , 235 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-BlanchedAlmond**

*TAN-fn-html-colors*

Definition: ( 255 , 235 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-blue**

*TAN-fn-html-colors*

Definition: ( 0 , 0 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-blue-violet**

*TAN-fn-html-colors*

Definition: ( 138 , 43 , 226 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-blue1**

*TAN-fn-html-colors*

Definition: ( 0 , 0 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-blue2**

*TAN-fn-html-colors*

Definition: ( 0 , 0 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-blue3**

*TAN-fn-html-colors*

Definition: ( 0 , 0 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-blue4**

*TAN-fn-html-colors*

Definition: ( 0 , 0 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-BlueViolet**

*TAN-fn-html-colors*

Definition: ( 138 , 43 , 226 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-brown**

*TAN-fn-html-colors*

Definition: ( 165 , 42 , 42 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-brown1**

*TAN-fn-html-colors*

Definition: ( 255 , 64 , 64 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-brown2**

*TAN-fn-html-colors*

Definition: ( 238 , 59 , 59 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-brown3**

*TAN-fn-html-colors*

Definition: ( 205 , 51 , 51 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-brown4**

*TAN-fn-html-colors*

Definition: ( 139 , 35 , 35 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-burlywood**

*TAN-fn-html-colors*

Definition: ( 222 , 184 , 135 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-burlywood1**

*TAN-fn-html-colors*

Definition: ( 255 , 211 , 155 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-burlywood2**

*TAN-fn-html-colors*

Definition: ( 238 , 197 , 145 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-burlywood3**

*TAN-fn-html-colors*

Definition: ( 205 , 170 , 125 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-burlywood4**

*TAN-fn-html-colors*

Definition: ( 139 , 115 , 85 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-cadet-blue**

*TAN-fn-html-colors*

Definition: ( 95 , 158 , 160 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-CadetBlue**

*TAN-fn-html-colors*

Definition: ( 95 , 158 , 160 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-CadetBlue1**

*TAN-fn-html-colors*

Definition: ( 152 , 245 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-CadetBlue2**

*TAN-fn-html-colors*

Definition: ( 142 , 229 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-CadetBlue3**

*TAN-fn-html-colors*

Definition: ( 122 , 197 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-CadetBlue4**

*TAN-fn-html-colors*

Definition: ( 83 , 134 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-chartreuse**

*TAN-fn-html-colors*

Definition: ( 127 , 255 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-chartreuse1**

*TAN-fn-html-colors*



Definition: ( 127 , 255 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-chartreuse2**

*TAN-fn-html-colors*

Definition: ( 118 , 238 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-chartreuse3**

*TAN-fn-html-colors*

Definition: ( 102 , 205 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-chartreuse4**

*TAN-fn-html-colors*

Definition: ( 69 , 139 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-chocolate**

*TAN-fn-html-colors*

Definition: ( 210 , 105 , 30 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-chocolate1**

*TAN-fn-html-colors*

Definition: ( 255 , 127 , 36 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-chocolate2**

*TAN-fn-html-colors*

Definition: ( 238 , 118 , 33 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-chocolate3**

*TAN-fn-html-colors*

Definition: ( 205 , 102 , 29 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-chocolate4**

*TAN-fn-html-colors*

Definition: ( 139 , 69 , 19 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-coral**

*TAN-fn-html-colors*

Definition: ( 255 , 127 , 80 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-coral1**

*TAN-fn-html-colors*

Definition: ( 255 , 114 , 86 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-coral2**

*TAN-fn-html-colors*

Definition: ( 238 , 106 , 80 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-coral3**

*TAN-fn-html-colors*

Definition: ( 205 , 91 , 69 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-coral4**

*TAN-fn-html-colors*

Definition: ( 139 , 62 , 47 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-cornflower-blue**

*TAN-fn-html-colors*

Definition: ( 100 , 149 , 237 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-CornflowerBlue**

*TAN-fn-html-colors*

Definition: ( 100 , 149 , 237 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-cornsilk**

*TAN-fn-html-colors*

Definition: ( 255 , 248 , 220 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-cornsilk1**

*TAN-fn-html-colors*

Definition: ( 255 , 248 , 220 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-cornsilk2**

*TAN-fn-html-colors*

Definition: ( 238 , 232 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-cornsilk3**

*TAN-fn-html-colors*

Definition: ( 205 , 200 , 177 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-cornsilk4**

*TAN-fn-html-colors*

Definition: ( 139 , 136 , 120 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-cyan**

*TAN-fn-html-colors*

Definition: ( 0 , 255 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-cyan1**

*TAN-fn-html-colors*

Definition: ( 0 , 255 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-cyan2**

*TAN-fn-html-colors*

Definition: ( 0 , 238 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-cyan3**

*TAN-fn-html-colors*

Definition: ( 0 , 205 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-cyan4**

*TAN-fn-html-colors*

Definition: ( 0 , 139 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dark-blue**

*TAN-fn-html-colors*

Definition: ( 0 , 0 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dark-cyan**

*TAN-fn-html-colors*

Definition: ( 0 , 139 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dark-goldenrod**

*TAN-fn-html-colors*

Definition: ( 184 , 134 , 11 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dark-gray**

*TAN-fn-html-colors*

Definition: ( 169 , 169 , 169 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dark-green**

*TAN-fn-html-colors*

Definition: ( 0 , 100 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dark-grey**

*TAN-fn-html-colors*

Definition: ( 169 , 169 , 169 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dark-khaki**

*TAN-fn-html-colors*

Definition: ( 189 , 183 , 107 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dark-magenta**

*TAN-fn-html-colors*

Definition: ( 139 , 0 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dark-olive-green**

*TAN-fn-html-colors*

Definition: ( 85 , 107 , 47 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dark-orange**

*TAN-fn-html-colors*

Definition: ( 255 , 140 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dark-orchid**

*TAN-fn-html-colors*

Definition: ( 153 , 50 , 204 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dark-red**

*TAN-fn-html-colors*

Definition: ( 139 , 0 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dark-salmon**

*TAN-fn-html-colors*

Definition: ( 233 , 150 , 122 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dark-sea-green**

*TAN-fn-html-colors*

Definition: ( 143 , 188 , 143 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dark-slate-blue**

*TAN-fn-html-colors*

Definition: ( 72 , 61 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dark-slate-gray**

*TAN-fn-html-colors*

Definition: ( 47 , 79 , 79 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dark-slate-grey**

*TAN-fn-html-colors*

Definition: ( 47 , 79 , 79 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dark-turquoise**

*TAN-fn-html-colors*

Definition: ( 0 , 206 , 209 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dark-violet**

*TAN-fn-html-colors*

Definition: ( 148 , 0 , 211 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkBlue**

*TAN-fn-html-colors*

Definition: ( 0 , 0 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkCyan**

*TAN-fn-html-colors*

Definition: ( 0 , 139 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkGoldenrod**

*TAN-fn-html-colors*

Definition: ( 184 , 134 , 11 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkGoldenrod1**

*TAN-fn-html-colors*



Definition: ( 255 , 185 , 15 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkGoldenrod2**

*TAN-fn-html-colors*

Definition: ( 238 , 173 , 14 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkGoldenrod3**

*TAN-fn-html-colors*

Definition: ( 205 , 149 , 12 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkGoldenrod4**

*TAN-fn-html-colors*

Definition: ( 139 , 101 , 8 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkGray**

*TAN-fn-html-colors*

Definition: ( 169 , 169 , 169 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkGreen**

*TAN-fn-html-colors*

Definition: ( 0 , 100 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkGrey**

*TAN-fn-html-colors*

Definition: ( 169 , 169 , 169 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkKhaki**

*TAN-fn-html-colors*

Definition: ( 189 , 183 , 107 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkMagenta**

*TAN-fn-html-colors*

Definition: ( 139 , 0 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkOliveGreen**

*TAN-fn-html-colors*

Definition: ( 85 , 107 , 47 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkOliveGreen1**

*TAN-fn-html-colors*

Definition: ( 202 , 255 , 112 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkOliveGreen2**

*TAN-fn-html-colors*

Definition: ( 188 , 238 , 104 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkOliveGreen3**

*TAN-fn-html-colors*

Definition: ( 162 , 205 , 90 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-DarkOliveGreen4**

*TAN-fn-html-colors*

Definition: ( 110 , 139 , 61 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-DarkOrange**

*TAN-fn-html-colors*

Definition: ( 255 , 140 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-DarkOrange1**

*TAN-fn-html-colors*

Definition: ( 255 , 127 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-DarkOrange2**

*TAN-fn-html-colors*

Definition: ( 238 , 118 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-DarkOrange3**

*TAN-fn-html-colors*

Definition: ( 205 , 102 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-DarkOrange4**

*TAN-fn-html-colors*

Definition: ( 139 , 69 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkOrchid**

*TAN-fn-html-colors*

Definition: ( 153 , 50 , 204 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkOrchid1**

*TAN-fn-html-colors*

Definition: ( 191 , 62 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkOrchid2**

*TAN-fn-html-colors*

Definition: ( 178 , 58 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkOrchid3**

*TAN-fn-html-colors*

Definition: ( 154 , 50 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkOrchid4**

*TAN-fn-html-colors*

Definition: ( 104 , 34 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkRed**

*TAN-fn-html-colors*

Definition: ( 139 , 0 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkSalmon**

*TAN-fn-html-colors*

Definition: ( 233 , 150 , 122 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkSeaGreen**

*TAN-fn-html-colors*

Definition: ( 143 , 188 , 143 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkSeaGreen1**

*TAN-fn-html-colors*

Definition: ( 193 , 255 , 193 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkSeaGreen2**

*TAN-fn-html-colors*

Definition: ( 180 , 238 , 180 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkSeaGreen3**

*TAN-fn-html-colors*

Definition: ( 155 , 205 , 155 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkSeaGreen4**

*TAN-fn-html-colors*

Definition: ( 105 , 139 , 105 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkSlateBlue**

*TAN-fn-html-colors*

Definition: ( 72 , 61 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkSlateGray**

*TAN-fn-html-colors*

Definition: ( 47 , 79 , 79 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkSlateGray1**

*TAN-fn-html-colors*

Definition: ( 151 , 255 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkSlateGray2**

*TAN-fn-html-colors*

Definition: ( 141 , 238 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkSlateGray3**

*TAN-fn-html-colors*

Definition: ( 121 , 205 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkSlateGray4**

*TAN-fn-html-colors*

Definition: ( 82 , 139 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkSlateGrey**

*TAN-fn-html-colors*

Definition: ( 47 , 79 , 79 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkTurquoise**

*TAN-fn-html-colors*

Definition: ( 0 , 206 , 209 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DarkViolet**

*TAN-fn-html-colors*

Definition: ( 148 , 0 , 211 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-deep-pink**

*TAN-fn-html-colors*

Definition: ( 255 , 20 , 147 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-deep-sky-blue**

*TAN-fn-html-colors*

Definition: ( 0 , 191 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DeepPink**

*TAN-fn-html-colors*

Definition: ( 255 , 20 , 147 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DeepPink1**

*TAN-fn-html-colors*

Definition: ( 255 , 20 , 147 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DeepPink2**

*TAN-fn-html-colors*

Definition: ( 238 , 18 , 137 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DeepPink3**

*TAN-fn-html-colors*

Definition: ( 205 , 16 , 118 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DeepPink4**

*TAN-fn-html-colors*

Definition: ( 139 , 10 , 80 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DeepSkyBlue**

*TAN-fn-html-colors*

Definition: ( 0 , 191 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DeepSkyBlue1**

*TAN-fn-html-colors*



Definition: ( 0 , 191 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DeepSkyBlue2**

*TAN-fn-html-colors*

Definition: ( 0 , 178 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DeepSkyBlue3**

*TAN-fn-html-colors*

Definition: ( 0 , 154 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DeepSkyBlue4**

*TAN-fn-html-colors*

Definition: ( 0 , 104 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dim-gray**

*TAN-fn-html-colors*

Definition: ( 105 , 105 , 105 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dim-grey**

*TAN-fn-html-colors*

Definition: ( 105 , 105 , 105 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DimGray**

*TAN-fn-html-colors*

Definition: ( 105 , 105 , 105 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DimGrey**

*TAN-fn-html-colors*

Definition: ( 105 , 105 , 105 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-dodger-blue**

*TAN-fn-html-colors*

Definition: ( 30 , 144 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DodgerBlue**

*TAN-fn-html-colors*

Definition: ( 30 , 144 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DodgerBlue1**

*TAN-fn-html-colors*

Definition: ( 30 , 144 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DodgerBlue2**

*TAN-fn-html-colors*

Definition: ( 28 , 134 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DodgerBlue3**

*TAN-fn-html-colors*

Definition: ( 24 , 116 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-DodgerBlue4**

*TAN-fn-html-colors*

Definition: ( 16 , 78 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-firebrick**

*TAN-fn-html-colors*

Definition: ( 178 , 34 , 34 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-firebrick1**

*TAN-fn-html-colors*

Definition: ( 255 , 48 , 48 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-firebrick2**

*TAN-fn-html-colors*

Definition: ( 238 , 44 , 44 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-firebrick3**

*TAN-fn-html-colors*

Definition: ( 205 , 38 , 38 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-firebrick4**

*TAN-fn-html-colors*

Definition: ( 139 , 26 , 26 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-floral-white**

*TAN-fn-html-colors*

Definition: ( 255 , 250 , 240 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-FloralWhite**

*TAN-fn-html-colors*

Definition: ( 255 , 250 , 240 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-forest-green**

*TAN-fn-html-colors*

Definition: ( 34 , 139 , 34 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-ForestGreen**

*TAN-fn-html-colors*

Definition: ( 34 , 139 , 34 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gainsboro**

*TAN-fn-html-colors*

Definition: ( 220 , 220 , 220 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-ghost-white**

*TAN-fn-html-colors*

Definition: ( 248 , 248 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-GhostWhite**

*TAN-fn-html-colors*

Definition: ( 248 , 248 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gold**

*TAN-fn-html-colors*

Definition: ( 255 , 215 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gold1**

*TAN-fn-html-colors*

Definition: ( 255 , 215 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gold2**

*TAN-fn-html-colors*

Definition: ( 238 , 201 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gold3**

*TAN-fn-html-colors*

Definition: ( 205 , 173 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gold4**

*TAN-fn-html-colors*

Definition: ( 139 , 117 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-goldenrod**

*TAN-fn-html-colors*

Definition: ( 218 , 165 , 32 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-goldenrod1**

*TAN-fn-html-colors*

Definition: ( 255 , 193 , 37 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-goldenrod2**

*TAN-fn-html-colors*

Definition: ( 238 , 180 , 34 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-goldenrod3**

*TAN-fn-html-colors*

Definition: ( 205 , 155 , 29 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-goldenrod4**

*TAN-fn-html-colors*

Definition: ( 139 , 105 , 20 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray**

*TAN-fn-html-colors*

Definition: ( 190 , 190 , 190 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray0**

*TAN-fn-html-colors*

Definition: ( 0 , 0 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray1**

*TAN-fn-html-colors*

Definition: ( 3 , 3 , 3 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray10**

*TAN-fn-html-colors*

Definition: ( 26 , 26 , 26 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray100**

*TAN-fn-html-colors*

Definition: ( 255 , 255 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray11**

*TAN-fn-html-colors*

Definition: ( 28 , 28 , 28 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray12**

*TAN-fn-html-colors*

Definition: ( 31 , 31 , 31 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray13**

*TAN-fn-html-colors*

Definition: ( 33 , 33 , 33 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray14**

*TAN-fn-html-colors*

Definition: ( 36 , 36 , 36 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray15**

*TAN-fn-html-colors*

Definition: ( 38 , 38 , 38 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray16**

*TAN-fn-html-colors*

Definition: ( 41 , 41 , 41 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray17**

*TAN-fn-html-colors*

Definition: ( 43 , 43 , 43 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray18**

*TAN-fn-html-colors*



Definition: ( 46 , 46 , 46 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray19**

*TAN-fn-html-colors*

Definition: ( 48 , 48 , 48 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray2**

*TAN-fn-html-colors*

Definition: ( 5 , 5 , 5 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray20**

*TAN-fn-html-colors*

Definition: ( 51 , 51 , 51 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray21**

*TAN-fn-html-colors*

Definition: ( 54 , 54 , 54 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray22**

*TAN-fn-html-colors*

Definition: ( 56 , 56 , 56 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray23**

*TAN-fn-html-colors*

Definition: ( 59 , 59 , 59 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray24**

*TAN-fn-html-colors*

Definition: ( 61 , 61 , 61 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray25**

*TAN-fn-html-colors*

Definition: ( 64 , 64 , 64 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray26**

*TAN-fn-html-colors*

Definition: ( 66 , 66 , 66 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray27**

*TAN-fn-html-colors*

Definition: ( 69 , 69 , 69 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray28**

*TAN-fn-html-colors*

Definition: ( 71 , 71 , 71 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray29**

*TAN-fn-html-colors*

Definition: ( 74 , 74 , 74 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray3**

*TAN-fn-html-colors*

Definition: ( 8 , 8 , 8 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray30**

*TAN-fn-html-colors*

Definition: ( 77 , 77 , 77 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray31**

*TAN-fn-html-colors*

Definition: ( 79 , 79 , 79 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray32**

*TAN-fn-html-colors*

Definition: ( 82 , 82 , 82 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray33**

*TAN-fn-html-colors*

Definition: ( 84 , 84 , 84 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray34**

*TAN-fn-html-colors*

Definition: ( 87, 87, 87 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray35**

*TAN-fn-html-colors*

Definition: ( 89, 89, 89 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray36**

*TAN-fn-html-colors*

Definition: ( 92, 92, 92 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray37**

*TAN-fn-html-colors*

Definition: ( 94, 94, 94 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray38**

*TAN-fn-html-colors*

Definition: ( 97, 97, 97 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray39**

*TAN-fn-html-colors*

Definition: ( 99, 99, 99 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray4**

*TAN-fn-html-colors*

Definition: ( 10 , 10 , 10 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray40**

*TAN-fn-html-colors*

Definition: ( 102 , 102 , 102 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray41**

*TAN-fn-html-colors*

Definition: ( 105 , 105 , 105 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray42**

*TAN-fn-html-colors*

Definition: ( 107 , 107 , 107 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray43**

*TAN-fn-html-colors*

Definition: ( 110 , 110 , 110 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray44**

*TAN-fn-html-colors*

Definition: ( 112 , 112 , 112 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray45**

*TAN-fn-html-colors*

Definition: ( 115 , 115 , 115 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray46**

*TAN-fn-html-colors*

Definition: ( 117 , 117 , 117 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray47**

*TAN-fn-html-colors*

Definition: ( 120 , 120 , 120 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray48**

*TAN-fn-html-colors*

Definition: ( 122 , 122 , 122 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray49**

*TAN-fn-html-colors*

Definition: ( 125 , 125 , 125 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray5**

*TAN-fn-html-colors*

Definition: ( 13 , 13 , 13 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray50**

*TAN-fn-html-colors*

Definition: ( 127 , 127 , 127 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray51**

*TAN-fn-html-colors*

Definition: ( 130 , 130 , 130 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray52**

*TAN-fn-html-colors*

Definition: ( 133 , 133 , 133 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray53**

*TAN-fn-html-colors*

Definition: ( 135 , 135 , 135 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray54**

*TAN-fn-html-colors*

Definition: ( 138 , 138 , 138 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray55**

*TAN-fn-html-colors*

Definition: ( 140 , 140 , 140 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray56**

*TAN-fn-html-colors*

Definition: ( 143 , 143 , 143 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray57**

*TAN-fn-html-colors*

Definition: ( 145 , 145 , 145 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray58**

*TAN-fn-html-colors*

Definition: ( 148 , 148 , 148 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray59**

*TAN-fn-html-colors*

Definition: ( 150 , 150 , 150 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray6**

*TAN-fn-html-colors*

Definition: ( 15 , 15 , 15 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray60**

*TAN-fn-html-colors*

Definition: ( 153 , 153 , 153 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray61**

*TAN-fn-html-colors*



Definition: ( 156 , 156 , 156 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray62**

*TAN-fn-html-colors*

Definition: ( 158 , 158 , 158 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray63**

*TAN-fn-html-colors*

Definition: ( 161 , 161 , 161 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray64**

*TAN-fn-html-colors*

Definition: ( 163 , 163 , 163 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray65**

*TAN-fn-html-colors*

Definition: ( 166 , 166 , 166 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray66**

*TAN-fn-html-colors*

Definition: ( 168 , 168 , 168 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray67**

*TAN-fn-html-colors*

Definition: ( 171 , 171 , 171 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray68**

*TAN-fn-html-colors*

Definition: ( 173 , 173 , 173 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray69**

*TAN-fn-html-colors*

Definition: ( 176 , 176 , 176 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray7**

*TAN-fn-html-colors*

Definition: ( 18 , 18 , 18 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray70**

*TAN-fn-html-colors*

Definition: ( 179 , 179 , 179 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray71**

*TAN-fn-html-colors*

Definition: ( 181 , 181 , 181 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray72**

*TAN-fn-html-colors*

Definition: ( 184 , 184 , 184 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray73**

*TAN-fn-html-colors*

Definition: ( 186 , 186 , 186 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray74**

*TAN-fn-html-colors*

Definition: ( 189 , 189 , 189 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray75**

*TAN-fn-html-colors*

Definition: ( 191 , 191 , 191 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray76**

*TAN-fn-html-colors*

Definition: ( 194 , 194 , 194 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray77**

*TAN-fn-html-colors*

Definition: ( 196 , 196 , 196 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray78**

*TAN-fn-html-colors*

Definition: ( 199 , 199 , 199 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray79**

*TAN-fn-html-colors*

Definition: ( 201 , 201 , 201 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray8**

*TAN-fn-html-colors*

Definition: ( 20 , 20 , 20 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray80**

*TAN-fn-html-colors*

Definition: ( 204 , 204 , 204 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray81**

*TAN-fn-html-colors*

Definition: ( 207 , 207 , 207 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray82**

*TAN-fn-html-colors*

Definition: ( 209 , 209 , 209 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray83**

*TAN-fn-html-colors*

Definition: ( 212 , 212 , 212 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray84**

*TAN-fn-html-colors*

Definition: ( 214 , 214 , 214 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray85**

*TAN-fn-html-colors*

Definition: ( 217 , 217 , 217 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray86**

*TAN-fn-html-colors*

Definition: ( 219 , 219 , 219 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray87**

*TAN-fn-html-colors*

Definition: ( 222 , 222 , 222 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray88**

*TAN-fn-html-colors*

Definition: ( 224 , 224 , 224 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray89**

*TAN-fn-html-colors*

Definition: ( 227 , 227 , 227 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray9**

*TAN-fn-html-colors*

Definition: ( 23 , 23 , 23 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray90**

*TAN-fn-html-colors*

Definition: ( 229 , 229 , 229 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray91**

*TAN-fn-html-colors*

Definition: ( 232 , 232 , 232 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray92**

*TAN-fn-html-colors*

Definition: ( 235 , 235 , 235 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray93**

*TAN-fn-html-colors*

Definition: ( 237 , 237 , 237 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray94**

*TAN-fn-html-colors*

Definition: ( 240 , 240 , 240 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray95**

*TAN-fn-html-colors*

Definition: ( 242 , 242 , 242 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray96**

*TAN-fn-html-colors*

Definition: ( 245 , 245 , 245 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray97**

*TAN-fn-html-colors*

Definition: ( 247 , 247 , 247 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray98**

*TAN-fn-html-colors*

Definition: ( 250 , 250 , 250 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-gray99**

*TAN-fn-html-colors*

Definition: ( 252 , 252 , 252 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-green**

*TAN-fn-html-colors*

Definition: ( 0 , 255 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-green-yellow**

*TAN-fn-html-colors*

Definition: ( 173 , 255 , 47 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-green1**

*TAN-fn-html-colors*

Definition: ( 0 , 255 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-green2**

*TAN-fn-html-colors*

Definition: ( 0 , 238 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-green3**

*TAN-fn-html-colors*

Definition: ( 0 , 205 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-green4**

*TAN-fn-html-colors*

Definition: ( 0 , 139 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-GreenYellow**

*TAN-fn-html-colors*



Definition: ( 173 , 255 , 47 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey**

*TAN-fn-html-colors*

Definition: ( 190 , 190 , 190 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey0**

*TAN-fn-html-colors*

Definition: ( 0 , 0 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey1**

*TAN-fn-html-colors*

Definition: ( 3 , 3 , 3 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey10**

*TAN-fn-html-colors*

Definition: ( 26 , 26 , 26 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey100**

*TAN-fn-html-colors*

Definition: ( 255 , 255 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey11**

*TAN-fn-html-colors*

Definition: ( 28 , 28 , 28 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey12**

*TAN-fn-html-colors*

Definition: ( 31 , 31 , 31 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey13**

*TAN-fn-html-colors*

Definition: ( 33 , 33 , 33 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey14**

*TAN-fn-html-colors*

Definition: ( 36 , 36 , 36 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey15**

*TAN-fn-html-colors*

Definition: ( 38 , 38 , 38 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey16**

*TAN-fn-html-colors*

Definition: ( 41 , 41 , 41 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey17**

*TAN-fn-html-colors*

Definition: ( 43 , 43 , 43 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey18**

*TAN-fn-html-colors*

Definition: ( 46 , 46 , 46 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey19**

*TAN-fn-html-colors*

Definition: ( 48 , 48 , 48 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey2**

*TAN-fn-html-colors*

Definition: ( 5 , 5 , 5 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey20**

*TAN-fn-html-colors*

Definition: ( 51 , 51 , 51 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey21**

*TAN-fn-html-colors*

Definition: ( 54 , 54 , 54 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey22**

*TAN-fn-html-colors*

Definition: ( 56 , 56 , 56 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey23**

*TAN-fn-html-colors*

Definition: ( 59 , 59 , 59 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey24**

*TAN-fn-html-colors*

Definition: ( 61 , 61 , 61 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey25**

*TAN-fn-html-colors*

Definition: ( 64 , 64 , 64 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey26**

*TAN-fn-html-colors*

Definition: ( 66 , 66 , 66 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey27**

*TAN-fn-html-colors*

Definition: ( 69 , 69 , 69 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey28**

*TAN-fn-html-colors*

Definition: ( 71 , 71 , 71 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey29**

*TAN-fn-html-colors*

Definition: ( 74 , 74 , 74 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey3**

*TAN-fn-html-colors*

Definition: ( 8 , 8 , 8 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey30**

*TAN-fn-html-colors*

Definition: ( 77 , 77 , 77 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey31**

*TAN-fn-html-colors*

Definition: ( 79 , 79 , 79 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey32**

*TAN-fn-html-colors*

Definition: ( 82 , 82 , 82 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey33**

*TAN-fn-html-colors*

Definition: ( 84 , 84 , 84 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey34**

*TAN-fn-html-colors*

Definition: ( 87 , 87 , 87 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey35**

*TAN-fn-html-colors*

Definition: ( 89 , 89 , 89 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey36**

*TAN-fn-html-colors*

Definition: ( 92 , 92 , 92 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey37**

*TAN-fn-html-colors*

Definition: ( 94 , 94 , 94 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey38**

*TAN-fn-html-colors*

Definition: ( 97 , 97 , 97 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey39**

*TAN-fn-html-colors*

Definition: ( 99 , 99 , 99 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-grey4**

*TAN-fn-html-colors*

Definition: ( 10 , 10 , 10 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-grey40**

*TAN-fn-html-colors*

Definition: ( 102 , 102 , 102 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-grey41**

*TAN-fn-html-colors*

Definition: ( 105 , 105 , 105 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-grey42**

*TAN-fn-html-colors*

Definition: ( 107 , 107 , 107 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-grey43**

*TAN-fn-html-colors*

Definition: ( 110 , 110 , 110 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-grey44**

*TAN-fn-html-colors*

Definition: ( 112 , 112 , 112 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey45**

*TAN-fn-html-colors*

Definition: ( 115 , 115 , 115 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey46**

*TAN-fn-html-colors*

Definition: ( 117 , 117 , 117 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey47**

*TAN-fn-html-colors*

Definition: ( 120 , 120 , 120 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey48**

*TAN-fn-html-colors*

Definition: ( 122 , 122 , 122 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey49**

*TAN-fn-html-colors*

Definition: ( 125 , 125 , 125 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey5**

*TAN-fn-html-colors*



Definition: ( 13 , 13 , 13 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey50**

*TAN-fn-html-colors*

Definition: ( 127 , 127 , 127 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey51**

*TAN-fn-html-colors*

Definition: ( 130 , 130 , 130 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey52**

*TAN-fn-html-colors*

Definition: ( 133 , 133 , 133 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey53**

*TAN-fn-html-colors*

Definition: ( 135 , 135 , 135 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey54**

*TAN-fn-html-colors*

Definition: ( 138 , 138 , 138 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey55**

*TAN-fn-html-colors*

Definition: ( 140 , 140 , 140 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey56**

*TAN-fn-html-colors*

Definition: ( 143 , 143 , 143 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey57**

*TAN-fn-html-colors*

Definition: ( 145 , 145 , 145 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey58**

*TAN-fn-html-colors*

Definition: ( 148 , 148 , 148 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey59**

*TAN-fn-html-colors*

Definition: ( 150 , 150 , 150 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey6**

*TAN-fn-html-colors*

Definition: ( 15 , 15 , 15 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey60**

*TAN-fn-html-colors*

Definition: ( 153 , 153 , 153 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey61**

*TAN-fn-html-colors*

Definition: ( 156 , 156 , 156 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey62**

*TAN-fn-html-colors*

Definition: ( 158 , 158 , 158 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey63**

*TAN-fn-html-colors*

Definition: ( 161 , 161 , 161 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey64**

*TAN-fn-html-colors*

Definition: ( 163 , 163 , 163 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey65**

*TAN-fn-html-colors*

Definition: ( 166 , 166 , 166 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey66**

*TAN-fn-html-colors*

Definition: ( 168 , 168 , 168 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey67**

*TAN-fn-html-colors*

Definition: ( 171 , 171 , 171 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey68**

*TAN-fn-html-colors*

Definition: ( 173 , 173 , 173 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey69**

*TAN-fn-html-colors*

Definition: ( 176 , 176 , 176 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey7**

*TAN-fn-html-colors*

Definition: ( 18 , 18 , 18 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey70**

*TAN-fn-html-colors*

Definition: ( 179 , 179 , 179 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey71**

*TAN-fn-html-colors*

Definition: ( 181 , 181 , 181 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey72**

*TAN-fn-html-colors*

Definition: ( 184 , 184 , 184 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey73**

*TAN-fn-html-colors*

Definition: ( 186 , 186 , 186 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey74**

*TAN-fn-html-colors*

Definition: ( 189 , 189 , 189 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey75**

*TAN-fn-html-colors*

Definition: ( 191 , 191 , 191 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey76**

*TAN-fn-html-colors*

Definition: ( 194 , 194 , 194 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey77**

*TAN-fn-html-colors*

Definition: ( 196 , 196 , 196 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey78**

*TAN-fn-html-colors*

Definition: ( 199 , 199 , 199 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey79**

*TAN-fn-html-colors*

Definition: ( 201 , 201 , 201 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey8**

*TAN-fn-html-colors*

Definition: ( 20 , 20 , 20 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey80**

*TAN-fn-html-colors*

Definition: ( 204 , 204 , 204 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey81**

*TAN-fn-html-colors*

Definition: ( 207 , 207 , 207 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey82**

*TAN-fn-html-colors*

Definition: ( 209 , 209 , 209 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey83**

*TAN-fn-html-colors*

Definition: ( 212 , 212 , 212 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey84**

*TAN-fn-html-colors*

Definition: ( 214 , 214 , 214 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey85**

*TAN-fn-html-colors*

Definition: ( 217 , 217 , 217 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey86**

*TAN-fn-html-colors*

Definition: ( 219 , 219 , 219 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey87**

*TAN-fn-html-colors*

Definition: ( 222 , 222 , 222 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey88**

*TAN-fn-html-colors*

Definition: ( 224 , 224 , 224 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey89**

*TAN-fn-html-colors*

Definition: ( 227 , 227 , 227 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey9**

*TAN-fn-html-colors*

Definition: ( 23 , 23 , 23 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey90**

*TAN-fn-html-colors*

Definition: ( 229 , 229 , 229 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey91**

*TAN-fn-html-colors*

Definition: ( 232 , 232 , 232 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey92**

*TAN-fn-html-colors*

Definition: ( 235 , 235 , 235 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-grey93**

*TAN-fn-html-colors*



Definition: ( 237 , 237 , 237 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-grey94**

*TAN-fn-html-colors*

Definition: ( 240 , 240 , 240 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-grey95**

*TAN-fn-html-colors*

Definition: ( 242 , 242 , 242 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-grey96**

*TAN-fn-html-colors*

Definition: ( 245 , 245 , 245 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-grey97**

*TAN-fn-html-colors*

Definition: ( 247 , 247 , 247 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-grey98**

*TAN-fn-html-colors*

Definition: ( 250 , 250 , 250 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-grey99**

*TAN-fn-html-colors*

Definition: ( 252 , 252 , 252 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-honeydew**

*TAN-fn-html-colors*

Definition: ( 240 , 255 , 240 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-honeydew1**

*TAN-fn-html-colors*

Definition: ( 240 , 255 , 240 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-honeydew2**

*TAN-fn-html-colors*

Definition: ( 224 , 238 , 224 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-honeydew3**

*TAN-fn-html-colors*

Definition: ( 193 , 205 , 193 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-honeydew4**

*TAN-fn-html-colors*

Definition: ( 131 , 139 , 131 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-hot-pink**

*TAN-fn-html-colors*

Definition: ( 255 , 105 , 180 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-HotPink**

*TAN-fn-html-colors*

Definition: ( 255 , 105 , 180 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-HotPink1**

*TAN-fn-html-colors*

Definition: ( 255 , 110 , 180 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-HotPink2**

*TAN-fn-html-colors*

Definition: ( 238 , 106 , 167 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-HotPink3**

*TAN-fn-html-colors*

Definition: ( 205 , 96 , 144 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-HotPink4**

*TAN-fn-html-colors*

Definition: ( 139 , 58 , 98 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-indian-red**

*TAN-fn-html-colors*

Definition: ( 205 , 92 , 92 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-IndianRed**

*TAN-fn-html-colors*

Definition: ( 205 , 92 , 92 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-IndianRed1**

*TAN-fn-html-colors*

Definition: ( 255 , 106 , 106 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-IndianRed2**

*TAN-fn-html-colors*

Definition: ( 238 , 99 , 99 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-IndianRed3**

*TAN-fn-html-colors*

Definition: ( 205 , 85 , 85 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-IndianRed4**

*TAN-fn-html-colors*

Definition: ( 139 , 58 , 58 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-ivory**

*TAN-fn-html-colors*

Definition: ( 255 , 255 , 240 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-ivory1**

*TAN-fn-html-colors*

Definition: ( 255 , 255 , 240 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-ivory2**

*TAN-fn-html-colors*

Definition: ( 238 , 238 , 224 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-ivory3**

*TAN-fn-html-colors*

Definition: ( 205 , 205 , 193 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-ivory4**

*TAN-fn-html-colors*

Definition: ( 139 , 139 , 131 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-khaki**

*TAN-fn-html-colors*

Definition: ( 240 , 230 , 140 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-khaki1**

*TAN-fn-html-colors*

Definition: ( 255 , 246 , 143 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-khaki2**

*TAN-fn-html-colors*

Definition: ( 238 , 230 , 133 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-khaki3**

*TAN-fn-html-colors*

Definition: ( 205 , 198 , 115 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-khaki4**

*TAN-fn-html-colors*

Definition: ( 139 , 134 , 78 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-lavender**

*TAN-fn-html-colors*

Definition: ( 230 , 230 , 250 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-lavender-blush**

*TAN-fn-html-colors*

Definition: ( 255 , 240 , 245 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LavenderBlush**

*TAN-fn-html-colors*

Definition: ( 255 , 240 , 245 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LavenderBlush1**

*TAN-fn-html-colors*

Definition: ( 255 , 240 , 245 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LavenderBlush2**

*TAN-fn-html-colors*

Definition: ( 238 , 224 , 229 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LavenderBlush3**

*TAN-fn-html-colors*

Definition: ( 205 , 193 , 197 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LavenderBlush4**

*TAN-fn-html-colors*

Definition: ( 139 , 131 , 134 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-lawn-green**

*TAN-fn-html-colors*

Definition: ( 124 , 252 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LawnGreen**

*TAN-fn-html-colors*

Definition: ( 124 , 252 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-lemon-chiffon**

*TAN-fn-html-colors*

Definition: ( 255 , 250 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LemonChiffon**

*TAN-fn-html-colors*

Definition: ( 255 , 250 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LemonChiffon1**

*TAN-fn-html-colors*

Definition: ( 255 , 250 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LemonChiffon2**

*TAN-fn-html-colors*

Definition: ( 238 , 233 , 191 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LemonChiffon3**

*TAN-fn-html-colors*

Definition: ( 205 , 201 , 165 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LemonChiffon4**

*TAN-fn-html-colors*



Definition: ( 139 , 137 , 112 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-light-blue**

*TAN-fn-html-colors*

Definition: ( 173 , 216 , 230 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-light-coral**

*TAN-fn-html-colors*

Definition: ( 240 , 128 , 128 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-light-cyan**

*TAN-fn-html-colors*

Definition: ( 224 , 255 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-light-goldenrod**

*TAN-fn-html-colors*

Definition: ( 238 , 221 , 130 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-light-goldenrod-yellow**

*TAN-fn-html-colors*

Definition: ( 250 , 250 , 210 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-light-gray**

*TAN-fn-html-colors*

Definition: ( 211 , 211 , 211 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-light-green**

*TAN-fn-html-colors*

Definition: ( 144 , 238 , 144 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-light-grey**

*TAN-fn-html-colors*

Definition: ( 211 , 211 , 211 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-light-pink**

*TAN-fn-html-colors*

Definition: ( 255 , 182 , 193 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-light-salmon**

*TAN-fn-html-colors*

Definition: ( 255 , 160 , 122 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-light-sea-green**

*TAN-fn-html-colors*

Definition: ( 32 , 178 , 170 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-light-sky-blue**

*TAN-fn-html-colors*

Definition: ( 135 , 206 , 250 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-light-slate-blue**

*TAN-fn-html-colors*

Definition: ( 132 , 112 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-light-slate-gray**

*TAN-fn-html-colors*

Definition: ( 119 , 136 , 153 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-light-slate-grey**

*TAN-fn-html-colors*

Definition: ( 119 , 136 , 153 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-light-steel-blue**

*TAN-fn-html-colors*

Definition: ( 176 , 196 , 222 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-light-yellow**

*TAN-fn-html-colors*

Definition: ( 255 , 255 , 224 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightBlue**

*TAN-fn-html-colors*

Definition: ( 173 , 216 , 230 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightBlue1**

*TAN-fn-html-colors*

Definition: ( 191 , 239 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightBlue2**

*TAN-fn-html-colors*

Definition: ( 178 , 223 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightBlue3**

*TAN-fn-html-colors*

Definition: ( 154 , 192 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightBlue4**

*TAN-fn-html-colors*

Definition: ( 104 , 131 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightCoral**

*TAN-fn-html-colors*

Definition: ( 240 , 128 , 128 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightCyan**

*TAN-fn-html-colors*

Definition: ( 224 , 255 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightCyan1**

*TAN-fn-html-colors*

Definition: ( 224 , 255 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightCyan2**

*TAN-fn-html-colors*

Definition: ( 209 , 238 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightCyan3**

*TAN-fn-html-colors*

Definition: ( 180 , 205 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightCyan4**

*TAN-fn-html-colors*

Definition: ( 122 , 139 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightGoldenrod**

*TAN-fn-html-colors*

Definition: ( 238 , 221 , 130 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightGoldenrod1**

*TAN-fn-html-colors*

Definition: ( 255 , 236 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightGoldenrod2**

*TAN-fn-html-colors*

Definition: ( 238 , 220 , 130 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightGoldenrod3**

*TAN-fn-html-colors*

Definition: ( 205 , 190 , 112 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightGoldenrod4**

*TAN-fn-html-colors*

Definition: ( 139 , 129 , 76 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightGoldenrodYellow**

*TAN-fn-html-colors*

Definition: ( 250 , 250 , 210 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightGray**

*TAN-fn-html-colors*

Definition: ( 211 , 211 , 211 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightGreen**

*TAN-fn-html-colors*

Definition: ( 144 , 238 , 144 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightGrey**

*TAN-fn-html-colors*

Definition: ( 211 , 211 , 211 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightPink**

*TAN-fn-html-colors*

Definition: ( 255 , 182 , 193 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightPink1**

*TAN-fn-html-colors*

Definition: ( 255 , 174 , 185 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightPink2**

*TAN-fn-html-colors*

Definition: ( 238 , 162 , 173 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightPink3**

*TAN-fn-html-colors*

Definition: ( 205 , 140 , 149 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightPink4**

*TAN-fn-html-colors*

Definition: ( 139 , 95 , 101 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightSalmon**

*TAN-fn-html-colors*

Definition: ( 255 , 160 , 122 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightSalmon1**

*TAN-fn-html-colors*

Definition: ( 255 , 160 , 122 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightSalmon2**

*TAN-fn-html-colors*

Definition: ( 238 , 149 , 114 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightSalmon3**

*TAN-fn-html-colors*

Definition: ( 205 , 129 , 98 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightSalmon4**

*TAN-fn-html-colors*

Definition: ( 139 , 87 , 66 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightSeaGreen**

*TAN-fn-html-colors*



Definition: ( 32 , 178 , 170 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightSkyBlue**

*TAN-fn-html-colors*

Definition: ( 135 , 206 , 250 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightSkyBlue1**

*TAN-fn-html-colors*

Definition: ( 176 , 226 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightSkyBlue2**

*TAN-fn-html-colors*

Definition: ( 164 , 211 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightSkyBlue3**

*TAN-fn-html-colors*

Definition: ( 141 , 182 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightSkyBlue4**

*TAN-fn-html-colors*

Definition: ( 96 , 123 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightSlateBlue**

*TAN-fn-html-colors*

Definition: ( 132 , 112 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightSlateGray**

*TAN-fn-html-colors*

Definition: ( 119 , 136 , 153 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightSlateGrey**

*TAN-fn-html-colors*

Definition: ( 119 , 136 , 153 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightSteelBlue**

*TAN-fn-html-colors*

Definition: ( 176 , 196 , 222 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightSteelBlue1**

*TAN-fn-html-colors*

Definition: ( 202 , 225 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightSteelBlue2**

*TAN-fn-html-colors*

Definition: ( 188 , 210 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LightSteelBlue3**

*TAN-fn-html-colors*

Definition: ( 162 , 181 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-LightSteelBlue4**

*TAN-fn-html-colors*

Definition: ( 110 , 123 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-LightYellow**

*TAN-fn-html-colors*

Definition: ( 255 , 255 , 224 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-LightYellow1**

*TAN-fn-html-colors*

Definition: ( 255 , 255 , 224 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-LightYellow2**

*TAN-fn-html-colors*

Definition: ( 238 , 238 , 209 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-LightYellow3**

*TAN-fn-html-colors*

Definition: ( 205 , 205 , 180 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-LightYellow4**

*TAN-fn-html-colors*

Definition: ( 139 , 139 , 122 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-lime-green**

*TAN-fn-html-colors*

Definition: ( 50 , 205 , 50 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-LimeGreen**

*TAN-fn-html-colors*

Definition: ( 50 , 205 , 50 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-linen**

*TAN-fn-html-colors*

Definition: ( 250 , 240 , 230 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-magenta**

*TAN-fn-html-colors*

Definition: ( 255 , 0 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-magenta1**

*TAN-fn-html-colors*

Definition: ( 255 , 0 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-magenta2**

*TAN-fn-html-colors*

Definition: ( 238 , 0 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-magenta3**

*TAN-fn-html-colors*

Definition: ( 205 , 0 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-magenta4**

*TAN-fn-html-colors*

Definition: ( 139 , 0 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-maroon**

*TAN-fn-html-colors*

Definition: ( 176 , 48 , 96 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-maroon1**

*TAN-fn-html-colors*

Definition: ( 255 , 52 , 179 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-maroon2**

*TAN-fn-html-colors*

Definition: ( 238 , 48 , 167 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-maroon3**

*TAN-fn-html-colors*

Definition: ( 205 , 41 , 144 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-maroon4**

*TAN-fn-html-colors*

Definition: ( 139 , 28 , 98 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-medium-aquamarine**

*TAN-fn-html-colors*

Definition: ( 102 , 205 , 170 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-medium-blue**

*TAN-fn-html-colors*

Definition: ( 0 , 0 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-medium-orchid**

*TAN-fn-html-colors*

Definition: ( 186 , 85 , 211 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-medium-purple**

*TAN-fn-html-colors*

Definition: ( 147 , 112 , 219 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-medium-sea-green**

*TAN-fn-html-colors*

Definition: ( 60 , 179 , 113 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-medium-slate-blue**

*TAN-fn-html-colors*

Definition: ( 123 , 104 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-medium-spring-green**

*TAN-fn-html-colors*

Definition: ( 0 , 250 , 154 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-medium-turquoise**

*TAN-fn-html-colors*

Definition: ( 72 , 209 , 204 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-medium-violet-red**

*TAN-fn-html-colors*

Definition: ( 199 , 21 , 133 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MediumAquamarine**

*TAN-fn-html-colors*

Definition: ( 102 , 205 , 170 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MediumBlue**

*TAN-fn-html-colors*

Definition: ( 0 , 0 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MediumOrchid**

*TAN-fn-html-colors*

Definition: ( 186 , 85 , 211 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MediumOrchid1**

*TAN-fn-html-colors*

Definition: ( 224 , 102 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MediumOrchid2**

*TAN-fn-html-colors*

Definition: ( 209 , 95 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MediumOrchid3**

*TAN-fn-html-colors*

Definition: ( 180 , 82 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MediumOrchid4**

*TAN-fn-html-colors*

Definition: ( 122 , 55 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MediumPurple**

*TAN-fn-html-colors*



Definition: ( 147 , 112 , 219 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MediumPurple1**

*TAN-fn-html-colors*

Definition: ( 171 , 130 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MediumPurple2**

*TAN-fn-html-colors*

Definition: ( 159 , 121 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MediumPurple3**

*TAN-fn-html-colors*

Definition: ( 137 , 104 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MediumPurple4**

*TAN-fn-html-colors*

Definition: ( 93 , 71 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MediumSeaGreen**

*TAN-fn-html-colors*

Definition: ( 60 , 179 , 113 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MediumSlateBlue**

*TAN-fn-html-colors*

Definition: ( 123 , 104 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MediumSpringGreen**

*TAN-fn-html-colors*

Definition: ( 0 , 250 , 154 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MediumTurquoise**

*TAN-fn-html-colors*

Definition: ( 72 , 209 , 204 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MediumVioletRed**

*TAN-fn-html-colors*

Definition: ( 199 , 21 , 133 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-midnight-blue**

*TAN-fn-html-colors*

Definition: ( 25 , 25 , 112 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MidnightBlue**

*TAN-fn-html-colors*

Definition: ( 25 , 25 , 112 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-mint-cream**

*TAN-fn-html-colors*

Definition: ( 245 , 255 , 250 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MintCream**

*TAN-fn-html-colors*

Definition: ( 245 , 255 , 250 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-misty-rose**

*TAN-fn-html-colors*

Definition: ( 255 , 228 , 225 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MistyRose**

*TAN-fn-html-colors*

Definition: ( 255 , 228 , 225 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MistyRose1**

*TAN-fn-html-colors*

Definition: ( 255 , 228 , 225 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MistyRose2**

*TAN-fn-html-colors*

Definition: ( 238 , 213 , 210 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MistyRose3**

*TAN-fn-html-colors*

Definition: ( 205 , 183 , 181 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-MistyRose4**

*TAN-fn-html-colors*

Definition: ( 139 , 125 , 123 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-moccasin**

*TAN-fn-html-colors*

Definition: ( 255 , 228 , 181 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-navajo-white**

*TAN-fn-html-colors*

Definition: ( 255 , 222 , 173 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-NavajoWhite**

*TAN-fn-html-colors*

Definition: ( 255 , 222 , 173 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-NavajoWhite1**

*TAN-fn-html-colors*

Definition: ( 255 , 222 , 173 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-NavajoWhite2**

*TAN-fn-html-colors*

Definition: ( 238 , 207 , 161 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-NavajoWhite3**

*TAN-fn-html-colors*

Definition: ( 205 , 179 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-NavajoWhite4**

*TAN-fn-html-colors*

Definition: ( 139 , 121 , 94 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-navy**

*TAN-fn-html-colors*

Definition: ( 0 , 0 , 128 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-navy-blue**

*TAN-fn-html-colors*

Definition: ( 0 , 0 , 128 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-NavyBlue**

*TAN-fn-html-colors*

Definition: ( 0 , 0 , 128 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-old-lace**

*TAN-fn-html-colors*

Definition: ( 253 , 245 , 230 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-OldLace**

*TAN-fn-html-colors*

Definition: ( 253 , 245 , 230 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-olive-drab**

*TAN-fn-html-colors*

Definition: ( 107 , 142 , 35 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-OliveDrab**

*TAN-fn-html-colors*

Definition: ( 107 , 142 , 35 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-OliveDrab1**

*TAN-fn-html-colors*

Definition: ( 192 , 255 , 62 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-OliveDrab2**

*TAN-fn-html-colors*

Definition: ( 179 , 238 , 58 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-OliveDrab3**

*TAN-fn-html-colors*

Definition: ( 154 , 205 , 50 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-OliveDrab4**

*TAN-fn-html-colors*

Definition: ( 105 , 139 , 34 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-orange**

*TAN-fn-html-colors*

Definition: ( 255 , 165 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-orange-red**

*TAN-fn-html-colors*

Definition: ( 255 , 69 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-orange1**

*TAN-fn-html-colors*

Definition: ( 255 , 165 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-orange2**

*TAN-fn-html-colors*

Definition: ( 238 , 154 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-orange3**

*TAN-fn-html-colors*

Definition: ( 205 , 133 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-orange4**

*TAN-fn-html-colors*

Definition: ( 139 , 90 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-OrangeRed**

*TAN-fn-html-colors*

Definition: ( 255 , 69 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-OrangeRed1**

*TAN-fn-html-colors*

Definition: ( 255 , 69 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-OrangeRed2**

*TAN-fn-html-colors*

Definition: ( 238 , 64 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-OrangeRed3**

*TAN-fn-html-colors*

Definition: ( 205 , 55 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-OrangeRed4**

*TAN-fn-html-colors*



Definition: ( 139 , 37 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-orchid**

*TAN-fn-html-colors*

Definition: ( 218 , 112 , 214 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-orchid1**

*TAN-fn-html-colors*

Definition: ( 255 , 131 , 250 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-orchid2**

*TAN-fn-html-colors*

Definition: ( 238 , 122 , 233 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-orchid3**

*TAN-fn-html-colors*

Definition: ( 205 , 105 , 201 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-orchid4**

*TAN-fn-html-colors*

Definition: ( 139 , 71 , 137 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-pale-goldenrod**

*TAN-fn-html-colors*

Definition: ( 238 , 232 , 170 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-pale-green**

*TAN-fn-html-colors*

Definition: ( 152 , 251 , 152 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-pale-turquoise**

*TAN-fn-html-colors*

Definition: ( 175 , 238 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-pale-violet-red**

*TAN-fn-html-colors*

Definition: ( 219 , 112 , 147 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-PaleGoldenrod**

*TAN-fn-html-colors*

Definition: ( 238 , 232 , 170 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-PaleGreen**

*TAN-fn-html-colors*

Definition: ( 152 , 251 , 152 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-PaleGreen1**

*TAN-fn-html-colors*

Definition: ( 154 , 255 , 154 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-PaleGreen2**

*TAN-fn-html-colors*

Definition: ( 144 , 238 , 144 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-PaleGreen3**

*TAN-fn-html-colors*

Definition: ( 124 , 205 , 124 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-PaleGreen4**

*TAN-fn-html-colors*

Definition: ( 84 , 139 , 84 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-PaleTurquoise**

*TAN-fn-html-colors*

Definition: ( 175 , 238 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-PaleTurquoise1**

*TAN-fn-html-colors*

Definition: ( 187 , 255 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-PaleTurquoise2**

*TAN-fn-html-colors*

Definition: ( 174 , 238 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:rgb-PaleTurquoise3**

*TAN-fn-html-colors*

Definition: ( 150 , 205 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:rgb-PaleTurquoise4**

*TAN-fn-html-colors*

Definition: ( 102 , 139 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:rgb-PaleVioletRed**

*TAN-fn-html-colors*

Definition: ( 219 , 112 , 147 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:rgb-PaleVioletRed1**

*TAN-fn-html-colors*

Definition: ( 255 , 130 , 171 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:rgb-PaleVioletRed2**

*TAN-fn-html-colors*

Definition: ( 238 , 121 , 159 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:rgb-PaleVioletRed3**

*TAN-fn-html-colors*

Definition: ( 205 , 104 , 137 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$stan:rgb-PaleVioletRed4**

*TAN-fn-html-colors*

Definition: ( 139 , 71 , 93 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$stan:rgb-papaya-whip**

*TAN-fn-html-colors*

Definition: ( 255 , 239 , 213 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$stan:rgb-PapayaWhip**

*TAN-fn-html-colors*

Definition: ( 255 , 239 , 213 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$stan:rgb-peach-puff**

*TAN-fn-html-colors*

Definition: ( 255 , 218 , 185 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$stan:rgb-PeachPuff**

*TAN-fn-html-colors*

Definition: ( 255 , 218 , 185 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$stan:rgb-PeachPuff1**

*TAN-fn-html-colors*

Definition: ( 255 , 218 , 185 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-PeachPuff2**

*TAN-fn-html-colors*

Definition: ( 238 , 203 , 173 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-PeachPuff3**

*TAN-fn-html-colors*

Definition: ( 205 , 175 , 149 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-PeachPuff4**

*TAN-fn-html-colors*

Definition: ( 139 , 119 , 101 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-peru**

*TAN-fn-html-colors*

Definition: ( 205 , 133 , 63 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-pink**

*TAN-fn-html-colors*

Definition: ( 255 , 192 , 203 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-pink1**

*TAN-fn-html-colors*

Definition: ( 255 , 181 , 197 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-pink2**

*TAN-fn-html-colors*

Definition: ( 238 , 169 , 184 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-pink3**

*TAN-fn-html-colors*

Definition: ( 205 , 145 , 158 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-pink4**

*TAN-fn-html-colors*

Definition: ( 139 , 99 , 108 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-plum**

*TAN-fn-html-colors*

Definition: ( 221 , 160 , 221 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-plum1**

*TAN-fn-html-colors*

Definition: ( 255 , 187 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-plum2**

*TAN-fn-html-colors*

Definition: ( 238 , 174 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-plum3**

*TAN-fn-html-colors*

Definition: ( 205 , 150 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-plum4**

*TAN-fn-html-colors*

Definition: ( 139 , 102 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-powder-blue**

*TAN-fn-html-colors*

Definition: ( 176 , 224 , 230 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-PowderBlue**

*TAN-fn-html-colors*

Definition: ( 176 , 224 , 230 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-purple**

*TAN-fn-html-colors*

Definition: ( 160 , 32 , 240 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-purple1**

*TAN-fn-html-colors*



Definition: ( 155 , 48 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-purple2**

*TAN-fn-html-colors*

Definition: ( 145 , 44 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-purple3**

*TAN-fn-html-colors*

Definition: ( 125 , 38 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-purple4**

*TAN-fn-html-colors*

Definition: ( 85 , 26 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-red**

*TAN-fn-html-colors*

Definition: ( 255 , 0 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-red1**

*TAN-fn-html-colors*

Definition: ( 255 , 0 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-red2**

*TAN-fn-html-colors*

Definition: ( 238 , 0 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-red3**

*TAN-fn-html-colors*

Definition: ( 205 , 0 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-red4**

*TAN-fn-html-colors*

Definition: ( 139 , 0 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-rosy-brown**

*TAN-fn-html-colors*

Definition: ( 188 , 143 , 143 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-RosyBrown**

*TAN-fn-html-colors*

Definition: ( 188 , 143 , 143 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-RosyBrown1**

*TAN-fn-html-colors*

Definition: ( 255 , 193 , 193 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-RosyBrown2**

*TAN-fn-html-colors*

Definition: ( 238 , 180 , 180 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-RosyBrown3**

*TAN-fn-html-colors*

Definition: ( 205 , 155 , 155 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-RosyBrown4**

*TAN-fn-html-colors*

Definition: ( 139 , 105 , 105 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-royal-blue**

*TAN-fn-html-colors*

Definition: ( 65 , 105 , 225 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-RoyalBlue**

*TAN-fn-html-colors*

Definition: ( 65 , 105 , 225 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-RoyalBlue1**

*TAN-fn-html-colors*

Definition: ( 72 , 118 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-RoyalBlue2**

*TAN-fn-html-colors*

Definition: ( 67 , 110 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-RoyalBlue3**

*TAN-fn-html-colors*

Definition: ( 58 , 95 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-RoyalBlue4**

*TAN-fn-html-colors*

Definition: ( 39 , 64 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-saddle-brown**

*TAN-fn-html-colors*

Definition: ( 139 , 69 , 19 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SaddleBrown**

*TAN-fn-html-colors*

Definition: ( 139 , 69 , 19 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-salmon**

*TAN-fn-html-colors*

Definition: ( 250 , 128 , 114 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-salmon1**

*TAN-fn-html-colors*

Definition: ( 255 , 140 , 105 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-salmon2**

*TAN-fn-html-colors*

Definition: ( 238 , 130 , 98 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-salmon3**

*TAN-fn-html-colors*

Definition: ( 205 , 112 , 84 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-salmon4**

*TAN-fn-html-colors*

Definition: ( 139 , 76 , 57 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-sandy-brown**

*TAN-fn-html-colors*

Definition: ( 244 , 164 , 96 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SandyBrown**

*TAN-fn-html-colors*

Definition: ( 244 , 164 , 96 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-sea-green**

*TAN-fn-html-colors*

Definition: ( 46 , 139 , 87 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SeaGreen**

*TAN-fn-html-colors*

Definition: ( 46 , 139 , 87 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SeaGreen1**

*TAN-fn-html-colors*

Definition: ( 84 , 255 , 159 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SeaGreen2**

*TAN-fn-html-colors*

Definition: ( 78 , 238 , 148 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SeaGreen3**

*TAN-fn-html-colors*

Definition: ( 67 , 205 , 128 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SeaGreen4**

*TAN-fn-html-colors*

Definition: ( 46 , 139 , 87 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-seashell**

*TAN-fn-html-colors*

Definition: ( 255 , 245 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-seashell1**

*TAN-fn-html-colors*

Definition: ( 255 , 245 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-seashell2**

*TAN-fn-html-colors*

Definition: ( 238 , 229 , 222 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-seashell3**

*TAN-fn-html-colors*

Definition: ( 205 , 197 , 191 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-seashell4**

*TAN-fn-html-colors*

Definition: ( 139 , 134 , 130 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-sienna**

*TAN-fn-html-colors*

Definition: ( 160 , 82 , 45 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-sienna1**

*TAN-fn-html-colors*

Definition: ( 255 , 130 , 71 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-sienna2**

*TAN-fn-html-colors*

Definition: ( 238 , 121 , 66 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-sienna3**

*TAN-fn-html-colors*

Definition: ( 205 , 104 , 57 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-sienna4**

*TAN-fn-html-colors*

Definition: ( 139 , 71 , 38 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-sky-blue**

*TAN-fn-html-colors*

Definition: ( 135 , 206 , 235 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SkyBlue**

*TAN-fn-html-colors*

Definition: ( 135 , 206 , 235 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SkyBlue1**

*TAN-fn-html-colors*



Definition: ( 135 , 206 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SkyBlue2**

*TAN-fn-html-colors*

Definition: ( 126 , 192 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SkyBlue3**

*TAN-fn-html-colors*

Definition: ( 108 , 166 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SkyBlue4**

*TAN-fn-html-colors*

Definition: ( 74 , 112 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-slate-blue**

*TAN-fn-html-colors*

Definition: ( 106 , 90 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-slate-gray**

*TAN-fn-html-colors*

Definition: ( 112 , 128 , 144 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-slate-grey**

*TAN-fn-html-colors*

Definition: ( 112 , 128 , 144 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SlateBlue**

*TAN-fn-html-colors*

Definition: ( 106 , 90 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SlateBlue1**

*TAN-fn-html-colors*

Definition: ( 131 , 111 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SlateBlue2**

*TAN-fn-html-colors*

Definition: ( 122 , 103 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SlateBlue3**

*TAN-fn-html-colors*

Definition: ( 105 , 89 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SlateBlue4**

*TAN-fn-html-colors*

Definition: ( 71 , 60 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SlateGray**

*TAN-fn-html-colors*

Definition: ( 112 , 128 , 144 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SlateGray1**

*TAN-fn-html-colors*

Definition: ( 198 , 226 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SlateGray2**

*TAN-fn-html-colors*

Definition: ( 185 , 211 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SlateGray3**

*TAN-fn-html-colors*

Definition: ( 159 , 182 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SlateGray4**

*TAN-fn-html-colors*

Definition: ( 108 , 123 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SlateGrey**

*TAN-fn-html-colors*

Definition: ( 112 , 128 , 144 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-snow**

*TAN-fn-html-colors*

Definition: ( 255 , 250 , 250 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-snow1**

*TAN-fn-html-colors*

Definition: ( 255 , 250 , 250 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-snow2**

*TAN-fn-html-colors*

Definition: ( 238 , 233 , 233 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-snow3**

*TAN-fn-html-colors*

Definition: ( 205 , 201 , 201 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-snow4**

*TAN-fn-html-colors*

Definition: ( 139 , 137 , 137 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-spring-green**

*TAN-fn-html-colors*

Definition: ( 0 , 255 , 127 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SpringGreen**

*TAN-fn-html-colors*

Definition: ( 0 , 255 , 127 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SpringGreen1**

*TAN-fn-html-colors*

Definition: ( 0 , 255 , 127 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SpringGreen2**

*TAN-fn-html-colors*

Definition: ( 0 , 238 , 118 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SpringGreen3**

*TAN-fn-html-colors*

Definition: ( 0 , 205 , 102 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SpringGreen4**

*TAN-fn-html-colors*

Definition: ( 0 , 139 , 69 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-steel-blue**

*TAN-fn-html-colors*

Definition: ( 70 , 130 , 180 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SteelBlue**

*TAN-fn-html-colors*

Definition: ( 70 , 130 , 180 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SteelBlue1**

*TAN-fn-html-colors*

Definition: ( 99 , 184 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SteelBlue2**

*TAN-fn-html-colors*

Definition: ( 92 , 172 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SteelBlue3**

*TAN-fn-html-colors*

Definition: ( 79 , 148 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-SteelBlue4**

*TAN-fn-html-colors*

Definition: ( 54 , 100 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-tan**

*TAN-fn-html-colors*

Definition: ( 210 , 180 , 140 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-tan1**

*TAN-fn-html-colors*

Definition: ( 255 , 165 , 79 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-tan2**

*TAN-fn-html-colors*

Definition: ( 238 , 154 , 73 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-tan3**

*TAN-fn-html-colors*

Definition: ( 205 , 133 , 63 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-tan4**

*TAN-fn-html-colors*

Definition: ( 139 , 90 , 43 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-thistle**

*TAN-fn-html-colors*

Definition: ( 216 , 191 , 216 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-thistle1**

*TAN-fn-html-colors*

Definition: ( 255 , 225 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-thistle2**

*TAN-fn-html-colors*

Definition: ( 238 , 210 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:rgb-thistle3**

*TAN-fn-html-colors*

Definition: ( 205 , 181 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:rgb-thistle4**

*TAN-fn-html-colors*

Definition: ( 139 , 123 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:rgb-tomato**

*TAN-fn-html-colors*

Definition: ( 255 , 99 , 71 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:rgb-tomato1**

*TAN-fn-html-colors*

Definition: ( 255 , 99 , 71 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:rgb-tomato2**

*TAN-fn-html-colors*

Definition: ( 238 , 92 , 66 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:rgb-tomato3**

*TAN-fn-html-colors*



Definition: ( 205 , 79 , 57 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$stan:rgb-tomato4**

*TAN-fn-html-colors*

Definition: ( 139 , 54 , 38 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$stan:rgb-turquoise**

*TAN-fn-html-colors*

Definition: ( 64 , 224 , 208 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$stan:rgb-turquoise1**

*TAN-fn-html-colors*

Definition: ( 0 , 245 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$stan:rgb-turquoise2**

*TAN-fn-html-colors*

Definition: ( 0 , 229 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$stan:rgb-turquoise3**

*TAN-fn-html-colors*

Definition: ( 0 , 197 , 205 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$stan:rgb-turquoise4**

*TAN-fn-html-colors*

Definition: ( 0 , 134 , 139 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-violet**

*TAN-fn-html-colors*

Definition: ( 238 , 130 , 238 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-violet-red**

*TAN-fn-html-colors*

Definition: ( 208 , 32 , 144 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-VioletRed**

*TAN-fn-html-colors*

Definition: ( 208 , 32 , 144 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-VioletRed1**

*TAN-fn-html-colors*

Definition: ( 255 , 62 , 150 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-VioletRed2**

*TAN-fn-html-colors*

Definition: ( 238 , 58 , 140 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-VioletRed3**

*TAN-fn-html-colors*

Definition: ( 205 , 50 , 120 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-VioletRed4**

*TAN-fn-html-colors*

Definition: ( 139 , 34 , 82 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-wheat**

*TAN-fn-html-colors*

Definition: ( 245 , 222 , 179 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-wheat1**

*TAN-fn-html-colors*

Definition: ( 255 , 231 , 186 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-wheat2**

*TAN-fn-html-colors*

Definition: ( 238 , 216 , 174 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-wheat3**

*TAN-fn-html-colors*

Definition: ( 205 , 186 , 150 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:rgb-wheat4**

*TAN-fn-html-colors*

Definition: ( 139 , 126 , 102 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:rgb-white**

*TAN-fn-html-colors*

Definition: ( 255 , 255 , 255 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:rgb-white-smoke**

*TAN-fn-html-colors*

Definition: ( 245 , 245 , 245 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:rgb-WhiteSmoke**

*TAN-fn-html-colors*

Definition: ( 245 , 245 , 245 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:rgb-yellow**

*TAN-fn-html-colors*

Definition: ( 255 , 255 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:rgb-yellow-green**

*TAN-fn-html-colors*

Definition: ( 154 , 205 , 50 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:rgb-yellow1**

*TAN-fn-html-colors*

Definition: ( 255 , 255 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-yellow2**

*TAN-fn-html-colors*

Definition: ( 238 , 238 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-yellow3**

*TAN-fn-html-colors*

Definition: ( 205 , 205 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-yellow4**

*TAN-fn-html-colors*

Definition: ( 139 , 139 , 0 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:rgb-YellowGreen**

*TAN-fn-html-colors*

Definition: ( 154 , 205 , 50 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:ryb-blue**

*TAN-fn-html-colors*

Definition: ( 2 , 71 , 254 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:ryb-blue-green**

*TAN-fn-html-colors*

Definition: ( 52 , 124 , 152 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:ryb-blue-purple**

*TAN-fn-html-colors*

Definition: ( 68 , 36 , 214 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:ryb-green**

*TAN-fn-html-colors*

Definition: ( 102 , 176 , 50 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:ryb-orange**

*TAN-fn-html-colors*

Definition: ( 251 , 153 , 2 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:ryb-purple**

*TAN-fn-html-colors*

Definition: ( 134 , 1 , 175 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:ryb-red**

*TAN-fn-html-colors*

Definition: ( 254 , 39 , 18 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:ryb-red-orange**

*TAN-fn-html-colors*

Definition: ( 252 , 96 , 10 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:ryb-red-purple**

*TAN-fn-html-colors*

Definition: ( 194 , 20 , 96 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:ryb-yellow**

*TAN-fn-html-colors*

Definition: ( 254 , 254 , 51 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:ryb-yellow-green**

*TAN-fn-html-colors*

Definition: ( 178 , 215 , 50 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:ryb-yellow-orange**

*TAN-fn-html-colors*

Definition: ( 252 , 204 , 26 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:white-mask-a10**

*TAN-fn-html-colors*

Definition: ( 255 , 255 , 255 , 0.10 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:white-mask-a20**

*TAN-fn-html-colors*

Definition: ( 255 , 255 , 255 , 0.20 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:white-mask-a30**

*TAN-fn-html-colors*

Definition: ( 255 , 255 , 255 , 0.30 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:white-mask-a40**

*TAN-fn-html-colors*

Definition: ( 255 , 255 , 255 , 0.40 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:white-mask-a50**

*TAN-fn-html-colors*

Definition: ( 255 , 255 , 255 , 0.50 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:white-mask-a60**

*TAN-fn-html-colors*

Definition: ( 255 , 255 , 255 , 0.60 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:white-mask-a70**

*TAN-fn-html-colors*

Definition: ( 255 , 255 , 255 , 0.70 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$stan:white-mask-a80**

*TAN-fn-html-colors*



Definition: ( 255 , 255 , 255 , 0.80 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:white-mask-a90**

*TAN-fn-html-colors*

Definition: ( 255 , 255 , 255 , 0.90 )

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

## **Functions**

### **tan:blend-alpha-value()**

*TAN-fn-html-colors*

tan:blend-alpha-value(\$alpha-a as xs:double, \$alpha-b as xs:double,  
\$blend-mid-point as xs:double) as xs:double?

Input: three doubles between zero and 1

Output: the blend of the first two doubles, interpreted as alpha values and the third  
interpreted as a midpoint

Related: html, colors

Used by function tan:blend-colors().

Does not rely upon global variables, keys, functions, or templates.

### **tan:blend-color-channel-value()**

*TAN-fn-html-colors*

tan:blend-color-channel-value(\$color-a as xs:double, \$color-b as  
xs:double, \$blend-mid-point as xs:double) as xs:double?

Input: two integers and a double between zero and 1

Output: a double representing a blend between the first two numbers, interpreted as  
RGB values

Related: html, colors

Used by function tan:blend-color-channel-value(), tan:blend-colors().

Relies upon tan:blend-color-channel-value().

### **tan:blend-colors()**

*TAN-fn-html-colors*

```
tan:blend-colors($rgb-color-1 as item()+, $rgb-color-2 as item()+,  
$blend-mid-point as xs:double) as xs:double*
```

Input: two sequences of doubles (the first three items being from 0 through 255 and the fourth and last between 0 and 1); a double between zero and 1

Output: a sequence of doubles representing a blend of the first two sequences, interpreted as RGB colors, and the last double as a desired midpoint

Related: `html`, `colors`

Used by function `tan:blend-colors()`.

Relies upon `tan:blend-alpha-value`, `tan:blend-color-channel-value`, `tan:blend-colors()`.

### **tan:convert-to-html()**

*Option 1 (TAN-fn-html-core)*

```
tan:convert-to-html($fragment-to-convert as item()*, $parse-text-for-  
urls as xs:boolean) as item()*
```

2-param version of fuller one, below

Used by function `tan:convert-to-html()`, `tan:diff-or-collate-to-html()`.

Relies upon `tan:convert-to-html`.

*Option 2 (TAN-fn-html-core)*

```
tan:convert-to-html($fragment-to-convert as item()*, $parse-a-hrefs as  
xs:boolean, $attributes-to-retain-regex as xs:string, $keep-attribut-  
es-named-after-global-html-attributes as xs:boolean) as item()*
```

Input: Any XML tree fragment; a boolean; a string

Output: The fragment converted to HTML (described below); if the boolean is true, text will be parsed for URLs and wrapped in `<a href="">`; if the third parameter is regular expression, attributes whose names match the pattern will be retained unchanged.

Every element is converted to an HTML `<div>`, with the name of the element or attribute being placed inside the `@class` as a value: `e-[NAME]` for elements and `a-[NAME]` for attributes. In addition, if the element or attribute is in a namespace, the namespace as a class value, `ns-[NAMESPACE PREFIX]`. Comments and processing instructions are preserved intact.

Any element already in the HTML namespace will be left as-is, with templates continued to be applied to its descendants.

Some attributes are handled specially: Every `@xml:*` is retained, but with only the local name, no prefix. Every attribute in an `html` element is retained as-is. No `@class` is rendered as an element. No attribute beginning with `_` is rendered as an attribute and it is retained as-is. (It is your responsibility to get rid of temporary attributes you do not want, either before or after this function runs.)

Related: `html`, `nodes`, `tree manipulation`

Used by function `tan:convert-to-html()`, `tan:diff-or-collate-to-html()`.

Relies upon `tan:get-namespace-map`, # `tan:parse-a-hrefs`, # `tan:tree-to-html`.

### **tan:diff-or-collate-to-html()**

*TAN-fn-html-diff-and-collate*

```
tan:diff-or-collate-to-html($diff-or-collate-results as element()?,
$primary-version-ref as xs:string?, $primary-version-tree as ele-
ment()*) as item()*
```

Input: the results of `tan:diff()` or `tan:collate()`, ideally when given wrapped by `<group>` along with statistics; perhaps a string; perhaps a tree structure (see below).

Output: the results converted to HTML divs, with the following provisos:

- \* Any

adjustments to the text of the diff/collate output should be run beforehand, optimally using `tan:replace-diff()` or `tan:replace-collation()`.

- \* The second parameter points to an idref. If the main input is a diff, then the expected value is 'a' or 'b' (default). If it is a collation, it is a label that points to `tan:collation/tan:witness/@id` (default: the last one, if multiple). The resolved parameter points to the primary version.

- \* The third parameter is a tree structure of elements with the primary version. This is structure that will be the primary way to view the diff/collation. The diff/collation will be chopped proportionally to be infused into the text nodes of the tree. This allows the HTML to be structured not as a flat diff/collate, but in a hierarchy that is native to one of the versions.

Collation ids are case-sensitive; diffs, however, must be simply a or b.

- \* Any notices or other

elements must be inserted before processing.

Related: `html`, `diff`, `tree manipulation`

Used by function `tan:diff-or-collate-to-html()`.

Relies upon `tan:convert-to-html`, `tan:diff`, `tan:diff-or-collate-to-html()`, `tan:ellipses`, `tan:shallow-copy`, `tan:trim-long-tree`, # `diff-or-collate-to-html-output-pass-1`.

### **tan:parse-a-hrefs()**

*TAN-fn-html-core*

```
tan:parse-a-hrefs($string-to-parse as xs:string?) as item()*
```

Input: a string

Output: a sequence mixing text nodes and elements, with elements being HTML `<a href="" />` wrappers for URIs.

Related: `html`, `strings`, `filenames`

Used by template # `tan:parse-a-hrefs`.

Does not rely upon global variables, keys, functions, or templates.

## Language

### Variables

#### **\$languages-supported**

*TAN-fn-language-extended*

Definition: `map:keys($tan:lang-catalog-map)`

Used by function `tan:lang-catalog()`.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:grc-tokens-without-accents**

*TAN-fn-language-extended*

Definition: `doc('grc-tokens-without-accents.xml')/*/*`

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### Functions

#### **tan:convert-morphological-codes()**

*TAN-fn-language-extended*

```
tan:convert-morphological-codes($TAN-A-lm-to-convert as document-node()?, $morphology-ids-to-convert as xs:string, $morphology-code-conversion-maps as map(*)*) as document-node()?
```

Input: a TAN-A-lm file, a sequence of strings, maps that are the result of `tan:morphological-code-conversion-maps()`

Output: the TAN-A-lm file, with relevant `<m>` codes converted. This will be applied only to `<m>` whose closest `@morphology` is one of the strings from the second parameter. Codes will be converted from the source to the target according to the maps supplied.

The second parameter can be empty; If so, then the default will be the values in `/tan:TAN-A-lm/tan:body/@morphology`

This function does not change the vocabulary or `@morphology` codes. That must be done separately.

See comments at `tan:morphological-code-conversion-maps()` regarding difficulties inherent in mapping grammatical systems to each other.

Related: `language`, `lexicomorphology`

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon # `tan:convert-morphological-codes`.

### **tan:greek-graves-to-acutes()**

*TAN-fn-language-extended*

```
tan:greek-graves-to-acutes($greek-to-change as xs:string?) as  
xs:string?
```

Input: text with Greek

Output: the same, but with grave accents changed to acutes

Related: language, Greek

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

### **tan:lang-catalog()**

*TAN-fn-language-extended*

```
tan:lang-catalog($lang-codes as xs:string*) as document-node()*
```

Input: language codes

Output: the catalogs for those languages

Related: language

Used by function `tan:lm-data()`.

Relies upon `$languages-supported`.

### **tan:lang-code()**

*TAN-fn-language-extended*

```
tan:lang-code($lang-name as xs:string?) as xs:string*
```

Input: the name of a language

Output: the 3-letter code for the language

If no exact match is found, the parameter will be treated as a regular expression, all case-insensitive matches will be returned

Related: language

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `$tan:iso-639-3`.

### **tan:lang-name()**

*TAN-fn-language-extended*

```
tan:lang-name($lang-code as xs:string?) as xs:string*
```

Input: the code of a language

Output: the name of the language

If no exact match is found, the parameter will be treated as a regular expression, all case-insensitive matches will be returned

Related: language

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `$tan:iso-639-3`.

### **tan:lm-data()**

*TAN-fn-language-extended*

```
tan:lm-data($token-value as xs:string?, $lang-codes as xs:string*) as  
element()*
```

Input: token value; a language code

Output: <lm> data for that token value from any available resources

Related: language, lexicomorphology

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:base-uri`, `tan:lang-catalog`, `tan:search-morpheus`, `tan:search-results-to-claims`.

### **tan:morphological-code-conversion-maps()**

*TAN-fn-language-extended*

```
tan:morphological-code-conversion-maps($source-TAN-mor-resolved as  
document-node(), $target-TAN-mor-resolved as document-node()) as  
map(*)*
```

Input: two TAN-mor files, resolved

Output: a sequence of one or more maps, one per category in the first TAN-mor file. If the first TAN-mor file lacks categories, then only one map is returned. Each map's entries have keys corresponding to the morphological codes allowed for that category. Each value consists of an array. Each array member is a sequence of two items: an integer and a string. The integer specifies the position of the target morphological category in the source morphology, the string, the morphological code. The order of the array members corresponds to appearance preference.

Non-categorized morphologies can take advantage of <alias> to build complex grammatical features, which complicates the output of this function somewhat. Mapping from simple feature to simple feature is straightforward. Mapping from complex feature to simple feature requires a one-to-many map, and if a complex feature in the source morphology does not have a counterpart in the target for every simple feature that the complex one has, then no match exists and the code is not supported. It gets a bit tougher mapping to a complex feature in the target morphology. Preliminary work is done to detect every mapping of simple or complex objects that could

translated into that target complex feature. If the source morphology is category-  
result is a regular expression to match against <m>. If the source morphology lack  
categories, then an alphabetized list of codes becomes the key to the target compl  
map of to all target complex features is inserted in the first output map. These c  
found simply by looking for the presence of space or the opening ^ in the key name

Because TAN-mor was designed to enable a wide range of grammatical constructions,  
and because designers have different views on language and categories, converting  
from one morphological code system to another can be messy, with features in eithe  
source or target that lack any counterpart in the other. Or there may be overlappi  
when assessing complex features. For example, in the Perseus system for Greek, a w  
marked as a singular personal pronoun will have at least three grammatical categor  
will result in a mapping to the Brown system for English as both NN (singular noun  
(proper noun), both of which are true. It is up to users to discern on a case-by-c  
best way to resolve ambiguity and incommensurability.

Related: language, lexicomorphology

Used by function `tan:morphological-code-conversion-maps()`.

Relies upon `tan:array-permutations`, `tan:duplicate-items`, `tan:morphologi-  
cal-code-conversion-maps()`, `tan:vocabulary`, # `tan:add-category-position`.

### **tan:syriac-marks-to-word-end()**

*TAN-fn-language-extended*

```
tan:syriac-marks-to-word-end($input-syriac-text as xs:string?) as  
xs:string?
```

Input: a string

Output: the string with Syriac marks placed at the end, in codepoint order

This function was written to assist in comparing Syriac words that match. Which  
letter a particular dot is placed should not matter, in most cases.

Related: language, Syriac

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

## **Maps**

### **Functions**

#### **tan:map-contains()**

*TAN-fn-maps-extended*

```
tan:map-contains($map-of-interest as map(*)*, $keys-of-interest as  
xs:anyAtomicType*) as xs:boolean
```

Input: a map; a sequence of items

Output: true if the map, or any map it contains, has a key identical to one of the otherwise false.

This function parallels `map:contains()` but permits multiple inputs and deep searching

Related: `maps`

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:map-entries()**

*Option 1 (TAN-fn-maps-extended)*

```
tan:map-entries($source-map as map(*)*) as map(*)*
```

One-param version of the full one below

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Does not rely upon global variables, keys, functions, or templates.

*Option 2 (TAN-fn-maps-extended)*

```
tan:map-entries($source-map as map(*)*, $keys-to-keep as xs:anyAtomic-  
Type*) as map(*)*
```

Input: a map

Output: one singleton map per map entry.

This function was written to support templates or functions that use predicates to restrict a particular map's entries to only select ones.

Related: `maps`

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon `tan:item-type`.

### **tan:map-invert()**

*TAN-fn-maps-extended*

```
tan:map-invert($map-to-invert as map(*)*) as map(*)*
```

Input: a map

Output: a map, where the keys are all those values of the input map that are atomic items and each item's value are the keys in the original map that point to it.

This function was written to provide a kind of reverse lookup on any map. Any value that is not an atomic item will be discarded.

Related: `maps`



No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

### **tan:map-keys ( )**

*TAN-fn-maps-extended*

```
tan:map-keys($map-of-interest as map(*)*) as item()*
```

Input: a map

Output: all map keys, both at the top level and at any depth

This function parallels map:keys() but permits recursion

Related: maps

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon # tan:map-keys.

### **tan:map-put ( )**

*Option 1 (TAN-fn-maps-extended)*

```
tan:map-put($map as map(*), $put-map as map(*), $at-depth as xs:integer,  
$target-map-must-have-what-key as xs:anyAtomicType?) as map(*)
```

4-parameter version of the complete function below.

Here the 2nd parameter is simply a map, all of whose map entries are intended insertions. This allows the user of the function to make multiple insertions at once.

Used by function tan:map-put().

Relies upon tan:map-put.

*Option 2 (TAN-fn-maps-extended)*

```
tan:map-put($map as map(*), $key as xs:anyAtomicType, $value as item()*,  
$at-depth as xs:integer, $target-map-must-have-what-key as xs:any-  
AtomicType?) as map(*)
```

Input: a map; an atomic type representing a key for a new map entry; any items, representing the value for a new map entry; an integer, specifying the depth of map entry (0 or less will apply to every map); a string, specifying a key that must be present in the map that must receive the entry.

Output: the input map, but with a new map entry at each map of depth specified by fourth parameter, provided that it has a key specified by the fifth.

If the fourth parameter is less than 0, then the entry will be placed throughout the map: the initial map itself and any enclosed map of any depth.

If the fifth parameter is not empty, then the target map must have a map entry with identical key for it to qualify to take the new map entry; if the parameter is empty

qualification is ignored.

If a key exists already in a target map, the new entry replaces the current one, otherwise it is added as a new map entry.

This function parallels `map:put()`, but allows for deep placement of entries. This function was written to support a more DRY-friendly approach to creating maps for `transform()`, which has submaps that might need to be altered and refactored, depending on conditions.

It is presently difficult to select particular deep maps for a target action. The last two parameters of this function provide a bit of control over where the action is applied. One strategy that can be adopted, to use this function better, is to supply a single map entry with a key corresponding to an id (perhaps via `fn:generate-id()`) with an empty value. That empty map entry then can serve as a hook equivalent to `@` an element.

Related: `maps`

Used by function `tan:map-put()`.

Relies upon `tan:item-type`, `# tan:map-put`.

### **tan:map-remove()**

*TAN-fn-maps-extended*

```
tan:map-remove($map-of-interest as map(*), $keys as xs:anyAtomicType*)
as map(*)
```

Input: any map, a sequence of atomic items

Output: the map, but without entries of the specified key, at any depth

This function parallels `map:remove()`, but affects contained maps at any depth, even those embedded within an array.

Related: `maps`

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon `# tan:map-remove`.

### **tan:map-to-array()**

*TAN-fn-maps-extended*

```
tan:map-to-array($map-to-convert as map(*)?, $sort-keys as xs:boolean)
as array(*)?
```

Input: a map; a boolean

Output: the map as an array, one member of the array per map entry, with the first member constituting the key and its second items onward the values. If the boolean is true, then the keys will be sorted, otherwise the order of the array is implementation-dependent.

Related: `maps`, `arrays`

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

### **tan:map-to-xml()**

*Option 1 (TAN-fn-maps-extended)*

```
tan:map-to-xml($items-to-convert as item()*) as element()*
```

one-parameter version of fuller one below

Used by function `tan:map-to-xml()`, `tan:get-diff-output-transpositions()`, `tan:replace-diff()`.

Relies upon `tan:map-to-xml`.

*Option 2 (TAN-fn-maps-extended)*

```
tan:map-to-xml($items-to-convert as map(*)*, $sort-keys as xs:boolean)  
as element()*
```

Input: any maps; a boolean

Output: any maps in each item serialized as XML elements; the map entries will be sorted lexicographically by the key's string value if the boolean is true, otherwise order of map entries is implementation-dependent.

For those accustomed to handling ordinary XML nodes, maps can be frustrating to work with. This function allows one to change a map to XML, and do fun things with it, requiring map functions.

Related: `maps`, `nodes`

Used by function `tan:map-to-xml()`, `tan:get-diff-output-transpositions()`, `tan:replace-diff()`.

Relies upon # `tan:map-and-array-to-xml`.

### **tan:xml-to-map()**

*TAN-fn-maps-extended*

```
tan:xml-to-map($items-to-map as item()*) as map(*)*
```

Input: XML tree fragments

Output: those parts that conform to the output of `tan:map-to-xml()` converted to maps. Anything in the input tree not matching `<map:map>`, `<map:entry>`, `<map:key>`, `<map:value>` will be skipped, unless it is a member of `<map:key>` or `<map:value>`. An key or value will be bound as the type assigned by the values of `@type..`

Related: `maps`, `nodes`, `tree manipulation`

Used by template # `tan:build-maps-and-arrays`.

Relies upon # `tan:xml-to-map-and-array`.

# Merging

## Functions

### **tan:group-divs()**

*TAN-fn-merging*

```
tan:group-divs($divs-to-group as element(*) as element(*)
```

Input: expanded <div>s

Output: those <div>s grouped in <group>s according to their <ref> values

Attempt is made to preserve original div order

Related: merging, grouping, tree manipulation

Used by template # tan:merge-divs.

Used by function tan:group-divs().

Relies upon tan:collate-sequences, tan:group-divs(), tan:group-elements-by-shared-node-values.

### **tan:merge-divs()**

*Option 1 (TAN-fn-merging)*

```
tan:merge-divs($expanded-class-1-fragment as item(*) as item(*)
```

one-parameter version of the fuller one below

Used by function tan:merge-divs().

Relies upon tan:merge-divs.

*Option 2 (TAN-fn-merging)*

```
tan:merge-divs($expanded-class-1-fragment as item(*), $itemize-leaf-divs as xs:boolean) as item(*)
```

two-parameter version of the fuller one below

Used by function tan:merge-divs().

Relies upon tan:merge-divs.

*Option 3 (TAN-fn-merging)*

```
tan:merge-divs($expanded-class-1-fragment as item(*), $itemize-leaf-divs as xs:boolean, $exclude-elements-with-duplicate-values-of-what-attribute as xs:string?, $keep-last-duplicate as xs:boolean?) as item(*)
```

Input: expanded class 1 document fragment whose individual <div>s are assumed to be in the proper hierarchy (result of tan:normalize-text-hierarchy()); a boolean

indicating whether leaf divs should be itemized; an optional string representing the attribute to be checked for duplicates

Output: the fragment with the <div>s grouped according to their <ref> values

If the 2nd parameter is true, for each leaf <div> in a group there will be a separate <div type="#version">; otherwise leaf divs will be merely copied

For merging multiple files normally the value should be true; if they are misfits from a single source, false

Related: merging, tree manipulation, grouping

Used by function `tan:merge-divs()`.

Relies upon # `tan:merge-divs`.

### **tan:merge-expanded-docs()**

*TAN-fn-merging*

```
tan:merge-expanded-docs($expanded-docs as document-node(*) as document-node()?)
```

Input: Any TAN documents that have been expanded at least tersely

Output: A document that is a collation of the documents. There is one <head> per source, but only one <body>, with contents merged.

Templates will be placed in the appropriate function file, e.g., class 1 merge templates are in `TAN-class-1-functions.xsl`

Class 1 merging: All <div>s with the same <ref> values are grouped together. If the class 1 files are sources of a class 2 file, it is assumed that all actions in the <adjustments> have already been performed.

Class 2 merging: TBD

Class 3 merging: TBD

NB: Class 1 files must have their hierarchies in proper order; use `reset-hierarchy` beforehand if you're unsure

Related: merging, files

Used by template # `tan:class-1-expansion-verbose-pass-1`.

Relies upon # `tan:merge-tan-docs`.

## **Nodes**

### **Functions**

#### **tan:add-attributes()**

*TAN-fn-nodes-standard*

```
tan:add-attributes($elements-to-adjust as element()*, $attributes-to-  
insert as attribute()*) as element()*
```

Input: a sequence of elements; a sequence of attributes

Output: each element with a copy of the attributes

This function helps simplify code where one wishes merely to return a copy of an element with perhaps diagnostic information in an attribute

Related: nodes, attributes, tree manipulation

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

### **tan:attr()**

*TAN-fn-nodes-standard*

```
tan:attr($attribute-name as xs:string?, $attribute-value as xs:string?)  
as attribute()?
```

Input: two strings

Output: an attribute by the name of the first string, with the value of the second

Related: nodes, attributes

Used by variable \$tan:annotations-resolved, \$tan:see-alsos-resolved, \$tan:predecessors-resolved, \$tan:successors-resolved, \$tan:redivisions-resolved, \$tan:model-resolved, \$tan:sources-resolved, \$tan:morphologies-resolved.

Does not rely upon global variables, keys, functions, or templates.

### **tan:chop-tree()**

*TAN-fn-nodes-standard*

```
tan:chop-tree($tree-to-chop as item()*, $chop-points as xs:integer*) as  
map(xs:integer, item()*)
```

Input: any XML fragment; a sequence of integers

Output: a map, with the XML fragment chopped into portions supplied by the integer interpreted as string positions at which to chop the tree. Thus, each map entry has an integer and content/value consisting of the corresponding slice of the tree.

The integer 1 is always inferred, and returned. Any integers greater than the string length of the tree will be ignored.

For a similar, but more complex function, see tan:chop-diff-output()

Related: nodes, tree manipulation

Used by function tan:giant-diff(), tan:get-diff-output-slices(), tan:chop-tree().

Relies upon `tan:chop-tree()`, `tan:sequence-to-tree`, `tan:tree-to-sequence`, `#tan:recheck-chopped-tree`.

### **tan:copy-indentation()**

*Option 1 (TAN-fn-nodes-standard)*

```
tan:copy-indentation($items-to-indent as item()*, $model-element as element()) as item()*
```

2-parameter version of fuller one below

Used by function `tan:copy-indentation()`.

Relies upon `tan:copy-indentation`.

*Option 2 (TAN-fn-nodes-standard)*

```
tan:copy-indentation($items-to-indent as item()*, $model-element as element(), $tail-indentation-type as xs:string?) as item()*
```

Input: items that should be indented; an element whose indentation should be imitated; a string: 'full', 'short', or 'none'

Output: the items, indented according to the pattern

If the third parameter is 'full', the last indentation after the series will be like the first; if it is 'short', it will be one indentation less than full (appropriate for the last child of a wrapping element); if it is 'none' no final indentation will be supplied. This parameter affects only the topmost sequence, not the children, which are formatted as demanded.

Related: nodes, tree manipulation, spacing

Used by function `tan:copy-indentation()`.

Relies upon `#tan:indent-items`.

### **tan:copy-of-except()**

*Option 1 (TAN-fn-nodes-standard)*

```
tan:copy-of-except($doc-fragment as item()*, $exclude-elements-named as xs:string*, $exclude-attributes-named as xs:string*, $exclude-elements-with-attributes-named as xs:string*) as item()*
```

short version of the full function, below

Used by template `#tan:mark-reassigns`, `#tan:apply-inclusions-and-adjust-vocabulary`, `#tan:core-expansion-normal`, `#tan:class-1-expansion-verbose-pass-1`.

Used by function `tan:copy-of-except()`.

Relies upon `tan:copy-of-except`.

*Option 2 (TAN-fn-nodes-standard)*

```
tan:copy-of-except($doc-fragment as item()*, $exclude-elements-named
as xs:string*, $exclude-attributes-named as xs:string*, $exclude-el-
ements-with-attributes-named as xs:string*, $exclude-elements-be-
yond-what-depth as xs:integer?, $shallow-skip-elements-named as
xs:string*) as item()*
```

Input: any document fragment; sequences of strings specifying names of elements to exclude, names of attributes to exclude, and names of attributes whose parent element should be excluded; an integer beyond which depth copies should not be made

Output: the same fragment, altered

This function was written primarily to service the merge of TAN-A sources, where realigned divs could be extracted from their source documents

Related: nodes, tree manipulation

Used by template # tan:mark-reassigns, # tan:apply-inclusions-and-adjust-vocabulary, # tan:core-expansion-normal, # tan:class-1-expansion-verbose-pass-1.

Used by function tan:copy-of-except().

Relies upon # tan:copy-of-except.

### **tan:data-type-check()**

*TAN-fn-nodes-standard*

```
tan:data-type-check($item as item()?, $data-type as xs:string) as
xs:boolean
```

Input: an item and a string naming a data type

Output: a boolean indicating whether the item can be cast into that data type

If the first parameter doesn't match a data type, the function returns false

Related: nodes, datatypes

Used by template # tan:core-expansion-terse.

Does not rely upon global variables, keys, functions, or templates.

### **tan:element-fingerprint()**

*TAN-fn-nodes-standard*

```
tan:element-fingerprint($element as element()*) as xs:string*
```

Input: any elements

Output: for each element the string value of its name, its namespace, its attributes, and all descendant nodes

This function is useful for determining whether any number of elements are deeply equal



The built-in function `deep-equal()` works for pairs of elements; this looks for a way to evaluate sequences of elements

Related: nodes, identifiers

Used by function `tan:restore-chopped-tree()`.

Relies upon # `tan:element-fingerprint`.

### **tan:get-namespace-map()**

*TAN-fn-nodes-extended*

```
tan:get-namespace-map($input-tree-fragment as item(*) as map(*)
```

Input: any XML tree fragment

Output: a map with two entries per namespace, one with the key as the prefix and value as the URI, the other with the two items reversed.

Items are collected deeply through the tree structure, with precedence, in case of contradiction, given to the namespaces closest to the root

Related: nodes, namespaces

Used by function `tan:convert-to-html()`.

Relies upon # `tan:build-namespace-map`.

### **tan:get-ref()**

*TAN-fn-nodes-extended*

```
tan:get-ref($class-1-element as element(?) as xs:string*
```

Input: any element

Output: every possible combination of @n values from the self-and-ancestor nodes, string-joined by the hierarchy separator.

This function is useful for handling raw or resolved class 1 files, and you need to use references

Related: nodes, pointers, identifiers

Used by key # `tan:div-via-calculated-ref`.

Relies upon `$tan:separator-hierarchy`.

### **tan:group-elements-by-shared-node-values()**

*Option 1 (TAN-fn-nodes-standard)*

```
tan:group-elements-by-shared-node-values($elements-to-group as element(*) as element(*)
```

One-parameter version of the fuller one below.

Used by template # `tan:core-expansion-terse`.

Used by function `tan:group-elements-by-shared-node-values()`, `tan:group-elements-by-IRI()`, `tan:group-divs-by-ref()`, `tan:group-divs()`.

Relies upon `tan:group-elements-by-shared-node-values`.

*Option 2 (TAN-fn-nodes-standard)*

```
tan:group-elements-by-shared-node-values($elements-to-group as element()*  
  , $regex-of-names-of-nodes-to-group-by as xs:string?) as element()*
```

Two-parameter version of the fuller one below

Used by template # `tan:core-expansion-terse`.

Used by function `tan:group-elements-by-shared-node-values()`, `tan:group-elements-by-IRI()`, `tan:group-divs-by-ref()`, `tan:group-divs()`.

Relies upon `tan:group-elements-by-shared-node-values`.

*Option 3 (TAN-fn-nodes-standard)*

```
tan:group-elements-by-shared-node-values($elements-to-group as element()*  
  , $regex-of-names-of-nodes-to-group-by as xs:string?  
  , $group-by-shallow-node-value as xs:boolean) as element()*
```

Input: a sequence of elements; an optional string representing the name of children in the elements

Output: the same elements, but grouped in `<group>` according to whether the text contents of the child elements specified are equal

Each `<group>` will have an `@n` stipulating the position of the first element put in group. That way the results can be sorted in order of their original elements

Transitivity is assumed. Suppose elements X, Y, and Z have children values A and B and C; and C and D, respectively. All three elements will be grouped, even though not directly share children values.

Related: `nodes`, `grouping`

Used by template # `tan:core-expansion-terse`.

Used by function `tan:group-elements-by-shared-node-values()`, `tan:group-elements-by-IRI()`, `tan:group-divs-by-ref()`, `tan:group-divs()`.

Relies upon `tan:duplicate-items`, `tan:group-elements-by-shared-node-values()`, `# tan:build-grouping-key`.

## **tan:infuse-tree()**

*TAN-fn-nodes-extended*

```
tan:infuse-tree($string-to-infuse as xs:string?  
  , $tree-to-infuse as item()*  
  , $break-at-regex as xs:string) as item()*
```

Input: a string; an XML fragment that should be infused with the text; a string

Output: the XML fragment's text nodes replaced with the text proportionate to the length of each text being replaced

Before applying this function, make sure the tree you send is appropriately normalized. No space-normalization will occur, and infusion will occur wherever the indentations. To avoid this behavior, first run `tan:strip-outer-indentation()` or `tan:normalize-tree-space()`

Document nodes will be ignored.

Note: if the regular expression allows breaks within words, then a word may be broken across two `<div>`s, which, because of space normalization rules, then winds up in the space that was not there before. Be sure to use a good regular expression to avoid breaks.

Related: nodes, tree manipulation

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:ellipses`, `tan:make-non-mixed`, `tan:numbers-to-portions`, `tan:segment-string`, # `tan:infuse-tokenized-text`.

### **tan:insert-as-first-child()**

*TAN-fn-nodes-extended*

```
tan:insert-as-first-child($items-to-be-changed as item()*, $items-to-  
insert-as-first-child as item()*, $names-of-elements-to-receive-action  
as xs:string*) as item()*
```

Input: items to be changed; items to be inserted; strings representing the names of the elements that should receive the insertion

Output: the first items, with the second items inserted in the appropriate place

This function allows the deep insertion of content

Related: nodes, tree manipulation

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon # `tan:insert-content`.

### **tan:insert-as-last-child()**

*TAN-fn-nodes-extended*

```
tan:insert-as-last-child($items-to-be-changed as item()*, $items-to-in-  
sert-as-last-child as item()*, $names-of-elements-to-receive-action as  
xs:string*) as item()*
```

Input: items to be changed; items to be inserted; strings representing the names of the elements that should receive the insertion

Output: the first items, with the second items inserted in the appropriate place

This function allows the deep insertion of content

This function was first written to aid a 2019 version of `tan:vocabulary()`

Related: nodes, tree manipulation

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon # `tan:insert-content`.

### **tan:last-change-agent()**

*TAN-fn-nodes-standard*

```
tan:last-change-agent($TAN-doc as document-node()*) as element()*
```

Input: any TAN document

Output: the `<person>`, `<organization>`, or `<algorithm>` who made the last change

Related: nodes

Used by template # `tan:core-expansion-terse` `tan:dependency-adjustments-pass-1`, # `tan:check-referred-doc`, # `tan:core-expansion-terse`.

Relies upon `tan:get-doc-history`, `tan:vocabulary`.

### **tan:make-non-mixed()**

*TAN-fn-nodes-extended*

```
tan:make-non-mixed($input-to-adjust as item()*) as item()*
```

Input: any items that need to be converted to non-mixed content

Output: the input, but with any text nodes that have siblings and are not outer indentations wrapped in `<_text>` elements, with a `@q` containing the value of general text node in question. The identifier can be used to facilitate comparison with the original.

Related: nodes, tree manipulation

Used by function `tan:infuse-tree()`.

Relies upon # `tan:make-non-mixed`.

### **tan:normalize-tree-space()**

*TAN-fn-nodes-standard*

```
tan:normalize-tree-space($input-tree as item()*, $remove-special-end-div-chars as xs:boolean) as item()*
```

Input: any XML tree; boolean

Output: the same, but space-normalized:  
- all outer indentations are removed

- if an element is known to contain only non-mixed content, all inner text nodes are space-normalized
- otherwise any element that contains non-space text will be space-normalized:
  - initial space is removed
  - in the text from the first through last non-space character (excluding special end-div characters) any sequence of consecutive space character replaced by a single word space; that single word space will be placed in the first only, and any other text nodes that contain the consecutive space character block have all initial space removed
  - any final space characters in the string value of the element will be removed
  - if the last non-space character is not a special end-div character, a single word space will be added at the end
  - if the 2nd parameter is true, any special end-div characters will be removed

Because this function attends to space normalization as a mixed-content problem, it will space-normalize select TEI constructions.

Expanded TAN files are space normalized via this function, so there is no sense in running them again. In fact, it can introduce errors (because special div-end characters have already been removed).

Related: nodes, spacing, tree manipulation

Used by variable `$tan:self-resolved-plus`.

Used by template # `tan:get-and-resolve-dependency`.

Used by function `tan:expand-doc()`.

Relies upon # `tan:normalize-tree-space`, # `tan:selectively-adjust-tei-space`, # `tan:strip-outer-indentation`.

## **tan:path()**

*TAN-fn-nodes-standard*

`tan:path($nodes as node(*)*) as xs:string*`

Input: any nodes

Output: the path of each node

Related: nodes

Used by template # `tan:core-expansion-terse-attributes-to-elements`, # `tan:dependency-adjustments-pass-1`.

Does not rely upon global variables, keys, functions, or templates.

## **tan:pluck()**

*TAN-fn-nodes-extended*

```
tan:pluck($fragment as item()*, $pluck-beyond-level as xs:integer,  
$keep-short-branch-leaves as xs:boolean) as item()*
```

Input: any document fragment or element; a number indicating a level in the hierarchy of the fragment; a boolean indicating whether leaf elements that fall short of the previous parameter should be included

Output: the fragment of the tree that is beyond the point indicated, and perhaps (depending upon the third parameter) with other leafs that are not quite at that level

This function was written primarily to serve  
tan:convert-ref-to-div-fragment(), to get a slice of divs that correspond to a range of nodes

Related: nodes, tree manipulation

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon # tan:pluck.

### **tan:remove-duplicate-siblings()**

*Option 1 (TAN-fn-nodes-extended)*

```
tan:remove-duplicate-siblings($items-to-process as item()*) as item()*
```

one-parameter version of larger one, below

Used by function tan:remove-duplicate-siblings().

Relies upon tan:remove-duplicate-siblings.

*Option 2 (TAN-fn-nodes-extended)*

```
tan:remove-duplicate-siblings($items-to-process as document-node()*,  
$element-names-to-check as xs:string*) as item()*
```

Input: any items

Output: the same documents after removing duplicate elements whose names match the second parameter.

This function is applied during document resolution, to prune duplicate elements that might have been included

Related: nodes, tree manipulation

Used by function tan:remove-duplicate-siblings().

Relies upon # tan:remove-duplicate-siblings.

### **tan:replace-expanded-class-1-body()**

*TAN-fn-nodes-extended*

```
tan:replace-expanded-class-1-body($expanded-class-1-file as document-node()?,  
$new-body-text as xs:string?) as document-node()?
```

Input: An expanded class-1 file; a string

Output: the class-1 file, but with the body text replaced with the string, allocated according to `tan:diff()`

This function was written to replace a text with a very similar version of itself, perhaps altered via normalization, or selective changes.

Related: `nodes`, `diff`

Used by function `tan:replace-expanded-class-1-body()`.

Relies upon `tan:diff`, `tan:replace-expanded-class-1-body()`, `# tan:replace-expanded-class-1`.

### **tan:restore-chopped-tree()**

*TAN-fn-nodes-extended*

```
tan:restore-chopped-tree($tree-slices as item()*) as item()*
```

Input: a sequence of items

Output: sequence that attempts to restore the items in a single tree

This function reverses the effects of `tan:chop-tree()`, but does so on the basis of the chopped fragments, not a map. By default, adjacent items of the same node type fused into a single node of the same type, except for elements, which must have the name, namespace, and attributes for them to be fused.

Related: `nodes`, tree manipulation

Used by function `tan:restore-chopped-tree()`.

Relies upon `tan:element-fingerprint`, `tan:item-type`, `tan:restore-chopped-tree`, `tan:shallow-copy`.

### **tan:sequence-to-tree()**

*Option 1 (TAN-fn-nodes-standard)*

```
tan:sequence-to-tree($sequence-to-reconstruct as item()*) as item()*
```

One-parameter version of the more complete one below

Used by template `# tan:normalize-tree-space`.

Used by function `tan:sequence-to-tree()`, `tan:chop-tree()`.

Relies upon `tan:sequence-to-tree`.

*Option 2 (TAN-fn-nodes-standard)*

```
tan:sequence-to-tree($sequence-to-reconstruct as item()*, $fix-or-phan-text as xs:boolean) as item()*
```

Input: a result of `tan:tree-to-sequence()`; a boolean

Output: the original tree; if the boolean is true, then any first children that

precede the next level will be wrapped in an element like the first child element.

If a given opening tag has a corresponding `<_close-at>` then what is between will become the children of the element, and what comes after its following siblings.

This is the inverse of the function `tan:tree-to-sequence()`. That is, `tan:sequence-to-tree($i) => tan:tree-to-sequence()` should result in a copy of `$i..`

This function is especially helpful for a raw text transcription that needs to be converted to a class-1 body via the inline numerical references. The technique is the numerical references with empty `<div>`s, each one with `@n` and `@type` correctly assessed based on the match, and a `@_level` to specify where in the hierarchy it sh

You may wish to run the results of this output through `tan:consolidate-identical-adjacent-divs()`

Related: nodes, tree manipulation

Used by template # `tan:normalize-tree-space`.

Used by function `tan:sequence-to-tree()`, `tan:chop-tree()`.

Relies upon # `tan:sequence-to-tree`.

## **tan:shallow-copy()**

*Option 1 (TAN-fn-nodes-standard)*

```
tan:shallow-copy($items as item()*) as item()*
```

one-parameter version of the fuller one, below

Used by template # `tan:get-and-resolve-dependency`, # `tan:mark-dependencies-pass-1`, # `tan:dependency-adjustments-pass-2`, # `tan:core-expansion-terse` `tan:dependency-adjustments-pass-1`, # `tan:dependency-adjustments-pass-1`, # `tan:resolve-critical-dependencies-loop`, # `tan:check-referred-doc`, # `tan:mark-dependencies-for-validation`, # `tan:core-expansion-terse`, # `tan:class-1-expansion-verbose-pass-2`, # `tan:first-stamp-shallow-skip`, # `tan:mark-reassigns`, # `tan:trim-long-tree`, # `tan:resolve-href` `tan:expand-standard-tan-voc`, # `diff-or-collate-to-html-output-pass-1`.

Used by function `tan:shallow-copy()`, `tan:restore-chopped-tree()`, `tan:attribute-vocabulary()`, `tan:get-1st-doc()`, `tan:error()`, `tan:diff-or-collate-to-html()`.

Relies upon `tan:shallow-copy`.

*Option 2 (TAN-fn-nodes-standard)*

```
tan:shallow-copy($items as item()*, $depth as xs:integer) as item()*
```

Input: any document fragment; boolean indicating whether attributes should be kept

Output: a shallow copy of the fragment

Attributes will be preserved in a shallow-copied element.



Maps and arrays will be discarded.

This function was written to truncate large trees for output to messages and diagnostic result trees.

Related: nodes, tree manipulation

Used by template # `tan:get-and-resolve-dependency`, # `tan:mark-dependencies-pass-1`, # `tan:dependency-adjustments-pass-2`, # `tan:core-expansion-terse` `tan:dependency-adjustments-pass-1`, # `tan:dependency-adjustments-pass-1`, # `tan:resolve-critical-dependencies-loop`, # `tan:check-referred-doc`, # `tan:mark-dependencies-for-validation`, # `tan:core-expansion-terse`, # `tan:class-1-expansion-verbose-pass-2`, # `tan:first-stamp-shallow-skip`, # `tan:mark-reassigns`, # `tan:trim-long-tree`, # `tan:resolve-href` `tan:expand-standard-tan-voc`, # `diff-or-collate-to-html-output-pass-1`.

Used by function `tan:shallow-copy()`, `tan:restore-chopped-tree()`, `tan:attribute-vocabulary()`, `tan:get-1st-doc()`, `tan:error()`, `tan:diff-or-collate-to-html()`.

Relies upon # `tan:fn-shallow-copy`.

### **tan:sort-change-log()**

*Option 1 (TAN-fn-nodes-extended)*

```
tan:sort-change-log($TAN-fragment as item()*) as item()*
```

one-parameter version of the fuller one, below

Used by function `tan:sort-change-log()`.

Relies upon `tan:sort-change-log`.

*Option 2 (TAN-fn-nodes-extended)*

```
tan:sort-change-log($TAN-fragment as item()*, $sort-by-time-then-agent  
as xs:boolean?, $sort-ascending as xs:boolean?) as item()*
```

Input: a TAN fragment; two booleans

Output: the TAN fragment but with the change log sorted, either by time or agent (boolean) and either ascending or descending (2nd boolean)

Related: nodes, versioning

Used by function `tan:sort-change-log()`.

Relies upon # `tan:sort-change-log`.

### **tan:stamp-q-id()**

*Option 1 (TAN-fn-nodes-standard)*

```
tan:stamp-q-id($items-to-stamp as item()*) as item()*
```

1-param version of the full one below

Used by template # `tan:core-expansion-terse-attributes-to-elements`.

Used by function `tan:stamp-q-id()`.

Relies upon `tan:stamp-q-id`.

*Option 2 (TAN-fn-nodes-standard)*

```
tan:stamp-q-id($items-to-stamp as item()*, $stamp-shallowly as
xs:boolean) as item()*
```

Input: any XML fragments

Output: the fragments with `@q` added to each element via `generate-id()`

Related: nodes, identifiers

Used by template # `tan:core-expansion-terse-attributes-to-elements`.

Used by function `tan:stamp-q-id()`.

Relies upon # `tan:stamp-q-id`.

### **tan:strip-outer-indentation()**

*TAN-fn-nodes-standard*

```
tan:strip-outer-indentation($tree-fragment as item()*) as item()*
```

Input: any XML fragment

Output: the same, but without outer indentation

Related: nodes, tree manipulation, spacing

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon # `tan:strip-outer-indentation`.

### **tan:tree-to-sequence()**

*TAN-fn-nodes-standard*

```
tan:tree-to-sequence($xml-fragment as item()*) as item()*
```

Input: any XML fragment

Output: a flattened sequence of XML nodes representing the original fragment. Each element is given a new `@_level` specifying the level of hierarchy the element had in original. Closing tags are specified by `<_close-at id=""/>` with a corresponding `@_` in the opening tag. Empty elements are retained as-is.

Related: nodes, tree manipulation

Used by template # `tan:normalize-tree-space`.

Used by function `tan:chop-tree()`.

Relies upon # `tan:tree-to-sequence`.

### **tan:trim-long-text()**

*TAN-fn-nodes-standard*

```
tan:trim-long-text($xml-fragment as item()*, $too-long as xs:integer)
as item()*
```

Input: an XML fragment; an integer

Output: the fragment with text nodes longer than the integer value abbreviated with an ellipsis

Related: nodes, tree manipulation

Used by function `tan:diff-courtyard()`, `tan:collate()`, `tan:diff-loop()`.

Relies upon # `tan:trim-long-text`.

### **tan:trim-long-tree()**

*TAN-fn-nodes-extended*

```
tan:trim-long-tree($tree-to-trim as item()*, $shallow-copy-point as
xs:integer, $deep-skip-point as xs:integer) as item()*
```

Input: an XML tree, two integers

Output: the tree, anything beyond the shallow-copy point will be shallow-copied and anything beyond the deep skip point will be deep-skipped. Comments will always indicate how many nodes were shallow-copied or deep-skipped.

This function was written to truncate large diagnostic output

Related: nodes, tree manipulation

Used by template # `diff-or-collate-to-html-output-pass-1`.

Used by function `tan:apply-deltas()`, `tan:diff-or-collate-to-html()`.

Relies upon # `tan:trim-long-tree`.

### **tan:update-TAN-change-log()**

*Option 1 (TAN-fn-nodes-TAN-output)*

```
tan:update-TAN-change-log($TAN-file as document-node()?) as docu-
ment-node()?
```

one-parameter version of fuller one, below

Used by function `tan:update-TAN-change-log()`.

Relies upon `$tan:doc-uri`, `tan:update-TAN-change-log`.

*Option 2 (TAN-fn-nodes-TAN-output)*

```
tan:update-TAN-change-log($TAN-file as document-node()?, $agent-IRIs
as xs:string+, $agent-names as xs:string+, $agent-base-uri-resolved
as xs:string?, $agent-type as xs:string, $agent-responsibility as
xs:string, $change-message as xs:string, $source-base-uri as xs:string)
as document-node()?
```

Input: a TAN file; assorted parameters pertaining to the agent that created or changed the file

Output: The TAN file with appropriate credit/blame given

It is presumed that the TAN file is in its raw state, and that indentation should be respected.

If an agent type is not recognized, the default will be algorithm.

Related: nodes, versioning

Used by function `tan:update-TAN-change-log()`.

Relies upon `$tan:TAN-vocabularies`, `tan:has-vocab`, `tan:normalize-name`, `tan:resolve-doc`, `tan:update-TAN-change-log()`, `tan:uri-relative-to`, `tan:vocabulary`, # `tan:update-TAN-change-log`.

### **tan:wrap-text-nodes()**

*TAN-fn-nodes-extended*

```
tan:wrap-text-nodes($input-to-adjust as item()*) as item()*
```

Input: any items where the text should be wrapped

Output: the items with text nodes wrapped in `<_text>` with a `@q` containing the value of `generate-id()` for the text node in question.

This function is similar to `tan:make-non-mixed()` but applies wrapping universally

Related: nodes, tree manipulation

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon # `tan:wrap-text-nodes`.

### **tan:xml-to-string()**

*Option 1 (TAN-fn-nodes-standard)*

```
tan:xml-to-string($fragment as item()*) as xs:string?
```

one-parameter version of the fuller one, below

Used by template # `tan:mark-dependencies-pass-1`, # `tan:class-1-expansion-verbose-pass-3`, # `tan:mark-dependencies-for-validation`, # `tan:core-expansion-normal`.

Used by function `tan:xml-to-string()`, `tan:expand-doc()`, `tan:get-1st-doc()`.

Relies upon `tan:xml-to-string`.

*Option 2 (TAN-fn-nodes-standard)*

```
tan:xml-to-string($fragment as item()*, $ignore-whitespace-text-nodes
as xs:boolean) as xs:string?
```

Input: any fragment of XML; boolean indicating whether whitespace nodes should be ignored

Output: a string representation of the fragment

This function is a proxy of `serialize()`, used to represent XML fragments in plain text, useful in validation reports or in generating guidelines

Related: nodes, serialization, strings

Used by template # `tan:mark-dependencies-pass-1`, # `tan:class-1-expansion-verbose-pass-3`, # `tan:mark-dependencies-for-validation`, # `tan:core-expansion-normal`.

Used by function `tan:xml-to-string()`, `tan:expand-doc()`, `tan:get-1st-doc()`.

Relies upon # `tan:fragment-to-text`.

## Numerals

### Variables

#### **`$tan:alphabet-numeral-key`**

*TAN-fn-numerals-extended*

This variable has a complex definition. See stylesheet for definition.

Used by function `tan:letter-to-number()`.

Does not rely upon global variables, keys, functions, or templates.

#### **`$tan:arabic-indic-numeral-regex`**

*TAN-fn-numerals-extended*

Definition: `[#####]+`

Used by variable `$tan:nonlatin-letter-numeral-regex`.

Used by function `tan:letter-to-number()`, `tan:ara-to-int()`.

Does not rely upon global variables, keys, functions, or templates.

#### **`$tan:greek-hundreds-regex`**

*TAN-fn-numerals-extended*

Definition: `[#-##-###]`

Used by variable `$tan:greek-letter-numeral-regex`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:greek-letter-numeral-regex`**

*TAN-fn-numerals-extended*

Definition: `'#' || $tan:greek-unit-regex || '?'( || $tan:greek-hundreds-regex || '?' || $tan:greek-tens-regex || '?' || $tan:greek-unit-regex || '|' || $tan:greek-unit-regex || '?' || $tan:greek-hundreds-regex || '?' || $tan:greek-tens-regex || $tan:greek-unit-regex || '|?' || $tan:greek-unit-regex || '|?' || $tan:greek-hundreds-regex || $tan:greek-tens-regex || '?' || $tan:greek-unit-regex || '|?)#?'`

Used by variable `$tan:nonlatin-letter-numeral-regex`.

Relies upon `$tan:greek-hundreds-regex`, `$tan:greek-tens-regex`, `$tan:greek-unit-regex`.

### **`$tan:greek-tens-regex`**

*TAN-fn-numerals-extended*

Definition: `[#-##-#####]`

Used by variable `$tan:greek-letter-numeral-regex`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:greek-unit-regex`**

*TAN-fn-numerals-extended*

Definition: `[#-##-###]`

Used by variable `$tan:greek-letter-numeral-regex`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:latin-letter-numeral-regex`**

*TAN-fn-numerals-standard*

Definition: `a+|b+|c+|d+|e+|f+|g+|h+|i+|j+|k+|l+|m+|n+|o+|p+|q+|r+|s+|t+|u+|v+|w+|x+|y+|z+`

Used by variable `$tan:n-type-regex`.

Used by function `tan:aaa-to-int()`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:n-type`**

*TAN-fn-numerals-standard*

Definition: `('i', 'l', 'la', 'a', 'al', '#', '$', 'i-or-a')`

Used by template # `tan:string-to-numerals`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:n-type-label**

*TAN-fn-numerals-standard*

Definition: ('Roman numerals', 'Arabic numerals', 'Arabic numerals + alphabet numeral', 'alphabet numeral', 'alphabet numeral + Arabic numeral', 'non-Latin-alphabet numeral', 'string', 'Roman or alphabet numeral')

No variables, keys, functions, or named templates depend upon this xsl:variable.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:n-type-regex**

*TAN-fn-numerals-standard*

This variable has a complex definition. See stylesheet for definition.

Used by template # `tan:string-to-numerals`.

Relies upon `$tan:latin-letter-numeral-regex`, `$tan:nonlatin-letter-numeral-regex`, `$tan:roman-numeral-regex`.

### **\$tan:nonlatin-letter-numeral-regex**

*TAN-fn-numerals-extended*

Definition: `string-join(($tan:arabic-indic-numeral-regex, $tan:greek-letter-numeral-regex, $tan:syriac-letter-numeral-pattern), '|')`

Used by variable `$tan:n-type-regex`.

Relies upon `$tan:arabic-indic-numeral-regex`, `$tan:greek-letter-numeral-regex`, `$tan:syriac-letter-numeral-pattern`.

### **\$tan:roman-numeral-regex**

*TAN-fn-numerals-standard*

Definition: `m{0,4}(cm|cd|d?c{0,3})(xc|x1|1?x{0,3})(im|ic|i1|ix|iv|v?i{0,3})`

Used by variable `$tan:n-type-regex`.

Used by function `tan:rom-to-int()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:syriac-hundreds-regex**

*TAN-fn-numerals-extended*

Definition: `#####|[#####]?#`

Used by variable `$stan:syriac-letter-numeral-pattern`.

Does not rely upon global variables, keys, functions, or templates.

### **`$stan:syriac-letter-numeral-pattern`**

*TAN-fn-numerals-extended*

Definition: `$stan:syriac-unit-regex || '?\p{Mc}?( ' || $stan:syriac-hundreds-regex || '\p{Mc})?\p{Mc}?' || $stan:syriac-tens-regex || '?\p{Mc}?' || $stan:syriac-unit-regex || '\p{Mc}?' || $stan:syriac-unit-regex || '?\p{Mc}?( ' || $stan:syriac-hundreds-regex || '\p{Mc})?\p{Mc}?' || $stan:syriac-tens-regex || '\p{Mc}?' || $stan:syriac-unit-regex || '?\p{Mc}?' || $stan:syriac-unit-regex || '?\p{Mc}?( ' || $stan:syriac-hundreds-regex || '\p{Mc})\p{Mc}?' || $stan:syriac-tens-regex || '?\p{Mc}?' || $stan:syriac-unit-regex || '?\p{Mc}?'`

Used by variable `$stan:nonlatin-letter-numeral-regex`.

Relies upon `$stan:syriac-hundreds-regex`, `$stan:syriac-tens-regex`, `$stan:syriac-unit-regex`.

### **`$stan:syriac-tens-regex`**

*TAN-fn-numerals-extended*

Definition: `[#####]`

Used by variable `$stan:syriac-letter-numeral-pattern`.

Does not rely upon global variables, keys, functions, or templates.

### **`$stan:syriac-unit-regex`**

*TAN-fn-numerals-extended*

Definition: `[#####]`

Used by variable `$stan:syriac-letter-numeral-pattern`.

Does not rely upon global variables, keys, functions, or templates.

## **Functions**

### **`tan:aaa-to-int()`**

*TAN-fn-numerals-standard*

`tan:aaa-to-int($arg as xs:string*) as xs:integer*`

Input: any numerals in the supported letter numeral system

Output: the integer equivalent

Sequence goes a, b, c, ... z, aa, bb, ..., aaa, bbb, .... E.g., 'ccc' - > 55

Related: numerals, numerics



Used by template # `tan:string-to-numerals`.

Relies upon `$tan:latin-letter-numeral-regex`.

### **tan:ara-to-int()**

*TAN-fn-numerals-extended*

```
tan:ara-to-int($arabic-indic-numerals as xs:string*) as xs:integer*
```

Input: Arabic-indic numerals

Output: Integer values, if the input conforms to the correct pattern

Related: numerals, Arabic, numerics

Used by function `tan:letter-to-number()`.

Relies upon `$tan:arabic-indic-numeral-regex`.

### **tan:cardinal()**

*TAN-fn-numerals-standard*

```
tan:cardinal($integer-to-convert as xs:integer?) as xs:string?
```

Input: an integer

Output: the English term for the number

Related: numerals, numerics

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:chop-string`.

### **tan:grc-to-int()**

*TAN-fn-numerals-extended*

```
tan:grc-to-int($greek-numerals as xs:string*) as xs:integer*
```

Input: Greek letters that represent numerals

Output: the numerical value of the letters

NB, this does not take into account the use of letters representing numbers 1000 and greater

Related: numerals, numerics, Greek

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:letter-to-number`.

### **tan:int-to-aaa()**

*TAN-fn-numerals-extended*

`tan:int-to-aaa($integers as xs:integer*) as xs:string*`

Input: any integers

Output: the alphabetic representation of those numerals

Related: numerals, numerics

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

### **tan:int-to-grc()**

*TAN-fn-numerals-extended*

`tan:int-to-grc($integers as xs:integer*) as xs:string*`

Input: any integers

Output: the integers expressed as lowercase Greek alphabetic numerals, with numeral marker(s)

Related: numerals, numerics, Greek

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:chop-string`.

### **tan:integers-to-expression()**

*TAN-fn-numerals-extended*

`tan:integers-to-expression($input-integers as xs:integer*) as xs:string?`

Input: any integers

Output: a string that compactly expresses those integers, sorted

Example: (1, 3, 6, 1, 2) - > "1-3, 6"

Related: numerals, numerics, sequences

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon # `tan:integers-to-expression`.

### **tan:letter-to-number()**

*TAN-fn-numerals-extended*

`tan:letter-to-number($numerical-letters as xs:anyAtomicType*) as xs:integer*`

Input: any sequence of strings that represent alphabetic numerals

Output: those numerals as integers

Works only for letter patterns that have been defined; anything else produces null results

Related: numerals, numerics

Used by template # `tan:string-to-numerals`.

Used by function `tan:grc-to-int()`, `tan:syr-to-int()`.

Relies upon `$tan:alphabet-numeral-key`, `$tan:arabic-indic-numeral-regex`, `tan:ara-to-int`.

### **tan:ordinal()**

*TAN-fn-numerals-standard*

```
tan:ordinal($in as xs:integer*) as xs:string*
```

Input: one or more numerals

Output: one or more strings with the English form of the ordinal form of the input number

Example: (1, 4, 17) -> ('first', 'fourth', '17th')

Related: numerals, numerics

Used by template # `tan:class-2-expansion-terse` `tan:class-2-expansion-terse-for-validation`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:rom-to-int()**

*TAN-fn-numerals-standard*

```
tan:rom-to-int($arg as xs:string*) as xs:integer*
```

Input: any roman numeral less than 5000

Output: the numeral converted to an integer

Related: numerals, numerics, Latin

Used by template # `tan:string-to-numerals`.

Relies upon `$tan:roman-numeral-regex`.

### **tan:string-to-numerals()**

*Option 1 (TAN-fn-numerals-standard)*

```
tan:string-to-numerals($string-to-analyze as xs:string?) as xs:string*
```

one-parameter version of the function below

Used by template # `tan:check-and-expand-ranges`, # `tan:resolve-numerals`, # `tan:class-1-expansion-verbose-pass-2`.

Used by function `tan:string-to-numerals()`, `tan:analyze-sequence()`,  
`tan:string-to-int()`.

Relies upon `tan:string-to-numerals`.

*Option 2 (TAN-fn-numerals-standard)*

```
tan:string-to-numerals($string-to-analyze as xs:string?, $ambig-is-roman as xs:boolean?, $return-only-numerals as xs:boolean?, $n-alias-items as element()* , $numeral-exceptions as xs:string*) as xs:string*
```

Input: a string thought to contain numerals of some type (e.g., Roman); a boolean indicating whether ambiguous letters should be treated as Roman numerals or letter  
boolean indicating whether only numeral matches should be returned

Output: the string with parts that look like numerals converted to Arabic numerals

Does not take into account requests for help

Related: numerals, strings

Used by template # `tan:check-and-expand-ranges`, # `tan:resolve-numerals`, #  
`tan:class-1-expansion-verbose-pass-2`.

Used by function `tan:string-to-numerals()`, `tan:analyze-sequence()`,  
`tan:string-to-int()`.

Does not rely upon global variables, keys, functions, or templates.

## **tan:syr-to-int()**

*TAN-fn-numerals-extended*

```
tan:syr-to-int($syriac-numerals as xs:string*) as xs:integer*
```

Input: Syriac letters that represent numerals

Output: the numerical value of the letters

NB, this does not take into account the use of letters representing numbers 1000 and greater

Related: numerals, numerics, Syriac

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:letter-to-number`.

## **Numerics**

### **Variables**

#### **\$tan:binary-error-key**

*TAN-fn-binary*

This variable has a complex definition. See stylesheet for definition.

Used by variable `$tan:error-key`.

Used by function `tan:pad-bits()`, `tan:bitwise-xor()`, `tan:bits-to-eight-bit-chars()`, `tan:bitwise-or()`, `tan:bitwise-and()`, `tan:bits-to-octets()`, `tan:eight-bit-chars-to-hexBinary()`, `tan:octets-to-hexBinary()`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:numeric-conversion-error-key`**

*TAN-fn-numeric-conversion*

This variable has a complex definition. See stylesheet for definition.

Used by variable `$tan:error-key`.

Used by function `tan:base64-to-base64Binary()`, `tan:dec-to-n()`, `tan:hex-to-base64Binary()`, `tan:hex-to-hexBinary()`, `tan:n-to-dec()`, `tan:bin-to-bits()`.

Does not rely upon global variables, keys, functions, or templates.

### **`$tan:octet-error-key`**

*TAN-fn-octets*

This variable has a complex definition. See stylesheet for definition.

Used by variable `$tan:error-key`.

Used by function `tan:utf-8-octets-to-string()`.

Does not rely upon global variables, keys, functions, or templates.

## **Functions**

### **`tan:base26-to-dec()`**

*TAN-fn-numeric-conversion*

```
tan:base26-to-dec($in as xs:string?) as xs:integer?
```

Input: a string representation of a base-26 number

Output: an integer representing the base-10 value of the input

Related: numerics

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:n-to-dec`.

### **`tan:base64-to-base64Binary()`**

*TAN-fn-numeric-conversion*

```
tan:base64-to-base64Binary($in as xs:string?) as xs:base64Binary?
```

Input: a base-64 string

Output: the string cast to `xs:base64Binary`, if possible

`base64Binary` is not the same as a base 64 number, because it represents a redistribution of bits. For example, decimal/base-64 F = hex 05 = binary 00000101 redistributed into the 4-digit base64binary as follows: 000001 01[0000] [padding]

Related: numerics

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon `$tan:TAN-namespace`, `$tan:numeric-conversion-error-key`, `tan:base64-to-hex`, `tan:hex-to-hexBinary`.

### **tan:base64-to-bin()**

*TAN-fn-numeric-conversion*

`tan:base64-to-bin($in as xs:string?) as xs:string?`

Input: a string representation of a base-64 number

Output: a string representing the datum in binary code

Related: numerics

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon `tan:base64-to-dec`, `tan:dec-to-bin`, `tan:fill`.

### **tan:base64-to-dec()**

*TAN-fn-numeric-conversion*

`tan:base64-to-dec($in as xs:string?) as xs:integer?`

Input: a string representation of a base-64 number

Output: an integer representing the base-10 value of the input

Related: numerics

Used by function `tan:base64-to-bin()`, `tan:base64-to-hex()`.

Relies upon `tan:n-to-dec`.

### **tan:base64-to-hex()**

*TAN-fn-numeric-conversion*

`tan:base64-to-hex($in as xs:string?) as xs:string?`

Input: a string representation of a base-64 number

Output: a string representing the datum in hexadecimal

Related: numerics

Used by function `tan:base64-to-base64Binary()`.

Relies upon `tan:base64-to-dec`, `tan:dec-to-hex`, `tan:fill`.

### **tan:base64Binary-to-base64()**

*TAN-fn-numeric-conversion*

```
tan:base64Binary-to-base64($in as xs:base64Binary?) as xs:string?
```

Input: a `base64Binary`

Output: the item as a base-64 number

The output should have no more initial zeroes (A) than the input

Related: numerics

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon `tan:hex-to-base64`.

### **tan:base64Binary-to-bin()**

*TAN-fn-numeric-conversion*

```
tan:base64Binary-to-bin($in as xs:base64Binary?) as xs:string?
```

Input: a `base64Binary`

Output: a string with the value in base 2

Related: numerics

Used by function `tan:base64Binary-to-bits()`.

Relies upon `tan:hex-to-bin`.

### **tan:base64binary-to-bin()**

*TAN-fn-numeric-conversion*

```
tan:base64binary-to-bin($in as xs:base64Binary?) as xs:string?
```

Input: a `base64binary`

Output: the number converted to a base 2 binary string

Related: numerics

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon `tan:hex-to-bin`.

### **tan:base64Binary-to-bits()**

*TAN-fn-binary*

```
tan:base64Binary-to-bits($in as xs:base64Binary?) as xs:boolean*
```

Input: a `base64Binary`

Output: the value in bits (booleans)

Because `base64Binary` works in bytes, the output will be a multiple of 8

Related: numerics, binary

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon `tan:base64Binary-to-bin`, `tan:bin-to-bits`.

### **tan:base64Binary-to-eight-bit-chars()**

*TAN-fn-binary*

```
tan:base64Binary-to-eight-bit-chars($in as xs:base64Binary?) as  
xs:string?
```

Input: a base64 binary

Output: the same, converted to an 8-bit character string

Related: numerics, binary

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon `tan:hexBinary-to-eight-bit-chars`.

### **tan:base64Binary-to-hex()**

*TAN-fn-numeric-conversion*

```
tan:base64Binary-to-hex($in as xs:base64Binary?) as xs:string?
```

Input: a `base64Binary`

Output: a string with the value in hexadecimal

Related: numerics

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:base64Binary-to-octets()**

*TAN-fn-binary*

```
tan:base64Binary-to-octets($in as xs:base64Binary?) as xs:integer*
```

Input: a `base64Binary`

Output: a sequence of integers between 0 and 255 representing the `base64Binary` value

Related: numerics, binary

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon `tan:hexBinary-to-octets`.



### **tan:bin-to-base64()**

*TAN-fn-numeric-conversion*

```
tan:bin-to-base64($in as xs:string?) as xs:string?
```

Input: a string representing a base 2 binary

Output: a string representing the number in base 64

Related: numerics

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:bin-to-dec`, `tan:dec-to-base64`, `tan:fill`.

### **tan:bin-to-base64Binary()**

*TAN-fn-numeric-conversion*

```
tan:bin-to-base64Binary($in as xs:string?) as xs:base64Binary?
```

Input: a string representing base-2 binary

Output: the number as `xs:base64Binary`

Related: numerics

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:bin-to-hex`, `tan:hex-to-hexBinary`.

### **tan:bin-to-bits()**

*TAN-fn-numeric-conversion*

```
tan:bin-to-bits($base-2-binary as xs:string?) as xs:boolean*
```

Input: any string representing base-2 binary

Output: a sequence of booleans representing the bits of the binary

Related: numerics

Used by function `tan:md5()`, `tan:hexBinary-to-bits()`, `tan:base64Binary-to-bits()`, `tan:hex-to-bits()`.

Relies upon `$tan:TAN-namespace`, `$tan:numeric-conversion-error-key`.

### **tan:bin-to-dec()**

*TAN-fn-numeric-conversion*

```
tan:bin-to-dec($in as xs:string?) as xs:integer?
```

Input: a binary

Output: the number in decimal form, as an integer

Input is assumed to be big-endian

Related: numerics

Used by function `tan:le-bits-to-int-and-neg()`, `tan:md5()`, `tan:bin-to-hex()`, `tan:bin-to-base64()`, `tan:bits-to-octets()`, `tan:utf-8-octets-to-string()`.

Relies upon `tan:n-to-dec`.

### **tan:bin-to-hex()**

*TAN-fn-numeric-conversion*

`tan:bin-to-hex($in as xs:string?) as xs:string?`

Input: a string representing a base 2 binary

Output: a string representing the number in hexadecimal

Related: numerics

Used by function `tan:bin-to-base64Binary()`, `tan:bin-to-hexBinary()`, `tan:bits-to-hex()`.

Relies upon `tan:bin-to-dec`, `tan:dec-to-hex`, `tan:fill`.

### **tan:bin-to-hexBinary()**

*TAN-fn-numeric-conversion*

`tan:bin-to-hexBinary($in as xs:string?) as xs:hexBinary?`

Input: a string representing base-2 binary

Output: the number as `xs:hexBinary`

Related: numerics

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon `tan:bin-to-hex`, `tan:hex-to-hexBinary`.

### **tan:bits-to-base64Binary()**

*TAN-fn-binary*

`tan:bits-to-base64Binary($input-bits as xs:boolean*, $big-endian as xs:boolean) as xs:base64Binary?`

Input: a sequence of bits (booleans); a boolean specifying whether the bits are big-endian or not

Output: the bits as a `base64Binary`

Because a `base64Binary` is interchangeable with a `hexBinary`, which is eight bits, the input bits are cast to bytes. For defective byte input, little/big endian options will likely result in different output. For whole bytes, the results should be the same since the `base64Binary` will preserve the endianness of the input. Trailing = are p

characters that are neither 0 nor 1

Related: numerics, binary

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:bits-to-hexBinary`.

### **tan:bits-to-bin()**

*TAN-fn-numeric-conversion*

`tan:bits-to-bin($bits as xs:boolean*) as xs:string?`

Input: a sequence of booleans

Output: a base-2 binary representation of the sequence

Example: `false, true, true > '011'`

Related: numerics

Used by function `tan:le-bits-to-int-and-neg()`, `tan:md5()`, `tan:bitwise-rotate()`, `tan:bits-to-octets()`, `tan:bits-to-hex()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:bits-to-byte()**

*TAN-fn-binary*

`tan:bits-to-byte($input-bits as xs:boolean*, $big-endian as xs:boolean) as xs:boolean*`

Input: a sequence of bits (booleans); a boolean

Output: the same sequence, but extended to a multiple of 8 bits (a byte). If the `2` param is true, it is big endian and the padding takes place at the beginning, otherwise the end.

Related: numerics, binary

Used by function `tan:md5()`, `tan:bits-to-hexBinary()`.

Relies upon `tan:pad-bits`.

### **tan:bits-to-eight-bit-chars()**

*TAN-fn-binary*

`tan:bits-to-eight-bit-chars($in as xs:boolean*) as xs:string?`

Input: a sequence of bits (booleans)

Output: a string of 8-bit characters (characters corresponding to codepoints 1-255, and character 0 converted to U+2400 SYMBOL FOR NULL)

Related: numerics, binary

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `$tan:TAN-namespace`, `$tan:binary-error-key`, `tan:bits-to-hex`,  
`tan:hexBinary-to-eight-bit-chars`.

### **tan:bits-to-hex()**

*TAN-fn-numeric-conversion*

```
tan:bits-to-hex($in as xs:boolean*) as xs:string?
```

Input: a sequence of booleans

Output: a base-2 binary representation of the sequence

Related: numerics

Used by function `tan:bits-to-hexBinary()`, `tan:bits-to-eight-bit-chars()`.

Relies upon `tan:bin-to-hex()`, `tan:bits-to-bin`.

### **tan:bits-to-hexBinary()**

*TAN-fn-binary*

```
tan:bits-to-hexBinary($input-bits as xs:boolean*, $big-endian as  
xs:boolean) as xs:hexBinary?
```

Input: a sequence of bits (booleans); a boolean specifying whether the bits are  
big-endian or not

Output: the bits as a hexBinary

Because a hexBinary is eight bits, the input bits are cast to bytes. For defective  
byte input, little/big endian options will likely result in different output. For  
bytes, the results should be the same, since the hexBinary will preserve the endia  
the input.

Related: numerics, binary

Used by function `tan:bits-to-base64Binary()`.

Relies upon `tan:bits-to-byte`, `tan:bits-to-hex`, `tan:hex-to-hexBinary`.

### **tan:bits-to-octets()**

*TAN-fn-binary*

```
tan:bits-to-octets($in as xs:boolean*) as xs:integer*
```

Input: a sequence of bits (booleans)

Output: a sequence of integers between 0 and 255 representing the Binary value

Related: numerics, binary

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `$tan:TAN-namespace`, `$tan:binary-error-key`, `tan:bin-to-dec`,  
`tan:bits-to-bin`.

### **tan:bits-to-word()**

*TAN-fn-binary*

```
tan:bits-to-word($input-bits as xs:boolean*, $big-endian as xs:boolean)  
as xs:boolean*
```

Input: a sequence of bits (booleans); a boolean

Output: the same sequence, but extended to a multiple of 32 bits (a "word"). If the  
param is true, it is big endian and the padding takes place at the beginning, otherwise  
the end.

Related: numerics, binary

Used by function `tan:md5()`.

Relies upon `tan:pad-bits`.

### **tan:bitwise-and()**

*TAN-fn-binary*

```
tan:bitwise-and($bit-sequence-a as xs:boolean*, $bit-sequence-b as  
xs:boolean*) as xs:boolean*
```

Input: two sequences of booleans

Output: a single sequence as long as the longest input sequence, with pairwise AND  
computed.

Related: numerics, binary

Used by function `tan:md5()`.

Relies upon `$tan:TAN-namespace`, `$tan:binary-error-key`.

### **tan:bitwise-not()**

*TAN-fn-binary*

```
tan:bitwise-not($boolean as xs:boolean*) as xs:boolean*
```

Input: a boolean sequence

Output: the bitwise complement of the sequence

e.g., `false, true` > `true, false`

Related: numerics, binary

Used by function `tan:md5()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:bitwise-or()**

*TAN-fn-binary*

```
tan:bitwise-or($bit-sequence-a as xs:boolean*, $bit-sequence-b as
xs:boolean*) as xs:boolean*
```

Input: two sequences of booleans

Output: a single sequence as long as the longest input sequence, with pairwise OR computed.

Related: numerics, binary

Used by function `tan:md5()`.

Relies upon `$tan:TAN-namespace`, `$tan:binary-error-key`.

### **tan:bitwise-plus()**

*TAN-fn-binary*

```
tan:bitwise-plus($bit-sequence-a as xs:boolean*, $bit-sequence-b as
xs:boolean*, $big-endian as xs:boolean) as xs:boolean*
```

Input: two sequences of booleans, and a boolean

Output: a sequence of booleans representing the sum of the input, as if base-2 binary.

Unlike most bitwise operations, where the length of input and output are expected be the same, that is definitely not the case here, which means that a declaration made whether the operation is big-endian (most significant byte first) or little-endian (most significant byte last)

If one input is longer than the other, each unpaired boolean at the most significant part of the longest series will be assessed against an assumed counterpart of false.

Related: numerics, binary

Used by function `tan:md5()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:bitwise-rotate()**

*TAN-fn-binary*

```
tan:bitwise-rotate($bit-sequence as xs:boolean*, $rotate-left as xs:in-
teger) as xs:boolean*
```

Input: a boolean sequence; an integer

Output: the sequence, circularly shifted left the number of places specified by the integer; if the integer is negative, it will be shifted right.

It is up to the user to consider whether the bits are big- or little-endian as to

meaning of "left".

Related: numerics, binary

Used by function `tan:md5()`, `tan:bitwise-rotate()`.

Relies upon `tan:bits-to-bin`, `tan:bitwise-rotate()`.

### **tan:bitwise-xor()**

*TAN-fn-binary*

```
tan:bitwise-xor($bit-sequence-a as xs:boolean*, $bit-sequence-b as
xs:boolean*) as xs:boolean*
```

Input: two sequences of booleans

Output: a single sequence as long as the longest input sequence, with pairwise XOR computed.

Related: numerics, binary

Used by function `tan:md5()`.

Relies upon `$tan:TAN-namespace`, `$tan:binary-error-key`.

### **tan:counts-to-lasts()**

*TAN-fn-numeric-extended*

```
tan:counts-to-lasts($seq as xs:integer*) as xs:integer*
```

Input: sequence of numbers representing counts of items.

Output: sequence of numbers representing the last position of each item within the total count. E.g., (4, 12, 0, 7) -> (4, 16, 16, 23)

Related: numerics, sequences

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

### **tan:dec-to-base26()**

*TAN-fn-numeric-conversion*

```
tan:dec-to-base26($in as xs:integer?) as xs:string?
```

Input: `xs:integer`

Output: the base 26 equivalent as a string, e.g., 31 -> 'BF'

Related: numerics

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:dec-to-n`.

### **tan:dec-to-base64()**

*TAN-fn-numeric-conversion*

tan:dec-to-base64(\$in as xs:integer?) as xs:string?

Input: xs:integer

Output: the base 64 equivalent as a string, e.g., 31 - > 'f'

Related: numerics

Used by function tan:bin-to-base64(), tan:hex-to-base64().

Relies upon tan:dec-to-n.

### **tan:dec-to-bin()**

*TAN-fn-numeric-conversion*

tan:dec-to-bin(\$in as xs:integer?) as xs:string?

Input: an integer

Output: the number in binary form, as a string

Input is assumed to be big-endian

Related: numerics

Used by function tan:md5(), tan:hex-to-bin(), tan:base64-to-bin(), tan:utf-8-octets-to-string().

Relies upon tan:dec-to-n.

### **tan:dec-to-hex()**

*TAN-fn-numeric-conversion*

tan:dec-to-hex(\$in as xs:integer?) as xs:string?

Input: xs:integer

Output: the hexadecimal equivalent as a string, e.g., 31 - > '1F'

Related: numerics

Used by template # tan:core-expansion-normal.

Used by function tan:md5(), tan:checksum-fletcher(), tan:bin-to-hex(), tan:base64-to-hex(), tan:eight-bit-chars-to-hexBinary(), tan:octets-to-hexBinary().

Relies upon tan:dec-to-n.

### **tan:dec-to-n()**

*TAN-fn-numeric-conversion*



```
tan:dec-to-n($in as xs:integer?, $base as xs:integer) as xs:string?
```

Input: two integers

Output: a string that represents the first numeral in base N, where N is the second numeral (must be 2-16, 26, or 64)

No padding is performed on the output (e.g., = in base-64, or initial zeroes in hexadecimal)

Related: numerics

Used by function `tan:dec-to-hex()`, `tan:dec-to-base26()`, `tan:dec-to-base64()`, `tan:dec-to-bin()`, `tan:dec-to-n()`.

Relies upon `$tan:TAN-namespace`, `$tan:base26-key`, `$tan:base64-key`, `$tan:hex-key`, `$tan:numeric-conversion-error-key`, `tan:dec-to-n`.

### **tan:eight-bit-chars-to-base64Binary()**

*TAN-fn-binary*

```
tan:eight-bit-chars-to-base64Binary($in as xs:string?) as xs:base64Binary?
```

Input: a string that is encoded in eight-bit chars; a boolean

Output: the string as a sequence of `hexBinary` values, one per character

Related: numerics, binary

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon `tan:eight-bit-chars-to-hexBinary`.

### **tan:eight-bit-chars-to-bits()**

*TAN-fn-binary*

```
tan:eight-bit-chars-to-bits($in as xs:string*) as xs:boolean*
```

Input: a sequence of eight-bit-chars (integers in the range 0-255)

Output: the eight-bit-chars as sequence of bits (booleans)

Related: numerics, binary

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon `tan:eight-bit-chars-to-hexBinary`, `tan:hexBinary-to-bits`.

### **tan:eight-bit-chars-to-hexBinary()**

*TAN-fn-binary*

```
tan:eight-bit-chars-to-hexBinary($in as xs:string?) as xs:hexBinary?
```

Input: a string that is encoded in eight-bit chars; a boolean

Output: the string as a sequence of hexBinary values, one per character

Related: numerics, binary

Used by function `tan:eight-bit-chars-to-bits()`, `tan:eight-bit-chars-to-base64Binary()`.

Relies upon `$tan:TAN-namespace`, `$tan:binary-error-key`, `tan:dec-to-hex`.

### **tan:hex-to-base64()**

*TAN-fn-numeric-conversion*

`tan:hex-to-base64($in as xs:string?) as xs:string?`

Input: a string representing a hexadecimal number

Output: a string representing the number in base 64

Related: numerics

Used by function `tan:base64Binary-to-base64()`.

Relies upon `tan:dec-to-base64`, `tan:fill`, `tan:hex-to-dec`.

### **tan:hex-to-base64Binary()**

*TAN-fn-numeric-conversion*

`tan:hex-to-base64Binary($in as xs:string?) as xs:base64Binary?`

Input: a hexadecimal string

Output: the string cast to `xs:base64Binary`, if possible

Related: numerics

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `$tan:TAN-namespace`, `$tan:numeric-conversion-error-key`, `tan:fill`.

### **tan:hex-to-bin()**

*TAN-fn-numeric-conversion*

`tan:hex-to-bin($in as xs:string?) as xs:string?`

Input: a string representation of a hexadecimal number

Output: a string representing the datum in binary code

Related: numerics

Used by function `tan:base64binary-to-bin()`, `tan:hexBinary-to-bin()`, `tan:base64Binary-to-bin()`, `tan:hex-to-bits()`.

Relies upon `tan:dec-to-bin`, `tan:fill`, `tan:hex-to-dec`.

### **tan:hex-to-bits()**

*TAN-fn-numeric-conversion*

tan:hex-to-bits(\$in as xs:string?) as xs:boolean\*

Input: any string representing base-2 binary

Output: a sequence of booleans representing the bits of the binary

Related: numerics

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon tan:bin-to-bits(), tan:hex-to-bin.

### **tan:hex-to-dec()**

*TAN-fn-numeric-conversion*

tan:hex-to-dec(\$in as xs:string?) as xs:integer?

Input: a string representing a hexadecimal number

Output: the integer value, e.g., '1F' - > 31

Related: numerics

Used by function tan:hex-to-bin(), tan:hex-to-base64(), tan:string-to-utf-8-octets(), tan:hexBinary-to-octets(), tan:hexBinary-to-eight-bit-chars().

Relies upon tan:n-to-dec.

### **tan:hex-to-hexBinary()**

*TAN-fn-numeric-conversion*

tan:hex-to-hexBinary(\$in as xs:string?) as xs:hexBinary?

Input: a hexadecimal string

Output: the string cast to xs:hexBinary, if possible

Related: numerics

Used by function tan:bits-to-hexBinary(), tan:base64-to-base64Binary(), tan:bin-to-base64Binary(), tan:bin-to-hexBinary().

Relies upon \$tan:TAN-namespace, \$tan:numeric-conversion-error-key, tan:fill.

### **tan:hexBinary-to-bin()**

*TAN-fn-numeric-conversion*

tan:hexBinary-to-bin(\$in as xs:hexBinary?) as xs:string?

Input: a hexBinary

Output: a string with the value in base 2

Related: numerics

Used by function `tan:hexBinary-to-bits()`.

Relies upon `tan:hex-to-bin`.

### **tan:hexBinary-to-bits()**

*TAN-fn-binary*

```
tan:hexBinary-to-bits($in as xs:hexBinary?) as xs:boolean*
```

Input: a `hexBinary`

Output: the value in bits (booleans)

Because `hexBinary` works in bytes, the output will be a multiple of 8

Related: numerics, binary

Used by function `tan:octets-to-bits()`, `tan:eight-bit-chars-to-bits()`.

Relies upon `tan:bin-to-bits`, `tan:hexBinary-to-bin`.

### **tan:hexBinary-to-eight-bit-chars()**

*TAN-fn-binary*

```
tan:hexBinary-to-eight-bit-chars($hexBinary as xs:hexBinary?) as  
xs:string?
```

Input: a `hexBinary`

Output: the `hexBinary` converted to 8-bit characters (characters corresponding to codepoints 1-255, and character 0 converted to U+2400 SYMBOL FOR NULL)

Related: numerics, binary

Used by function `tan:bits-to-eight-bit-chars()`, `tan:base64Binary-to-eight-bit-chars()`.

Relies upon `tan:hex-to-dec`.

### **tan:hexBinary-to-hex()**

*TAN-fn-numeric-conversion*

```
tan:hexBinary-to-hex($in as xs:hexBinary?) as xs:string?
```

Input: a `base64Binary`

Output: a string with the value in hexadecimal

Related: numerics

Used by function `tan:hexBinary-to-octets()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:hexBinary-to-octets()**

*TAN-fn-binary*

```
tan:hexBinary-to-octets($in as xs:hexBinary?) as xs:integer*
```

Input: a hexBinary

Output: a sequence of integers between 0 and 255 representing the hexBinary value

Related: numerics, binary

Used by function `tan:base64Binary-to-octets()`.

Relies upon `tan:hex-to-dec`, `tan:hexBinary-to-hex`.

### **tan:integer-groups()**

*TAN-fn-numeric-extended*

```
tan:integer-groups($integers-to-group as xs:integer*) as array(xs:integer+)?
```

Input: any integers

Output: an array, with each member containing a sequence of integers that are collectively contiguous

Array members and their contents will be sorted; duplicates will be ignored

Related: numerics, grouping

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

### **tan:last-32-bits()**

*TAN-fn-binary*

```
tan:last-32-bits($bit-sequence as xs:boolean*) as xs:boolean*
```

Input: a sequence of booleans

Output: the last 32

Used as a way of doing modulo  $2^{32}$ , usually on big-endian bits; little-endian modulo  $2^{32}$  is easy with `subsequence(X, 1, 32)`

Related: numerics, binary

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

### **tan:lengths-to-positions()**

*TAN-fn-numeric-extended*

`tan:lengths-to-positions($seq as xs:integer*) as xs:integer*`

Input: sequence of numbers representing lengths of items.

Output: sequence of numbers representing the first position of each input item, if the sequence concatenated. E.g., (4, 12, 0, 7) -> (1, 5, 17, 17)

Related: numerics, sequences

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

### **tan:log2()**

*TAN-fn-numeric-standard*

`tan:log2($arg as xs:double?) as xs:double?`

Input: any double

Output: the binary logarithm of the value

Related: numerics

Used by function `tan:common-start-or-end-string()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:n-to-dec()**

*TAN-fn-numeric-conversion*

`tan:n-to-dec($input as xs:string?, $base as xs:integer) as xs:integer?`

Input: string representation of some number; an integer

Output: an integer representing the first parameter in the base system of the 2nd parameter

Related: numerics

Used by function `tan:hex-to-dec()`, `tan:base26-to-dec()`, `tan:base64-to-dec()`, `tan:bin-to-dec()`, `tan:n-to-dec()`.

Relies upon `$tan:TAN-namespace`, `$tan:base26-key`, `$tan:base64-key`, `$tan:hex-key`, `$tan:numeric-conversion-error-key`, `tan:n-to-dec()`.

### **tan:number-sort()**

*TAN-fn-numeric-extended*

`tan:number-sort($numbers as xs:anyAtomicType*) as xs:double*`

Input: any sequence of items

Output: the same sequence, sorted with string numerals converted to numbers

Related: numerics

Used by function `tan:outliers()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:numbers-to-portions()**

*TAN-fn-numeric-standard*

```
tan:numbers-to-portions($numbers as item(*) as xs:decimal*
```

Input: a sequence of numbers, representing a sequence of quantities of all the parts of a whole

Output: one double per number, from 0 to 1, reflecting where each finishes in the sequence proportionate to the sum of the whole. The last item always returns 1. An uncastable to a double will be given the empty sequence.

Related: numerics

Used by function `tan:infuse-tree()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:octets-to-base64Binary()**

*TAN-fn-binary*

```
tan:octets-to-base64Binary($in as xs:integer*) as xs:base64Binary?
```

Input: a sequence of octets (integers in the range 0-255)

Output: the octets as base64Binary

Related: numerics, binary

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:octets-to-hexBinary`.

### **tan:octets-to-bits()**

*TAN-fn-binary*

```
tan:octets-to-bits($in as xs:integer*) as xs:boolean*
```

Input: a sequence of octets (integers in the range 0-255)

Output: the octets as sequence of bits (booleans)

Related: numerics, binary

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:hexBinary-to-bits`, `tan:octets-to-hexBinary`.

### **tan:octets-to-hexBinary()**

*TAN-fn-binary*

`tan:octets-to-hexBinary($in as xs:integer*) as xs:hexBinary?`

Input: a sequence of octets (integers in the range 0-255)

Output: the octets as hexBinary

Related: numerics, binary

Used by function `tan:octets-to-bits()`, `tan:octets-to-base64Binary()`.

Relies upon `$tan:TAN-namespace`, `$tan:binary-error-key`, `tan:dec-to-hex`.

### **tan:pad-bits()**

*TAN-fn-binary*

`tan:pad-bits($input-bits as xs:boolean*, $big-endian as xs:boolean,  
$item-size as xs:integer) as xs:boolean*`

Input: bits as booleans; a boolean; an integer

Output: the input padded with enough 0 bits (false booleans) at the front or back (depends on 2nd parameter) to make the output as long as the third integer

Related: numerics, binary

Used by function `tan:bits-to-byte()`, `tan:bits-to-word()`.

Relies upon `$tan:TAN-namespace`, `$tan:binary-error-key`.

### **tan:product()**

*TAN-fn-numeric-extended*

`tan:product($numbers as xs:anyAtomicType*) as xs:anyAtomicType?`

Input: a sequence of numbers

Output: the product of those numbers

Related: numerics

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

### **tan:string-to-utf-8-octets()**

*TAN-fn-octets*

`tan:string-to-utf-8-octets($str as xs:string) as xs:integer*`

Input: a string

Output: integer values of the string, after conversion to UTF-8 bytes (0..255)

This function was written to ensure that checksums of Unicode values do not cause



repeating values.

Anything below codepoint 128 will be simply the output of `string-to-codepoints()`

Related: numerics, codepoints

Used by function `tan:unicode-to-eight-bit-chars()`, `tan:checksum-fletcher()`.

Relies upon `tan:hex-to-dec`.

### **tan:unicode-to-eight-bit-chars()**

*TAN-fn-octets*

```
tan:unicode-to-eight-bit-chars($unicode-string as xs:string?) as  
xs:string?
```

Input: any Unicode string

Output: the string, with upper characters (greater than dec 126, ~) converted to 8-bit-bytes

Related: numerics, codepoints

Used by function `tan:md5()`.

Relies upon `tan:string-to-utf-8-octets`.

### **tan:utf-8-octets-to-string()**

*TAN-fn-octets*

```
tan:utf-8-octets-to-string($in as xs:integer*) as xs:string?
```

Input: a sequence of octets (integers in the range 0-255)

Output: the octets converted into a Unicode string.

Related: numerics, codepoints

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `$tan:TAN-namespace`, `$tan:octet-error-key`, `tan:bin-to-dec`, `tan:dec-to-bin`.

## **Resolution**

### **Functions**

#### **tan:resolve-doc()**

*Option 1 (TAN-fn-resolve-files)*

```
tan:resolve-doc($TAN-document as document-node()) as document-node()?
```

One-parameter version of fuller one below

Used by variable `$tan:annotations-resolved`, `$tan:see-alsos-resolved`, `$tan:predecessors-resolved`, `$tan:successors-resolved`, `$tan:self-resolved`, `$tan:redivisions-resolved`, `$tan:model-resolved`, `$tan:sources-resolved`, `$tan:morphologies-resolved`.

Used by template `# tan:get-and-resolve-dependency`, `# tan:check-referred-doc`, `# tan:core-expansion-terse`, `# tan:class-1-expansion-verbose-pass-1`, `# tan:core-expansion-verbose`.

Used by function `tan:resolve-doc()`, `tan:update-TAN-change-log()`, `tan:resolve-doc-loop()`.

Relies upon `tan:resolve-doc`.

*Option 2 (TAN-fn-resolve-files)*

```
tan:resolve-doc($TAN-document as document-node()?, $add-q-ids as
xs:boolean, $attributes-to-add-to-root-element as attribute(*) as doc-
ument-node()?)
```

Input: any TAN document; a boolean indicating whether each element should be stamped with a unique id in `@q`; attributes that should be added to the root element

Output: the TAN document, resolved, as explained in the associated loop function below

Related: resolution, files

Used by variable `$tan:annotations-resolved`, `$tan:see-alsos-resolved`, `$tan:predecessors-resolved`, `$tan:successors-resolved`, `$tan:self-resolved`, `$tan:redivisions-resolved`, `$tan:model-resolved`, `$tan:sources-resolved`, `$tan:morphologies-resolved`.

Used by template `# tan:get-and-resolve-dependency`, `# tan:check-referred-doc`, `# tan:core-expansion-terse`, `# tan:class-1-expansion-verbose-pass-1`, `# tan:core-expansion-verbose`.

Used by function `tan:resolve-doc()`, `tan:update-TAN-change-log()`, `tan:resolve-doc-loop()`.

Does not rely upon global variables, keys, functions, or templates.

## **tan:resolve-href()**

*Option 1 (TAN-fn-resolve-files)*

```
tan:resolve-href($xml-node as node()?) as node()?
```

One-parameter version of the full one, below

Used by function `tan:resolve-href()`, `tan:get-1st-doc()`.

Relies upon `tan:resolve-href`.

*Option 2 (TAN-fn-resolve-files)*

```
tan:resolve-href($xml-node as node()?, $add-q-ids as xs:boolean) as
node()?
```

Two-parameter version of the full one, below

Used by function `tan:resolve-href()`, `tan:get-1st-doc()`.

Relies upon `tan:base-uri`, `tan:resolve-href`.

*Option 3 (TAN-fn-resolve-files)*

```
tan:resolve-href($xml-node as node()?, $add-q-ids as xs:boolean, $this-  
base-uri as xs:string) as node()?
```

Input: any XML node, a boolean, a string

Output: the same node, but with `@href` in itself and all descendant elements resolved to absolute form, with `@orig-href` inserted preserving the original if there is a change

The second parameter is provided because this function works closely with `tan:resolve-doc()`.

Related: resolution, uris, filenames

Used by function `tan:resolve-href()`, `tan:get-1st-doc()`.

Relies upon # `tan:resolve-href`.

## Search

### Variables

#### **\$morpheus-map**

*TAN-fn-search-extended*

This variable has a complex definition. See stylesheet for definition.

Used by template # `tan:build-morpheus-ana` `tan:build-morpheus-lex`.

Does not rely upon global variables, keys, functions, or templates.

#### **\$search-services**

*TAN-fn-search-extended*

Definition: `doc('search-services.xml')`

Used by function `tan:search-for-entities()`.

Does not rely upon global variables, keys, functions, or templates.

## Functions

#### **tan:search-for-entities()**

*TAN-fn-search-extended*

```
tan:search-for-entities($server-idref as xs:string, $params as element()+) as item()*
```

Input: a sequence of strings (search keywords), a string (options: loc), a string (options: marcxml, dc, mods), a positive integer

Output: up to N records (N = integer parameter) in the protocol of the 3rd parameter using the SRU protocol of the library catalog specified in the 2nd parameter based search words in the 1st

Related: search, lexicomorphology

Used by function `tan:search-for-entities()`, `tan:search-for-scripta()`, `tan:search-for-persons()`, `tan:search-wikipedia()`, `tan:search-morpheus()`.

Relies upon `$search-services`, `$tan:internet-available`, `tan:search-for-entities()`.

### **tan:search-for-persons()**

*TAN-fn-search-extended*

```
tan:search-for-persons($search-expression as xs:string?, $max-records as xs:integer) as item()*
```

Input: a search expression, an integer indicating the number of records requested

Output: that number of records using the search expression in the Virtual International Authority File

Related: search, vocabulary

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:search-for-entities`.

### **tan:search-for-scripta()**

*TAN-fn-search-extended*

```
tan:search-for-scripta($search-expression as xs:string?, $max-records as xs:integer) as item()*
```

Input: a search expression, an integer indicating the number of records requested

Output: that number of records using the search expression in the Library of Congress

Related: search, vocabulary

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:search-for-entities`.

### **tan:search-morpheus()**

*TAN-fn-search-extended*

```
tan:search-morpheus($search-expression as xs:string?) as document-node()?
```

Input: a token in Greek or Latin

Output: lexico-morphological data using Morpheus's service

Related: search, lexicomorphology

Used by function `tan:lm-data()`.

Relies upon `tan:item-type`, `tan:search-for-entities`.

### **tan:search-results-to-claims()**

*TAN-fn-search-extended*

```
tan:search-results-to-claims($search-results as item()*, $results-vendor as xs:string) as item()*
```

Input: XML representing a search result that is a claim; a string indicating which vendor supplied the results

Output: the claim represented in TAN elements

This experimental function, so far only supporting results from `tan:search-morpheus()`

Related: search, lexicomorphology

Used by function `tan:lm-data()`.

Relies upon # `tan:claims-morpheus`.

### **tan:search-results-to-IRI-name-pattern()**

*Option 1 (TAN-fn-search-extended)*

```
tan:search-results-to-IRI-name-pattern($search-results as item()*) as item()*
```

One-parameter version of the fuller one, below

Used by function `tan:search-results-to-IRI-name-pattern()`.

Relies upon `tan:search-results-to-IRI-name-pattern`.

*Option 2 (TAN-fn-search-extended)*

```
tan:search-results-to-IRI-name-pattern($search-results as item()*, $format-results as xs:boolean) as item()*
```

Input: search results from `tan:search-for-entities()`

Output: for every entity found, an `<item>` with `<IRI>`, `<name>`, and perhaps `<desc>`

Note, this is intended to format results from searches that result in identifiers and descriptions of entities, not claims.

Related: search, vocabulary

Used by function `tan:search-results-to-IRI-name-pattern()`.

Relies upon # `tan:get-IRI-name`.

### **tan:search-wikipedia()**

*TAN-fn-search-extended*

```
tan:search-wikipedia($search-expression as xs:string?, $max-records as
xs:integer) as item()*
```

Input: a search expression, an integer indicating the number of records requested

Output: that number of records using the search expression in Wikipedia

Related: search, vocabulary

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon `tan:search-for-entities`.

## Sequences

### Functions

#### **tan:collate-pair-of-sequences()**

*TAN-fn-sequences-standard*

```
tan:collate-pair-of-sequences($string-sequence-1 as xs:string*,
$string-sequence-2 as xs:string*) as element()
```

Input: two sequences of strings

Output: an element sequence that collates the two sequences as a single sequence, attempting to preserve the longest common subsequence.

This function has been written for two different scenarios:

1. @n values in two sets of `<div>s` that must be collated;
2. pre-processing two long strings that need to be compared. Although the primary context is two sets of unique string-sequences, one imagine situations where one or both input strings have repetition, in which case to retain information about the sequence. Hence the output is a sequence of elements with `@p1`, `@p2`, or both signifying the position of the original input. The transform is lossless, and the original input can be reconstructed if needed.

Related: grouping, sequences, strings, diff

Used by function `tan:diff-courtyard()`, `tan:diff-loop()`, `tan:collate-pair-of-sequences()`, `tan:collate-sequence-loop()`.

Relies upon `tan:array-to-xml`, `tan:collate-pair-of-sequences()`, `tan:longest-ascending-subsequence`.

## **tan:collate-sequences()**

*TAN-fn-sequences-standard*

```
tan:collate-sequences($elements-with-elements as element(*) as  
xs:string*
```

Input: a sequence of elements, each with a sequence of child elements

Output: a series of strings that is a collation of the text sequences of the input

Example: Given input: `<a><t>apple</t><t>banana</t><t>carrot</t></a>  
<b><t>apple</t><t>carrot</t><t>dessert</t></b> <c><t>apple</t><t>dessert</t></c> O  
'carrot', 'dessert')`

Related: nodes, sequences

Used by function `tan:collate-sequences()`, `tan:group-divs()`.

Relies upon `tan:collate-sequences()`.

## **tan:distinct-items()**

*TAN-fn-sequences-standard*

```
tan:distinct-items($items as item(*) as item(*)
```

Input: any sequence of items

Output: Those items that are not deeply equal to any other item in the sequence

This function is parallel to `distinct-values()`, but handles non-string input

Related: items, nodes

Used by template `# tan:merge-tan-docs`, `# tan:infuse-diff-and-collate-stats`,  
`# tan:core-expansion-terse-attributes`, `# tan:check-referred-doc`, `#  
tan:core-expansion-terse`.

Used by function `tan:vocabulary()`, `tan:merge-anas()`, `tan:attribute-vocabu-  
lary()`.

Does not rely upon global variables, keys, functions, or templates.

## **tan:duplicate-items()**

*TAN-fn-sequences-standard*

```
tan:duplicate-items($sequence as item(*) as item(*)
```

Input: any sequence of items

Output: those items that appear in the sequence more than once

This function parallels the standard `fn:distinct-values()`

Related: items, nodes

Used by variable `$tan:duplicate-head-iris`.

Used by template `# tan:dependency-adjustments-pass-2`, `# tan:array-to-map`, `# tan:core-expansion-terse-attributes`, `# tan:class-2-expansion-terse`, `tan:class-2-expansion-terse-for-validation`, `# tan:catalog-expansion-terse`, `# tan:core-expansion-terse`.

Used by function `tan:duplicate-values()`, `tan:morphological-code-conversion-maps()`, `tan:group-elements-by-shared-node-values()`.

Relies upon `tan:item-type`.

### **tan:duplicate-values()**

*TAN-fn-sequences-standard*

```
tan:duplicate-values($sequence as item()*) as item()*
```

surrogate function for `tan:duplicate-items()`

Used by template `# tan:dependency-adjustments-pass-1`, `tan:core-expansion-terse`, `# tan:core-expansion-normal`, `# tan:convert-morphological-codes`, `# tan:core-expansion-terse-attributes-to-elements`.

Relies upon `tan:duplicate-items`.

### **tan:expand-numerical-expression()**

*TAN-fn-sequences-standard*

```
tan:expand-numerical-expression($selector as xs:string?, $max as xs:integer?) as xs:integer*
```

Input: a string representing a TAN selector (used by `@pos`, `@chars`), and an integer defining the value of 'last'

Output: a sequence of numbers representing the positions selected, unsorted, and retaining duplicate values. Example: `("2 - 4, last-5 - last, 36", 50) -> (2, 3, 4, 49, 50, 36)` Errors will be flagged as follows: 0 = value that falls below 1; -1 = surpasses the value of \$max; -2 = ranges that call for negative steps, e.g., '4 -

This function assumes that all numerals are Arabic.

Related: `sequences`, `numerics`, `numerals`

Used by template `# tan:core-expansion-terse-attributes-to-elements`, `# tan:check-and-expand-ranges`, `# tan:mark-dependencies-pass-2-for-validation`, `# tan:evaluate-conditions`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:item-type()**

*TAN-fn-sequences-standard*

```
tan:item-type($xml-items as item()*) as xs:string*
```



Input: any XML items

Output: the type of each item

Related: items, datatypes, nodes

Used by template # `tan:map-put`, # `tan:array-to-map`, # `tan:map-remove`, # `tan:map-and-array-to-xml`.

Used by function `tan:map-entries()`, `tan:stamp-tree-with-text-data()`, `tan:restore-chopped-tree()`, `tan:duplicate-items()`, `tan:search-morpheus()`, `tan:map-put()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:longest-ascending-subsequence()**

*TAN-fn-sequences-standard*

`tan:longest-ascending-subsequence($integer-sequence as item(*) as array(xs:integer+)?`

Input: a sequence of items. Each item is either an integer, an array of integer sequences, or a sequence of integers serialized as text nodes (within child elements).

Output: An array. Each member of the array is a sequence of two integers. The first represents the position of the output integer, and the second is the integer itself. The first member of the longest ascending subsequence. The positional first integer allows one to disambiguate repetitions in the input.

Although this function claims by its name to find the longest subsequence, in the interests of efficiency, it applies the so-called Patience method of finding the longest increasing subsequence, which may return only a very long string, not the longest possible string. Such an algorithm allows the number of operations to be directly proportionate to the number of input elements (backtracking would be computationally intensive on long sequences). The routine does not "remember" gaps. If, given a set of integers, there is no increment available in consecutive integers, the sequences are retained, but a check is made backward for a subsequence that could account for the smallest of the new integers.

The input allows a sequence of elements, along with integers, because this function has been written to support `tan:collate-pairs-of-sequences()`, which requires sequence choice options. That is, you may have a situation where you are comparing two sequences, either of which may have values that repeat, e.g., (a, b, c, b, d) and (c, b, d). The first sequence is converted (1, 2, 3, 4, 5). In finding a corresponding sequence of integers in the second set, b must be allowed to be either 2 or 4, i.e., the array [3, (2, 4), 5]. The input would ideally be expressed as arrays of integers, but this function serves as a 2.0 library (where arrays are not recognized), and arrays are not as easy to construct and extract in XSLT 3.0 as maps are.

If an input array member consists of the empty sequence, its position impacts the positions that are returned in the output, but not the corresponding values (obviously).

Related: items, sequences, numerics

Used by function `tan:longest-ascending-subsequence()`, `tan:collate-pair-of-sequences()`.

Relies upon `tan:longest-ascending-subsequence()`, `# tan:build-integer-arrays`.

### **tan:most-common-item()**

*TAN-fn-sequences-extended*

```
tan:most-common-item($sequence as item(*) as item()?)
```

Input: any sequence of items

Output: the one item that appears most frequently

If two or more items appear equally frequently, only the first is returned

Related: sequences, items

Used by variable `$tan:most-common-indentations`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:most-common-item-count()**

*TAN-fn-sequences-standard*

```
tan:most-common-item-count($sequence as item(*) as xs:integer?)
```

Input: any sequence of items

Output: the count of the first item that appears most frequently

If two or more items appear equally frequently, only the first is returned

Written to help group `<u>` elements in `tan:collate()`

Related: items, sequences

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

## **Statistics**

### **Functions**

#### **tan:median()**

*TAN-fn-statistics-extended*

```
tan:median($numbers as xs:anyAtomicType*) as xs:anyAtomicType?
```

Input: any sequence of numbers

Output: the median value

It is assumed that the input has already been sorted by `tan:numbers-sorted()` vel s

Related: statistics

Used by function `tan:outliers()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:no-outliers()**

*TAN-fn-statistics-extended*

`tan:no-outliers($numbers as xs:anyAtomicType*) as xs:anyAtomicType*`

Input: any sequence of numbers

Output: the same sequence, without outliers

Related: statistics

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon `tan:outliers`.

### **tan:outliers()**

*TAN-fn-statistics-extended*

`tan:outliers($numbers as xs:anyAtomicType*) as xs:anyAtomicType*`

Input: any sequence of numbers

Output: outliers in the sequence

Related: statistics

Used by function `tan:no-outliers()`, `tan:outliers()`.

Relies upon `tan:median`, `tan:number-sort`, `tan:outliers()`.

## **Strings**

### **Variables**

#### **\$tan:diff-and-collate-input-batch-replacements**

*TAN-fn-strings-diff-extended*

This variable has a complex definition. See stylesheet for definition.

No variables, keys, functions, or named templates depend upon this `xsl:variable`.

Does not rely upon global variables, keys, functions, or templates.

#### **\$tan:english-articles**

*TAN-fn-strings-extended*

Definition: ( 'a' , 'the' )

Used by function `tan:title-case()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:english-prepositions**

*TAN-fn-strings-extended*

Definition: ('aboard', 'about', 'above', 'across', 'after', 'against', 'along', 'amid', 'among', 'anti', 'around', 'as', 'at', 'before', 'behind', 'below', 'beneath', 'beside', 'besides', 'between', 'beyond', 'but', 'by', 'concerning', 'considering', 'despite', 'down', 'during', 'except', 'excepting', 'excluding', 'following', 'for', 'from', 'in', 'inside', 'into', 'like', 'minus', 'near', 'of', 'off', 'on', 'onto', 'opposite', 'outside', 'over', 'past', 'per', 'plus', 'regarding', 'round', 'save', 'since', 'than', 'through', 'to', 'toward', 'towards', 'under', 'underneath', 'unlike', 'until', 'up', 'upon', 'versus', 'via', 'with', 'within', 'without')

Used by function `tan:title-case()`.

Does not rely upon global variables, keys, functions, or templates.

### **\$tan:nested-phrase-close-marker-regex**

*TAN-fn-strings-standard*

Definition: '[' || tan:escape(string-join(\$tan:nested-phrase-markers/tan:pair/tan:close/text())) || ']'

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `$tan:nested-phrase-markers`.

### **\$tan:nested-phrase-marker-regex**

*TAN-fn-strings-standard*

Definition: '[' || tan:escape(string-join(\$tan:nested-phrase-markers/tan:pair/\*/text())) || ']'

Used by function `tan:nested-phrase-loop()`.

Relies upon `$tan:nested-phrase-markers`.

### **\$tan:nested-phrase-markers**

*TAN-fn-strings-standard*

This variable has a complex definition. See stylesheet for definition.

Used by variable `$tan:nested-phrase-marker-regex`, `$tan:nested-phrase-close-marker-regex`.

Used by function `tan:nested-phrase-loop()`.

Does not rely upon global variables, keys, functions, or templates.

## Functions

### **tan:acronym()**

*TAN-fn-strings-extended*

```
tan:acronym($string-input as xs:string?) as xs:string?
```

Input: any strings

Output: the acronym of those strings (initial letters joined without spaces)

Example: "The Cat in the Hat" - > "TCitH"

Related: strings

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

### **tan:adjust-diff()**

*TAN-fn-strings-diff-standard*

```
tan:adjust-diff($diff-output as element(tan:diff)*) as element()*
```

Input: any output <diff>s from tan:diff()

Output: the output adjusted, with <a> and <b>s shifted if there are more optimal divisions

Multiple inputs are presumed to be tan:diff() results that should be concatenated.

This function is helpful for cases where the common element needs to be adjusted to better respect word or phrase boundaries.

Related: strings, diff

Used by function tan:collate(), tan:replace-diff(), tan:adjust-diff().

Relies upon tan:adjust-diff(), tan:common-end-string, tan:common-start-string, # tan:trim-or-add-text.

### **tan:apply-deltas()**

*Option 1 (TAN-fn-strings-diff-extended)*

```
tan:apply-deltas($string-to-convert as xs:string?, $deltas as document-node()*) as xs:string?
```

2-parameter version of the full one, below

Used by function tan:apply-deltas().

Relies upon tan:apply-deltas.

*Option 2 (TAN-fn-strings-diff-extended)*

`tan:apply-deltas($string-to-convert as xs:string?, $deltas as document-node()*, $input-is-string-a as xs:boolean?) as xs:string?`

Input: a string, a series of delta documents, perhaps a boolean

Output: another string, after any applicable deltas have been successively applied

Each delta will be applied only once. If any deltas are left over, a warning will be returned.

Output will be verified; if its checksum does not match what is in the given delta, a warning will be returned

Related: strings, diff

Used by function `tan:apply-deltas()`.

Relies upon `tan:apply-deltas`, `tan:checksum-fletcher-64`, `tan:ellipses`, `tan:trim-long-tree`.

### **tan:atomize-string()**

*TAN-fn-strings-standard*

`tan:atomize-string($input as xs:string?) as xs:string*`

surrogate function for `tan:chop-string()`

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:chop-string`.

### **tan:batch-replace()**

*TAN-fn-strings-standard*

`tan:batch-replace($string-to-replace as xs:string?, $replace-elements as element()*) as xs:string?`

Input: a string, a sequence of: `<[ANY NAME] pattern="" replacement="" [flags=""] [message=""]>`

Output: the string, after those replaces are processed in order

Related: strings

Used by function `tan:batch-replace()`.

Relies upon `tan:batch-replace()`.

### **tan:batch-replace-advanced()**

*TAN-fn-strings-extended*

`tan:batch-replace-advanced($items-with-strings as item()*, $replace-elements as element()*) as item()*`

Input: any items; a sequence of elements: `<[ANY NAME] pattern="" [flags=""] [message=""] [exclude-pattern=""]>[ANY CONTENT]</[ANY NAME]>`

Output: a sequence of items, with instances of `@pattern` replaced by the content of the elements

This is a more advanced form of `tan:batch-replace()`, in that it allows text to be replaced by elements. It also allows for exclusion of matches via `@exclude-pattern` if a span of text matches that value, the match will be ignored.

The function was devised to convert raw text into TAN-T. Textual references can be turned into `<div n=""/>` anchors, and the result can then be changed into a traditional hierarchy.

Related: strings, tree manipulation, nodes

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon # `tan:batch-replace-advanced-pass-1`.

### **tan:chop-diff-output()**

*TAN-fn-strings-diff-standard*

```
tan:chop-diff-output($diff-output as element(tan:diff)?, $chop-points
as xs:integer*, $use-string-a as xs:boolean, $chop-other-at-regex as
xs:string?) as map(xs:integer, item()*)
```

Input: diff output; a sequence of integers; a boolean; a string

Output: a map whose constituent map entries consist of the input chopped into parts according to the input sequence of integers. If the boolean is true, then chops will be made according to string `a`, with chops on `b` made proportionally, respecting the boundaries by the fourth parameter.

Each map entry has as its value a `<diff>` wrapping the fragment `<a>`, `<b>`, `<common>`

If the input diff output already has `@_pos-a` and the like already inside, those figures will be respected, otherwise string data will be stamped into the input, and preserved in the output.

The numeral 1 will be automatically added to the chop points, and duplicates will be removed.

If the chop regex for the other string is missing, the chops will occur on individual characters.

This function was written primarily to support verbose validation of class 1 files and to drive the application that synchronizes a class 1 file with a given revision.

This function provides a more complex approach to the generic one supported by `tan:chop-tree()`

Related: strings, tree manipulation

Used by template # `tan:class-1-expansion-verbose-pass-3`.

Used by function `tan:chop-diff-output()`.

Relies upon `$tan:char-regex`, `tan:chop-diff-output()`, `tan:stamp-diff-with-text-data`, `# tan:split-diff-components-1`.

### **tan:chop-string()**

*Option 1 (TAN-fn-strings-standard)*

```
tan:chop-string($input as xs:string?) as xs:string*
```

Input: any string

Output: that string chopped into a sequence of individual characters, following TAN rules (modifying characters always join their preceding base character)

Related: strings, sequences

Used by template `# tan:core-expansion-terse-attributes-to-elements`, `# tan:split-diff-components-1`, `# tan:mark-dependencies-pass-2`, `# tan:split-diff-components-2`.

Used by function `tan:atomize-string()`, `tan:chop-string()`, `tan:string-length()`, `tan:diff-loop()`, `tan:segment-string()`, `tan:int-to-grc()`, `tan:cardinal()`.

Relies upon `$tan:char-regex`.

*Option 2 (TAN-fn-strings-standard)*

```
tan:chop-string($input as xs:string?, $chop-after-regex as xs:string)  
as xs:string*
```

Input: any string

Output: that string chopped into a sequence of individual characters, following TAN rules (modifying characters always join their preceding base character)

Related: strings, sequences

Used by template `# tan:core-expansion-terse-attributes-to-elements`, `# tan:split-diff-components-1`, `# tan:mark-dependencies-pass-2`, `# tan:split-diff-components-2`.

Used by function `tan:atomize-string()`, `tan:chop-string()`, `tan:string-length()`, `tan:diff-loop()`, `tan:segment-string()`, `tan:int-to-grc()`, `tan:cardinal()`.

Does not rely upon global variables, keys, functions, or templates.

*Option 3 (TAN-fn-strings-standard)*

```
tan:chop-string($input as xs:string?, $chop-after-regex as xs:string)  
as xs:string*
```

2-param version of the full one below



Used by template # `tan:core-expansion-terse-attributes-to-elements`, # `tan:split-diff-components-1`, # `tan:mark-dependencies-pass-2`, # `tan:split-diff-components-2`.

Used by function `tan:atomize-string()`, `tan:chop-string()`, `tan:string-length()`, `tan:diff-loop()`, `tan:segment-string()`, `tan:int-to-grc()`, `tan:cardinal()`.

Relies upon `tan:chop-string`.

*Option 4 (TAN-fn-strings-standard)*

```
tan:chop-string($input as xs:string?, $chop-after-regex as xs:string,  
$preserve-nested-clauses as xs:boolean) as xs:string*
```

Input: any string, a regular expression, a boolean

Output: the input string cut into a sequence of strings using the regular expression as the cut marker

If the last boolean is true, then nested clauses (parentheses, direct quotations, etc.) will be preserved.

This function differs from the 1-parameter version in that it is used to chop the string not into individual characters but into words, clauses, sentences, etc.

Related: `strings`

Used by template # `tan:core-expansion-terse-attributes-to-elements`, # `tan:split-diff-components-1`, # `tan:mark-dependencies-pass-2`, # `tan:split-diff-components-2`.

Used by function `tan:atomize-string()`, `tan:chop-string()`, `tan:string-length()`, `tan:diff-loop()`, `tan:segment-string()`, `tan:int-to-grc()`, `tan:cardinal()`.

Does not rely upon global variables, keys, functions, or templates.

## **tan:collate()**

*Option 1 (TAN-fn-strings-collate-standard)*

```
tan:collate($strings-to-collate as xs:string*, $string-labels as  
xs:string*, $preoptimize-string-order as xs:boolean) as element()?
```

3-parameter version of fuller one, below

Used by template # `tan:clean-up-collation-pass-1`.

Used by function `tan:collate()`.

Relies upon `tan:collate`.

*Option 2 (TAN-fn-strings-collate-standard)*

```
tan:collate($strings-to-collate as xs:string*, $string-labels as  
xs:string*, $preoptimize-string-order as xs:boolean, $adjust-diffs-dur-
```

ing-preoptimization as xs:boolean, \$clean-up-collation as xs:boolean)  
as element()?

5-parameter version of fuller one, below

Used by template # tan:clean-up-collation-pass-1.

Used by function tan:collate().

Relies upon tan:collate.

*Option 3 (TAN-fn-strings-collate-standard)*

tan:collate(\$strings-to-collate as xs:string\*, \$string-labels as  
xs:string\*, \$preoptimize-string-order as xs:boolean, \$adjust-diffs-dur-  
ing-preoptimization as xs:boolean, \$clean-up-collation as xs:boolean,  
\$snap-to-word as xs:boolean) as element()?

Input: a sequence of strings to be collated; a sequence of strings that label each  
string; a boolean indicating whether the sequence of input strings should be optim  
boolean indicating whether the results of tan:diff() should be processed and weigh  
boolean indicating whether the collation should be cleaned up; a boolean whether d  
should be processed word for word or not.

Output: a <collation> with (1) one <witness> per string (and if the last parameter  
true, then a sequence of children <commonality>s, signifying how close that string  
with every other, and (2) a sequence of <c>s and <u>s, each with a <txt> and one o  
ref="" pos="" />, indicating which string witness attests to the [c]ommon or [u]niq  
reading, and what position in that string the particular text fragment starts at.

If there are not enough labels (2nd parameter) for the input strings, the numerica  
position of the input string will be used as the string label / witness id.

If the third parameter is true, then tan:diff() will be performed against each pai  
of strings. Each diff output will be weighed by closeness of the two texts, and so  
accordingly. The results of this operation will be stored in collation/witness/com  
This requires (n-1)! operations, so should be efficient for a few input strings, b  
grow progressively longer according to the number and size of the input strings.  
Preoptimizing strings will likely produces greater congruence in the <u> fragments

If the last parameter is true, then cleanup will not be performed. This parameter  
introduced because the cleanup process itself invokes tan:collate() and one does n  
get into an endless loop because of a mishmash of differences that can never be  
reconciled or brought closer together.

This version of tan:collate was written in XSLT 3.0 to take advantage of  
xsl:iterate, and has an arity of 3, 5, or 6 parameters, unlike its XSLT 2.0 predec  
applied a different approach to collation.

Changes in output from previous version of tan:collate():

- @w is now <wit> with

- @ref and @pos

- the text node of <u> or <c> is now wrapped in <txt>

- @length is ignored (the

value is easily calculated) With these changes, any witness can be easily reconstr  
with the XPath expression tan:collation/()

Related: strings, diff

Used by template # `tan:clean-up-collation-pass-1`.

Used by function `tan:collate()`.

Relies upon `tan:adjust-diff`, `tan:collate()`, `tan:diff-cache`, `tan:diff-to-collation`, `tan:trim-long-text`, # `tan:clean-up-collation-pass-1`, # `tan:clean-up-collation-pass-2`.

### **tan:commas-and-ands()**

*Option 1 (TAN-fn-strings-extended)*

```
tan:commas-and-ands($input-strings as xs:string*) as xs:string?
```

One-parameter version of the full one below

Used by function `tan:commas-and-ands()`.

Relies upon `tan:commas-and-ands`.

*Option 2 (TAN-fn-strings-extended)*

```
tan:commas-and-ands($input-strings as xs:string*, $oxford-comma as  
xs:boolean) as xs:string?
```

Input: sequences of strings

Output: the strings joined together with `,` and `'and'`

Related: strings

Used by function `tan:commas-and-ands()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:common-end-string()**

*TAN-fn-strings-standard*

```
tan:common-end-string($strings as xs:string*) as xs:string?
```

1-parameter version of fuller function below

Used by template # `tan:adjust-horizontal-search`.

Used by function `tan:adjust-diff()`.

Relies upon `tan:common-start-or-end-string`.

### **tan:common-start-or-end-string()**

*Option 1 (TAN-fn-strings-standard)*

```
tan:common-start-or-end-string($strings as xs:string*, $find-com-  
mon-start as xs:boolean) as xs:string?
```

2-parameter version of fuller function below

This one deals with many strings; the full one, with pairs of them

Used by function `tan:common-start-string()`, `tan:common-end-string()`, `tan:common-start-or-end-string()`.

Relies upon `tan:common-start-or-end-string`.

*Option 2 (TAN-fn-strings-standard)*

```
tan:common-start-or-end-string($string-a as xs:string?, $string-b as
xs:string?, $find-common-start as xs:boolean) as xs:string?
```

Input: two strings; a boolean

Output: the longest common start (param 2 is true) or end (param 2 is false) portion of the two strings.

Related: strings

Used by function `tan:common-start-string()`, `tan:common-end-string()`, `tan:common-start-or-end-string()`.

Relies upon `tan:common-start-or-end-string()`, `tan:ellipses`, `tan:log2`.

### **tan:common-start-string()**

*TAN-fn-strings-standard*

```
tan:common-start-string($strings as xs:string*) as xs:string?
```

1-parameter version of fuller function below

Used by template # `tan:adjust-horizontal-search`.

Used by function `tan:adjust-diff()`.

Relies upon `tan:common-start-or-end-string`.

### **tan:contains-only-once()**

*TAN-fn-strings-standard*

```
tan:contains-only-once($arg1 as xs:string?, $arg2 as xs:string?) as
xs:boolean
```

Input: any two strings

Output: `true()` if and only if the first string contains the second, only one time

This function was introduced to support `tan:diff()`, to ensure that unique common tokens between two strings are not substrings of any other unique common tokens.

Related: strings

Used by function `tan:diff-courtyard()`, `tan:diff-loop()`.

Does not rely upon global variables, keys, functions, or templates.

## **tan:diff()**

*Option 1 (TAN-fn-strings-diff-standard)*

```
tan:diff($string-a as xs:string?, $string-b as xs:string?) as element()
```

2-param version of fuller one below

Used by template # `tan:class-1-expansion-verbose-pass-1`, # `tan:core-expansion-normal`.

Used by function `tan:diff()`, `tan:diff-cache()`, `tan:diff-courtyard()`, `tan:giant-diff()`, `tan:replace-collation()`, `tan:get-diff-output-transpositions()`, `tan:replace-diff()`, `tan:diff-loop()`, `tan:replace-expanded-class-1-body()`, `tan:diff-or-collate-to-html()`.

Relies upon `tan:diff`.

*Option 2 (TAN-fn-strings-diff-standard)*

```
tan:diff($string-a as xs:string?, $string-b as xs:string?, $snap-to-word as xs:boolean) as element()
```

3-param version of fuller one below

Used by template # `tan:class-1-expansion-verbose-pass-1`, # `tan:core-expansion-normal`.

Used by function `tan:diff()`, `tan:diff-cache()`, `tan:diff-courtyard()`, `tan:giant-diff()`, `tan:replace-collation()`, `tan:get-diff-output-transpositions()`, `tan:replace-diff()`, `tan:diff-loop()`, `tan:replace-expanded-class-1-body()`, `tan:diff-or-collate-to-html()`.

Relies upon `tan:diff`.

*Option 3 (TAN-fn-strings-diff-standard)*

```
tan:diff($string-a as xs:string?, $string-b as xs:string?, $snap-to-word as xs:boolean, $preprocess-long-strings as xs:boolean) as element()
```

Input: any two strings; boolean indicating whether results should snap to nearest word; boolean indicating whether long strings should be pre-processed

Output: an element with `<a>`, `<b>`, and `<common>` children showing where strings a and b match and depart

This function was written to assist the validation of `<redivision>`s quickly find differences between any two strings. The function has been tested on pairs of strings combined lengths of 9M characters. At that scale, the only way to efficiently process diffs is by chaining smaller diffs, which are still large, optimally about 350K in length.

This function prepares strings for 5-arity `tan:diff-engine()`, primarily by tending to input strings that are large or really large (giant). Large pairs of strings are parsed to find common characters that might be used to find pairwise congruence of segments. Giant pairs of strings are passed to `tan:giant-diff()`.

Related: `strings`, `diff`

Used by template # `tan:class-1-expansion-verbose-pass-1`, # `tan:core-expansion-normal`.

Used by function `tan:diff()`, `tan:diff-cache()`, `tan:diff-courtyard()`, `tan:giant-diff()`, `tan:replace-collation()`, `tan:get-diff-output-positions()`, `tan:replace-diff()`, `tan:diff-loop()`, `tan:replace-expanded-class-1-body()`, `tan:diff-or-collate-to-html()`.

Relies upon `tan:diff()`, `tan:ellipses`.

### **tan:diff-cache()**

*TAN-fn-strings-diff-standard*

```
tan:diff-cache($string-a as xs:string?, $string-b as xs:string?, $snap-to-word as xs:boolean, $preprocess-long-strings as xs:boolean) as element()
```

4-param version of fuller one below This is a shadow function for `tan:diff()`. It u XSLT 3.0 `@cache`, so that `tan:collate()` can avoid repeating diffs. Works only if the processor supports advanced features (e.g., Saxon PE, EE, not HE)

Used by function `tan:collate()`.

Relies upon `tan:diff`.

### **tan:diff-to-collation()**

*TAN-fn-strings-diff-standard*

```
tan:diff-to-collation($diff-output as element()?, $diff-text-a-label as xs:string?, $diff-text-b-label as xs:string?) as element()
```

Input: any single output of `tan:diff()`, two strings for the labels of diff strings and b

Output: the output converted to the output of `tan:collate()`, namely, a `<collation>` with `<u>` and `<c>` children, wrapping `<txt>`, `<wit>`.

This function was written to support the XSLT 3.0 version of `tan:collate()`, to all `tan:diff()` to be merged with `tan:collate()` output

Related: `strings`, `diff`

We leave a marker for both witnesses in every `<a>` or `<b>`, but marking one as `<wit>` another as `<x>`. This will facilitate the grouping of collations.

Used by function `tan:collate()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:diff-to-delta()**

*TAN-fn-strings-diff-extended*

```
tan:diff-to-delta($diff-output as element(tan:diff)?) as document-node()?
```

Input: any output from `tan:diff()`

Output: a document node registering only the difference between strings `a` and `b`

Delta files are structured to support two-way conversion. That is, they are designed such that `b` can be reconstituted from `a` or vice versa. See `tan:apply-delta` documentation.

Related: `diff`, `strings`

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon # `tan:diff-to-delta`.

## **tan:ellipses()**

*Option 1 (TAN-fn-strings-standard)*

```
tan:ellipses($strings-to-truncate as xs:string*, $string-length-to-retain as xs:integer) as xs:string*
```

2-arity version of the fuller one, below

Used by template # `tan:adjust-horizontal-search`, # `tan:core-expansion-terse` `tan:dependency-adjustments-pass-1`, # `tan:ellipses`.

Used by function `tan:ellipses()`, `tan:diff-courtyard()`, `tan:giant-diff()`, `tan:get-diff-output-transpositions()`, `tan:md5()`, `tan:common-start-or-end-string()`, `tan:diff-loop()`, `tan:infuse-tree()`, `tan:diff()`, `tan:apply-deltas()`, `tan:checksum-fletcher()`, `tan:diff-or-collate-to-html()`.

Relies upon `tan:ellipses`.

*Option 2 (TAN-fn-strings-standard)*

```
tan:ellipses($strings-to-truncate as xs:string*, $string-length-to-retain as xs:integer, $terminal-string-length-to-retain as xs:integer) as xs:string*
```

3-arity version of the fuller one, below

Used by template # `tan:adjust-horizontal-search`, # `tan:core-expansion-terse` `tan:dependency-adjustments-pass-1`, # `tan:ellipses`.

Used by function `tan:ellipses()`, `tan:diff-courtyard()`, `tan:giant-diff()`, `tan:get-diff-output-transpositions()`, `tan:md5()`, `tan:common-start-or-end-string()`, `tan:diff-loop()`, `tan:infuse-tree()`, `tan:diff()`, `tan:apply-deltas()`, `tan:checksum-fletcher()`, `tan:diff-or-collate-to-html()`.

Relies upon `tan:ellipses`.

*Option 3 (TAN-fn-strings-standard)*

```
tan:ellipses($strings-to-truncate as xs:string*, $initial-string-length-to-retain as xs:integer, $terminal-string-length-to-retain as xs:integer, $indicate-number-of-characters-elided as xs:boolean) as xs:string*
```

Input: any sequence of strings; two integers; a boolean

Output: the sequence of strings, but with any initial substring beyond the first requested length and any terminal substring beyond the last requested length replaced by ellipses. If the boolean is true, then two sets of ellipses will be provided, surrounded by square brackets the number of characters removed.

If the elision is less than the length of the replacement, then no elision will take place.

Examples: "abcd", 1, 1, false > "a...d" "abcd", 1, 1, true > "abcd" "abcdefghijk", 1, 1, true > "a...[9]...k"

Related: strings

Used by template # `tan:adjust-horizontal-search`, # `tan:core-expansion-terse`, # `tan:dependency-adjustments-pass-1`, # `tan:ellipses`.

Used by function `tan:ellipses()`, `tan:diff-courtyard()`, `tan:giant-diff()`, `tan:get-diff-output-transpositions()`, `tan:md5()`, `tan:common-start-or-end-string()`, `tan:diff-loop()`, `tan:infuse-tree()`, `tan:diff()`, `tan:apply-deltas()`, `tan:checksum-fletcher()`, `tan:diff-or-collate-to-html()`.

Relies upon `tan:ellipses()`.

## **tan:fill()**

*TAN-fn-strings-standard*

`tan:fill($string-to-fill as xs:string?, $times-to-repeat as xs:integer) as xs:string?`

Input: a string, an integer

Output: a string with the first parameter repeated the number of times specified by the integer

This function was written to facilitate indentation

Related: strings, spacing

Used by template # `tan:indent-items`.

Used by function `tan:checksum-fletcher()`, `tan:bin-to-hex()`, `tan:hex-to-bin()`, `tan:bin-to-base64()`, `tan:base64-to-bin()`, `tan:hex-to-base64()`, `tan:base64-to-hex()`, `tan:hex-to-base64Binary()`, `tan:hex-to-hexBinary()`.

Does not rely upon global variables, keys, functions, or templates.

## **tan:get-collate-stats()**

*TAN-fn-strings-collate-extended*

`tan:get-collate-stats($collate-input as element()?, $include-venns as xs:boolean) as element()?`

Input: any output from `tan:collate()`; boolean



Output: the output, wrapped in a <group> and preceded by statistics. If the boolean is true, then 3-way venn statistics will be included.

For details, see comments at `tan:infuse-diff-and-collate-stats()`.

Related: strings

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon # `tan:get-diff-stats`.

### **tan:get-diff-output-transpositions()**

*TAN-fn-strings-diff-extended*

```
tan:get-diff-output-transpositions($diff-output as element(tan:diff),  
$minimum-transposition-length as xs:integer, $minimum-commonality as  
xs:decimal) as element()
```

Input: output from `tan:diff()`; an integer; a decimal (from 0 to 1)

Output: a <transpositions> element, wrapping the following: (1) a <checksums> element that contains the checksums for strings a and b of the input; (2) a <parameters> element that contains the settings specified; (3) zero or more <transposition> elements wrapping the portion of the input diff output that is at least as long as the integer length and whose commonality is greater than or equal to the percent specified by the decimal.

This function looks within likely sections of the results of `tan:diff()` for passages that may represent a transposition. What constitutes a transposition diff varies greatly from one situation to the next. In large stretches of running prose, a safe length might be 20 and a corresponding commonality 0.95, to accommodate very occasional changes. The lower the commonality number, the more results, but they may include material that is not part of the actual transposition.

<transposition> has attributes that point to the absolute position of the start of the a and b fragments within the original diff output. These values can be used as a guide as to at which to chop the diff result tree, if you wish to synthesize, combine, etc. into the transposition slices.

Transpositions can be a difficult topic, with many-to-many assignments between the two texts, or with assignments in the same text that overlap. This is normal, reflects normal editing habits. For example, an editor may take two sentences from parts of a text and merge them at a third spot. This function, with enough leeway parameters, would catch both of the transpositions. It is up to you to interpret the transpositions and use them as you see fit.

Related: strings, diff

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:checksum-fletcher-64`, `tan:diff`, `tan:ellipses`, `tan:map-to-xml`, `tan:stamp-diff-with-text-data`, # `tan:strip-text-data-stamps`.

### **tan:get-diff-stats()**

*TAN-fn-strings-diff-extended*

`tan:get-diff-stats($diff-input as element()?) as element()?`

Input: any output from `tan:diff()`

Output: the output, wrapped in a `<group>` and preceded by statistics.

For details, see comments at `tan:infuse-diff-and-collate-stats()`.

Related: `diff`, statistics

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon # `tan:get-diff-stats`.

### **tan:glob-to-regex()**

*TAN-fn-strings-extended*

`tan:glob-to-regex($globs as xs:string*) as xs:string*`

Input: any strings that follow a glob-like syntax

Output: the strings converted to regular expressions

Related: strings, filenames

Used by function `tan:uri-collection-from-pattern()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:initial-upper-case()**

*TAN-fn-strings-extended*

`tan:initial-upper-case($strings as xs:string*) as xs:string*`

Input: any strings

Output: each string with the initial letters capitalized and the rest set lower-case

Related: strings

Used by template # `tan:title-case`.

Used by function `tan:title-case()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:lcs-distance()**

*TAN-fn-strings-diff-extended*

`tan:lcs-distance($diff-output as element(tan:diff)?) as xs:integer?`

Input: results of `tan:diff()`

Output: the longest common subsequence distance of the output

LCS distance assigns 1 point per character deletion and insertion

Related: strings, diff

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

### **tan:levenshtein-distance()**

*TAN-fn-strings-diff-extended*

```
tan:levenshtein-distance($diff-output as element(tan:diff)?) as xs:integer?
```

Input: results of tan:diff()

Output: the Levenstein distance of the output

Levenstein distance assigns 1 point per character deletion, insertion, or substitution

Related: strings, diff

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon # tan:levenshtein-distance.

### **tan:namespace()**

*TAN-fn-strings-extended*

```
tan:namespace($prefix-or-uri as xs:string*) as xs:string*
```

Input: any strings representing a namespace prefix or uri

Output: the corresponding prefix or uri whenever a match is found in the global variable

Related: strings, namespaces

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon \$tan:namespaces-and-prefixes.

### **tan:normalize-div-text()**

*Option 1 (TAN-fn-strings-standard)*

```
tan:normalize-div-text($single-leaf-div-text-nodes as xs:string*) as xs:string*
```

One-parameter version of the fuller one, below.

Used by template # tan:tokenize-div, # tan:text-join.

Used by function tan:normalize-div-text().

Relies upon `tan:normalize-div-text`.

*Option 2 (TAN-fn-strings-standard)*

```
tan:normalize-div-text($single-leaf-div-text-nodes as xs:string*, $remove-special-div-end-chars as xs:boolean) as xs:string*
```

Input: any sequence of strings, presumed to be text nodes of a single leaf `div`; a boolean indicating whether special `div-end` characters should be retained or not

Output: the same sequence, normalized according to TAN rules. Each item in the sequence is space normalized and then if its end matches one of the special `div-end` characters, ZWJ U+200D or SOFT HYPHEN U+AD, the character is removed; otherwise a space is added at the end. Zero-length strings are skipped.

This function is designed specifically for TAN's commitment to nonmixed content. That is, every TAN element contains either elements or non-space text but not both. This also means that space-only text nodes are effectively ignored. It is assumed that every TAN element is followed by a notional space.

The second parameter is important, because output will be used to normalize and repopulate leaf `<div>`s (where special `div-end` characters should be retained) or to concatenate leaf `<div>` text (where those characters should be deleted)

Related: `strings`

Used by template # `tan:tokenize-div`, # `tan:text-join`.

Used by function `tan:normalize-div-text()`.

Relies upon `$tan:special-end-div-chars-regex`, `tan:normalize-div-text()`.

## **tan:normalize-name()**

*TAN-fn-strings-standard*

```
tan:normalize-name($text as xs:string*) as xs:string*
```

one-parameter version of fuller one, below

Used by template # `tan:first-stamp-shallow-copy`, # `tan:core-expansion-terse-attributes`, # `tan:first-stamp-shallow-skip`, # `tan:core-expansion-terse`, # `tan:core-expansion-normal`.

Used by function `tan:vocabulary()`, `tan:update-TAN-change-log()`, `tan:has-vocabulary()`, `tan:resolve-doc-loop()`, `tan:attribute-vocabulary()`.

Relies upon `tan:normalize-text`.

## **tan:normalize-text()**

*Option 1 (TAN-fn-strings-standard)*

```
tan:normalize-text($text as xs:string*) as xs:string*
```

one-parameter version of full function below

Used by template # `tan:check-referred-doc`.

Used by function `tan:normalize-text()`, `tan:normalize-name()`.

Relies upon `tan:normalize-text`.

*Option 2 (TAN-fn-strings-standard)*

```
tan:normalize-text($text as xs:string*, $treat-as-name-values as
xs:boolean) as xs:string*
```

Input: any sequence of strings; a boolean indicating whether the results should be name-normalized

Output: that sequence, with each item's space normalized, and removal of any help requested

In name-normalization, the string is converted to lower-case, and spaces replace hyphens, underscores, and illegal characters.

Special end div characters are not removed in this operation, nor is tail-end space adjusted according to TAN rules; for that, see `tan:normalize-div-text()`.

Related: strings

Used by template # `tan:check-referred-doc`.

Used by function `tan:normalize-text()`, `tan:normalize-name()`.

Relies upon `$tan:help-trigger-regex`, `$tan:regex-characters-not-permitted`, `$tan:regex-name-space-characters`.

### **tan:normalize-unicode()**

*TAN-fn-strings-extended*

```
tan:normalize-unicode($input as item()*) as item()*
```

Input: any items

Output: the same items, but with all unicode normalized

This is a surrogate to `fn:normalize-unicode()`, extending functionality to any item

Related: strings, tree manipulation

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon # `tan:normalize-unicode`.

### **tan:replace-collation()**

*TAN-fn-strings-collate-extended*

```
tan:replace-collation($original-witness-string as xs:string?, $original-witness-id as xs:string?, $collate-output-to-replace as element()?) as element()?
```

Input: two strings; the output of `tan:collate()`

Output: the output, but an attempt is made to change every `<c>` and every `<u>` with chosen witness id (param 2) into the original string form (param 1).

This is a companion function to `tan:replace-diff()`, but it has some inherent limitations. Diffs of 3 or more sources can be messy, and any attempt to replace a particular version proves to be confusing to interpret. Furthermore, `tan:replace-diff()` adjusts the output so that newly inserted characters are not repeated if they are equally to coordinate `<a>s` and `<b>s`. That is not possible for `collate` because of how the results can be. So the fallback method is to focus on getting the first witness and not worrying about the others.

If the 2nd parameter is empty or doesn't match a particular witness id, then the first witness will be chosen. Intentionally supplying a bad 2nd parameter can be a good idea if you are interested in only the dominant source, since `tan:collate()` by default places the top the witness with the least amount of divergence.

Because only one witness is being recalibrated, it is possible to update the position values. But the other witness values will not be updated, so that the results are correlated with the other witness texts if needed. Further, if a replacement involves a witness no longer attesting to that fragment, then it is changed to a `<u>` (or the original retained) and the `<wit>` is dropped.

Related: strings, diff

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Relies upon `tan:diff`, `# tan:replace-collation`.

## **tan:replace-diff()**

*TAN-fn-strings-diff-extended*

```
tan:replace-diff($original-string-a as xs:string?, $original-string-b
as xs:string?, $diff-to-replace as element()?, $prioritize-a-over-b as
xs:boolean) as element()?
```

Input: the results of `tan:diff()`; the original a and b strings; a boolean

Output: the output, but with each `<a>`, and `<b>` replaced by the original strings. `<common>` follows the a string, not b.

This function was made to support a more relaxed approach to `tan:diff()`, one that avoids changes that should be ignored. For example, if you are comparing "Gray" (= "greys" (= \$b) and for your purposes, alternate spellings and case should be ignored, make appropriate changes to the strings (= \$a2, \$b2) then `tan:reconcile-diff($a, $b, $diff-to-replace, $prioritize-a-over-b)` will result in `<diff><common>Gray</common><b>s</b></diff>`

Related: strings, diff

Used by function `tan:replace-diff()`.

Relies upon `tan:adjust-diff`, `tan:diff`, `tan:map-to-xml`, `tan:replace-diff()`, `tan:stamp-diff-with-text-data`, `# tan:replace-diff`, `# tan:shallow-skip-diff-add`.

### **tan:reverse-string()**

*TAN-fn-strings-extended*

```
tan:reverse-string($string-to-reverse as xs:string?) as xs:string?
```

Input: any string

Output: the string in reverse order

Related: strings

Used by function `tan:le-bits-to-int-and-neg()`, `tan:md5()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:satisfies-regex()**

*TAN-fn-strings-extended*

```
tan:satisfies-regex($string-to-test as xs:string?, $string-must-match-  
regex as xs:string?) as xs:boolean
```

2-param version of fuller one, below

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:satisfies-regexes`.

### **tan:satisfies-regexes()**

*Option 1 (TAN-fn-strings-extended)*

```
tan:satisfies-regexes($string-to-test as xs:string?, $string-must-  
match-regex as xs:string?, $string-must-not-match-regex as xs:string?)  
as xs:boolean
```

3-param version of fuller one, below

Used by function `tan:satisfies-regex()`, `tan:filename-satisfies-regex()`,  
`tan:satisfies-regexes()`, `tan:filename-satisfies-regexes()`.

Relies upon `tan:satisfies-regexes`.

*Option 2 (TAN-fn-strings-extended)*

```
tan:satisfies-regexes($string-to-test as xs:string?, $string-must-  
match-regex as xs:string?, $string-must-not-match-regex as xs:string?,  
$flags as xs:string?) as xs:boolean
```

Input: a string value; an optional regex the string must match; an optional regex  
string must not match

Output: whether the string satisfies the two regex conditions; if either regex is  
empty, true will be returned

If the input string is less than zero length, the function returns false

Related: strings, regular expressions

Used by function `tan:satisfies-regex()`, `tan:filename-satisfies-regex()`,  
`tan:satisfies-regexes()`, `tan:filename-satisfies-regexes()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:segment-string()**

*Option 1 (TAN-fn-strings-extended)*

```
tan:segment-string($string-to-segment as xs:string?, $segment-portions
as xs:decimal*) as xs:string*
```

2-arity version of the more complete function, below

Used by function `tan:segment-string()`, `tan:infuse-tree()`.

Relies upon `tan:segment-string`.

*Option 2 (TAN-fn-strings-extended)*

```
tan:segment-string($string-to-segment as xs:string?, $segment-portions
as xs:decimal*, $break-at-regex as xs:string) as xs:string*
```

Input: a string, a sequence of doubles from 0 through 1, a regular expression

Output: the string divided into segments proportionate to the doubles, with  
divisions allowed only by the regular expression

Related: strings, sequences

Used by function `tan:segment-string()`, `tan:infuse-tree()`.

Relies upon `tan:chop-string`.

### **tan:stamp-diff-with-text-data()**

*TAN-fn-strings-diff-standard*

```
tan:stamp-diff-with-text-data($diff-result as element(tan:diff)?) as
item()*
```

Input: any output from `tan:diff()`

Output: each `<diff>` child stamped with `@_len`, `@_pos-a`, `@_pos-b` indicating length  
and the starting positions for a and b

This function produces output analogous to `tan:stamp-tree-with-text-data()`

Related: strings, tree manipulation, attributes

Used by template `# tan:infuse-diff-and-collate-stats`, `# tan:class-1-expansion-verbose-pass-1`,  
`# diff-or-collate-to-html-output-pass-1`.

Used by function `tan:diff-a-map()`, `tan:get-diff-output-transpositions()`,  
`tan:replace-diff()`, `tan:chop-diff-output()`, `tan:get-diff-output-slices()`.



Relies upon # `tan:stamp-diff-with-text-data`.

### **tan:string-length()**

*TAN-fn-strings-standard*

```
tan:string-length($input as xs:string?) as xs:integer
```

Input: any string

Output: the number of characters in the string, as defined by TAN (i.e., modifiers are counted with the preceding base character)

Related: strings

Used by template # `tan:split-diff-components-2`.

Used by function `tan:stamp-tree-with-text-data()`.

Relies upon `tan:chop-string`.

### **tan:substring-after()**

*TAN-fn-strings-standard*

```
tan:substring-after($arg1 as xs:string?, $arg2 as xs:string?, $return-first-match as xs:boolean) as xs:string
```

Input: two strings; a boolean

Output: if the last parameter is true: the substring of the value of `$arg1` that follows in the value of `$arg1` the first occurrence of the value of `$arg2` . if false: occurrence

This function provides extra flexibility not available in `fn:substring-before()`

Related: strings

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

### **tan:substring-before()**

*TAN-fn-strings-standard*

```
tan:substring-before($arg1 as xs:string?, $arg2 as xs:string?, $return-first-match as xs:boolean) as xs:string
```

Input: two strings; a boolean

Output: if the last parameter is true: the substring of the value of `$arg1` that precedes in the value of `$arg1` the first occurrence of the value `$arg2` . if false: occurrence

This function provides extra flexibility not available in `fn:substring-before()`

Related: strings

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

### **tan:text-join()**

*Option 1 (TAN-fn-strings-standard)*

```
tan:text-join($items as item(*) as xs:string?
```

one-parameter version of the full function below

Used by template # `tan:text-join`, # `tan:merge-divs`, # `tan:class-1-expansion-verbose-pass-1`.

Used by function `tan:text-join()`.

Relies upon `tan:text-join`.

*Option 2 (TAN-fn-strings-standard)*

```
tan:text-join($items as item(*), $set-divs-on-new-line as xs:boolean)  
as xs:string?
```

Input: any document fragment of a TAN class 1 body, whether raw or resolved

Output: a single string that joins and normalizes the leaf div text according to T rules

All special leaf-div-end characters will be stripped including the last

Do not apply this function to class-1 files that have been expanded, because normalization will have already occurred.

Do not apply this function to TEI elements within leaf divs.

Related: strings, nodes

Used by template # `tan:text-join`, # `tan:merge-divs`, # `tan:class-1-expansion-verbose-pass-1`.

Used by function `tan:text-join()`.

Relies upon # `tan:text-join`.

### **tan:title-case()**

*TAN-fn-strings-extended*

```
tan:title-case($string-to-convert as xs:string*) as xs:string*
```

Input: a sequence of strings

Output: each string set in title case, following the conventions of English (one of the only languages that bother with title-case)

According to Chicago rules of title casing, the first and last words are always capitalized, and interior words are capitalized unless they are a preposition or a

Related: strings

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `$tan:english-articles`, `$tan:english-prepositions`, `tan:initial-upper-case`, `# tan:title-case`.

### **tan:tokenize-div()**

*TAN-fn-strings-standard*

```
tan:tokenize-div($input as item()*, $token-definitions as element(tan:token-definition)) as item()*
```

Input: any items, a `<token-definition>`

Output: the items with `<div>`s in tokenized form

Related: strings

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `# tan:tokenize-div`.

### **tan:tokenize-text()**

*Option 1 (TAN-fn-strings-standard)*

```
tan:tokenize-text($text as xs:string*) as element()*
```

one-parameter version of the function below

Used by template `# tan:dependency-adjustments-pass-2`, `# tan:mark-dependencies-for-validation`, `# tan:tokenize-div`, `# tan:mark-dependencies-pass-1`, `# tan:dependency-expansion-normal`, `# tan:dependency-expansion-verbose`.

Used by function `tan:tokenize-text()`.

Relies upon `$tan:token-definition-default`, `tan:tokenize-text`.

*Option 2 (TAN-fn-strings-standard)*

```
tan:tokenize-text($text as xs:string*, $token-definition as element(tan:token-definition)?, $count-toks as xs:boolean?) as element()*
```

three-parameter version of the function below

Used by template `# tan:dependency-adjustments-pass-2`, `# tan:mark-dependencies-for-validation`, `# tan:tokenize-div`, `# tan:mark-dependencies-pass-1`, `# tan:dependency-expansion-normal`, `# tan:dependency-expansion-verbose`.

Used by function `tan:tokenize-text()`.

Relies upon `tan:tokenize-text`.

*Option 3 (TAN-fn-strings-standard)*

```
tan:tokenize-text($text as xs:string*, $token-definition as element(
tan:token-definition)?, $count-toks as xs:boolean?, $add-attr-q as
xs:boolean?, $add-attr-pos as xs:boolean?) as element()*
```

Input: any number of strings; a <token-definition>; a boolean indicating whether tokens should be counted and labeled.

Output: a <result> for each string, tokenized into <tok> and <non-tok>, respectively. If the counting option is turned on, the <result> contains @tok-count, @non-tok-count, and each <tok> and <non-tok> have an @n indicating which <tok> group

Related: strings, sequences

Used by template # tan:dependency-adjustments-pass-2, # tan:mark-dependencies-for-validation, # tan:tokenize-div, # tan:mark-dependencies-pass-1, # tan:dependency-expansion-normal, # tan:dependency-expansion-verbose.

Used by function tan:tokenize-text().

Relies upon \$tan:token-definition-default, tan:tokenize-text(), # tan:add-tok-pos, # tan:first-stamp-shallow-copy.

## **tan:unique-char()**

*TAN-fn-strings-standard*

```
tan:unique-char($context-strings as xs:string*) as xs:string?
```

Input: any sequence of strings

Output: a single character that is not to be found in those strings

This function, written to support tan:collate-sequences(), provides unique way to join any sequence strings in such a way that it can later be tokenized.

Related: strings

No variables, keys, functions, or named templates depend upon this xsl:function.

Does not rely upon global variables, keys, functions, or templates.

## **Templates**

### **# tan:regex-group-count**

*TAN-fn-strings-extended*

Input: perhaps a parameter specifying how many blank entries are permitted before stopping the iteration.

Output: the number of groups of regular expressions in the current context.

Most often in the TAN function library, a function is preferred over a named template. In this case, we have a named template, because the function severs the regex-groups()

Related: strings, regular expressions

Used by template # `tan:batch-replace-advanced-pass-1`, # `tan:batch-replace-advanced-pass-2`.

Does not rely upon global variables, keys, functions, or templates.

## Time

### Functions

#### **tan:get-doc-history()**

*TAN-fn-time*

```
tan:get-doc-history($TAN-doc as document-node(*) as element()*)
```

Input: any TAN document

Output: a sequence of elements with `@when`, `@ed-when`, `@accessed-when`, `@claim-when`, sorted from most recent to least; each element includes `@when-sort`, a represents the value of the most recent time-date stamp in that element

Related: versioning

Used by variable `$tan:doc-history`.

Used by template # `tan:check-referred-doc`, # `tan:core-expansion-normal`.

Used by function `tan:last-change-agent()`.

Relies upon # `tan:get-doc-history`.

## Uris

### Functions

#### **tan:absolutize-hrefs()**

*TAN-fn-uris-extended*

```
tan:absolutize-hrefs($items-to-resolve as item()*, $items-base-uri as  
xs:string) as item()*
```

Input: any items that should have urls converted to absolute URIs; a string representing the base uri

Output: the items with each `@href` (also in processing instructions) and `html:*/src` resolved against the input base uri

Related: uris, filenames, tree manipulation

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon # `tan:revise-hrefs`.

## **tan:base-uri()**

*TAN-fn-uris-standard*

```
tan:base-uri($any-node as node()?) as xs:anyURI
```

Input: any node

Output: the base uri of the node's document

An explicit `@xml:base` has the highest priority over any native `base-uri()`. If the node is a fragment and has no declared or detected base uri, the `static-base-uri()` returned

Related: `uris`

Used by template `# tan:resolve-critical-dependencies-loop`, `# tan:check-referred-doc`, `# tan:resolve-href` `tan:expand-standard-tan-voc`, `# tan:resolve-href` `tan:first-stamp-shallow-copy`.

Used by function `tan:lm-data()`, `tan:resolve-href()`, `tan:resolve-doc-loop()`, `tan:TAN-A-lm-hrefs()`, `tan:collection()`, `tan:catalog-uris()`, `tan:first-loc-available()`, `tan:attribute-vocabulary()`, `tan:cfn()`, `tan:cfne()`, `tan:get-1st-doc()`.

Does not rely upon global variables, keys, functions, or templates.

## **tan:catalog-uris()**

*TAN-fn-uris-standard*

```
tan:catalog-uris($input-node as node()?) as xs:string*
```

Input: a node from an XML file

Output: URLs for locally available TAN catalog files, beginning with the immediate subdirectory and proceeding rootward

Related: `uris`, `filenames`

Used by variable `$tan:doc-catalog-uris`.

Used by function `tan:catalogs()`.

Relies upon `tan:base-uri`.

## **tan:catalogs()**

*TAN-fn-uris-standard*

```
tan:catalogs($input-node as node()?, $strip-bad-hrefs as xs:boolean) as document-node()*
```

Input: a node from an XML file; a boolean indicating whether bad `@hrefs` should be stripped

Output: the TAN catalog documents available, beginning with the most local path and

proceeding rootward

Related: uris, filenames

Used by variable `$tan:doc-catalogs`.

Used by template # `tan:core-expansion-verbose`.

Used by function `tan:get-1st-doc()`.

Relies upon `tan:catalog-uris`, # `tan:cut-faulty-hrefs`.

### **tan:cfn()**

*TAN-fn-uris-standard*

```
tan:cfn($item as item(*) as xs:string*
```

Input: any items

Output: the Current File Name, without extension, of the host document node of each item, or of the input string if detected as a uri

Related: uris, filenames

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `tan:base-uri`, `tan:cfne`.

### **tan:cfne()**

*TAN-fn-uris-standard*

```
tan:cfne($item as item(*) as xs:string*
```

Input: any items

Output: the Current File Name, with Extension, of the host document node of each item, or of the input string if detected as a uri

Related: uris, filenames

Used by variable `$tan:doc-filename`.

Used by function `tan:cfn()`.

Relies upon `tan:base-uri`.

### **tan:collection()**

*Option 1 (TAN-fn-uris-standard)*

```
tan:collection($catalog-docs as document-node(*) as document-node(*)
```

One-parameter version of the master one, below

Used by template # `tan:core-expansion-verbose`.

Used by function `tan:collection()`.

Relies upon `tan:collection`.

*Option 2 (TAN-fn-uris-standard)*

```
tan:collection($catalog-docs as document-node()*, $root-names as
xs:string*, $id-matches as xs:string?, $href-matches as xs:string?) as
document-node()*
```

Input: one or more `catalog.tan.xml` files; filtering parameters

Output: documents that are available

Related: `uris`, `filenames`

Used by template # `tan:core-expansion-verbose`.

Used by function `tan:collection()`.

Relies upon `tan:base-uri`.

### **tan:doc-available()**

*TAN-fn-uris-extended*

```
tan:doc-available($uri as xs:string?) as xs:boolean
```

Input: a string

Output: true if an XML document is available at the URI, false otherwise

This is a surrogate function to `fn:doc-available`, and behaves exactly the same, but avoids the possibility of read conflicts, so a file can be overwritten.

An alternative to this is to make sure that when writing a secondary result document the last / is doubled; the string will not be recognized as a duplicate of what was

Related: `files`, `uris`

No variables, keys, functions, or named templates depend upon this `xsl:function`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:get-uuid()**

*Option 1 (TAN-fn-uris-extended)*

```
tan:get-uuid()
```

zero-param version of the full one below

Used by function `tan:get-uuid()`.

Relies upon `tan:get-uuid`.

*Option 2 (TAN-fn-uris-extended)*



`tan:get-uuid($quantity as xs:integer) as xs:string*`

Input: a digit

Output: that digit's quantity of UUIDs

Code courtesy D. Novatchev,

<https://stackoverflow.com/questions/8126963/xslt-generate-uuid/64792196#64792196>

Related: uris

Used by function `tan:get-uuid()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:is-valid-uri()**

*TAN-fn-uris-standard*

`tan:is-valid-uri($uri-to-check as xs:string?) as xs:boolean?`

Input: a string

Output: a boolean indicating whether the string is syntactically a valid uri

This assumes not only absolute but relative uris will be checked, which means that wide variety of characters could be fed in, but not ones disallowed in pathnames, string must not be zero length.

Related: uris

Used by template # `tan:first-stamp-shallow-copy`, # `tan:resolve-critical-dependencies-loop`.

Used by function `tan:uri-relative-to()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:parse-urls()**

*TAN-fn-uris-extended*

`tan:parse-urls($input-strings as xs:string*) as element()*`

Input: any sequence of strings

Output: one element per string, parsed into children `<non-url>` and `<url>`

Related: uris

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon `$tan:url-regex`.

### **tan:relativize-hrefs()**

*TAN-fn-uris-extended*

```
tan:relativize-hrefs($input-items as item()*, $target-base-uri-resolved  
as xs:string) as item()*
```

Input: any items; a resolved base uri (target)

Output: the items, with links in standard attributes such as @href changed so as to be relative to the target base uri.

This function is intended to serve output that is going to a particular destination and that needs to have links to nearby resources revised to their relative form.

Related: uris, filenames, tree manipulation

No variables, keys, functions, or named templates depend upon this xsl:function.

Relies upon tan:uri-is-relative, # tan:relativize-hrefs.

### **tan:revise-hrefs()**

*TAN-fn-uris-extended*

```
tan:revise-hrefs($items-to-resolve as item()?, $items-original-url as  
xs:string, $items-destination-url as xs:string) as item()*
```

Input: an item that should have urls resolved; the original url of the item; the target url (the item's destination)

Output: the item with each @href (including those in processing instructions) and html:\*/@src resolved

Related: uris, filenames, tree manipulation

Used by function tan:revise-hrefs().

Relies upon tan:revise-hrefs(), # tan:revise-hrefs.

### **tan:uri-collection-from-pattern()**

*TAN-fn-uris-extended*

```
tan:uri-collection-from-pattern($resolved-patterned-uri as xs:string?)  
as xs:anyURI*
```

Input: a string representing a resolved uri, with patterns

Output: a uri collection based on the string as an input pattern

This function was written to support glob-like patterns for files.

Related: uris

Used by function tan:uri-collection-from-pattern().

Relies upon tan:glob-to-regex, tan:uri-collection-from-pattern().

### **tan:uri-directory()**

*TAN-fn-uris-standard*

`tan:uri-directory($uris as xs:string*) as xs:string*`

Input: any URIs, as strings

Output: the file path

NB, this function does not assume any URIs have been resolved; its only action is syntactic, ensuring that each URI specifies a directory path, i.e., has a trailing

Related: `uris`, `filenames`

Used by variable `$tan:doc-parent-directory`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:uri-is-relative()**

*TAN-fn-uris-standard*

`tan:uri-is-relative($uri-to-test as xs:string?) as xs:boolean?`

Input: a string representing a URI

Output: a boolean indicating whether it is relative

Related: `uris`

Used by function `tan:relativize-hrefs()`.

Relies upon `tan:uri-is-resolved`.

### **tan:uri-is-resolved()**

*TAN-fn-uris-standard*

`tan:uri-is-resolved($uri-to-test as xs:string?) as xs:boolean?`

Input: a string representing a URI

Output: a boolean indicating whether it is resolved

Related: `uris`

Used by template # `tan:relativize-hrefs`.

Used by function `tan:uri-is-relative()`.

Does not rely upon global variables, keys, functions, or templates.

### **tan:uri-relative-to()**

*Option 1 (TAN-fn-uris-standard)*

`tan:uri-relative-to($uri-to-revise as xs:string?, $uri-to-revise-against as xs:string?) as xs:string?`

2-parameter version of the one below

Used by template # `tan:revise-hrefs`, # `tan:core-expansion-terse-attributes-to-elements`, # `tan:relativize-hrefs`.

Used by function `tan:uri-relative-to()`, `tan:update-TAN-change-log()`, `tan:get-1st-doc()`.

Relies upon `tan:uri-relative-to`.

*Option 2 (TAN-fn-uris-standard)*

```
tan:uri-relative-to($uri-to-revise as xs:string?, $uri-to-revise-against as xs:string?, $base-uri as xs:string?) as xs:string?
```

Input: two strings representing URIs; a third representing the base against which the first two should be resolved

Output: the first string in a form relative to the second string

This function looks for common paths within two absolute URIs and tries to convert the first URI as a relative path

Related: `uris`, `filenames`

Used by template # `tan:revise-hrefs`, # `tan:core-expansion-terse-attributes-to-elements`, # `tan:relativize-hrefs`.

Used by function `tan:uri-relative-to()`, `tan:update-TAN-change-log()`, `tan:get-1st-doc()`.

Relies upon `tan:is-valid-uri`, `tan:uri-relative-to()`.

## Vocabulary

### Functions

#### **tan:attribute-vocabulary()**

*TAN-fn-vocabulary*

```
tan:attribute-vocabulary($attributes as attribute(*)*) as element(*)*
```

Input: `attributes`, assumed to be still tethered to their resolved document context

Output: the vocabulary items for that element's attributes (`@which`, etc.)

See full `tan:vocabulary()` function below

Related: `vocabulary`, `attributes`

Used by template # `tan:core-expansion-terse`.

Used by function `tan:has-vocab()`, `tan:attribute-vocabulary()`, `tan:element-vocabulary()`.

Relies upon `tan:attribute-vocabulary()`, `tan:base-uri`, `tan:distinct-items`, `tan:normalize-name`, `tan:shallow-copy`, `tan:vocabulary`, # `tan:remove-inclusions`.

### **tan:element-vocabulary()**

*TAN-fn-vocabulary*

```
tan:element-vocabulary($element as element()*) as element()*
```

Input: elements, assumed to be tethered to their resolved document context

Output: the vocabulary items for that element's attributes (@which, etc.)

See full `tan:vocabulary()` function below

Related: `vocabulary`, `nodes`

Used by template # `tan:get-and-resolve-dependency`, # `tan:apply-inclusions-and-adjust-vocabulary`, # `tan:check-referred-doc`, # `tan:core-expansion-terse`.

Used by function `tan:get-1st-doc()`.

Relies upon `tan:attribute-vocabulary`.

### **tan:has-vocab()**

*TAN-fn-vocabulary*

```
tan:has-vocab($attr-to-check as attribute()?, $ids-and-names as  
xs:string*) as xs:boolean
```

Input: an attribute; a string

Output: true if at least one value of the attribute points to vocabulary items that have an `<id>` or `<name>` that is identical to the 2nd parameter.

The local vocabulary will be checked. If no vocabulary is returned, a check will be made based upon the standard TAN vocabulary

This was written to make XPath predicate expressions easier.

Related: `vocabulary`

Used by function `tan:update-TAN-change-log()`.

Relies upon `$tan:TAN-vocabularies`, `tan:attribute-vocabulary`, `tan:normalize-name`, `tan:vocabulary`.

### **tan:vocabulary()**

*Option 1 (TAN-fn-vocabulary)*

```
tan:vocabulary($target-element-names as xs:string*, $target-values as  
xs:string*) as element()*
```

2-param version of fuller one below

Used by variable `$tan:self-expanded-vocabulary`, `$tan:doc-vocabulary`.

Used by template # `tan:tan-a-lm-expansion-terse`, # `tan:core-expansion-terse-attributes`, # `tan:mark-dependencies-pass-1`, # `tan:core-expansion-terse`.

Used by function `tan:vocabulary()`, `tan:update-TAN-change-log()`, `tan:has-vocab()`, `tan:morphological-code-conversion-maps()`, `tan:attribute-vocabulary()`, `tan:last-change-agent()`.

Relies upon `$tan:doc-vocabulary`, `tan:vocabulary`.

*Option 2 (TAN-fn-vocabulary)*

```
tan:vocabulary($target-element-names as xs:string*, $target-values as
xs:string*, $resolved-vocabulary-ancestors as element(*) as element(*)
```

Input: two sequences of zero or more strings; a sequence of elements representing the ancestor of vocabulary in a resolved TAN file

Output: the vocabulary items for the particular elements whose names match the first sequence and whose id, alias, or name values match the second sequence, found descendants of the elements provided by the third sequence

If either of the first two sequences are empty, or have an \*, it is assumed that all possible values are sought. Therefore if the first two parameters are empty, the entire vocabulary will be returned

The second parameter is assumed to have one value per item in the sequence. This is mandatory because it is designed to take two different types of values: `@which` (wh single value and permits spaces) and other attributes (can be multiple values, space-delimited)

If you approach this function with an attribute that points to elements, and you must first to retrieve that attribute's elements, you should run `tan:target-element-names()` beforehand to generate a list of element names that should be used.

It is assumed that the elements are the result of a fully resolved TAN file.

If a value matches id or alias, no matches on name will be sought (locally redefined ids override name values)

This function does not mark apparent errors, e.g., vocabulary items missing, or more than one for a single value

If you are trying to work with vocabulary from an included document, the `$resolved-vocabulary-ancestors` should point exclusively to content (not self) of the document. Use `tan:include`

Related: `vocabulary`

Used by variable `$tan:self-expanded-vocabulary`, `$tan:doc-vocabulary`.

Used by template # `tan:tan-a-lm-expansion-terse`, # `tan:core-expansion-terse-attributes`, # `tan:mark-dependencies-pass-1`, # `tan:core-expansion-terse`.

Used by function `tan:vocabulary()`, `tan:update-TAN-change-log()`, `tan:has-vocab()`, `tan:morphological-code-conversion-maps()`, `tan:attribute-vocabulary()`, `tan:last-change-agent()`.

Relies upon `tan:distinct-items`, `tan:normalize-name`, `tan:vocabulary()`, `#tan:vocabulary-all-vals`, `#tan:vocabulary-by-id`, `#tan:vocabulary-by-name`.

## Diagnostics

### Variables

#### **`$tan:all-functions`**

*TAN-fn-function-diagnostics*

Definition: `for $i in $tan:function-collection/collection/doc/@href, $j in resolve-uri($i, $tan:function-collection-base-uri) return if (doc-available($j)) then doc($j) else ()`

Used by function `tan:errors-checked-where()`, `tan:variables-checked-where()`.

Relies upon `$tan:function-collection`, `$tan:function-collection-base-uri`.

#### **`$tan:function-collection`**

*TAN-fn-function-diagnostics*

Definition: `doc('../collection.xml')`

Used by variable `$tan:function-collection-base-uri`, `$tan:all-functions`.

Does not rely upon global variables, keys, functions, or templates.

#### **`$tan:function-collection-base-uri`**

*TAN-fn-function-diagnostics*

Definition: `base-uri($tan:function-collection)`

Used by variable `$tan:all-functions`.

Relies upon `$tan:function-collection`.

#### **`$tan:orig-self-validated`**

*TAN-fn-nodes-diagnostics*

This variable has a complex definition. See stylesheet for definition.

No variables, keys, functions, or named templates depend upon this xsl:variable.

Relies upon `#tan:imitate-validation`.

#### **`$tan:rng-collection`**

*TAN-fn-schema-diagnostics*

Definition: `$tan:schema-collection[rng:*]`

Used by variable `$tan:rng-collection-without-TEI`.

Used by function `tan:get-parent-elements()`.

Relies upon `$tan:schema-collection`.

### **`$tan:rng-collection-without-TEI`**

*TAN-fn-schema-diagnostics*

Definition: `$tan:rng-collection[not(matches(base-uri(.), 'TAN-TEI'))]`

Used by function `tan:get-parent-elements()`.

Relies upon `$tan:rng-collection`.

### **`$tan:schema-collection`**

*TAN-fn-schema-diagnostics*

Definition: `for $i in $tan:schema-uri-collection return if (doc-available($i)) then doc($i) else ()`

Used by variable `$tan:rng-collection`.

Relies upon `$tan:schema-uri-collection`.

### **`$tan:schema-uri-collection`**

*TAN-fn-schema-diagnostics*

Definition: `uri-collection('../..schemas'), uri-collection('../..schemas/incl')`

Used by variable `$tan:schema-collection`.

Does not rely upon global variables, keys, functions, or templates.

## **Errors**

### **Variables**

#### **`$tan:errors`**

*TAN-core-errors*

Definition: `doc('TAN-errors.xml')`

Used by variable `$tan:errors-to-squelch`.

Used by template # `tan:imitate-validation`, # `tan:element-to-error`.

Used by function `tan:error()`.

Does not rely upon global variables, keys, functions, or templates.



## **\$tan:errors-to-squelch**

*TAN-core-errors*

Definition: `$tan:errors/tan:errors/tan:squelch[@phase = $tan:default-validation-phase]/tan:error-id`

Used by template # `tan:imitate-validation`.

Relies upon `$tan:errors`.

## **\$tan:help-trigger-regex**

*TAN-core-errors*

Definition: `tan:escape($tan:help-trigger)`

Used by template # `tan:core-expansion-terse-attributes`.

Used by function `tan:normalize-text()`, `tan:help-extracted()`.

Does not rely upon global variables, keys, functions, or templates.

# Templates (by mode)

Templates based on modes are frequently found in multiple files and directories, so they are collated here separately, one entry per mode.

## **# #all**

### **TAN-core-errors.xsl**

```
<xsl:template match='tan:error/tan:fix | tan:help/tan:fix | tan:warning/tan:fix | tan:fatal/tan:fix | tan:info/tan:fix' priority='-999' mode='#all' />
```

No variables, keys, functions, or named templates depend upon this `xsl:template`.

Does not rely upon global variables, keys, functions, or templates.

## **# adjust-diff-infusion**

### **TAN-fn-html-diff-and-collate.xsl**

```
<xsl:template match='tan:_text' mode='adjust-diff-infusion' />
<xsl:template match='tan:c | tan:u' mode='adjust-diff-infusion' />
<xsl:template match='tan:b' mode='adjust-diff-infusion' />
<xsl:template match='tan:wit' mode='adjust-diff-infusion' />
```

Used by template # `infuse-primary-file-with-diff-results`.

Does not rely upon global variables, keys, functions, or templates.

## # diff-or-collate-to-html-output-pass-1

### TAN-fn-html-diff-and-collate.xsl

```
<xsl:template match='tan:stats' mode='diff-or-collate-to-html-out-
put-pass-1' />

<xsl:template match='tan:stats/tan:witness | tan:stats/tan:collation |
tan:stats/tan:diff' mode='diff-or-collate-to-html-output-pass-1' />

<xsl:template match='tan:stats/tan:witness/* | tan:stats/tan:col-
lation/* | tan:stats/tan:diff/*' mode='diff-or-collate-to-html-out-
put-pass-1' />

<xsl:template match='tan:note' mode='diff-or-collate-to-html-out-
put-pass-1' priority='1' />

<xsl:template match='tan:venns' priority='1' mode='diff-or-collate-to-
html-output-pass-1' />

<xsl:template match='tan:venns/tan:venn' priority='1' mode='diff-or-
collate-to-html-output-pass-1' />

<xsl:template match='tan:venn/tan:part' mode='diff-or-collate-to-html-
output-pass-1' />

<xsl:template match='tan:diff | tan:collation' mode='diff-or-col-
late-to-html-output-pass-1' />

<xsl:template match='tan:witness' mode='diff-or-collate-to-html-out-
put-pass-1' />
```

Used by function `tan:diff-or-collate-to-html()`.

Relies upon `tan:shallow-copy`, `tan:stamp-diff-with-text-data`, `tan:trim-long-tree`, `# infuse-primary-file-with-diff-results`.

## # infuse-primary-file-with-diff-results

### TAN-fn-html-diff-and-collate.xsl

```
<xsl:template match='comment() | processing-instruction()' mode='in-
fuse-primary-file-with-diff-results' />

<xsl:template match='tan:unparsed-text | w:document' mode='infuse-pri-
mary-file-with-diff-results' />

<xsl:template match='*[@q or @id]' mode='infuse-primary-file-with-diff-
results' />

<xsl:template match=' @q | tei:*/@part | tei:*/@org | tei:*/@sample
| /tei:TEI/@* | tan:TAN-T/@*' mode='infuse-primary-file-with-diff-re-
sults' />
```

Used by template `# diff-or-collate-to-html-output-pass-1`.

Relies upon # `adjust-diff-infusion`.

## # `tan:add-category-position`

### TAN-fn-language-extended.xsl

```
<xsl:template match='tan:feature | tan:item[tan:affects-element = 'feature']' mode='tan:add-category-position' />
```

Used by function `tan:morphological-code-conversion-maps()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:add-code-test-toks`

### TAN-fn-language-extended.xsl

```
<xsl:template match='*:match | *:non-match' mode='tan:add-code-test-toks' />
```

```
<xsl:template match='*:match/text()' mode='tan:add-code-test-toks' />
```

Used by template # `tan:convert-morphological-codes`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:add-collation-pos-offset`

### TAN-fn-strings-collate-standard.xsl

```
<xsl:template match='tan:wit' mode='tan:add-collation-pos-offset' />
```

Used by template # `tan:clean-up-collation-pass-1`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:add-tok-pos`

### TAN-fn-strings-standard.xsl

```
<xsl:template match='tan:tok' mode='tan:add-tok-pos' />
```

Used by function `tan:tokenize-text()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:adjust-horizontal-search`

### TAN-fn-strings-diff-standard.xsl

```
<xsl:template match='tan:result' mode='tan:adjust-horizontal-search' />
```

```
<xsl:template match='tan:common' mode='tan:adjust-horizontal-search' />
<xsl:template match='tan:check-start' mode='tan:adjust-horizontal-search' />
<xsl:template match='tan:check-end' mode='tan:adjust-horizontal-search' />
<xsl:template match='tan:check-start-and-end' mode='tan:adjust-horizontal-search' />
<xsl:template match='tan:a | tan:b' mode='tan:adjust-horizontal-search' />
```

Used by function `tan:diff-loop()`.

Relies upon `tan:common-end-string()`, `tan:common-start-string`, `tan:ellipses`.

## # `tan:apply-inclusions-and-adjust-vocabulary`

### TAN-fn-resolve-files.xsl

```
<xsl:template match='tan:inclusion/*[tan:head]' mode='tan:apply-inclusions-and-adjust-vocabulary' />
<xsl:template match='*[@include]' mode='tan:apply-inclusions-and-adjust-vocabulary' />
<xsl:template match='tan:vocabulary/tan:TAN-voc' mode='tan:apply-inclusions-and-adjust-vocabulary' />
<xsl:template match='tan:vocabulary/tan:TAN-voc/tan:item | tan:vocabulary/tan:TAN-voc/tan:verb' priority='1' mode='tan:apply-inclusions-and-adjust-vocabulary' />
<xsl:template match='tan:head/tan:TAN-voc' mode='tan:apply-inclusions-and-adjust-vocabulary' />
```

Used by function `tan:resolve-doc-loop()`.

Relies upon `tan:copy-of-except`, `tan:element-vocabulary`, `# tan:prefix-at-tr-include`.

## # `tan:archive-to-plain-text`

### TAN-fn-docx.xsl

```
<xsl:template match='w:p' mode='tan:archive-to-plain-text' />
<xsl:template match='ssh:c[not(@t)]' mode='tan:archive-to-plain-text' />
<xsl:template match='w:tab' mode='tan:archive-to-plain-text' />
<xsl:template match='w:br' mode='tan:archive-to-plain-text' />
```

```
<xsl:template match='w:noBreakHyphen' mode='tan:archive-to-plain-text' />
```

```
<xsl:template match='w:softHyphen' mode='tan:archive-to-plain-text' />
```

```
<xsl:template match='w:instrText | prop:Properties | cp:coreProperties | w:pPr' mode='tan:archive-to-plain-text' />
```

Used by function `tan:docx-to-text()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:array-to-map`

### TAN-fn-arrays-extended.xsl

```
<xsl:template match='. [. instance of array(*)]' mode='tan:array-to-map' />
```

### TAN-fn-maps-extended.xsl

```
<xsl:template match='. [. instance of map(*)]' priority='-1' mode='tan:shallow-copy tan:map-put tan:array-to-map' />
```

Used by function `tan:array-to-map()`.

Relies upon `tan:duplicate-items`, `tan:item-type`.

## # `tan:attributes-not-in-inclusions`

### TAN-fn-expand-files.xsl

```
<xsl:template match='tan:inclusion | *[@include]' mode='tan:attributes-not-in-inclusions' />
```

```
<xsl:template match='@xml:id | @id' mode='tan:attributes-not-in-inclusions' />
```

Used by template # `tan:core-expansion-terse-attributes`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:batch-replace-advanced-pass-1`

### TAN-fn-strings-extended.xsl

```
<xsl:template match='text()' mode='tan:batch-replace-advanced-pass-1' />
```

```
<xsl:template match='. [. instance of xs:string]' mode='tan:batch-replace-advanced-pass-1' />
```

Used by function `tan:batch-replace-advanced()`.

Relies upon # `tan:regex-group-count`, # `tan:batch-replace-advanced-pass-2`.

## # tan:batch-replace-advanced-pass-2

### TAN-fn-strings-extended.xsl

```
<xsl:template match='@*' mode='tan:batch-replace-advanced-pass-2' />
<xsl:template match='text()' mode='tan:batch-replace-advanced-pass-2' />
```

Used by template # tan:batch-replace-advanced-pass-1.

Relies upon # tan:regex-group-count.

## # tan:build-anchor-reference

### TAN-fn-expand-terse-class-1.xsl

```
<xsl:template match='tei:lb | tei:pb | tei:cb | tei:milestone' mode='tan:build-anchor-reference' />
<xsl:template match='tan:ref | tan:n | tan:type | tan:ed-who' mode='tan:build-anchor-reference' />
```

Used by template # tan:core-expansion-terse tan:dependency-adjustments-pass-1.

Does not rely upon global variables, keys, functions, or templates.

## # tan:build-grouping-key

### TAN-fn-nodes-standard.xsl

```
<xsl:template match='text()' mode='tan:build-grouping-key' />
<xsl:template match='*' mode='tan:build-grouping-key' />
```

Used by function tan:group-elements-by-shared-node-values().

Does not rely upon global variables, keys, functions, or templates.

## # tan:build-integer-arrays

### TAN-fn-sequences-standard.xsl

```
<xsl:template match='*' mode='tan:build-integer-arrays' />
<xsl:template match='.[. castable as xs:integer]' priority='-1' mode='tan:build-integer-arrays' />
<xsl:template match='.[. instance of array(xs:integer*)]' mode='tan:build-integer-arrays' />
```

Used by function tan:longest-ascending-subsequence().

Does not rely upon global variables, keys, functions, or templates.

## # tan:build-lm-arrays

### TAN-fn-language-extended.xsl

```
<xsl:template match='tan:ana' mode='tan:build-lm-arrays' />
<xsl:template match='tan:lm' mode='tan:build-lm-arrays' />
<xsl:template match='tan:l' mode='tan:build-lm-arrays' />
<xsl:template match='tan:m' mode='tan:build-lm-arrays' />
```

Used by function `tan:ana-lm-arrays()`.

Does not rely upon global variables, keys, functions, or templates.

## # tan:build-maps-and-arrays

### TAN-fn-maps-extended.xsl

```
<xsl:template match='map:item[@type eq 'document-node'] | array:item[@type eq 'document-node']' mode='tan:build-maps-and-arrays' />
<xsl:template match='map:item[@type eq 'comment'] | array:item[@type eq 'comment']' mode='tan:build-maps-and-arrays' />
<xsl:template match='map:item[@type eq 'processing-instruction'] | array:item[@type eq 'processing-instruction']' mode='tan:build-maps-and-arrays' />
<xsl:template match='map:item[@type eq 'element'] | array:item[@type eq 'element']' mode='tan:build-maps-and-arrays' />
<xsl:template match='map:item[@type eq 'attribute'] | array:item[@type eq 'attribute']' mode='tan:build-maps-and-arrays' />
<xsl:template match='@_type' mode='tan:build-maps-and-arrays' />
<xsl:template match='map:item[@type eq 'text'] | array:item[@type eq 'text']' mode='tan:build-maps-and-arrays' />
<xsl:template match='map:item[@type eq 'map'] | array:item[@type eq 'map']' mode='tan:build-maps-and-arrays' />
<xsl:template match='map:item[@type eq 'array'] | array:item[@type eq 'array']' mode='tan:build-maps-and-arrays' />
<xsl:template match='map:item[@type = ('function')] | array:item[@type = ('function')]' mode='tan:build-maps-and-arrays' />
<xsl:template match='map:key | map:item' priority='-1' mode='tan:build-maps-and-arrays' />
<xsl:template match='map:key[@type eq 'xs:anyURI'] | map:item[@type eq 'xs:anyURI'] | array:item[@type eq 'xs:anyURI']' mode='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:base64Binary'] |  
map:item[@type eq 'xs:base64Binary'] | array:item[@type eq 'xs:base64Binary']' mode='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:boolean'] | map:item[@type  
eq 'xs:boolean'] | array:item[@type eq 'xs:boolean']' mode=  
e='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:date'] | map:item[@type eq  
'xs:date'] | array:item[@type eq 'xs:date']' mode='tan:build-maps-and-  
arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:dateTime'] | map:item[@type  
eq 'xs:dateTime'] | array:item[@type eq 'xs:dateTime']' mode=  
e='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:decimal'] | map:item[@type  
eq 'xs:decimal'] | array:item[@type eq 'xs:decimal']' mode=  
e='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:integer'] | map:item[@type  
eq 'xs:integer'] | array:item[@type eq 'xs:integer']' mode=  
e='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:long'] | map:item[@type eq  
'xs:long'] | array:item[@type eq 'xs:long']' mode='tan:build-maps-and-  
arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:int'] | map:item[@type eq  
'xs:int'] | array:item[@type eq 'xs:int']' mode='tan:build-maps-and-  
arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:short'] | map:item[@type eq  
'xs:short'] | array:item[@type eq 'xs:short']' mode='tan:build-maps-  
and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:byte'] | map:item[@type eq  
'xs:byte'] | array:item[@type eq 'xs:byte']' mode='tan:build-maps-and-  
arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:nonNegativeInteger'] |  
map:item[@type eq 'xs:nonNegativeInteger'] | array:item[@type eq  
'xs:nonNegativeInteger']' mode='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:positiveInteger'] |  
map:item[@type eq 'xs:positiveInteger'] | array:item[@type eq 'xs:pos-  
itiveInteger']' mode='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:unsignedLong'] |  
map:item[@type eq 'xs:unsignedLong'] | array:item[@type eq 'xs:unsigned-  
Long']' mode='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:unsignedInt'] |  
map:item[@type eq 'xs:unsignedInt'] | array:item[@type eq 'xs:un-  
signedInt']' mode='tan:build-maps-and-arrays' />
```



```
<xsl:template match='map:key[@type eq 'xs:unsignedShort'] |
map:item[@type eq 'xs:unsignedShort'] | array:item[@type eq 'xs:un-
signedShort']' mode='tan:build-maps-and-arrays' />

<xsl:template match='map:key[@type eq 'xs:unsignedByte'] |
map:item[@type eq 'xs:unsignedByte'] | array:item[@type eq 'xs:un-
signedByte']' mode='tan:build-maps-and-arrays' />

<xsl:template match='map:key[@type eq 'xs:nonPositiveInteger'] |
map:item[@type eq 'xs:nonPositiveInteger'] | array:item[@type eq
'xs:nonPositiveInteger']' mode='tan:build-maps-and-arrays' />

<xsl:template match='map:key[@type eq 'xs:negativeInteger'] |
map:item[@type eq 'xs:negativeInteger'] | array:item[@type eq 'xs:neg-
ativeInteger']' mode='tan:build-maps-and-arrays' />

<xsl:template match='map:key[@type eq 'xs:double'] | map:item[@type eq
'xs:double'] | array:item[@type eq 'xs:double']' mode='tan:build-maps-
and-arrays' />

<xsl:template match='map:key[@type eq 'xs:duration'] | map:item[@type
eq 'xs:duration'] | array:item[@type eq 'xs:duration']' mod-
e='tan:build-maps-and-arrays' />

<xsl:template match='map:key[@type eq 'xs:dayTimeDuration'] |
map:item[@type eq 'xs:dayTimeDuration'] | array:item[@type eq 'xs:day-
TimeDuration']' mode='tan:build-maps-and-arrays' />

<xsl:template match='map:key[@type eq 'xs:yearMonthDuration'] |
map:item[@type eq 'xs:yearMonthDuration'] | array:item[@type eq
'xs:yearMonthDuration']' mode='tan:build-maps-and-arrays' />

<xsl:template match='map:key[@type eq 'xs:float'] | map:item[@type eq
'xs:float'] | array:item[@type eq 'xs:float']' mode='tan:build-maps-
and-arrays' />

<xsl:template match='map:key[@type eq 'xs:gDay'] | map:item[@type eq
'xs:gDay'] | array:item[@type eq 'xs:gDay']' mode='tan:build-maps-and-
arrays' />

<xsl:template match='map:key[@type eq 'xs:gMonth'] | map:item[@type eq
'xs:gMonth'] | array:item[@type eq 'xs:gMonth']' mode='tan:build-maps-
and-arrays' />

<xsl:template match='map:key[@type eq 'xs:gMonthDay'] | map:item[@type
eq 'xs:gMonthDay'] | array:item[@type eq 'xs:gMonthDay']' mod-
e='tan:build-maps-and-arrays' />

<xsl:template match='map:key[@type eq 'xs:gYear'] | map:item[@type eq
'xs:gYear'] | array:item[@type eq 'xs:gYear']' mode='tan:build-maps-
and-arrays' />

<xsl:template match='map:key[@type eq 'xs:gYearMonth'] | map:item[@type
eq 'xs:gYearMonth'] | array:item[@type eq 'xs:gYearMonth']' mod-
e='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:hexBinary'] | map:item[@type eq 'xs:hexBinary'] | array:item[@type eq 'xs:hexBinary']' mode='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:QName'] | map:item[@type eq 'xs:QName'] | array:item[@type eq 'xs:QName']' mode='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:string'] | map:item[@type eq 'xs:string'] | array:item[@type eq 'xs:string']' mode='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:normalizedString'] | map:item[@type eq 'xs:normalizedString'] | array:item[@type eq 'xs:normalizedString']' mode='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:token'] | map:item[@type eq 'xs:token'] | array:item[@type eq 'xs:token']' mode='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:language'] | map:item[@type eq 'xs:language'] | array:item[@type eq 'xs:language']' mode='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:Name'] | map:item[@type eq 'xs:Name'] | array:item[@type eq 'xs:Name']' mode='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:NCName'] | map:item[@type eq 'xs:NCName'] | array:item[@type eq 'xs:NCName']' mode='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:ENTITY'] | map:item[@type eq 'xs:ENTITY'] | array:item[@type eq 'xs:ENTITY']' mode='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:ID'] | map:item[@type eq 'xs:ID'] | array:item[@type eq 'xs:ID']' mode='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:IDREF'] | map:item[@type eq 'xs:IDREF'] | array:item[@type eq 'xs:IDREF']' mode='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:NMTOKEN'] | map:item[@type eq 'xs:NMTOKEN'] | array:item[@type eq 'xs:NMTOKEN']' mode='tan:build-maps-and-arrays' />
```

```
<xsl:template match='map:key[@type eq 'xs:time'] | map:item[@type eq 'xs:time'] | array:item[@type eq 'xs:time']' mode='tan:build-maps-and-arrays' />
```

Used by template # `tan:xml-to-map-and-array`.

Used by function `tan:array-members()`, `tan:build-xml-to-map-key()`.

Relies upon `tan:xml-to-map()`, # `tan:xml-to-map-and-array`.

## # tan:build-morpheus-ana

### TAN-fn-search-extended.xsl

```
<xsl:template match='oac:Body' mode='tan:build-morpheus-ana' />
<xsl:template match='entry' mode='tan:build-morpheus-ana' />
<xsl:template match='dict' mode='tan:build-morpheus-ana' />
<xsl:template match='infl' mode='tan:build-morpheus-ana' />
<xsl:template match='pofs | case | gend | num | mood | tense | voice |
comp' mode='tan:build-morpheus-ana tan:build-morpheus-lex' />
```

Used by template # tan:claims-morpheus.

Relies upon \$morpheus-map, \$tan:TAN-feature-vocabulary.

## # tan:build-morpheus-lex

### TAN-fn-search-extended.xsl

```
<xsl:template match='pofs | case | gend | num | mood | tense | voice |
comp' mode='tan:build-morpheus-ana tan:build-morpheus-lex' />
<xsl:template match='infl' mode='tan:build-morpheus-lex' />
<xsl:template match='dict' mode='tan:build-morpheus-lex' />
<xsl:template match='hdwd' mode='tan:build-morpheus-lex' />
<xsl:template match='@xml:lang' mode='tan:build-morpheus-lex' />
```

Used by template # tan:claims-morpheus.

Relies upon \$morpheus-map, \$tan:TAN-feature-vocabulary.

## # tan:build-namespace-map

### TAN-fn-nodes-extended.xsl

```
<xsl:template match='*' mode='tan:build-namespace-map' />
```

Used by function tan:get-namespace-map().

Does not rely upon global variables, keys, functions, or templates.

## # tan:catalog-expansion-terse

### TAN-fn-expand-files.xsl

```
<xsl:template match='collection' mode='tan:catalog-expansion-terse' />
```

```
<xsl:template match='doc' mode='tan:catalog-expansion-terse' />
```

Used by function `tan:expand-doc()`.

Relies upon `tan:duplicate-items`.

## # `tan:check-and-expand-ranges`

### TAN-fn-sequences-standard.xsl

```
<xsl:template match='*[@from][text()]' mode='tan:check-and-expand-ranges' />
```

```
<xsl:template match='tan:ref[@from][tan:n]' priority='1' mode='tan:check-and-expand-ranges' />
```

Used by function `tan:analyze-sequence()`.

Relies upon `$tan:separator-hierarchy`, `tan:expand-numerical-expression`, `tan:string-to-numerals`.

## # `tan:check-referred-doc`

### TAN-fn-expand-files.xsl

```
<xsl:template match='tan:inclusion/* | tan:vocabulary/tan:item' priority='1' mode='tan:check-referred-doc' />
```

```
<xsl:template match='tan:algorithm | tan:TAN-T/tan:head/tan:source | tei:TEI/tan:head/tan:source' mode='tan:check-referred-doc' />
```

```
<xsl:template match='tan:predecessor | tan:see-also' mode='tan:check-referred-doc' priority='1' />
```

```
<xsl:template match='tan:inclusion | tan:vocabulary | tan:TAN-A/tan:head/tan:source | tan:TAN-A-lm/tan:head/tan:source | tan:TAN-A-tok/tan:head/tan:source | tan:see-also | tan:morphology | tan:redivision | tan:model | tan:successor | tan:predecessor | tan:annotation' mode='tan:check-referred-doc' />
```

```
<xsl:template match='tan:checksum/tan:IRI' priority='3' mode='tan:check-referred-doc' />
```

```
<xsl:template match='tan:IRI' priority='2' mode='tan:check-referred-doc' />
```

```
<xsl:template match='*[@href]' mode='tan:check-referred-doc' />
```

### TAN-fn-expand-terse-class-2.xsl

```
<xsl:template match='tan:vocabulary/tan:item' priority='2' mode='tan:check-referred-doc' />
```

Used by template `# tan:core-expansion-terse`, `# tan:core-expansion-normal`.

Relies upon \$tan:TAN-namespace, \$tan:TAN-vocabularies, \$tan:TEI-namespace, \$tan:doc-id, \$tan:duplicate-head-iris, \$tan:empty-doc, \$tan:empty-element, \$tan:inclusions-resolved, \$tan:internet-available, \$tan:sources-resolved, \$tan:vocabularies-resolved, tan:base-uri, tan:distinct-items, tan:element-vocabulary, tan:get-1st-doc, tan:get-doc-history, tan:last-change-agent, tan:normalize-text, tan:resolve-doc, tan:shallow-copy, tan:url-is-local.

## # tan:claims-morpheus

### TAN-fn-search-extended.xsl

```
<xsl:template match='/*' mode='tan:claims-morpheus' />
```

Used by function tan:search-results-to-claims().

Relies upon # tan:build-morpheus-ana, # tan:build-morpheus-lex.

## # tan:class-1-expansion-verbose-pass-1

### TAN-fn-expand-verbose.xsl

```
<xsl:template match='tan:head' mode='tan:class-1-expansion-verbose-pass-1' />
```

```
<xsl:template match='tan:redivision' mode='tan:class-1-expansion-verbose-pass-1' />
```

```
<xsl:template match='tan:model' mode='tan:class-1-expansion-verbose-pass-1' />
```

```
<xsl:template match='tan:body' mode='tan:class-1-expansion-verbose-pass-1' />
```

Used by function tan:expand-doc().

Relies upon \$tan:doc-id, \$tan:model-resolved, \$tan:redivisions-resolved, tan:copy-of-except, tan:diff, tan:expand-doc, tan:get-1st-doc, tan:merge-expanded-docs, tan:resolve-doc, tan:stamp-diff-with-text-data, tan:text-join.

## # tan:class-1-expansion-verbose-pass-2

### TAN-fn-expand-verbose.xsl

```
<xsl:template match='tan:model' mode='tan:class-1-expansion-verbose-pass-2' />
```

```
<xsl:template match='tan:model/tan:body' mode='tan:class-1-expansion-verbose-pass-2' />
```

```
<xsl:template match='tan:TAN-T/tan:body | tei:TEI/tan:body' mode='tan:class-1-expansion-verbose-pass-2' />
```

```
<xsl:template match='tan:div' mode='tan:class-1-expansion-verbose-pass-2' />
```

Used by function `tan:expand-doc()`.

Relies upon `<div>`, `tan:shallow-copy`, `tan:string-to-numerals`.

## # `tan:class-1-expansion-verbose-pass-3`

### TAN-fn-expand-verbose.xsl

```
<xsl:template match='tan:model/tan:body' mode='tan:class-1-expansion-verbose-pass-3' />
```

```
<xsl:template match='tan:TAN-T/tan:body | tei:TEI/tan:body' mode='tan:class-1-expansion-verbose-pass-3' />
```

```
<xsl:template match='tan:div[not(tan:div)][@_pos]' mode='tan:class-1-expansion-verbose-pass-3' />
```

Used by function `tan:expand-doc()`.

Relies upon `$tan:char-regex`, `tan:chop-diff-output`, `tan:xml-to-string`, `#tan:ellipses`, `#tan:strip-attributes`.

## # `tan:class-2-expansion-normal`

### TAN-fn-expand-normal.xsl

```
<xsl:template match='tan:div-ref' mode='tan:core-expansion-normal tan:class-2-expansion-normal' />
```

Used by function `tan:expand-doc()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:class-2-expansion-terse`

### TAN-fn-expand-terse-class-2.xsl

```
<xsl:template match='tan:skip/tan:div-type | tan:skip/tan:n | tan:rename/tan:n | tan:passage | tan:from-tok | tan:through-tok | tan:rename | tan:reassign' mode='tan:class-2-expansion-terse tan:class-2-expansion-terse-for-validation' />
```

```
<xsl:template match='tan:equate' mode='tan:class-2-expansion-terse tan:class-2-expansion-terse-for-validation' />
```

```
<xsl:template match='tan:to/tan:ref | tan:new/tan:ref' mode='tan:class-2-expansion-terse tan:class-2-expansion-terse-for-validation' />
```

```
<xsl:template match='tan:ref' mode='tan:class-2-expansion-terse tan:class-2-expansion-terse-for-validation' />
```

```
<xsl:template match='tan:pos' mode='tan:class-2-expansion-terse  
tan:class-2-expansion-terse-for-validation' />
```

```
<xsl:template match='tan:chars' mode='tan:class-2-expansion-terse  
tan:class-2-expansion-terse-for-validation' />
```

Used by function `tan:expand-doc()`.

Relies upon `tan:duplicate-items`, `tan:ordinal`.

## # `tan:class-2-expansion-terse-for-validation`

### TAN-fn-expand-terse-class-2.xsl

```
<xsl:template match='tan:skip/tan:div-type | tan:skip/tan:n | tan:re-  
name/tan:n | tan:passage | tan:from-tok | tan:through-tok | tan:re-  
name | tan:reassign' mode='tan:class-2-expansion-terse tan:class-2-ex-  
pansion-terse-for-validation' />
```

```
<xsl:template match='tan:equate' mode='tan:class-2-expansion-terse  
tan:class-2-expansion-terse-for-validation' />
```

```
<xsl:template match='tan:to/tan:ref | tan:new/tan:ref' mod-  
e='tan:class-2-expansion-terse tan:class-2-expansion-terse-for-valida-  
tion' />
```

```
<xsl:template match='tan:ref' mode='tan:class-2-expansion-terse  
tan:class-2-expansion-terse-for-validation' />
```

```
<xsl:template match='tan:pos' mode='tan:class-2-expansion-terse  
tan:class-2-expansion-terse-for-validation' />
```

```
<xsl:template match='tan:chars' mode='tan:class-2-expansion-terse  
tan:class-2-expansion-terse-for-validation' />
```

Used by function `tan:expand-doc()`.

Relies upon `tan:duplicate-items`, `tan:ordinal`.

## # `tan:class-2-expansion-verbose`

### TAN-fn-expand-verbose.xsl

```
<xsl:template match='tan:source' mode='tan:class-2-expansion-verbose' /  
>
```

Used by function `tan:expand-doc()`.

Relies upon `tan:get-1st-doc`.

## # `tan:clean-reset-divs-1`

### TAN-fn-expand-terse-class-1.xsl

```
<xsl:template match='tan:div' mode='tan:clean-reset-divs-1' />
```

No variables, keys, functions, or named templates depend upon this xsl:template.

Relies upon # tan:clean-reset-divs-2.

## # tan:clean-reset-divs-2

### TAN-fn-expand-terse-class-1.xsl

```
<xsl:template match='tan:div[tan:ref/@reset]' mode='tan:reset-hierarchy tan:clean-reset-divs-2' />
```

```
<xsl:template match='tan:ref' mode='tan:clean-reset-divs-2' />
```

Used by template # tan:clean-reset-divs-1.

Used by function tan:expand-doc(), tan:reset-hierarchy-loop(), tan:reset-hierarchy().

Does not rely upon global variables, keys, functions, or templates.

## # tan:clean-up-archive

### TAN-fn-file-archive-extended.xsl

```
<xsl:template match='@_archive-path | @xml:base' mode='tan:clean-up-archive' />
```

Used by template # tan:save-archive.

Does not rely upon global variables, keys, functions, or templates.

## # tan:clean-up-collation-pass-1

### TAN-fn-strings-collate-standard.xsl

```
<xsl:template match='tan:x | tan:witness' mode='tan:clean-up-collation-pass-1' />
```

```
<xsl:template match='tan:previous-collation | tan:diagnostics' mode='tan:clean-up-collation-pass-1' />
```

```
<xsl:template match='*[tan:u]' mode='tan:clean-up-collation-pass-1' />
```

Used by function tan:collate().

Relies upon tan:collate, # tan:add-collation-pos-offset.

## # tan:clean-up-collation-pass-2

### TAN-fn-strings-collate-standard.xsl

```
<xsl:template match='*[tan:u]' mode='tan:clean-up-collation-pass-2' />
```



Used by function `tan:collate()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:collated-sequences-to-diff`

### TAN-fn-strings-diff-standard.xsl

```
<xsl:template match='tan:long-seq' mode='tan:collated-sequences-to-diff' />
```

```
<xsl:template match='tan:item[@p1 and @p2]' priority='1' mode='tan:collated-sequences-to-diff' />
```

```
<xsl:template match='tan:item[@p1]' mode='tan:collated-sequences-to-diff' />
```

```
<xsl:template match='tan:item[@p2]' mode='tan:collated-sequences-to-diff' />
```

Used by function `tan:diff-loop()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:collation-to-strings`

### TAN-fn-strings-collate-standard.xsl

```
<xsl:template match='tan:witness' mode='tan:collation-to-strings' />
```

Used by function `tan:collation-to-strings()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:consolidate-identical-adjacent-divs`

### TAN-fn-nodes-extended.xsl

```
<xsl:template match='*[*:div]' mode='tan:consolidate-identical-adjacent-divs' />
```

Used by function `tan:consolidate-identical-adjacent-divs()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:convert-morphological-codes`

### TAN-fn-language-extended.xsl

```
<xsl:template match='tan:m' mode='tan:convert-morphological-codes' />
```

Used by function `tan:convert-morphological-codes()`.

Relies upon `tan:duplicate-values`, `# tan:add-code-test-toks`.

## # `tan:convert-tok-to-push`

### `TAN-fn-expand-terse-class-1.xsl`

```
<xsl:template match='tan:tok' mode='tan:convert-tok-to-push' />
```

Used by template `# tan:mark-dependencies-pass-2`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:copy-of-except`

### `TAN-fn-nodes-standard.xsl`

```
<xsl:template match='*' mode='tan:copy-of-except' />
```

Used by function `tan:copy-of-except()`, `tan:stamp-tree-with-text-data()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:core-expansion-normal`

### `TAN-fn-expand-files.xsl`

```
<xsl:template match='/*' mode='tan:core-expansion-normal tan:dependen-  
cy-expansion-normal' />
```

```
<xsl:template match='tan:master-location' mode='tan:core-expan-  
sion-normal' />
```

```
<xsl:template priority='1' match='tan:TAN-A/tan:head/tan:source |  
tan:TAN-A-tok/tan:head/tan:source | tan:TAN-A-lm/tan:head/tan:source'  
mode='tan:core-expansion-normal' />
```

```
<xsl:template match='tan:see-also | tan:model | tan:redivision |  
tan:successor | tan:predecessor | tan:algorithm | tan:source[tan:loca-  
tion] | tan:annotation' mode='tan:core-expansion-normal' />
```

```
<xsl:template match='text()[matches(., '\S')]' mode='tan:core-expan-  
sion-normal' />
```

### `TAN-fn-expand-normal.xsl`

```
<xsl:template match='tan:TAN-T/tan:body | tan:div' mode='tan:core-ex-  
pansion-normal' />
```

```
<xsl:template match='tan:div-ref' mode='tan:core-expansion-normal  
tan:class-2-expansion-normal' />
```

```
<xsl:template match='tan:subject/tan:div | tan:object/tan:div' priori-  
ty='1' mode='tan:core-expansion-normal' />
```

```
<xsl:template match='tan:TAN-voc/tan:body' mode='tan:core-expansion-normal' />
```

```
<xsl:template match='tan:name' mode='tan:core-expansion-normal' />
```

Used by function `tan:expand-doc()`.

Relies upon `$tan:doc-uri`, `$tan:orig-self`, `$tan:regex-characters-not-permitted`, `tan:copy-of-except`, `tan:dec-to-hex`, `tan:diff`, `tan:duplicate-values`, `tan:get-1st-doc`, `tan:get-doc-history`, `tan:normalize-name`, `tan:xml-to-string`, `# tan:check-referred-doc`, `# tan:ellipses`.

## # tan:core-expansion-prep-for-attr-query

### TAN-fn-expand-files.xsl

```
<xsl:template match='tei:teiHeader | tan:tail | tei:div[not(tei:div)]/node()' mode='tan:core-expansion-prep-for-attr-query' />
```

Used by template # `tan:core-expansion-terse-attributes`.

Does not rely upon global variables, keys, functions, or templates.

## # tan:core-expansion-terse

### TAN-fn-expand-files.xsl

```
<xsl:template match='tei:teiHeader | tan:tail' use-when='$tan:validation-mode-on' mode='tan:core-expansion-terse-attributes tan:core-expansion-terse' />
```

```
<xsl:template match='tei:teiHeader | tan:tail' use-when='not($tan:validation-mode-on)' mode='tan:core-expansion-terse-attributes tan:core-expansion-terse' />
```

```
<xsl:template match='/*' mode='tan:core-expansion-terse' priority='-2' />
```

```
<xsl:template match='tan:head' mode='tan:core-expansion-terse' />
```

```
<xsl:template match='tan:inclusion | tan:vocabulary' mode='tan:core-expansion-terse' />
```

```
<xsl:template match='*[@which]/tan:id' mode='tan:core-expansion-terse' />
```

```
<xsl:template match='tan:feature[@which]/tan:id' priority='1' mode='tan:core-expansion-terse' />
```

```
<xsl:template match='tan:name' mode='tan:core-expansion-terse' />
```

```
<xsl:template match='tan:IRI' mode='tan:core-expansion-terse' />
```

```
<xsl:template match='tan:token-definition' mode='tan:core-expansion-terse' />
```

```
<xsl:template match='tan:alias/tan:idref' mode='tan:core-expansion-terse' />
<xsl:template match='tan:vocabulary-key' mode='tan:core-expansion-terse' />
<xsl:template match='tan:file-resp' mode='tan:core-expansion-terse' />
<xsl:template match='tan:to-do' mode='tan:core-expansion-terse' />
```

## TAN-fn-expand-terse-class-1.xsl

```
<xsl:template match='tan:redivision | /tan:TAN-T/tan:head/tan:companion-version | /tei:TEI/tan:head/tan:companion-version' mode='tan:core-expansion-terse' />
<xsl:template match='tan:reference-system' mode='tan:core-expansion-terse' />
<xsl:template match='tan:model' mode='tan:core-expansion-terse' />
<xsl:template match='tan:TAN-T | tei:TEI' mode='tan:core-expansion-terse tan:dependency-adjustments-pass-1' />
<xsl:template match='*:body' mode='tan:core-expansion-terse tan:dependency-adjustments-pass-1' />
<xsl:template match='tei:text' mode='tan:core-expansion-terse tan:dependency-adjustments-pass-1' />
<xsl:template match='tan:div | tei:div' mode='tan:core-expansion-terse' />
<xsl:template match='tei:teiHeader' mode='tan:core-expansion-terse tan:dependency-adjustments-pass-1' />
<xsl:template match='tei:lb | tei:pb | tei:cb' mode='tan:core-expansion-terse tan:dependency-adjustments-pass-1' />
```

## TAN-fn-expand-terse-class-2.xsl

```
<xsl:template match='tan:source | tan:morphology[not(@attr)]' mode='tan:core-expansion-terse' />
<xsl:template match='tan:rename' mode='tan:core-expansion-terse' />
<xsl:template match='tan:rename/tan:by' mode='tan:core-expansion-terse' />
<xsl:template match='tan:tok[not(tan:from)] | tan:tok/tan:from | tan:tok/tan:to | tan:from-tok | tan:through-tok' mode='tan:core-expansion-terse' />
<xsl:template match='tan:adjustments/tan:skip/tan:div-type | tan:adjustments/tan:*/tan:ref | tan:adjustments/tan:*/tan:n | tan:passage/tan:ref[not(@q)]' mode='tan:core-expansion-terse' />
```

```

<xsl:template match='tan:ref[@q][@from]' priority='1' mode='tan:core-expansion-terse' />

<xsl:template match='tan:ref[@q][@to]' priority='1' mode='tan:core-expansion-terse' />

<xsl:template match='/' mode='tan:core-expansion-terse' />

<xsl:template match='tan:claim/tan:work | tan:object/tan:work | tan:subject/tan:work' mode='tan:core-expansion-terse' />

<xsl:template match='tan:group[tan:work]' mode='tan:core-expansion-terse' />

<xsl:template match='tan:TAN-A/tan:body' mode='tan:core-expansion-terse' />

<xsl:template match='tan:claim' mode='tan:core-expansion-terse' />

<xsl:template match='tan:subject | tan:object' mode='tan:core-expansion-terse' />

<xsl:template match='tan:adjustments' mode='tan:core-expansion-terse' />

<xsl:template match='tan:TAN-A-lm/tan:body' mode='tan:core-expansion-terse' />

<xsl:template match='tan:tok' mode='tan:core-expansion-terse' />

<xsl:template match='tan:m' mode='tan:core-expansion-terse' />

```

### **TAN-fn-expand-terse-class-3.xsl**

```

<xsl:template match='tan:TAN-mor/tan:body' mode='tan:dependency-adjustments-pass-1 tan:core-expansion-terse' />

<xsl:template match='tan:category' mode='tan:dependency-adjustments-pass-1 tan:core-expansion-terse' />

<xsl:template match='tan:category/tan:code/tan:val | tan:body/tan:code/tan:val' mode='tan:dependency-adjustments-pass-1 tan:core-expansion-terse' />

<xsl:template match='tan:code/tan:val/text()' mode='tan:dependency-adjustments-pass-1 tan:core-expansion-terse' />

<xsl:template match='tan:TAN-voc/tan:body' mode='tan:core-expansion-terse' />

<xsl:template match='*[@affects-element]/tan:affects-element' mode='tan:core-expansion-terse' />

<xsl:template match='tan:item | tan:verb' mode='tan:core-expansion-terse' />

```

Used by template # `tan:dependency-adjustments-pass-1`.

Used by function `tan:expand-doc()`.

Relies upon `$stan:TAN-id-namespace`, `$stan:TAN-namespace`, `$stan:TAN-version`, `$stan:TAN-version-is-under-development`, `$stan:TAN-vocabularies`, `$stan:TAN-vocabulary-files`, `$stan:all-selector`, `$stan:break-marker-regex`, `$stan:datatypes-that-require-unit-specification`, `$stan:doc-id`, `$stan:doc-id-namespace`, `$stan:doc-is-error-test`, `$stan:doc-uri`, `$stan:duplicate-head-iris`, `$stan:empty-element`, `$stan:model-resolved`, `$stan:names-of-elements-targeted-by-objects`, `$stan:names-of-elements-targeted-by-subjects`, `$stan:names-of-elements-that-describe-text-bearers`, `$stan:names-of-elements-that-describe-textual-entities`, `$stan:names-of-elements-that-take-which`, `$stan:official-urn-namespaces`, `$stan:previous-TAN-versions`, `$stan:redivisions-resolved`, `$stan:separator-hierarchy`, `$stan:token-definition-default`, `tan:attribute-vocabulary`, `tan:data-type-check`, `tan:distinct-items`, `tan:duplicate-items`, `tan:duplicate-values`, `tan:element-vocabulary`, `tan:ellipses`, `tan:get-1st-doc`, `tan:group-elements-by-shared-node-values`, `tan:last-change-agent`, `tan:normalize-name`, `tan:resolve-doc`, `tan:shallow-copy`, `tan:vocabulary`, # `tan:build-anchor-reference`, # `tan:check-referred-doc`, # `tan:rebuild-divs-with-ref-aliases`, # `tan:resolve-reference-tree-numerals`.

## # `tan:core-expansion-terse-attributes`

### `TAN-fn-expand-files.xsl`

```
<xsl:template match='tei:teiHeader | tan:tail' use-when='$stan:validation-mode-on' mode='tan:core-expansion-terse-attributes tan:core-expansion-terse' />

<xsl:template match='tei:teiHeader | tan:tail' use-when='not($stan:validation-mode-on)' mode='tan:core-expansion-terse-attributes tan:core-expansion-terse' />

<xsl:template match='comment()' mode='tan:core-expansion-terse-attributes' />

<xsl:template match='/*' priority='1' mode='tan:core-expansion-terse-attributes' />

<xsl:template match='tan:head[tan:adjustments]' priority='1' mode='tan:core-expansion-terse-attributes' />

<xsl:template match='tan:head/tan:vocabulary[tan:location] | tan:head/tan:tan-vocabulary | tei:div[not(tei:div)]/tei:*' priority='1' mode='tan:core-expansion-terse-attributes' />

<xsl:template match='*[@*]' mode='tan:core-expansion-terse-attributes' />
```

### `TAN-fn-expand-terse-class-1.xsl`

```
<xsl:template match='tei:div[not(tei:div)]/tei:*' priority='1' mode='tan:resolve-numerals tan:core-expansion-terse-attributes' />
```

Used by template # `tan:dependency-adjustments-pass-1`.

Used by function `tan:expand-doc()`.

Relies upon `$tan:TAN-vocabularies`, `$tan:help-trigger-regex`, `$tan:names-of-attributes-that-take-idrefs`, `tan:distinct-items`, `tan:duplicate-items`, `tan:normalize-name`, `tan:vocabulary`, # `tan:attributes-not-in-inclusions`, # `tan:core-expansion-prep-for-attr-query`, # `tan:core-expansion-terse-attributes-to-elements`, # `tan:remove-inclusions`.

## # `tan:core-expansion-terse-attributes-to-elements`

### TAN-fn-expand-files.xsl

```
<xsl:template match='@*' mode='tan:core-expansion-terse-attributes-to-elements' />
```

```
<xsl:template match='@xml:id | @id' mode='tan:core-expansion-terse-attributes-to-elements' />
```

```
<xsl:template match='@from | @to | tan:*/@when | @ed-when | @accessed-when' mode='tan:core-expansion-terse-attributes-to-elements' />
```

```
<xsl:template match='@pattern | @matches-m | @matches-tok | @rgx' mode='tan:core-expansion-terse-attributes-to-elements' />
```

```
<xsl:template match='@href' mode='tan:core-expansion-terse-attributes-to-elements' />
```

```
<xsl:template match='@ref | @pos | @chars | tan:equate/@n | tan:skip/@n | tan:rename/@n' mode='tan:core-expansion-terse-attributes-to-elements' />
```

```
<xsl:template match='*[@val]/@chars' priority='1' mode='tan:core-expansion-terse-attributes-to-elements' />
```

```
<xsl:template match='*[@ref]/@new' mode='tan:core-expansion-terse-attributes-to-elements' />
```

```
<xsl:template match='*[@n]/@new' mode='tan:core-expansion-terse-attributes-to-elements' />
```

```
<xsl:template match='@val | @by' mode='tan:core-expansion-terse-attributes-to-elements' />
```

```
<xsl:template match='@div-type | @affects-element | @affects-attribute | @item-type | @in-lang' mode='tan:core-expansion-terse-attributes-to-elements' />
```

Used by template # `tan:core-expansion-terse-attributes`.

Relies upon `$tan:doc-uri`, `$tan:internet-available`, `$tan:names-of-attributes-that-are-case-indifferent`, `$tan:names-of-attributes-that-may-take-multiple-space-delimited-values`, `$tan:now`, `tan:chop-string`, `tan:duplic`

cate-values, tan:expand-numerical-expression, tan:path, tan:stamp-q-id,  
tan:uri-relative-to, tan:url-is-local.

## # tan:core-expansion-verbose

### TAN-fn-expand-files.xsl

```
<xsl:template match='/*' mode='tan:core-expansion-verbose' />
```

Used by function tan:expand-doc().

Relies upon tan:catalogs, tan:collection, tan:expand-doc, tan:resolve-doc, #  
tan:prepend-error-message.

## # tan:cut-faulty-hrefs

### TAN-fn-uris-standard.xsl

```
<xsl:template match='/collection/doc[@href]' mode='tan:cut-faulty-  
hrefs' />
```

Used by function tan:catalogs().

Relies upon \$tan:internet-available.

## # tan:dependency-adjustments-pass-1

### TAN-fn-expand-terse-class-1.xsl

```
<xsl:template match='/' mode='tan:dependency-adjustments-pass-1' />
```

```
<xsl:template match='tan:TAN-T | tei:TEI' mode='tan:core-expan-  
sion-terse tan:dependency-adjustments-pass-1' />
```

```
<xsl:template match='*:body' mode='tan:core-expansion-terse tan:depen-  
dency-adjustments-pass-1' />
```

```
<xsl:template match='tei:text' mode='tan:core-expansion-terse tan:de-  
pendency-adjustments-pass-1' />
```

```
<xsl:template match='*:body/text() | *:div[*:div]/text()' mode='tan:de-  
pendency-adjustments-pass-1' />
```

```
<xsl:template match='tan:div | tei:div' mode='tan:dependency-adjust-  
ments-pass-1' />
```

```
<xsl:template match='tei:teiHeader' mode='tan:core-expansion-terse  
tan:dependency-adjustments-pass-1' />
```

```
<xsl:template match='tei:lb | tei:pb | tei:cb' mode='tan:core-expan-  
sion-terse tan:dependency-adjustments-pass-1' />
```

```
<xsl:template match='tan:div/comment()' mode='tan:dependency-adjust-  
ments-pass-1' />
```



## TAN-fn-expand-terse-class-2.xsl

```
<xsl:template match='tan:tan-vocabulary/tan:item[tan:affects-element =  
'feature']/tan:id' mode='tan:dependency-adjustments-pass-1' />
```

```
<xsl:template match='tan:vocabulary-key/tan:feature[@xml:id][tan:IRI]'  
mode='tan:dependency-adjustments-pass-1' />
```

## TAN-fn-expand-terse-class-3.xsl

```
<xsl:template match='tan:TAN-mor/tan:body' mode='tan:dependency-ad-  
justments-pass-1 tan:core-expansion-terse' />
```

```
<xsl:template match='tan:category' mode='tan:dependency-adjust-  
ments-pass-1 tan:core-expansion-terse' />
```

```
<xsl:template match='tan:category/tan:code/tan:val | tan:body/  
tan:code/tan:val' mode='tan:dependency-adjustments-pass-1 tan:core-ex-  
pansion-terse' />
```

```
<xsl:template match='tan:code/tan:val/text()' mode='tan:dependency-ad-  
justments-pass-1 tan:core-expansion-terse' />
```

Used by function `tan:expand-doc()`.

Relies upon `$tan:TAN-version`, `$tan:TAN-version-is-under-development`, `$tan:all-selector`, `$tan:break-marker-regex`, `$tan:doc-id`, `$tan:empty-element`, `$tan:previous-TAN-versions`, `$tan:separator-hierarchy`, `tan:duplicate-values`, `tan:ellipses`, `tan:last-change-agent`, `tan:path`, `tan:shallow-copy`, `# tan:build-anchor-reference`, `# tan:core-expansion-terse-attributes`, `# tan:rebuild-divs-with-ref-aliases`, `# tan:resolve-reference-tree-numerals`.

## # tan:dependency-adjustments-pass-2

### TAN-fn-expand-terse-class-1.xsl

```
<xsl:template match='/' mode='tan:dependency-adjustments-pass-2' />
```

```
<xsl:template match='tan:head' mode='tan:dependency-adjust-  
ments-pass-2' />
```

```
<xsl:template match='tan:div' mode='tan:dependency-adjust-  
ments-pass-2' />
```

```
<xsl:template match='tan:passage/tan:tok' mode='tan:dependency-adjust-  
ments-pass-2' />
```

Used by function `tan:expand-doc()`.

Relies upon `$tan:all-selector`, `$tan:token-definition-default`, `tan:duplicate-items`, `tan:shallow-copy`, `tan:tokenize-text`, `# tan:expand-reassigns`, `# tan:mark-reassigns`, `# tan:resolve-reference-tree-numerals`, `# tan:unmark-tokens`.

## # tan:dependency-expansion-normal

### TAN-fn-expand-files.xsl

```
<xsl:template match='/*' mode='tan:core-expansion-normal tan:dependency-expansion-normal' />
```

### TAN-fn-expand-normal.xsl

```
<xsl:template match='tan:body' mode='tan:dependency-expansion-normal' />
```

```
<xsl:template match='tan:div' mode='tan:dependency-expansion-normal' />
```

Used by function `tan:expand-doc()`.

Relies upon `tan:tokenize-text`.

## # tan:dependency-expansion-verbose

### TAN-fn-expand-verbose.xsl

```
<xsl:template match='/tan:TAN-T | /tei:TEI' mode='tan:dependency-expansion-verbose' />
```

```
<xsl:template match='tan:div' mode='tan:dependency-expansion-verbose' />
```

```
<xsl:template match='tan:tok | tan:non-tok' mode='tan:dependency-expansion-verbose' />
```

```
<xsl:template match='text()' mode='tan:dependency-expansion-verbose' />
```

No variables, keys, functions, or named templates depend upon this `xsl:template`.

Relies upon `tan:tokenize-text`.

## # tan:diff-a-map

### TAN-fn-strings-diff-extended.xsl

```
<xsl:template match='tan:diff' mode='tan:diff-a-map' />
```

```
<xsl:template match='tan:b' mode='tan:diff-a-map' />
```

```
<xsl:template match='tan:common[@_pos = '1']' priority='1' mode='tan:diff-a-map' />
```

```
<xsl:template match='tan:common' mode='tan:diff-a-map' />
```

```
<xsl:template match='tan:a' mode='tan:diff-a-map' />
```

Used by function `tan:diff-a-map()`.

Does not rely upon global variables, keys, functions, or templates.

## # tan:diff-to-delta

### TAN-fn-strings-diff-extended.xsl

```
<xsl:template match='tan:diff' mode='tan:diff-to-delta' />
```

Used by function `tan:diff-to-delta()`.

Relies upon `tan:checksum-fletcher-64`.

## # tan:doc-nodes-on-new-lines

### TAN-fn-file-output.xsl

```
<xsl:template match='/node()' mode='tan:doc-nodes-on-new-lines' />
```

No variables, keys, functions, or named templates depend upon this `xsl:template`.

Does not rely upon global variables, keys, functions, or templates.

## # tan:element-fingerprint

### TAN-fn-nodes-standard.xsl

```
<xsl:template match='*' mode='tan:element-fingerprint' />
```

```
<xsl:template match='comment() | processing-instruction()' mode='tan:element-fingerprint' />
```

```
<xsl:template match='text()' mode='tan:element-fingerprint' />
```

Used by function `tan:element-fingerprint()`.

Does not rely upon global variables, keys, functions, or templates.

## # tan:element-to-error

### TAN-core-errors.xsl

```
<xsl:template match='*' mode='tan:element-to-error' />
```

Used by template # `tan:tan-a-lm-expansion-terse`.

Relies upon `$tan:errors`.

## # tan:ellipses

### TAN-fn-strings-standard.xsl

```
<xsl:template match='text()' mode='tan:ellipses' />
```

Used by template # `tan:class-1-expansion-verbose-pass-3`, # `tan:core-expansion-normal`.

Relies upon `tan:ellipses`.

## # `tan:evaluate-conditions`

### TAN-fn-nodes-standard.xsl

```
<xsl:template match='*' mode='tan:evaluate-conditions' />
<xsl:template match='@*' mode='tan:evaluate-conditions' />
<xsl:template match='@m-matches' mode='tan:evaluate-conditions' />
<xsl:template match='@m-has-how-many-features | @m-has-how-many-codes'
mode='tan:evaluate-conditions' />
<xsl:template match='@m-has-features | @m-has-codes' mode='tan:evaluate-conditions' />
<xsl:template match='@tok-matches' mode='tan:evaluate-conditions' />
```

Used by function `tan:all-conditions-hold-evaluation-loop()`.

Relies upon `tan:expand-numerical-expression`.

## # `tan:expand-reassigns`

### TAN-fn-expand-terse-class-1.xsl

```
<xsl:template match='tan:passage' mode='tan:expand-reassigns' />
<xsl:template match='tan:from-tok' mode='tan:expand-reassigns' />
<xsl:template match='tan:through-tok' mode='tan:expand-reassigns' />
```

Used by template # `tan:dependency-adjustments-pass-2`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:expand-standard-tan-voc`

### TAN-fn-resolve-files.xsl

```
<xsl:template match='/*' mode='tan:expand-standard-tan-voc' />
<xsl:template match='tan:body' mode='tan:expand-standard-tan-voc' />
<xsl:template match='tan:item | tan:verb' mode='tan:expand-standard-tan-voc' />
<xsl:template match='*[@href]' mode='tan:resolve-href tan:expand-standard-tan-voc' />
```

Used by variable `$tan:TAN-vocabularies`.

Relies upon `tan:base-uri`, `tan:shallow-copy`.

## # `tan:extract-essential-TAN-vocabulary`

### TAN-fn-resolve-files.xsl

```
<xsl:template match='/tan:TAN-voc' mode='tan:extract-essential-TAN-vocabulary' />
```

Used by template # `tan:resolve-critical-dependencies-loop`.

Relies upon # `tan:first-stamp-shallow-skip`.

## # `tan:first-stamp-shallow-copy`

### TAN-fn-resolve-files.xsl

```
<xsl:template match='/*' mode='tan:first-stamp-shallow-skip tan:first-stamp-shallow-copy tan:resolve-href' />
```

```
<xsl:template match='processing-instruction()' mode='tan:resolve-href tan:first-stamp-shallow-copy' />
```

```
<xsl:template match='*' mode='tan:first-stamp-shallow-copy' />
```

```
<xsl:template match='tan:head/tan:vocabulary[@which]' mode='tan:first-stamp-shallow-copy' />
```

```
<xsl:template match='tan:name' mode='tan:first-stamp-shallow-copy' />
```

```
<xsl:template match='tan:alias' mode='tan:first-stamp-shallow-copy' />
```

Used by template # `tan:first-stamp-shallow-skip`, # `tan:extract-essential-TAN-vocabulary`.

Used by function `tan:tokenize-text()`, `tan:resolve-doc-loop()`, `tan:resolve-href()`, `tan:get-1st-doc()`.

Relies upon `$tan:TAN-vocabularies`, `tan:base-uri`, `tan:is-valid-uri`, `tan:normalize-name`.

## # `tan:first-stamp-shallow-skip`

### TAN-fn-resolve-files.xsl

```
<xsl:template match='/' mode='tan:first-stamp-shallow-skip' />
```

```
<xsl:template match='*' mode='tan:first-stamp-shallow-skip' />
```

```
<xsl:template match='tan:head' mode='tan:first-stamp-shallow-skip' />
```

```
<xsl:template match='/*' mode='tan:first-stamp-shallow-skip tan:first-stamp-shallow-copy tan:resolve-href' />
```

Used by template # `tan:extract-essential-TAN-vocabulary`.

Used by function `tan:resolve-doc-loop()`.

Relies upon `tan:normalize-name`, `tan:shallow-copy`, `# tan:first-stamp-shallow-copy`.

## # `tan:fn-shallow-copy`

### TAN-fn-nodes-standard.xsl

```
<xsl:template match='node() | document-node()' mode='tan:fn-shallow-copy' />
```

Used by function `tan:shallow-copy()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:fragment-to-text`

### TAN-fn-nodes-standard.xsl

```
<xsl:template match='*' mode='tan:fragment-to-text' />
<xsl:template match='@*' mode='tan:fragment-to-text' />
<xsl:template match='comment()' mode='tan:fragment-to-text' />
<xsl:template match='processing-instruction()' mode='tan:fragment-to-text' />
<xsl:template match='text()' mode='tan:fragment-to-text' />
```

Used by function `tan:xml-to-string()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:get-and-resolve-dependency`

### TAN-fn-resolve-files.xsl

```
<xsl:template match='tan:source | tan:morphology | tan:vocabulary |
tan:key | tan:inclusion' mode='tan:get-and-resolve-dependency' />
```

Used by function `tan:get-and-resolve-dependency()`.

Relies upon `$tan:empty-doc`, `tan:element-vocabulary`, `tan:get-1st-doc`, `tan:normalize-tree-space`, `tan:resolve-doc`, `tan:shallow-copy`.

## # `tan:get-diff-stats`

### TAN-fn-strings-diff-extended.xsl

```
<xsl:template match='tan:stats | tan:witness | tan:stats/tan:diff |
tan:length | tan:diff-count | tan:diff-length | tan:diff-portion' mode='tan:get-diff-stats' />
```

```
<xsl:template match='tan:group/tan:diff' mode='tan:get-diff-stats' />
```

```
<xsl:template match='text()' mode='tan:get-diff-stats' />
```

Used by function `tan:get-diff-stats()`, `tan:get-collate-stats()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:get-doc-history`

### TAN-fn-time.xsl

```
<xsl:template match='tan:tan-vocabulary | tan:inclusion/tei:* | tan:in-  
clusion/tan:TAN-T | tan:inclusion/tan:TAN-A | tan:inclusion/tan:TAN-A-  
tok | tan:inclusion/tan:TAN-A-lm | tan:inclusion/tan:TAN-mor | tan:in-  
clusion/tan:TAN-voc' mode='tan:get-doc-history' />
```

```
<xsl:template match='*[@when or @ed-when or @accessed-when or @claim-  
when]' mode='tan:get-doc-history' />
```

Used by function `tan:get-doc-history()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:get-IRI-name`

### TAN-fn-search-extended.xsl

```
<xsl:template match='xhtml:a | a[@href]' mode='tan:get-IRI-name' pri-  
ority='2' />
```

```
<xsl:template match='mods:mods' mode='tan:get-IRI-name' priority='2' />
```

```
<xsl:template match='ul[@class = 'mw-search-results']/li' mod-  
e='tan:get-IRI-name' />
```

Used by function `tan:search-results-to-IRI-name-pattern()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:html-class`

### TAN-fn-html-core.xsl

```
<xsl:template match='*[@class]' mode='tan:html-class' />
```

Used by function `tan:find-class()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:imitate-validation`

### TAN-fn-nodes-diagnostics.xsl

```
<xsl:template match='*' mode='tan:imitate-validation' />
```

Used by variable `$tan:orig-self-validated`.

Relies upon `$tan:errors-to-squelch`, `$tan:self-expanded`, `tan:get-via-q-ref`.

## # `tan:indent-items`

### TAN-fn-nodes-standard.xsl

```
<xsl:template match='*' mode='tan:indent-items' />
<xsl:template match='text()' mode='tan:indent-items' />
```

Used by function `tan:copy-indentation()`.

Relies upon `tan:fill`.

## # `tan:infuse-diff-and-collate-stats`

### TAN-fn-strings-diff-extended.xsl

```
<xsl:template      match='*[tan:diff[not(*)]]      |      *[tan:colla-
tion[not(*/*tan:txt)]]'      priority='1'      mode='tan:infuse-diff-and-col-
late-stats' />

<xsl:template match='*[tan:diff[tan:a][not(tan:b) and not(tan:common)]]
| *[tan:diff[tan:b][not(tan:a) and not(tan:common)]]' priority='1' mod-
e='tan:infuse-diff-and-collate-stats' />

<xsl:template      match='*[tan:diff]'      mode='tan:infuse-diff-and-col-
late-stats' />

<xsl:template      match='tan:diff'      mode='tan:infuse-diff-and-col-
late-stats' />

<xsl:template match='*[tan:collation]' mode='tan:infuse-diff-and-col-
late-stats' />
```

Used by function `tan:infuse-diff-and-collate-stats()`.

Relies upon `tan:distinct-items`, `tan:stamp-diff-with-text-data`.

## # `tan:infuse-tokenized-text`

### TAN-fn-nodes-extended.xsl

```
<xsl:template match='@_pos | @_len' mode='tan:infuse-tokenized-text' />
<xsl:template      match='*[@_pos][text()]'      mode='tan:infuse-tok-
enized-text' />
<xsl:template      match='tan:_text'      priority='1'      mode='tan:infuse-tok-
enized-text' />
```

Used by function `tan:infuse-tree()`.



Does not rely upon global variables, keys, functions, or templates.

## # **tan:insert-content**

### **TAN-fn-nodes-extended.xsl**

```
<xsl:template match='*' mode='tan:insert-content' />
```

Used by function `tan:insert-as-last-child()`, `tan:insert-as-first-child()`.

Does not rely upon global variables, keys, functions, or templates.

## # **tan:integers-to-expression**

### **TAN-fn-numerals-extended.xsl**

```
<xsl:template match='tan:n' mode='tan:integers-to-expression' />
```

Used by function `tan:integers-to-expression()`.

Does not rely upon global variables, keys, functions, or templates.

## # **tan:itemize-lms**

### **TAN-fn-language-extended.xsl**

```
<xsl:template match='tan:ana' mode='tan:itemize-lms' />
```

```
<xsl:template match='tan:l' mode='tan:itemize-lms' />
```

Used by function `tan:merge-anas()`.

Does not rely upon global variables, keys, functions, or templates.

## # **tan:levenshtein-distance**

### **TAN-fn-strings-diff-extended.xsl**

```
<xsl:template match='tan:a' mode='tan:levenshtein-distance' />
```

```
<xsl:template match='tan:b' mode='tan:levenshtein-distance' />
```

Used by function `tan:levenshtein-distance()`.

Does not rely upon global variables, keys, functions, or templates.

## # **tan:make-non-mixed**

### **TAN-fn-nodes-extended.xsl**

```
<xsl:template match='*[text()]' mode='tan:make-non-mixed' />
```

```
<xsl:template match='text()' mode='tan:make-non-mixed' />
```

Used by function `tan:make-non-mixed()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:map-and-array-to-xml`

### TAN-fn-maps-extended.xsl

```
<xsl:template match='. [. instance of map(*)]' mode='tan:map-and-array-to-xml' />
```

```
<xsl:template match='. [. instance of array(*)]' mode='tan:map-and-array-to-xml' />
```

Used by function `tan:array-to-xml()`, `tan:map-to-xml()`.

Relies upon `tan:item-type`.

## # `tan:map-keys`

### TAN-fn-maps-extended.xsl

```
<xsl:template match='. [. instance of map(*)]' mode='tan:map-keys' />
```

Used by function `tan:map-keys()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:map-put`

### TAN-fn-arrays-extended.xsl

```
<xsl:template match='. [. instance of array(*)]' priority='-1' mode='tan:shallow-copy tan:map-put tan:map-remove' />
```

### TAN-fn-maps-extended.xsl

```
<xsl:template match='. [. instance of map(*)]' priority='-1' mode='tan:shallow-copy tan:map-put tan:array-to-map' />
```

```
<xsl:template match='. [. instance of map(*)]' mode='tan:map-put' />
```

Used by function `tan:map-remove()`, `tan:map-put()`.

Relies upon `tan:item-type`.

## # `tan:map-remove`

### TAN-fn-arrays-extended.xsl

```
<xsl:template match='. [. instance of array(*)]' priority='-1' mode='tan:shallow-copy tan:map-put tan:map-remove' />
```

## **TAN-fn-maps-extended.xsl**

```
<xsl:template match='. [. instance of map(*)]' mode='tan:map-remove' />
```

Used by function `tan:map-remove()`, `tan:map-put()`.

Relies upon `tan:item-type`.

## **# tan:mark-dependencies-for-validation**

### **TAN-fn-expand-terse-class-1.xsl**

```
<xsl:template match='tan:reassign | tan:equate | tan:skip | tan:rename  
| tan:passage' mode='tan:mark-dependencies-for-validation tan:mark-de-  
pendencies-for-validation-skip-divs' />
```

```
<xsl:template match='/*' mode='tan:mark-dependencies-for-validation' /  
>
```

```
<xsl:template match='tan:TAN-T/tan:body' mode='tan:mark-dependen-  
cies-for-validation' />
```

```
<xsl:template match='tan:div' mode='tan:mark-dependencies-for-valida-  
tion' />
```

Used by template `# tan:mark-dependencies-pass-2-for-validation`, `# tan:mark-dependencies-pass-1`, `# tan:mark-dependencies-for-validation`.

Relies upon `tan:shallow-copy`, `tan:tokenize-text`, `tan:xml-to-string`, `# tan:mark-dependencies-for-validation-skip-divs`.

## **# tan:mark-dependencies-for-validation-skip-divs**

### **TAN-fn-expand-terse-class-1.xsl**

```
<xsl:template match='tan:reassign | tan:equate | tan:skip | tan:rename  
| tan:passage' mode='tan:mark-dependencies-for-validation tan:mark-de-  
pendencies-for-validation-skip-divs' />
```

```
<xsl:template match='tan:div' mode='tan:mark-dependencies-for-valida-  
tion-skip-divs' />
```

Used by template `# tan:mark-dependencies-pass-2-for-validation`, `# tan:mark-dependencies-pass-1`, `# tan:mark-dependencies-for-validation`.

Does not rely upon global variables, keys, functions, or templates.

## **# tan:mark-dependencies-pass-1**

### **TAN-fn-expand-terse-class-1.xsl**

```
<xsl:template match='/' priority='1' mode='tan:mark-dependen-  
cies-pass-1' />
```

```
<xsl:template match='tan:body' mode='tan:mark-dependencies-pass-1' />

<xsl:template match='tan:div' mode='tan:mark-dependencies-pass-1' />

<xsl:template match='tan:div[not(tan:div)]/text()' mode='tan:mark-de-
dependencies-pass-1' />
```

### **TAN-fn-expand-terse-class-3.xsl**

```
<xsl:template match='tan:TAN-mor' mode='tan:mark-dependencies-pass-1
tan:mark-dependencies-pass-2' />
```

Used by function `tan:expand-doc()`.

Relies upon `$tan:token-definition-default`, `tan:shallow-copy`, `tan:tokenize-text`, `tan:vocabulary`, `tan:xml-to-string`, `# tan:mark-dependencies-for-validation`, `# tan:resolve-reference-tree-numerals`.

## **# tan:mark-dependencies-pass-2**

### **TAN-fn-expand-terse-class-1.xsl**

```
<xsl:template match='document-node()[tan:TAN-T]' mode='tan:mark-depen-
dependencies-pass-2' />

<xsl:template match='tan:div[not(tan:hold)]' mode='tan:mark-dependen-
cies-pass-2' />

<xsl:template match='*[tan:hold]' mode='tan:mark-dependencies-pass-2' /
>

<xsl:template match='tan:hold' mode='tan:mark-dependencies-pass-2' />

<xsl:template match='tan:tok' mode='tan:mark-dependencies-pass-2' />
```

### **TAN-fn-expand-terse-class-3.xsl**

```
<xsl:template match='tan:TAN-mor' mode='tan:mark-dependencies-pass-1
tan:mark-dependencies-pass-2' />
```

Used by function `tan:expand-doc()`.

Relies upon `tan:chop-string`, `# tan:convert-tok-to-push`, `# tan:mark-dependencies-pass-2-from-tos`.

## **# tan:mark-dependencies-pass-2-for-validation**

### **TAN-fn-expand-terse-class-1.xsl**

```
<xsl:template match='/' priority='1' mode='tan:mark-dependen-
cies-pass-2-for-validation' />

<xsl:template match='tan:div/tan:n | tan:div/tan:ref | tan:non-tok
| tan:div/tan:tok[not(*)]' mode='tan:mark-dependencies-pass-2-for-val-
idation' />
```

```
<xsl:template match='tan:body' mode='tan:mark-dependencies-pass-2-for-validation' />
```

```
<xsl:template match='tan:div' mode='tan:mark-dependencies-pass-2-for-validation' />
```

Used by function `tan:expand-doc()`.

Relies upon `tan:expand-numerical-expression`, `# tan:mark-dependencies-for-validation-skip-divs`.

## # `tan:mark-dependencies-pass-2-from-tos`

### TAN-fn-expand-terse-class-1.xsl

```
<xsl:template match='tan:body | tan:div' mode='tan:mark-dependencies-pass-2-from-tos' />
```

Used by template `# tan:mark-dependencies-pass-2`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:mark-reassigns`

### TAN-fn-expand-terse-class-1.xsl

```
<xsl:template match='tan:tok | tan:non-tok' mode='tan:mark-reassigns' />
```

Used by template `# tan:dependency-adjustments-pass-2`.

Relies upon `tan:copy-of-except`, `tan:shallow-copy`.

## # `tan:mark-removed-characters`

### TAN-fn-nodes-standard.xsl

```
<xsl:template match='tan:_removed' mode='tan:mark-removed-characters' />
```

```
<xsl:template match='*[tan:_removed]' mode='tan:mark-removed-characters' />
```

Used by template `# tan:normalize-tree-space`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:mark-tok-chars`

### TAN-fn-expand-terse-class-1.xsl

```
<xsl:template match='tan:chars' mode='tan:mark-tok-chars' />
```

No variables, keys, functions, or named templates depend upon this xsl:template.

Does not rely upon global variables, keys, functions, or templates.

## # tan:mark-tok-pos

### TAN-fn-expand-terse-class-1.xsl

```
<xsl:template match='tan:pos' mode='tan:mark-tok-pos' />
```

No variables, keys, functions, or named templates depend upon this xsl:template.

Does not rely upon global variables, keys, functions, or templates.

## # tan:merge-divs

### TAN-fn-merging.xsl

```
<xsl:template match='tan:body' mode='tan:merge-divs' />
```

```
<xsl:template match='tan:group' mode='tan:merge-divs' />
```

```
<xsl:template match='tan:div[not(tan:div)]' mode='tan:merge-divs' />
```

Used by function tan:merge-divs().

Relies upon \$tan:separator-hierarchy, tan:group-divs, tan:text-join, #tan:strip-duplicate-children-by-attribute-value.

## # tan:merge-tan-doc-leaf-divs

### TAN-fn-merging.xsl

```
<xsl:template match='tan:div' mode='tan:merge-tan-doc-leaf-divs' />
```

```
<xsl:template match='tan:ref[tan:n]' mode='tan:merge-tan-docs  
tan:merge-tan-doc-leaf-divs' />
```

```
<xsl:template match='tan:_weight | tan:_rel-pos | tan:_n-pos | tan:_n-  
integer | tan:non-numbered' mode='tan:merge-tan-docs tan:merge-tan-doc-  
leaf-divs' />
```

Used by template # tan:merge-tan-docs.

Relies upon \$tan:separator-hierarchy.

## # tan:merge-tan-docs

### TAN-fn-merging.xsl

```
<xsl:template match='document-node()' mode='tan:merge-tan-docs' />
```

```
<xsl:template match='/tan:TAN-T | /tei:TEI' mode='tan:merge-tan-docs' />
```

```
<xsl:template match='/tan:TAN-T/tan:head | tei:TEI/tan:head' mode='  
tan:merge-tan-docs' />
```

```
<xsl:template match='tan:body[tan:div] | tan:div' mode='tan:merge-tan-docs' />
```

```
<xsl:template match='tan:ref[tan:n]' mode='tan:merge-tan-docs tan:merge-tan-doc-leaf-divs' />
```

```
<xsl:template match='tan:_weight | tan:_rel-pos | tan:_n-pos | tan:_n-integer | tan:non-numbered' mode='tan:merge-tan-docs tan:merge-tan-doc-leaf-divs' />
```

Used by function `tan:merge-expanded-docs()`.

Relies upon `$tan:separator-hierarchy`, `tan:distinct-items`, `# tan:merge-tan-doc-leaf-divs`, `# tan:prep-class-1-files-for-merge`.

## # `tan:normalize-non-mixed-content-space`

### TAN-fn-nodes-standard.xsl

```
<xsl:template match='text()' mode='tan:normalize-non-mixed-content-space' />
```

Used by template # `tan:normalize-tree-space`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:normalize-tree-space`

### TAN-fn-nodes-standard.xsl

```
<xsl:template match='tan:head | tan:TAN-voc | tan:TAN-A | tan:TAN-A-tok | tan:TAN-A-lm | tan:TAN-mor' priority='1' mode='tan:normalize-tree-space' />
```

```
<xsl:template match='tan:TAN-T[tan:expanded]' mode='tan:normalize-tree-space' />
```

```
<xsl:template match='*[@xml:space eq 'preserve']' priority='1' mode='tan:normalize-tree-space tan:selectively-adjust-tei-space' />
```

```
<xsl:template match='*:div[not(*:div)] | *[text()[matches(., '\S')]]' mode='tan:normalize-tree-space' />
```

Used by function `tan:normalize-tree-space()`.

Relies upon `$tan:special-end-div-chars-regex`, `tan:sequence-to-tree`, `tan:tree-to-sequence`, `# tan:mark-removed-characters`, `# tan:normalize-non-mixed-content-space`.

## # `tan:normalize-unicode`

### TAN-fn-strings-extended.xsl

```
<xsl:template match='text()' mode='tan:normalize-unicode' />
```

```
<xsl:template match='. [. instance of xs:string]' mode='tan:normalize-unicode' />
```

Used by function `tan:normalize-unicode()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:parse-a-hrefs`

### `TAN-fn-html-core.xsl`

```
<xsl:template match='html:a' mode='tan:parse-a-hrefs' />
```

```
<xsl:template match='. [. instance of xs:string]' mode='tan:parse-a-hrefs' />
```

```
<xsl:template match='text()' mode='tan:parse-a-hrefs' />
```

Used by function `tan:convert-to-html()`.

Relies upon `tan:parse-a-hrefs`.

## # `tan:parse-lf-references`

### `TAN-fn-uris-writing-fragids.xsl`

```
<xsl:template match='tan:reference' mode='tan:parse-lf-references' />
```

Used by function `tan:parse-lf-uri()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:pluck`

### `TAN-fn-nodes-extended.xsl`

```
<xsl:template match='*' mode='tan:pluck' />
```

```
<xsl:template match='text()' mode='tan:pluck' />
```

```
<xsl:template match='comment() | processing-instruction()' mode='tan:pluck' />
```

Used by function `tan:pluck()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:prefix-attr-include`

### `TAN-fn-resolve-files.xsl`

```
<xsl:template match='*[@include]' mode='tan:prefix-attr-include' />
```

Used by template # `tan:apply-inclusions-and-adjust-vocabulary`.



Does not rely upon global variables, keys, functions, or templates.

## # tan:prep-class-1-files-for-merge

### TAN-fn-merging.xsl

```
<xsl:template match='tan:div[not(tan:div)][not(text())][not(tan:tok)]
[not(tei:*)]' mode='tan:prep-class-1-files-for-merge' />

<xsl:template match='tan:div' mode='tan:prep-class-1-files-for-merge' /
>

<xsl:template match='tan:ref' mode='tan:prep-class-1-files-for-merge' /
>
```

Used by template # tan:merge-tan-docs.

Does not rely upon global variables, keys, functions, or templates.

## # tan:prepare-to-convert-to-html-pass-1

### TAN-fn-html-core.xsl

```
<xsl:template match='*[@href]' priority='1' mode='tan:prepare-to-con-
vert-to-html-pass-1' />

<xsl:template match='*' mode='tan:prepare-to-convert-to-html-pass-1' /
>
```

Used by function tan:prepare-to-convert-to-html().

Relies upon \$tan:excluded-class-characters-regex.

## # tan:prepare-to-convert-to-html-pass-2

### TAN-fn-html-core.xsl

```
<xsl:template match='@*' mode='tan:prepare-to-convert-to-html-pass-2' /
>

<xsl:template match='*' mode='tan:prepare-to-convert-to-html-pass-2' /
>
```

Used by function tan:prepare-to-convert-to-html().

Relies upon \$attributes-to-preserve.

## # tan:prepare-to-convert-to-html-pass-3

### TAN-fn-html-core.xsl

```
<xsl:template match='*' mode='tan:prepare-to-convert-to-html-pass-3' /
>
```

Used by function `tan:prepare-to-convert-to-html()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:prepend-error-message`

### `TAN-fn-expand-files.xsl`

```
<xsl:template match='tan:error | tan:help | tan:warning | tan:fix |  
tan:fatal | tan:info' priority='-1' mode='tan:prepend-error-message' />
```

```
<xsl:template match='tan:warning[not(tan:message)] | tan:er-  
ror[not(tan:message)] | tan:fatal[not(tan:message)] |  
tan:help[not(tan:message)]' mode='tan:prepend-error-message' />
```

```
<xsl:template match='tan:message/text()' mode='tan:prepend-error-mes-  
sage' />
```

Used by template # `tan:core-expansion-verbose`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:prepend-line-break`

### `TAN-fn-nodes-extended.xsl`

```
<xsl:template match='* | processing-instruction() | comment()' mod-  
e='tan:prepend-line-break' />
```

No variables, keys, functions, or named templates depend upon this `xsl:template`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:process-appended-div`

### `TAN-fn-expand-terse-class-1.xsl`

```
<xsl:template match='tan:group' mode='tan:process-appended-div' />
```

```
<xsl:template match='tan:div' mode='tan:process-appended-div' />
```

Used by template # `tan:reset-hierarchy`.

Relies upon `$tan:separator-hierarchy`, # `tan:strip-divs-to-reset`.

## # `tan:process-merged-div`

### `TAN-fn-expand-terse-class-1.xsl`

```
<xsl:template match='tan:div' mode='tan:process-merged-div' />
```

Used by template # `tan:reset-hierarchy`.

Relies upon # `tan:strip-divs-to-reset`.

## # tan:rebuild-div-chain

### TAN-fn-expand-terse-class-1.xsl

```
<xsl:template match='*:div' mode='tan:rebuild-div-chain' />
```

Used by template # tan:rebuild-divs-with-ref-aliases.

Does not rely upon global variables, keys, functions, or templates.

## # tan:rebuild-divs-with-ref-aliases

### TAN-fn-expand-terse-class-1.xsl

```
<xsl:template match='*:div[@ref-alias]' mode='tan:rebuild-divs-with-ref-aliases' />
```

Used by template # tan:core-expansion-terse tan:dependency-adjustments-pass-1.

Relies upon # tan:rebuild-div-chain.

## # tan:recheck-chopped-tree

### TAN-fn-nodes-standard.xsl

```
<xsl:template match='*[@_recheck]' mode='tan:recheck-chopped-tree' />
```

Used by function tan:chop-tree().

Does not rely upon global variables, keys, functions, or templates.

## # tan:relativize-hrefs

### TAN-fn-uris-extended.xsl

```
<xsl:template match='processing-instruction()' mode='tan:relativize-hrefs' />
```

```
<xsl:template match='@href | html:script/@src' mode='tan:relativize-hrefs' />
```

Used by function tan:relativize-hrefs().

Relies upon tan:uri-is-resolved, tan:uri-relative-to.

## # tan:remove-duplicate-siblings

### TAN-fn-nodes-extended.xsl

```
<xsl:template match='*' mode='tan:remove-duplicate-siblings' />
```

Used by function tan:remove-duplicate-siblings().

Does not rely upon global variables, keys, functions, or templates.

## # **tan:remove-first-token**

### **TAN-fn-expand-terse-class-1.xsl**

```
<xsl:template match='tan:div[not(tan:div)]' mode='tan:remove-first-to-ken' />
```

Used by function `tan:expand-doc()`.

Does not rely upon global variables, keys, functions, or templates.

## # **tan:remove-inclusions**

### **TAN-fn-expand-files.xsl**

```
<xsl:template match='tan:inclusion' mode='tan:remove-inclusions' />
```

Used by template # `tan:core-expansion-terse-attributes`.

Used by function `tan:attribute-vocabulary()`.

Does not rely upon global variables, keys, functions, or templates.

## # **tan:replace-collation**

### **TAN-fn-strings-collate-extended.xsl**

```
<xsl:template match='tan:collation' mode='tan:replace-collation' />
```

Used by function `tan:replace-collation()`.

Does not rely upon global variables, keys, functions, or templates.

## # **tan:replace-diff**

### **TAN-fn-strings-diff-extended.xsl**

```
<xsl:template match='tan:common' mode='tan:replace-diff' />
```

```
<xsl:template match='tan:a' mode='tan:replace-diff' />
```

```
<xsl:template match='tan:b' mode='tan:replace-diff' />
```

Used by function `tan:replace-diff()`.

Does not rely upon global variables, keys, functions, or templates.

## # **tan:replace-expanded-class-1**

### **TAN-fn-nodes-extended.xsl**

```
<xsl:template match='*[@_pos]' mode='tan:replace-expanded-class-1' />
```

```
<xsl:template match='tan:div[not(tan:div)]' priority='1' mode='tan:re-  
place-expanded-class-1' />
```

Used by function `tan:replace-expanded-class-1-body()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:reset-hierarchy`

### TAN-fn-expand-terse-class-1.xsl

```
<xsl:template match='/' mode='tan:reset-hierarchy' />
```

```
<xsl:template match='tan:head' mode='tan:reset-hierarchy' />
```

```
<xsl:template match='tan:div[tan:ref/@reset]' mode='tan:reset-hierar-  
chy tan:clean-reset-divs-2' />
```

```
<xsl:template match='tan:body | tan:div' mode='tan:reset-hierarchy' />
```

Used by function `tan:expand-doc()`, `tan:reset-hierarchy-loop()`, `tan:reset-hierarchy()`.

Relies upon # `tan:process-appended-div`, # `tan:process-merged-div`.

## # `tan:resolve-critical-dependencies-loop`

### TAN-fn-resolve-files.xsl

```
<xsl:template match='tan:inclusion[tan:location] | tan:vocabu-  
lary[tan:location]' mode='tan:resolve-critical-dependencies-loop' />
```

```
<xsl:template match='tan:inclusion/tan:IRI | tan:vocabulary/tan:IRI'  
mode='tan:resolve-critical-dependencies-loop' />
```

```
<xsl:template match='tan:inclusion/tan:location[@href] | tan:vo-  
cabulary/tan:location[@href]' mode='tan:resolve-critical-dependen-  
cies-loop' />
```

```
<xsl:template match='tan:vocabulary-key' mode='tan:resolve-criti-  
cal-dependencies-loop' />
```

Used by function `tan:resolve-doc-loop()`.

Relies upon `$tan:TAN-version`, `$tan:TAN-vocabularies`, `tan:base-uri`, `tan:get-1st-doc`, `tan:is-valid-uri`, `tan:shallow-copy`, # `tan:extract-essential-TAN-vocabulary`.

## # `tan:resolve-href`

### TAN-fn-resolve-files.xsl

```
<xsl:template match='/*' mode='tan:first-stamp-shallow-skip tan:first-  
stamp-shallow-copy tan:resolve-href' />
```

```
<xsl:template match='processing-instruction()' mode='tan:resolve-href
tan:first-stamp-shallow-copy' />
```

```
<xsl:template match='*[@href]' mode='tan:resolve-href tan:expand-stand-
dard-tan-voc' />
```

Used by template # `tan:first-stamp-shallow-skip`, # `tan:extract-essen-
tial-TAN-vocabulary`.

Used by function `tan:tokenize-text()`, `tan:resolve-doc-loop()`, `tan:re-
solve-href()`, `tan:get-1st-doc()`.

Relies upon `tan:base-uri`, `tan:shallow-copy`.

## # `tan:resolve-numerals`

### `TAN-fn-expand-terse-class-1.xsl`

```
<xsl:template match='tei:div[not(tei:div)]/tei:*' priority='1' mod-
e='tan:resolve-numerals tan:core-expansion-terse-attributes' />
```

### `TAN-fn-resolve-files.xsl`

```
<xsl:template match='/*' priority='1' mode='tan:resolve-numerals' />
```

```
<xsl:template match='*[@include] | tan:inclusion' priority='1' mod-
e='tan:resolve-numerals' />
```

```
<xsl:template match='*:div[@n]' mode='tan:resolve-numerals' />
```

```
<xsl:template match='tan:ref | tan:n' mode='tan:resolve-numerals' pri-
ority='1' />
```

Used by template # `tan:dependency-adjustments-pass-1`.

Used by function `tan:expand-doc()`, `tan:resolve-doc-loop()`.

Relies upon `tan:string-to-numerals`.

## # `tan:resolve-reference-tree-numerals`

### `TAN-fn-expand-terse-class-1.xsl`

```
<xsl:template match='comment()' mode='tan:resolve-reference-tree-nu-
merals' />
```

```
<xsl:template match='tan:n | tan:ref' mode='tan:resolve-reference-tree-
numerals' />
```

Used by template # `tan:dependency-adjustments-pass-2`, # `tan:core-expan-
sion-terse` `tan:dependency-adjustments-pass-1`, # `tan:mark-dependencies-pass-1`.

Used by function `tan:expand-doc()`.

Relies upon `$tan:separator-hierarchy`.

## # `tan:revise-hrefs`

### TAN-fn-uris-extended.xsl

```
<xsl:template match='processing-instruction()' priority='1' mode='tan:revise-hrefs' />
```

```
<xsl:template match='@href' mode='tan:revise-hrefs' />
```

```
<xsl:template match='html:script/@src' mode='tan:revise-hrefs' />
```

Used by function `tan:revise-hrefs()`, `tan:absolutize-hrefs()`.

Relies upon `tan:uri-relative-to`.

## # `tan:save-file`

### TAN-fn-file-output.xsl

```
<xsl:template match='/' mode='tan:save-file' />
```

```
<xsl:template match='/node()' priority='1' mode='tan:save-file' />
```

```
<xsl:template match='/*[@save-as | @_target-uri | @_target-format]' priority='2' mode='tan:save-file' />
```

Used by template # `tan:save-as`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:score-diff-output`

### TAN-fn-strings-diff-extended.xsl

```
<xsl:template match='tan:common' mode='tan:score-diff-output' />
```

```
<xsl:template match='tan:a | tan:b' mode='tan:score-diff-output' />
```

Used by function `tan:get-diff-output-slices()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:selectively-adjust-tei-space`

### TAN-fn-nodes-standard.xsl

```
<xsl:template match='*[@xml:space eq 'preserve']' priority='1' mode='tan:normalize-tree-space tan:selectively-adjust-tei-space' />
```

```
<xsl:template match='text()[matches(., '\S')]' mode='tan:selectively-adjust-tei-space' />
```

```
<xsl:template match='tei:div[not(tei:div)]/node()[last()]/node()  
[last()]/self::tei:*' mode='tan:selectively-adjust-tei-space' priori-  
ty='1' />
```

```
<xsl:template match='*[tei:app/tei:lem[matches(., '^s|\s$')]]/node()  
mode='tan:selectively-adjust-tei-space' />
```

```
<xsl:template match='tei:app/tei:lem | tei:app/tei:rdg' mode='tan:se-  
lectively-adjust-tei-space' />
```

Used by function `tan:normalize-tree-space()`.

Relies upon # `tan:trim-initial-and-terminal-space`.

## # `tan:sequence-to-tree`

### `TAN-fn-nodes-standard.xsl`

```
<xsl:template match='*[@_level]'' mode='tan:sequence-to-tree' />
```

Used by function `tan:sequence-to-tree()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:shallow-copy`

### `TAN-fn-arrays-extended.xsl`

```
<xsl:template match='. [. instance of array(*)]' priority='-1' mod-  
e='tan:shallow-copy tan:map-put tan:map-remove' />
```

### `TAN-fn-maps-extended.xsl`

```
<xsl:template match='. [. instance of map(*)]' priority='-1' mod-  
e='tan:shallow-copy tan:map-put tan:array-to-map' />
```

Used by function `tan:map-remove()`, `tan:map-put()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:shallow-skip`

### `TAN-fn-arrays-extended.xsl`

```
<xsl:template match='. [. instance of array(*)]' priority='-1' mod-  
e='tan:shallow-skip tan:text-only-copy' />
```

### `TAN-fn-maps-extended.xsl`

```
<xsl:template match='. [. instance of map(*)]' priority='-1' mod-  
e='tan:shallow-skip tan:text-only-copy' />
```

No variables, keys, functions, or named templates depend upon this `xsl:template`.



Does not rely upon global variables, keys, functions, or templates.

## # tan:shallow-skip-diff-add

### TAN-fn-strings-diff-extended.xsl

```
<xsl:template match='tan:add' mode='tan:shallow-skip-diff-add' />
```

Used by function `tan:replace-diff()`.

Does not rely upon global variables, keys, functions, or templates.

## # tan:snap-to-word-pass-1

### TAN-fn-strings-diff-standard.xsl

```
<xsl:template match='tan:common' mode='tan:snap-to-word-pass-1' />
```

Used by function `tan:snap-diff-to-word()`.

Does not rely upon global variables, keys, functions, or templates.

## # tan:sort-change-log

### TAN-fn-nodes-extended.xsl

```
<xsl:template match='tan:head[tan:change]' mode='tan:sort-change-log' />
```

Used by function `tan:sort-change-log()`.

Does not rely upon global variables, keys, functions, or templates.

## # tan:split-diff-components-1

### TAN-fn-strings-diff-standard.xsl

```
<xsl:template match='tan:common | tan:a | tan:b' mode='tan:split-diff-components-1' />
```

Used by function `tan:chop-diff-output()`.

Relies upon `tan:chop-string`.

## # tan:split-diff-components-2

### TAN-fn-strings-diff-standard.xsl

```
<xsl:template match='tan:first | tan:last' mode='tan:split-diff-components-2' />
```

```
<xsl:template match='tan:a | tan:b' mode='tan:split-diff-components-2' />
```

No variables, keys, functions, or named templates depend upon this xsl:template.

Relies upon `tan:chop-string`, `tan:string-length`.

## # `tan:stamp-diff-with-text-data`

### TAN-fn-strings-diff-standard.xsl

```
<xsl:template match='tan:diff' mode='tan:stamp-diff-with-text-data' />
```

Used by function `tan:stamp-diff-with-text-data()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:stamp-q-id`

### TAN-fn-nodes-standard.xsl

```
<xsl:template match='*' mode='tan:stamp-q-id' />
```

Used by function `tan:stamp-q-id()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:string-to-numerals`

### TAN-fn-numerals-standard.xsl

```
<xsl:template match='tan:tok' mode='tan:string-to-numerals' />
```

Used by function `tan:analyze-numbers-in-string()`.

Relies upon `$tan:n-type`, `$tan:n-type-regex`, `$tan:separator-hierarchy-minor`, `tan:aaa-to-int`, `tan:letter-to-number`, `tan:rom-to-int`.

## # `tan:strip-attributes`

### TAN-fn-nodes-standard.xsl

```
<xsl:template match='@*' mode='tan:strip-attributes' />
```

Used by template # `tan:class-1-expansion-verbose-pass-3`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:strip-dependencies-to-markers`

### TAN-fn-expand-terse-class-1.xsl

```
<xsl:template match='tan:head | text()' mode='tan:strip-dependen-  
cies-to-markers' />
```

```
<xsl:template match='/*' mode='tan:strip-dependencies-to-markers' />

<xsl:template match='*' mode='tan:strip-dependencies-to-markers' />

<xsl:template match='tan:skip | tan:rename | tan:equate | tan:reassign
| tan:passage | tan:ref | tan:pos | tan:chars | tan:tok[@val]' mod-
e='tan:strip-dependencies-to-markers' />
```

Used by function `tan:expand-doc()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:strip-distributed-vocabulary-from-idrefs`

### TAN-fn-expand-files.xsl

```
<xsl:template match='*[@attr]/tan:item' mode='tan:strip-distrib-
uted-vocabulary-from-idrefs' />
```

Used by function `tan:expand-doc()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:strip-divs-to-reset`

### TAN-fn-expand-terse-class-1.xsl

```
<xsl:template match='tan:rename | tan:reassign | tan:passage' mod-
e='tan:strip-divs-to-reset' />
```

```
<xsl:template match='tan:ref[@reset]' mode='tan:strip-divs-to-reset' /
>
```

```
<xsl:template match='tan:div[tan:ref[@reset]]' mode='tan:strip-di-
vs-to-reset' />
```

Used by template # `tan:process-merged-div`, # `tan:process-appended-div`.

Used by function `tan:reset-hierarchy-loop()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:strip-duplicate-children-by-at-tribute-value`

### TAN-fn-nodes-standard.xsl

```
<xsl:template match='*' mode='tan:strip-duplicate-children-by-at-
tribute-value' />
```

Used by template # `tan:merge-divs`.

Does not rely upon global variables, keys, functions, or templates.

## # tan:strip-for-validation

### TAN-fn-expand-files.xsl

```
<xsl:template match='/' mode='tan:strip-for-validation' />

<xsl:template match='*[tan:error | tan:help | tan:warning | tan:fix |
tan:fatal | tan:info]' priority='-2' mode='tan:strip-for-validation' />

<xsl:template match='tan:error | tan:help | tan:warning | tan:fix |
tan:fatal | tan:info' priority='-1' mode='tan:strip-for-validation' />

<xsl:template match='/*' priority='-1' mode='tan:strip-for-validation' />
```

Used by function `tan:expand-doc()`.

Does not rely upon global variables, keys, functions, or templates.

## # tan:strip-outer-indentation

### TAN-fn-nodes-standard.xsl

```
<xsl:template match='text()[not(matches(., '\S'))]' mode='tan:strip-outer-indentation' />

<xsl:template match='*[text()]' mode='tan:strip-outer-indentation' />
```

Used by function `tan:strip-outer-indentation()`, `tan:normalize-tree-space()`.

Does not rely upon global variables, keys, functions, or templates.

## # tan:strip-text

### TAN-fn-nodes-extended.xsl

```
<xsl:template match='text()' mode='tan:strip-text' />
```

No variables, keys, functions, or named templates depend upon this `xsl:template`.

Does not rely upon global variables, keys, functions, or templates.

## # tan:strip-text-data-stamps

### TAN-fn-strings-diff-extended.xsl

```
<xsl:template match='@_pos-a | @_pos-b | @_len | @_pos' mode='tan:strip-text-data-stamps' />
```

Used by function `tan:get-diff-output-transpositions()`.

Does not rely upon global variables, keys, functions, or templates.

## # tan:tan-a-lm-expansion-terse

### TAN-fn-expand-terse-class-2.xsl

```
<xsl:template match='tan:TAN-A-lm/tan:body' mode='tan:tan-a-lm-expansion-terse' />
<xsl:template match='tan:m' mode='tan:tan-a-lm-expansion-terse' />
<xsl:template match='tan:f[text()]' mode='tan:tan-a-lm-expansion-terse' />
```

Used by function `tan:expand-doc()`.

Relies upon `tan:vocabulary`, # `tan:element-to-error`.

## # tan:temp-mark-and-remove-outer-indentations

### TAN-fn-nodes-standard.xsl

```
<xsl:template match='*[text()]' mode='tan:temp-mark-and-remove-outer-indentations' />
<xsl:template match='text()[not(matches(., '\S'))]' mode='tan:temp-mark-and-remove-outer-indentations' />
```

Used by function `tan:stamp-tree-with-text-data()`.

Does not rely upon global variables, keys, functions, or templates.

## # tan:text-join

### TAN-fn-strings-standard.xsl

```
<xsl:template match='/tan:*/tan:expanded[1]' mode='tan:text-join' />
<xsl:template match='*:div[*:div]' mode='tan:text-join' />
<xsl:template match='*:div[not(*:div)]' mode='tan:text-join' />
```

Used by function `tan:text-join()`.

Relies upon `tan:normalize-div-text`, `tan:text-join()`.

## # tan:text-only-copy

### TAN-fn-arrays-extended.xsl

```
<xsl:template match='. [. instance of array(*)]' priority='-1' mode='tan:shallow-skip tan:text-only-copy' />
```

### TAN-fn-maps-extended.xsl

```
<xsl:template match='. [. instance of map(*)]' priority='-1' mode='tan:shallow-skip tan:text-only-copy' />
```

No variables, keys, functions, or named templates depend upon this xsl:template.

Does not rely upon global variables, keys, functions, or templates.

## # tan:title-case

### TAN-fn-strings-extended.xsl

```
<xsl:template match='tan:word[1] | tan:word[last()]' mode='tan:title-case' />
```

Used by function tan:title-case().

Relies upon tan:initial-upper-case.

## # tan:tokenize-div

### TAN-fn-strings-standard.xsl

```
<xsl:template match='tan:div[not((tan:div, tan:tok))]/text()' mode='tan:tokenize-div' />
```

Used by function tan:tokenize-div().

Relies upon \$tan:special-end-div-chars-regex, tan:normalize-div-text, tan:tokenize-text.

## # tan:tree-to-html

### TAN-fn-html-core.xsl

```
<xsl:template match='html:*' priority='1' mode='tan:tree-to-html' />
<xsl:template match='html:*/@*' priority='1' mode='tan:tree-to-html' />
<xsl:template match='*' mode='tan:tree-to-html' />
<xsl:template match='@*' mode='tan:tree-to-html' />
```

Used by function tan:convert-to-html().

Relies upon \$attributes-to-preserve, \$tan:global-html-attributes, \$tan:namespaces-and-prefixes, # tan:tree-to-html-for-attr.

## # tan:tree-to-html-for-attr

### TAN-fn-html-core.xsl

```
<xsl:template match='@xml:*' mode='tan:tree-to-html-for-attr' />
```

Used by template # tan:tree-to-html.

Does not rely upon global variables, keys, functions, or templates.

## # tan:tree-to-sequence

### TAN-fn-nodes-standard.xsl

```
<xsl:template match='*[node()]' mode='tan:tree-to-sequence' />
```

Used by function `tan:tree-to-sequence()`.

Does not rely upon global variables, keys, functions, or templates.

## # tan:trim-initial-and-terminal-space

### TAN-fn-nodes-standard.xsl

```
<xsl:template match='text()' mode='tan:trim-initial-and-terminal-space' />
```

Used by template # `tan:selectively-adjust-tei-space`.

Does not rely upon global variables, keys, functions, or templates.

## # tan:trim-long-text

### TAN-fn-nodes-standard.xsl

```
<xsl:template match='text()' mode='tan:trim-long-text' />
```

Used by function `tan:trim-long-text()`.

Does not rely upon global variables, keys, functions, or templates.

## # tan:trim-long-tree

### TAN-fn-nodes-extended.xsl

```
<xsl:template match='*' mode='tan:trim-long-tree' />
```

Used by function `tan:trim-long-tree()`.

Relies upon `tan:shallow-copy`.

## # tan:trim-or-add-text

### TAN-fn-strings-diff-standard.xsl

```
<xsl:template match='tan:a | tan:b | tan:common' mode='tan:trim-or-add-text' />
```

Used by function `tan:adjust-diff()`.

Does not rely upon global variables, keys, functions, or templates.

## # tan:unmark-tokens

### TAN-fn-expand-terse-class-1.xsl

```
<xsl:template match='tan:tok/* | tan:non-tok/*' mode='tan:unmark-tokens' />
```

Used by template # tan:dependency-adjustments-pass-2.

Does not rely upon global variables, keys, functions, or templates.

## # tan:update-TAN-change-log

### TAN-fn-nodes-TAN-output.xsl

```
<xsl:template match='tan:person | tan:organization | tan:algorithm' mode='tan:update-TAN-change-log' />
```

```
<xsl:template match='tan:person/tan:name[last()] | tan:organization/tan:name[last()] | tan:algorithm/tan:name[last()]' mode='tan:update-TAN-change-log' />
```

```
<xsl:template match='tan:person/tan:IRI[last()] | tan:organization/tan:IRI[last()] | tan:algorithm/tan:IRI[last()]' mode='tan:update-TAN-change-log' />
```

```
<xsl:template match='tan:vocabulary-key/*[last()]' mode='tan:update-TAN-change-log' />
```

```
<xsl:template match='tan:vocabulary-key[not(*)]' mode='tan:update-TAN-change-log' />
```

```
<xsl:template match='tan:resp' mode='tan:update-TAN-change-log' />
```

```
<xsl:template match='tan:resp/@who' mode='tan:update-TAN-change-log' />
```

```
<xsl:template match='tan:head/tan:change[1] | tan:head[not(tan:change)]/tan:to-do' mode='tan:update-TAN-change-log' />
```

```
<xsl:template match='tan:head/tan:resp[last()] | tan:head[not(tan:resp)]/tan:file-resp' priority='1' mode='tan:update-TAN-change-log' />
```

Used by function tan:update-TAN-change-log().

Does not rely upon global variables, keys, functions, or templates.

## # tan:vocabulary-all-vals

### TAN-fn-vocabulary.xsl

```
<xsl:template match='text() | comment() | processing-instruction()' mode='tan:vocabulary-all-vals tan:vocabulary-by-id tan:vocabulary-by-name' />
```



```
<xsl:template priority='1' match='tan:vocabulary | tan:tan-vocabulary'  
mode='tan:vocabulary-all-vals tan:vocabulary-by-id tan:vocabulary-by-  
name' />
```

```
<xsl:template priority='1' match='tan:vocabulary/tan:IRI | tan:vo-  
cabulary/tan:name | tan:vocabulary/tan:location | tan:tan-vocabu-  
lary/tan:IRI | tan:tan-vocabulary/tan:name | tan:tan-vocabulary/tan:lo-  
cation' mode='tan:vocabulary-all-vals tan:vocabulary-by-id tan:vocabu-  
lary-by-name' />
```

```
<xsl:template match='*[tan:IRI] | tan:token-definition |  
tan:item[tan:token-definition] | tan:claim' mode='tan:vocabulary-all-  
vals' />
```

Used by function `tan:vocabulary()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:vocabulary-by-id`

### TAN-fn-vocabulary.xsl

```
<xsl:template match='text() | comment() | processing-instruction()'  
mode='tan:vocabulary-all-vals tan:vocabulary-by-id tan:vocabulary-by-  
name' />
```

```
<xsl:template priority='1' match='tan:vocabulary | tan:tan-vocabulary'  
mode='tan:vocabulary-all-vals tan:vocabulary-by-id tan:vocabulary-by-  
name' />
```

```
<xsl:template priority='1' match='tan:vocabulary/tan:IRI | tan:vo-  
cabulary/tan:name | tan:vocabulary/tan:location | tan:tan-vocabu-  
lary/tan:IRI | tan:tan-vocabulary/tan:name | tan:tan-vocabulary/tan:lo-  
cation' mode='tan:vocabulary-all-vals tan:vocabulary-by-id tan:vocabu-  
lary-by-name' />
```

```
<xsl:template match='*[tan:id][tan:IRI] | tan:claim[tan:id]' mod-  
e='tan:vocabulary-by-id' />
```

Used by function `tan:vocabulary()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:vocabulary-by-name`

### TAN-fn-vocabulary.xsl

```
<xsl:template match='text() | comment() | processing-instruction()'  
mode='tan:vocabulary-all-vals tan:vocabulary-by-id tan:vocabulary-by-  
name' />
```

```
<xsl:template priority='1' match='tan:vocabulary | tan:tan-vocabulary'  
mode='tan:vocabulary-all-vals tan:vocabulary-by-id tan:vocabulary-by-  
name' />
```

```
<xsl:template priority='1' match='tan:vocabulary/tan:IRI | tan:vo-
cabulary/tan:name | tan:vocabulary/tan:location | tan:tan-vocabu-
lary/tan:IRI | tan:tan-vocabulary/tan:name | tan:tan-vocabulary/tan:lo-
cation' mode='tan:vocabulary-all-vals tan:vocabulary-by-id tan:vocabu-
lary-by-name' />
```

```
<xsl:template match='*[tan:IRI][tan:name] | tan:token-definition |
tan:item[tan:token-definition]' mode='tan:vocabulary-by-name' />
```

Used by function `tan:vocabulary()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:wrap-text-nodes`

### `TAN-fn-nodes-extended.xsl`

```
<xsl:template match='text()' mode='tan:wrap-text-nodes' />
```

Used by function `tan:wrap-text-nodes()`.

Does not rely upon global variables, keys, functions, or templates.

## # `tan:xml-to-map-and-array`

### `TAN-fn-maps-extended.xsl`

```
<xsl:template match='map:map' mode='tan:xml-to-map-and-array' />
```

```
<xsl:template match='map:entry' mode='tan:xml-to-map-and-array' />
```

```
<xsl:template match='array:array' mode='tan:xml-to-map-and-array' />
```

Used by template # `tan:build-maps-and-arrays`.

Used by function `tan:xml-to-array()`, `tan:xml-to-map()`.

Relies upon # `tan:build-maps-and-arrays`.

---

# Chapter 14. Errors

Below is a list of 124 specifically defined TAN errors.

The contents of this chapter have been generated automatically. In case of errors or inconsistencies, the master files should be consulted.

## **error[adv01]**

Token-based assertions of multiple class 2 TAN documents that share the same class 1 source may be compared or collated only if those class 2 documents adopt identical token definitions.

General rule not affecting specific attributes or elements.

No variables, keys, functions, or named templates depend upon this error.

## **error[adv02]**

Assertions of multiple TAN-A documents that share the same class 1 source may be compared or collated only if they suppress, or fail to suppress, the same div types.

General rule not affecting specific attributes or elements.

No variables, keys, functions, or named templates depend upon this error.

## **error[adv03]**

Mismatched sets of statistics may not be merged.

General rule not affecting specific attributes or elements.

No variables, keys, functions, or named templates depend upon this error.

## **error[cat01]**

Every @href in a catalog.tan.xml file must point to a document that is available.

Affects: @href

Used by template # tan:catalog-expansion-terse, # tan:cut-faulty-hrefs.

Used by function tan:collection().

## **error[cat02]**

@root should match the target's root element name

Affects: @root

Used by template # tan:catalog-expansion-terse.

## error[ cat03 ]

In a catalog.tan.xml, @id should match the target's root element @id

Affects: @id

Used by template # tan:catalog-expansion-terse.

## warning[ cat04 ]

Different TAN files should have unique @ids ..

Affects: @id

Used by template # tan:catalog-expansion-terse.

## warning[ cat05 ]

@href values in catalog.tan.xml should be unique

Affects: @href

Used by template # tan:catalog-expansion-terse.

## warning[ cat06 ]

If a local catalog.tan.xml file lacks a reference to a TAN file being validated, a warning will appear.

Affects: @id

Used by template # tan:core-expansion-verbose.

## warning[ cat07 ]

A TAN file being validated verbosely will include errors reported in any local catalog.tan.xml

General rule not affecting specific attributes or elements.

Used by template # tan:core-expansion-verbose.

## error[ chr01 ]

Every character must be locatable in every token in every ref in every source.

Affects: @chars<tok>

Used by template # tan:class-2-expansion-terse tan:class-2-expansion-terse-for-validation, # tan:mark-dependencies-pass-2-for-validation.

## error[ c1101 ]

Class I files must share the same source as any revision or companion version.

Affects: <redivision> <companion-version>

Used by template # tan:core-expansion-terse.

## **error[ c1102 ]**

Class I files must share the same work as any model, redivision, or companion version.

Affects: <model> <redivision> <companion-version>

Used by template # tan:core-expansion-terse.

## **error[ c1103 ]**

Class I files must share the same work-version, if supplied, as any redivision.

Affects: <redivision>

Used by template # tan:core-expansion-terse.

## **error[ c1104 ]**

Class I files must have identical transcriptions, after TAN normalization, as any redivision.

Affects: <redivision>

Used by template # tan:class-1-expansion-verbose-pass-3, # tan:class-1-expansion-verbose-pass-1.

## **warning[ c1107 ]**

If a class I file diverges from the structure of its model a warning will be generated specifying where differences exist.

Affects: <model>

Used by template # tan:class-1-expansion-verbose-pass-2.

## **warning[ c1109 ]**

Most div references are unique.

Affects: @n<div>

Used by template # tan:core-expansion-normal.

## **error[ c1110 ]**

Every leaf div must have at least some non-space text.

Affects: <div>

Used by template # tan:core-expansion-normal.

## **error[ c1111 ]**

No text may begin with a modifying character.

Affects: <div>

Used by template # `tan:core-expansion-normal`.

## **error[ c1112 ]**

No text may have a spacing character followed by a modifying character.

Affects: <div>

Used by template # `tan:core-expansion-normal`.

## **error[ c1113 ]**

No text may have Unicode characters that are disallowed, e.g., U+A0, NO BREAK SPACE.

Affects: <div>

Used by template # `tan:core-expansion-normal`.

## **error[ c1114 ]**

A class `I` <source> may not point to a TAN file.

Affects: <source>

Used by template # `tan:check-referred-doc`.

## **warning[ c1115 ]**

An @n's value should not appear in the text.

Affects: @n<div>

Used by template # `tan:class-1-expansion-verbose-pass-2`.

## **warning[ c1116 ]**

A <div>'s reference (self and ancestor @ns, concatenated) should not appear in the text.

Affects: @n<div>

Used by template # `tan:class-1-expansion-verbose-pass-2`.

## **error[ c1117 ]**

An @n taking digit values should not begin with 0.

Affects: @n<div>

Used by template # tan:dependency-adjustments-pass-1, # tan:resolve-numerals,  
# tan:core-expansion-terse.

## error[ c1118 ]

No reference may point to a mixture of leaf and non-leaf <div>s.

Affects: <div>

Used by template # tan:core-expansion-normal.

## error[ c1119 ]

Each value in @ref-alias must consist of as many @n values as the current div is deep in the body structure.

Affects: @ref-alias<div>

Used by template # tan:rebuild-divs-with-ref-aliases.

## error[ c1120 ]

A class 1 file with a <model> should not declare a <reference-system>, which is inherited from the model.

Affects: <model> <reference-system>

Used by template # tan:core-expansion-terse.

## fatal[ c1201 ]

Sources are integral parts of a class 2 TAN file. Access to at least one non-faulty copy is absolutely mandatory.

Affects: <source>

Used by template # tan:check-referred-doc.

## error[ c1202 ]

No source may be given more than one token definition.

Affects: <token-definition>

Used by template # tan:core-expansion-terse.

## error[ c1203 ]

@new may not take the same value as what it replaces.

Affects: @new<rename>

Used by template # tan:core-expansion-terse.

## warning[ c1205 ]

The values of @n in <equate> should not have duplicates.

Affects: @n<equate>

Used by template # tan:class-2-expansion-terse tan:class-2-expansion-terse-for-validation.

## warning[ c1207 ]

At least one @n value in an equate should be found in every source.

Affects: @n<equate>

Used by template # tan:class-2-expansion-terse tan:class-2-expansion-terse-for-validation.

## error[ c1213 ]

@by may be applied only to those @n and @ref values that are calculable as integers.

Affects: @by<rename>

Used by template # tan:core-expansion-terse.

## error[ c1215 ]

In adjustment actions involving @n, at least one value should be found in each source.

Affects: @n<rename> <skip> <equate>

Used by template # tan:class-2-expansion-terse tan:class-2-expansion-terse-for-validation.

## error[ c1216 ]

In a <rename> the quantity of values in @ref and @new must be identical.

Affects: @new @ref<rename>

Used by template # tan:core-expansion-terse.

## error[ c1217 ]

No adjustment action should result in the mixing of leaf <div>s and non-leaf <div>s.

Affects: @new<reassign> <rename> <adjustments> <to>



Used by template # `tan:strip-divs-to-reset`.

## warning[ c1219 ]

Only the first of multiple adjustment actions will be applied. Action priority: skip, ref-based rename, then for every @n n-based rename, equate.

Affects: <rename> <skip> <equate>

Used by template # `tan:dependency-adjustments-pass-1`.

## error[ c1m01 ]

Claims involving verbs whose constrained content requires specification of units must use <object> or <subject> with @units..

Affects: @content-datatype @content-lexical-constraint @units<claim> <verb>  
<object> <subject>

Used by template # `tan:core-expansion-terse`.

## error[ c1m02 ]

A claim with a verb that has content constraints must not allow other verbs.

Affects: @content-datatype @content-lexical-constraint<claim> <verb>

Used by template # `tan:core-expansion-terse`.

## error[ c1m03 ]

<subject>'s' and <object>'s' content must be castable to any datatype constraints defined by the verb.

Affects: @content-datatype<subject> <object>

Used by template # `tan:core-expansion-terse`.

## error[ c1m04 ]

<subject>'s' and <object>'s' content must match any lexical constraints defined by the verb.

Affects: @content-lexical-constraint<subject> <object>

Used by template # `tan:core-expansion-terse`.

## error[ c1m05 ]

<object> or <subject> with @units may be used only with verbs with constrained content.

Affects: @content-datatype @content-lexical-constraint @units<claim> <verb>  
<object> <subject>

Used by template # `tan:core-expansion-terse`.

## **error[clm07]**

Every `<claim>` must have or inherit at least one verb.

Affects: `@verb<claim>`

Used by template # `tan:core-expansion-terse`.

## **error[clm08]**

Every `<claim>` must respect constraints defined by the verb.

Affects: `@verb<claim>`

Used by template # `tan:core-expansion-terse`.

## **error[clm09]**

No `<claim>` with a verb that disallows an element may have another verb that requires that same element.

Affects: `@verb<claim>`

Used by template # `tan:core-expansion-terse`.

## **error[dty01]**

Every div type reference must be valid in every source

Affects: `@div-type<skip>`

Used by template # `tan:class-2-expansion-terse tan:class-2-expansion-terse-for-validation`.

## **error[inc02]**

For any element with `@include`, at least one element of the same name must be found in target inclusion document.

Affects: `@include<inclusion>`

Used by template # `tan:apply-inclusions-and-adjust-vocabulary`.

## **error[inc03]**

Inclusions/vocabularies may not be invoked circularly.

Affects: `<inclusion> <vocabulary>`

Used by variable `$tan:erroneously-looped-doc`.

Used by template # `tan:resolve-critical-dependencies-loop`, # `tan:check-referred-doc`.

Used by function `tan:resolve-doc-loop()`.

## **fatal[ inc04 ]**

Inclusions are integral parts of any TAN file. Access to at least one copy is absolutely mandatory.

Affects: `@include<inclusion>`

Used by template # `tan:resolve-critical-dependencies-loop`, # `tan:check-referred-doc`.

Used by function `tan:get-1st-doc()`.

## **fatal[ inc05 ]**

The vocabulary of a file may not include it.

Affects: `<inclusion> <vocabulary> <TAN-voc>`

Used by template # `tan:check-referred-doc`.

## **warning[ inc06 ]**

The `@TAN-version` for inclusions and vocabularies should match the current version.

Affects: `@TAN-version<inclusion> <vocabulary>`

Used by template # `tan:resolve-critical-dependencies-loop`.

## **error[ lnk01 ]**

An inclusion must point to a TAN file

Affects: `<inclusion>`

Used by template # `tan:check-referred-doc`.

## **error[ lnk02 ]**

`<successor>` and `<companion-version>` must point to TAN files of the same type.

Affects: `<successor> <companion-version>`

Used by template # `tan:check-referred-doc`.

## **error[ lnk03 ]**

`<model>` and `<redivision>` must point to class 1 TAN files

Affects: `<model> <redivision>`

Used by template # `tan:check-referred-doc`.

## error[lnk04]

<annotation> must point to class 2 TAN files

Affects: <annotation>

Used by template # `tan:check-referred-doc`.

## error[lnk05]

<vocabulary> must point to TAN-voc files.

Affects: <vocabulary>

Used by template # `tan:resolve-critical-dependencies-loop`, # `tan:check-referred-doc`.

## error[lnk06]

<morphology> must point to TAN-mor files.

Affects: <morphology>

Used by template # `tan:check-referred-doc`.

## error[lnk07]

If a linking element points to a file that must be resolved, that file must be a TAN file.

Affects: <location> <inclusion> <source> <vocabulary> <redivision> <model> <annotation> <predecessor> <successor>

Used by template # `tan:resolve-critical-dependencies-loop`.

Used by function `tan:resolve-doc-loop()`.

## error[loc01]

An element that has a <location> and is key for validation should have at least one document available.

Affects: <location> <inclusion> <see-also> <source> <vocabulary> <redivision> <annotation> <model> <predecessor> <successor> <algorithm>

Used by function `tan:get-1st-doc()`.

## error[loc02]

Every TAN file referred to by way of an element containing <location> should have an @id that matches the <IRI> of the parent of the <location>

Affects: <location> <inclusion> <see-also> <source> <vocabulary> <redivision> <annotation> <model> <predecessor> <successor> <algorithm>

Used by template # tan:check-referred-doc.

## error[**loc03**]

No element may point to a TAN file that has an identical @id value; the only exception is <predecessor> and <successor>.

Affects: <location> <inclusion> <see-also> <source> <vocabulary> <redivision> <annotation> <model> <predecessor> <successor> <algorithm>

Used by template # tan:check-referred-doc.

## warning[**loc04**]

If an element not essential to validation has no <location> that points to a document a warning should be returned.

Affects: <location> <algorithm> <see-also> <predecessor>

Used by function tan:get-1st-doc().

## error[**rea01**]

In a <reassign>, the token referred to at <from-tok> must precede the one referred to by <through-tok>.

Affects: <reassign> <from-tok> <through-tok>

Used by template # tan:expand-reassigns.

## error[**rea02**]

No token may be adjusted by more than one <reassign>.

Affects: <reassign>

Used by template # tan:dependency-adjustments-pass-2.

## error[**rea04**]

A <reassign> may be applied only to leaf <div>s.

Affects: <reassign>

Used by template # tan:dependency-adjustments-pass-2.

## error[**ref01**]

Every part of a @ref must correspond to a <div> in every source.

Affects: @ref @src

Used by template # `tan:class-2-expansion-terse` `tan:class-2-expansion-terse-for-validation`.

## warning[ref02]

If a reference to a work is not found in some sources for that work, a warning will be returned.

Affects: @ref @work

Used by template # `tan:class-2-expansion-terse` `tan:class-2-expansion-terse-for-validation`.

## error[ref03]

In a @ref range the first reference should precede the second.

Affects: @ref

Used by template # `tan:class-2-expansion-terse` `tan:class-2-expansion-terse-for-validation`.

## error[seq01]

Sequences may not include values less than `r`.

Affects: @pos @chars @feature-qty-test

Used by template # `tan:mark-tok-pos`.

Used by function `tan:sequence-error()`.

## error[seq02]

Sequences may not include values greater than the maximum allowed.

Affects: @pos @chars @feature-qty-test

Used by template # `tan:mark-tok-pos`.

Used by function `tan:sequence-error()`.

## error[seq03]

Ranges in sequences must go from a lesser value to a greater.

Affects: @pos @chars @feature-qty-test

Used by template # `tan:check-and-expand-ranges`.

Used by function `tan:sequence-error()`.

## error[ seq05 ]

Any range in either an @n or in a @ref in an adjustment action must be predictably calculated.

Affects: @ref @n<skip> <rename> <reassign> <adjustments>

Used by template # tan:check-and-expand-ranges.

## error[ tan01 ]

Every TAN file must have at least one organization or person with an <IRI> that is a tag URI whose namespace matches the namespaces of @id in the root element.

Affects: @id<agent>

Used by template # tan:core-expansion-terse.

## error[ tan02 ]

Any TAN file without a to-do list will be treated as being no longer in progress and should have at least one master-location.

Affects: <master-location> <to-do>

Used by template # tan:core-expansion-terse.

## error[ tan03 ]

@xml:id values may not be repeated in the same document.

Affects: @xml:id@id

Used by template # tan:core-expansion-terse-attributes-to-elements.

## error[ tan04 ]

All text must be normalized (Unicode NFC).

Affects: <desc> <div> <name> <IRI>

Used by template # tan:core-expansion-normal.

## error[ tan05 ]

Every idref in an attribute must point to a vocabulary item (by @xml:id or name) that is of the appropriate corresponding element.

Affects: @who @ed-who @roles @src @lexicon @morphology @reuse-type @bitext-relation @feature @include @licensor @period @rights @work @type @adverb @group @verb @where @relationship @topic @subject @object @units

Used by template # `tan:core-expansion-terse-attributes`.

## error[ `tan06` ]

All idrefs in an attribute must be unique.

Affects: `@who @ed-who @roles @src @lexicon @morphology @reuse-type @bitext-relation @feature @include @licensor @period @rights @work @type @adverb @group @verb @where @relationship @topic @subject @object @units`

Used by template # `tan:core-expansion-terse-attributes`.

## error[ `tan07` ]

Attributes that take regular expressions must use escape sequences recognized by XML schema or TAN escape extensions (`\u{}`). See <http://www.w3.org/TR/xmlschema-2/#regexprs>

Affects: `@regex @matches-m @matches-tok @rgx`

Used by template # `tan:core-expansion-terse-attributes-to-elements`.

## error[ `tan08` ]

`@href` must have `<location>` or `<master-location>` as a parent; any other parent will trigger a quick fix to populate the element with the IRI + name pattern of the target file.

Affects: `@href<location> <master-location>`

Used by template # `tan:core-expansion-terse-attributes-to-elements`.

## error[ `tan09` ]

An IRI may appear no more than once in a TAN document.

Affects: `<IRI>`

Used by template # `tan:core-expansion-terse`, # `tan:check-referred-doc`.

## error[ `tan10` ]

An IRI that names a TAN file must match that file's `@id` exactly.

Affects: `<IRI>`

Used by template # `tan:check-referred-doc`.

## error[ `tan11` ]

No file may import vocabularies with items that have duplicate IRIs.

Affects: `<vocabulary> <IRI>`



Used by template # `tan:check-referred-doc`.

## warning[ `tan12` ]

An `@xml:id` on a vocabulary item need not duplicate a `<name>` (except in a TAN-mor file).

Affects: `@xml:id@id`

Used by template # `tan:core-expansion-terse`.

## error[ `tan14` ]

`<alias>` references must not be circular.

Affects: `@idrefs<alias>`

Used by function `tan:resolve-alias-loop()`.

## error[ `tan15` ]

No `<master-location>` may have an `@href` that points to a compressed archive.

Affects: `@href<master-location>`

Used by template # `tan:core-expansion-terse-attributes-to-elements`.

## error[ `tan16` ]

The only `@href` in a TAN document that may point to another document with the same document id is that of `<master-location>` or `<see-also>`

Affects: `@href<location> <master-location>`

Used by function `tan:get-1st-doc()`.

## error[ `tan17` ]

No `@href` should point to the URI of the document itself.

Affects: `@href<location> <master-location>`

Used by template # `tan:first-stamp-shallow-copy`, # `tan:core-expansion-terse-attributes-to-elements`.

## warning[ `tan18` ]

Files should match the version kept at `<master-location>`.

Affects: `<master-location>`

Used by template # `tan:class-2-expansion-verbose`, # `tan:core-expansion-normal`.

## error[ tan19 ]

Any IRI beginning urn: must continue with a name that is part of the official IANA Registry of URN Namespaces. See RFC 2414, <https://tools.ietf.org/html/rfc8141>, and <https://www.iana.org/assignments/urn-namespaces/urn-namespaces.xhtml>

Affects: <IRI>

Used by template # tan:core-expansion-terse.

## warning[ tan20 ]

TAN files using a version other than the current version will be marked with a warning.

Affects: @TAN-version

Used by template # tan:core-expansion-terse tan:dependency-adjustments-pass-1, # tan:core-expansion-terse.

## error[ tan21 ]

Multiple idrefs in a single attribute should not point to the same entity.

Affects: @who @ed-who @roles @src @lexicon @morphology @reuse-type @bitext-relation @feature @include @licensor @period @rights @work @type @adverb @group @verb @where @relationship @topic @subject @object @units

Used by template # tan:core-expansion-terse-attributes, # tan:core-expansion-terse-attributes-to-elements.

## error[ tan22 ]

Every value in @idrefs must correspond to an @id or @xml:id in the file.

Affects: @idrefs<alias>

Used by template # tan:core-expansion-terse.

## error[ tan23 ]

An @href that points to a local drive should have "file:/" prepended.

Affects: @href<location> <master-location>

Used by template # tan:check-referred-doc.

## warning[ tei04 ]

Text that represents a line, column, or page break should be moved into a @rend within a <lb>, <pb>, or <cb>.

Affects: @rend<tei:lb> <tei:pb> <tei:cb>

Used by template # tan:core-expansion-terse tan:dependency-adjustments-pass-1.

## error[tei05]

A milestone element without @break set to false should have at least one space on either side.

Affects: <tei:lb> <tei:pb> <tei:cb>

Used by template # tan:core-expansion-terse tan:dependency-adjustments-pass-1.

## error[tei06]

A milestone element with @break set to false should have no nearby spaces

Affects: <tei:lb> <tei:pb> <tei:cb>

Used by template # tan:core-expansion-terse tan:dependency-adjustments-pass-1.

## error[t1m02]

When using a category-based morphology, the number of feature codes in an <m> may not exceed the number of categories.

Affects: <m>

Used by template # tan:tan-a-lm-expansion-terse.

## error[t1m03]

Every feature code in an <m> must be found in the target morphology file.

Affects: <m>

Used by template # tan:tan-a-lm-expansion-terse.

## error[t1m04]

Every condition of a relevant dependency morphology <assert> (<report>) must be true (false) otherwise an error will be returned.

Affects: <m>

No variables, keys, functions, or named templates depend upon this error.

## error[tm002]

Codes for features must be case-indifferently unique.

Affects: @feature<code>

Used by template # `tan:dependency-adjustments-pass-1` `tan:core-expansion-terse`.

## **error[ tok01 ]**

Every token must be locatable in every cited ref in every source.

Affects: `@pos @val @rgx<tok> <from-tok> <through-tok>`

Used by template # `tan:expand-reassigns`, # `tan:class-2-expansion-terse` `tan:class-2-expansion-terse-for-validation`, # `tan:mark-tok-pos`, # `tan:mark-dependencies-pass-2-for-validation`.

## **error[ voc01 ]**

Names may not duplicate names reserved by standard TAN vocabulary for the affected element.

Affects: `<name>`

Used by template # `tan:core-expansion-terse`.

## **error[ voc02 ]**

Names may not be duplicates of, case-variants of, or hyphen variants of other names for the same element.

Affects: `<name>`

Used by template # `tan:core-expansion-normal`.

## **error[ voc03 ]**

`@affects-element` may take names only of those TAN elements that accept `@which`

Affects: `@affects-element<item> <group>`

Used by template # `tan:core-expansion-terse`.

## **error[ voc04 ]**

Every item in a reserved TAN-voc must have at least one IRI with a tag URN in the TAN namespace

Affects: `<IRI> <item>`

Used by template # `tan:core-expansion-terse`.

## **error[ voc06 ]**

`@affects-element` may take the value "vocabulary" only in official TAN-voc files.

Affects: `@affects-element<item> <group>`

Used by template # `tan:core-expansion-terse`.

## error[voc07]

Each <name> in standard TAN vocabulary must already be normalized.

Affects: <name>

Used by template # tan:core-expansion-terse.

## error[whe02]

Future dates are not permitted.

Affects: @when @ed-when @accessed-when @from @to

Used by template # tan:core-expansion-terse-attributes-to-elements.

## error[whe03]

@from must predate @to

Affects: @from @to

Used by template # tan:core-expansion-terse-attributes-to-elements.

## error[whi01]

An element's @which must have a value that corresponds to a <name>, either in a standard TAN vocabulary or an associated TAN-voc file, that is marked as applying to that element.

Affects: @which<vocabulary>

Used by template # tan:core-expansion-terse-attributes.

## error[whi02]

Names must be unique for vocabulary items assigned to a given element name.

Affects: <name> <item>

Used by template # tan:check-referred-doc.

## fatal[whi04]

Vocabularies are integral parts of a document. Access to at least one version is absolutely mandatory.

Affects: <vocabulary>

Used by template # tan:resolve-critical-dependencies-loop, # tan:check-referred-doc, # tan:first-stamp-shallow-copy.

Used by function tan:get-1st-doc().

## error[whi05]

A @which in a <vocabulary> may point only to items in the standard TAN file vocabularies.TAN-voc.xml

Affects: @which<vocabulary>

Used by template # tan:first-stamp-shallow-copy.

## warning[wrn01]

If an @href points to a local file that is not available, a warning will be returned.

@href points to file that is either (1) not available or (2) not valid XML

Affects: @href<location> <master-location>

Used by template # tan:core-expansion-terse-attributes-to-elements, # tan:check-referred-doc.

Used by function tan:get-1st-doc().

## warning[wrn02]

If @accessed-when predates one or more dates in a target file, a warning will be returned.

Affects: @accessed-when<location> <inclusion> <see-also> <source> <vocabulary>

Used by template # tan:check-referred-doc.

## warning[wrn03]

If a target file has children items in the <to-do>the corresponding comments will be returned as warnings.

Affects: <location> <inclusion> <see-also> <source> <vocabulary> <redivision> <annotation> <model> <predecessor> <successor> <algorithm>

Used by template # tan:check-referred-doc.

## warning[wrn04]

Users should be warned about versions of TAN that are under development.

This version of TAN is under development, and is subject to change. Participants in developing the TAN schemas, functions, and guidelines are welcome. See <http://textalign.net> for details.

Affects: <TAN-T> <TEI> <TAN-A> <TAN-A-tok> <TAN-A-lm> <TAN-voc> <TAN-mor>

Used by template # tan:core-expansion-terse tan:dependency-adjustments-pass-1, # tan:core-expansion-terse.

## warning[ wrn05 ]

If a target file has a <successor> a warning will be returned, noting the update.

Affects: <location> <inclusion> <see-also> <source> <vocabulary> <redivision> <annotation> <model> <predecessor> <successor> <algorithm>

Used by template # tan:check-referred-doc.

## warning[ wrn07 ]

Users should be warned about TAN files whose last change was made by an algorithm.

Affects: <TAN-T> <TEI> <TAN-A> <TAN-A-tok> <TAN-A-lm> <TAN-voc> <TAN-mor>

Used by template # tan:core-expansion-terse tan:dependency-adjustments-pass-1, # tan:check-referred-doc, # tan:core-expansion-terse.

## warning[ wrn09 ]

If a target file points only to non-local locations and no internet is available, the following message will be returned.

No internet available.

Affects: <location> <inclusion> <see-also> <source> <vocabulary> <redivision> <annotation> <model> <predecessor> <successor> <algorithm>

Used by function tan:get-1st-doc().

## warning[ wrn10 ]

If an @href points to a file that is not local, and no internet is available, a warning will be returned.

No internet access.

Affects: @href<location> <master-location>

Used by template # tan:check-referred-doc.

## warning[ wrn11 ]

If the internet is available, and an @href points to a non-local file that is not available, a warning will be returned.

@href points to non-local file that is either (1) not available, (2) not valid XML, or (3) at a server not trusted by the validation engine.

Affects: @href<location> <master-location>

Used by template # tan:check-referred-doc.