

# Typst-Glossary

## A Glossary Package for Typst

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Rolf Bremer, Jutta Klebe

### Sample Document to Demonstrate the Typst-Glossary

This package can create a glossary for a document. The glossary entries are pulled from a pool of entries using only entries, that are marked in the document. The package creates warnings for marked entries, that cannot be found in the entry pool.

Using the glossary package in a typst document consists of some simple steps:

1. Importing the package `glossary.typ`.
2. Marking the words or phrases to include in the glossary with `gls[]`.
3. Defining the show rule for the marker.
4. Read in one or more glossary pool(s) (from file(s) or elsewhere).
5. Generating the glossary page by calling the `make-glossary(. .glossary-pool)` function.

### Importing the Package

The glossary package is currently available on GitHub (<https://github.com/RolfBremer/typst-glossary>). It is still in development and may have breaking changes in its next iteration.

```
#import "./glossary.typ": *
```

### Marking of Entries

We have marked several words to be included in the glossary page at the end of the document. The markup for the entry stays visible. Its location in the text gets marked, and later it is shown as a page reference on the glossary page.

This is a `#gls[sample]` to demonstrate `_glossary_`.

The previous markup marks “sample” as reference for the glossary. If “Entry Phrase” is contained in the Glossary-Pool, it will be included into the resulting glossary page. If the Entry in the pool has a different key word, the following marker syntax can be used:

This is a `#gls(entry: "example")[sample]` to demonstrate `_glossary_`.

In this case, the entry for “example” is taken from the glossary pool, while in the document the term “sample” is used.

### Complex Content

To reference a Glossary entry with a complex name, like this Complex Content containing a whitespace, it is a good idea to use the entry parameter of the `gls`-function, to map it to a non-complex entry in a glossary pool, or, create the pool entry with a string as its key (see sample code!).

### Glossary Entries not in the Document Content

It is also possible to reference glossary entries without having them occur in the content of the document. They will only appear in the glossary. The function `#gls - add [Keyword]` can be used to create such a reference.

### Casing

Note that the casing of the entries matter. It may sometimes be desirable to just ignore the casing while generating the glossary page, but there are cases where casing is important - especially when it comes to trademarks and logos. An example is provided here, where “Context” as well as “ConTeXt” is contained in the glossary.

## Controlling the Show

At the start of this document, just after the `import` statements, we used a `show` rule to define, what we want to see of the `gls` markers in the resulting document:

```
// Glossary-Entry display : this rule makes the gls entries in the
document visible.
#show figure.where(kind: "jkrb_glossary"): it => {it.body}
```

For review reasons, this can be changed to show up more prominently in the resulting document. For example like here:

```
// Glossary-Entry: this rule makes the glossary entries in the
document more visible.
#show figure.where(kind: "jkrb_glossary"): it => {
  text(fill: red)[ --> '#it.body' ]
}
```

The index markers now show up in the resulting document and can easily be reviewed.

This is a `--> 'sample'` to demonstrate *typst-glossary*.

## The Glossary Pool

The pool contains the definitions for the entries. In this sample, we read the pool from one or more files – here from `typst` files. But they may also be XML-Files or other sources. The `make-glossary()` method can take more than one pool at once. The matching of marked entries is done in the order the pools where given in the parameters of the method. The first match wins.

## The Glossary Page

To actually create the glossary page, the `make-glossary()` function has to be called. Of course, it can be embedded into an appropriately formatted environment, like this:

```
#columns(2) [
  #make-glossary(glossary-pool)
]
```

## Why Having a Glossary in Times of Search Functionality?

A well-defined Glossary can be very helpful in documents where very specific meanings of certain Terms are used. For example, the term “Context”. In a specific document it may refer not to the general context, but may be used for a specific data structure in a system. In another document it may refer to a typesetting system with the name “ConTeXt”. A Glossary can be used to define things for the document’s context. It is used to agree on a common definition of Terms used in the document.

## Test Text

In this section, we have some more sample text to have some more references for the glossary. The rest of this section is Test Text, so it may not carry much meaning in it. It is more like Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua quaerat..

The Commit-SHA of Git is a very nice key to identify specific versions. The term *Supercalifragilisticexpialigetisch* comes to mind, if one thinks about really long words, but that's another story.

## Glossary

To create the glossary page, we load the glossary pool from a file and call the `make-glossary()` function with it.

Here we generate the glossary page with referenced entries in two columns:

---

### Amaranth

No glossary entry

### Casing

The casing in the glossary is of importance, since there are cases where the same Term has different meaning, depending on the Casing.

### Commit-SHA

Derived from web search results: In Git, a Commit-SHA is a 40-character hexadecimal string that specifies a 160-bit SHA-1 hash. It is used to identify a commit.

### Common Definition

Many word in a natural language have many meanings. Sometimes, but unfortunately not always, the intention of the writer or speaker can be derived from the context the word is used in. In documentation, it is important to have a common understanding of the word. That's why we use glossaries to define the intended meaning.

### Complex Content

No glossary entry

### ConTeXt

A nice, modern typesetting system derived from LaTeX.

### Context

The circumstances that form the setting for an event, statement, or idea, and in terms of which it can be fully understood.

### Example

An example is something that is typical of the group of things that it is a member of or that can be used to represent it. It can also be a way of helping someone to understand something by showing them how it is used. For instance, if you

want to explain what a fruit is, you could give an apple as an example.

(1) EXAMPLE | English meaning - Cambridge Dictionary. <https://dictionary.cambridge.org/dictionary/english/example> (13.5.2023)

(2) Example Definition & Meaning - Merriam-Webster. <https://www.merriam-webster.com/dictionary/example> (13.5.2023)

### Glossary Pool

A glossary pool is a collection of glossary entries. An automated tool can pull needed definitions from this pool to create the glossary pages for a specific context.

### Supercalifragilisticexpialigeticsh

No glossary entry

### Test Text

*Test Text* is used in this document to demonstrate the mechanism of the glossary functionality. It is usually a mixture of some arbitrary sentences containing terms that allow the demonstration of certain features and some lorem ipsum filler text. For demonstration of certain features a certain length of the *Test Text* is required.

### Typst

Typst is a new markup-based typesetting system for the sciences. It is designed to be an alternative both to advanced tools like LaTeX and simpler tools like Word and Google Docs.

### XML

XML stands for 'eXtensible Markup Language'.

<https://www.w3.org/XML>

## iteration

repetition of a mathematical or computational procedure applied to the result of a previous application, typically as a means of obtaining successively closer approximations to the solution of a problem.

## Glossary (with additional local pool)

This Glossary uses an additional glossary pool file to resolve the marked entries.

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### Amaranth

Amaranthus is a cosmopolitan genus of annual or short-lived perennial plants collectively known as amaranths. Some amaranth species are cultivated as leaf vegetables, pseudocereals, and ornamental plants.

### Casing

The casing in the glossary is of importance, since there are cases where the same Term has different meaning, depending on the Casing.

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### Complex Content

A Complex Content is an entry with a key consisting of more than a single word.

### ConTeXt

A nice, modern typesetting system derived from LaTeX.

### Context

The circumstances that form the setting for an event, statement, or idea, and in terms of which it can be fully understood.

### Example

An example is something that is typical of the group of things that it is a member of or that can

be used to represent it. It can also be a way of helping someone to understand something by showing them how it is used. For instance, if you want to explain what a fruit is, you could give an apple as an example.

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### XML

XML stands for 'eXtensible Markup Language'. This entry comes from the local pool.

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## iteration

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