leipzig package documentation*

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2019/06/09

Abstract

The leipzig package indexes and prints all linguistic gloss abbreviations used in a document. It provides a set of macros for standard glossing abbreviations, with options to redefine these or to create new ones. leipzig interfaces with the glossaries package for added functionality.

Basic Usage

Authors define gloss abbreviations which can be used in a document. (A standard set of abbreviations is pre-defined by leipzig.) These are accessed via 'shortcut' macros that take no argument such as \Nom{} or {\Nom} (short for nominative), which is typeset as NOM.

The abbreviations are indexed in a glossary which can then be printed in an inline or block format using \printglossaries or \printglosses. To print an inline glossary, e.g. in a footnote, use the schema in (1).

(1) \documentclass{article}

\usepackage{leipzig}
\makeglossaries

\begin{document}
 Use at least one macro like
 {\Nom}.\footnote{\printglossaries} % or \printglosses
\end{document}

^{*}This document corresponds to leipzig v2.2, dated 2019/06/09.

The default output looks like the following. (The occasional space before a comma or period is *not* normal behavior, and is due to some clash with the doc class used to typeset the package documentation.)

```
Use at least one macro like NOM. ^a
^a1 = first person, 2 = second person, 3 = third person, COP = copula, DU = dual, INS = instrumental, NOM = nominative, PL = plural, SG = singular, VB = verbalizer.
```

To print a block glossary, e.g. in a manuscript, use package option [block] or [mcolblock], as in (2). The option [mcolblock] is like [block] but prints in a multicol environment (default number of columns = 2).

(2) \documentclass{article} \usepackage{multicol}

```
\usepackage[mcolblock]{leipzig} % or option: [block] \makeglossaries
```

```
\begin{document}
  Use at least one macro like {\Nom}.
  \printglossaries % or \printglosses
\end{document}
```

The default output looks like the following.

Use at least one macro like NOM.						
Abb	${ m reviations}$					
1	first person	INS	instrumental			
2	second person	NOM	nominative			
3	third person	PL	plural			
COP	copula	$_{ m SG}$	singular			
DU	dual	VB	verbalizer			

Block glossary names print in either a chapter header (for classes like book where \chapter is defined) and in a section header otherwise, but this default behavior can be changed via the [section] package option.

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1 Setup

1.1 Installation

Download the leipzig package from CTAN and save it somewhere where LATEX can find it (usually in \$TEXMFHOME/tex/latex/leipzig/).

leipzig will automatically load the glossaries package unless you use the [noglossaries] package option. You will need glossaries v3.02 (2012/05/21) or later, because version 3.02 comes bundled with the glossary-inline package, which leipzig relies on for its inline glossary style.

If you do not already have glossaries, then download it and save it somewhere LATEX can find it. Run latex glossaries.ins to generate the style files, if need be. Be sure to run texhash or maketexlsr in terminal after installing both packages. To test whether glossaries was installed correctly, you can use the minimal example file minimalgls.tex that comes bundled in the glossaries package. In terminal or the command shell, run:

```
pdflatex minimalgls.tex
makeglossaries minimalgls
pdflatex minimalgls.tex
```

Notes:

• makeglossaries takes a filename with no .tex extension.

makeglossaries is a perl script which comes bundled with glossaries and which does some smart business of determining whether to build the glossaries using makeindex or xindy. If your system doesn't recognise the command perl then it's likely you don't have Perl installed. Although it is possible to run makeindex directly instead, this creates more work on your part in setting various parameters, and some options in glossaries may be unavailable. I highly recommend that you download perl and use makeglossaries. For Windows, I recommend http://strawberryperl.com/.

If you use TeXWorks or the like for text editing, you can add makeglossaries as a menu option instead of running the script in terminal.

See http://tex.stackexchange.com/questions/13152/how-to-makeglossaries-with-texworks.

If you have any trouble installing glossaries, refer to the installation instructions in glossaries-user.pdf. If you are daunted by the size of the manual, try starting off with the (much shorter!) guide for beginners (glossariesbegin.pdf).

1.2 Document structure with glossaries

There are **five** main parts to any document that utilizes **glossaries**. If you are missing any of these, then your glossaries will not print.

1. Load the package If you use hyperref, you should load hyperref before leipzig, contrary to the normal practice of loading hyperref last. (It's because leipzig loads glossaries, which must be loaded after hyperref.)

```
\documentclass{article}
\usepackage{hyperref}
\usepackage{leipzig}% leipzig loads glossaries
```

2. Generate the glossaries Any new glossaries must be defined before \makeglossaries. No glossaries are created without this line!

```
\makeglossaries
```

3. Define glossary entries Best practice is to define new terms in the preamble after \makeglossaries.

```
\newleipzig{verbz}{vbz}{verbalizer}
```

4. Use the glossary entries somewhere in your document.

```
\begin{document}
Use {\Verbz} or {\Nom}. %{\Nom} pre-defined by leipzig
```

5. Print the glossaries \printglossaries will print all defined glossaries. \printglosses is provided by leipzig and will just print the glossary that holds the gloss abbreviations.

```
\printglossaries % or \printglosses
\end{document}
```

Once you have those five elements, don't forget to run these commands. (The last run of pdflatex typesets the table of contents, if there is one.)

```
pdflatex minimalgls.tex
makeglossaries minimalgls
pdflatex minimalgls.tex
pdflatex minimalgls.tex
```

2 Package options

- [glossaries] (default) leipzig will load glossaries if it exists (as well as the bundled packages glossary-inline, glossary-tree, glossary-mcols).
- [noglossaries] Prevents glossaries from being loaded. This option basically reduces the package to a list of shortcut macros like {\Acc} which expand to \textsc{acc}, plus a method to create new shortcut macros, plus a switch to control the font.
- [nostandards] The set of standard pre-defined glosses from the Leipzig Glossing Rules [1] can be used but will be prevented from printing in the glossary.
- [inline] (default) The glossary containing the gloss abbreviations will be typeset in an inline style. (It uses the inline style, which leipzig has modified from the inline style in glossary-inline.sty.)
- [block] The glossary containing the gloss abbreviations will be typeset in a block style. (It uses the leipzigalttree (alias: block) style, which leipzig has modified from the alttree style in glossary-tree.sty.)
- [mcolblock] The glossary containing the gloss abbreviations will be typeset in a multicolumn block format. (It uses the leipzigmcolalttree (alias: mcolblock) style, which leipzig has modified from the mcolalttree style in glossary-mcols.sty.)
- [leipzignohyper] (default) Abbreviations created with \newleipzig will not have hyperlinks to the glossary.
- [leipzighyper] Abbreviations created with \newleipzig will have hyperlinks to the glossary.
- [glosses] By default, gloss abbreviations are put into the main glossary. Use this option to separate out gloss abbreviations into a separate glossary (type=leipzig). An alias option [leipzig] is also provided.

The leipzig package passes all unknown options to glossaries, so you can use any of the glossaries package options as well. Some useful ones are:

• [nostyles] Prevents glossaries from loading several pre-defined glossary styles. If you are only using the styles that are defined in leipzig, then you can safely use [nostyles]. If you use this option but still want to use one of glossaries' pre-defined glossary styles, you will have to load the package that contains that style before setting the style, e.g.

\usepackage[nostyles]{leipzig}
\usepackage{glossary-long}
\setglossarystyle{long}
\makeglossaries

- [indexonlyfirst] If you have many interlinear glossed examples in your paper, compiling may be slow because every instance of a glossary entry must be written to the glossary. This option causes only the first usage to be written to the glossary. This option affects all glossary entries—not just gloss abbreviations.
- [acronym] or [acronyms] Separates acronyms from the main glossary. The acronyms glossary can be printed with \printacronyms.
- [symbols] Creates a new 'Symbols' glossary which can be printed using \printsymbols.
- [toc] Adds glossaries to the table of contents.
- [section=\langle value \rangle] By default, glossaries begin with a chapter header if you are using a document class that defines chapters, else with a section header. You can set this explicitly. If you use section without a value, it means section=section. You can also reset the section type in the document with \setglossarysection. (Glossaries using the inline styles never begin with a section header.)
- [nonumberlist] By default, gloss entries will be followed by a number list that links back to the pages the gloss entries were used on. You can suppress this for all glossaries by using this option.

3 Core functionality

The elements discussed in this section work regardless of whether you have loaded glossaries or not.

3.1 Defining gloss abbreviations

The main part of the package provides a method to define new gloss abbreviations and shortcut macros to print the short forms of the abbreviations. These functions work regardless of whether glossaries is loaded or not.

\newleipzig
\renewleipzig

Gloss abbrevations are defined (or re-defined) with \newleipzig and \renewleipzig, respectively. For best results, gloss abbreviations should be defined in the preamble after \makeglossaries and before \begin{document}. (The code for \renewleipzig is courtesy TeX.SX user egreg.)

- (3) \newleipzig $[\langle options \rangle] \{\langle label \rangle\} \{\langle short \rangle\} \{\langle long \rangle\}$
- (4) \renewleipzig $[\langle options \rangle]$ $\{\langle label \rangle\}$ $\{\langle short \rangle\}$ $\{\langle long \rangle\}$

When glossaries is loaded, \newleipzig defines a new glossary entry using \newacronym[type=\leipzigtype], where \leipzigtype expands to the glossary that houses the gloss abbreviations (default is main).

- The optional argument $\langle options \rangle$ is a key=value list which is passed to \newacronym after [type=\leipzigtype]. It is ignored if glossaries is not loaded. A list of recognized keys is in chapter 4 of the glossaries documentation.
- $\langle label \rangle$ must be a unique label with which to identify the entry. It cannot contain any nonexpandable commands or active characters, nor can it contain numbers. The reason for this restriction is that leipzig uses the label to construct a shortcut macro, so the label must be able to expand to a valid control sequence name.
- $\langle short \rangle$ is the short form of the abbreviation. This needs to be lower-case so that \textsc{} will work. (You cannot make capital letters into smallcaps with \textsc{}.)
- $\langle long \rangle$ is the long version of the acronym. I recommend also typing this argument in lowercase letters, and using the glossaries package to format the glossary such that the first letter of all long forms are consistently uppercase or lowercase. You may need to specify hyphenation explicitly in the long form using \backslash -.

To redefine a macro, use **\renewleipzig** with the $\langle label \rangle$ of the abbreviation you want to redefine. The $\langle short \rangle$ and $\langle long \rangle$ arguments should be the new forms that you want to change to.

\Label

\newleipzig creates a shortcut macro by capitalizing the first letter of $\langle label \rangle$ to form \Label. This format was chosen because it is short and mnemonic, it stands out visually when editing interlinear gloss texts (IGTs) in your .tex file, and uppercase macros are less likely to be defined than lowercase ones. Shortcut macros take no arguments and gobble a following space, so they require braces; you can type either \Label{} or {\Label}.

Shortcut macros print the short form of the abbreviation. If glossaries is loaded, they essentially expand to either $\acrshort{\langle label \rangle}$ or $\acrshort*{\langle label \rangle}$, depending on whether they include a link to the glossary or not. If glossaries is not loaded, the macros print the short form of the abbreviation in $\acrshortcolor{}$ which is initialized to $\acrshortcolor{}$ textsc. Here is a simple example:

(5) \newleipzig{verbz}{vbz}{ver\-ba\-liz\-er}

a. creates the shortcut: \Verbz{} or {\Verbz}

b. which expands to: VB

3.2 Pre-defined abbreviations

The leipzig package pre-defines (in leipzig.tex) the gloss abbreviations from the appendix to the Leipzig Glossing Rules [1]. These are pre-defined to save the end-user time, and also to encourage standardization within the field. (However, they can be re-defined using \renewleipzig and the same label that they were originally defined with.)

Whenever possible, the label for the pre-defined abbreviations is the same as the short form. Hence, the shortcut macros are a capitalized version of the short form; i.e. \Cop{} will typeset COP, \Ins{} will typeset INS, etc. Exceptions to this rule are given in Table 1. In these cases the label and short form differ because the shortcut macro that would have otherwise been created was either already defined in LATEX or would have begun with a number. (Macro names in LATEX cannot begin with a number.)

The package also defines macros for common person-number combinations, like 1sG and 3pl. Abbreviations for first person begin with 'F' (not

¹If you want to be able to type **\Label** without braces, you will need to load the xparse package. leipzig does not load xparse because there are some issues with it, and it remains wholly untested with leipzig. See David Carlisle's explanation: http://tex.stackexchange.com/questions/86565/drawbacks-of-xspace.

Table 1: Unexpected macro names

Shortcut	Label	Short	Long
	aarg	A	agent
	parg	P	patient
	sarg	\mathbf{S}	argument of intransitive verb
	first	1	first person
	second	2	second person
	third	3	third person

Table 2: Abbreviations for persons and number

	1sg	 2sg		3sg
	1DU	 $2\mathrm{DU}$		3du
$\P\{$	1PL	 2PL	$Tpl{}$	3PL

'1'), abbreviations for second person begin with 'S' (not '2'), and abbreviations for third person begin with 'T' (not '3'). These abbreviations are shown in Table (2).

The macros that print the person and number abbreviations were defined using \newcommand, not \newleipzig, as in (6). The reason is that each glossary entry should correspond to one component of a fusional gloss, not the entire fusional gloss itself. That way a glossary will have entries like 1, 2, 3, SG, DU, PL, etc., but *not* 1SG, 1DU, 1PL, 2SG, 2DU, etc.

- (6) a. \newleipzig{first}{1}{first person} % {\First} prints 1
 - b. \newleipzig{sg}{sg}{singular} % {\Sg} prints SG
 - c. $\label{eq:c.} $$ \c. \mbox{$\c. } \mbox$

This strategy can be used for any fusional gloss. I usually use a command name that begins with a capital letter like the shortcut macros.

3.3 Font and display

\leipzigfont

The short form of the abbreviation is typeset using \leipzigfont, which takes the short form as its only argument. This is initialized to expand to \textsc{#1}, but you can always re-define it. For instance, to print all short forms in an uppercase italic font, use:

(7) \renewcommand{\leipzigfont}[1]{\textit{\MakeUppercase{#1}}}

This can occur anywhere in your document and it affects the short forms of any following abbreviations, e.g. further instances of $\{\Verbz\}$ from (5) will expand to VB.

Note that the name of each glossary entry in the glossary will also be printed using the final redefinition of \leipzigfont. You can redefine \glsnamefont to control how glossary names are displayed. See section 5 for more information on glossary display.

4 Abbreviation display with glossaries

If glossaries is loaded, there are many more options for display refinement.

4.1 Acronym style

\newleipzig is built on \newacronym from the glossaries package. The glossaries package allows you to set an acronym display style. This is a global setting, and it affects all acronyms that are defined using \newacronym (not only gloss abbreviations).

\setacronymstyle

leipzig sets a custom acronym style called long-lpz-short that is identical to the long-short style defined in glossaries, except that the short form of the abbreviation is printed using \firstleipzigfont (on first use) and \leipzigfont (on subsequent uses). It is set in the package using:

(8) \setacronymstyle{long-lpz-short}

You can use the same command in the preamble to set a different acronym style. However, this style will affect all acronyms, even if they are not gloss abbreviations. See the glossaries user manual for details.

\gls

Using $\gls{\langle label\rangle}$ instead of \abel will display the abbreviation according to the acronym style, which may be useful in-text when discussing particular grammatical glosses. The following example uses the abbreviation defined in (5).

- (9) a. \gls{verbz} prints: verbalizer (VB) % first time use
 - b. \gls{verbz} prints: VB % subsequent uses

\firstleipzigfont

The command \firstleipzigfont controls how the short form is displayed the first time it is displayed using \gls or other \gls-like commands.

Table 3: Short, long, and full acronym formats

Command	Prints
\acrshort{verbz}	VB
\Acrshort{verbz}	V_{B}
\ACRshort{verbz}	VB
\acrlong{verbz}	verbalizer
\Acrlong{verbz}	Verbalizer
\ACRlong{verbz}	VERBALIZER
\acrfull{verbz}	verbalizer (VB)
\Acrfull{verbz}	Verbalizer (VB)
\ACRfull{verbz}	VERBALIZER (VB)

It is initialized to \leipzigfont, but can be changed in the preamble. For example, the command in (10) will make the short form in the first usage be displayed in bold and \leipzigfont.

- (10) \renewcommand{\firstleipzigfont}[1]{
 \textbf{\leipzigfont{#1}}}
 - a. \gls{verbz} prints: verbalizer (VB) % first time use
 - b. \gls{verbz} prints: VB % subsequent uses

\glsreset(all)
\glsunset(all)

\gls{} and other \gls-like commands access and modify the first use flag, which determines if the abbreviation has been used before or not. To reset the first use flag so that the next use of \gls will diplay the abbreviation as if on first use, use \glsreset{\label\}} for an individual abbreviation, or \glsresetall to reset all abbreviations. There are also analogous \glsunset{\label\}} and \glsunsetall commands, which cause \gls to never use the first use display. See chapter 14 of the glossaries user documentation.

Besides \gls, there are other acronym-specific macros to print components of the acronym without modifying the first use flag. These can take the same optional arguments as other \glstext-like commands. A few examples are shown in Table 3; see Chapter 13 of the glossaries documentation for more options.

Any modifications to \firstleipzigfont will affect any of the \acrfull-type macros; \acrshort-type macros will be unaffected. The shortcut

macros like {\Verbz} are based on \acrshort, so \firstleipzigfont will not affect them.

4.2 Hyperlinks to the glossary

If you load the hyperref or html packages prior to loading the glossaries package, the \gls-like and \glstext-like commands will automatically have hyperlinks to the relevant glossary entry, unless the hyper option has been switched off. There are many ways to affect the hyper option.

Note: if you use hyperref, then leipzig must be loaded *after* hyperref.

\glsdisablehyper \glsenablehyper To disable or enable all hyperlinks to glossaries, use \glsdisablehyper or \glsenablehyper. The effect can be localised by placing the commands within a group.

[nohypertypes]

To disable hyperlinks only for certain glossaries, use the package option (from glossaries) [nohypertypes]. This is a key that takes a list of comma-separated glossary names as a value. Make sure you enclose the value in braces if it contains any commas. The values must be fully expanded, so something like [nohypertypes=\leipzigtype] won't work. Instead use [nohypertypes=main] if the [glosses] option has not been used, or [nohypertypes=leipzig] if the [glosses] option has been used. Instead of or in addition to the package option [nohypertypes], you can also use \GlsDeclareNoHyperList{\langle list \rangle}.

[nohyperfirst]

To disable hyperlinks only on the first use, use the package options (from glossaries) [nohyperfirst]. This is a key that take a list of comma-separated glossary names as a value. Make sure you enclose the value in braces if it contains any commas.

\gls*

The \gls-like and \glstext-like commands all take a first optional argument that is a comma-separated list of $\langle key \rangle = \langle value \rangle$ options, including hyper=false and hyper=true. They also have a star-variant (e.g. \gls*) which uses hyper=false, and a plus-variant (e.g. \gls*) which uses hyper=true. These optional arguments override global settings unless the hyperlinks have been suppressed using \glsdisablehyper.

\leipzighypertrue \leipzighyperfalse Regardless of the global settings you use for hyperlinks in \gls-like or \glstext-like entries, the shortcut macros like \Label are defined by default to not link to the glossary. Use the package option [leipzighyper] to make shortcut macros link to the glossary. You can also switch hyperlinks on and off for particular glosses by using \leipzighypertrue or \leipzighyperfalse in the preamble before you define the abbreviation with \newleipzig.

4.3 Explicitly formatting individual abbreviations

Occasionally a subset of grammatical glosses should be typeset in some font other than smallcaps (or whatever \leipzigfont has been (re)defined to). For instance, when number and gender markers are frequent, some authors use non-capitalized shortened forms like 1s instead of 1sg for first singular person. The optional argument to \((re))newleipzig can be used to set the short form explicitly with a font. (The repeated entries in the glossary are, again, not normal, and is probably due to some clash with the doc program used to typeset the documentation.)

```
(11) \renewleipzig[short={\glstextup{s}}]{sg}{s}{singular}
```

- a. {\Sg} prints: s
- b. {\Fsg} prints: 1s
- c. Glossary looks like: 1 = first person, 2 = second person, 3 = third person, COP = copula, DU = dual, INS = instrumental, NOM = nominative, PL = plural, s = singular, VB = verbalizer.

The definition in (11) sets the short form of the singular abbreviation to a lowercase upright s. All short forms are printed in \leipzigfont, which is initialized to \textsc. The glossaries-internal \glstextup is used to cancel the effect of that \textsc. This defaults to \textulc, if defined, otherwise \textup. This will affect any command which calls {\Sg}, such as the definition for first singular person in {\Fsg} (Table 2). Setting the short form explicitly will also determine how the abbreviation is displayed in the glossary, because the glossary prints the name field of the glossary entry, which defaults to be the same as the short field.

The optional argument to \re(new)leipzig can also be used to explicitly set the name and description of a gloss abbreviation, which is useful if these should have a different form than the short and long form in the text. For example, say that you are glossing a Bantu language and you want to identify class markers in the IGTs with C1, C2, C3, etc. Furthermore, you want the glossary to display C#, so that it is clear that C is always followed by a number. Then you could set the fields as in (12).

```
(12) \newleipzig[%
    name={c\#},%
    description={class marker (\# = class number)}
]{class}{c}{class marker}
```

This defines an abbreviation macro ${\Class}$, which prints the short form C. The short (C) and long (class marker) forms are called in-text via commands like \acrfull , but the glossary entry will be printed with the name (c#) and description (class marker (# = class number)) fields. An example is shown in (13).

(13) Use \acrfull{class} or {\Class} in document.\footnote{\printglossaries} % or \printglosses

The default output looks like the following.

```
Use class marker (C) or C in document.<sup>a</sup>

\frac{a_{\text{c}\#} = \text{class marker } (\# = \text{class number})}{a_{\text{c}\#} = \text{class marker } (\# = \text{class number})}.
```

5 Displaying the glossary

\printglossaries \printglosses To display the glossaries, put \printglossaries (or the leipzig-defined \printglosses) in your document where you would like the glossaries to display. \printglossaries prints all glossaries in the order they were defined, while \printglosses prints only the \leipzigtype glossary.

5.1 Glossary style

The style of the \leipzigtype glossary can be controlled in two ways.

[mcolblock]
 [block]
 [inline]

The simplest is to use one of three leipzig package options: [mcolblock] sets the leipzigmcolalttree style, [block] sets the leipzigalttree style, and [inline] sets the inline style. (The inline style is used by default if no options are specified.) Using a package option ensures that the \leipzigtype glossary will display using the intended style regardless of whether you use \printglossaries or \printglosses.

You can also specify the style in an optional argument to \printglosses (or any of the \printglossary commands). For example, the code in (14) will print just the \leipzigtype glossary and will use the block style. If you want to use your own style defined via \newglossarystyle, then you must use this method.

²If you specify the name field, then \gls will no longer print the long and short forms. Use \acrfull instead.

(14) \printglosses[style=block] % same as [style=leipzigalttree]

If you have multiple glossaries (e.g. glossaries other than gloss abbreviations), the style of the other glossaries is controlled in the "normal" fashion for the glossaries package: either use setglossarystyle before makeglossaries, or you can use the package option $[style=\langle style \rangle]$. The latter option only works for styles that are pre-loaded by glossaries. See section 6 for more information on defining multiple glossaries.

5.2 Display options for all styles

\leipzigname

To change the name of the glossary that houses the gloss abbreviations, redefine \leipzigname. It defaults to 'Abbreviations', as below.

(15) \renewcommand{\leipzigname}{Abbreviations}

The \leipzigname is used in \glossarysection, which is called just before the glossary itself. (Note that \glossarysection is redefined to print nothing in the inline style.)

\glossarypreamble

Information can be added to the start of the glossary (after the glossary name and before the main body of the glossary) by redefining \glossarypreamble. For example:

(16) \renewcommand{\glossarypreamble}{% Abbreviations are as follows:}

\glossarypostamble

There is an analogous command which prints at the end of each glossary called \glossarypostamble.

\ifleipzigdesccapitalize

By default the description for gloss abbreviations in the glossary is not capitalized. It will print with whatever case you used to define it. If you would like to instead force-capitalize the descriptions, put \leipzigdesccapitalizetrue in your preamble. This will only affect glossaries that are displayed with the styles inline, block (leipzigalttree), or mcolblock (leipzigmcolalttree).

\ifleipzignonumbers

By default abbreviations in the \leipzigtype glossary will not have a list of page numbers with links back to the pages where the abbreviation was used. If you would like this feature, put \leipzignonumberstrue in your preamble. This will only affect the \leipzigtype glossary.

\ifglsnogroupskip

By default there is no vertical space between groups of abbreviations, where each group is the set of gloss abbreviations that begin with the same letter. (Note that this conditional is set to true for any other defined glossary.) To print a vertical space between groups of abbreviations, put \glsnogroupskiptrue in your preamble. This will affect all glossaries.

\ifglsnopostdot

By default there is no final period at the end of descriptions in the \leipzigtype glossary. To print final periods, put \glsnopostdotfalse in your preamble. This will affect all glossaries.

5.3 Options to modify pre-defined styles

5.3.1 Inline glossaries

leipzig loads the glossary-inline package, which comes bundled with glossaries. This package defines an inline glossary style, which leipzig then redefines to look like a style often used in linguistics papers. This style is set by default when you load leipzig, or by using the [inline] package option.

\glossarysection

Note that inline defines \glossarysection to print nothing. Therefore, if you set this style for all glossaries by using \setglossarystyle {inline}, then no glossaries will have a glossary section header.

\renewcommand*{\glossarysection}[2][]{}

\glsgroupheading \glsgroupskip These commands control what to print at the beginning of the the glossary, what to print at the beginning of a group, and how much space to print between groups. Groups divide a glossary into groups, e.g. based on the first letter of the acronym (all 'A's grouped together, all 'B's grouped together, etc.) It is not generally desired for gloss abbreviations unless the list is very long. These three commands are all initialized to do nothing:

```
\renewcommand*{\glsgroupheader}{}
\renewcommand*{\glsgroupheading}[1]{}
\renewcommand*{\glsgroupskip}{}
```

\glsinlineseparator \glsinlinesubseparator

Each full glossary entry is separated by a comma and a space, regardless of whether that entry is a a subentry (linked to a parent entry) or not. \glsinlineseparator controls the separator between (parent) entries, and \glsinlinesubseparator controls the separator between child entries. The defaults are as follows:

```
\renewcommand*{\glsinlineseparator}{,\space}
\renewcommand*{\glsinlinesubseparator}{,\space}
```

\glsinlineparentchildseparator A set of child entries may be linked to a parent entry by setting \glsinlinepostchild [parent=\langle label\rangle] in the optional argument given to \((re)\)newleipzig. The child or children entries will be grouped together and follow the parent entry. For the inline glossary style, the parent and first child are separated by \glsinlineparentchildseparator and the last child is followed by \glsinlinepostchild. The defaults are:

\renewcommand*{\glsinlineparentchildseparator}{:\space}%
\renewcommand*{\glsinlinepostchild}{}%

\glspostinline

The entire inline glossary is concluded with \glspostinline. This is initialized to print a period and a space. Default:

\renewcommand*{\glspostinline}{.\space}

\glsinlinedescformat \glsinlinesubdescformat \glsinlineemptydescformat

Short and long forms of abbreviations are separated by \glsinlinedescformat. The default is to print an equals sign with small spaces on either side, and to encourage linebreaks after the equals sign so that new lines do not begin with an equals sign. The short and long forms of child entries are separated by \glsinlinesubdescformat, which is defined the same as \glsinlinedescformat. Finally, \glsinlineemptydescformat controls what happens if there is no description at all. Defaults:

```
\renewcommand*{\glsinlinedescformat}[3]{\,=\,\linebreak[1]##1}
\renewcommand*{\glsinlinesubdescformat}[3]{\,=\,\linebreak[1]##1}
\renewcommand*{\glsinlineemptydescformat}[2]{}
```

\glsinlinenameformat \glsinlinesubnameformat

The name of entries and subentries prints without extra formatting, which means it will print using \leipzigfont. You could change this behavior by redefining \glsinlinenameformat and \glsinlinesubnameformat.

```
\renewcommand*{\glsinlinenameformat}[2]{\glstarget{##1}{##2}}
\renewcommand*{\glsinlinesubnameformat}[2]{\glstarget{##1}{##2}}
```

5.3.2 Block glossaries

leipzig defines the styles leipzigaltree and leipzigmcolaltree for block glossaries. These names are cumbersome, so the aliases block and mcolblock are also provided. These two styles are based on alttree and mcolalttree, from the glossary-tree and glossary-mcols packages, respectively, both of which come bundled with glossaries. They are identical except that leipzigmcolalttree sets the glossary in a multicol environment. These styles can be easily set for the \leipzigtype glossary by

using the [block] or [mcolblock] package options, or by setting the style for individual glossaries, e.g.:

(17) \printglosses{(mcol)block}

\glsmcols The number of columns for leipzigmcolalttree is two by default, but this can be changed by redefining \glsmcols. (Note that multicol will not accept a number less than two.)

(18) \renewcommand*{\glsmcols}{2}

 $\begin{tabular}{ll} $$ \glss ind widest to plevel name \\ $$ \glss et widest $$ $$ $$ $$ $$ $$$

The indentation for the description at each level is as wide as the widest abbreviation defined in leipzig, which happens to be COMPL. You can set it explicitly by redefining \glssetwidest in the preamble. This command sets the indentation to the width of the text in its argument.

(19) \glssetwidest{xxxxxx}

Alternatively, you can calculate the widest abbreviation name by passing a list of glossary names to \glsfindwidesttoplevelname. If the optional argument is omitted, all glossaries are assumed.

- (20) a. \glsfindwidesttoplevelname % or
 - b. \glsfindwidesttoplevelname[main,leipzig]

\glspostnamespace

The glossary names are followed by \glspostnamespace, which is initialized to \space but can be redefined.

(21) \renewcommand*{\glspostnamespace}{\space}

 $\verb|\glstreenamefmt|$

The abbreviation name in the glossary prints without extra formatting, which means it will print using \leipzigfont. You could change this behavior by redefining \glstreenamefmt.

(22) \renewcommand*{\glstreenamefmt}[1]{##1}

6 Multiple glossaries

See Appendix B for an example of a book-like document with multiple glossaries.

By default, gloss abbreviations are put into the main glossary. (Actually they are put into the \glsdefaulttype glossary, which is usually set to main.) The [glosses] option creates a new glossary named leipzig, via:

\newglossary[lpz]{leipzig}{lzs}{lzo}{\leipzigname}

In addition, \leipzigtype is redefined to leipzig. Since all entries defined via \newleipzig have type=\leipzigtype, they will be printed in the leipzig glossary instead of main.

\newglossary

You can create as many glossaries as you would like before \makeglossaries, either by using certain glossaries package options like [acronyms] and [symbols], or by using \newglossary directly. (See Chapter 12 of the glossaries user manual.)

\printglossaries \printglossary

\printglossaries will print all glossaries in the order they were defined. If you want to print the glossaries in a different order, or if you would like to assign different styles to each, you should use \printglossary for each glossary and set the style explicitly using the optional argument.

(23) \printglossary[$\langle options \rangle$]

For example, \printglossary[type=main,style=list] would print the main glossary using the list style defined by glossaries. (If no type is given, then \printglossary will print the main glossary.)

Recall that \printglosses is defined as \printglossary[type=\leipzigtype] and is also defined to print with the style specified by leipzig package options. If you want a different style, you can specify that in the optional argument to \printglosses:

(24) \printglosses[style=list]

You can reset the glossary preamble between each call of \printglossary or \printglosses.

[style=(options)]

The [style=\langle options \rangle] option in glossaries is set to define the style for all glossaries except the \leipzigtype glossary. If you truly want to set one style for all glossaries, you will need to use \setglossarystyle before \makeglossaries. A linguistics paper might have several different

glossaries of abbreviations, so if you wanted to print all of them using the leipzigalttree style, you could do the following:

(25) \usepackage{leipzig} \setglossarystyle{leipzigalttree} \makeglossaries

Note: if you use this method to set **inline** as the style for every glossary, then no glossary will have a section header.

7 FAQ

Q: Why don't the abbreviations display in smallcaps?

- A: Did you define abbreviations using ALL CAPS for the short form? The short form is displayed in \leipzigfont, which uses \textsc, but \textsc cannot make smallcaps out of capital letters: \textsc{abc} produces ABC, but \textsc{ABC} produces ABC. Solution: change the \newleipzig definitions to use lowercase letters in the second argument.
- A: Not all font families contain a smallcaps font. For instance, only some version of Times New Roman contain a smallcaps font; the versions on Windows XP and Mac OS X do not. Solution: try changing the smallcaps font, or at least using \usepackage[T1]{fontenc} in your preamble.

References

[1] Bickel, Balthasar, Bernard Comrie, and Martin Haspelmath. (2008). "The Leipzig Glossing Rules. Conventions for Interlinear Morpheme by Morpheme Glosses." Revised version of February 2008. Department of Linguistics, Max Plank Institute for Evolutionary Anthropology. Retreived 30 June 2012: http://www.eva.mpg.de/lingua/resources/glossing-rules.php.

A Pre-defined abbreviations

Command	Short	Long
	1	first person
	2	second person
	3	third person
\Ab1{}	ABL	ablative
	ABS	absolutive
	ACC	accusative
	ADJ	adjective
	ADV	adverbial
	A	agent
	AGR	agreement
\A11{}	ALL	allative
$\Lambda $	ANTIP	antipassive
	APPL	applicative
	ART	article
$\Lambda ux{}$	AUX	auxiliary
$\mathbb{B}en{}$	BEN	benefactive
	CAUS	causative
	CLF	classifier
\mathbb{Com}	COM	comitative
	COMP	complementizer
	COMPL	completive
	COND	conditional
	COP	copula
	CVB	converb
	DAT	dative
	DECL	declarative
	DEF	definite
$\operatorname{Dem}\{\}$	DEM	demonstrative
	DET	determiner
	DIST	distal
	DISTR	distributive
$Du{}$	DU	dual
	DUR	durative
	ERG	ergative
	EXCL	exclusive
	F	feminine

```
\Foc{}
                       focus
             FOC
\mathsf{Fut}\{\}
                       future
             FUT
\mathbb{Gen}
                       genitive
             GEN
\Imp{}
             IMP
                       imperative
\Incl{}
             INCL
                       inclusive
                       indicative
\Ind{}
             IND
                       indefinite
\Indf{}
             INDF
                       infinitive
\left\{ \inf \right\}
             INF
\ln {}
                       instrumental
             INS
\Intr{}
             INTR
                       intransitive
\Impf{}
                       imperfective
             IMPF
\Irr{}
                       irrealis
             IRR
\Loc{}
             LOC
                       locative
\M{}
                       masculine
             Μ
\N{}
                       neuter
             Ν
                       negative
\Neg{}
             NEG
                       nominalizer
\mathbb{N}mlz{}
             NMLZ
\Nom{}
             NOM
                       nominative
                       object
\Obj{}
             OBJ
\0b1{}
             OBL
                       oblique
\Pass{}
             PASS
                       passive
\Parg{}
                       patient
             Ρ
\Pfv{}
                       perfective
             PFV
\P1{}
                       plural
             PL
\Poss{}
                       possessive
             POSS
\Pred{}
                       predicative
             PRED
\Prf{}
                       perfect
             PRF
\Prs{}
                       present
             PRS
\Prog{}
                       progressive
             PROG
                       prohibitive
\Proh{}
             PROH
\Prox{}
             PROX
                       proximal
\P 
             PST
                       past
\Ptcp{}
             PTCP
                       participle
\Purp{}
             PURP
                       purposive
\Q{}
                       question particle
             Q
\Quot{}
             QUOT
                       quotative
\Recp{}
                       reciprocal
             RECP
                       reflexive
\Refl{}
             REFL
\mathbb{Rel}
             REL
                       relative
\Res{}
                       resultative
             RES
```

	SBJ	subject
	SUBJ	subjunctive
$\S\{$	SG	singular
	S	argument of intransitive argument
	TOP	topic
$Tr{}$	TR	transitive
	VOC	vocative

B Example of multiple glossaries

```
\documentclass{book}%
\usepackage[mcolblock,% style for gloss abbreviations
     symbols,%
                       creates glossary of symbols
     glosses,%
                        creates glossary of gloss abbreviations
     acronyms,%
                        creates glossary of acronyms that
                                  % are not symbols or glosses
]{leipzig}
% Glossaries other than \leipzigtype use this style:
\setglossarystyle{block}
% Change default name of \leipzigtype:
\renewcommand{\leipzigname}{Grammatical glosses}
\makeglossaries
% Define some entries.
\% These will go into the acronym glossary.
 \newacronym{acr1}{BPS}{Bare Phrase Structure}
 \newacronym{acr2}{OT}{Optimality Theory}
 % These will go into the main glossary.
 \newglossaryentry{gls1}{name={Richness of the Base},%
      description={This is a description of Richness of the Base}}
 \newglossaryentry{gls2}{name={Emergence of the Unmarked},%
     description={This is a description of the
          Emergence of the Unmarked}}
 % These will go into the symbols glossary.
 \newacronym[type=symbols,%
    symbol=\textiota{},%
```

```
sort={iota}]{iphrase}{IPh}{intonational phrase}%
 \newacronym[type=symbols,%
    symbol=\textphi{},%
    sort={phi}]{pphrase}{PPh}{phonological phrase}%
 \newacronym[type=symbols,%
    symbol=\textomega{},%
    sort={omega}]{pword}{PWd}{prosodic word}%
\glsaddall % if you want to see what the output looks like
\begin{document}
% The main glossary will print after its own chapter heading,
      because we didn't change the [section] option.
% We will print the main glossary in yet a third style:
 \printglosses[style=list]
\mbox{\%} 
 Now we will print all of the remaining glossaries as
        individual sections together in one chapter.
 \chapter*{Abbreviations}
 \setglossarysection{section}
 \printglosses % prints using mcolblock style
 \printacronyms % prints using block style
 \printsymbols % prints using block style
\end{document}
```

C The Code

C.1 Global conditionals and definitions

\ifleipzig@glossaries \ifleipzig@noglossaries Some booleans to determine whether the glossaries package is loaded or not. The default is to load glossaries.

\newif\ifleipzig@glossaries\leipzig@glossariestrue
\newif\ifleipzig@noglossaries\leipzig@noglossariesfalse

\leipzig@sepglossestrue

Boolean to determine whether to typeset glosses in a separate glossary. Default is false, because we assume that the most common use case is to have only one glossary, in which case glosses can go in the main glossary.

\newif\ifleipzig@sepglosses\leipzig@sepglossesfalse

\ifleipzig@nostandards \ifleipzigdonotindex These two booleans prevent the set of standard set of abbreviations defined in the Leipzig Glossing Rules from being indexed or printed in the glossary. Users are still able to use the shortcut macros defined with the package, like \Acc{}. Default is to include standards in the glossary. \leipzigdonotindex can be used by authors to prevent particular abbreviations from being indexed.

\newif\ifleipzig@nostandards\leipzig@nostandardsfalse \newif\ifleipzigdonotindex\leipzigdonotindexfalse

\@leipzig@default@style

\@leipzig@default@style holds the style that will be used in the definition for \printglossary[type=main]. We default to an inline style because this is the most common use case. This can be reset by the package options [block], [mcolblock], and [inline] (same as default).

\newcommand*{\@leipzig@default@style}{inline}

\ifleipzighyper

Boolean switch to make abbreviations link to the glossary. Default is false.

\newif\ifleipzighyper\leipzighyperfalse
\newif\ifleipzignonumbers\leipzignonumberstrue

\leipzigfont

Some user hooks to change how abbreviations are displayed in-text on first and subsequent uses. These default to smallcaps. \leipzigfont works regardless of whether glossaries is loaded or not.

\newcommand{\leipzigfont}[1]{\textsc{#1}}%

C.2 Package options

[glossaries]
[noglossaries]

Option [glossaries] will load the glossaries package, if it exists (default behaviour). The package option [noglossaries] prevents leipzig from loading glossaries; if glossaries was loaded before leipzig then some of that package's functionality will still exist.

```
\DeclareOption{glossaries}{\leipzig@glossariestrue}
\DeclareOption{noglossaries}{%
  \leipzig@glossariesfalse
  \leipzig@noglossariestrue
}%
```

[glosses] These options create a new glossary named leipzig and redefines \leipzigtype [leipzig] to leipzig.

\DeclareOption{glosses}{\leipzig@sepglossestrue}
\DeclareOption{leipzig}{\leipzig@sepglossestrue}

[nostandards] This option prevents the set of standard abbreviations from being indexed in a glossary.

\DeclareOption{nostandards}{\leipzig@nostandardstrue}

[block]
[mcolblock]
[inline]

leipzig defines three glossary styles which can be used, which can be set via these package options. The \leipzigtype glossary will display using this style, regardless of whether \printglossaries or \printglosses is used.

```
\DeclareOption{block}{%
  \renewcommand*{\@leipzig@default@style}{leipzigalttree}%
}%
\DeclareOption{mcolblock}{%
  \renewcommand*{\@leipzig@default@style}{leipzigmcolalttree}%
}%
\DeclareOption{inline}{%
  \renewcommand*{\@leipzig@default@style}{inline}%
}%
```

[leipzighyper]
[leipzignohyper]

Two package options to control whether gloss abbreviations are hyperlinked to the glossary. Default is false.

```
\DeclareOption{leipzighyper}{\leipzighypertrue} \DeclareOption{leipzignohyper}{\leipzighyperfalse}
```

Pass all options to the glossaries package and end.

```
\DeclareOption*{%
    \PassOptionsToPackage{\CurrentOption}{glossaries}%
}%
\ProcessOptions\relax
```

C.3 Global settings used with glossaries

Unless the [noglossaries] option was declared, determine if glossaries was loaded; if not, then load glossaries, glossary-inline, glossary-tree, and glossary-mcols, if they exist. If glossaries cannot be found, throw an error.

```
\ifleipzig@noglossaries\relax
\else
\ifleipzig@glossaries
\@ifpackageloaded{glossaries}%
    {\relax}%
    {\IfFileExists{glossaries.sty}{%
        \RequirePackage{glossaries}%
    }%
    {\PackageError{leipzig}%
```

```
{glossaries.sty not found.}%
          {Install glossaries.sty or use [noglossaries] option.}%
        }%
        \IfFileExists{glossary-tree.sty}{%
          \RequirePackage{glossary-tree}%
        }%
        {\PackageWarning{leipzig}%
          {glossary-tree.sty not found.}%
          {Install glossary-tree.sty to use leipzigalttree style.}%
        \IfFileExists{glossary-mcols.sty}{%
          \RequirePackage{glossary-mcols}%
        }%
        {\PackageWarning{leipzig}%
          {glossary-mcols.sty not found.}%
          {Install glossary-mcols.sty to use leipzigmcolalttree style.}%
        }%
        \IfFileExists{glossary-inline.sty}{%
          \RequirePackage{glossary-inline}%
        }%
        {\PackageWarning{leipzig}%
          {glossary-inline.sty not found.}%
          {Install glossary-inline.sty to use inline style.}%
       }%
      }%
 \fi
\fi
```

From here on out we use \@ifpackageloaded{glossaries}, whichis true either if someone used the [glossaries] option, or if they used [noglossaries] but loaded glossaries before leipzig. Possibly unexpected behavior, but this command avoids nested conditionals, which are problematic.

\leipzigtype

If glossaries was loaded, define some stub macros and conditionals. All glossary entries created with \newleipzig have type=\leipzigtype. It is initialized here to \glsdefaulttype, so that gloss abbreviations are put into the main glossary. The [glosses] package option redefines it to expand to leipzig.

 $\verb|\leipzigname|$

The name of the \leipzigtype glossary is initialized to 'Abbreviations'. This prints in the section header before the glossary, if there is one.

```
\@ifpackageloaded{glossaries}{%
  \newcommand*{\leipzigtype}{\glsdefaulttype}%
  \newcommand{\leipzigname}{Abbreviations}%
```

\printglosses

\printglosses will print the \leipzigtype glossary. The macro \printleipzig \printleipzig is provided as an alias.

```
\providecommand*{\printglosses}[1][]{}%
\providecommand*{\printleipzig}[1][]{}%
```

\firstleipzigfont

This controls how the short form is formatted on first use.

```
\newcommand{\firstleipzigfont}[1]{\leipzigfont{#1}}%
```

\ifleipzigdesccapitalize

Switch to capitalize the description of the abbreviation in the glossary. Default is false.

\newif\ifleipzigdesccapitalize\leipzigdesccapitalizefalse

\leipzig@glossentrydesc

\leipzig@glossentrydesc replaces original \glossentrydesc in the glossary styles leipzigalttree, leipzigmcolalttree, and inline. If the author has used \leipzigdesccapitalizetue, then we redefine \leipzig@glossentrydesc to use \Glossentrydesc. This throws an error if the description is simply \nopostdesc, so we stick with \glossentrydesc in that case.

```
\newcommand*{\leipzig@glossentrydesc}[1]{%
  \ifleipzigdesccapitalize
    \expandafter\ifx#1\nopostdesc
      \glossentrydesc{#1}%
    \else\Glossentrydesc{#1}%
  \else
    \glossentrydesc{#1}%
  \fi
}%
```

\glspostnamespace

This is used in the leipzigalttree and leipzigmcolalttree styles. In glossaries the space after a glossary entry name was hard-coded as \space, but authors might want this to be more flexible.

\newcommand*{\glspostnamespace}{\space}%

End if glossaries was loaded.

```
}{}%
```

If an author needs more than one glossary, the package option [glosses] will create a new glossary called leipzig with name \leipzigname (default: 'Abbreviations') and will switch \leipzigtype to point to there.

```
\@ifpackageloaded{glossaries}{%
  \ifleipzig@sepglosses
```

```
\newglossary[lpz]{leipzig}{lzs}{lzo}{\leipzigname}%
\renewcommand*{\leipzigtype}{leipzig}%
```

Define hook to set the toc title when translator is in use.

```
\newcommand*{\gls@tr@set@leipzig@toctitle}{%
  \translatelet{\glossarytoctitle}{Abbreviations}%
}%
```

Otherwise, gloss abbreviations will sit in the main glossary, because we initialized \leipzigtype to \glsdefaulttype (usually 'main'). We want the main glossary name to always expand to whatever the user defines \leipzigname as. This is the most likely expected behavior from the user's end, because if a linguistics document has a glossary at all, it is likely to be a list of gloss abbreviations. Therefore, we \renewcommand the \glossaryname to return \leipzigname.

```
\else
  \renewcommand*{\glossaryname}{\leipzigname}
\fi
```

C.4 Formatting abbreviations

Declare the \leipzigtype glossary as an acronym list.

\DeclareAcronymList{\leipzigtype}%

long-lpz-short

We create a new acronym style, modeled off of the glossaries code for the long-sc-short style. It copies the long-short style, but changes the font of the short form to be \leipzigfont.³ The short form will be used both in running text and in the glossary. (This default can be overridden by setting the short forms explicitly via options to \newglossaryentry or \newleipzig.)

```
\newacronymstyle{long-lpz-short}%
{%
  \GlsUseAcrEntryDispStyle{long-short}%
}%
{%
  \GlsUseAcrStyleDefs{long-short}%
  \renewcommand{\acronymfont}[1]{\leipzigfont{##1}}%
  \renewcommand{\firstacronymfont}[1]{\firstleipzigfont{##1}}%
  \renewcommand*{\acrpluralsuffix}{\glstextup{\glspluralsuffix}}%
```

³Unfortunately, all abbreviations will use this style, even if they are not gloss abbreviations. The glossaries-extra provides a way to set a different style for each category of abbrevations.

Set acronym style. (Must be set after \DeclareAcronymList).

```
\setacronymstyle{long-lpz-short}
```

Several redefinitions need to happen at the beginning of the document, to take into account any changes in the preamble.

```
\AtBeginDocument{%
```

If glossaries option [nostyles] has been used, then \@glossary@default@style is set to \relax and no glossary style is set! This is a problem if the author has at least one glossary besides \leipzigtype, so we set the glossary style to \@leipzig@default@style as a last resort. \@leipzig@default@style is initialized to inline but could have been redefined by the user via the package options [block], [mcolblock], and [inline].

```
\if\@glossary@default@style\relax
\setglossarystyle{\@leipzig@default@style}%
\fi
```

\printglosses \printleipzig

Provide shortcut \printglosses (and alias \printleipzig) to print abbreviations in the appropriate style. We wait until \AtBeginDocument in case the author has changed the style in the preamble.

\printglosses basically expands to \printglossary[type=\leipzigtype]. If \@leipzig@default@style is defined, we also set a style. If the author used \leipzignonumbersfalse, then we also include a number list.

```
\ifx\@leipzig@default@style\relax
  \renewcommand*{\printglosses}[1][]{%
    \printglossary[type=\leipzigtype,#1]%
 }%
\else
  \ifleipzignonumbers
   \renewcommand*{\printglosses}[1][]{%
      \printglossary[type=\leipzigtype,%
        style=\@leipzig@default@style,%
       nonumberlist,#1]
   }%
 \else
    \renewcommand*{\printglosses}[1][]{%
      \printglossary[type=\leipzigtype,%
        style=\@leipzig@default@style,#1]
   }%
 \fi
```

```
\fi
\let\printleipzig\printglosses
```

We also redefine \printglossaries so that when the \leipzigtype glossary is printed, it uses \printglosses with the correct style specifications instead of \printglossary.

```
\renewcommand*{\printglossaries}{%
```

\forallglossaries defines the first argument (\@@glo@type) as the name of the current glossary in the loop.

```
\forallglossaries{\@@glo@type}{%
```

If \@@glo@type and \leipzigtype expand to the same thing, then we use \printglosses. We have to fully expand both macros before comparison.

```
\edef\tempa{\@gglo@type}%
\edef\tempb{\leipzigtype}%
\ifx\tempa\tempb%
\printglosses%
\else
\printglossary[type=\@@glo@type]%
\fi%
```

End \forallglossaries.

}%

End \printglossaries redefinition.

}%

End \AtBeginDocument.

}%

End \@ifpackageloaded{glossaries} true text. If not, \relax.

```
}%
{\relax}%
```

C.5 Glossary styles

Set some defaults for the $\ensuremath{\verb|leipzigtype|}$ glossary. These can be overridden by the author.

```
\@ifpackageloaded{glossaries}{%
  \forallglossaries[\leipzigtype]{\@@glo@type}{%
  \glsnogroupskiptrue
  \glsnopostdottrue
```

```
}%
}{\relax}%
```

The leipzig package pre-defines three styles.

C.5.1 leipzigalttree style

\@ifpackageloaded{glossary-tree}{%

leipzigalttree

If the glossary-tree package is loaded, then define a new block glossary style, leipzigalttree, modified from the alttree style with only minimal changes.

```
\newglossarystyle{leipzigalttree}{%
  \setglossarystyle{alttree}%
  \renewenvironment{theglossary}%
  {\def\@gls@prevlevel{-1}%
  \mbox{}\par
  }%
  {\par}%
```

Removed default bolding from \glstreenamefmt. That way, the short form prints with the default formatting imposed by the long-lpz-short acronym style. This defaults to \leipzigfont, unless the author used the short key in the gloss entry definition.

```
\renewcommand*{\glstreenamefmt}[1]{##1}
```

The definitions for \glossentry and \subglossentry are identical to alttree, except that I made the space after the widest name adjustable with \glspostnamespace, which defaults to \space. I also printed the description using \leipzig@glossentrydesc, which defaults to \glossentrydesc, but will be redefined to use \Glossentrydesc if \leipzigdesccapitalize is set to true by the author.

```
\renewcommand{\glossentry}[2]{%
  \ifnum\@gls@prevlevel=0\relax
  \else
    \settowidth{\glstreeindent}{%
      \glstreenamefmt{\@glswidestname\glspostnamespace}%
  }%
  \fi
  \hangindent\glstreeindent
  \parindent\glstreeindent
  \makebox[0pt][r]{%
  \glstreenamebox{\glstreeindent}{%
  \glstreenamefmt{%}
```

```
\glstarget{##1}{\glossentryname{##1}}%
       }%
     }%
   }%
    \ifglshassymbol{##1}{(\glossentrysymbol{##1})\space}{}%
   \leipzig@glossentrydesc{##1}\glspostdescription\space ##2\par
    \def\@gls@prevlevel{0}%
 }%
  \renewcommand{\subglossentry}[3]{%
   \ifnum##1=1\relax
     \glssubentryitem{##2}%
    \ifnum\@gls@prevlevel=##1\relax
     \@ifundefined{@glswidestname\romannumeral##1}{%
        \settowidth{\gls@tmplen}{%
          \glstreenamefmt{\@glswidestname\glspostnamespace}}%
       }{%
        \settowidth{\gls@tmplen}{\glstreenamefmt{%
          \csname @glswidestname\romannumeral##1\endcsname
          \glspostnamespace}}%
       }%
     \ifnum\@gls@prevlevel<##1\relax
        \setlength\glstreeindent\gls@tmplen
        \addtolength\glstreeindent\parindent
        \parindent\glstreeindent
     \else
        \@ifundefined{@glswidestname\romannumeral\@gls@prevlevel}{%
          \settowidth{\glstreeindent}{\glstreenamefmt{%
             \@glswidestname\glspostnamespace}}}{%
           \settowidth{\glstreeindent}{\glstreenamefmt{%
             \csname @glswidestname\romannumeral\@gls@prevlevel
                \endcsname\glspostnamespace}}}%
        \verb|\addtolength| parindent{-\glstreeindent}| % \\
         \setlength\glstreeindent\parindent
     \fi
   \fi
    \hangindent\glstreeindent
    \makebox[Opt][r]{\glstreenamebox{\gls@tmplen}{%
     \glstreenamefmt{\glstarget{##2}{\glossentryname{##2}}}}}%
   \leipzig@glossentrydesc{##2}\glspostdescription\space ##3\par
    \def\@gls@prevlevel{##1}%
 }%
}%
```

The style name leipzigalttree is hard to remember. We will create an alias block. This is easier to remember and matches the analogous package option that sets this style, but it runs the risk of being so common that some other package (or glossaries itself) overwrites it.

```
\newglossarystyle{block}{%
    \setglossarystyle{leipzigalttree}%
}%
End \@ifpackageloaded{glossaries}. Else, \relax.
}%
{\relax}%
```

C.5.2 leipzigmcolalttree style

leipzigmcolalttree

The leipzigmcolalttree style technically only requires glossary-tree to be loaded. We also require glossary-mcols; this anticipates future updates where leipzig might redefine several more mcol* styles.

```
\@ifpackageloaded{glossary-tree}{%
  \@ifpackageloaded{glossary-mcols}{%
  \newglossarystyle{leipzigmcolalttree}{%
  \setglossarystyle{leipzigalttree}%
  \renewenvironment{theglossary}%
  {%
  \begin{multicols}{\glsmcols}%
```

I added \raggedcolumns. Otherwise if one column has fewer entries than the others, the space between entries in that column is increased so that the bottoms of both columns are equal, which ruins the tabular-look.

```
\raggedcolumns
\def\@gls@prevlevel{-1}%
\mbox{}\par
```

I hardcoded a negative \vspace because the glossary was beginning with a blank line that \removelastskip would not remove.

```
\vspace{-\baselineskip}%
}%
{\par
\end{multicols}}%
}%
```

The style name leipzigmcolalttree is hard to remember. We will create an alias mcolblock. This is easier to remember and matches the analogous

package option that sets this style, but it runs the risk of being so common that some other package (or glossaries itself) overwrites it.

```
\newglossarystyle{mcolblock}{%
    \setglossarystyle{leipzigmcolalttree}%
}%
End if glossary-mcols and glossary-tree loaded.
}%
{\relax}%
}%
```

C.5.3 inline style

 ${\text{relax}}$ %

inline If the glossary-inline package is loaded, then redefine the existing inline glossary style.

\@ifpackageloaded{glossary-inline}{% if glossary-inline loaded We need the functionality of \renewglossarystyle, so define it if it is undefined.

```
\providecommand{\renewglossarystyle}[2]{%
  \ifcsundef{@glsstyle@#1}%
  {%
    \PackageError{glossaries}{Glossary style '#1' isn't already defined}{}%
  }%
  {%
    \csdef{@glsstyle@#1}{#2}%
  }%
}
```

The first version of glossary-inline is from glossaries v3.02. There were major additions in 3.03 though, so we include a slightly different version of inline for systems with glossaries v3.03+ (2012/05/22 or later).

```
\@ifpackagelater{glossaries}{2012/05/22}{%
\renewglossarystyle{inline}{%
  \renewenvironment{theglossary}%
  {%
    \def\gls@inlinesep{}%
    \def\gls@inlinesubsep{}%
    \def\gls@inlinepostchild{}%
  }%
  {\glspostinline}%
\renewcommand*{\glossaryheader}{}%
\renewcommand*{\glossaryheading}[1]{}%
```

The gloss and subgloss format are changed to replace \glossentrydesc with \leipzig@glossentrydesc.

```
\renewcommand{\glossentry}[2]{%
  \glsinlinedopostchild
  \gls@inlinesep
  \glsentryitem{##1}%
  \glsinlinenameformat{##1}{%
    \glossentryname{##1}%
  }%
 \ifglsdescsuppressed{##1}%
    \glsinlineemptydescformat
    {%
        \glossentrysymbol{##1}%
    }%
    {%
      ##2%
    }%
  }%
  {%
    \ifglshasdesc{##1}%
    {\glsinlinedescformat{\leipzig@glossentrydesc{##1}}{\glossentrysymbol{##1}}{\##2}
    {\cline{constraint} {\tt glossentrysymbol{\##1}}{\#2}}\%
  }%
  \ifglshaschildren{##1}%
  {%
     \glsresetsubentrycounter
     \glsinlineparentchildseparator
     \def\gls@inlinesubsep{}%
     \def\gls@inlinepostchild{\glsinlinepostchild}%
  }%
  {}%
  \def\gls@inlinesep{\glsinlineseparator}%
}%
\renewcommand{\subglossentry}[3]{%
  \gls@inlinesubsep%
  \glsinlinesubnameformat{##2}{%
     \glossentryname{##2}}%
  \glssubentryitem{##2}%
  \verb|\glsinlinesubdescformat{\leipzig@glossentrydesc{##2}}{\glossentrysymbol{##2}}{\frac{\##2}}{\frac{\##2}}{\frac{\##2}}{\frac{\##2}}{\frac{\##2}}{\frac{\##2}}{\frac{\##2}}}
  \def\gls@inlinesubsep{\glsinlinesubseparator}%
}%
```

We also change some of the default settings.

```
\renewcommand*{\glsgroupskip}{}%
\renewcommand*{\glsinlineseparator}{,\space}% original: ;\space
\renewcommand*{\glsinlinesubseparator}{,\space}%
\renewcommand*{\glsinlineparentchildseparator}{:\space}%
\renewcommand*{\glsinlinepostchild}{}%
\renewcommand*{\glsinlinepostchild}{}%
\renewcommand*{\glsinlinenameformat}{[2]}{\glstarget{##1}{##2}}%
\renewcommand*{\glsinlinenameformat}{[3]}{%
\,=\,\linebreak[1]##1}% original: \space#1
\renewcommand*{\glsinlineemptydescformat}{[2]}{}%
\renewcommand*{\glsinlinesubnameformat}{[2]}{%
\glstarget{##1}{##2}}%original: \glstarget{##1}{}
\renewcommand*{\glsinlinesubdescformat}{[3]}{%
\,=\,\linebreak[1]##1}%original: \glstarget{##1}{}
\renewcommand*{\glsinlinesubdescformat}{[3]}{%
\,=\,\linebreak[1]##1}%original: #1
```

We redefine \glossarysection within the glossary style definition. This means that any glossary that uses this style will not have a section header. Other glossaries will not be affected unless the author uses \setglossarystyle{inline} before \makeglossaries.

```
\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ensuremath{\ens
```

For systems with glossaries v3.02, leipzig added a separator between the long and short forms with \glsinlineshortlongseparator. (This functionality was added in glossaries v3.03 with \glsinline(sub)descformat.

```
\renewglossarystyle{inline}{%
  \renewenvironment{theglossary}%
      \def\gls@inlinesep{}%
      \def\gls@inlinesubsep{}%
      \def\gls@inlineshortlongsep{%
          \glsinlineshortlongseparator}% added this v1.0
   }%
    {\glspostinline}%
  \renewcommand*{\glossaryheader}{}%
  \renewcommand*{\glsgroupheading}[1]{}%
  \renewcommand*{\glossaryentryfield}[5]{%
    \gls@inlinesep
    \glsentryitem{##1}\glstarget{##1}{##2}%
   \def\glo@desc{##3}%
   \def\@no@post@desc{\nopostdesc}%
   \ifx\glo@desc\@no@post@desc
```

```
\else
        \ifstrempty{##3}{}{\gls@inlineshortlongsep##3}%
      \ifglshaschildren{##1}%
      {%
         \glsresetsubentrycounter
         \glsinlineparentchildseparator
         \def\gls@inlinesubsep{}%
     }%
      {}%
      \def\gls@inlinesep{\glsinlineseparator}%
    \renewcommand*{\glossarysubentryfield}[6]{%
      \gls@inlinesubsep%
      \glstarget{##2}{}%
      \glssubentryitem{##2}##4%
      \def\gls@inlinesubsep{\glsinlinesubseparator}%
    }%
  \renewcommand*{\glsgroupskip}{}%
  \newcommand*{\glsinlineshortlongseparator}{%
    \,=\,\linebreak[1]}% added this v1.0
  \renewcommand*{\glsinlineseparator}{,\space}% original: ;\space
  \renewcommand*{\glsinlinesubseparator}{,\space}%
  \renewcommand*{\glsinlineparentchildseparator}{:\space}%
  \renewcommand*{\glspostinline}{.\space}% changed from .
 % \renewcommand{\glsnamefont}[1]{\textsc{##1}}% removed v2.0
  \renewcommand*{\glossarysection}[2][\@gls@title]{}% added v1.0
  }%
}%
```

Else, if glossary-inline is not loaded, \relax.

}{\relax}%

C.6 Creating gloss abbreviations

\newleipzig Define \newleipzig to do the right thing whether glossaries is loaded or not.

```
\@ifpackageloaded{glossaries}{%
```

If glossaries is loaded, \newleipzig calls \newacronym with type \leipzigtype. It then calls \@newleipzig, which creates a shortcut macro.

```
\newcommand{\newleipzig}[4][]{%
  \bgroup
  {\newacronym[type=\leipzigtype,#1]{#2}{#3}{#4}}%
  \@newleipzig#2\@ni1%
```

\newleipzig passes the glossary label (parameter #2) to \@newleipzig, which actually reads in the first token of the label separately than the remainder of the label.

```
\def\@newleipzig#1#2\@nil{%
```

A globally-defined macro is created from the label after capitalizing the first token. If the \leipzigdonotindex boolean is toggled true, then this macro is defined to print the short form of the abbreviation in \leipzigfont, which is initialized to smallcaps.

```
\ifleipzigdonotindex
\uppercase{\expandafter\gdef\csname #1}#2\endcsname{%
\leipzigfont{\glsentryshort{#1#2}}%
}%
```

If \leipzigdonotindex is false, then the macro is defined to call \acrshort or \acrshort*, depending on whether the abbreviation should include a hyperlink to the glossary or not.

Note that \glsentryshort and \acrshort both display the short form of the acronym. Neither changes the first use flag. The only differences are that \acrshort indexes the acronym for use in the glossary and is formatted according to the short form of the acronym style long-lpz-short, but \glsentryshort does not index the acronym nor format the text.

```
\else
\ifleipzighyper
\uppercase{\expandafter\gdef\csname #1}#2\endcsname{%
\acrshort{#1#2}%
}%
\else
\uppercase{\expandafter\gdef\csname #1}#2\endcsname{%
\acrshort*{#1#2}%
}%
\fi
\fi
\egroup
End \def\@newleipzig.
}%
```

\renewleipzig This macro is provided to allow authors to change previously-defined gloss abbreviations, such as the pre-defined abbreviations that come bundled with

leipzig. This command is courtesy egreg, from http://tex.stackexchange.com/questions/277292/redefining-existing-abbreviations-for-leipzig-sty.

```
\newcommand{\renewleipzig}[2][]{%
    \if@leipzig@defined{#2}
      {%
       \renew@leipzig{#1}{#2}%
      }%
      {%
       \PackageError{leipzig}
         {Abbreviation '#2' undefined}
         {No '#2' abbreviation is defined, use \string\newleipzig}%
       \@gobbletwo
      }%
  \def\if@leipzig@defined#1{%
    \uppercase\expandafter{\expandafter\ifcsname\@car#1\@nil}\@cdr#1\@nil\endcsname
      \expandafter\@firstoftwo
      \expandafter\@secondoftwo
    \fi
  }
  \def\renew@leipzig#1#2{%
    \ifcsname glo@\glsdetoklabel{#2}@name\endcsname
      \csundef{glo@\glsdetoklabel{#2}@name}
    \if\relax\detokenize{#2}\relax
      \expandafter\@firstoftwo
    \else
      \expandafter\@secondoftwo
    {\newleipzig{#2}}{\newleipzig[#1]{#2}}%
  }%
  }%
If glossaries not loaded, then the code for \newleipzig and \renewleipzig
is much shorter.
  {%
    \newcommand{\newleipzig}[4][]{\@newleipzig(#3)#2\@nil}%
    \newcommand{\renewleipzig}[4][]{%
      \if@leipzig@defined{#2}
         \@newleipzig(#3)#2\@nil%
        }%
        {%
```

```
\PackageError{leipzig}
         {Abbreviation '#2' undefined}
         {No '#2' abbreviation is defined, use \string\newleipzig}%
       \@gobbletwo
      }%
 }
  \def\if@leipzig@defined#1{%
    \uppercase\expandafter{\expandafter\ifcsname\@car#1\@nil}\@cdr#1\@nil\endcsname
      \expandafter\@firstoftwo
      \expandafter\@secondoftwo
   \fi
 }
  \def\@newleipzig(#1)#2#3\@nil{%
   \uppercase{\expandafter\gdef\csname #2}#3\endcsname{\leipzigfont{#1}}
 }%
}
```

Load the list of standard abbreviations.

```
\@ifpackageloaded{glossaries}{%
```

If the [nostandards] option was used, then do not index the abbreviations in leipzig.tex.

```
\ifleipzig@nostandards\leipzigdonotindextrue\fi
\loadglsentries{leipzig.tex}%
```

Calculate the widest name based on this set of pre-defined abbreviations. It is probably vaguely accurate; if the author needs to, they can always redefine this in the preamble.

```
\glsfindwidesttoplevelname[\leipzigtype]%
```

Turn indexing back on if it was off.

```
\leipzigdonotindexfalse
}%
{\input{leipzig.tex}}%
```

C.7 leipzig.tex

The following is the list of pre-defined standards which are stripped and written to leipzig.tex.

%% This is a simple list of newcommands which create shortcuts for

%%

```
% Format of examples: %
%
% All leipzig gloss macros are of the form {\Label}
% where Label is a capitalized version of the gloss label, which is the first
% argument passed to \newleipzig. In most cases, the label has been chosen
% to match the abbreviations suggested in the Leipzig glossing rules.
% That is, \Acc{} and {\Acc} will print \textsc{acc}, etc.
% In a few cases, the label does not match the abbreviation, because the
% macro that would have been created is already defined in LaTeX.
\newleipzig{abl}{abl}{ab\-la\-tive} %ablative
\newleipzig{abs}{abs}{ab\-so\-lu\-tive} %absolutive
\newleipzig{acc}{acc}{ac\-cusa\-tive} %accusative
\newleipzig{adj}{adj}{ad\-jec\-tive} %adjective
\newleipzig{adv}{adv}{ad\-ver\-bial} %adverb(ial)
\newleipzig{aarg}{a}{agent} %agent-like argument of
%canonical transitive verb
\newleipzig{agr}{agr}{agreement} %agreement
\newleipzig{all}{all}{al\-la\-tive} %allative
\newleipzig{antip}{antip}{anti\-pas\-sive} %antipassive
\newleipzig{appl}{appl}{ap\-plica\-tive} %applicative
\newleipzig{art}{art}{article} %article
\newleipzig{aux}{aux}{aux\-il\-iary} %auxiliary
\newleipzig{ben}{ben}{bene\-fac\-tive} %benefactive
\newleipzig{caus}{caus}{causative} %causative
\newleipzig{clf}{clf}{clas\-si\-fi\-er} %classifier
\newleipzig{com}{com}{comi\-ta\-tive} %comitative
\newleipzig{compl}{compl}{com\-ple\-tive} %completive
\newleipzig{cond}{cond}{con\-di\-tion\-al} %conditional
\newleipzig{cop}{cop}{cop\-u\-la} %copula
\newleipzig{cvb}{cvb}{con\-verb} %converb
\newleipzig{dat}{dat}{da\-tive} %dative
\newleipzig{decl}{decl}{declarative}
                                       %declarative
\newleipzig{def}{def}{definite}
                                       %definite
\newleipzig{dem}{dem}{demonstrative}
                                       %demonstrative
\newleipzig{det}{det}{determiner}
                                       %determiner
\newleipzig{dist}{dist}{dis\-tal}
                                         %distal
```

%% standard linguistic glosses (see the Leipzig Glossing rules,

%% http://www.eva.mpg.de/lingua/resources/glossing-rules.php

%%

%%

```
\newleipzig{du}{du}{dual}
                                        %dual
\newleipzig{dur}{dur}{dur\-ative}
                                          %durative
\newleipzig{erg}{erg}{erg\-ative}
                                          %ergative
\newleipzig{excl}{excl}{ex\-clu\-sive}
                                            %exclusive
\newleipzig{f}{f}{feminine}
                                        %feminine
\newleipzig{foc}{foc}{focus}
                                        %focus
\newleipzig{fut}{fut}{future}
                                        %future
\newleipzig{gen}{gen}{gen\-i\-tive}
                                            %genitive
\newleipzig{imp}{imp}{imperative}
                                        %imperative
\newleipzig{incl}{incl}{inclusive}
                                        %inclusive
\newleipzig{ind}{ind}{indicative}
                                        %indicative
\newleipzig{indf}{indf}{indefinite}
                                        %indefinite
\newleipzig{inf}{inf}{in\-fini\-tive}
                                            %infinitive
\newleipzig{ins}{ins}{instrumental}
                                        %instrumental
\newleipzig{intr}{intr}{in\-tran\-si\-tive}
                                              %intransitive
\newleipzig{ipfv}{ipfv}{im\-per\-fec\-tive}
                                              %imperfective
\newleipzig{irr}{irr}{ir\-real\-is}
                                            %irrealis
\newleipzig{loc}{loc}{loc\-ative}
                                          %locative
                                        %masculine
\newleipzig{m}{m}{masculine}
\newleipzig{n}{n}{neuter}
                                        %neuter
\newleipzig{neg}{neg}{negative}
                                        %negation, negative
\newleipzig{nmlz}{nmlz}{nom\-i\-nal\-iz\-er}
                                               %nominalizer/nominalization
\newleipzig{nom}{nom\-in\-ative}
                                            %nominative
\newleipzig{obj}{obj}{object}
                                        %object
\newleipzig{obl}{obl}{ob\-lique}
                                          %oblique
\newleipzig{pass}{pass}{passive}
                                       %passive
\newleipzig{parg}{p}{patient}
                                        %patient
\newleipzig{pfv}{pfv}{per\-fec\-tive}
                                            %perfective
                                        %plural
\newleipzig{pl}{pl}{plural}
\newleipzig{poss}{poss}{possessive}
                                        %possessive
\newleipzig{pred}{pred}{pred\-i\-ca\-tive}
                                              %predicative
\newleipzig{prf}{prf}{perfect}
                                        %perfect
\newleipzig{prs}{prs}{present}
                                        %present
\newleipzig{prog}{prog}{progressive}
                                        %progressive
\newleipzig{proh}{proh}{prohibitive}
                                        %prohibitive
\newleipzig{prox}{prox}{prox\-i\-mal}
                                            %proximal/proximate
\newleipzig{pst}{pst}{past}
                                        %past
\newleipzig{ptcp}{ptcp}{participle}
                                        %participle
\newleipzig{purp}{purp}{pur\-po\-sive}
                                            %purposive
\newleipzig{q}{q}{question particle}
                                        %question particle/marker
\newleipzig{quot}{quot}{quot\-ative}
                                          %quotative
\newleipzig{recp}{recp}{recip\-ro\-cal}
                                            %reciprocal
\newleipzig{refl}{refl}{reflexive}
                                        %reflexive
\newleipzig{rel}{rel}{relative}
                                        %relative
```

```
\newleipzig{res}{res}{re\-sul\-ta\-tive}
                                                                                                                                                                                                                                           %resultative
\newleipzig{sbj}{sbj}{subject}
                                                                                                                                                                                                              %subject
\newleipzig{subj}{subj}{sub\-junc\-tive}
                                                                                                                                                                                                                                 %subjunctive
\newleipzig{sg}{sg}{singular}
                                                                                                                                                                                                              %singular
\newleipzig{sarg}{s}{argument of intransitive verb}
                                                                                                                                                                                                         %single argument of intransitive verb
\newleipzig{top}{top}{topic}
                                                                                                                                                                                                             %topic
\newleipzig{tr}{tr}{tran\-si\-tive}
                                                                                                                                                                                                                                 %transitive
\newleipzig{voc}{voc}{voc\-ative}
                                                                                                                                                                                                                       %vocative
%% Define short versions of person + number:
\newleipzig{first}{1}{first person}%
\newleipzig{second}{2}{second person}%
\newleipzig{third}{3}{third person}%
\label{first} $$\operatorname{\sc mand}(Fsg)_{{\tilde{S}}}%
\label{eq:linear_command} $$\operatorname{\mathbb{F}l}_{{\tilde{r}}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{r}}_{\tilde{r}}^{\tilde{
\label{eq:second} $$\operatorname{Ssg}_{\Second}_{\Sg}}%
\label{eq:lemmand} $$\operatorname{Spl}_{{\Second}_{Pl}}%$
\label{third} $$\operatorname{Tsg}_{{\tilde{Sg}}}%
\label{third} $$\operatorname{Tpl}_{{\tilde{T}}}%
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