THE CNLTX BUNDLE

Documentation for LATEX 2ε Packages or Classes

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LATEX tools and documenting facilities the CN way

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A versatile bundle of packages and classes for consistent formatting of control sequences, package options, source code examples, and writing a package manual (including an index containing the explained control sequences, options, ...).

The bundle also provides several other small ideas of mine such as a mechansim for providing abbreviations *etc*. Not at least it provides a number of programming tools.

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Part I.

About The Bundle

1. Background

The CNLTX bundle contains different packages and classes.¹ I developed it as a successor of my class cnpkgdoc [Nie13b] that I used until now for writing the documentation of my packages. The intention behind the new bundle is a cleaner interface and less unnecessary ballast, hence the separation into packages and classes. This is actually a bit of a contradiction: the document class CNLTX-DOC loads *all* packages of the bundle which makes it more feature-rich than cnpkgdoc eber used to be. The bundle provides source code environments that also print the output and defines quite a lot of macros for formatting of control sequence names, package names, package options and so on.

Part of the motivation is also that users have asked me how I created the manuals for my packages. Now I can refer to this bundle.

Another reason for the splitting into separate packages is – besides the advantage of easier maintenance – is that I wanted to add programming tools that I often use into CNLTX-BASE which may allow me (and others) to use them for other packages, too, without having to define them each time. So it is quite likely that CNLTX-BASE will get extended in the future.

The bundle provides listings style for LaTeX code, bibliography database files and index style files. It provides a bibliography citation and bibliography style closely linked to CNLTX-DOC. It provides a bibliography database file containing many LaTeX packages. It provides... Let's stop here. You see that the bundle provides a lot of different features which explains why this manual is more than 50 pages long.

The most detailed documentation for the bundle is as always the source code of the sty and cls files but I'm trying to provide a documentation as comprehensive as possible. Reading the source files may show how things are implemented but the intended use only becomes clear when you read this manual.

The bundle reflects the fact that I haven't started using literate programming, yet. I don't use docstrip and don't write dtx files but always write the sty or cls files directly. I write the manual always at the same time but as a separate file. While I'm entirely aware of the advantages of literate programming I never could bring myself to start to use it myself. As a consequence I have no idea if this bundle can be used for it or not.

Source code formatting is done with the help of the powerful listings package [HM13] by Carsten Heinz and later Brooks Moses, now maintained by Jobst Hoffmann. The only real drawback I have found with it is recognizing starred und un-starred versions of an environment as different keywords. This does not seem to be possible which is why indexing of such environments will lead to wrong page numbers.

The fancy frames of the source code examples are realized with the mdframed package by Marco Daniel [Dan13], loaded with the option framemethod = tikz.

^{1.} Well, one class for the time being,

Besides all this I included some other ideas of mine in this bundle which are all provided by **CNLTX-TOOLS**. This includes a mechansim for defining clever abbreviations or macros that make it easy to index names the same way biblatex does.

2. Bundled Packages, Classes and Files

The CNLTX bundle currently bundles the following packages, classes and files:

- CNLTX-BASE a package that defines base macros for error-messaging, expansion control, tokenlist manipulation and defining of expandable macros. It also provides color definitions and defines a few color schemes for the CNLTX-DOC class. All other packages and classes of the CNLTX bundle load this package. This package can be used stand-alone. \usepackage{cnltx-base}
- CNLTX-DOC a class for writing package manuals. Loads CNLTX-EXAMPLE and CNLTX-TOOLS and implicitly all other files of the bundle.
 \documentclass{cnltx-doc}
- CNLTX-EXAMPLE a package that defines macros and environments for describing control sequences and options and for including source code. Loads CNLTX-LISTINGS. This package can be used stand-alone.

 \usepackage{cnltx-example}

Introduced in version 0.4

• CNLTX-LISTINGS — a package that defines the listings language 'BibTeX'. Also defines a list of highlighted control sequence names and environment names, loaded by CNLTX-EXAMPLE. The additional control sequence and environment names used to be defined in CNLTX-CSNAMES. That package got removed and its contents are now provided by CNLTX-LISTINGS. This package can be used stand-alone. \usepackage{cnltx-listings}

Introduced in version 0.2

- CNLTX-TOOLS a package that defines tools used by CNLTX-DOC that are unrelated to LATEX documentation *per se*. This package can be used stand-alone. \usepackage{cnltx-tools}
- cnltx.ist an index style file that is used when the option add-index for CNLTX-DOC is activated and the option index-style is not used.
- Introduced in version 0.4
- cnltx.bib a bibliography file that contains a small but growing number of package entries. Used by CNLTX-DOC when the add-bib is used.

Introduced in version 0.4

• cnltx.bbx, cnltx.cbx and cnltx.dbx – files related to the biblatex style cnltx. The biblatex style defined in those files is used when the add-bib for CNLTX-DOC is used.

3. License and Requirements

Permission is granted to copy, distribute and/or modify this software under the terms of the LATEX Project Public License (LPPL), version 1.3 or later (http://www.latex-project.org/lppl.txt). The software has the status "maintained."

The CNLTX-BASE package loads the following packages: pgfopts² [Wri11], etoolbox³ [Leh11], ltxcmds⁴ [Obe11b], pdftexcmds⁴ [Obe11c], trimspaces⁵ [Robo9] and xcolor⁶ [Ker07].

The CNLTX-DOC class loads the packages CNLTX-BASE, CNLTX-EXAMPLE, ulem⁷ [Ars11], translations [Nie13e], multicol⁸ [Mit11], ragged2e⁹ [Scho9], marginnote¹⁰ [Koh12] and hyperref¹¹ [OR12]. It is a wrapper class for the KOMA-Script class scrartcl¹² [KN12]. The class has the option load-preamble which when used will load additional packages, see section 10.5 on page 38 for details.

The CNLTX-EXAMPLE package loads the packages: CNLTX-BASE, CNLTX-LISTINGS, CNLTX-TOOLS, translations,¹³ mdframed¹⁴ [Dan13], idxcmds¹⁵ [Nie13d], ifxetex¹⁶ [Rob1o], adjust-box¹⁷ [Sch12].

The CNLTX-LISTINGS package loads the packages CNLTX-BASE, listings ¹⁸ [HM13] and catchfile ¹⁹ [Obe11a].

The CNLTX-TOOLS package loads the packages CNLTX-BASE and accsupp 4 [Obe10].

All other packages that are loaded are loaded by the mentioned packages and not directly by any of the packages or classes of the CNLTX bundle. Like all of my packages CNLTX implicitly relies on an up to date TFX distribution.

4. Usage of the Bundle

The intended use of this bundle is three-fold:

• The main use-case is documenting my own LATEX packages. This is done with

```
{\tt 2.\ on\ CTAN\ as\ pgfopts: http://mirrors.ctan.org/macros/latex/contrib/pgfopts/}
```

^{3.} on CTAN as etoolbox: http://mirrors.ctan.org/macros/latex/contrib/etoolbox/

^{4.} on CTAN as oberdiek: http://mirrors.ctan.org/macros/latex/contrib/oberdiek/

^{5.} on CTAN as trimspaces: http://mirrors.ctan.org/macros/latex/contrib/trimspaces/

^{6.} on CTAN as xcolor: http://mirrors.ctan.org/macros/latex/contrib/xcolor/

^{7.} on CTAN as ulem: http://mirrors.ctan.org/macros/latex/contrib/ulem/

^{8.} on CTAN as multicol: http://mirrors.ctan.org/macros/latex/required/tools/multicol/

^{9.} on CTAN as ragged2e: http://mirrors.ctan.org/macros/latex/contrib/ms/ragged2e/

^{10.} on CTAN as marginnote: http://mirrors.ctan.org/macros/latex/contrib/marginnote/

^{11.} on CTAN as hyperref: http://mirrors.ctan.org/macros/latex/contrib/hyperref/

^{12.} on CTAN as koma-script: http://mirrors.ctan.org/macros/latex/contrib/koma-script/

^{13.} on CTAN as translations: http://mirrors.ctan.org/macros/latex/contrib/translations/

 $^{14.\} on\ \mathtt{CTAN}\ as\ \mathsf{mdframed:}\ \mathsf{http://mirrors.ctan.org/macros/latex/contrib/mdframed/$

^{15.} on CTAN as idxcmds: http://mirrors.ctan.org/macros/latex/contrib/idxcmds/

^{16.} on CTAN as ifxetex: http://mirrors.ctan.org/macros/latex/contrib/ifxetex/

^{17.} on CTAN as adjustbox: http://mirrors.ctan.org/macros/latex/contrib/adjustbox/

^{18.} on CTAN as listings: http://mirrors.ctan.org/macros/latex/contrib/listings/

^{19.} on CTAN as catchfile: http://mirrors.ctan.org/macros/latex/contrib/catchfile/

1 \documentclass{cnltx-doc}

and actually loads most if not all of the bundle.

- The module CNLTX-BASE is also intended as a programming tools package that will be used in other packages eventually. It is already used by the cntformats package from the exsheets bundle [Nie13c].
- In case parts of this bundle prove useful to be used in a document the recommended way is to add

1 \usepackage{cnltx}

to the preamble which will load the CNLTX-BASE module. Other needed modules can be given as package option.

1 \usepackage[example]{cnltx}

would load CNLTX-EXAMPLE.

Part II.

Details of Available Commands, Environments and Options

5. Options and Setup

The CNLTX bundle has a large number of options. The CNLTX-DOC class only knows a few options (described in section 10.1 on page 35) as *class* options, though. All other options regardless if they're defined by a package or a class can and should be set with the setup command:

 $\strut {\langle options \rangle}$

Setup command for the CNLTX bundle. This command is provided by CNLTX-BASE.

The source code environments defined by the **CNLTX-EXAMPLE** package also have optional arguments that can be used to set the options for the environment locally.

6. Available Commands

6.1. Description of Macros, Environments and Options

provided by CNLTX-EXAM-PLE

The commands described in this section all are provided by the CNLTX-EXAMPLE package. They all are related to the typesetting of provided macros, options and the like.

```
\code{\langle arg \rangle}
```

Formatting of source code. This is *no* verbatim command. Used internally in the following commands.

```
\ensuremath{\mbox{verbcode}}\langle char \rangle \langle code \rangle \langle char \rangle
```

Introduced in version 0.2

A verbatim command that uses the same formatting as the source code example environments, *cf.* section 8.4. This is a wrapper for **\lstinline** which loads the corresponding style.

```
\csin (name)
```

Format the control sequence $\langle name \rangle$, \cs{name}: \name. Adds a corresponding index entry. The starred form does not add an index entry.

```
\csidx{\langle name \rangle}
```

Adds an index entry but does not typeset the control sequence $\langle name \rangle$.

```
\ensuremath{\mbox{env}*}\{\langle name \rangle\}
```

Format the environment $\langle name \rangle$, \env{name}: name. Adds a corresponding index entry with a hint that the entry refers to an environment. The starred form does not add an index entry.

$\ensuremath{\mbox{envidx}} \langle name \rangle$

Adds an index entry but does not typeset the environment $\langle name \rangle$.

$\mbox{meta}\{\langle meta\rangle\}$

Description of an argument, $\mbox{meta}\{\mbox{meta}\}: \langle meta \rangle$.

$\mbox{marg}\{\langle arg \rangle\}$

A mandatory argument. $\langle arg \rangle$ is formatted with \meta if it is not blank, \marg{arg}: $\{\langle arg \rangle\}$.

$\Marg{\langle arg \rangle}$

Introduced in version 0.2

A mandatory argument. $\langle arg \rangle$ is formatted with \code if it is not blank, \Marg{arg}: {arg}.

$\operatorname{\mathsf{oarg}}\{\langle \mathit{arg}\rangle\}$

An optional argument. $\langle arg \rangle$ is formatted with \meta if it is not blank, \oarg{arg}: $[\langle arg \rangle]$.

$\langle arg \langle arg \rangle$

Introduced in version 0.2

An optional argument. $\langle arg \rangle$ is formatted with $\backslash code$ if it is not blank, $\backslash Oarg\{arg\}$: [arg].

$\operatorname{darg}\{\langle arg \rangle\}$

An argument with parentheses as delimiters. $\langle arg \rangle$ is formatted with \meta if it is not blank, \darg{arg}: ($\langle arg \rangle$).

```
\Darg{\langle arg \rangle}
   An argument with parentheses as delimiters. \langle arg \rangle is formatted with \backslash code if it is not blank,
   \Darg{arg}: (arg).
\sarq
   An optional star argument, \sarg: *.
\operatorname{option} \{\langle name \rangle\}
   An option \langle name \rangle, \option{name}: name. Adds a corresponding index entry. The starred form
   does not add an index entry.
\operatorname{\operatorname{\mathsf{Noptionidx}}}\{\langle name \rangle\}
   Adds an index entry but does not typeset the option \langle name \rangle.
\mbox{\mbox{module}*} \{\langle name \rangle\}
   A module \langle name \rangle, \module {name}: name. Adds a corresponding index entry. The starred form
   does not add an index entry. In some of my packages I like to organize options by grouping
   them in different classes that I call "modules". This command refers to those modules.
\mbox{\mbox{moduleidx}*} \langle \mbox{\mbox{\mbox{$name$}\rangle}}
   Adds an index entry but does not typeset the option \langle name \rangle.
\key* - {\langle name \rangle} {\langle value \rangle}
   A key \langle name \rangle with value \langle value \rangle, the optional star prevents an index entry, the optional - strips
   the braces around \langle value \rangle; \key{key}{value}: key = {\langle value \rangle}; \key-{key}{value}: key =
   ⟨value⟩
\keyis*{\langle name \rangle} {\langle value \rangle}
   A key \langle name \rangle set to value \langle value \rangle, the optional star prevents an index entry, \langle key[keyis] \rangle
   key = value.
\choices{\langle clist of choices\rangle}
   A list of choices, \choices {one, two, three}: one | two | three
\choicekey{\langle name \rangle} {\langle clist \ of \ choices \rangle}
   A key \langle name \rangle with a list of possible values, \langle choicekey \} \{ one, two, three \}: key = one |
   two|three
\bookey{\langle name \rangle}
   A boolean key \langle name \rangle with choices true and false, \boolkey{key}: key = true|false
\default{\langle value \rangle}
   Markup for a default choice, \choices {one, \default {two}, three}: one | two | three
```

6.2. Versioning Commands, Licensing and Related Stuff

provided by CNLTX-DOC

Introduced in version 0.2

Introduced in version 0.2

The commands described in this section are provided by the CNLTX class except where indicated differently. These commands are related to information about the legal stuff of a package and where to find it on the world wide web.

6. Available Commands

$\sinceversion{\langle version \rangle}$ Gives a sidenote like the one on the left. Introduced in version o.o $\changedversion{\langle version \rangle}$ Gives a sidenote like the one on the left. Changed in version o.o $\newnote*{\langle cs \rangle}[\langle num \rangle][\langle optional \rangle]{\langle definition \rangle}$ Defines a note like \sinceversion. The syntax of the command is the same as the one of \newcommand. \sinceversion was defined as follows: \newnote*\sinceversion[1]{Introduced in version~#1} $\newpackagename{\langle cs \rangle} {\langle name \rangle}$ Define a comand $\langle cs \rangle$ that prints $\langle name \rangle$ formatted like CNLTX, i. e. in small caps and colored with the color cnltx (see section 13.2). \lppl Typesets "LPPL" and adds a corresponding index entry. Typesets "LATEX Project Public License" and adds the same index entry as \lppl. Default: maintained Typesets 'Permission is granted to copy, distribute and/or modify this software under the terms Changed in version 0.2 of the LATEX Project Public License (LPPL), version 1.3 or later (http://www.latex-project. org/lppl.txt). The software has the status "maintained.". The un-starred variant adds a \par. \ctan Typesets "CTAN" and adds a corresponding index entry. Typesets "Comprehensive T_FX Archive Network" and adds the same index entry as \ctan. $\protect\operatorname{\mathsf{pkg}} \{\langle package \rangle\}$ Format the package name (package) and add an index entry. The starred variant adds nothing provided by CNLTX-EXAMto the index. PLE $\protect\pro$ Add an index entry for the package $\langle package \rangle$. provided by CNLTX-EXAM- $\cls*{\langle class \rangle}$ PLE Format the class name (class) and add an index entry. The starred variant adds nothing to the provided by CNLTX-EXAMindex. PLE $\clsidx{\langle class\rangle}$ Add an index entry for the class $\langle class \rangle$. provided by CNLTX-EXAM- $\CTANurl[\langle directory \rangle] \{\langle name \rangle\}$ PLE Writes a CTAN link like the ones in section 3 on page 5 in the footnotes. The predefined directory is macros/latex/contrib. The link address will be:

```
\label{lem:http://mirrors.ctan.org/} $$ \operatorname{lntroduced in version 0.2} $$ A wrapper for \pkg{#2}\footnote{\CTANurl[#1]{#2}} $$ A wrapper for \cls{#2}\footnote{\CTANurl[#1]{#2}} $$ A wrapper for \cls{$\CTANurl[#1]{#2}} $$ A wrapper for \cls{*2}\footnote{\CTANurl[#1]{#2}} $$ A wrapper for \cls{*2}\
```

```
1 \newpackagename{\foothree}{foo-3}%
2 now \foothree\ looks like \cnltx.
```

now FOO-3 looks like CNLTX.

6.3. Input Source Code Files

Similar to the environments described in section 7.2 on the next page CNLTX-EXAMPLE provides a few commands for inputting source code files, formatting and printing the source code and inputting the file directly.

```
\input example [\langle options \rangle] \{\langle file name \rangle\}
```

The equivalent of the example environment, see section 7.2 on the following page.

```
\input side by side [\langle options \rangle] \{\langle file name \rangle\}
```

The equivalent of the sidebyside environment, see section 7.2 on the next page.

```
\inputsourcecode[\langle options \rangle] \{ \langle file name \rangle \}
```

The equivalent of the sourcecode environment, see section 7.2 on the following page.

```
\ightharpoonup \igh
```

Introduced in A wrapper for \lstinputlisting[style=cnltx,#1]{#2}

version 0.5

It is possible to define further commands like this:

```
\newinputsourcefilecmd[\langle option \rangle] \{\langle control sequence \rangle\}
```

Defines $\langle control \ sequence \rangle$ as a new source code input command where $\langle options \rangle$ are preset.

The existing commands have been defined like this:

```
newinputsourcefilecmd\inputexample
```

- ${\tt _2} \ \verb|\newinputsourcefilecmd[side-by-side] \verb|\newinputsidebyside||\\$
- 3 \newinputsourcefilecmd[code-only]\inputsourcecode

7. Available Environments

7.1. Description Environments

CNLTX-DOC defines some description environments used to describe macros, environments or options.

\begin{commands}

A description-like environment for describing commands. While this environment is a list internally and thus recognizes \item own commands are used to describe macros. They are explained in section 8.1 on the next page.

\begin{options}

A description-like environment for describing options. While this environment is a list internally and thus recognizes \item own commands are used to describe options. They are explained in section 8.2 on page 14.

\begin{environments}

A description-like environment for describing environments. While this environment is a list internally and thus recognizes \item own commands are used to describe environments. They are explained in section 8.3 on page 16.

These environments are lists all using the same internal \list. The setup of this list can be changed via an option:

$list-setup = \{\langle definitions \rangle\}$

Default: \leftmargin=0pt \labelwidth=2em \labelsep=0pt \itemindent=-1em The setup of the \list used by the commands, options and environments environments.

7.2. Source Code Environments

CNLTX-EXAMPLE defines the following environments that are used to display source code and possibly the output of the source code, too.

$\begin{example} [\langle options \rangle]$

This environment is a formatted verbatim environment that also inputs the output of the inputted code. This environment is described in section 8.4 on page 16.

$\begin{sidebyside}[\langle options \rangle]$

This environment is a formatted verbatim environment that also inputs the output of the inputted code. Source and output are printed side-by-side. This environment is described in section 8.4 on page 16.

\begin{sourcecode} [$\langle options \rangle$]

This environment is a formatted verbatim environment. This environment is described in section 8.4 on page 16.

Introduced in version 0.2

In each of these environments certain hooks are provided that can be used to add definitions you like:

```
pre-code = {\langle definitions\rangle}
  \langle definitions\rangle are placed before the source code is inserted.

after-code = {\langle definitions\rangle}
  \langle definitions\rangle are placed after the source code is inserted.

pre-output = {\langle definitions\rangle}
  \langle definitions\rangle are placed before the output of the source code is inserted.

after-output = {\langle definitions\rangle}
  \langle definitions\rangle are placed after the output of the source code is inserted.
```

It is possible to define further environments like this:

```
\newsourcecodeenv[\langle option \rangle] \{\langle name \rangle\}
```

Defines $\langle name \rangle$ as a new source code environment where $\langle options \rangle$ are preset.

The existing environments have been defined like this:

```
1 \newsourcecodeenv{example}
2 \newsourcecodeenv[side-by-side]{sidebyside}
3 \newsourcecodeenv[code-only]{sourcecode}
```

8. Usage of the Various Functions

8.1. Command Descriptions

Inside of the environment commands that was introduced in section 7.1 on the previous page items are input via the following command:

```
\command*{\langle name \rangle}[\langle stuff\ after \rangle]
```

This macro formats a control sequence with \cs and puts a line break after it. The optional argument allows printing things directly after the command name and can thus be used for adding arguments. The star prevents the creation of an index entry.

```
\Default*!{\langle code \rangle}
```

Changed in version 0.3

This command can be placed after \command or \opt in order to give a default definition of a macro or a default value of an option. The definition will then be placed on the same line flush right. The star prevents the insertion of \newline after it. The optional bang adds the information that an option is mandatory, *i. e.* has to be set.

\expandable

Introduced in version 0.5

Adds the symbol * to the left of a command in the margin to indicate that the command is expandable. This command should be used *immediately* before \command.

\unexpandable

Introduced in version 0.5

Adds the symbol * to the left of a command in the margin to indicate that the command is not expandable. This command should be used *immediately* before \command.

\expandablesign

Default: \textasteriskcentered

Introduced in version 0.5

The macro that holds the sign used by \expandable and \unexpandable.

```
1 \begin{commands}
      \command{cs}
        This is about foo bar baz.
      \command{cs}[\marg{arg}]
        This one has an argument.
      \command{cs}[\sarg\oarg{option}]
        This has a star variant and an optional argument.
     \command{cs}\Default{foo bar}
        This one has the default replacement text \code{foo bar}
      \expandable\command{cs}
        This macro is expandable.
 12 \end{commands}
\cs
  This is about foo bar baz.
\cs{\langle arg \rangle}
  This one has an argument.
\csin (option)
  This has a star variant and an optional argument.
                                                                     Default: foo bar
  This one has the default replacement text foo bar
  This macro is expandable.
```

The \expandablesign can of course be redefined to something else you like better. For the sake of completeness there is an option that does exactly this:

```
expandable-sign = \{\langle definition \rangle\} Default: \textasteriskcentered Redefines \expandablesign to \langle definition \rangle.
```

Introduced in version 0.5

8.2. Option Descriptions

The options environment knows a few more commands to meet all the different kinds of options.

\opt*

An option. The star prevents an index entry.

```
\keyval*-\{\langle key\rangle\}\{\langle value\rangle\}
```

A key/value option. The optional star prevents an index entry. The optional - strips the braces around $\langle value \rangle$, see the example below.

```
\keychoice*{\langle key \rangle}{\langle list\ of\ choices \rangle}
```

A key/value option where the value is one of a list of choices. The star prevents an index entry.

```
\keybool*{\langle name \rangle}
```

A boolean key, that ist a choice key with choices true and false. The star prevents an index entry.

```
\Default*!{\langle code \rangle}
```

Changed in version 0.3

This command can be placed after \command or \opt (or any of the other commands for adding an option to the options list) in order to give a default definition of a macro or a default value of an option. The definition will then be placed on the same line flush right. The star prevents the insertion of \newline after it. The optional bang adds the information that an option is mandatory, *i. e.*, it has to be set.

```
\Module*!\{\langle name \rangle\}
```

Introduced in version 0.3

This command can be placed after **\option** but before **\Default** in order to determine the module the option belongs to. It will be written in the left margin next to the option name. The star prevents the insertion of **\newline** after it. The optional bang *adds* an index entry for the module. This is somehow inconsistent with many of the other commands where an optional star *prevents* an index entry but it fits to the functionality of **\Default** which is why this syntax was chosen.

The following demonstrates how the commands would be used to create option descriptions:

```
1 \begin{options}
2 \opt{foo}
3 This makes stuff. Let's add a few more words so that the line gets
4 filled and we can see how the output actually looks.
5 \opt*{foo}\Default{bar}
6 This makes stuff. Let's add a few more words so that the line gets
7 filled and we can see how the output actually looks.
8 \opt{foo}\Module{bar}
9 This option belongs to \module*{bar}. Let's add a few more words so
10 that the line gets filled and we can see how the output actually
11 looks.
```

```
\opt{foo}\Module{bar}\Default{baz}
      This option belongs to \module*{bar}. Let's add a few more words so
13
      that the line gets filled and we can see how the output actually
14
    \keyval{foo}{bar}\Default
      This makes stuff. Let's add a few more words so that the line gets
      filled and we can see how the output actually looks.
18
    \keyval{foo}{bar}\Default!
      This makes stuff. Let's add a few more words so that the line gets
      filled and we can see how the output actually looks.
21
    \keyval*{foo}{bar}
      This makes stuff. Let's add a few more words so that the line gets
      filled and we can see how the output actually looks.
   \keyval-{foo}{bar}
25
      This makes stuff. Let's add a few more words so that the line gets
      filled and we can see how the output actually looks.
    \keychoice{foo}{one,two,three}
      This makes stuff. Let's add a few more words so that the line gets
29
      filled and we can see how the output actually looks.
    \keybool{foo}
31
      This makes stuff. Let's add a few more words so that the line gets
      filled and we can see how the output actually looks.
34 \end{options}
```

The code above gives the following output:

foo

This makes stuff. Let's add a few more words so that the line gets filled and we can see how the output actually looks.

foo Default: bar

This makes stuff. Let's add a few more words so that the line gets filled and we can see how the output actually looks.

bar » foo

This option belongs to the module bar. Let's add a few more words so that the line gets filled and we can see how the output actually looks.

bar » foo Default: baz

This option belongs to the module bar. Let's add a few more words so that the line gets filled and we can see how the output actually looks.

```
foo = \{\langle bar \rangle\} (initially empty)
```

This makes stuff. Let's add a few more words so that the line gets filled and we can see how the output actually looks.

```
foo = \{\langle bar \rangle\}  (required)
```

This makes stuff. Let's add a few more words so that the line gets filled and we can see how the output actually looks.

```
foo = \{\langle bar \rangle\}
```

This makes stuff. Let's add a few more words so that the line gets filled and we can see how the output actually looks.

```
foo = \langle bar \rangle
```

This makes stuff. Let's add a few more words so that the line gets filled and we can see how the output actually looks.

```
foo = one|two|three
```

This makes stuff. Let's add a few more words so that the line gets filled and we can see how the output actually looks.

```
foo = true|false
```

This makes stuff. Let's add a few more words so that the line gets filled and we can see how the output actually looks.

8.3. Environment Descriptions

Environment descriptions are made – unsurprisingly – with the environments environment. It knows the command \environment:

```
\ensuremath{\mbox{environment}} {\mbox{environment}} {\mbox{(} name\mbox{)}} [\mbox{(} stuff after\mbox{)}]
```

This macro prints the environment name and puts a line break after it. The optional argument allows printing things directly after the environment name and can thus be used for adding arguments.

```
1 \begin{environments}
2 \environment*{foobar}[\oarg{options}]
3 This is environment \env*{foobar}. The star prevents it from being
4 added to the index.
5 \end{environments}
```

This is environment foobar. The star prevents it from being added to the index.

8.4. Code Examples

Code examples can be included through the example environment or the sourcecode environment. The sourcecode only shows the piece of LATEX code while the example environment also shows the output of the LATEX code.

```
1 \begin{example}
2 a \LaTeX\ code example
3 \end{example}
```

This example would give:

```
a LATEX\ code example
```

Both environments can be influenced by options:

```
code-only = true|false
```

Only typeset the code as code but don't include it afterwards. The code box above is an example for the usage of this option. This option has no effect on the sourcecode environment: is is already set for this environment.

```
side-by-side = \underline{true}|false
```

Default: false

Default: false

Typeset source and output side by side. The code is input on the left and the output on the right. Side by side examples are typeset in minipage environments with all consequences that come with them (think of \parindent, page breaks ...). Since a minipage cannot be broken across pages the surrounding mdframed frame gets the option nobreak = true. This option has no effect on the sourcecode environment.

```
code-left = true|false
```

Default: true

If true and the option side-by-side is chosen the source code is printed on the right side else on the left. This option has no effect on the sourcecode environment.

```
code-sep = \{\langle definition \rangle\}
```

Default: \hrulefill

Code that is inserted between a source code and the corresponding output when printed below each other. This option has no effect on the sourcecode environment.

The same example again, this time using side-by-side (which is the same as using the sidebyside environment):

```
a LATEX code example

side-by-side and code-left = false:

a LATEX code example

a LATEX code example
```

The frame around the examples is done by the mdframed package [Dan13]. It is of course possible to customize it:

```
add-frame-options = \{\langle mdframed\ options\rangle\}
```

(initially empty)

Add options to the predefined settings.

```
frame-options = \{\langle mdframed\ options \rangle\}
```

Default: backgroundcolor=cnltxbg,linecolor=cnltx,roundcorner=5pt Overwrite the settings with new ones.

The source code is formatted using the great listings package [HM13] by Carsten Heinz, Brooks Moses, and Jobst Hoffmann. Similar options exist to adapt listings' options that are used for formatting the source code. The predefined style has many options that will not be mentioned here. If you're interested you can find them in cnltx-example.sty or in section 11.2.1 on page 42.

```
gobble = \langle integer \rangle
```

The number of initial characters that is gobbled from each line.

```
add-cmds = \{\langle list \ of \ csnames \rangle\}
```

(initially empty)

Default: 2

A list of control sequence names that should be recognized as a command sequence in the source code examples and should be formatted accordingly. The control sequence names in this list will also get an index entry when they're used in the source example. This is done internally via \csidx. The option should be used to add the new commands that are defined by the package for which you are writing the manual for.

```
add-silent-cmds = {\langle list \ of \ csnames \rangle}
```

A list of control sequence names that should be recognized as a command sequence in the source code examples and should be formatted accordingly. The control sequence names in this list will *not* get an index entry when they're used in the source example. There already is quite a large but far from comprehensive list of silent commands but many are still missing. This option allows you to extend the list on a per document basis.

```
add-listings-options = {\langle listings options\rangle}
```

(initially empty)

Additional options for the listings [HM13] environments. This redefines the cnltx listings style which will affect all sourcecode environments!

```
listings-options = {⟨listings options⟩}
```

Overwrite existing options with new ones. This can be used to build an own style from scratch. This redefines the cnltx listings style which will affect all sourcecode environments!

```
sourcecode-options = \{\langle listings \ options \rangle\}
```

Introduced in version 0.4

These options are added to the listings options of the source code environments without redefing the main style. Hence it can be used to locally add options to a source code environment.

```
add-envs = \{\langle list \ of \ environment \ names \rangle\}
```

(initially empty)

Like add-cmds but for environment names.

```
add-silent-envs = {\langle list \ of \ environment \ names \rangle \}
```

Like add-silent-cmds but for environment names.

8.5. Compile Source Examples

8.5.1. The Compliation Process

When you input an example like

```
1 \begin{example}
   \documentclass{article}
   \begin{document}
   \end{document}
6 \end{example}
```

you'll get an error since the code is input as is and you'll end up with \documentclass after \begin{document}. There's a way out, though.

CNLTX-EXAMPLE provides the possibility to compile the source code file externally and input the compiled PDF.

```
1 \begin{example}[compile]
   \documentclass{article}
   \begin{document}
     foo
   \end{document}
6 \end{example}
```

This needs shellescape enabled. The default compilation program is pdflatex which will compile the file two times. The process can be customized with the following options:

```
compile = true|false
```

Introduced in version 0.9

Default: false

Compile the source code file. Although this option can be set globally it really shouldn't be! It's best to give this option explicitly to the source code environment whose body should be compiled. If enabled globally all examples would be compiled and most likely lead to various errors since most examples won't be complete LATEX documents.

```
program = pdflatex|lualatex|xelatex|arara
  The program to compile the source file.
```

Default: pdflatex

```
runs = \{\langle number \rangle\}
                                                                                                                                  Default: 2
```

The number of compilations.

```
(initially empty)
exe-with = \{\langle options \rangle\}
```

Command line options that can be given to the compilation program chosen with program.

The compiled document will be input with \includegraphics, each page separately. Since the pages of the document are most likely as large as the ones from the main document itself they are scaled down. This is best demonstrated with an example. The following input

```
1 \begin{example}[compile]
2  \documentclass[a5paper]{scrartcl}
3  \usepackage{showframe,lipsum}
4  \author{Clemens Niederberger}
5  \title{A Test File}
6  \begin{document}
7  \maketitle
8  \tableofcontents
9  \section{A Section Title}
10  \lipsum[1-10]
11  \end{document}
12 \end{example}
```

will lead to this output:





The pages get scaled according to two parameters:

```
max-pages = \{\langle number \rangle\}
```

Default: 4

The maximum number of pages in a row. The pages width is scaled to \linewidth/n where n is either the number of pages p of the compiled document or $\langle number \rangle$ if $p > \langle number \rangle$.

```
max-height = \{\langle dimension \rangle\}
```

Default: .5\textheight

The maximum height of a page.

There's another possibility to influence the appearance of the output:

```
\frac{\text{graphics} = \{\langle options \rangle\}}{\langle options \rangle} \text{ are passed to } \\ \text{includegraphics for every page that is input.}
```

8.5.2. Floating Output

Since the output can become a quite large figure it might be preferable to have it as a floating figure. This is also possible by using the option float.

```
float = \underline{true} | false | \langle float \ parameters \rangle
```

Default: false

Choose if the output should be placed in a figure of it's own. You can also use this option to specify the floating parameters for the float.

```
float - pos = \{\langle float \ parameters \rangle\}
```

Default: tbp

Set the standard floating parameters that are used if float = true. The default is actually the expansion of \fps@figure and not directly tbp.

```
caption = \{\langle text \rangle\}  (initially empty)
```

 $\langle text \rangle$ will be used as caption. If left blank no caption will be typeset. Implicitly sets float = true.

Please note that float only has an effect if compile = true has been set.

8.5.3. Selective Output

Sometimes it may be preferable not to include all pages of a compiled document but only specific pages. This is possible with the following option.

```
pages = \{\langle specifications \rangle\}
```

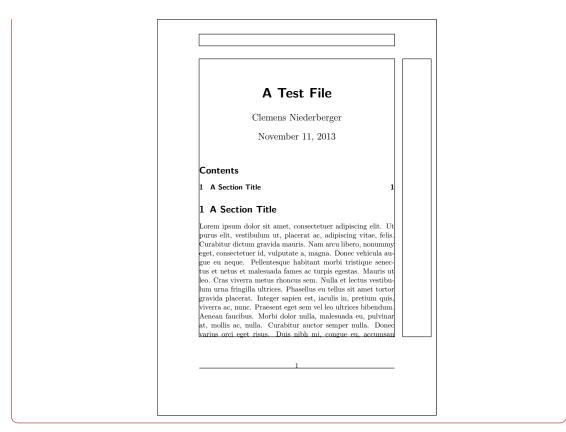
Select the included pages. ⟨*specification*⟩ is a comma-separated list of page numbers and page ranges, *e. g.*, 1,3,4 or 1,3-5. 1,3-5 is the same as 1,3,4,5. If the list includes page numbers larger than the maximum number of pages the PDF has a warnung message will be issued and a replacement text will occur in the output where the page would have been.

The input

```
1 \begin{example}[compile,pages=1]
2 \documentclass[a5paper]{scrartcl}
3 \usepackage{showframe,lipsum}
4 \author{Clemens Niederberger}
5 \title{A Test File}
6 \begin{document}
7 \maketitle
8 \tableofcontents
9 \section{A Section Title}
10 \lipsum[1-10]
11 \end{document}
12 \end{example}
```

will lead to this output:

```
1 \documentclass[a5paper]{scrartcl}
2 \usepackage{showframe,lipsum}
3 \author{Clemens Niederberger}
4 \title{A Test File}
5 \begin{document}
6 \maketitle
7 \tableofcontents
8 \section{A Section Title}
9 \lipsum[1-10]
10 \end{document}
```

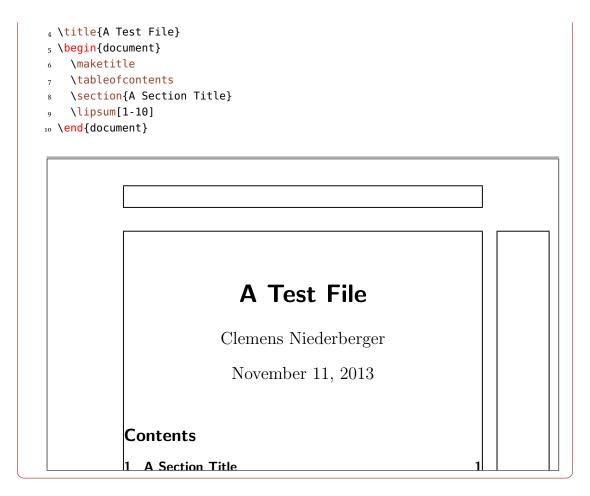


Together with the graphics option this can be used to output a part of a page. The following source

```
1 \begin{example}[compile,pages=1,graphics={trim={0pt 12cm 0pt 0pt},clip}]
2 \documentclass[a5paper]{scrartcl}
3 \usepackage{showframe,lipsum}
4 \author{Clemens Niederberger}
5 \title{A Test File}
6 \begin{document}
7 \maketitle
8 \tableofcontents
9 \section{A Section Title}
10 \lipsum[1-10]
11 \end{document}
12 \end{example}
```

will give this output:

```
1 \documentclass[a5paper]{scrartcl}
2 \usepackage{showframe,lipsum}
3 \author{Clemens Niederberger}
```



8.6. Example File

Let's say you're documenting a package called mypackage that provides the command \mycommand and the environment myenv. The basic manual setup could then look something like this:

```
1 \documentclass[load-preamble]{cnltx-doc}
2 \usepackage[T1]{fontenc}
3 \usepackage[utf8]{inputenc}
4 \setcnltx{
5 package = mypackage ,
6 authors = John Doe ,
7 email = john@doe.com ,
8 add-cmds = {mycommand} ,
9 add-envs = {myenv}
10 }
11 \begin{document}
12 ...
13 \end{document}
```

8.7. Additional Functionality Provided by CNLTX-BASE

The CNLTX-BASE package's main purpose is to provide programming facilities. Most of its macros are listed in section A.1. However, I like to explain some of its features in a bit more detail.

8.7.1. Looking for Trailing Punctuation

The command \cnltx@ifpunctuation is is a conditional that detects if a punctuaction mark follows and acts depending on it. What counts as a punctuation mark can be set by the user.

The starred version does not gobble the trailing punctuation while the unstarred does. That's why in the unstarred version you can also use \cnltx@trailpunct to access the gobbled punctuation mark. The optional argument sets the punctuation marks that should be considered for this use only.

```
set-trail-punct = {\( \lambda unctuation \) marks\\\}
```

Default: , . !?;:

Sets the default list of punctuation marks that should be checked if the optional argument of \cnltx@ifpunctuation is not used.

The usage is probably self-explaining:

If the non-starred variant has gobbled a \par the \par is placed back:

```
1 \makeatletter
2 \def\test{\cnltx@ifpunctuation{(test\cnltx@trailpunct)}{(test)}}%
3 \makeatother
4 \test
5
6 \test.
7
8 \test{} .
```

```
(test)
(test.)
(test).
```

8.7.2. Counter Representation Commands

Background

A counter representation command like \arabic{section} always is a command that calls an associated internal command (\@arabic in the case of our example) that acts on the count associated with the counter:

```
1 \def\arabic#1{\expandafter\@arabic\csname c@#1\endcsname}
2 \def\@arabic#1{\number #1}
```

The command $\arabic \{\langle counter \rangle\}$ builds a command sequence $\c@\langle counter \rangle$ from its argument $\langle counter \rangle$. It then calls the internal command \arabic that takes this command sequence as an argument. The command sequence $\c@\langle counter \rangle$ is the count (in the \arabic sense) that is associated with the counter $\langle counter \rangle$, *i. e.*, it holds the actual number. The command \arabic now simply typesets the integer value of the count.

The same holds for every counter representation command. The principle always is as follows:

```
1 \def\foo#1{\expandafter\@foo\csname c@#1\endcsname}
2 \def\@foo#1{do something with #1 (where #1 is a count)}
```

This means in order to get a new counter representation command you actually need to define *two* macros

CNLTX-BASE defines an interface that allows to define both commands at once without having to think about \expandafter, associated counts, internal command names and so on. The only thing left to do is choosing a name for the counter representation and providing a valid definition of what should happen with the (integer) value of the counter.

New Commands

```
\DeclareCounterRepresentation{\langle command \rangle}{\langle definition \rangle}
```

Declares a new counter representation command and its internal equivalent. In the $\langle definition \rangle$ #1 is used to refer to the counter *number*, that is, the value of \colongle Counter. This command will silently overwrite any existing definition.

```
\newcounterrepresentation{\langle command \rangle}{\langle definition \rangle}
```

Defines a new counter representation command and its internal equivalent. In the $\langle definition \rangle$ #1 is used to refer to the counter *number*, that is, the value of \colongle Counter. This command will issue an error if either the user command or the internal command (*cf.* \arabic and \@arabic) already exist.

$\providecounterrepresentation{\langle command \rangle} {\langle definition \rangle}$

Provides a new counter representation command and its internal equivalent. In the $\langle definition \rangle$ #1 is used to refer to the counter *number*, that is, the value of \colongle . This command will define the commands only if neither the user command nor the internal command (*cf.* \arabic and \colongle arabic) already exist and will do nothing if either of them exist.

```
\respective{\command} {\command} {\command} {\command} {\command}
```

Redefines an existing counter representation command and its internal equivalent. In the $\langle definition \rangle$ #1 is used to refer to the counter *number*, that is, the value of \colongle Counter. This command will issue an error if neither the user command nor the internal command (*cf.* \arabic and \@arabic) already exist.

Let's take a look at what is actually defined by these commands:

```
1 \makeatletter\ttfamily
2 before:\par
3 \meaning\arabic\par
4 \meaning\@arabic
5
6 \renewcounterrepresentation\arabic{\the\numexpr#1\relax}%
7 after:\par
8 \meaning\arabic\par
9 \meaning\@arabic

before:
macro:#1->\expandafter \@arabic \csname c@#1\endcsname
macro:#1->\number #1
after:
macro:#1->\expandafter \@arabic \csname c@#1\endcsname
macro:#1->\the \numexpr #1\relax
```

As you can see nothing bad happens. The commands are only a convenient interface. Let's take a look at some more realistic examples. The above redefinition was only a demonstration. For example you may want to have a representation which calculates the displayed value from the counter value?

```
1 \newcounterrepresentation\minusone{\the\numexpr#1-1\relax}%
2 \newcounterrepresentation\multoffourrm{\romannumeral\numexpr(4*#1)-4\relax}%
3 % \newrobustcmd is provided by the 'etoolbox' package
4 \newrobustcmd*\circlenumber[1]{%
5 \tikz[baseline]\node[anchor=base,draw,shape=circle]{\number#1};}%
6 \newcounterrepresentation\circled{\circlenumber{#1}}%
7 \makeatletter
8 \newcounterrepresentation\twodigits{\two@digits{#1}}%
```

8.7.3. Expandable Document Commands

The commands presented in this section are highly experimental. *Use them* only *if you really have to!*

```
\verb|\newexpandablecmd*|  \langle cs \rangle | [\langle num\ args \rangle] | [\langle default\ opt \rangle] |  \langle definition \rangle |
```

Introduced in version 0.7

This command has the same syntax as \newcommand. The difference is that if $\langle cs \rangle$ is defined with an optional argument it is still fully expandable. This comes with a cost: in order to still being able to check for the optional argument it needs to see a following token as argument. If it is used without optional argument and has no mandatory arguments it may be necessary to add a trailing \empty or something. There's another drawback: a command \test thus defined cannot distinguish between \test[] and \test{[}] and will misinterpret the second as a present optional argument.

My recommendation is to never use this for defining a user command.²⁰ Use it in code you can control and only if you have to.

If you define a command without optional argument this command falls back to \newcommand.

```
\rcent{renewexpandablecmd} {\cos}[\langle num\ args\rangle][\langle default\ opt\rangle]{\coserved}
```

The equivalent of \renewcommand. See description of \newexpandablecmd for further details.

```
\provideexpandablecmd*{\langle cs \rangle}[\langle num\ args \rangle][\langle default\ opt \rangle]{\langle definition \rangle}
```

Introduced in version 0.7

Introduced in version 0.7

The equivalent of \providecommand. See description of \newexpandablecmd for further details.

8.8. Additional Functionality Provided by CNLTX-TOOLS

8.8.1. Commands for Defining Different Document Macros

The **CNLTX-TOOLS** package defines some additional macros which provide useful functionality also in contexts *not* documenting a LATEX package.

^{20.} I can see the contradiction here: if a command is no user command there is no need for an optional argument.

```
\newname{\langle cs \rangle} {\langle first \ name \rangle} {\langle second \ name \rangle}
```

Defines $\langle cs \rangle$ to write out the full name and add an index entry sorted by the last name. Also defines a starred variant of $\langle cs \rangle$ that only writes the last name but still adds the full index entry.

```
\color{order} {cnltxacronym} {pdf and sort string} {(acronym)}
```

Typesets $\langle acronym \rangle$ with small caps and uses $\langle pdf \ and \ sort \ string \rangle$ as PDF string and for sorting the index entry that is added. This command was used to define \lnpl and \ctan. This is not intended as a replacement for packages like acro [Nie13a] or glossaries [Tal13]! In fact it is a "poor man's" solution that allows me not to require one of those packages.

```
\newabbr*{\langle control sequence \rangle} {\langle definition \rangle}
```

Defines the abbreviation $\langle control\ sequence \rangle$ with the definition $\langle definition \rangle$. The star argument prevents that a dot is added at the end of the definition. An error is raised if $\langle control\ sequence \rangle$ already exists.

Redefines the abbreviation $\langle control\ sequence \rangle$ with the definition $\langle definition \rangle$. The star argument prevents that a dot is added at the end of the definition. An error is raised if $\langle control\ sequence \rangle$ does not exist already.

```
\defabbr*{\langle control sequence \rangle}{\langle definition \rangle}
```

Defines or overwrites the abbreviation $\langle control\ sequence \rangle$ with the definition $\langle definition \rangle$. The star argument prevents that a dot is added at the end of the definition.

Used in some predefined abbreviations.

Used in some localization strings.

```
acronym-format = \{\langle definition \rangle\}
```

Formatting of the acronyms as typeset with \cnltxacronym.

Default: \textsc{\,#1}

Default: \textit{#1}

Default: \scshape

A short example of the usage of \newname and \cnltxacronym:

```
1 \newname\carlisle{David}{Carlisle}%
2 \carlisle\ is a well-known member of the \LaTeX\ community. \carlisle* is
3 the author of many packages such as \pkg*{longtable}. Take a look in the
4 index where you'll find \carlisle* mentioned.

5
6 \lppl\ is defined as \cnltxacronym{LPPL}{lppl}.
```

David Carlisle is a well-known member of the LATEX community. Carlisle is the author of many packages such as longtable. Take a look in the index where you'll find Carlisle

```
mentioned.

LPPL is defined as LPPL.
```

8.8.2. Defining Abbreviations

In section 8.8.1 when describing \newabbr and similar commands I said "The star argument prevents that a dot is added at the end of the definition". We should clarify what that means. Many abbreviations end with a dot. Some don't which explains the starred form of the commands. But why add a dot automatically in the first place? The reasoning is two-fold:

- Suppose you add the dot explicitly in the definition but forget one or two times that you did you'll end up with abbreviations followed by *two* dots! Macros defined with CNLTX-TOOLS recognize a following dot and will not print a second one in those cases.
- In a document where \nonfrenchspacing is active the space after a dot in the middle of a sentence should be shorter than the one after the full stop ending a sentence. TeX automatically interprets a dot following a small letter as the end of a sentence and a dot after a capital letter as a dot after an abbreviation inside of a sentence. Usually you solve this by adding \@ in the appropriate places: e.\,g.\@ for a intra-sentence space and NASA\@. for a inter-sentence space. The dot added by CNLTX-TOOLS always will be followed by a intra-sentence space. If you add a dot explicitly it will be your responsibility. Per default it will then act like a dot after a small letter.

Let's see some example:

```
1 \ttfamily% <= this will amplify the visual effect of \nonfrenchspacing
2 \newabbr\ab{a.b}%
3 \newabbr\AB{A.B}%
4 \newabbr*\cd{cd}%
5 \ab\ and some words\par
6 \ab. and some words\par
7 \AB\ and some words\par
8 \AB. and some words
9 \cd\ and some words</pre>
A.B. and some words
6 and some words
7 \AB\ and some words\par
8 \AB. and some words
Cd\ and some words
```

Beware: CNLTX-TOOLS will only leave the dot out if one follows directly in the input! That means that spaces are not ignored. However, of course TeX ignores spaces after macro names so usually this won't be an issue. If you define an abbreviation with a macro name consisting of one non-letter where spaces are not ignored you have to keep this fact in mind, though.

8.8.3. Predefined Abbreviations

CNLTX-TOOLS already provides a bunch of abbreviations defined with its \newabbr command.

Abbreviations that allow Localization

CNLTX-TOOLS defines a few abbreviations that are sensitive to babel settings. Currently only translations for English and German are provided and the definition falls back to the English

version if you're using a language other than those. It is possible to add further localization strings quite easily, see section 14.

```
\ie Prints "i. e." or "d. h."
\eg
Prints "e. g." or "z. B."
\etc
Prints "etc." or "etc."
\cf
Prints "cf." or "vgl."
```

All of these macros add a final dot followed by \@ except if a dot *directly* follows the macro.

```
1 \eg\ and some following text\par
2 \eg, and some following text\par
3 \eg. and some following text\par
4 \selectlanguage{ngerman}
5 \eg\ and some following text\par
6 \eg, and some following text\par
7 \eg. and some following text

e. g. and some following text
2. B. and some following text
2. B., and some following text
2. B., and some following text
2. B. and some following text
3. B. and some following text
4. Selectlanguage{ngerman}
5 \eg\ and some following text
5. B. and some following text
6. S. and some following text
7. S. and some following text
8. S. and some following text
8. S. and some following text
9. S. and some following t
```

German Abbreviations

The following abbreviations are not sensitive to localization are and only of use in a German text. Although they're defined: *please* do not use abbreviations at the start of a sentence!

```
\dsh
Prints "d. h."

\Dsh
Prints "D. h."

\usf
Prints "usf."

\usw
Prints "usw."

\uswusf
Prints "usw. usf."

\zB
Prints "z. B."
```

```
\ZB
Prints "Z. B."
\vgl
Prints "vgl."
\Vgl
Prints "Vgl."
```

These macros behave the same as the ones described in section 8.8.3 on page 30.

```
d. h. und weiterer Text
1 \dsh\ und weiterer Text\par
                                            d. h. und weiterer Text
2 \dsh. und weiterer Text\par
                                            usw. und weiterer Text
3 \usw\ und weiterer Text\par
                                            usw. und weiterer Text
4 \usw. und weiterer Text\par
                                            usf. und weiterer Text
5 \usf\ und weiterer Text\par
6 \usf. und weiterer Text\par
                                            usf. und weiterer Text
7 \zB\ und weiterer Text\par
                                            z. B. und weiterer Text
8 \zB. und weiterer Text
                                            z. B. und weiterer Text
```

Time related Abbreviations

The abbreviations presented in this section differ from the others in that they're formatted by the command \cnltxtimeformat{}, see section 8.8.1 on page 28.

```
AM
Prints "A.M."

PM
Prints "P.M."

AD
Prints "A.D."

BC
Prints "B.C."
```

In their current definition these abbreviations are meant to be used *directly* after the time of day or the date, respectively.

```
She left for work before 6\AM, but did not arrive until 12\PM. The arrive until 12 P.M. The interval 5 B.C.— 5 A.D. is one year shorter than the interval 95 A.D.—105 A.D.

She left for work before 6 A.M., but did not arrive until 12 P.M. The interval 5 B.C.— 5 A.D. is one year shorter than the interval 95 A.D.—105 A.D.
```

9. Formatting Possibilities

One of the goals I wanted to achieve with this package is a consistent look and an easy interface for customization. No font choice and no color choice is fixed. In this section ways to change the formatting are shown.

The formatting of the different commands provided by CNLTX and various other properties can be changed in two ways: either by redefining the internal commands that are used for the formatting or by setting a corresponding option. Both variants are described in the next subsections.

How the colors should be changed is described in section 13 on page 46.

9.1. Formatting by Redefining Hooks

You can change the formatting by redefining the following commands. They're all defined by the CNLTX-EXAMPLE package except where indicated differently.

\codefont Default: \ttfamily

This command is used for all formatting of source code.

\sourceformat Default: \codefont\small

Formatting of the listings.

\exampleformat (initially empty)

Special formatting of the output of a listing.

Formatting of the notes introduced in section 6.2 on page 8.

\packageformat Default: \sffamily

The formatting of package names.

\classformat Default: \sffamily

The formatting of class names.

\argumentformat Default: \normalfont\itshape

The formatting of $\mbox{meta}\{\langle meta\rangle\}$.

```
1 \renewcommand*\codefont{\sffamily\bfseries}
```

2 \code{foo} and \cs*{bar}, option \option{baz}

foo and \bar, option baz

33

provided by CNLTX-DOC

9.2. Formatting by Setting Options

 $title-format = \{\langle definition \rangle\}$

You can change the formatting of by setting the following options. They're all defined by the **CNLTX-EXAMPLE** package except where indicated differently.

Default: \bfseries\scshape

```
Formatting of the document title.
Introduced in
version 0.2
               abstract-width = \{\langle dimension \rangle\}
                                                                                                Default: .75\linewidth
                  The width of the \parbox the abstract as set with the abstract option is placed in.
Introduced in
version o.6
               abstract-format = \{\langle definition \rangle\}
                                                                Default: \setlength\parskip{.333\baselineskip}
                  Code that is placed in the parbox the abstract is placed in before the abstract text.
Introduced in
version o.6
               caption-font = \{\langle definition \rangle\}
                                                                              Default: \normalfont\small\sffamily
                  This option only has any effect if you use the option load-preamble, see section 10.5 on page 38
                  for details on the option.
               caption-label-font = \{\langle definition \rangle\}
                                                                   Default: \normalfont\small\sffamily\scshape
                  This option only has any effect if you use the option load-preamble, see section 10.5 on page 38
                  for details on the option.
               code-font = \{\langle definition \rangle\}
                                                                                                     Default: \ttfamily
                  Used for all formatting of source code.
               source-format = \{\langle definition \rangle\}
                                                                                             Default: \codefont\small
                  Formatting of the listings.
               expl-format = \{\langle definition \rangle\}
                                                                                                         (initially empty)
                  Special formatting of the output of a listing.
               module-sep = \{\langle definition \rangle\}
                                                                                                         Default: \,>>\,
                  Change the separator between module name and corresponding option name.
provided by
CNLTX-DOC
               version-note-format = \{\langle definition \rangle\}
                                                                   Default: \footnotesize\sffamily\RaggedRight
                  Formatting of the notes introduced in section 6.2 on page 8.
provided by
CNLTX-DOC
               pkg-format = \{\langle definition \rangle\}
                                                                                                     Default: \sffamily
                  The formatting of package names.
               cls-format = \{\langle definition \rangle\}
                                                                                                     Default: \sffamily
                  The formatting of class names.
               arg-format = \{\langle definition \rangle\}
                                                                                        Default: \normalfont\itshape
                  The formatting of \mbox{meta}\{\langle meta\rangle\}.
               default-format = \{\langle code \rangle\}
                                                                                                         Default: \uline
                  The formatting of \default's argument. \langle code \rangle's last macro should take one argument.
Introduced in
version 0.2
```

```
1 \setcnltx{code-font=\sffamily\itshape}
2 \code{foo} and \cs*{bar}, option \option{baz}

foo and \bar, option baz
```

10. Commands, Options and Further Settings Directly Related to the CNLTX-Doc Class

10.1. Using Class Options

The **CNLTX-DOC** class only knows a few options:

```
load-preamble = \underline{true} | false
Default: false
```

See section 10.5 on page 38 for details.

```
load-preamble+ = \underline{true}|false  Default: false
```

See section 10.6 on page 39 for details.

```
add-index = \underline{true} | false Default: false
```

See section 10.6 on page 39 for details.

```
babel-options = {\langle options \rangle} Default: english
```

Options given to the babel²¹ package. This option only has an effect if load-preamble = true.

```
scrartcl = \{\langle options \rangle\}\ (initially empty)
```

Options that are passed to the underlying class scrartcl. *All global options you want to use should be given here.*

10.2. Information on the Described Package or Class

A manual for a package or a class needs some information on the described package like the package name, the version number, the date and so on. This information is given with the following options. They are used to build the title page of the manual.

```
package = \{\langle package \rangle\}
```

The name of the package that is described. Either this option or class or name should always be given. This command also defines a command sequence from the package name that formats the package name with color and small caps like CNLTX.

```
class = \{\langle class \rangle\}
```

The name of the class that is described. Either this option or package or name should always be given. This command also defines a command sequence from the class name that formats the class name with color and small caps like CNLTX.

^{21.} on CTAN as babel: http://mirrors.ctan.org/macros/latex/required/babel/

```
name = \{\langle name \rangle\}
```

The name of the class/package that is described. Either this option or package or class should always be given. This command also defines a command sequence from the class name that formats the class name with color and small caps like CNLTX.

```
authors = \{\langle author \ list \rangle\}
```

Changed in version 0.4

Comma separated list of package/class authors. After each author name you can add an email address by writing it in square brackets: Some Name[some@name.com]. Email addresses specified this way get written as a footnote. At least one author should always be given.

```
version = \{\langle version \ number \rangle\}
```

Version number of the package/class. CNLTX tries to extract the information from the given package or class. This option can be used to set it explicitly.

```
date = \{\langle date \rangle\}
```

Date of the package/class. CNLTX tries to extract the information from the given package or class. This option can be used to set it explicitly.

```
info = {\langle package/class info \rangle}
```

Information about the package/class. CNLTX tries to extract the information from the given package or class. This option can be used to set it explicitly.

```
subtitle = \{\langle subtitle \rangle\}
```

A subtitle, printed below the package/class name.

```
url = \{\langle url \rangle\}
```

The homepage of the package.

```
email = \{\langle email \rangle\}
```

A contact email address.

```
abstract = \{\langle abstract \rangle\}
```

An abstract of the package/class/manual. This is text typeset in a box of .75\linewidth. Actually it does not have to be text but could be an image or whatever you like.

10.3. Building of the Manuals Title Page

If either the package or class has been given an automatic title page is built using the gathered information. Figure 1 on the next page roughly sketches which informations is used and how the different elements are arranged on the title page. The page style of the title page is plain. Additionally a table of contents is automatically built that is set in two columns. The automatic building of the title page can be prevented by explicitly setting the following option:

```
build-title = true|false
```

The default state depends on other options given like package. However, setting this option to false *after* any of the options described in section 10.2 on the preceding page will prevent the building of a title page and allows you to design your own.

package name formatted with \titleformat and scaled to 1.5 of its size

subtitle

version date

package information

author names (formatted according to specifications for names as defined with \newname)

url when specified via the url option

email address when specified via the email option

abstract when specified via the abstract option

FIGURE 1: Schematic sketch of the title page.

10.4. A Quotation Environment

Introduced in version 0.5

CNLTX-DOC provides a quotation environment:

\begin{cnltxquote} [$\langle author/reference \rangle$]
A quotation environment.

The environment sets the body indented on both sides as it simply uses a quote environment internally. The contents of the optional argument is set flush right after the environment's body. The formatting is controlled by two options:

```
begin{cnltxquote}[Douglas Adams, The Restaurant at the End of the Universe]
''The first ten million years were the worst,'' said Marvin, ''and the
second ten million years, they were the worst too. The third ten million
years I didn't enjoy at all. After that I went into a bit of a decline.''
tend{cnltxquote}
```

"The first ten million years were the worst," said Marvin, "and the second ten million years, they were the worst too. The third ten million years I didn't enjoy at all. After that I went into a bit of a decline."

Douglas Adams, The Restaurant at the End of the Universe

10.5. Predefined Preamble

It is possible to load a part of my standard preamble automatically by passing an option as class option.

load-preamble

Class option that preloads part of my custom preamble.

Using the option will include the following code:

```
1 \RequirePackage{ifxetex,ifluatex}
2 \ifboolexpr{not bool{xetex} and not bool{luatex}}
3 {\RequirePackage[T1]{fontenc}}
    {\RequirePackage{fontspec}}
5 \RequirePackage[oldstyle]{libertine}
6% 'libertinehologopatch' is not on CTAN, yet!
7 % you can get it at https://bitbucket.org/cgnieder/libertinehologopatch/
8 \RequirePackage{libertinehologopatch}
9 \RequirePackage[supstfm=libertinesups]{superiors}
10 % libertine does not have superior letters:
11 \def\@makefnmark{%
    \hbox{%
      \cnltx@ifisnum{\@thefnmark}
        {\textsu{\hspace*{\superiors@spaced}\@thefnmark}}
        {\@textsuperscript{\normalfont\@thefnmark}}%
15
    }%
16
17 }
18 \RequirePackage{microtype}
19 \ifboolexpr
   {
      test {\ifcsdef{MT@pr@set@@romansans}} and
      test {\ifcsdef{MT@ex@set@@romansans}}
22
    }
23
    {}
24
    {
25
      \DeclareMicrotypeSet{romansans}{
26
        encoding = \{*\},
27
        family = {rm*,sf*}
      }
31 \ifcsdef{MT@tr@set@@scshape}
    {}
    {
33
```

```
\DeclareMicrotypeSet[tracking]{scshape}{
        encoding = \{*\} ,
35
        shape = {sc, scit, si}
36
    }
38
39 \microtypesetup{
    tracking
             = scshape ,
    protrusion = romansans ,
    expansion = romansans
42
43 }
{\RequirePackage[scaled=.79]{beramono}}
    {\setmonofont[Scale=MatchLowercase]{Bitstream Vera Sans Mono}}
47 \RequirePackage{fnpct}
48 \expandafter\RequirePackage\expandafter[\cnltx@babel@options]{babel}
49 \renewcommand*\othersectionlevelsformat[3]{%
    \textcolor{cnltx}{#3\autodot}\enskip}
51 \renewcommand*\partformat{%
    \textcolor{cnltx}{\partname~\thepart\autodot}}
_{53} \deffootnote{2em}{1em}{\lap{\thefootnotemark. }}\%
54 \pagestyle{headings}
55 \setcapindent{1.5em}
56 \setkomafont{caption}{\cnltx@caption@font}
57 \setkomafont{captionlabel}{\cnltx@captionlabel@font}
```

The effect of this preamble is demonstrated by the document you're reading at this moment.

10.6. Predefined Indexing

CNLTX-DOC allows the automated creation of an index. This is done with the help of the imakeidx package by Enrico Gregorio [Gre13]. To use this feature you have two class options. They cannot be set with \setcnltx but must be given as class options.

```
add-index = true|false
```

Default: false

Enables the automatic creation of an index at the end of the document.

```
load-preamble+ = true|false
```

Default: false

This option has the same effect as adding the options load-preamble, add-index and add-bib.

Enabling the feature

- loads the imakeidx²² package,
- uses a given style file for the index that can be specified with the index-style option,
- sets a certain setup for the index that can be specified with the index-setup option and

^{22.} on CTAN as imakeidx: http://mirrors.ctan.org/macros/latex/contrib/imakeidx/

• adds an index at the end of the document.

The following options are available to customize the appearance of the index:

```
index-prologue = \{\langle text \rangle\}
```

Adds $\langle text \rangle$ as index prologue between heading and the actual index.

```
index-space = \{\langle dimension \rangle\}
```

Default: 0pt

The vertical space between index prologue and index.

```
index-setup = {\langle options \rangle}
```

Default: othercode=\footnotesize,level=\addsec

The options that are passed to imakeidx's \indexsetup command.

```
makeindex-setup = \{\langle options \rangle\}
```

Default: columns=2, columnsep=1em

The options that are passed to the \makeindex command.

```
index-style = {\langle style file \rangle}
```

Default: cnltx.ist

The style file that is used for formatting the index.

The index style file cnltx.ist contains the following lines:

```
heading_prefix "{\\bfseries "
heading_suffix "\\hfil}\\nopagebreak\n"
headings_flag 1
delim_0 "\\dotfill"
delim_1 "\\dotfill"
delim_2 "\\dotfill"
delim_r "\\nohyperpage{\\textendash}"
delim_t "
suffix_2p "\\nohyperpage{\\,\\GetTranslation{cnltx-f.}\\@}"
suffix_3p "\\nohyperpage{\\,\\GetTranslation{cnltx-ff.}\\@}"
```

The feature is demonstrated by this document which does not contain a single control sequence containing the string index!

10.7. Bibliography with biblatex

10.7.1. Bibliography Entry Types package, class and bundle for biblatex

Introduced in version 0.4

CNLTX-DOC defines the bibliograpy entry types package, class and bundle when biblatex [Leh13] is used. This allows specifying LATEX packages in bib files:

```
url
              = {http://mirror.ctan.org/macros/latex/contrib/chngcntr/}
8 }
9 @class{cls:exam,
   title
            = {exam},
             = {Philip Hirschhorn},
   author
           = \{2011-05-22\},
    date
   version = \{2.4\},
   url
            = {http://mirror.ctan.org/macros/latex/contrib/exam/}
15 }
16 @bundle{bnd:koma-script,
   title = {\KOMAScript},
18 sorttitle
                = {KOMA-Script} ,
   indextitle = {\KOMAScript} ,
   indexsorttitle = {KOMA-Script} ,
   author = {Markus Kohm and Frank Neukahm},
   date = \{2012-07-29\},\ version = \{3.11b\},
23
                  = {http://mirror.ctan.org/macros/latex/contrib/koma-script/}
    url
24
25 }
```

As you can see also an entry field maintainer is defined. For this to work you have to use the biblatex bibliography style cnltx. This style basically is a clone of the style alphabetic but defines the necessary additions for the package, class and bundle entry types and the maintainer entry field.

Along with the bibliography style a citation style cnltx is provided, again a clone of the alphabetic style. The only addition it makes is that indexing of maintainer names is enabled if biblatex's indexing option is used. The styles load CNLTX-EXAMPLE as it relies on definitions made by it.

This document uses the following call of biblatex:

```
1 \usepackage[
2 backend=biber,
3 style=cnltx,
4 sortlocale=en_EN,
5 indexing=cite,
6 useprefix]{biblatex}
7 \addbibresource{cnltx.bib}
```

Actually it let's CNLTX-DOC do it, see section 10.7.2 for details.

Just for the sake of the example I am going to cite the chngcntr package now [Wilo9] so you can see both the bibliography entry and the indexed names of package, author and maintainer in the appendix.

10.7.2. Automatic Bibliography

CNLTX-DOC allows the automated creation of a bibliography.

```
add-bib = true|false Default: false
```

Enables the automatic creation of a bibliography at the end of the document.

```
load-preamble+ = true | false Default: false
```

This option has the same effect as adding the options load-preamble, add-index and add-bib.

What this options does is including the following code:

```
1 \RequirePackage[
2 backend=biber,
3 style=cnltx,
4 sortlocale=en_EN,
5 indexing=cite,
6 useprefix]{biblatex}
7 \addbibresource{cnltx.bib}
8 \AtEndDocument{\printbibliography}
```

As you can see there's also a bibliography database file cnltx.bib that provides a yet small but growing number of package entries.

11. Predefined listings and mdframed Styles

11.1. mdframed

The source code environments (see section 8.4 on page 16) all get a frame with the help of the mdframed [Dan13] package. For this a custom style is defined called cnltx. The options frame-options and add-frame-options mentioned in section 8.4 on page 16 manipulate this style. It is predefined with these values:

```
1 \def\cnltx@mdframed@options{
2 backgroundcolor = cnltxbg ,
3 linecolor = cnltx ,
4 roundcorner = 5pt
5 }
```

11.2. listings

11.2.1. LATEX Sourcecode

The code of the source code environments (see section 8.4 on page 16) is formatted with the help of the listings package [HM13]. A listings style is defined called cnltx. The options add-cmds, add-silent-cmds, add-envs, add-silent-envs, listings-options and add-listings-options manipulate this style. It is predefined by CNLTX-EXAMPLE as follows:

```
1 \def\cnltx@listings@style{
    language
                = [AlLaTeX]TeX,
    alsolanguage = [plain]TeX,
    basicstyle = {\sourceformat},
                   = left,
    numbers
    numberstyle
                   = \tiny,
                     = 1em,
    xleftmargin
    numbersep
                     = .75em,
    gobble
                     = \cnltx@gobble ,
                    = fullflexible,
    columns
    literate
     {ä}{{\"a}}1
12
     {ö}{{\"o}}1
      \{\ddot{u}\}\{\{\"u\}\}\}1
14
      {Ä}{{\"A}}1
15
     {Ö}{{\"0}}1
16
     {Ü}{{\"U}}}1
     \{B\}\{\{\setminus ss\}\}\}1 ,
   breaklines
                     = true,
19
    keepspaces
                    = true,
                    = 1em,
    breakindent
    commentstyle
                     = \color{comment},
    keywordstyle
                     = \color{cs},
23
    deletetexcs
     {
        a,o,u,A,O,U,
        begin,
27
        center,
28
        description, document,
29
        end, enumerate,
30
        figure, flushleft, flushright,
31
        itemize, list,
32
        otherlanguage,
33
        table,tabu,tabular
34
      },
35
    deletekeywords
36
37
        a,o,u,A,0,U,
38
        begin,
39
        center,
        description, document,
41
        end, enumerate,
42
        figure, flushleft, flushright,
43
        itemize, list,
44
        otherlanguage,
45
        table,tabu,tabular
46
      },
47
```

11. Predefined listings and mdframed Styles

```
% \begin, \end:
   texcsstyle = [2]\color{beginend},
49
   index
indexstyle = [2][texcs2],
indexstyle = [2]\@gobble,
moretexcs = [2]{begin,end},
50
    % added environments that'll be indexed:
_{54} texcsstyle = [3]\color{env},
_{55} index = [3][texcs3], _{56} indexstyle = [3]\envidx,
55 index
% environments that won't be indexed:
texcsstyle = [4] \color{env},
59 index
                   = [4][texcs4],
   indexstyle = [4]\@gobble,
   % control sequences that'll be indexed:
texcsstyle = [5] \color{cs},
63 index
                   = [5][texcs5],
indexstyle = [5]\indexcs,
   % control sequences that won't be indexed:
texcsstyle = [6] \color{cs},
                   = [6][texcs6],
    index
   index = [6][texcs6]
indexstyle = [6]\@gobble
69 }
```

11.2.2. BIBTEX Entries

Introduced in version 0.4

The CNLTX-LISTINGS package defines a listings language BibTeX that contains a huge number of bibentry types and bibentry field types, have a look at section 10.7.1 on page 40. CNLTX-EXAMPLE defines a listings style for formatting them called cnltx-bibtex:

```
1 \def\cnltx@bibtex@listings@style{
language = BiBTeX,
3 basicstyle
                   = {\sourceformat},
4 numbers
                  = left,
                 = \tiny,
5 numberstyle
   xleftmargin
                 = 1em,
   numbersep
                  = .5em,
   gobble
                  = \cnltx@gobble ,
   columns
                  = fullflexible,
   literate
   {ä}{{\"a}}1
11
    {ö}{{\"o}}1
12
    {ü}{{\"u}}1
    {Ä}{{\"A}}1
    {Ö}{{\"0}}1
15
    {Ü}{{\"U}}}1
16
    \{\mathcal{B}\}\{\{\setminus ss\}\}\}1,
17
   breaklines
                   = true,
```

```
loop keepspaces = true,
loop breakindent = lem,
loop commentstyle = \color{comment},
loop keywordstyle = \color{bibentry},
loop keywordstyle = \color{bibentry},
loop keywordstyle = \color{bibentry},
loop keywordstyle = [2]\color{bibentryfield}\itshape,
loop keepspaces = lem,
loop keepspaces =
```

11.2.3. makeindex Style Files

Introduced in version 0.7

CNLTX-LISTINGS defines a listings language makeindex that contains the keywords used in makeindex style files. CNLTX-EXAMPLE defines a listings style for formatting them called cnltx-makeindex:

```
1 \def\cnltx@makeindex@listings@style{
   language = makeindex,
                     = {\sourceformat},
   numberstyle = \tiny,
xleftmargin = lem,
numbersep = .75em,
    gobble
                     = \cnltx@gobble ,
               = fullflexible,
-
    columns
    literate
    {ä}{{\"a}}1
      {ö}{{\"o}}1
12
   {ü}{{\"u}}1
   {Ä}{{\"A}}1
   {Ö}{{\"0}}1
     {Ü}{{\"U}}}1
16
      \{\beta\}\{\{\setminus ss\}\}\}1 ,
18 breaklines
                       = true,
   keepspaces = true,
breakindent = lem,
commentstyle = \color{comment},
   keywordstyle = \color{makeidxkey}\bfseries ,
stringstyle = \color{makeidxstring} ,
23
    showstringspaces = false
24
25 }
```

12. PDF Strings and hyperref

Since the formatting and indexing commands \cs, \env, \option, \pkg, \cls and \key are robust they are ignored in PDF strings. For this reason you should *only use the starred variants* in places where PDF bookmarks are built from such as section titles when you use hyperref [OR12].

Since CNLTX-DOC loads hyperref this means you should do so, too, when you use CNLTX-DOC. This is important for two reasons:

- 1. Indexing in strings that get written to the table of contents does noch make much sense, anyway, so the starred versions should be used in section titles even if you don't use hyperref.
- 2. When hyperref is loaded the mentioned commands are disabled in PDF strings in a way that *expects* them to be followed by a star. This means leaving the star out will result in doesn't match its definition errors.

13. Predefined Colors and Color-Schemes

13.1. Explicitly Defined Colors

The **CNLTX-BASE** package defines a number of colors:

cnltxbrown

Per default used for the control sequences.

cnltxblue

Per default used for module names.

cnltxred

Per default used as base color in various places.

cnltxgreen

Unused per default.

cnltxgray

Per default used for formatting comments.

cnltxyellow

Per default used for option names.

cnltxformalblue

Unused per default.

cnltxformalred

Unused per default.

13.2. Actual Used Color Names and Color Schemes

The colors defined in section 13.1 are not directly used with those names. Instead colors are used whose names describe their function rather than the color. For this the color names are mapped to actual colors and saved as a coloring scheme. There are currently three predefined color schemes whose definitions are given below. Those definitions also show the actually used color names. They are defined via the following command:

 $\definecolorscheme{\langle name \rangle} {\langle color assignments \rangle}$

Introduced in version 0.5

Defines the color scheme $\langle name \rangle$. When used all assignments will be actually carried out with xcolor's \colorlet command. How to input $\langle color \ assignments \rangle$ will be immediately clear from the examples below.

The 'default' color scheme is defined as follows:

```
1 \definecolorscheme{default}{
              => cnltxbrown , % command sequences
              => cnltxyellow ,% options
   option
   module
              => cnltxblue , % modules
              => cnltxgray , % comments
   comment
   beginend
              => red ,
                             % \begin and \end
                             % environment names
   env
                => black ,
              => black ,
                            % argument delimiters
   argument
               => black!80 , % arguments of \meta
   meta
   cnltx
              => cnltxred , % base color
             => white ,
   cnltxbg
                             % source code box background
              => black!90 , % hyperlinks
   versionnote => black!75
                             % versioning notes text
               => cnltxgreen , % BibTeX entry types
   bibentry
   bibentryfield => black,
                              % BibTeX entry fields
                             % the color used in \expandable
   expandable => red ,
   unexpandable => black ,
                             % the color used in \unexpandable
   makeidxkey => cnltxgreen , % used for keywords in the cnltx-makeindex
                               % style
   makeidxstring => black
                               % used for strings in the cnltx-makeindex
20
                               % style
21
22 }
```

The 'blue' color scheme is defined this way:

```
1 \definecolorscheme{blue}{
              => cnltxbrown ,
  option
              => cnltxgreen ,
   module
              => cnltxred ,
              => cnltxgray ,
  comment
              => red ,
   beginend
               => black ,
   env
              => black ,
   argument
   meta
               => black!80 ,
              => cnltxblue ,
  cnltx
  cnltxbg
              => yellow!10 ,
               => cnltx ,
   versionnote => black!75
   bibentry
               => cnltxyellow ,
   bibentryfield => black ,
```

```
16 expandable => red ,
17 unexpandable => black ,
18 makeidxkey => cnltxyellow ,
19 makeidxstring => black
20 }
```

Finally the 'formal' color scheme is defined like this:

```
1 \definecolorscheme{formal}{
     option => cnltxformalblue,
module => cnltxblue,
comment => cnltxgray,
beginend => red,
env => contack,
contack,
cnltxformalblue,
cnltxblue,
contack,
cnltxformalblue,
                 => black ,
      CS
     env => black,
argument => black,
meta => black!80,
cnltx => cnltxformalblue,
cnltxbg => white,
link => black!90,
11
     versionnote => black!75 ,
     bibentry
                           => black ,
     bibentryfield => black ,
     expandable => red ,
     unexpandable => black ,
     makeidxkey => black ,
     makeidxstring => black
19
20 }
```

14. Language Support

Introduced in version 0.2

The CNLTX-DOC, the CNLTX-EXAMPLE and the CNLTX-TOOLS package all rely on the translations package [Nie13e] for providing some document language dependent strings. Currently only translations for English and German are provided. Others can be added and the existing ones changed with the following command provided by the translations package:

```
\DeclareTranslation{\langle language \rangle}{\langle keyword \rangle}{\langle translation \rangle}
Provide translations for the string identified by the ID \langle keyword \rangle.
```

The defined strings are listed in table 1 on the following page. They are used in indexing strings and in different parts of the document.

14. Language Support

Table 1: Overview over available internationalization key words.

Package/Class	key word	English version	German version
CNLTX-EXAMPLE	cnltx-package	package	Paket
CNLTX-EXAMPLE	cnltx-class	class	Klasse
CNLTX-EXAMPLE	cnltx-bundle	bundle	Bundle
CNLTX-EXAMPLE	cnltx-environment	environment	Umgebung
CNLTX-DOC	cnltx-default	Default	Voreinstellung
CNLTX-DOC	cnltx-empty	initially empty	zunächst leer
CNLTX-DOC	cnltx-required	required	erforderlich
CNLTX-DOC	cnltx-toc	Table of Contents	Inhaltsverzeichnis
CNLTX-DOC	cnltx-license	Permission is granted to copy, distribute and/or modify this software under the terms of the LATEX Project Public License (LPPL), version 1.3 or later (http://www.latex-project.org/lppl.txt). The software has the status	Es ist erlaubt, diese Software unter den Bedingungen der LATEX Project Public License (LPPL), Version 1.3 oder später, zu kopieren und zu verteilen (http://www.latex-project.org/lppl.txt). Sie hat den Status
CNLTX-DOC	cnltx-introduced	Introduced in version	Eingeführt in Version
CNLTX-DOC	cnltx-changed	Changed in version	Geändert in Version
CNLTX-DOC	cnltx-f.	f.	f.
CNLTX-DOC	cnltx-ff.	ff.	ff.
CNLTX-DOC	cnltx-maintainer	current maintainer	aktueller Maintainer
CNLTX-DOC	cnltx-maintainers	current maintainers	aktuelle Maintainer
CNLTX-TOOLS	cnltx-i.e.	i. e	d. h
CNLTX-TOOLS	cnltx-e.g.	e. g	z.B
CNLTX-TOOLS	cnltx-cf.	cf	vgl
CNLTX-TOOLS	cnltx-etc.	etc	etc

Part III.

Appendix

A. Internal Helper Commands

The commands in this section are only described for the sake of completeness. They are not meant to be used in a document. Expandable commands are marked with *.

A.1. Defined by CNLTX-BASE

Especially CNLTX-BASE defines some useful helper macros that are also used by the other packages and classes.

A.1.1. Related to the Bundle

* \cnltx@@date

The creation date of the current version of the bundle.

* \cnltx@@version

The version number of the bundle.

*\cnltx@@info

The short description of the bundle.

```
Introduced in version 0.7
```

\cnltx@create@bundle@message* $\{\langle module \rangle\}$ {Error|Warning|WarningNoLine|Info} Create suiting error and warning messaging commands for the module $\langle module \rangle$ of the CNLTX bundle. The starred version creates messages for a class the un-starred version messages for a

package.

```
\cnltx@base@error{\langle message \rangle}
Issue an error message using \
```

Issue an error message using \PackageError{cnltx-base}.

```
\coloredge{\coloredge} \coloredge{\coloredg
```

Issue a warning message using \PackageWarning{cnltx-base}.

```
\cnltx@base@warningnoline{\( message \)}
```

Issue a warning message using \PackageWarningNoLine{cnltx-base}.

```
\color{cnltx@base@info}{\langle message \rangle}
```

Issue a message using \PackageInfo{cnltx-base}.

```
\colorscheme{\langle name \rangle} {\langle scheme \ definition \rangle}
```

Command that can be used to define a color scheme.

A. Internal Helper Commands

A.1.2. Programming Tools

 $\cnltx@create@message*{\langle prefix\rangle}{\langle package/class\ name\rangle}{Error|Warning|WarningNoLine|Info}{\langle detailed\ error\ message\rangle}$

Changed in version 0.7

Create error and warning massaging commands \protect

 $\verb|\cnltx@create@generic@message*{| prefix|} {| package/class name|} {| Error| Warning | Warning NoLine| | Info|} |$

Introduced in version 0.7

Create error and warning massaging commands \protect

*\cnltx@par

Expands to \par. Sometimes you need to smuggle a \par in a short macro ...

* \iftest{ $\langle test \ directive \rangle$ }{ $\langle true \rangle$ }{ $\langle false \rangle$ }

Introduced in version 0.7

Checks if $\langle test \ directive \rangle$ is true and either places $\langle true \rangle$ or $\langle false \rangle$ in the input stream. $\langle test \ directive \rangle$ should be a TeX test like $\langle token1 \rangle \langle token2 \rangle$.

This is a command in the spirit of etoolbox's \ifbool that does the same for a boolean $\langle bool \rangle$ defined with \newif\if $\langle bool \rangle$ or \newbool{ $\langle bool \rangle$ }. It corresponds to etoolbox's test directive for its \ifboolexpr.

* $\nottest{\langle test \ directive \rangle}{\langle not \ true \rangle}{\langle not \ false \rangle}$

Introduced in version 0.7

Checks if $\langle test \ directive \rangle$ is not true and either places $\langle not \ true \rangle$ or $\langle not \ false \rangle$ in the input stream. Test directive should be a TeX test like \int token1 \langle \tau token2 \rangle.

This is a command in the spirit of etoolbox's \notbool that does the same for a boolean $\langle bool \rangle$ defined with \newif\if $\langle bool \rangle$ or \newbool{ $\langle bool \rangle$ }.

Introduced in version o.8

Tests if $\langle trailing\ token \rangle$ is any of those in $\langle list\ of\ tokens \rangle$ and either places $\langle true \rangle$ or $\langle false \rangle$ in the input stream without removing $\langle trailing\ token \rangle$.

A generic version of Lagran that checks if $\langle token \rangle$ follows if the input stream. If yes it is removed and $\langle true \rangle$ is placed in the input stream else $\langle false \rangle$.

 $\cnltx@ifdash{\langle true \rangle}{\langle false \rangle}$

A wrapper for \cnltx@ifsym{-}.

 $\cnltx@ifbang{\langle true \rangle} {\langle false \rangle}$

Introduced in version 0.3

A wrapper for \cnltx@ifsym{!}.

A. Internal Helper Commands

```
* \cnltx@ifisnum{\langle token \ list \rangle}{\langle true \rangle}{\langle false \rangle}
                                                     Checks if \langle token \ list \rangle is an integer zero or greater and leaves \langle true \rangle in the input stream if it is an
Introduced in
version o.6
                                                     ⟨false⟩ if it isn't.
                                         * \cnltx@ifshellescape{\langle true \rangle} \{\langle false \rangle}
                                                     Checks if shellescape is enabled. It returns true if pdftexcmds' \pdf@shellescape has the value
Introduced in
version 0.9
                                             \coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredge{\coloredg
                                                     This is a LATEX 2\varepsilon version of expl3's \exp_args:N\specs\. The command expands the arguments
Introduced in
version 0.7
                                                     of \( \control \) sequence \( \rightarrow \) according to \( \square \) specs \( \rightarrow \). In \( \square \) specs \( \rightarrow \)
                                                                    •N means unexpanded token,
                                                                   •n means unexpanded braced group,
                                                                   •c means braced group converted into a control sequence name,
                                                                   •o means braced group expanded once,
                                                                   •f means braced group expanded with \romannumeral, and
                                                                   •x means braced group expanded with \edef.
                                        * \cnltx@stripbs
                                                     A shortcut for \expandafter\@gobble\string.
                                             \cnltx@if@in{\langle tokenlist \rangle}{\langle search \rangle}{\langle true \rangle}{\langle false \rangle}
                                                     Places \langle true \rangle in the input stream if \langle search \rangle is found in \langle tokenlist \rangle and \langle false \rangle if it isn't.
                                             \colored{cs}{\langle cs\rangle}{\langle search\rangle}{\langle replace\rangle}
                                                     Replaces the first occurrence of \langle search \rangle in the first expansion of \langle cs \rangle with \langle replace \rangle.
                                             \color= \col
                                                     The same as \cnltx@replace@once but acts globally.
Introduced in
version 0.9
                                             \cnltx@replace@all{\langle cs \rangle}{\langle search \rangle}{\langle replace \rangle}
                                                     Replaces all occurences of \langle search \rangle in the first expansion of \langle cs \rangle with \langle replace \rangle.
                                             \cnltx@greplace@all{\langle cs \rangle}{\langle search \rangle}{\langle replace \rangle}
                                                     The same as \cnltx@replace@all but acts globally.
Introduced in
version o.9
                                             \colored{colored} \colored{cs}{\colored{cs}}{\colored{cs}}{\colored{csch}}
                                                     Removes the first occurrence of \langle search \rangle in the first expansion of \langle cs \rangle.
Introduced in
version o.3
                                             \coloredge{cs}{{\langle cs \rangle}}{{\langle search \rangle}}
                                                     The same as \cnltx@remove@once but acts globally.
Introduced in
version 0.9
                                             Removes all occurences of \langle search \rangle in the first expansion of \langle cs \rangle.
Introduced in
version 0.3
                                             The same as \cnltx@remove@all but acts globally.
Introduced in
version 0.9
```

A. Internal Helper Commands

\cnltxat

Robust command that typesets '@' with category code 11. An @ in command names confuses the indexing of the command names. Either one uses another symbol for makeindex's "actual" recognition and also tells idxcmds [Nie13d] about it or one uses \cnltxat in \cs and friends. For the sake of convenience you can define a command like \at that expands to it.²³ In order not to overwrite any such existing macro it is not defined by CNLTX-EXAMPLE. This document for example defines \def\at{\cnltxat}.

\cnltxletterat

An alias of \cnltxat.

\cnltxotherat

The same as \cnltxat but with a '@' with category code 12.

\cnltxbang

The same as \cnltxotherat except that it contains a '!'.

\cnltxequal

The same as \cnltxotherat except that it contains a '='.

A.2. Defined by CNLTX-DOC

```
\cnltx@doc@error{\langle message\rangle}
```

Issue an error message using \ClassError{cnltx-doc}.

Issue a warning message using \ClassWarning{cnltx-doc}.

$\coloredge{coloredge}$

Issue a warning message using \ClassWarningNoLine{cnltx-doc}.

$\coloredge{\coloredge}\coloredge{\coloredge}$

Issue a message using \ClassInfo{cnltx-doc}.

Extract the date, version and background information for a package or a class and defines \cnltx@package@date, \cnltx@package@version and \cnltx@package@info to contain the extracted data.

```
\colonergia \col
```

Command that is used for the versioning notes interally. Sets \reversemarginpar and then writes the note $\langle note \rangle$ to the margin with corresponding formatting.

\begin{cnltxlist}

The list environment that is used by the environments commands, options and environments.

^{23.} This is important. If you \let it to \cnltxat index entries may be sorted differently! Remember: \cnltxat is robust.

A.3. Defined by CNLTX-EXAMPLE

$\coloredge{\coloredge} \coloredge{\coloredge}$

Issue an error message using \PackageError{cnltx-example}.

$\coloredge{\coloredg$

Issue a warning message using \PackageWarning{cnltx-example}.

$\coloredge{coloredge} \coloredge{coloredge}$

Issue a warning message using \PackageWarningNoLine{cnltx-example}.

$\coloredge{\coloredge}\coloredge{\coloredge}$

Issue a message using \PackageInfo{cnltx-example}.

\cnltx@isvalue

Used in definitions of the key/value option typesetting commands. Inserts a = with some stretchable space around and a legal break-point after it.

\indexcs

Version of \csidx that takes care of a \textcompwordmark inserted by listings. Also replaces all occurences of @ with category code 11 or 12 with \cnltxat. Used to index commands in the sourcecode and example environments that have been added with add-cmds.

\indexenv

Introduced in version 0.7a

Version of \envidx that takes care of a \textcompwordmark inserted by listings. Also replaces all occurences of @ with category code 11 or 12 with \cnltxat. Used to index environments in the sourcecode and example environments that have been added with add-envs.

Introduced in version 0.7a

This command was used to define \indexcs and \indexenv:

\cnltx@treat@lst@index{\indexcs}{\csidx}

```
\newarg[\langle arg\ formatting\rangle]\{\langle cs\rangle\}\{\langle left\ delim\rangle\}\{\langle right\ delim\rangle\}
```

Default: \meta

Changed in version 0.2

Command used to define the argument commands: $\mbox{\mbox{$newarg${\mbox{$}{}}}$. The optional argument determines how the argument of the new command will be formatted. This is done with $\mbox{\mbox{$meta$} per default. $Marg$ is defined $\mbox{\mbox{$mewarg$${\mbox{$}{}}}}$

\MakePercentComment

Sets the category code of % to 14.

\cnltx@copyablespace

Prints a space that is also copyable. Uses the accsupp package by Heiko Oberdiek [Obe10].

\cnltx@mdframed@options

Predefined option list for the mdframed [Dan13] style cnltx.

\cnltx@listings@style

Predefined option list for the listings [HM13] style cnltx.

A.4. Defined by CNLTX-LISTINGS

$\color= \color= \col$

Issue an error message using \PackageError{cnltx-listings}.

Issue a warning message using \PackageWarning{cnltx-listings}.

\cnltx@listings@warningnoline{\langle message\}

Issue a warning message using \PackageWarningNoLine{cnltx-listings}.

Issue a message using \PackageInfo{cnltx-listings}.

\cnltx@predefined@control@sequences

A comma-separated list of predefined 'silent' control sequence names.

\cnltx@predefined@environments

A comma-separated list of predefined 'silent' environment names.

\listsilentcmds

Prints all known control sequence names formatted and separated with the separator set with list-sep. Requires CNLTX-EXAMPLE.

\listsilentenvs

Prints all known environment names formatted and separated with the separator set with list-sep. Requires CNLTX-EXAMPLE.

$\label{listbibfilekeys} {\it (file name)}$

Introduced in version 0.7

Prints all cite keys contained in the bibliography file $\langle file\ name \rangle$ formatted with $\backslash code$ and separated with the separator set with list-sep. Requires CNLTX-EXAMPLE.

\listbibfiletypes{\langle file name\rangle}

Introduced in version 0.7

Prints all citation types contained in the bibliography file \(\file name \rangle \) formatted with \(\code \) and separated with the separator set with \(\list-\sep \). Requires \(\code \) Requires \(\code \) NLTX-EXAMPLE.

\listbibfileentries{\langle file name\rangle}

Introduced in version 0.7

Prints all cite keys contained in the bibliography file \(\file name \) formatted with \(\code \) and gives their respective entry types, separated with the separator set with \(\text{list-sep} \). Requires \(\text{CNLTX-EXAMPLE} \).

```
list-sep = \{\langle separator \rangle\}
```

Default: ,\space

Sets the separator for **CNLTX-LISTINGS**' commands listing the different commands *etc*.

A.5. Defined by CNLTX-TOOLS

$\color= \color= \col$

Issue an error message using \PackageError{cnltx-tools}.

```
\label{lem:collection} $$ \operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collection}_{\operatorname{collec
```

Below are listed all *predefined* control sequence names that are treated as "silent" names by **CNLTX**, that is, those defined by **CNLTX-LISTINGS**.

\-, \@, \@alph, \@Alph, \alpha, \amalg, \and, \@arabic, \@ctrerr, \@empty, \angle, \approx, \appto, \@firstofone, \@firstoftwo, \arabic, \arccos, \arcsin, \@gobble, \@ifclassloaded, \arctan, \arg, \arraycolsep, \@ifnextchar, \arrayrulewidth, \@ifpackageloaded, \@ifstar, \arraystretch, \arrowvert, \@makefnmark, \@roman, \Arrowvert, \ast, \asymp, \@Roman, \@secondoftwo, \AtBeginDocument, **\@slowromancap**, \AtBeginDvi, \@textsuperscript, \AtBeginEnvironment, \@thefnmark, \a, \AtEndDocument, \AtEndEnvironment, \AA, \aa, \above, \abovedisplayshortskip, \AtEndOfClass, \abovedisplayskip, \AtEndOfPackage, \abovewithdelims, \AtEndPreamble, \atop, \accent, \active, \acute, \atopwithdelims, \author, \addbibresource, \author, \autodot, \b, \backslash, \badness, \addcontentsline, \addpenalty, \addtocontents, \bar, \baselineskip, \addtocounter, \addtolength, \baselinestretch, \batchmode, \addtokomafont, \BeforeBeginEnvironment, \addtoversion, \addvspace, \begingroup, \beginsection, \adjdemerits, \advance, \belowdisplayshortskip, \advancepageno, \ae, \belowdisplayskip, \beta, \AE, \afterassignment, \bezier, \bf, \bffam, \AfterEndPreamble, \bfseries, \bgroup, \AfterEndDocument, \bibcite, \bibdata, \AfterEndEnvironment, \bibitem, \bibliography, **\bibliographystyle**, \aftergroup, \AfterPreamble, \aleph, \allocationnumber, \bibstyle, \big, \Big, \allowbreak, \alph, \Alph, \bigbreak, \bigcap, \bigcirc,

\bigcup, \bigg, \Bigg, \biggl, \Biggl, \biggm, \Biggm, \biggr, \Biggr, \bigl, \Bigl, \bigm, \Bigm, \bigodot, \bigoplus, \bigotimes, \bigr, \Bigr, \bigskip, \bigskipamount, \bigsqcup, \bigtriangledown, \bigtriangleup, \biguplus, \bigvee, \bigwedge, \binoppenalty, \bmod, \boldmath, \boolfalse, \booltrue, \bordermatrix, \bot, \botfigrule, \botmark, \bottomfraction, \bowtie, \Box, \box, \boxmaxdepth, \brace, \braceld, \bracelu, \bracerd, \braceru, \bracevert, \brack, \break, \breve, \brokenpenalty, \buildrel, \bullet, \bye, \c, \cal, \cap, \caption, \cases, \catcode, \cb, \cdot, \cdotp, \cdots, \centering, \centerline, \chapter, \char, \chardef, \check, \CheckCommand, \chi, \choose, \circ, \circle, \citation, \cite, \ClassError, \ClassInfo, \ClassWarning, \ClassWarningNoLine,

\cleaders, \cleardoublepage,

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\endgraf, \endgroup,

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C. List of Known LATEX Environments

Below are listed all predefined control sequence names that are treated as "silent" names by CNLTX, that is, those defined by CNLTX-LISTINGS.

array, center, description, displaymath, document, enumerate, eqnarray, equation, figure, flushleft, flushright, picture, quote, quoting,

itemize, labeling, list, longtable, lrbox, math, minipage, otherlanguage, sloppypar, tabbing, table, tabu, tabular, tabularx, tabulary, trivlist, verbatim

D. List of Entries in cnltx.bib

Most entries in cnltx.bib are entries of the @package type. The cite keys that the file currently contains are listed below. This list is very likely to be extended significantly in the future.

pkg:abbrevs (@package), pkg:accsupp (@package), pkg:acro (@package), pkg:acromake (@package), pkg:acronym (@package), pkg:acroterm (@package), pkg:adjustbox (@package), pkg:amsmath (@package), pkg:answers (@package), pkg:babel (@package), pkg:bm (@package), pkg:biblatex (@package), pkg:catchfile(@package), pkg:chemfig (@package), pkg:chngcntr(@package), bnd:cnltx (@bundle), cls:cnpkgdoc (@class), pkg:endnotes (@package), pkg:enumitem (@package), pkg:environ (@package),

pkg:epic (@package), pkg:eqexam (@package), pkg:esami (@package), pkg:etoolbox (@package), cls:exam (@class), pkg:examdesign (@package), pkg:exercise (@package), bnd:exsheets (@bundle), pkg:exsol (@package), pkg:fnpct (@package), pkg:fontenc (@package), pkg:fourier(@package), pkg:glossaries (@package), pkg:graphicx (@package), pkg:hologo (@package), pkg:hyperref (@package), pkg:idxcmds (@package), pkg:ifluatex (@package), pkg:ifpdf (@package),

pkg:ifxetex (@package), pkg:imakeidx (@package), bnd:koma-script (@bundle), pkg:kpfonts (@package), bnd:l3experimental (@bundle), bnd: 13kernel (@bundle), bnd:l3packages (@bundle), pkg:libertine (@package), pkg:listings (@package), pkg:longtable (@package), pkg:ltxcmds (@package), pkg:marginnote (@package), pkg:mathdesign (@package), pkg:mathtools (@package), pkg:mdframed (@package), cls:memoir(@class), pkg:mfirstuc (@package), pkg:microtype (@package), pkg:multicol(@package), pkg:multienum (@package),

pkg:ifplatform (@package),

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pkg:newtx (@package),	pkg:polyglossia(@package),	pkg:translations(@package),
pkg:nicefrac(@package),	pkg:probsoln (@package),	pkg:trimspaces(@package),
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pkg:pgf (@package),	pkg:sepfootnotes (@package),	pkg:xcolor (@package),
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