The gettitlestring package

Heiko Oberdiek* <heiko.oberdiek at googlemail.com>

2016/05/16 v1.5

${\bf Abstract}$

The LATEX package addresses packages that are dealing with references to titles (\section, \caption, ...). The package tries to remove \label and other commands from title strings.

Contents

1	Dog	umentation	2				
	1.1	Macros	2				
	1.2	Options	2				
2	Implementation 2						
	2.1	Options	4				
	2.2	\GetTitleString	4				
		2.2.1 Expand method	5				
		2.2.2 Non-expand method	6				
3	Test						
	3.1	Catcode checks for loading	7				
	3.2	Test of non-expand method	9				
4	Installation 10						
	4.1	Download	10				
	4.2	Bundle installation	10				
	4.3	Package installation	10				
	4.4	Refresh file name databases	10				
	4.5	Some details for the interested	11				
5	Cat	alogue	11				
6	Ref	erences	12				
7	History 12						
	[200	9/12/08 v1.0]	12				
			12				
	-	9/12/13 v1.2	12				
	-		12				
		0/12/03 v1.4]	12				
		6/05/16 v1.5]	12				
8	Ind	ex	12				

^{*}Please report any issues at https://github.com/ho-tex/oberdiek/issues

1 Documentation

1.1 Macros

```
\GetTitleStringSetup \{\langle key\ value\ list \rangle\}
```

The options are given as comma separated key value pairs. See section 1.2.

```
\GetTitleString \{\langle text \rangle\}
\GetTitleStringExpand \{\langle text \rangle\}
\GetTitleStringNonExpand \{\langle text \rangle\}
```

Macro \GetTitleString tries to remove unwanted stuff from $\langle text \rangle$ the result is stored in Macro \GetTitleStringResult. Two methods are available:

\GetTitleStringExpand: The $\langle text \rangle$ is expanded in a context where the unwanted macros are redefined to remove themselves. This is the method used in packages titleref [2], zref-titleref [3] or class memoir [1]. \protect is supported, but fragile material might break.

\GetTitleStringNonExpand: The $\langle text \rangle$ is not expanded. Thus the removal of unwanted material is more difficult. It is especially removed at the start of the $\langle text \rangle$ and spaces are removed from the end. Currently only **\label** is removed in the whole string, if it is not hidden inside curly braces or part of macro definitions. Thus the removal of unwanted stuff might not be complete, but fragile material will not break. (But the result string can break at a later time, of course).

Option expand controls which method is used by macro \GetTitleString.

$\GetTitleStringDisableCommands \{\langle code \rangle\}$

The $\langle code \rangle$ is called right before the text is expanded in \GetTitleStringExpand. Additional definitions can be given for macros that should be removed. Keep in mind that expansion means that the definitions must work in expandable context. Macros like \@ifstar or \@ifnextchar or optional arguments will not work. The macro names in $\langle code \rangle$ may contain the at sign @, it has catcode 11 (letter).

1.2 Options

expand: Boolean option, takes values true or false. No value means true. The option specifies the method to remove unwanted stuff from the title string, see below.

Options can be set at the following places:

- \usepackage
- Configuration file gettitlestring.cfg.
- \GetTitleStringSetup

2 Implementation

 $_1 \; \langle * \mathsf{package} \rangle$

Reload check, especially if the package is not used with LATEX.

- ${\tt 2 \ begingroup\ catcode 61\ catcode 48\ catcode 32 = 10\ relax\%}$
- 3 \catcode13=5 % ^^M

```
4 \endlinechar=13 %
    \catcode35=6 % #
    \catcode39=12 % '
 6
    \catcode44=12 % ,
    \catcode45=12 % -
 9
    \catcode46=12 % .
 10
    \catcode58=12 %:
 11
    \catcode64=11 % @
12
    \catcode123=1 % {
    \catcode125=2 % }
 13
    \expandafter\let\expandafter\x\csname ver@gettitlestring.sty\endcsname
 14
    \ifx\x\relax % plain-TeX, first loading
 15
    \else
 16
      \def\empty{}%
 17
      \ifx\x\empty % LaTeX, first loading,
 18
 19
       % variable is initialized, but \ProvidesPackage not yet seen
 20
       \expandafter\ifx\csname PackageInfo\endcsname\relax
 21
         \def\x#1#2{\%}
 22
 23
          \immediate\write-1{Package #1 Info: #2.}%
 24
         7%
       \else
 25
         \def\x#1#2{\PackageInfo{#1}{#2, stopped}}%
 26
 27
       \x{gettitlestring}{The package is already loaded}%
 28
 29
       \aftergroup\endinput
 30
      \fi
    \fi
31
32 \endgroup%
Package identification:
33 \begingroup\catcode61\catcode48\catcode32=10\relax%
34 \catcode13=5 % ^^M
35 \endlinechar=13 %
 36 \catcode35=6 % #
 37 \catcode39=12 % '
    \catcode40=12 % (
 38
    \catcode41=12 % )
 39
    \catcode44=12 % .
 40
    \catcode45=12 % -
 41
    \catcode46=12 % .
 42
 43
    \catcode47=12 % /
 44
    \catcode58=12 %:
    \catcode64=11 % @
 45
    \catcode91=12 % [
 46
    \catcode93=12 % ]
 47
    \catcode123=1 % {
 48
    \catcode125=2 % }
 49
    \expandafter\ifx\csname ProvidesPackage\endcsname\relax
 50
      \def \x#1#2#3[#4]{\endgroup}
 51
       \immediate\write-1{Package: #3 #4}%
 52
       \xdef#1{#4}%
 53
 54
      }%
 55
    \else
      \def\x#1#2[#3]{\endgroup}
 56
       #2[{#3}]%
 57
       \ifx#1\@undefined
 58
        \xdef#1{#3}%
 59
 60
 61
       \inf #1 \operatorname{lax}
         \xdef#1{#3}%
 62
 63
 64
      }%
```

```
65
     66 \expandafter\x\csname ver@gettitlestring.sty\endcsname
     67 \ProvidesPackage{gettitlestring}%
     68 [2016/05/16 v1.5 Cleanup title references (HO)]%
     69 \begingroup\catcode61\catcode48\catcode32=10\relax%
     70 \catcode13=5 % ^^M
     71 \endlinechar=13 %
     72 \catcode123=1 % {
     73 \catcode125=2 % }
                          \catcode64=11 % @
     74
                           \def\x{\endgroup
     75
     76
                                  \expandafter\edef\csname GTS@AtEnd\endcsname{%
     77
                                            \endlinechar=\the\endlinechar\relax
     78
                                            \color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\t
     79
                                           \color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=
                                           \color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\t
     80
                                           \verb|\catcode61=\\ \verb|\the\catcode61\relax| \\
     81
                                           \colored{catcode64} \to \colored{catcode64}
     82
                                           \color=\the\color=123\
     83
                                           \catcode125=\the\catcode125\relax
     84
                                  }%
     85
     86 }%
     87 \x\catcode61\catcode48\catcode32=10\relax%
     88 \catcode13=5 % ^^M
     89 \endlinechar=13 %
     90 \catcode35=6 % #
    91 \catcode64=11 % @
    92 \catcode123=1 \% {
    93 \catcode125=2 % }
     94 \def\TMP@EnsureCode#1#2{%
                          \edef\GTS@AtEnd{%
    95
     96
                                   \GTS@AtEnd
                                   \color= \time \color= \time \color= 
     97
    98
    99
                          \color= 1=\#2\relax
100 }
101 \TMP@EnsureCode{42}{12}% *
102 \TMP@EnsureCode{44}{12}\% ,
103 \TMP@EnsureCode{45}{12}% -
104 \TMP@EnsureCode{46}{12}\% .
105 \TMP@EnsureCode{47}{12}% /
106 \TMP@EnsureCode{91}{12}% [
107 \TMP@EnsureCode{93}{12}% ]
108 \edef\GTS@AtEnd{\GTS@AtEnd\noexpand\endinput}
                                    Options
2.1
109 \RequirePackage{kvoptions}[2009/07/17]
110 \SetupKeyvalOptions{%
111 family=gettitlestring,%
112 prefix=GTS@%
113 }
114 \newcommand*{\GetTitleStringSetup}{%
115 \setkeys{gettitlestring}%
116 }
117 \DeclareBoolOption{expand}
118 \InputIfFileExists{gettitlestring.cfg}{}{}
119 \ProcessKeyvalOptions*\relax
2.2
                                \GetTitleString
120 \newcommand*{\GetTitleString}{%
121 \ifGTS@expand
```

\GetTitleString

```
\expandafter\GetTitleStringExpand
                                  122
                                  123
                                        \expandafter\GetTitleStringNonExpand
                                  124
                                  125
                                  126 }
         \GetTitleStringExpand
                                  127 \newcommand{\GetTitleStringExpand}[1]{%
                                      \def\GetTitleStringResult{#1}%
                                  128
                                      \begingroup
                                  129
                                        \GTS@DisablePredefinedCmds
                                  130
                                        \GTS@DisableHook
                                  131
                                  132
                                        \edef\x{\endgroup
                                  133
                                          \noexpand\def\noexpand\GetTitleStringResult{%
                                  134
                                           \GetTitleStringResult
                                         }%
                                  135
                                  136
                                        }%
                                  137
                                      \x
                                  138 }
                \GetTitleString
                                  139 \newcommand{\GetTitleStringNonExpand}[1]{%
                                  140 \def\GetTitleStringResult{#1}%
                                      \verb|\global| Interest | GTS@GlobalString| GetTitleStringResult| \\
                                  141
                                  142
                                      \begingroup
                                        \GTS@RemoveLeft
                                  143
                                        \GTS@RemoveRight
                                  144
                                  145 \endgroup
                                  146 \let\GetTitleStringResult\GTS@GlobalString
                                  147 }
                                  2.2.1 Expand method
 \GTS@DisablePredefinedCmds
                                  148 \def\GTS@DisablePredefinedCmds{%
                                  149 \let\label\@gobble
                                  150 \let\zlabel\@gobble
                                  151 \let\zref@label\@gobble
                                  152 \let\zref@labelbylist\@gobbletwo
                                  153 \let\zref@labelbyprops\@gobbletwo
                                  154 \let\index\@gobble
                                  155 \let\glossary\@gobble
                                  156 \let\markboth\@gobbletwo
                                  157 \let\@mkboth\@gobbletwo
                                  158 \let\markright\@gobble
                                  159 \let\phantomsection\@empty
                                  160 \quad \texttt{\expandafter} @ gobble \texttt{\expandafter} \
                                  161 \let\raggedright\@empty
                                  162 \let\raggedleft\@empty
                                      \let\centering\@empty
                                      \let\protect\@unexpandable@protect
                                  165
                                      \let\enit@format\@empty % package enumitem
                                  166 }
            \GTS@DisableHook
                                  167 \providecommand*{\GTS@DisableHook}{}
GetTitleStringDisableCommands
                                  168 \ \texttt{def} \ \texttt{GetTitleStringDisableCommands} \{ \% \ \texttt{def} \ \texttt{def} \ \texttt{def} \ \texttt{def} \}
                                  169 \begingroup
                                        \makeatletter
                                  170
                                        \GTS@DisableCommands
                                  171
                                  172 }
```

```
173 \long\def\GTS@DisableCommands#1{%
                             \toks0=\expandafter{\GTS@DisableHook}%
                       175
                             \text{toks2={#1}}\%
                             177 \endgroup
                       178 \let\GTS@DisableHook\GTS@GlobalString
                       179 }
                       2.2.2 Non-expand method
                        180 \def\GTS@RemoveLeft{%
                           \toks@\expandafter\expandafter\expandafter{%
                       182
                            \expandafter\GTS@Car\GTS@GlobalString{}{}{}\GTS@Nil
                       183 }%
                           \ensuremath{\tt \def}\GTS@Token{\the\toks@}\%
                        184
                       185 \GTS@PredefinedLeftCmds
                       186 \expandafter\futurelet\expandafter\GTS@Token
                       187 \quad \texttt{\expandafter\GTS@TestLeftSpace\GTS@GlobalString\GTS@Nil}
                       188 \GTS@End
                       189 }
                        190 \def\GTS@End{}
                        191 \long\def\GTS@TestLeft#1#2{%
                        192 \def\GTS@temp{\#1}\%
                        193 \ifx\GTS@temp\GTS@Token
                       194
                             \toks@\expandafter\expandafter\expandafter{%
                              \verb|\expandafter#2\GTS@GlobalString\GTS@Nil| \\
                       195
                       196
                             \expandafter\GTS@TestLeftEnd
                       197
                       198 \fi
                        199 }
                       200 \long\def\GTS@TestLeftEnd#1\GTS@End{%
                           \xdef\GTS@GlobalString{\the\toks@}%
                       202 \GTS@RemoveLeft
                       203 }
                       204 \long\def\GTS@Car#1#2\GTS@Nil{#1}
                       205 \long\def\GTS@Cdr#1#2\GTS@Nil{#2}
                       206 \end{CTS@CdrTwo} #1#2#3\GTS@Nil{#3}
                       207 \long\def\GTS@CdrThree#1#2#3#4\GTS@Nil{#4}
                       208 \long\def\GTS@CdrFour#1#2#3#4#5\GTS@Nil{#5}
                       209 \long\def\GTS@TestLeftSpace#1\GTS@Nil{%
                       210 \ifx\GTS@Token\@sptoken
                             \toks@\expandafter{%
                       211
                              \romannumeral-0\GTS@GlobalString
                       212
                       213
                       214
                             \expandafter\GTS@TestLeftEnd
                       215 \fi
                       216 }
\GTS@PredefinedLeftCmds
                       217 \def\GTS@PredefinedLeftCmds{%
                       218 \GTS@TestLeft\Hy@phantomsection\GTS@Cdr
                       219 \GTS@TestLeft\Hy@SectionAnchor\GTS@Cdr
                       220 \GTS@TestLeft\Hy@SectionAnchorHref\GTS@CdrTwo
                       221 \GTS@TestLeft\label\GTS@CdrTwo
                       222 \GTS@TestLeft\zlabel\GTS@CdrTwo
                       223 \GTS@TestLeft\index\GTS@CdrTwo
                       224 \GTS@TestLeft\glossary\GTS@CdrTwo
                       225 \GTS@TestLeft\markboth\GTS@CdrThree
                       228 \GTS@TestLeft\enit@format\GTS@Cdr % package enumitem
                       229 }
```

```
230 \def\GTS@RemoveRight{%
231
             \toks@{}\%
              \expandafter\GTS@TestRightLabel\GTS@GlobalString
232
                       \label{}\GTS@Nil\@nil
233
234
              \GTS@RemoveRightSpace
235 }
236 \begingroup
237
              \def\GTS@temp#1{\endgroup
                  \def\GTS@RemoveRightSpace{%
238
                       \expandafter\GTS@TestRightSpace\GTS@GlobalString
239
                                \GTS@Nil#1\GTS@Nil\@nil
240
                  }%
241
242 }%
243 \GTS@temp{ }
244 \def\GTS@TestRightSpace#1 \GTS@Nil#2\@nil{%
245 \ifx\relax#2\relax
246 \else
                   \gdef\GTS@GlobalString{#1}%
247
                   \expandafter\GTS@RemoveRightSpace
248
249 \fi
250 }
251 \ensuremath{\mbox{\sc def}\mbox{\sc de
              \def\GTS@temp{#3}%
252
253
              \ifx\GTS@temp\@empty
                  \expandafter\gdef\expandafter\GTS@GlobalString\expandafter{%
254
255
                       \the\toks@
256
                       #1%
257
                  }%
258
                  \expandafter\@gobble
259
              \else
                  \expandafter\@firstofone
260
261
             \fi
262
              {%
                  \toks@\exp{\text{the} \cdot \text{toks@\#1}}\%
263
                  \GTS@TestRightLabel#3\GTS@Nil\@nil
265 }%
266 }
267 \GTS@AtEnd%
268 (/package)
```

3 Test

3.1 Catcode checks for loading

```
269 (*test1)

270 \catcode`\{=1 %

271 \catcode`\}=2 %

272 \catcode`\#=6 %

273 \catcode`\@=11 %

274 \expandafter\ifx\csname count@\endcsname\relax

275 \countdef\count@=255 %

276 \fi

277 \expandafter\ifx\csname @gobble\endcsname\relax

278 \long\def\@gobble#1{}%

279 \fi

280 \expandafter\ifx\csname @firstofone\endcsname\relax

281 \long\def\@firstofone#1{#1}%

282 \fi

283 \expandafter\ifx\csname loop\endcsname\relax

284 \expandafter\@firstofone

285 \else
```

```
286 \expandafter\@gobble
287 \fi
288 {%
289
           \def\loop#1\repeat{%
290
               \def\body{#1}\%
291
               \iterate
292 }%
            \def = {\%}
293
294
               \body
                  \let\next\iterate
295
               \else
296
                  \let\next\relax
297
               \fi
298
               \next
299
300 }%
301 \let\repeat=\fi
302 }%
304 \count@=0 %
305 \loop
           \edef\RestoreCatcodes{%
306
307
                \RestoreCatcodes
               \verb|\catcode| the \catcode| count@=\the \catcode| count@\catcode| count@\catco
308
309 }%
310 \ifnum\count@<255 \%
311 \advance\count@ 1 %
312 \repeat
313
314 \def\RangeCatcodeInvalid#1#2{\%
315 \count@=#1\relax
           \loop
316
317
              \catcode\count@=15 %
           \ifnum\count@<#2\relax
318
              \advance\count@ 1 %
319
320 \repeat
321 }
322 \def\RangeCatcodeCheck#1#2#3{%
323 \cdot count@=#1 \cdot relax
324 \loop
               \ifnum#3=\catcode\count@
325
               \else
326
                   \errmessage{%
327
                      Character \the\count@\space
328
329
                      with wrong catcode \the\catcode\count@\space
330
                     instead of \number#3%
331
                  }%
332
               \fi
           333
334
               \advance\count@ 1 %
335
           \repeat
336 }
337 \def\space{ }
338 \expandafter\ifx\csname LoadCommand\endcsname\relax
339 \def\LoadCommand{\input gettitlestring.sty\relax}%
340 \fi
341 \left\{ \text{Test} \right\}
343 \RangeCatcodeInvalid{58}{64}\%
345 \RangeCatcodeInvalid{123}{255}%
346 \catcode`\@=12 %
347 \catcode`\\=0 %
```

```
\color=14 \%
348
349
    \LoadCommand
    \RangeCatcodeCheck{0}{36}{15}%
350
    \RangeCatcodeCheck{37}{37}{14}%
    \RangeCatcodeCheck{38}{47}{15}%
    \RangeCatcodeCheck{48}{57}{12}%
    \RangeCatcodeCheck{58}{63}{15}%
355
    \RangeCatcodeCheck{64}{64}{12}%
356
    \RangeCatcodeCheck{65}{90}{11}%
    \RangeCatcodeCheck{91}{91}{15}%
357
    \RangeCatcodeCheck{92}{92}{0}%
358
    \RangeCatcodeCheck{93}{96}{15}%
359
    \RangeCatcodeCheck{97}{122}{11}%
360
    \RangeCatcodeCheck{123}{255}{15}%
    \RestoreCatcodes
362
363 }
364 \Test
365 \csname @@end\endcsname
366 \end
367 (/test1)
```

3.2 Test of non-expand method

```
368 (*test2)
369 \NeedsTeXFormat{LaTeX2e}
370 \documentclass{minimal}
371 \usepackage{gettitlestring}[2016/05/16]
372 \usepackage{qstest}
373 \IncludeTests{*}
374 \LogTests{log}{*}{*}
375 \begin{document}
376 \begin{qstest}{non-expand}{non-expand}
    \def\test#1#2{%
377
      \sbox0{%
378
        \GetTitleString{#1}%
379
380
        \Expect{#2}*{\GetTitleStringResult}%
381
      \text{Expect}\{0.0pt\}*{\text{wd}0}\%
382
383
    }%
     \test{}{}%
384
     \test{ }{}%
385
    \text{test} x }{x}
386
    \text{test}\{xy\}\{xy\}\%
387
    \test{ \relax}{\relax}%
388
    \t {\label{f}a}{a}
389
390 \text{test} \left( \left( f\right) \right) 
391 \text{test{\label{f} a}{a}}
392 \text{label}{f} a}{a}
393 \text{ } \text{label{f}}{a}
394 \text{ } \text{label{f} } a
395 \text{test}\{a \leq f}\}\{a\}\%
396 \test{a \label{f} }{a}%
    \test{a\label{f}b\label{g}}{ab}
397
    \t {a \displaystyle label{f}b \displaystyle f} } {a b}%
398
400 \end{qstest}
401 \end{document}
402 (/test2)
```

4 Installation

4.1 Download

Package. This package is available on CTAN¹:

CTAN:macros/latex/contrib/oberdiek/gettitlestring.dtx The source file.

CTAN:macros/latex/contrib/oberdiek/gettitlestring.pdf Documentation.

Bundle. All the packages of the bundle 'oberdiek' are also available in a TDS compliant ZIP archive. There the packages are already unpacked and the documentation files are generated. The files and directories obey the TDS standard.

CTAN:install/macros/latex/contrib/oberdiek.tds.zip

TDS refers to the standard "A Directory Structure for TEX Files" (CTAN:tds/tds.pdf). Directories with texmf in their name are usually organized this way.

4.2 Bundle installation

Unpacking. Unpack the oberdiek.tds.zip in the TDS tree (also known as texmf tree) of your choice. Example (linux):

```
unzip oberdiek.tds.zip -d ~/texmf
```

Script installation. Check the directory TDS:scripts/oberdiek/ for scripts that need further installation steps. Package attachfile2 comes with the Perl script pdfatfi.pl that should be installed in such a way that it can be called as pdfatfi. Example (linux):

```
chmod +x scripts/oberdiek/pdfatfi.pl
cp scripts/oberdiek/pdfatfi.pl /usr/local/bin/
```

4.3 Package installation

Unpacking. The .dtx file is a self-extracting docstrip archive. The files are extracted by running the .dtx through plain TEX:

```
tex gettitlestring.dtx
```

TDS. Now the different files must be moved into the different directories in your installation TDS tree (also known as texmf tree):

If you have a docstrip.cfg that configures and enables docstrip's TDS installing feature, then some files can already be in the right place, see the documentation of docstrip.

4.4 Refresh file name databases

If your TEX distribution (teTEX, mikTEX, ...) relies on file name databases, you must refresh these. For example, teTEX users run texhash or mktexlsr.

¹http://ctan.org/pkg/gettitlestring

4.5 Some details for the interested

Unpacking with LATEX. The .dtx chooses its action depending on the format:

plain TEX: Run docstrip and extract the files.

LATEX: Generate the documentation.

If you insist on using LATEX for docstrip (really, docstrip does not need LATEX), then inform the autodetect routine about your intention:

```
latex \let\install=y\input{gettitlestring.dtx}
```

Do not forget to quote the argument according to the demands of your shell.

Generating the documentation. You can use both the .dtx or the .drv to generate the documentation. The process can be configured by the configuration file ltxdoc.cfg. For instance, put this line into this file, if you want to have A4 as paper format:

```
\PassOptionsToClass{a4paper}{article}
```

An example follows how to generate the documentation with pdfIATEX:

```
pdflatex gettitlestring.dtx
makeindex -s gind.ist gettitlestring.idx
pdflatex gettitlestring.dtx
makeindex -s gind.ist gettitlestring.idx
pdflatex gettitlestring.dtx
```

5 Catalogue

The following XML file can be used as source for the TEX Catalogue. The elements caption and description are imported from the original XML file from the Catalogue. The name of the XML file in the Catalogue is gettitlestring.xml.

```
403 (*catalogue)
404 <?xml version='1.0' encoding='us-ascii'?>
405 <!DOCTYPE entry SYSTEM 'catalogue.dtd'>
406 <entry datestamp='$Date$' modifier='$Author$' id='gettitlestring'>
407 <name>gettitlestring</name>
408 <caption>Clean up title references.</caption>
409 <authorref id='auth:oberdiek'/>
410 <copyright owner='Heiko Oberdiek' year='2009,2010'/>
411 411 411 
412 <version number='1.5'/>
413 <description>
Cleans up the title string (removing <tt>\label</tt> commands) for
415
      packages (such as <xref refid='nameref'>nameref</xref>) that
416
     typeset such strings.
417
      The package is part of the xref refid='oberdiek'>oberdiek bundle.
418
419 </description>
420 <documentation details='Package documentation'
       href='ctan:/macros/latex/contrib/oberdiek/gettitlestring.pdf'/>
421
422 <ctan file='true' path='/macros/latex/contrib/oberdiek/gettitlestring.dtx'/>
423 <miktex location='oberdiek'/>
424 <texlive location='oberdiek'/>
425 <install path='/macros/latex/contrib/oberdiek/oberdiek.tds.zip'/>
426 </entry>
427 (/catalogue)
```

6 References

- [1] Peter Wilson, Lars Madsen: *The Memoir Class*; 2009/11/17 v1.61803398c; CTAN:macros/latex/contrib/memoir/
- [2] Donald Arsenau: *Titleref.sty*; 2001/04/05 ver 3.1; CTAN:macros/latex/contrib/misc/titleref.sty
- [3] Heiko Oberdiek: The zref package; 2009/12/08 v2.7; CTAN:macros/latex/contrib/oberdiek/zref.pdf

7 History

[2009/12/08 v1.0]

• The first version.

[2009/12/12 v1.1]

• Short info shortened.

[2009/12/13 v1.2]

• Forgotten third argument for \InputIfFileExists added.

[2009/12/18 v1.3]

• \Hy@SectionAnchorHref added for filtering (hyperref 2009/12/18 v6.79w).

[2010/12/03 v1.4]

• Support of package enumitem: removing \enit@format from title string (problem report by GL).

[2016/05/16 v1.5]

• Documentation updates.

8 Index

Numbers written in italic refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; plain numbers refer to the code lines where the entry is used.

${f Symbols}$	\{ 270
\# 272	\} 271
\% 348	
\@ 273, 346	\mathbf{A}
\@empty 159, 161, 162, 163, 165, 253	\addcontentsline 160, 227
\@firstofone 260, 281, 284	\advance 311, 319, 334
\@gobble 149, 150, 151,	\aftergroup 29
154, 155, 158, 160, 258, 278, 286	В
\@gobbletwo 152, 153, 156, 157, 160	\begin 375, 376
\@mkboth 157, 226	\body
\@nil 233, 240, 244, 251, 264	(body
\@sptoken 210	\mathbf{C}
\@undefined 58	\catcode 2, 3, 5, 6, 7, 8, 9, 10,
\@unexpandable@protect 164	11, 12, 13, 33, 34, 36, 37, 38, 39,
\\ 347	40, 41, 42, 43, 44, 45, 46, 47, 48,

49, 69, 70, 72, 73, 74, 78, 79, 80,	\GTS@TestLeft
81, 82, 83, 84, 87, 88, 90, 91, 92,	191, 218, 219, 220, 221,
93, 97, 99, 270, 271, 272, 273,	222, 223, 224, 225, 226, 227, 228
308, 317, 325, 329, 346, 347, 348	\GTS@TestLeftEnd 197, 200, 214
\centering 163	\GTS@TestLeftSpace 187, 209
\count@ 275, 304,	\GTS@TestRightLabel 232, 251, 264
308, 310, 311, 315, 317, 318, 319, 323, 325, 328, 329, 333, 334	\GTS@TestRightSpace 239, 244 \GTS@Token 184, 186, 193, 210
\countdef 275	(G15@10keii 104, 100, 133, 210
\csname	Н
66, 76, 274, 277, 280, 283, 338, 365	\Hy@phantomsection 218
	\Hy@SectionAnchor
D	\Hy@SectionAnchorHref 220
\DeclareBoolOption	I
\documentclass 370	\ifGTS@expand 121
${f E}$	\ifnum 310, 318, 325, 333
\empty 17, 18	\ifx . 15, 18, 21, 50, 58, 61, 193, 210, 245, 253, 274, 277, 280, 283, 338
\end 366, 400, 401	\immediate
\endcsname $14, 21, 50,$	\IncludeTests
66, 76, 274, 277, 280, 283, 338, 365	\index 154, 223
\endinput	\input 339
\endlinechar 4, 35, 71, 77, 89	\InputIfFileExists
\enit@format	\iterate 291, 293, 295
\Expect	${f L}$
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\label 149, 221, 233,
${f F}$	251, 389, 390, 391, 392, 393,
\futurelet 186	394, 395, 396, 397, 398, 399, 414
C	\LoadCommand
G	
	\100D
	\loop 289, 305, 316, 324
\GetTitleString 2 , $\underline{120}$, $\underline{139}$, $\underline{379}$	M
	M \makeatletter 170
\GetTitleString 2, $\underline{120}$, $\underline{139}$, 379 \GetTitleStringDisableCommands 2, $\underline{168}$	M \makeatletter
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	M \makeatletter
\GetTitleString 2, 120, 139, 379 \GetTitleStringDisableCommands 2, 168 \GetTitleStringExpand 122, 127 \GetTitleStringNonExpand 124, 139 \GetTitleStringResult	M \makeatletter
\GetTitleString 2, 120, 139, 379 \GetTitleStringDisableCommands 2, 168 \GetTitleStringExpand 122, 127 \GetTitleStringNonExpand 124, 139 \GetTitleStringResult	M \makeatletter
\GetTitleString	M \makeatletter
\GetTitleString 2, 120, 139, 379 \GetTitleStringDisableCommands 2, 168 \GetTitleStringExpand 122, 127 \GetTitleStringNonExpand 124, 139 \GetTitleStringResult	M \makeatletter
\GetTitleString 2, 120, 139, 379 \GetTitleStringDisableCommands 2, 168 \GetTitleStringExpand 122, 127 \GetTitleStringNonExpand 124, 139 \GetTitleStringResult	M \makeatletter
\GetTitleString	M \makeatletter
\GetTitleString 2, 120, 139, 379 \GetTitleStringDisableCommands 2, 168 \GetTitleStringExpand 122, 127 \GetTitleStringNonExpand 124, 139 \GetTitleStringResult 128, 133, 134, 140, 141, 146, 380 \GetTitleStringSetup 2, 114 \glossary 155, 224 \GTS@AtEnd 95, 96, 108, 267 \GTS@Car 182, 204 \GTS@Cdr 205, 218, 219, 228 \GTS@CdrFour 208, 227 \GTS@CdrThree 207, 225, 226 \GTS@CdrTwo	M \makeatletter
\GetTitleString 2, 120, 139, 379 \GetTitleStringDisableCommands 2, 168 \GetTitleStringExpand 122, 127 \GetTitleStringNonExpand 124, 139 \GetTitleStringResult 128, 133, 134, 140, 141, 146, 380 \GetTitleStringSetup 2, 114 \glossary 155, 224 \GTS@AtEnd 95, 96, 108, 267 \GTS@Car 182, 204 \GTS@Cdr 205, 218, 219, 228 \GTS@CdrFour 208, 227 \GTS@CdrThree 207, 225, 226 \GTS@CdrTwo	M \makeatletter
\GetTitleString 2, 120, 139, 379 \GetTitleStringDisableCommands 2, 168 \GetTitleStringExpand 122, 127 \GetTitleStringNonExpand 124, 139 \GetTitleStringResult	M \makeatletter
\GetTitleString 2, 120, 139, 379 \GetTitleStringDisableCommands 2, 168 \GetTitleStringExpand 122, 127 \GetTitleStringNonExpand 124, 139 \GetTitleStringResult 128, 133, 134, 140, 141, 146, 380 \GetTitleStringSetup 2, 114 \glossary 155, 224 \GTS@AtEnd 95, 96, 108, 267 \GTS@Car 182, 204 \GTS@Cdr 205, 218, 219, 228 \GTS@CdrFour 208, 227 \GTS@CdrThree 207, 225, 226 \GTS@CdrTwo	M \makeatletter
\GetTitleString 2, 120, 139, 379 \GetTitleStringDisableCommands 2, 168 \GetTitleStringExpand 122, 127 \GetTitleStringNonExpand 124, 139 \GetTitleStringResult	M \makeatletter
\GetTitleString	M \makeatletter
\GetTitleString 2, 120, 139, 379 \GetTitleStringDisableCommands 2, 168 \GetTitleStringExpand 122, 127 \GetTitleStringRexpand 124, 139 \GetTitleStringResult	M \makeatletter
\GetTitleString 2, 120, 139, 379 \GetTitleStringDisableCommands 2, 168 \GetTitleStringExpand 122, 127 \GetTitleStringRexpand 124, 139 \GetTitleStringResult 128, 133, 134, 140, 141, 146, 380 \GetTitleStringSetup 2, 114 \glossary 155, 224 \GTS@AtEnd 95, 96, 108, 267 \GTS@Car 182, 204 \GTS@Cdr 205, 218, 219, 228 \GTS@CdrFour 208, 227 \GTS@CdrThree 207, 225, 226 \GTS@CdrTwo 206, 220, 221, 222, 223, 224 \GTS@DisablePredefinedCmds 171, 173 \GTS@DisablePredefinedCmds 130, 148 \GTS@End 188, 190, 200 \GTS@GlobalString 141, 146, 176, 178, 182, 187, 195, 201, 212, 232, 239, 247, 254 \GTS@Nil 182, 187, 208, 209, 233, 240, 244, 251, 264 \GTS@PredefinedLeftCmds 185, 217 \GTS@RemoveLeft 143, 180, 202	M \makeatletter

${f S}$	\mathbf{U}
\sbox 378	\usepackage 371, 372
\setkeys	,
\SetupKeyvalOptions 110	***
\space 328, 329, 337	\mathbf{W}
m.	\wd 382
T	\write 23, 52
\Test 341, 364	
\test 377, 384, 385, 386,	X
387, 388, 389, 390, 391, 392,	
393, 394, 395, 396, 397, 398, 399	\x 14, 15, 18, 22,
\the 77, 78, 79,	26, 28, 51, 56, 66, 75, 87, 132, 137
80, 81, 82, 83, 84, 97, 176, 184,	
201, 255, 263, 308, 328, 329, 382	${f z}$
\TMP@EnsureCode 94,	\zlabel 150, 222
$101, \ 102, \ 103, \ 104, \ 105, \ 106, \ 107$	
\toks 174, 175, 176	\zref@label 151
\toks@ 181,	\zref@labelbylist 152
184, 194, 201, 211, 231, 255, 263	\zref@labelbyprops 153