

The `getttitlestring` package

Heiko Oberdiek*

2016/05/16 v1.5

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	Documentation	2
1.1	Macros	2
1.2	Options	2
2	Implementation	3
2.1	Options	4
2.2	<code>\GetTitleString</code>	5
2.2.1	Expand method	5
2.2.2	Non-expand method	6
3	Installation	8
3.1	Download	8
3.2	Bundle installation	8
3.3	Package installation	8
3.4	Refresh file name databases	8
3.5	Some details for the interested	9
4	References	9
5	History	9
	[2009/12/08 v1.0]	9
	[2009/12/12 v1.1]	9
	[2009/12/13 v1.2]	9
	[2009/12/18 v1.3]	9
	[2010/12/03 v1.4]	10
	[2016/05/16 v1.5]	10
6	Index	10

*Please report any issues at <https://github.com/ho-tex/oberdiek/issues>

1 Documentation

1.1 Macros

`\GetTitleStringSetup {⟨key value list⟩}`

The options are given as comma separated key value pairs. See section [1.2](#).

`\GetTitleString {⟨text⟩}`
`\GetTitleStringExpand {⟨text⟩}`
`\GetTitleStringNonExpand {⟨text⟩}`

Macro `\GetTitleString` tries to remove unwanted stuff from `⟨text⟩` the result is stored in Macro `\GetTitleStringResult`. Two methods are available:

\GetTitleStringExpand: The `⟨text⟩` 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 `⟨text⟩` is not expanded. Thus the removal of unwanted material is more difficult. It is especially removed at the start of the `⟨text⟩` 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 {⟨code⟩}`

The `⟨code⟩` 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 `⟨code⟩` 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 `getttitlestring.cfg`.
- `\GetTitleStringSetup`

2 Implementation

```

1 \(*package)
Reload check, especially if the package is not used with LATEX.
2 \begingroup\catcode61\catcode48\catcode32=10\relax%
3 \catcode13=5 % ^M
4 \endlinechar=13 %
5 \catcode35=6 % #
6 \catcode39=12 % '
7 \catcode44=12 % ,
8 \catcode45=12 % -
9 \catcode46=12 % .
10 \catcode58=12 % :
11 \catcode64=11 % @
12 \catcode123=1 % {
13 \catcode125=2 % }
14 \expandafter\let\expandafter\x\csname ver@getttitlestring.sty\endcsname
15 \ifx\x\relax % plain-TeX, first loading
16 \else
17 \def\empty{}%
18 \ifx\x\empty % LaTeX, first loading,
19 % variable is initialized, but \ProvidesPackage not yet seen
20 \else
21 \expandafter\ifx\csname PackageInfo\endcsname\relax
22 \def\x#1#2{%
23 \immediate\write-1{Package #1 Info: #2.}%
24 }%
25 \else
26 \def\x#1#2{\PackageInfo{#1}{#2, stopped}}%
27 \fi
28 \x{getttitlestring}{The package is already loaded}%
29 \aftergroup\endinput
30 \fi
31 \fi
32 \endgroup%

```

Package identification:

```

33 \begingroup\catcode61\catcode48\catcode32=10\relax%
34 \catcode13=5 % ^M
35 \endlinechar=13 %
36 \catcode35=6 % #
37 \catcode39=12 % '
38 \catcode40=12 % (
39 \catcode41=12 % )
40 \catcode44=12 % ,
41 \catcode45=12 % -
42 \catcode46=12 % .
43 \catcode47=12 % /
44 \catcode58=12 % :
45 \catcode64=11 % @
46 \catcode91=12 % [
47 \catcode93=12 % ]
48 \catcode123=1 % {
49 \catcode125=2 % }
50 \expandafter\ifx\csname ProvidesPackage\endcsname\relax
51 \def\x#1#2#3[#4]{\endgroup
52 \immediate\write-1{Package: #3 #4}%
53 \xdef#1{#4}%
54 }%

```

```

55 \else
56   \def\x#1#2[#3]{\endgroup
57     #2[#3]}%
58   \ifx#1\@undefined
59     \xdef#1{#3}%
60   \fi
61   \ifx#1\relax
62     \xdef#1{#3}%
63   \fi
64 }%
65 \fi
66 \expandafter\x\csname ver@getttitlestring.sty\endcsname
67 \ProvidesPackage{getttitlestring}%
68 [2016/05/16 v1.5 Cleanup title references (H0)]%
69 \begingroup\catcode61\catcode48\catcode32=10\relax%
70 \catcode13=5 % ^~M
71 \endlinechar=13 %
72 \catcode123=1 % {
73 \catcode125=2 % }
74 \catcode64=11 % @
75 \def\x{\endgroup
76   \expandafter\edef\csname GTS@AtEnd\endcsname{%
77     \endlinechar=\the\endlinechar\relax
78     \catcode13=\the\catcode13\relax
79     \catcode32=\the\catcode32\relax
80     \catcode35=\the\catcode35\relax
81     \catcode61=\the\catcode61\relax
82     \catcode64=\the\catcode64\relax
83     \catcode123=\the\catcode123\relax
84     \catcode125=\the\catcode125\relax
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{%
95   \edef\GTS@AtEnd{%
96     \GTS@AtEnd
97     \catcode#1=\the\catcode#1\relax
98   }%
99   \catcode#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}

```

2.1 Options

```

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

\GetTitleString

```

120 \newcommand*{\GetTitleString}{%
121   \ifGTS@expand
122     \expandafter\GetTitleStringExpand
123   \else
124     \expandafter\GetTitleStringNonExpand
125   \fi
126 }

```

\GetTitleStringExpand

```

127 \newcommand{\GetTitleStringExpand}[1]{%
128   \def\GetTitleStringResult{#1}%
129   \begingroup
130     \GTS@DisablePredefinedCmds
131     \GTS@DisableHook
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}%
141   \global\let\GTS@GlobalString\GetTitleStringResult
142   \begingroup
143     \GTS@RemoveLeft
144     \GTS@RemoveRight
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 \def\addcontentsline{\expandafter\@gobble\@gobbletwo}%
161 \let\raggedright\@empty
162 \let\raggedleft\@empty
163 \let\centering\@empty
164 \let\protect\@unexpandable\protect
165 \let\enit@format\@empty % package enumitem
166 }

```

\GTS@DisableHook

```

167 \providecommand*\GTS@DisableHook{}

```

\GetTitleStringDisableCommands

```

168 \def\GetTitleStringDisableCommands{%
169   \begingroup
170     \makeatletter
171     \GTS@DisableCommands
172 }

```

\GTS@DisableCommands

```

173 \long\def\GTS@DisableCommands#1{%
174   \toks0=\expandafter{\GTS@DisableHook}%
175   \toks2={#1}%
176   \xdef\GTS@GlobalString{\the\toks0 \the\toks2}%
177   \endgroup
178   \let\GTS@DisableHook\GTS@GlobalString
179 }

```

2.2.2 Non-expand method

```

180 \def\GTS@RemoveLeft{%
181   \toks@\expandafter\expandafter\expandafter{%
182     \expandafter\GTS@Car\GTS@GlobalString{}{}{}{}\GTS@Nil
183   }%
184   \edef\GTS@Token{\the\toks@}%
185   \GTS@PredefinedLeftCmds
186   \expandafter\futurelet\expandafter\GTS@Token
187   \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{%
195       \expandafter#2\GTS@GlobalString\GTS@Nil
196     }%
197     \expandafter\GTS@TestLeftEnd
198   \fi
199 }
200 \long\def\GTS@TestLeftEnd#1\GTS@End{%
201   \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 \long\def\GTS@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
211     \toks@\expandafter{%
212       \romannumeral-0\GTS@GlobalString
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
226   \GTS@TestLeft\@mkboth\GTS@CdrThree
227   \GTS@TestLeft\addcontentsline\GTS@CdrFour
228   \GTS@TestLeft\enit@format\GTS@Cdr % package enumitem
229 }

230 \def\GTS@RemoveRight{%
231   \toks@{}%
232   \expandafter\GTS@TestRightLabel\GTS@GlobalString
233     \label{}\GTS@Nil\@nil
234   \GTS@RemoveRightSpace
235 }
236 \begingroup
237   \def\GTS@temp#1{\endgroup
238     \def\GTS@RemoveRightSpace{%
239       \expandafter\GTS@TestRightSpace\GTS@GlobalString
240         \GTS@Nil#1\GTS@Nil\@nil
241     }%
242   }%
243 \GTS@temp{ }
244 \def\GTS@TestRightSpace#1 \GTS@Nil#2\@nil{%
245   \ifx\relax#2\relax
246   \else
247     \gdef\GTS@GlobalString{#1}%
248     \expandafter\GTS@RemoveRightSpace
249   \fi
250 }
251 \def\GTS@TestRightLabel#1\label#2#3\GTS@Nil#4\@nil{%
252   \def\GTS@temp{#3}%
253   \ifx\GTS@temp\@empty
254     \expandafter\gdef\expandafter\GTS@GlobalString\expandafter{%
255       \the\toks@
256       #1%
257     }%
258     \expandafter\@gobble
259   \else
260     \expandafter\@firstofone
261   \fi

```

```

262  {%
263    \toks@\expandafter{\the\toks@#1}%
264    \GTS@TestRightLabel#3\GTS@Nil\@nil
265  }%
266 }

267 \GTS@AtEnd%
268 \</package>

```

3 Installation

3.1 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 T_EX Files” ([CTAN:pkg/tds](#)). Directories with `texmf` in their name are usually organized this way.

3.2 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
```

3.3 Package installation

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

```
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):

```

gettitlestring.sty → tex/generic/oberdiek/gettitlestring.sty
gettitlestring.pdf → doc/latex/oberdiek/gettitlestring.pdf
gettitlestring.dtx → source/latex/oberdiek/gettitlestring.dtx

```

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`.

3.4 Refresh file name databases

If your T_EX distribution (T_EX Live, mikT_EX, ...) relies on file name databases, you must refresh these. For example, T_EX Live users run `texhash` or `mktextlsr`.

¹[CTAN:pkg/gettitlestring](#)

3.5 Some details for the interested

Unpacking with L^AT_EX. The .dtx chooses its action depending on the format:

plain T_EX: Run docstrip and extract the files.

L^AT_EX: Generate the documentation.

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

```
latex \let\install=y\input{getttitlestring.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 pdfL^AT_EX:

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

4 References

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

5 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.

6 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.

Symbols	
<code>\@empty</code> ...	159, 161, 162, 163, 165, 253
<code>\@firstofone</code>	260
<code>\@gobble</code>	149,
	150, 151, 154, 155, 158, 160, 258
<code>\@gobbletwo</code> ...	152, 153, 156, 157, 160
<code>\@mkboth</code>	157, 226
<code>\@nil</code>	233, 240, 244, 251, 264
<code>\@sptoken</code>	210
<code>\@undefined</code>	58
<code>\@unexpandable@protect</code>	164
A	
<code>\addcontentsline</code>	160, 227
<code>\aftergroup</code>	29
C	
<code>\catcode</code> 2, 3, 5, 6, 7, 8, 9, 10, 11, 12,	
	13, 33, 34, 36, 37, 38, 39, 40, 41,
	42, 43, 44, 45, 46, 47, 48, 49, 69,
	70, 72, 73, 74, 78, 79, 80, 81, 82,
	83, 84, 87, 88, 90, 91, 92, 93, 97, 99
<code>\centering</code>	163
<code>\csname</code>	14, 21, 50, 66, 76
D	
<code>\DeclareBoolOption</code>	117
E	
<code>\empty</code>	17, 18
<code>\endcsname</code>	14, 21, 50, 66, 76
<code>\endinput</code>	29, 108
<code>\endlinechar</code>	4, 35, 71, 77, 89
<code>\enit@format</code>	165, 228
F	
<code>\futurelet</code>	186
G	
<code>\gdef</code>	247, 254
<code>\GetTitleString</code>	2, <u>120</u> , 139
<code>\GetTitleStringDisableCommands</code>	2, <u>168</u>
<code>\GetTitleStringExpand</code>	122, <u>127</u>
<code>\GetTitleStringNonExpand</code> ...	124, 139
<code>\GetTitleStringResult</code>	
	128, 133, 134, 140, 141, 146
<code>\GetTitleStringSetup</code>	2, 114
<code>\glossary</code>	155, 224
<code>\GTS@AtEnd</code>	95, 96, 108, 267
<code>\GTS@Car</code>	182, 204
<code>\GTS@Cdr</code>	205, 218, 219, 228
<code>\GTS@CdrFour</code>	208, 227
<code>\GTS@CdrThree</code>	207, 225, 226
<code>\GTS@CdrTwo</code>	206, 220, 221, 222, 223, 224
<code>\GTS@DisableCommands</code>	171, <u>173</u>
<code>\GTS@DisableHook</code> ..	131, <u>167</u> , 174, 178
<code>\GTS@DisablePredefinedCmds</code> ..	130, <u>148</u>
<code>\GTS@End</code>	188, 190, 200
<code>\GTS@GlobalString</code>	
	141, 146, 176, 178, 182, 187,
	195, 201, 212, 232, 239, 247, 254
<code>\GTS@Nil</code>	182,
	187, 195, 204, 205, 206, 207,
	208, 209, 233, 240, 244, 251, 264
<code>\GTS@PredefinedLeftCmds</code> ...	185, <u>217</u>
<code>\GTS@RemoveLeft</code>	143, 180, 202
<code>\GTS@RemoveRight</code>	144, 230
<code>\GTS@RemoveRightSpace</code> ..	234, 238, 248
<code>\GTS@temp</code> ..	192, 193, 237, 243, 252, 253
<code>\GTS@TestLeft</code> ..	191, 218, 219, 220, 221,
	222, 223, 224, 225, 226, 227, 228
<code>\GTS@TestLeftEnd</code>	197, 200, 214
<code>\GTS@TestLeftSpace</code>	187, 209
<code>\GTS@TestRightLabel</code> ...	232, 251, 264
<code>\GTS@TestRightSpace</code>	239, 244
<code>\GTS@Token</code>	184, 186, 193, 210
H	
<code>\Hy@phantomsection</code>	218
<code>\Hy@SectionAnchor</code>	219
<code>\Hy@SectionAnchorHref</code>	220
I	
<code>\ifGTS@expand</code>	121

<code>\ifx</code>	15, 18, 21, 50, 58, 61, 193, 210, 245, 253	<code>\RequirePackage</code>	109
<code>\immediate</code>	23, 52	<code>\romannumeral</code>	212
<code>\index</code>	154, 223		
<code>\InputIfFileExists</code>	118	S	
		<code>\setkeys</code>	115
		<code>\SetupKeyvalOptions</code>	110
L		T	
<code>\label</code>	149, 221, 233, 251	<code>\the</code>	77, 78, 79, 80, 81, 82, 83, 84, 97, 176, 184, 201, 255, 263
M		<code>\TMP@EnsureCode</code>	94, 101, 102, 103, 104, 105, 106, 107
<code>\makeatletter</code>	170	<code>\toks</code>	174, 175, 176
<code>\markboth</code>	156, 225	<code>\toks@</code>	181, 184, 194, 201, 211, 231, 255, 263
<code>\markright</code>	158		
N		W	
<code>\newcommand</code>	114, 120, 127, 139	<code>\write</code>	23, 52
P		X	
<code>\PackageInfo</code>	26	<code>\x</code>	14, 15, 18, 22, 26, 28, 51, 56, 66, 75, 87, 132, 137
<code>\phantomsection</code>	159		
<code>\ProcessKeyvalOptions</code>	119	Z	
<code>\protect</code>	164	<code>\zlabel</code>	150, 222
<code>\providecommand</code>	167	<code>\zref@label</code>	151
<code>\ProvidesPackage</code>	19, 67	<code>\zref@labelbylist</code>	152
R		<code>\zref@labelbyprops</code>	153
<code>\raggedleft</code>	162		
<code>\raggedright</code>	161		