The hypdoc package

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

2018/09/07 v1.14

Abstract

This package adds hyper features to the package doc that is used in the documentation system of LaTeX $2_{\mathcal{E}}$. Bookmarks are added and references are linked as far as possible.

Contents

1	Feat	tures	2
2	Usa	${f ge}$	3
	2.1	Options	3
	2.2	Simple example	3
	2.3	Example source2e.tex	4
3	Imp	lementation	4
	3.1	Options	4
	3.2	Package loading	4
		3.2.1 Patch for bug latex/4096	5
	3.3	Bookmarks	5
	3.4	\tableofcontents	6
	3.5	\listoffigures	6
	3.6	\listoftables	7
	3.7	\thebibliography	7
	3.8	\theindex	7
	3.9	\theglossary	8
	3.10	Index	9
	3.11	\PrintDescribeMacro	11
	3.12	\PrintMacroName	11
			12
			12
			12
	3.16	\SpecialEnvIndex	13
			13
	3.18	\@wrglossary	13
			13
4	Inst	allation	14
	4.1	Download	14
	4.2		14
	4.3		14
	4.4		15
	4.5	Some details for the interested	15

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

5	Catalogue	1
6	History	1
	[2002/05/10 v1.0]	1
	[2006/02/20 v1.1]	1
	[2006/04/27 v1.2]	1
	[2006/06/01 v1.3]	1
	[2006/06/02 v1.4]	1
	[2007/04/11 v1.5]	1
	[2007/11/12 v1.6]	1
	[2009/12/10 v1.7]	-
	[2010/02/03 v1.8]	-
	[2010/03/26 v1.9]	-
	[2011/05/05 v1.10]	-
	[2011/08/19 v1.11]	-
	[2016/05/16 v1.12]	
	[2016/10/02 v1.13]	-
	[2018/09/07 v1.14]	-
7	Index	1

1 Features

The package adds the following features:

Bookmarks: For supporting bookmarks package hyperref is loaded. Some TEX code inside section titles can cause problems during bookmark processing; these can be warnings, ugly bookmark titles or even errors. With the help of \pdfstringdefDisableCommands or \texorpdfstring you can manage these things, see hyperref's package documentation.

Additional bookmarks: Unnumbered bookmark entries are generated for:

- Table of contents
- List of figures
- List of tables
- Index
- Glossary

Option numbered controls, whether these section or chapters should be numbered. The exception is the table of contents if this it would be the first numbered section. Then just a bookmark is added.

Metadata: The loaded package hyperref, enforced by option pdfusetitle, tries to detect \title and \author and sets the corresponding PDF information fields. In case of problems see the previous item about bookmarks. These enries can be overwritten or new ones added by \hypersetup after the packages is loaded, see documentation of package hyperref.

References, links: Because of package \hyperref \ref become links, also \url, footnote referencing are supported.

Index: The main part of this package deals with index links in order to support the kind of index that package doc provides.

Thumbnails: Package thumbpdf may additionally be loaded for the case that the PDF file also should contain thumbnails, see the documentation of this package. But thumbnail embedding is not really necessary, because nowadays AcrobatReader is able to generate and view thumbnails on the fly.

2 Usage

The purpose of this packages is to add PDF features to the documentation of LaTeX packages. Thus just load the package in the driver file that generates the documentation:

```
\usepackage{hypdoc}
```

Package doc is loaded by hypdoc, thus you also can replace a \usepackage{doc} with this line. At any case, the package must be loaded before macros of package doc such as \CodelineIndex or \PageIndex are used.

If the class ltxdoc is used, you can also use the configuration file for this class to add package hypdoc. Add the following line to the file ltxdoc.cfg (or create a new one):

\AtEndOfClass{\RequirePackage{hypdoc}}

2.1 Options

There is one option numbered. It controls, whether the starred versions of section or chapter inside **\tableofcontents**, **\listoffigures**, ...should be replaced by the non-star versions.

2.2 Simple example

Example of a simple driver file foobar.drv of a package foobar. Often the driver file is packed in the file foobar.dtx and can be extracted by docstrip or if an instruction file for docstrip is provided by:

```
tex foobar.ins
```

Note that although docstrip doesn't rely on LATEX, sometimes you need to run the .ins file through LATEX. Oddly enough, often the only LATEX feature in use is \NeedsTeXFormat{LaTeX2e} in the first line.

```
\documentclass{ltxdoc}
\usepackage{hypdoc}
\RecordChanges
\EnableCrossrefs
\CodelineIndex
\begin{document}
\title{Title for package \texttt{foobar}}
\author{Author of package \texttt{foobar}}
\date{...}
\maketitle
\tableofcontents
\DocInput{foobar.dtx}
\PrintChanges
\PrintIndex
\end{document}
```

Then compile it, for example with pdfIATEX.

```
pdflatex foobar.drv
makeindex -s gind.ist foobar.idx
makeindex -s gglo.ist -o foobar.gls foobar.glo
pdflatex foobar.drv
```

You will need several cycles until the cross references and similar things are correct.

2.3 Example source2e.tex

The source code of the base of LATEX is available as a bunch of .dtx files. LATEX provides the file source2e.tex to merge them all together.

Now you can either load package hypdoc in a private copy of this file (please, respect the LPPL) or use the configuration file ltxdoc.cfg. Example that also sets A4 paper size:

```
\PassOptionsToClass{a4paper}{article}
\AtEndOfClass{\RequirePackage{hypdoc}}
```

Then source2e.tex can be compiled by pdfTFX, for example:

```
pdflatex source2e
makeindex -s gind.ist source2e.idx
makeindex -s gglo.ist -o source2e.glo source2e.gls
pdflatex source2e
makeindex -s gind.ist source2e.idx
makeindex -s gglo.ist -o source2e.glo source2e.gls
pdflatex source2e
```

3 Implementation

```
1 (*package)
2 \NeedsTeXFormat{LaTeX2e}
3 \ProvidesPackage{hypdoc}%
4 [2018/09/07 v1.14 Hyper extensions for doc.sty (HO)]%
```

The package identification is done at the top of the .dtx file in order to use only one identification string.

For unique command names this package uses HD@ as prefix

3.1 Options

\ifHD@numbered

- $5 \neq 5$
- $\label{lem:condition} \begin{tabular}{l} $$ \DeclareOption{numbered} {\DeclareOption{numbered} } $$ \end{tabular} $$$
- 7 \ProcessOptions*\relax

3.2 Package loading

```
8 \RequirePackage{atveryend}[2010/03/24]
9 \RequirePackage{doc}
10 \ifx\numexpr\@undefined
11 \RequirePackage{calc}%
12 \fi
13 \RequirePackage[%
14 hyperindex=false,%
15 pdfusetitle,%
16 colorlinks,%
17 pdfpagelabels%
18]{hyperref}[2002/05/09]%
19 \hypersetup{%
20 plainpages=false,%
21 bookmarksopen,%
22 bookmarksnumbered,%
23 bookmarksopenlevel=0,%
24 pdfstartview={FitBH \hypercalcbp{%
     \paperheight-\topmargin-lin-\headheight-\headsep
26 }},%
27 }
```

```
28 \newcounter{HD@unique}
                                                         \theHD@unique
                                                                                                                                         29 \renewcommand{\theHD@unique}{%
                                                                                                                                                         \number\value{HD@unique}%
                                                                                                                                        31 }
                                                                                                                                         32 \g@addto@macro\Hy@UseMaketitleInfos{%
                                                                                                                                                         \ensuremath{\texttt{O}}\ifundefined{fileinfo}{}{%
                                                                                                                                         33
                                                                                                                                         34
                                                                                                                                                                \ifx\@pdfsubject\@empty
                                                                                                                                                                       \hypersetup{pdfsubject={\fileinfo}}%
                                                                                                                                         35
                                                                                                                                                                \fi
                                                                                                                                         36
                                                                                                                                                     }%
                                                                                                                                         37
                                                                                                                                        38 }
                                                                                                                                         39 \pdfstringdefDisableCommands{%
                                                                                                                                         40 \let\thanks\@gobble
                                                                                                                                         41 \let\footnote\@gobble
                                                                                                                                         42 \def\cs#1{\texttextbackslash #1}\%
                                                                                                                                         43 \let\normalfont\@empty
                                                                                                                                         44 \let\scshape\@empty
                                                                                                                                        45 \ \left( \frac{45}{and} \right) 
                                                                                                                                       46 }
                                                                                                                                    3.2.1 Patch for bug latex/4096
                                                                                                                                         47 \begingroup\expandafter\expandafter\expandafter\endgroup
                                                                                                                                         48 \expandafter\ifx\csname mod@math@codes\endcsname\relax
                                                                                                                                         49 \else
                                                                                                                                         50
                                                                                                                                                         \def\HD@ModFix#1{%
                                                                                                                                                              \mbox{mathcode}\ \#1=\ \#1\
                                                                                                                                       51
                                                                                                                                        52 }%
                                                                                                                                                         \verb|\g@addto@macro\mod@math@codes{%}|
                                                                                                                                         53
                                                                                                                                                              \HD@ModFix\-%
                                                                                                                                        54
                                                                                                                                                               \HD@ModFix\+%
                                                                                                                                         55
                                                                                                                                                               \HD@ModFix\:%
                                                                                                                                         56
                                                                                                                                         57
                                                                                                                                                               \HD@ModFix\=%
                                                                                                                                                               \HD@ModFix\*%
                                                                                                                                        59 }%
                                                                                                                                        60 \fi
                                                                                                                                                              Bookmarks
                                                                                                                                     3.3
                                              \HD@sectionpatch
                                                                                                                                         61 \def\HD@sectionpatch{%
                                                                                                                                         62 \ifHD@numbered
                                                                                                                                         63
                                                                                                                                                               \HD@@sectionpatch{section}%
                                                                                                                                                               \HD@@sectionpatch{chapter}%
                                                                                                                                         64
                                                                                                                                         65
                                                                                                                                                         \else
                                                                                                                                                               \verb|\label{lem:lem:hp:eq} \label{lem:hp:eq} $$ \operatorname{Lower} \operatorname
                                                                                                                                         66
                                                                                                                                         67
                                                                                                                                                        \fi
                                                                                                                                         68 }
                                        \HD@@sectionpatch
                                                                                                                                         69 \def\HD@@sectionpatch#1{%
                                                                                                                                                         \expandafter\let\csname HDorg@@#1\expandafter\endcsname
                                                                                                                                                                \csname #1\endcsname
                                                                                                                                         71
                                                                                                                                                         \ensuremath{\texttt{@namedef}}{\#1}{\%}
                                                                                                                                         72
                                                                                                                                                                73
                                                                                                                                         74
                                                                                                                                                        }%
                                                                                                                                         75 }
\HD@disable@writebookmark
```

76 \def\HD@disable@writebookmark#1#2#3#4#5{}

```
\HD@guesstoclevel A wild guessing of the toclevel. There is the hope, that the macro #1 starts with a sectioning command.

77 \def\HD@guesstoclevel#1{%

78 \expandafter\HD@@guesstoclevel#1\section\HD@end

79 }

\HD@@guesstoclevel

80 \def\HD@@guesstoclevel#1#2\HD@end{%

81 \@ifundefined{toclevel@\expandafter\@gobble\string#1\@empty}{%

82 1%

83 }{%
```

3.4 \tableofcontents

84 \(0) 85 }% 86 }

\HDorg@tableofcontents

87 \let\HDorg@tableofcontents\tableofcontents

\tableofcontents

As first section the table of contents shouldn't go into the toc itself. Also a number looks too funny then. Just a bookmark is enough in this case.

\@nameuse{toclevel@\expandafter\@gobble\string#1\@empty}%

```
88 \def\tableofcontents{%
    \begingroup
 89
      \@ifundefined{c@section}{%
 90
       \def\c@section{0}\%
 91
      }{}%
 92
 93
    \expandafter\endgroup
 94
    \ifcase\c@section
 95
      \stepcounter{HD@unique}%
      \pdfbookmark[\HD@guesstoclevel{\HDorg@tableofcontents}]%
 96
         {\contentsname}{toc\theHD@unique}%
 97
      \HDorg@tableofcontents
98
99
    \else
      \ifHD@numbered
100
101
       \stepcounter{HD@unique}%
102
       \pdfbookmark[\HD@guesstoclevel{\HDorg@tableofcontents}]%
103
104
          {\contentsname}{toc\theHD@unique}%
105
      \begingroup
106
       \HD@sectionpatch
107
       \HDorg@tableofcontents
108
      \endgroup
109
110
    \fi
111 }
```

3.5 \listoffigures

\HDorg@listoffigures

112 \let\HDorg@listoffigures\listoffigures

\listoffigures

```
113 \def\listoffigures{%
114 \ifHD@numbered
115 \else
116 \stepcounter{HD@unique}%
117 \pdfbookmark[\HD@guesstoclevel{\HDorg@listoffigures}]%
118 {\listfigurename}{toc\theHD@unique}%
119 \fi
120 \begingroup
```

```
\HD@sectionpatch
121
     \HDorg@listoffigures
122
123
    \endgroup
124 }
3.6
      \listoftables
125 \left( \text{HDorg@listoftables} \right)
126 \def\listoftables{\%
    \ifHD@numbered
127
    \else
128
     \stepcounter{HD@unique}%
129
     \pdfbookmark[\HD@guesstoclevel{\HDorg@listoftables}]%
130
        {\listtablename}{toc\theHD@unique}%
131
132
133
    \begingroup
     \HD@sectionpatch
134
135
     \HDorg@listoftables
136
    \endgroup
137 }
3.7
      \thebibliography
138 \let\HDorg@thebibliography\thebibliography
139 \def\thebibliography{%
140 \ifHD@numbered
    \else
141
142
     \stepcounter{HD@unique}%
     \pdfbookmark[\HD@guesstoclevel{\HDorg@thebibliography}]%
143
       144
145
146
    \HD@sectionpatch
147
    \HDorg@thebibliography
148 }
3.8
      \theindex
149 \let\HDorg@theindex\theindex
```

\HDorg@theindex

\HDorg@listoftables

\HDorg@thebibliography

\thebibliography

\listoftables

\theindex

```
150 \def\theindex{%
152
                          \HD@sectionpatch
153
                           \g@addto@macro\IndexParms{%
154
                                   \ifHD@numbered
155
156
157
                                           \let\Hy@writebookmark\HDorg@writebookmark
158
159
                                  \let\bfseries\HD@bfseries
160
                          \verb|\def| HD@toclevel@index{\def|} we will be a considered for the constant of the constant of
161
162
                           \begingroup
                                 \count@=\HD@toclevel@index\relax
163
```

```
\advance\count@ by 1 %
                                                  164
                                                                  165
                                                  166
                                                              \endgroup
                                                              \def\index@prologue{%
                                                  167
                                                   168
                                                                 \ifHD@numbered
                                                  169
                                                                  \else
                                                  170
                                                                     \begingroup
                                                                        \stepcounter{HD@unique}%
                                                  171
                                                                         172
                                                                         \pdfbookmark[\HD@toclevel@index]%
                                                  173
                                                                                {\indexname}{index\theHD@unique}%
                                                  174
                                                                     \endgroup
                                                  175
                                                                 \fi
                                                  176
                                                                  \HDorg@index@prologue
                                                  177
                                                              }%
                                                  178
                                                              \HDorg@theindex
                                                   180 }
       \HDorg@bfseries
                                                  181 \let\HDorg@bfseries\bfseries
               \HD@bfseries
                                                  182 \ensuremath{\mbox{\mbox{$182$ \color=182$ \color
            \HD@@bfseries
                                                   183 \def\HD@@bfseries{%
                                                  184 \HDorg@bfseries
                                                  185 \ifx\HD@hfil\hfil
                                                                 \expandafter\HD@@@bfseries
                                                  186
                                                  187 \fi
                                                  188 }
        \HD@@@bfseries
                                                   189 \def\HD@@@bfseries\hfil#1\hfil{%
                                                   190 \ifx\\#1\\%
                                                  191
                                                              \else
                                                                 \additineskip}[0pt]{\%}
                                                  192
                                                                     193
                                                                     194
                                                                     195
                                                                }%
                                                  196
                                                  197 \fi
                                                  198 \hfil#1\hfil
                                                   199 }%
                \HD@margin
                                                  200 \def\HD@margin\{1mm\}
                                                  3.9
                                                                   \theglossary
\HDorg@theglossary
                                                  201 \let\HDorg@theglossary\theglossary
                  \theglossary
                                                  202 \def\theglossary{%
                                                             \let\HDorg@glossary@prologue\glossary@prologue
                                                  203
                                                  204 \let\HDorg@writebookmark\Hy@writebookmark
                                                  205 \HD@sectionpatch
                                                  206 \def\glossary@prologue{%
                                                  207
                                                                 \ifHD@numbered
                                                  208
                                                                 \else
```

```
\begingroup
                                                    209
                                                                          \let\Hy@writebookmark\HDorg@writebookmark
                                                    210
                                                                          \stepcounter{HD@unique}%
                                                    211
                                                                          \pdfbookmark[\HD@guesstoclevel{\HDorg@glossary@prologue}]%
                                                    212
                                                    213
                                                                                 {\changehistoryname}{glossary\theHD@unique}%
                                                    214
                                                                       \endgroup
                                                    215
                                                                   \fi
                                                                   \HDorg@glossary@prologue
                                                    216
                                                    217 }%
                                                    218 \HDorg@theglossary
                                                    219 }
               \glossaryname
                                                    220 \providecommand*{\glossaryname}{Change History}
               \glossaryname
                                                    221 \providecommand*{\changehistoryname}{\glossaryname}
                                                    3.10 Index
                                                    222 \newcounter{HD@hypercount}
          \HD@helplength
                                                    223 \newlength{\HD@helplength}
            \ifHD@savedest
                                                    224 \newif\ifHD@savedest
                                                    225 \HD@savedesttrue
                                                    226 \AtBeginDocument{%
                                                    227 \HD@savedest@init
                                                    228 }
                                                    229 \RequirePackage{rerunfilecheck}[2009/12/10]
    \HD@savedest@init
                                                    230 \begingroup
                                                   231 \catcode`\^^M=\active
                                                   232 \@firstofone{\endgroup
                                                   233 \def\HD@savedest@init{\%}
                                                                  \ifHD@savedest
                                                    234
                                                                      \let\HDorg@tilde~%
                                                    235
                                                                       \let~\HD@savedest@entry
                                                    236
                                                    237
                                                                       \end{\color=0.05cm} $$\end{\color=0.05cm} \color= \color=0.05cm} $$\color=0.05cm (\color=0.05cm) $$\color=0.05cm (\color=0.0
                                                    238
                                                                       \colored{M}=\active
                                                    239
                                                                       \ensuremath{\mbox{def}^{\mbox{M}}}\%
                                                    240
                                                                       \InputIfFileExists{\jobname.hd}{}{}%
                                                    241
                                                                       \let~\HDorg@tilde
                                                                       \catcode`\^^M=\HDorg@catcodeM\relax
                                                    242
                                                    243
                                                                       \newwrite\HD@savedest@out
                                                    244
                                                                       \RerunFileCheck{\jobname.hd}{%
                                                                          \verb|\dimmediate| close out \| HD@savedest@out
                                                    245
                                                    246
                                                                      }{}%
                                                    247
                                                                       \verb|\dimmediate| openout| HD@savedest@out=\\jobname.hd\\relax|
                                                    248
                                                                       \let\HD@savedest@add\@gobble
                                                    ^{249}
                                                    250
                                                                   \fi
                                                    251
                                                               }%
\HD@savedest@entry
                                                               \def\HD@savedest@entry#1^^M{%
                                                    252
                                                                 \ensuremath{\mbox{Qnamedef{HD.#1}{}}}
                                                    253
                                                    254 }%
                                                    255 }
```

```
\HD@savedest@add
                                                            256 \def\HD@savedest@add#1{%
                                                            257 \immediate\write\HD@savedest@out{\string~#1}%
                                                            258 }
             \ifHD@targetraise
                                                            259 \newif\ifHD@targetraise
                                                            260 \HD@targetraisetrue
                           \HD@target
                                                            261 \def\HD@target{%
                                                            262
                                                                        \ifHD@targetraise
                                                                            \ifhmode
                                                            263
                                                            264
                                                                                \settoheight{\HD@helplength}{[H]}%
                                                            265
                                                                                \addtolength{\HD@helplength}{0.4ex}%
                                                                                \label{localized} $$ \arrowvert all the lambda of the la
                                                            266
                                                            267
                                                                                   \HD@maketarget
                                                                               }%
                                                            268
                                                            269
                                                                            \else
                                                                               \HD@maketarget
                                                            270
                                                                            \fi
                                                            271
                                                            272
                                                                       \else
                                                            273
                                                                           \HD@maketarget
                                                            274 \fi
                                                            275 }
              \HD@maketarget
                                                            276 \def\HD@maketarget{%
                                                                        \stepcounter{HD@hypercount}%
                                                            278
                                                                        \def\HD@next{%
                                                            279
                                                                           \displaystyle \left( \frac{HD.\tilde{HD}@hypercount}{}\right),}
                                                            280 }%
                                                                        \ifHD@savedest
                                                            281
                                                                           \expandafter\ifx\csname HD.\the\c@HD@hypercount\endcsname\@empty
                                                            282
                                                                            \else
                                                            283
                                                                                \left( HD@next\right) 
                                                            284
                                                                            \fi
                                                            285
                                                                       \fi
                                                            286
                                                                        \HD@next
                                                            287
                                                            288 }
                   \CodelineIndex
                                                            289 \g@addto@macro\CodelineIndex{%
                                                            291 }
                            \PageIndex
                                                            292 \g@addto@macro\PageIndex{%
                                                                        \let\special@index\HD@page@wrindex
                                                            294 }
\HD@codeline@wrindex
                                                            295 \def\HD@codeline@wrindex#1{%
                                                            296
                                                                        \begingroup
                                                            297
                                                                            \let\HDorg@encapchar\encapchar
                                                            298
                                                                            \def\encapchar ##1\encapchar ##2\@nil{%}
                                                            299
                                                                                \HDorg@encapchar
                                                            300
                                                                               \verb| hdclindex{\theta c@HD@hypercount}{\#\#1}%|
                                                            301
                                                                           }%
                                                                            \codeline@wrindex{%
                                                            302
                                                                                #1\encapchar\encapchar\olimits
                                                            303
                                                                           }%
                                                            304
```

```
\endgroup
                          305
                          306 }
       \HD@page@wrindex
                          307 \def\HD@page@wrindex#1{%
                              \begingroup
                          308
                                \let\HDorg@encapchar\encapchar
                          309
                                \def\encapchar##1\encapchar##2\@nil{%
                          310
                          311
                                 \HDorg@encapchar
                          312
                                 hdpindex{##1}%
                          313
                                \HDorg@index{#1\encapchar\encapchar\@nil}%
                          314
                          315
                              \endgroup
                          316 }
               \hdclindex
                          317 \def\hdclindex#1#2#3{\%}
                              \csname\ifx\#2\relax\else\#2\fi\endcsname\{\%
                                319
                          320
                               \HD@savedest@add{#1}%
                          321 }%
                          322 }
                \hdpindex
                          323 \left( \frac{4}{9} \right)
                          324 \csname\ifx\\#1\\relax\else#1\fi\endcsname{\%
                          325
                                \hyperpage{#2}%
                          326 }%
                          327 }
                          3.11
                                 \PrintDescribeMacro
\HDorg@PrintDescribeMacro
                          \PrintDescribeMacro
                          329 \renewcommand\PrintDescribeMacro[1]{%
                          330 \begingroup
                                \let\HDorg@MacroFont\MacroFont
                          331
                                \def\MacroFont{%
                          332
                                 \HD@target
                          333
                                 \HDorg@MacroFont
                          334
                          335
                                \verb|\HDorg@PrintDescribeMacro{#1}| %
                          336
                          337
                              \endgroup
                          338 }
                          3.12
                                 \PrintMacroName
  \verb|\HDorg@PrintMacroName||
                          339 \let\HDorg@PrintMacroName\PrintMacroName
         \PrintMacroName
                          340 \renewcommand\PrintMacroName[1]{\%
                          341
                              \begingroup
                                \let\HDorg@MacroFont\MacroFont
                          343
                                \def\MacroFont{%
                          344
                                 \HD@target
                          345
                                 \HDorg@MacroFont
                          346
                                \verb|\HDorg@PrintMacroName{#1}| %
                          347
                          348
                              \endgroup
                          349 }
```

3.13 \theCodelineNo

```
\HDorg@theCodelineNo
```

350 \let\HDorg@theCodelineNo\theCodelineNo

\theCodelineNo

```
351 \renewcommand*\theCodelineNo{%
                                       \label{thm:linear_lemma_lemma_lemma} $$\left(HD@helplength\right)_{\Dorg@theCodelineNo} \
353
                                       \ifdim\HD@helplength<\MacroIndent
354
                                                  \verb|\addtolength|{\hdown} {\hdown} {\hd
355
                                                    \label{lap}%
                                                               \begingroup\HD@target\endgroup
356
                                                               \hspace*{-\HD@helplength}%
357
                                                 }%
358
                                       \else
359
```

360 \HD@target

361 \fi

362 \HDorg@theCodelineNo

363 }

\HDorg@index

```
364 \AtBeginDocument{%
365 \let\HDorg@index\index
366 }
```

3.14 \SpecialUsageIndex

\HDorg@SpecialUsageIndex

```
367 \let\HDorg@SpecialUsageIndex\SpecialUsageIndex
368 \renewcommand*\SpecialUsageIndex[1]{%
    \@bsphack
369
370 \begingroup
     \HD@target
371
     \let\index\HDorg@index
372
373
     \let\HDorg@encapchar\encapchar
374
     \edef\encapchar usage{%
375
        \HDorg@encapchar hdclindex{\the\c@HD@hypercount}{usage}%
376
      \HDorg@SpecialUsageIndex{#1}%
377
378
    \endgroup
    \@esphack
379
380 }
```

3.15 \autoindex

```
381 \begingroup\expandafter\expandafter\expandafter\endgroup
382 \expandafter\ifx\csname autoindex\endcsname\relax
383 \else
```

\HDorg@autoindex

\autoindex

```
385
    \renewcommand*\autoindex[1]{%
386
     \@bsphack
387
     \begingroup
388
      \HD@target
      \let\index\HDorg@index
389
      390
      \edef\encapchar usage{%
391
        \HDorg@encapchar hdclindex{\the\c@HD@hypercount}{usage}%
392
393
      }%
```

```
\HDorg@autoindex{#1}%
                                                                              394
                                                                              395
                                                                                                 \endgroup
                                                                                                 \@esphack
                                                                              396
                                                                              397 }%
                                                                              398 \fi
                                                                              3.16
                                                                                                       \SpecialEnvIndex
\HDorg@SpecialEnvIndex
                                                                              399 \let\HDorg@SpecialEnvIndex\SpecialEnvIndex
                      \SpecialEnvIndex
                                                                              400 \renewcommand*\SpecialEnvIndex[1]{%
                                                                                            \@bsphack
                                                                              401
                                                                                             \begingroup
                                                                              402
                                                                                                 \HD@target
                                                                              403
                                                                                                 \let\HDorg@encapchar\encapchar
                                                                             404
                                                                              405
                                                                                                 \edef\encapchar usage{%
                                                                                                     \HDorg@encapchar hdclindex{\the\c@HD@hypercount}{usage}%
                                                                              406
                                                                              407
                                                                                                 \HDorg@SpecialEnvIndex{#1}%
                                                                              408
                                                                              409
                                                                                            \endgroup
                                                                              410
                                                                                            \@esphack
                                                                              411 }
                                                                              3.17
                                                                                                       \SortIndex
                   \HDorg@SortIndex
                                                                             412 \let\HDorg@SortIndex\SortIndex
                                          \SortIndex
                                                                              413 \renewcommand*{\SortIndex}[2]{%
                                                                             414 \@bsphack
                                                                             415 \begingroup
                                                                                                \let\index\HD@page@wrindex
                                                                             416
                                                                                                \HDorg@SortIndex{#1}{#2}%
                                                                             417
                                                                             418 \endgroup
                                                                             419
                                                                                            \@esphack
                                                                              420 }
                                                                                                       \@wrglossary
                                                                              3.18
                 \HDorg@wrglossary
                                                                              421 \let\HDorg@wrglossary\@wrglossary
                                   \@wrglossary
                                                                              422 \ensuremath{\mbox{def}\mbox{@wrglossary#1}}\%
                                                                              423 \let\HDorg@encapchar\encapchar
                                                                                            \label{lem:capchar} $$ \encapchar \# 1\encapchar \# 2\encapchar \# 2\enca
                                                                              424
                                                                                                \HDorg@encapchar
                                                                              425
                                                                                                \texttt{hdpindex}\{\#\#1\}\%
                                                                              426
                                                                              427 }%
                                                                              428 \HDorg@wrglossary{#1\encapchar\encapchar\@nil}%
                                                                              429 }
```

3.19 \MacroIndent

```
\MacroIndent automatically calculated.
```

430 \AfterLastShipout{%

431 \if@filesw

```
432 \immediate\write\@auxout{%
433 \string\providecommand\string\HD@SetMacroIndent[1]{}%
434 }%
435 \immediate\write\@auxout{%
436 \string\HD@SetMacroIndent{\number\value{CodelineNo}}%
437 }%
438 \fi
439 }
```

\HD@SetMacroIndent

```
440 \def\HD@SetMacroIndent#1{%
441 \begingroup
442 \value{CodelineNo}=#1\relax
443 \settowidth{\MacroIndent}{\HDorg@theCodelineNo\}%
444 \global\MacroIndent\MacroIndent
445 \endgroup
446 }
447 \(/\package\)
```

4 Installation

4.1 Download

Package. This package is available on CTAN¹:

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

CTAN:macros/latex/contrib/oberdiek/hypdoc.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 hypdoc.dtx
```

¹http://ctan.org/pkg/hypdoc

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

```
hypdoc.sty \rightarrow tex/latex/oberdiek/hypdoc.sty hypdoc.pdf \rightarrow doc/latex/oberdiek/hypdoc.pdf hypdoc.dtx \rightarrow source/latex/oberdiek/hypdoc.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.

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.

4.5 Some details for the interested

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

plain T_EX: Run docstrip and extract the files.

IATEX: 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{hypdoc.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 hypdoc.dtx
makeindex -s gind.ist hypdoc.idx
pdflatex hypdoc.dtx
makeindex -s gind.ist hypdoc.idx
pdflatex hypdoc.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 hypdoc.xml.

```
448 (*catalogue)
449 <?xml version='1.0' encoding='us-ascii'?>
450 <!DOCTYPE entry SYSTEM 'catalogue.dtd'>
451 <entry datestamp='$Date$' modifier='$Author$' id='hypdoc'>
452 <name>hypdoc</name>
453 <caption>Hyper extensions for doc.sty.</caption>
454 <authorref id='auth:oberdiek'/>
455 <copyright owner='Heiko Oberdiek' year='2002,2006,2007,2009-2011'/>
456 41cense type='lppl1.3'/>
457 <version number='1.14'/>
458 <description>
```

```
This package adds hypertext features to the package
459
      <xref refid='doc'>doc</xref> that is used in the documentation
460
      system of xref refid='latex'>LaTeX2e
461
      and references are linked as far as possible.
462
463
464
      The package is part of the <xref refid='oberdiek'>oberdiek</xref>
465
      bundle.
466
    </description>
    <documentation details='Package documentation'</pre>
467
       href='ctan:/macros/latex/contrib/oberdiek/hypdoc.pdf'/>
468
469 <ctan file='true' path='/macros/latex/contrib/oberdiek/hypdoc.dtx'/>
470 <miktex location='oberdiek'/>
471 <texlive location='oberdiek'/>
472 <install path='/macros/latex/contrib/oberdiek/oberdiek.tds.zip'/>
473 </entry>
474 (/catalogue)
```

6 History

[2002/05/10 v1.0]

• First standalone version.

[2006/02/20 v1.1]

- Option numbered added.
- \HD@savedest@init fixed (empty .hd file triggered first page with fl ligature).
- Bookmarks for \listoffigures and \listoftables.
- Documentation: features and usage added.
- LPPL 1.3.

[2006/04/27 v1.2]

• \HD@target fixed (multicol.dtx).

[2006/06/01 v1.3]

• Support for package amsdtx's \autoindex added.

[2006/06/02 v1.4]

• Bookmark fixed if there are several table of contents, bibliographies, glossaries, ...

[2007/04/11 v1.5]

• Line ends sanitized.

[2007/11/12 v1.6]

- Bug fix in \listoffigures (Axel Sommerfeldt).
- Markup added in implementation section.

[2009/12/10 v1.7]

• Use of package rerunfilecheck.

[2010/02/03 v1.8]

• Fix for bug latex/4096 added.

[2010/03/26 v1.9]

• Definition of \HD@SetMacroIndex is provided in the .aux file.

[2011/05/05 v1.10]

• \raisebox in \HD@target with height and depth of Opt (request of GL).

[2011/08/19 v1.11]

• Latest comma in option list for hyperref removed to avoid option clash because of LATEX 2011/06/27 with the new \in@.

[2016/05/16 v1.12]

• Documentation updates.

[2016/10/02 v1.13]

• Fixes to bookmarknames, also introduce \changehistoryname

[2018/09/07 v1.14]

• Do not load thumpdf.

7 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.

$\mathbf{Symbols}$	
* <u>58</u>	\□
\+ 55	
	A
\ 54	\active
\:	\addtolength
\= 57	\AfterLastShipout
\@auxout 432, 435	\and
\@bsphack 369, 386, 401, 414	\AtBeginDocument 226, 364
\@empty 34, 43, 44, 81, 84, 282	\autoindex
	, , <u></u>
\@esphack 379, 396, 410, 419	В
\@firstofone 232	\baselineskip 192
\@gobble 40, 41, 81, 84, 249	\bfseries 159, 181
\@ifstar 73	\bibname
\@ifundefined 33, 81, 90, 144	
\@namedef	\mathbf{C}
\@nameuse 73, 84	\c@HD@hypercount
\@nil 298, 303, 310, 314, 424, 428	279, 282, 300, 375, 392, 406
\@pdfsubject 34	\c@section 91, 94
\@undefined 10	\tatcode 231, 237, 238, 242
\@wrglossary	\changehistoryname 213, 221
	\closeout 245
\\ 190, 318, 324	\codeline@wrindex 302
\^ 231, 237, 238, 242	\CodelineIndex

\contentsname 97, 104	\HDorg@glossary@prologue 203, 212, 216
\count@ 163, 164, 165	\HDorg@index 314, 364, 372, 389
\cs	\HDorg@index@prologue 151, 177
\csname 48, 70, 71, 282, 318, 324, 382	\HDorg@listoffigures <u>112</u> , 117, 122
(CSHaffle 46, 70, 71, 262, 516, 524, 562	
D	\HDorg@listoftables $\underline{125}$, 130 , 135
D	\HDorg@MacroFont . 331, 334, 342, 345
\DeclareOption 6	\HDorg@PrintDescribeMacro 328, 336
	\HDorg@PrintMacroName 339, 347
${f E}$	\HDorg@SortIndex 412, 417
\encapchar 297, 298,	
303, 309, 310, 314, 373, 374,	\HDorg@SpecialEnvIndex 399, 408
390, 391, 404, 405, 423, 424, 428	\HDorg@SpecialUsageIndex <u>367</u>
	\HDorg@tableofcontents
\endcsname 48, 70, 71, 282, 318, 324, 382	87, 96, 98, 103, 108
.	\HDorg@thebibliography . 138, 143, 147
${f F}$	
\fileinfo 35	\HDorg@theCodelineNo
\footnote	350, 352, 362, 443
\futurelet 182	\HDorg@theglossary $\dots 201, 218$
(140410100	\HDorg@theindex <u>149, 179</u>
\mathbf{G}	\HDorg@tilde 235, 241
- -	\HDorg@wrglossary 421, 428
\g@addto@macro 32, 53, 154, 289, 292	
\glossary@prologue 203, 206	\HDorg@writebookmark
\glossaryname <u>220</u> , <u>221</u>	152, 157, 172, 204, 210
	\hdpindex <u>323</u>
H	\headheight 25
\HD@@@bfseries 186, 189	\headsep 25
\HD@@bfseries	\hfil
\HD@@guesstoclevel $$ $78, 80$	\hspace 357
\HD@@sectionpatch $63, 64, \underline{69}$	\Hy@UseMaketitleInfos 32
\HD@bfseries	\Hy@writebookmark
\HD@codeline@wrindex $290, 295$	$\dots \dots 66, 152, 157, 172, 204, 210$
\HD@disable@writebookmark $66, \overline{76}$	\hypercalcbp
\HD@end	
	\hyperlink 319
\HD@guesstoclevel	\hyperpage 325
96, 103, 117, 130, 143, 161, 212	\hypersetup 19, 35
\HD@helplength $\underline{223}$,	\hypertarget 279
264, 265, 266, 352, 353, 354, 357	
\HD@hfil 182, 185	I
\HD@maketarget 267, 270, 273, 276	\if@filesw
\HD@margin 193, 195, 200	
, ,	•
\HD@ModFix 50, 54, 55, 56, 57, 58	\ifdim 353
\HD@next 278, 284, 287	\ifHD@numbered $\dots \dots $ $\underline{5}$,
\HD@numberedtrue 6	
	62, 100, 114, 127, 140, 155, 168, 207
\HD@page@wrindex $293, 307, 416$	62, 100, 114, 127, 140, 155, 168, 207 \ifHD@savedest 224, 234, 281
\HD@page@wrindex 293, 307, 416 \HD@savedest@add 249, 256, 320	$\label{local_continuous_problem} $$ \iff D@savedest $\underline{224}, 234, 281 $$ $
\HD@savedest@add $249, 256, 320$	\ifHD@savedest
\HD@savedest@add 249, <u>256,</u> 320 \HD@savedest@entry <u>236,</u> <u>252</u>	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$
$\label{eq:hdef} $$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	\ifHD@savedest \frac{224}{234}, 234, 281 \ifHD@targetraise \frac{259}{262}, 262 \ifhmode \frac{263}{263} \ifx \frac{10}{263}
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$
\HD@savedest@add	\ifHD@savedest \frac{224}{234}, 234, 281 \ifHD@targetraise \frac{259}{262}, 262 \ifhmode \frac{263}{263} \ifx \frac{10}{263}
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	\ifHD@savedest
\HD@savedest@add	\ifHD@savedest
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	\ifHD@savedest
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	\ifHD@savedest
\HD@savedest@add 249, 256, 320 \HD@savedest@entry 236, 252 \HD@savedest@init 227, 230 \HD@savedest@out 243, 245, 247, 257 \HD@savedesttrue 225 \HD@sectionpatch	\ifHD@savedest
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	\ifHD@savedest
\HD@savedest@add 249, 256, 320 \HD@savedest@entry 236, 252 \HD@savedest@init 227, 230 \HD@savedest@out 243, 245, 247, 257 \HD@savedesttrue 225 \HD@sectionpatch	\ifHD@savedest
$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	\ifHD@savedest
\HD@savedest@add 249, 256, 320 \HD@savedest@entry 236, 252 \HD@savedest@init 227, 230 \HD@savedest@out 243, 245, 247, 257 \HD@savedesttrue 225 \HD@sectionpatch	\ifHD@savedest
\HD@savedest@add 249, 256, 320 \HD@savedest@entry 236, 252 \HD@savedest@init 227, 230 \HD@savedest@out 243, 245, 247, 257 \HD@savedesttrue 225 \HD@sectionpatch	\ifHD@savedest
\HD@savedest@add 249, 256, 320 \HD@savedest@entry 236, 252 \HD@savedest@init 227, 230 \HD@savedest@out 243, 245, 247, 257 \HD@savedesttrue 225 \HD@sectionpatch	\ifHD@savedest
\HD@savedest@add 249, 256, 320 \HD@savedest@entry 236, 252 \HD@savedest@init 227, 230 \HD@savedest@out 243, 245, 247, 257 \HD@savedesttrue	\ifHD@savedest
\HD@savedest@add 249, 256, 320 \HD@savedest@entry 236, 252 \HD@savedest@init 227, 230 \HD@savedest@out 243, 245, 247, 257 \HD@savedesttrue 225 \HD@sectionpatch	\ifHD@savedest
\HD@savedest@add 249, 256, 320 \HD@savedest@entry 236, 252 \HD@savedest@init 227, 230 \HD@savedest@out 243, 245, 247, 257 \HD@savedesttrue 225 \HD@sectionpatch	\ifHD@savedest
\HD@savedest@add 249, 256, 320 \HD@savedest@entry 236, 252 \HD@savedest@init 227, 230 \HD@savedest@out 243, 245, 247, 257 \HD@savedesttrue	\ifHD@savedest
\HD@savedest@add 249, 256, 320 \HD@savedest@entry 236, 252 \HD@savedest@init 227, 230 \HD@savedest@out 243, 245, 247, 257 \HD@savedesttrue 225 \HD@sectionpatch	\ifHD@savedest
\HD@savedest@add 249, 256, 320 \HD@savedest@entry 236, 252 \HD@savedest@init 227, 230 \HD@savedest@out 243, 245, 247, 257 \HD@savedesttrue	\ifHD@savedest

\listoftables	\refname
M	\RequirePackage 8, 9, 11, 13, 229
\MacroFont 331, 332, 342, 343	\RerunFileCheck 244
\MacroIndent 353, 354, 443, 444	\mathbf{S}
\mathcode 51	\scshape 44
\mod@math@codes 53	\section
NT.	\settoheight 264
N \NeedsTeXFormat 2	\settowidth 352, 443
\\newcounter 28, 222	\SortIndex
\newif	\special@index 290, 293
\newlength	\SpecialEnvIndex 399, <u>400</u>
\newwrite 243	\SpecialUsageIndex 367, 368
\normalfont 43	\stepcounter 95, 102, 116, 129, 142, 171, 211, 277
\number 30, 436	102, 110, 129, 142, 171, 211, 277
\numexpr 10	
mathred{mathr	${f T}$
-	T \tableofcontents 87, <u>88</u>
0	-
-	\tableofcontents
0	\tableofcontents
O \openout	\tableofcontents
O \openout 247 P \PageIndex 292 \paperheight 25	\tableofcontents
O \openout 247 P \PageIndex 292 \paperheight 25 \pdfbookmark 96,	\tableofcontents
O \openout	\tableofcontents