## The holtxdoc package

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#### 2016/05/17 v0.27

#### Abstract

The package is used for the documentation of my packages in DTX format. It contains some private macros and setup for my needs. Thus do not use it. I have separated the part that may be useful for others in package hypdoc.

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

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#### 1 No usage

Caution: This package is not intended for public use!

It contains the macros and settings to generate the documentation of my packages in CTAN:macros/latex/contrib/oberdiek/. Thus the package does not know anything about compatibility. Only my current packages' documentation must compile.

Older versions were more interesting, because they contained code to add hyperref's features to LaTeX's doc system, e.g. bookmarks and index links. I separated this stuff and made a new package hypdoc.

#### 2 Implementation

```
_1 \langle *package \rangle
```

Package identification.

- 2 \NeedsTeXFormat{LaTeX2e}
- ${\small 3 \ \ \ } ProvidesPackage{holtxdoc}{\small \%} \\$
- 4 [2016/05/17 v0.27 Private additional ltxdoc support (HO)]
- 5 \PassOptionsToPackage{pdfencoding=auto}{hyperref}
- 6 \RequirePackage[numbered]{hypdoc}[2010/03/26]
- 7 \RequirePackage{hyperref}[2010/03/30]
- 8 \RequirePackage{pdftexcmds}[2010/04/01]
- 9 \RequirePackage{ltxcmds}[2010/03/09]
- 11 \RequirePackage{ifluatex}[2010/03/01]
- 12 \RequirePackage{array}

#### 2.1 Help macros

```
13 \def\hld@info#1{%
14 \PackageInfo{holtxdoc}{#1\@gobble}%
15 }
16 \def\hld@warn#1{%
17 \PackageWarningNoLine{holtxdoc}{#1}%
18 }
```

#### 2.2 Font setup for LuaLATEX

- 19 \ifluatex
- 20 \RequirePackage{fontspec}[2011/09/18]%
- ${\tt 21} \quad \verb|\RequirePackage{unicode-math}[2011/09/19]\%$
- 22 \setmathfont{latinmodern-math.otf}%
- 23 \fi

#### 2.3 Date

```
24 \label{ltx@IfUndefined{pdf@filemoddate}{}}
25 }{%
               \label{lem:lemodate} $$\ef \del{pdf} $$ \operatorname{lemodate}{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\footnote{\f
26
               \ifx\hld@temp\ltx@empty
27
28
               \else
29
                     \begingroup
30
                            \def\x#1:#2#3#4#5#6#7#8#9{\%}
                                 \year=#2#3#4#5\relax
31
                                 \mathbb{4}^{6}7\relax
32
                                 \text{day}=\#8\#9\text{relax}
33
34
                                 \у
                          }%
35
                           \def \y #1#2#3#4#5\enil{%}
36
37
                                 <text> \time=#1#2\relax
                                 \multiply\time by 60\relax
38
                                 \advance\times3#4\relax
39
40
41
                            \expandafter\x\hld@temp\@nil
42
                            \edef\x{\endgroup
                                 \year=\the\year\relax
43
                                 \mathbf{\t }
44
                                 \displaystyle \dy=\theta \dy\relax
45
                                 \time=\the\time\relax
46
                          }%
47
48
                      \x
49
                      \edef\hld@temp{%
50
                           \noexpand\hypersetup{%
51
                                 pdfcreationdate=\hld@temp,%
52
                                 pdfmoddate=\hld@temp
                          }%
53
                    }%
54
                      \hld@temp
55
               \fi
56
57 }
```

#### 2.4 History

\historyname

```
58 \providecommand*{\historyname}{History}
59 \newcommand*{\StartHistory}{%
   \section{\historyname}%
60
61 }
62 \@ifpackagelater{hyperref}{2009/11/27}{%
63
   \newcommand*{\HistVersion}[1]{%
64
     \subsection*{[#1]}% hash-ok
65
     \verb|\addcontentsline{toc}{subsection}{[\#1]}% \ hash-ok
66
     \def\HistLabel\##1{\%}
67
      \begingroup
        68
69
        \left\{ \#1 \right\}
70
      \endgroup
    }%
71
   }%
72
73 }{%
   \verb|\newcommand*{\HistVersion}[1]{%}|
75
     \subsection*{%
76
      \phantomsection
      \verb|\addcontentsline{toc}{subsection}{[\#1]}% \ hash-ok
77
      [#1]% hash-ok
78
79
    }%
     \def\HistLabel##1{\%}
80
```

```
\begingroup
    81
                                      \protected@edef\@currentlabel{[#1]}% hash-ok
    82
                                      \label{##1}%
    83
                                \endgroup
    84
    85
                        }%
    86
                  }%
    87 }
    88 \newenvironment{History}{%
    89
                   \StartHistory
                   \def\Version\#\#1\{\%
    90
                         \HistVersion{##1}%
    91
                          \@ifnextchar\end{%
    92
                               \let\endVersion\relax
    93
    94
    95
                               \let\endVersion\enditemize
    96
                               \itemize
                        }%
    97
   98 }%
  99 \raggedright
100 }{}
2.5
                          Formatting macros
\UrlFoot
#1: text
#2: url
101 \newcommand{\URL}[2]{%
102 \begingroup
                        \left(\frac{\#2}}\right)
103
104
                         #1%
105
                   \endgroup
                   \footnote{Url: \url{#2}}%
107 }
\NameEmail
#1: name
\#2: email address
108 \newcommand*{\NameEmail}[2]{\%
109 \quad \texttt{\expandafter} \\ \texttt{\e
110 }
111 \def\hld@NameEmail#1#2{%
112 \expandafter\hld@@NameEmail\expandafter\{\#2\}\{\#1\}\%
113 }
114 \def\hld@@NameEmail#1#2{%
                   \ifx\\#1#2\\%
115
116
                        \hld@warn{%
                               Command \string\NameEmail\space without name and email%
117
```

}%

\else

\else #1%

\else

}%

\fi

\fi

 $\int \frac{1}{\sqrt{\pi}} 4\pi$ 

\ifx\\#2\\%

\footnote{%

#1's email address: %

 $\label{lem:lem:mailto:#2} $$ \prod_{mailto:#2}{\nolinkurl{#2}}\%$ 

 $\label{lem:lem:mailto:#2} $$ \left\{ \n \left( \#2 \right) \right\} % $$$ 

118 119

120

121 122

123

 $124 \\ 125$ 

126

127

128

129

130

131 \tag{132 \fi

```
133 }
134 \newcommand*{\Package}[1]{\texttt{#1}}
135 \newcommand*{\{File\}[1]\{\text{#1}\}\}
136 \newcommand*{\Verb}[1]{\texttt{#1}}
137 \newcommand*{\CS}[1]{\texttt{\expandafter\@gobble\string\\#1}}
138 \newcommand*{\CTAN}[1]{%
    \href{http://ctan.org/tex-archive/#1}{\nolinkurl{CTAN:#1}}%
139
140 }
141 \newcommand*{\Newsgroup}[1]{%
    142
143 }
144 \newcommand*{\xpackage}[1]{\textsf{#1}}
145 \newcommand*{\xmodule}[1]{\textsf{#1}}
146 \newcommand*{\xclass}[1]{\textsf{#1}}
147 \newcommand*{\xoption}[1]{\textsf{#1}}
148 \newcommand*{\xfile}[1]{\texttt{#1}}
149 \newcommand*{\xext}[1]{\texttt{.#1}}
150 \newcommand*{\xemail}[1]{%
    \textless\texttt{#1}\textgreater%
152 }
153 \newcommand*{\xnewsgroup}[1]{%
    \href{news:#1}{\nolinkurl{#1}}%
154
155 }
   The following environment declcs is derived from environment decl of ltxguide.cls:
156 \newenvironment{declcs}[1]{%
    \par
157
158
    \addvspace{4.5ex plus 1ex}%
159
    \vskip -\parskip
    \noindent
    \hspace{-\leftmargini}%
    \def\*{\unskip\,\texttt{*}}%
163
    \begin{tabular}{|1|}%
164
     \hline
165
     \expandafter\SpecialUsageIndex\csname #1\endcsname
166
     \cs{\#1}\%
167
168 }{%
     \\%
169
     \hline
170
    \end{tabular}%
171
172 \nobreak
173 \par
174
    \nobreak
175
    \vspace{2.3ex}%
    \vskip -\parskip
176
    \noindent
177
    \ignorespacesafterend
178
179 }
2.6
    Names
180 \def\eTeX{\hologo{eTeX}}
181 \def\pdfTeX{\hologo{pdfTeX}}
182 \def\pdfLaTeX{\hologo{pdfLaTeX}}
183 \def\LuaTeX{\hologo{LuaTeX}}
184 \def\LuaLaTeX{\hologo{LuaLaTeX}}
185 \def\XeTeX{\hologo{XeTeX}}
186 \def\XeLaTeX{\hologo{XeLaTeX}}
187 \def\plainTeX{\hologo{plainTeX}}
188 \providecommand*{\teTeX}{te\TeX}
```

```
189 \providecommand*{\mikTeX}{mik\TeX}
190 \providecommand*{\MakeIndex}{\textsl{MakeIndex}}
191 \providecommand*{\docstrip}{\textsf{docstrip}}
192 \providecommand*{\iniTeX}{\mbox{ini-\TeX}}
193 \providecommand*{\VTeX}{V\TeX}
```

#### 2.7 Setup

#### 2.7.1 Package doc

```
194 \CodelineIndex
195 \EnableCrossrefs
196 \setcounter{IndexColumns}{2}
197 \DoNotIndex{\begingroup,\endgroup,\bgroup,\egroup}
198 \DoNotIndex{\def,\edef,\xdef,\global,\long,\let}
199 \DoNotIndex{\expandafter,\noexpand,\string}
200 \DoNotIndex{\else,\fi,\or}
201 \DoNotIndex{\relax}
202 \IndexPrologue{%
203
    \section*{Index}%
204
    \markboth{Index}{Index}%
205 Numbers written in italic refer to the page %
    where the corresponding entry is described; %
207
    numbers underlined refer to the %
208
    \ifcodeline@index
     code line of the %
209
    \fi
210
    definition; plain numbers refer to the %
211
    \ifcodeline@index
212
     code lines %
213
214
    \else
215
     pages %
    \fi
216
217
    where the entry is used.%
218 }
2.7.2 Page layout
219 \addtolength{\textheight}{\headheight}
220 \addtolength{\textheight}{\headsep}
221 \setlength{\headheight}{0pt}
222 \setlength{\headsep}{0pt}
223 \addtolength{\topmargin}{-10mm}
225 (/package)
```

#### 3 Installation

#### 3.1 Download

**Package.** This package is available on CTAN<sup>1</sup>:

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

CTAN:macros/latex/contrib/oberdiek/holtxdoc.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.

<sup>&</sup>lt;sup>1</sup>http://ctan.org/pkg/holtxdoc

#### 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
```

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/
```

#### 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<sub>F</sub>X:

```
tex holtxdoc.dtx
```

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

```
\label{eq:holtxdoc.sty} $\operatorname{holtxdoc.sty} \to \operatorname{tex/latex/oberdiek/holtxdoc.pdf}$ $\operatorname{holtxdoc.pdf} \to \operatorname{doc/latex/oberdiek/holtxdoc.pdf}$ $\operatorname{holtxdoc.dtx} \to \operatorname{source/latex/oberdiek/holtxdoc.dtx}$
```

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<sub>E</sub>X distribution (teT<sub>E</sub>X, mikT<sub>E</sub>X, ...) relies on file name databases, you must refresh these. For example, teT<sub>E</sub>X users run texhash or mktexlsr.

#### 3.5 Some details for the interested

Unpacking with IATEX. 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 \verb|\lambda| input{holtxdoc.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 pdfIATFX:

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

#### Catalogue 4

The following XML file can be used as source for the TFX 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 holtxdoc.xml.

```
226 (*catalogue)
227 <?xml version='1.0' encoding='us-ascii'?>
228 <!DOCTYPE entry SYSTEM 'catalogue.dtd'>
229 <entry datestamp='$Date$' modifier='$Author$' id='holtxdoc'>
230 <name>holtxdoc</name>
231 <caption>Documentation macros for oberdiek bundle, etc.</caption>
232 <authorref id='auth:oberdiek'/>
233 <copyright owner='Heiko Oberdiek' year='1999-2012'/>
234 cense type='lppl1.3'/>
235 <version number='0.27'/>
236 <description>
      These are personal macros, which are not necessarily useful to
237
      other authors (they are provided as part off the source of others
238
      of the author's packages). Macros that may be of use to other
239
      authors are available separately, in package
240
241
      <xref refid='hypdoc'>hypdoc</xref>.
242
      243
      The package is part of the xref refid='oberdiek'>oberdiek bundle.
244 </description>
245
    <documentation details='Package documentation'</pre>
246
       href='ctan:/macros/latex/contrib/oberdiek/holtxdoc.pdf'/>
247 <ctan file='true' path='/macros/latex/contrib/oberdiek/holtxdoc.dtx'/>
248 <miktex location='oberdiek'/>
249 <texlive location='oberdiek'/>
250 <install path='/macros/latex/contrib/oberdiek/oberdiek.tds.zip'/>
251 </entry>
252 (/catalogue)
     History
[1999/06/26 v0.3]
```

```
[2000/08/14 v0.4]
```

```
[2001/08/27 \text{ v}0.5]
```

```
[2001/09/02 \text{ v}0.6]
```

• ...

#### [2006/06/02 v0.7]

• Major change: most is put into a new package hypdoc.

#### [2007/10/21 v0.8]

• \XeTeX and \XeLaTeX added.

#### [2007/11/11 v0.9]

• \LuaTeX added.

#### [2007/12/12 v0.10]

• \iniTeX added.

#### [2008/08/11 v0.11]

• \Newsgroup, \xnewsgroup, and \URL updated.

#### [2009/08/07 v0.12]

• \xmodule added.

#### [2009/12/02 v0.13]

• Anchor hack for unnumbered subsections is removed for hyperref  $\geq 2009/11/27$  6.79k.

#### [2010/02/03 v0.14]

• \XeTeX and \XeLaTeX are made robust.

#### [2010/03/10 v0.15]

 \LuaTeX changed according to Hans Hagen's definition in the luatex mailing list.

#### [2010/04/03 v0.16]

• Use date and time of .dtx file.

#### [2010/04/08 v0.17]

- Option pdfencoding=auto added for package hyperref.
- Package hologo added.

#### [2010/04/18 v0.18]

• Standard index prologue replaced by corrected prologue.

#### [2010/04/24 v0.19]

• Requested date of package hologo updated.

#### [2010/12/03 v0.20]

• History is now set using \raggedright.

#### [2011/02/04 v0.21]

• GL needs \protected@edef instead of \edef in \HistLabel.

#### [2011/11/22 v0.22]

• Font stuff added for LuaLATEX.

### [2012/03/07 v0.23]

• Accept empty history version.

#### [2012/03/21 v0.24]

• Section title for history uses **\historyname**.

#### [2016/05/16 v0.25]

• Documentation updates.

#### [2016/05/16 v0.26]

• Documentation updates.

### [2016/05/17 v0.27]

• New name for lm math font

#### 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         \*       163          163         \@currentlabel       68, 82         \@gobble       14, 137         \@ifnextchar       92         \@ifpackagelater       62         \@nil       36, 41	\end
\\	\footnote 106, 126
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Н
$\mathbf{A}$	\headheight 219, 221 \headsep 220, 222 \HistLabel 66, 80
\addcontentsline	\historyname
B \begin	\hld@info
C	\hld@warn
\CodelineIndex	\hologo
\cs	\href 103, 121, 128, 139, 142, 154 \hspace
D	I
\day	\iffcodeline@index
E \EnableCrossrefs	\IndexPrologue
EnableClossiers	\mm16A 192

\itemize 96	\RequirePackage
Ţ	$\ldots$ 6, 7, 8, 9, 10, 11, 12, 20, 21
J	G.
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L	\section 60, 203
\label	\setcounter 196
,	\setlength 221, 222
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\link	\space 117
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M 169	\teTeX 188
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\MakeIndex	\textgreater 151
\markboth	\textheight 219, 220, 224
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\meta 162	\textsf 144, 145, 146, 147, 191
\mikTeX 189	\textsl
\month 32, 44	\texttt
\multiply	136, 137, 148, 149, 151, 162, 163
<b>&gt;</b> 7	\the
N	\time
\NameEmail 108, 117	\topmargin 223
\NeedsTeXFormat 2	(topmargin 223
\newcommand	${f U}$
$\dots$ 59, 63, 74, 101, 108, 134,	<del>-</del>
135, 136, 137, 138, 141, 144,	\unskip 163
145, 146, 147, 148, 149, 150, 153	\URL
\newenvironment 88, 156	\url 106
\Newsgroup 141	V
\nobreak 172, 174	•
\noindent 160, 177	\Verb
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\Package 134	\VTeX 193
\PackageInfo 14	
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\par 157, 173	\x 30, 41, 42, 48
\parskip 159, 176	\xclass
\PassOptionsToPackage 5	\XeLaTeX 186
\pdf@filemoddate 26	\xemail 150
\pdfLaTeX 182	\XeTeX 185
\pdfTeX 181	\xext 149
\phantomsection	\xfile 148
\plainTeX 187	\xmodule 145
\protected@edef 68, 82	\xnewsgroup 153
\providecommand	\xoption 147
58, 188, 189, 190, 191, 192, 193	\xpackage 144
\ProvidesPackage	-
3	$\mathbf{Y}$
$\mathbf{R}$	\y 34, 36
\raggedright 99	\year 31, 43