The hypgotoe package

Heiko Oberdiek*

2019/12/29 v0.3

Abstract

Experimental package for links to embedded files.

Contents

| 1 | Dog | cumentation | 1 | | |
|---|--------------|---------------------------------|---|--|--|
| | 1.1 | Introduction | 1 | | |
| | 1.2 | User interface | 2 | | |
| | 1.3 | Example | 2 | | |
| 2 | Imp | plementation | 3 | | |
| | 2.1 | Identification | 3 | | |
| | 2.2 | Load packages | 3 | | |
| | 2.3 | | 3 | | |
| | 2.4 | | 3 | | |
| | 2.5 | | 4 | | |
| | 2.6 | Keys for gotoe action | 5 | | |
| 3 | Installation | | | | |
| | 3.1 | Download | 5 | | |
| | 3.2 | Bundle installation | 6 | | |
| | 3.3 | Package installation | 6 | | |
| | 3.4 | · · · · · · | 6 | | |
| | 3.5 | Some details for the interested | 6 | | |
| 4 | Ref | erences | 7 | | |
| 5 | His | tory | 7 | | |
| | [200 | 7/10/30 v0.1] | 7 | | |
| | | 6/05/16 v0.2 | 7 | | |
| | | 9/12/29 v0.3 | 7 | | |
| 6 | Ind | ex | 7 | | |

1 Documentation

1.1 Introduction

This is a first experiment for links to embedded files. The package <code>hypgotoe</code> is named after the PDF action name <code>/GoToE</code>. Feedback is welcome, especially to the user interface.

• Currently only embedded files and named destinations are supported.

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

- Missing are support for destination arrays and attached files.
- Special characters aren't supported either.

In the future the package may be merged into package hyperref.

1.2 User interface

\href is extended to detect the prefix 'gotoe:'. The part after the prefix is evaluated as key value list from left to right. For details, see "8.5.3 Action Types, Embedded Go-To Actions" [1].

dest: The destination name. The destination name can be set by \hypertarget in the target document. Or check the .aux file for destination names of \label commands. Also the target PDF file can be inspected, look for /Dests in the /Names entry of the catalog for named destinations. (Required.)

root: The file name of the root document. (Optional.)

parent: Go to the parent document. (No value, optional.)

embedded: Go to the embedded document. The value is the file name as it appears in /EmbeddedFiles of the current document.

The colors are controlled by hyperref's options gotoecolor and gotoebordercolor. They can be set in \hypersetup, for example. Default is the color of file links.

1.3 Example

```
1 (*example)
 2 \NeedsTeXFormat{LaTeX2e}
 3 \RequirePackage{filecontents}
 4 \begin{filecontents}{hypgotoe-child.tex}
5 \NeedsTeXFormat{LaTeX2e}
6 \documentclass{article}
7 \usepackage{hypgotoe} [2019/12/29]
8 \begin{document}
9 \section{This is the child document.}
10 \href{gotoe:%
    dest={page.1},parent%
12 }{Go to first page of main document}\\
13 \href{gotoe:%
    dest={page.2},parent%
15 }{Go to second page of main document}
16 \newpage
17 \section{This is the second page of the child document.}
18 \href{gotoe:%
    dest={page.1},parent%
20 }{Go to first page of main document}\\
21 \href{gotoe:%
    dest={page.2},parent%
23 }{Go to second page of main document}
24
25 \hypertarget{foobar}{}
26 Anker foobar is here.
27 \end{document}
28 \end{filecontents}
29 \documentclass{article}
30 \usepackage{hypgotoe} [2019/12/29]
31 \usepackage{embedfile}
32 \IfFileExists{hypgotoe-child.pdf}{%
   \embedfile{hypgotoe-child.pdf}%
33
34 }{%
```

```
\typeout{}%
35
36
    \typeout{--> Run hypgotoe-child.tex through pdflatex}%
37
    \typeout{}%
38 }
39 \begin{document}
40 \section{First page of main document}
41 \href{gotoe:%
42 dest=page.1,embedded=hypgotoe-child.pdf%
43 }{Go to first page of child document}\\
44 \href{gotoe:%
45 dest=page.2,embedded=hypgotoe-child.pdf%
46 }{Go to second page of child document}\\
47 \href{gotoe:%
48 dest=foobar,embedded=hypgotoe-child.pdf%
49 }{Go to foobar in child document}
50 \newpage
51 \section{Second page of main document}
52 \href{gotoe:%
53 dest=section.1,embedded=hypgotoe-child.pdf%
54 }{Go to first section of child document}\\
55 \href{gotoe:%
dest=section.2,embedded=hypgotoe-child.pdf%
57 }{Go to second section of child document}\\
58 \href{gotoe:%
59 dest=foobar,embedded=hypgotoe-child.pdf%
60 }{Go to foobar in child document}
61 \end{document}
62 (/example)
```

2 Implementation

2.1 Identification

```
63 \(\perp \) edsTeXFormat{LaTeX2e}
65 \ProvidesPackage{hypgotoe}\(\circ\)
66 \[ [2019/12/29 v0.3 Links to embedded files (HO)]\(\circ\)
```

2.2 Load packages

```
67 \RequirePackage{iftex}[2019/11/07]
68 \ifpdf
69 \else
70
    \PackageError{hypgotoe}{%
71
      Other drivers than pdfTeX in PDF mode are not supported.%
72
      \MessageBreak
73
      Package loading is aborted%
74
    \ \ \@ehc
75
    \expandafter\endinput
76 \fi
77 \RequirePackage{pdfescape}[2007/10/27]
78 \RequirePackage{hyperref}[2019/12/29]
```

2.3 Color support

```
79 \define@key{Hyp}{gotoebordercolor}{%
80  \HyColor@HyperrefBordercolor{#1}%
81  \@gotoebordercolor{hyperref}{gotoebordercolor}%
82 }
83 \providecommand*{\@gotoecolor}{\@filecolor}
84 \providecommand*{\@gotoebordercolor}{\@filebordercolor}
```

2.4 Extend \href

```
85 \def\@hyper@readexternallink#1#2#3#4:#5:#6\\#7{%
                          \ifx\\#6\\%
    86
                                    \end{after} $$ \operatorname{Chyper@linkfile file:\#7}^{\#3}_{\#2}_{\%} $$
    87
                           \else
    88
    89
                                    \ifx\\#4\\%
    90
                                               \end{after} $$ \operatorname{ChyperClinkfile file:\#7}_{\#3}_{\#2}_{\%} $$
    91
                                    \else
                                                \def\@pdftempa{#4}%
    92
                                               \ifx\@pdftempa\@pdftempwordfile
    93
                                                         \verb|\expandafter@hyper@linkfile#7\{#3}{#2}||
    94
                                               \else
    95
                                                         \ifx\@pdftempa\@pdftempwordrun
    96
                                                                   \ensuremath{\verb||} \ensuremath{\ensuremath{||} \ensur
    97
                                                          \else
    98
                                                                   \ifx\@pdftempa\@pdftempwordgotoe
    99
100
                                                                              \hyper@linkgotoe{#3}{#5}%
101
                                                                              \label{linkurl} $$ \frac{\#7\left(\frac{\#2}{\ell}\right)}{\#2}. $$
102
                                                                   \fi
103
104
                                                         \fi
105
                                               \fi
                                    \fi
106
107
                           \fi
108 }
```

\@pdftempwordgotoe

 $109 \ \texttt{\def}\ \texttt{\ensuremath{\texttt{Qpdftempwordgotoe}}} \\$

2.5 Implement gotoe action

\hyper@linkgotoe

```
110 \def\hyper@linkgotoe#1#2{%
     \begingroup
        \let\HyGoToE@Root\@empty
112
       \let\HyGoToE@Dest\@empty
113
       \let\HyGoToE@TBegin\@empty
114
       \let\HyGoToE@TEnd\@empty
115
       \setkeys{HyGoToE}{#2}%
116
       \leavevmode
117
       \pdfstartlink
118
119
         attr{%
            \Hy@setpdfborder
120
121
            \ifx\@pdfhightlight\@empty
122
            \else
123
              /H\@pdfhighlight
124
            \fi
125
            \ifx\@urlbordercolor\relax
            \else
126
              /C[\@urlbordercolor]%
127
            \fi
128
         }%
129
         user{%
130
           /Subtype/Link%
131
132
           /A<<%
133
             /Type/Action%
             /S/GoToE%
134
             \Hy@SetNewWindow
135
             \HyGoToE@Root
136
137
             \HyGoToE@Dest
             \HyGoToE@TBegin
138
             \HyGoToE@TEnd
139
          >>%
140
```

```
141 }%
142 \relax
143 \Hy@colorlink\@gotoecolor#1%
144 \close@pdflink
145 \endgroup
146 }
```

2.6 Keys for gotoe action

```
147 \define@key{HyGoToE}{root}{%
148
                   \EdefEscapeString\HyGoToE@temp{#1}%
                   \edef\HyGoToE@Root{%
149
                          /F<<%
150
                                 /Type/Filespec%
151
                                 /F(\HyGoToE@temp)%
152
153
                  }%
154
155 }
156 \define@key{HyGoToE}{dest}{%
                  \EdefEscapeString\HyGoToE@temp{#1}%
157
                  \edef\HyGoToE@Dest{%
158
159
                          /D(\HyGoToE@temp)%
160
                }%
161 }
162 \ensuremath{\mbox{\sc 1}62} \ensuremath{\mbox{\sc 1}
                  \def\HyGoToE@temp{#1}%
163
                   \ifx\HyGoToE@temp\@empty
164
165
                   \else
                          \PackageWarning{hypgotoe}{Ignore value for 'parent'}%
166
167
168
                   \edef\HyGoToE@TBegin{%
                          \HyGoToE@TBegin
169
                          /T<<%
170
                        /R/P%
171
                  }%
172
                   \edef\HyGoToE@TEnd{%
173
                          \HyGoToE@TEnd
174
                        >>%
175
                 }%
176
177 }
178 \define@key{HyGoToE}{embedded}{%
                  \EdefEscapeString\HyGoToE@temp{#1}%
                  \edef\HyGoToE@TBegin{%
180
                         \HyGoToE@TBegin
181
                          /T<<%
182
                         /R/C%
183
                          /N(\HyGoToE@temp)%
184
185
                   \edef\HyGoToE@TEnd{%
186
                          \HyGoToE@TEnd
187
188
189
                 }%
190 }
191 (/package)
```

3 Installation

3.1 Download

Package. This package is available on CTAN¹:

¹CTAN:pkg/hypgotoe

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

CTAN:macros/latex/contrib/oberdiek/hypgotoe.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: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_FX :

```
tex hypgotoe.dtx
```

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

```
\begin{array}{lll} \mbox{hypgotoe.sty} & \rightarrow \mbox{tex/latex/oberdiek/hypgotoe.sty} \\ \mbox{hypgotoe.pdf} & \rightarrow \mbox{doc/latex/oberdiek/hypgotoe.pdf} \\ \mbox{hypgotoe-example.tex} & \rightarrow \mbox{doc/latex/oberdiek/hypgotoe-example.tex} \\ \mbox{hypgotoe.dtx} & \rightarrow \mbox{source/latex/oberdiek/hypgotoe.dtx} \end{array}
```

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 mktexlsr.

3.5 Some details for the interested

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

plain TEX: Run docstrip and extract the files.

LATEX: Generate the documentation.

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

```
latex \let\install=y\input{hypgotoe.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 hypgotoe.dtx
makeindex -s gind.ist hypgotoe.idx
pdflatex hypgotoe.dtx
makeindex -s gind.ist hypgotoe.idx
pdflatex hypgotoe.dtx
```

4 References

[1] Adobe Systems Incorporated: *PDF Reference*, Sixth Edition, Version 1.7, Oktober 2006; http://www.adobe.com/devnet/pdf/pdf_reference.html.

5 History

[2007/10/30 v0.1]

• First experimental version.

[2016/05/16 v0.2]

• Documentation updates.

[2019/12/29 v0.3]

• iftex package

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.

| ${f Symbols}$ | В |
|-------------------------------------------------|----------------------------------------------|
| \@ehc 74 | \begin 4, 8, 39 |
| \@empty 112, 113, 114, 115, 121, 164 | _ |
| \@filebordercolor 84 | C |
| \@filecolor 83 | \close@pdflink 144 |
| \@gotoebordercolor 81, 84 | D |
| \@gotoecolor 83, 143 | - L |
| \@hyper@launch 97 | \define@key 79, 147, 156, 162, 178 |
| \@hyper@linkfile 87, 90, 94 | \documentclass |
| $\ensuremath{\texttt{Qhyper@readexternallink}}$ | ${f E}$ |
| \@pdfhighlight 123 | \EdefEscapeString 148, 157, 179 |
| \@pdfhightlight 121 | \embedfile |
| \@pdftempa 92, 93, 96, 99 | \end 27, 28, 61 |
| \@pdftempwordfile 93 | \endinput |
| \@pdftempwordgotoe $99, \underline{109}$ | - |
| \@pdftempwordrun 96 | H |
| \@urlbordercolor 125, 127 | \href 10, 13, 18, 21, 41, 44, 47, 52, 55, 58 |
| \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | \Hy@colorlink 143 |
| 57, 85, 86, 87, 89, 90, 94, 97, 102 | \Hy@SetNewWindow 135 |

| \Hy@setpdfborder 120 | N |
|-------------------------------------------------------------------------------|----------------------------------|
| \HyColor@HyperrefBordercolor \dots 80 | $\NeedsTeXFormat \dots 2, 5, 64$ |
| \HyGoToE@Dest 113, 137, 158 | \newpage 16, 50 |
| \HyGoToE@Root 112, 136, 149 | |
| \HyGoToE@TBegin | P |
| \dots 114, 138, 168, 169, 180, 181 | \PackageError 70 |
| $\HyGoToE@temp \dots 148,$ | \PackageWarning 166 |
| 152, 157, 159, 163, 164, 179, 184 | \pdfstartlink 118 |
| \HyGoToE@TEnd | \providecommand 83, 84 |
| \dots 115, 139, 173, 174, 186, 187 | \ProvidesPackage65 |
| \hyper@hash 102 | (2.10.17001.001000 |
| \hyper@linkgotoe $100, \underline{110}$ | R. |
| \hyper@linkurl 102 | - |
| \hypertarget 25 | \RequirePackage 3, 67, 77, 78 |
| I | \mathbf{s} |
| \IfFileExists 32 | \section 9, 17, 40, 51 |
| \ifpdf 68 | \setkeys 116 |
| \ifx 86, 89, 93, 96, 99, 102, 121, 125, 164 | • |
| т | ${f T}$ |
| $\begin{array}{c} L \\ \texttt{\label{leavevmode}} & \dots & 117 \end{array}$ | \typeout 35, 36, 37 |
| \mathbf{M} | U |
| $\verb \MessageBreak $ | \usepackage |