

The hypgotoe package

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Abstract

Experimental package for links to embedded files.

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

1 Documentation

1.1 Introduction

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

- Currently only embedded files and named destinations are supported.
- 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:%
11   dest={page.1},parent%
12 }{Go to first page of main document}\\
13 \href{gotoe:%
14   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:%
19   dest={page.1},parent%
20 }{Go to first page of main document}\\
```

```

21 \href{gotoe:%
22   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}{%
33   \embedfile{hypgotoe-child.pdf}%
34 }{%
35   \typeout{}%
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:%
56   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 \end{example}

```

2 Implementation

2.1 Identification

```

63 \*package
64 \NeedsTeXFormat{LaTeX2e}
65 \ProvidesPackage{hypgotoe}%
66   [2019/12/29 v0.3 Links to embedded files (H0)]%

```

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

\@hyper@readexternallink

```

85 \def\@hyper@readexternallink#1#2#3#4:#5:#6\\#7{%
86 \ifx\\#6\\%
87 \expandafter\@hyper@linkfile file:#7\\{#3}{#2}%
88 \else
89 \ifx\\#4\\%
90 \expandafter\@hyper@linkfile file:#7\\{#3}{#2}%
91 \else
92 \def\@pdftempa{#4}%
93 \ifx\@pdftempa\@pdftempwordfile
94 \expandafter\@hyper@linkfile#7\\{#3}{#2}%
95 \else
96 \ifx\@pdftempa\@pdftempwordrun
97 \expandafter\@hyper@launch#7\\{#3}{#2}%
98 \else
99 \ifx\@pdftempa\@pdftempwordgotoe
100 \hyper@linkgotoe{#3}{#5}%
101 \else
102 \hyper@linkurl{#3}{#7\ifx\\#2\\else\hyper@hash#2\fi}%
103 \fi
104 \fi
105 \fi
106 \fi
107 \fi
108 }

```

\@pdftempwordgotoe

```

109 \def\@pdftempwordgotoe{gotoe}

```

2.5 Implement gotoe action

\hyper@linkgotoe

```

110 \def\hyper@linkgotoe#1#2{%
111 \begingroup
112 \let\HyGoToE@Root\@empty
113 \let\HyGoToE@Dest\@empty
114 \let\HyGoToE@TBegin\@empty
115 \let\HyGoToE@TEnd\@empty
116 \setkeys{HyGoToE}{#2}%
117 \leavevmode

```

```

118 \pdfstartlink
119   attr{%
120     \Hy@setpdfborder
121     \ifx\@pdfhighlight\@empty
122     \else
123       /H\@pdfhighlight
124     \fi
125     \ifx\@urlbordercolor\relax
126     \else
127       /C[\@urlbordercolor]%
128     \fi
129   }%
130   user{%
131     /Subtype/Link%
132     /A<<%
133       /Type/Action%
134       /S/GoToE%
135       \Hy@SetNewWindow
136       \HyGoToE@Root
137       \HyGoToE@Dest
138       \HyGoToE@TBegin
139       \HyGoToE@TEnd
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}%
149   \edef\HyGoToE@Root{%
150     /F<<%
151     /Type/Filespec%
152     /F(\HyGoToE@temp)%
153   >>%
154 }%
155 }
156 \define@key{HyGoToE}{dest}{%
157   \EdefEscapeString\HyGoToE@temp{#1}%
158   \edef\HyGoToE@Dest{%
159     /D(\HyGoToE@temp)%
160   }%
161 }
162 \define@key{HyGoToE}{parent}[]{%
163   \def\HyGoToE@temp{#1}%
164   \ifx\HyGoToE@temp\@empty
165   \else
166     \PackageWarning{hypgotoe}{Ignore value for ‘parent’}%
167   \fi
168   \edef\HyGoToE@TBegin{%
169     \HyGoToE@TBegin
170     /T<<%
171     /R/P%
172   }%

```

```

173 \edef\HyGoToE@TEnd{%
174     \HyGoToE@TEnd
175     >>%
176 }%
177 }
178 \define@key{HyGoToE}{embedded}{%
179     \EdefEscapeString\HyGoToE@temp{#1}%
180     \edef\HyGoToE@TBegin{%
181         \HyGoToE@TBegin
182         /T<<%
183         /R/C%
184         /N(\HyGoToE@temp)%
185     }%
186     \edef\HyGoToE@TEnd{%
187         \HyGoToE@TEnd
188         >>%
189     }%
190 }
191 \end{package}

```

3 Installation

3.1 Download

Package. This package is available on CTAN¹:

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

3.2 Bundle installation

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

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

3.3 Package installation

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

```
tex hypgotoe.dtx
```

¹[CTAN:pkg/hypgotoe](#)

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

```
hypgotoe.sty      → tex/latex/oberdiek/hypgotoe.sty
hypgotoe.pdf      → doc/latex/oberdiek/hypgotoe.pdf
hypgotoe-example.tex → doc/latex/oberdiek/hypgotoe-example.tex
hypgotoe.dtx      → source/latex/oberdiek/hypgotoe.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 \TeX distribution (\TeX Live, \MiKTeX , ...) relies on file name databases, you must refresh these. For example, \TeX Live users run `texhash` or `mktextlsr`.

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 `pdf \LaTeX` :

```
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

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