

The `hypgtoe` package

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

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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 `hypgtoe` 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 ‘`gtoe:`’. 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 `goetoebordercolor`. 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}{hypgtoe-child.tex}
5 \NeedsTeXFormat{LaTeX2e}
6 \documentclass{article}
7 \usepackage{hypgtoe}[2016/05/16]
8 \begin{document}
9 \section{This is the child document.}
10 \href{gtoe:}
11   dest={page.1},parent%
12 }{Go to first page of main document} \\
13 \href{gtoe:}
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{gtoe:}
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}[2016/05/16]
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 
```

2 Implementation

2.1 Identification

```

63 (*package)
64 \NeedsTeXFormat{LaTeX2e}
65 \ProvidesPackage{hypgotoe}%
66   [2016/05/16 v0.2 Links to embedded files (HO)]%

```

2.2 Load packages

```

67 \RequirePackage{ifpdf}[2007/09/09]
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}[2016/05/16]

```

2.3 Color support

```

79 \define@key{Hyp}{gotoebordercolor}{%
80   \HyColor@HyperrefBordercolor{#1}%
81   \gotoebordercolor{hyperref}{\gotoebordercolor}%
82 }
83 \providecommand*{\@gotoe}{\@filecolor}
84 \providecommand*{\@gotobordercolor}{\@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\@pdftempwordgtoe
100             \hyper@linkgtoe{#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 }

\@pdftempwordgtoe
109 \def\@pdftempwordgtoe{gtoe}

```

2.5 Implement gtoe action

```

\hyper@linkgtoe
110 \def\hyper@linkgtoe#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{hypgtoe}{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 </package>

```

3 Installation

3.1 Download

Package. This package is available on CTAN¹:

[CTAN:macros/latex/contrib/oberdiek/hypgtoe.dtx](http://ctan.org/pkg/hypgtoe) The source file.

[CTAN:macros/latex/contrib/oberdiek/hypgtoe.pdf](http://ctan.org/pkg/hypgtoe) 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](http://ctan.org/install/macros/latex/contrib/oberdiek.tds.zip)

TDS refers to the standard “A Directory Structure for TeX Files” ([CTAN:tds/tds.pdf](http://ctan.org/tds/tds.pdf)). 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
```

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/
```

¹<http://ctan.org/pkg/hypgtoe>

3.3 Package installation

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

```
tex hygtoe.dtx
```

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

<code>hygtoe.sty</code>	→ <code>tex/latex/oberdiek/hygtoe.sty</code>
<code>hygtoe.pdf</code>	→ <code>doc/latex/oberdiek/hygtoe.pdf</code>
<code>hygtoe-example.tex</code>	→ <code>doc/latex/oberdiek/hygtoe-example.tex</code>
<code>hygtoe.dtx</code>	→ <code>source/latex/oberdiek/hygtoe.dtx</code>

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 (`teTeX`, `mikTeX`, ...) relies on file name databases, you must refresh these. For example, `teTeX` users run `texhash` or `mktextslr`.

3.5 Some details for the interested

Attached source. The PDF documentation on CTAN also includes the `.dtx` source file. It can be extracted by AcrobatReader 6 or higher. Another option is `pdftk`, e.g. unpack the file into the current directory:

```
pdftk hygtoe.pdf unpack_files output .
```

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

plain T_EX: Run `docstrip` and extract the files.

L^AT_EX: Generate the documentation.

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

```
latex \let\install=y\input{hygtoe.dtx}
```

Do not forget to quote the argument according to the demands of your shell.

Generating the documentation. You can use both the `.dtx` or the `.drv` to generate the documentation. The process can be configured by the configuration file `ltxdoc.cfg`. For instance, put this line into this file, if you want to have A4 as paper format:

```
\PassOptionsToClass{a4paper}{article}
```

An example follows how to generate the documentation with pdfL^AT_EX:

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

4 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 `hypgtoe.xml`.

```
192 /*catalogue)
193 <?xml version='1.0' encoding='us-ascii'?>
194 <!DOCTYPE entry SYSTEM 'catalogue.dtd'>
195 <entry datestamp='$Date$' modifier='$Author$' id='hypgtoe'>
196   <name>hypgtoe</name>
197   <caption>Links to embedded files.</caption>
198   <authorref id='auth:oberdiek' />
199   <copyright owner='Heiko Oberdiek' year='2007' />
200   <license type='lppl1.3' />
201   <version number='0.2' />
202   <description>
203     This experimental package is a first experiment for links to embedded
204     files. It is named after the PDF action name <tt>/GoToE</tt>.
205     <p>
206       The package is part of the <xref refid='oberdiek'>oberdiek</xref>
207       bundle.
208     </description>
209     <documentation details='Package documentation'
210       href='ctan:/macros/latex/contrib/oberdiek/hypgtoe.pdf' />
211     <ctan file='true' path='/macros/latex/contrib/oberdiek/hypgtoe.dtx' />
212     <miktex location='oberdiek' />
213     <texlive location='oberdiek' />
214     <install path='/macros/latex/contrib/oberdiek/oberdiek.tds.zip' />
215   </entry>
216 </catalogue>
```

5 References

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

6 History

[2007/10/30 v0.1]

- First experimental version.

[2016/05/16 v0.2]

- Documentation updates.

7 Index

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