

The hypgotoe package

Heiko Oberdiek
<heiko.oberdiek at gmail.com>

2007/10/30 v0.1

Abstract

Experimental package for links to embedded files.

Contents

| | | |
|----------|---|----------|
| 1 | Documentation | 1 |
| 1.1 | Introduction | 1 |
| 1.2 | User interface | 2 |
| 1.3 | Example | 2 |
| 2 | Implementation | 3 |
| 2.1 | Identification | 3 |
| 2.2 | Load packages | 3 |
| 2.3 | Color support | 3 |
| 2.4 | Extend \href | 3 |
| 2.5 | Implement gotoe action | 4 |
| 2.6 | Keys for gotoe action | 5 |
| 3 | Installation | 5 |
| 3.1 | Download | 5 |
| 3.2 | Bundle installation | 6 |
| 3.3 | Package installation | 6 |
| 3.4 | Refresh file name databases | 6 |
| 3.5 | Some details for the interested | 6 |
| 4 | References | 7 |
| 5 | History | 7 |
| | [2007/10/30 v0.1] | 7 |
| 6 | Index | 7 |

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}[2007/10/30]
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}[2007/10/30]
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 /example)

```

2 Implementation

2.1 Identification

```

63 (*package)
64 \NeedsTeXFormat{LaTeX2e}
65 \ProvidesPackage{hypgotoe}%
66 [2007/10/30 v0.1 Experimental 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}[2007/10/30]

```

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 </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.

¹<http://ftp.ctan.org/tex-archive/>

`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.

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- \TeX :

```
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):

| | |
|-----------------------------------|--|
| <code>hypgotoe.sty</code> | \rightarrow <code>tex/latex/oberdiek/hypgotoe.sty</code> |
| <code>hypgotoe.pdf</code> | \rightarrow <code>doc/latex/oberdiek/hypgotoe.pdf</code> |
| <code>hypgotoe-example.tex</code> | \rightarrow <code>doc/latex/oberdiek/hypgotoe-example.tex</code> |
| <code>hypgotoe.dtx</code> | \rightarrow <code>source/latex/oberdiek/hypgotoe.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 (`te \TeX` , `mik \TeX` , ...) relies on file name databases, you must refresh these. For example, `te \TeX` users run `texhash` or `mktextlsr`.

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 hypgotoe.pdf unpack_files output .
```

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 pdfL^AT_EX:

```
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.

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; numbers in *roman* refer to the code lines where the entry is used.

| | |
|--|--|
| Symbols | <code>\documentclass</code> 6, 29 |
| <code>\@ehc</code> 74 | E |
| <code>\@empty</code> ... 112, 113, 114, 115, 121, 164 | <code>\EdefEscapeString</code> 148, 157, 179 |
| <code>\@filebordercolor</code> 84 | <code>\embedfile</code> 33 |
| <code>\@filecolor</code> 83 | <code>\end</code> 27, 28, 61 |
| <code>\@gotobordercolor</code> 81, 84 | <code>\endinput</code> 75 |
| <code>\@gotocolor</code> 83, 143 | H |
| <code>\@hyper@launch</code> 97 | <code>\href</code> 10, 13, 18, 21, 41, 44, 47, 52, 55, 58 |
| <code>\@hyper@linkfile</code> 87, 90, 94 | <code>\Hy@colorlink</code> 143 |
| <code>\@hyper@readexternallink</code> 85 | <code>\Hy@SetNewWindow</code> 135 |
| <code>\@pdfhighlight</code> 123 | <code>\Hy@setpdfborder</code> 120 |
| <code>\@pdfhightlight</code> 121 | <code>\HyColor@HyperrefBordercolor</code> ... 80 |
| <code>\@pdftempa</code> 92, 93, 96, 99 | <code>\HyGoToE@Dest</code> 113, 137, 158 |
| <code>\@pdftempwordfile</code> 93 | <code>\HyGoToE@Root</code> 112, 136, 149 |
| <code>\@pdftempwordgotoe</code> 99, <u>109</u> | <code>\HyGoToE@TBegin</code> 114, 138, 168, 169, 180, 181 |
| <code>\@pdftempwordrun</code> 96 | <code>\HyGoToE@temp</code> 148, 152, 157, 159, 163, 164, 179, 184 |
| <code>\@urlbordercolor</code> 125, 127 | <code>\HyGoToE@TEnd</code> 115, 139, 173, 174, 186, 187 |
| <code>\@</code> 12, 20, 43, 46, 54, 57, 85, 86, 87, 89, 90, 94, 97, 102 | <code>\hyper@hash</code> 102 |
| B | <code>\hyper@linkgotoe</code> 100, <u>110</u> |
| <code>\begin</code> 4, 8, 39 | <code>\hyper@linkurl</code> 102 |
| C | <code>\hypertarget</code> 25 |
| <code>\close@pdflink</code> 144 | I |
| D | <code>\IfFileExists</code> 32 |
| <code>\define@key</code> 79, 147, 156, 162, 178 | |

| | | | |
|--|----------|-------------------------------------|---------------|
| <code>\ifpdf</code> | 68 | <code>\pdfstartlink</code> | 118 |
| <code>\ifx</code> 86, 89, 93, 96, 99, 102, 121, 125, 164 | | <code>\providecommand</code> | 83, 84 |
| | | <code>\ProvidesPackage</code> | 65 |
| L | | | |
| <code>\leavevmode</code> | 117 | R | |
| | | <code>\RequirePackage</code> | 3, 67, 77, 78 |
| M | | | |
| <code>\MessageBreak</code> | 72 | S | |
| | | <code>\section</code> | 9, 17, 40, 51 |
| N | | | |
| <code>\NeedsTeXFormat</code> | 2, 5, 64 | <code>\setkeys</code> | 116 |
| <code>\newpage</code> | 16, 50 | T | |
| | | <code>\typeout</code> | 35, 36, 37 |
| P | | | |
| <code>\PackageError</code> | 70 | U | |
| <code>\PackageWarning</code> | 166 | <code>\usepackage</code> | 7, 30, 31 |