

# The hypgotoe package

Heiko Oberdiek  
<oberdiek@uni-freiburg.de>

2007/10/30 v0.1

## Abstract

Experimental package for links to embedded files.

## Contents

<b>1</b>	<b>Documentation</b>	<b>1</b>
1.1	Introduction . . . . .	1
1.2	User interface . . . . .	2
1.3	Example . . . . .	2
<b>2</b>	<b>Implementation</b>	<b>3</b>
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
<b>3</b>	<b>Installation</b>	<b>5</b>
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
<b>4</b>	<b>References</b>	<b>7</b>
<b>5</b>	<b>History</b>	<b>7</b>
	[2007/10/30 v0.1] . . . . .	7
<b>6</b>	<b>Index</b>	<b>7</b>

## 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 CTAN<sup>1</sup>:

[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.

---

<sup>1</sup><http://ftp.ctan.org/tex-archive/>

`CTAN:install/macros/latex/contrib/oberdiek.tds.zip`

*TDS* refers to the standard “A Directory Structure for  $\text{\TeX}$  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- $\text{\TeX}$ :

```
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  $\text{\TeX}$  distribution (`te $\text{\TeX}$` , `mik $\text{\TeX}$` , ...) relies on file name databases, you must refresh these. For example, `te $\text{\TeX}$`  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  $\text{\LaTeX}$ .** The `.dtx` chooses its action depending on the format:

**plain- $\text{\TeX}$ :** Run `docstrip` and extract the files.

**$\text{\LaTeX}$ :** Generate the documentation.

If you insist on using  $\text{\LaTeX}$  for `docstrip` (really, `docstrip` does not need  $\text{\LaTeX}$ ), 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<sup>A</sup>T<sub>E</sub>X:

```
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](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.

<b>Symbols</b>	<code>\documentclass</code> ..... 6, 29
<code>\@ehc</code> ..... 74	<b>E</b>
<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	<b>H</b>
<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>B</b>	<code>\hyper@linkgotoe</code> ..... <u>100</u> , <u>110</u>
<code>\begin</code> ..... 4, 8, 39	<code>\hyper@linkurl</code> ..... 102
<b>C</b>	<code>\hypertarget</code> ..... 25
<code>\close@pdflink</code> ..... 144	<b>I</b>
<b>D</b>	<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
<b>L</b>			
<code>\leavevmode</code> .....	117	<b>R</b>	
		<code>\RequirePackage</code> .....	3, 67, 77, 78
<b>M</b>			
<code>\MessageBreak</code> .....	72	<b>S</b>	
		<code>\section</code> .....	9, 17, 40, 51
<b>N</b>			
<code>\NeedsTeXFormat</code> .....	2, 5, 64	<code>\setkeys</code> .....	116
<code>\newpage</code> .....	16, 50	<b>T</b>	
		<code>\typeout</code> .....	35, 36, 37
<b>P</b>			
<code>\PackageError</code> .....	70	<b>U</b>	
<code>\PackageWarning</code> .....	166	<code>\usepackage</code> .....	7, 30, 31