

# The hypgotoe package

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## Abstract

Experimental package for links to embedded files.

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## 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 \end{example}

```

## 2 Implementation

### 2.1 Identification

```

63 \*package
64 \NeedsTeXFormat{LaTeX2e}
65 \ProvidesPackage{hypgotoe}%
66   [2007/10/30 v0.1 Links to embedded files (H0)]%

```

### 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   }
```

```

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.

[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
```

---

<sup>1</sup>[ftp://ftp.ctan.org/tex-archive/](http://ftp.ctan.org/tex-archive/)

**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  $\text{T}_{\text{E}}\text{X}$  distribution (`te $\text{T}_{\text{E}}\text{X}$` , `mik $\text{T}_{\text{E}}\text{X}$` , ...) relies on file name databases, you must refresh these. For example, `te $\text{T}_{\text{E}}\text{X}$`  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  $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ .** The `.dtx` chooses its action depending on the format:

**plain  $\text{T}_{\text{E}}\text{X}$ :** Run `docstrip` and extract the files.

**$\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ :** Generate the documentation.

If you insist on using  $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$  for `docstrip` (really, `docstrip` does not need  $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ ), 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 $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$` :

```
pdflatex hypgotoe.dtx
makeindex -s gind.ist hypgotoe.idx
pdflatex hypgotoe.dtx
makeindex -s gind.ist hypgotoe.idx
pdflatex hypgotoe.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 `hypgotoe.xml`.

```

192 (*catalogue)
193 <?xml version='1.0' encoding='us-ascii'?>
194 <!DOCTYPE entry SYSTEM 'catalogue.dtd'>
195 <entry datestamp='$Date$' modifier='$Author$' id='hypgotoe'>
196   <name>hypgotoe</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='0.1'>/>
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/hypgotoe.pdf'>/>
211   <ctan file='true' path='/macros/latex/contrib/oberdiek/hypgotoe.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](http://www.adobe.com/devnet/pdf/pdf_reference.html).

## 6 History

[2007/10/30 v0.1]

- First experimental version.

## 7 Index

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