The hypgotoe package

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Abstract

Experimental package for links to embedded files.

Contents

*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 attachted 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 gotobordercolor. They can be set in `\hypersetup`, for example. Default is the color of file links.

1.3 Example

```
⟨*example⟩
\NeedsTeXFormat{LaTeX2e}
\RequirePackage{filecontents}
\begin{filecontents}{hypgotoe-child.tex}
\NeedsTeXFormat{LaTeX2e}
\documentclass{article}
\usepackage{hypgotoe}[2016/05/16]
\begin{document}
\section{This is the child document.}
\href{gotoe:%
  dest={page.1},parent%
}{Go to first page of main document}\\
\href{gotoe:%
  dest={page.2},parent%
}{Go to second page of main document}
\newpage
\section{This is the second page of the child document.}
\href{gotoe:%
  dest={page.1},parent%
}{Go to first page of main document}\\
```

```
\href{gotoe:%
  dest={page.2},parent%
}{Go to second page of main document}

\hypertarget{foobar}{}
Anker foobar is here.
\end{document}
\end{filecontents}
\documentclass{article}
\usepackage{hypgotoe}[2016/05/16]
\usepackage{embedfile}
\IfFileExists{hypgotoe-child.pdf}{%
  \embedfile{hypgotoe-child.pdf}%
}{%
  \typeout{}%
  \typeout{--> Run hypgotoe-child.tex through pdflatex}%
  \typeout{}%
}
\begin{document}
\section{First page of main document}
\href{gotoe:%
  dest=page.1,embedded=hypgotoe-child.pdf%
}{Go to first page of child document}\\
\href{gotoe:%
  dest=page.2,embedded=hypgotoe-child.pdf%
}{Go to second page of child document}\\
\href{gotoe:%
  dest=foobar,embedded=hypgotoe-child.pdf%
}{Go to foobar in child document}
\newpage
\section{Second page of main document}
\href{gotoe:%
  dest=section.1,embedded=hypgotoe-child.pdf%
}{Go to first section of child document}\\
\href{gotoe:%
  dest=section.2,embedded=hypgotoe-child.pdf%
}{Go to second section of child document}\\
\href{gotoe:%
  dest=foobar,embedded=hypgotoe-child.pdf%
}{Go to foobar in child document}
\end{document}
⟨/example⟩
```

2 Implementation

2.1 Identification

```
⟨*package⟩
\NeedsTeXFormat{LaTeX2e}
\ProvidesPackage{hypgotoe}%
  [2016/05/16 v0.2 Links to embedded files (HO)]%
```

2.2 Load packages

```
\RequirePackage{ifpdf}[2007/09/09]
\ifpdf
\else
  \PackageError{hypgotoe}{%
    Other drivers than pdfTeX in PDF mode are not supported.%
```

```
    \MessageBreak
    Package loading is aborted%
  }\@ehc
  \expandafter\endinput
\fi
\RequirePackage{pdfescape}[2007/10/27]
\RequirePackage{hyperref}[2016/05/16]
```

2.3 Color support

```
\define@key{Hyp}{gotoebordercolor}{%
  \HyColor@HyperrefBordercolor{#1}%
  \@gotoebordercolor{hyperref}{gotoebordercolor}%
}
\providecommand*{\@gotoecolor}{\@filecolor}
\providecommand*{\@gotoebordercolor}{\@filebordercolor}
```

2.4 Extend \href

\@hyper@readexternallink

```
\def\@hyper@readexternallink#1#2#3#4:#5:#6\\#7{%
  \ifx\\#6\\%
    \expandafter\@hyper@linkfile file:#7\\{#3}{#2}%
  \else
    \ifx\\#4\\%
      \expandafter\@hyper@linkfile file:#7\\{#3}{#2}%
    \else
      \def\@pdftempa{#4}%
      \ifx\@pdftempa\@pdftempwordfile
        \expandafter\@hyper@linkfile#7\\{#3}{#2}%
      \else
        \ifx\@pdftempa\@pdftempwordrun
          \expandafter\@hyper@launch#7\\{#3}{#2}%
        \else
          \ifx\@pdftempa\@pdftempwordgotoe
            \hyper@linkgotoe{#3}{#5}%
          \else
            \hyper@linkurl{#3}{#7\ifx\\#2\\\else\hyper@hash#2\fi}%
          \fi
        \fi
      \fi
    \fi
  \fi
}
```

\@pdftempwordgotoe

```
\def\@pdftempwordgotoe{gotoe}
```

2.5 Implement gotoe action

\hyper@linkgotoe

```
\def\hyper@linkgotoe#1#2{%
  \begingroup
    \let\HyGoToE@Root\@empty
    \let\HyGoToE@Dest\@empty
    \let\HyGoToE@TBegin\@empty
    \let\HyGoToE@TEnd\@empty
    \setkeys{HyGoToE}{#2}%
    \leavevmode
```

```
    \pdfstartlink
      attr{%
        \Hy@setpdfborder
        \ifx\@pdfhightlight\@empty
        \else
          /H\@pdfhighlight
        \fi
        \ifx\@urlbordercolor\relax
        \else
          /C[\@urlbordercolor]%
        \fi
      }%
      user{%
       /Subtype/Link%
       /A<<%
         /Type/Action%
         /S/GoToE%
         \Hy@SetNewWindow
         \HyGoToE@Root
         \HyGoToE@Dest
         \HyGoToE@TBegin
         \HyGoToE@TEnd
       >>%
      }%
      \relax
    \Hy@colorlink\@gotoecolor#1%
    \close@pdflink
  \endgroup
}
```

2.6 Keys for gotoe action

```
\define@key{HyGoToE}{root}{%
  \EdefEscapeString\HyGoToE@temp{#1}%
  \edef\HyGoToE@Root{%
    /F<<%
      /Type/Filespec%
      /F(\HyGoToE@temp)%
    >>%
  }%
}
\define@key{HyGoToE}{dest}{%
  \EdefEscapeString\HyGoToE@temp{#1}%
  \edef\HyGoToE@Dest{%
    /D(\HyGoToE@temp)%
  }%
}
\define@key{HyGoToE}{parent}[]{%
  \def\HyGoToE@temp{#1}%
  \ifx\HyGoToE@temp\@empty
  \else
    \PackageWarning{hypgotoe}{Ignore value for 'parent'}%
  \fi
  \edef\HyGoToE@TBegin{%
    \HyGoToE@TBegin
    /T<<%
    /R/P%
  }%
```

```
  \edef\HyGoToE@TEnd{%
    \HyGoToE@TEnd
    >>%
  }%
}
\define@key{HyGoToE}{embedded}{%
  \EdefEscapeString\HyGoToE@temp{#1}%
  \edef\HyGoToE@TBegin{%
    \HyGoToE@TBegin
    /T<<%
    /R/C%
    /N(\HyGoToE@temp)%
  }%
  \edef\HyGoToE@TEnd{%
    \HyGoToE@TEnd
    >>%
  }%
}
```

⟨/package⟩

3 Installation

3.1 Download

Package. This package is available on CTAN[1]:

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 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/
```

[1] http://ctan.org/pkg/hypgotoe

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):

```
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 (teTEX, mikTEX, ...) relies on file name databases, you must refresh these. For example, teTEX users run `texhash` or `mktexlsr`.

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 pdfLATEX:

```
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`.

```
⟨*catalogue⟩
<?xml version='1.0' encoding='us-ascii'?>
<!DOCTYPE entry SYSTEM 'catalogue.dtd'>
<entry datestamp='$Date$' modifier='$Author$' id='hypgotoe'>
  <name>hypgotoe</name>
  <caption>Links to embedded files.</caption>
  <authorref id='auth:oberdiek'/>
  <copyright owner='Heiko Oberdiek' year='2007'/>
  <license type='lppl1.3'/>
  <version number='0.2'/>
  <description>
    This experimental package  is a first experiment for links to embedded
    files. It is named after the PDF action name <tt>/GoToE</tt>.
    <p/>
    The package is part of the <xref refid='oberdiek'>oberdiek</xref>
    bundle.
  </description>
  <documentation details='Package documentation'
      href='ctan:/macros/latex/contrib/oberdiek/hypgotoe.pdf'/>
  <ctan file='true' path='/macros/latex/contrib/oberdiek/hypgotoe.dtx'/>
  <miktex location='oberdiek'/>
  <texlive location='oberdiek'/>
  <install path='/macros/latex/contrib/oberdiek/oberdiek.tds.zip'/>
</entry>
⟨/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

Numbers written in italic refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; plain numbers refer to the code lines where the entry is used.