The pdfcolfoot package

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2016/05/16 v1.3

Abstract
Since version 1.40 pdf TEX supports several color stacks. This package
uses a separate color stack for footnotes that can break across pages.

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*Please report any issues at https://github.com/ho-tex/oberdiek/issues
1 User interface

Just load the package:

\usepackage{pdfcolfoot}

The package assigns a color stack for footnotes and patches the appropriate internal macros to support this color stack.

1.1 Other packages or classes

This package pdfcolfoot redefines \@makecol and \@makefntext. This can cause conflicts if other packages or classes also change these macro in an incompatible way. Sometimes it can help to change the package order.

2 Interface for package or class writers

Two macros pdfcolfoot@switch and pdfcolfoot@current need to be added to get support of the color stack for footnotes. This package pdfcolfoot already patches many macros to add these two macros. If a package or class that deals with \@makefntext or \@makecol is not recognized by this package, the package/class author can add these two macros in his package/class.

2.1 Macro pdfcolfoot@switch

Color commands inside footnotes should use the special color stack for footnotes. Macro pdfcolfoot@switch sets this special color stack. (It can be called several times). But caution, footnotes for minipages should not be affected. This package patches \@makefntext for this purpose.

2.2 Macro pdfcolfoot@current

In \LaTeX{} the footnote stuff goes into box \footins that is placed on the page (\@makecol). Two things need consideration:

- The footnote area should not interfere with the normal color stack. Macro \normalcolor inside a group helps it stores the current color of the normal stack and restores it after the group.

- If a footnote is broken across a page boundary, we need the latest color of the footnote area in the previous page. This is set by macro pdfcolfoot@current.

As example the changes for \@makecol are shown (however this macro is already patched by this package):

\gdef\makcol{%
... \setbox\outputbox\vbox{% or similar
... \color@begingroup
\normalcolor
\footnoterule \% using normal color (black)
\csname pdfcolfoot@current\endcsname
\unvbox\footins
\color@endgroup
}%
... }

---

2
We use \csname to call macro \pdfcolfoot@current. If package pdfcolfoot is not loaded, \pdfcolfoot@current is not defined. In this case \csname defines the undefined macro with meaning \relax and we do not get an error because of undefined command.

3 Implementation

3.1 Identification

1 \begin{verbatim}
(\*package) \NeedsTeXFormat{LaTeX2e}
\ProvidesPackage{pdfcolfoot} [% 2016/05/16 v1.3 Color stack for footnotes with pdfTeX (HO)]
\end{verbatim}

3.2 Load package pdfcol

5 \begin{verbatim}
\RequirePackage{pdfcol}\[2007/09/09]
\ifpdfcolAvailable
\else
\PackageInfo{pdfcolfoot}{Loading aborted, because color stacks are not available}
\fi
\end{verbatim}

3.3 Color stack for footnotes

Version 1.0 has used \current@color as initial color stack value, since version 1.1 package pdfcol with its default setting is used.

13 \begin{verbatim}
\pdfcolInitStack{foot}
\end{verbatim}

3.4 Patch \@makefntext

\begin{verbatim}
\pdfcolfoot@switch
\end{verbatim} Macro \pdfcolfoot@switch switches the color stack. Subsequent color calls uses the color stack for footnotes.

14 \begin{verbatim}
\newcommand*{\pdfcolfoot@switch}{%\pdfcolfoot@switch\pdfcolfoot@current}
\end{verbatim}

17 \begin{verbatim}
\AtBeginDocument{\pdfcolfoot@switch}{%\pdfcolfoot@switch}\pdfcolfoot@current
\end{verbatim}

3.5 Patch \@makecol

\begin{verbatim}
\pdfcolfoot@current
\end{verbatim} When the footnote area starts, the color should continue with the latest color value of the previous footnote area. This color is available on the current top of the color stack.

30 \begin{verbatim}
\newcommand*{\pdfcolfoot@current}{%\pdfcolfoot@current\pdfcolfoot@current}
\end{verbatim}
For convenience we use \texttt{detokenize} for patching \texttt{@makecol} and related macros.
\PCF@resulttrue
\fi
}
\def\PCF@PatchA#1\setbox\@outputbox\vbox#2#3\PCF@nil#4{%
\PCF@PatchB{#1}#2\PCF@nil{#3}#4%
}
\def\PCF@PatchB#1#2\footnoterule#3\PCF@nil#4#5{%
toks@{%
\def#5{%
#1%
\setbox\@outputbox\vbox{%
#2%
\footnoterule
\pdfcolfoot@current
\#3%
\}%
\#4%
}%
}%
}
\def\pdfcolfoot@all#1{%
\begingroup
\let\on@line\@empty
\PackageInfo{pdfcolfoot}{%
Patching \string\@makecol\space macros (#1)%
}%
\endgroup
L\TeX\ base macro:
\pdfcolfoot@patch\@makecol
Class aastex:
\pdfcolfoot@patch\@makecol@pptt
Class memoir:
\pdfcolfoot@patch\mem@makecol
\pdfcolfoot@patch\mem@makecolbf
\pdfcolfoot@patch\m@mopfootnote
Class revtex4:
\pdfcolfoot@patch\@combineinserts
Package changebar:
\pdfcolfoot@patch\ltx@makecol
Package dblfnote:
\pdfcolfoot@patch\dfn@latex@makecol
Package fancyhdr:
\pdfcolfoot@patch\latex@makecol
Package lscape:
\pdfcolfoot@patch\LS@makecol
Package lineno:
\pdfcolfoot@patch\@LN@orig@makecol
Package stfloats:
\pdfcolfoot@patch\org@makecol
\pdfcolfoot@patch\fn@makecol
}
\AtBeginDocument{\pdfcolfoot@all{AtBeginDocument}}
\pdfcolfoot@all{AtEndOfPackage}
\endgroup
}
4 Test

\NeedsTeXFormat{LaTeX2e}
\AtEndDocument{%
\typeout{****************************************}%
\typeout{*** Check the PDF file manually! ***}%
\typeout{****************************************}%
\typeout{}%
}
\begingroup\expandafter\expandafter\expandafter\endgroup
\expandafter\ifx\csname pdfcompresslevel\endcsname\relax
\else
\pdfcompresslevel=0 %
\fi
\documentclass[12pt,a5paper]{article}
\usepackage{pdfcolfoot}[2016/05/16]
\dimen\footins=\baselineskip % for testing
\begin{document}
Black\footnote{Black \textcolor{blue}{Blue\Blue} Black} %
\textcolor{red}{Red\newpage Red} Black%
\end{document}
⟨/test1⟩

5 Installation

5.1 Download

Package. This package is available on CTAN\(^1\):


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 \texttt{texmf} in their name are usually organized this way.

5.2 Bundle installation

Unpacking. Unpack the oberdiek.tds.zip in the TDS tree (also known as \texttt{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/pdfcolfoot
5.3 Package installation

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

```latex
\texttt{tex pdfcolfoot.dtx}
```

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

- `pdfcolfoot.sty` → `tex/latex/oberdiek/pdfcolfoot.sty`
- `pdfcolfoot.pdf` → `doc/latex/oberdiek/pdfcolfoot.pdf`
- `test/pdfcolfoot-test1.tex` → `doc/latex/oberdiek/test/pdfcolfoot-test1.tex`
- `pdfcolfoot.dtx` → `source/latex/oberdiek/pdfcolfoot.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.

5.4 Refresh file name databases

If your TeX distribution (\TeX, \pasTeX, \ldots) relies on file name databases, you must refresh these. For example, \pasTeX users run `texhash` or `mktexlsr`.

5.5 Some details for the interested

Unpacking with \pasTeX. The .dtx chooses its action depending on the format:

- plain \TeX: Run `docstrip` and extract the files.
- \pasTeX: Generate the documentation.

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

```latex
\texttt{latex \let\install=y\input{pdfcolfoot.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:

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

An example follows how to generate the documentation with pdf\pasTeX:

```sh
pdflatex pdfcolfoot.dtx
makeindex -s gind.ist pdfcolfoot.idx
pdflatex pdfcolfoot.dtx
makeindex -s gind.ist pdfcolfoot.idx
pdflatex pdfcolfoot.dtx
```

6 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 `pdfcolfoot.xml`. 

```
<catalogue>
<entry SYSTEM='catalogue.dtd'>
```

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7 References


8 History

[2007/01/08 v1.0]
- First version.

[2007/09/09 v1.1]
- Use of package pdfcol.
- Test file added.

[2012/01/02 v1.2]
- Support updated for memoir 2011/03/06 v3.6j. (Thanks Bob for the bug report.)

[2016/05/16 v1.3]
- Documentation updates.

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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.

Symbols
\@empty ........................ 48, 115
\@LN@orig@makecol  ............... 130  \@makecol  ....................... 36, 117, 120
\@combineinserts  ................. 125  \@makecol@pptt  ................... 121