Abstract

This package tries a solution for the missing color stack of \LaTeX{}.

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

1.1 Introduction

This package uses a mark register in order to solve the problem of a missing color stack of pdfTeX prior 1.40.0. Since this version of pdfTeX a color stack is available and supported by \texttt{pdftex.def} 2007/01/01 v0.04a. In this case this package is obsolete and the package stops its loading.

1.2 Background

After the Dante meeting (Clausthal 2000) I have started to experiment with the eTeX method of a \texttt{colour} mark. One of the major problems is the understanding of the output routine and the need to rewrite it because of missing hooks. Currently I have made some tests in in onecolumn and twocolumn mode, but the state is experimental.

1.3 Limitations

- Mark limitations: page breaks in math.
- \LaTeX{}'s output routine is redefined.
  - Changes in the output routine of newer versions of \LaTeX{} are not detected.
  - Packages that change the output routine are not supported.
- It does not support several independent text streams like footnotes.
- Limitations in float and marginpar support.

1.4 Recommendation

\LaTeX{} (for additional mark register) Without \LaTeX{}'s mark commands are redefined to store an additional color value.

1.5 Usage

Load after package color:

\begin{verbatim}
\usepackage[pdftex]{color}
\usepackage{pdfcolmk}
\end{verbatim}

1.6 Compatibility

- Load the following packages after \texttt{pdfcolmk}:
  \texttt{mparhack.sty}
- Load the following packages before \texttt{pdfcolmk}:
  \texttt{marn.sty}
  \texttt{newmarn.sty}
- Supported \texttt{\@addmarginpar} patch:
  \texttt{latex/base/latex.ltx}
  \texttt{memoir.cls}
  \texttt{poemscol/marn.sty, poemscol/newmarn.sty}
  \texttt{mparhack.sty}
2 Implementation

1 ⟨∗package⟩

Package identification.
2 \NeedsTeXFormat{LaTeX2e}
3 \ProvidesPackage{pdfcolmk}%
4 [2016/05/16 v1.3 Color support for pdfTeX via marks (HO)]
5 \if@undefined{ver@pdftex.def}{%
6 \PackageWarningNoLine{pdfcolmk}{%
7 Nothing to fix, because \string`pdftex.def\string' not loaded%
8 )%
9 \endinput
10 }{}
11 \if@packageloaded{color}{%}
12 \PackageWarningNoLine{pdfcolmk}{%
13 Nothing to fix, because \string`color.sty\string' not loaded%
14 )%
15 \endinput
16 }
17 \begingroup\expandafter\expandafter\expandafter\endgroup
18 \expandafter\ifx\csname main@pdfcolorstack\endcsname\relax
19 \else
20 \% pdftex.def >= 2007/01/01 0.04a and pdfTeX >= 1.40.0
21 \begingroup
22 \let\on@line\@empty
23 \PackageInfo{pdfcolmk}{%
24 The color stack of pdfTeX \string>\string= 1.40 is used. %
25 Therefore\MessageBreak
26 this package is not necessary and not loaded%
27 )%
28 \endgroup
29 \endinput
30 \fi
31 \PackageInfo{pdfcolmk}{%
32 This package tries to simulate dvips's color stack\MessageBreak
33 for pdfTeX based on a mark register of e-TeX.\MessageBreak
34 It redefines LaTeX's output routine. Therefore\MessageBreak
35 use with care, no warranties%}
36 }
37 \ifx\marks\@undefined
38 \let\pec@mark\mark
39 \let\pec@value\empty
40 \long\def\mark#1{%
41 \protected@xdef\pec@value{#1}%
42 \pec@setmark%
43 }%
44 \def\pec@setmark{%
45 \begingroup
46 \@temptokena\expandafter{\pec@value}\%}
47 \pec@mark{\current@color\the@temptokena}\%}
48 \endgroup
49 \endinput
50 }%
2.1 \marginpar fix

2.1.1 latex/base/latex.ltx
\else
  \@tempcnta\@ne
\fi
\ifnum\@tempcnta <\z@
  \global\setbox\@marbox\box\@currbox
\fi
\ifdim\@tempdima\@mparbottom
  \advance\@tempdima -\@pageht
  \@skip\@marbox\vbox{%
    \vskip\@tempdima \box\@marbox
  }%
  \global\ht\@marbox\z@%
  \global\dp\@marbox\z@
\fi
\global\@mparbottom\@pageht
\global\advance\@mparbottom\@tempdima
\global\advance\@mparbottom\dp\@marbox
\global\advance\@mparbottom\marginparpush
\advance\@tempdima -\ht\@marbox
\global\setbox\@marbox\vbox{%
  \vskip\@tempdima \box\@marbox
}\global\ht\@marbox\z@
\global\dp\@marbox\z@
\kern -\@pagedp
\nointerlineskip
\hb@xt@\columnwidth{%
  \ifnum\@tempcnta >\z@%
    \hskip\columnwidth
    \hskip\marginparsep
  \else
    \hskip -\marginparsep
    \hskip -\marginparwidth
  \fi
  \box\@marbox
  \nointerlineskip
  \hbox{\vrule\@height\z@\@width\z@\@depth\@pagedp}%
}\fx{\pec@addmarginpar\@addmarginpar}
\pec@temp{ref(art|rep).cls}%
\fi
\else
\ifcase\pec@result
\PackageInfo{pdfcolmk}{%
  Fix for \string@addmarginpar\space is omitted, %
  because this variant\MessageBreak
  of \string@addmarginpar\space
  is not recognized%
}\else
  \% apply patch for \@addmarginpar
  \def\pec@PatchAddMarginpar\#1\columnwidth\#2\@nil{%
    \pec@PatchAddMarginpar\#1\columnwidth\#2\@nil\{\#1\}{\#3}\%
  }%
  \def\pec@PatchAddMarginpar\#1\box\@marbox\hspace\#2\@nil\{\#3}\%{
    \def@addmarginpar{%
      \columnwidth{\#3}%
      \#1% 
      \pdfliteral{q}%

2.2 Color fix

```latex
\def\set@color{\pdfliteral{\current@color}\ifinner\else\pec@setmark\fi\aftergroup\reset@color}
\def\reset@color{\pdfliteral{\current@color}\ifinner\else\pec@setmark\fi}
\let\pec@botcolor\current@color
\def\pec@PatchVBoxCCLV{%\ifx\pec@botcolor\@empty\else\setbox\@cclv\vbox{\pdfliteral{\pec@botcolor}\unvbox\@cclv}\fi\pec@getmark\}
\def\pec@PatchAlreadyInBox{%\ifx\pec@botcolor\@empty\else\pdfliteral{\pec@botcolor}\fi\pec@getmark\}
\@ifclassloaded{memoir}{%\expandafter\def\expandafter\mem@makecol\expandafter{\pec@PatchVBoxCCLV\mem@makecol}}\endinput
\@ifclassloaded{seminar}{%\newcommand\pec@org@makeslide{}\let\pec@org@makeslide\@makeslide}
```

3 Installation

3.1 Download

Package. This package is available on CTAN:\footnote{http://ctan.org/pkg/pdfcolmk}

\texttt{CTAN:macros/latex/contrib/oberdiek/pdfcolmk.dtx} The source file.

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 docu-
mentation files are generated. The files and directories obey the TDS standard.

\texttt{CTAN:install/macros/latex/contrib/oberdiek.tds.zip}

\textit{TDS} refers to the standard “A Directory Structure for \emph{\LaTeX} Files” (\texttt{CTAN:tds/tds.pdf}). Directories with \texttt{texmf} in their name are usually organized this way.

3.2 Bundle installation

Unpacking. Unpack the \texttt{oberdiek.tds.zip} in the TDS tree (also known as \texttt{texmf}
tree) of your choice. Example (linux):

\begin{verbatim}
  unzip oberdiek.tds.zip -d ~/texmf
\end{verbatim}
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 pdfcolmk.dtx
```

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

- `pdfcolmk.sty` → `tex/latex/oberdiek/pdfcolmk.sty`
- `pdfcolmk.pdf` → `doc/latex/oberdiek/pdfcolmk.pdf`
- `pdfcolmk.dtx` → `source/latex/oberdiek/pdfcolmk.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 ( tec\TeX, \miktex, …) relies on file name databases, you must refresh these. For example, tec\TeX users run `texhash` or `mktexlsr`.

3.5 Some details for the interested

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{pdfcolmk.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 \latexdoc.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\LATEX:

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

4 Catalogue

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5 History

[2000/08/27 v0.1]
- First published version in newsgroup comp.text.tex: “pdftex: bug with colors?”

[2000/09/02 v0.2]
- Next try.

[2000/09/02 v0.3]
- Solution without \(\varepsilon\)-\TeX\ added.

[2000/09/06 v0.4]
- Patch commands added.
- Patch for seminar.cls added.

\url{http://groups.google.com/group/comp.text.tex/msg/6f088e69e4085d2c}
• Bug fix: initialization of \pec@value added.

Support for \marginpar added. See thread in \texttt{comp.text.tex}:
“Using \textcolor and \marginpar together”\footnote{Url: http://groups.google.com/group/comp.text.tex/msg/38ed58f8845a2a4f}

Output support added for \texttt{memoir}, provided by Lars Madsen.

Code is not changed.

DTX framework.

If \texttt{pdftex.def} is used with pdf\TeX{} >= 1.40.0, then package \texttt{pdfcolmk} is obsolete.

Line ends sanitized.

Code is not changed.

URLs updated.

Documentation updates.

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.

Symbols

\begin{verbatim}
\@@warning .......... 249, 304
\@addmarginpar .... 86, 144, 209, 281, 334, 340, 342, 346, 351, 366
\@clv ............... 389, 391
\@cons 92, 93, 150, 151, 214, 215, 286, 287
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\@marbox ........... 191, 192, 203, 213, 214, 241,
\end{verbatim}
<table>
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<tbody>
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<tr>
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<td>pec@output</td>
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<td>pec@PatchAddMarginparI</td>
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<td>386, 407, 417, 442</td>
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<tr>
<td>pec@result</td>
<td>80, 82, 338</td>
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<td>pec@setmark</td>
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</tr>
<tr>
<td>pec@temp</td>
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<td>protected@xdef</td>
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<td>ProviderPackage</td>
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<tr>
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<td>124, 188, 260, 261, 277, 314</td>
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<tr>
<td>\x</td>
<td>425, 427</td>
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</tbody>
</table>

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