The **pdfcolparcolumns** package

Heiko Oberdiek

<oberdiek@uni-freiburg.de>

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Abstract

Since version 1.40 pdfTeX supports several color stacks. This package uses them to fix color problems in package parcolumns.

Contents

1 Usage

```
\usepackage{pdfcolparcolumns}
```

The package pdfcolparcolumns loads package parcolums [1]. If color stacks are available then the macros of parcolumns are patched to add support for color stacks.

1.1 Future

Currently package parcolumns does not seem to be maintained. Nevertheless if there will be a new version that adds support for color stacks, then this package may become obsolete.

2 Implementation

2.1 Identification

```
1 ⟨*package⟩
2 \NeedsTeXFormat{LaTeX2e}
3 \ProvidesPackage{pdfcolparcolumns}%
4   [2008/08/11 v1.2 Color stacks support for parcolumns (HO)]%
```

2.2 Load packages

2.2.1 Package parcolumns

Currently package parcolumns does not define options. Thus it is just a precaution that the options of package pdfcolparcolumns are passed to package parcolumns.

```
5 \DeclareOption*{%
6   \PassoptionsToPackage{\CurrentOption}{parcolumns}%
7 }
8 \ProcessOptions\relax
9 \RequirePackage{parcolumns}[2004/11/25]
```

2.2.2 Package pdfcol

```
10 \RequirePackage{pdfcol}[2007/09/09]
11 \ifpdfcolAvailable
12 \else
13   \PackageInfo{pdfcolparcolumns}{%
14     Loading aborted, because color stacks are not available%
15   }%
16   \expandafter\endinput
17 \fi
```

2.2.3 Package infwarerr

```
18 \RequirePackage{infwarerr}[2007/09/09]
```

2.3 Color stack macros

\pcpc@MaxStack Macro \pcpc@MaxStack holds the highest number of allocated stacks.

```
19 \global\chardef\pcpc@MaxStack=\z@
```

\pcpc@InitStacks Macro \pcpc@InitStacks takes the number of columns as argument and ensures that there are enough color stacks for all columns.

```
20 \def\pcpc@InitStacks#1{%
21   \ifnum#1>\pcpc@MaxStack
22     \begingroup
23       \count@\pcpc@MaxStack
24       \loop
25         \advance\count@\@ne
26         \pdfcolInitStack{pcpc@\the\count@}%
27       \ifnum#1>\count@
28       \repeat
29       \global\chardef\pcpc@MaxStack=\count@
30     \endgroup
31   \fi
32 }
```

`\pcpc@SwitchStack`

```
33 \def\pcpc@SwitchStack#1{%
34   \pdfcolSwitchStack{pcpc@\number#1}%
35 }
```

`\pcpc@SetCurrent`

```
36 \def\pcpc@SetCurrent#1{%
37   \pdfcolSetCurrent{pcpc@\number#1}%
38 }
```

2.4 Patches

Now the color stack macros are patched into the macros of package parcolumns.

2.4.1 Init stacks

`\pcpc@InitStacks` should go into the definition of environment `parcolumns`. `\pc@alloccolumns` is executed there and nowhere else, thus we hook into it.

```
39 \g@addto@macro\pc@alloccolumns{%
40   \pcpc@InitStacks\pc@columncount
41 }
```

2.4.2 Switch stack

`\pcpc@SwitchStack` should be called by marco `\colchunk@`. However it is easier to patch `\pc@setcolumnwidth` that is executed in `\colchunk@` only.

```
42 \g@addto@macro\pc@setcolumnwidth{%
43   \pcpc@SwitchStack\pc@columnctr
44 }
```

2.4.3 Set current stack color

`\pcpc@SetCurrent` is set at the begin of each line. It must be inserted into `\pc@placeboxes`. Unhappily there is no easy way. Therefore we check and redefine `\pc@placeboxes`.

```
45 \begingroup
46   \def\x{%
47     \global\let\@tempa\relax
48     \count@\z@
49     \hb@xt@\linewidth{%
50       \vfuzz30ex %
51       \vbadness\@M
52       \splittopskip\z@skip
53       \loop
54       \ifnum\count@<\pc@columncount
55         \advance\count@\@ne
56         \expandafter\ifvoid\csname pc@column@\number\count@\endcsname
57           \hskip\csname pc@column@width@\number\count@\endcsname
58         \else
59           \expandafter\setbox\expandafter\@tempboxa\expandafter
60           \vsplit\csname pc@column@\number\count@\endcsname
61               to \dp\strutbox
62           \vbox{%
63             \unvbox\@tempboxa
64           }%
65         \fi
66         \expandafter\ifvoid\csname pc@column@\number\count@\endcsname
67         \else
68           \global\let\@tempa\pc@placeboxes
69         \fi
70         \ifnum\count@<\pc@columncount
```

```
71              \strut
72              \hfill
73              \ifpc@rulebetween
74                \vrule
75                \hfill
76              \fi
77            \fi
78          \repeat
79        }%
80        \@tempa
81      }%
82      \ifx\x\pc@placeboxes
83      \else
84        \@PackageWarningNoLine{pdfcolparcolumns}{%
85          Command \string\pc@placeboxes\space has changed.\MessageBreak
86          Supported versions of package 'parcolumns':\MessageBreak
87          \space\space 2004/08/05.\MessageBreak
88          The redefinition of \string\pc@placeboxes\space may not%
89          \MessageBreak
90          behave correctly depending on the changes%
91        }%
92      \fi
93  \endgroup
```

\pc@placeboxes

```
94  \renewcommand*{\pc@placeboxes}{%
95    \global\let\@tempa\relax
96    \count@\z@
97    \hb@xt@\linewidth{%
98      \vfuzz30ex %
99      \vbadness\@M
100     \splittopskip\z@skip
101     \loop
102     \ifnum\count@<\pc@columncount
103       \advance\count@\@ne
104       \expandafter\ifvoid\csname pc@column@\number\count@\endcsname
105         \hskip\csname pc@column@width@\number\count@\endcsname
106       \else
107         \expandafter\setbox\expandafter\@tempboxa\expandafter
108         \vsplit\csname pc@column@\number\count@\endcsname
109           to \dp\strutbox
110         \vbox{%
111           \pcpc@SetCurrent\count@
112           \unvbox\@tempboxa
113         }%
114       \fi
115       \expandafter\ifvoid\csname pc@column@\number\count@\endcsname
116       \else
117         \global\let\@tempa\pc@placeboxes
118       \fi
119       \ifnum\count@<\pc@columncount
120         \strut
121         \hfill
122         \ifpc@rulebetween
123           \vrule
124           \hfill
125         \fi
126       \fi
127     \repeat
128   }%
129   \@tempa
130 }
```

131 ⟨/package⟩

3 Test

The test file is a modified version of the file that Donald Goodman has posted in comp.text.tex: "Re: xcolor glitches"[1]

```
132 ⟨*test1⟩
133 \NeedsTeXFormat{LaTeX2e}
134 \AtEndDocument{%
135   \typeout{}%
136   \typeout{*************************************}%
137   \typeout{*** \space Check the PDF file manually! \space ***}%
138   \typeout{*************************************}%
139   \typeout{}%
140 }
141 \documentclass{article}
142 \usepackage{xcolor}
143 \usepackage{pdfcolparcolumns}
144
145 \newcommand{\instruct}[1]{%
146   \noindent
147   \footnotesize
148   \textcolor{red}{#1}%
149 }
150
151 \begin{document}
152   \begin{parcolumns}[colwidths={1=2.3in,2=2.3in},sloppy]{2}%
153     \colchunk[1]{%
154       \instruct{Et non dicitur versus} %
155       Fidelium anim\ae\ %
156       \instruct{%
157         sed immediate subiungitur antiphona finalis %
158         beat\ae\ Mari\ae\ Virginis%
159       } %
160       100.%
161     }%
162     \colchunk[2]{%
163       \instruct{%
164         And the verse %
165         \textcolor{black}{May the souls of the faithful} %
166         is not said, but the final antiphon of the %
167         Blessed Virgin Mary, %
168         \textcolor{black}{100,} %
169         is immediately joined.%
170       }%
171     }%
172   \end{parcolumns}%
173 \end{document}
174 ⟨/test1⟩
```

4 Installation

4.1 Download

Package. This package is available on CTAN[2]:

CTAN:macros/latex/contrib/oberdiek/pdfcolparcolumns.dtx The source file.

CTAN:macros/latex/contrib/oberdiek/pdfcolparcolumns.pdf Documentation.

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[1] Url: http://groups.google.com/group/comp.text.tex/msg/8eda74ed292012bb
[2] ftp://ftp.ctan.org/tex-archive/

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.

4.2   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/
```

4.3   Package installation

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

```
tex pdfcolparcolumns.dtx
```

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

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

4.4   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`.

4.5   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 pdfcolparcolumns.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{pdfcolparcolumns.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 pdfcolparcolumns.dtx
makeindex -s gind.ist pdfcolparcolumns.idx
pdflatex pdfcolparcolumns.dtx
makeindex -s gind.ist pdfcolparcolumns.idx
pdflatex pdfcolparcolumns.dtx
```

5 References

[1] Jonathan Sauer: *The parcolumns package*; 2004/11/25;
    CTAN:macros/latex/contrib/sauerj/parcolumns.pdf.

[2] Heiko Oberdiek: *The pdfcol package*; 2007/09/09;
    CTAN:macros/latex/contrib/oberdiek/pdfcol.pdf.

6 History

[2007/07/26 v1.0]

- First version, published in the newsgroup comp.text.tex with the name parcolumns-colorstacks: "Re: xcolor glitches"[3]

[2007/09/09 v1.1]

- CTAN version, package name renamed to pdfcolparcolumns.

- Uses package pdfcol.

- Documentation added.

- Test file added.

[2008/08/11 v1.2]

- Code is not changed.

- URLs updated.

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; numbers in roman refer to the code lines where the entry is used.

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[3]Url: http://groups.google.com/group/comp.text.tex/msg/56bd897b11bca414

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