The **pdfcolparcolumns** package

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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

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

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 Option **rulebetweencolor**

Package pdfcolparcolumns also fixes the color for the rule between columns (if rulebetween is set). Default color is \normalcolor. But this can be changed by using option rulebetweencolor. It takes a color specification as value. If the value is empty, then the default (\normalcolor) is used. Examples:

> rulebetweencolor=blue,
> rulebetweencolor={red},
> rulebetweencolor={}, *% \normalcolor is used*
> rulebetweencolor=[rgb]{1,0,.5} *% see below*

If used inside the optional argument of environment parcolumns and the value contains an optional argument, then whole value must be put in curly braces:

> \begin{parcolumns}[
>   rulebetween,
>   rulebetweencolor={[rgb]{1,0,.5}},
>]{2}
>   ...
> \end{parcolumns}

This option rulebetweencolor can also be set using \setkeys:

> \setkeys{parcolumns}{rulebetweencolor=green}

1.2 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   [2016/05/16 v1.4 Color stacks 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         \begingroup
124           \pcpc@RuleBetweenColor
125           \vrule
126         \endgroup
127         \hfill
128       \fi
129     \fi
130   \repeat
131 }%
132 \@tempa
133 }
```

```
134 \def\pcpc@RuleBetweenColorDefault{%
135   \normalcolor
136 }
```

```
137 \let\pcpc@RuleBetweenColor\pcpc@RuleBetweenColorDefault

138 \define@key{parcolumns}{rulebetweencolor}{%
139   \edef\pcpc@temp{#1}%
140   \ifx\pcpc@temp\@empty
141     \let\pcpc@RuleBetweenColor\pcpc@RuleBetweenColorDefault
142   \else
143     \edef\pcpc@temp{%
144       \noexpand\@ifnextchar[{%
145         \def\noexpand\pcpc@RuleBetweenColor{%
146           \noexpand\color\pcpc@temp
147         }%
148         \noexpand\pcpc@GobbleNil
149       }{%
150         \def\noexpand\pcpc@RuleBetweenColor{%
151           \noexpand\color{\pcpc@temp}%
152         }%
153         \noexpand\pcpc@GobbleNil
154       }%
```

```
155        \pcpc@temp\noexpand\@nil
156      }%
157      \pcpc@temp
158    \fi
159 }
```

\pcpc@GobbleNil

```
160 \long\def\pcpc@GobbleNil#1\@nil{}

161 ⟨/package⟩
```

3   Test

The test file is a modified version of the file that Donald Goodman has posted in

```
162 ⟨*test1⟩
163 \NeedsTeXFormat{LaTeX2e}
164 \AtEndDocument{%
165   \typeout{}%
166   \typeout{*************************************}%
167   \typeout{*** \space Check the PDF file manually! \space ***}%
168   \typeout{*************************************}%
169   \typeout{}%
170 }
171 \documentclass{article}
172 \usepackage{xcolor}
173 \usepackage{pdfcolparcolumns}
174
175 \newcommand{\instruct}[1]{%
176   \noindent
177   \footnotesize
178   \textcolor{red}{#1}%
179 }
180
181 \begin{document}
182   \begin{parcolumns}[colwidths={1=2.3in,2=2.3in},sloppy]{2}%
183     \colchunk[1]{%
184       \instruct{Et non dicitur versus} %
185       Fidelium anim\ae\ %
186       \instruct{%
187         sed immediate subiungitur antiphona finalis %
188         beat\ae\ Mari\ae\ Virginis%
189       } %
190       100.%
191     }%
192     \colchunk[2]{%
193       \instruct{%
194         And the verse %
195         \textcolor{black}{May the souls of the faithful} %
196         is not said, but the final antiphon of the %
197         Blessed Virgin Mary, %
198         \textcolor{black}{100,} %
199         is immediately joined.%
200       }%
201     }%
202   \end{parcolumns}%
203 \end{document}
204 ⟨/test1⟩
```

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[1]Url: http://groups.google.com/group/comp.text.tex/msg/8eda74ed292012bb

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.

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`.

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[2]http://ctan.org/pkg/pdfcolparcolumns

4.5 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{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 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 `pdfcolparcolumns.xml`.

```
205 ⟨*catalogue⟩
206 <?xml version='1.0' encoding='us-ascii'?>
207 <!DOCTYPE entry SYSTEM 'catalogue.dtd'>
208 <entry datestamp='$Date$' modifier='$Author$' id='pdfcolparcolumns'>
209   <name>pdfcolparcolumns</name>
210   <caption>Fix colour problems in package 'parcolumns'.</caption>
211   <authorref id='auth:oberdiek'/>
212   <copyright owner='Heiko Oberdiek' year='2007,2008,2010'/>
213   <license type='lppl1.3'/>
214   <version number='1.4'/>
215   <description>
216     Since version 1.40 pdfTeX supports colour stacks.
217     This package uses them to fix colour problems in
218     package <xref refid='parcolumns'>parcolumns</xref>.
219     <p/>
220     The package is part of the <xref refid='oberdiek'>oberdiek</xref>
221     bundle.
222   </description>
223   <documentation details='Package documentation'
224       href='ctan:/macros/latex/contrib/oberdiek/pdfcolparcolumns.pdf'/>
225   <ctan file='true' path='/macros/latex/contrib/oberdiek/pdfcolparcolumns.dtx'/>
226   <miktex location='oberdiek'/>
227   <texlive location='oberdiek'/>
228   <install path='/macros/latex/contrib/oberdiek/oberdiek.tds.zip'/>
229 </entry>
230 ⟨/catalogue⟩
```

6 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.

7 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.

[2010/01/11 v1.3]

- Fix for rule color.

- New option rulebetweencolor for environment parcolumns.

[2016/05/16 v1.4]

- Documentation updates.

8 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.

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