

The pdfcolparcolumns package

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Abstract

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

Contents

1	Usage	2
1.1	Option rulebetweencolor	2
1.2	Future	2
2	Implementation	2
2.1	Identification	2
2.2	Load packages	3
2.2.1	Package parcolumns	3
2.2.2	Package pdfcol	3
2.2.3	Package infwarerr	3
2.3	Color stack macros	3
2.4	Patches	4
2.4.1	Init stacks	4
2.4.2	Switch stack	4
2.4.3	Set current stack color	4
3	Test	6
4	Installation	7
4.1	Download	7
4.2	Bundle installation	7
4.3	Package installation	8
4.4	Refresh file name databases	8
4.5	Some details for the interested	8
5	Catalogue	9
6	References	9

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

7 History	10
[2007/07/26 v1.0]	10
[2007/09/09 v1.1]	10
[2008/08/11 v1.2]	10
[2010/01/11 v1.3]	10
[2016/05/16 v1.4]	10
8 Index	10

1 Usage

```
\usepackage{pdfcolparcolumns}
```

The package `pdfcolparcolumns` loads package `parcolumns` [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 (H0)]%
```

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 }

\pcpc@RuleBetweenColorDefault

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

\pcpc@RuleBetweenColor

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 [comp.text.tex](http://groups.google.com/group/comp.text.tex/msg/8eda74ed292012bb): “Re: xcolor glitches”¹

```

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

```

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

```

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 \end{test1}

```

4 Installation

4.1 Download

Package. This package is available on CTAN²:

[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 T_EX 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
```

²<http://ctan.org/pkg/pdfcolparcolumns>

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):

<code>pdfcolparcolumns.sty</code>	\rightarrow <code>tex/latex/oberdiek/pdfcolparcolumns.sty</code>
<code>pdfcolparcolumns.pdf</code>	\rightarrow <code>doc/latex/oberdiek/pdfcolparcolumns.pdf</code>
<code>test/pdfcolparcolumns-test1.tex</code>	\rightarrow <code>doc/latex/oberdiek/test/pdfcolparcolumns-test1.tex</code>
<code>pdfcolparcolumns.dtx</code>	\rightarrow <code>source/latex/oberdiek/pdfcolparcolumns.dtx</code>

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 (`te \TeX` , `mik \TeX` , ...) relies on file name databases, you must refresh these. For example, `te \TeX` users run `texhash` or `mktextlsr`.

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 pdfL^AT_EX:

```
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 [T_EX 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.

Symbols		B	
<code>\@M</code>	51, 99	<code>\begin</code>	181, 182
<code>\@PackageWarningNoLine</code>	84	C	
<code>\@empty</code>	140	<code>\chardef</code>	19, 29
<code>\@ifnextchar</code>	144	<code>\colchunk</code>	183, 192
<code>\@ne</code>	25, 55, 103	<code>\color</code>	146, 151
<code>\@nil</code>	155, 160	<code>\count@</code>	23, 25, 26, 27, 29, 48, 54, 55, 56, 57, 60, 66, 70, 96, 102, 103, 104, 105, 108, 111, 115, 119
<code>\@tempa</code>	47, 68, 80, 95, 117, 132	<code>\csname</code>	56, 57, 60, 66, 104, 105, 108, 115
<code>\@tempboxa</code>	59, 63, 107, 112	<code>\CurrentOption</code>	6
<code>_</code>	185, 188	D	
A		<code>\DeclareOption</code>	5
<code>\advance</code>	25, 55, 103	<code>\define@key</code>	138
<code>\ae</code>	185, 188	<code>\documentclass</code>	171
<code>\AtEndDocument</code>	164		

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

\dp	61, 109	\pcpc@InitStacks	20, 40
E		\pcpc@MaxStack	19, 21, 23, 29
\end	202, 203	\pcpc@RuleBetweenColor	124, 137, 141, 145, 150
\endcsname	56, 57, 60, 66, 104, 105, 108, 115	\pcpc@RuleBetweenColorDefault	134, 137, 141
\endinginput	16	\pcpc@SetCurrent	36, 111
F		\pcpc@SwitchStack	33, 43
\footnotesize	177	\pcpc@temp	139, 140, 143, 146, 151, 155, 157
G		\pdfcolInitStack	26
\g@addto@macro	39, 42	\pdfcolSetCurrent	37
H		\pdfcolSwitchStack	34
\hb@xt@	49, 97	\ProcessOptions	8
\hfill	72, 75, 121, 127	\ProvidesPackage	3
\hskip	57, 105	R	
I		\renewcommand	94
\ifnum	21, 27, 54, 70, 102, 119	\repeat	28, 78, 130
\ifpc@rulebetween	73, 122	\RequirePackage	9, 10, 18
\ifpdfcolAvailable	11	S	
\ifvoid	56, 66, 104, 115	\setbox	59, 107
\ifx	82, 140	\space	85, 87, 88, 167
\instruct	175, 184, 186, 193	\splittopskip	52, 100
L		\strut	71, 120
\linewidth	49, 97	\strutbox	61, 109
\loop	24, 53, 101	T	
M		\textcolor	178, 195, 198
\MessageBreak	85, 86, 87, 89	\the	26
N		\typeout	165, 166, 167, 168, 169
\NeedsTeXFormat	2, 163	U	
\newcommand	175	\unvbox	63, 112
\noindent	176	\usepackage	172, 173
\normalcolor	135	V	
\number	34, 37, 56, 57, 60, 66, 104, 105, 108, 115	\vbadness	51, 99
P		\vbox	62, 110
\PackageInfo	13	\vfuzz	50, 98
\PassoptionsToPackage	6	\vrule	74, 125
\pc@alloccolumns	39	\vsplit	60, 108
\pc@columncount	40, 54, 70, 102, 119	X	
\pc@columnctr	43	\x	46, 82
\pc@placeboxes	68, 82, 85, 88, 94	Z	
\pc@setcolumnwidth	42	\z@	19, 48, 96
\pcpc@GobbleNil	148, 153, 160	\z@skip	52, 100