

The pdfcolparallel package

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2007/09/09 v1.0

Abstract

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

Contents

1 Usage	1
1.1 Future	1
2 Implementation	2
2.1 Identification	2
2.2 Load packages	2
2.2.1 Package <code>parallel</code>	2
2.2.2 Package <code>pdfcol</code>	2
2.2.3 Package <code>infwarerr</code>	2
2.3 Color stack macros	2
2.4 Redefinitions	2
3 Test	8
4 Installation	9
4.1 Download	9
4.2 Bundle installation	9
4.3 Package installation	9
4.4 Refresh file name databases	10
4.5 Some details for the interested	10
5 References	10
6 History	11
[2007/09/09 v1.0]	11
7 Index	11

1 Usage

```
\usepackage{pdfcolparallel}
```

The package `pdfcolparallel` loads package `parallel` [1]. If color stacks are available then the macros of `parallel` are patched to add support for color stacks.

1.1 Future

If there will be a new version of package `parallel` that adds support for color stacks, then this package may become obsolete.

2 Implementation

2.1 Identification

```
1 <*package>
2 \NeedsTeXFormat{LaTeX2e}
3 \ProvidesPackage{pdfcolparallel}%
4 [2007/09/09 v1.0 Color stacks support for parallel (H0)]%
```

2.2 Load packages

2.2.1 Package parallel

Package parallel is loaded. Before options of package pdfcolparallel are passed to package parallel.

```
5 \DeclareOption*{%
6   \PassOptionsToPackage{\CurrentOption}{parallel}%
7 }
8 \ProcessOptions\relax
9 \RequirePackage{parallel}[2003/04/13]
```

2.2.2 Package pdfcol

```
10 \RequirePackage{pdfcol}[2007/09/09]
11 \ifpdfcolAvailable
12 \else
13   \PackageInfo{pdfcolparallel}{%
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

```
19 \pdfcolInitStack{pcp@Left}
20 \pdfcolInitStack{pcp@Right}
```

\pcp@SwitchStack

```
21 \def\pcp@SwitchStack#1{%
22   \pdfcolSwitchStack{pcp@#1}%
23 }
```

\pcp@SetCurrent

```
24 \def\pcp@SetCurrent#1{%
25   \ifx\\#1\\%
26     \pdfcolSetCurrent{}%
27   \else
28     \pdfcolSetCurrent{pcp@#1}%
29   \fi
30 }
```

2.4 Redefinitions

\pcp@CmdCheckRedef

```
31 \def\pcp@CmdCheckRedef#1{%
32   \begingroup
33     \def\pcp@cmd{#1}%
34     \afterassignment\pcp@CmdDo
35     \long\def\reserved@a
36 }
```

```

37 \def\pcp@CmdDo{%
38   \expandafter\ifx\pcp@cmd\reserved@a
39   \else
40     \edef\x*{\expandafter\string\pcp@cmd}%
41     \@PackageWarningNoLine{pdfcolparallel}{%
42       Command \x* has changed.\MessageBreak
43       Supported versions of package 'parallel':\MessageBreak
44       \space\space 2003/04/13\MessageBreak
45       The redefinition of \x* may\MessageBreak
46       not behave correctly depending on the changes%
47     }%
48   \fi
49   \expandafter\endgroup
50   \expandafter\def\pcp@cmd
51 }

```

\ParallelLText

```

52 \pcp@CmdCheckRedef\ParallelLText{%
53   \everypar{}%
54   \@restorepar
55   \begingroup
56     \hbadness=3000 %
57     \let\footnote=\ParallelFootnote
58     \ParallelWhichBox=0 %
59     \global\setbox\ParallelLBox=\vbox\bgroup
60       \hsize=\ParallelLWidth
61       \aftergroup\ParallelAfterText
62       \begingroup
63         \afterassignment\ParallelCheckOpenBrace
64         \let\x=%
65   }{%
66     \everypar{}%
67     \@restorepar
68     \begingroup
69       \hbadness=3000 %
70       \let\footnote=\ParallelFootnote
71       \ParallelWhichBox=0 %
72       \global\setbox\ParallelLBox=\vbox\bgroup
73         \hsize=\ParallelLWidth
74         \pcp@SwitchStack{Left}%
75         \aftergroup\ParallelAfterText
76         \begingroup
77           \afterassignment\ParallelCheckOpenBrace
78           \let\x=%
79   }

```

\ParallelRText

```

80 \pcp@CmdCheckRedef\ParallelRText{%
81   \everypar{}%
82   \@restorepar
83   \begingroup
84     \hbadness=3000 %
85     \ifnum\ParallelFNMode=\@ne
86       \let\footnote=\ParallelRFootnote
87     \else
88       \let\footnote=\ParallelFootnote
89     \fi
90     \ParallelWhichBox=\@ne
91     \global\setbox\ParallelRBox=\vbox\bgroup
92       \hsize=\ParallelRWidth
93       \aftergroup\ParallelAfterText
94     \begingroup

```

```

95         \afterassignment\ParallelCheckOpenBrace
96         \let\x=%
97     }{%
98     \everypar{}%
99     \@restorepar
100    \begingroup
101        \hbadness=3000 %
102        \ifnum\ParallelFNMode=\@ne
103            \let\footnote=\ParallelRFootnote
104        \else
105            \let\footnote=\ParallelLFootnote
106        \fi
107        \ParallelWhichBox=\@ne
108        \global\setbox\ParallelRBox=\vbox\bgroup
109            \hsize=\ParallelRWidth
110            \pcp@SwitchStack{Right}%
111            \aftergroup\ParallelAfterText
112            \begingroup
113                \afterassignment\ParallelCheckOpenBrace
114                \let\x=%
115    }

```

\ParallelParOnePage

```

116 \pcp@CmdCheckRedef\ParallelParOnePage{%
117     \ifnum\ParallelBoolVar=\@ne
118         \par
119         \begingroup
120             \leftmargin=\z@
121             \rightmargin=\z@
122             \parskip=\z@skip
123             \parindent=\z@
124             \vbadness=10000 %
125             \vfuzz=3ex %
126             \splittopskip=\z@skip
127             \loop
128                 \ifnum\ParallelBoolVar=\@ne
129                     \noindent
130                     \hbox to\textwidth{%
131                         \hskip\ParallelLeftMargin
132                         \hbox to\ParallelTextWidth{%
133                             \ifvoid\ParallelLBox
134                                 \hskip\ParallelLWidth
135                             \else
136                                 \ParallelWhichBox=\z@
137                                 \vbox{%
138                                     \setbox\ParallelBoxVar
139                                     =\vsplit\ParallelLBox to\dp\strutbox
140                                     \unvbox\ParallelBoxVar
141                                 }%
142                             \fi
143                             \strut
144                             \ifnum\ParallelBoolMid=\@ne
145                                 \hskip\ParallelMainMidSkip
146                                 \vrule
147                             \else
148                                 \hss
149                             \fi
150                             \hss
151                             \ifvoid\ParallelRBox
152                                 \hskip\ParallelRWidth
153                             \else
154                                 \ParallelWhichBox=\@ne
155                                 \vbox{%

```

```

156             \setbox\ParallelBoxVar
157             =\vsplit\ParallelRBox to\dp\strutbox
158             \unvbox\ParallelBoxVar
159         }%
160     \fi
161 }%
162 }%
163 \ifvoid\ParallelLBox
164     \ifvoid\ParallelRBox
165         \global\ParallelBoolVar=\z@
166     \fi
167 \fi%
168 \fi%
169 \ifnum\ParallelBoolVar=\@ne
170     \penalty\interlinepenalty
171 \repeat
172 \par
173 \endgroup
174 \fi
175 }{%
176     \ifnum\ParallelBoolVar=\@ne
177     \par
178     \begingroup
179         \leftmargin=\z@
180         \rightmargin=\z@
181         \parskip=\z@skip
182         \parindent=\z@
183         \vbadness=10000 %
184         \vfuzz=3ex %
185         \splittopskip=\z@skip
186     \loop
187         \ifnum\ParallelBoolVar=\@ne
188             \noindent
189             \hbox to\textwidth{%
190                 \hskip\ParallelLeftMargin
191                 \hbox to\ParallelTextWidth{%
192                     \ifvoid\ParallelLBox
193                         \hskip\ParallelLWidth
194                     \else
195                         \pcp@SetCurrent{Left}%
196                         \ParallelWhichBox=\z@
197                         \vbox{%
198                             \setbox\ParallelBoxVar
199                             =\vsplit\ParallelLBox to\dp\strutbox
200                             \unvbox\ParallelBoxVar
201                         }%
202                     \fi
203                     \strut
204                     \ifnum\ParallelBoolMid=\@ne
205                         \hskip\ParallelMainMidSkip
206                         \vrule
207                     \else
208                         \hss
209                     \fi
210                     \hss
211                     \ifvoid\ParallelRBox
212                         \hskip\ParallelRWidth
213                     \else
214                         \pcp@SetCurrent{Right}%
215                         \ParallelWhichBox=\@ne
216                         \vbox{%
217                             \setbox\ParallelBoxVar

```

```

218             =\vsplit\ParallelRBox to\dp\strutbox
219             \unvbox\ParallelBoxVar
220         }%
221     \fi
222 }%
223 }%
224 \ifvoid\ParallelLBox
225     \ifvoid\ParallelRBox
226         \global\ParallelBoolVar=\z@
227     \fi
228 \fi%
229 \fi%
230 \ifnum\ParallelBoolVar=\@ne
231     \penalty\interlinepenalty
232 \repeat
233 \par
234 \endgroup
235 \pcp@SetCurrent{}%
236 \fi
237 }

```

\ParallelParTwoPages

```

238 \pcp@CmdCheckRedef\ParallelParTwoPages{%
239     \ifnum\ParallelBoolVar=\@ne
240     \par
241     \beginingroup
242         \global\ParallelWhichBox=\@ne
243         \newpage
244         \vbadness=10000 %
245         \vfuzz=3ex %
246         \splittopskip=\z@skip
247     \loop%
248         \ifnum\ParallelBoolVar=\@ne%
249             \ifnum\ParallelWhichBox=\@ne
250                 \ifvoid\ParallelLBox
251                     \mbox{} %
252                     \newpage
253                 \else
254                     \global\ParallelWhichBox=\z@
255                 \fi
256             \else
257                 \ifvoid\ParallelRBox
258                     \mbox{} %
259                     \newpage
260                 \else
261                     \global\ParallelWhichBox=\@ne
262                 \fi
263             \fi
264             \ifnum\ParallelWhichBox=\z@
265                 \ifodd\thepage
266                     \mbox{} %
267                     \newpage
268                 \fi
269                 \hbox to\textwidth{%
270                     \vbox{\vsplit\ParallelLBox to.98\textheight}%
271                 }%
272             \else
273                 \ifodd\thepage\relax
274                 \else
275                     \mbox{} %
276                     \newpage
277                 \fi
278                 \hbox to\textwidth{%

```

```

279         \vbox{\vsplit\ParallelRBox to.98\textheight}%
280     }%
281     \fi
282     \vspace*{\fill}%
283     \newpage
284     \fi
285     \ifvoid\ParallelLBox
286     \ifvoid\ParallelRBox
287         \global\ParallelBoolVar=\z@
288     \fi
289     \fi
290     \ifnum\ParallelBoolVar=\@ne
291     \repeat
292     \par
293     \endgroup
294 \fi
295 }{%
```

Additional fixes:

- Unnecessary white space removed.
- `\ifodd\thepage` changed to `\ifodd\value{page}`.

```

296 \ifnum\ParallelBoolVar=\@ne
297 \par
298 \begingroup
299 \global\ParallelWhichBox=\@ne
300 \newpage
301 \vbadness=10000 %
302 \vfuzz=3ex %
303 \splittopskip=\z@skip
304 \loop%
305 \ifnum\ParallelBoolVar=\@ne%
306 \ifnum\ParallelWhichBox=\@ne
307 \ifvoid\ParallelLBox
308 \mbox{}%
309 \newpage
310 \else
311 \global\ParallelWhichBox=\z@
312 \fi
313 \else
314 \ifvoid\ParallelRBox
315 \mbox{}%
316 \newpage
317 \else
318 \global\ParallelWhichBox=\@ne
319 \fi
320 \fi
321 \ifnum\ParallelWhichBox=\z@
322 \ifodd\value{page}%
323 \mbox{}%
324 \newpage
325 \fi
326 \hbox to\textwidth{%
327 \pcp@SetCurrent{Left}%
328 \vbox{\vsplit\ParallelLBox to.98\textheight}%
329 }%
330 \else
331 \ifodd\value{page}%
332 \else
333 \mbox{}%
334 \newpage
335 \fi
```

```

336         \hbox to\textwidth{%
337             \pcp@SetCurrent{Right}%
338             \vbox{\vsplit\ParallelRBox to.98\textheight}%
339         }%
340     \fi
341     \vspace*{\fill}%
342     \newpage
343 \fi
344 \ifvoid\ParallelLBox
345     \ifvoid\ParallelRBox
346         \global\ParallelBoolVar=\z@
347     \fi
348 \fi
349 \ifnum\ParallelBoolVar=\@ne
350     \repeat
351     \par
352 \endgroup
353 \pcp@SetCurrent{%
354 \fi
355 }
356 \end{package}

```

3 Test

The test file is a modified version of the file that Alexander Hirsch has posted in `de.comp.text.tex`.

```

357 \begin{document}
358 \AtEndDocument{%
359     \typeout{%
360         \typeout{*****}%
361         \typeout{*** \space Check the PDF file manually! \space ***}%
362         \typeout{*****}%
363     }
364 }
365 \documentclass{article}
366 \usepackage{xcolor}
367 \usepackage[pdftoolbar]{2007/09/09}
368
369 \begin{document}
370     \color{green}%
371     Green%
372     \begin{Parallel}{0.47\textwidth}{0.47\textwidth}%
373         \ParallelLText{%
374             \textcolor{red}{%
375                 Ein Absatz, der sich ueber zwei Zeilen erstrecken soll. %
376                 Ein Absatz, der sich ueber zwei Zeilen erstrecken soll.%
377             }%
378         }%
379         \ParallelRText{%
380             \textcolor{blue}{%
381                 Ein Absatz, der sich ueber zwei Zeilen erstrecken soll. %
382                 Ein Absatz, der sich ueber zwei Zeilen erstrecken soll.%
383             }%
384         }%
385     \end{Parallel}%
386     Green%
387     \begin{Parallel}[p]{\textwidth}{\textwidth}%
388         \ParallelLText{%
389             \textcolor{red}{%
390                 Ein Absatz, der sich ueber zwei Zeilen erstrecken soll. %
391                 Ein Absatz, der sich ueber zwei Zeilen erstrecken soll. %

```



```

392      Foo bar bla bla bla.%
393    }%
394  }%
395  \ParallelRText{%
396    \textcolor{blue}{%
397      Ein Absatz, der sich ueber zwei Zeilen erstrecken soll. %
398      Ein Absatz, der sich ueber zwei Zeilen erstrecken soll. %
399      Foo bar bla bla bla.%
400    }%
401  }%
402  \end{Parallel}%
403  Green%
404  \end{document}
405 </test1>

```

4 Installation

4.1 Download

Package. This package is available on CTAN¹:

[CTAN:macros/latex/contrib/oberdiek/pdfcolparallel.dtx](#) The source file.

[CTAN:macros/latex/contrib/oberdiek/pdfcolparallel.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:macros/latex/contrib/oberdiek/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 pdfcolparallel.dtx
```

¹<http://ftp.ctan.org/tex-archive/>

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

```
pdfcolparallel.sty      → tex/latex/oberdiek/pdfcolparallel.sty
pdfcolparallel.pdf      → doc/latex/oberdiek/pdfcolparallel.pdf
pdfcolparallel-test1.tex → doc/latex/oberdiek/pdfcolparallel-test1.tex
pdfcolparallel.dtx      → source/latex/oberdiek/pdfcolparallel.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 (`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 pdfcolparallel.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{pdfcolparallel.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 `pdf \LaTeX` :

```
pdfflatex pdfcolparallel.dtx
makeindex -s gind.ist pdfcolparallel.idx
pdfflatex pdfcolparallel.dtx
makeindex -s gind.ist pdfcolparallel.idx
pdfflatex pdfcolparallel.dtx
```

5 References

- [1] Matthias Eckermann: *The parallel-package*; 2003/04/13;
CTAN:macros/latex/contrib/parallel/.
- [2] Heiko Oberdiek: *The pdfcol package*; 2007/09/09;
CTAN:macros/latex/contrib/oberdiek/pdfcol.pdf.

6 History

[2007/09/09 v1.0]

- First version.

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.

Symbols	
<code>\@PackageWarningNoLine</code>	41
<code>\@ne</code>	85, 90, 102, 107, 117, 128, 144, 154, 169, 176, 187, 204, 215, 230, 239, 242, 248, 249, 261, 290, 296, 299, 305, 306, 318, 349
<code>\@restorepar</code>	54, 67, 82, 99
<code>\@</code>	25
A	
<code>\afterassignment</code>	34, 63, 77, 95, 113
<code>\aftergroup</code>	61, 75, 93, 111
<code>\AtEndDocument</code>	358
B	
<code>\begin</code>	369, 372, 387
C	
<code>\color</code>	370
<code>\CurrentOption</code>	6
D	
<code>\DeclareOption</code>	5
<code>\documentclass</code>	365
<code>\dp</code>	139, 157, 199, 218
E	
<code>\end</code>	385, 402, 404
<code>\endinput</code>	16
<code>\everypar</code>	53, 66, 81, 98
F	
<code>\fill</code>	282, 341
<code>\footnote</code>	57, 70, 86, 88, 103, 105
H	
<code>\hbadness</code>	56, 69, 84, 101
<code>\hbox</code>	130, 132, 189, 191, 269, 278, 326, 336
<code>\hsize</code>	60, 73, 92, 109
<code>\hskip</code>	131, 134, 145, 152, 190, 193, 205, 212
<code>\hss</code>	148, 150, 208, 210
I	
<code>\ifnum</code>	85, 102, 117, 128, 144, 169, 176, 187, 204, 230, 239, 248, 249, 264, 290, 296, 305, 306, 321, 349
<code>\ifodd</code>	265, 273, 322, 331
<code>\ifpdfcolAvailable</code>	11
<code>\ifvoid</code>	133, 151, 163, 164, 192, 211, 224, 225, 250, 257, 285, 286, 307, 314, 344, 345
<code>\ifx</code>	25, 38
<code>\interlinepenalty</code>	170, 231
L	
<code>\leftmargin</code>	120, 179
<code>\loop</code>	127, 186, 247, 304
M	
<code>\mbox</code>	251, 258, 266, 275, 308, 315, 323, 333
<code>\MessageBreak</code>	42, 43, 44, 45
N	
<code>\NeedsTeXFormat</code>	2
<code>\newpage</code>	243, 252, 259, 267, 276, 283, 300, 309, 316, 324, 334, 342
<code>\noindent</code>	129, 188
P	
<code>\PackageInfo</code>	13
<code>\par</code>	118, 172, 177, 233, 240, 292, 297, 351
<code>\ParallelAfterText</code>	61, 75, 93, 111
<code>\ParallelBoolMid</code>	144, 204
<code>\ParallelBoolVar</code>	117, 128, 165, 169, 176, 187, 226, 230, 239, 248, 287, 290, 296, 305, 346, 349
<code>\ParallelBoxVar</code>	138, 140, 156, 158, 198, 200, 217, 219
<code>\ParallelCheckOpenBrace</code>	63, 77, 95, 113
<code>\ParallelFNMode</code>	85, 102
<code>\ParallelLBox</code>	59, 72, 133, 139, 163, 192, 199, 224, 250, 270, 285, 307, 328, 344
<code>\ParallelLeftMargin</code>	131, 190
<code>\ParallelLFootnote</code>	57, 70, 88, 105
<code>\ParallelLText</code>	52, 373, 388
<code>\ParallelLWidth</code>	60, 73, 134, 193
<code>\ParallelMainMidSkip</code>	145, 205
<code>\ParallelParOnePage</code>	<u>116</u>
<code>\ParallelParTwoPages</code>	<u>238</u>
<code>\ParallelRBox</code>	91, 108, 151, 157, 164, 211, 218, 225, 257, 279, 286, 314, 338, 345
<code>\ParallelRFootnote</code>	86, 103
<code>\ParallelRText</code>	<u>80</u> , 379, 395
<code>\ParallelRWidth</code>	92, 109, 152, 212
<code>\ParallelTextWidth</code>	132, 191

<code>\ParallelWhichBox</code>		T	
..... 58, 71, 90, 107, 136,		<code>\textcolor</code>	374, 380, 389, 396
154, 196, 215, 242, 249, 254,		<code>\textheight</code>	270, 279, 328, 338
261, 264, 299, 306, 311, 318, 321		<code>\textwidth</code>	130,
<code>\parindent</code>	123, 182	189, 269, 278, 326, 336, 372, 387	
<code>\parskip</code>	122, 181	<code>\thepage</code>	265, 273
<code>\PassoptionsToPackage</code>	6	<code>\typeout</code>	359, 360, 361, 362, 363
<code>\pcp@cmd</code>	33, 38, 40, 50		
<code>\pcp@CmdCheckRedef</code> 31, 52, 80, 116, 238		U	
<code>\pcp@CmdDo</code>	34, 37	<code>\unvbox</code>	140, 158, 200, 219
<code>\pcp@SetCurrent</code>		<code>\usepackage</code>	366, 367
.. 24, 195, 214, 235, 327, 337, 353			
<code>\pcp@SwitchStack</code>	21, 74, 110	V	
<code>\pdfcolInitStack</code>	19, 20	<code>\value</code>	322, 331
<code>\pdfcolSetCurrent</code>	26, 28	<code>\vbadness</code>	124, 183, 244, 301
<code>\pdfcolSwitchStack</code>	22	<code>\vbox</code>	59, 72, 91, 108, 137,
<code>\penalty</code>	170, 231	155, 197, 216, 270, 279, 328, 338	
<code>\ProcessOptions</code>	8	<code>\vfuzz</code>	125, 184, 245, 302
<code>\ProvidesPackage</code>	3	<code>\vrule</code>	146, 206
		<code>\vspace</code>	282, 341
R		<code>\vsplit</code>	139,
<code>\repeat</code>	171, 232, 291, 350	157, 199, 218, 270, 279, 328, 338	
<code>\RequirePackage</code>	9, 10, 18		
<code>\reserved@a</code>	35, 38	X	
<code>\rightmargin</code>	121, 180	<code>\x</code>	40, 42, 45, 64, 78, 96, 114
S		Z	
<code>\setbox</code> 59, 72, 91, 108, 138, 156, 198, 217		<code>\z@</code>	120, 121, 123,
<code>\space</code>	44, 361	136, 165, 179, 180, 182, 196,	
<code>\splittopskip</code>	126, 185, 246, 303	226, 254, 264, 287, 311, 321, 346	
<code>\strut</code>	143, 203	<code>\z@skip</code> ...	122, 126, 181, 185, 246, 303
<code>\strutbox</code>	139, 157, 199, 218		