The pdfcolparallel package

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Abstract

This package fixes bugs in parallel and improves color support by using several color stacks that are provided by pdfTeX since version 1.40.

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1 Usage

\usepackage{pdfcolparallel}

The package pdfcolparallel loads package parallel [1] and redefines some macros to fix bugs.

If color stacks are available then package parallel is further patched to support them.

*Please report any issues at https://github.com/ho-tex/oberdiek/issues
1.1 Option \texttt{rulebetweencolor}

Package \texttt{pdfcolparallel} also fixes the color for the rule between columns. Default color is \texttt{\normalcolor}. But this can be changed by using option \texttt{rulebetweencolor} for \texttt{\setkeys{parallel}} (see package \texttt{keyval}). The option takes a color specification as value. If the value is empty, then the default (\texttt{\normalcolor}) is used.

Examples:

\begin{verbatim}
\setkeys{parallel}{rulebetweencolor=\blue},
\setkeys{parallel}{rulebetweencolor=\red},
\setkeys{parallel}{rulebetweencolor={}}, % \texttt{\normalcolor} is used
\setkeys{parallel}{rulebetweencolor=[\texttt{rgb}]{1,0,.5}}
\end{verbatim}

1.2 Future

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

2 Implementation

2.1 Identification

\begin{verbatim}
\NeedsTeXFormat{LaTeX2e}
\ProvidesPackage{pdfcolparallel}[2019/12/29 v1.5 Color stacks support for parallel (HO)]
\end{verbatim}

2.2 Load and fix package \texttt{parallel}

Package \texttt{parallel} is loaded. Before options of package \texttt{pdfcolparallel} are passed to package \texttt{parallel}.

\begin{verbatim}
\DeclareOption*{
  \PassOptionsToPackage{\CurrentOption}{parallel}
}
\ProcessOptions\relax
\RequirePackage{parallel}[2003/04/13]
\RequirePackage{infwarerr}[2007/09/09]
\pcp@ColorPatch
\begin{group}
\expandafter\expandafter\expandafter\endgroup
\expandafter\ifx\csname currentgrouplevel\endcsname\relax
\def\pcp@ColorPatch{}
\else
\def\pcp@ColorPatch{
  \@ifundefined{set@color}{%
    \gdef\pcp@ColorPatch{}
  }{%
    \gdef\pcp@ColorResets{}
    \bgroup
    \aftergroup\pcp@ColorResets
    \aftergroup\egroup
    \let\pcp@OrgSetColor\set@color
    \let\set@color\pcp@SetColor
    \edef\pcp@GroupLevel{\the\currentgrouplevel}%
  }%
}\pcp@ColorPatch
\end{verbatim}

2
\pcp@SetColor
\def\pcp@SetColor{\ifnum\pcp@GroupLevel=\currentgrouplevel
\let\pcp@OrgAfterGroup\aftergroup
\def\aftergroup{\g@addto@macro\pcp@ColorResets
\pcp@OrgAfterGroup\let\aftergroup\pcp@OrgAfterGroup
\else\pcp@OrgAfterGroup\fi
}\fi
\pcp@CmdCheckRedef
\def\pcp@CmdCheckRedef#1{\begingroup
\def\pcp@cmd{#1}\afterassignment\pcp@CmdDo
\long\def\reserved@a{}\def\pcp@cmd{\edef\x*{\expandafter\string\pcp@cmd}\
\@PackageWarningNoLine{pdfcolparallel}{Command \x* has changed.
Supported versions of package `parallel':
\space\space 2003/04/13\space\space The redefinition of \x* may
\space\space not behave correctly depending on the changes%\nonline}
\fi\expandafter\endgroup\expandafter\def\pcp@cmd{}}
\def\pcp@SwitchStack#1#2{}
\def\pcp@SetCurrent#1{}
\ParallelLText
\pcp@CmdCheckRedef\ParallelLText{\everypar{}\@restorepar
\begingroup
\hbadness=3000\%\let\footnote=\ParallelLFootnote\ParallelWhichBox=0\%
\global\setbox\ParallelLBox=\vbox\bgroup\hsize=\ParallelLWidth\aftergroup\ParallelAfterText
\begingroup\afterassignment\ParallelCheckOpenBrace\let\x=%\let\footnote=\ParallelLFootnote
}\everypar{}\@restorepar\nobreakfalse\begingroup\hbadness=3000\%
\let\footnote=\ParallelLFootnote
3
\loop%
\ifnum\ParallelBoolVar=\@ne%
\ifnum\ParallelWhichBox=\@ne
\ifvoid\ParallelLBox
\mbox{ } %
\newpage
\else
\global\ParallelWhichBox=\z@
\fi
\else
\ifvoid\ParallelRBox
\mbox{ } %
\newpage
\else
\global\ParallelWhichBox=\@ne
\fi
\fi
\ifnum\ParallelWhichBox=\z@
\ifodd\thepage
\mbox{ } %
\newpage
\fi
\hbox to\textwidth{\vbox{\vsplit\ParallelLBox to.98\textheight} %
}\]%
\else
\ifodd\thepage\relax
\else
\mbox{ } %
\newpage
\fi
\hbox to\textwidth{\vbox{\vsplit\ParallelRBox to.98\textheight} %
}\]%
\fi
\vspace*{\fill} %
\newpage
\fi
\ifvoid\ParallelLBox
\ifvoid\ParallelRBox
\global\ParallelBoolVar=\z@
\fi
\fi
\ifnum\ParallelBoolVar=\@ne
\repeat
\par
\endgroup
\fi
\fi
}\%  

Additional fixes:

- Unnecessary white space removed.
- \ifodd\thepage changed to \ifodd value(page).

\ifnum\ParallelBoolVar=\@ne
\par
\begingroup
\global\ParallelWhichBox=\@ne
\newpage
\vbadness=10000 %
\vfuzz=3ex %
\splittopskip=\z@skip
\fi
\loop\% \ifnum\ParallelBoolVar=\@ne\%
  \ifnum\ParallelWhichBox=\@ne\%
    \ifvoid\ParallelLBox
      \mbox{}\%
      \newpage\%
    \else\%
      \global\ParallelWhichBox=\z@
      \fi\%
    \else\%
      \ifvoid\ParallelRBox
        \null\%
        \newpage\%
      \else\%
        \global\ParallelWhichBox=\@ne\%
      \fi\%
    \fi\%
  \else\%
    \ifodd\value{page}\%
      \null\%
      \newpage\%
    \fi\%
  \fi\%
  \hbox to\textwidth{\%
  \pcp@SetCurrent{Left}\%
  \setbox\z@=\vsplit\ParallelLBox to.98\texttheight
  \vbox to.98\texttheight{\%
    \@texttop\%
    \unvbox\z@
    \@textbottom
  }\%
  }\%
  \else\%
  \ifodd\value{page}\%
  \else\%
    \mbox{}\%
    \newpage\%
  \fi\%
  \fi\%
  \hbox to\textwidth{\%
  \pcp@SetCurrent{Right}\%
  \setbox\z@=\vsplit\ParallelRBox to.98\texttheight
  \vbox to.98\texttheight{\%
    \@texttop\%
    \unvbox\z@
  }\%
  }\%
  \ifvoid\ParallelLBox
  \ifvoid\ParallelRBox
    \global\ParallelBoolVar=\z@
  \fi\%
  \fi\%
  \ifnum\ParallelBoolVar=\@ne
    \repeat\%
  \par\%
  \endgroup\%
  \pcp@SetCurrent{}\%
  \fi\%
\fi\%
}
2.3 Color stack support

\RequirePackage{pdfcol}[2007/12/12]
\ifpdfcolAvailable
\PackageInfo{pdfcolparallel}{
Loading aborted, because color stacks are not available%}
\fi
\pdfcolInitStack{pcp@Left}
\pdfcolInitStack{pcp@Right}

\pcp@Box
\newbox\pcp@Box

\pcp@SwitchStack
\def\pcp@SwitchStack#1#2{\pdfcolSwitchStack{pcp@#1}\global\setbox\pcp@Box=\vbox to 0pt{\pdfcolSetCurrentColor\aftergroup\pcp@FixBox\aftergroup#2}}

\pcp@FixBox
\def\pcp@FixBox#1{\global\setbox#1=\vbox{\unvbox\pcp@Box\unvbox#1}}

\pcp@SetCurrent
\def\pcp@SetCurrent#1{\ifx\#1\%\pdfcolSetCurrent{}\else\pdfcolSetCurrent{pcp@#1}\fi}

2.4 Redefinitions

\ParallelParOnePage
\def\pcp@CmdCheckRedef\ParallelParOnePage{%\ifnum\ParallelBoolVar=\@ne\par\begingroup\leftmargin=\z@\rightmargin=\z@\parskip=\z@skip\parindent=\z@\vbadness=10000 \vfuzz=3ex \splittopskip=\z@skip\loop\ifnum\ParallelBoolVar=\@ne\noindent\hbox to\textwidth{\hskip\ParallelLeftMargin\par\loop}\fi\fi\ParallelParOnePage
\reversemarginpar
\parskip=2pt
\parindent=0pt
\setcounter{section}{0}
\setcounter{subsection}{0}
\setcounter{figure}{0}
\setcounter{table}{0}
\setcounter{equation}{0}
\setcounter{footnote}{0}
\renewcommand{\thefootnote}{\arabic{footnote}}
\renewcommand{\figurename}{Figure}
\renewcommand{\tablename}{Table}
\renewcommand{\theequation}{\arabic{equation}}
\renewcommand{\textsection}{\section*{Section}}
\renewcommand{\textsubsection}{\subsection*{Subsection}}
\renewcommand{\textfigure}{\figure\figurename}
3 Installation

3.1 Download

Package. This package is available on CTAN:\(^1\):


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:pkg/tds). Directories with \texttt{textmf} in their name are usually organized this way.

3.2 Bundle installation

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

```
unzip oberdiek.tds.zip -d ~/texmf
```

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 pdfcolparallel.dtx
```

\(^1\)CTAN:pkg/pdfcolparallel
TDS. Now the different files must be moved into the different directories in your installation TDS tree (also known as texmf tree):

\begin{itemize}
  \item pdfcolparallel.sty → tex/latex/oberdiek/pdfcolparallel.sty
  \item pdfcolparallel.pdf → doc/latex/oberdiek/pdfcolparallel.pdf
  \item pdfcolparallel.dtx → source/latex/oberdiek/pdfcolparallel.dtx
\end{itemize}

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 (\TeX{} Live, MiK\TeX{}, …) relies on file name databases, you must refresh these. For example, \TeX{} Live 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:

\begin{verbatim}
latex \let\install=y\input{pdfcolparallel.dtx}
\end{verbatim}

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 \texttt{ltxdoc.cfg}. For instance, put this line into this file, if you want to have A4 as paper format:

\begin{verbatim}
\PassOptionsToClass{a4paper}{article}
\end{verbatim}

An example follows how to generate the documentation with \pdfLaTeX{}:

\begin{verbatim}
pdflatex pdfcolparallel.dtx
makeindex -s gind.ist pdfcolparallel.idx
pdflatex pdfcolparallel.dtx
makeindex -s gind.ist pdfcolparallel.idx
pdflatex pdfcolparallel.dtx
\end{verbatim}

4 References


5 History

[2007/09/09 v1.0]

- First version.
[2007/12/12 v1.1]
• Adds patch for setting \linewidth to fix bug in package parallel.
• Package parallel is also fixed if color stacks are not available.
• Bug fix, switched stacks now initialized with current color.
• Fix for package parallel: \raggedbottom is respected.

[2008/08/11 v1.2]
• Code is not changed.
• URLs updated.

[2010/01/11 v1.3]
• Option ‘rulebetweencolor’ added.

[2016/05/16 v1.4]
• Documentation updates.

[2019/12/29 v1.5]
• \PassOptionsToPackage not \PassoptionsToPackage

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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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