

[2014/09/29]

The `pagecolor` package

H.-Martin Münch
<Martin.Muench at Uni-Bonn.de>

2017/05/29 v1.0i

Abstract

This \LaTeX package provides the command `---`, which gives the current page (background) colour, i.e. the argument used with the most recent call of `---`. The command `---` gives the same colour as `---`, except when the page background colour is “`—none—`”. In that case `---` is `—white—` and `---` is `—none—`.

When `---` is unknown (e.g. \XeLaTeX) or broken (`crop` package) this package provides a replacement. Similar to `---` and `---` of the `geometry` package

`—i—some colour—i—` and `---` are provided.

Disclaimer for web links: The author is not responsible for any contents referred to in this work unless he has full knowledge of illegal contents. If any damage occurs by the use of information presented there, only the author of the respective pages might be liable, not the one who has referred to these pages.

Save per page about 200 ml water, 2 g CO_2 and 2 g wood:
Therefore please print only if this is really necessary.

Contents

1	Introduction	3
2	Usage	4
2.1	Options	4
2.1.1	pagecolor	4
2.1.2	nopagecolor	4
3	Alternatives	5
4	Example	6
5	The implementation	9
6	Installation	15
6.1	Downloads	15
6.2	Package, unpacking TDS	16
6.3	Refresh file name databases	17
6.4	Some details for the interested	17
6.5	Compiling the example	18
7	Acknowledgements	18
8	History	18
[2011/07/16 v1.0a]		18
[2011/08/06 v1.0b]		18
[2011/08/08 v1.0c]		18
[2012/02/01 v1.0d]		18
[2012/02/23 v1.0e]		18
[2015/06/21 v1.0f]		19
[2015/06/22 v1.0g]		19
[2015/08/30 v1.0h]		19
[2017/05/29 v1.0i]		19
9	Index	20

1 Introduction

This L^AT_EX package provides the command `---`, which gives the current page (background) colour, i. e. the argument used with the most recent call of `---`. The package should be loaded before any package sets a page (background) colour, but after `xcolor` or `color` package. Its option `--pagecolor=...` is used to set the initial `---`.

The command `---` gives the same colour as `---`, except when the page background colour is “`--none--`” (e. g. result of using the `---` command). In that case `---` is `--white--` and `---` is `--none--`. When `---` is unknown (e. g. X_YL^AT_EX) or broken (`crop` package) this package provides a replacement depending on option `--nopagecolor--`. Similar to `---` and `---` of the `geometry` package `--i--some colour--i--` and `---` are provided.

2 Usage

Just load the package placing

`--[i--options--i]pagecolor--`

in the preamble of your L^AT_EX 2_ε source file. This should be done before another package uses `--`. Afterwards `---` can be used to change the page (background) colour as usual. Then `---` gives the current page (background) colour (in the same format as given with `---`).

Similar to `---` and `---` of the `geometry` package

`--i--some colour--i--` and `---` are provided:

`--i--some colour--i--` will execute `--some colour--i--` and remember the page colour used before. `---` (without argument) restores the page colour to the one used before use of the `--...--` command. When you want to change the colour for just one page and do not want to (or cannot) manually determine where the page ends,

`--i--some colour--i--`

does the trick (and requires a `--afterpage--` in the document's preamble), or for short

`---`

in the preamble and

`---`

`--i--some colour--i--` in the document.

2.1 Options

options The `pagecolor` package takes the following options:

2.1.1 `pagecolor`

pagecolor The option `--pagecolor=...--` takes as value a colour. This could be as simple as `--black--` or `--white--`, but when e.g. the `xcolor` package is used (loaded before `pagecolor!`), also colours like `--red!50!green!20!blue--` are possible. The default is `--pagecolor=none--`. A `---` command with the given colour is used to initialise the pagecolour.

2.1.2 `nopagecolor`

nopagecolor The option `--nopagecolor=...--` takes as value a colour. This could be as simple as `--white--` or `--black--`, but when e.g. the `xcolor` package is used (loaded before `pagecolor!`), also colours like `--red!50!green!20!blue--` are possible. The default is `--nopagecolor=none--`. When `---` is unknown (e.g. X_YL^AT_EX) or broken (`crop` package) `---` is replaced by a `--` command using the colour defined with the `--nopagecolor--` option. If `---` is not available and `--nopagecolor--` is `--none--`, it is used `--white--` instead of `--none--`.

3 Alternatives

As I neither know what exactly you want to accomplish when using this package (e.g. hiding text), nor what resources you have (e.g. pdfTeX version), here is a list of possible alternatives:

- transparent package: With it some object can be made (fully or partially) transparent, <https://www.ctan.org/pkg/transparent>.
- hrefhide package: It allows to “hide” some (hyperlinked) text when printing the document while keeping the layout, <https://www.ctan.org/pkg/hrefhide>.

You programmed or found another alternative, which is available at <https://www.CTAN.org/>? OK, send an e-mail to me with the name, location at CTAN, and a short notice, and I will probably include it in the list above.

4 Example

```
1 \example
2 \documentclass[british]{article}[2014/09/29]% v1.4h
3 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
4 \usepackage[
5   extension=pdf,%
6   plainpages=false,%
7   pdfpagelabels=true,%
8   hyperindex=false,%
9   pdflang={en},%
10  pdftitle={pagecolor package example},%
11  pdfauthor={H.-Martin Muench},%
12  pdfsubject={Example for the pagecolor package},%
13  pdfkeywords={LaTeX, pagecolor, thepagecolor, page colour},%
14   H.-Martin Muench},%
15  pdfview=Fit,pdfstartview=Fit,%
16  pdfpagelayout=SinglePage%
17 ]{hyperref}[2012/11/06]% v6.83m
18 \usepackage[x11names]{xcolor}[2007/01/21]% v2.11
19 % The xcolor package would not be needed for just using
20 % the base colours. The color package would be sufficient for that.
21 \definecolor{darkgreen}{rgb}{0.0, 0.3, 0.0}%
22 \usepackage[pagecolor={LightGoldenrod1},%
23   nopagecolor={none}]{pagecolor}[2017/05/29]% v1.0i
24
25 \usepackage{afterpage}[2014/10/28]% v1.08
26 % The afterpage package is generally not needed,
27 % but the |\newpagecolor{somecolour}\afterpage{\restorepagecolor}|
28 % construct shall be demonstrated.
29
30 \usepackage{lipsum}[2014/07/27]% v1.3
31 % The lipsum package is generally not needed,
32 % but some blind text is needed for the example.
33
34 \usepackage{hologo}[2012/04/26]% v1.10
35 % The hologo package is only needed to write
36 % \hologo{pdfTeX}, \hologo{LuaTeX}, and \hologo{XeTeX}.
37
38 \gdef\unit#1{\mathord{\thinspace\mathrm{#1}}}%
39 \listfiles%
40 \begin{document}
41 \pagenumbering{arabic}
42 \section*{Example for pagecolor}
43
44 This example demonstrates the use of package\newline
45 \textsf{pagecolor}, v1.0i as of 2017/05/29 (HMM).\newline
46 The used options were\newline
47 \verb|pagecolor={LightGoldenrod1}| (\verb|pagecolor={none}|
48 would be the default), and
49 \verb|pagecolor={none}| (which is the default).\newline
50
51 \noindent For more details please see the documentation!\newline
52
53 \noindent {\color{darkgreen} Save per page about $200\unit{ml}$ water,
54 $2\unit{g}$ CO$_2$ and $2\unit{g}$ wood:\newline
55 Therefore please print only if this is really necessary.}\newline
56
```

```

57 \noindent The current page (background) colour is\newline
58 \verb|\thepagecolor/\ =\ \thepagecolor \newline
59 (and \verb|\thepagecolornone/\ =\ \thepagecolornone ,
60 which would only be different from \verb|\thepagecolor/,
61 when the page colour would be \verb|none|).
62
63 \pagebreak
64 \pagecolor{rgb:-green!40!yellow,3;green!40!yellow,2;red,1}
65
66 {\color{white} The current page (background) colour is\newline
67 \verb|\thepagecolor/\ =\ \thepagecolor . \newline}
68
69 {\color{\thepagecolor} And that makes this text practically invisible.
70 \newline}
71
72 {\color{white} Which made the preceding line of text practically
73 invisible.}
74
75 \pagebreak
76 \newpagecolor{red}
77
78 This page uses \verb|\newpagecolor{red}|.
79
80 \pagebreak
81 \restorepagecolor
82
83 {\color{white}And this page uses \verb|\restorepagecolor/ to restore
84 the page colour to the value it had before the red page.}
85
86 \pagebreak
87 \pagecolor{none}
88
89 This page uses \verb|\pagecolor{none}|. If the \verb|\nopagecolor/
90 command is known (\hologo{pdfTeX} and \hologo{LuaTeX}; not yet for
91 dvips, dvipdfm(x) or \hologo{XeTeX}), the page colour is now
92 \verb|none| (because option \verb|\nopagecolor={none}|), otherwise
93 \verb|white| (or the colour given with option \verb|\nopagecolor={...}|):
94 \verb|\thepagecolor/\ =\ \thepagecolor\ and
95 \verb|\thepagecolornone/\ =\ \thepagecolornone .
96
97 \pagebreak
98 \restorepagecolor
99
100 {\color{white}\verb|\restorepagecolor/ restored the page colour again.}
101
102 \pagebreak
103 \pagecolor{green}
104
105 This page is green due to \verb|\pagecolor{green}|.
106
107 \pagebreak
108 \newpagecolor{blue}\afterpage{\restorepagecolor}
109
110 {\color{white}\verb|\newpagecolor{blue}\afterpage{\restorepagecolor}|\%
111 \newline
112 was used here, i.\,e.\,this page is blue, and the next one will
113 automatically have the same page colour before it was changed to blue
114 here (i.\,e.\,green).}

```

```
115
116 \smallskip
117 {\color{red}\textbf{\lipsum[1-11]}}
118 \bigskip
119
120 The page colour was changed back at the end of the page -
121 in mid-sentence!
122
123 \end{document}
124 \end{example}
```


5 The implementation

We start off by checking that we are loading into L^AT_EX 2_ε and announcing the name and version of this package.

```
125 (*package)
126 \NeedsTeXFormat{LaTeX2e}[2014/05/01]
127 \ProvidesPackage{pagecolor}[2017/05/29 v1.0i
128     Provides thepagecolor (HMM)]
```

A short description of the pagecolor package:

```
129 %% Provides the \thepagecolor, \thepagecolornone, \newpagecolor{...},
130 %% and \restorepagecolor commands and the a replacement for the
131 %% \nopagecolor command, if it is not available.
```

We need the kvoptions package by HEIKO OBERDIEK:

```
132 \RequirePackage{kvoptions}[2011/06/30]% v3.11
```

and either the color or the xcolor package:

```
133 %% \RequirePackage{ either color or xcolor }:
134 \@ifpackageloaded{xcolor}{% xcolor loaded
135     \@ifpackagelater{xcolor}{2007/01/21}{%
136         % 2007/01/21, v2.11, or even more recent: OK
137     }{% else: older package version
138         \PackageWarning{pagecolor}{%
139             It is requested version '2007/01/21' of package\MessageBreak%
140             xcolor, but only an older version is available\MessageBreak%
141         }%
142     }%
143 }{% xcolor not loaded
144     \@ifpackageloaded{color}{%
145         \RequirePackage{color}[2014/10/28]% v1.1a
146     }{% \else
147         \PackageWarning{pagecolor}{%
148             The pagecolor package must be loaded after either\MessageBreak%
149             package color or after package xcolor (at your\MessageBreak%
150             option). Neither package was loaded before package\MessageBreak%
151             pagecolor. Loading of package xcolor will now be\MessageBreak%
152             tried automatically.\MessageBreak%
153             When the pagecolor package is used with option\MessageBreak%
154             pagecolor using a colour requiring e. g. x11names\MessageBreak%
155             option for xcolor package, this will not work!\MessageBreak%
156         }
157     }% \fi
158     \RequirePackage{xcolor}[2007/01/21]% v2.11
159 }% \fi
```

as well as the ifpdf and the ifluatex package, because only pdfT_EX and LuaT_EX provide the — command:

```
160 \RequirePackage{ifpdf}[2011/01/30]% v2.3
161 \RequirePackage{ifluatex}[2010/03/01]% v1.3
```

A last information for the user:

```
162 %% pagecolor may work with earlier versions of LaTeX and the
163 %% packages, but this was not tested. Please consider updating
164 %% your LaTeX and packages to the most recent version
165 %% (if they are not already the most recent version).
166
```

See subsection 6.1 about how to get them.

We process the options:

```

167 \SetupKeyvalOptions{family=pagecolor,prefix=pagecolor@}
168 \DeclareStringOption[none]{pagecolor}% \pagecolor@pagecolor
169 \DeclareStringOption[none]{nopagecolor}% \pagecolor@nopagecolor
170 \ProcessKeyvalOptions*
171
\nopagecolor
172 %% \nopagecolor is only available for pdf(La)TeX and Lua(La)TeX
173 %% but not for dvips, dvipdfm(x), Xe(La)TeX,...
    therefore —pagecolor— and/or —nopagecolor— can only be —none—, if
    either pdfTeX or LuaTeX is used; otherwise —white— is fine or another colour
    (other colours) requested by the user with the two options.
174 \def\pagecolourtmpa{0}
175 \ifluatex\def\pagecolourtmpa{1}\fi
176 \ifpdf\def\pagecolourtmpa{1}\fi
177 \def\pagecolourtmpb{1}
178 \ifx\pagecolourtmpa\pagecolourtmpb\relax%
179 \else%
180   \PackageInfo{pagecolor}{\string\nopagecolor\space is undefined}%
181   \def\pagecolourtmpb{none}%
182   \edef\pagecolourtmpa{\pagecolor@nopagecolor}%
183   \ifx\pagecolourtmpa\pagecolourtmpb%
184     \PackageWarning{pagecolor}{%
185       Option nopagecolor=none requested but \string\nopagecolor\space%
186       unknown:\MessageBreak%
187       By option nopagecolor the "colour" to be used with%
188       \string\nopagecolor\MessageBreak%
189       is set. The current value is "none" (maybe by default),%
190       \MessageBreak%
191       but command \string\nopagecolor\space is undefined.\MessageBreak%
192       Therefore the colour cannot be "none".\MessageBreak%
193       Please change the option accordingly!\MessageBreak%
194       As first aid nopagecolor is now set to white\MessageBreak%
195     }%
196     \setkeys{pagecolor}{nopagecolor=white}%
197   \fi%
198   \edef\pagecolourtmpa{\pagecolor@pagecolor}%
199   \ifx\pagecolourtmpa\pagecolourtmpb%
200     \PackageWarning{pagecolor}{%
201       Option pagecolor=none (maybe by default) used,\MessageBreak%
202       but \string\nopagecolor\space is unknown.\MessageBreak%
203       Please use anotheroption value;\MessageBreak%
204       \pagecolor@nopagecolor\space\MessageBreak%
205       will be used now\MessageBreak%
206     }%
207     \setkeys{pagecolor}{pagecolor={\pagecolor@nopagecolor}}%
208   \fi%
209   \@ifundefined{nopagecolor}{%
210     \newcommand{\nopagecolor}{\pagecolor{\pagecolor@nopagecolor}}%
211   }{\renewcommand{\nopagecolor}{\pagecolor{\pagecolor@nopagecolor}}}%
212   }%
213 \fi%
214
215

```

`\pagecolor` We save the original — command,

```
216 \let\origpagecolour\pagecolor
217
```

before we redefine it to include a definition of — and —:

```
218 \renewcommand{\pagecolor}[1]{\@bsphack%
219   \edef\pagecolourtmpa{#1}%
220   \def\pagecolourtmpb{none}%
221   \ifx\pagecolourtmpa\pagecolourtmpb\relax%
222     \@ifundefined{nopagecolor}{%
223       \PackageWarning{pagecolor}{%
224         pagecolor=none requested but \string\nopagecolor\space%
225         unknown:\MessageBreak%
226         \string\pagecolor{none} was used, but the command\MessageBreak%
227         \string\nopagecolor\space is undefined.\MessageBreak%
228         Please use another colour.\MessageBreak%
229         pagecolor=\pagecolor@nopagecolor \MessageBreak%
230         will be used now\MessageBreak%
231       }%
232       \xdef\thepagecolor{\pagecolor@nopagecolor}%
233       \xdef\thepagecolornone{\pagecolor@nopagecolor}%
234       % although it should be "none"
235       \origpagecolour{\pagecolor@nopagecolor}%
236     }{nopagecolor%
237     }%
238   \else%
239     \xdef\thepagecolor{#1}%
240     \xdef\thepagecolornone{#1}%
241     \origpagecolour{\thepagecolornone}%
242   \fi%
243   \@esphack%
244 }
245
```

— is only defined for pdfTeX and LuaTeX, but not for dvips, dvipdfm(x) or XeTeX. (We defined a replacement, see page 10.) But additionally — does not work if the crop package is used. A workaround needs to be defined:

```
246 \let\orignopagecolour\nopagecolor\relax%
247
248 \gdef\pagecolor@cl{0}%
249 \@ifpackageloaded{crop}{% crop loaded
250   \gdef\pagecolor@cl{1}%
251   \@ifpackagelater{crop}{2003/05/21}{%
252     % later than 2003/05/20 v1.9 might be OK
253     \PackageWarning{pagecolor}{%
254       \string\nopagecolor\space did not work with package%
255       \MessageBreak%
256       crop 2003/05/20 v1.9. A newer version is used, \MessageBreak%
257       which the pagecolor package does not know how to handle.%
258       \MessageBreak%
259       Please contact the maintainer of the pagecolor package!%
260       \MessageBreak%
261     }%
262   }%
263 }
```


6.5 Compiling the example

The example file, `pagecolor-example.tex`, can be compiled via
—(pdf)latex pagecolor-example.tex—.

7 Acknowledgements

I would like to thank HEIKO OBERDIEK for providing a lot (!) of useful packages (from which I also got everything I know about creating a file in `.dtx` format, ok, say it: copying), and the `news:comp.text.tex` and `news:de.comp.text.tex` newsgroups for their help in all things T_EX, especially all contributors to the discussion at <https://groups.google.com/forum/#!topic/comp.text.tex/UzV26-RNYPY> (H. OBERDIEK & GOUAILLES).

I thank HAOYUN_TEX for suggesting the `—/—` pair of commands and everyone at <https://tex.stackexchange.com/q/25137/6865> for their contributions there. Thanks go to HEINER RICHTER for finding a bug, to JOHANNES BÖTTCHER for reporting it, and to REUBEN THOMAS for suggestions for improvements of this documentation.

8 History

[2011/07/16 v1.0a]

- First version discussed at `news:comp.text.tex`.

[2011/08/06 v1.0b]

- Changed version uploaded to the CTAN.

[2011/08/08 v1.0c]

- Fixed a —

[2012/02/01 v1.0d]

- Bugfix: Obsolete installation path given in the documentation, updated.
- New commands: `—...—`, `—`.
- Update of documentation, README, and `dtx` internals.

[2012/02/23 v1.0e]

- Fixed an error in the documentation.
- Check for loading of `color` or `xcolor` package and their versions has been changed, because `xcolor` sets
——
which gave a warning about old `color` package even if a new version was used.

[2015/06/21 v1.0f]

- Fixed the urls in the documentation.
- Handle `---` when it is not defined or broken by `crop`, new option `—nopagecolor—` introduced.
- Update of documentation, README, and `dtx` internals.

[2015/06/22 v1.0g]

- Replaced all error messages by warnings.

[2015/08/30 v1.0h]

- Bugfix: Checking for `crop` package done `---`, but some of the related code must already be performed earlier. Bug found by HEINER RICHTER and reported by JOHANNES BÖTTCHER, thanks!

[2017/05/29 v1.0i]

- Documentation update following suggestions for improvements by REUBEN THOMAS, thanks!

When you find a mistake or have a suggestion for an improvement of this package, please send an e-mail to the maintainer, thanks! (Please see BUG REPORTS in the README.)

9 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.

```

afterpage=      \subitem **\afterpage+, \hdclindex{33}{-}{27}, 110,
110              PackageWarning=      \subitem **\PackageWarning+, \hdclindex{144}{-}{180}
Alternatives=   \subitem **\Alternatives+, \hdclindex{398}{-}{153},
AtBeginDocument= \subitem **\AtBeginDocument+, 27, \hdclindex{335}{-}{325}
                cl= \subitem cl+, \hdclindex{256}{-}{248}, \hdclindex{258}{-}{2
DeclareStringOption= \subitem **\DeclareStringOption+, \hdclindex{174}{-}{168}, 169
definecolor=     \subitem **\definecolor+, \hdclindex{27}{-}{64},
                nopagecolor= \subitem nopagecolor+, \hdclindex{175}{-}{169}, 18
204, 207, 210, 211, 229,
hologo=         \subitem **\hologo+, \hdclindex{406}{-}{usage}{16}, 232, 235, 236, 273, 277,
90,              91, 294, 304, 352, 356, 372
holtxdoc=       \subitem **\holtxdoc+, \hdclindex{408}{-}{usage}{16},
hrefhide=       \subitem **\hrefhide+, \hdclindex{402}{-}{usage}{16}, \subitem **\pagecolor-example.tex+, \hdcl
hyperref=       \subitem **\hyperref+, \hdclindex{412}{-}{usage}{16}, \subitem **\pagecolor.dtx+, \hdclindex{392}{-}{usa
pagecolor.sty= \subitem **\pagecolor.sty+, \hdclindex{394}{-}{usa
ifluatex=       \subitem **\ifluatex+, \hdclindex{182}{-}{175}, 298
ifpdf=          \subitem **\ifpdf+, \hdclindex{183}{-}{176}, \hdclindex{307}{-}{299}
87, 89, 103, 105, 210, 211,
kvoptions=      \subitem **\kvoptions+, \hdclindex{410}{-}{usage}{16}
216, 294, 314, 318, 321, 372
lipsum=         \subitem **\lipsum+, \hdclindex{123}{-}{117} \subitem **\renewcommand+, \hdclindex{218}{-}{-}
263, 294, 306, 342, 372
Münch=         \subitem **\M{"{u}nch+, \hdclindex{119}{-}{usage}{16} \subitem **\RequirePackage+, \hdclindex{138}{-}{-}
145, 158, 160, 161
newcommand=     \subitem **\newcommand+, \hdclindex{217}{-}{340}, 316, \restorepagecolor+, \hdclindex{33}{-}{-}
321, 83, 98, 100, 108, 110, 130, 321
newpagecolor=   \subitem **\newpagecolor+, \hdclindex{33}{-}{27}, 76,
78, 108, 110, 129, 316 setkeys= \subitem **\setkeys+, \hdclindex{203}{-}{196}, 207,
nopagecolor=    \subitem **\nopagecolor+, \hdclindex{6}{-}{usage}{4}, 89, 370
131, 172, 224, 227, 236, 246,
254, 263, 271, 283, 286, 294, thepagecolor= \subitem **\thepagecolor+, \hdclindex{64}{-}{58},
306, 334, 342, 350, 362, 365, 372 67, 69, 94, 129, 232,
239, 264, 307, 323, 343
Oberdiek=      \subitem **\Oberdiek+, \hdclindex{404}{-}{usage}{16} \subitem **\thepagecolornone+, \hdclindex{65}{-}{-}
options=        \subitem **\options+, \hdclindex{129}{-}{usage}{4}, 241, 265, 308,
orignopagecolour= \subitem **\orignopagecolour+, \hdclindex{254}{-}{246}, 266,
309, 345 transparent= \subitem **\transparent+, \hdclindex{400}{-}{usage}{-}
origpagecolour= \subitem **\origpagecolour+, \hdclindex{224}{-}{216}, 235,
241 unit= \subitem **\unit+, \hdclindex{44}{-}{38}, \hdclindex{59}{-}{-}

```