

The `pagecolor` package

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Abstract

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

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Save per page about 200 ml water, 2 g CO₂ and 2 g wood:
Therefore please print only if this is really necessary.

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1 Introduction

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

The command `\thepagecolornone` gives the same colour as `\thepagecolor`, except when the page background colour is “none” (e.g. result of using the `\nopagecolor` command). In that case `\thepagecolor` is white and `\thepagecolornone` is none.

2 Usage

Just load the package placing

```
\usepackage[<option>]{pagecolor}
```

in the preamble of your L^AT_EX 2_ε source file. This should be done before another package uses `\pagecolor`, but after `\nopagecolor` is defined (if that is defined in the document at all).

Afterwards `\pagecolor{...}` can be used to change the page (background) colour as usual. Then `\thepagecolor` gives the current page (background) colour (in the same format as given with `\pagecolor{...}`).

2.1 Option

`option` The `pagecolor` package takes the following option:

2.1.1 `pagecolor`

`pagecolor` The option `pagecolor={...}` 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 `pagecolor={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. pdf_TE_X version), here is a list of some possible alternatives:

`transparent`

- `transparent` package: With it some object can be made (fully or partially) transparent.

`hrefhide`

- `hrefhide` package: It allows to “hide” some (hyperlinked) text when printing the document while keeping the layout.

(You programmed or found another alternative, which is available at [CTAN](#)? 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.)

About how to get those packages, please see subsection [6.1](#).

4 Example

```
1 (*example)
2 \documentclass[british]{article}[2007/10/19]% v1.4h
3 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
4 \usepackage[hyperref]{2011/04/17}% v6.82g
5 \hypersetup{extension=pdf,%
6 plainpages=false,%
7 pdfpagelabels=true,%
8 hyperindex=false,%
9 pdflang={en},%
10 pdftitle={pagecolor package example},%
11 pdfauthor={Hans-Martin Muench},%
12 pdfsubject={Example for the pagecolor package},%
13 pdfkeywords={LaTeX, pagecolor, thepagecolor, page colour, Hans-Martin Muench},%
14 pdfview=Fit,pdfstartview=Fit,%
15 pdfpagelayout=SinglePage%
16 }
17 \usepackage[x11names]{xcolor}[2007/01/21]% v2.11
18 % The xcolor package would not be needed for just using the base colours.
19 % The color package would be sufficient for that.
20 \usepackage[pagecolor={LightGoldenrod1}]{pagecolor}[2011/08/08]% v1.0c
21 \gdef\unit#1{\mathord{\thinspace\mathrm{#1}}}%
22 \listfiles
23 \begin{document}
24 \pagenumbering{arabic}
25 \section*{Example for pagecolor}
26
27 This example demonstrates the use of package\newline
28 \textsf{pagecolor}, v1.0c as of 2011/08/08 (HMM).\newline
29 The used option was \verb|pagecolor={LightGoldenrod1}|.\newline
30 \verb|pagecolor={none}| would be the default.\newline
31
32 For more details please see the documentation!\newline
33
34 \noindent {\color{teal} Save per page about $200\unit{ml}$ water,
35 $2\unit{g}$ CO$_2$ and $2\unit{g}$ wood:\newline
36 Therefore please print only if this is really necessary.}\newline
37
38 The current page (background) colour is\newline
39 \verb|\thepagecolor| = \thepagecolor \newline
40 (and \verb|\thepagecolornone| = \thepagecolornone ,
41 which would only be different from \verb|\thepagecolor|,
42 when the page colour would be \verb|none|).
43
44 \pagebreak
45 \pagecolor{rgb:-green!40!yellow,3;green!40!yellow,2;red,1}
46
47 {\color{white} The current page (background) colour is\newline
48 \verb|\thepagecolor| = \thepagecolor . \newline}
49
50 {\color{\thepagecolor} And that makes this text practically invisible.
51 \newline}
52
53 Which made the preceding line of text practically invisible.
54
55 \end{document}
56 \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.

```
57 (*package)
58 \NeedsTeXFormat{LaTeX2e}[2009/09/24]
59 \ProvidesPackage{pagecolor}[2011/08/08 v1.0c
60     Provides thepagecolor (HMM)]
    A short description of the pagecolor package:
61 %% Provides the \thepagecolor and \thepagecolornone commands.
    We need the kvoptions package by HEIKO OBERDIEK:
62 \RequirePackage{kvoptions}[2010/12/23]% v3.10
    and either the color or the xcolor package:
63 %% \RequirePackage{ either color or xcolor }:
64 \@ifpackageloaded{color}{%
65     \RequirePackage{color}[2005/11/14]% v1.0j
66 }{% else
67     \@ifpackageloaded{xcolor}{% ok
68     }{% else
69         \PackageWarning{pagecolor}{%
70             The pagecolor package must be loaded after either\MessageBreak%
71             package color or after package xcolor (at your\MessageBreak%
72             option). Neither package was loaded before package\MessageBreak%
73             pagecolor. Loading of package xcolor will now be\MessageBreak%
74             tried automatically.\MessageBreak%
75         }
76     }% fi
77     \RequirePackage{xcolor}[2007/01/21]% v2.11
78 }% fi
```

Replacing color, xcolor, xcolor-patch, and pagecolor by one new package would be appreciated.

A last information for the user:

```
79 %% pagecolor may work with earlier versions of LaTeX and the
80 %% packages, but this was not tested. Please consider updating
81 %% your LaTeX and packages to the most recent version
82 %% (if they are not already the most recent version).
83
```

See subsection 6.1 about how to get them.

We process the options:

```
84 \SetupKeyvalOptions{family=pagecolor,prefix=pagecolor@}
85 \DeclareStringOption[none]{pagecolor}% \pagecolor@pagecolor
86 \ProcessKeyvalOptions*
87
```

We save the original \pagecolor command,

```
88 \let\origpagecolour\pagecolor
89
```

before we redefine it to include a definition of \thepagecolor and \thepagecolornone:

```

90 \renewcommand{\pagecolor}[1]{%
91   \edef\pagecolourtmpa{#1}
92   \def\pagecolourtmpb{none}
93   \ifx\pagecolourtmpa\pagecolourtmpb
94     \@ifundefined{nopagecolor}{%
95       \PackageError{pagecolor}{%
96         pagecolor=none requested but \string\nopagecolor\space unknown%
97       }{%
98         \string\pagecolor{none} was used, but the command \string\nopagecolor\space%
99         is undefined.\MessageBreak%
100        Please use another colour. pagecolor=white will be used now.\MessageBreak%
101       }
102       \xdef\thepagecolor{white}
103       \xdef\thepagecolornone{white}% although it should be "none"
104       \origpagecolour{white}
105     }{%
106       \nopagecolor
107     }
108   \else
109     \xdef\thepagecolor{#1}
110     \xdef\thepagecolornone{#1}
111     \origpagecolour{\thepagecolor}
112   \fi
113 }
114

```

When `\pagecolor{none}` is used and `\nopagecolor` is defined, `\pagecolor{none}` is made into a synonym for `\nopagecolor`.

If `\nopagecolor` has not been defined, nothing needs to be done. Otherwise we redefine `\nopagecolor`, thus that `\thepagecolor` is set to `white` and `\thepagecolornone` to `none` whenever `\pagecolor` is used.

```

115 \@ifundefined{nopagecolor}{%
116   \PackageWarning{pagecolor}{%
117     \string\nopagecolor\space is undefined.\MessageBreak%
118     (As long as it is neither used anywhere.\MessageBreak%
119     \space nor defined later, that will be no problem.)\MessageBreak%
120   }
121   \AtEndDocument{%
122     \@ifundefined{nopagecolor}{% no problem
123       }{%
124         \PackageError{pagecolor}{%
125           \string\nopagecolor\space defined after loading package\MessageBreak%
126           pagecolor%
127         }{\string\nopagecolor\space was defined after loading the pagecolor
128           package.\MessageBreak%
129           Either define \string\nopagecolor\space earlier or load the pagecolor
130           package later.\MessageBreak%
131         }
132       }%
133     }%
134   }{% \else
135     \let\orignopagecolour\nopagecolor
136     \renewcommand{\nopagecolor}{%
137       \xdef\thepagecolor{white}
138       \xdef\thepagecolornone{none}
139       \orignopagecolour
140     }
141   }

```

142

If the pagecolour as given with option `pagecolor={...}` is `none`, but `\nopagecolor` is not known, `\pagecolor@pagecolor` is set to `white` and a warning is given.

```
143 \def\pagecolourtmpb{none}
144 \ifx\pagecolor@pagecolor\pagecolourtmpb
145   \ifundefined{nopagecolor}{%
146     \PackageWarning{pagecolor}{%
147       Option pagecolor=none (maybe by default) used,\MessageBreak%
148       but \string\nopagecolor\space is unknown. Please use another\MessageBreak%
149       option value; white will be used now.\MessageBreak%
150     }
151     \setkeys{pagecolor}{pagecolor=white}%
152   }{% ok
153   }%
154 \fi
155
```

The (new) `\pagecolor` is now just carried out.

```
156 \pagecolor{\pagecolor@pagecolor}
157
```

Now the page (background) colour and `\thepagecolor` and `\thepagecolornone` are `\pagecolor@pagecolor` (or page (background) colour and `\thepagecolornone` are `none=\pagecolor@pagecolor` and `\thepagecolor` is `white`), and when the page (background) colour is changed, `\thepagecolor` and `\thepagecolornone` are changed accordingly.

```
158 \endpackage
```

6 Installation

6.1 Downloads

Everything is available at **CTAN**: <http://www.ctan.org/tex-archive/>, but may need additional packages themselves.

`pagecolor.dtx` For unpacking the `pagecolor.dtx` file and constructing the documentation it is required:

- T_EXFormat L^AT_EX 2_ε: <http://www.CTAN.org/>
- document class `ltxdoc`, 2007/11/11, v2.0u,
[CTAN:macros/latex/base/ltxdoc.dtx](http://www.ctan.org/ctan/macros/latex/base/ltxdoc.dtx)
- package `holtxdoc`, 2011/02/04, v0.21,
[CTAN:macros/latex/contrib/oberdiek/holtxdoc.dtx](http://www.ctan.org/ctan/macros/latex/contrib/oberdiek/holtxdoc.dtx)
- package `hypdoc`, 2010/03/26, v1.9,
[CTAN:macros/latex/contrib/oberdiek/hypdoc.dtx](http://www.ctan.org/ctan/macros/latex/contrib/oberdiek/hypdoc.dtx)

`pagecolor.sty` The `pagecolor.sty` for L^AT_EX 2_ε (i. e. each document using the `pagecolor` package) requires:

- T_EXFormat L^AT_EX 2_ε, <http://www.CTAN.org/>
- package `kvoptions`, 2010/12/23, v3.10,
[CTAN:macros/latex/contrib/oberdiek/kvoptions.dtx](http://www.ctan.org/ctan/macros/latex/contrib/oberdiek/kvoptions.dtx)

and either

- package `color`, 2005/11/14, v1.0j,
[CTAN:macros/latex/required/graphics/color.dtx](http://www.ctan.org/ctan/macros/latex/required/graphics/color.dtx)

or

- package `xcolor`, 2007/01/21, v2.11,
[CTAN:macros/latex/contrib/xcolor/xcolor.dtx](http://www.ctan.org/ctan/macros/latex/contrib/xcolor/xcolor.dtx)

`pagecolor-example.tex` The `pagecolor-example.tex` requires the same files as all documents using the `pagecolor` package, i. e. the ones named above and additionally:

- class `article`, 2007/10/19, v1.4h, from `classes.dtx`:
[CTAN:macros/latex/base/classes.dtx](http://www.ctan.org/ctan/macros/latex/base/classes.dtx)
- package `pagecolor`, 2011/08/08, v1.0c,
[CTAN:macros/latex/contrib/pagecolor/pagecolor.dtx](http://www.ctan.org/ctan/macros/latex/contrib/pagecolor/pagecolor.dtx)
(Well, it is the example file for this package, and because you are reading the documentation for the `pagecolor` package, it can be assumed that you already have some version of it – is it the current one?)
- package `xcolor`, 2007/01/21, v2.11,
[CTAN:macros/latex/contrib/xcolor/xcolor.dtx](http://www.ctan.org/ctan/macros/latex/contrib/xcolor/xcolor.dtx)
This package would not be needed for the use of just base colours only, the `color` package would be sufficient for that.

`transparent` As possible alternatives in section 3 there are listed

`hrefhide`

- package `transparent`, 2007/01/08, v1.0,
[CTAN:macros/latex/contrib/oberdiek/transparent.dtx](http://www.ctan.org/ctan/macros/latex/contrib/oberdiek/transparent.dtx)
- package `hrefhide`, 2011/04/29, v1.0f,
[CTAN:macros/latex/contrib/hrefhide/hrefhide.dtx](http://www.ctan.org/ctan/macros/latex/contrib/hrefhide/hrefhide.dtx)

`Oberdiek` All packages of HEIKO OBERDIEK'S bundle 'oberdiek' (especially `holtxdoc` and `kvoptions`) are also available in a TDS compliant ZIP archive:
`holtxdoc` [CTAN:install/macros/latex/contrib/oberdiek.tds.zip](http://mirror.ctan.org/install/macros/latex/contrib/oberdiek.tds.zip).
`kvoptions` It is probably best to download and use this, because the packages in there are quite probably both recent and compatible among themselves.

`hyperref` `hyperref` is not included in that bundle and needs to be downloaded separately, <http://mirror.ctan.org/install/macros/latex/contrib/hyperref.tds.zip>.

`Münch` A hyperlinked list of my (other) packages can be found at <http://www.Uni-Bonn.de/~uzs5pv/LaTeX.html>.

6.2 Package, unpacking TDS

Package. This package is available on [CTAN](http://mirror.ctan.org/install/macros/latex/contrib/pagecolor/pagecolor.dtx):

[CTAN:macros/latex/contrib/pagecolor/pagecolor.dtx](http://mirror.ctan.org/install/macros/latex/contrib/pagecolor/pagecolor.dtx)

The source file.

[CTAN:macros/latex/contrib/pagecolor/pagecolor.pdf](http://mirror.ctan.org/install/macros/latex/contrib/pagecolor/pagecolor.pdf)

The documentation.

[CTAN:macros/latex/contrib/pagecolor/pagecolor-example.pdf](http://mirror.ctan.org/install/macros/latex/contrib/pagecolor/pagecolor-example.pdf)

The compiled example file, as it should look like.

[CTAN:macros/latex/contrib/pagecolor/README](http://mirror.ctan.org/install/macros/latex/contrib/pagecolor/README)

The README file.

[CTAN:install/macros/latex/contrib/pagecolor.tds.zip](http://mirror.ctan.org/install/macros/latex/contrib/pagecolor.tds.zip)

Everything in TDS compliant, compiled format.

which additionally contains

<code>pagecolor.ins</code>	The installation file.
<code>pagecolor.drv</code>	The driver to generate the documentation.
<code>pagecolor.sty</code>	The <code>.sty</code> file.
<code>pagecolor-example.tex</code>	The example file.

For required other packages, see the preceding subsection.

Unpacking. The `.dtx` file is a self-extracting `docstrip` archive. The files are extracted by running the `.dtx` through plain `TEX`:

```
tex pagecolor.dtx
```

About generating the documentation see paragraph 6.4 below.

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

<code>pagecolor.sty</code>	→ <code>tex/latex/pagecolor.sty</code>
<code>pagecolor.pdf</code>	→ <code>doc/latex/pagecolor.pdf</code>
<code>pagecolor-example.tex</code>	→ <code>doc/latex/pagecolor-example.tex</code>
<code>pagecolor-example.pdf</code>	→ <code>doc/latex/pagecolor-example.pdf</code>
<code>pagecolor.dtx</code>	→ <code>source/latex/pagecolor.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`.

6.3 Refresh file name databases

If your $\text{T}_{\text{E}}\text{X}$ distribution (te $\text{T}_{\text{E}}\text{X}$, mik $\text{T}_{\text{E}}\text{X}$,...) relies on file name databases, you must refresh these. For example, te $\text{T}_{\text{E}}\text{X}$ users run `texhash` or `mktxlsr`.

6.4 Some details for the interested

Unpacking with $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$. The `.dtx` chooses its action depending on the format:

plain $\text{T}_{\text{E}}\text{X}$: Run `docstrip` and extract the files.

$\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$: Generate the documentation.

If you insist on using $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ for `docstrip` (really, `docstrip` does not need $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$), then inform the `autodetect` routine about your intention:

```
latex \let\install=y\input{pagecolor.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 a 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 $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$:

```
pdflatex pagecolor.dtx
makeindex -s gind.ist pagecolor.idx
pdflatex pagecolor.dtx
makeindex -s gind.ist pagecolor.idx
pdflatex pagecolor.dtx
```

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 $\text{T}_{\text{E}}\text{X}$, especially all contributors to the discussion at http://groups.google.com/group/comp.text.tex/browse_thread/thread/533576ebe44d60f6/e1654d70a19de63c?lnk=gst&q=Determination+of+the+current+page+colour#e1654d70a19de63c (H. OBERDIEK & GOUAILLES).

8 History

[2011/07/16 v1.0a]

- First version discussed at <news:comp.text.tex>.

[2011/08/06 v1.0b]

- Changed version uploaded to CTAN.

[2011/08/08 v1.0c]

- Fixed a `\setkeys`.

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.

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