The fullminipage package*

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July 6, 2014

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*This document corresponds to fullminipage v0.1.1, dated 2014/07/06. Copyright 2012,2014 Christian Schneider <software(at)chschneider(dot)eu>, http://chschneider.eu.

Abstract

This package provides the environment `fullminipage`, which generates a `minipage` spanning a new, complete page with page style `empty`. The environment provides options to set margins around the `minipage` and configure the background.

1 Usage

1.1 The Environment

`fullminipage` The environment `fullminipage` generates a new page with page style `empty`, which is spanned by a `minipage`. The available horizontal and vertical sizes are `\hsize` and `\vsize`, respectively.

Caveat: The clearing of the page before/after the `fullminipage` might not be done correctly in certain circumstances, in particular, multi-column documents. Please refer to the `pagebreak` option for details.

1.2 Options

The environment `fullminipage` has an optional argument, which accepts a comma-separated list of ⟨*key*⟩=⟨*value*⟩ pairs:

left	left margin (default: 0 pt)
right	right margin (default: 0 pt)
top	top margin (default: 0 pt)
bottom	bottom margin (default: 0 pt). Note that content exceeding the vertical size of the minipage will not be "stopped" by the bottom margin. The value is rather used to calculate the vertical size of the minipage.
alignment	the vertical alignment inside the minipage (one of `tcb`; default: `t`)
bgcolor	color of the background (except for the margins, empty by default). Omitting the ⟨*value*⟩ will lead to a black background. A blue background can, for example, be generated with `bgcolor=blue`.
background	arbitrary macro for the background (empty by default). This allows, for example, to put an image into the background with `background=\includegraphics{<file>}`. The image will be aligned in the lower left corner of the minipage. Note that `background` is put on top of the background color defined by `bgcolor`.
pagebreak	macro for clearing page before and after inserting the `fullminipage`. By default, `\newpage` will be used in single-column documents and `\clearpage`, if a multi-column style is detected. This detection, however, might fail and the user might want to explicitly set `pagebreak=\clearpage`. Note that `\clearpage` has the side-effect of flushing all pending floats.

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3 Bugs, problems, and suggestions

Please report bugs and problems or send suggestions for this package to Christian Schneider.

4 Implementation

The implementation is briefly described in this section. First of all, we need the keyval package for ⟨*key*⟩=⟨*value*⟩ options. The color package will only be required, if the background color needs to be defined.

```
\RequirePackage{keyval}
\RequirePackage{color}
```

Next, the ⟨*key*⟩s are defined:

```
\define@key{fullminipage}{left}{\def\fullminipage@left{#1}}
\define@key{fullminipage}{right}{\def\fullminipage@right{#1}}
\define@key{fullminipage}{top}{\def\fullminipage@top{#1}}
\define@key{fullminipage}{bottom}{\def\fullminipage@bottom{#1}}
\define@key{fullminipage}{alignment}{\def\fullminipage@alignment{#1}}
\define@key{fullminipage}{bgcolor}[black]{\def\fullminipage@bgcolor{#1}}
\define@key{fullminipage}{background}{\def\fullminipage@background{#1}}
\define@key{fullminipage}{pagebreak}{\def\fullminipage@pagebreak{#1}}
```

Finally, the environment is defined:

```
\newenvironment{fullminipage}[1][]{%
  \begingroup
```

The ⟨*key*⟩=⟨*value*⟩ pairs are evaluated and a simple detection for two-column layout is performed.

```
    \setkeys{fullminipage}{left=\z@,right=\z@,top=\z@,bottom=\z@,%
                           alignment=t,background={},pagebreak=\newpage}%
    \@ifundefined{twocolumn@sw}{}%
      {\twocolumn@sw{\setkeys{fullminipage}{pagebreak=\clearpage}}{}}%
    \if@twocolumn\setkeys{fullminipage}{pagebreak=\clearpage}\fi%
    \setkeys{fullminipage}{#1}%
```

A new page is started with pagestyle `empty`.

```
    \fullminipage@pagebreak
    \thispagestyle{empty}%
```

The top position is calculated and the top (vertical) position adjusted with `\vspace*`.

```
    \@tempdima=-1in
    \advance\@tempdima by-\voffset
    \advance\@tempdima by-\topmargin
    \advance\@tempdima by-\headheight
    \advance\@tempdima by-\headsep
    \@tempdimb=\@tempdima
    \advance\@tempdima by-\parskip
    \advance\@tempdima by-\topskip
    \advance\@tempdima by\fullminipage@top
    \vspace*{\@tempdima}%
```

The bottom position is calculated and the current page size enlarged accordingly with `\enlargethispage`.

```
    \@tempdima=\paperheight
    \advance\@tempdima by\@tempdimb
    \advance\@tempdima by-\textheight
    \advance\@tempdima by-\fullminipage@bottom
    \enlargethispage{\@tempdima}%
```

The position corresponding to the left margin is calculated.

```
    \leftmargin=-1in
    \advance\leftmargin by-\hoffset
    \if@twoside
      \ifodd\value{page}%
        \advance\leftmargin by-\oddsidemargin
      \else
        \advance\leftmargin by-\evensidemargin
      \fi
    \else
      \advance\leftmargin by-\oddsidemargin
    \fi
    \advance\leftmargin by\fullminipage@left
```

The length of a line is calculated and the margins are set with `\parshape`.

```
    \linewidth=\paperwidth
    \advance\linewidth by-\fullminipage@left
    \advance\linewidth by-\fullminipage@right
    \parshape \@ne \leftmargin \linewidth
```

Prepare output without extra spaces.

```
    \nointerlineskip
    \noindent
```

The value of `\vsize` is calculated and set. (If it is set before the `\noindent` above, it will be overwritten in some cases.)

```
    \vsize=\paperheight
    \advance\vsize by-\fullminipage@top
    \advance\vsize by-\fullminipage@bottom
```

A zero-sized `picture` environment containing the background is output and the `minipage` is started.

```
    \begin{picture}(0,0)
      \@ifundefined{fullminipage@bgcolor}{}{%
        \put(0,0){\makebox(0,0)[bl]%
```

```
60            {\color{\fullminipage@bgcolor}{\rule{\linewidth}{\vsize}}}%
61          }%
62        }%
63        \put(0,0){\makebox(0,0)[bl]%
64          {\fullminipage@background}%
65        }%
66      \end{picture}%
67      \begin{minipage}[b][\vsize][\fullminipage@alignment]{\linewidth}
68  }%
```

The `minipage` is closed and a new page is started.

```
69  {%
70      \end{minipage}%
71      \parfillskip=\z@
72      \fullminipage@pagebreak
73    \endgroup
74  }
```

Change History

v0.1.0

General: initial public version 1

v0.1.1

General: corrected README file; no LaTeX changes 1

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