The **sidenotes** package[*]

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Abstract

This package tries to allow the typesetting of rich content in the margin. This includes text, but also figures, captions, tables and citations. This is common in science textbooks such as Feynman's *Lectures on Physics*.

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1 Usage

\sidenote The macro is very similar to the footnote macro and tries to emulate its behavior. But like the name says, the note is put in the margin, hence the name sidenote. It has the same parameters as footnote, plus an additional offset: `\sidenote[number][offset]{text}`. The sidenote moves up or down (floats) to not overlap with other floats in the margin if no offset is given. and all the sidenotes are subsequently numbered. The first, optional parameter will manually change the numbering. The sidenote will be fixed at a particular position in the margin if the offset parameter is used.

\sidenotemark Sidenote tries to mimic the footnote behavior and tries to provide the same solutions. Sometimes it is not possible to directly call a sidenote macro, e.g. in particular environments. Then, you can also use `\sidenotemark[number]` and `\sidenotetext[number][offset]{text}` commands. `\sidenotemark` puts

\sidenotetext a mark at the current position. Then, outside of the environment that causes the

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[*]This document corresponds to sidenotes v0.91, dated 2012/06/03.

trouble, it is possible the call `\sidenotetext[number][offset]{text}` to actually make the sidenote. The first, optional parameter will change the numbering of the sidenote and the offset parameter will change the position manually.

`\sidecaption`   The `\sidecaption[entry][offset]{text}` macro can be used if the caption of a figure or table is supposed to be in the margin. The caption has to be adjacent to the figure, so a float is not an option here. Therefore, the caption might overlap with sidenotes that have to be manually adjusted. Please note, that the formatting

`\sidecaption*` is done by the caption package by defining a sidecaption style. This macro has a sister `\sidecaption*[offset]{text}` that generates no entry.

`marginfigure` The marginfigure environment puts a figure and its caption in the margin. Instead of `\begin{figure}[htbp]` use `\begin{marginfigure}[offset]`. The offset switches the behavior from float to fixed position.

`margintable` The margintable environment works similarly, but with table environments. Use `\begin{margintable}[offset]` instead of `\begin{table}[htbp]`.

`figure*`   The `figure*` environment is used to position figures across the full page, i.e. the text width plus margin. The captions type can be changed by changing the

`table*` widefigure style. The `table*` environment is very similar, but for tables. Use widetable for its caption style.

2 Technical note

When writing the package, we tried to provide a minimum extension to standard LaTeX for typesetting rich content in the margin. Also, we tried to not break compatibility with packages the user might want to additionally load in a custom class file or a document. However, the following packages are needed by this package and might introduce side effects with other packages.

3 Required packages

marginnote supports another command to create notes in the margin. The notes are not floats and can be shifted up or down.

caption is used to set figure and table captions in the margin and to allow formatting of these captions.

xifthen is used to test for empty, optional arguments.

twoopt is used to define macros with two optional arguments.

changepage is used to correctly shift figure* and table*. It has to use the option [strict].

4 Implementation

We need a counter similar to the footnote counter and we want to have a buffer.

```
 1 \newcounter{sidenote} % make counter
 2 \newcounter{@sidenotes@buffer}
 3 \setcounter{sidenote}{1} % init counter
```

\sidenote Introduce the sidenote macro with an additional optional argument to set the offset.

```
 4 \newcommandtwoopt{\sidenote}[3][][]{%
 5 \sidenotemark[#1]%
 6 \sidenotetext[#1][#2]{#3}%
 7 \@ifnextchar\sidenote{\kern-0.07em\textsuperscript{,}}%
 8 {\@ifnextchar\sidecite{\kern-0.07em\textsuperscript{,}}{ }}%
 9 }
```

\sidenotemark Sidenotemark is supposed to work similarly to footnotemark.

```
10 \newcommand{\sidenotemark}[1][]{%
11 \nobreak\hspace{0.1pt}\nobreak%
12 \ifthenelse{\isempty{#1}}%
13 {\textsuperscript{\thesidenote}%
14 \refstepcounter{sidenote}}% if no argument is given use sidenote counter%
15 {\setcounter{@sidenotes@buffer}{\value{sidenote}}%
16 \setcounter{sidenote}{#1}%
17 \textsuperscript{\thesidenote}% print out the argument otherwise
18 \setcounter{sidenote}{\value{@sidenotes@buffer}}}%
19 \@ifnextchar\sidenote{\textsuperscript{,}}{}%
20 \ignorespaces%
21 }%
```

\sidenotetext Sidenotetext is supposed to work similarly to footnotetext. The additional, optional argument sets the offset.

```
22 \newcommandtwoopt{\sidenotetext}[3][][]{%
23 \ifthenelse{\isempty{#1}}{% sitenotemark given?
24 \addtocounter{sidenote}{-1}%
25 \ifthenelse{\isempty{#2}}% offset given?
26 {\marginpar{\textsuperscript{\thesidenote}{} #3}}%
27 {\marginnote{\textsuperscript{\thesidenote}{} #3}[#2]}%
28 \addtocounter{sidenote}{1}}%
29 {\ifthenelse{\isempty{#2}}% offset given?
30 {\marginpar{\textsuperscript{#1} #3}}
31 {\marginnote{\textsuperscript{#1} #3}[#2]}}
32 }%
```

\sidecaption Sidecaption puts the caption in the margin. It never floats with the other text in the margin, since it has to be next to the figure. Sidecaption* works similarly to sidecaption, but without an entry.

```
33 \DeclareCaptionStyle{sidecaption}{font=footnotesize}
34 \newcommand{\sidecaption}{\@ifstar\@sidenotes@sidecaption@starred\@sidenotes@sidecaption@unstar
35 \newcommandtwoopt{\@sidenotes@sidecaption@unstarred}[3][][]{%
36 \captionsetup{style=sidecaption}%
37 \ifthenelse{\isempty{#2}}{\marginnote{\caption[#1]{#3}}}{\marginnote{\caption[#1]{#3}}[#2]}%
```

```
38 \newcommand{\@sidenotes@sidecaption@starred}[2][]{%
39 \captionsetup{style=sidecaption}%
40 \ifthenelse{\isempty{#1}}{\marginnote{\caption*{#2}}}{\marginnote{\caption*{#2}}[#1]}}%
41 %
```

marginfigure The marginfigure is similar to the figure environment. But the figure is put in the margin.

```
42 \newsavebox{\@sidenotes@sidefigurebox}
43 \newboolean{@sidenotes@sidefigure@skip}
44 \newcommand{\@sidenotes@sidefigure@skiplength}{}
45 \DeclareCaptionStyle{marginfigure}{font=footnotesize}
46 \newenvironment{marginfigure}[1][]%
47 {\ifthenelse{\isempty{#1}}% offset?
48 {\setboolean{@sidenotes@sidefigure@skip}{false}}%
49 {\setboolean{@sidenotes@sidefigure@skip}{true}%
50 \renewcommand{\@sidenotes@sidefigure@skiplength}{#1}}%
51 \begin{lrbox}{\@sidenotes@sidefigurebox}%
52 \begin{minipage}{\marginparwidth}%
53 \captionsetup{type=figure,style=marginfigure}}%
54 {\end{minipage}%
55 \end{lrbox}%
56 \ifthenelse{\boolean{@sidenotes@sidefigure@skip}}% offset?
57 {\marginnote{\usebox{\@sidenotes@sidefigurebox}}[\@sidenotes@sidefigure@skiplength]}% offset
58 {\marginpar{\usebox{\@sidenotes@sidefigurebox}}}% no offset
59 }
```

margintable The sidetable is similar to the table environment. But the table is put in the margin.

```
60 \newsavebox{\@sidenotes@margintablebox}
61 \newboolean{@sidenotes@margintable@skip}
62 \newcommand{\@sidenotes@margintable@skiplength}{}
63 \DeclareCaptionStyle{margintable}{font=footnotesize}
64 \newenvironment{margintable}[1][]%
65 {\ifthenelse{\isempty{#1}}%
66 {\setboolean{@sidenotes@margintable@skip}{false}}%
67 {\setboolean{@sidenotes@margintable@skip}{true}%
68 \renewcommand{\@sidenotes@margintable@skiplength}{#1}}%
69 \begin{lrbox}{\@sidenotes@margintablebox}%
70 \begin{minipage}{\marginparwidth}%
71 \captionsetup{type=table,style=margintable}}%
72 {\end{minipage}%
73 \end{lrbox}%
74 \ifthenelse{\boolean{@sidenotes@margintable@skip}}%
75 {\marginnote{\usebox{\@sidenotes@margintablebox}}[\@sidenotes@margintable@skiplength]}%
76 {\marginpar{\usebox{\@sidenotes@margintablebox}}} %
77 }%
```

figure* The figure* environment provides a figure environment for figures across text and margin width

```
78 \AtBeginDocument{%
79 \newlength{\@sidenotes@extrawidth}
80 \setlength{\@sidenotes@extrawidth}{\marginparwidth}
81 \addtolength{\@sidenotes@extrawidth}{\marginparsep}
82 }
83 \DeclareCaptionStyle{widefigure}{margin={0pt,-\@sidenotes@extrawidth},font=footnotesize}
84 \newcommand{\@sidenotes@adjust}{%
85     \checkoddpage%
86     \ifoddpage%
87 %
88     \else%
89 \hspace{-\@sidenotes@extrawidth}%
90     \fi}
91 \renewenvironment{figure*}[1][htbp]{\begin{figure}[#1]%
92     \@sidenotes@adjust%
93     \captionsetup{style=widefigure}%
94 }{\end{figure}}%
```

table*   The table* environment provides a table environment for figures across text and margin width

```
95 \DeclareCaptionStyle{widetable}{margin={0pt,-\@sidenotes@extrawidth},font=footnotesize}
96 \renewenvironment{table*}[1][htbp]{\begin{table}[#1]%
97     \@sidenotes@adjust%
98     \captionsetup{style=widetable}%
99 }{\end{table}}%
```

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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; numbers in roman refer to the code lines where the entry is used.

Change History