The **sidenotes** package[*]

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Abstract

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

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1 Usage

\sidenote The macro `\sidenote` is one main feature of the package. 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, optional offset: `\sidenote[number]{text}[offset]`. If no offset is given, the sidenote moves up or down (floats) to not overlap with other floats in the margin. If you use the offset (e.g. `\sidenote{foo}[10pt]`) the sidenote is shifted 10pt down in the margin. It might overlap with other floats now. This means, omitting the offset and [0pt] do not lead to the same result, but you will only notice if there are a moderate number of sidenotes or other marginals. All the sidenotes are subsequently

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[*]This document corresponds to **sidenotes** v0.52, dated 2011/10/06.

numbered. The first, optional parameter will manually change the numbering of the sidenote.

\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]{text}` commands. `\sidenotemark` puts a mark

\sidenotetext   at the current position. Then, outside of the environment that causes the trouble, it is possible the call `\sidenotetext{text}` to actually make the sidenote. Again, the first, optional parameter will manually change the numbering of the sidenote, the second optional postfix will adjust the position with an offset: `\sidenotetext[number]{text}[offset]`

\sidestyle   You can use `\renewcommand{\sidestyle}{something}` if you want to change the font, text size, text color or something else of the sidenotes. It it initialized with `\footnotesize`. It is used as a prefix of the sidenotetext.

\sidecite   The macro `\sidecite` puts a citation in the margin. It uses the biblatex package so you have to go with biblatex instead of bibtex to use `\sidecite`. Therefore, the macro has the same set of parameters plus the additional offset: `\sidecite[prenote][postnote]{key}[offset]`. The behavior is the same as in `\sidenote`, no offset means auto floating. If an offset value is given the position is fixed at a certain place, even if it overlaps with other text or objects. For post- and prenote please refer to the biblatex manual, the parameters are directly passed to biblatex.

\sidecaption   The `\sidecaption` macro can be used if the caption of a figure or table is supposed to be in the margin. Please note, that the formatting is done by the caption package. If the object is referenced by the use of `\label{somelabel}` the label should go in the sidecaption macro: For example `\sidecaption{I am a figure\label{fig:1}}`.

sidefigure   The sidefigure environment puts a figure and its caption in the margin. Instead of `\begin{figure}[htb]` use `\begin{sidefigure}[offset]`. Please note, that the use of caption before `\includegraphics` puts the caption in line with the top of the figure and the use after `\includegraphics` puts it in line with the bottom of the actual figure.

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

2   Technical notes and further macros

\marginnote   Sometimes it is useful to put text in the margin without a mark in the text. This
\marginpar   can be achieved with `\marginnote{text}[offset]` or `\marginpar{text}`. This feature is not provided by this package, but by the marginnote package by Markus Kohm. The sidenotes package heavily uses the marginnote package. Technically, every time something is evoked with an offset, `\marginnote` is called. If it is called without an offset, it calls the normal LaTeX macro `\marginpar`. This is not true for the sidecaption, since the caption has to be adjacent to the figure or table. In that case, `\marginnote` is always used.

When writing the package, we tried to be as general as possible. Someone can e.g. use sidenotes mixed with footnotes. Also, the package tries to provide only functionality and does not know anything about formatting such as margin text size, color or anything else. Only `\sidestyle` was added for convenience. If you are looking for a package that provides formatting defaults as well you might want to look into the tufte-latex packages.

3 Required packages

This package requires the following packages:

marginnote supports another command to create notes in the margin. The notes are no 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.

4 Implementation

`\sidestyle` This macro changes the text formatting of the sidenotes. Initially it just sets the text size to the footnote text size.

```
1 \newcommand*{\sidestyle}{\footnotesize}
```

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

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

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

```
5 \newcommand*{\sidenote}[2][]{%
6 \begingroup%
7 \@ifnextchar [{\@sidenotes@sidenote[{#1}]{#2}}{\@sidenotes@sidenote[{#1}]{#2}[]}%
8 }
9
10 \newcommand{\@sidenotes@sidenote}{}
11 \def\@sidenotes@sidenote[#1]#2[#3]{%
12 \endgroup%
13 \@sidenotes@@sidenote[{#1}]{#2}[{#3}]%
14 }
15
16 \newcommand{\@sidenotes@@sidenote}{}
17 \def\@sidenotes@@sidenote[#1]#2[#3]{%
18 \ifthenelse{\isempty{#1}}%
19 {\sidenotemark%
```

```
20 \sidenotetext{#2}[#3]}%
21 {\sidenotemark[#1]%
22 \sidenotetext[#1]{#2}}%
23 }
```

\sidenotemark Sidenotemark is supposed to work similarly to footnotemark.

```
24 \newcommand{\sidenotemark}[1][]{%
25 \nobreak\hspace{0.1pt}\nobreak%
26 \ifthenelse{\isempty{#1}}%
27 {\textsuperscript{\thesidenote}%
28 \refstepcounter{sidenote}}% if no argument is given use sidenote counter%
29 % else
30 {\setcounter{@sidenotes@buffer}{\value{sidenote}}%
31 \setcounter{sidenote}{#1}%
32 \textsuperscript{\thesidenote}% print out the argument otherwise
33 \setcounter{sidenote}{\value{@sidenotes@buffer}}}%
34 \ignorespaces%
35 }%
```

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

```
36 \newcommand*{\sidenotetext}[2][]{%
37 \begingroup%
38 \@ifnextchar [{\@sidenotes@sidenotetext[{#1}]{#2}}{\@sidenotes@sidenotetext[{#1}]{#2}[]}%
39 }
40
41 \newcommand{\@sidenotes@sidenotetext}{}
42 \def\@sidenotes@sidenotetext[#1]#2[#3]{%
43 \endgroup%
44 \@sidenotes@@sidenotetext[{#1}]{#2}[{#3}]%
45 }
46
47 \newcommand{\@sidenotes@@sidenotetext}{}
48 \def\@sidenotes@@sidenotetext[#1]#2[#3]{%
49 \ifthenelse{\isempty{#1}}{% sitenotemark given?
50 \addtocounter{sidenote}{-1}%
51 \ifthenelse{\isempty{#3}}{% offset?
52 \marginpar{\textsuperscript{\thesidenote}{} \sidestyle#2}}% no offset
53 {\marginnote{\textsuperscript{\thesidenote}{} \sidestyle#2}[#3]} % with offest
54 \addtocounter{sidenote}{1}}%
55 % else
56 {\ifthenelse{\isempty{#3}}% offset?
57 {\marginpar{\textsuperscript{#1} \sidestyle#2}}% no offset
58 {\marginnote{\textsuperscript{\thesidenote}{} \sidestyle#2}}% with offset
59 }% fi
60 }%
```

\sidecite Sidecite puts the citation in the margin. The additional, optional argument postfix sets the offset. Please note, that it only works with biblatex and uses its syntax.

```latex
61 \newcommand{\sidecite}[1][]{%
62   \@ifnextchar[{%
63     \expandafter\@sidenotes@sidecitedo\@sidenotes@getnextopt{#1}%
64   }{%
65     \@sidenotes@sidecitedo{#1}{}%
66   }%
67 }
68 \newcommand{\@sidenotes@getnextopt}{}
69 \long\def\@sidenotes@getnextopt#1[#2]{{#1}{#2}}
70 \newcommand{\@sidenotes@sidecitedo}[3]{%
71   \begingroup%
72 \@ifnextchar [{\@sidenotes@sidecite[{#1}][{#2}]{#3}}{\@sidenotes@sidecite[{#1}][{#2}]{#3}[]}%
73 }
74 \newcommand{\@sidenotes@sidecite}{}
75 \def\@sidenotes@sidecite[#1][#2]#3[#4]{%
76 \endgroup%
77 \@sidenotes@@sidecite[{#1}][{#2}]{#3}[{#4}]%
78 }
79
80 \newcommand{\@sidenotes@@sidecite}{}
81 \def\@sidenotes@@sidecite[#1][#2]#3[#4]{%
82 \sidenote{\fullcite[#1][#2]{#3}}[#4]%
83 }%
```

\sidecaption Sidecaption puts the caption in the margin. The additional, optional argument postfix sets the offset. It never floats with the other text in the margin, it has to be next to the figure.

```latex
84 \newcommand{\sidecaption}[2][]{%
85 \ifthenelse{\isempty{#1}}%
86 {\marginnote{\caption{#2}}}%
87 % else
88 {\marginnote{\caption[#1]{#2}}}%
89 }%
```

sidefigure The sidefigure is similar to the figure environment. But the figure is put in the margin and the positioning is not h or b, but rather an offset, e.g. 10pt.

```latex
90 \newsavebox{\@sidenotes@sidefigurebox}
91 \newboolean{@sidenotes@sidefigure@skip}
92 \newcommand{\@sidenotes@sidefigure@skiplength}{}
93
94 \newenvironment{sidefigure}[1][]%
95 {\ifthenelse{\isempty{#1}} % offset?
96 {\setboolean{@sidenotes@sidefigure@skip}{false}} % no offset
97 {\setboolean{@sidenotes@sidefigure@skip}{true}\renewcommand{\@sidenotes@sidefigure@skiplength}{
98 \begin{lrbox}{\@sidenotes@sidefigurebox}%
99 \begin{minipage}{\marginparwidth}%
100 \captionsetup{type=figure}}%
101 { \end{minipage}%
102 \end{lrbox}%
```

```
103 \ifthenelse{\boolean{@sidenotes@sidefigure@skip}}% offset?
104 {\marginnote{\usebox{\@sidenotes@sidefigurebox}}[\@sidenotes@sidefigure@skiplength]} % with off
105 {\marginpar{\usebox{\@sidenotes@sidefigurebox}}} % no offset
106 }
```

sidetable The sidetable is similar to the table environment. But the table is put in the margin and the positioning is not h or b, but rather an offset, e.g. 10pt.

```
107 \newsavebox{\@sidenotes@sidetablebox}
108 \newboolean{@sidenotes@sidetable@skip}
109 \newcommand{\@sidenotes@sidetable@skiplength}{}
110
111 \newenvironment{sidetable}[1][]%
112 {\ifthenelse{\isempty{#1}} % offset?
113 {\setboolean{@sidenotes@sidetable@skip}{false}} % no offset
114 {\setboolean{@sidenotes@sidetable@skip}{true}\renewcommand{\@sidenotes@sidetable@skiplength}{#1
115 \begin{lrbox}{\@sidenotes@sidetablebox}%
116 \begin{minipage}{\marginparwidth}%
117 \captionsetup{type=table}%
118 \sidestyle}%
119 { \end{minipage}%
120 \end{lrbox}%
121 \ifthenelse{\boolean{@sidenotes@sidetable@skip}}% offset?
122 {\marginnote{\usebox{\@sidenotes@sidetablebox}}[\@sidenotes@sidetable@skiplength]} % with offse
123 {\marginpar{\usebox{\@sidenotes@sidetablebox}}} % no offset
124 }
```

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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