The **sidenotes** package[*]

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Abstract

This package tries to allow typesetting of texts with notes, figures, citations, captions and tables in the margin. This is common in science textbooks such as Feyman's *Lectures on Physics*.

Contents

1   Usage

\sidenote   The macro `\sidenote` is the 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

\sidenotemark   marginals. Sidenote tries to mimic the footnote behavior, so you can also use
\sidenotetext   `\sidenotemark[number]` and `\sidenotetext[number]{text}` commands. This is especially useful, if your are in an environment that does not allow to evoke foot-
\sidestyle   or sidenote macros. You can use `\renewcommand{\sidestyle}{something}` if you

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[*]This document corresponds to sidenotes v0.4, dated 2011/09/30.

want to change the font, text size, text color or something else of the sidenotes. It it initialized with `\footnotesize`.

`\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 this feature. Therefore, the macro has the same set of parameters plus the 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.

`\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` or such puts the caption on top and the use after puts it below the actual figure.

sidetable The sidetable environment works similarly, use `\begin{sidetable}[offset]` instead of `\begin{table}`.

2 Technical notes and further macros

`\marginnote`
`\marginpar`
Sometimes it is useful to put text in the margin without the mark in the text. This 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. The package also relies on the caption package by Harald Axel Sommerfeldt. The formatting of the figure and table captions has to be done through the caption package.

Right now, the package also requires the packages twoopt and xifthen as well. At least the dependence on twoopt should be omitted in the next versions.

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 convinience. If you are looking for a package that provides formatting defaults as well you might want to look into the tufte-latex packages.

3   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.

```
61 \newcommandtwoopt{\sidecite}[3][][]{%
62 \begingroup%
63 \@ifnextchar [{\@sidenotes@sidecite[{#1}][{#2}]{#3}}{\@sidenotes@sidecite[{#1}][{#2}]{#3}[]}%
64 }
65 \newcommand{\@sidenotes@sidecite}{}
66 \def\@sidenotes@sidecite[#1][#2]#3[#4]{%
67 \endgroup%
68 \@sidenotes@@sidecite[{#1}][{#2}]{#3}[{#4}]%
69 }
70
71 \newcommand{\@sidenotes@@sidecite}{}
72 \def\@sidenotes@@sidecite[#1][#2]#3[#4]{%
73 \sidenote{\fullcite[#1][#2]{#3}}[#4]%
74 }%
```

\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.

```
75 \newcommand{\sidecaption}[2][]{%
76 \ifthenelse{\isempty{#1}}%
77 {\marginnote{\caption{#2}}}%
```

```
78 % else
79 {\marginnote{\caption[#1]{#2}}}%
80 }%
```

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.

```
81 \newsavebox{\@sidenotes@sidefigurebox}
82 \newboolean{@sidenotes@sidefigure@skip}
83 \newcommand{\@sidenotes@sidefigure@skiplength}{}
84
85 \newenvironment{sidefigure}[1][]%
86 {\ifthenelse{\isempty{#1}} % offset?
87 {\setboolean{@sidenotes@sidefigure@skip}{false}} % no offset
88 {\setboolean{@sidenotes@sidefigure@skip}{true}\renewcommand{\@sidenotes@sidefigure@skiplength}{
89 \begin{lrbox}{\@sidenotes@sidefigurebox}%
90 \begin{minipage}{\marginparwidth}%
91 \captionsetup{type=figure}}%
92 { \end{minipage}%
93 \end{lrbox}%
94 \ifthenelse{\boolean{@sidenotes@sidefigure@skip}}% offset?
95 {\marginnote{\usebox{\@sidenotes@sidefigurebox}}[\@sidenotes@sidefigure@skiplength]} % with off
96 {\marginpar{\usebox{\@sidenotes@sidefigurebox}}} % no offset
97 }
```

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.

```
98 \newsavebox{\@sidenotes@sidetablebox}
99 \newboolean{@sidenotes@sidetable@skip}
100 \newcommand{\@sidenotes@sidetable@skiplength}{}
101
102 \newenvironment{sidetable}[1][]%
103 {{\ifthenelse{\isempty{#1}} % offset?
104 {\setboolean{@sidenotes@sidetable@skip}{false}} % no offset
105 {\setboolean{@sidenotes@sidetable@skip}{true}\renewcommand{\@sidenotes@sidetable@skiplength}{#1
106 \begin{lrbox}{\@sidenotes@sidetablebox}%
107 \begin{minipage}{\marginparwidth}%
108 \captionsetup{type=table}%
109 \sidestyle}%
110 { \end{minipage}%
111 \end{lrbox}%
112 \ifthenelse{\boolean{@sidenotes@sidetable@skip}}% offset?
113 {\marginnote{\usebox{\@sidenotes@sidetablebox}}[\@sidenotes@sidetable@skiplength]} % with offse
114 {\marginpar{\usebox{\@sidenotes@sidetablebox}}} % no offset
115 }
```