

# 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. This is common in science textbooks such as Feynman's *Lectures on Physics*.

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## 1 Usage

<code>\sidenote</code>	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: <code>\sidenote[number]{text}</code> . The sidenote moves up or down (floats) to not overlap with other floats in the margin. All the sidenotes are subsequently numbered. The first, optional parameter will manually change the numbering of the sidenote.
<code>\sidenotemark</code>	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 <code>\sidenotemark[number]</code> and <code>\sidenotetext[number]{text}</code> commands. <code>\sidenotemark</code> puts a mark at the current position. Then, outside of the environment that causes the trouble, it is
<code>\sidenotetext</code>	

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\*This document corresponds to sidenotes v0.80, dated 2011/11/10.

	possible the call <code>\sidenotetext{text}</code> to actually make the sidenote. The first, optional parameter will manually change the numbering of the sidenote.
<code>\sidesstyle</code>	You can use <code>\renewcommand{\sidesstyle}{something}</code> if you want to change the font, text size, text color or something else of the sidenotes. It is initialized with <code>\footnotesize</code> . It is used as a prefix of the <code>\sidenotetext</code> and <code>\sidetext</code> .
<code>\sidecite</code>	The macro <code>\sidecite</code> puts a citation in the margin. It uses the <code>biblatex</code> package or <code>bibtex</code> , load <code>sidecite</code> with the option <code>[bibtex]</code> for the latter. The macro has the same set of parameters. <code>\sidecite[prenote][postnote]{key}</code> for <code>biblatex</code> and <code>\sidecite{key}</code> for <code>bibtex</code> . The behavior is the same as in <code>\sidenote</code> and <code>auto floating</code> . For post- and prenote please refer to the <code>biblatex</code> manual, the parameters are directly passed to <code>biblatex</code> .
<code>\sidecaption</code>	The <code>\sidecaption</code> 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.
<code>sidefigure</code>	The <code>sidefigure</code> environment puts a figure and its caption in the margin. Instead of <code>\begin{figure}[htb]</code> use <code>\begin{sidefigure}</code> . Please note, that the use of caption before <code>\includegraphics</code> puts the caption in line with the top of the figure and the use after <code>\includegraphics</code> puts it in line with the bottom of the actual figure.
<code>sidetable</code>	The <code>sidetable</code> environment works similarly, but with table environments. Use <code>\begin{sidetable}</code> instead of <code>\begin{table}</code> .

## 2 Technical notes and further macros

`\marginpar` Sometimes it is useful to put text in the margin without a mark in the text. This can be achieved with `\marginpar{text}`. The `\sidecaption` macro relies on the `marginnote` package by Markus Kohm.

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 `\sidesstyle` 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

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

```
1 \newcommand*{\sidesstyle}{\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 \ifthenelse{\isempty{#1}}{%
7 {\sidenotemark%
8 \sidenotetext{#2}}%
9 {\sidenotemark[#1]%
10 \sidenotetext[#1]{#2}}%
11 }
```

`\sidenotemark` Sidenotemark is supposed to work similarly to footnotemark.

```
12 \newcommand{\sidenotemark}[1] [] {%
13 \nobreak\hspace{0.1pt}\nobreak%
14 \ifthenelse{\isempty{#1}}{%
15 {\textsuperscript{\thesidenote}%
16 \refstepcounter{sidenote}}% if no argument is given use sidenote counter%
17 {\setcounter{@sidenotes@buffer}{\value{sidenote}}%
18 \setcounter{sidenote}{#1}%
19 \textsuperscript{\thesidenote}% print out the argument otherwise
20 \setcounter{sidenote}{\value{@sidenotes@buffer}}}%
21 \ignorespaces%
22 }%
```

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

```
23 \newcommand{\sidenotetext}[2] [] {%
24 \ifthenelse{\isempty{#1}}{% sidenotemark given?
25 \addtocounter{sidenote}{-1}%
26 \marginpar{\textsuperscript{\thesidenote}{ } \sidesstyle#2}%
27 \addtocounter{sidenote}{1}}%
28 {\marginpar{\textsuperscript{#1} \sidesstyle#2}%
29 }% fi
30 }%
```

`\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.

```
31 \ifthenelse{\boolean{@sidenotes@bibtex}}
```

```

32 {\newcommand{\sidecite}[1]{%
33 \sidenote{\bibentry{#1}}%
34 }}
35 {\newcommand{\sidecite}[1] []{%
36 \ifnextchar[%
37 \expandafter\@sidenotes@sidecitedo\@sidenotes@getnextopt{#1}%
38 }{%
39 \@sidenotes@sidecitedo{#1}{}%
40 }%
41 }
42 \newcommand{\@sidenotes@getnextopt}{%
43 \long\def\@sidenotes@getnextopt#1[#2]{{#1}{#2}}
44 \newcommand{\@sidenotes@sidecitedo}[3]{%
45 \sidenote{\fullcite[#1][#2]{#3}}%
46 }}%

```

**\sidecaption** Sidecaption puts the caption in the margin. It never floats with the other text in the margin, it has to be next to the figure.

```

47 \newcommand{\sidecaption}[2] []{%
48 \ifthenelse{\isempty{#1}}%
49 {\marginnote{\caption{#2}}}%
50 {\marginnote{\caption[#1]{#2}}}%
51 }%

```

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

```

52 \newsavebox{\@sidenotes@sidefigurebox}
53 \newenvironment{sidefigure}[1] []%
54 {\begin{lrbox}{\@sidenotes@sidefigurebox}%
55 \begin{minipage}{\marginparwidth}%
56 \captionsetup{type=figure}}%
57 {\end{minipage}%
58 \end{lrbox}%
59 \marginpar{\usebox{\@sidenotes@sidefigurebox}}}
60 }

```

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

```

61 \newsavebox{\@sidenotes@sidetablebox}
62 \newenvironment{sidetable}[1] []%
63 {\begin{lrbox}{\@sidenotes@sidetablebox}%
64 \begin{minipage}{\marginparwidth}%
65 \captionsetup{type=table}%
66 \sidestyle}%
67 {\end{minipage}%
68 \end{lrbox}%
69 \marginpar{\usebox{\@sidenotes@sidetablebox}}}
70 }

```

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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.

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## Change History

v0.2		v0.52	
General: Initial version	..... 1	General: added a section that the package needs marginnote, caption and xifthen.	..... 2
v0.3		v0.53	
<code>sidefigure</code> : define the sidefigure enviroment without the environ package	..... 4	<code>\sidenote</code> : bugfix, now optional number and offset possible	.... 3
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General: Extent the documentation of the macros.	..... 1	<code>\sidecite</code> : allow the use of bibtex	3
		<code>\sidenote</code> : unstar the newcommand.	..... 3
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