

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

<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, plus an additional offset: <code>\sidenote[number][offset]{text}</code> . 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.
<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][offset]{text}</code> commands. <code>\sidenotemark</code> puts a mark at the current position. Then, outside of the environment that causes the
<code>\sidenotetext</code>	

*This document corresponds to sidenotes v0.90, dated 2012/06/02.

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.

<code>\sidenotetextstyle</code>	You can use <code>\renewcommand{\sidenotetextstyle}{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 sidenotetext.
<code>\marginfullcite</code>	The macro <code>\marginfullcite</code> puts a citation in the margin. It can use the <code>biblatex</code> package as well as <code>bibtex</code> . Load the <code>sidenotes</code> package with the option <code>[bibtex]</code> for the latter. The macro has the same set of parameters. <code>\marginfullcitecite[prenote][postnote]{key}</code> as <code>biblatex</code> . This behavior is also mimicked if the <code>bibtex</code> option is used. The placement behavior is the same as in <code>\sidenote</code> , which is auto floating. 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[entry][offset]{text}</code> 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 is done by the caption package by defining a sidecaption style.
<code>marginfigure</code>	The <code>marginfigure</code> environment puts a figure and its caption in the margin. Instead of <code>\begin{figure}[htbp]</code> use <code>\begin{marginfigure}[offset]</code> . The offset switches the behavior from float to fixed position.
<code>marginable</code>	The <code>marginable</code> environment works similarly, but with table environments. Use <code>\begin{marginable}[offset]</code> instead of <code>\begin{table}[htbp]</code> .
<code>figure*</code>	The <code>figure*</code> 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 <code>widfigure</code> style. The <code>table*</code> environment is very similar, but for tables. Use <code>widetable</code> for its caption style.
<code>table*</code>	

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 intrude side effects with other packages.

3 Required 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.

twoopt is used to define macros with two optional arguments.

change page is used to correctly shift figure* and table*. It uses the option [strict].

4 Implementation

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

```
1 \newcommand*{\sidenotetextstyle}{\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 \newcommandtwoopt{\sidenote}[3] [] [] {%
6 \sidenotemark[#1]%
7 \sidenotetext[#1][#2]{#3}%
8 \@ifnextchar\sidenote{\kern-0.07em\textsuperscript{,}}{\@ifnextchar\sidenote{\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 postfix sets the offset.

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

```

30 {\marginpar{\textsuperscript{#1} \sidenotetextstyle#3}}
31 {\marginnote{\textsuperscript{#1} \sidenotetextstyle#3}[#2]}}
32 }%

\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.
33 \ifthenelse{\boolean{@sidenotes@bibtex}}
34 {\newcommandtwoopt{\sidecite}[3] [] [] {\sidenote{#1\bibentry{#3}#2}}}
35 {\newcommandtwoopt{\sidecite}[3] [] [] {\sidenote{\fullcite[#1][#2]{#3}}}}

\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.
36 \DeclareCaptionStyle{sidecaption}{font=footnotesize}
37 \newcommandtwoopt{\sidecaption}[3] [] [] {%
38 \captionsetup{style=sidecaption}%
39 \marginnote{\caption[#1]{#3}[#2]}}%

marginfigure The marginfigure is similar to the figure environment. But the figure is put in the
margin.
40 \newsavebox{\@sidenotes@sidefigurebox}
41 \newboolean{@sidenotes@sidefigure@skip}
42 \newcommand{\@sidenotes@sidefigure@skiplength}{}
43 \DeclareCaptionStyle{marginfigure}{font=footnotesize}
44 \newenvironment{marginfigure}[1] []%
45 {\ifthenelse{\isempty{#1}}{% offset?
46 {\setboolean{@sidenotes@sidefigure@skip}{false}}%
47 {\setboolean{@sidenotes@sidefigure@skip}{true}\renewcommand{\@sidenotes@sidefigure@skiplength}{
48 \begin{lrbox}{\@sidenotes@sidefigurebox}%
49 \begin{minipage}{\marginparwidth}%
50 \captionsetup{type=figure,style=marginfigure}}%
51 \end{minipage}%
52 \end{lrbox}%
53 \ifthenelse{\boolean{@sidenotes@sidefigure@skip}}{% offset?
54 {\marginnote{\usebox{\@sidenotes@sidefigurebox}}[\@sidenotes@sidefigure@skiplength}}% with offs
55 {\marginpar{\usebox{\@sidenotes@sidefigurebox}}}% no offset
56 }

margintable The sidetable is similar to the table environment. But the table is put in the
margin.
57 \newsavebox{\@sidenotes@margintablebox}
58 \newboolean{@sidenotes@margintable@skip}
59 \newcommand{\@sidenotes@margintable@skiplength}{}
60 \DeclareCaptionStyle{margintable}{font=footnotesize}
61 \newenvironment{margintable}[1] []%
62 {\ifthenelse{\isempty{#1}}{%
63 {\setboolean{@sidenotes@margintable@skip}{false}}%
64 {\setboolean{@sidenotes@margintable@skip}{true}\renewcommand{\@sidenotes@margintable@skiplength}
65 \begin{lrbox}{\@sidenotes@margintablebox}%
66 \begin{minipage}{\marginparwidth}%

```

```

67 \captionsetup{type=table,style=margintable}}%
68 {\end{minipage}}%
69 \end{lrbox}}%
70 \ifthenelse{\boolean{@sidenotes@margintable@skip}}{%
71 {\marginnote{\usebox{\@sidenotes@margintablebox}}[\@sidenotes@margintable@skiplength]}}%
72 {\marginpar{\usebox{\@sidenotes@margintablebox}}} %
73 }%

```

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

```

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

```

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

```

91 \DeclareCaptionStyle{widetable}{margin={Opt,-\@sidenotes@extrawidth},font=footnotesize}
92 \renewenvironment{table*}[1][htbp]{\begin{table}[#1]%
93     \@sidenotes@adjust%
94     \captionsetup{style=widetable}%
95 }{\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.

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	<code>\sidenotetext</code> 1, <u>22</u>	<code>table*</code> (environment)
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Change History

v0.2		<code>\sidenote</code> : unstar the newcommand.	3
General: Initial version	1		
v0.3		<code>\sidenotetext</code> : unstar the newcommand.	3
<code>marginfigure</code> : define the sidefigure environment without the environ package	4		
v0.4			
<code>marginfigure</code> : define the sidefigure environment without the environ package	4		
v0.5			
<code>\sidecite</code> : define the sidecite macro without the twoopt package	4		
v0.51			
General: Extent the documentation of the macros.	1		
v0.52			
General: added a section that the package needs marginnote, caption and xifthen.	2		
v0.53			
<code>\sidenote</code> : bugfix, now optional number and offset possible	3		
v0.61			
General: documentation of sidetext	2		
v0.7			
General: rewrite without optional offsets	1		
v0.80			
<code>\sidecite</code> : allow the use of bibtex	4		
		<code>\sidenote</code> : added a comma between subsequent sidenotes . . .	3
		v0.81	
		<code>\sidenote</code> : added a comma between subsequent sidenotes . . .	3
		v0.85	
		<code>table*</code> : added the table* environment	5
		<code>figure*</code> : added the figure* environment	5
		v0.90	
		General: added a section that the package needs twoopt and changepage.	2
		two opt package is required, the definitions are too confusing otherwise	1
		<code>marginfigure</code> : the optional offset parameter is back, renamed environment from sidefigure to marginfigure	4
		<code>marginfigure</code> : the optional offset parameter is back, renamed environment from sidefigure to marginfigure	4
		<code>\sidecite</code> : use twoopt for clarity . .	4
		<code>\sidenote</code> : add optional offset for sidenote	3
		<code>\sidenotetext</code> : add optional offset for sidenotetext	3