

mnotes — annotate documents with margin comments*

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Abstract

This is a simple package to allow you to add comments to the margins of your documents. It is primarily designed to support collaborative document writing. The comments can be added to the text similarly to `\footnote` and will be displayed on the margins in text boxes connected by a thin line to the part of the text they refer to. Thanks to the use of `sidenotes`, comments can float on the margins to avoid overlaps. The text can optionally be scaled down to allow comments to fit in otherwise narrow notes without altering the document's template.

Contents

1	Package options	1
2	Usage	2
3	Required packages	3
4	Bugs	3
5	Implementation	3

1 Package options

The basic usage is to include a `\usepackage{mnotes}` to the preamble of your \LaTeX document.

The `mnotes` package also provides some basic customisation of the way comments are displayed. The interface to the package's options is, as usual, accessed through the `\usepackage` command.

The package options are:

*This document corresponds to `mnotes` v0.9, dated 2022/25/05.

- scale** This enlarges the physical page of the document to allow comments to fit in the margin area. The default `\usepackage[scale]{mnotes}` is to make the physical page 5% larger than the original paper size. You can pass a value to this option to control the the amount of space allocated to the margins. For instance `\usepackage[scale=1.2]{mnotes}` makes the physical page 20% larger. **Important:** when printing your draft, make sure that the printer is set to shrink the page to printable area.
Default: `scale=1.05`.
- mnwidth** Sets the default width for the comment boxes.
Default: `mnwidth=2.2cm`.
- boxcolour** the colour of the box that encloses the comments (and of the lines that connect comments to the text).
Default: `boxcolour=red`.
- hide** Hides all notes. Useful for generating a final (camera-ready) version without comments, without actually removing the comments from the \LaTeX code.
- sidenotes** use sidenote package instead of plain marginnote.
- basic** This causes the note setting to fallback to \LaTeX kernel's `\marginpar`, in case `sidenotes` or `tikz` isn't available.
- reverseconnect** Some classes seem to call the right column 'first column' (i.e. they set `\if@firstcolumn` to `true` on the first column). This option tries to fix this, so the lines link to the notes on the right side of the boxes (west for right columns and east for left columns). The direction of connection can also be reversed in the document through the `\ReverseMNConnect` command.

2 Usage

`\MNOTE` The `\MNOTE[colour]{comments}` places `comments` on the right margin of the document. Comments can contain any valid \LaTeX code, including text, pictures, tables etc. Comments are enclosed in boxes and linked to specific places in the text by lines, except when the option `basic` is passed to `\usepackage`. If you are generating a pdf file with `pdflatex` (or `pdftex`) you might have to run it at least twice in order to get `tikz` to find the correct coordinates for lines and boxes.

The aim was to keep the interface as simple as possible, so that the usage can be quickly explained to your collaborators, even if they are not regular \LaTeX users. The following example shows the basic usage:

```
The aim was to keep the interface as simple as
possible\MNOTE{Revise this text}, so that the
usage can be quickly explained to your collaborators, even if they
are not regular \LaTeX\ users.
```

`\Mnewauthor` Define author-specific margin notes for comments.
 The `\Mnewauthor[<initials>]{<name>}{<todonote specs>}` macro defines a command for personalised comments by author `name` by setting up the command `\mn<initials>[highlight]{comment}` which can then be used in the text. Usage:

```
\newauthor[BD]{Bob}{yellow}
```

This defines `\mnBD`, which can be used to comment and highlight as follows:

```
\mnBD[this is highlighted]{this is a margin note.} or,
alternatively, without highlighting
\mnBDthis is a margin note with no highlights.}
```

`\HideMNOTES` Comments can be “switched off” at any point in the text by adding a `\HideMNOTES{}` command anywhere in the text. They can be switched back on again through the `\ShowMNOTES{}`

`\ShowMNOTES`

`\ReverseMNConnect`

Toggle the side to which the comment boxes are connected to the text, to be used in case \LaTeX loses track of it. Package option `reverseconnect` reverses these connections globally.

3 Required packages

`kvoptions` for option processing

`sidenotes` for note placement, including floats. N.B.: `sidenotes` is not required if `basic` or `nosidenotes` is passed as an option. In this case, note placement reverts to \LaTeX 's kernel's `\marginpar` macro.

`soul` for highlighting.

`tikz` for graphics (boxes and connectors). N.B.: `tikz` is not required if `basic` is passed as an option.

4 Bugs

The connectors sometimes go off the page when option `nosidenotes` is set (i.e. notes are set through \LaTeX kernel's `\marginpar` macro).

5 Implementation

Define some defaults: width of comment box, colour, font and paperwidth.

```
1 \expandafter\ifx\csname mnotespaperwidth\endcsname\relax
2   \newdimen\mnotespaperwidth
3   \mnotespaperwidth1.05\paperwidth
```

```

4 \fi
5 \newlength{\MNOTEWIDTH}
6 \setlength{\MNOTEWIDTH}{2.2cm}
7 \newcommand{\MNCOLOUR}{red}
8 \newcommand{\MNFONT}{\tiny}
9 \newif\if@mnotes@hide
10 \@mnotes@hidefalse
11 \newif\if@mnotes@basic
12 \@mnotes@basicfalse
13 \newif\if@mnotes@sidenotes
14 \@mnotes@sidenotesfalse
15 \newif\if@mnotes@scale
16 \@mnotes@scalegfalse
17 \newif\if@mnotes@reverseconnect
18 \@mnotes@reverseconnectfalse

Get package options
19 \RequirePackage{kvoptions}
20 \RequirePackage{soul}
21 \DeclareVoidOption{basic}{\@mnotes@basictrue}
22 \DeclareVoidOption{sidenotes}{\@mnotes@sidenotesttrue}
23 \DeclareVoidOption{hide}{\@mnotes@hidetrue \AtEndOfPackage{\HideMNOTES{}}}
24 \DeclareVoidOption{reverseconnect}{\@mnotes@reverseconnecttrue}
25 \SetupKeyvalOptions{family=mnotes, prefix=mnotes@}
26 \DeclareStringOption{scale}[1.05]
27 \define@key{mnotes}{scale}{\if@mnotes@hide\else%
28 \setlength{\paperwidth}{#1\paperwidth}\@mnotes@scalettrue\fi}
29 \DeclareVoidOption{centre}{\if@mnotes@scale\hoffset\paperwidth
30 \advance\hoffset-\paperwidth
31 \hoffset.5\hoffset\fi}
32 \DeclareStringOption{mnwidth}[\MNOTEWIDTH]
33 \define@key{mnotes}{mnwidth}{\setlength{\MNOTEWIDTH}{#1}}
34 \DeclareStringOption{boxcolour}
35 \define@key{mnotes}{boxcolour}{\renewcommand{\MNCOLOUR}{#1}}
36 \DeclareStringOption{fontsize}[6]
37 \define@key{mnotes}{fontsize}{%
38 \count1=#1 \multiply \count1 by 116 \divide \count1 by 100%
39 \def\MNFONT{\fontsize{#1}{\count1}\selectfont}}
40 %% try to keep notes on the same margin
41 % \makeatletter \@mparswitchfalse \makeatother
42 %\ExecuteOptions{}
43 \ProcessKeyvalOptions{mnotes}
44 %\ProcessOptions

45 \if@twocolumn\if@mnotes@scale\hoffset\pdfpagewidth
46 \advance\hoffset-\paperwidth
47 \hoffset.5\hoffset\fi\fi
48 \if@mnotes@basic
49 \RequirePackage{color}
50 \newif\ifoddpage %% define \ifoddpage even though it's not used to
51 \else %% avoid extra bracket error

```

```

52 \if@mnotes@sidenotes
53   \RequirePackage{sidenotes}
54 \else
55   \RequirePackage{marginnote}
56   \renewcommand\marginpar\marginnote
57 \fi
58 \RequirePackage{tikz}
59 \RequirePackage{ifoddpage}
60 \fi

```

\MNOTEon This is the core of the notes macro.

```

61 \if@mnotes@basic
62 \setlength{\marginparsep}{6pt}\setlength{\marginparwidth}{\MNOTEWIDTH}%
63 \newcommand{\MNOTEon}[2][\MNCOLOUR]{%
64 \marginpar%
65 [{\MNFONT\raggedleft\color{#1}\em #2}]%
66 {\MNFONT\raggedright\color{#1}\em #2}}%
67 \else% not basic
68 \newcommand{\MNOTEon}[2][\MNCOLOUR]{%
69 \setlength{\marginparsep}{6pt}\setlength{\marginparwidth}{\MNOTEWIDTH}%
70 \begin{tikzpicture}[remember picture, baseline=-0.75ex]%
71 \node [coordinate] (textPOS) {};%
72 \end{tikzpicture}%
73 \if@mnotes@sidenotes
74 \sidenotetext[\tiny.]%
75 {\MNFONT\raggedright\em%
76 \begin{tikzpicture}[remember picture]%
77 \draw node [draw=#1,text width=\MNOTEWIDTH-1pt] (notePOS) {#2};%
78 \end{tikzpicture}%
79 }%
80 \else
81 \marginpar%
82 [{\MNFONT\raggedleft\em\begin{tikzpicture}[remember picture]%
83 \draw node [draw=#1,text width=\MNOTEWIDTH-1pt] (notePOS) {#2};%
84 \end{tikzpicture}}]%
85 [{\MNFONT\raggedright\em%
86 \begin{tikzpicture}[remember picture]%
87 \draw node [draw=#1,text width=\MNOTEWIDTH-1pt] (notePOS) {#2};%
88 \end{tikzpicture}%
89 }]}%
90 \fi%
91 \if@twocolumn%
92   \if@firstcolumn%
93     \if@mnotes@reverseconnect%
94       \mnoteswestlink{#1}%
95     \else%
96       \mnoteseastlink{#1}%
97     \fi%
98   \else%
99     \if@mnotes@reverseconnect%

```

```

100     \mnoteseastlink{#1}%
101     \else%
102     \mnoteswestlink{#1}%
103     \fi%
104 \fi%
105 \else%
106 \if@twoside%
107     \checkoddpage%
108     \ifoddpage%\ifodd\value{mn@abspage}%
109     \mnoteswestlink{#1}%
110     \else%
111     \mnoteseastlink{#1}%
112     \fi%
113 \else%
114     \mnoteswestlink{#1}%
115     \fi%
116 \fi%
117 }%
118 \newcommand{\mnoteseastlink}[1]{%
119 \begin{tikzpicture}[remember picture, overlay]%
120 \draw[#1,-]%
121 ([yshift=-0.2cm] textPOS)%
122 -|([xshift=-0.1pt] notePOS.east);%
123 \end{tikzpicture}%
124 }
125 \newcommand{\mnoteswestlink}[1]{%
126 \begin{tikzpicture}[remember picture, overlay]%
127 \draw[#1,-]%
128 ([yshift=-0.2cm] textPOS)%
129 -|([xshift=-0.1pt] notePOS.west);%
130 \end{tikzpicture}%
131 }
132 \fi

```

- D efine author-specific margin notes for comments. Syntax: `\Mnewauthor[<initials>]{<name>}{color}`
Example: `\Mnewauthor[SL]{Nino}{yellow}` Sets up the command `\mn<initials>{}`
which can then be used in the text. E.g.: `\mnSL[this is highlighted]{this is a margin note.}`
`\mnSL{this is a margin note with no highlights.}`

```

133 \newcommand{\Mnewauthor}[3] [] {%
134     % If #1 is not given, use #2 by default as the cmd name
135     \def\@tempa{#1}%
136     \ifx\@tempa\empty%
137         \def\@authid{#2}%
138     \else%
139         \def\@authid{#1}%
140     \fi%
141     % Define the \mnX command with the colour and so on
142     \expandafter\newcommand\csname mn\@authid\endcsname[2] [] {%
143         \if@mnotes@hide #1\else\sethlcolor{#3}\hl{##1}\MNOTE[#3]{#2: ##2-}\fi}%
144 }

```

```

145 % \end{macrocode}
146 % \end{macro}
147 % \begin{macro}{\MNOTE}
148 % User interface to \verb+\MNOTEon+
149 % \begin{macrocode}
150 \newcommand{\MNOTE}{\MNOTEon}

\HideMNOTES Hide notes from this point on.
151 \newcommand{\HideMNOTES}{\renewcommand{\MNOTE}[2][red]{}}

\ShowMNOTES Show notes from this point on.
152 \newcommand{\ShowMNOTES}{\renewcommand{\MNOTE}{\MNOTEon}}

\ReverseMNCConnect Reverse the side of from which the lines connect to the MNOTE box.
153 \newcommand{\ReverseMNCConnect}{%
154 \if@mnotes@reverseconnect\@mnotes@reverseconnectfalse
155 \else\@mnotes@reverseconnecttrue\fi}

```

Index

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.

	Symbols		B	101, 105, 110, 113, 138, 143, 155
\@authid ..	137, 139, 142	\begin	70, 76, 82, 86, 119, 126, 147, 149	\em ... 65, 66, 75, 82, 85
\@empty	136			\end .. 72, 78, 84, 88, 123, 130, 145, 146
\@mnotes@basicfalse	12		C	\endcsname
\@mnotes@basictrue	21	\checkoddpage	.....	1, 142
\@mnotes@hidefalse	10	\color	.....	\ExecuteOptions ... 42
\@mnotes@hidetrue	23	\count	.....	\expandafter ... 1, 142
\@mnotes@reverseconnectfalse	18, 154	\csname	.....
\@mnotes@reverseconnecttrue	24, 155			F
\@mnotes@scalegfalse	16	D		\fi 4, 28, 31, 47, 57, 60, 90, 97, 103, 104, 112, 115, 116, 132, 140, 143, 155
\@mnotes@scalegtrue	28	\D	.....	\fontsize .....
\@mnotes@sidenotesfalse	14	\DeclareStringOption	.....	39
\@mnotes@sidenotestrue	22	\DeclareVoidOption	.....
\@mparswitchfalse	41	\def	...	H
\@tempa	135, 136	\divide	.....	\HideMNOTES .. 3, 23, <u>151</u>
		\draw	77, 83, 87, 120, 127	\hl
				\hoffset .. 29–31, 45–47
A		E		I
\advance	30, 46	\else	...	\if@firstcolumn ... 92
\AtEndOfPackage	23		67, 80, 95, 98,	\if@mnotes@basic 11, 48, 61

<code>\if@mnotes@hide</code> ...	<code>\MNOTEon</code> 61 , 148 , 150 , 152	R
..... 9, 27, 143	<code>\mnoteseastlink</code> ...	<code>\raggedleft</code> 65 , 82
<code>\if@mnotes@reverseconnect</code>	... 96 , 100 , 111 , 118	<code>\raggedright</code> . 66 , 75 , 85
... 17 , 93 , 99 , 154	<code>\mnotespaperwidth</code> 2 , 3	<code>\relax</code> 1
<code>\if@mnotes@scale</code> ..	<code>\mnoteswestlink</code> 94 ,	<code>\renewcommand</code>
..... 15 , 29 , 45	102 , 109 , 114 , 125	.. 35 , 56 , 151 , 152
<code>\if@mnotes@sidenotes</code>	<code>\MNOTEWIDTH</code>	<code>\RequirePackage</code> ...
..... 13 , 52 , 73	.. 5 , 6 , 32 , 33,	..... 19 , 20 ,
<code>\if@twocolumn</code> ... 45 , 91	62 , 69 , 77 , 83 , 87	49 , 53 , 55 , 58 , 59
<code>\if@twoside</code> 106	<code>\mnX</code> 141	<code>\ReverseMNCConnect</code> 3 , 153
<code>\ifodd</code> 108	<code>\multiply</code> 38	
<code>\ifoddpage</code> 50 , 108		
<code>\ifx</code> 1 , 136		
	N	S
M	<code>\newcommand</code> ... 7 , 8 ,	<code>\selectfont</code> 39
<code>\makeatletter</code> 41	63 , 68 , 118 , 125 ,	<code>\sethlcolor</code> 143
<code>\makeatother</code> 41	133 , 142 , 150 – 153	<code>\setlength</code>
<code>\marginnote</code> 56	<code>\newdimen</code> 2	.. 6 , 28 , 33 , 62 , 69
<code>\marginpar</code> .. 56 , 64 , 81	<code>\newif</code> 9 , 11 , 13 , 15 , 17 , 50	<code>\SetupKeyvalOptions</code> 25
<code>\marginparsep</code> ... 62 , 69	<code>\newlength</code> 5	<code>\ShowMNOTES</code> 3 , 152
<code>\marginparwidth</code> . 62 , 69	<code>\node</code> 71	<code>\sidenotetext</code> 74
<code>MNCOLOUR</code> . 7 , 35 , 63 , 68	P	T
<code>Mnewauthor</code> 3 , 133	<code>\paperwidth</code> 3 , 28 – 30 , 46	<code>\tiny</code> 8 , 74
<code>MNFONT</code> 8 , 39 ,	<code>\pdfpagewidth</code> 45	
65 , 66 , 75 , 82 , 85	<code>\ProcessKeyvalOptions</code>	V
<code>MNOTE</code> 2,	..... 43	<code>\value</code> 108
143 , 147 , 150 – 152	<code>\ProcessOptions</code> ... 44	<code>\verb</code> 148

Change History

v0.4	east for left columns). 5
General: Clean-up 1	Use reverseconnect to set the
v0.5	left and right margins correctly
General: First release 1	in some classes. 5
v0.6	General: Added nosidenotes option 2
<code>\MNOTEon</code> : Fixed problems with	Added reverseconnect option .. 2
margins for twocolumn and	v0.7
twoside documents, so that	General: made basic option
connectors connect to the right	independent of ifoddpage
side of the notes box. For some	package 4
strange reason, article.cls seems	v0.8
to call the right column 'first	<code>\MNOTEon</code> : replaced marginpar by
column' (i.e. <code>if@firstcolumn</code>	marginnote on the nosidenote
true). Created an option	option to allow MNOTES in
reverseconnect to fix that, so	floats. 5
the lines link to the notes on	General: By default don't use
the right side of the boxes	sidenotes. Specify sidenotes
(west for right columns and	option to use it. marginnote

allows placement of MNOTEs
on floats; sidenote doesn't seem

to. 2