

# mnotes — annotate documents with margin comments\*

S Luz  
luzs<at>acm.org

April 23, 2013

## 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

<b>1</b>	<b>Package options</b>	<b>1</b>
<b>2</b>	<b>Usage</b>	<b>2</b>
<b>3</b>	<b>Required packages</b>	<b>3</b>
<b>4</b>	<b>Bugs</b>	<b>3</b>
<b>5</b>	<b>Implementation</b>	<b>3</b>

## 1 Package options

The basic usage is to include a `\usepackage{mnote}` 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` v0.6, dated 2013/20/04.

- 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.
- nosidenotes** don't use sidenotes.
- 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.
```

`\HideMNOTES`      Comments can be “switched off” at any point in the text by adding a  
`\ShowMNOTES`      `\HideMNOTES{}` command anywhere in the text. They can be switched back on  
again through the `\ShowMNOTES{}`  
`\ReverseMNConnect`      Toggle the side to which the comment boxes are connected to the text, to be  
used in case L<sup>A</sup>T<sub>E</sub>X 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 L<sup>A</sup>T<sub>E</sub>X’s kernel’s `\marginpar` macro.

`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 L<sup>A</sup>T<sub>E</sub>X 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@sidenotestru
15 \newif\if@mnotes@scale
16 \@mnotes@scalegfalse
17 \newif\if@mnotes@reverseconnect
18 \@mnotes@reverseconnectfalse
19 %
20 % Get package options

```

```

21 %
22 \RequirePackage{kvoptions}
23 \DeclareVoidOption{basic}{\@mnotes@basictrue}
24 \DeclareVoidOption{nosidenotes}{\@mnotes@sidenotesfalse}
25 \DeclareVoidOption{hide}{\@mnotes@hidetrue \AtEndOfPackage{\HideMNOTES{}}}
26 \DeclareVoidOption{reverseconnect}{\@mnotes@reverseconnecttrue}
27 \SetupKeyvalOptions{family=mnotes, prefix=mnotes@}
28 \DeclareStringOption{scale}[1.05]
29 \define@key{mnotes}{scale}{\if@mnotes@hide\else%
30 \pdfpagewidth#1\paperwidth\@mnotes@scalettrue\fi}
31 \DeclareVoidOption{centre}{\if@mnotes@scale\hoffset\pdfpagewidth
32 \advance\hoffset-\paperwidth
33 \hoffset.5\hoffset\fi}
34 \DeclareStringOption{mnwidth}[\MNOTEWIDTH]
35 \define@key{mnotes}{mnwidth}{\setlength{\MNOTEWIDTH}{#1}}
36 \DeclareStringOption{boxcolour}
37 \define@key{mnotes}{boxcolour}{\renewcommand{\MNCOLOUR}{#1}}
38 \DeclareStringOption{fontsize}[6]
39 \define@key{mnotes}{fontsize}{%
40 \count1=#1 \multiply \count1 by 116 \divide \count1 by 100%
41 \def\MNFFONT{\fontsize{#1}{\count1}\selectfont}}
42 %\ExecuteOptions{}
43 \ProcessKeyvalOptions{mnotes}
44 %\ProcessOptions
45 \if@twocolumn\if@mnotes@scale\hoffset\pdfpagewidth
46 \advance\hoffset-\paperwidth
47 \hoffset.5\hoffset\fi
48 \RequirePackage{ifoddpaper}
49 \if@mnotes@basic
50 \RequirePackage{color}
51 \else
52 \if@mnotes@sidenotes
53 \RequirePackage{sidenotes}
54 \fi
55 \RequirePackage{tikz}
56 \fi

```

\MNOTEon This is the core of the notes macro.

```

57 \if@mnotes@basic
58 \setlength{\marginparsep}{6pt}\setlength{\marginparwidth}{\MNOTEWIDTH}
59 \newcommand{\MNOTEon}[2][\MNCOLOUR]{%
60 \marginpar%
61 [{\MNFFONT\raggedleft\color{#1}\em #2}]%
62 {\MNFFONT\raggedright\color{#1}\em #2}]%
63 \else
64 \newcommand{\MNOTEon}[2][\MNCOLOUR]{
65 \setlength{\marginparsep}{6pt}\setlength{\marginparwidth}{\MNOTEWIDTH}
66 \begin{tikzpicture}[remember picture, baseline=-0.75ex]
67 \node [coordinate] (textPOS) {};%
68 \end{tikzpicture}%

```

```

69 \if@mnotes@sidenotes
70 \sidenotetext[\tiny.]%
71 {\MNFONT\raggedright\em%
72 \begin{tikzpicture}[remember picture]%
73 \draw node [draw=#1,text width=\MNOTEWIDTH-1pt] (notePOS) {#2};%
74 \end{tikzpicture}
75 }%
76 \else
77 \marginpar%
78 [ {\MNFONT\raggedleft\em\begin{tikzpicture}[remember picture]%
79 \draw node [draw=#1,text width=\MNOTEWIDTH-1pt] (notePOS) {#2};%
80 \end{tikzpicture}}]%
81 { {\MNFONT\raggedright\em%
82 \begin{tikzpicture}[remember picture]%
83 \draw node [draw=#1,text width=\MNOTEWIDTH-1pt] (notePOS) {#2};%
84 \end{tikzpicture}%
85 }%
86 \fi%
87 \if@twocolumn%
88 \if@firstcolumn%
89 \if@mnotes@reverseconnect
90 \mnoteswestlink{#1}%
91 \else
92 \mnoteseastlink{#1}%
93 \fi
94 \else%
95 \if@mnotes@reverseconnect
96 \mnoteseastlink{#1}%
97 \else
98 \mnoteswestlink{#1}%
99 \fi
100 \fi%
101 \else%
102 \if@twoside%
103 \checkoddpage%
104 \ifoddpage%\ifodd\value{mn@abspage}%
105 \mnoteswestlink{#1}%
106 \else%
107 \mnoteseastlink{#1}%
108 \fi%
109 \else%
110 \mnoteswestlink{#1}%
111 \fi%
112 \fi%
113 }%
114 \newcommand{\mnoteseastlink}[1]{%
115 \begin{tikzpicture}[remember picture, overlay]%
116 \draw[#1,-]%
117 ([yshift=-0.2cm] textPOS)%
118 -|([xshift=-0.1pt] notePOS.east);%

```

```

119   \end{tikzpicture}%
120 }
121 \newcommand{\mnoteswestlink}[1]{%
122 \begin{tikzpicture}[remember picture, overlay]%
123 \draw[#1,-]%
124 ([yshift=-0.2cm] textPOS)%
125 -|([xshift=-0.1pt] notePOS.west);%
126 \end{tikzpicture}%
127 }
128 \fi

\MNOTE User interface to \MNOTEon
129 \newcommand{\MNOTE}{\MNOTEon}

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

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

\ReverseMNCConnect Reverse the side of from which the lines connect to the MNOTE box.
132 \newcommand{\ReverseMNCConnect}{%
133 \if@mnotes@reverseconnect\@mnotes@reverseconnectfalse
134 \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.

<b>Symbols</b>	<b>A</b>	<code>\DeclareVoidOption</code> . . . . . 23–26, 31
<code>\@mnotes@basicfalse</code> 12	<code>\advance</code> . . . . . 32, 46	<code>\def</code> . . . . . 41
<code>\@mnotes@basictrue</code> . 23	<code>\AtEndOfPackage</code> . . . 25	<code>\define@key</code> 29, 35, 37, 39
<code>\@mnotes@hidefalse</code> . 10	<b>B</b>	<code>\divide</code> . . . . . 40
<code>\@mnotes@hidetrue</code> . 25	<code>\begin</code> . . . . . 66,	<code>\draw</code> 73, 79, 83, 116, 123
<code>\@mnotes@reverseconnectfalse</code> 72, 78, 82, 115, 122	<code>\checkoddpage</code> . . . . . 103	<b>E</b>
. . . . . 18, 133	<code>\color</code> . . . . . 61, 62	<code>\else</code> . . . . . 29, 51, 63,
<code>\@mnotes@reverseconnecttrue</code>	<code>\count</code> . . . . . 40, 41	76, 91, 94, 97,
. . . . . 26, 134	<code>\csname</code> . . . . . 1	101, 106, 109, 134
<code>\@mnotes@scalefalse</code> 16	<b>D</b>	<code>\em</code> . . . 61, 62, 71, 78, 81
<code>\@mnotes@scaletrue</code> . 30	<code>\DeclareStringOption</code>	<code>\end</code> . . . . . 68,
<code>\@mnotes@sidenotesfalse</code>	. . . . . 28, 34, 36, 38	74, 80, 84, 119, 126
. . . . . 24		<code>\endcsname</code> . . . . . 1
<code>\@mnotes@sidenotestrue</code>		<code>\ExecuteOptions</code> . . . 42
. . . . . 14		<code>\expandafter</code> . . . . . 1

<b>F</b>		<b>M</b>		<b>P</b>	
<code>\fi</code> . . . . .	4, 30, 33, 47, 54, 56, 86, 93, 99, 100, 108, 111, 112, 128, 134	<code>\marginpar</code> . . . . .	60, 77	<code>\paperwidth</code> 3, 30, 32, 46	
<code>\fontsize</code> . . . . .	41	<code>\marginparsep</code> . . .	58, 65	<code>\pdfpagewidth</code> 30, 31, 45	
<b>H</b>		<code>\marginparwidth</code> .	58, 65	<code>\ProcessKeyvalOptions</code> . . . . .	43
<code>\HideMNOTES</code> . .	3, 25, <a href="#">130</a>	<code>\MNCOLOUR</code> . .	7, 37, 59, 64	<code>\ProcessOptions</code> . . .	44
<code>\hoffset</code> . .	31–33, 45–47	<code>\MNFONT</code> . . . . .	8, 41, 61, 62, 71, 78, 81	<b>R</b>	
<b>I</b>		<code>\MNOTE</code> . .	2, <a href="#">129</a> , 130, 131	<code>\raggedleft</code> . . . . .	61, 78
<code>\if@firstcolumn</code> . . .	88	<code>\MNOTEon</code> . .	<a href="#">57</a> , 129, 131	<code>\raggedright</code> .	62, 71, 81
<code>\if@mnotes@basic</code> . .	. . . . . 11, 49, 57	<code>\mnoteseastlink</code> . . .	. . . . . 92, 96, 107, 114	<code>\relax</code> . . . . .	1
<code>\if@mnotes@hide</code> . .	9, 29	<code>\mnotespaperwidth</code> 2, 3		<code>\renewcommand</code> . . . . .	
<code>\if@mnotes@reverseconnect</code> . . . . .	17, 89, 95, 133	<code>\mnoteswestlink</code> . . .	90, 98, 105, 110, 121	. . . . .	37, 130, 131
<code>\if@mnotes@scale</code> . .	. . . . . 15, 31, 45	<code>\MNOTEWIDTH</code> . . . . .	. . . . . 5, 6, 34, 35,	<code>\RequirePackage</code> . . . . .	22, 48, 50, 53, 55
<code>\if@mnotes@sidenotes</code> . . . . .	13, 52, 69	. . . . .	58, 65, 73, 79, 83	<code>\ReverseMNCConnect</code> <a href="#">3</a> , <a href="#">132</a>	
<code>\if@twocolumn</code> . . .	45, 87	<b>N</b>	<code>\multiply</code> . . . . .	40	<b>S</b>
<code>\if@twoside</code> . . . . .	102	<code>\newcommand</code> . . . . .	. . . . . 7, 8, 59, 64, 114, 121, 129–132	<code>\selectfont</code> . . . . .	41
<code>\ifodd</code> . . . . .	104	<code>\newdimen</code> . . . . .	2	<code>\setlength</code> 6, 35, 58, 65	
<code>\ifoddpaper</code> . . . . .	104	<code>\newif</code> . . . . .	9, 11, 13, 15, 17	<code>\SetupKeyvalOptions</code> 27	
<code>\ifx</code> . . . . .	1	<code>\newlength</code> . . . . .	5	<code>\ShowMNOTES</code> . . . . .	<a href="#">3</a> , <a href="#">131</a>
		<code>\node</code> . . . . .	67	<code>\sidenotetext</code> . . . . .	70
				<b>T</b>	
				<code>\tiny</code> . . . . .	8, 70
				<b>V</b>	
				<code>\value</code> . . . . .	104

## Change History

v0.4		strange reason, article.cls seems to call the right column 'first column' (i.e. <code>if@firstcolumn true</code> ). Created an option <code>reverseconnect</code> to fix that, so the lines link to the notes on the right side of the boxes (west for right columns and east for left columns). . . . .	4
General: Clean-up . . . . .	1	Use <code>reverseconnect</code> to set the left and right margins correctly in some classes. . . . .	4
v0.5			
General: First release . . . . .	1		
v0.6			
General: Added <code>nosidenotes</code> option	2		
Added <code>reverseconnect</code> option . .	2		
<code>\MNOTEon</code> : Fixed problems with margins for <code>twocolumn</code> and <code>twoside</code> documents, so that connectors connect to the right side of the notes box. For some			