mnotes — annotate documents with margin comments*

S Luz
luzs<at>acm.org

November 5, 2014

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 sidedotes, 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{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 v0.7, 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.

\textbf{mnwidth} Sets the default width for the comment boxes.

Default: mnwidth=2.2cm.

\textbf{boxcolour} the colour of the box that encloses the comments (and of the lines that connect comments to the text).

Default: boxcolour=red.

\textbf{hide} Hides all notes. Useful for generating a final (camera-ready) version without comments, without actually removing the comments from the \LaTeX code.

\textbf{sidenotes} use sidenote package instead of plain marginnote.

\textbf{basic} This causes the note setting to fallback to \LaTeX kernel’s \texttt{marginpar}, in case sidenotes or \texttt{tikz} isn’t available.

\textbf{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 \texttt{ReverseMNConnect} command.

\section{Usage}

\texttt{\texttt{\MNOTE[\textcolor{\texttt{colour}}]{\texttt{comments}}} places \texttt{\texttt{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 \texttt{pdflatex} (or \texttt{pdftex}) you might have to run it at least twice in order to get \texttt{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:

\begin{quote}
The aim was to keep the interface as simple as possible\texttt{\texttt{\MNOTE[\textcolor{\texttt{Revise this text}}]{\texttt{comments}}}}, so that the usage can be quickly explained to your collaborators, even if they are not regular \LaTeX users.
\end{quote}
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{} command.

Toggle the side to which the comment boxes are connected to the text, to be used in case \LaTeX{} looses 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 \texttt{marginpar} macro.

\tikz{} for graphics (boxes and connectors). N.B.: \texttt{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 \texttt{marginpar} macro).

5 Implementation

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

\begin{verbatim}
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\MNOTECOLOUR{red}
8 \newcommand\MNCOLOUR{\tiny}
9 \newif\@mnotes@hide
10 \@mnotes@hidetrue
11 \newif\@mnotes@basic
12 \@mnotes@basicfalse
13 \newif\@mnotes@sidenotes
14 \@mnotes@sidenotesfalse
15 \newif\@mnotes@scale
16 \@mnotes@scalefalse
17 \newif\@mnotes@reverseconnect
18 \@mnotes@reverseconnectfalse
\end{verbatim}
Get package options
\RequirePackage{kvoptions}
\DeclareVoidOption{basic}{\@mnotes@basictrue}
\DeclareVoidOption{sidenames}{\@mnotes@sidenotestrue}
\DeclareVoidOption{hide}{\@mnotes@hidetrue \AtEndOfPackage{\HideMNOTES{}}}
\SetupKeyvalOptions{family=mnotes, prefix=mnotes@}
\DeclareStringOption{scale}[1.05]
\define@key{mnotes}{scale}{\if@mnotes@hide\else% 
\pdfpagewidth#1\paperwidth\@mnotes@scaletrue\fi}
\DeclareVoidOption{centre}{\if@mnotes@scale\hoffset\pdfpagewidth
\advance\hoffset-\paperwidth.5\hoffset\fi}
\DeclareStringOption{mnwidth}[]\MNOTEWIDTH
\define@key{mnotes}{mnwidth}{\setlength{\MNOTEWIDTH}{#1}}
\DeclareStringOption{boxcolour}
\define@key{mnotes}{boxcolour}{\renewcommand{\MNCOLOUR}{#1}}
\DeclareStringOption{fontsize}[6]
\define@key{mnotes}{fontsize}{\count1=#1 \multiply \count1 by 116 \divide \count1 by 100%
\def\MNFONT{\fontsize{#1}{\count1}\selectfont}}
%\ExecuteOptions{}
\ProcessKeyvalOptions{mnotes}
%\ProcessOptions
\if@twocolumn\if@mnotes@scale\hoffset\pdfpagewidth
\advance\hoffset-\paperwidth.5\hoffset\fi\fi
\if@mnotes@basic
\setlength{\marginparsep}{6pt}\setlength{\marginparwidth}{\MNOTEWIDTH}
\newcommand{\MNOTEon}{\marginpar%%
\MNOTEoff{\MNCOLOUR\raggedleft{\color{#1}\em #2}}}%% 
\endcsname{\MNOTEon}%% not basic
\setlength{\marginparwidth}{\MNOTEWIDTH}
\newcommand{\MNOTEoff}{\marginpar{}}
%\MNOTEon
This is the core of the notes macro.
\if@mnotes@basic
\setlength{\marginparsep}{6pt}\setlength{\marginparwidth}{\MNOTEWIDTH}
\newcommand{\MNOTEon}{\marginpar{%%
\MNCOLOUR\raggedleft{\color{#1}\em #2}}}%% 
\endcsname{\MNOTEon}%% not basic
\newcommand{\mnoteseastlink}[1]{%
\begin{tikzpicture}[remember picture, overlay]%
\draw[#1,-]%
([yshift=-0.2cm] textPOS)%
-|([xshift=-0.1pt] notePOS.east);%
\end{tikzpicture}%
}
\newcommand{\mnoteswestlink}[1]{%
\begin{tikzpicture}[remember picture, overlay]%
\draw[#1,-]%
([yshift=-0.2cm] textPOS)%
-|([xshift=-0.1pt] notePOS.west);%
\end{tikzpicture}%
}
\fi
\MNOTE User interface to \MNOTEon
\HideMNOTES Hide notes from this point on.
\ShowMNOTES Show notes from this point on.
\ReverseMNConnect Reverse the side of from which the lines connect to the MNOTE box.
\newcommand{\ReverseMNConnect}{%
\if@mnotes@reverseconnect\@mnotes@reverseconnectfalse%
\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.

<table>
<thead>
<tr>
<th>Symbols</th>
<th>@mnotes@sidenotesfalse</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>@mnotes@basicfalse</td>
<td>12</td>
<td>\checkoddpage .....</td>
</tr>
<tr>
<td>@mnotes@basictrue</td>
<td>20</td>
<td>\color</td>
</tr>
<tr>
<td>@mnotes@hidedefalse</td>
<td>10</td>
<td>\count</td>
</tr>
<tr>
<td>@mnotes@hidetrue</td>
<td>22</td>
<td>\csname</td>
</tr>
<tr>
<td>@mnotes@reverseconnectfalse</td>
<td>\begin{itemize} . . . . . . .</td>
<td>\DeclareStringOption</td>
</tr>
<tr>
<td>@mnotes@reverseconnecttrue</td>
<td>\end{itemize} . . . . . . . . . . . . .</td>
<td>\DeclareVoidOption .</td>
</tr>
<tr>
<td>@mnotes@scalefalse</td>
<td>16</td>
<td>\begin</td>
</tr>
<tr>
<td>@mnotes@scaletrue</td>
<td>27</td>
<td>\begin</td>
</tr>
</tbody>
</table>
\define@key 26, 32, 34, 36
\divide 37
\draw 74, 80, 84, 117, 124
\Else 26, 48, 51, 64, 77, 92, 95, 98, 102, 107, 110, 135
\Em 62, 63, 72, 79, 82
\End 69, 75, 81, 85, 120, 127
\Endcsname 1
\ExecuteOptions 39
\Expandafter 1
\Fi 4, 27, 30, 44, 54, 57, 87, 94, 100, 101, 109, 112, 113, 129, 135
\FontSize 38
\HideMNOTES 3
\Hoffset 28–30, 42–44
\If 89
\If@firstcolumn 11, 45, 58
\If@mnotes@basic 9, 26
\If@mnotes@hide 9, 26
\If@mnotes@reverseconnect 17, 90, 96, 134
\If@mnotes@scale 15, 28, 42
\If@mnotes@sidenotes 13, 49, 70
\If@twocolumn 42, 88
\If@twoside 103
\Ifodd 9, 26
\If@mnotes@basic 11, 45, 58
\If@mnotes@basic 53, 61, 78
\If@mnotes@parsep 59, 66
\If@mnotes@parwidth 59, 66
\If@mnotes@parwidth 7, 34, 60, 65
\If@mnotes@sidenotes 13, 49, 70
\If@mnotes@scale 15, 28, 42
\If@mnotes@reverseconnect 17, 90, 96, 134
\If@mnotes@sidenotes 13, 49, 70
\If@twocolumn 42, 88
\If@twoside 103
\Multiply 37
\Newcommand 7, 8, 60, 65, 115, 122, 130–133
\Newdimen 2
\Newif 11, 45, 58
\Newif 9, 11, 13, 15, 17, 47
\Newlength 5
\Node 68
\Paperwidth 3, 27, 29, 43
\Pdftopdfwidth 27, 28, 42
\ProcessKeyvalOptions 40
\ProcessOptions 41
\Reversedcmconnect 3, 133
\Selectfont 38
\Setlength 6, 32, 59, 66
\Setlength 6, 32, 59, 66
\Setlength 5, 6, 31, 32, 59, 66, 74, 80, 84
\SetupKeyvalOptions 24
\ShowMNOTES 3, 132
\Sidenotetext 71
\Value 105
\V 7

Change History

v0.4
  General: Clean up 1

v0.5
  General: First release 1

v0.6
  General: Added nosidenotes option 2
  Added reverseconnect option 2
  MNOTEn: Fixed problems with margins for twocolumn and twoside documents, so that connectors connect to the right side of the notes box. For some strange reason, article.cls seems to call the right column 'first column' (i.e. if@firstcolumn true). Created an option reverseconnect 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

Use reverseconnect to set the left
and right margins correctly in some classes. .................. 4

v0.7

General: made basic option independent of ifoddpage package . 4

v0.8

General: By default don’t use sidenotes. Specify sidenotes option to use it. marginnote allows placement of MNOTEs on floats; sidenote doesn’t seem to. 2

\MNOTEon: replaced marginpar by marginnote on the nosidenote option to allow MNOTES in floats. ......................... 4