`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.

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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`.

`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.
```

\HideMNOTES
\ShowMNOTES

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{}`

\ReverseMNConnect

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 `\marginpar` macro.

tikz for graphics (boxes and connectors). N.B.: `tikz` is note 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 kernnel's `\marginpar` macro).

5 Implementation

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

```
\expandafter\ifx\csname mnotespaperwidth\endcsname\relax
    \newdimen\mnotespaperwidth
    \mnotespaperwidth1.05\paperwidth
\fi
\newlength{\MNOTEWIDTH}
\setlength{\MNOTEWIDTH}{2.2cm}
\newcommand{\MNCOLOUR}{red}
\newcommand{\MNFONT}{\tiny}
\newif\if@mnotes@hide
\@mnotes@hidefalse
\newif\if@mnotes@basic
\@mnotes@basicfalse
\newif\if@mnotes@sidenotes
\@mnotes@sidenotesfalse
\newif\if@mnotes@scale
\@mnotes@scalefalse
\newif\if@mnotes@reverseconnect
\@mnotes@reverseconnectfalse
```

Get package options

```
\RequirePackage{kvoptions}
\DeclareVoidOption{basic}{\@mnotes@basictrue}
\DeclareVoidOption{sidenotes}{\@mnotes@sidenotestrue}
\DeclareVoidOption{hide}{\@mnotes@hidetrue \AtEndOfPackage{\HideMNOTES{}}}
\DeclareVoidOption{reverseconnect}{\@mnotes@reverseconnecttrue}
\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
    \hoffset.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
    \hoffset.5\hoffset\fi\fi
\if@mnotes@basic
  \RequirePackage{color}
  \newif\ifoddpage %% define \ifoddpage even though it's not used to
\else              %% avoid  extra bracket error
  \if@mnotes@sidenotes
    \RequirePackage{sidenotes}
  \else
    \RequirePackage{marginnote}
    \renewcommand\marginpar\marginnote
  \fi
  \RequirePackage{tikz}
  \RequirePackage{ifoddpage}
\fi
```

`\MNOTEon` This is the core of the notes macro.

```
\if@mnotes@basic
\setlength{\marginparsep}{6pt}\setlength{\marginparwidth}{\MNOTEWIDTH}
\newcommand{\MNOTEon}[2][\MNCOLOUR]{%
\marginpar%
[{\MNFONT\raggedleft\color{#1}\em #2}]%
{\MNFONT\raggedright\color{#1}\em #2}}%
\else% not basic
```

```
\newcommand{\MNOTEon}[2][\MNCOLOUR]{
\setlength{\marginparsep}{6pt}\setlength{\marginparwidth}{\MNOTEWIDTH}
\begin{tikzpicture}[remember picture, baseline=-0.75ex]%
\node [coordinate] (textPOS) {};%
\end{tikzpicture}%
\if@mnotes@sidenotes
\sidenotetext[\tiny.]%
{\MNFONT\raggedright\em%
\begin{tikzpicture}[remember picture]%
\draw node [draw=#1,text width=\MNOTEWIDTH-1pt] (notePOS) {#2};%
\end{tikzpicture}
}%
\else
\marginpar%
[{\MNFONT\raggedleft\em\begin{tikzpicture}[remember picture]%
\draw node [draw=#1,text width=\MNOTEWIDTH-1pt] (notePOS) {#2};%
\end{tikzpicture}}]%
{{\MNFONT\raggedright\em%
\begin{tikzpicture}[remember picture]%
\draw node [draw=#1,text width=\MNOTEWIDTH-1pt] (notePOS) {#2};%
\end{tikzpicture}%
}}%
\fi%
\if@twocolumn%
  \if@firstcolumn%
    \if@mnotes@reverseconnect
      \mnoteswestlink{#1}%
    \else
      \mnoteseastlink{#1}%
    \fi
  \else%
    \if@mnotes@reverseconnect
      \mnoteseastlink{#1}%
    \else
      \mnoteswestlink{#1}%
    \fi
  \fi%
\else%
  \if@twoside%
    \checkoddpage%
    \ifoddpage%\ifodd\value{mn@abspage}%
      \mnoteswestlink{#1}%
    \else%
      \mnoteseastlink{#1}%
    \fi%
  \else%
    \mnoteswestlink{#1}%
  \fi%
\fi%
}%
```

```
\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`

```
\newcommand{\MNOTE}{\MNOTEon}
```

`\HideMNOTES` Hide notes from this point on.

```
\newcommand{\HideMNOTES}{\renewcommand{\MNOTE}[2][red]{}}
```

`\ShowMNOTES` Show notes from this point on.

```
\newcommand{\ShowMNOTES}{\renewcommand{\MNOTE}{\MNOTEon}}
```

`\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}
```

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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

v0.4

General: Clean-up 1

v0.5

General: First release 1

v0.6

General: Added nosidenotes option 2

Added reverseconnect option . . 2

\MNOTEon: 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