SNOTEZ

v0.7   2022/02/12

sidenote support for LaTeX 2ε

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1 License and Requirements

Permission is granted to copy, distribute and/or modify this software under the terms of the LaTeX Project Public License (LPPL), version 1.3c or later (http://www.latex-project.org/lppl.txt). The software has the status "maintained."

2 Motivation

This has just been an exercise on a lazy afternoon.[1] Well, in the beginning at least. Since there already is Andy THOMAS' sidenotes package[2] there is probably no real need for SNOTEZ. Moreover, the tufte classes[3] as well as memoir[4] also provide corresponding mechanisms. Besides the fun I had my motivation was also based on the fact that I didn't like some things done by the sidenotes package such as inserting kerns and superscripted commas for multiple marks. I prefer to let my fnpct[5] package handle these things. Anyways, here it is and it seems to be working as intended so I don't see a reason why it shouldn't be available for use.

By the way: the fnpct package v0.2k and later knows about SNOTEZ and automatically adapts the note commands!

1. https://www.youtube.com/watch?v=0U6EyXcFBxA

2. THOMAS and SCHEBAUM [TS20]

3. GODBY, KLEB, and WOOD [GKW10]

4. WILSON and MADSEN [WM21]

5. NIEDERBERGER [Nie22]

3 Introduction

The SNOTEZ package introduces a \sidenote command[1] that typesets sidenotes the same way \footnote typesets footnotes. It provides some options that allow formatting the appearance of the sidenotes.[2] As a default sidenotes are typeset in a \marginpar but there are possibilities using Markus Kоhм's marginnote [Koh18] package as well.

As with footnotes it is possible to set mark and text separately using the equivalent commands \sidenotemark and \sidenotetext, respectively. Instead of lots of code examples this documentation will use the \sidenote macro itself extensively. It is assumend you know how to use \footnote and are able to transfer your knowledge.

4 Usage

The basic usage is the very same as with LaTeX's \footnote, \footnotemark and \footnotetext. Unsurprisingly the presented commands are these:

\sidenote[⟨*mark*⟩]{⟨*text*⟩}
  The basic command. The syntax is the very same as for \footnote.

\sidenote(⟨*offset*⟩)[⟨*mark*⟩]{⟨*text*⟩}
  Actually I lied: \sidenote has a second option that smuggles itself before the ⟨*mark*⟩ option if you use it: an argument for a vertical offset that takes a length. An empty second option assumes you want the automatic mark. If you use this argument the note is set with the \marginnote command.[3] Please see its documentation[4] [Koh18] for the ⟨*offset*⟩ argument. SNOTEZ only passes the value on.

  Actually, this is only part of the truth: while typing this documentation I repeatedly found myself shifting notes by multiples of \baselineskip so the argument accepts a shortcut for this. A star ∗ followed by a (positive or negative) number denotes a multiple of \baselineskip. By the way: a positive value shifts the note *down*.

  When you're using the dblarg = {true} option the ⟨*offset*⟩ argument has square brackets instead of parentheses!

\sidenotemark[⟨*marg*⟩]
  This command has the same purpose as \footnotemark but for sidenotes.

\sidenotetext[⟨*mark*⟩]{⟨*text*⟩}
  The same as \footnotetext but for sidenotes. Beware where you place it: it calls \marginpar or \marginnote and thus determines where the actual note is placed.

[1] This is an example demonstrating the default appearance.

[2] In all sidenotes in this document the mark is typeset on the baseline and the text is set ragged right.

[3] From the marginnote package

[4] For example with texdoc marginnote on your command line.

\sidenotetext(⟨*offset*⟩)[⟨*mark*⟩]{⟨*text*⟩}

I lied again: \sidenotetext also has the second optional argument ⟨*offset*⟩ that again smuggles itself before the ⟨*mark*⟩ option if you use it. For details see the second description of the \sidenote command.

Here is one short example of the usage.

```
1  % produces a sidenote with automatic number in a
2  % \marginpar:
3  \sidenote{A note}
4
5  % produces a sidenote with mark `a' in a
6  % \marginpar:
7  \sidenote[a]{A note}
8
9  % produces a sidenote with automatic number in a
10 % \marginnote:
11 \sidenote(){A note}
12 % alternative syntax (dblarg=true):
13 \sidenote[][]{A note}
14
15 % produces a sidenote with automatic number in a
16 % \marginnote shifted down by \baselineskip:
17 \sidenote(*){A note}
18 % alternative syntax (dblarg=true):
19 \sidenote[*][]{A note}
20
21 % produces a sidenote with automatic number in a
22 % \marginnote shifted up by 2ex:
23 \sidenote(-2ex){A note}
24 % alternative syntax (dblarg=true):
25 \sidenote[-2ex][]{A note}
26
27 % produces a sidenote with mark `a' in a
28 % \marginnote shifted down by 2\baselineskip:
29 \sidenote(*2)[a]{A note}
30 % alternative syntax (dblarg=true):
31 \sidenote[*2][a]{A note}
```

5 Figures in the Margin

In the case of small figures or tables one might want to place them in the margin, too. Especially in a document with a larger margin than it is in the standard classes.

For these cases SNOTEZ provides[1] these environments:

1. Introduced in version 0.5

\begin{sidefigure}

Places a figure in the margin within a \marginpar. \caption can be used in the usual way.

\begin{sidetable}

Places a table in the margin within a \marginpar. \caption can be used in the usual way.

In order to be able to place other floats in the margin, too, SNOTEZ provides the following command:

\newsnotezfloat[⟨*code*⟩]{⟨*name*⟩}

This defines a new environment side⟨*name*⟩. ⟨*code*⟩ would be placed after the formatting from sidefloat-format but before the environment's contents.

Both existing environments have been defined with this command.

```
1 \newsnotezfloat{figure}
2 \newsnotezfloat{table}
```
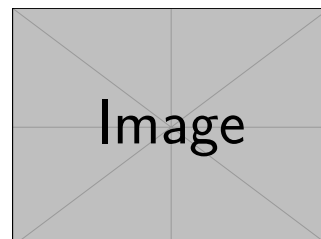

FIGURE 1: An example for a figure in the margin.

6 Options

Although all options can be used as package option you can also set all options (locally) with a setup command:

\setsidenotes{⟨*options*⟩}

Set options as a comma-separated list of key/value pairs.

Available options are these:

dblarg = <u>true</u>|false   Default: false

Prior to version 0.3 SNOTEZ' \sidenote and \sidenotetext had both their optional arguments with square brackets where the use of one argument referred to the mark but when both were used the first argument referred to the offset and the second to the mark. This syntax is kept with this option. Setting it to true changes the (⟨*offset*⟩) argument syntax into [⟨*offset*⟩].

marginnote = <u>true</u>|false   Default: false

Use marginnote's \marginnote [Koh18] for all \sidenotes. In the default setting \sidenote uses \marginpars to set the sidenote unless you use the ⟨*offset*⟩ argument. If you use this option *all* sidenotes are set with \marginnote. *This option can only be used in the preamble.*

text-format = {⟨*code*⟩}   Default: \normalfont\footnotesize

The format of the sidenote text.

`text-format+` = {⟨*code*⟩}   (initially empty)
 Code to be appended to the format set with `text-format`.[1]

`perpage` = `true`|`false`   Default: `false`
 This option can only be set in the preamble. Make sidenotes counter per page.
 It uses package zref-perpage's [Obe20] for the task. This documentation is an
 example for the use of the option.

`perchapter` = `true`|`false`   Default: `false`
 This option can only be set in the preamble.[2] If your document class has defined a
 counter `chapter` and if you set this to `true` the `sidenote` counter will be added
 to the reset list of the `chapter` counter.

`note-mark-sep` = {⟨*code*⟩}   Default: `\space`
 The separator between sidenote mark and sidenote text in the sidenote.

`note-mark-format` = {⟨*code*⟩}   Default: `\@textsuperscript{\normalfont#1}`
 The format of the sidenote mark in the sidenote. Please refer to the actual mark
 with `#1`.

`text-mark-format` = {⟨*code*⟩}   Default: `\@textsuperscript{\normalfont#1}`
 The format of the sidenote mark in the text.[3] Please refer to the actual mark
 with `#1`.

`footnote` = `true`|`false`   Default: `false`
 This option can only be used in the preamble. Let[4] `\footnote` to be `\sidenote`,
 `\footnotemark` to be `\sidenotemark` and `\footnotetext` to be `\sidenotetext`.

`sidefloat-format` = {⟨*code*⟩}   Default: `\raggedright`
 The format of the contents of a sidefloat environment text.[5]

`sidefloat-format+` = {⟨*code*⟩}
 Code to be appended to the format set with `sidefloat-format`.[6]

1. This document, for example, appends ragged2e's `\RaggedRight` [Sch21] to the sidenote's format.

2. Introduced in version 0.6

3. This document uses Bob TENNENT's libertine package [Ten18] and redefines the mark formats to use its `\textsu` command.

4. In the sense of `\let`

5. Introduced in version 0.5

6. Introduced in version 0.5

As a short example this is how the sidenotes for this document are formatted:

```
1 \setsidenotes{
2   note-mark-format=#1.,
3   text-mark-format=\textsu{\hspace*{.04em}#1},
4   text-format+=\RaggedRight,
5   perpage=true
6 }
```

7 Implementation

In the following code the lines 1–24 have been omitted. They only repeat the license statement which has already been mentioned in section 1.

```
25 \def\snotez@date{2022/02/12}
26 \def\snotez@version{v0.7}
27 \def\snotez@description{sidenote support for LaTeX 2e (CN)}
28
29 \NeedsTeXFormat{LaTeX2e}
30 \ProvidesPackage{snotez}[\snotez@date\space \snotez@version\space \
     snotez@description]
31
32 \RequirePackage{etoolbox,pgfopts,marginnote}
33
34 % ------------------------------------------------------------------------
35 % package options:
36 \newbool{snotez@marginnote}
37 \newbool{snotez@perpage}
38 \newbool{snotez@footnote}
39 \newbool{snotez@dblarg}
40 \newbool{snotez@perchapter}
41
42 \newcommand*\snotez@note@mark@sep{\space}
43 \newcommand*\snotez@note@mark@format[1]{\@textsuperscript{\normalfont#1}}
44 \newcommand*\snotez@format{\normalfont\footnotesize}
45 \newcommand*\snotez@text@mark@format[1]{\@textsuperscript{\normalfont#1}}
46
47 \pgfkeys{
48   snotez/.cd,
49     % all sidenotes use \marginnote:
50     marginnote/.is if      = snotez@marginnote ,
51     % formatting of the note text:
52     text-format/.code      = \renewcommand*\snotez@format{#1} ,
53     text-format+/.code     =
54       \expandafter\renewcommand
55       \expandafter*%
56       \expandafter\snotez@format
57       \expandafter{\snotez@format#1} ,
```

```
58      % make sidenotes counted per page:
59      perpage/.is if        = snotez@perpage ,
60      % count sidenotes per chapter:
61      perchapter/.is if     = snotez@perchapter ,
62      % formatting of the note mark:
63      note-mark-sep/.code    = \renewcommand*\snotez@note@mark@sep{#1} ,
64      note-mark-format/.code = \renewcommand*\snotez@note@mark@format[1]{#1} ,
65      text-mark-format/.code = \renewcommand*\snotez@text@mark@format[1]{#1} ,
66      % make all footnotes sidenotes:
67      footnote/.is if        = snotez@footnote ,
68      % change optional argument input:
69      dblarg/.is if          = snotez@dblarg ,
70      % formmatting of the sidefloats' contents:
71      sidefloat-format/.code  = \renewcommand*\snotez@sidefloat@format{#1} ,
72      sidefloat-format+/.code =
73        \expandafter\renewcommand
74        \expandafter*%
75        \expandafter\snotez@sidefloat@format
76        \expandafter{\snotez@sidefloat@format#1}
77 }
78
79 \ProcessPgfOptions*
80
81 \newrobustcmd\setsidenotes[1]{\pgfqkeys{/snotez}{#1}}
82
83 % -------------------------------------------------------------------------
84 % the \sidenote command
85 \AtBeginDocument{%
86   \ifbool{snotez@dblarg}
87     {\newrobustcmd*\sidenote{\snotez@sidenote@dblarg}}
88     {\newrobustcmd*\sidenote{\snotez@sidenote@nodblarg}}%
89 }
90
91 % syntax:
92 % - \sidenote{text}
93 % - \sidenote[mark]{text}
94 % - \sidenote[offset][mark]{text}
95 \newrobustcmd*\snotez@sidenote@dblarg{%
96   \@ifnextchar[%
97     {\snotez@sidenote@dblarg@aux}
98     {\snotez@sidenote@aux{}[]}% no option
99 }
100
101 \protected\def\snotez@sidenote@dblarg@aux[#1]{%
102   \@ifnextchar[%
103     {\snotez@sidenote@aux{#1}}% two options
104     {\snotez@sidenote@aux{}[{#1}]}% one option
105 }
106
107 % syntax:
108 % - \sidenote{text}
109 % - \sidenote[mark]{text}
110 % - \sidenote(offset){text}
111 % - \sidenote(offset)[mark]{text}
```

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```
112  \newrobustcmd*\snotez@sidenote@nodblarg{%
113    \@ifnextchar(%
114      {\snotez@sidenote@nodblarg@aux}% offset
115      {%
116        \@ifnextchar[
117          {\snotez@sidenote@aux{}}% no offset but mark
118          {\snotez@sidenote@aux{}[]}% no offset and no mark
119      }%
120  }
121
122  \protected\def\snotez@sidenote@nodblarg@aux(#1){%
123    \@ifnextchar[%
124      {\snotez@sidenote@aux{#1}}% mark
125      {\snotez@sidenote@aux{#1}[]}% no mark
126  }
127
128  % #1: offset
129  % #2: mark
130  % #3: text
131  \long\def\snotez@sidenote@aux#1[#2]#3{%
132    \snotez@mark{#2}%
133    \snotez@text{#1}{#3}%
134  }
135
136  % this one is very much \@footnotemark from latex.ltx:
137  \newrobustcmd*\snotez@write@mark[1]{%
138    \leavevmode
139    \ifhmode\edef\@x@sf{\the\spacefactor}\nobreak\fi
140    #1%
141    \ifhmode\spacefactor\@x@sf\fi
142    \relax
143  }
144
145  \newrobustcmd*\snotez@mark[1]{%
146    \ifblank{#1}% or \ifstrempty?
147      {%
148        \refstepcounter{sidenote}%
149        \protected@xdef\@the@snotez@mark{\thesidenote}%
150      }
151      {%
152        \protected@edef\@currentlabel{#1}%
153        \protected@xdef\@the@snotez@mark{#1}%
154      }%
155    \snotez@write@mark{%
156      \hbox{\snotez@text@mark@format{\@the@snotez@mark}}}%
157  }
158
159  \newcounter{sidenote}
160  \AtBeginDocument{%
161    \ifltxcounter{chapter}{%
162      \ifbool{snotez@perchapter}{\counterwithin*{sidenote}{chapter}}{}%
163    }{}
164  }
165
```

```
166  % ------------------------------------------------------------------------------
167  % the \sidenotemark command
168  \newrobustcmd*\sidenotemark[1][]{\snotez@mark{#1}}
169
170  % ------------------------------------------------------------------------------
171  % the \sidenotetext command
172  \AtBeginDocument{
173    \ifbool{snotez@dblarg}
174      {\newrobustcmd*\sidenotetext{\snotez@sidenotetext@dblarg}}
175      {\newrobustcmd*\sidenotetext{\snotez@sidenotetext@nodblarg}}
176  }
177
178  % syntax:
179  % - \sidenotetext{text}
180  % - \sidenotetext[mark]{text}
181  % - \sidenotetext[offset][mark]{text}
182  \newrobustcmd*\snotez@sidenotetext@dblarg{%
183    \@ifnextchar[%
184      {\snotez@sidenotetext@dblarg@aux}
185      {\snotez@sidenotetext@aux{}[]}% no option
186  }
187
188  \protected\def\snotez@sidenotetext@dblarg@aux[#1]{%
189    \@ifnextchar[%
190      {\snotez@sidenotetext@aux{#1}}% two options
191      {\snotez@sidenotetext@aux{}[{#1}]}% one option
192  }
193
194  % syntax:
195  % - \sidenotetext{text}
196  % - \sidenotetext[mark]{text}
197  % - \sidenotetext(offset){text}
198  % - \sidenotetext(offset)[mark]{text}
199  \newrobustcmd*\snotez@sidenotetext@nodblarg{%
200    \@ifnextchar(%
201      {\snotez@sidenotetext@nodblarg@aux}% offset
202      {%
203        \@ifnextchar[
204          {\snotez@sidenotetext@aux{}}% no offset nut mark
205          {\snotez@sidenotetext@aux{}[]}% no offset and no mark
206      }%
207  }
208
209  \protected\def\snotez@sidenotetext@nodblarg@aux(#1){%
210    \@ifnextchar[%
211      {\snotez@sidenotetext@aux{#1}}% mark
212      {\snotez@sidenotetext@aux{#1}[]}% no mark
213  }
214
215  % #1: offset
216  % #2: mark
217  % #3: text
218  \long\protected\def\snotez@sidenotetext@aux#1[#2]#3{%
219    \ifblank{#2}{}{\protected@xdef\@the@snotez@mark{#2}}%
```

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```
220    \snotez@text{#1}{#3}%
221  }
222
223  % #1: offset
224  % #2: text
225  \newrobustcmd*\snotez@text[2]{%
226    \ifblank{#1}
227      {%
228        \snotez@marginpar{%
229          \snotez@format
230          \snotez@write@mark{\snotez@note@mark@format{\@the@snotez@mark}}%
231          \snotez@note@mark@sep#2}%
232      }
233      {%
234        \snotez@marginnote{%
235          \snotez@format
236          \snotez@write@mark{\snotez@note@mark@format{\@the@snotez@mark}}%
237          \snotez@note@mark@sep#2%
238        }[\snotez@if@nblskip{#1}]%
239      }%
240  }
241
242  \newcommand*\snotez@if@nblskip[1]{%
243    % if #1 starts with * gobble it and add \baselineskip:
244    \expandafter\ifx\@car#1\@nil*%
245      \expandafter\@firstoftwo
246    \else
247      \expandafter\@secondoftwo
248    \fi
249    {\@cdr#1\@nil\baselineskip}%
250    {#1}%
251  }
252
253  \let\snotez@marginpar\marginpar
254  \let\snotez@marginnote\marginnote
255
256  % -------------------------------------------------------------------------
257  % margin floats with captions, based on an idea in tufte-latex
258  \newsavebox\snotez@sidefloat@box
259  \newcommand*\snotez@sidefloat@format{\raggedright}
260
261  \newenvironment{snotez@sidefloat}[2]{%
262    \ifdef\caption@settype
263      {\caption@settype{#1}}
264      {\def\@captype{#1}}%
265    \begin{lrbox}{\snotez@sidefloat@box}%
266      \minipage{\marginparwidth}%
267      \snotez@sidefloat@format#2%
268  }{%
269      \endminipage
270    \end{lrbox}%
271    \marginpar{\unhbox\snotez@sidefloat@box}%
272  }
273
```

```
274 \newrobustcmd*\snotez@new@sidefloat[2]{%
275   \newenvironment{side#1}
276     {\snotez@sidefloat{#1}{#2}}
277     {\endsnotez@sidefloat}%
278 }
279
280 \newrobustcmd*\newsnotezfloat[2][]{\snotez@new@sidefloat{#2}{#1}}
281
282 \newsnotezfloat{figure}
283 \newsnotezfloat{table}
284
285 % -------------------------------------------------------------------------
286 % process preamble options:
287 \AtBeginDocument{
288   % if option `footnote=true' let \footnote to \sidenote:
289   \ifbool{snotez@footnote}
290     {
291       \let\footnote\sidenote
292       \let\footnotemark\sidenotemark
293       \let\footnotetext\sidenotetext
294       \ifdef\multfootnote{%
295         \let\multfootnote\multsidenote
296       }{}%
297     }{}
298   % if option `marginnote=true' use \marginnote for all notes:
299   \ifbool{snotez@marginnote}
300     {%
301       \let\snotez@marginpar\marginnote
302       \PackageInfo{snotez}
303         {All sidenotes are now using \string\marginnote^^J
304          instead of \string\marginpar}%
305     }%
306     {}
307 }
308
309 \AddToHook{begindocument/before}{%
310   \ifbool{snotez@perpage}{%
311     \RequirePackage{zref-perpage}%
312     \zmakeperpage{sidenote}%
313     \@ifpackageloaded{hyperref}{\def\theHsidenote{\theHsection.\thesidenote
  }}{}
314   }{}%
315 }
316
317
318 \endinput
319
320 % -------------------------------------------------------------------------
321 % HISTORY:
322 2012/11/15 v0.1  - first version
323 2013/04/03 v0.2  - documentation, removed erroneous `fnpct' adaption, other
324                    minor changes
325                  - added update of \@currentlabel when a custom mark is used
326 2013/04/21 v0.3  - try to avoid conflict with package loading order of
```

```
327                     `perpage' and `zref-abspage'
328             - allow `*' syntax for offsets that are multiples of
329               \baselineskip
330             - syntax change in optional arguments; option `dblarg'
331               provides previous syntax >> this is the default
332  2013/06/13 v0.3a - better separation of definition of \sidenote and
333               \sidenotetext commands and the internal commands
334  2013/11/21 v0.4  - robustify commands where appropriate
335             - use cnltx-base
336  2020/01/12 v0.5  - remove dependency on `cnltx-base'
337  2020/12/14 v0.5a - fix issue #1
338  2022/02/10 v0.6  - fix issue #2
339             - add option `perchapter'
340  2022/02/12 v0.7  - make `snotez' and `caption' compatible
```

References

[GKW10]   Kevin GODBY, Bil KLEB, and Bill WOOD.
          tufte-latex. version 3.5.2, 2010 (or newer).
          URL: https://www.ctan.org/pkg/tufte-latex/.

[Koh18]   Markus KOHM. marginnote. version 1.4b, Aug. 9, 2018 (or newer).
          URL: https://www.ctan.org/pkg/marginnote/.

[Nie22]   Clemens NIEDERBERGER.
          fnpct. version 1.1, Feb. 3, 2022 (or newer).
          URL: https://www.ctan.org/pkg/fnpct/.

[Obe20]   Heiko OBERDIEK. zref. version 2.32, July 3, 2020 (or newer).
          URL: https://www.ctan.org/pkg/zref/.

[Sch21]   Martin SCHRÖDER.
          ragged2e. version 3.1, Dec. 15, 2021 (or newer).
          URL: https://www.ctan.org/pkg/ms/ragged2e/.

[Ten18]   Bob TENNENT. libertine. Oct. 1, 2018 (or newer).
          URL: https://www.ctan.org/pkg/libertine/.

[TS20]   Andy THOMAS and Oliver SCHEBAUM, current maintainer:
          Andy THOMAS. sidenotes. version 1.00a, Mar. 24, 2020 (or newer).
          URL: https://www.ctan.org/pkg/sidenotes/.

[WM21]   Peter WILSON and Lars MADSEN.
          memoir. version 3.7p, June 16, 2021 (or newer).
          URL: https://www.ctan.org/pkg/memoir/.

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Package names are indicated sans serif, commands \brown and options yellow.