The parnotes package[1]

Chelsea Hughes[2]

August 15, 2016

---

[1] This is rev. 3, last modified 8/15/2016. [2] See `parnotes.sty` for copyright and contact details.

The `parnotes` package adds a new note type, `\parnote`. Parnotes are set as normal, running paragraphs and may be placed two ways:

- Automatically, at the end of the paragraph

- Manually, using the `\parnotes` command

This package was inspired by a question on the TeX Stack Exchange[3] that asked for notes which are placeable immediately after the paragraph in which they are mentioned, to avoid the interruption posed by footnotes.

[3] "Placing footnotes or endnotes at the end of the current paragraph" at http://tex.stackexchange.com/questions/34746

1   Usage

Load parnotes normally:

```
\usepackage[⟨options⟩]{parnotes}
```

The package options are described in section 2.1.

```
\parnote{⟨text⟩}
```

Place a parnote mark and assign it note ⟨*text*⟩. This mark is placeable within headings but will not appear in the table of contents.

```
\parnote[⟨mark⟩]{⟨text⟩}
```

As above, but use ⟨*mark*⟩ instead of the standard auto-incrementing parnote mark.

```
\begin{autopn}
\end{autopn}
```

Parnotes within an `autopn` environment are set automatically at the end of every paragraph. This behavior does not carry into nested environments. To set parnotes inside another environment, nest `autopn` within it or use `\parnotes`.

> `\parnotes`

Place all parnotes immediately. Use it after every paragraph for `autopn`-like behavior outside `autopn` (or where `autopn` doesn't apply).

> `\parnotereset`

Reset the parnote number. This maps to `\setcounter{parnotemark}{1}`.

> `\parnoteclear`

Reset the parnote number and also delete any pending parnotes.

> `\parnoteref{⟨label⟩}`

Refer to previous parnote mark ⟨*label*⟩. Use the standard LaTeX macro `\label` within a parnote to assign it a label. You may also use the standard LaTeX reference macros `\ref` and `\pageref`.

2   Configuration

Configure parnotes using package options, or manually using format macros.

2.1   Package options

The following options are provided:

`restart`	Reset the parnote number each time parnotes are placed.
`roman`	Use lowercase Roman numerals instead of Arabic numerals for parnote marks. Specify this if you mix parnotes with footnotes.
`breakwithin`	Place a line break after every parnote.
`indentafter`	Allow indentation in the paragraph following a parnote.
`narrower`	Give parnotes an increased margin, like block quotes.
`nomultiple`	Disable special behavior for multiple consecutive parnotes.

The following options change the font used within parnotes:

`notesrm`	Roman. Default.
`notesit`	Italic.
`notessf`	Sans-serif.

2.2   Format macros

Five internal macros control formatting for parnotes and parnote marks:

> `\parnotefmt{⟨text⟩}`
> `\theparnotemark`
> `\parnotevskip`
> `\parnoteintercmd`
> `\parnotecusmarkfmt{⟨mark⟩}`

Table 1: Default values for format macros.

Macro	Default value
\parnotefmt	\footnotesize\rmfamily\noindent #1
\theparnotemark	\arabic{parnotemark}
\parnotevskip	\medskipamount
\parnoteintercmd	\hspace{1em plus 0.3em minus 0.2em}
\parnotecusmarkfmt	^{#1}

Parnote text is set using \parnotefmt, and parnote marks using \parnotecusmarkfmt. When the optional argument of \parnote is *not* used, \theparnotemark is used to get the parnote mark for formatting. At least \parnotevskip vertical space appears before and after the parnote text. The macro \parnoteintercmd is executed between all consecutive parnotes.

parnotes rev. 1 had a different macro, \parnotemarkfmt, to control parnote marks. Unfortunately, the definition of this macro is incompatible with the new feature in rev. 2 allowing for manually-specified parnote marks, so it had to be split into two macros \parnotecusmarkfmt and \theparnotemark. This is a breaking change.

Table 1 shows these macros' default values. Note that the package options narrower, notesrm, notesit, and notessf modify \parnotefmt. The option roman modifies \theparnotemark. The option breakwithin changes \parnoteintercmd into a line break.

Redefine these macros using \renewcommand to fine-tune parnotes's formatting. For example, to set parnotes in a sans-serif font, load parnotes as follows:

```
1  \usepackage{parnotes}
2  \renewcommand{\parnotefmt}[1]{\footnotesize\sffamily\noindent #1}
```

This is the same as specifying the notessf package option.

To have parnotes set as *completely normal text*, but one size smaller than their surroundings (using \smaller from relsize):

```
1  \usepackage{relsize}
2  \usepackage[indentafter]{parnotes}
3  \renewcommand{\parnotefmt}[1]{\smaller #1}
4  \renewcommand{\parnotevskip}{0pt}
```

Or to set parnotes in a block set off by rules, with each parnote separated by a bullet:

```
1  \usepackage{parnotes}
2  \renewcommand{\parnotevskip}{0pt}
3  \renewcommand{\parnotefmt}[1]{\footnotesize\rmfamily
4      \noindent\rule{\linewidth}{1pt}\\
5      \noindent #1\par
6      \noindent\rule{\linewidth}{1pt}
7  }
8  \renewcommand{\parnoteintercmd}{\;$\bullet$\;}
```

Note that since \parnotefmt is redefined, adding the package option narrower to this example will not work; instead, \narrower must be placed manually within the new definition for \parnotefmt.

3   Changelog

Revision 3, released on Aug 15, 2016

- Bug fix: Use \protected@edef to expand the parnote counter (fixes incompatibility with BiocStyle)

Revision 2, released on Jul 26, 2016

- **Breaking change:** You can no longer redefine \parnotemarkfmt. Use \theparnotemark and \parnotecusmarkfmt instead. See section 2.2 for details.

- Bug fix: \parnotefmt no longer changes the font to \rmfamily by default.

- \parnote now behaves more like \footnote:

  - It respects \spacefactor
  - It no longer inserts \unskip

- The parnote mark counter may be reset using standard LaTeX macros, e.g., \setcounter{parnotemark}{5}

- \label now works within parnote text; \ref returns the parnote label, \pageref returns the page where the note *text* is set, and \parnoteref returns the parnote label formatted as a mark.

- Implemented the system for separators between multiple footnotes from footmisc and manyfoot and added package option nomultiple to disable.

- Internal: The package now uses a single counter (\c@parnotemark) for marks.

Revision 1, released on Jan 3, 2012

- Initial release.

4   Example

The following pages show a typeset example using parnotes, including interactions with lists, headings, and environments (here, multicolumn text from the multicol package).

```
1  \documentclass{article}
2  \usepackage{multicol} % for demonstration
3  \usepackage{lipsum} % for demonstration
4  \usepackage[narrower,notessf]{parnotes}
5
6  \begin{document}
```

```
 7  \begin{autopn}
 8  \begin{abstract}
 9  \begin{autopn}
10  Since this is in an environment, \texttt{autopn} must be nested within
11  it.\parnote{If \texttt{autopn} \emph{weren't} nested, I could've used
12  \texttt{\textbackslash parnotes} here to set parnotes manually.}
13  \end{autopn}
14  \end{abstract}
15  \tableofcontents
16  \section{On parnotes\parnote{Parnote marks will display in a heading,
17  but not within the table of contents. In \texttt{autopn}, parnotes will
18  display right after the heading.}}
19
20  This is a paragraph with a parnote\parnote{See? And it's long enough
21  to push the \emph{next} parnote nearer the end of the line.}. Actually,
22  it has two.\parnote{By default, parnotes are set in a continuous
23  paragraph with 1~em of space between each note.} This sentence ends
24  the paragraph, but it doesn't have a parnote.
25
26  This is a normal paragraph. Note that it isn't indented since the
27  parnotes make it obvious where the paragraph boundaries are. To change
28  this behavior, use the \texttt{indentafter} option.
29
30  This paragraph's indentation isn't changed.
31
32  Here's an environment with a nested \texttt{autopn}:
33  \begin{multicols}{2}
34  \begin{autopn}
35  Since parnotes are set within the normal paragraph flow, they interact
36  well with environments\parnote{Like this multicolumn environment from
37  \textsf{multicols} -- it will break columns and pages along with
38  the normal text within the environment.}.
39
40  This is just filler text without any parnotes.
41  \end{autopn}
42  \end{multicols}
43  Here's an environment without a nested \texttt{autopn}:
44  \begin{multicols}{2}
45  Without a nested \texttt{autopn}, any parnotes\parnote{Like this one.}
46  will be set after the end of the next paragraph \emph{outside} this
47  environment. If \texttt{\textbackslash parnotes} is called just before
48  the environment ends, then the parnotes will be set within that
49  environment. This is useful for, say, multi-paragraph quotes.
50
51  This environment always specifies that it ends a paragraph, so
52  parnotes will always set after it if needed. In some other
53  circumstances, \texttt{autopn} may not ``see'' that there's a
54  paragraph break after the environment, so
55  \texttt{\textbackslash parnotes} will have to be called after the
56  environment ends.
```

```
 57  \end{multicols}
 58
 59  Here's an extra-long parnote\parnote{\lipsum[1]}, to show that parnotes
 60  can break pages. In fact, \TeX\ should prefer to break the page within
 61  the parnotes rather than between this text and the start of the
 62  parnotes.
 63  \end{autopn}
 64
 65  In some circumstances, it's best to forego \texttt{autopn} altogether
 66  -- for example, if parnotes\parnote{Like this one.} should only be
 67  set after several paragraphs. Then just call
 68  \texttt{\textbackslash parnotes} wherever the parnotes should be set.
 69
 70  The same applies if parnotes are to be placed only at the end of a
 71  section, or at a ''scene break.''
 72  \parnotes
 73
 74  The only limiting factor is that \texttt{\textbackslash parnotes} must
 75  be executed after the parnotes it refers to. Here's a table with notes
 76  in an adjacent minipage:\\[0.5in]
 77  \hspace*{\fill}
 78  \begin{tabular}{|c|c|}
 79  \hline a & b\parnote{Note 1} \\ \hline c\parnote{Note 2} & d \\ \hline
 80  \end{tabular}
 81  \hspace{1in}
 82  \begin{minipage}{3in}
 83  % locally redefining format macros so the notes are on separate
 84  % lines, with no vertical space
 85  \renewcommand{\parnoteintercmd}{\\}
 86  \renewcommand{\parnotevskip}{0pt}
 87  \textbf{Notes:}
 88  \parnotes
 89  \end{minipage}\\[0.5in]
 90  Now for a list:
 91  \begin{enumerate}
 92  \begin{autopn}
 93  \item This item has no parnote.
 94  \item This one does\parnote{See? But notice that
 95  \texttt{\textbackslash narrower} doesn't work in lists, so
 96  this is set flush with the list's margin}.
 97  \item This one has a parnote\parnote{Would I ever lie to you?} in its
 98  first paragraph\dots
 99
100  But not in its second.
101  \end{autopn}
102  \end{enumerate}
103  New features in \textsf{parnotes} rev.~2: Multiple parnote marks%
104  \parnote{Parnote 1}\parnote{Parnote 2}.
105  Manually-specified marks\parnote[aaa]{Parnote with special mark%
106  \label{pn:special}} and references (see~\ref{pn:special},
```

```
107    p.~\pageref{pn:special}), allowing you to re-use parnote marks%
108    \parnotemark{\ref{pn:special}}.
109    \parnotes
110    \end{document}
```

Abstract

Since this is in an environment, `autopn` must be nested within it.[1]

[1] If autopn *weren't* nested, I could've used `\parnotes` here to set parnotes manually.

Contents

1   On parnotes[2]

[2] Parnote marks will display in a heading, but not within the table of contents. In `autopn`, parnotes will display right after the heading.

This is a paragraph with a parnote[3]. Actually, it has two.[4] This sentence ends the paragraph, but it doesn't have a parnote.

[3] See? And it's long enough to push the *next* parnote nearer the end of the line.   [4] By default, parnotes are set in a continuous paragraph with 1 em of space between each note.

This is a normal paragraph. Note that it isn't indented since the parnotes make it obvious where the paragraph boundaries are. To change this behavior, use the `indentafter` option.

This paragraph's indentation isn't changed.

Here's an environment with a nested `autopn`:

Since parnotes are set within the normal paragraph flow, they interact well with environments[5].

[5] Like this multicolumn environment from mul-ticols – it will break columns and pages along with the normal text within the environment.

This is just filler text without any parnotes.

Here's an environment without a nested `autopn`:

Without a nested `autopn`, any parnotes[6] will be set after the end of the next paragraph *outside* this environment. If `\parnotes` is called just before the environment ends, then the parnotes will be set within that environment. This is useful for, say, multi-paragraph quotes.

This environment always specifies that it ends a paragraph, so parnotes will always be set after it if needed. In some other circumstances, `autopn` may not "see" that there's a paragraph break after the environment, so `\parnotes` will have to be called after the environment ends.

[6] Like this one.

Here's an extra-long parnote[7], to show that parnotes can break pages. In fact, TₑX should prefer to break the page within the parnotes rather than between this text and the start of the parnotes.

[7] Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetuer id, vulputate

a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

In some circumstances, it's best to forego `autopn` altogether – for example, if parnotes[8] should only be set after several paragraphs. Then just call `\parnotes` wherever the parnotes should be set.

The same applies if parnotes are to be placed only at the end of a section, or at a "scene break."

[8] Like this one.

The only limiting factor is that `\parnotes` must be executed after the parnotes it refers to. Here's a table with notes in an adjacent minipage:

a	b[9]
c[10]	d

Notes:
[9] Note 1
[10] Note 2

Now for a list:

1. This item has no parnote.

2. This one does[11].

   [11] See? But notice that `\narrower` doesn't work in lists, so this is set flush with the list's margin

3. This one has a parnote[12] in its first paragraph…

   [12] Would I ever lie to you?

   But not in its second.

New features in parnotes rev. 2: Multiple parnote marks[13,14]. Manually-specified marks[aaa] and references (see aaa, p. 9), allowing you to re-use parnote marks[aaa].

[13] Parnote 1   [14] Parnote 2   [aaa] Parnote with special mark