

# The endnotes package

John Lavagnino<sup>‡</sup>

2020-01-02

Based on the FOOTNOTES section of LATEX.TEX (version 2.09 – release of 19 April 1986), with “footnote” changed to “endnote” and “fn” changed to “en” (where appropriate), with all the minipage stuff pulled out, and with some small changes for the different operation of endnotes. Subsequently updated to follow the code for L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> (2000/06/01).

Uses an extra external file, with .ent extension, to hold the text of the endnotes. This may be deleted after the run; a new version is generated each time—it doesn’t require information collected from the previous run.

This code does not obey \nofiles. Perhaps it should.

To turn all the footnotes in your documents into endnotes, say

```
\let\footnote=\endnote
```

in your preamble, and then add something like

```
\newpage
\begingroup
\parindent 0pt
\parskip 2ex
\def\enotesize{\normalsize}
\theendnotes
\endgroup
```

as the last thing in your document. (But \theendnotes all by itself will work.)

## 1 Change log

JL – Modified to include \addtoendnotes. JL, 10/22/89.

JK – Modification by Jörg Knappen 25. 2. 1991:

Introduced \notesname in the spirit of international L<sup>A</sup>T<sub>E</sub>X. \notesname is set per default to be {Notes}, but can easily be redefined, e. g. for german language \renewcommand{\notesname}{Anmerkungen}

---

\*Centre for Computing in the Humanities, King’s College London

†Now Maintained by the L<sup>A</sup>T<sub>E</sub>X3 project, <https://github.com/rf-latex/endnotes>

DW – Modification by Dominik Wujastyk, London, 19 September 1991:

Moved the line

```
\edef\@currentlabel{\csname p@endnote\endcsname\@theenmark}
```

out of the definition of `\@endnotetext` and into the definition of `\@doanote` so that `\label` and `\ref` commands work correctly in endnotes. Otherwise, the `\label` just pointed to the last section heading (or whatever) preceding the `\theendnotes` command.

JL – Revised documentation and macros. 24 Sept 1991.

– modified by --bg (B. Gaulle) 09/14/94 for:

- 1) replace `»` (why a 8bit char here?) by `^` as a default.
- 2) force `\catcode` of `>` to be 12 (implied by `\@doanote`).

by --bg again 03/22/95 for:

- 3) resetting appropriate `catcode` of `>` in case it were used as an active char before `\@endanote` (was pointed by Ch. Pallier).

JL – John Lavagnino, 12 January 2003: a number of small updates:

Incorporate change suggested by Frank Mittelbach to `\enoteheading`, so that first note has paragraph indentation. Frank's note:

the idea of this code is to fix the problem that without it the first endnote after the heading will not be indented thus looking somewhat strange. Problem however is that since there is no indentation `\leavemode\par` will make an absolutely empty paragraph so that no baseline calculation is done. therefore `\vskip-\baselineskip` will put the first endnote directly below the heading without the usual spacing. using `\mbox` instead will cure this defect.

Also incorporated Frank's suggestion to define `\makeenmark` and `\theenmark`, so that users can change more of the layout without using `\makeatletter`. `\makeenmark` defaults to `\@makeenmark`, so old code is still supported; and `\theenmark` is just syntactic sugar for `\@theenmark`, which is still the real value (and shouldn't be directly modified by user code).

Definition of `\ETC`. also dropped: surely nobody is still using T<sub>E</sub>X 2.992. (If you are, you need to upgrade it or endnotes longer than 1000 characters will be truncated.)

Update much of the code to track the current L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> code more closely. Clean up `\theendnotes`.

JL – John Lavagnino, 15 January 2003: fix my garbled version of Frank's updates.

JS – Modification by Jürgen Spitzmüller, 17. 8. 2019:

Do not break but just warn if `\theendnotes` is used, but no endnotes have been inserted yet.

If the last remaining `\endnote` is removed, clear the `*.ent` auxiliary file.

## 2 Endnote commands

- `\endnote{<note>}` : User command to insert an endnote.
- `\endnote[<num>]{<note>}` : User command to insert an endnote numbered `<num>`, where `<num>` is a number – 1, 2, etc. For example, if endnotes are numbered \*, \*\*, etc. within pages, then `\endnote[2]{...}` produces endnote ‘\*\*’. This command does not step the endnote counter.
- `\endnotemark[<num>]` : Command to produce just the endnote mark in the text, but no endnote. With no argument, it steps the endnote counter before generating the mark.
- `\endnotetext[<num>]{<text>}` : Command to produce the endnote but no mark. `\endnote` is equivalent to `\endnotemark\endnotetext`.
- `\addtoendnotes{<text>}` : Command to add text or commands to current endnotes file: for inserting headings, pagebreaks, and the like into endnotes sections. `<text>` a moving argument: `\protect` required for fragile commands.

## 3 Endnote user commands

Endnotes use the following parameters, similar to those relating to footnotes:

- `\notesize` : Size-changing command for endnotes.
- `\theendnote` : In usual `LATEX` style, produces the endnote number.
- `\theenmark` : Holds the current endnote’s mark—e.g., † or ‘1’ or ‘a’. (You don’t want to set this yourself, as it comes either from the autonumbering of notes or from the optional argument to `\endnote`. But you’ll need to use it if you define your own `\makeenmark`.)
- `\makeenmark` : A macro to generate the endnote marker from `\theenmark`. The default definition is `\hbox{ $\hat{\theenmark}$ }`.
- `\@makeentext{<note>}` : Must produce the actual endnote, using `\theenmark` as the mark of the endnote and `<note>` as the text. It is called when effectively inside a `\parbox`, with `\hsize = \columnwidth`. For example, it might be as simple as  `$\hat{\theenmark}$ ␣<note>`

## 4 Endnote pseudocode

```
\endnote{NOTE} ==
BEGIN
  \stepcounter{endnote}
  \@theenmark :=G eval (\theendnote)
  \@endnotemark
  \@endnotetext{NOTE}
END

\endnote[NUM]{NOTE} ==
BEGIN
  begingroup
    counter endnote :=L NUM
    \@theenmark :=G eval (\theendnote)
  endgroup
  \@endnotemark
  \@endnotetext{NOTE}
END

\@endnotetext{NOTE} ==
BEGIN
  write to \@enotes file: "\@doanenote{ENDNOTE MARK}"
  begingroup
    \next := NOTE
    set \newlinechar for \write to \space
    write to \@enotes file: \meaning\next
    (that is, "macro:->NOTE)
  endgroup
END

\addtoendnotes{TEXT} ==
BEGIN
  open endnotes file if not already open
  begingroup
    let \protect to \string
    set \newlinechar for \write to \space
    write TEXT to \@enotes file
  endgroup
END

\endnotemark ==
BEGIN \stepcounter{endnote}
  \@theenmark :=G eval(\theendnote)
```

```

        \@endnotemark
    END

\endnotemark[NUM] ==
    BEGIN
        begingroup
            endnote counter :=L NUM
            \@theenmark :=G eval(\theendnote)
        endgroup
        \@endnotemark
    END

\@endnotemark ==
    BEGIN
        \leavevmode
        IF hmode THEN \@x@sf := \the\spacefactor FI
        \makeenmark           % put number in main text
        IF hmode THEN \spacefactor := \@x@sf FI
    END

\endnotetext      ==
    BEGIN \@theenmark :=G eval (\theendnote)
        \@endnotetext
    END

\endnotetext[NUM] ==
    BEGIN begingroup counter endnote :=L NUM
        \@theenmark :=G eval (\theendnote)
    endgroup
        \@endnotetext
    END

```