

Plain T_EX's default footnote macro requires that you type the footnote marker yourself.*

The footnote macro used in the T_EXbook is similar.†

Some more complicated macros

If you have a lot of short footnotes, setting them line by line resulting in a stack on the left of the footnote area looks daft and wastes a lot of space. On pages 395–400 of the T_EXbook, Knuth suggests two methods for dealing with lots of short footnotes. The first method is setting footnotes in multiple columns. See the `twocolfootnote` macro on page two (Line 156 of the `.tex` file). The second method is to run all the footnotes together into a single paragraph with generous spacing between the notes. The `fnpara`¹ macro given on pg. three (Line 261) follows this method. Apart from setting footnotes in a running paragraph, `fnpara` also

- automatically numbers footnotes (you don't have to enter the footnote marker yourself)
- takes care of font size and leading
- uses full size numbers in the footnotes, highlighted in bold if you prefer.

`\footnumberfont` sets the font used in the numbers in the footnotes. `\footnotesize` sets the font used in the text of the footnotes.

`fnpara` is not very good if you have footnotes which are quite long. It will not break a long footnote over two pages for example. For standard setting of normal length footnotes I wrote the `fnote` macro. It combines the normal setting of the Plain footnote macro (each footnote is set as a paragraph by itself), with the automatic numbering and control over fonts and leading of `fnpara`. See pages five and six (Line 545, Line 631). The `twocolfootnote` macro also uses the same settings re fonts and leading as `fnote`.

* the `plain` macro also sets the footnote at the same type size and leading as the main text.

† but the footnotes are set at eight point type on nine point leading in a hang paragraph style, with a `\smallskip` between the notes. The font size and leading are set by the `\eightpoint` macro.

¹ written by Dominik Wujastyk, co-author of the EDMAC macros for typesetting critical editions.

twocolfootnote macro:

The entire set of footnotes could be set in two or more columns. For example, the ten footnotes we have been considering might appear as follows:¹ And some more.² And some more. And some more.³*N*,⁴ And some more. And some more.⁵*N*,⁶ And some more. And some more. And some more.⁷*N*,⁸*N*,⁹*N*,¹⁰

*

To get three column footnotes: change
`\hsize.45\hsize` to `\hsize.3\hsize`,¹¹
`\count\footins 500` to `\count\footins 333`,
`\multiply\dimen\footins` by 2 to
`\multiply\dimen\footins` by 3
and in `\pagecontents`,¹² `\rigidbalance\footins 2 7pt` to
`\rigidbalance\footins 3 7pt`. 7pt is the height of the
`\strutbox` in `\footnotesize`.

1 First footnote.
2 Second footnote. (Every once in a while a long footnote might occur, just to make things difficult.)
3 Third footnote.
4 Fourth footnote.
5 Fifth footnote. (This is incredibly boring, but it's just an example.)
6 Another.
7 And another.

8 Ho hum.
9 Umpteenth footnote.
10 Oodles of them.
11 `\hsize` has to be less than .5 or .333 to allow for space between the columns.
12 Thanks to user wipet on stackexchange.com for explaining how to use `\rigidbalance`. I was barking up the wrong tree trying to put `\rigidbalance` in `\output`.

The original unaltered `fnpara.tex`:

The entire set of footnotes could be combined into a single paragraph, with generous spacing between the individual items. For example, the ten footnotes we have been considering might appear as follows:¹ And some more.² And some more. And some more.³*N*,⁴ And some more. And some more.⁵*N*,⁶ And some more. And some more. And some more.⁷*N*,⁸*N*,⁹*N*,¹⁰

1 First footnote. **2** Second footnote. (Every once in a while a long footnote might occur, just to make things difficult.) **3** Third footnote. **4** Fourth footnote. **5** Fifth footnote. (This is incredibly boring, but it's just an example.) **6** Another. **7** And another. **8** Ho hum. **9** Umpteenth footnote. **10** Oodles of them.

fnpara.tex adjusted for XeTeX:

The entire set of footnotes could be combined into a single paragraph, with generous spacing between the individual items. For example, the ten footnotes we have been considering might appear as follows:¹ And some more.² And some more. And some more.³ N ,⁴ And some more. And some more.⁵ N ,⁶ And some more. And some more. And some more.⁷ N ,⁸ N ,⁹ N ,¹⁰

1. First *footnote*. 2. Second FOOTNOTE. (Every once in a while a long footnote might occur, just to make things difficult.) 3. Third footnote. 4. Fourth footnote. 5. Fifth footnote. (This is incredibly boring, but it's just an example.) 6. Another. 7. And another. 8. Ho hum. 9. Umpteenth footnote. 10. Oodles of them.

`fnote` macro:

The entire set of footnotes could be set normally i.e. not in a single paragraph or in two columns. For example, the ten footnotes we have been considering might appear as follows:¹ And some more.² And some more.³

*

If you want footnotes in `fnote` to be set in a hang paragraph style (like in the `TEXbook`), change

```
{\fontnumberfont\the\footno\penalty10000\hskip.5em}
```

to

```
\item{\fontnumberfont\the\footno  
  \penalty10000\hskip.5em}
```

1. First *footnote*.

2. Second FOOTNOTE. (Every once in a while a long footnote might occur, just to make things difficult.)

3. Third footnote.

`fnotesym` macro: `fnote` macro with symbols (*, †, ‡, §, ¶, ||, **, ††, ‡‡) as footnote references instead of numbers. This could be used in a book which has endnotes referred to by superscript numbers in the text, but also has a small number of footnotes. I copied the macro for the footnote symbols from [here](#).

The macro was originally written for Plain T_EX:

```
\def\fnsymbol#1{%  
  % #1 is between 1 and 9 inclusive  
  \ifcase#1\or  
    *\or\dag\or\ddag\or\S\or\P\or  
    $\Vert$\or**\or\dag\dag\or\ddag\ddag  
  \fi}
```

The Unicode conversion is in the `fnotesym` macro.

*

The entire set of footnotes could be set normally i.e. not in a single paragraph or in two columns. For example, the ten footnotes we have been considering might appear as follows: * And some more. † And some more. ‡

* First footnote.

† Second footnote. (Every once in a while a long footnote might occur, just to make things difficult.)

‡ Third footnote.

By default, the `fnpara`, `fnote` and `twocolfootnote` macros will number footnotes continuously throughout a document. If you want to have footnotes numbered per page you have to alter the output routine: put `\output{\global\footno=0\plainoutput}` at the beginning of the document.* I put this at the top of page two (Line 143) in this document because the `\footno` counter does not appear until then.

Sometimes per page numbering doesn't work properly: e.g. in one of my documents I got two footnotes numbered '1' on the same page. This is probably because \TeX was unclear where the page break would be when it was numbering the footnotes. Fix it by either explicitly breaking the page by putting `\eject` at the bottom of the previous page or by putting `\footno=1` or `\advance\footno by 1` before the second footnote.

If you want footnotes numbered by chapter, you can put `\footno=0` at the start of the chapter or in the chapter macro.

*

If you use `fnote` with Eplain's `\doublecolumns` macro, footnotes will be set in the left column of the page only. To get the footnotes set across the full measure put the `\hsize` of the document (e.g. `\hsize=99mm`) in `\vfootnote`.

*

Prefixing `\long` to `\def\vfootnote` allows long footnotes to contain paragraphs.†

*

Another way of generating the superscript footnote reference marks (in `fnpara`, `fnote` and `twocolfootnote`): define a font

```
\font\sups="EB Garamond 12 Regular:+sups,mapping=text" at 10pt
```

and replace the line

```
 $\^{\the\footno}\$@\sf\vfootnote}$ 
```

in the macros with

```
 $\{\sups\the\footno}\@sf\vfootnote}$ 
```

Instead of using math mode to set the superscripts, this method uses the OpenType `sups` tag.‡

* You will have to do this with `fnotesym`.

† Except in `fnpara`.

‡ The font you are using needs to have both the superscript glyphs and the OpenType tag for this method.

It's possible to add a little breathing space between the superscript and the preceding character:

```
$$\kern.05em^{\the\footno}$\@sf\vfootnote}
```

or

```
{\supers\kern.05em\the\footno}\@sf\vfootnote}
```

*

If you prefer to have superscript numerals in the footnotes in the three macros you could get them by changing

```
{\footnumberfont\the\footno\penalty10000\hskip.5em}
```

to

```
{\font\1="EB Garamond 12 Regular:+lnum" at 5pt*
```

```
\scriptfont0=\1
```

```
$$^{\the\footno}$\penalty10000\hskip.25em}
```

resizing the superscripts locally to go with the 8pt footnote font.

* Or `cmr5` or whichever font you are using.