

**footmisc** —  
a portmanteau package  
for customising footnotes in L<sup>A</sup>T<sub>E</sub>X\*

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## Support

Some support of this package is available *for unchanged copies of the package* via email to me at the address given in the footnote. Support will remain available at least as long as the address remains valid. I don't guarantee anything, but I will probably look at any bug reports you may submit, and may correct problems reported (either in my code or in yours...).

## Copyright statement

Program: `footmisc.dtx`

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## 1 User interface — package options

The `footmisc` package provides several different customisations of the way footnotes are represented in L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> documents (the sources of the code in this package are various, but all of it has been massaged by the author; where the code comes from elsewhere, there are attributions given below, somewhere or other).

The interface to the package's options is mostly rather simple — each one is presented as an option in the `\usepackage` command, and for most, nothing else needs to be done. For example, to use a useful and consistent set, the author invokes the package with the command `\usepackage[perpage,para,symbol*]{footmisc}`.

For a small number of options, there are additional parameters available; these are described in the subsections below.

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## 1.1 Option perpage

This option resets footnote numbering for each page of the document. It needs at least two passes to do this correctly (though it comes as close as possible on the first pass). You generally have to make two passes with L<sup>A</sup>T<sub>E</sub>X anyway, to get the cross-references right, so an additional pass for this purpose shouldn't cause any additional problem. The option includes code to report that '*Label(s) may have changed*', which will help the poor user to realise that (yet) another run is in order.

## 1.2 Option para

This option (derived from code by Dominik Wujastyk and Chris Rowley) causes footnotes to be typeset as a single paragraph at the bottom of the page on which they occur. In the case that there is only one footnote on the page, no effect will be observed. However, if there are several footnotes on the page, they will be run together in the page foot, each introduced by its footnote mark. The original demand for the option came from the needs of those preparing critical editions; such documents typically have large numbers of small footnotes, which look ridiculous if each is typeset in a paragraph of its own; in most other disciplines, such multiplicities of footnotes represent mere self-indulgence: the author of this package is disgracefully guilty of this.

## 1.3 Option side

This option (suggested by Frank Mittelbach) causes footnotes to be typeset using the `\marginpar` command: this has the advantage that the note appears close to its "call-up", but has all the disadvantages associated with the `\marginpar` command (which consumes 'float' slots, and doesn't always place itself correctly at the top of pages in two-sided documents). Since the measure in which the footnote is to be typeset is likely to be pretty narrow, users of the `side` option are recommended also to use the `ragged` option, to avoid ugly spacing and line breaks.

There is a further problem (apart from the occasional failure to place the marginal note on the correct side of the page) in two-sided documents: one would like 'raggedness' to appear differently in different margins (setting the left, rather than the right, side ragged in the left margin). (The author would welcome suggestions on means of addressing the problem.)

## 1.4 Option ragged and \footnotelayout

The package provides facilities for ragged right setting of footnotes (so long as the `para` option isn't in effect). The change is effected by use of the command `\footnotelayout`; the package inserts this command into the start of the argument of `\footnotetext` (in effect: `\footnote` works, roughly, by calling the guts of `\footnotetext` at its end).

If you want to use some special effect other than ragged right, feel free to change `\footnotelayout` yourself: some intriguing (and completely undesirable) results are no doubt available. The `ragged` option simply sets `\footnotelayout`

to `\raggedright`. (Hint: if you intend to use the `ragged2e` package, load it before `footmisc` — if `footmisc` finds `\RaggedRight` available, it uses it in place of `\raggedright`.)

## 1.5 Option `symbol`

This option simply establishes that footnotes are “labelled” by a symbol sequence. The command used is equivalent to that suggested in  $\text{\LaTeX}$  manuals such as Lamport’s *the job performed by the option is very simple, and doesn’t really need a package*).

Using symbols to ‘number’ your footnotes can be problematic: there is a limited number of symbols, and  $\text{\LaTeX}$  will report an error if your footnotes exceed that limit. To avoid such problems, consider the `symbol*` option, or the `\setfnsymbol` command (see the next two sections), or number your footnotes by the page (see section 1.1).

## 1.6 Option `symbol*`

This is the `symbol` option, but with protection against the tedium that arises because of the instability of the `perpage` option. When executing the `perpage` option, the package often allocates footnotes to the wrong pages, only to correct itself on a later run (having warned the user of the need for the later run with a ‘*Label(s) may have changed*’ message). In these circumstances the `symbol` option is prone to producing  $\text{\LaTeX}$  errors, which stop processing, and confound automatic generation procedures. In the same situation, the `symbol*` option produces information messages and a warning message at end document, and the user may scan the log for those messages *after* processing has stabilised. The option produces numbers (10 and higher) in place of symbols, when the footnote number was too large.

## 1.7 The `\setfnsymbol` and `\DefineFNSymbols` commands

These commands permit the definition and use of alternative (ordered) sets of symbols for numbering footnotes.  $\text{\LaTeX}$  of course comes with such a set ready-defined, but the choice of symbols isn’t universally loved.

You may define a set of symbols with the `\DefineFNSymbols` command.  $\text{\LaTeX}$ ’s default set would be defined by the command:

```
\DefineFNSymbols{lamport}{*\dagger\ddagger\S\P\|%\n}\dagger\dagger}{**}{\dagger\dagger}{\ddagger\ddagger}}
```

You may select a set of symbols by use of the `\setfnsymbol` command; so to (re)store use of the default set, you would type:

```
\setfnsymbol{lamport}
```

Of course, the `lamport` set *isn’t* defined this way, which is why the `symbol*` option to the package is defined; symbol numbering for a set defined by `\DefineFNSymbols` degrades gracefully to arabic numbering, in the same way as symbol numbering in `symbol*`.

This package defines a small selection of alternative sets of symbols, using `\DefineFNSymbol`:

```
bringhurst * † ‡ § || ¶
chicago  * † ‡ § || #
wiley     * ** † ‡ § ¶ ||
```

## 1.8 Option bottom

This option forces footnotes to the bottom of the page; this is only noticeably useful in case that `\raggedbottom` is in effect, when L<sup>A</sup>T<sub>E</sub>X would normally set the footnotes a mere `\skip\footins` distant from the bottom of the text.

There's a further infelicity in L<sup>A</sup>T<sub>E</sub>X's placing of footnotes of the bottom of pages: if a bottom float appears on a page, L<sup>A</sup>T<sub>E</sub>X places the footnote *above* it. The `bottom` option places the footnote at the foot of the page.

## 1.9 Option marginal

This option adjusts the position of footnote mark relative to the start of the line in which they appear (the the option is incompatible with option `para`, for obvious reasons).

When this option is in effect, the footnote is set `\footnotemargin` relative to the left margin of the page; the default setting for `\footnotemargin` is `-0.8em`, which means that the footnote mark will be set jutting `0.8em` into the margin. If `\footnotemargin` is a positive length, the footnote mark will be set with its right edge `\footnotemargin` from the margin. (In the absence of the option, `\footnotemargin` is set to `1.8em`; you may change that value with a `\setlength` command.)

## 1.10 Option flushmargin

This option is as option `marginal`, but sets the footnote marker flush with, but just inside the margin from, the text of the footnote.

## 1.11 Option hang

This option sets the footnote mark flush with the margin, and makes the body of the footnote hang at an indentation of `\footnotemargin` (if that is a positive distance), or the width of the marker (if `\footnotemargin ≤ 0`). The option code itself leaves `\footnotemargin` at its default value of `1.8em`.

## 1.12 Option norule

This option suppresses the 'normal' footnote rule, and advances `\skip\footins` a bit to compensate

## 1.13 Option splitrule

This option makes puts a full-width rule above the split-off part of a split footnote. (Remember that split footnotes don't happen if you're doing paragraph footnotes.)

The option provides three different `\footnoterule` commands:

```
\mpfootnoterule   for use in minipages
\pagefootnoterule for normal footnotes on regular pages
\splitfootnoterule for the tail of a split footnote
```

By default, `\mpfootnoterule` and `\pagefootnoterule` retain the original definition of `\footnoterule` (which may have been modified by a `norule` option), while `\splitfootnoterule` becomes a full-width rule.

### 1.14 The stable option

This option deals with the problem of placing footnotes in section titles (and so on). While there is (sometimes, just) justification for putting footnotes in titles, L<sup>A</sup>T<sub>E</sub>X's treatment of the content of titles militates against them. Of course, the title argument is ordinarily a moving one, and `\footnote` is a fragile command, but the real problem comes from the way the argument actually moves — which is to two places. The argument moves to the table of contents, where the footnote will (at least) look odd. But the argument also moves to the marks that make up page headers, etc., and *there* it creates havoc, since page headers are executed in page make-up, and page make-up *must not* create footnotes.

If you use the `stable` option, the footnote won't move to the table of contents or the page headers, but it will be typeset correctly within the title itself.

The situation with `\footnotemark` is less dire (it could in principle appear in page headers, for example); footnote marks appearing on pages other than where their text appears are none the less confusing, and the `stable` option treats `\footnotemark` in the same way that it treats `\footnote`.

### 1.15 The multiple option

This option deals with the case where the author needs to type things like

```
mumble\footnote{blah}\footnote{grumble}
```

Without special treatment, L<sup>A</sup>T<sub>E</sub>X would output something like

```
mumble1314
```

What the `multiple` option makes of the above is

```
mumble13,14
```

which is what most people would expect. The comma separator actually derives from the definition of `\multfootsep`, which may be changed by `\renewcommand` if the option is in effect.

The option also treats `\footnotemark` in the same way.

### 1.16 User interface — miscellaneous commands

The package also defines some miscellaneous footnote-related commands. The present group provides alternative means of producing footnote marks: `\footref` and `\mpfootnotemark`.

When you're in a minipage, `\footnote` numbers run according to the minipage's own footnote counter, and the marks are set in italic letters. However, the numbers used by `\footnotemark` make reference to the 'main' footnote counter, and are set in whatever is the current style for that: this behaviour often surprises, and there's no obvious way in standard L<sup>A</sup>T<sub>E</sub>X to "get around" it. The command

`\mpfootnotemark` gets around this problem in a minipage, by generating footnote marks in the same way as those used by `\footnote`.

In fact, making reference to footnotes in general can be problematic: it can be done by noting down the value of the footnote marker in a counter (or the like) and then using the value in a subsequent `\footnotemark` or `\mpfootnotemark`. This is a tedious way of going about things, and doesn't allow representation of all possible forms of footnote mark; `\footref` is a form of reference command that sets the reference as if it were a footnote. The label should be set *within* the argument of the footnote command that is being labelled:

```
... \footnote{Note text\label{fnlabel}}
...
... potato head\footref{fnlabel}
```

## 2 User interface — interactions with other packages

The `footmisc` package modifies several parts of the  $\text{\LaTeX}$  kernel; what gets modified depends on the options you select. This behaviour can cause problems with other packages, particularly those that also modify the kernel.

Known interactions are:

`setspace` The `setspace` package modifies the line spacing is calculated in footnotes.

`Footmisc` knows about this, and preserves the change. However, you *must* load `setspace` *before* `footmisc`.

`hyperref` The `hyperref` package has ambitions to make hyperlinks from footnote marks to the corresponding footnote body; naturally this causes grief to `footmisc`, and unfortunately no remedy is currently known. If you use `footmisc`, suppress `hyperref`'s hyper-footnotes, by loading it as:

```
\usepackage[hyperfootnotes=false,...]{hyperref}
```

Further work on the interaction between the two packages is proposed, but not yet scheduled.

`manyfoot` The `manyfoot` package permits several independent sequences of footnotes. Some preliminary work towards interworking with `footmisc` has been completed, but more remains to be done at the time of writing.