

# The `showlabels` package

Norman Gray  
norman@astro.gla.ac.uk

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This package helps you keep track of all the labels you define, by putting the name of new labels into the margin whenever the `\label` command is used.

You can do the same thing for other commands (see below). The only one for which this is *obviously* useful is the `\cite` command, but it is also reasonable to do it with, for example, the `\ref` or `\begin` commands.

Invoke this package with the command `\usepackage{showlabels}` in the preamble, and you may give the following options:

<code>outer</code>	[default] all notes are placed in the text's outer margin
<code>inner</code>	... inner margin
<code>left</code>	... left margin
<code>right</code>	... right margin
<code>marginal</code>	[default] put notes in the margin
<code>inline</code>	put notes inline, as much as possible, and ignore any of the margin-placement options above
<code>nolabel</code>	do not insert a marginal note for <code>\label</code> commands (see command <code>\showlabels</code> below)
<code>draft</code>	[default] does nothing, partner of...
<code>final</code>	turns off all the package's functionality

If you don't use the `twoside` option, then all pages are 'right-hand' pages, and the 'outer margin' is the right hand one.

The package will also work in the presence of the `twocolumn` option. In this case, the options `inner`, `outer`, `left` and `right` will be ignored, and the label will be placed in the nearer margin.

Finally, we have the options `final` and `draft`. The option `final` turns off all the functionality of this package. This is included so that if that option is given globally in the `\documentclass` declaration then this package does respect it. The `draft` option does nothing, and therefore simply continues the default behaviour of this package; it is here to partner the `final` option.

`\showlabels` If you wish the package to do its magic with the command `\foo` (most typically `\cite`), then give the command `\showlabels{foo}`. The default behaviour of the package is to give the command `\showlabels{label}` internally; if you don't want this to happen – perhaps because you *only* want `\cite` com-

mands highlighted – then give the option `nolabel` to the `\usepackage` command: `\usepackage[nolabel]{showlabels}`.

By default, the package displays labels in the margin of the document, but as an alternative, labels can be kept inline as much as possible; this is much more legible when there are multiple labels on a single line. To select this, give the option `inline`, and to select the default behaviour, use `marginal`.

`\showlabelsinline`

It is sometimes convenient (for example when a document encounters a situation which this package mishandles) to force inline labels temporarily, within a block or environment. Use the `\showlabelsinline` macro to do that.

## Formatting

If you want to change the font the labels appear in, redefine the `\showlabelfont` command, which by default expands to `\small\ttfamily`. For example, to have labels in a slanted font, and green, you could include the definition

```
\renewcommand{\showlabelfont}{\small\slshape\color{green}}
```

in the preamble of your document, as long as you have loaded the `{color}` package.

Alternatively, the `\showlabels` command has an optional argument containing formatting commands, which allows you to format `\cite` labels, for example, differently from `\label`. Thus:

```
\showlabels[\color{green}]{cite}
```

If, finally, you want complete control over the labels, you can instead override `\showlabelsetlabel`, which initially expands to just `\showlabelfont #1`. You can use this mechanism to get a variety of effects. For example, if you say

```
\usepackage{showlabels,rotating}
\renewcommand{\showlabelsetlabel}[1]
{\begin{turn}{60}\showlabelfont #1\end{turn}}
```

then you end up with your labels at a jaunty angle in the margin. Finally, you can change the definition of the `\showlabelrefline` rule from its default, in order to change how the inline rule (see below) is displayed. For example, defining this to be `\color{red}\hrule width 0.1em height 1.5ex depth 0pt` produces a fat-tish red line, and defining it to be `\hrule width 0pt height 1.5ex depth 0pt` suppresses the line but still positions the text between the lines.

## Compatibility with other packages, and other problems

The `{showlabels}` package works by redefining the `\label` command, along with a few internal  $\LaTeX$  commands. All the other commands it defines are ‘hidden’ by prefixing them with ‘`SL@`’, with the exception of the user commands `\showlabelfont` and `\showlabelsetlabel`. Each of the three redefined commands carefully includes its previous definition. The `{showlabels}` package should therefore come *last* of the packages you include using `\usepackage`.

In version 1.1, the package was modified to conform to the slightly different mechanism that `amsmath` uses to produce equation numbers. Do note that the `\usepackage{showlabels}` command *must* appear after the `\usepackage{amsmath}` if it is to detect that you are using the `{amsmath}` package<sup>1</sup>.

In version 1.3e, the package became compatible with the `{hyperref}` package in particular, and in general with other packages which themselves modify the `\label` command. This will work, however, only if the `{showlabels}` package is loaded after other packages which do this. Notwithstanding Sebastian Rahtz's excellent general advice on this, `{showlabels}` should be loaded after `{hyperref}`.

In version 1.7, the package became compatible with the equation-numbering mechanism of the `{IEEEtrantools}` package. As with `{amsmath}`, this involves a certain amount of special-casing.

For reasonably obvious reasons, this package will not work at all well with the `{multicol}` package, and for possibly less obvious reasons, it won't work with the `leqno` option either (at some point it should be modified to at least recognise and warn of the conflict in either case, though it's not obvious to me how to do that). The package *should* now work with `{wrapfig}`, though I'm not sure that I've exhausted that package's various clevernesses, and there might be some spacing and layout bugs which manifest themselves in that context. Please report them; in the mean time, using option `inline` should act as a workaround for any that appear.

When labels appear in the margins, they sometimes appear on the 'wrong' side in `twoside` mode. This is a fairly inevitable side-effect of the way that `TEX` builds pages, and a specific symptom of the general problem described in <http://www.tex.ac.uk/cgi-bin/texfaq2html?label=oddpage>. As that answer suggests, there are bear-traps involved in the standard solutions. Now, `showlabels` is (a) permanently teetering on the edge of clashing with everything else that messes around with labels, and (b) a draft-only package rather than anything that would appear in a final document. (a) means that I'm rather nervous about putting too much cleverness in there, and incidentally shy of putting any dependencies on other packages; (b) means that I feel it doesn't really matter enough to be worth removing robustness. So I'm afraid I don't plan to change this, and I simply put up with the occasional slip. Again the `inline` option is a possible workaround.

The package might still work with `LATEX 2.09`, but that's neither supported, nor even still tested.

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The canonical home page of the package is <http://purl.org/nxg/dist/showlabels>, and it is on CTAN at <https://www.ctan.org/pkg/showlabels>. The source is in a repository at Bitbucket: <https://bitbucket.org/nxg/showlabels/>.

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<sup>1</sup>Note that `AMS-LATEX` and the `amstex` package have been declared 'obsolete' in favour of the `amsmath` package. This package now claims conformance with the `amsmath` package alone, though it will probably work with older versions in fact.

## Other packages

The `{showlabels}` package has a large overlap in functionality with David Carlisle's `{showkeys}`, although the latter will only handle `\label` and `\cite` keys. If `{showlabels}` fails in some particular situation, you might want to try using `{showkeys}`, but please do mention the problem, either by email to me, or via the Bitbucket issues list.

## History and Credits

I've received bug reports, fixes, or implementable suggestions from many people, including Andreas Balsler, bartgol (on Stackexchange), Francesco Biccari, Francis M. C. Ching, Sven de Vries, A L Dukeman, Michael Friendly, Guillermo Garza, Tino Görtemöller, Lester L. Helms, Boris Kheyfets, Hagen Kleinert, David R. Leal Valmana, Olivier Michel, Enno Nagel, Sungmo Park, Ignacy Sawicki, Andrei Shelankov, Patrick Sibille, 'Stirling' (on Stackexchange), Mariano Suárez-Alvarez, Jiří Vesely, Elmar Walhorn, Alex Watson, Ben William Carabelli, Roland Winkler. Many thanks to all. If I've missed your name out of this list (or indeed if I've alphabetised you incorrectly), please accept my apologies, and do let me know.

The package was originally released by me on 1991 September 21, under the name `labels.sty`. On 1992 January 29, Darrel Hankerson <hank@ducvax.auburn.edu>, made the update to NFSS, and changed the name to 'showlabel.sty'.