

# notes2bib — Integrating notes into the bibliography\*

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Released 2008/09/08

## Abstract

The notes2bib package defines a new type of note, `\bibnote`, which will always be added to the bibliography. The package allows footnotes and endnotes to be moved into the bibliography in the same way. The package can be used with natbib and biblatex as well as plain L<sup>A</sup>T<sub>E</sub>X citations. Both sorted and unsorted bibliography styles are supported.

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## 1 Background

In most subject areas, bibliographic citations and notes are separate entities. However, in some parts of the physical sciences (chemistry and physics) it is usual for references to the literature and notes to be given together in a “References and Notes” section. By default, this requires that B<sub>B</sub>T<sub>E</sub>X users create a notes database for each document that they write.

The endnotes package allows the user to create endnotes rather than footnotes. However, this does not place the notes in the bibliography. The A<sub>P</sub>S have developed the REV<sub>T</sub>E<sub>X</sub> document class, which allows footnotes and endnotes to be added to the bibliography. Notes can only be placed at the end of the bibliography using this system. Furthermore, the code to achieve this effect is not available as a package separate from REV<sub>T</sub>E<sub>X</sub>.

The aim of the notes2bib package is to make integration of notes into the bibliography easy. Notes can be written as normal in the L<sup>A</sup>T<sub>E</sub>X source, and are

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\*This file describes version v1.5, last revised 2008/09/08.

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automatically moved to the bibliography. The package is compatible with sorted and unsorted bibliography styles. The package has been designed for use with numerical citations, although it will work with other systems.

## 2 Basic use

`\bibnote` In the most basic form, the package can be used simply by loading it in the preamble as normal. This adds a new type of note to the existing `\footnote` type: `\bibnote{⟨text⟩}`. This can be used in exactly the same way as a footnote, taking one mandatory argument `⟨text⟩`. The `⟨text⟩` will be made available as to the bibliography as a note (henceforth referred to as a bibnote).

A very simple example of a bibliography note [1]. A very simple example of a bibliography note `\bibnote{Note for the first example}`.

By default, each bibnote is given an automatically-generated label. However, `\bibnote` accepts an optional argument `⟨label⟩`, which can be used to over-ride this. This is particularly useful when a note will be referenced several times (The use of the `\citenote` command is covered in Section 2.3).

An example of a named note [2]. The text can then continue and reference the note again later [2]. An example of a named note `\bibnote[labelled-note]{Note for the second example}`. The text can then continue and reference the note again later `\citenote[labelled-note]`.

`\bibnotemark` In common with `\footnote`, the basic `\bibnote` macro has companion macros `\bibnotemark` and `\bibnotetext`. The text provided for each not is not “fragile,” and so it should not be necessary to use `\bibnotemark` directly. It is needed when replacing footnotes by bibnotes. Notice that there *are* places where bibnotes will be problematic, for example in section headings which also appear in the Table of Contents. In these contexts, use `\citenote` to reference the note, or use an optional argument to the `\section`, *etc*.

It is hard to write a good example for this [3]! The text continues here. It is hard to write a good example for this `\bibnotemark!` The text continues here `\bibnotetext{Note for the third example}`.

### 2.1 Package control

`\niibsetup` The `notes2bib` package can be controlled using package options, and also dynamically using the `\niibsetup` macro. In both cases the same list of keyval options are recognised, in a similar manner to the `graphicx` or `hyperref` packages. Several of the package options are aimed at controlling the package internally, but by providing a single macro to control this, use is made easier.<sup>1</sup>

`footnote` Some options control the general behaviour of `notes2bib` in the body of the `LATEX` source. The `footnote` and `endnotes` options control whether `\footnote` and `\endnote` macros are converted into bibnotes. Both are Boolean options, and are **false** by default. The citation command used by `notes2bib` to insert bibnotes. It should be the name of a `LATEX` command (a “c<sub>s</sub>name”), and

<sup>1</sup>Users upgrading from earlier versions of `notes2bib` will note that the large number of control macros have all been removed from v1.3.

is set to **cite** on loading `notes2bib`; this means that `\cite` will be used as the citation command.

<code>field</code> <code>name</code> <code>record</code>  <code>prefix</code>   <code>sort</code> <code>head</code> <code>tail</code> <code>keyhead</code> <code>keynone</code> <code>keytail</code>  <code>presorthead</code> <code>presortnone</code> <code>presorttail</code>  <code>log</code> <code>debug</code>  <code>etex</code>	<p>A number of options control the data added to the BibTeX database. The <code>field</code> and <code>record</code> options control the type of BibTeX entry created by <code>notes2bib</code>. On loading, <code>record</code> is set to <b>Misc</b> and <code>field</code> is set as <b>note</b>. Depending on the BibTeX style in use, better choices may exist for these settings. The <code>name</code> option is used to automatically generate citation names. The option starts with the value <b>Bibnote</b>, which may need to change for author-year styles in particular. The name of the database itself is controlled by the <code>prefix</code> option. This contains the “marker” used by <code>notes2bib</code> to attach to the job name when creating the storage database. The default is <b>niib-</b>.</p> <p>Bibnotes can be created so that they will be sorted before or after normal citations. A list of values are recognised: <b>none</b> (no control of sorting), <b>head</b> (notes appear before real citations) and <b>tail</b> (notes appear after real citations). The shortcut options <code>head</code> and <code>tail</code> are also available. A number of mechanisms are used to ensure correct sorting of bibnotes. For normal BibTeX users, the options <code>keyhead</code>, <code>keynone</code> and <code>keytail</code> are used to control sorting. These values are added to the start of the citation name in the <code>key</code> field, which controls sorting. The default values are <b>aaa</b>, nothing and <b>zzz</b>, respectively. For biblatex users, control is made using the <code>presort</code> system made available there. The <code>notes2bib</code> options <code>presorthead</code>, <code>presortnone</code> and <code>presorttail</code> set up the appropriate values; default values are <b>ml</b>, <b>mm</b> and <b>ml</b>, respectively.</p> <p>The amount of detail to add to the log; expects a value from the list <code>debug</code> (very detailed information), <code>verbose</code> (the same as <code>debug</code>), <b>normal</b>, <code>errors</code> (errors only), <code>none</code> (what it says). As a shortcut, the <code>debug</code> option is provided as an alias to <code>log=debug</code>. The package has a single load-time only option, <code>etex</code>. This is a Boolean switch, and determines whether <math>\epsilon</math>-TeX extensions are used if available. This is <b>true</b> by default; the intension here is for testing when sending to publishers, <i>etc.</i>, where <math>\epsilon</math>-TeX may be an issue.</p>
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## 2.2 Output of notes

Bibnotes are only printed when a bibliography is created. This means that at the very least a `\bibliographystyle` command must appear in the source.<sup>2</sup> Under most circumstances, the user will be citing literature, and so will also include a `\bibliography` command in their source. Bibliography notes are automatically added to the citations to be printed.

`\printbibnotes` If bibnotes are being used without any other citations, then the user cannot place `\bibliography` in the source.<sup>3</sup> The package therefore provides the macro `\printbibnotes`, which will output only the notes. If the `endnotes` package has been loaded, the `\theendnotes` macro is redefined to achieve the same effect.

## 2.3 Cross-referencing notes

`\citenote` As explained above, each note is automatically assigned a label, or the user can provide one as an optional argument to the note. In either case, notes may then

<sup>2</sup>For biblatex users, the package must be loaded!

<sup>3</sup> $\LaTeX$  will complain if the user puts `\bibliography{}`.

be cross-referenced. Notes are available to be cited directly using the `\cite` command. However, this can cause problems when using the `sort=tail` option. The `\citenote` command is therefore provided. This is aware of the options, and will act correctly in all circumstances.

Cross-references to the note labelled earlier using `[2]` and using `[2]`.

Cross-references to the note labelled earlier using `\cite{labelled-note}` and using `\citenote{labelled-note}`.

## 2.4 Interaction with other packages

`notes2bib` is designed to work well with as many other packages as possible. It has been tested with `cite`, `natbib`, `hyperref` and `mciteplus` with no problems. The `notes2bib` package is compatible with the current release of `biblatex` (v0.7); older versions of `biblatex` may or may not work.<sup>4</sup>

## 3 Special effects

`\flushnotestack` When using the `sort=tail` option, citations are added to a stack as they are made. This stack is then flushed to the `.aux` file at the end of the document. If references are given by chapter (or other unit), this may not give the desired effect. The `\flushnotestack` macro will cause all saved citations to be written at that point, and will reset the stack for continued use. This can therefore be used to control when citation occurs.<sup>5</sup>

`\thebibnote` If a sorted bibliography style is in use, and more than nine notes are created, the sort order will be incorrect. This is because by default `notes2bib` does not pad the automatically-created labels with zeros. To get the correct sort order, `\thebibnote` should be redefined.

```
\makeatletter
\renewcommand*{\thebibnote}{%
  \niib@name%
  \ifnum\value{bibnote} < 9 0\fi%
  \the\value{bibnote}}
\makeatother
```

## 4 Package requirements

The package has only one requirement, `xkeyval` version 2.5 or later.  $\epsilon$ -TeX is used if available, but is not a requirement.

<sup>4</sup>As `biblatex` is experimental and is not currently added to TeX distributions, users have little excuse for not using the latest release.

<sup>5</sup>This macro was called `\flushcitestack` prior to v1.3.

## 5 Known issues

From v1.1, the method for writing notes to the BibTeX database has been modified. This means that bibnotes cannot contain verbatim text.<sup>6</sup> This is the same as for normal footnotes, and so the usual work-arounds are applicable.

The next note contains some awkward text [4].      The next note contains some awkward text  
`\bibnote{Some \texttt{\textbackslash verb}-like output}.`

The package relies on BibTeX being able to open and process the temporary database containing the note text. The name of this file contains `\jobname`, the name of the main L<sup>A</sup>T<sub>E</sub>X file being processed. This must consist only of characters that BibTeX can handle. In particular, spaces in the file name will lead to problems.

## 6 Notes

- [1] Note for the first example.
- [2] Note for the second example.
- [3] Note for the third example.
- [4] Some `\verb`-like output.

## 7 Change History

v1.0	General: Initial public release . . . . . 1	v1.3	General: Added xkeyval option interface . . . . . 1
v1.1	General: <code>\Percent</code> macro removed . . . . . 1		All options now work anywhere in input . . . . . 1
	Documentation improvements . . . 1		Fixed serious errors with <code>head</code> and <code>tail</code> implementation . . . . 1
	Improvements to documentation and <code>dtx</code> file . . . . . 1	v1.4	General: $\epsilon$ -T <sub>E</sub> X made optional (again), with control option to turn off use even if available . . . 1
	License changed from GPL to LPPL . . . . . 1		
	Several code sections re-factored . 1	v1.5	General: Bundle now includes experimental L <sup>A</sup> T <sub>E</sub> X <sub>3</sub> support . . . . . 1
v1.2	General: Altered implementation of <code>head</code> and <code>tail</code> options to allow moving of superscript citations . 1		

## 8 Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.

<sup>6</sup>Actually, they can, but the spacing will go wrong. L<sup>A</sup>T<sub>E</sub>X will only complain if a note ends with verbatim text. However, verbatim text is not supported in bibnotes: don't do it!

<b>B</b>		debug .....	3
\bibnote .....	2	endnotes .....	2
\bibnotemark .....	2	etex .....	3
\bibnotetext .....	2	field .....	2
<b>C</b>		footnote .....	2
cite (option) .....	2	head .....	3
\citenote .....	3	keyhead .....	3
<b>D</b>		keynone .....	3
debug (option) .....	3	keytail .....	3
<b>E</b>		log .....	3
endnotes (option) .....	2	name .....	2
etex (option) .....	3	prefix .....	3
<b>F</b>		presorthead .....	3
field (option) .....	2	presortnone .....	3
\flushnotestack .....	4	presorttail .....	3
footnote (option) .....	2	record .....	2
<b>H</b>		sort .....	3
head (option) .....	3	tail .....	3
<b>K</b>		<b>P</b>	
keyhead (option) .....	3	prefix (option) .....	3
keynone (option) .....	3	presorthead (option) .....	3
keytail (option) .....	3	presortnone (option) .....	3
<b>L</b>		presorttail (option) .....	3
log (option) .....	3	\printbibnotes .....	3
<b>N</b>		<b>R</b>	
name (option) .....	2	record (option) .....	2
\niibsetup .....	2	<b>S</b>	
<b>O</b>		sort (option) .....	3
options:		<b>T</b>	
cite .....	2	tail (option) .....	3
		\thebibnote .....	4