notes2bib — Integrating notes into the bibliography∗

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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 \LaTeX 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 \LaTeX 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 APS have developed the REV\LaTeX 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\LaTeX.

The aim of the notes2bib package is to make integration of notes into the bibliography easy. Notes can be written as normal in the \LaTeX source, and are

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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}.

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.¹

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 “csname”), and

¹Users 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 \texttt{cite} on loading \texttt{notes2bib}; this means that \texttt{\cite} will be used as the citation command.

A number of options control the data added to the \LaTeX{} database. The field \texttt{name} and record options control the type of \LaTeX{} entry created by \texttt{notes2bib}. On loading, \texttt{record} is set to \texttt{Misc} and \texttt{field} is set as \texttt{note}. Depending on the \LaTeX{} style in use, better choices may exist for these settings. The name option is used to automatically generate citation names. The option starts with the value \texttt{Bibnote}, which may need to change for author–year styles in particular. For separating notes from other citations when using \texttt{biblatex}, the \texttt{keyword} option is used for the name of the keyword used to control this. The name of the database itself is controlled by the \texttt{prefix} option. This contains the “marker” used by \texttt{notes2bib} to attach to the job name when creating the storage database. The default is \texttt{niib-}.

Bibnotes can be created so that they will be sorted before or after normal citations. A list of values are recognised: \texttt{none} (no control of sorting), \texttt{head} (notes appear before real citations) and \texttt{tail} (notes appear after real citations).

The shortcut options \texttt{head} and \texttt{tail} are also available. A number of mechanisms are used to ensure correct sorting of bibnotes. For normal \LaTeX{} users, the options \texttt{keyhead}, \texttt{keynone} and \texttt{keytail} are used to control sorting. These values are added to the start of the citation name in the \texttt{key} field, which controls sorting. The default values are \texttt{aaa}, nothing and \texttt{zzz}, respectively. For \texttt{biblatex} users, control is made using the \texttt{presort} system made available there. The \texttt{notes2bib} options \texttt{presorthead}, \texttt{presortnone} and \texttt{presorttail} set up the appropriate values; default values are \texttt{ml}, \texttt{mm} and \texttt{ml}, respectively.

When using the package with \texttt{natbib}, it may be necessary to avoid writing the \texttt{key} field to the temporary database. This is seen with the style \texttt{unsrtnat}, for example. The Boolean option \texttt{writekey} is available to turn off writing the \texttt{key} field under these circumstances.

The amount of detail to add to the log; expects a value from the list \texttt{debug} (very detailed information), \texttt{verbose} (the same as \texttt{debug}), \texttt{normal}, \texttt{errors} (errors only), \texttt{none} (what it says). As a shortcut, the \texttt{debug} option is provided as an alias to \texttt{log=debug}. The package has a single load-time only option, \texttt{etex}. This is a Boolean switch, and determines whether \LaTeX{} extensions are used if available. This is \texttt{true} by default; the intention here is for testing when sending to publishers, etc., where \LaTeX{} may be an issue.

### 2.2 Output of notes

Bibnotes are only printed when a bibliography is created. This means that at the very least a \texttt{\bibliographystyle} command must appear in the source.\footnote{For \texttt{biblatex} users, the package must be loaded!} Under most circumstances, the user will be citing literature, and so will also include a \texttt{\bibliography} command in their source. Bibliography notes are automatically added to the citations to be printed.

If bibnotes are being used without any other citations, then the user cannot place \texttt{\bibliography} in the source.\footnote{\LaTeX{} will complain if the user puts \texttt{\bibliography{}}.} The package therefore provides the macro \texttt{\printbibnotes}, which will output only the notes. If the \texttt{endnotes} package has been loaded, the \texttt{\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 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].

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.

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.

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

Using the package with natbib may require some work, for example when using the unsrtnat style. This requires a couple of setting changes to get the correct labelling.

\niibsetup{writekey=false,name={}}

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4As biblatex is experimental and is not currently added to \TeX distributions, users have little excuse for not using the latest release.

5This macro was called \flushcitestack prior to v1.3.

6This is due to the method used by natbib when creating labels.
Notes can be separated from other citations easily using biblatex. Using the keyword option, a key phrase can be used to mark notes. The optional argument to the \printbibliography can then be used to separate notes and other citations based on the keyword used. The following example also places note citations in the margin, and makes a switch available to control the appearance of notes. Note that the standard keyword is bibnote.

\documentclass{article}
\begin{filecontents}{demo.bib}
@article{Test,  
title = {A test article},  
author = {A. N. Other},  
year = {2008},  
pages = {1-10}
}
\end{filecontents}
\usepackage{notes2bib,biblatex}
\defbibheading{notes}{section*{Notes}}
\bibliography{demo}
\newif\ifprintbibnotes\printbibnotesfalse
\niibsetup{cite=mycite}
\ifprintbibnotes
\newcommand*{\mycite}[1]{\marginpar{\cite{#1}}}
\else
\newcommand*{\mycite}[1]{}
\fi
\begin{document}
Some text\bibnote{A first note} and some more\bibnote{A second note}. A real citation \cite{Test}.
\printbibliography[notkeyword=bibnote]
\ifprintbibnotes
\printbibliography[heading=notes,keyword=bibnote]
\fi
\end{document}

4 Package requirements

The package has only one requirement, \texttt{xkeyval} version 2.5 or later. \LaTeX{} is used if available, but is not a requirement.

5 Known issues

From v1.1, the method for writing notes to the \msft\LaTeX{} database has been modified. This means that bibnotes cannot contain verbatim text.\footnote{Actually, they can, but the spacing will go wrong. \LaTeX{} will only complain if a note ends with verbatim text. However, verbatim text is not supported in bibnotes: don’t do it!} This is the same as for normal footnotes, and so the usual work-arounds are applicable.

\begin{itemize}
  \item The next note contains some awkward text [4].
  \item The next note contains some awkward text
\end{itemize}
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 \LaTeX 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.

7 Change History

v1.0
General: Initial public release . . . 1

v1.1
General: \Percent macro removed . . . 1
Documentation improvements . . . 1
Improvements to documentation and dtx file . . . 1
License changed from GPL to LPPL . . . 1
Several code sections re-factored . . 1

v1.2
General: Altered implementation of head and tail options to allow moving of superscript citations . . 1

v1.3
General: Added \xkeyval option inter-

v1.4
General: \TeX made optional (again), with control option to turn off use even if available . . 1

v1.5
General: Bundle now includes experimental \LaTeX3 support . . . 1

v1.6
General: Advice extended on various issues . . . . . . . . . 1
Fixed issue with \nofiles . . . 1
New option keyword . . . . . 3

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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.

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