Reference sheet for natbib usage

(Describing version 8.1 from 2007/10/30)

For a more detailed description of the natbib package, LATEX the source file natbib.dtx.

Overview

The natbib package is a reimplementation of the LATEX \cite command, to work with both author—year and numerical citations. It is compatible with the standard bibliographic style files, such as plain.bst, as well as with those for harvard, apalike, chicago, astron, authordate, and of course natbib.

Loading

Load with \usepackage[options] {natbib}. See list of options at the end.

Replacement bibliography styles

I provide three new .bst files to replace the standard LATEX numerical ones:

```
plainnat.bst abbrvnat.bst unsrtnat.bst
```

Basic commands

The natbib package has two basic citation commands, \citet and \citep for textual and parenthetical citations, respectively. There also exist the starred versions \citet* and \citep* that print the full author list, and not just the abbreviated one. All of these may take one or two optional arguments to add some text before and after the citation.

Multiple citations

Multiple citations may be made by including more than one citation key in the \cite command argument.

```
\citet{jon90,jam91} ⇒ Jones et al. (1990); James et al. (1991)
\citep{jon90,jam91} ⇒ (Jones et al., 1990; James et al. 1991)
\citep{jon90,jon91} ⇒ (Jones et al., 1990, 1991)
\citep{jon90a,jon90b} ⇒ (Jones et al., 1990a,b)
```

Numerical mode

These examples are for author-year citation mode. In numerical mode, the results are different.

```
\citet{jon90}
                                          Jones et al. [21]
                                          Jones et al. [21, chap. 2]
\citet[chap.~2]{jon90}
\citep{jon90}
                                          [21]
                                      \Rightarrow
\citep[chap.~2]{jon90}
                                          [21, chap. 2]
                                     \Rightarrow
\citep[see][]{jon90}
                                     \Rightarrow
                                          [see 21]
\text{citep[see][chap.~2]{jon90}} \Rightarrow [see 21, chap. 2]
\citep{jon90a,jon90b}
                                      \Rightarrow [21, 32]
```

Suppressed parentheses

As an alternative form of citation, \citealt is the same as \citet but without parentheses. Similarly, \citealp is \citep without parentheses.

The \citenum command prints the citation number, without parentheses, even in author—year mode, and without raising it in superscript mode. This is intended to be able to refer to citation numbers without superscripting them.

```
\citealt{jon90} ⇒ Jones et al. 1990

\citealt*{jon90} ⇒ Jones, Baker, and Williams 1990

\citealp{jon90} ⇒ Jones et al., 1990

\citealp*{jon90, jam91} ⇒ Jones, Baker, and Williams, 1990

\citealp[pg.~32]{jon90} ⇒ Jones et al., 1990; James et al., 1991

\citealp[pg.~32]{jon90} ⇒ Jones et al., 1990, pg. 32

\citenum{jon90} ⇒ 11

\citetext{priv.\ comm.} ⇒ (priv. comm.)
```

The \citetext command allows arbitrary text to be placed in the current citation parentheses. This may be used in combination with \citealp.

Partial citations

In author–year schemes, it is sometimes desirable to be able to refer to the authors without the year, or vice versa. This is provided with the extra commands

```
\citeauthor{jon90} \Rightarrow Jones et al. \\ \citeauthor*{jon90} \Rightarrow Jones, Baker, and Williams \\ \citeyear{jon90} \Rightarrow 1990 \\ \citeyearpar{jon90} \Rightarrow (1990)
```

Forcing upper cased names

If the first author's name contains a von part, such as "della Robbia", then \citet{dRob98} produces "della Robbia (1998)", even at the beginning of a sentence. One can force the first letter to be in upper case with the command \Citet instead. Other upper case commands also exist.

```
when \citet{dRob98} \Rightarrow della Robbia (1998) then \Citet{dRob98} \Rightarrow Della Robbia (1998) \Citep{dRob98} \Rightarrow (Della Robbia, 1998) \Citealt{dRob98} \Rightarrow Della Robbia 1998 \Citealp{dRob98} \Rightarrow Della Robbia, 1998 \Citeauthor{dRob98} \Rightarrow Della Robbia
```

These commands also exist in starred versions for full author names.

Citation aliasing

Sometimes one wants to refer to a reference with a special designation, rather than by the authors, i.e. as Paper I, Paper II. Such aliases can be defined and used, textual and/or parenthetical with:

These citation commands function much like \citet and \citep: they may take multiple keys in the argument, may contain notes, and are marked as hyperlinks.

Selecting citation style and punctuation

Use the command \setcitestyle with a list of comma-separated keywords (without spaces) as argument.

```
Citation mode: authoryear or numbers or super
Braces: round or square or open={char},close={char}
Between citations: semicolon or comma or citesep={char}
Between author and year: aysep={char}
Between years with common author: yysep={char}
Text before post-note: notesep={text}

Defaults are authoryear, round, comma, aysep={;}, yysep={,}, notesep={,}

Example 1, \setcitestyle{square,aysep={},yysep={;}} changes the author-year output of \citep{jon90,jon91,jam92}

into [Jones et al. 1990; 1991, James et al. 1992].

Example 2, \setcitestyle{notesep={;},round,aysep={},yysep={;}} changes the output of \citep[and references therein]{jon90}

into (Jones et al. 1990; and references therein).
```

Other formatting options

Redefine \bibsection to the desired sectioning command for introducing the list of references. This is normally \section* or \chapter*.

Define \bibpreamble to be any text that is to be printed after the heading but before the actual list of references.

Define \bibfort to be a font declaration, e.g. \small to apply to the list of references.

Define \citenumfont to be a font declaration or command like \itshape or \textit.

Redefine \bibnumfmt as a command with an argument to format the numbers in the list of references. The default definition is [#1].

The indentation after the first line of each reference is given by \bibhang; change this with the \setlength command.

The vertical spacing between references is set by \bibsep; change this with the \setlength command.

Automatic indexing of citations

If one wishes to have the citations entered in the .idx indexing file, it is only necessary to issue \citeindextrue at any point in the document. All following \cite commands, of all variations, then insert the corresponding entry to that file. With \citeindexfalse, these entries will no longer be made.

Use with chapterbib package

The natbib package is compatible with the chapterbib package which makes it possible to have several bibliographies in one document.

The package makes use of the \include command, and each \included file has its own bibliography.

The order in which the chapterbib and natbib packages are loaded is unimportant.

The chapterbib package provides an option sectionbib that puts the bibliography in a \section* instead of \chapter*, something that makes sense if there is a bibliography in each chapter. This option will not work when natbib is also loaded; instead, add the option to natbib.

Every \included file must contain its own \bibliography command where the bibliography is to appear. The database files listed as arguments to this command can be different in each file, of course. However, what is not so obvious, is that each file must also contain a \bibliographystyle command, with possibly differing arguments.

As of version 8.0, the citation style, including mode (author—year or numerical) may also differ between chapters. The **\setcitestyle** command can be issued at any point in the document, in particular in different chapters.

Sorting and compressing citations

Do not use the cite package with natbib; rather use one of the options sort, compress, or sort&compress.

These also work with author—year citations, making multiple citations appear in their order in the reference list.

Long author list on first citation

Use option longnamesfirst to have first citation automatically give the full list of authors.

Suppress this for certain citations with \shortcites{key-list}, given before the first citation.

Local configuration

Any local recoding or definitions can be put in natbib.cfg which is read in after the main package file.

Options that can be added to \usepackage

round (default) for round parentheses;

square for square brackets;

curly for curly braces;

angle for angle brackets;

semicolon (default) to separate multiple citations with semi-colons;

colon the same as semicolon, an earlier mistake in terminology;

comma to use commas as separators;

authoryear (default) for author-year citations;

numbers for numerical citations:

super for superscripted numerical citations, as in Nature;

sort orders multiple citations into the sequence in which they appear in the list of references;

sort&compress as sort but in addition multiple numerical citations are compressed if possible (as 3-6, 15);

compress to compress without sorting, so compression only occurs when the given citations would produce an ascending sequence of numbers;

longnamesfirst makes the first citation of any reference the equivalent of the starred variant (full author list) and subsequent citations normal (abbreviated list);

sectionbib redefines \thebibliography to issue \section* instead of \chapter*; valid only for classes with a \chapter command; to be used with the chapterbib package;

nonamebreak keeps all the authors' names in a citation on one line; causes overfull hboxes but helps with some hyperref problems.