

natmove — Automatic citation moving with natbib*

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Abstract

The natmove package adds the ability to move citations after punctuation automatically to the natbib package, in the same way as with cite. With non-superscript citations, no action is taken.

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1 Using the package

The natmove package does only one job. It brings the ability to move punctuation after citations, using code borrowed from the cite package.

Some text¹ some more text.
Some text ending a sentence.¹

Some text \cite{Coghill2006} some more text.\\
Some text ending a sentence \cite{Coghill2006}.

This is deactivated for other citation types.

Some text 2006.
Some text Coghill and Garson.
Some text 1.

Some text \citeyear{Coghill2006}.\\
Some text \citeauthor{Coghill2006}.\\
Some text \citenum{Coghill2006}.

The package does nothing if the super option has not been given to natbib. This means that the source can be written without needing to decide where citations will to appear, with the super option for natbib controlling the result.

\natmovechars One user macro is provided: \natmovechars. This contains the characters which are moved before superscript punctuation. The default contents is , ; : . and can be set using \renewcommand*:

Some text¹, more text.¹

\renewcommand*{\natmovechars}{.}
Some text \cite{Coghill2006},
more text \cite{Coghill2006}.

*This file describes version v1.0, last revised 2008/08/22.

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2 The code

<code>\nmv@id</code>	<p>The package file is designed to be usable with any document class. It sets up the basics, but leaves some settings to the class file.</p> <pre> 1 \NeedsTeXFormat{LaTeX2e} 2 \def\nmv@id\$#1: #2.#3 #4 #5-#6-#7 #8 #9\${% 3 #5/#6/#7\space v1.0\space} 4 \ProvidesPackage{natmove} 5 [\nmv@id\$Id: natmove.dtx 29 2008-08-22 07:47:26Z joseph \$ 6 Automatic citation moving with natbib]</pre>
<code>\nmv@ifmtarg</code> <code>\nmv@xifmtarg</code>	<p>To keep down dependance on other packages, the very short code block from <code>ifmtarg</code> is copied here with an internal name.</p> <pre> 7 \begingroup 8 \catcode`\Q=3 9 \long\gdef\nmv@ifmtarg#1{% 10 \nmv@xifmtarg#1QQ\@secondoftwo\@firstoftwo\@nil} 11 \long\gdef\nmv@xifmtarg#1#2Q#3#4#5\@nil{#4} 12 \endgroup</pre>
<code>\ifnmv@cite</code>	<p>A flag is need to watch whether <code>\cite</code> or another macro is in use.</p> <pre> 13 \newif\ifnmv@cite</pre>
<code>\nmv@citex</code>	<p>Using the flag, either the new internal macro, or the natbib original, can be called.</p> <pre> 14 \newcommand*{\nmv@citex}{% 15 \ifnmv@cite 16 \expandafter\nmv@citex@ 17 \else 18 \expandafter\nmv@natcitex 19 \fi}</pre>
<code>\nmv@citex@</code>	<p>The new version of <code>\@citex</code> is needed that looks ahead of the citation using <code>\futurelet</code>. There are three arguments to <code>\@citex</code> when using natbib. Other than that, the trick used here is similar to that in <code>cite</code>.</p> <pre> 20 \def\nmv@citex@[#1][#2]#3{% 21 \leavevmode 22 \skip@\lastskip 23 \unskip 24 \begingroup</pre>
<code>\nmv@arg</code>	<p>The arguments of the macro now need to be saved, before handing off to the “search” macro.</p> <pre> 25 \def\nmv@arg{[#1][#2]{#3}}%</pre>
<code>\nmv@citex@end</code>	<p>The entire block to be executed after punctuation is set up here, to make recursion easier. The system used is very similar to that in <code>cite</code>. Notice that the <code>\relax</code> is essential.</p> <pre> 26 \newcommand*{\nmv@citex@end}{% 27 \expandafter\nmv@natcitex\nmv@arg 28 \endgroup}% 29 \global\nmv@citefalse 30 \nmv@citex@getnext\relax}</pre>

<code>\nmv@citex@getnext</code> <code>\nmv@citex@next</code>	<p>The next token on the input stack is saved into <code>\nmv@citex@next</code>, after gobbling up one token.</p> <pre> 31 \newcommand*{\nmv@citex@getnext}[1]{% 32 \futurelet\nmv@citex@next\nmv@citex@punct} </pre>
<code>\nmv@citex@punct</code> <code>\nmv@citex@loop</code>	<p>The working macro for moving the punctuation. This is very much like <code>\@citey</code> in the <code>cite</code> package. The initial assumption is that the loop will terminate, and so the recursion call will simply do the finalisation.</p> <pre> 33 \newcommand*{\nmv@citex@punct}{% 34 \let\nmv@citex@loop\nmv@citex@end </pre> <p>A check is made for doubled full stops.</p> <pre> 35 \ifx.\nmv@citex@next\@empty 36 \ifnum\spacefactor<\nmv@citex@sfac\else 37 \let\nmv@citex@next\relax 38 \let\nmv@citex@loop\nmv@citex@getnext 39 \fi 40 \fi </pre> <p>The other cases are handled.</p> <pre> 41 \expandafter\nmv@citex@punct\natmovechars\@empty 42 \nmv@citex@loop} </pre>
<code>\nmv@citex@pnct</code>	<p>The final part of the punctuation moving system.</p> <pre> 43 \def\nmv@citex@pnct#1#2\@empty{% 44 \ifx\nmv@citex@next#1\@empty 45 #1% 46 \let\nmv@citex@loop\nmv@citex@getnext 47 \fi 48 \ifx\@empty#2\@empty\else 49 \expandafter\nmv@citex@pnct#2\@empty 50 \fi} </pre>
<code>\nmv@citex@sfac</code>	<p>The value of the spacing factor after a full stop is used to signal doubled punctuation. For French spacing, a bit of patching is needed.</p> <pre> 51 \mathchardef\nmv@citex@sfac3000 52 \expandafter\renewcommand\expandafter*\expandafter{\expandafter% 53 \frenchspacing\expandafter}\expandafter{% 54 \frenchspacing 55 \mathchardef\nmv@citex@sfac1001 56 \sfcode`\.\nmv@citex@sfac 57 \sfcode`?\nmv@citex@sfac 58 \sfcode`!\nmv@citex@sfac} 59 \ifnum\sfcode`\.=\@m 60 \frenchspacing 61 \fi </pre>
<code>\nmv@activate</code> <code>\@citex</code> <code>\nmv@natcitex</code> <code>\cite</code> <code>\nmv@cite</code> <code>\nmv@notactivate</code>	<p>The swap has to be done at the beginning of the document. The internal flag from <code>natbib</code> is used, but under the circumstances we should be safe. <code>\cite</code> is also patched to make the system active. A</p> <pre> 62 \newcommand*{\nmv@activate}{% 63 \let\nmv@natcitex\@citex 64 \let\@citex\nmv@citex 65 \let\nmv@cite\cite </pre>

```

66 \renewcommand*{\cite}[2][\%
67 \nmv@ifmtarg{##1}
68 {\nmv@citetrue
69 \nmv@cite{##2}}
70 {\nmv@citefalse
71 \nmv@cite[##1]{##2}}}}
72 \AtBeginDocument{
73 \ifpackageloaded{natbib}
74 {\ifNAT@super
75 \nmv@activate
76 \else
77 \nmv@notactivate
78 \fi}
79 {\PackageWarning{natmove}
80 {The natbib package has not been loaded}}}
81 \newcommand*{\nmv@notactivate}{}

```

\natmovechars A user macro is needed for moving characters.

```

82 \newcommand*{\natmovechars}{.,;:}

```

3 Change History

v1.0

General: First public release **1**

4 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.

Symbols	
\@citex	<u>62</u>
C	
\cite	<u>62</u>
I	
\ifnmv@cite	<u>13</u> , <u>15</u>
N	
\natmovechars	1 , <u>41</u> , <u>82</u>
\nmv@activate	<u>62</u>
\nmv@arg	<u>25</u> , <u>27</u>
\nmv@cite	<u>62</u>
\nmv@citefalse	<u>29</u> , <u>70</u>
\nmv@citetrue	<u>68</u>
\nmv@citex	<u>14</u> , <u>64</u>
\nmv@citex@	<u>16</u> , <u>20</u>
\nmv@citex@end	<u>26</u> , <u>34</u>
\nmv@citex@getnext . . .	<u>30</u> , <u>31</u> , <u>38</u> , <u>46</u>
\nmv@citex@loop	<u>33</u> , <u>46</u>
\nmv@citex@next	<u>31</u> , <u>35</u> , <u>37</u> , <u>44</u>
\nmv@citex@pnct	<u>41</u> , <u>43</u>
\nmv@citex@punct	<u>32</u> , <u>33</u>
\nmv@citex@sfac	<u>36</u> , <u>51</u>
\nmv@id	<u>1</u>
\nmv@ifmtarg	<u>7</u> , <u>67</u>
\nmv@natcitex	<u>18</u> , <u>27</u> , <u>62</u>
\nmv@notactivate	<u>62</u>
\nmv@xifmtarg	<u>7</u>

5 References

- [1] *The ACS Style Guide*, 3rd ed.; Coghill, A. M., Garson, L. R., Eds.; Oxford University Press, Inc. and The American Chemical Society: New York, 2006.