

Split your bibliography into categories ^{*}

Nicolas Markey
markey@lsv.ens-cachan.fr

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Abstract

This package allows for sorting a bibliography into categories and subcategories. This is interesting for lists of publications, for grouping references by subject, by year, ... An option allows to export the resulting bibliography as a `.bbl` like file.

1 Introduction

Up to now, there exists several ways for sorting bibliographic references into categories:

- Using a bibliographic style allowing it. There exists a few such styles, but then you'll need to add a "category" field in each entry of your `.bib` file. Moreover, grouping criteria might change from one document to the other, and modifying categories requires that you modify your `.bib` file, which is a long and tedious task;
- `multibib.sty`, by Thorsten Hansen, allows to create several bibliographies, by defining several `\cite` commands. This however has several limitations: Duplicate labels, risk of citing one reference in two different categories, ...
- Typesetting the bibliography by hand, which should eventually give you exactly what you want, if you're patient enough...

`splitbib.sty` offers a new, original way of doing this with \LaTeX . It uses a `category` environment for defining categories. Up to two such environments can be nested. Those environments take one mandatory argument defining the "title" of the category. Within a category, command `\SBentries` defines the entries that should appear in that category. With the `reorder` option, this will also define the order in which references should appear (the default is to keep the order of the original `.bbl` file within each (sub)category).

Then, when a reference appears in a `thebibliography` environment, it is moved in its category. A warning may be echoed in case a reference appears in two categories. On the contrary, if a reference has not been assigned a category, it is put in a "miscellaneous" category.

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2 How does it work?

2.1 Once upon a time...

The starting point of this package is a selection sorting algorithm initially proposed by Josselin Noirel on `fr.comp.text.tex`, and that I made more performant by using a quicksort algorithm. A discussion followed about the usefulness of such a command...

2.2 The link between sorting and categories

As mentioned previously, some bibliographic styles handle categories. This is achieved by adding a prefix to the `sort.key$` string used by Bib_TEX for sorting bibliographic items. We use the same idea here, using a numeric value for each category. Another numeric value is appended to the category entry, in order to keep the initial order within each category.

2.3 In practice

Defining categories is achieved with a `category` environment. The argument of this environment defines the title of that new category. An optional argument allows to define a prefix for the labels of each entry in that category.

Within a category, the `\SBentries` command defines which entries should appear in that category. It is a comma-separated list of internal keys.

Everything else should be transparent for the user. Several important remarks though:

- `splitbib.sty` redefines `\bibitem` and the `thebibliography` environment. More precisely, `\begin{thebibliography}` does almost nothing, `\bibitem` just stores the references (but echoes nothing), and `\end{thebibliography}` sorts and outputs the bibliography.
- Since this package deeply redefines `\bibitem` and the `thebibliography` environment, it must be loaded *after* packages that redefine those commands. In particular `apalike.sty`, `natbib.sty` or `jurabib.sty`;
- `natbib.sty` and `jurabib.sty` use very special formats for the optional argument of `\bibitem`. In order to fully use their features, you should load `splitbib.sty` with the `export` argument, so that their original definitions of `\bibitem` will be used when processing the bibliography. Globally speaking, the `export` option should make `splitbib.sty` compatible with many type of bibliography;
- Since it is possible to add a prefix to reference labels, the argument of the `thebibliography` environment is irrelevant. Therefore, the longest label will be re-computed, or can be forced;
- Last, several styles for category titles are predefined, but you can define your own style by redefining `\SBtitle` and `\SBsubtitle`.

2.4 An example

An example is shown on figure 1. It contains the basic commands for a simple use of `splitbib.sty`.

<pre>\documentclass{article} \usepackage{splitbib} \begin{category}[A]{First category} \SBentries{entry1,entry4} \end{category} \begin{category}[B]{Second category} \begin{category}{First sub-category} \SBentries{entry2,entry6} \end{category} \begin{category}{Second sub-category} \SBentries{entry5,entry3} \end{category} \end{category} \begin{document} We cite~\cite{entry1,entry3,entry4,% entry5}. Note that we cite neither \verb+entry2+ nor \verb+entry6+, even though they have been assigned a category.</pre>	<pre>defined in the last category. The first sub-category will then not appear in the bibliography. % \def\SBlongestlabel{A1} \SBtitlestyle{bar} \SBsubtitlestyle{none} \begin{thebibliography}{1} \bibitem{entry1} This is the first entry. \bibitem{entry3} This is the third entry. \bibitem{entry4} This is the fourth one. \bibitem{entry5} This is the last one. \end{thebibliography} \end{document}</pre>
--	--

<p>We cite [A1, B3, A2, B4]. Note that we cite neither <code>entry2</code> nor <code>entry6</code>, even though they have been defined in the last category. The first sub-category will then not appear in the bibliography.</p> <p style="text-align: center;">References</p> <hr/> <p style="text-align: center;">First category</p> <hr/> <p>[A1] This is the first entry. [A2] This is the fourth one.</p> <hr/> <p style="text-align: center;">Second category</p> <hr/> <p>[B3] This is the third entry. [B4] This is the last one.</p>

Figure 1: An example using `splitbib.sty`

3 The code

```

\ifNMSB@strict
  strict
  nonstrict
\ifNMSB@ownorder
  reorder
  keeporder
\ifNMSB@export
  export
  noexport
\ifNMSB@newchap
  newchap
  newsec
nonewchap
nonewsec

```

splitbib.sty understands four options:

- **nonstrict** is to disallow multiple categories for one entry. Default is to allow it: In that case, splitbib.sty won't complain, but L^AT_EX will find multiply defined labels. In the other case, if an entry is declared in several categories, only the first one will be used, and splitbib.sty will warn you about the problem.
- **reorder** tells splitbib.sty to use the order the entries appear in the \SBentries as the output order. The default is to keep the order the references appear in the .bib file within each (sub)categories. With **reorder**, entries that have no category will be omitted.
- **export** will export the new thebibliography environment into an .sbb file, similar to the .bbl file, but with categories. The default is not to create that file, but you should consider adding this option if you encounter compilation problems.
- **newchap** and **newsec** prevent thebibliography to start a new chapter or section.

```

1 \newif\ifNMSB@strict\NMSB@strictfalse
2 \DeclareOption{strict}{\NMSB@stricttrue}
3 \DeclareOption{nonstrict}{\NMSB@strictfalse}
4 \newif\ifNMSB@ownorder\NMSB@ownorderfalse
5 \DeclareOption{reorder}{\NMSB@ownordertrue}
6 \DeclareOption{keeporder}{\NMSB@ownorderfalse}
7 \newif\ifNMSB@export\NMSB@exportfalse
8 \DeclareOption{export}{\NMSB@exporttrue}
9 \DeclareOption{noexport}{\NMSB@exportfalse}
10 \newif\ifNMSB@newchap\NMSB@newchaptrue
11 \DeclareOption{newchap}{\NMSB@newchaptrue}
12 \DeclareOption{newsec}{\NMSB@newchaptrue}
13 \DeclareOption{nonewchap}{\NMSB@newchapfalse}
14 \DeclareOption{nonewsec}{\NMSB@newchapfalse}
15 \ProcessOptions*

```

```

NMSB@catlevelone
NMSB@catleveltwo

```

These two counters are used for numbering categories. Their initial value is set to 10 here. We require that the category number always has two digits, because it is important to ensure that the sorting number we will generate all have the same number of digits (because the 11th entry in the first category should be numbered differently from the 1st entry in the 11th category). The definition below allows up to 89 categories (in fact, 90, but one is reserved as the "misc" category), and 89 × 89 subcategories, which should be sufficient. If this is not, be aware that modifying the values below is not sufficient, and that several other values has to be updated.

```

16 \newcounter{NMSB@catlevelone}
17 \newcounter{NMSB@catleveltwo}
18 \setcounter{NMSB@catlevelone}{10}
19 \setcounter{NMSB@catleveltwo}{10}

```

NMSB@catlevel	This counter counts the nesting depth of categories. This depth is limited to 2, and nesting 3 categories raises an error. 20 <code>\newcounter{NMSB@catlevel}</code> 21 <code>\setcounter{NMSB@catlevel}{0}</code>
SBresetdepth	When using numerical labels, this defines when the label counter has to be reset. 0 means "never", 1 means "at each new level-1 category", and 2 means "at each new category". 22 <code>\newcounter{SBresetdepth}</code> 23 <code>\setcounter{SBresetdepth}{0}</code>
NMSB@ent NMSB@maxent \NMSB@initent NMSB@tok	NMSB@ent will be the number of the current entry. NMSB@maxent is the max value, computed from the initial value \NMSB@initent in order to always have the same number of digits. Here, we allow up to 900 entries per category or subcategory. If you <i>really</i> need more, you'll probably also have to modify the memory limits of L ^A T _E X anyway. However, as regards <code>splitbib.sty</code> , this can be achieved by simply replacing "100" below by, say, "1000". \NMSB@tok is a token that will be used to protect commands against expansion. 24 <code>\newcounter{NMSB@ent}</code> 25 <code>\newcounter{NMSB@maxent}</code> 26 <code>\def\NMSB@initent{100}</code> 27 <code>\newtoks\NMSB@tok</code> 28 <code>\setcounter{NMSB@maxent}{\NMSB@initent0}</code> 29 <code>\addtocounter{NMSB@maxent}{-1}</code> 30 <code>\setcounter{NMSB@ent}{\NMSB@initent}</code>
\NMSB@longest \NMSB@reallylongest \NMSB@reallylongestlabel	Those variables are used when computing the longest label. This is done in two phases: first when reading <code>\bibitems</code> . It is just an approximation, since we can't know numeric labels at that time. Exact computation is done at a second time, when writing bibliographic references. This second computation uses <code>\NMSB@reallylongestand</code> <code>\NMSB@reallylongestlabel</code> . 31 <code>\newdimen\NMSB@longest</code> 32 <code>\newdimen\NMSB@reallylongest</code> 33 <code>\setlength{\NMSB@longest}{0pt}</code> 34 <code>\setlength{\NMSB@reallylongest}{0pt}</code> 35 <code>\def\NMSB@reallylongestlabel{}</code>
\NMSB@title@99 \NMSB@prefix@9999 \NMSB@currprefixtok \NMSB@currprefixlevelonetok \SBmisctitle \SBmiscprefix	Some macros for handling titles and prefix. "Misc" commands will be used for bibliographic entries whose category has not been defined. 36 <code>\expandafter\def\csname NMSB@title@99\endcsname{\SBmisctitle}</code> 37 <code>\expandafter\def\csname NMSB@prefix@9999\endcsname{\SBmiscprefix}</code> 38 <code>\def\SBmisctitle{Miscellaneous}</code> 39 <code>\def\SBmiscprefix{}</code> 40 <code>\newtoks\NMSB@currprefixtok</code> 41 <code>\newtoks\NMSB@currprefixlevelonetok</code>
\NMSB@prevcat \NMSB@prevcatlevelone	Those commands will be used for detecting category changes. 42 <code>\def\NMSB@prevcat{0}</code> 43 <code>\def\NMSB@prevcatlevelone{0}</code>
\NMSB@missingcat \NMSB@doublecat	Those two commands will contain entries that are <code>\cited</code> but have not category, or that have two categories, resp.

```

44 \def\NMSB@missingcat{}
45 \def\NMSB@doublecat{}

\NMSB@valuelist The list of entries that appear in \SBentries, and that will be sorted.
46 \let\NMSB@valuelist\relax

\SBaboveseppwidth Width of lines for the "rules" style.
\SBbelowseppwidth 47 \newdimen\SBaboveseppwidth
48 \newdimen\SBbelowseppwidth
49 \setlength{\SBaboveseppwidth}{.4pt}
50 \setlength{\SBbelowseppwidth}{.4pt}

\NMSB@penalty Penalties inserted after category titles, in order to avoid lonely titles at bottom of
\NMSB@halfpenalty pages.
51 \def\NMSB@penalty{5000}
52 \def\NMSB@halfpenalty{500}

\NMSB@warnnocateg Errors or warning... Names should be explicit.
\NMSB@warndblcateg 53 \def\NMSB@warnnocateg#1,\end{%
\NMSB@warnwronglongest 54 \message{---- Splitbib warning ----^^J%
\NMSB@errtoomanycat 55 -- The following bib entries have no category: #1^^J}}
\NMSB@errtoomanyent 56 \def\NMSB@warndblcateg#1,\end{%
\NMSB@errcattoodepp 57 \message{---- Splitbib warning ----^^J%
\NMSB@errentriesoutsidecat 58 -- The following bib entries have several categories: #1^^J%
\SB@errentrieswithoptinsidecat 59 -- The first one will be used.^^J}}
\NMSB@erraliasoutsidecat 60 \def\NMSB@warnwronglongest{%
\NMSB@erraliasalreadydef 61 \expandafter\NMSB@tok\expandafter{\NMSB@reallylongestlabel}
\NMSB@erraliasundefined 62 \message{---- Splitbib warning ----^^J%
63 -- The longest label appears to be [\the\NMSB@tok]
64 instead of}
65 \@ifundefined{SBlongestlabel}{\message{(forced)}}
66 \expandafter\NMSB@tok\expandafter{\NMSB@longestlabel}
67 \message{[\the\NMSB@tok]^^J}}
68 \def\NMSB@errtoomanycat#1{%
69 \message{---- Splitbib error ----^^J%
70 -- You defined too many level-#1 categories (max = 89).^^J}}
71 \def\NMSB@errtoomanyent{%
72 \setcounter{NMSB@maxent}{\NMSB@initent0}
73 \addtocounter{NMSB@maxent}{-\NMSB@initent}
74 \message{---- Splitbib error ----^^J%
75 -- You defined too many entries in one category %
76 (max = \theNMSB@maxent)^^J}}
77 \def\NMSB@errcattoodeep{%
78 \message{---- Splitbib error ----^^J
79 -- Only two category depth allowed.^^J}}
80 \def\NMSB@errentriesoutsidecat{%
81 \message{---- Splitbib error ----^^J
82 -- \string\SBentries outside category environment.^^J}}
83 \def\NMSB@errentrieswithoptinsidecat{%
84 \message{----Splitbib error ----^^J
85 -- \string\SBentries with optional argument inside category env.^^J}}
86 \def\NMSB@erraliasoutsidecat{%
87 \message{----Splitbib error ----^^J
88 -- \string\SBalias used outside category environment.^^J}}

```

```

89 \def\NMSB@erraliasalreadydef#1{%
90   \message{----Splitbib error ----^^J
91     -- Alias #1 multiply defined.^^J}}
92 \def\NMSB@erraliasundefined#1{%
93   \message{----Splitbib error ----^^J
94     -- Alias #1 undefined.^^J}}
95 \def\NMSB@errcommentoutsidecat{%
96   \message{----Splitbib error ----^^J
97     -- \string\SBcomment used outside category environment.^^J}}

```

```

\SBtitle      Macros for (sub)title styles. The arguments are the numbers of the category and
\SBsubtitle   subcategory. Of course, it is also possible to add titles in the headers, in the table
\SBtitlestyle of contents, ...
\SBsubtitlestyle 98 \def\SBtitlestyle#1{\gdef\NMSB@titlestyle{#1}}
\NMSB@titlestyle 99 \def\SBsubtitlestyle#1{\gdef\NMSB@subtitlestyle{#1}}
\NMSB@subtitlestyle 100 \def\NMSB@titlestyle{bar}
\SBtitlefont    101 \def\NMSB@subtitlestyle{dash}
\SBsubtitlefont 102 \def\SBtitle#1{\def\NMSB@level{title}%
\NMSB@stylebox  103   \csname NMSB@style\NMSB@titlestyle\endcsname{#1}}
\NMSB@stylebar  104 \def\SBsubtitle#1#2{\def\NMSB@level{subtitle}%
\NMSB@styledash 105   \csname NMSB@style\NMSB@subtitlestyle\endcsname{#2}}
\NMSB@stylenone 106 \def\SBtitlefont#1{\bfseries\Large #1}}
\NMSB@stylesimple 107 \def\SBsubtitlefont#1{\bfseries #1}}
108 \def\NMSB@stylebox#1#2{\hskip-\leftmargin%
109   \vbox{%
110     \medskip\par
111     {\null\hfill
112       \setlength\fbboxsep{\baselineskip}%
113       \framebox[\textwidth]{%
114         \csname SB\NMSB@level font\endcsname{#1#2}}%
115       \hfill\null}}%
116   \bigskip}
117 \def\NMSB@stylebar#1#2{\hskip-\leftmargin%
118   \vbox{%
119     \medskip\par
120     \vrule height \SBaboveseppwidth depth Opt width \textwidth
121     \vskip.3\baselineskip\par\noindent
122     {\null\hfill
123       \csname SB\NMSB@level font\endcsname{#1#2}}%
124     \hfill\null}}%
125   \vskip-.4\baselineskip\par\noindent
126   \vrule height \SBbelowseppwidth depth Opt width \textwidth}}
127 \def\NMSB@styledash#1#2{\unskip\hskip-\leftmargin%
128   \vbox{%
129     \smallskip\noindent
130     {\null\hfill
131       \csname SB\NMSB@level font\endcsname{---~#1#2~---}}
132     \hfill\null}
133   \par}
134 \def\NMSB@stylenone#1#2{%
135   \vspace{-2\itemsep}\vspace{-\baselineskip}}
136 \def\NMSB@stylesimple#1#2{\hskip-\leftmargin%
137   \csname SB\NMSB@level font\endcsname{#1#2}}
138 }

```

```

\category Definition of the category environment. While not too deep, we increase the
\endcategory category number and define the corresponding title and prefix.
\NMSB@category 139 \def\category{\@ifnextchar[{\@1NMSBcategory}{\@1NMSBcategory[]}]
\1NMSB@category 140 \def\@1NMSBcategory[#1]#2{%
141 \stepcounter{NMSB@catlevel}%
142 \ifnum\theNMSB@catlevel>2\relax
143 \NMSB@errcattodeep
144 \addtocounter{NMSB@catlevel}{-1}%
145 \fi
146 \ifnum\theNMSB@catlevel=1\relax
147 \ifnum\theNMSB@catlevelone=98\relax
148 \NMSB@errtoomanycat{one}%
149 \else
150 \stepcounter{NMSB@catlevelone}%
151 \fi
152 \setcounter{NMSB@catleveltwo}{10}%
153 \expandafter\gdef\csname NMSBprefix@\theNMSB@catlevelone
154 \endcsname{#1}%
155 \expandafter\gdef\csname NMSBtitle@\theNMSB@catlevelone
156 \endcsname{#2}%
157 \else
158 \ifnum\theNMSB@catleveltwo=98\relax
159 \NMSB@errtoomanycat{two}%
160 \else
161 \stepcounter{NMSB@catleveltwo}%
162 \fi
163 \expandafter\let\expandafter\NMSB@tempentry\csname
164 NMSBprefix@\theNMSB@catlevelone\endcsname
165 \expandafter\NMSB@tok\expandafter{\NMSB@tempentry}
166 \expandafter\xdef\csname NMSBprefix@\theNMSB@catlevelone
167 \theNMSB@catleveltwo\endcsname{\the\NMSB@tok #1}%
168 \expandafter\gdef\csname NMSBtitle@\theNMSB@catlevelone
169 \theNMSB@catleveltwo\endcsname{#2}%
170 \fi
171 }
172 \def\@NMSBcategory#1{%
173 \stepcounter{NMSB@catlevel}
174 \ifnum\theNMSB@catlevel>2\relax
175 \NMSB@errcattodeep
176 \addtocounter{NMSB@catlevel}{-1}%
177 \fi
178 \ifnum\theNMSB@catlevel=1\relax
179 \ifnum\theNMSB@catlevelone=98\relax
180 \NMSB@errtoomanycat{one}%
181 \else
182 \stepcounter{NMSB@catlevelone}%
183 \fi
184 \setcounter{NMSB@catleveltwo}{10}
185 \expandafter\gdef\csname NMSBtitle@\theNMSB@catlevelone
186 \endcsname{#1}%
187 \else
188 \ifnum\theNMSB@catleveltwo=98\relax
189 \NMSB@errtoomanycat{two}%
190 \else

```

```

191     \stepcounter{NMSB@catleveltwo}%
192 \fi
193 \expandafter\ifx\csname NMSBprefix@theNMSB@catlevelone\endcsname
194   \relax
195 \else
196   \expandafter\let\expandafter\NMSB@tempentry\csname
197     NMSBprefix@theNMSB@catlevelone\endcsname
198   \expandafter\NMSB@tok\expandafter{\NMSB@tempentry}%
199   \expandafter\xdef\csname NMSBprefix@theNMSB@catlevelone
200     \theNMSB@catleveltwo\endcsname{\the\NMSB@tok}%
201 \fi
202 \expandafter\gdef\csname NMSBtitle@theNMSB@catlevelone
203   \theNMSB@catleveltwo\endcsname{#1}%
204 \fi
205 }
206 \def\endcategory{\addtocounter{NMSB@catlevel}{-1}}

```

`\SBalias` This defines an alias for the category, so that you can add new items in that category afterwards, by using the optional argument of `\SBentries`.

```

207 \def\SBalias#1{%
208   \ifnum\theNMSB@catlevel<1\relax
209     \NMSB@erraliasoutsidecat
210   \else
211     \expandafter\ifx\csname NMSBalias@#1\endcsname\relax
212       \ifnum\theNMSB@catlevel=1\relax
213         \expandafter\xdef\csname NMSBalias@#1\endcsname{%
214           \theNMSB@catlevelone 10}%
215       \else
216         \expandafter\xdef\csname NMSBalias@#1\endcsname{%
217           \theNMSB@catlevelone\theNMSB@catleveltwo}%
218       \fi
219     \else
220       \NMSB@erraliasalreadydef{#1}%
221     \fi
222 \fi
223 }

```

`\SBcomment` Command `\SBcomment` allows you to put a comment at the beginning of each category. That comment will be put into a `minipage` for the moment, but that behavior should depend on the style of titles and subtitles. I'll do that shortly.

```

224 \long\def\SBcomment#1{%
225   \ifnum\theNMSB@catlevel<1\relax
226     \NMSB@errcommentoutsidecat
227   \else
228     \ifnum\theNMSB@catlevel=1\relax
229       \expandafter\gdef\csname NMSBcomment@theNMSB@catlevelone
230         \endcsname{#1}%
231     \else
232       \expandafter\gdef\csname NMSBcomment@theNMSB@catlevelone
233         \theNMSB@catleveltwo\endcsname{#1}%
234     \fi
235 \fi
236 }

```

`\SBentries` Command `\SBentries` for defining entries that should appear in that category. It should be either used with an optional argument outside a `category` environment, `\NMSB@entries@withoptarg` or without its optional argument inside a `category` environment, `\NMSB@entries@incatenv`

```

237 \def\SBentries{\@ifnextchar[
238   {\NMSB@entries@withoptarg}%
239   {\NMSB@entries@incatenv}}
240 \def\NMSB@entries@withoptarg[#1]#2{%
241   \ifnum\theNMSB@catlevel>0\relax
242     \NMSB@errentrieswithoptinsidecat
243   \else
244     \@for\@citeb:=#2\do{%
245       \expandafter\ifx\csname NMSBcateg@\@citeb\endcsname\relax
246       \expandafter\ifx\csname NMSBalias@#1\endcsname\relax
247         \NMSB@erraliasundefined{#1}%
248       \else
249         \expandafter\xdef\csname NMSBcateg@\@citeb\endcsname{%
250           \csname NMSBalias@#1\endcsname}%
251         \ifNMSB@ownorder
252           \expandafter\xdef\csname NMSBcateg@\@citeb\endcsname{%
253             \csname NMSBcateg@\@citeb\endcsname\theNMSB@ent}%
254         \stepcounter{NMSB@ent}%
255         \ifnum\theNMSB@ent=\theNMSB@maxent\relax
256           \NMSB@errtoomanyent
257         \fi
258       \fi
259     \fi
260   \else
261     \ifNMSB@strict
262       \xdef\NMSB@doublecat{\NMSB@doublecat \@citeb,}%
263     \else
264       \expandafter\ifx\csname NMSBalias@#1\endcsname\relax
265         \NMSB@erraliasundefined{#1}%
266       \else
267         \expandafter\xdef\csname NMSBcateg@\@citeb\endcsname{%
268           \csname NMSBcateg@\@citeb\endcsname,%
269           \csname NMSBalias@#1\endcsname}%
270         \ifNMSB@ownorder
271           \expandafter\xdef\csname NMSBcateg@\@citeb\endcsname{%
272             \csname NMSBcateg@\@citeb\endcsname\theNMSB@ent}%
273         \stepcounter{NMSB@ent}%
274         \ifnum\theNMSB@ent=\theNMSB@maxent\relax
275           \NMSB@errtoomanyent
276         \fi
277       \fi
278     \fi
279   \fi
280 \fi}%
281 \fi
282 }
283 \def\NMSB@entries@incatenv#1{%
284   \ifnum\theNMSB@catlevel<1\relax
285     \NMSB@errentriesoutsidecat
286   \else
287     \@for\@citeb:=#1\do{%

```

```

288 \expandafter\ifx\csname NMSBcateg@\@citeb\endcsname\relax
289 \ifnum\theNMSB@catlevel=2\relax
290 \expandafter\xdef\csname NMSBcateg@\@citeb\endcsname{%
291 \theNMSB@catlevelone\theNMSB@catleveltwo}%
292 \else
293 \expandafter\xdef\csname NMSBcateg@\@citeb\endcsname{%
294 \theNMSB@catlevelone10}%
295 \fi%
296 \ifNMSB@ownorder
297 \expandafter\xdef\csname NMSBcateg@\@citeb\endcsname{%
298 \csname NMSBcateg@\@citeb\endcsname\theNMSB@ent}%
299 \stepcounter{NMSB@ent}%
300 \ifnum\theNMSB@ent=\theNMSB@maxent\relax\NMSB@errtoomanyent\fi
301 \fi
302 \else
303 \ifNMSB@strict
304 \xdef\NMSB@doublecat{\NMSB@doublecat \@citeb,}%
305 \else
306 \ifnum\theNMSB@catlevel=2\relax
307 \expandafter\xdef\csname NMSBcateg@\@citeb\endcsname{%
308 \csname NMSBcateg@\@citeb\endcsname,%
309 \theNMSB@catlevelone\theNMSB@catleveltwo}%
310 \else
311 \expandafter\xdef\csname NMSBcateg@\@citeb\endcsname{%
312 \csname NMSBcateg@\@citeb\endcsname,%
313 \theNMSB@catlevelone10}%
314 \fi
315 \fi
316 \ifNMSB@ownorder
317 \expandafter\xdef\csname NMSBcateg@\@citeb\endcsname{%
318 \csname NMSBcateg@\@citeb\endcsname\theNMSB@ent}%
319 \stepcounter{NMSB@ent}%
320 \ifnum\theNMSB@ent=\theNMSB@maxent\relax\NMSB@errtoomanyent\fi
321 \fi
322 \fi}%
323 \fi
324 }

```

`\NMSBorig@lbibitem` Keep track of the original `\bibitem` commands.

```

\NMSBorig@bibitem 325 \let\@NMSBrealorig@bibitem\@bibitem
\NMSBrealorig@bibitem 326 \let\@NMSBorig@lbibitem\@lbibitem
327 \def\@NMSBorig@bibitem#1{\item@if@filesw \immediate\write\@auxout
328 {\string\bibcite{#1}{\the\NMSB@currprefixtok\the\value{\@listctr}}}%
329 \fi\ignorespaces}

```

`\NMSB@getcateg` Those macros retrieve the category and entry number from their concatenation.
`\NMSB@getent` This is used when reordering.

```

330 \def\NMSB@getcateg#1#2#3#4#5-#{#1#2#3#4}
331 \def\NMSB@getent#1#2#3#4#5-#{#5}

```

`\@lbibitem` These are the new `\bibitem` commands. They won't print anything. Instead,
`\@bibitem` they write their arguments in different commands named after the number of the current entry. Longest label is also evaluated.

```

332 \def\@lbibitem[#1]#2#3\par{%
333   \expandafter\ifx\csname NMSBcateg@#2\endcsname\relax
334     \expandafter\gdef\csname NMSBcateg@#2\endcsname{9999}%
335     \edef\NMSB@missingcat{\NMSB@missingcat #2,}%
336 %     \ifNMSB@ownorder
337 %       \expandafter\xdef\csname NMSBcateg@#2\endcsname{%
338 %         \csname NMSBcateg@#2\endcsname\theNMSB@maxent}%
339 %     \fi
340   \fi
341   \let\@tempa\relax
342   \ifNMSB@ownorder
343     \edef\NMSB@temp{\csname NMSBcateg@#2\endcsname}%
344     \@for\NMSB@local:=\NMSB@temp\do{%
345       \ifx\relax\@tempa\relax
346         \edef\@tempa{\expandafter\NMSB@getcateg\NMSB@local-}%
347       \else
348         \edef\@tempa{\@tempa,\expandafter\NMSB@getcateg\NMSB@local-}%
349       \fi
350     }%
351   \else
352     \edef\@tempa{\csname NMSBcateg@#2\endcsname}%
353   \fi
354   \expandafter\ifx\csname NMSBprefix@\@tempa\endcsname\relax
355     \def\@tempb{#1}%
356   \else
357     \expandafter\let\expandafter\NMSB@tempentry\csname
358       NMSBprefix@\@tempa\endcsname
359     \expandafter\NMSB@tok\expandafter{\NMSB@tempentry #1}%
360     \edef\@tempb{\the\NMSB@tok}%
361   \fi
362   \@ifundefined{SBlongestlabel}{%
363     \setbox\@tempboxa=\hbox{\@tempb}%
364     \ifdim\NMSB@longest<\wd\@tempboxa
365       \setlength\NMSB@longest{\wd\@tempboxa}%
366       \global\let\NMSB@longestlabel\@tempb
367     \fi}{%
368   \ifNMSB@ownorder
369     \edef\NMSB@temp{\csname NMSBcateg@#2\endcsname}%
370     \@for\NMSB@local:=\NMSB@temp\do{%
371       \edef\NMSB@tempb{\expandafter\NMSB@getent\NMSB@local-}
372       \expandafter\xdef\csname NMSBkey@\NMSB@tempb\endcsname{#2}%
373       \global\expandafter\let\csname NMSBlabel@\NMSB@tempb\endcsname
374         \@tempb
375       \expandafter\gdef\csname NMSBentry@\NMSB@tempb\endcsname{#3}%
376       \ifx\relax\NMSB@valuelist\relax
377         \xdef\NMSB@valuelist{\NMSB@local}%
378       \else
379         \xdef\NMSB@valuelist{\NMSB@valuelist,\NMSB@local}%
380       \fi}%
381   \else
382     \expandafter\xdef\csname NMSBkey@\theNMSB@ent\endcsname{#2}%
383     \global\expandafter\let\csname NMSBlabel@\theNMSB@ent\endcsname
384       \@tempb
385     \expandafter\gdef\csname NMSBentry@\theNMSB@ent\endcsname{#3}%

```

```

386 \@for\NMSB@item:=\@tempa\do{%
387 \ifx\relax\NMSB@valuelist\relax
388 \xdef\NMSB@valuelist{\NMSB@item\theNMSB@ent}%
389 \else
390 \xdef\NMSB@valuelist{\NMSB@valuelist,\NMSB@item\theNMSB@ent}%
391 \fi}%
392 \stepcounter{NMSB@ent}%
393 \ifnum\theNMSB@ent=\theNMSB@maxent\relax\NMSB@errtoomanyent\fi
394 \fi
395 }
396 \def\@bibitem#1#2\par{%
397 \expandafter\ifx\csname NMSBcateg@#1\endcsname\relax
398 \expandafter\gdef\csname NMSBcateg@#1\endcsname{9999}%
399 % \ifNMSB@ownorder
400 % \expandafter\xdef\csname NMSBcateg@#1\endcsname{%
401 % \csname NMSBcateg@#1\endcsname\theNMSB@maxent}%
402 % \fi
403 \edef\NMSB@missingcat{\NMSB@missingcat #1,}%
404 \fi
405 \def\@tempa{}%
406 \ifNMSB@ownorder
407 \edef\NMSB@temp{\csname NMSBcateg@#1\endcsname}%
408 \@for\NMSB@local:=\NMSB@temp\do{%
409 \ifx\relax\@tempa\relax
410 \edef\@tempa{\expandafter\NMSB@getcateg\NMSB@local-}%
411 \else
412 \edef\@tempa{\@tempa,\expandafter\NMSB@getcateg\NMSB@local-}%
413 \fi}%
414 \else
415 \edef\@tempa{\csname NMSBcateg@#1\endcsname}%
416 \fi
417 \@ifundefined{SBlongestlabel}{%
418 \expandafter\ifx\csname NMSBprefix@\@tempa\endcsname\relax
419 \let\@tempb\NMSB@initiallongestlabel
420 \else
421 \expandafter\let\expandafter\NMSB@tempentry\csname
422 NMSBprefix@\@tempa\endcsname
423 \expandafter\expandafter\expandafter\NMSB@tok
424 \expandafter\expandafter\expandafter{%
425 \expandafter\NMSB@tempentry
426 \NMSB@initiallongestlabel}%
427 \edef\@tempb{\the\NMSB@tok}%
428 \fi
429 \setbox\@tempboxa=\hbox{\@tempb}%
430 \ifdim\NMSB@longest<\wd\@tempboxa
431 \setlength\NMSB@longest{\wd\@tempboxa}%
432 \global\let\NMSB@longestlabel\@tempb
433 \fi}{}%
434 \ifNMSB@ownorder
435 \edef\NMSB@temp{\csname NMSBcateg@#1\endcsname}%
436 \@for\NMSB@local:=\NMSB@temp\do{%
437 \edef\NMSB@tempb{\expandafter\NMSB@getent\NMSB@local-}
438 \expandafter\xdef\csname NMSBkey@\NMSB@tempb\endcsname{#1}%
439 \expandafter\gdef\csname NMSBentry@\NMSB@tempb\endcsname{#2}%

```

```

440     \ifx\relax\NMSB@valuelist\relax
441       \xdef\NMSB@valuelist{\NMSB@local}%
442     \else
443       \xdef\NMSB@valuelist{\NMSB@valuelist,\NMSB@local}%
444     \fi}%
445 \else
446   \expandafter\xdef\csname NMSBkey@\theNMSB@ent\endcsname{#1}%
447   \expandafter\gdef\csname NMSBentry@\theNMSB@ent\endcsname{#2}%
448   \@for\NMSB@item:=\@tempa\do{%
449     \ifx\relax\NMSB@valuelist\relax
450       \xdef\NMSB@valuelist{\NMSB@item\theNMSB@ent}%
451     \else
452       \xdef\NMSB@valuelist{\NMSB@valuelist,\NMSB@item\theNMSB@ent}%
453     \fi}%
454   \stepcounter{NMSB@ent}%
455   \ifnum\theNMSB@ent=\theNMSB@maxent\relax\NMSB@errtoomanyent\fi
456 \fi
457 }

```

`\NMSB@afterfi` The sorting commands. This is an implementation of the quicksort algorithm.

```

\NMSB@afterelse 458 \def\NMSB@afterfi#1\fi{\fi#1}
\NMSB@empty     459 \def\NMSB@afterelse#1\else#2\fi{\fi#1}
\NMSB@pivot     460 \def\NMSB@empty{}
\NMSB@qsort     461 \def\NMSB@pivot#1#2#3#4#5,{%
\NMSB@resort    462   \ifx\relax#5\NMSB@empty%
\NMSB@sort      463   \ifx\relax#3\relax\else\NMSB@resort{#1}{#3}, \fi%
\NMSB@sortlt    464   #2%
                465   \ifx\relax#4\relax\else,\NMSB@resort{#1}{#4}\fi%
                466   \else%
                467   \ifnum#5#1#2 \NMSB@afterelse{\NMSB@afterfi{%
                468     \NMSB@pivot{#1}{#2}{#3#5,}{#4}}}%
                469   \else%
                470   \NMSB@afterfi{\NMSB@afterfi{%
                471     \NMSB@pivot{#1}{#2}{#3}{#4#5,}}}%
                472   \fi
                473   \fi
                474 }%
                475 \def\NMSB@qsort#1#2,{%
                476   \ifx\relax#2\relax\else
                477     \NMSB@afterfi{\NMSB@pivot{#1}{#2}{}}\fi}
                478 \def\NMSB@resort#1#2{\NMSB@qsort{#1}#2\relax,}
                479 \def\NMSB@sort#1#2{\NMSB@qsort{#1}#2,\relax,}
                480 \def\NMSB@sortlt#1{\NMSB@sort{<}{#1}}

```

`\NMSB@writecatbib` Macros for writing unexpanded commands into the `.sbb` file.

```

481 \long\def\NMSB@writecatbib#1{%
482   \NMSB@tok{#1}%
483   \immediate\write\NMSB@catbib{\the\NMSB@tok}}

```

`\NMSB@writeentry` Those macros are to write one entry, and the list of entries, respectively. When writing an entry, we have to detect category-changes, for writing the (sub)title. `\NMSB@writeentry` is becoming more and more complex, but it mainly detects category changes, writes category titles if needed, and writes a `\bibitem`.

```

484 \def\NMSB@writeentry#1#2#3#4#5,{\ifx\relax #5\relax
485   \else
486     \def\NMSB@currcat{#1#2#3#4}%
487     \def\NMSB@currcatlevelone{#1#2}%
488     \ifx\NMSB@currcatlevelone\NMSB@prevcatlevelone\else
489       \expandafter\ifx\csname NMSBtitle@\NMSB@currcatlevelone
490         \endcsname\relax
491       \else
492         \ifNMSB@export
493           \if@filesw
494             \immediate\write\NMSB@catbib{%
495               \string\par\string\addpenalty{-\NMSB@penalty}%
496               \string\relax^^J%
497               \string\item[]%
498               \string\SBtitle}%
499             \expandafter\let\expandafter\NMSB@tempentry
500               \csname NMSBtitle@\NMSB@currcatlevelone\endcsname
501             \expandafter\NMSB@writecatbib\expandafter{%
502               \expandafter{\NMSB@tempentry}}%
503             \immediate\write\NMSB@catbib{\string\relax^^J%
504               \string\par\string\addpenalty{\NMSB@penalty}%
505               \string\relax}%
506             \expandafter\ifx\csname
507               NMSBcomment@\NMSB@currcatlevelone\endcsname\relax
508             \else
509               \immediate\write\NMSB@catbib{\string\vskip2ex^^J%
510                 \string\hspace{-\leftmargin}\string\relax^^J%
511                 \string\begin{minipage}{\textwidth}^^J%
512                 \string\addtolength\string\parindent{20pt}^^J%
513                 \string\noindent}
514               \expandafter\let\expandafter\NMSB@tempentry
515                 \csname NMSBcomment@\NMSB@currcatlevelone\endcsname
516               \expandafter\NMSB@writecatbib\expandafter{%
517                 \NMSB@tempentry^^J}%
518               \immediate\write\NMSB@catbib{\string\end{minipage}^^J%
519                 \string\par\string\addpenalty{\NMSB@penalty}
520                 \string\vskip2ex}
521             \fi
522           \fi
523         \else
524           \par\addpenalty{-\NMSB@penalty}%
525           \item[]%
526           \SBtitle{\csname NMSBtitle@\NMSB@currcatlevelone\endcsname}
527           \par\addpenalty{\NMSB@penalty}%
528           \expandafter\ifx\csname
529             NMSBcomment@\NMSB@currcatlevelone\endcsname\relax
530           \else
531             \vskip2ex\hspace{-\leftmargin}\begin{minipage}{\textwidth}%
532             \addtolength\parindent{20pt}\noindent%
533             \csname NMSBcomment@\NMSB@currcatlevelone\endcsname
534             \end{minipage}%
535             \par\addpenalty{\NMSB@penalty}\vskip2ex
536           \fi
537         \fi

```

```

538 \fi
539 \xdef\NMSB@prevcatlevelone{#1#2}%
540 \ifnum\theSBresetdepth>0\relax
541 \setcounter{\@listctr}{0}%
542 \fi
543 \expandafter\ifx\csname NMSBprefix@\NMSB@prevcatlevelone
544 \endcsname\relax
545 \NMSB@currprefixlevelonetok{\relax}%
546 \else
547 \expandafter\expandafter\expandafter\NMSB@currprefixlevelonetok
548 \expandafter\expandafter\expandafter{%
549 \csname NMSBprefix@\NMSB@prevcatlevelone\endcsname}%
550 \fi
551 \fi
552 \ifx\NMSB@currcat\NMSB@prevcat\else
553 \ifnum\NMSB@currcat=9999\else
554 \expandafter\ifx\csname NMSBtitle@\NMSB@currcat\endcsname
555 \relax
556 \else
557 \ifNMSB@export
558 \if@files
559 \immediate\write\NMSB@catbib{%
560 \string\par\string\addpenalty{-\NMSB@halfpenalty}%
561 \string\relax^^J%
562 \string\item[]%
563 \string\SBsubtitle}%
564 \expandafter\let\expandafter\NMSB@tempentrya
565 \csname NMSBtitle@\NMSB@currcatlevelone\endcsname
566 \expandafter\let\expandafter\NMSB@tempentryb
567 \csname NMSBtitle@\NMSB@currcat\endcsname
568 \expandafter\NMSB@writecatbib\expandafter{%
569 \expandafter{\NMSB@tempentrya}}
570 \expandafter\NMSB@writecatbib\expandafter{%
571 \expandafter{\NMSB@tempentryb}}
572 \immediate\write\NMSB@catbib{\string\relax^^J%
573 \string\par\string\addpenalty{\NMSB@penalty}%
574 \string\relax}%
575 \expandafter\ifx\csname
576 NMSBcomment@\NMSB@currcat\endcsname\relax
577 \else
578 \immediate\write\NMSB@catbib{\string\vskip2ex^^J%
579 \string\hspace{-\leftmargin}\string\relax^^J%
580 \string\begin{minipage}{\textwidth}^^J%
581 \string\addtolength\string\parindent{20pt}^^J%
582 \string\noindent}
583 \expandafter\let\expandafter\NMSB@tempentry
584 \csname NMSBcomment@\NMSB@currcat\endcsname
585 \expandafter\NMSB@writecatbib\expandafter{%
586 \NMSB@tempentry^^J}%
587 \immediate\write\NMSB@catbib{\string\end{minipage}^^J%
588 \string\par\string\addpenalty{\NMSB@penalty}%
589 \string\vskip2ex}
590 \fi
591 \fi

```

```

592     \else
593         \par\addpenalty{-\NMSB@halfpenalty}%
594         \item[]
595         \SBsubtitle{\csname NMSBtitle@\NMSB@currcatlevelone\endcsname}%
596             {\csname NMSBtitle@\NMSB@currcat\endcsname}%
597         \par\addpenalty{\NMSB@penalty}%
598         \expandafter\ifx\csname
599             NMSBcomment@\NMSB@currcat\endcsname\relax
600         \else
601             \vskip2ex\hspace{-\leftmargin}\begin{minipage}{\textwidth}%
602                 \addtolength\parindent{20pt}\noindent%
603                 \csname NMSBcomment@\NMSB@currcat\endcsname
604                 \end{minipage}%
605             \par\addpenalty{\NMSB@penalty}\vskip2ex
606         \fi
607     \fi
608 \fi
609 \fi
610 \xdef\NMSB@prevcat{#1#2#3#4}%
611 \ifnum\theSBresetdepth>1\relax
612     \setcounter{\@listctr}{0}%
613 \fi
614 \expandafter\ifx\csname NMSBprefix@\NMSB@currcat\endcsname\relax
615     \expandafter\NMSB@currprefixtok\expandafter{%
616         \the\NMSB@currprefixlevelonetok}%
617 \else
618     \expandafter\expandafter\expandafter\NMSB@currprefixtok
619     \expandafter\expandafter\expandafter{%
620         \csname NMSBprefix@\NMSB@currcat\endcsname}
621 \fi
622 \fi
623 \expandafter\ifx\csname NMSBlabel@#5\endcsname\relax
624     \ifNMSB@export
625         \if@filesw
626             \stepcounter{\@listctr}
627             \immediate\write\NMSB@catbib{%
628                 \string\bibitem}%
629 \expandafter\ifx\expandafter\relax\the\NMSB@currprefixtok
630     \else
631         \expandafter\expandafter\expandafter\def
632         \expandafter\expandafter\expandafter\NMSB@tempentry
633         \expandafter\expandafter\expandafter{%
634             \expandafter\the\expandafter\NMSB@currprefixtok
635             \the\value{\@listctr}}%
636         \expandafter\NMSB@writecatbib\expandafter{%
637             \expandafter[\NMSB@tempentry]}%
638 \fi
639     \immediate\write\NMSB@catbib{%
640         {\csname NMSBkey@#5\endcsname}}
641     \expandafter\let\expandafter\NMSB@tempentry
642     \csname NMSBentry@#5\endcsname%
643     \expandafter\NMSB@writecatbib\expandafter{%
644         \NMSB@tempentry^^J^^J}
645 \fi

```

```

646     \else
647         \@NMSBorig@@bibitem{\csname NMSBkey@#5\endcsname}%
648         \csname NMSBentry@#5\endcsname
649     \fi
650     \setbox\@tempboxa=\hbox{\the\NMSB@currprefixtok\the\value{\@listctr}}%
651     \ifdim\NMSB@reallylongest<\wd\@tempboxa
652         \setlength{\NMSB@reallylongest}{\wd\@tempboxa}%
653         \xdef\NMSB@reallylongestlabel{%
654             \expandafter\ifx\expandafter\relax\the\NMSB@currprefixtok
655 \else\the\NMSB@currprefixtok\fi\the\value{\@listctr}}%
656     \fi
657     \else
658         \ifNMSB@export
659             \if@filesw
660                 \immediate\write\NMSB@catbib{%
661                     \string\bibitem}
662                 \expandafter\let\expandafter\NMSB@tempentry
663                 \csname NMSBlabel@#5\endcsname
664                 \expandafter\NMSB@writecatbib\expandafter{%
665                     \expandafter[\NMSB@tempentry]}%
666                 \immediate\write\NMSB@catbib{%
667                     {\csname NMSBkey@#5\endcsname}}%
668                 \expandafter\let\expandafter\NMSB@tempentry
669                 \csname NMSBentry@#5\endcsname%
670                 \expandafter\NMSB@writecatbib\expandafter{%
671                     \NMSB@tempentry^^J^^J}
672             \fi
673         \else
674             \@NMSBorig@@lbibitem[\csname NMSBlabel@#5\endcsname]%
675                                 {\csname NMSBkey@#5\endcsname}%
676                                 \csname NMSBentry@#5\endcsname
677         \fi
678         \setbox\@tempboxa=\hbox{\csname NMSBlabel@#5\endcsname}%
679         \ifdim\NMSB@reallylongest<\wd\@tempboxa
680             \setlength{\NMSB@reallylongest}{\wd\@tempboxa}%
681             \expandafter\let\expandafter\NMSB@reallylongestlabel\csname
682 NMSBlabel@#5\endcsname
683         \fi
684     \fi
685 \fi
686 }
687 \def\NMSB@writelist#1{%
688     \@for\NMSB@curritem:=#1\do{%
689         \edef\NMSB@curritem{\expandafter
690             \@firstofone\NMSB@curritem\@empty}%
691         \expandafter\NMSB@writeentry\NMSB@curritem ,}}
\@NMSBorig@thebibliography \thebibliography does not really use its argument. It's simply used for approx-
\@NMSBorig@endthebibliography imating the longest label. Note that \endthebibliography writes the entries,
\thebibliography since sorting has to be done after \bibitem's have treated all the entries.
\endthebibliography
692 \let\@NMSBorig@thebibliography\thebibliography
693 \let\@NMSBorig@endthebibliography\endthebibliography
694 \def\thebibliography#1{%
695     \setcounter{NMSB@ent}{\NMSB@initent}%

```

```

696 \@ifundefined{SBlongestlabel}{%
697   \gdef\NMSB@initiallongestlabel{#1}}{%
698   \global\let\NMSB@longestlabel\SBlongestlabel
699   \setbox\@tempboxa=\hbox{\SBlongestlabel}%
700   \setlength{\NMSB@longest}{\wd\@tempboxa}}%
701 \ifNMSB@export
702   \if@filesw
703     \newwrite\NMSB@catbib
704     \immediate\openout\NMSB@catbib \jobname.sbb\relax
705     \expandafter\NMSB@tok\expandafter{\SBlongestlabel}
706     \immediate\write\NMSB@catbib{%
707       \string\begin{thebibliography}}%
708     \@ifundefined{SBlongestlabel}{#1}{\the\NMSB@tok}}
709   \fi
710 \fi
711 }
712 \def\endthebibliography{%
713   \ifNMSB@export
714     \usecounter{enumiv}%
715   \else
716     \ifNMSB@newchap
717       \@ifundefined{chapter}{\section*{\refname}}{\chapter*{\bibname}}%
718     \fi
719     \list{\@biblabel{\the\NMSB@currprefixtok\@arabic\c@enumiv}\hfill}{%
720       \settowidth\labelwidth{\@biblabel{\NMSB@longestlabel}}%
721       \leftmargin\labelwidth
722       \advance\leftmargin\labelsep
723       \@openbib@code
724       \usecounter{enumiv}%
725       \let\p@enumiv\@empty
726       \renewcommand\theenumiv{\@arabic\c@enumiv}}%
727     \fi
728     \edef\NMSB@sortedvaluelist{%
729       \expandafter\NMSB@sortlt\expandafter{\NMSB@valuelist}}%
730     \expandafter\NMSB@writelst\expandafter{\NMSB@sortedvaluelist}%
731   \ifNMSB@export
732     \if@filesw
733       \immediate\write\NMSB@catbib{%
734         \string\end{thebibliography}}
735       \immediate\closeout\NMSB@catbib
736     \fi
737     \begingroup
738     \ifNMSB@newchap\else
739       \@ifundefined{chapter}{\def\section##1##2}{\def\chapter##1##2}}%
740     \fi
741     \let\thebibliography\@NMSBorig@thebibliography
742     \let\endthebibliography\@NMSBorig@endthebibliography
743     \let\@lbibitem\@NMSBorig@lbibitem
744     \let\@bibitem\@NMSBrealorig@bibitem
745     \@input{\jobname.sbb}
746   \endgroup
747   \else
748     \endlist
749   \fi

```

```

750 \ifx\NMSB@missingcat\NMSB@empty\else
751   \expandafter\NMSB@warnnocateg\NMSB@missingcat\end
752 \fi
753 \ifNMSB@strict
754   \ifx\NMSB@doublecat\NMSB@empty\else
755     \expandafter\NMSB@warndblcateg\NMSB@doublecat\end
756   \fi
757 \fi
758 \ifdim\NMSB@reallylongest=\NMSB@longest\relax\else
759   \NMSB@warnwronglongest
760 \fi
761 }

```

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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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