Back referencing from bibliographical citations*

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Documentation overview for `hyperref`

The documentation for package `hyperref` consists of several files:

Manual The **USER MANUAL** (also available as HTML).

README The **README** file (also available as text file). Here information is collected that is not yet in the manual: new features, package compatibility, limitations, known problems, …

ChangeLog This file records the version history (also available as text file).

Options This file provides a short option summary.

Bookmark talk, slides Slides for the talk "PDF information and navigation elements with hyperref, pdfTeX and thumbpdf" at EuroTeX 1999.

Bookmark talk, paper The paper version of the talk.

Source code documentation:

hyperref.dtx This is the source code documentation for hyperref.

☞ **backref.dtx** "Back referencing from bibliographical citations" (this file)

nameref.dtx "Section name references in LaTeX"

Contents

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*This file has version number v1.39, last revised 2016/05/21.

1 Introduction

2 Usage

2.1 Options

The supported options are given as package options. Few options (e.g. `verbose`, `enable`, `disable`) can be changed after the package is loaded by the macro `\backrefsetup`, e.g.:

```
\usepackage[verbose]{backref}
\backrefsetup{verbose=false}
```

This macro is available since version 2012/07/24 v1.37.

2.1.1 Options for type of back references

In short the following options set the type of back references. Default is option `pageref`.

`ref`	section number
`pageref`	page number
`hyperref`	section number as hyper link
`hyperpageref`	page number as hyper link

The options that start with `hyper` are intended for the use with package `hyperref`. In this case package `backref` will be loaded automatically if the `hyperref` options `backref` or `pagebackref` are given. Package `hyperref` then loads package `backref` with the appropriate option:

`hyperref` option	`backref` option set by `hyperref`
backref	hyperref
backref=section	hyperref
backref=slide	hyperref
backref=page	hyperpageref
pagebackref	hyperpageref

2.1.2 Language options

Currently supported options are `english` (`american`, `australian`, `british`, `canadian`, `newzealand`, `UKenglish`, `USenglish`), `german` (`ngerman`, `austrian`, `naustrian`), `french` (`acadian`, `canadien`, `frenchb`, `francais`), `spanish`, and `brazil` (`brazilian`). Default is `english`.

2.1.3 Other options

verbose: A message is written into the `.aux` file for each reference that is found for back citing.

enable, disable: If a citation should not be back cited, then the recording can be turned off by option `disable` and enabled again afterwards, e.g.:

> `\bookmarksetup{disable}\cite{...}\bookmarksetup{enable}`

Both options are added in version 2012/07/24 v1.37.

2.2 Detecting the end of a bibliography entry

Package `backref` has to be able to detect the end of an entry in the bibliography, therefore each `\bibitem` entry must be ended by an empty line (or a `\par` token).

> Example:
>
> ```
> \begin{thebibliography}{9}
> \bibitem[bib:abc] First entry.
>
> \bibitem[bib:foo] Second entry.
>
> \end{thebibliography}
> ```

Then package `backref` can automatically add hooks for the back references list at the end of the entries.

`\backrefparscanfalse`
`\backrefparscantrue`   Sometimes it is not appropriate if the entry is read as argument. For example, catcode changes for verbatim stuff do not have the desired effect. Therefore the scan for the `\par` token can be disabled by `\backrefparscanfalse` before `\bibitem` and enabled by `\backrefparscantrue` afterwards.

`\backrefprint`   If the scan for the end of the entry is disabled, then package `backref` does not know where to put the back references list. The list is printed by the macro `\backrefprint`, thus just call it at the right place. Example:

> ```
> \backrefparscanfalse % disable scan for entry ending
> \bibitem[...]{...}
>  ... \verb|...| ... % potentially dangerous stuff
>  ... \url{...} ...
>  \backrefprint      % print back reference list here
> \backrefparscantrue  % enable scan again
> ```

2.3 Formatting of the back references list

The back references list is separated from the entry by `\newblock`, if the used bibliography package supports this. The package options control the kind of back references (page numbers, sections numbers), whereas the hooks control the formatting.

There are two hooks `\backref` and a new hook `\backrefalt`, available since version 1.21 of package `backref`. The former one is enabled by default.

2.3.1 Formatting hook `\backref`

Macro `\backref` has a a comma separated list of backref references as first and only argument. With hyperref options only this list will be printed. Without hyperref there is an introductionary text, controlled by macros `\backrefpagesname` or `\backrefsectionsname`.

2.3.2 Formatting hook \backrefalt

\backrefalt is a new interface since version 1.21 of package backref. It takes four arguments:

1. Number of citations without dupes.

2. Back references list without dupes.

3. Number of all citations (with dupes).

4. Back reference list with all entries (with dupes).

The latter options consider equal entries as one entry. Now \backrefalt can easily be defined with text that depends on the number of citations, for example:

```
\usepackage[backref]{backref}
\renewcommand*{\backref}[1]{}% for backref < 1.33 necessary
\renewcommand*{\backrefalt}[4]{%
 \ifcase #1 %
   No citations.%
 \or
   One citation in section #2.%
 \else
   #1 citations in sections #2.%
 \fi
}
```

The separation between the list entries are controlled by the following macros:

- \backrefsep: inserted between entries except for the next cases, default is
  ",␣".

- \backreftwosep: inserted between entries in a list of two entries, default is
  "␣and~".

- \backreflastsep: inserted between the last two entries of a list with more than two entries, default is ",␣and~".

Examples:

⟨entry1⟩
⟨entry1⟩ \backreftwosep ⟨entry2⟩
⟨entry1⟩ \backrefsep ⟨entry2⟩ \backreflastsep ⟨entry3⟩

Since version 1.33 it is not necessary to redefine pages , it is automatically disabled if defined.

2.3.3 Refinement \backrefentrycount

Since version 1.33 the entries of the distinct list of interface \backrefalt are wrapped in \backrefentrycount. The macro is called with two arguments. The first is the backref entry and the second one the citation count of this entry. As default the macro passes the first argument through and ignores the count argument. But it can be redefined, e.g.

```
\renewcommand*{\backrefalt}[4]{...}% see above
\renewcommand*{\backrefentrycount}[2]{%
 #1%
 \ifnum#2>1 %
   ~(#2)%
 \fi
}
```

In case of duplicates, the distinct entry is appended by the number of citations in parentheses.

3 The macros

Internal command names of this package start with `\BR@`, commands, that store the original meaning of commands, which will be redefined, are prefixed with `\BRorg@`.

3.1 Package identification

1 ⟨*package⟩

3.2 Options

2 \RequirePackage{kvoptions}[2011/06/30]
3 \RequirePackage{kvsetkeys}[2009/07/30]
4 \RequirePackage{ltxcmds}[2009/12/12]
5 \SetupKeyvalOptions{%
6   family=backref,%
7   prefix=BR@,%
8 }

\backrefsetup

9 \newcommand*{\backrefsetup}{\kvsetkeys{backref}}

3.2.1 Option verbose

If package hyperref is loaded, then its setting is used as default for the verbose switch.

10 \DeclareBoolOption[%
11   \ltx@ifundefined{ifHy@verbose}{%
12   false%
13   }{%
14   \ifx\ifHy@verbose\iftrue true\else false\fi
15   }%
16]{verbose}

3.2.2 Options for way of working

What is printed depends on how the 3 available items of information are used (page number, section number, label).

17 \long\def\page@backref#1#2#3{#1}
18 \long\def\section@backref#1#2#3{#2}
19 \long\def\hyper@section@backref#1#2#3{\hyperlink{#3}{#2}}
20 \long\def\hyper@page@backref#1#2#3{\hyperlink{page.#1}{#1}}

Now the options follows, that can be used without package hyperref.

21 \DeclareVoidOption{pageref}{%
22   \def\backref{\backrefpagesname\ }%
23   \let\backrefxxx\page@backref
24 }
25 \DeclareVoidOption{ref}{%
26   \def\backref{\backrefsectionsname\ }%
27   \let\backrefxxx\section@backref
28 }

Set up back-referencing to be hyper links, by page or section.

```
29 \DeclareVoidOption{hyperref}{%
30   \def\backref{}\let\backrefxxx\hyper@section@backref
31 }
32 \DeclareVoidOption{hyperpageref}{%
33   \def\backref{}\let\backrefxxx\hyper@page@backref
34 }
```

Recording the back references in the auxiliary file can be enabled and disabled by the following options.

```
35 \DeclareBoolOption[true]{enable}
36 \DeclareComplementaryOption{disable}{enable}
```

3.2.3   Language options

```
37 \def\backrefenglish{%
38   \def\backrefpagesname{pages}%
39   \def\backrefsectionsname{sections}%
40   \def\backrefsep{, }%
41   \def\backreftwosep{ and~}%
42   \def\backreflastsep{, and~}%
43 }
44 \def\backrefgerman{%
45   \def\backrefpagesname{Seiten}%
46   \def\backrefsectionsname{Abschnitte}%
47   \def\backrefsep{, }%
48   \def\backreftwosep{ und~}%
49   \def\backreflastsep{ und~}%
50 }
51 \def\backreffrench{%
52   \def\backrefpagesname{pages}%
53   \def\backrefsectionsname{sections}%
54   \def\backrefsep{, }%
55   \def\backreftwosep{ et~}%
56   \def\backreflastsep{ et~}%
57 }
58 \def\backrefspanish{%
59   \def\backrefpagesname{p\'aginas}%
60   \def\backrefsectionsname{secciones}%
61   \def\backrefsep{, }%
62   \def\backreftwosep{ y~}%
63   \def\backreflastsep{ y~}%
64 }
65 \def\backrefbrazil{%
66   \def\backrefpagesname{p\'aginas}%
67   \def\backrefsectionsname{se\c c\~oes}%
68   \def\backrefsep{, }%
69   \def\backreftwosep{ e~}%
70   \def\backreflastsep{ e~}%
71 }
72 \def\backrefafrikaans{%
73   \def\backrefpagesname{bladsye}%
74   \def\backrefsectionsname{afdelings}%
75   \def\backrefsep{, }%
76   \def\backreftwosep{ en~}%
77   \def\backreflastsep{ en~}%
78 }%
```

Instead of package babel's definition of `\addto` the implementation of package varioref is used. Additionally argument #1 is checked for `\relax`.

```
79 \def\BR@addto#1#2{%
80   #2%
81   \@temptokena{#2}%
82   \ifx#1\relax
83     \let#1\@empty
84   \fi
85   \ifx#1\@undefined
86     \edef#1{\the\@temptokena}%
87   \else
88     \toks@\expandafter{#1}%
89     \edef#1{\the\toks@\the\@temptokena}%
90   \fi
91   \@temptokena{}\toks@\@temptokena
92 }
93 \def\BR@DeclareLang#1#2{%
94   \begingroup
95     \edef\x##1##2{%
96       \noexpand\ifx##2\relax
97         \errmessage{No definitions for language '#2' found!}%
98       \noexpand\fi
99       \endgroup
100      \noexpand\DeclareVoidOption{#1}{%
101        \noexpand\BR@addto{\noexpand##1}{\noexpand##2}%
102      }%
103    }%
104  \expandafter\x\csname extras#1\expandafter\endcsname
105          \csname backref#2\expandafter\endcsname
106 }
107 \BR@DeclareLang{english}{english}
108 \BR@DeclareLang{american}{english}
109 \BR@DeclareLang{australian}{english}
110 \BR@DeclareLang{british}{english}
111 \BR@DeclareLang{canadian}{english}
112 \BR@DeclareLang{newzealand}{english}
113 \BR@DeclareLang{UKenglish}{english}
114 \BR@DeclareLang{USenglish}{english}
115 \BR@DeclareLang{german}{german}
116 \BR@DeclareLang{ngerman}{german}
117 \BR@DeclareLang{austrian}{german}
118 \BR@DeclareLang{naustrian}{german}
119 \BR@DeclareLang{french}{french}
120 \BR@DeclareLang{acadian}{french}
121 \BR@DeclareLang{canadien}{french}
122 \BR@DeclareLang{frenchb}{french}
123 \BR@DeclareLang{francais}{french}
124 \BR@DeclareLang{spanish}{spanish}
125 \BR@DeclareLang{brazil}{brazil}
126 \BR@DeclareLang{brazilian}{brazil}
127 \BR@DeclareLang{afrikaans}{afrikaans}
```

Default is the english version:

```
128 \backrefenglish
```

3.2.4   Process options

```
129 \backrefsetup{pageref}
130 \ProcessKeyvalOptions*
```

```
131 \def\BR@DisableOption#1{%
132   \DisableKeyvalOption[%
133     action=warning,%
134     package=backref,%
135   ]{backref}{#1}%
136 }
```

```
137 \BR@DisableOption{ref}
138 \BR@DisableOption{pageref}
139 \BR@DisableOption{hyperref}
140 \BR@DisableOption{hyperpageref}
```

3.3   The bibliography

```
141 \newif\ifbackrefparscan
142 \backrefparscantrue
```

```
143 \newif\ifBR@BackrefAlt
```

```
144 \def\BR@bibitem{%
145   \ifbackrefparscan
146     \expandafter\@ifnextchar\expandafter[\expandafter
147     \BR@@lbibitem\expandafter\BR@@bibitem
148   \else
149     \expandafter\@ifnextchar\expandafter[\expandafter
150     \BR@@@lbibitem\expandafter\BR@@@bibitem
151   \fi
152 }
```

```
153 \def\BR@@lbibitem[#1]#2#3\par{%
154   \let\backrefprint\BR@backrefprint
155   \BRorg@bibitem[{#1}]{#2}#3%
156   \BR@backref{#2}%
157 }%
158 \def\BR@@bibitem#1#2\par{%
159   \let\backrefprint\BR@backrefprint
160   \BRorg@bibitem{#1}#2%
161   \BR@backref{#1}%
162 }
163 \def\BR@@@lbibitem[#1]#2{%
164   \def\backrefprint{\BR@backref{#2}}%
165   \BRorg@bibitem[{#1}]{#2}%
166 }
167 \def\BR@@@bibitem#1{%
168   \def\backrefprint{\BR@backref{#1}}%
169   \BRorg@bibitem{#1}%
170 }
171 \def\BR@backrefprint{%
172   \PackageError{backref}{%
173     \string\backrefprint\space is only available after \string\bibitem
174     \MessageBreak
175     with setting \string\backrefparscanfalse
176   }\@ehc
```

```
177 }
178 \let\backrefprint\BR@backrefprint
179 \def\BR@backref#1{%
180   \newblock
181   \begingroup
182     \csname @safe@activestrue\endcsname
183     \expandafter\providecommand\csname brc@#1\endcsname{0}%
184     \expandafter\providecommand\csname brcd@#1\endcsname{0}%
185     \csname @safe@activesfalse\expandafter\endcsname
186     \ifBR@BackrefAlt
187       \ifx\backrefentrycount\BR@BackrefEntryCountUnused
188       \else
189         \BR@PopulateEntryCount{#1}%
190       \fi
191       \expandafter\backrefalt\csname brc@#1\expandafter\endcsname
192                     \csname brl@#1\expandafter\endcsname
193                     \csname brcd@#1\expandafter\endcsname
194                     \csname brld@#1\endcsname
195     \else
196       \expandafter\backref\csname br@#1\expandafter\endcsname
197     \fi
198   \endgroup
199   \par
200 }
201 \@ifundefined{newblock}{\def\newblock{\par}}{}
202 \let\BR@Unused\@empty
203 \def\BR@BackrefAltUnused#1#2#3#4{\BR@Unused}
204 \@ifundefined{backrefalt}{%
205   \let\backrefalt\BR@BackrefAltUnused
206 }{}
207 \def\BR@BackrefEntryCountUnused#1#2{\BR@Unused#1}
208 \@ifundefined{backrefentrycount}{%
209   \let\backrefentrycount\BR@BackrefEntryCountUnused
210 }{}
```

3.4 Reading .brf file

\backcite The file \jobname.brf collects the back cite informations as calls of \backcite with
the informations in the arguments.

The first argument of macro \backcite is the citation label, the second parameter contains the page number (\thepage), the current label of the citation (\@currentlabel), and the current anchor name (\@currentHref). Example for a citation at the first page in second section:

\backcite {bib:abc}{{1}{2}{section.2}}

While the file \jobname.brf is read, the informations are collected and stored in macros whose names are build by the citation label ⟨label⟩:

\br@⟨label⟩	list, entries separated by comma without dupes
\brc@⟨label⟩	number of citations without dupes
\brl@⟨label⟩	backref list without dupes
\brcd@⟨label⟩	number of all citations (with dupes)
\brld@⟨label⟩	backref list with all entries (with dupes)

What are "dupes"? An instance: you have three references to an entry in the bibliography on the first page:

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```
\backcite {bib:abc}{{1}{1}{section.1}}
\backcite {bib:abc}{{1}{1}{section.1}}
\backcite {bib:abc}{{1}{2}{section.2}}
```

Then the whole backref list with option `pageref` would print, e.g.:

> Entry for `bib:abc`. Cited on pages 1, 1, 1.

Without dupes the entries with the same page number would be removed, e.g.:

> Entry for `bib:abc`. Cited on page 1.

Also the third entry is removed, because it has the same page number. For the comparison only these pieces of information are considered that will be used later by `\backrefxxx`. With option `pageref` macro `\backrefxxx` becomes `\page@backref` that throws away the second and third argument and only uses the first argument with the page number. To be more precise, the first expansion of `\backrefxxx` is used in comparison. If some arguments are used here, but later omitted, then this will not be detected.

`\backrefxxxdupe` With option `hyperref` you will get two entries in the following example because the second entry differs in the link information, so the result will be the same section number, but as different links.

```
\backref {bib:abc}{{1}{1}{section.1}}
\backref {bib:abc}{{1}{1}{equation.1}}
```

Macro `\backrefxxxdupe` will be used in the comparison test if it is defined. Thus you can provide a definition in this case as follows:

```
\newcommand*{\backrefxxxdupe}[3]{#2}
```

Then only the section number is interpreted, but not the anchor name.

To avoid same entries, it is checked before, whether the entry already exists. Only the information needed by `\backrefxxx` is compared.

```
211 \def\backcite#1#2{%
212  \@for\x:=#1\do{%
213    \begingroup
214      \csname @safe@activestrue\endcsname
215      \edef\x{\endgroup
216        \def\noexpand\x{\expandafter\@firstofone\x\@empty}%
217    }%
218    \x
```

Now macro `\x` contains the citation label name.

```
219    \expandafter\ifx\csname br@\x\endcsname\relax
```

Initialization, fill in the first entry.

```
220      \expandafter\protected@xdef\csname br@\x\endcsname{%
221        \protect\backrefxxx#2%
222      }%
223      \ifBR@BackrefAlt
224      \global\expandafter\let\csname brl@\x\expandafter\endcsname
225              \csname br@\x\endcsname
226      \global\expandafter\let\csname brld@\x\expandafter\endcsname
227              \csname br@\x\endcsname
228      \expandafter\gdef\csname brc@\x\endcsname{1}%
229      \expandafter\gdef\csname brcd@\x\endcsname{1}%
230      \fi
231    \else
```

Fill in further entry. But check for dupe first.

```
232    \begingroup
233      \@ifundefined{backrefxxxdupe}{}{\let\backrefxxx\backrefxxxdupe}%
234      \expandafter\def\expandafter\reserved@a\expandafter{%
235        \backrefxxx#2%
236      }%
237      \let\BRorg@backrefxxx\backrefxxx
238      \global\let\BR@found=N%
239      \long\def\backrefxxx##1##2##3{%
240        \expandafter\def\expandafter\reserved@b\expandafter{%
241          \BRorg@backrefxxx{##1}{##2}{##3}%
242        }%
243        \ifx\reserved@a\reserved@b
244          \global\let\BR@found=Y%
245        \fi
246      }%
247      \setbox\@tempboxa\hbox{\csname br@\x\endcsname}%
248    \endgroup
249    \let\backrefsep\relax
250    \def\backreftwosep{\backrefsep}%
251    \def\backreflastsep{\backrefsep}%
252    \if N\BR@found
253      \expandafter\protected@xdef\csname br@\x\endcsname{%
254        \csname br@\x\endcsname, %
255        \protect\backrefxxx#2%
256      }%
257      \ifBR@BackrefAlt
258        \expandafter\protected@xdef\csname brl@\x\endcsname{%
259          \csname brl@\x\endcsname
260          \ifnum\@nameuse{brc@\x}=1 %
261            \noexpand\backreftwosep
262          \else
263            \noexpand\backreflastsep
264          \fi
265          \protect\backrefxxx#2%
266        }%
267        \count@=\@nameuse{brc@\x}\relax
268        \advance\count@ by 1 %
269        \expandafter\xdef\csname brc@\x\endcsname{\the\count@}%
270      \fi
271    \fi
272    \ifBR@BackrefAlt
273      \expandafter\protected@xdef\csname brld@\x\endcsname{%
274        \csname brld@\x\endcsname
275        \ifnum\@nameuse{brcd@\x}=1 %
276          \noexpand\backreftwosep
277        \else
278          \noexpand\backreflastsep
279        \fi
280        \protect\backrefxxx#2%
281      }%
282      \count@=\@nameuse{brcd@\x}\relax
283      \advance\count@ by 1 %
284      \expandafter\xdef\csname brcd@\x\endcsname{\the\count@}%
285    \fi
286  \fi
287 }%
```

```
288 }
```

\BR@PopulateEntryCount

```
289 \def\BR@PopulateEntryCount#1{%
290   \begingroup
291     \toks@{}%
292     \def\backrefsep{%
293       \toks@\expandafter{\the\toks@\backrefsep}%
294     }%
295     \def\backreftwosep{%
296       \toks@\expandafter{\the\toks@\backreftwosep}%
297     }%
298     \def\backreflastsep{%
299       \toks@\expandafter{\the\toks@\backreflastsep}%
300     }%
301     \def\protect{}%
302     \let\BR@backrefxxx\backrefxxx
303     \let\backrefxxx\BR@PopulateBackrefxxx
304     \def\BR@name{#1}%
305     \csname brl@#1\endcsname
306     \expandafter\xdef\csname brl@#1\endcsname{\the\toks@}%
307   \endgroup
308 }
```

\BR@PopulateBackrefxxx

```
309 \def\BR@PopulateBackrefxxx#1#2#3{%
310   \expandafter\def\expandafter\BR@tempa\expandafter{%
311     \BR@backrefxxx{#1}{#2}{#3}%
312   }%
313   \begingroup
314     \count@=\z@
315     \def\backrefsep{}%
316     \def\backreftwosep{}%
317     \def\backreflastsep{}%
318     \let\backrefxxx\BR@@PopulateBackrefxxx
319     \csname brld@\BR@name\endcsname
320     \toks\tw@={\backrefxxx{#1}{#2}{#3}}%
321     \edef\x{\endgroup
322       \toks@{%
323         \the\toks@
324         \noexpand\backrefentrycount{%
325           \the\toks\tw@
326         }{\the\count@}%
327       }%
328     }%
329   \x
330 }
```

\BR@@PopulateBackrefxxx

```
331 \def\BR@@PopulateBackrefxxx#1#2#3{%
332   \expandafter\def\expandafter\BR@tempb\expandafter{%
333     \BR@backrefxxx{#1}{#2}{#3}%
334   }%
335   \ifx\BR@tempa\BR@tempb
336     \advance\count@\@ne
337   \fi
338 }
```

3.5 Initialization

```
339 \def\@currentHref{}
340 \AtBeginDocument{%
341   \let\BRorg@bibitem\bibitem
342   \let\bibitem\BR@bibitem
343   \let\BRorg@thebibliography\thebibliography
344   \def\thebibliography{%
345     \BR@starttoc
346     \BRorg@thebibliography
347   }%
348   \@ifundefined{NAT@parse}{%
349     \global\let\BRorg@citex\@citex
350     \global\let\@citex\BR@citex
351   }{%
352     \@ifpackageloaded{hyperref}{}{%
353       \def\hyper@natlinkstart#1{\Hy@backout{#1}}%
354     }%
355     \PackageInfo{backref}{** backref set up for natbib **}%
356   }%
357 }
```

\BR@starttoc

```
358 \def\BR@starttoc{%
359   \ifx\backrefalt\BR@BackrefAltUnused
360     \global\BR@BackrefAltfalse
361   \else
362     \global\BR@BackrefAlttrue
363   \fi
364   \begingroup
365     \makeatletter
366     \@input{\jobname.brf}%
367     \if@filesw
368       \@ifundefined{tf@brf}{%
369         \expandafter\newwrite\csname tf@brf\endcsname
370       }{}%
371       \@ifundefined{tf@brf@open}{%
372         \BR@RerunFileCheck
373         \immediate\openout\csname tf@brf\endcsname\jobname.brf\relax
374         \gdef\tf@brf@open{}%
375       }{}%
376     \fi
377     \@nobreakfalse
378   \endgroup
379 }
```

3.6 Collecting back cite informations

\BR@citex

```
380 \def\BR@citex[#1]#2{%
381   \BRorg@citex[{#1}]{#2}%
382   \Hy@backout{#2}%
383 }
```

Grr. for chicago.sty

```
384 \@ifpackageloaded{chicago}{%
385   \let\BRorg@citedatax\@citedatax
386   \def\@citedatax[#1]#2{%
```

```
387      \BRorg@citedatax[{#1}]{#2}%
388      \Hy@backout{#2}%
389    }%
390 }{}
```

\Hy@backout

```
391 \def\Hy@backout#1{%
392   \@bsphack
393   \ifBR@enable
394     \ifBR@verbose
395       \PackageInfo{backref}{Back cite \string'#1\string'}%
396     \fi
397     \ifx\@empty\@currentlabel
398       \protected@write\@auxout{}{%
399         \string\@writefile{brf}{%
400           \string\backcite{#1}{{\thepage}{(document)}{Doc-Start}}}%
401         }%
402       }%
403     \else
404       \protected@write\@auxout{}{%
405         \string\@writefile{brf}{%
406           \string\backcite{#1}{{\thepage}{\@currentlabel}{\@currentHref}}}%
407         }%
408       }%
409     \fi
410   \else
411     \ifBR@verbose
412       \PackageInfo{backref}{Disabled back cite \string'#1\string'}%
413     \fi
414   \fi
415   \@esphack
416 }
```

3.7 Rerun warning

\BR@RerunFileCheck The following code computes a MD5 sum and the file size of the .brf file at the begin and the end of the document and compares them. A rerun warning is given, if they do not match. This method requires pdfTeX or LuaTeX. The method fails, if the MD5 sum and the file size are the same for a changed .brf file (it's probably very seldom).

```
417 \RequirePackage{rerunfilecheck}[2009/12/10]
418 \def\BR@RerunFileCheck{%
419   \RerunFileCheck{\jobname.brf}{%
420     \@ifundefined{tf@brf@open}{%
421     }{%
422       \immediate\closeout\tf@brf
423     }%
424   }{%
425     Rerun to get bibliographical references right%
426   }%
427 }
```

```
428 ⟨/package⟩
```