

Documented Code For glossaries v4.28

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This is the documented code for the glossaries package. This bundle comes with the following documentation:

[glossariesbegin.pdf](#) If you are a complete beginner, start with “The glossaries package: a guide for beginners”.

[glossary2glossaries.pdf](#) If you are moving over from the obsolete glossary package, read “Upgrading from the glossary package to the glossaries package”.

[glossaries-user.pdf](#) For the main user guide, read “glossaries.sty v4.28: L^AT_EX2_ε Package to Assist Generating Glossaries”.

[mfirstuc-manual.pdf](#) The commands provided by the mfirstuc package are briefly described in “mfirstuc.sty: uppercasing first letter”.

[glossaries-code.pdf](#) This document is for advanced users wishing to know more about the inner workings of the glossaries package.

INSTALL Installation instructions.

CHANGES Change log.

README Package summary.

The user level commands described in the user manual ([glossaries-user.pdf](#)) may be considered “future-proof”. Even if they become deprecated, they should still work for old documents (although they may not work in a document that also contains new commands introduced since the old commands were deprecated, and you may need to specify a compatibility mode).

The internal commands in *this* document that aren’t documented in the *user manual* should not be considered future-proof and are liable to change. If you want a new user level command, you can post a feature request at <http://www.dickimaw-books.com/feature-request.html>. If you are a package writer wanting to integrate your package with glossaries, it’s better to request a new user level command than to hack these internals.

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1 Main Package Code

1.1 Package Definition

This package requires $\text{\LaTeX}2_{\epsilon}$.

```
1 \NeedsTeXFormat{LaTeX2e}
2 \ProvidesPackage{glossaries}[2017/01/07 v4.28 (NLCT)]
```

Required packages:

```
3 \RequirePackage{ifthen}
4 \RequirePackage{xkeyval}[2006/11/18]
5 \RequirePackage{mfirstuc}
```

The textcase package has much better case changing handling, so use `\MakeTextUppercase` instead of `\MakeUppercase`

```
6 \RequirePackage{textcase}
7 \renewcommand*{\mfirstucMakeUppercase}{\MakeTextUppercase}%
8 \RequirePackage{xfor}
```

```
9 \RequirePackage{datatool-base}
```

Need to use `\new@ifnextchar` instead of `\@ifnextchar` in commands that have a final optional argument (such as `\gls`) so require `.` Thanks to Morten Høgholm for suggesting this. (This has replaced using the `xspace` package.)

```
10 \RequirePackage{amsgen}
```

As from v3.0, now loading `etoolbox`:

```
11 \RequirePackage{etoolbox}
```

Check if doc has been loaded.

```
f@gls@docloaded
```

```
12 \newif\if@gls@docloaded
13 \@ifpackageloaded{doc}%
14 {%
15   \@gls@docloadedtrue
16 }%
17 {%
18   \@ifclassloaded{nlctdoc}{\@gls@docloadedtrue}{\@gls@docloadedfalse}%
19 }
20 \if@gls@docloaded
```

\doc has been loaded, so some modifications need to be made to ensure both packages can work together. The amount of conflict has been reduced as from v4.11 and no longer involves patching internal commands.

\PrintChanges needs to use doc's version of theglossary, so save that.

org@theglossary

```
21 \let\glsorg@theglossary\theglossary
```

@endtheglossary

```
22 \let\glsorg@endtheglossary\endtheglossary
```

\PrintChanges Now redefine \PrintChanges so that it uses the original theglossary environment.

```
23 \let\glsorg@PrintChanges\PrintChanges
24 \renewcommand{\PrintChanges}{%
25   \begingroup
26     \let\theglossary\glsorg@theglossary
27     \let\endtheglossary\glsorg@endtheglossary
28     \glsorg@PrintChanges
29   \endgroup
30 }
```

End of doc stuff.

```
31 \fi
```

1.2 Package Options

debug Switch on debug mode. This will also cancel the nowarn option.

```
32 \define@boolkey{glossaries.sty}{@gls@}{debug}[true]{%
33   \if@gls@debug
34     \renewcommand*{\GlossariesWarning}[1]{%
35       \PackageWarning{glossaries}{##1}%
36     }%
37     \renewcommand*{\GlossariesWarningNoLine}[1]{%
38       \PackageWarningNoLine{glossaries}{##1}%
39     }%
40     \PackageInfo{glossaries}{debug mode ON (nowarn option disabled)}%
41   \else
42     \PackageInfo{glossaries}{debug mode OFF}%
43   \fi
44 }
```

Determine what to do if the see key is used before \makeglossaries. The default is to produce an error.

gls@see@noindex

```
45 \newcommand*{\@gls@see@noindex}{%
46   \PackageError{glossaries}{%

```

```

47 {'see' key may only be used after \string\makeglossaries\space
48 or \string\makenoidxglossaries}%
49 {You must use \string\makeglossaries\space
50 or \string\makenoidxglossaries\space before defining
51 any entries that have a 'see' key}%
52 }

```

seenoinindex

```

53 \define@choicekey{glossaries.sty}{seenoinindex}[\val\nr]{error,warn,ignore}{%
54   \ifcase\nr
55     \renewcommand*{\@gls@see@noindex}{%
56       \PackageError{glossaries}%
57       {'see' key may only be used after \string\makeglossaries\space
58       or \string\makenoidxglossaries}%
59       {You must use \string\makeglossaries\space
60       or \string\makenoidxglossaries\space before defining
61       any entries that have a 'see' key}%
62     }%
63   \or
64     \renewcommand*{\@gls@see@noindex}{%
65       \GlossariesWarning{'see' key ignored}%
66     }%
67   \or
68     \renewcommand*{\@gls@see@noindex}{}%
69   \fi
70 }

```

toc The toc package option will add the glossaries to the table of contents. This is a boolean key, if the value is omitted it is taken to be true.

```
71 \define@boolkey{glossaries.sty}[gls]{toc}[true]{}
```

numberline The numberline package option adds \numberline to \addcontentsline. Note that this option only has an effect if used in with toc=true.

```
72 \define@boolkey{glossaries.sty}[gls]{numberline}[true]{}
```

\@@glossarysec The sectional unit used to start the glossary is stored in \@@glossarysec. If chapters are defined, this is initialised to chapter, otherwise it is initialised to section.

```

73 \ifcsundef{chapter}%
74   {\newcommand*{\@@glossarysec}{section}}%
75   {\newcommand*{\@@glossarysec}{chapter}}

```

section The section key can be used to set the sectional unit. If no unit is specified, use section as the default. The starred form of the named sectional unit will be used. If you want some other way to start the glossary section (e.g. a numbered section) you will have to redefined \glossarysection.

```

76 \define@choicekey{glossaries.sty}{section}{part,chapter,section,%
77 subsection,subsubsection,paragraph,subparagraph}[section]{%
78   \renewcommand*{\@@glossarysec}{#1}}

```

Determine whether or not to use numbered sections.

`glossarysecstar`

```
79 \newcommand*{\@@glossarysecstar}{*}
```

`glossaryseclabel`

```
80 \newcommand*{\@@glossaryseclabel}{}
```

`\glsautoprefix`

Prefix to add before label if automatically generated:

```
81 \newcommand*{\glsautoprefix}{}
```

`numberedsection`

```
82 \define@choicekey{glossaries.sty}{numberedsection}[\val\nr]{%
83 false,nolabel,autolabel,nameref}[nolabel]{%
84   \ifcase\nr\relax
85     \renewcommand*{\@@glossarysecstar}{*}%
86     \renewcommand*{\@@glossaryseclabel}{}%
87   \or
88     \renewcommand*{\@@glossarysecstar}{}%
89     \renewcommand*{\@@glossaryseclabel}{}%
90   \or
91     \renewcommand*{\@@glossarysecstar}{}%
92     \renewcommand*{\@@glossaryseclabel}{%
93       \label{\glsautoprefix\@glo@type}}%
94   \or
95     \renewcommand*{\@@glossarysecstar}{*}%
96     \renewcommand*{\@@glossaryseclabel}{%
97       \protected@edef\@currentlabelname{\glossarytoctitle}%
98       \label{\glsautoprefix\@glo@type}}%
99   \fi
100 }
```

The default glossary style is stored in `\@glossary@default@style`. This is initialised to `list`. (The `list` style is defined in the accompanying package described in [section 1.19](#).) Note that the `list` style is incompatible with `classicthesis` so change the default to `index` if that package has been loaded.

`y@default@style`

```
101 \ifpackageloaded{classicthesis}
102 {\newcommand*{\@glossary@default@style}{index}}
103 {\newcommand*{\@glossary@default@style}{list}}
```

`style`

The default glossary style can be changed using the `style` package option. The value can be the name of any defined glossary style. The glossary style is set at the beginning of the document, so you can still use the `style` key to set a style that is defined in another package. This package comes with some predefined styles that are defined in [section 1.19](#).

```
104 \define@key{glossaries.sty}{style}{%
105   \renewcommand*{\@glossary@default@style}{#1}%
106 }
```

Each `\DeclareOptionX` needs a corresponding `\DeclareOption` so that it can be passed as a document class option, so define a command that will implement both.

`s@declareoption`

```
107 \newcommand*{\@gls@declareoption}[2]{%
108   \DeclareOptionX{#1}{#2}%
109   \DeclareOption{#1}{#2}%
110 }
```

Each entry within a given glossary will have an associated number list. By default, this refers to the page numbers on which that entry has been used, but it can also refer to any counter used in the document (such as the section or equation counters). The default number list format displays the number list “as is”:

`aryentrynumbers`

```
111 \newcommand*{\glossaryentrynumbers}[1]{#1\gls@save@numberlist{#1}}
```

`nonumberlist` Note that the entire number list for a given entry will be passed to `\glossaryentrynumbers` so any font changes will also be applied to the delimiters. The `nonumberlist` package option suppresses the number lists (this simply redefines `\glossaryentrynumbers` to ignore its argument).

```
112 \@gls@declareoption{nonumberlist}{%
113   \renewcommand*{\glossaryentrynumbers}[1]{\gls@save@numberlist{#1}}%
114 }
```

`savenumberlist` Provide means to store the number list for entries.

```
115 \define@boolkey{glossaries.sty}{gls}{savenumberlist}[true]{%
116   \glssavenumberlistfalse}
```

`eautionumberlist`

```
117 \newcommand*{\@glo@seeautonumberlist{}}
```

`eautionumberlist` Automatically activates number list for entries containing the see key.

```
118 \@gls@declareoption{seeautonumberlist}{%
119   \renewcommand*{\@glo@seeautonumberlist}{%
120     \def\@glo@prefix{\glsnextpages}%
121   }%
122 }
```

`\@gls@loadlong`

```
123 \newcommand*{\@gls@loadlong}{\RequirePackage{glossary-long}}
```

`nolong` This option prevents from being loaded. This means that the glossary styles that use the longtable environment will not be available. This option is provided to reduce overhead caused by loading unrequired packages.

```
124 \@gls@declareoption{nolong}{\renewcommand*{\@gls@loadlong}{}}
```

`\@gls@loadsuper` The package isn't loaded if isn't installed.

```

125 \IfFileExists{supertabular.sty}{%
126   \newcommand*{\@gls@loadsuper}{\RequirePackage{glossary-super}}}%
127   \newcommand*{\@gls@loadsuper}{}

```

`nosuper` This option prevents from being loaded. This means that the glossary styles that use the supertabular environment will not be available. This option is provided to reduce overhead caused by loading unrequired packages.

```

128 \@gls@declareoption{nosuper}{\renewcommand*{\@gls@loadsuper}{}

```

`\@gls@loadlist`

```

129 \newcommand*{\@gls@loadlist}{\RequirePackage{glossary-list}}

```

`nolist` This option prevents from being loaded (to reduce overheads if required). Naturally, the styles defined in will not be available if this option is used.

```

130 \@gls@declareoption{nolist}{\renewcommand*{\@gls@loadlist}{}

```

`\@gls@loadtree`

```

131 \newcommand*{\@gls@loadtree}{\RequirePackage{glossary-tree}}

```

`notree` This option prevents from being loaded (to reduce overheads if required). Naturally, the styles defined in will not be available if this option is used.

```

132 \@gls@declareoption{notree}{\renewcommand*{\@gls@loadtree}{}

```

`nostyles` Provide an option to suppress all the predefined styles (in the event that the user has custom styles that are not dependent on the predefined styles).

```

133 \@gls@declareoption{nostyles}{%
134   \renewcommand*{\@gls@loadlong}{}%
135   \renewcommand*{\@gls@loadsuper}{}%
136   \renewcommand*{\@gls@loadlist}{}%
137   \renewcommand*{\@gls@loadtree}{}%
138   \let\@glossary@default@style\relax
139 }

```

`postdescription` The description terminator is given by `\glspostdescription` (except for the 3 and 4 column styles). This is a full stop by default. The spacefactor is adjusted in case the description ends with an upper case letter. (Patch provided by Michael Pock.)

```

140 \newcommand*{\glspostdescription}{%
141   \ifglsnopostdot\else.\spacefactor\sfcode'\. \fi
142 }

```

`nopostdot` Boolean option to suppress post description dot

```

143 \define@boolkey{glossaries.sty}[gls]{nopostdot}[true]{}
144 \glsnopostdotfalse

```

`nogroupskip` Boolean option to suppress vertical space between groups in the pre-defined styles.

```

145 \define@boolkey{glossaries.sty}[gls]{nogroupskip}[true]{}
146 \glsnogroupskipfalse

```

ucmark Boolean option to determine whether or not to use upper case in definition of \gls glossarymark

```

147 \define@boolkey{glossaries.sty}[gls]{ucmark}[true]{}
148 \ifclassloaded{memoir}
149 {%
150   \glsucmarktrue
151 }%
152 {%
153   \glsucmarkfalse
154 }

```

entrycounter Defines a counter that can be used in the standard glossary styles to number each (main) entry. If true, this will define a counter called glossaryentry.

```

155 \define@boolkey{glossaries.sty}[gls]{entrycounter}[true]{}
156 \glsentrycounterfalse

```

entrycounterwithin This option can be used to set a parent counter for glossaryentry. This option automatically sets entrycounter=true.

```

157 \define@key{glossaries.sty}{counterwithin}{%
158   \renewcommand*{\@gls@counterwithin}{#1}%
159   \glsentrycountertrue
160 }

```

s@counterwithin The default value is no parent counter:

```

161 \newcommand*{\@gls@counterwithin}{}

```

subentrycounter Define a counter that can be used in the standard glossary styles to number each level 1 entry. If true, this will define a counter called glossarysubentry.

```

162 \define@boolkey{glossaries.sty}[gls]{subentrycounter}[true]{}
163 \glssubentrycounterfalse

```

default@sorttype Initialise default sort for \printnoidxglossary

```

164 \newcommand*{\@gls@default@sorttype}{standard}

```

sort Define the sort method: sort=standard (default), sort=def (order of definition) or sort=use (order of use).

```

165 \define@choicekey{glossaries.sty}{sort}{standard,def,use}{%
166   \renewcommand*{\@gls@default@sorttype}{#1}%
167   \csname @gls@setupsort@#1\endcsname
168 }

```

sprestandardsort

```
\glsprestandardsort{<sort cs>}{<type>}{<label>}
```

Allow user to hook into sort mechanism. The first argument *<sort cs>* is the temporary control sequence containing the sort value before it has been sanitized and had *makeindex/xindy* special characters escaped.

```

169 \newcommand*{\glsprestandardsort}[3]{%
170   \glsdosanitizesort
171 }

upsort@standard  Set up the macros for default sorting.
172 \newcommand*{\@gls@setupsort@standard}{%
  Store entry information when it's defined.
173   \def\do@glo@storeentry{\@glo@storeentry}%
  No count register required for standard sort.
174   \def\@gls@defsortcount##1{%
    Sort according to sort key (\@glo@sort) if provided otherwise sort according to the entry's
    name (\@glo@name). (First argument glossary type, second argument entry label.)
175   \def\@gls@defsort##1##2{%
176     \ifx\@glo@sort\@glsdefaultsort
177       \let\@glo@sort\@glo@name
178     \fi
179     \let\glsdosanitizesort\@gls@sanitizesort
180     \glsprestandardsort{\@glo@sort}{##1}{##2}%
181     \expandafter\protected@xdef\csname glo@##2@sort\endcsname{\@glo@sort}%
182   }%
  Don't need to do anything when the entry is used.
183   \def\@gls@setsort##1{%
184   }
  Set standard sort as the default:
185 \@gls@setupsort@standard

lssortnumberfmt  Format the number used as the sort key by sort=def and sort=use. Defaults to six digit num-
bering.
186 \newcommand*{\glssortnumberfmt}[1]{%
187   \ifnum#1<100000 0\fi
188   \ifnum#1<10000 0\fi
189   \ifnum#1<1000 0\fi
190   \ifnum#1<100 0\fi
191   \ifnum#1<10 0\fi
192   \number#1%
193 }

s@setupsort@def  Set up the macros for order of definition sorting.
194 \newcommand*{\@gls@setupsort@def}{%
  Store entry information when it's defined.
195   \def\do@glo@storeentry{\@glo@storeentry}%

```

Defined count register associated with the glossary.

```
196 \def\@gls@defsortcount##1{%
197   \expandafter\global
198   \expandafter\newcount\csname glossary@##1@sortcount\endcsname
199 }%
```

Increment count register associated with the glossary and use as the sort key.

```
200 \def\@gls@defsort##1##2{%
201   \expandafter\global\expandafter
202   \advance\csname glossary@##1@sortcount\endcsname by 1\relax
203   \expandafter\protected@xdef\csname glo@##2@sort\endcsname{%
204     \expandafter\glssortnumberfmt
205     {\csname glossary@##1@sortcount\endcsname}}%
206 }%
```

Don't need to do anything when the entry is used.

```
207 \def\@gls@setsort##1{%
208 }
```

s@setupsort@use Set up the macros for order of use sorting.

```
209 \newcommand*{\@gls@setupsort@use}{%
```

Don't store entry information when it's defined.

```
210 \let\do@glo@storeentry\@gobble
```

Defined count register associated with the glossary.

```
211 \def\@gls@defsortcount##1{%
212   \expandafter\global
213   \expandafter\newcount\csname glossary@##1@sortcount\endcsname
214 }%
```

Initialise the sort key to empty.

```
215 \def\@gls@defsort##1##2{%
216   \expandafter\gdef\csname glo@##2@sort\endcsname{%
217 }%
```

If the sort key hasn't been set, increment the counter associated with the glossary and set the sort key.

```
218 \def\@gls@setsort##1{%
```

Get the parent, if one exists

```
219   \edef\@glo@parent{\csname glo@##1@parent\endcsname}%
```

Set the information for the parent entry if not already done.

```
220   \ifx\@glo@parent\@empty
221   \else
222     \expandafter\@gls@setsort\expandafter{\@glo@parent}%
223   \fi
```

Set index information for this entry

```
224   \edef\@glo@type{\csname glo@##1@type\endcsname}%
225   \edef\@gls@tmp{\csname glo@##1@sort\endcsname}%
```

```

226 \ifx\@gls@tmp\@empty
227 \expandafter\global\expandafter
228 \advance\csname glossary@\@glo@type @sortcount\endcsname by 1\relax
229 \expandafter\protected@xdef\csname glo@##1@sort\endcsname{%
230 \expandafter\glssortnumberfmt
231 {\csname glossary@\@glo@type @sortcount\endcsname}}%
232 \@glo@storeentry{##1}%
233 \fi
234 }%
235 }

```

`\glsdefmain` Define the main glossary. This will be the first glossary to be displayed when using `\printglossaries`. The default extensions conflict if used with `doc`, so provide different extensions if `doc` loaded. (If these extensions are inappropriate, use `nomain` and manually define the main glossary with the desired extensions.)

```

236 \newcommand*{\glsdefmain}{%
237 \if@gls@docloaded
238 \newglossary[glg2]{main}{gls2}{glo2}{\glossaryname}%
239 \else
240 \newglossary{main}{gls}{glo}{\glossaryname}%
241 \fi

```

Define hook to set the toc title when translator is in use.

```

242 \newcommand*{\gls@tr@set@main@toctitle}{%
243 \translatelet{\glossarytoctitle}{Glossary}%
244 }%
245 }

```

Keep track of the default glossary. This is initialised to the main glossary, but can be changed if for some reason you want to make a secondary glossary the main glossary. This affects any commands that can optionally take a glossary name as an argument (or as the value of the type key in a key-value list). This was mainly done so that `\loadglsentries` can temporarily change `\glsdefaulttype` while it loads a file containing new glossary entries (see [section 1.10](#)).

`\glsdefaulttype`

```

246 \newcommand*{\glsdefaulttype}{main}

```

Keep track of which glossary the acronyms are in. This is initialised to `\glsdefaulttype`, but is changed by the acronym package option.

`\acronymtype`

```

247 \newcommand*{\acronymtype}{\glsdefaulttype}

```

`nomain` The `nomain` option suppress the creation of the main glossary.

```

248 \@gls@declareoption{nomain}{%
249 \let\glsdefaulttype\relax
250 \renewcommand*{\glsdefmain}{}%
251 }

```

acronym The acronym option sets an associated conditional which is used in [section 1.17](#) to determine whether or not to define a separate glossary for acronyms.

```
252 \define@boolkey{glossaries.sty}{gls}{acronym}[true]{%
253   \ifglssacronym
254     \renewcommand{\@gls@do@acronymsdef}{%
255       \DeclareAcronymList{acronym}%
256       \newglossary[alg]{acronym}{acr}{acn}{\acronymname}%
257       \renewcommand*{\acronymtype}{acronym}%
```

Define hook to set the toc title when translator is in use.

```
258     \newcommand*{\@gls@tr@set@acronym@toctitle}{%
259       \translatelet{\glossarytoctitle}{Acronyms}%
260     }%
261   }%
262 \else
263   \let\@gls@do@acronymsdef\relax
264 \fi
265 }
```

\printacronyms Define \printacronyms at the start of the document if acronym is set and compatibility mode isn't on and \printacronyms hasn't already been defined.

```
266 \AtBeginDocument{%
267   \ifglssacronym
268     \ifbool{glsc-compatible-3.07}{%
269       {}%
270     }%
271     \providecommand*{\printacronyms}[1][]{%
272       \printglossary[type=\acronymtype,#1]}%
273   }%
274 \fi
275 }
```

@do@acronymsdef Set default value

```
276 \newcommand*{\@gls@do@acronymsdef}{{}
```

acronyms Provide a synonym for acronym=true that can be passed via the document class options.

```
277 \@gls@declareoption{acronyms}{%
278   \glssacronymtrue
279   \renewcommand{\@gls@do@acronymsdef}{%
280     \DeclareAcronymList{acronym}%
281     \newglossary[alg]{acronym}{acr}{acn}{\acronymname}%
282     \renewcommand*{\acronymtype}{acronym}%
```

Define hook to set the toc title when translator is in use.

```
283     \newcommand*{\@gls@tr@set@acronym@toctitle}{%
284       \translatelet{\glossarytoctitle}{Acronyms}%
285     }%
286   }%
287 }
```

`glsacronymlists` Comma-separated list of glossary labels indicating which glossaries contain acronyms. Note that `\SetAcronymStyle` must be used after adding labels to this macro.

```
288 \newcommand*{\@glsacronymlists}{}
```

`addtoacronymlists`

```
289 \newcommand*{\@addtoacronymlists}[1]{%
290   \ifx\@glsacronymlists\@empty
291     \protected@xdef\@glsacronymlists{#1}%
292   \else
293     \protected@xdef\@glsacronymlists{\@glsacronymlists,#1}%
294   \fi
295 }
```

`declareAcronymList` Identifies the named glossary as a list of acronyms and adds to the list. (Doesn't check if the glossary exists, but checks if label already in list. Use `\SetAcronymStyle` after identifying all the acronym lists.)

```
296 \newcommand*{\DeclareAcronymList}[1]{%
297   \glsIfListOfAcronyms{#1}{\@addtoacronymlists{#1}}%
298 }
```

`IfListOfAcronyms`

```
\glsIfListOfAcronyms{<label>}{<true part>}{<false part>}
```

Determines if the glossary with the given label has been identified as being a list of acronyms.

```
299 \newcommand{\glsIfListOfAcronyms}[1]{%
300   \edef\@do@gls@islistofacronyms{%
301     \noexpand\@gls@islistofacronyms{#1}{\@glsacronymlists}}%
302   \@do@gls@islistofacronyms
303 }
```

Internal command requires label and list to be expanded:

```
304 \newcommand{\@gls@islistofacronyms}[4]{%
305   \def\gls@islistofacronyms##1,#1,##2\end@gls@islistofacronyms{%
306     \def\@before{##1}\def\@after{##2}}%
307   \gls@islistofacronyms,#2,#1,\@nil\end@gls@islistofacronyms
308   \ifx\@after\@nnil
```

Not found

```
309   #4%
310   \else
```

Found

```
311   #3%
312   \fi
313 }
```

`glsisacronymlist` Convenient boolean.

```
314 \newif\if@glsisacronymlist
```

`ckisacronymlist` Sets the above boolean if argument is a label representing a list of acronyms.

```
315 \newcommand*{\gls@ckisacronymlist}[1]{%
316   \glsIfListOfAcronyms{#1}%
317   {\@glsisacronymlisttrue}{\@glsisacronymlistfalse}%
318 }
```

`SetAcronymLists` Sets the “list of acronyms” list. Argument must be a comma-separated list of glossary labels. (Doesn’t check at this point if the glossaries exists.)

```
319 \newcommand*{\SetAcronymLists}[1]{%
320   \renewcommand*{\@glsacronymlists}{#1}%
321 }
```

`acronymlists`

```
322 \define@key{glossaries.sty}{acronymlists}{%
323   \DeclareAcronymList{#1}%
324 }
```

The default counter associated with the numbers in the glossary is stored in `\glscounter`. This is initialised to the page counter. This is used as the default counter when a new glossary is defined, unless a different counter is specified in the optional argument to `\newglossary` (see [section 1.6](#)).

`\glscounter`

```
325 \newcommand{\glscounter}{page}
```

`counter` The counter option changes the default counter. (This just redefines `\glscounter`.)

```
326 \define@key{glossaries.sty}{counter}{%
327   \renewcommand*{\glscounter}{#1}%
328 }
```

`gls@nohyperlist`

```
329 \newcommand*{\@gls@nohyperlist}{}%
```

`lareNoHyperList`

```
330 \newcommand*{\GlsDeclareNoHyperList}[1]{%
331   \ifdefempty\@gls@nohyperlist
332   {%
333     \renewcommand*{\@gls@nohyperlist}{#1}%
334   }%
335   {%
336     \appto\@gls@nohyperlist{,#1}%
337   }%
338 }
```

`nohypertypes`

```
339 \define@key{glossaries.sty}{nohypertypes}{%
340   \GlsDeclareNoHyperList{#1}%
341 }
```

glossariesWarning Prints a warning message.

```
342 \newcommand*\GlossariesWarning}[1]{%  
343   \PackageWarning{glossaries}{#1}%  
344 }
```

glossariesWarningNoLine Prints a warning message without the line number.

```
345 \newcommand*\GlossariesWarningNoLine}[1]{%  
346   \PackageWarningNoLine{glossaries}{#1}%  
347 }
```

nowarn Define package option to suppress warnings

```
348 \@gls@declareoption{nowarn}{%  
349   \if@gls@debug  
350     \GlossariesWarning{Warnings can't be suppressed in debug mode}%  
351   \else  
352     \renewcommand*\GlossariesWarning}[1]{}%  
353     \renewcommand*\GlossariesWarningNoLine}[1]{}%  
354   \fi  
355 }
```

warnonglossdefined Issue a warning if overriding \printglossary

```
356 \newcommand*\@gls@warnonglossdefined{%  
357   \GlossariesWarning{Overriding \string\printglossary}%  
358 }
```

warntheglossdefined Issue a warning if overriding theglossary

```
359 \newcommand*\@gls@warnontheglossdefined{%  
360   \GlossariesWarning{Overriding 'theglossary' environment}%  
361 }
```

nowarnonredefwarn Suppress warning on redefinition of \printglossary

```
362 \@gls@declareoption{nowarnonredefwarn}{%  
363   \renewcommand*\@gls@warnonglossdefined}{}%  
364   \renewcommand*\@gls@warnontheglossdefined}{}%  
365 }
```

As from version 3.08a, the only information written to the external glossary files are the label and sort values. Therefore, now, the only sanitize option that makes sense is the one for the sort key. so the sanitize option is now deprecated and there is only a sanitizesort option.

ls@sanitizedesc

```
366 \newcommand*\@gls@sanitizedesc{%  
367 }
```

lssetexpandfield `\glssetexpandfield{<field>}`

Sets field to always expand.

```

368 \newcommand*{\glsetexpandfield}[1]{%
369   \csdef{gls@assign@#1@field}##1##2{%
370     \@@gls@expand@field{##1}{#1}{##2}%
371   }%
372 }

```

setnoexpandfield `\glsetnoexpandfield{<field>}`

Sets field to never expand.

```

373 \newcommand*{\glsetnoexpandfield}[1]{%
374   \csdef{gls@assign@#1@field}##1##2{%
375     \@@gls@noexpand@field{##1}{#1}{##2}%
376   }%
377 }

```

sign@type@field The type must always be expandable.

```
378 \glsetexpandfield{type}
```

sign@desc@field The description is not expanded by default:

```
379 \glsetnoexpandfield{desc}
```

escplural@field

```
380 \glsetnoexpandfield{descplural}
```

ls@sanitizename

```
381 \newcommand*{\@gls@sanitizename}{}

```

sign@name@field Don't expand name by default.

```
382 \glsetnoexpandfield{name}
```

@sanitizesymbol

```
383 \newcommand*{\@gls@sanitizesymbol}{}

```

gn@symbol@field Don't expand symbol by default.

```
384 \glsetnoexpandfield{symbol}
```

bolplural@field

```
385 \glsetnoexpandfield{symbolplural}
```

Sanitizing stuff:

ls@sanitizesort

```

386 \newcommand*{\@gls@sanitizesort}{%
387   \ifglssanitizesort
388     \@@gls@sanitizesort
389   \else
390     \@@gls@nosanitizesort
391   \fi
392 }

```

ls@sanitizesort

```
393 \newcommand*\@@gls@sanitizesort{%
394   \@onelevel@sanitize\@glo@sort
395 }
```

@nosanitizesort

```
396 \newcommand*\@@gls@nosanitizesort{}
```

dx@sanitizesort Remove braces around first character (if present) before sanitizing.

```
397 \newcommand*\@gls@noidx@sanitizesort{%
398   \ifdefvoid\@glo@sort
399   {}%
400   {%
401     \expandafter\@@gls@noidx@sanitizesort\@glo@sort\gls@end@sanitizesort
402   }%
403 }
404 \def\@@gls@noidx@sanitizesort#1#2\gls@end@sanitizesort{%
405   \def\@glo@sort{#1#2}%
406   \@onelevel@sanitize\@glo@sort
407 }
```

@nosanitizesort

```
408 \newcommand*\@@gls@noidx@nosanitizesort{%
409   \ifdefvoid\@glo@sort
410   {}%
411   {%
412     \expandafter\@@gls@noidx@no@sanitizesort\@glo@sort\gls@end@sanitizesort
413   }%
414 }
415 \def\@@gls@noidx@no@sanitizesort#1#2\gls@end@sanitizesort{%
416   \bgroup
417   \glsnoidxstripaccents
418   \protected@xdef\@glo@sort{#1#2}%
419   \egroup
420   \let\@glo@sort\@glo@sort
421 }
```

idxstripaccents

```
422 \newcommand*\glsnoidxstripaccents{%
423   \let\IeC\@firstofone
424   \let\'@firstofone
425   \let\'@firstofone
426   \let\~@firstofone
427   \let\"@firstofone
428   \let\u@firstofone
429   \let\t@firstofone
430   \let\d@firstofone
431   \let\r@firstofone
432   \let\=@firstofone
```

```

433 \let\.\@firstofone
434 \let\~\@firstofone
435 \let\v\@firstofone
436 \let\H\@firstofone
437 \let\c\@firstofone
438 \let\b\@firstofone
439 \def\AE{AE}%
440 \def\ae{ae}%
441 \def\OE{OE}%
442 \def\oe{oe}%
443 \def\AA{AA}%
444 \def\aa{aa}%
445 \def\L{L}%
446 \def\l{l}%
447 \def\O{O}%
448 \def\o{o}%
449 \def\SS{SS}%
450 \def\ss{ss}%
451 \def\th{th}%
452 }

```

Before defining the sanitize package option, The key-value list for the sanitize value needs to be defined. These are all boolean keys. If they are not given a value, assume true.

```

453 \define@boolkey[glS]{sanitize}{description}[true]{%
454   \GlossariesWarning{sanitize={description} package option deprecated}%
455   \ifglS@sanitize@description
456     \glSsetnoexpandfield{desc}%
457     \glSsetnoexpandfield{descplural}%
458   \else
459     \glSsetexpandfield{desc}%
460     \glSsetexpandfield{descplural}%
461   \fi
462 }

463 \define@boolkey[glS]{sanitize}{name}[true]{%
464   \GlossariesWarning{sanitize={name} package option deprecated}%
465   \ifglS@sanitize@name
466     \glSsetnoexpandfield{name}%
467   \else
468     \glSsetexpandfield{name}%
469   \fi
470 }

471 \define@boolkey[glS]{sanitize}{symbol}[true]{%
472   \GlossariesWarning{sanitize={symbol} package option deprecated}%
473   \ifglS@sanitize@symbol
474     \glSsetnoexpandfield{symbol}%
475     \glSsetnoexpandfield{symbolplural}%
476   \else
477     \glSsetexpandfield{symbol}%

```

```

478 \glsssetexpandfield{symbolplural}%
479 \fi
480 }

```

sanitizesort

```

481 \define@boolkey{glossaries.sty}[gls]{sanitizesort}[true]{%
482 \ifglsssanitizesort
483 \glsssetnoexpandfield{sortvalue}%
484 \renewcommand*{\@gls@noidx@setsanitizesort}{%
485 \glsssanitizesorttrue
486 \glsssetnoexpandfield{sortvalue}%
487 }%
488 \else
489 \glsssetexpandfield{sortvalue}%
490 \renewcommand*{\@gls@noidx@setsanitizesort}{%
491 \glsssanitizesortfalse
492 \glsssetexpandfield{sortvalue}%
493 }%
494 \fi
495 }

```

Default setting:

```

496 \glsssanitizesorttrue
497 \glsssetnoexpandfield{sortvalue}%

```

setsanitizesort Default behaviour for \makenoidxglossaries is sanitizesort=false.

```

498 \newcommand*{\@gls@noidx@setsanitizesort}{%
499 \glsssanitizesortfalse
500 \glsssetexpandfield{sortvalue}%
501 }

502 \define@choicekey[gls]{sanitize}{sort}{true,false}[true]{%
503 \setbool{glsssanitizesort}{#1}%
504 \ifglsssanitizesort
505 \glsssetnoexpandfield{sortvalue}%
506 \else
507 \glsssetexpandfield{sortvalue}%
508 \fi
509 \GlossariesWarning{sanitize={sort} package option
510 deprecated. Use sanitizesort instead}%
511 }

```

sanitize

```

512 \define@key{glossaries.sty}{sanitize}[description=true,symbol=true,name=true]{%
513 \ifthenelse{\equal{#1}{none}}{%
514 {%
515 \GlossariesWarning{sanitize package option deprecated}%
516 \glsssetexpandfield{name}%
517 \glsssetexpandfield{symbol}%
518 \glsssetexpandfield{symbolplural}%

```

```

519     \glssetexpandfield{desc}%
520     \glssetexpandfield{descplural}%
521 }%
522 {%
523     \setkeys[gls]{sanitize}{#1}%
524 }%
525 }

\ifglstranslate As from version 3.13a, the translator package option is a choice rather than boolean option
                so now need to define conditional:
526 \newif\ifglstranslate

notranslatorhook \@gls@notranslatorhook has been removed.

s@usetranslator
527 \newcommand*\@gls@usetranslator{%
    polyglossia tricks \@ifpackageloaded into thinking that babel has been loaded, so check for
    polyglossia as well.
528     \@ifpackageloaded{polyglossia}%
529     {%
530         \let\glsifusetranslator\@secondoftwo
531     }%
532     {%
533         \@ifpackageloaded{babel}%
534         {%
535             \IfFileExists{translator.sty}%
536             {%
537                 \RequirePackage{translator}%
538                 \let\glsifusetranslator\@firstoftwo
539             }%
540         }%
541     }%
542     {}%
543 }%
544 }

dtranslatordict Checks if given translator dictionary has been loaded.
545 \newcommand{\glsifusedtranslatordict}[3]{%
546     \glsifusetranslator
547     {\ifcsdef{ver@glossaries-dictionary-#1.dict}{#2}{#3}}%
548     {#3}%
549 }

notranslate Provide a synonym for translate=false that can be passed via the document class.
550 \@gls@declareoption{notranslate}{%
551     \glstranslatefalse
552     \let\@gls@usetranslator\relax
553     \let\glsifusetranslator\@secondoftwo
554 }

```

translate Define translate option. If false don't set up multi-lingual support.

```

555 \define@choicekey{glossaries.sty}{translate}[\val\nr]%
556   {true,false,babel}[true]%
557   {%
558     \ifcase\nr\relax
559     \glstranslatetrue
560     \renewcommand*\@gls@usetranslator{%
561       \@ifpackageloaded{polyglossia}%
562       {%
563         \let\glsifusetranslator\@secondoftwo
564       }%
565       {%
566         \@ifpackageloaded{babel}%
567         {%
568           \IfFileExists{translator.sty}%
569           {%
570             \RequirePackage{translator}%
571             \let\glsifusetranslator\@firstoftwo
572           }%
573         }%
574       }%
575     }%
576   }%
577 }%
578 \or
579   \glstranslatefalse
580   \let\@gls@usetranslator\relax
581   \let\glsifusetranslator\@secondoftwo
582 \or
583   \glstranslatetrue
584   \let\@gls@usetranslator\relax
585   \let\glsifusetranslator\@secondoftwo
586 \fi
587 }
```

Set the default value:

```

588 \glstranslatefalse
589 \let\glsifusetranslator\@secondoftwo
590 \@ifpackageloaded{translator}%
591 {%
592   \glstranslatetrue
593   \let\glsifusetranslator\@firstoftwo
594 }%
595 {%
596   \@for\gls@thissty:=tracklang,babel,ngerman,polyglossia\do
597   {
598     \@ifpackageloaded{\gls@thissty}%
599     {%
600       \glstranslatetrue
```

```

601     \@endfortrue
602   }%
603   {}%
604 }
605 }

```

indexonlyfirst Set whether to only index on first use.

```

606 \define@boolkey{glossaries.sty}[gls]{indexonlyfirst}[true]{}
607 \glsindexonlyfirstfalse

```

hyperfirst Set whether or not terms should have a hyperlink on first use.

```

608 \define@boolkey{glossaries.sty}[gls]{hyperfirst}[true]{}
609 \glshyperfirsttrue

```

gls@setacrstyle Keep track of whether an acronym style has been set (for the benefit of `\setupglossaries`):

```

610 \newcommand*{\@gls@setacrstyle}{}

```

footnote Set the long form of the acronym in footnote on first use.

```

611 \define@boolkey{glossaries.sty}[glsacr]{footnote}[true]{}%
612 \ifbool{glsacrdescription}%
613   {}%
614   {%
615     \renewcommand*{\@gls@sanitizedesc}{}%
616   }%
617 \renewcommand*{\@gls@setacrstyle}{\SetAcronymStyle}%
618 }

```

description Allow acronyms to have a description (needs to be set using the description key in the optional argument of `\newacronym`).

```

619 \define@boolkey{glossaries.sty}[glsacr]{description}[true]{}%
620 \renewcommand*{\@gls@sanitizesymbol}{}%
621 \renewcommand*{\@gls@setacrstyle}{\SetAcronymStyle}%
622 }

```

smallcaps Define `\newacronym` to set the short form in small capitals.

```

623 \define@boolkey{glossaries.sty}[glsacr]{smallcaps}[true]{}%
624 \renewcommand*{\@gls@sanitizesymbol}{}%
625 \renewcommand*{\@gls@setacrstyle}{\SetAcronymStyle}%
626 }

```

smaller Define `\newacronym` to set the short form using `\smaller` which obviously needs to be defined by loading the appropriate package.

```

627 \define@boolkey{glossaries.sty}[glsacr]{smaller}[true]{}%
628 \renewcommand*{\@gls@sanitizesymbol}{}%
629 \renewcommand*{\@gls@setacrstyle}{\SetAcronymStyle}%
630 }

```

dua Define `\newacronym` to always use the long forms (i.e. don't use acronyms)

```

631 \define@boolkey{glossaries.sty}[glsacr]{dua}[true]{%
632   \renewcommand*{\@gls@sanitizesymbol}{}%
633   \renewcommand*{\@gls@setacrstyle}{\SetAcronymStyle}%
634 }

```

shortcuts Define acronym shortcuts.

```

635 \define@boolkey{glossaries.sty}[glsacr]{shortcuts}[true]{}

```

\glsorder Stores the glossary ordering. This may either be “word” or “letter”. This passes the relevant information to `makeglossaries`. The default is word ordering.

```

636 \newcommand*{\glsorder}{word}

```

\@glsorder The ordering information is written to the auxiliary file for `makeglossaries`, so ignore the auxiliary information.

```

637 \newcommand*{\@glsorder}[1]{}

```

order

```

638 \define@choicekey{glossaries.sty}{order}{word,letter}{%
639   \def\glsorder{#1}}

```

\ifglxindy Provide boolean to determine whether `xindy` or `makeindex` will be used to sort the glossaries.

```

640 \newif\ifglxindy

```

The default is `makeindex`:

```

641 \glxindyfalse

```

makeindex Define package option to specify that `makeindex` will be used to sort the glossaries:

```

642 \@gls@declareoption{makeindex}{\glxindyfalse}

```

The `xindy` package option may have a value which in turn can be a key=value list. First define the keys for this sub-list. The boolean `glsnumbers` determines whether to automatically add the `glsnumbers` letter group.

```

643 \define@boolkey[gl]{xindy}{glsnumbers}[true]{}
644 \gls@xindy@glsnumberstrue

```

y@main@language Define what language to use for each glossary type (if a language is not defined for a particular glossary type the language specified for the main glossary is used.)

```

645 \def\@xdy@main@language{\language}%

```

Define key to set the language

```

646 \define@key[gl]{xindy}{language}{\def\@xdy@main@language{#1}}

```

`\gls@codepage` Define the code page. If `\inputencodingname` is defined use that, otherwise have initialise with no codepage.

```

647 \ifcsundef{inputencodingname}{%
648   \def\gls@codepage{}}{%
649   \def\gls@codepage{\inputencodingname}
650 }

```

Define a key to set the code page.

```

651 \define@key[gls]{xindy}{codepage}{\def\gls@codepage{#1}}

```

`xindy` Define package option to specify that xindy will be used to sort the glossaries:

```

652 \define@key{glossaries.sty}{xindy}[]{%
653   \glsxindytrue
654   \setkeys[gls]{xindy}{#1}%
655 }

```

`xindygloss` Provide a synonym for xindy that can be passed via the document class options.

```

656 \@gls@declareoption{xindygloss}{%
657   \glsxindytrue
658 }

```

`xindynoglsnumbers` Provide a synonym for `xindy=glsnumbers=false` that can be passed via the document class options.

```

659 \@gls@declareoption{xindynoglsnumbers}{%
660   \glsxindytrue
661   \gls{xindy=glsnumbersfalse}
662 }

```

`automake` If this setting is on, automatically run `makeindex/xindy` at the end of the document. Must be used with `\makeglossaries`. Default is false.

```

663 \define@boolkey{glossaries.sty}[gls]{automake}[true]{%
664   \ifglsautomake
665     \renewcommand*\@gls@doautomake{%
666       \PackageError{glossaries}{You must use
667         \string\makeglossaries\space with automake=true}
668       {%
669         Either remove the automake=true setting or
670         add \string\makeglossaries\space to your document preamble.%
671       }%
672     }%
673   \else
674     \renewcommand*\@gls@doautomake{}%
675   \fi
676 }
677 \glsautomakefalse

```

`@gls@doautomake`

```

678 \newcommand*\@gls@doautomake{}
679 \AtEndDocument{\@gls@doautomake}

```

savewrites The savewrites package option is provided to save on the number of write registers.

```
680 \define@boolkey{glossaries.sty}[gls]{savewrites}[true]{%
681   \ifglssavewrites
682     \renewcommand*{\glswritefiles}{\@glswritefiles}%
683   \else
684     \let\glswritefiles\@empty
685   \fi
686 }
```

Set default:

```
687 \glssavewritesfalse
688 \let\glswritefiles\@empty
```

compatible-3.07

```
689 \define@boolkey{glossaries.sty}[gls]{compatible-3.07}[true]{}
690 \boolfalse{glscpatible-3.07}
```

compatible-2.07

```
691 \define@boolkey{glossaries.sty}[gls]{compatible-2.07}[true]{%
  Also set 3.07 compatibility if this option is set.
692   \ifbool{glscpatible-2.07}{%
693     {%
694       \booltrue{glscpatible-3.07}%
695     }%
696   }%
697 }
698 \boolfalse{glscpatible-2.07}
```

symbols Create a “symbols” glossary type

```
699 \@gls@declareoption{symbols}{%
700   \let\@gls@do@symbolsdef\@gls@symbolsdef
701 }
```

Default is not to define the symbols glossary:

```
702 \newcommand*{\@gls@do@symbolsdef}{}%
```

@gls@symbolsdef

```
703 \newcommand*{\@gls@symbolsdef}{%
704   \newglossary[slg]{symbols}{sls}{slo}{\glssymbolsgroupname}%
705   \newcommand*{\printsymbols}[1][\printglossary[type=symbols,##1]]%
```

Define hook to set the toc title when translator is in use.

```
706   \newcommand*{\gls@tr@set@symbols@toctitle}{%
707     \translatelet{\glossarytoctitle}{Symbols (glossaries)}%
708   }%
709 }
```

numbers Create a “symbols” glossary type

```
710 \@gls@declareoption{numbers}{%  
711   \let\@gls@do@numbersdef\@gls@numbersdef  
712 }
```

Default is not to define the numbers glossary:

```
713 \newcommand*{\@gls@do@numbersdef}{}
```

@gls@numbersdef

```
714 \newcommand*{\@gls@numbersdef}{%  
715   \newglossary[nlg]{numbers}{nls}{nlo}{\glsnumbersgroupname}%  
716   \newcommand*{\printnumbers}[1] [] {\printglossary[type=numbers,##1]}%
```

Define hook to set the toc title when translator is in use.

```
717   \newcommand*{\gls@tr@set@numbers@toctitle}{%  
718     \translatelet{\glossarytoctitle}{Numbers (glossaries)}%  
719   }%  
720 }%
```

index Create an “index” glossary type

```
721 \@gls@declareoption{index}{%  
722   \let\@gls@do@indexdef\@gls@indexdef  
723 }
```

Default is not to define index glossary:

```
724 \newcommand*{\@gls@do@indexdef}{}
```

\@gls@indexdef \indexname isn't set by glossaries.

```
725 \newcommand*{\@gls@indexdef}{%  
726   \newglossary[ilg]{index}{ind}{idx}{\indexname}%  
727   \newcommand*{\printindex}[1] [] {\printglossary[type=index,##1]}%  
728   \newcommand*{\newterm}[2] [] {%  
729     \newglossaryentry{##2}%  
730     {type={index},name={##2},description={\nopostdesc},##1}}  
731 }%
```

Process package options. First process any options that have been passed via the document class.

```
732 \@for\CurrentOption :=\@declaredoptions\do{%  
733   \ifx\CurrentOption\@empty  
734   \else  
735     \@expandtwoargs  
736     \in@ {,\CurrentOption ,}{,\@classoptionslist,\@curroptions,}%  
737     \ifin@  
738     \@use@ption  
739     \expandafter \let\csname ds@\CurrentOption\endcsname\@empty  
740   \fi  
741 \fi  
742 }
```

Now process options passed to the package:

```
743 \ProcessOptionsX
```

Load backward compatibility stuff:

```
744 \RequirePackage{glossaries-compatible-307}
```

`setupglossaries` Provide way to set options after package has been loaded. However, some options must be set before `\ProcessOptionsX`, so they have to be disabled:

```
745 \disable@keys{glossaries.sty}{compatible-2.07,%
```

```
746 xindy,xindygloss,xindynoglsnumbers,makeindex,%
```

```
747 acronym,translate,notranslate,nolong,nosuper,notree,nostyles,nomain}
```

Now define `\setupglossaries`:

```
748 \newcommand*{\setupglossaries}[1]{%
```

```
749 \renewcommand*{\@gls@setacrstyle}{}%
```

```
750 \ifglsacrshortcuts
```

```
751 \def\@gls@setupshortcuts{\glsacrshortcutstrue}%
```

```
752 \else
```

```
753 \def\@gls@setupshortcuts{%
```

```
754 \ifglsacrshortcuts
```

```
755 \DefineAcronymSynonyms
```

```
756 \fi
```

```
757 }%
```

```
758 \fi
```

```
759 \glsacrshortcutsfalse
```

```
760 \let\@gls@do@numbersdef\relax
```

```
761 \let\@gls@do@symbolssdef\relax
```

```
762 \let\@gls@do@indexdef\relax
```

```
763 \let\@gls@do@acronymsdef\relax
```

```
764 \setkeys{glossaries.sty}{#1}%
```

```
765 \@gls@setacrstyle
```

```
766 \@gls@setupshortcuts
```

```
767 \@gls@do@acronymsdef
```

```
768 \@gls@do@numbersdef
```

```
769 \@gls@do@symbolssdef
```

```
770 \@gls@do@indexdef
```

```
771 }
```

If chapters are defined and the user has requested the section counter as a package option, `\@chapter` will be modified so that it adds a section. $\langle n \rangle . 0$ target, otherwise entries placed before the first section of a chapter will have undefined links.

The same problem will also occur if a lower sectional unit is used, but this is less likely to happen. If it does, or if you change `\glscounter` to section later, you will have to specify a different counter for the entries that give rise to a name $\{\langle section-level \rangle . \langle n \rangle . 0\}$ non-existent warning (e.g. `\gls[counter=chapter]{label}`).

```
772 \ifthenelse{\equal{\glscounter}{section}}{%
```

```
773 {%
```

```
774 \ifcsundef{chapter}{}%
```

```
775 {%
```

```

776 \let\@gls@old@chapter\@chapter
777 \def\@chapter[#1]#2{\@gls@old@chapter[#1]{#2}%
778 \ifcsundef{hyperdef}{\hyperdef{section}{\thesection}{}}}%
779 }%
780 }%
781 {}

```

`\ls@onlypremakeg` Some commands only have an effect when used before `\makeglossaries`. So define a list of commands that should be disabled after `\makeglossaries`

```

782 \newcommand*{\@gls@onlypremakeg}{}

```

`\@onlypremakeg` Adds the specified control sequence to the list of commands that must be disabled after `\makeglossaries`.

```

783 \newcommand*{\@onlypremakeg}[1]{%
784 \ifx\@gls@onlypremakeg\@empty
785 \def\@gls@onlypremakeg{#1}%
786 \else
787 \expandafter\toks@ \expandafter{\@gls@onlypremakeg}%
788 \edef\@gls@onlypremakeg{\the\toks@,\noexpand#1}%
789 \fi
790 }

```

`\le@onlypremakeg` Disable all commands listed in `\@gls@onlypremakeg`

```

791 \newcommand*{\@disable@onlypremakeg}{%
792 \@for\@thiscs:=\@gls@onlypremakeg\do{%
793 \expandafter\@disable@premakecs\@thiscs%
794 }}

```

`\sable@premakecs` Disables the given command.

```

795 \newcommand*{\@disable@premakecs}[1]{%
796 \def#1{\PackageError{glossaries}{\string#1\space may only be
797 used before \string\makeglossaries}{You can't use
798 \string#1\space after \string\makeglossaries}}%
799 }

```

1.3 Predefined Text

Set up default textual tags that are used by this package. Some of the names may already be defined (e.g. by) so `\providecommand` is used.

Main glossary title:

`\glossaryname`

```

800 \providecommand*\glossaryname{Glossary}

```

The title for the acronym glossary type (which is defined if acronym package option is used) is given by `\acronymname`. If the acronym package option is not used, `\acronymname` won't be used.

`\acronymname`
801 `\providecommand*{\acronymname}{Acronyms}`

`\glsettoctitle` Sets the TOC title for the given glossary.
802 `\newcommand*{\glsettoctitle}[1]{%`
803 `\def\glossarytoctitle{\csname @glotype@#1@title\endcsname}}`

The following commands provide text for the headers used by some of the tabular-like glossary styles. Whether or not they get used in the glossary depends on the glossary style.

`\entryname`
804 `\providecommand*{\entryname}{Notation}`

`\descriptionname`
805 `\providecommand*{\descriptionname}{Description}`

`\symbolname`
806 `\providecommand*{\symbolname}{Symbol}`

`\pagelistname`
807 `\providecommand*{\pagelistname}{Page List}`

Labels for `makeindex`'s symbol and number groups:

`\symbolsgroupname`
808 `\providecommand*{\glsymbolsgroupname}{Symbols}`

`\numbersgroupname`
809 `\providecommand*{\glnumbersgroupname}{Numbers}`

`\glspluralsuffix` The default plural is formed by appending `\glspluralsuffix` to the singular form.
810 `\newcommand*{\glspluralsuffix}{s}`

`\acrpluralsuffix` Default plural suffix for acronyms
811 `\newcommand*{\glsacrpluralsuffix}{\glspluralsuffix}`

`\supacrpluralsuffix`
812 `\newcommand*{\glsupacrpluralsuffix}{\glstextup{\glsacrpluralsuffix}}`

`\seename`
813 `\providecommand*{\seename}{see}`

`\andname`
814 `\providecommand*{\andname}{\&}`

Add multi-lingual support. Thanks to everyone who contributed to the translations from both `comp.text.tex` and via email.

eGlossariesLang

```
815 \newcommand*{\RequireGlossariesLang}[1]{%
816   \@ifundefined{ver@glossaries-#1.1df}{\input{glossaries-#1.1df}}{}%
817 }
```

sGlossariesLang

```
818 \newcommand*{\ProvidesGlossariesLang}[1]{%
819   \ProvidesFile{glossaries-#1.1df}%
820 }
```

ssarytocaptions Does nothing if translator hasn't been loaded.

```
821 \newcommand*{\addglossarytocaptions}[1]{}
```

As from v4.12, multilingual support has been split off into independently-maintained language modules.

```
822 \ifglstranslate
```

Load tracklang

```
823 \RequirePackage{tracklang}
```

Load translator if required.

```
824 \@gls@usetranslator
```

If using , \glossaryname should be defined in terms of \translate, but if babel is also loaded, it will redefine \glossaryname whenever the language is set, so override it. (Don't use \addto as doesn't define it.)

```
825 \@ifpackageloaded{translator}
```

```
826 {%
```

If the language options have been specified through the document class, then translator can pick them up. If not, translator will default to English and any language option passed to babel won't be detected, so if \trans@languages is just English and \bbl@loaded isn't simply english, then don't use the translator dictionaries.

```
827 \ifboolexpr
```

```
828 {
```

```
829   test {\ifdefstring{\trans@languages}{English}}
```

```
830   and not
```

```
831   test {\ifdefstring{\bbl@loaded}{english}}
```

```
832 }
```

```
833 {%
```

```
834   \let\glsifusetranslator\@secondoftwo
```

```
835 }%
```

```
836 {%
```

```
837   \usedictionary{glossaries-dictionary}%
```

```
838   \renewcommand*{\addglossarytocaptions}[1]{%
```

```
839     \ifcsundef{captions#1}{}%
```

```
840     {%
```

```
841       \expandafter\let\expandafter\@gls@tmp\csname captions#1\endcsname
```

```
842       \expandafter\toks@\expandafter{\@gls@tmp
```

```

843         \renewcommand*{\glossaryname}{\translate{Glossary}}}%
844     }%
845     \expandafter\edef\csname captions#1\endcsname{\the\toks@}%
846 }%
847 }%
848 }%
849 }%
850 {}%

```

Check for tracked languages

```

851 \AnyTrackedLanguages
852 {%
853     \ForEachTrackedDialect{\this@dialect}{%
854         \IfTrackedLanguageFileExists{\this@dialect}%
855         {glossaries-}% prefix
856         {.ldf}%
857         {%
858             \RequireGlossariesLang{\CurrentTrackedTag}%
859         }%
860         {%
861             \PackageWarningNoLine{glossaries}%
862             {No language module detected for ‘\this@dialect’.\MessageBreak
863             Language modules need to be installed separately.\MessageBreak
864             Please check on CTAN for a bundle called\MessageBreak
865             ‘glossaries-\CurrentTrackedLanguage’ or similar}%
866         }%
867     }%
868 }%
869 {}%

```

if using translator use translator interface.

```

870 \glsifusetranslator
871 {%
872     \renewcommand*{\glssettoctitle}[1]{%
873         \ifcsdef{gls@tr@set@#1@toctitle}%
874         {%
875             \csuse{gls@tr@set@#1@toctitle}%
876         }%
877         {%
878             \def\glossarytoctitle{\csname @glotype@#1@title\endcsname}%
879         }%
880     }%
881     \renewcommand*{\glossaryname}{\translate{Glossary}}}%
882     \renewcommand*{\acronymname}{\translate{Acronyms}}}%
883     \renewcommand*{\entryname}{\translate{Notation (glossaries)}}}%
884     \renewcommand*{\descriptionname}{%
885         \translate{Description (glossaries)}}}%
886     \renewcommand*{\symbolname}{\translate{Symbol (glossaries)}}}%
887     \renewcommand*{\pagelistname}{%
888         \translate{Page List (glossaries)}}}%

```

```

889 \renewcommand*{\glssymbolsgroupname}{%
890 \translate{Symbols (glossaries)}}%
891 \renewcommand*{\glsnumbersgroupname}{%
892 \translate{Numbers (glossaries)}}%
893 }{}%
894 \fi

```

`\nopostdesc` Provide a means to suppress description terminator for a given entry. (Useful for entries with no description.) Has no effect outside the glossaries.

```
895 \DeclareRobustCommand*{\nopostdesc}{}

```

`\@nopostdesc` Suppress next description terminator.

```

896 \newcommand*{\@nopostdesc}{%
897 \let\org@glspostdescription\glspostdescription
898 \def\glspostdescription{%
899 \let\glspostdescription\org@glspostdescription}%
900 }

```

`\@no@post@desc` Used for comparison purposes.

```
901 \newcommand*{\@no@post@desc}{\nopostdesc}

```

`\glspar` Provide means of having a paragraph break in glossary entries

```
902 \newcommand{\glspar}{\par}

```

`\setStyleFile` Sets the style file. The relevant extension is appended.

```

903 \newcommand{\setStyleFile}[1]{%
904 \renewcommand*{\gls@istfilebase}{#1}%
  Just in case \istfilename has been modified.
905 \ifglsxindy
906 \def\istfilename{\gls@istfilebase.xdy}
907 \else
908 \def\istfilename{\gls@istfilebase.ist}
909 \fi
910 }

```

This command only has an effect prior to using `\makeglossaries`.

```
911 \@onlypremakeg\setStyleFile

```

The name of the makeindex or xindy style file is given by `\istfilename`. This file is created by `\writeist` (which is used by `\makeglossaries`) so redefining this command will only have an effect if it is done *before* `\makeglossaries`. As from v1.17, use `\setStyleFile` instead of directly redefining `\istfilename`.

`\istfilename`

```

912 \ifglsxindy
913 \def\istfilename{\gls@istfilebase.xdy}
914 \else
915 \def\istfilename{\gls@istfilebase.ist}
916 \fi

```

`gls@istfilebase`

```
917 \newcommand*{\gls@istfilebase}{\jobname}
```

The `makeglossaries` Perl script picks up this name from the auxiliary file. If the name ends with `.xdy` it calls `xindy` otherwise it calls `makeindex`. Since its not required by \LaTeX , `\@istfilename` ignores its argument.

`\@istfilename`

```
918 \newcommand*{\@istfilename}[1]{}
```

This command is the value of the `page_compositor` `makeindex` key. Again, any redefinition of this command must take place *before* `\writeist` otherwise it will have no effect. As from 1.17, use `\glsSetCompositor` instead of directly redefining `\glscompositor`.

`\glscompositor`

```
919 \newcommand*{\glscompositor}{.}
```

`lsSetCompositor` Sets the compositor.

```
920 \newcommand*{\glsSetCompositor}[1]{%
921   \renewcommand*{\glscompositor}{#1}}
```

Only use before `\makeglossaries`

```
922 \@onlypremakeg\glsSetCompositor
```

(The page compositor is usually defined as a dash when using `makeindex`, but most of the standard counters used by \LaTeX use a full stop as the compositor, which is why I have used it as the default.) If `xindy` is used `\glscompositor` only affects the `arabic-page-numbers` location class.

`Alphacompositor` This is only used by `xindy`. It specifies the compositor to use when location numbers are in the form `<letter><compositor><number>`. For example, if `\@glsAlphacompositor` is set to `."` then it allows locations such as `A.1` whereas if `\@glsAlphacompositor` is set to `-` then it allows locations such as `A-1`.

```
923 \newcommand*{\@glsAlphacompositor}{\glscompositor}
```

`AlphaCompositor` Sets the alpha compositor.

```
924 \ifglsxindy
925   \newcommand*\glsSetAlphaCompositor[1]{%
926     \renewcommand*\@glsAlphacompositor{#1}}
927 \else
928   \newcommand*\glsSetAlphaCompositor[1]{%
929     \glsnxindywarning\glsSetAlphaCompositor}
930 \fi
```

Can only be used before `\makeglossaries`

```
931 \@onlypremakeg\glsSetAlphaCompositor
```

`\gls@suffixF` Suffix to use for a two page list. This overrides the separator and the closing page number if set to something other than an empty macro.

```
932 \newcommand*{\gls@suffixF}{}
```

`\glsSetSuffixF` Sets the suffix to use for a two page list.

```

933 \newcommand*{\glsSetSuffixF}[1]{%
934   \renewcommand*{\gls@suffixF}{#1}}

```

Only has an effect when used before `\makeglossaries`

```

935 \@onlypremakeg\glsSetSuffixF

```

`\gls@suffixFF` Suffix to use for a three page list. This overrides the separator and the closing page number if set to something other than an empty macro.

```

936 \newcommand*{\gls@suffixFF}{}

```

`\glsSetSuffixFF` Sets the suffix to use for a three page list.

```

937 \newcommand*{\glsSetSuffixFF}[1]{%
938   \renewcommand*{\gls@suffixFF}{#1}%
939 }

```

`\glsnumberformat` The command `\glsnumberformat` indicates the default format for the page numbers in the glossary. (Note that this is not the same as `\glossaryentrynumbers`, but applies to individual numbers or groups of numbers within an entry's associated number list.) If hyperlinks are defined, it will use `\glshypernumber`, otherwise it will simply display its argument "as is".

```

940 \ifcsundef{hyperlink}%
941 {%
942   \newcommand*{\glsnumberformat}[1]{#1}%
943 }%
944 {%
945   \newcommand*{\glsnumberformat}[1]{\glshypernumber{#1}}%
946 }

```

Individual numbers in an entry's associated number list are delimited using `\delimN` (which corresponds to the `delim_n` `makeindex` keyword). The default value is a comma followed by a space.

`\delimN`

```

947 \newcommand{\delimN}{, }

```

A range of numbers within an entry's associated number list is delimited using `\delimR` (which corresponds to the `delim_r` `makeindex` keyword). The default is an en-dash.

`\delimR`

```

948 \newcommand{\delimR}{--}

```

The glossary preamble is given by `\glossarypreamble`. This will appear after the glossary sectioning command, and before the `\theglossary` environment. It is designed to allow the user to add information pertaining to the glossary (e.g. "page numbers in italic indicate the primary definition") therefore `\glossarypreamble` shouldn't be affected by the glossary style. (So if you define your own glossary style, don't have it change `\glossarypreamble`.)

The preamble is empty by default. If you have multiple glossaries, and you want a different preamble for each glossary, you will need to use `\printglossary` for each glossary type, instead of `\printglossaries`, and redefine `\glossarypreamble` before each `\printglossary`.

`\glossarypreamble`

```
949 \newcommand*{\glossarypreamble}{%
950   \csuse{@glossarypreamble@\currentglossary}%
951 }
```

`\setglossarypreamble`

```
\setglossarypreamble[<type>]{<text>}
```

Code provided by Michael Pock.

```
952 \newcommand{\setglossarypreamble}[2][\glsdefaulttype]{%
953   \ifglossaryexists{#1}{%
954     \csgdef{@glossarypreamble@#1}{#2}%
955   }{%
956     \GlossariesWarning{%
957       Glossary ‘#1’ is not defined%
958     }%
959   }%
960 }
```

The glossary postamble is given by `\glossarypostamble`. This is provided to allow the user to add something after the end of the `\glossary` environment (again, this shouldn't be affected by the glossary style). It is, of course, possible to simply add the text after `\printglossary`, but if you only want the postamble to appear after the first glossary, but not after subsequent glossaries, you can do something like:

```
\renewcommand{\glossarypostamble}{For a complete list of terms
see \cite{blah}\gdef\glossarypreamble{}}
```

`\glossarypostamble`

```
961 \newcommand*{\glossarypostamble}{}
```

`\glossarysection`

The sectioning command that starts a glossary is given by `\glossarysection`. (This does not form part of the glossary style, and so should not be changed by a glossary style.) If `\phantomsection` is defined, it uses `\p@glossarysection`, otherwise it uses `\@glossarysection`.

```
962 \newcommand*{\glossarysection}[2][\@gls@title]{%
963   \def\@gls@title{#2}%
964   \ifcsundef{phantomsection}%
965   {%
966     \@glossarysection{#1}{#2}%
967   }%
968   {%
969     \p@glossarysection{#1}{#2}%
970   }%
```

```

971 \glsglossarymark{\glossarytoctitle}%
972 }

```

`glsglossarymark` Sets the header mark for the glossary. Takes the glossary short (TOC) title as the argument.

```

973 \ifcsundef{glossarymark}%
974 {%
975   \newcommand{\glsglossarymark}[1]{\glossarymark{#1}}
976 }%
977 {%
978   \@ifclassloaded{memoir}
979   {%
980     \newcommand{\glsglossarymark}[1]{%
981       \ifglsucmark
982         \markboth{\memUHead{#1}}{\memUHead{#1}}%
983       \else
984         \markboth{#1}{#1}%
985       \fi
986     }
987   }%
988   {%
989     \newcommand{\glsglossarymark}[1]{%
990       \ifglsucmark
991         \@mkboth{\mfirstucMakeUppercase{#1}}{\mfirstucMakeUppercase{#1}}%
992       \else
993         \@mkboth{#1}{#1}%
994       \fi
995     }
996   }
997 }

```

`\glossarymark` Provided for backward compatibility:

```

998 \providecommand{\glossarymark}[1]{%
999   \ifglsucmark
1000     \@mkboth{\mfirstucMakeUppercase{#1}}{\mfirstucMakeUppercase{#1}}%
1001   \else
1002     \@mkboth{#1}{#1}%
1003   \fi
1004 }

```

The required sectional unit is given by `\@glossarysec` which was defined by the section package option. The starred form of the command is chosen. If you don't want any sectional command, you will need to redefine `\glossarysection`. The sectional unit can be changed, if different sectional units are required.

`glossarysection`

```

1005 \newcommand*{\setglossarysection}[1]{%
1006 \setkeys{glossaries.sty}{section=#1}}

```

The command `\@glossarysection` indicates how to start the glossary section if `\phantomsection` is not defined.

glossarysection

```

1007 \newcommand*{\@glossarysection}[2]{%
1008   \ifdefempty\@glossarysecstar
1009   {%
1010     \csname\@glossarysec\endcsname[#1]{#2}%
1011   }%
1012   {%
1013     \csname\@glossarysec\endcsname*{#2}%
1014     \@gls@toc{#1}{\@glossarysec}%
1015   }%

   Do automatic labelling if required
1016   \@glossaryseclabel
1017 }
```

As \@glossarysection, but put in \phantomsection, and swap where \@gls@toc goes. If using chapters do a \clearpage. This ensures that the hyper link from the table of contents leads to the line above the heading, rather than the line below it.

glossarysection

```

1018 \newcommand*{\@p@glossarysection}[2]{%
1019   \glsclearpage
1020   \phantomsection
1021   \ifdefempty\@glossarysecstar
1022   {%
1023     \csname\@glossarysec\endcsname{#2}%
1024   }%
1025   {%
1026     \@gls@toc{#1}{\@glossarysec}%
1027     \csname\@glossarysec\endcsname*{#2}%
1028   }%

   Do automatic labelling if required
1029   \@glossaryseclabel
1030 }
```

\gls@doclearpage The \gls@doclearpage command is used to issue a \clearpage (or \cleardoublepage) depending on whether the glossary sectional unit is a chapter. If the sectional unit is something else, do nothing.

```

1031 \newcommand*{\gls@doclearpage}{%
1032   \ifthenelse{\equal{\@glossarysec}{chapter}}{%
1033     {%
1034       \ifcsundef{cleardoublepage}%
1035       {%
1036         \clearpage
1037       }%
1038     }%
1039     \ifcsdef{if@openright}%
1040     {%
1041       \if@openright
```

```

1042         \cleardoublepage
1043     \else
1044         \clearpage
1045     \fi
1046 }%
1047 {%
1048     \cleardoublepage
1049 }%
1050 }%
1051 }%
1052 {}%
1053 }

```

`\glsclearpage` This just calls `\gls@doclearpage`, but it makes it easier to have a user command so that the user can override it.

```

1054 \newcommand*\glsclearpage{\gls@doclearpage}

```

The glossary is added to the table of contents if `glstoc` flag set. If it is set, `\@gls@toc` will add a line to the `.toc` file, otherwise it will do nothing. (The first argument to `\@gls@toc` is the title for the table of contents, the second argument is the sectioning type.)

`\@gls@toc`

```

1055 \newcommand*\@gls@toc[2]{%
1056     \ifglstoc
1057         \ifglsnumberline
1058             \addcontentsline{toc}{#2}{\protect\numberline{#1}}%
1059         \else
1060             \addcontentsline{toc}{#2}{#1}%
1061         \fi
1062     \fi
1063 }

```

1.4 Xindy

This section defines commands that only have an effect if `xindy` is used to sort the glossaries.

`\glsnnoxindywarning` Issues a warning if `xindy` hasn't been specified. These warnings can be suppressed by re-defining `\glsnnoxindywarning` to ignore its argument

```

1064 \newcommand*\glsnnoxindywarning[1]{%
1065     \GlossariesWarning{Not in xindy mode --- ignoring \string#1}%
1066 }

```

`\glsnomakeindexwarning` Reverse for commands that may only be used with `makeindex`.

```

1067 \newcommand*\glsnomakeindexwarning[1]{%
1068     \GlossariesWarning{Not in makeindex mode --- ignoring \string#1}%
1069 }

```

`\@xdyattributes` Define list of attributes (`\string` is used in case the double quote character has been made active)

```
1070 \ifglxsindy
1071   \edef\@xdyattributes{\string"default\string"}%
1072 \fi
```

`\@dyattributelist` Comma-separated list of attributes.

```
1073 \ifglxsindy
1074   \edef\@dyattributelist{}%
1075 \fi
```

`\@xdylocref` Define list of markup location references.

```
1076 \ifglxsindy
1077   \def\@xdylocref{}
1078 \fi
```

`\@gls@ifinlist`

```
1079 \newcommand*{\@gls@ifinlist}[4]{%
1080   \def\@do@ifinlist##1,#1,##2\end@ifinlist{%
1081     \def\@gls@listsuffix{##2}%
1082     \ifx\@gls@listsuffix\@empty
1083       #4%
1084     \else
1085       #3%
1086     \fi
1087   }%
1088   \@do@ifinlist,##2,#1,\end@ifinlist
1089 }
```

`\@sAddXdyCounters` Need to know all the counters that will be used in location numbers for Xindy. Argument may be a single counter name or a comma-separated list of counter names.

```
1090 \ifglxsindy
1091   \newcommand*{\@xdycounters}{\@glscounter}
1092   \newcommand*\GlsAddXdyCounters[1]{%
1093     \@for\@gls@ctr:=#1\do{%
1094       Check if already in list before adding.
1095       \edef\@do@addcounter{%
1096         \noexpand\@gls@ifinlist{\@gls@ctr}{\@xdycounters}{}%
1097         \noexpand\edef\noexpand\@xdycounters{\@xdycounters,%
1098           \noexpand\@gls@ctr}%
1099       }%
1100     }%
1101     \@do@addcounter
1102   }
1103 }
```

Only has an effect before \writeist:

```

1104 \@onlypremakeg\GlsAddXdyCounters
1105 \else
1106   \newcommand*\GlsAddXdyCounters[1]{%
1107     \glsnxindywarning\GlsAddXdyAttribute
1108   }
1109 \fi

```

saddxdycounters Counters must all be identified before adding attributes.

```

1110 \newcommand*\@disabled@glssaddxdycounters{%
1111   \PackageError{glossaries}{\string\GlsAddXdyCounters\space
1112     can't be used after \string\GlsAddXdyAttribute}{Move all
1113     occurrences of \string\GlsAddXdyCounters\space before the first
1114     instance of \string\GlsAddXdyAttribute}%
1115 }

```

AddXdyAttribute Adds an attribute.

```

1116 \ifglxsindy

```

First define internal command that adds an attribute for a given counter (2nd argument is the counter):

```

1117 \newcommand*\@glssaddxdyattribute[2]{%

```

Add to xindy attribute list

```

1118   \edef\@xdyattributes{\@xdyattributes ^^J \string"#1\string" ^^J
1119     \string"#2#1\string"}%

```

Add to xindy markup location.

```

1120   \expandafter\toks@\expandafter{\@xdylocref}%
1121   \edef\@xdylocref{\the\toks@ ^^J%
1122     (markup-locref
1123     :open \string"\glstildechar n%
1124       \expandafter\string\csname glsX#2X#1\endcsname
1125       \string" ^^J
1126     :close \string"\string" ^^J
1127     :attr \string"#2#1\string")}%

```

Define associated attribute command \glsX<counter>X<attribute>{\<Hprefix>}{\<n>}

```

1128   \expandafter\gdef\csname glsX#2X#1\endcsname##1##2{%
1129     \setentrycounter[##1]{#2}\csname #1\endcsname{##2}%
1130   }%
1131 }

```

High-level command:

```

1132 \newcommand*\GlsAddXdyAttribute[1]{%

```

Add to comma-separated attribute list

```

1133   \ifx\@xdyattributelist\@empty
1134     \edef\@xdyattributelist{#1}%
1135   \else
1136     \edef\@xdyattributelist{\@xdyattributelist,#1}%
1137   \fi

```

Iterate through all specified counters and add counter-dependent attributes:

```

1138 \for\@this@counter:=\@xdycounters\do{%
1139 \protected@edef\gls@do@addxdyattribute{%
1140 \noexpand\@glsaddxdyattribute{#1}{\@this@counter}%
1141 }
1142 \gls@do@addxdyattribute
1143 }%

```

All occurrences of `\GlsAddXdyCounters` must be used before this command

```

1144 \let\GlsAddXdyCounters\@disabled@glsaddxdycounters
1145 }

```

Only has an effect before `\writeist`:

```

1146 \@onlypremakeg\GlsAddXdyAttribute
1147 \else
1148 \newcommand*\GlsAddXdyAttribute[1]{%
1149 \glsnoxywarning\GlsAddXdyAttribute}
1150 \fi

```

`definedattributes` Add known attributes for all defined counters

```

1151 \ifglxindy
1152 \newcommand*\@gls@addpredefinedattributes{%
1153 \GlsAddXdyAttribute{glsnumberformat}
1154 \GlsAddXdyAttribute{textrm}
1155 \GlsAddXdyAttribute{textsf}
1156 \GlsAddXdyAttribute{texttt}
1157 \GlsAddXdyAttribute{textbf}
1158 \GlsAddXdyAttribute{textmd}
1159 \GlsAddXdyAttribute{textit}
1160 \GlsAddXdyAttribute{textup}
1161 \GlsAddXdyAttribute{textsl}
1162 \GlsAddXdyAttribute{textsc}
1163 \GlsAddXdyAttribute{emph}
1164 \GlsAddXdyAttribute{glshypernumber}
1165 \GlsAddXdyAttribute{hyperrm}
1166 \GlsAddXdyAttribute{hypersf}
1167 \GlsAddXdyAttribute{hypertt}
1168 \GlsAddXdyAttribute{hyperbf}
1169 \GlsAddXdyAttribute{hypermd}
1170 \GlsAddXdyAttribute{hyperit}
1171 \GlsAddXdyAttribute{hyperup}
1172 \GlsAddXdyAttribute{hypersl}
1173 \GlsAddXdyAttribute{hypersc}
1174 \GlsAddXdyAttribute{hyperemph}

1175 \GlsAddXdyAttribute{glsignore}
1176 }
1177 \else
1178 \let\@gls@addpredefinedattributes\relax
1179 \fi

```

dyuseralphabets List of additional alphabets

```
1180 \def\@xdyuseralphabets{}
```

sAddXdyAlphabet \GlsAddXdyAlphabet{<name>}{<definition>} adds a new alphabet called <name>. The definition must use xindy syntax.

```
1181 \ifglxindy
1182   \newcommand*{\GlsAddXdyAlphabet}[2]{%
1183     \edef\@xdyuseralphabets{%
1184       \@xdyuseralphabets ^^J
1185       (define-alphabet "#1" (#2))}%
1186   \else
1187     \newcommand*{\GlsAddXdyAlphabet}[2]{%
1188       \glsnnoxindywarning\GlsAddXdyAlphabet}
1189 \fi
```

This code is only required for xindy:

```
1190 \ifglxindy
```

dy@locationlist List of predefined location names.

```
1191   \newcommand*{\@gls@xdy@locationlist}{%
1192     roman-page-numbers,%
1193     Roman-page-numbers,%
1194     arabic-page-numbers,%
1195     alpha-page-numbers,%
1196     Alpha-page-numbers,%
1197     Appendix-page-numbers,%
1198     arabic-section-numbers%
1199   }
```

Each location class <name> has the format stored in \@gls@xdy@Lclass@<name>. Set up predefined formats.

an-page-numbers Lower case Roman numerals (i, ii, ...). In the event that \roman has been redefined to produce a fancy form of roman numerals, attempt to work out how it will be written to the output file.

```
1200   \protected@edef\@gls@roman{\@roman{0}\string"
1201     \string"roman-numbers-lowercase\string" :sep \string"}}%
1202   \@onelevel@sanitize\@gls@roman
1203   \edef\@tmp{\string" \string"roman-numbers-lowercase\string"
1204     :sep \string"}%
1205   \@onelevel@sanitize\@tmp
1206   \ifx\@tmp\@gls@roman
1207     \expandafter
1208       \edef\csname @gls@xdy@Lclass@roman-page-numbers\endcsname{%
1209         \string"roman-numbers-lowercase\string"%
1210       }%
1211   \else
1212     \expandafter
```

```

1213      \edef\csname @gls@xdy@Lclass@roman-page-numbers\endcsname{
1214      :sep \string"\@gls@roman\string"%
1215      }%
1216 \fi

```

an-page-numbers Upper case Roman numerals (I, II, ...).

```

1217 \expandafter\def\csname @gls@xdy@Lclass@Roman-page-numbers\endcsname{%
1218 \string"roman-numbers-uppercase\string"%
1219 }%

```

ic-page-numbers Arabic numbers (1, 2, ...).

```

1220 \expandafter\def\csname @gls@xdy@Lclass@arabic-page-numbers\endcsname{%
1221 \string"arabic-numbers\string"%
1222 }%

```

ha-page-numbers Lower case alphabetical (a, b, ...).

```

1223 \expandafter\def\csname @gls@xdy@Lclass@alpha-page-numbers\endcsname{%
1224 \string"alpha\string"%
1225 }%

```

ha-page-numbers Upper case alphabetical (A, B, ...).

```

1226 \expandafter\def\csname @gls@xdy@Lclass@Alpha-page-numbers\endcsname{%
1227 \string"ALPHA\string"%
1228 }%

```

ix-page-numbers Appendix style locations (e.g. A-1, A-2, ..., B-1, B-2, ...). The separator is given by \@glsAlphacompositor.

```

1229 \expandafter\def\csname @gls@xdy@Lclass@Appendix-page-numbers\endcsname{%
1230 \string"ALPHA\string"
1231 :sep \string"\@glsAlphacompositor\string"
1232 \string"arabic-numbers\string"%
1233 }

```

section-numbers Section number style locations (e.g. 1.1, 1.2, ...). The compositor is given by \glscompositor.

```

1234 \expandafter\def\csname @gls@xdy@Lclass@arabic-section-numbers\endcsname{%
1235 \string"arabic-numbers\string"
1236 :sep \string"\glscompositor\string"
1237 \string"arabic-numbers\string"%
1238 }%

```

erlocationdefs List of additional location definitions (separated by ^^J)

```

1239 \def\@xdyuserlocationdefs{}

```

erlocationnames List of additional user location names

```

1240 \def\@xdyuserlocationnames{}

```

End of xindy-only block:

```

1241 \fi

```

`\GlsAddXdyLocation` [*<prefix-loc>*] {*<name>*} {*<definition>*} Define a new location called *<name>*. The definition must use xindy syntax. (Note that this doesn't check to see if the location is already defined. That is left to xindy to complain about.)

```

1242 \ifglsxindy
1243   \newcommand*{\GlsAddXdyLocation}[3][\]{%
1244     \def\@gls@tmp{#1}%
1245     \ifx\@gls@tmp\@empty
1246       \edef\@xdyuserlocationdefs{%
1247         \@xdyuserlocationdefs ^^J%
1248         (define-location-class \string"#2\string"^^J\space\space
1249         \space(:sep \string"{}\glssopenbrace\string" #3
1250         :sep \string"\glsclosebrace\string"))
1251       }%
1252     \else
1253       \edef\@xdyuserlocationdefs{%
1254         \@xdyuserlocationdefs ^^J%
1255         (define-location-class \string"#2\string"^^J\space\space
1256         \space(:sep "\glssopenbrace"
1257         #1
1258         :sep "\glsclosebrace\glssopenbrace" #3
1259         :sep "\glsclosebrace"))
1260       }%
1261     \fi
1262     \edef\@xdyuserlocationnames{%
1263       \@xdyuserlocationnames^^J\space\space\space
1264       \string"#1\string"}%
1265   }

```

Only has an effect before `\writeist`:

```

1266 \@onlypremakeg\GlsAddXdyLocation
1267 \else
1268   \newcommand*{\GlsAddXdyLocation}[2]{%
1269     \glsnnoxindywarning\GlsAddXdyLocation}
1270 \fi

```

`\locationclassorder` Define location class order

```

1271 \ifglsxindy
1272   \edef\@xdylocationclassorder{^^J\space\space\space
1273     \string"roman-page-numbers\string"^^J\space\space\space
1274     \string"arabic-page-numbers\string"^^J\space\space\space
1275     \string"arabic-section-numbers\string"^^J\space\space\space
1276     \string"alpha-page-numbers\string"^^J\space\space\space
1277     \string"Roman-page-numbers\string"^^J\space\space\space
1278     \string"Alpha-page-numbers\string"^^J\space\space\space
1279     \string"Appendix-page-numbers\string"
1280     \@xdyuserlocationnames^^J\space\space\space
1281     \string"see\string"
1282   }
1283 \fi

```

Change the location order.

ationClassOrder

```
1284 \ifglxindy
1285   \newcommand*\GlsSetXdyLocationClassOrder[1]{%
1286     \def\@xdylocationclassorder{#1}}
1287 \else
1288   \newcommand*\GlsSetXdyLocationClassOrder[1]{%
1289     \glsnoxywarning\GlsSetXdyLocationClassOrder}
1290 \fi
```

\@xdysortrules Define sort rules

```
1291 \ifglxindy
1292   \def\@xdysortrules{}
1293 \fi
```

\GlsAddSortRule Add a sort rule

```
1294 \ifglxindy
1295   \newcommand*\GlsAddSortRule[2]{%
1296     \expandafter\toks@\expandafter{\@xdysortrules}%
1297     \protected@edef\@xdysortrules{\the\toks@ ^^J
1298       (sort-rule \string"#1\string" \string"#2\string")}%
1299   }
1300 \else
1301   \newcommand*\GlsAddSortRule[2]{%
1302     \glsnoxywarning\GlsAddSortRule}
1303 \fi
```

yrequiredstyles Define list of required styles (this should be a comma-separated list of xindy styles)

```
1304 \ifglxindy
1305   \def\@xdyrequiredstyles{tex}
1306 \fi
```

\GlsAddXdyStyle Add a xindy style to the list of required styles

```
1307 \ifglxindy
1308   \newcommand*\GlsAddXdyStyle[1]{%
1309     \edef\@xdyrequiredstyles{\@xdyrequiredstyles,#1}}%
1310 \else
1311   \newcommand*\GlsAddXdyStyle[1]{%
1312     \glsnoxywarning\GlsAddXdyStyle}
1313 \fi
```

GlsSetXdyStyles Reset the list of required styles

```
1314 \ifglxindy
1315   \newcommand*\GlsSetXdyStyles[1]{%
1316     \edef\@xdyrequiredstyles{#1}}
1317 \else
1318   \newcommand*\GlsSetXdyStyles[1]{%
1319     \glsnoxywarning\GlsSetXdyStyles}
1320 \fi
```

`\findrootlanguage` This used to determine the root language, using a bit of trickery since babel doesn't supply the information, but now that babel is once again actively maintained, we can't do this any more, so `\findrootlanguage` is no longer available. Now provide a command that does nothing (in case it's been patched), but this may be removed completely in the future.

```
1321 \newcommand*\findrootlanguage{}
```

`\@xdylanguage` The xindy language setting is required by `makeglossaries`, so provide a command for `makeglossaries` to pick up the information from the auxiliary file. This command is not needed by the `glossaries` package, so define it to ignore its arguments.

```
1322 \def\@xdylanguage#1#2{}
```

`\GlsSetXdyLanguage` Define a command that allows the user to set the language for a given glossary type. The first argument indicates the glossary type. If omitted the main glossary is assumed.

```
1323 \ifglsxindy
1324   \newcommand*\GlsSetXdyLanguage[2][\glsdefaultttype]{%
1325     \ifglossaryexists{#1}{%
1326       \expandafter\def\csname @xdy@#1@language\endcsname{#2}%
1327     }{%
1328       \PackageError{glossaries}{Can't set language type for
1329         glossary type '#1' --- no such glossary}{%
1330         You have specified a glossary type that doesn't exist}}
1331 \else
1332   \newcommand*\GlsSetXdyLanguage[2][]{%
1333     \glsnoxywarning\GlsSetXdyLanguage}
1334 \fi
```

`\@gls@codepage` The xindy codepage setting is required by `makeglossaries`, so provide a command for `makeglossaries` to pick up the information from the auxiliary file. This command is not needed by the `glossaries` package, so define it to ignore its arguments.

```
1335 \def\@gls@codepage#1#2{}
```

`\GlsSetXdyCodePage` Define command to set the code page.

```
1336 \ifglsxindy
1337   \newcommand*\GlsSetXdyCodePage[1]{%
1338     \renewcommand*\@gls@codepage{#1}%
1339   }
```

Suggested by egreg:

```
1340   \AtBeginDocument{%
1341     \ifx\@gls@codepage\@empty
1342       \@ifpackageloaded{fontspec}{\def\@gls@codepage{utf8}}{}%
1343     \fi
1344   }
1345 \else
1346   \newcommand*\GlsSetXdyCodePage[1]{%
1347     \glsnoxywarning\GlsSetXdyCodePage}
1348 \fi
```

`\xdylettergroups` Store letter group definitions.

```

1349 \ifglxsindy
1350   \ifglxs@xindy@glnumbers
1351     \def\xdylettergroups{(define-letter-group
1352       \string"glnumbers\string"^^J\space\space\space
1353       :prefixes (\string"0\string" \string"1\string"
1354       \string"2\string" \string"3\string" \string"4\string"
1355       \string"5\string" \string"6\string" \string"7\string"
1356       \string"8\string" \string"9\string")^^J\space\space\space
1357       :before \string"@glfirstletter\string")}
1358   \else
1359     \def\xdylettergroups{}
1360   \fi
1361 \fi

```

`\sAddLetterGroup` Add a new letter group. The first argument is the name of the letter group. The second argument is the xindy code specifying prefixes and ordering.

```

1362   \newcommand*\GlsAddLetterGroup[2]{%
1363     \expandafter\toks@\expandafter{\@xdylettergroups}%
1364     \protected@edef\xdylettergroups{\the\toks@^^J%
1365     (define-letter-group \string"#1\string"^^J\space\space#2)}%
1366   }%

```

1.5 Loops and conditionals

`\forall glossaries` To iterate through all glossaries (or comma-separated list of glossary names given in optional argument) use:

```
\forall glossaries[<glossary list>]{<cmd>}{<code>}
```

where *<cmd>* is a control sequence which will be set to the name of the glossary in the current iteration.

```

1367 \newcommand*\forallglossaries}[3][\@glo@types]{%
1368   \@for#2:=#1\do{\ifx#2\@empty\else#3\fi}%
1369 }

```

`\forall acronyms`

```

1370 \newcommand*\forallacronyms}[2]{%
1371   \@for#1:=\@glsacronymlists\do{\ifx#1\@empty\else#2\fi}%
1372 }

```

`\forall sentries` To iterate through all entries in a given glossary use:

```
\forall sentries[<type>]{<cmd>}{<code>}
```

where *<type>* is the glossary label and *<cmd>* is a control sequence which will be set to the entry label in the current iteration.

```

1373 \newcommand*{\forglentries}[3][\glsdefaulttype]{%
1374   \edef\@glo@list{\csname glolist@#1\endcsname}%
1375   \@for#2:=\@glo@list\do
1376   {%
1377     \ifdefempty{#2}{\#{#3}}%
1378   }%
1379 }

```

`\forallglentries` To iterate through all glossary entries over all glossaries listed in the optional argument (the default is all glossaries) use:

```
\forallglentries[<glossary list>]{<cmd>}{<code>}
```

Within `\forallglentries`, the current glossary type is given by `\@thisglo@`.

```

1380 \newcommand*{\forallglentries}[3][\@glo@types]{%
1381   \expandafter\forallglossaries\expandafter[#1]{\@thisglo@}%
1382   {%
1383     \forglentries[\@thisglo@]{#2}{#3}%
1384   }%
1385 }

```

`\ifglossaryexists` To check to see if a glossary exists use:

```
\ifglossaryexists{<type>}{<true-text>}{<false-text>}
```

where *<type>* is the glossary's label.

```

1386 \newcommand{\ifglossaryexists}[3]{%
1387   \ifcsundef{@glo@type@#1@out}{#3}{#2}%
1388 }

```

Since the label is used to form the name of control sequences, by default UTF8 etc characters can't be used in the label. A possible workaround is to use `\scantokens`, but commands such as `\glsentrytext` will no longer be usable in sectioning, caption etc commands. If the user really wants to be able to construct a label with UTF8 characters, allow them the means to do so (but on their own head be it, if they then use entries in `\section` etc). This can be done via:

```
\renewcommand*{\glsdetoklabel}[1]{\scantokens{#1\noexpand}}
```

(Note, don't use `\detokenize` or it will cause commands like `\glsaddall` to fail.) Since re-defining `\glsdetoklabel` can cause things to go badly wrong, I'm not going to mention it in the main user guide. Only advanced users who know what they're doing ought to attempt it.

`\glsdetoklabel`

```
1389 \newcommand*{\glsdetoklabel}[1]{#1}
```

`\ifglentryexists` To check to see if a glossary entry has been defined use:

```
\ifglentryexists{<label>}{<true text>}{<false text>}
```

where $\langle label \rangle$ is the entry's label.

```
1390 \newcommand{\ifglentryexists}[3]{%
1391   \ifcsundef{glo@\glsdetoklabel{#1}@name}{#3}{#2}%
1392 }
```

\backslash ifglused To determine if given glossary entry has been used in the document text yet use:

```
\ifglused{<label>}{<true text>}{<false text>}
```

where $\langle label \rangle$ is the entry's label. If true it will do $\langle true text \rangle$ otherwise it will do $\langle false text \rangle$.

```
1393 \newcommand*{\ifglused}[3]{%
1394   \ifbool{glo@\glsdetoklabel{#1}@flag}{#2}{#3}%
1395 }
```

The following two commands will cause an error if the given condition fails:

\backslash glsdoifexists

```
\glsdoifexists{<label>}{<code>}
```

Generate an error if entry specified by $\langle label \rangle$ doesn't exists, otherwise do $\langle code \rangle$.

```
1396 \newcommand{\glsdoifexists}[2]{%
1397   \ifglentryexists{#1}{#2}{%
1398     \PackageError{glossaries}{Glossary entry '\glsdetoklabel{#1}'
1399     has not been defined}{You need to define a glossary entry before you
1400     can use it.}}%
1401 }
```

\backslash glsdoifnoexists

```
\glsdoifnoexists{<label>}{<code>}
```

The opposite: only do second argument if the entry doesn't exists. Generate an error message if it exists.

```
1402 \newcommand{\glsdoifnoexists}[2]{%
1403   \ifglentryexists{#1}{#2}{%
1404     \PackageError{glossaries}{Glossary entry '\glsdetoklabel{#1}' has already
1405     been defined}{}}{#2}%
1406 }
```

\backslash glsdoifexistsorwarn

```
\glsdoifexistsorwarn{<label>}{<code>}
```

Generate a warning if entry specified by $\langle label \rangle$ doesn't exists, otherwise do $\langle code \rangle$.

```
1407 \newcommand{\glsdoifexistsorwarn}[2]{%
1408   \ifglentryexists{#1}{#2}{%
1409     \GlossariesWarning{Glossary entry '\glsdetoklabel{#1}'
1410     has not been defined}%
1411   }%
1412 }
```

glsdoifexistsordo `\glsdoifexistsordo{<label>}{<code>}{<undef code>}`

Generate an error and do *<undef code>* if entry specified by *<label>* doesn't exists, otherwise do *<code>*.

```

1413 \newcommand{\glsdoifexistsordo}[3]{%
1414   \ifglentryexists{#1}{#2}{%
1415     \PackageError{glossaries}{Glossary entry ‘\glsdetoklabel{#1}’
1416       has not been defined}{You need to define a glossary entry before you
1417       can use it.}%
1418     #3%
1419   }%
1420 }
```

sarynoexistsordo `\doifglossarynoexistsordo{<label>}{<code>}{<else code>}`

If glossary given by *<label>* doesn't exist do *<code>* otherwise generate an error and do *<else code>*.

```

1421 \newcommand{\doifglossarynoexistsordo}[3]{%
1422   \ifglossaryexists{#1}%
1423   {%
1424     \PackageError{glossaries}{Glossary type ‘#1’ already exists}{}%
1425     #3%
1426   }%
1427   {#2}%
1428 }
```

glshaschildren `\ifglshaschildren{<label>}{<true part>}{<false part>}`

```

1429 \newcommand{\ifglshaschildren}[3]{%
1430   \glsdoifexists{#1}%
1431   {%
1432     \def\do@glshaschildren{#3}%
1433     \edef\@gls@thislabel{\glsdetoklabel{#1}}%
1434     \expandafter\forglentries\expandafter
1435     [\csname glo@\@gls@thislabel @type\endcsname]
1436     {\glo@label}%
1437     {%
1438       \letcs\glo@parent{glo@\glo@label @parent}%
1439       \ifdefequal\@gls@thislabel\glo@parent
1440       {%
1441         \def\do@glshaschildren{#2}%
1442         \@endfortrue
1443       }%
1444     }%
1445   }%
1446   \do@glshaschildren
1447 }%
1448 }
```

```
\ifglshasparent \ifglshasparent{<label>}{<true part>}{<false part>}
```

```
1449 \newcommand{\ifglshasparent}[3]{%
1450   \glsdoifexists{#1}%
1451   {%
1452     \ifcseempty{glo@\glsdetoklabel{#1}@parent}{#3}{#2}%
1453   }%
1454 }
```

```
\ifglshasdesc \ifglshasdesc{<label>}{<true part>}{<false part>}
```

```
1455 \newcommand*{\ifglshasdesc}[3]{%
1456   \ifcseempty{glo@\glsdetoklabel{#1}@desc}{%
1457     {#3}%
1458     {#2}%
1459   }
```

```
sdescsuppressed \ifglsdescsuppressed{<label>}{<true part>}{<false part>} Does <true part> if the descrip-
tion is just \nopostdesc otherwise does <false part>.
```

```
1460 \newcommand*{\ifglsdescsuppressed}[3]{%
1461   \ifcsequal{glo@\glsdetoklabel{#1}@desc}{@no@post@desc}%
1462   {#2}%
1463   {#3}%
1464 }
```

```
\ifglshassymbol \ifglshassymbol{<label>}{<true part>}{<false part>}
```

```
1465 \newcommand*{\ifglshassymbol}[3]{%
1466   \letcs{\@glo@symbol}{glo@\glsdetoklabel{#1}@symbol}%
1467   \ifdefempty\@glo@symbol
1468   {#3}%
1469   {%
1470     \ifdefequal\@glo@symbol\@gls@default@value
1471     {#3}%
1472     {#2}%
1473   }%
1474 }
```

```
\ifglshaslong \ifglshaslong{<label>}{<true part>}{<false part>}
```

```
1475 \newcommand*{\ifglshaslong}[3]{%
1476   \letcs{\@glo@long}{glo@\glsdetoklabel{#1}@long}%
1477   \ifdefempty\@glo@long
1478   {#3}%
1479   {%
1480     \ifdefequal\@glo@long\@gls@default@value
1481     {#3}%
1482     {#2}%
1483   }%
1484 }
```

```

\ifglshasshort \ifglshasshort{\langle label \rangle}{\langle true part \rangle}{\langle false part \rangle}
1485 \newcommand*{\ifglshasshort}[3]{%
1486   \letcs{\@glo@short}{glo@\glstdetoklabel{#1}@short}%
1487   \ifdefempty\@glo@short
1488     {#3}%
1489     {%
1490       \ifdequal\@glo@short\@gls@default@value
1491         {#3}%
1492         {#2}%
1493     }%
1494 }

```

`\ifglshasfield` `\ifglshasfield{\langle field \rangle}{\langle label \rangle}{\langle true part \rangle}{\langle false part \rangle}`

```

1495 \newcommand*{\ifglshasfield}[4]{%
1496   \glstdoifexists{#2}%
1497   {%
1498     \letcs{\@glo@thisvalue}{glo@\glstdetoklabel{#2}@#1}%

```

First check supplied field label is defined.

```

1499   \ifdef\@glo@thisvalue
1500     {%

```

Is defined, so now check if empty.

```

1501     \ifdefempty\@glo@thisvalue
1502     {%

```

Is empty, so doesn't have field set.

```

1503     #4%
1504   }%
1505   {%

```

Not empty, so check if set to \@gls@default@value

```

1506     \ifdequal\@glo@thisvalue\@gls@default@value
1507     {%

```

Value is set to the default value.

```

1508     #4%
1509   }%
1510   {%

```

Non-empty, non-default value. Allow user to access this value through \glscurrentfieldvalue.

```

1511     \let\glscurrentfieldvalue\@glo@thisvalue
1512     #3%
1513   }%
1514 }%
1515 }%
1516 {%

```

Field given isn't defined, so check if mapping exists.

```
1517 \@gls@fetchfield{\@gls@thisfield}{#1}%
```

If `\@gls@thisfield` is defined, we've found a map. If not, the field supplied doesn't exist.

```
1518 \ifdef\@gls@thisfield
1519 {%
```

Is defined, so now check if empty.

```
1520 \letcs{\@glo@thisvalue}{glo\@glsdetoklabel{#2}@\@gls@thisfield}%
1521 \ifdefempty\@glo@thisvalue
1522 {%
```

Is empty so field hasn't been set.

```
1523 #4%
1524 }%
1525 {%
```

Isn't empty so check if it's been set to `\@gls@default@value`.

```
1526 \ifdequal\@glo@thisvalue\@gls@default@value
1527 {%
```

Value is set to the default value.

```
1528 #4%
1529 }%
1530 {%
```

Non-empty, non-default value. Allow user to access this value through `\glscurrentfieldvalue`.

```
1531 \let\glscurrentfieldvalue\@glo@thisvalue
1532 #3%
1533 }%
1534 }%
1535 }%
1536 {%
```

Not defined.

```
1537 \GlossariesWarning{Unknown entry field '#1'}%
1538 #4%
1539 }%
1540 }%
1541 }%
1542 }
```

`\glscurrentfieldvalue`

```
1543 \newcommand*{\glscurrentfieldvalue}{}
```

1.6 Defining new glossaries

A comma-separated list of glossary names is stored in `\@glo@types`. When a new glossary type is created, its identifying name is added to this list. This is used by commands that iterate through all glossaries (such as `\makeglossaries` and `\printglossaries`).

```

\@glo@types
1544 \newcommand*{\@glo@types}{,}

ide@newglossary If the user removes the glossary package from their document, ensure the next run doesn't
throw a load of undefined control sequence errors when the aux file is parsed.

1545 \newcommand*\@gls@provide@newglossary{%
1546   \protected@write\@auxout{}\string\providecommand\string\@newglossary[4]{}}%

Only need to do this once.

1547 \let\@gls@provide@newglossary\relax
1548 }

\defglsentryfmt Allow different glossaries to have different display styles.

1549 \newcommand*\defglsentryfmt}[2][\glsdefaultttype]{%
1550   \csgdef{gls@#1@entryfmt}{#2}%
1551 }

\gls@doentryfmt
1552 \newcommand*\gls@doentryfmt}[1]{\csuse{gls@#1@entryfmt}}

ls@forbidtextext As a security precaution, don't allow the user to specify a 'tex' extension for any of the glossary
files. (Just in case a seriously confused novice user doesn't know what they're doing.) The
argument must be a control sequence whose replacement text is the requested extension.

1553 \newcommand*\@gls@forbidtextext}[1]{%
1554   \ifboolexpr{test {\ifdefstring{#1}{tex}}
1555             or test {\ifdefstring{#1}{TEX}}}
1556   {%
1557     \def#1{nottex}%
1558     \PackageError{glossaries}%
1559       {Forbidden '.tex' extension replaced with '.nottex'}%
1560     {I'm sorry, I can't allow you to do something so reckless.\MessageBreak
1561       Don't use '.tex' as an extension for a temporary file.}%
1562   }%
1563   {%
1564   }%
1565 }

\gls@gobbleopt Discard optional argument.

1566 \newcommand*\gls@gobbleopt{\new@ifnextchar[\@gls@gobbleopt]}
1567 \def\@gls@gobbleopt[#1]{}

```

A new glossary type is defined using `\newglossary`. Syntax:

```
\newglossary[⟨log-ext⟩]{⟨name⟩}{⟨in-ext⟩}{⟨out-ext⟩} {⟨title⟩}[⟨counter⟩]
```

where `⟨log-ext⟩` is the extension of the makeindex transcript file, `⟨in-ext⟩` is the extension of the glossary input file (read in by `\printglossary` and created by makeindex), `⟨out-ext⟩`

is the extension of the glossary output file which is read in by `makeindex` (lines are written to this file by the `\glossary` command), *<title>* is the title of the glossary that is used in `\glossarysection` and *<counter>* is the default counter to be used by entries belonging to this glossary. The `makeglossaries` Perl script reads in the relevant extensions from the auxiliary file, and passes the appropriate file names and switches to `makeindex`.

`\newglossary`

```
1568 \newcommand*{\newglossary}{\@ifstar\s@newglossary\ns@newglossary}
```

`\s@newglossary` The starred version will construct the extension based on the label.

```
1569 \newcommand*{\s@newglossary}[2]{%
```

```
1570 \ns@newglossary[#1-glg]{#1}{#1-gls}{#1-glo}{#2}%
```

```
1571 }
```

`\ns@newglossary` Define the unstarred version.

```
1572 \newcommand*{\ns@newglossary}[5][glg]{%
```

```
1573 \doifglossarynoexistsordo{#2}%
```

```
1574 {%
```

Check if default has been set

```
1575 \ifundef\glsdefaultttype
```

```
1576 {%
```

```
1577 \gdef\glsdefaultttype{#2}%
```

```
1578 }{}%
```

Add this to the list of glossary types:

```
1579 \toks@{#2}\edef\@glo@types{\@glo@types\the\toks@,}%
```

Define a comma-separated list of labels for this glossary type, so that all the entries for this glossary can be reset with a single command. When a new entry is created, its label is added to this list.

```
1580 \expandafter\gdef\csname glolist@#2\endcsname{,}%
```

Store the file extensions:

```
1581 \expandafter\edef\csname @glotype@#2@log\endcsname{#1}%
```

```
1582 \expandafter\edef\csname @glotype@#2@in\endcsname{#3}%
```

```
1583 \expandafter\edef\csname @glotype@#2@out\endcsname{#4}%
```

```
1584 \expandafter\@gls@forbidtexext\csname @glotype@#2@log\endcsname
```

```
1585 \expandafter\@gls@forbidtexext\csname @glotype@#2@in\endcsname
```

```
1586 \expandafter\@gls@forbidtexext\csname @glotype@#2@out\endcsname
```

Store the title:

```
1587 \expandafter\def\csname @glotype@#2@title\endcsname{#5}%
```

```
1588 \@gls@provide@newglossary
```

```
1589 \protected@write\auxout{}{\string\@newglossary{#2}{#1}{#3}{#4}}%
```

How to display this entry in the document text (uses `\glsentry` by default). This can be re-defined by the user later if required (see `\defglsentry`). This may already have been defined if this has been specified as a list of acronyms.

```

1590 \ifcsundef{gls@#2@entryfmt}%
1591 {%
1592   \defglsentryfmt[#2]{\glsentryfmt}%
1593 }%
1594 {}%

```

Define sort counter if required:

```

1595 \@gls@defsortcount{#2}%

```

Find out if the final optional argument has been specified, and use it to set the counter associated with this glossary. (Uses `\glscounter` if no optional argument is present.)

```

1596 \@ifnextchar[{\@gls@setcounter{#2}}%
1597   {\@gls@setcounter{#2}[\glscounter]}%
1598 }%
1599 {%
1600   \gls@gobbleopt
1601 }%
1602 }

```

`\altnewglossary`

```

1603 \newcommand*{\altnewglossary}[3]{%
1604   \newglossary[#2-glg]{#1}{#2-gls}{#2-glo}{#3}%
1605 }

```

Only define new glossaries in the preamble:

```

1606 \@onlypreamble{\newglossary}

```

Only define new glossaries before `\makeglossaries`

```

1607 \@onlypremakeg\newglossary

```

`\@newglossary` is used to specify the file extensions for the `makeindex` input, output and transcript files. It is written to the auxiliary file by `\newglossary`. Since it is not used by \LaTeX , `\@newglossary` simply ignores its arguments.

`\@newglossary`

```

1608 \newcommand*{\@newglossary}[4]{}

```

Store counter to be used for given glossary type (the first argument is the glossary label, the second argument is the name of the counter):

`@gls@setcounter`

```

1609 \def\@gls@setcounter#1[#2]{%
1610   \expandafter\def\csname @glsotype@#1@counter\endcsname{#2}%

```

Add counter to xindy list, if not already added:

```

1611   \ifglsxindy
1612     \GlsAddXdyCounters{#2}%
1613   \fi
1614 }

```

Get counter associated with given glossary (the argument is the glossary label):

@gls@getcounter

```
1615 \newcommand*{\@gls@getcounter}[1]{%
1616 \csname @gls@#1@counter\endcsname
1617 }
```

Define the main glossary. This will be the first glossary to be displayed when using `\printglossaries`.

```
1618 \glsdefmain
```

Define the “acronym” glossaries if required.

```
1619 \@gls@do@acronymsdef
```

Define the “symbols”, “numbers” and “index” glossaries if required.

```
1620 \@gls@do@symbolsdef
```

```
1621 \@gls@do@numbersdef
```

```
1622 \@gls@do@indexdef
```

`ignoredglossary` Creates a new glossary that doesn’t have associated files. This glossary is ignored by and commands that iterate over glossaries, such as `\printglossaries`, and won’t work with commands like `\printglossary`. It’s intended for entries that are so commonly-known they don’t require a glossary.

```
1623 \newcommand*{\newignoredglossary}[1]{%
1624 \ifdefempty\@ignored@glossaries
1625 {%
1626 \edef\@ignored@glossaries{#1}%
1627 }%
1628 {%
1629 \eappto\@ignored@glossaries{, #1}%
1630 }%
1631 \csgdef{glolist@#1}{,}%
1632 \ifcsundef{gls@#1@entryfmt}%
1633 {%
1634 \defglsentryfmt[#1]{\glsentryfmt}%
1635 }%
1636 {}%
1637 \ifdefempty\@gls@nohyperlist
1638 {%
1639 \renewcommand*{\@gls@nohyperlist}{#1}%
1640 }%
1641 {%
1642 \eappto\@gls@nohyperlist{, #1}%
1643 }%
1644 }
```

`ored@glossaries` List of ignored glossaries.

```
1645 \newcommand*{\@ignored@glossaries}{}
```

`ignoredglossary` Tests if the given glossary is an ignored glossary. Expansion is used in case the first argument is a control sequence.

```

1646 \newcommand*{\ifignoredglossary}[3]{%
1647   \edef\@gls@igtype{#1}%
1648   \expandafter\DTLifinlist\expandafter
1649     {\@gls@igtype}{\@ignored@glossaries}{#2}{#3}%
1650 }

```

1.7 Defining new entries

New glossary entries are defined using `\newglossaryentry`. This command requires a label and a key-value list that defines the relevant information for that entry. The definition for these keys follows. Note that the name, description and symbol keys will be sanitized later, depending on the value of the package option `sanitize` (this means that if some of the keys haven't been defined, they can be constructed from the name and description key before they are sanitized).

name The name key indicates the name of the term being defined. This is how the term will appear in the glossary. The name key is required when defining a new glossary entry.

```

1651 \define@key{glossentry}{name}{%
1652 \def\@glo@name{#1}%
1653 }

```

description The description key is usually only used in the glossary, but can be made to appear in the text by redefining `\glsentryfmt` or using `\defglsentryfmt`. The description key is required when defining a new glossary entry. If a long description is required, use `\longnewglossaryentry` instead of `\newglossaryentry`.

```

1654 \define@key{glossentry}{description}{%
1655 \def\@glo@desc{#1}%
1656 }

```

descriptionplural

```

1657 \define@key{glossentry}{descriptionplural}{%
1658 \def\@glo@descplural{#1}%
1659 }

```

sort The sort key needs to be sanitized here (the sort key is provided for `makeindex`'s benefit, not for use in the document). The sort key is optional when defining a new glossary entry. If omitted, the value is given by *<name>* *<description>*.

```

1660 \define@key{glossentry}{sort}{%
1661 \def\@glo@sort{#1}}

```

text The text key determines how the term should appear when used in the document (i.e. outside of the glossary). If omitted, the value of the name key is used instead.

```

1662 \define@key{glossentry}{text}{%
1663 \def\@glo@text{#1}%
1664 }

```

plural The plural key determines how the plural form of the term should be displayed in the document. If omitted, the plural is constructed by appending `\glspluralsuffix` to the value of the text key.

```
1665 \define@key{glossentry}{plural}{%
1666 \def\@glo@plural{#1}%
1667 }
```

first The first key determines how the entry should be displayed in the document when it is first used. If omitted, it is taken to be the same as the value of the text key.

```
1668 \define@key{glossentry}{first}{%
1669 \def\@glo@first{#1}%
1670 }
```

firstplural The firstplural key is used to set the plural form for first use, in the event that the plural is required the first time the term is used. If omitted, it is constructed by appending `\glspluralsuffix` to the value of the first key.

```
1671 \define@key{glossentry}{firstplural}{%
1672 \def\@glo@firstplural{#1}%
1673 }
```

s@default@value

```
1674 \newcommand*{\@gls@default@value}{\relax}
```

symbol The symbol key is ignored by most of the predefined glossary styles, and defaults to `\relax` if omitted. It is provided for glossary styles that require an associated symbol, as well as a name and description. To make this value appear in the glossary, you need to redefine `\glossentry`. If you want this value to appear in the text when the term is used by commands like `\gls`, you will need to change `\glsentryfmt` (or use for `\defglsentryfmt` individual glossaries).

```
1675 \define@key{glossentry}{symbol}{%
1676 \def\@glo@symbol{#1}%
1677 }
```

symbolplural

```
1678 \define@key{glossentry}{symbolplural}{%
1679 \def\@glo@symbolplural{#1}%
1680 }
```

type The type key specifies to which glossary this entry belongs. If omitted, the default glossary is used.

```
1681 \define@key{glossentry}{type}{%
1682 \def\@glo@type{#1}}
```

counter The counter key specifies the name of the counter associated with this glossary entry:

```
1683 \define@key{glossentry}{counter}{%
1684 \ifcsundef{c@#1}%
```

```

1685 {%
1686   \PackageError{glossaries}%
1687   {There is no counter called ‘#1’}%
1688   {%
1689     The counter key should have the name of a valid counter
1690     as its value%
1691   }%
1692 }%
1693 {%
1694   \def\@glo@counter{#1}%
1695 }%
1696 }

```

see The see key specifies a list of cross-references

```

1697 \define@key{glossentry}{see}{%
1698   \gls@checkseeallowed
1699   \def\@glo@see{#1}%
1700   \@glo@seeautonumberlist
1701 }

```

checkseeallowed

```

1702 \newcommand*{\gls@checkseeallowed}{%
1703   \@gls@see@noindex
1704 }

```

ed@preambleonly

```

1705 \newcommand*{\gls@checkseeallowed@preambleonly}{%
1706   \GlossariesWarning{glossaries}%
1707   {‘see’ key doesn’t have any effect when used in the document
1708     environment. Move the definition to the preamble
1709     after \string\makeglossaries\space
1710     or \string\makenoidxglossaries}%
1711 }

```

parent The parent key specifies the parent entry, if required.

```

1712 \define@key{glossentry}{parent}{%
1713   \def\@glo@parent{#1}}

```

nonumberlist The nonumberlist key suppresses or activates the number list for the given entry.

```

1714 \define@choicekey{glossentry}{nonumberlist}[\val\nr]{true,false}[true]{%
1715   \ifcase\nr\relax
1716     \def\@glo@prefix{\glsnonextpages}%
1717     \@gls@savenonumberlist{true}%
1718   \else
1719     \def\@glo@prefix{\glsnextpages}%
1720     \@gls@savenonumberlist{false}%
1721   \fi
1722 }

```

savenonumberlist The nonumberlist option isn't saved by default (as it just sets the prefix) which isn't a problem when the entries are defined in the preamble, but causes a problem when entries are defined in the document. In this case, the value needs to be saved so that it can be written to the .glsdefs file.

```
1723 \newcommand*{\@gls@savenonumberlist}[1]{}
```

initnonumberlist

```
1724 \newcommand*{\@gls@initnonumberlist}{}%
```

initnonumberlist

```
1725 \newcommand*{\@gls@storenonumberlist}[1]{}
```

savenonumberlist Allow the nonumberlist value to be saved.

```
1726 \newcommand*{\@gls@enablesavenonumberlist}{%
1727   \renewcommand*{\@gls@initnonumberlist}{%
1728     \undef\@glo@nonumberlist
1729   }%
1730   \renewcommand*{\@gls@savenonumberlist}[1]{%
1731     \def\@glo@nonumberlist{##1}%
1732   }%
1733   \renewcommand*{\@gls@storenonumberlist}[1]{%
1734     \ifdef\@glo@nonumberlist
1735       {%
1736         \cslet{glo@glsdetoklabel{##1}@nonumberlist}{\@glo@nonumberlist}%
1737       }%
1738     }%
1739   }%
1740   \appto\@gls@keymap{,{nonumberlist}{nonumberlist}}%
1741 }
```

Define some generic user keys. (Additional keys can be added by the user.)

user1

```
1742 \define@key{glossentry}{user1}{%
1743   \def\@glo@useri{#1}%
1744 }
```

user2

```
1745 \define@key{glossentry}{user2}{%
1746   \def\@glo@userii{#1}%
1747 }
```

user3

```
1748 \define@key{glossentry}{user3}{%
1749   \def\@glo@useriii{#1}%
1750 }
```

user4

```
1751 \define@key{glossentry}{user4}{%  
1752   \def\@glo@useriv{#1}%  
1753 }
```

user5

```
1754 \define@key{glossentry}{user5}{%  
1755   \def\@glo@userv{#1}%  
1756 }
```

user6

```
1757 \define@key{glossentry}{user6}{%  
1758   \def\@glo@uservi{#1}%  
1759 }
```

short This key is provided for use by \newacronym. It's not designed for general purpose use, so isn't described in the user manual.

```
1760 \define@key{glossentry}{short}{%  
1761   \def\@glo@short{#1}%  
1762 }
```

shortplural This key is provided for use by \newacronym.

```
1763 \define@key{glossentry}{shortplural}{%  
1764   \def\@glo@shortpl{#1}%  
1765 }
```

long This key is provided for use by \newacronym.

```
1766 \define@key{glossentry}{long}{%  
1767   \def\@glo@long{#1}%  
1768 }
```

longplural This key is provided for use by \newacronym.

```
1769 \define@key{glossentry}{longplural}{%  
1770   \def\@glo@longpl{#1}%  
1771 }
```

\@glsnname Define command to generate error if name key is missing.

```
1772 \newcommand*\@glsnname{%  
1773   \PackageError{glossaries}{name key required in  
1774   \string\newglossaryentry\space for entry '@glo@label'}{You  
1775   haven't specified the entry name}}
```

\@glsnodelsc Define command to generate error if description key is missing.

```
1776 \newcommand*\@glsnodelsc{%  
1777   \PackageError{glossaries}  
1778   {%  
1779     description key required in \string\newglossaryentry\space  
1780     for entry '@glo@label'%  
1781   }}
```

```

1781 }%
1782 {%
1783     You haven't specified the entry description%
1784 }%
1785 }%

\lsdefaultplural Now obsolete. Don't use.
1786 \newcommand*{\@glsdefaultplural}{%

\issingnumberlist Define a command to generate warning when numberlist not set.
1787 \newcommand*{\@gls@missingnumberlist}[1]{%
1788     ??%
1789     \ifglssavenumberlist
1790         \GlossariesWarning{Missing number list for entry '#1'.
1791             Maybe makeglossaries + rerun required}%
1792     \else
1793         \PackageError{glossaries}%
1794             {Package option 'savenumberlist=true' required}%
1795         {%
1796             You must use the 'savenumberlist' package option
1797             to reference location lists.%
1798         }%
1799     \fi
1800 }

@glsdefaultsort Define command to set default sort.
1801 \newcommand*{\@glsdefaultsort}{\@glo@name}

\gls@level Register to increment entry levels.
1802 \newcount\gls@level

@noexpand@field
1803 \newcommand{\@gls@noexpand@field}[3]{%
1804     \expandafter\global\expandafter
1805         \let\csname glo@#1@#2\endcsname#3%
1806 }

noexpand@fields
1807 \newcommand{\@gls@noexpand@fields}[4]{%
1808     \ifcsdef{gls@assign@#3@field}
1809     {%
1810         \ifdefequal{#4}{\@gls@default@value}%
1811         {%
1812             \edef\@gls@value{\expandonce{#1}}%
1813             \csuse{gls@assign@#3@field}{#2}{\@gls@value}%
1814         }%
1815     }%
1816     \csuse{gls@assign@#3@field}{#2}{#4}%

```

```

1817     }%
1818 }%
1819 {%
1820     \ifdefequal{#4}{\@gls@default@value}%
1821     {%
1822         \edef\@gls@value{\expandonce{#1}}%
1823         \@gls@noexpand@field{#2}{#3}{\@gls@value}%
1824     }%
1825     {%
1826         \@gls@noexpand@field{#2}{#3}{#4}%
1827     }%
1828 }%
1829 }

```

ls@expand@field

```

1830 \newcommand{\@gls@expand@field}[3]{%
1831     \expandafter
1832     \protected@xdef\csname glo@#1@#2\endcsname{#3}%
1833 }

```

s@expand@fields

```

1834 \newcommand{\@gls@expand@fields}[4]{%
1835     \ifcsdef{gls@assign@#3@field}
1836     {%
1837         \ifdefequal{#4}{\@gls@default@value}%
1838         {%
1839             \edef\@gls@value{\expandonce{#1}}%
1840             \csuse{gls@assign@#3@field}{#2}{\@gls@value}%
1841         }%
1842         {%
1843             \expandafter\@gls@startswithexpandonce#4\relax\relax\gls@endcheck
1844             {%
1845                 \@gls@expand@field{#2}{#3}{#4}%
1846             }%
1847             {%
1848                 \csuse{gls@assign@#3@field}{#2}{#4}%
1849             }%
1850         }%
1851     }%
1852     {%
1853         \ifdefequal{#4}{\@gls@default@value}%
1854         {%
1855             \@gls@expand@field{#2}{#3}{#1}%
1856         }%
1857         {%
1858             \@gls@expand@field{#2}{#3}{#4}%
1859         }%
1860     }%
1861 }

```

swithexpandonce

```
1862 \def\@gls@expandonce{\expandonce}
1863 \def\@gls@startswithexpandonce#1#2\gls@endcheck#3#4{%
1864   \def\@gls@tmp{#1}%
1865   \ifdefequal{\@gls@expandonce}{\@gls@tmp}{#3}{#4}%
1866 }
```

gls@assign@field

```
\gls@assign@field{\<def value>}{\<label>}{\<field>}{\<tmp cs>}
```

Assigns an entry field. Expansion performed by default (except for name, symbol and description where backward compatibility required). If *<tmp cs>* is *<@gls@default@value>*, *<def value>* is used instead.

```
1867 \let\gls@assign@field\@gls@expand@fields
```

glsexpandfields

Fully expand values when assigning fields (except for specific fields that are overridden by `\glssetnoexpandfield`).

```
1868 \newcommand*{\glsexpandfields}{%
1869   \let\gls@assign@field\@gls@expand@fields
1870 }
```

snoexpandfields

Don't expand values when assigning fields (except for specific fields that are overridden by `\glssetexpandfield`).

```
1871 \newcommand*{\glsnoexpandfields}{%
1872   \let\gls@assign@field\@gls@noexpand@fields
1873 }
```

ewglossaryentry

Define `\newglossaryentry` *{<label>}* *{<key-val list>}*. There are two required fields in *<key-val list>*: name (or parent) and description. (See above.)

```
1874 \newrobustcmd{\newglossaryentry}[2]{%
```

Check to see if this glossary entry has already been defined:

```
1875   \glsdoifnoexists{#1}%
1876   {%
1877     \gls@defglossaryentry{#1}{#2}%
1878   }%
1879 }
```

ewglossaryentry

The definition of `\newglossaryentry` is changed at the start of the document environment. The see key doesn't work for entries that have been defined in the document environment.

```
1880 \newcommand*{\gls@defdocnewglossaryentry}{%
1881   \let\gls@checkseeallowed\gls@checkseeallowed@preambleonly
1882   \let\newglossaryentry\new@glossaryentry
1883 }
```

deglossaryentry

Like `\newglossaryentry` but does nothing if the entry has already been defined.

```
1884 \newrobustcmd{\provideglossaryentry}[2]{%
```

```

1885 \ifglentryexists{#1}%
1886 {}%
1887 {%
1888   \gls@defglossaryentry{#1}{#2}%
1889 }%
1890 }
1891 \onlypreamble{\provideglossaryentry}

```

`w@glossaryentry` For use in document environment.

```

1892 \newrobustcmd{\new@glossaryentry}[2]{%
1893   \ifundef\@gls@deffile
1894   {%
1895     \global\newwrite\@gls@deffile
1896     \immediate\openout\@gls@deffile=\jobname.glsdefs
1897   }%
1898   {}%
1899   \ifglentryexists{#1}{}%
1900   {%
1901     \gls@defglossaryentry{#1}{#2}%
1902   }%
1903   \@gls@writedef{#1}%
1904 }
1905 \AtBeginDocument
1906 {
1907   \@gls@enablesavenonumberlist
1908   \makeatletter
1909   \InputIfFileExists{\jobname.glsdefs}{-}{-}%
1910   \makeatother
1911   \gls@defdocnewglossaryentry
1912 }
1913 \AtEndDocument{\ifdef\@gls@deffile{\closeout\@gls@deffile}{-}}

```

`\@gls@writedef` Writes glossary entry definition to `\@gls@deffile`.

```

1914 \newcommand*{\@gls@writedef}[1]{%
1915   \immediate\write\@gls@deffile
1916   {%
1917     \string\ifglentryexists{#1}{}\glspercentchar^^J%
1918     \expandafter\@gobble\string\{\glspercentchar^^J%
1919     \string\gls@defglossaryentry{\glsdetoklabel{#1}}\glspercentchar^^J%
1920     \expandafter\@gobble\string\{\glspercentchar%
1921   }%

```

Write key value information:

```

1922 \@for\@gls@map:=\@gls@keymap\do
1923 {%
1924   \letcs\glo@value{glo@\glsdetoklabel{#1}}\expandafter\@secondoftwo\@gls@map}%
1925   \ifdef\glo@value
1926   {%
1927     \@onelevel@sanitize\glo@value
1928     \immediate\write\@gls@deffile

```

```

1929      {%
1930          \expandafter\@firstoftwo\@gls@map
1931          =\expandafter\@gobble\string\{\@glo@value\expandafter\@gobble\string\},%
1932          \glspercentchar
1933      }%
1934  }%
1935  {}%
1936  }%

```

Provide hook:

```

1937  \glswritedefhook
1938  \immediate\write\@gls@deffile
1939  {%
1940      \glspercentchar^^J%
1941      \expandafter\@gobble\string\}\glspercentchar^^J%
1942      \expandafter\@gobble\string\}\glspercentchar%
1943  }%
1944  }

```

`\@gls@keymap` List of entry definition key names and corresponding tag in control sequence used to store the value.

```

1945 \newcommand*{\@gls@keymap}{%
1946   {name}{name},%
1947   {sort}{sortvalue},% unescaped sort value
1948   {type}{type},%
1949   {first}{first},%
1950   {firstplural}{firstpl},%
1951   {text}{text},%
1952   {plural}{plural},%
1953   {description}{desc},%
1954   {descriptionplural}{descplural},%
1955   {symbol}{symbol},%
1956   {symbolplural}{symbolplural},%
1957   {user1}{useri},%
1958   {user2}{userii},%
1959   {user3}{useriii},%
1960   {user4}{useriv},%
1961   {user5}{userv},%
1962   {user6}{uservi},%
1963   {long}{long},%
1964   {longplural}{longpl},%
1965   {short}{short},%
1966   {shortplural}{shortpl},%
1967   {counter}{counter},%
1968   {parent}{parent}%
1969 }

```

`\@gls@fetchfield` `\@gls@fetchfield{<cs>}{<field>}`

Fetches the internal field label from the given user *<field>* and stores in *<cs>*.

```
1970 \newcommand*{\@gls@fetchfield}[2]{%
```

Ensure user field name is fully expanded

```
1971 \edef\@gls@thisval{#2}%
```

Iterate through known mappings until we find the one for this field.

```
1972 \@for\@gls@map:=\@gls@keymap\do{%
```

```
1973 \edef\@this@key{\expandafter\@firstoftwo\@gls@map}%
```

```
1974 \ifdefequal{\@this@key}{\@gls@thisval}%
```

```
1975 {%
```

Found it.

```
1976 \edef#1{\expandafter\@secondoftwo\@gls@map}%
```

Break out of loop.

```
1977 \@endfortrue
```

```
1978 }%
```

```
1979 {}%
```

```
1980 }%
```

```
1981 }
```

glsaddstoragekey

```
\glsaddstoragekey{<key>}{<default value>}{<no link cs>}
```

Similar to `\glsaddkey` but intended for keys whose values aren't explicitly used in the document, but might be required behind the scenes by other commands.

```
1982 \newcommand*{\glsaddstoragekey}{\@ifstar\@sglsaddstoragekey\@glsaddstoragekey}
```

Starred version switches on expansion for this key.

```
1983 \newcommand*{\@sglsaddstoragekey}[1]{%
```

```
1984 \key@ifundefined{glossentry}{#1}%
```

```
1985 {%
```

```
1986 \expandafter\newcommand\expandafter*\expandafter
```

```
1987 {\csname gls@assign@#1@field\endcsname}[2]{%
```

```
1988 \@gls@expand@field{##1}{#1}{##2}%
```

```
1989 }%
```

```
1990 }%
```

```
1991 {}%
```

```
1992 \@glsaddstoragekey{#1}%
```

```
1993 }
```

Unstarred version doesn't override default expansion.

```
1994 \newcommand*{\@glsaddstoragekey}[3]{%
```

Check the specified key doesn't already exist.

```
1995 \key@ifundefined{glossentry}{#1}%
```

```
1996 {%
```

Set up the key.

```
1997 \define@key{glossentry}{#1}{\csdef{@glo@#1}{##1}}%
```

```
1998 \appto\@gls@keymap{, {#1}{#1}}%
```

Set the default value.

```
1999 \appto\@newglossaryentryprehook{\csdef{@glo@#1}{#2}}%
```

Assignment code.

```
2000 \appto\@newglossaryentryposthook{%  
2001 \letcs{\@glo@tmp}{@glo@#1}%  
2002 \gls@assign@field{#2}{\@glo@label}{#1}{\@glo@tmp}%  
2003 }%
```

Define the no-link commands.

```
2004 \newcommand*{#3}[1]{\@gls@entry@field{##1}{#1}}%  
2005 }%  
2006 {%  
2007 \PackageError{glossaries}{Key ‘#1’ already exists}{}%  
2008 }%  
2009 }
```

```
\glsaddkey \glsaddkey{<key>}{<default value>}{<no link cs>}{<no link ucfirst cs>}  
{<link cs>}{<link ucfirst cs>}{<link allcaps cs>}
```

Allow user to add their own custom keys.

```
2010 \newcommand*{\glsaddkey}{\ifstar\@sglsaddkey\@glsaddkey}
```

Starred version switches on expansion for this key.

```
2011 \newcommand*{\@sglsaddkey}[1]{%  
2012 \key@ifundefined{glossentry}{#1}%  
2013 {%  
2014 \expandafter\newcommand\expandafter*\expandafter  
2015 {\csname gls@assign@#1@field\endcsname}[2]{%  
2016 \@gls@expand@field{##1}{#1}{##2}%  
2017 }%  
2018 }%  
2019 }%  
2020 \@glsaddkey{#1}%  
2021 }
```

Unstarred version doesn't override default expansion.

```
2022 \newcommand*{\@glsaddkey}[7]{%
```

Check the specified key doesn't already exist.

```
2023 \key@ifundefined{glossentry}{#1}%  
2024 {%
```

Set up the key.

```
2025 \define@key{glossentry}{#1}{\csdef{@glo@#1}{##1}}%  
2026 \appto\@gls@keymap{,}{#1}{#1}}%
```

Set the default value.

```
2027 \appto\@newglossaryentryprehook{\csdef{@glo@#1}{#2}}%
```

Assignment code.

```

2028 \appto\@newglossaryentryposthook{%
2029 \letcs{\@glo@tmp}{\@glo@#1}%
2030 \gls@assign@field{#2}{\@glo@label}{#1}{\@glo@tmp}%
2031 }%

```

Define the no-link commands.

```

2032 \newcommand*{#3}[1]{\@gls@entry@field{##1}{#1}}%
2033 \newcommand*{#4}[1]{\@Gls@entry@field{##1}{#1}}%

```

Now for the commands with links. First the version with no case change:

```

2034 \ifcsdef{@gls@user@#1@}%
2035 {%
2036 \PackageError{glossaries}%
2037 {Can't define '\string#5' as helper command
2038 '\expandafter\string\csname @gls@user@#1@endcsname' already exists}%
2039 }%
2040 }%
2041 {%
2042 \expandafter\newcommand\expandafter*\expandafter
2043 {\csname @gls@user@#1@endcsname}[2][{%
2044 \new@ifnextchar[%
2045 {\csuse{@gls@user@#1@}{##1}{##2}}%
2046 {\csuse{@gls@user@#1@}{##1}{##2}[]}}%
2047 \csdef{@gls@user@#1@}##1##2[##3]{%
2048 \@gls@field@link{##1}{##2}{#3{##2}##3}%
2049 }%
2050 \newrobustcmd*{#5}{%
2051 \expandafter\@gls@hyp@opt\csname @gls@user@#1@endcsname}%
2052 }%

```

Next the version with the first letter converted to upper case:

```

2053 \ifcsdef{@Gls@user@#1@}%
2054 {%
2055 \PackageError{glossaries}%
2056 {Can't define '\string#6' as helper command
2057 '\expandafter\string\csname @Gls@user@#1@endcsname' already exists}%
2058 }%
2059 }%
2060 {%
2061 \expandafter\newcommand\expandafter*\expandafter
2062 {\csname @Gls@user@#1@endcsname}[2][{%
2063 \new@ifnextchar[%
2064 {\csuse{@Gls@user@#1@}{##1}{##2}}%
2065 {\csuse{@Gls@user@#1@}{##1}{##2}[]}}%
2066 \csdef{@Gls@user@#1@}##1##2[##3]{%
2067 \@gls@field@link{##1}{##2}{#4{##2}##3}%
2068 }%
2069 \newrobustcmd*{#6}{%

```

```

2070     \expandafter\@gls@hyp@opt\csname @Gls@user@#1\endcsname}%
2071 }%

Finally the all caps version:
2072     \ifcsdef{@GLS@user@#1@}%
2073 {%
2074     \PackageError{glossaries}%
2075     {Can't define '\string#7' as helper command
2076     '\expandafter\string\csname @GLS@user@#1@\endcsname' already exists}%
2077     }%
2078 }%
2079 {%

2080     \expandafter\newcommand\expandafter*\expandafter
2081     {\csname @GLS@user@#1\endcsname}[2] [] {%
2082         \new@ifnextchar[%
2083             {\csuse{@GLS@user@#1@}{##1}{##2}}%
2084             {\csuse{@GLS@user@#1@}{##1}{##2} [] }}%
2085     \csdef{@GLS@user@#1@}##1##2[##3] {%
2086         \@gls@field@link{##1}{##2}{\mfirstucMakeUppercase{#3{##2}##3}}%
2087     }%
2088     \newrobustcmd*{#7}{%
2089         \expandafter\@gls@hyp@opt\csname @GLS@user@#1\endcsname}%
2090     }%
2091 }%
2092 {%
2093     \PackageError{glossaries}{Key '#1' already exists}{}%
2094 }%
2095 }

```

`\glsfieldxddef` `\glsfieldxddef{<label>}{<field>}{<definition>}`

```

2096 \newcommand{\glsfieldxddef}[3] {%
2097     \glsdoifexists{#1}%
2098     {%
2099         \edef\@glo@label{\glsdetoklabel{#1}}%
2100         \ifcsdef{glo@\@glo@label @#2}%
2101         {%
2102             \expandafter\xdef\csname glo@\@glo@label @#2\endcsname{#3}%
2103         }%
2104         {%
2105             \PackageError{glossaries}{Key '#2' doesn't exist}{}%
2106         }%
2107     }%
2108 }

```

`\glsfielddedef` `\glsfielddedef{<label>}{<field>}{<definition>}`

```

2109 \newcommand{\glsfielddedef}[3]{%
2110   \glsdoifexists{#1}%
2111   {%
2112     \edef\@glo@label{\glsdetoklabel{#1}}%
2113     \ifcsdef{glo@\@glo@label @#2}%
2114     {%
2115       \expandafter\edef\csname glo@\@glo@label @#2\endcsname{#3}%
2116     }%
2117     {%
2118       \PackageError{glossaries}{Key ‘#2’ doesn’t exist}{}%
2119     }%
2120   }%
2121 }

```

`\glsfieldgdef` `\glsfieldgdef{<label>}{<field>}{<definition>}`

```

2122 \newcommand{\glsfieldgdef}[3]{%
2123   \glsdoifexists{#1}%
2124   {%
2125     \edef\@glo@label{\glsdetoklabel{#1}}%
2126     \ifcsdef{glo@\@glo@label @#2}%
2127     {%
2128       \expandafter\gdef\csname glo@\@glo@label @#2\endcsname{#3}%
2129     }%
2130     {%
2131       \PackageError{glossaries}{Key ‘#2’ doesn’t exist}{}%
2132     }%
2133   }%
2134 }

```

`\glsfieldddef` `\glsfieldddef{<label>}{<field>}{<definition>}`

```

2135 \newcommand{\glsfieldddef}[3]{%
2136   \glsdoifexists{#1}%
2137   {%
2138     \edef\@glo@label{\glsdetoklabel{#1}}%
2139     \ifcsdef{glo@\@glo@label @#2}%
2140     {%
2141       \expandafter\def\csname glo@\@glo@label @#2\endcsname{#3}%
2142     }%
2143     {%
2144       \PackageError{glossaries}{Key ‘#2’ doesn’t exist}{}%
2145     }%
2146   }%

```

2147 }

`\glsfieldfetch` `\glsfieldfetch{<label>}{<field>}{<cs>}`

Fetches the value of the given field and stores in the given control sequence.

```
2148 \newcommand{\glsfieldfetch}[3]{%
2149   \glsdoifexists{#1}%
2150   {%
2151     \edef\@glo@label{\glsdetoklabel{#1}}%
2152     \ifcsdef{glo@\@glo@label @#2}%
2153     {%
2154       \letcs#3{glo@\@glo@label @#2}%
2155     }%
2156     {%
2157       \PackageError{glossaries}{Key ‘#2’ doesn’t exist}{}%
2158     }%
2159   }%
2160 }
```

`\ifglsfieldeq` `\ifglsfieldeq{<label>}{<field>}{<string>}{<true>}{<false>}`

Tests if the value of the given field is equal to the given string.

```
2161 \newcommand{\ifglsfieldeq}[5]{%
2162   \glsdoifexists{#1}%
2163   {%
2164     \edef\@glo@label{\glsdetoklabel{#1}}%
2165     \ifcsdef{glo@\@glo@label @#2}%
2166     {%
2167       \ifcsstring{glo@\@glo@label @#2}{#3}{#4}{#5}%
2168     }%
2169     {%
2170       \PackageError{glossaries}{Key ‘#2’ doesn’t exist}{}%
2171     }%
2172   }%
2173 }
```

`\ifglsfielddefeq` `\ifglsfielddefeq{<label>}{<field>}{<command>}{<true>}{<false>}`

Tests if the value of the given field is equal to the replacement text of the given command.

```
2174 \newcommand{\ifglsfielddefeq}[5]{%
2175   \glsdoifexists{#1}%
2176   {%
2177     \edef\@glo@label{\glsdetoklabel{#1}}%
2178     \ifcsdef{glo@\@glo@label @#2}%
2179     {%
```

```

2180 \expandafter\ifdefstrequal
2181 \csname glo@\@glo@label @#2\endcsname{#3}{#4}{#5}%
2182 }%
2183 {%
2184 \PackageError{glossaries}{Key ‘#2’ doesn’t exist}{}%
2185 }%
2186 }%
2187 }

```

```

\ifglsfieldcseq \ifglsfieldcseq{<label>}{<field>}{<cs name>}{<true>}{<false>}

```

As above but uses \ifcsstrequal instead of \ifdefstrequal

```

2188 \newcommand{\ifglsfieldcseq}[5]{%
2189 \glsdoifexists{#1}%
2190 {%
2191 \edef\@glo@label{\glsdetoklabel{#1}}%
2192 \ifcsdef{glo@\@glo@label @#2}%
2193 {%
2194 \ifcsstrequal{glo@\@glo@label @#2}{#3}{#4}{#5}%
2195 }%
2196 {%
2197 \PackageError{glossaries}{Key ‘#2’ doesn’t exist}{}%
2198 }%
2199 }%
2200 }

```

gls.writedefhook

```

2201 \newcommand*{\gls.writedefhook}{}

```

gls@assign@desc

```

2202 \newcommand*{\gls@assign@desc}[1]{%
2203 \gls@assign@field{#1}{desc}{\@glo@desc}%
2204 \gls@assign@field{\@glo@desc}{#1}{descplural}{\@glo@descplural}%
2205 }

```

ewglossaryentry

```

2206 \newcommand{\longnewglossaryentry}[3]{%
2207 \glsdoifnoexists{#1}%
2208 {%
2209 \bgroup
2210 \let\@org@newglossaryentryprehook\@newglossaryentryprehook
2211 \long\def\@newglossaryentryprehook{%
2212 \long\def\@glo@desc{#3\leavevmode\unskip\nopostdesc}%
2213 \@org@newglossaryentryprehook
2214 }%
2215 \renewcommand*{\gls@assign@desc}[1]{%
2216 \global\cslet{glo@\glsdetoklabel{#1}@desc}{\@glo@desc}%

```

```

2217         \global\cslet{glo@\glsdetoklabel{#1}@descplural}{\@glo@desc}%
2218     }
2219     \gls@defglossaryentry{#1}{#2}%
2220 \egroup
2221 }
2222 }

```

Only allowed in the preamble. (Otherwise a long description could cause problems when writing the entry definition to the temporary file.)

```
2223 \@onlypreamble{\longnewglossaryentry}
```

`deglossaryentry` As the above but only defines the entry if it doesn't already exist.

```

2224 \newcommand{\longprovideglossaryentry}[3]{%
2225   \ifglstryexists{#1}{}%
2226   {\longnewglossaryentry{#1}{#2}{#3}}%
2227 }
2228 \@onlypreamble{\longprovideglossaryentry}

```

`defglossaryentry` `\gls@defglossaryentry{<label>}{<key-val list>}`

Defines a new entry without checking if it already exists.

```
2229 \newcommand{\gls@defglossaryentry}[2]{%
```

Prevent any further use of `\GlsSetQuote`:

```
2230   \let\GlsSetQuote\gls@nosetquote
```

Store label

```
2231   \edef\@glo@label{\glsdetoklabel{#1}}%
```

Provide a means for user defined keys to reference the label:

```
2232   \let\glslabel\@glo@label
```

Set up defaults. If the name or description keys are omitted, an error will be generated.

```
2233   \let\@glo@name\@gls@name
```

```
2234   \let\@glo@desc\@gls@desc
```

```
2235   \let\@glo@descplural\@gls@default@value
```

```
2236   \let\@glo@type\@gls@default@value
```

```
2237   \let\@glo@symbol\@gls@default@value
```

```
2238   \let\@glo@symbolplural\@gls@default@value
```

```
2239   \let\@glo@text\@gls@default@value
```

```
2240   \let\@glo@plural\@gls@default@value
```

Using `\let` instead of `\def` to make later comparison avoid expansion issues. (Thanks to Ulrich Diez for suggesting this.)

```
2241   \let\@glo@first\@gls@default@value
```

```
2242   \let\@glo@firstplural\@gls@default@value
```

Set the default sort:

```
2243 \let\@glo@sort\@gls@default@value
```

Set the default counter:

```
2244 \let\@glo@counter\@gls@default@value
```

```
2245 \def\@glo@see{}%
```

```
2246 \def\@glo@parent{}%
```

```
2247 \def\@glo@prefix{}%
```

Initialise nonnumberlist setting if we're in the document environment.

```
2248 \@gls@initnonnumberlist
```

```
2249 \def\@glo@useri{}%
```

```
2250 \def\@glo@userii{}%
```

```
2251 \def\@glo@useriii{}%
```

```
2252 \def\@glo@useriv{}%
```

```
2253 \def\@glo@userv{}%
```

```
2254 \def\@glo@uservi{}%
```

```
2255 \def\@glo@short{}%
```

```
2256 \def\@glo@shortpl{}%
```

```
2257 \def\@glo@long{}%
```

```
2258 \def\@glo@longpl{}%
```

Add start hook in case another package wants to add extra keys.

```
2259 \@newglossaryentryprehook
```

Extract key-val information from third parameter:

```
2260 \setkeys{glossentry}{#2}%
```

Check there is a default glossary.

```
2261 \ifundef\glsdefaultttype
```

```
2262 {%
```

```
2263 \PackageError{glossaries}%
```

```
2264 {No default glossary type (have you used 'nomain' by mistake?)}%
```

```
2265 {If you use package option 'nomain' you must define
```

```
2266 a new glossary before you can define entries}%
```

```
2267 }%
```

```
2268 {}}%
```

Assign type. This must be fully expandable

```
2269 \gls@assign@field{\glsdefaultttype}{\@glo@label}{type}{\@glo@type}%
```

```
2270 \edef\@glo@type{\glsentrytype{\@glo@label}}%
```

Check to see if this glossary type has been defined, if it has, add this label to the relevant list, otherwise generate an error.

```
2271 \ifcsundef{glolist@\@glo@type}%
```

```
2272 {%
```

```
2273 \PackageError{glossaries}%
```

```

2274      {Glossary type ‘\@glo@type’ has not been defined}%
2275      {You need to define a new glossary type, before making entries
2276      in it}%
2277  }%
2278  {%

  Check if it's an ignored glossary
2279      \ifignoredglossary\@glo@type
2280      {%

    The description may be omitted for an entry in an ignored glossary.
2281      \ifx\@glo@desc\@glsnodesc
2282      \let\@glo@desc\@empty
2283      \fi
2284  }%
2285  {%
2286  }%
2287      \protected@edef\@glo@list@{\csname glo@list@\@glo@type\endcsname}%
2288      \expandafter\edef\csname glo@list@\@glo@type\endcsname{%
2289      \@glo@list@{\@glo@label},}%
2290  }%

  Initialise level to 0.
2291      \gls@level=0\relax

  Has this entry been assigned a parent?
2292      \ifx\@glo@parent\@empty

    Doesn't have a parent. Set \glo@<label>@parent to empty.
2293      \expandafter\gdef\csname glo@\@glo@label @parent\endcsname{}%
2294      \else

    Has a parent. Check to ensure this entry isn't its own parent.
2295      \ifdefequal\@glo@label\@glo@parent%
2296      {%
2297          \PackageError{glossaries}{Entry ‘\@glo@label’ can't be its own parent}{}%
2298          \def\@glo@parent{}%
2299          \expandafter\gdef\csname glo@\@glo@label @parent\endcsname{}%
2300      }%
2301      {%

    Check the parent exists:
2302      \ifglsentryexists{\@glo@parent}%
2303      {%

    Parent exists. Set \glo@<label>@parent.
2304      \expandafter\edef\csname glo@\@glo@label @parent\endcsname{%
2305      \@glo@parent}%

    Determine level.
2306      \gls@level=\csname glo@\@glo@parent @level\endcsname\relax
2307      \advance\gls@level by 1\relax

```

If name hasn't been specified, use same as the parent name

```
2308      \ifx\@glo@name\@gls@name
2309      \expandafter\let\expandafter\@glo@name
2310      \csname glo@\@glo@parent @name\endcsname
```

If name and plural haven't been specified, use same as the parent

```
2311      \ifx\@glo@plural\@gls@default@value
2312      \expandafter\let\expandafter\@glo@plural
2313      \csname glo@\@glo@parent @plural\endcsname
2314      \fi
2315      \fi
2316      }%
2317      {%
```

Parent doesn't exist, so issue an error message and change this entry to have no parent

```
2318      \PackageError{glossaries}%
2319      {%
2320      Invalid parent '\@glo@parent'
2321      for entry '\@glo@label' - parent doesn't exist%
2322      }%
2323      {%
2324      Parent entries must be defined before their children%
2325      }%
2326      \def\@glo@parent{}%
2327      \expandafter\gdef\csname glo@\@glo@label @parent\endcsname{}%
2328      }%
2329      }%
2330      \fi
```

Set the level for this entry

```
2331      \expandafter\xdef\csname glo@\@glo@label @level\endcsname{\number\gls@level}%
```

Define commands associated with this entry:

```
2332      \gls@assign@field{\@glo@name}{\@glo@label}{sortvalue}{\@glo@sort}%
2333      \letcs\@glo@sort{glo@\@glo@label @sortvalue}%
2334      \gls@assign@field{\@glo@name}{\@glo@label}{text}{\@glo@text}%
2335      \expandafter\gls@assign@field\expandafter
2336      {\csname glo@\@glo@label @text\endcsname\glspluralsuffix}%
2337      {\@glo@label}{plural}{\@glo@plural}%
2338      \expandafter\gls@assign@field\expandafter
2339      {\csname glo@\@glo@label @text\endcsname}%
2340      {\@glo@label}{first}{\@glo@first}%
```

If first has been specified, make the default by appending \glspluralsuffix, otherwise make the default the value of the plural key.

```
2341      \ifx\@glo@first\@gls@default@value
2342      \expandafter\gls@assign@field\expandafter
2343      {\csname glo@\@glo@label @plural\endcsname}%
2344      {\@glo@label}{firstpl}{\@glo@firstplural}%
2345      \else
2346      \expandafter\gls@assign@field\expandafter
```

```

2347         {\csname glo@\@glo@label @first\endcsname\glspluralsuffix}%
2348         {\@glo@label}{firstpl}{\@glo@firstplural}%
2349     \fi

2350     \ifcsundef{@glo@type@\@glo@type @counter}%
2351     {%
2352         \def\@glo@defaultcounter{\glscounter}%
2353     }%
2354     {%
2355         \letcs\@glo@defaultcounter{@glo@type@\@glo@type @counter}%
2356     }%
2357     \gls@assign@field{\@glo@defaultcounter}{\@glo@label}{counter}{\@glo@counter}%
2358     \gls@assign@field{}{\@glo@label}{useri}{\@glo@useri}%
2359     \gls@assign@field{}{\@glo@label}{userii}{\@glo@userii}%
2360     \gls@assign@field{}{\@glo@label}{useriii}{\@glo@useriii}%
2361     \gls@assign@field{}{\@glo@label}{useriv}{\@glo@useriv}%
2362     \gls@assign@field{}{\@glo@label}{userv}{\@glo@userv}%
2363     \gls@assign@field{}{\@glo@label}{uservi}{\@glo@uservi}%
2364     \gls@assign@field{}{\@glo@label}{short}{\@glo@short}%
2365     \gls@assign@field{}{\@glo@label}{shortpl}{\@glo@shortpl}%
2366     \gls@assign@field{}{\@glo@label}{long}{\@glo@long}%
2367     \gls@assign@field{}{\@glo@label}{longpl}{\@glo@longpl}%
2368     \ifx\@glo@name\@glsnoname
2369         \@glsnoname
2370         \let\@glo@name\@gls@default@value
2371     \fi
2372     \gls@assign@field{}{\@glo@label}{name}{\@glo@name}%

```

Set default numberlist if not defined:

```

2373     \ifcsundef{glo@\@glo@label @numberlist}%
2374     {%
2375         \csxdef{glo@\@glo@label @numberlist}{%
2376             \noexpand\@gls@missingnumberlist{\@glo@label}}%
2377     }%
2378     {}%

```

Store nonnumberlist setting if we're in the document environment.

```

2379     \@gls@storenonumberlist{\@glo@label}%

```

The smaller and smallcaps options set the description to \@glo@first. Need to check for this, otherwise it won't get expanded if the description gets sanitized.

```

2380     \def\@glo@@desc{\@glo@first}%
2381     \ifx\@glo@desc\@glo@@desc
2382         \let\@glo@desc\@glo@first
2383     \fi
2384     \ifx\@glo@desc\@glsnodesc
2385         \@glsnodesc
2386         \let\@glo@desc\@gls@default@value
2387     \fi
2388     \gls@assign@desc{\@glo@label}%

```

Set the sort key for this entry:

```
2389 \gls@defsort{\@glo@type}{\@glo@label}%
2390 \def\@glo@@symbol{\@glo@text}%
2391 \ifx\@glo@symbol\@glo@@symbol
2392 \let\@glo@symbol\@glo@text
2393 \fi
2394 \gls@assign@field{\relax}{\@glo@label}{symbol}{\@glo@symbol}%
2395 \expandafter
2396 \gls@assign@field\expandafter
2397 {\csname glo@\@glo@label @symbol\endcsname}
2398 {\@glo@label}{symbolplural}{\@glo@symbolplural}%
```

Define an associated boolean variable to determine whether this entry has been used yet (needs to be defined globally):

```
2399 \expandafter\xdef\csname glo@\@glo@label @flagfalse\endcsname{%
2400 \noexpand\global
2401 \noexpand\let\expandafter\noexpand
2402 \csname ifglo@\@glo@label @flag\endcsname\noexpand\iffalse
2403 }%
2404 \expandafter\xdef\csname glo@\@glo@label @flagtrue\endcsname{%
2405 \noexpand\global
2406 \noexpand\let\expandafter\noexpand
2407 \csname ifglo@\@glo@label @flag\endcsname\noexpand\iftrue
2408 }%
2409 \csname glo@\@glo@label @flagfalse\endcsname
```

Sort out any cross-referencing if required.

```
2410 \ifdefvoid\@glo@see
2411 {}%
2412 {%
2413 \protected@edef\@do@glsee{%
2414 \noexpand\@gls@fixbraces\noexpand\@glo@list\@glo@see
2415 \noexpand\@nil
2416 \noexpand\expandafter\noexpand\@glsee\noexpand\@glo@list{\@glo@label}}%
2417 \@do@glsee
2418 }%
```

Determine and store main part of the entry's index format.

```
2419 \ifignoredglossary\@glo@type
2420 {%
2421 \csdef{glo@\@glo@label @index}{}%
2422 }
2423 {%
2424 \do@glo@storeentry{\@glo@label}%
2425 }%
```

Define entry counters if enabled:

```
2426 \@newglossaryentry@defcounters
```

Add end hook in case another package wants to add extra keys.

```

2427 \newglossaryentryposthook
2428 }

aryentryprehook Allow extra information to be added to glossary entries:
2429 \newcommand*{\@newglossaryentryprehook}{}

ryentryposthook Allow extra information to be added to glossary entries:
2430 \newcommand*{\@newglossaryentryposthook}{}

try@defcounters
2431 \newcommand*{\@newglossaryentry@defcounters}{}

\glsmoveentry Moves entry whose label is given by first argument to the glossary named in the second argu-
ment.
2432 \newcommand*{\glsmoveentry}[2]{%
2433 \edef\@glo@thislabel{\glsdetoklabel{#1}}%
2434 \edef\glo@type{\csname glo@\@glo@thislabel @type\endcsname}%
2435 \def\glo@list{,%}
2436 \forglsentries[\glo@type]{\glo@label}%
2437 {%
2438 \ifdefequal\@glo@thislabel\glo@label
2439 {}{\eappto\glo@list{\glo@label,%}}%
2440 }%
2441 \cslet{glolist@\glo@type}{\glo@list}%
2442 \csdef{glo@\@glo@thislabel @type}{#2}%
2443 }

ssaryentryfield Indicate what command should be used to display each entry in the glossary. (This enables
the glossaries-accsupp package to use \accsuppglossaryentryfield instead.)
2444 \ifglxindy
2445 \newcommand*{\@glossaryentryfield}{\string\glossentry}
2446 \else
2447 \newcommand*{\@glossaryentryfield}{\string\glossentry}
2448 \fi

rysubentryfield Indicate what command should be used to display each subentry in the glossary. (This en-
ables the glossaries-accsupp package to use \accsuppglossarysubentryfield instead.)
2449 \ifglxindy
2450 \newcommand*{\@glossarysubentryfield}{%
2451 \string\subglossentry}
2452 \else
2453 \newcommand*{\@glossarysubentryfield}{%
2454 \string\subglossentry}
2455 \fi

\@glo@storeentry \@glo@storeentry{<label>}

```

Determine the format to write the entry in the glossary output (.glo) file. The argument is the entry's label (should already have been de-tok'ed if required). The result is stored in \glo@<label>@index, where <label> is the entry's label. (This doesn't include any formatting or location information.)

```
2456 \newcommand{\@glo@storeentry}[1]{%
```

Escape makeindex/xindy special characters in the label:

```
2457 \edef\@glo@esclabel{#1}%
```

```
2458 \@gls@checkmkidxchars\@glo@esclabel
```

Get the sort string and escape any special characters

```
2459 \protected@edef\@glo@sort{\csname glo@#1@sort\endcsname}%
```

```
2460 \@gls@checkmkidxchars\@glo@sort
```

Same again for the name string. Escape any special characters in the prefix

```
2461 \@gls@checkmkidxchars\@glo@prefix
```

Get the parent, if one exists

```
2462 \edef\@glo@parent{\csname glo@#1@parent\endcsname}%
```

Write the information to the glossary file.

```
2463 \ifglxindy
```

Store using xindy syntax.

```
2464 \ifx\@glo@parent\@empty
```

Entry doesn't have a parent

```
2465 \expandafter\protected@xdef\csname glo@#1@index\endcsname{%
```

```
2466 (\string"\@glo@sort\string" %
```

```
2467 \string"\@glo@prefix\@glossaryentryfield{\@glo@esclabel}\string") %
```

```
2468 }%
```

```
2469 \else
```

Entry has a parent

```
2470 \expandafter\protected@xdef\csname glo@#1@index\endcsname{%
```

```
2471 \csname glo@\@glo@parent @index\endcsname
```

```
2472 (\string"\@glo@sort\string" %
```

```
2473 \string"\@glo@prefix\@glossarysubentryfield
```

```
2474 {\csname glo@#1@level\endcsname}{\@glo@esclabel}\string") %
```

```
2475 }%
```

```
2476 \fi
```

```
2477 \else
```

Store using makeindex syntax.

```
2478 \ifx\@glo@parent\@empty
```

Sanitize \@glo@prefix

```
2479 \@onelevel@sanitize\@glo@prefix
```

Entry doesn't have a parent

```
2480 \expandafter\protected@xdef\csname glo@#1@index\endcsname{%
```

```
2481 \@glo@sort\@gls@actualchar\@glo@prefix
```

```
2482 \@glossaryentryfield{\@glo@esclabel}%
```

```

2483     }%
2484   \else
      Entry has a parent
2485     \expandafter\protected@xdef\csname glo@#1@index\endcsname{%
2486       \csname glo@\@glo@parent @index\endcsname\@gls@levelchar
2487       \@glo@sort\@gls@actualchar\@glo@prefix
2488       \@glossarysubentryfield
2489       {\csname glo@#1@level\endcsname}{\@glo@esclabel}%
2490     }%
2491   \fi
2492 \fi
2493 }

```

1.8 Resetting and unsetting entry flags

Each glossary entry is assigned a conditional of the form `\ifglo@<label>@flag` which determines whether or not the entry has been used (see also `\ifglsused` defined below). These flags can be set and unset using the following macros, but first we need to know if we're in `amsmath`'s align environment's measuring pass.

`@ifnotmeasuring`

```

2494 \AtBeginDocument{%
2495   \@ifpackageloaded{amsmath}%
2496   {\let\gls@ifnotmeasuring\@gls@ifnotmeasuring}%
2497   }%
2498 }
2499 \newcommand*{\@gls@ifnotmeasuring}[1]{%
2500   \ifmeasuring@
2501   \else
2502     #1%
2503   \fi
2504 }
2505 \newcommand*\gls@ifnotmeasuring[1]{#1}

```

`\lspatchtabularx` Patch `\TX@trial` (as per David Carlisle's answer in <http://tex.stackexchange.com/a/94895>). This does nothing if `\TX@trial` hasn't been defined.

```

2506 \def\@gls@patchtabularx#1\hbox#2#3!!{%
2507   \def\TX@trial##1{#1\hbox{\let\glsunset\@gobble#2}#3}%
2508 }
2509 \newcommand*\glspatchtabularx{%
2510   \ifdef\TX@trial
2511   {%
2512     \expandafter\@gls@patchtabularx\TX@trial{##1}!!%
2513     \let\glspatchtabularx\relax
2514   }%
2515   }%
2516 }

```

`\glsreset` The command `\glsreset{<label>}` can be used to set the entry flag to indicate that it hasn't been used yet. The required argument is the entry label.

```

2517 \newcommand*{\glsreset}[1]{%
2518   \gls@ifnotmeasuring
2519   {%
2520     \glsdoifexists{#1}%
2521     {%
2522       \@glsreset{#1}%
2523     }%
2524   }%
2525 }
```

`\glslocalreset` As above, but with only a local effect:

```

2526 \newcommand*{\glslocalreset}[1]{%
2527   \gls@ifnotmeasuring
2528   {%
2529     \glsdoifexists{#1}%
2530     {%
2531       \@glslocalreset{#1}%
2532     }%
2533   }%
2534 }
```

`\glsunset` The command `\glsunset{<label>}` can be used to set the entry flag to indicate that it has been used. The required argument is the entry label.

```

2535 \newcommand*{\glsunset}[1]{%
2536   \gls@ifnotmeasuring
2537   {%
2538     \glsdoifexists{#1}%
2539     {%
2540       \@glsunset{#1}%
2541     }%
2542   }%
2543 }
```

`\glslocalunset` As above, but with only a local effect:

```

2544 \newcommand*{\glslocalunset}[1]{%
2545   \gls@ifnotmeasuring
2546   {%
2547     \glsdoifexists{#1}%
2548     {%
2549       \@glslocalunset{#1}%
2550     }%
2551   }%
2552 }
```

`\@glslocalunset` Local unset. This defaults to just `\@glslocalunset` but is changed by `\glsenableentrycount`.

```

2553 \newcommand*{\@glslocalunset}{\@glslocalunset}
```

`@@glslocalunset` Local unset without checks.

```

2554 \newcommand*{\@@glslocalunset}[1]{%
2555   \expandafter\let\csname ifglo@glsdetoklabel{#1}@flag\endcsname\iftrue
2556 }

```

`\@glsunset` Global unset. This defaults to just `@@glsunset` but is changed by `\glsenableentrycount`.

```

2557 \newcommand*{\@glsunset}{\@@glsunset}

```

`@@glsunset` Global unset without checks.

```

2558 \newcommand*{\@@glsunset}[1]{%
2559   \expandafter\global\csname glo@glsdetoklabel{#1}@flagtrue\endcsname
2560 }

```

`\@glslocalreset` Local reset. This defaults to just `@@glslocalreset` but is changed by `\glsenableentrycount`.

```

2561 \newcommand*{\@glslocalreset}{\@@glslocalreset}

```

`@@glslocalreset` Local reset without checks.

```

2562 \newcommand*{\@@glslocalreset}[1]{%
2563   \expandafter\let\csname ifglo@glsdetoklabel{#1}@flag\endcsname\iffalse
2564 }

```

`\@glsreset` Global reset. This defaults to just `@@glsreset` but is changed by `\glsenableentrycount`.

```

2565 \newcommand*{\@glsreset}{\@@glsreset}

```

`@@glsreset` Global reset without checks.

```

2566 \newcommand*{\@@glsreset}[1]{%
2567   \expandafter\global\csname glo@glsdetoklabel{#1}@flagfalse\endcsname
2568 }

```

Reset all entries for the named glossaries (supplied in a comma-separated list). Syntax:

```

\glsresetall[<glossary-list>]

```

`\glsresetall`

```

2569 \newcommand*{\glsresetall}[1][\@glo@types]{%
2570   \forallglsentries[#1]{\@glsentry}%
2571   {%
2572     \glsreset{\@glsentry}%
2573   }%
2574 }

```

As above, but with only a local effect:

```

\glslocalresetall

```

```

2575 \newcommand*{\glslocalresetall}[1][\@glo@types]{%
2576   \forallglsentries[#1]{\@glsentry}%
2577   {%
2578     \glslocalreset{\@glsentry}%
2579   }%
2580 }

```

Unset all entries for the named glossaries (supplied in a comma-separated list). Syntax:
`\glsunsetall[⟨glossary-list⟩]`

`\glsunsetall`

```
2581 \newcommand*{\glsunsetall}[1][\@glo@types]{%
2582   \forallglsentries[#1]{\@glsentry}%
2583   {%
2584     \glsunset{\@glsentry}%
2585   }%
2586 }
```

As above, but with only a local effect:

`\glslocalunsetall`

```
2587 \newcommand*{\glslocalunsetall}[1][\@glo@types]{%
2588   \forallglsentries[#1]{\@glsentry}%
2589   {%
2590     \glslocalunset{\@glsentry}%
2591   }%
2592 }
```

1.9 Keeping Track of How Many Times an Entry Has Been Unset

Version 4.14 introduced `\glsenableentrycount` that keeps track of how many times an entry is marked as used. The counter is reset back to zero when the first use flag is reset. Note that although the word “counter” is used here, it’s not an actual \TeX counter or even an explicit \TeX count register but is just a macro. Any of the commands that use `\glsunset` or `\glslocalunset`, such as `\gls`, will automatically increment this value. Commands that don’t modify the first use flag (such as `\glstext` or `\glsentrytext`) don’t modify this value.

`\entry@defcounters` Define entry fields to keep track of how many times that entry has been marked as used.

```
2593 \newcommand*{\@newglossaryentry@defcounters}{%
2594   \csdef{glo@\@glo@label @currcount}{0}%
2595   \csdef{glo@\@glo@label @prevcount}{0}%
2596 }
```

`\enableentrycount` Enables tracking of how many times an entry has been marked as used.

```
2597 \newcommand*{\glsenableentrycount}{%
```

Enable new entry fields.

```
2598   \let\@newglossaryentry@defcounters\@newglossaryentry@defcounters
```

Disable `\newglossaryentry` in the document environment.

```
2599   \renewcommand*{\gls@defdocnewglossaryentry}{%
2600     \renewcommand*\newglossaryentry[2]{%
2601       \PackageError{glossaries}{\string\newglossaryentry\space
2602         may only be used in the preamble when entry counting has
```

```

2603     been activated}{If you use \string\glsenableentrycount\space
2604     you must place all entry definitions in the preamble not in
2605     the document environment}%
2606 }%
2607 }%

```

Define commands `\glsentrycurrcount` and `\glsentryprevcount` to access these new fields. Default to zero if undefined.

```

2608 \newcommand*\glsentrycurrcount}[1]{%
2609   \ifcsundef{glo@\glsdetoklabel{##1}@currcount}%
2610   {0}{\@gls@entry@field{##1}{currcount}}%
2611 }%
2612 \newcommand*\glsentryprevcount}[1]{%
2613   \ifcsundef{glo@\glsdetoklabel{##1}@prevcount}%
2614   {0}{\@gls@entry@field{##1}{prevcount}}%
2615 }%

```

Make the unset and reset functions also increment or reset the entry counter.

```

2616 \renewcommand*\@glsunset}[1]{%
2617   \@@glsunset{##1}%
2618   \@gls@increment@currcount{##1}%
2619 }%
2620 \renewcommand*\@glslocalunset}[1]{%
2621   \@@glslocalunset{##1}%
2622   \@gls@local@increment@currcount{##1}%
2623 }%
2624 \renewcommand*\@glsreset}[1]{%
2625   \@@glsreset{##1}%
2626   \csgdef{glo@\glsdetoklabel{##1}@currcount}{0}%
2627 }%
2628 \renewcommand*\@glslocalreset}[1]{%
2629   \@@glslocalreset{##1}%
2630   \csdef{glo@\glsdetoklabel{##1}@currcount}{0}%
2631 }%

```

Alter behaviour of `\cgl`s. (Only global unset is used if previous count was one as it doesn't make sense to have a local unset here given that the previous count was global.)

```

2632 \def\@cgl@s@##1##2[##3]{%
2633   \ifnum\glsentryprevcount{##2}=1\relax
2634     \cgl@sformat{##2}{##3}%
2635     \glsunset{##2}%
2636   \else
2637     \@gls@{##1}{##2}[##3]%
2638   \fi
2639 }%

```

Similarly for the analogous commands. No case change plural:

```

2640 \def\@cgl@spl@##1##2[##3]{%
2641   \ifnum\glsentryprevcount{##2}=1\relax
2642     \cgl@splformat{##2}{##3}%
2643     \glsunset{##2}%

```

```

2644 \else
2645     \@glspl@{##1}{##2}[##3]%
2646 \fi
2647 }%

```

First letter uppercase singular:

```

2648 \def\@cGls@##1##2[##3]{%
2649     \ifnum\glsentryprevcount{##2}=1\relax
2650         \cGlsformat{##2}{##3}%
2651         \glsunset{##2}%
2652     \else
2653         \@Gls@{##1}{##2}[##3]%
2654     \fi
2655 }%

```

First letter uppercase plural:

```

2656 \def\@cGlspl@##1##2[##3]{%
2657     \ifnum\glsentryprevcount{##2}=1\relax
2658         \cGlsplformat{##2}{##3}%
2659         \glsunset{##2}%
2660     \else
2661         \@Glspl@{##1}{##2}[##3]%
2662     \fi
2663 }%

```

Write information to aux file at the end of the document

```

2664 \AtEndDocument{\@gls@write@entrycounts}%

```

Fetch previous count information from aux file. (No check here to determine if the entry is still defined.)

```

2665 \renewcommand*\@gls@entry@count}[2]{%
2666     \csgdef{glo@glstdetoklabel{##1}@prevcount}{##2}%
2667 }%

```

\glsenableentrycount may only be used once and only in the preamble.

```

2668 \let\glsenableentrycount\relax
2669 }
2670 \@onlypreamble\glsenableentrycount

```

ement@currcount

```

2671 \newcommand*\@gls@increment@currcount}[1]{%
2672     \csxdef{glo@glstdetoklabel{##1}@currcount}{%
2673         \number\numexpr\glsentrycurrcount{##1}+1}%
2674 }

```

ement@currcount

```

2675 \newcommand*\@gls@local@increment@currcount}[1]{%
2676     \csedef{glo@glstdetoklabel{##1}@currcount}{%
2677         \number\numexpr\glsentrycurrcount{##1}+1}%
2678 }

```

ite@entrycounts Write the entry counts to the aux file. Use \immediate since this occurs right at the end of the document. Only write information for entries that have been used. (Some users have a file containing vast numbers of entries, many of which may not be used. There's no point writing information about the entries that haven't been used and it will only slow things down.)

```
2679 \newcommand*{\@gls@write@entrycounts}{%
2680   \immediate\write\@auxout
2681   {\string\providecommand*{\string\@gls@entry@count}[2]{}}%
2682   \forallglsentries{\@glsentry}{%
2683     \ifglsused{\@glsentry}%
2684     {\immediate\write\@auxout
2685       {\string\@gls@entry@count{\@glsentry}{\glsentrycurrcount{\@glsentry}}}%
2686     }%
2687   }%
2688 }
```

gls@entry@count Default behaviour is to ignore arguments. Activated by \glsenableentrycount.

```
2689 \newcommand*{\@gls@entry@count}[2]{}
```

\cgl Define command that works like \gls but behaves differently if the entry count function is enabled. (If not enabled, it behaves the same as \gls but issues a warning.)

```
2690 \newrobustcmd*{\cgl}{\@gls@hyp@opt\@cgl}
```

\@cgl Defined the un-starred form. Need to determine if there is a final optional argument

```
2691 \newcommand*{\@cgl}[2][ ]{%
2692   \new@ifnextchar[{\@cgl@{#1}{#2}}{\@cgl@{#1}{#2}[ ]}%
2693 }
```

\@cgl@ Read in the final optional argument. This defaults to same behaviour as \gls but issues a warning.

```
2694 \def\@cgl@#1#2[#3]{%
2695   \GlossariesWarning{\string\cgl\space is defaulting to
2696     \string\gls\space since you haven't enabled entry counting}%
2697   \@gls@{#1}{#2}[#3]%
2698 }
```

\cglformat Format used by \cgl if entry only used once on previous run. The first argument is the label, the second argument is the insert text.

```
2699 \newcommand*{\cglformat}[2]{%
2700   \ifglshaslong{#1}{\glsentrylong{#1}}{\glsentryfirst{#1}}#2%
2701 }
```

\cGl Define command that works like \Gl but behaves differently if the entry count function is enabled. (If not enabled, it behaves the same as \Gl but issues a warning.)

```
2702 \newrobustcmd*{\cGl}{\@gls@hyp@opt\@cGl}
```

\@cGl Defined the un-starred form. Need to determine if there is a final optional argument

```
2703 \newcommand*{\@cGl}[2][ ]{%
```

```

2704 \new@ifnextchar[{\@cGls@{#1}{#2}}{\@cGls@{#1}{#2} []}%
2705 }

```

`\@cGls@` Read in the final optional argument. This defaults to same behaviour as `\Gls` but issues a warning.

```

2706 \def\@cGls@#1#2[#3]{%
2707 \GlossariesWarning{\string\cGls\space is defaulting to
2708 \string\Gls\space since you haven't enabled entry counting}%
2709 \@Gls@{#1}{#2}[#3]%
2710 }

```

`\cGlsformat` Format used by `\cGls` if entry only used once on previous run. The first argument is the label, the second argument is the insert text.

```

2711 \newcommand*{\cGlsformat}[2]{%
2712 \ifglshaslong{#1}{\Glsentrylong{#1}}{\Glsentryfirst{#1}}#2%
2713 }

```

`\cglsp1` Define command that works like `\glsp1` but behaves differently if the entry count function is enabled. (If not enabled, it behaves the same as `\glsp1` but issues a warning.)

```

2714 \newrobustcmd*{\cglsp1}{\@gls@hyp@opt\@cglsp1}

```

`\@cglsp1` Defined the un-starred form. Need to determine if there is a final optional argument

```

2715 \newcommand*{\@cglsp1}[2] []{%
2716 \new@ifnextchar[{\@cglsp1@{#1}{#2}}{\@cglsp1@{#1}{#2} []}%
2717 }

```

`\@cglsp1@` Read in the final optional argument. This defaults to same behaviour as `\glsp1` but issues a warning.

```

2718 \def\@cglsp1@#1#2[#3]{%
2719 \GlossariesWarning{\string\cglsp1\space is defaulting to
2720 \string\glsp1\space since you haven't enabled entry counting}%
2721 \@glsp1@{#1}{#2}[#3]%
2722 }

```

`\cglsp1format` Format used by `\cglsp1` if entry only used once on previous run. The first argument is the label, the second argument is the insert text.

```

2723 \newcommand*{\cglsp1format}[2]{%
2724 \ifglshaslong{#1}{\glsp1entrylongpl{#1}}{\glsp1entryfirstplural{#1}}#2%
2725 }

```

`\cGlspl` Define command that works like `\Glspl` but behaves differently if the entry count function is enabled. (If not enabled, it behaves the same as `\Glspl` but issues a warning.)

```

2726 \newrobustcmd*{\cGlspl}{\@gls@hyp@opt\@cGlspl}

```

`\@cGlspl` Defined the un-starred form. Need to determine if there is a final optional argument

```

2727 \newcommand*{\@cGlspl}[2] []{%
2728 \new@ifnextchar[{\@cGlspl@{#1}{#2}}{\@cGlspl@{#1}{#2} []}%
2729 }

```

`\@cGlspl@` Read in the final optional argument. This defaults to same behaviour as `\Glspl` but issues a warning.

```
2730 \def\@cGlspl@#1#2[#3]{%
2731 \GlossariesWarning{\string\cGlspl\space is defaulting to
2732 \string\Glspl\space since you haven't enabled entry counting}%
2733 \@Glspl@{#1}{#2}[#3]%
2734 }
```

`\cGlsplformat` Format used by `\cGlspl` if entry only used once on previous run. The first argument is the label, the second argument is the insert text.

```
2735 \newcommand*{\cGlsplformat}[2]{%
2736 \ifglshaslong{#1}{\Glsentrylongpl{#1}}{\Glsentryfirstplural{#1}}#2%
2737 }
```

1.10 Loading files containing glossary entries

Glossary entries can be defined in an external file. These external files can contain `\newglossaryentry` and `\newacronym` commands.¹

`\loadglsentries[⟨type⟩]{⟨filename⟩}`

This command will input the file using `\input`. The optional argument specifies to which glossary the entries should be assigned if they haven't used the type key. If the optional argument is not specified, the default glossary is used. Only those entries used in the document (via `\glslink`, `\gls`, `\glspl` and uppercase variants or `\glsadd` and `\glsaddall` will appear in the glossary). The mandatory argument is the filename (with or without `.tex` extension).

`\loadglsentries`

```
2738 \newcommand*{\loadglsentries}[2][\@gls@default]{%
2739 \let\@gls@default\glsdefaulttype
2740 \def\glsdefaulttype{#1}\input{#2}%
2741 \let\glsdefaulttype\@gls@default
2742 }
```

`\loadglsentries` can only be used in the preamble:

```
2743 \@onlypreamble{\loadglsentries}
```

1.11 Using glossary entries in the text

Any term that has been defined using `\newglossaryentry` (or `\newacronym`) can be displayed in the text (i.e. outside of the glossary) using one of the commands defined in this section. Unless you use `\glslink`, the way the term appears in the text is determined by `\glsdisplayfirst` (if it is the first time the term has been used) or `\glsdisplay` (for subsequent use). Any formatting commands (such as `\textbf` is governed by `\glstextformat`. By default this just displays the link text “as is”.

¹and any other valid \TeX code that can be used in the preamble.

`\glstextformat`

```
2744 \newcommand*{\glstextformat}[1]{#1}
```

`\glentryfmt` As from version 3.11a, the way in which an entry is displayed is now governed by `\glentryfmt`. This doesn't take any arguments. The required information is set by commands like `\gls`. To ensure backward compatibility, the default use the old `\glsdisplay` and `\glsdisplayfirst` style of commands

```
2745 \newcommand*{\glentryfmt}{%
2746   \@gls@default@entryfmt\glsdisplayfirst\glsdisplay
2747 }
```

Format that provides backwards compatibility:

```
2748 \newcommand*{\@gls@default@entryfmt}[2]{%
2749   \ifdefempty\glscustomtext
2750     {%
2751       \glsifplural
2752       {%
```

Plural form

```
2753       \glscapscase
2754       {%
```

Don't adjust case

```
2755       \ifglsused\glslabel
2756       {%
```

Subsequent use

```
2757       #2{\glentryplural{\glslabel}}%
2758       {\glentrydescplural{\glslabel}}%
2759       {\glentrysymbolplural{\glslabel}}{\glsinsert}%
2760     }%
2761     {%
```

First use

```
2762       #1{\glentryfirstplural{\glslabel}}%
2763       {\glentrydescplural{\glslabel}}%
2764       {\glentrysymbolplural{\glslabel}}{\glsinsert}%
2765     }%
2766   }%
2767   {%
```

Make first letter upper case

```
2768       \ifglsused\glslabel
2769       {%
```

Subsequent use. (Expansion was used in version 3.07 and below in case the name wasn't the first thing to be displayed, but now the user can sort out the upper casing in `\defglentryfmt`, which avoids the issues caused by fragile commands.)

```
2770       \ifbool{glscompatible-3.07}%
2771       {%
2772       \protected@edef\glo@etext{%
```

```

2773         #2{\glentryplural{\glslabel}}%
2774         {\glentrydescplural{\glslabel}}%
2775         {\glentrysymbolplural{\glslabel}}{\glinsert}}%
2776     \xmakefirstuc\@glo@etext
2777 }%
2778 {%
2779     #2{\Glsentryplural{\glslabel}}%
2780     {\glentrydescplural{\glslabel}}%
2781     {\glentrysymbolplural{\glslabel}}{\glinsert}%
2782 }%
2783 }%
2784 {%

```

First use

```

2785     \ifbool{glscompatible-3.07}%
2786     {%
2787         \protected@edef\@glo@etext{%
2788             #1{\glentryfirstplural{\glslabel}}%
2789             {\glentrydescplural{\glslabel}}%
2790             {\glentrysymbolplural{\glslabel}}{\glinsert}}%
2791         \xmakefirstuc\@glo@etext
2792     }%
2793     {%
2794         #1{\Glsentryfirstplural{\glslabel}}%
2795         {\glentrydescplural{\glslabel}}%
2796         {\glentrysymbolplural{\glslabel}}{\glinsert}%
2797     }%
2798 }%
2799 }%
2800 {%

```

Make all upper case

```

2801     \ifglsused\glslabel
2802     {%

```

Subsequent use

```

2803         \mfirstucMakeUppercase{#2{\glentryplural{\glslabel}}%
2804         {\glentrydescplural{\glslabel}}%
2805         {\glentrysymbolplural{\glslabel}}{\glinsert}}%
2806     }%
2807     {%

```

First use

```

2808         \mfirstucMakeUppercase{#1{\glentryfirstplural{\glslabel}}%
2809         {\glentrydescplural{\glslabel}}%
2810         {\glentrysymbolplural{\glslabel}}{\glinsert}}%
2811     }%
2812 }%
2813 }%
2814 {%

```

Singular form

```
2815 \glscapscase
2816 {%
```

Don't adjust case

```
2817 \ifglused\glslabel
2818 {%
```

Subsequent use

```
2819 #2{\glentrytext{\glslabel}}%
2820 {\glentrydesc{\glslabel}}%
2821 {\glentrysymbol{\glslabel}}{\glinsert}%
2822 }%
2823 {%
```

First use

```
2824 #1{\glentryfirst{\glslabel}}%
2825 {\glentrydesc{\glslabel}}%
2826 {\glentrysymbol{\glslabel}}{\glinsert}%
2827 }%
2828 }%
2829 {%
```

Make first letter upper case

```
2830 \ifglused\glslabel
2831 {%
```

Subsequent use

```
2832 \ifbool{glcompatible-3.07}%
2833 {%
2834 \protected@edef\@glo@etext{%
2835 #2{\glentrytext{\glslabel}}%
2836 {\glentrydesc{\glslabel}}%
2837 {\glentrysymbol{\glslabel}}{\glinsert}}%
2838 \xmakefirstuc\@glo@etext
2839 }%
2840 {%
2841 #2{\Glsentrytext{\glslabel}}%
2842 {\glentrydesc{\glslabel}}%
2843 {\glentrysymbol{\glslabel}}{\glinsert}%
2844 }%
2845 }%
2846 {%
```

First use

```
2847 \ifbool{glcompatible-3.07}%
2848 {%
2849 \protected@edef\@glo@etext{%
2850 #1{\glentryfirst{\glslabel}}%
2851 {\glentrydesc{\glslabel}}%
2852 {\glentrysymbol{\glslabel}}{\glinsert}}%
2853 \xmakefirstuc\@glo@etext
```

```

2854         }%
2855         {%
2856         #1{\Glsentryfirst{\glslabel}}%
2857         {\glsentrydesc{\glslabel}}%
2858         {\glsentrysymbol{\glslabel}}{\glsinsert}}%
2859     }%
2860 }%
2861 }%
2862 {%

```

Make all upper case

```

2863     \ifglsused\glslabel
2864     {%

```

Subsequent use

```

2865         \mfirstucMakeUppercase{#2{\glsentrytext{\glslabel}}%
2866         {\glsentrydesc{\glslabel}}%
2867         {\glsentrysymbol{\glslabel}}{\glsinsert}}%
2868     }%
2869     {%

```

First use

```

2870         \mfirstucMakeUppercase{#1{\glsentryfirst{\glslabel}}%
2871         {\glsentrydesc{\glslabel}}%
2872         {\glsentrysymbol{\glslabel}}{\glsinsert}}%
2873     }%
2874 }%
2875 }%
2876 }%
2877 {%

```

Custom text provided in \glsdisp

```

2878     \ifglsused{\glslabel}%
2879     {%

```

Subsequent use

```

2880         #2{\glscustomtext}%
2881         {\glsentrydesc{\glslabel}}%
2882         {\glsentrysymbol{\glslabel}}{}%
2883     }%
2884     {%

```

First use

```

2885         #1{\glscustomtext}%
2886         {\glsentrydesc{\glslabel}}%
2887         {\glsentrysymbol{\glslabel}}{}%
2888     }%
2889 }%
2890 }

```

`\glsentryfmt` Define a generic format that just uses the first, text, plural or first plural keys (or the custom text) with the insert text appended.

```

2891 \newcommand*{\glsgenentryfmt}{%
2892   \ifdefempty\glscustomtext
2893   {%
2894     \glssifplural
2895     {%

```

Plural form

```

2896     \glscapscase
2897     {%

```

Don't adjust case

```

2898     \ifglssused\glslabel
2899     {%

```

Subsequent use

```

2900     \glsentryplural{\glslabel}\glssinsert
2901     }%
2902     {%

```

First use

```

2903     \glsentryfirstplural{\glslabel}\glssinsert
2904     }%
2905     }%
2906     {%

```

Make first letter upper case

```

2907     \ifglssused\glslabel
2908     {%

```

Subsequent use.

```

2909     \Glsentryplural{\glslabel}\glssinsert
2910     }%
2911     {%

```

First use

```

2912     \Glsentryfirstplural{\glslabel}\glssinsert
2913     }%
2914     }%
2915     {%

```

Make all upper case

```

2916     \ifglssused\glslabel
2917     {%

```

Subsequent use

```

2918     \mfirstucMakeUppercase
2919     {\glsentryplural{\glslabel}\glssinsert}%
2920     }%
2921     {%

```

First use

```

2922     \mfirstucMakeUppercase
2923     {\glsentryfirstplural{\glslabel}\glssinsert}%

```

2924 }%

2925 }%

2926 }%

2927 {%

Singular form

2928 \glscapscase

2929 {%

Don't adjust case

2930 \ifglused\glslabel

2931 {%

Subsequent use

2932 \glentrytext{\glslabel}\glinsert

2933 }%

2934 {%

First use

2935 \glentryfirst{\glslabel}\glinsert

2936 }%

2937 }%

2938 {%

Make first letter upper case

2939 \ifglused\glslabel

2940 {%

Subsequent use

2941 \Glentrytext{\glslabel}\glinsert

2942 }%

2943 {%

First use

2944 \Glentryfirst{\glslabel}\glinsert

2945 }%

2946 }%

2947 {%

Make all upper case

2948 \ifglused\glslabel

2949 {%

Subsequent use

2950 \mfirstucMakeUppercase{\glentrytext{\glslabel}\glinsert}%

2951 }%

2952 {%

First use

2953 \mfirstucMakeUppercase{\glentryfirst{\glslabel}\glinsert}%

2954 }%

2955 }%

2956 }%

```
2957 }%
2958 {%
```

Custom text provided in \glsdisp. (The insert is most likely to be empty at this point.)

```
2959 \glscustomtext\glsinsert
2960 }%
2961 }
```

\glsngenacfmt Define a generic acronym format that uses the long and short keys (or their plurals) and \acrfullformat, \firstacronymfont and \acronymfont.

```
2962 \newcommand*{\glsngenacfmt}{%
2963 \ifdefempty\glscustomtext
2964 {%
2965 \ifglsused\glslabel
2966 {%
```

Subsequent use:

```
2967 \glsifplural
2968 {%
```

Subsequent plural form:

```
2969 \glscapscase
2970 {%
```

Subsequent plural form, don't adjust case:

```
2971 \acronymfont{\glsentryshortpl{\glslabel}}\glsinsert
2972 }%
2973 {%
```

Subsequent plural form, make first letter upper case:

```
2974 \acronymfont{\Glsentryshortpl{\glslabel}}\glsinsert
2975 }%
2976 {%
```

Subsequent plural form, all caps:

```
2977 \mfirstucMakeUppercase
2978 {\acronymfont{\glsentryshortpl{\glslabel}}\glsinsert}%
2979 }%
2980 }%
2981 {%
```

Subsequent singular form

```
2982 \glscapscase
2983 {%
```

Subsequent singular form, don't adjust case:

```
2984 \acronymfont{\glsentryshort{\glslabel}}\glsinsert
2985 }%
2986 {%
```

Subsequent singular form, make first letter upper case:

```
2987 \acronymfont{\Glsentryshort{\glslabel}}\glsinsert
2988 }%
2989 {%
```

Subsequent singular form, all caps:

```
2990      \mfirstucMakeUppercase
2991      {\acronymfont{\glsentryshort{\glslabel}}\glsinsert}%
2992      }%
2993      }%
2994      }%
2995      {%
```

First use:

```
2996      \glsifplural
2997      {%
```

First use plural form:

```
2998      \glscapscase
2999      {%
```

First use plural form, don't adjust case:

```
3000      \genplacrfullformat{\glslabel}{\glsinsert}%
3001      }%
3002      {%
```

First use plural form, make first letter upper case:

```
3003      \Genplacrfullformat{\glslabel}{\glsinsert}%
3004      }%
3005      {%
```

First use plural form, all caps:

```
3006      \mfirstucMakeUppercase
3007      {\genplacrfullformat{\glslabel}{\glsinsert}}}%
3008      }%
3009      }%
3010      {%
```

First use singular form

```
3011      \glscapscase
3012      {%
```

First use singular form, don't adjust case:

```
3013      \genacrfullformat{\glslabel}{\glsinsert}%
3014      }%
3015      {%
```

First use singular form, make first letter upper case:

```
3016      \Genacrfullformat{\glslabel}{\glsinsert}%
3017      }%
3018      {%
```

First use singular form, all caps:

```
3019      \mfirstucMakeUppercase
3020      {\genacrfullformat{\glslabel}{\glsinsert}}}%
3021      }%
3022      }%
3023      }%
```

```
3024 }%
3025 {%
```

User supplied text.

```
3026 \glscustomtext
3027 }%
3028 }
```

genacrfullformat `\genacrfullformat{<label>}{<insert>}`

The full format used by \glsgenacfmt (singular).

```
3029 \newcommand*{\genacrfullformat}[2]{%
3030   \glentrylong{#1}#2\space
3031   (\protect\firstacronymfont{\glentryshort{#1}})%
3032 }
```

Genacrfullformat `\Genacrfullformat{<label>}{<insert>}`

As above but makes the first letter upper case.

```
3033 \newcommand*{\Genacrfullformat}[2]{%
3034   \protected@edef\gls@text{\genacrfullformat{#1}{#2}}%
3035   \xmakefirstuc\gls@text
3036 }
```

nplacrfullformat `\genplacrfullformat{<label>}{<insert>}`

The full format used by \glsgenacfmt (plural).

```
3037 \newcommand*{\genplacrfullformat}[2]{%
3038   \glentrylongpl{#1}#2\space
3039   (\protect\firstacronymfont{\glentryshortpl{#1}})%
3040 }
```

nplacrfullformat `\Genplacrfullformat{<label>}{<insert>}`

As above but makes the first letter upper case.

```
3041 \newcommand*{\Genplacrfullformat}[2]{%
3042   \protected@edef\gls@text{\genplacrfullformat{#1}{#2}}%
3043   \xmakefirstuc\gls@text
3044 }
```

glsdisplayfirst Deprecated. Kept for backward compatibility.

```
3045 \newcommand*{\glsdisplayfirst}[4]{#1#4}
```

`\glsdisplay` Deprecated. Kept for backward compatibility.

```
3046 \newcommand*{\glsdisplay}[4]{#1#4}
```

`\defglsdisplay` Deprecated. Kept for backward compatibility.

```
3047 \newcommand*{\defglsdisplay}[2][\glsdefaulttype]{%
3048   \GlossariesWarning{\string\defglsdisplay\space is now obsolete.^^J
3049   Use \string\defglsentryfmt\space instead}%
3050   \expandafter\def\csname gls@#1@display\endcsname##1##2##3##4{#2}%
3051   \edef\@gls@doentrydef{%
3052     \noexpand\defglsentryfmt[#1]{%
3053       \noexpand\ifcsdef{gls@#1@displayfirst}%
3054       {%
3055         \noexpand\@gls@default@entryfmt
3056         {\noexpand\csuse{gls@#1@displayfirst}}%
3057         {\noexpand\csuse{gls@#1@display}}%
3058       }%
3059       {%
3060         \noexpand\@gls@default@entryfmt
3061         {\noexpand\glsdisplayfirst}%
3062         {\noexpand\csuse{gls@#1@display}}%
3063       }%
3064     }%
3065   }%
3066   \@gls@doentrydef
3067 }
```

`glsdisplayfirst` Deprecated. Kept for backward compatibility.

```
3068 \newcommand*{\defglsdisplayfirst}[2][\glsdefaulttype]{%
3069   \GlossariesWarning{\string\defglsdisplayfirst\space is now obsolete.^^J
3070   Use \string\defglsentryfmt\space instead}%
3071   \expandafter\def\csname gls@#1@displayfirst\endcsname##1##2##3##4{#2}%
3072   \edef\@gls@doentrydef{%
3073     \noexpand\defglsentryfmt[#1]{%
3074       \noexpand\ifcsdef{gls@#1@display}%
3075       {%
3076         \noexpand\@gls@default@entryfmt
3077         {\noexpand\csuse{gls@#1@displayfirst}}%
3078         {\noexpand\csuse{gls@#1@display}}%
3079       }%
3080       {%
3081         \noexpand\@gls@default@entryfmt
3082         {\noexpand\csuse{gls@#1@displayfirst}}%
3083         {\noexpand\glsdisplay}%
3084       }%
3085     }%
3086   }%
3087   \@gls@doentrydef
3088 }
```

Links to glossary entries

The links to glossary entries all have a first optional argument that can be used to change the format and counter of the associated entry number. Except for `\glslink` and `\glsdisp`, the commands like `\gls` have a final optional argument that can be used to insert additional text in the link (this will usually be appended, but can be redefined using `\defentryfmt`). It goes against the \TeX norm to have an optional argument after the mandatory arguments, but it makes more sense to write, say, `\gls{label}[‘s]` rather than, say, `\gls[append=‘s]{label}`. Since these control sequences are defined to include the final square bracket, spaces will be ignored after them. This is likely to lead to confusion as most users would not expect, say, `\gls{label}` to ignore following spaces, so `\new@ifnextchar` from the package is required.

The following keys can be used in the first optional argument. The counter key checks that the value is the name of a valid counter.

```
3089 \define@key{glslink}{counter}{%
3090   \ifcsundef{c@#1}%
3091   {%
3092     \PackageError{glossaries}%
3093     {There is no counter called ‘#1’}%
3094     {%
3095       The counter key should have the name of a valid counter
3096       as its value%
3097     }%
3098   }%
3099   {%
3100     \def\@gls@counter{#1}%
3101   }%
3102 }
```

The value of the format key should be the name of a command (without the initial backslash) that has a single mandatory argument which can be used to format the associated entry number.

```
3103 \define@key{glslink}{format}{%
3104   \def\@glsnumberformat{#1}}
```

The hyper key is a boolean key, it can either have the value true or false, and indicates whether or not to make a hyperlink to the relevant glossary entry. If hyper is false, an entry will still be made in the glossary, but the given text won't be a hyperlink.

```
3105 \define@boolkey{glslink}{hyper}[true]{}
```

Initialise hyper key.

```
3106 \ifdef{\hyperlink}{\KV@glslink@hypertrue}{\KV@glslink@hyperfalse}
```

The local key is a boolean key. If true this indicates that commands such as `\gls` should only do a local reset rather than a global one.

```
3107 \define@boolkey{glslink}{local}[true]{}
```

The original `\glsifhyper` command isn't particularly useful as it makes more sense to check the actual hyperlink setting rather than testing whether the starred or unstarred version has been used. Therefore, as from version 4.08, `\glsifhyper` is deprecated in favour of

`\glsifhyperon`. In case there is a particular need to know whether the starred or unstarred version was used, provide a new command that determines whether the *-version, +-version or unmodified version was used.

```
\glslinkvar{<unmodified case>}{<star case>}{<plus case>}
```

`\glslinkvar` Initialise to unmodified case.

```
3108 \newcommand*{\glslinkvar}[3]{#1}
```

`\glsifhyper` Now deprecated.

```
3109 \newcommand*{\glsifhyper}[2]{%
3110 \glslinkvar{#1}{#2}{#1}%
3111 \GlossariesWarning{\string\glsifhyper\space is deprecated. Did
3112 you mean \string\glsifhyperon\space or \string\glslinkvar?}%
3113 }
```

`\@gls@hyp@opt` Used by the commands such as `\glslink` to determine whether to modify the hyper option.

```
3114 \newcommand*{\@gls@hyp@opt}[1]{%
3115 \let\glslinkvar\@firstofthree
3116 \let\@gls@hyp@opt@cs#1\relax
3117 \@ifstar{\s@gls@hyp@opt}%
3118 {\@ifnextchar+{\@firstoftwo{\p@gls@hyp@opt}}{#1}}%
3119 }
```

`\s@gls@hyp@opt` Starred version

```
3120 \newcommand*{\s@gls@hyp@opt}[1] []{%
3121 \let\glslinkvar\@secondofthree
3122 \@gls@hyp@opt@cs[hyper=false,#1]}
```

`\p@gls@hyp@opt` Plus version

```
3123 \newcommand*{\p@gls@hyp@opt}[1] []{%
3124 \let\glslinkvar\@thirdofthree
3125 \@gls@hyp@opt@cs[hyper=true,#1]}
```

Syntax:

```
\glslink[<options>]{<label>}{<text>}
```

Display `<text>` in the document, and add the entry information for `<label>` into the relevant glossary. The optional argument should be a key value list using the `\glslink` keys defined above.

There is also a starred version:

```
\glslink*{<options>}{<label>}{<text>}
```

which is equivalent to `\glslink[hyper=false,<options>]{<label>}{<text>}`

First determine which version is being used:

`\glslink`

```
3126 \newrobustcmd*{\glslink}{%
3127 \@gls@hyp@opt\@gls@@link
3128 }
```

`\@gls@@link` The main part of the business is in `\@gls@link` which shouldn't check if the term is defined as it's called by `\gls` etc which also perform that check.

```
3129 \newcommand*{\@gls@@link}[3] [] {%
3130 \glsdoifexistsordo{#2}%
3131 {%
3132 \let\do@gls@link@checkfirsthyper\relax
3133 \@gls@link[#1]{#2}{#3}%
3134 }%
```

Display the specified text. (The entry doesn't exist so there's nothing to link it to.)

```
3135 \glstextformat{#3}%
3136 }%
```

```
3137 \glspostlinkhook
3138 }
```

`glspostlinkhook`

```
3139 \newcommand*{\glspostlinkhook}{}
3140 % \end{macrocode}
3141 %\end{macro}
3142 %
3143 %
3144 %\begin{macro}{\@gls@link@checkfirsthyper}
3145 % Check for first use and switch off \gloskey[glslink]{hyper} key
3146 % if hyperlink not wanted. (Should be off if first use and
3147 % hyper=false is on or if first use and both the entry is in an acronym
3148 % list and the acrfootnote setting is on.)
3149 % This assumes the glossary type is stored in \cs{glstype} and the
3150 % label is stored in \cs{glslabel}.
3151 %\changes{4.08}{2014-07-30}{new}
3152 % \begin{macrocode}
3153 \newcommand*{\@gls@link@checkfirsthyper}{%
3154 \ifglsused{\glslabel}%
3155 {%
3156 }%
3157 {%
3158 \gls@checkisacronymlist\glstype
3159 \ifglshyperfirst
3160 \if@glsisacronymlist
3161 \ifglsacrfootnote
3162 \KV@glslink@hyperfalse
3163 \fi
```

```

3164     \fi
3165     \else
3166         \KV@glslink@hyperfalse
3167     \fi
3168 }%

    Allow user to hook into this
3169 \glslinkcheckfirsthyperhook
3170 }

linkfirsthyperhook    Allow used to hook into the \@gls@link@checkfirsthyper macro
3171 \newcommand*{\glslinkcheckfirsthyperhook}{}

linkpostsetkeys
3172 \newcommand*{\glslinkpostsetkeys}{}

\glsifhyperon    Check the value of the hyper key:
3173 \newcommand{\glsifhyperon}[2]{\ifKV@glslink@hyper#1\else#2\fi}

ablehyperinlist    Disable hyperlink if in the “nohyper” list.
3174 \newcommand*{\do@glstdisablehyperinlist}{%
3175     \expandafter\DTLifinlist\expandafter{\glstype}{\@gls@nohyperlist}%
3176     {\KV@glslink@hyperfalse}}%
3177 }

lt@glslink@opts    Hook to set default options for \@glslink.
3178 \newcommand*{\@gls@setdefault@glslink@opts}{}

\@gls@link
3179 \def\@gls@link[#1]#2#3{%
    Inserting \leavevmode suggested by Donald Arseneau (avoids problem with tabularx).
3180     \leavevmode
3181     \edef\glslabel{\glsdetoklabel{#2}}%

    Save options in \@gls@link@opts and label in \@gls@link@label
3182     \def\@gls@link@opts{#1}%
3183     \let\@gls@link@label\glslabel

3184     \def\@glsnumberformat{glsnumberformat}%
3185     \edef\@gls@counter{\csname glo@\glslabel @counter\endcsname}%

    If this is in one of the “nohypertypes” glossaries, suppress the hyperlink by default
3186     \edef\glstype{\csname glo@\glslabel @type\endcsname}%

    Save original setting
3187     \let\org@ifKV@glslink@hyper\ifKV@glslink@hyper

    Set defaults:
3188     \@gls@setdefault@glslink@opts

```

Switch off hyper setting if the glossary type has been identified in nohyperlist.

```
3189 \do@gl:disablehyperinlist
```

Macros must set this before calling `\@gls@link`. The commands that check the first use flag should set this to `\@gls@link@checkfirsthyper` otherwise it should be set to `\relax`.

```
3190 \do@gls@link@checkfirsthyper
```

```
3191 \setkeys{glslink}{#1}%
```

Add a hook for the user to customise things after the keys have been set.

```
3192 \glslinkpostsetkeys
```

Store the entry's counter in `\theglsentrycounter`

```
3193 \@gls@saveentrycounter
```

Define sort key if necessary:

```
3194 \@gls@setsort{\glslabel}%
```

(De-tok'ing done by `\@do@wrglossary`)

```
3195 \@do@wrglossary{#2}%
```

```
3196 \ifKV@glslink@hyper
```

```
3197 \glslink{\glolinkprefix\glslabel}{\glstextformat{#3}}%
```

```
3198 \else
```

```
3199 \glsdonohyperlink{\glolinkprefix\glslabel}{\glstextformat{#3}}%
```

```
3200 \fi
```

Restore original setting

```
3201 \let\ifKV@glslink@hyper\org@ifKV@glslink@hyper
```

```
3202 }
```

`\glolinkprefix`

```
3203 \newcommand*{\glolinkprefix}{glo:}
```

`glsentrycounter` Set default value of entry counter

```
3204 \def\glsentrycounter{\glscounter}%
```

`aveentrycounter` Need to check if using equation counter in align environment:

```
3205 \newcommand*{\@gls@saveentrycounter}{%
```

```
3206 \def\@gls@Hcounter{}}%
```

Are we using equation counter?

```
3207 \ifthenelse{\equal{\@gls@counter}{equation}}{%
```

```
3208 {
```

If we're in align environment, `\xatlevel@` will be defined. (Can't test for `\@currentenv` as may be inside an inner environment.)

```
3209 \ifcsundef{xatlevel@}%
```

```
3210 {%
```

```
3211 \edef\theglsentrycounter{\expandafter\noexpand
```

```
3212 \csname the\@gls@counter\endcsname}%
```

```
3213 }%
```

```

3214   {%
3215       \ifx\xatlevel@\@empty
3216       \edef\theglentrycounter{\expandafter\noexpand
3217           \csname the\@gls@counter\endcsname}%
3218   \else
3219       \savecounters@
3220       \advance\c@equation by 1\relax
3221       \edef\theglentrycounter{\csname the\@gls@counter\endcsname}%

```

Check if hyperref version of this counter

```

3222       \ifcsundef{theH\@gls@counter}%
3223       {%
3224           \def\@gls@Hcounter{\theglentrycounter}%
3225       }%
3226       {%
3227           \def\@gls@Hcounter{\csname theH\@gls@counter\endcsname}%
3228       }%
3229       \protected@edef\theHglentrycounter{\@gls@Hcounter}%
3230       \restorecounters@
3231   \fi
3232 }%
3233 }%
3234 {%

```

Not using equation counter so no special measures:

```

3235   \edef\theglentrycounter{\expandafter\noexpand
3236       \csname the\@gls@counter\endcsname}%
3237 }%

```

Check if hyperref version of this counter

```

3238   \ifx\@gls@Hcounter\@empty
3239   \ifcsundef{theH\@gls@counter}%
3240   {%
3241       \def\theHglentrycounter{\theglentrycounter}%
3242   }%
3243   {%
3244       \protected@edef\theHglentrycounter{\expandafter\noexpand
3245           \csname theH\@gls@counter\endcsname}%
3246   }%
3247   \fi
3248 }

```

t@glo@numformat Set the formatting information in the format required by makeindex. The first argument is the format specified by the user (via the format key), the second argument is the name of the counter used to indicate the location, the third argument is a control sequence which stores the required format and the fourth argument (new to v3.0) is the hyper-prefix.

```

3249 \def\@set@glo@numformat#1#2#3#4{%
3250     \expandafter\@glo@check@mkidxrangechar#3\@nil
3251     \protected@edef#1{%

```

```

3252 \@glo@prefix setentrycounter[#4]{#2}%
3253 \expandafter\string\csname\@glo@suffix\endcsname
3254 }%
3255 \@gls@checkmkidxchars#1%
3256 }

```

Check to see if the given string starts with a (or). If it does set \@glo@prefix to the starting character, and \@glo@suffix to the rest (or glsnumberformat if there is nothing else), otherwise set \@glo@prefix to nothing and \@glo@suffix to all of it.

```

3257 \def\@glo@check@mkidxrangechar#1#2\@nil{%
3258 \if#1(\relax
3259 \def\@glo@prefix{(%}
3260 \if\relax#2\relax
3261 \def\@glo@suffix{glsnumberformat}%
3262 \else
3263 \def\@glo@suffix{#2}%
3264 \fi
3265 \else
3266 \if#1)\relax
3267 \def\@glo@prefix{)%}
3268 \if\relax#2\relax
3269 \def\@glo@suffix{glsnumberformat}%
3270 \else
3271 \def\@glo@suffix{#2}%
3272 \fi
3273 \else
3274 \def\@glo@prefix{}\def\@glo@suffix{#1#2}%
3275 \fi
3276 \fi}

```

\@gls@escbsdq Escape backslashes and double quote marks. The argument must be a control sequence.

```

3277 \newcommand*{\@gls@escbsdq}[1]{%
3278 \def\@gls@checkedmkidx{%}
3279 \let\gls@xdystring=#1\relax
3280 \@onelevel@sanitize\gls@xdystring
3281 \edef\do@gls@xdycheckbackslash{%
3282 \noexpand\@gls@xdycheckbackslash\gls@xdystring\noexpand\@nil
3283 \@backslashchar\@backslashchar\noexpand\null}%
3284 \do@gls@xdycheckbackslash
3285 \expandafter\@gls@updatechecked\@gls@checkedmkidx{\gls@xdystring}%
3286 \def\@gls@checkedmkidx{%}
3287 \expandafter\@gls@xdycheckquote\gls@xdystring\@nil""\null
3288 \expandafter\@gls@updatechecked\@gls@checkedmkidx{\gls@xdystring}%

```

Unsanitize \gls@numberpage, \gls@alphpage, \gls@Alphpage and \gls@romanpage (thanks to David Carlisle for the suggestion.)

```

3289 \@for\@gls@tmp:=\gls@protected@pagefmts\do
3290 {%
3291 \edef\@gls@sanitized@tmp{\expandafter\@gobble\string\\ \expandonce\@gls@tmp}%

```

```

3292 \@onelevel@sanitize\@gls@sanitized@tmp
3293 \edef\gls@dosubst{%
3294   \noexpand\DTLsubstituteall\noexpand\gls@xdystring
3295   {\@gls@sanitized@tmp}{\expandonce\@gls@tmp}%
3296 }%
3297 \gls@dosubst
3298 }%

```

Assign to required control sequence

```

3299 \let#1=\gls@xdystring
3300 }

```

Catch special characters (argument must be a control sequence):

checkmkidxchars

```

3301 \newcommand{\@gls@checkmkidxchars}[1]{%
3302   \ifglxindy
3303     \@gls@escbsdq{#1}%
3304   \else
3305     \def\@gls@checkedmkidx{%
3306       \expandafter\@gls@checkquote#1\@nil""\null
3307       \expandafter\@gls@updatechecked\@gls@checkedmkidx{#1}%
3308       \def\@gls@checkedmkidx{%
3309         \expandafter\@gls@checkescquote#1\@nil\""\null
3310         \expandafter\@gls@updatechecked\@gls@checkedmkidx{#1}%
3311         \def\@gls@checkedmkidx{%
3312           \expandafter\@gls@checkescactual#1\@nil\?\?\null
3313           \expandafter\@gls@updatechecked\@gls@checkedmkidx{#1}%
3314           \def\@gls@checkedmkidx{%
3315             \expandafter\@gls@checkactual#1\@nil??\null
3316             \expandafter\@gls@updatechecked\@gls@checkedmkidx{#1}%
3317             \def\@gls@checkedmkidx{%
3318               \expandafter\@gls@checkbar#1\@nil||\null
3319               \expandafter\@gls@updatechecked\@gls@checkedmkidx{#1}%
3320               \def\@gls@checkedmkidx{%
3321                 \expandafter\@gls@checkescbar#1\@nil\\|\null
3322                 \expandafter\@gls@updatechecked\@gls@checkedmkidx{#1}%
3323                 \def\@gls@checkedmkidx{%
3324                   \expandafter\@gls@checklevel#1\@nil!!\null
3325                   \expandafter\@gls@updatechecked\@gls@checkedmkidx{#1}%
3326                 \fi
3327 }

```

Update the control sequence and strip trailing \@nil:

s@updatechecked

```

3328 \def\@gls@updatechecked#1\@nil#2{\def#2{#1}}

```

\@gls@tmpb Define temporary token

```

3329 \newtoks\@gls@tmpb

```

@gls@checkquote Replace " with "" since " is a makeindex special character.

```
3330 \def\@gls@checkquote#1"#2"#3\null{%
3331   \@gls@tmpb=\expandafter{\@gls@checkedmkidx}%
3332   \toks@={#1}%
3333   \ifx\null#2\null
3334     \ifx\null#3\null
3335       \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@}%
3336       \def\@gls@checkquote{\relax}%
3337     \else
3338       \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@
3339         \@gls@quotechar\@gls@quotechar\@gls@quotechar\@gls@quotechar}%
3340       \def\@gls@checkquote{\@gls@checkquote#3\null}%
3341     \fi
3342   \else
3343     \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@
3344       \@gls@quotechar\@gls@quotechar}%
3345     \ifx\null#3\null
3346       \def\@gls@checkquote{\@gls@checkquote#2""\null}%
3347     \else
3348       \def\@gls@checkquote{\@gls@checkquote#2"#3\null}%
3349     \fi
3350   \fi
3351   \@gls@checkquote
3352 }
```

s@checkescquote Do the same for \":

```
3353 \def\@gls@checkescquote#1\"#2\"#3\null{%
3354   \@gls@tmpb=\expandafter{\@gls@checkedmkidx}%
3355   \toks@={#1}%
3356   \ifx\null#2\null
3357     \ifx\null#3\null
3358       \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@}%
3359       \def\@gls@checkescquote{\relax}%
3360     \else
3361       \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@
3362         \@gls@quotechar\string\"@gls@quotechar
3363         \@gls@quotechar\string\"@gls@quotechar}%
3364       \def\@gls@checkescquote{\@gls@checkescquote#3\null}%
3365     \fi
3366   \else
3367     \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@
3368       \@gls@quotechar\string\"@gls@quotechar}%
3369     \ifx\null#3\null
3370       \def\@gls@checkescquote{\@gls@checkescquote#2\"\" \null}%
3371     \else
3372       \def\@gls@checkescquote{\@gls@checkescquote#2\"#3\null}%
3373     \fi
3374   \fi
3375   \@gls@checkescquote
```

3376 }

@checkescactual Similarly for \? (which is replaces @ as makeindex's special character):

```
3377 \def\@gls@checkescactual#1\?#2\?#3\null{%
3378 \@gls@tmpb=\expandafter{\@gls@checkedmkidx}%
3379 \toks@={#1}%
3380 \ifx\null#2\null
3381 \ifx\null#3\null
3382 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@}%
3383 \def\@gls@checkescactual{\relax}%
3384 \else
3385 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@
3386 \@gls@quotechar\string\"@gls@actualchar
3387 \@gls@quotechar\string\"@gls@actualchar}%
3388 \def\@gls@checkescactual{\@gls@checkescactual#3\null}%
3389 \fi
3390 \else
3391 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@
3392 \@gls@quotechar\string\"@gls@actualchar}%
3393 \ifx\null#3\null
3394 \def\@gls@checkescactual{\@gls@checkescactual#2\?\?\null}%
3395 \else
3396 \def\@gls@checkescactual{\@gls@checkescactual#2\?#3\null}%
3397 \fi
3398 \fi
3399 \@gls@checkescactual
3400 }
```

gls@checkeschar Similarly for \|:

```
3401 \def\@gls@checkeschar#1\|#2\|#3\null{%
3402 \@gls@tmpb=\expandafter{\@gls@checkedmkidx}%
3403 \toks@={#1}%
3404 \ifx\null#2\null
3405 \ifx\null#3\null
3406 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@}%
3407 \def\@gls@checkeschar{\relax}%
3408 \else
3409 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@
3410 \@gls@quotechar\string\"@gls@encapchar
3411 \@gls@quotechar\string\"@gls@encapchar}%
3412 \def\@gls@checkeschar{\@gls@checkeschar#3\null}%
3413 \fi
3414 \else
3415 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@
3416 \@gls@quotechar\string\"@gls@encapchar}%
3417 \ifx\null#3\null
3418 \def\@gls@checkeschar{\@gls@checkeschar#2\|\|\null}%
3419 \else
3420 \def\@gls@checkeschar{\@gls@checkeschar#2\|#3\null}%

```

```

3421 \fi
3422 \fi
3423 \@gls@checkescbar
3424 }

```

s@checkesclevel Similarly for \!:

```

3425 \def\@gls@checkesclevel#1\!#2\!#3\null{%
3426 \@gls@tmpb=\expandafter{\@gls@checkedmkidx}%
3427 \toks@={#1}%
3428 \ifx\null#2\null
3429 \ifx\null#3\null
3430 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@}%
3431 \def\@gls@checkesclevel{\relax}%
3432 \else
3433 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@
3434 \@gls@quotechar\string"\@gls@levelchar
3435 \@gls@quotechar\string"\@gls@levelchar}%
3436 \def\@gls@checkesclevel{\@gls@checkesclevel#3\null}%
3437 \fi
3438 \else
3439 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@
3440 \@gls@quotechar\string"\@gls@levelchar}%
3441 \ifx\null#3\null
3442 \def\@gls@checkesclevel{\@gls@checkesclevel#2\!\!\null}%
3443 \else
3444 \def\@gls@checkesclevel{\@gls@checkesclevel#2\!#3\null}%
3445 \fi
3446 \fi
3447 \@gls@checkesclevel
3448 }

```

\@gls@checkbar and for |:

```

3449 \def\@gls@checkbar#1|#2|#3\null{%
3450 \@gls@tmpb=\expandafter{\@gls@checkedmkidx}%
3451 \toks@={#1}%
3452 \ifx\null#2\null
3453 \ifx\null#3\null
3454 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@}%
3455 \def\@gls@checkbar{\relax}%
3456 \else
3457 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@
3458 \@gls@quotechar\@gls@encapchar\@gls@quotechar\@gls@encapchar}%
3459 \def\@gls@checkbar{\@gls@checkbar#3\null}%
3460 \fi
3461 \else
3462 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@
3463 \@gls@quotechar\@gls@encapchar}%
3464 \ifx\null#3\null
3465 \def\@gls@checkbar{\@gls@checkbar#2||\null}%

```

```

3466 \else
3467 \def\@gls@checkbar{\@gls@checkbar#2|#3\null}%
3468 \fi
3469 \fi
3470 \@gls@checkbar
3471 }

```

@gls@checklevel and for !:

```

3472 \def\@gls@checklevel#1!#2!#3\null{%
3473 \@gls@tmpb=\expandafter{\@gls@checkedmkidx}%
3474 \toks@={#1}%
3475 \ifx\null#2\null
3476 \ifx\null#3\null
3477 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@}%
3478 \def\@gls@checklevel{\relax}%
3479 \else
3480 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@
3481 \@gls@quotechar\@gls@levelchar\@gls@quotechar\@gls@levelchar}%
3482 \def\@gls@checklevel{\@gls@checklevel#3\null}%
3483 \fi
3484 \else
3485 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@
3486 \@gls@quotechar\@gls@levelchar}%
3487 \ifx\null#3\null
3488 \def\@gls@checklevel{\@gls@checklevel#2!!\null}%
3489 \else
3490 \def\@gls@checklevel{\@gls@checklevel#2!#3\null}%
3491 \fi
3492 \fi
3493 \@gls@checklevel
3494 }

```

gls@checkactual and for ?:

```

3495 \def\@gls@checkactual#1?#2?#3\null{%
3496 \@gls@tmpb=\expandafter{\@gls@checkedmkidx}%
3497 \toks@={#1}%
3498 \ifx\null#2\null
3499 \ifx\null#3\null
3500 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@}%
3501 \def\@gls@checkactual{\relax}%
3502 \else
3503 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@
3504 \@gls@quotechar\@gls@actualchar\@gls@quotechar\@gls@actualchar}%
3505 \def\@gls@checkactual{\@gls@checkactual#3\null}%
3506 \fi
3507 \else
3508 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@
3509 \@gls@quotechar\@gls@actualchar}%
3510 \ifx\null#3\null

```

```

3511 \def\@gls@checkactual{\@gls@checkactual#2??\null}%
3512 \else
3513 \def\@gls@checkactual{\@gls@checkactual#2?#3\null}%
3514 \fi
3515 \fi
3516 \@gls@checkactual
3517 }

```

s@xdycheckquote As before but for use with xindy

```

3518 \def\@gls@xdycheckquote#1"#2"#3\null{%
3519 \@gls@tmpb=\expandafter{\@gls@checkedmkidx}%
3520 \toks@={#1}%
3521 \ifx\null#2\null
3522 \ifx\null#3\null
3523 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@}%
3524 \def\@gls@xdycheckquote{\relax}%
3525 \else
3526 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@
3527 \string"\string"}%
3528 \def\@gls@xdycheckquote{\@gls@xdycheckquote#3\null}%
3529 \fi
3530 \else
3531 \edef\@gls@checkedmkidx{\the\@gls@tmpb\the\toks@
3532 \string"}%
3533 \ifx\null#3\null
3534 \def\@gls@xdycheckquote{\@gls@xdycheckquote#2""\null}%
3535 \else
3536 \def\@gls@xdycheckquote{\@gls@xdycheckquote#2"#3\null}%
3537 \fi
3538 \fi
3539 \@gls@xdycheckquote
3540 }

```

ycheckbackslash Need to escape all backslashes for xindy. Define command that will define \@gls@xdycheckbackslash

```

3541 \edef\def@gls@xdycheckbackslash{%
3542 \noexpand\def\noexpand\@gls@xdycheckbackslash##1\@backslashchar
3543 ##2\@backslashchar##3\noexpand\null{%
3544 \noexpand\@gls@tmpb=\noexpand\expandafter
3545 {\noexpand\@gls@checkedmkidx}%
3546 \noexpand\toks@={##1}%
3547 \noexpand\ifx\noexpand\null##2\noexpand\null
3548 \noexpand\ifx\noexpand\null##3\noexpand\null
3549 \noexpand\edef\noexpand\@gls@checkedmkidx{%
3550 \noexpand\the\noexpand\@gls@tmpb\noexpand\the\noexpand\toks@}%
3551 \noexpand\def\noexpand\@gls@xdycheckbackslash{\relax}%
3552 \noexpand\else
3553 \noexpand\edef\noexpand\@gls@checkedmkidx{%
3554 \noexpand\the\noexpand\@gls@tmpb\noexpand\the\noexpand\toks@
3555 \@backslashchar\@backslashchar\@backslashchar\@backslashchar}%

```

```

3556 \noexpand\def\noexpand\@gls@xdycheckbackslash{%
3557   \noexpand\@gls@xdycheckbackslash##3\noexpand\null}%
3558 \noexpand\fi
3559 \noexpand\else
3560 \noexpand\edef\noexpand\@gls@checkedmkidx{%
3561   \noexpand\the\noexpand\@gls@tmpb\noexpand\the\noexpand\toks@
3562   \@backslashchar\@backslashchar}%
3563 \noexpand\ifx\noexpand\null##3\noexpand\null
3564 \noexpand\def\noexpand\@gls@xdycheckbackslash{%
3565   \noexpand\@gls@xdycheckbackslash##2\@backslashchar
3566   \@backslashchar\noexpand\null}%
3567 \noexpand\else
3568 \noexpand\def\noexpand\@gls@xdycheckbackslash{%
3569   \noexpand\@gls@xdycheckbackslash##2\@backslashchar
3570   ##3\noexpand\null}%
3571 \noexpand\fi
3572 \noexpand\fi
3573 \noexpand\@gls@xdycheckbackslash
3574 }%
3575 }

```

Now go ahead and define \@gls@xdycheckbackslash

```

3576 \def\@gls@xdycheckbackslash

```

lsdohypertarget

```

3577 \newlength\gls@tmplen
3578 \newcommand*{\glsdohypertarget}[2]{%
3579   \settoheight{\gls@tmplen}{#2}%
3580   \raisebox{\gls@tmplen}{\hypertarget{#1}{}}#2%
3581 }

```

\glsdohyperlink

```

3582 \newcommand*{\glsdohyperlink}[2]{\hyperlink{#1}{#2}}

```

lsdonohyperlink

```

3583 \newcommand*{\glsdonohyperlink}[2]{#2}

```

\@glslink If \hyperlink is not defined \@glslink ignores its first argument and just does the second argument, otherwise it is equivalent to \hyperlink.

```

3584 \ifcsundef{hyperlink}%
3585 {%
3586   \let\@glslink\glsdonohyperlink
3587 }%
3588 {%
3589   \let\@glslink\glsdohyperlink
3590 }

```

`\@glstarget` If `\hypertarget` is not defined, `\@glstarget` ignores its first argument and just does the second argument, otherwise it is equivalent to `\hypertarget`.

```
3591 \ifcsundef{hypertarget}%
3592 {%
3593   \let\@glstarget\@secondoftwo
3594 }%
3595 {%
3596   \let\@glstarget\glsdohypertarget
3597 }
```

Glossary hyperlinks can be disabled using `\glsdisablehyper` (effect can be localised):

`\glsdisablehyper`

```
3598 \newcommand{\glsdisablehyper}{%
3599   \KV@glslink@hyperfalse
3600   \let\@glslink\glsdonohyperlink
3601   \let\@glstarget\@secondoftwo
3602 }
```

Glossary hyperlinks can be enabled using `\glsenablehyper` (effect can be localised):

`\glsenablehyper`

```
3603 \newcommand{\glsenablehyper}{%
3604   \KV@glslink@hypertrue
3605   \let\@glslink\glsdohyperlink
3606   \let\@glstarget\glsdohypertarget
3607 }
```

Provide some convenience commands if not already defined:

```
3608 \providecommand{\@firstofthree}[3]{#1}
3609 \providecommand{\@secondofthree}[3]{#2}
```

Syntax:

`\gls[<options>]{<label>}[<insert text>]`

Link to glossary entry using singular form. The link text is taken from the value of the text or first keys used when the entry was defined.

The first optional argument is a key-value list, the same as `\glslink`, the mandatory argument is the entry label. After the mandatory argument, there is another optional argument to insert extra text in the link text (the location of the inserted text is governed by `\glsdisplay` and `\glsdisplayfirst`). As with `\glslink` there is a starred version which is the same as the unstarred version but with the hyper key set to false. (Additional options can also be specified in the first optional argument.)

First determine which version is being used:

`\gls`

```
3610 \newrobustcmd*{\gls}{\@glshyp@opt\@gls}
```

Defined the un-starred form. Need to determine if there is a final optional argument

`\@gls`

```
3611 \newcommand*{\@gls}[2] [] {%
3612   \new@ifnextchar[{\@gls@{#1}{#2}}{\@gls@{#1}{#2} []}]%
3613 }
```

`\@gls@` Read in the final optional argument:

```
3614 \def\@gls@#1#2[#3]{%
3615   \glsdoifexists{#2}%
3616   {%
3617     \let\do@gls@link@checkfirsthyper\@gls@link@checkfirsthyper

3618     \let\glsifplural\@secondoftwo
3619     \let\glsupcase\@firstofthree
3620     \let\glscustomtext\@empty
3621     \def\glsinsert{#3}%
```

Determine what the link text should be (this is stored in `\@glo@text`) Note that `\@gls@link` sets `\gls@type`.

```
3622   \def\@glo@text{\csname gls@\gls@type @entryfmt\endcsname}%
```

Call `\@gls@link`. If footnote package option has been used and the glossary type is `\acronymtype`, suppress hyperlink for first use. Likewise if the `hyperfirst=false` package option is used.

```
3623   \@gls@link[#1]{#2}{\@glo@text}%
```

Indicate that this entry has now been used

```
3624   \ifKV@glslink@local
3625     \glslocalunset{#2}%
3626   \else
3627     \glsunset{#2}%
3628   \fi
3629   }%
```

```
3630   \glspostlinkhook
3631 }
```

`\Gls` behaves like `\gls`, but the first letter of the link text is converted to uppercase (note that if the first letter has an accent, the accented letter will need to be grouped when you define the entry). It is mainly intended for terms that start a sentence:

`\Gls`

```
3632 \newrobustcmd*{\Gls}{\@gls@hyp@opt\@Gls}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3633 \newcommand*{\@Gls}[2] [] {%
3634   \new@ifnextchar[{\@Gls@{#1}{#2}}{\@Gls@{#1}{#2} []}]%
3635 }
```

`\@Gls@` Read in the final optional argument:

```
3636 \def\@Gls@#1#2[#3]{%
3637   \glsdoifexists{#2}%
3638   {%
3639     \let\do@gl@link@checkfirsthyper\@gl@link@checkfirsthyper

3640     \let\glsifplural\@secondoftwo
3641     \let\glscapscase\@secondofthree
3642     \let\glscustomtext\@empty
3643     \def\glsinsert{#3}%
```

Determine what the link text should be (this is stored in `\@glo@text`) Note that `\@gl@link` sets `\glstyp`.

```
3644   \def\@glo@text{\csname gls@\glstype @entryfmt\endcsname}%
```

Call `\@gl@link` If footnote package option has been used and the glossary type is `\acronymtype`, suppress hyperlink for first use. Likewise if the `hyperfirst=false` package option is used.

```
3645   \@gl@link[#1]{#2}{\@glo@text}%
```

Indicate that this entry has now been used

```
3646   \ifKV@gl@link@local
3647     \glsllocalunset{#2}%
3648   \else
3649     \glsunset{#2}%
3650   \fi
3651 }%

3652 \glspostlinkhook
3653 }
```

`\GLS` behaves like `\gls`, but the link text is converted to uppercase:

`\GLS`

```
3654 \newrobustcmd*{\GLS}{\@gl@hyp@opt\@GLS}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3655 \newcommand*{\@GLS}[2][\@GLS@#1]{%
3656   \new@ifnextchar[\@GLS@{#1}{#2}}{\@GLS@{#1}{#2}}}%
3657 }
```

`\@GLS@` Read in the final optional argument:

```
3658 \def\@GLS@#1#2[#3]{%
3659   \glsdoifexists{#2}%
3660   {%
3661     \let\do@gl@link@checkfirsthyper\@gl@link@checkfirsthyper

3662     \let\glsifplural\@secondoftwo
3663     \let\glscapscase\@thirdofthree
3664     \let\glscustomtext\@empty
3665     \def\glsinsert{#3}%
```

Determine what the link text should be (this is stored in `\@glo@text`). Note that `\@gls@link` sets `\gls@type`.

```
3666 \def\@glo@text{\csname gls@\gls@type @entryfmt\endcsname}%
```

Call `\@gls@link`. If footnote package option has been used and the glossary type is `\acronym@type`, suppress hyperlink for first use. Likewise if the `hyperfirst=false` package option is used.

```
3667 \@gls@link[#1]{#2}{\@glo@text}%
```

Indicate that this entry has now been used

```
3668 \ifKV@gls@link@local
3669 \glslocalunset{#2}%
3670 \else
3671 \glsunset{#2}%
3672 \fi
3673 }%
```

```
3674 \gls@postlinkhook
3675 }
```

`\glspl` behaves in the same way as `\gls` except it uses the plural form.

`\glspl`

```
3676 \newrobustcmd*{\glspl}{\@gls@hyp@opt\@glspl}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3677 \newcommand*{\@glspl}[2][{}]{%
3678 \new@ifnextchar[\@glspl@{#1}{#2}]{\@glspl@{#1}{#2}[{}]}%
3679 }
```

`\@glspl@` Read in the final optional argument:

```
3680 \def\@glspl@#1#2[#3]{%
3681 \glsdoifexists{#2}%
3682 {%
3683 \let\do@gls@link@checkfirsthyper\@gls@link@checkfirsthyper

3684 \let\glsifplural\@firstoftwo
3685 \let\gls@scapscase\@firstofthree
3686 \let\gls@customtext\@empty
3687 \def\glsinsert{#3}%
```

Determine what the link text should be (this is stored in `\@glo@text`) Note that `\@gls@link` sets `\gls@type`.

```
3688 \def\@glo@text{\csname gls@\gls@type @entryfmt\endcsname}%
```

Call `\@gls@link`. If footnote package option has been used and the glossary type is `\acronym@type`, suppress hyperlink for first use. Likewise if the `hyperfirst=false` package option is used.

```
3689 \@gls@link[#1]{#2}{\@glo@text}%
```

Indicate that this entry has now been used

```
3690 \ifKV@glslink@local
3691 \glsllocalunset{#2}%
3692 \else
3693 \glsunset{#2}%
3694 \fi
3695 }%

3696 \glspostlinkhook
3697 }
```

`\Glspl` behaves in the same way as `\glsp1`, except that the first letter of the link text is converted to uppercase (as with `\Gls`, if the first letter has an accent, it will need to be grouped).

`\Glspl`

```
3698 \newrobustcmd*{\Glspl}{\@gls@hyp@opt\@Glspl}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3699 \newcommand*{\@Glspl}[2][{}]{%
3700 \new@ifnextchar[{\@Glspl@{#1}{#2}}{\@Glspl@{#1}{#2}[]}%
3701 }
```

`\@Glspl@` Read in the final optional argument:

```
3702 \def\@Glspl@#1#2[#3]{%
3703 \glsdoifexists{#2}%
3704 {%
3705 \let\do@gls@link@checkfirsthyper\@gls@link@checkfirsthyper

3706 \let\glsifplural\@firstoftwo
3707 \let\glscapscase\@secondofthree
3708 \let\glscustomtext\@empty
3709 \def\glsinsert{#3}%
```

Determine what the link text should be (this is stored in `\@glo@text`). This needs to be expanded so that the `\@glo@text` can be passed to `\xmakefirstuc`. Note that `\@gls@link` sets `\glstype`.

```
3710 \def\@glo@text{\csname gls@\glstype @entryfmt\endcsname}%
```

Call `\@gls@link`. If footnote package option has been used and the glossary type is `\acronymtype`, suppress hyperlink for first use. Likewise if the `hyperfirst=false` package option is used.

```
3711 \@gls@link[#1]{#2}{\@glo@text}%
```

Indicate that this entry has now been used

```
3712 \ifKV@glslink@local
3713 \glsllocalunset{#2}%
3714 \else
3715 \glsunset{#2}%
3716 \fi
3717 }%
```

```

3718 \glspostlinkhook
3719 }

```

\GLSp1 behaves like \glsp1 except that all the link text is converted to uppercase.

\GLSp1

```

3720 \newrobustcmd*{\GLSp1}{\@gls@hyp@opt\@GLSp1}

```

Defined the un-starred form. Need to determine if there is a final optional argument

```

3721 \newcommand*{\@GLSp1}[2][\@GLSp1@{#1}{#2}]{\@GLSp1@{#1}{#2}[]}
3722 \new@ifnextchar[\@GLSp1@{#1}{#2}]{\@GLSp1@{#1}{#2}[]}
3723 }

```

\@GLSp1 Read in the final optional argument:

```

3724 \def\@GLSp1@#1#2[#3]{%
3725   \glsdoifexists{#2}%
3726   {%
3727     \let\do@gls@link@checkfirsthyper\@gls@link@checkfirsthyper
3728     \let\glsifplural\@firstoftwo
3729     \let\glsapscase\@thirdofthree
3730     \let\glscustomtext\@empty
3731     \def\glsinsert{#3}%

```

Determine what the link text should be (this is stored in \@glo@text) Note that \@gls@link sets \glstype.

```

3732   \def\@glo@text{\csname gls@\glstype @entryfmt\endcsname}%

```

Call \@gls@link. If footnote package option has been used and the glossary type is \acronymtype, suppress hyperlink for first use. Likewise if the hyperfirst=false package option is used.

```

3733   \@gls@link[#1]{#2}{\@glo@text}%

```

Indicate that this entry has now been used

```

3734   \ifKV@glslink@local
3735     \glslocalunset{#2}%
3736   \else
3737     \glsunset{#2}%
3738   \fi
3739 }%
3740 \glspostlinkhook
3741 }

```

\glsdisp \glsdisp[*options*]{*label*}{*text*} This is like \gls except that the link text is provided. This differs from \glslink in that it uses \glsdisplay or \glsdisplayfirst and unsets the first use flag.

First determine if we are using the starred form:

```

3742 \newrobustcmd*{\glsdisp}{\@gls@hyp@opt\@glsdisp}

```

Defined the un-starred form.

`\@glsdisp`

```

3743 \newcommand*{\@glsdisp}[3] [] {%
3744   \glsdoifexists{#2}{%

3745     \let\do@gls@link@checkfirsthyper\@gls@link@checkfirsthyper

3746     \let\glsifplural\@secondoftwo
3747     \let\glscapscase\@firstofthree
3748     \def\glscustomtext{#3}%
3749     \def\glsinsert{}%

```

Determine what the link text should be (this is stored in `\@glo@text`) Note that `\@gls@link` sets `\glstype`.

```

3750   \def\@glo@text{\csname gls@\glstype @entryfmt\endcsname}%

```

Call `\@gls@link`. If footnote package option has been used and the glossary type is `\acronymtype`, suppress hyperlink for first use. Likewise if the `hyperfirst=false` package option is used.

```

3751   \@gls@link[#1]{#2}{\@glo@text}%

```

Indicate that this entry has now been used

```

3752   \ifKV@glslink@local
3753     \glslocalunset{#2}%
3754   \else
3755     \glsunset{#2}%
3756   \fi
3757 }%

```

```

3758 \glspostlinkhook
3759 }

```

`checkfirsthyper` Instead of just setting `\do@gls@link@checkfirsthyper` to `\relax` in `\@gls@field@link`, set it to `\@gls@link@nocheckfirsthyper` in case some other action needs to take place.

```

3760 \newcommand*{\@gls@link@nocheckfirsthyper}{}

```

`@gls@field@link`

```

3761 \newcommand{\@gls@field@link}[3] {%
3762   \glsdoifexists{#2}%
3763   {%
3764     \let\do@gls@link@checkfirsthyper\@gls@link@nocheckfirsthyper
3765     \@gls@link[#1]{#2}{#3}%
3766   }%

3767   \glspostlinkhook
3768 }

```

`\glstext` behaves like `\gls` except it always uses the value given by the text key and it doesn't mark the entry as used.

`\glstext`

```
3769 \newrobustcmd*{\glstext}{\@gls@hyp@opt\@glstext}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3770 \newcommand*{\@glstext}[2] [] {%
```

```
3771   \new@ifnextchar[{\@glstext@{#1}{#2}}{\@glstext@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3772 \def\@glstext@#1#2[#3] {%
```

```
3773   \@gls@field@link{#1}{#2}{\glstentrytext{#2}#3}%
```

```
3774 }
```

`\GLStext` behaves like `\glstext` except the text is converted to uppercase.

`\GLStext`

```
3775 \newrobustcmd*{\GLStext}{\@gls@hyp@opt\@GLStext}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3776 \newcommand*{\@GLStext}[2] [] {%
```

```
3777   \new@ifnextchar[{\@GLStext@{#1}{#2}}{\@GLStext@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3778 \def\@GLStext@#1#2[#3] {%
```

```
3779   \@gls@field@link{#1}{#2}{\mfirstucMakeUppercase{\glstentrytext{#2}#3}}%
```

```
3780 }
```

`\Glstext` behaves like `\glstext` except that the first letter of the text is converted to uppercase.

`\Glstext`

```
3781 \newrobustcmd*{\Glstext}{\@gls@hyp@opt\@Glstext}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3782 \newcommand*{\@Glstext}[2] [] {%
```

```
3783   \new@ifnextchar[{\@Glstext@{#1}{#2}}{\@Glstext@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3784 \def\@Glstext@#1#2[#3] {%
```

```
3785   \@gls@field@link{#1}{#2}{\Glstentrytext{#2}#3}%
```

```
3786 }
```

`\glsfirst` behaves like `\gls` except it always uses the value given by the first key and it doesn't mark the entry as used.

`\glsfirst`

```
3787 \newrobustcmd*{\glsfirst}{\@gls@hyp@opt\@glsfirst}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3788 \newcommand*{\@glsfirst}[2] [] {%
```

```
3789   \new@ifnextchar[{\@glsfirst@{#1}{#2}}{\@glsfirst@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3790 \def\@glsfirst@#1#2[#3]{%
3791   \@gls@field@link{#1}{#2}{\glsentryfirst{#2}#3}%
3792 }
```

`\Glsfirst` behaves like `\glsfirst` except it displays the first letter in uppercase.

`\Glsfirst`

```
3793 \newrobustcmd*{\Glsfirst}{\@gls@hyp@opt\@Glsfirst}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3794 \newcommand*{\@Glsfirst}[2] [] {%
3795   \new@ifnextchar[{\@Glsfirst@{#1}{#2}}{\@Glsfirst@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3796 \def\@Glsfirst@#1#2[#3]{%
3797   \@gls@field@link{#1}{#2}{\Glsentryfirst{#2}#3}%
3798 }
```

`\GLSfirst` behaves like `\Glsfirst` except it displays the text in uppercase.

`\GLSfirst`

```
3799 \newrobustcmd*{\GLSfirst}{\@gls@hyp@opt\@GLSfirst}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3800 \newcommand*{\@GLSfirst}[2] [] {%
3801   \new@ifnextchar[{\@GLSfirst@{#1}{#2}}{\@GLSfirst@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3802 \def\@GLSfirst@#1#2[#3]{%
3803   \@gls@field@link{#1}{#2}{\mfirstucMakeUppercase{\glsentryfirst{#2}#3}}%
3804 }
```

`\glsplural` behaves like `\gls` except it always uses the value given by the plural key and it doesn't mark the entry as used.

`\glsplural`

```
3805 \newrobustcmd*{\glsplural}{\@gls@hyp@opt\@glsplural}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3806 \newcommand*{\@glsplural}[2] [] {%
3807   \new@ifnextchar[{\@glsplural@{#1}{#2}}{\@glsplural@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3808 \def\@glsplural@#1#2[#3]{%
3809   \@gls@field@link{#1}{#2}{\glsentryplural{#2}#3}%
3810 }
```

`\Glsplural` behaves like `\glsplural` except that the first letter is converted to uppercase.

`\Glsplural`

```
3811 \newrobustcmd*{\Glsplural}{\@gls@hyp@opt\@Glsplural}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3812 \newcommand*{\@Glsplural}[2] [] {%  
3813   \new@ifnextchar [{\@Glsplural@{#1}{#2}}{\@Glsplural@{#1}{#2} [] }}
```

Read in the final optional argument:

```
3814 \def\@Glsplural@#1#2[#3] {%  
3815   \@gls@field@link{#1}{#2}{\Glsentryplural{#2}#3}%  
3816 }
```

\Glsplural behaves like \glsplural except that the text is converted to uppercase.

\Glsplural

```
3817 \newrobustcmd*{\Glsplural}{\@gls@hyp@opt\@Glsplural}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3818 \newcommand*{\@Glsplural}[2] [] {%  
3819   \new@ifnextchar [{\@Glsplural@{#1}{#2}}{\@Glsplural@{#1}{#2} [] }}
```

Read in the final optional argument:

```
3820 \def\@Glsplural@#1#2[#3] {%  
3821   \@gls@field@link{#1}{#2}{\mfirstucMakeUppercase{\glsentryplural{#2}#3}}%  
3822 }
```

\glsfirstplural behaves like \gls except it always uses the value given by the firstplural key and it doesn't mark the entry as used.

\glsfirstplural

```
3823 \newrobustcmd*{\glsfirstplural}{\@gls@hyp@opt\@glsfirstplural}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3824 \newcommand*{\@glsfirstplural}[2] [] {%  
3825   \new@ifnextchar [{\@glsfirstplural@{#1}{#2}}{\@glsfirstplural@{#1}{#2} [] }}
```

Read in the final optional argument:

```
3826 \def\@glsfirstplural@#1#2[#3] {%  
3827   \@gls@field@link{#1}{#2}{\glsentryfirstplural{#2}#3}%  
3828 }
```

\Glsfirstplural behaves like \glsfirstplural except that the first letter is converted to uppercase.

\Glsfirstplural

```
3829 \newrobustcmd*{\Glsfirstplural}{\@gls@hyp@opt\@Glsfirstplural}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3830 \newcommand*{\@Glsfirstplural}[2] [] {%  
3831   \new@ifnextchar [{\@Glsfirstplural@{#1}{#2}}{\@Glsfirstplural@{#1}{#2} [] }}
```

Read in the final optional argument:

```
3832 \def\@Glsfirstplural@#1#2[#3] {%  
3833   \@gls@field@link{#1}{#2}{\Glsentryfirstplural{#2}#3}%  
3834 }
```

`\GLSfirstplural` behaves like `\glsfirstplural` except that the link text is converted to uppercase.

`\GLSfirstplural`

```
3835 \newrobustcmd*{\GLSfirstplural}{\@gls@hyp@opt\@GLSfirstplural}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3836 \newcommand*{\@GLSfirstplural}[2] [] {%
```

```
3837   \new@ifnextchar[{\@GLSfirstplural@{#1}{#2}}{\@GLSfirstplural@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3838 \def\@GLSfirstplural@#1#2[#3] {%
```

```
3839   \@gls@field@link{#1}{#2}{\mfirstucMakeUppercase{\glsentryfirstplural{#2}{#3}}}%
```

```
3840 }
```

`\glsname` behaves like `\gls` except it always uses the value given by the name key and it doesn't mark the entry as used.

`\glsname`

```
3841 \newrobustcmd*{\glsname}{\@gls@hyp@opt\@glsname}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3842 \newcommand*{\@glsname}[2] [] {%
```

```
3843   \new@ifnextchar[{\@glsname@{#1}{#2}}{\@glsname@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3844 \def\@glsname@#1#2[#3] {%
```

```
3845   \@gls@field@link{#1}{#2}{\glsentryname{#2}{#3}}%
```

```
3846 }
```

`\Glsname` behaves like `\glsname` except that the first letter is converted to uppercase.

`\Glsname`

```
3847 \newrobustcmd*{\Glsname}{\@gls@hyp@opt\@Glsname}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3848 \newcommand*{\@Glsname}[2] [] {%
```

```
3849   \new@ifnextchar[{\@Glsname@{#1}{#2}}{\@Glsname@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3850 \def\@Glsname@#1#2[#3] {%
```

```
3851   \@gls@field@link{#1}{#2}{\Glsentryname{#2}{#3}}%
```

```
3852 }
```

`\GLSname` behaves like `\glsname` except that the link text is converted to uppercase.

`\GLSname`

```
3853 \newrobustcmd*{\GLSname}{\@gls@hyp@opt\@GLSname}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3854 \newcommand*{\@GLSname}[2] [] {%
```

```
3855   \new@ifnextchar[{\@GLSname@{#1}{#2}}{\@GLSname@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3856 \def\@GLSname@#1#2[#3]{%
3857   \@gls@field@link{#1}{#2}{\mfirstucMakeUppercase{\glsentryname{#2}#3}}%
3858 }
```

\glsdesc behaves like \gls except it always uses the value given by the description key and it doesn't mark the entry as used.

\glsdesc

```
3859 \newrobustcmd*{\glsdesc}{\@gls@hyp@opt\@glsdesc}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3860 \newcommand*{\@glsdesc}[2][]{%
3861   \new@ifnextchar[{\@glsdesc@{#1}{#2}}{\@glsdesc@{#1}{#2}[]}]}
```

Read in the final optional argument:

```
3862 \def\@glsdesc@#1#2[#3]{%
3863   \@gls@field@link{#1}{#2}{\glsentrydesc{#2}#3}%
3864 }
```

\Glsdesc behaves like \glsdesc except that the first letter is converted to uppercase.

\Glsdesc

```
3865 \newrobustcmd*{\Glsdesc}{\@gls@hyp@opt\@Glsdesc}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3866 \newcommand*{\@Glsdesc}[2][]{%
3867   \new@ifnextchar[{\@Glsdesc@{#1}{#2}}{\@Glsdesc@{#1}{#2}[]}]}
```

Read in the final optional argument:

```
3868 \def\@Glsdesc@#1#2[#3]{%
3869   \@gls@field@link{#1}{#2}{\Glsentrydesc{#2}#3}%
3870 }
```

\GLSdesc behaves like \glsdesc except that the link text is converted to uppercase.

\GLSdesc

```
3871 \newrobustcmd*{\GLSdesc}{\@gls@hyp@opt\@GLSdesc}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3872 \newcommand*{\@GLSdesc}[2][]{%
3873   \new@ifnextchar[{\@GLSdesc@{#1}{#2}}{\@GLSdesc@{#1}{#2}[]}]}
```

Read in the final optional argument:

```
3874 \def\@GLSdesc@#1#2[#3]{%
3875   \@gls@field@link{#1}{#2}{\mfirstucMakeUppercase{\glsentrydesc{#2}#3}}%
3876 }
```

\glsdescplural behaves like \gls except it always uses the value given by the description-plural key and it doesn't mark the entry as used.

\glsdescplural

```
3877 \newrobustcmd*{\glsdescplural}{\@gls@hyp@opt\@glsdescplural}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3878 \newcommand*{\@glsdescplural}[2] [] {%
3879   \new@ifnextchar [{\@glsdescplural@{#1}{#2}}]{\@glsdescplural@{#1}{#2} []}}
```

Read in the final optional argument:

```
3880 \def\@glsdescplural@#1#2[#3] {%
3881   \@gls@field@link{#1}{#2}{\glsentrydescplural{#2}#3}%
3882 }
```

\Glsdescplural behaves like \glsdescplural except that the first letter is converted to uppercase.

\Glsdescplural

```
3883 \newrobustcmd*{\Glsdescplural}{\@gls@hyp@opt\@Glsdescplural}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3884 \newcommand*{\@GLSdescplural}[2] [] {%
3885   \new@ifnextchar [{\@GLSdescplural@{#1}{#2}}]{\@GLSdescplural@{#1}{#2} []}}
```

Read in the final optional argument:

```
3886 \def\@GLSdescplural@#1#2[#3] {%
3887   \@gls@field@link{#1}{#2}{\Glsentrydescplural{#2}#3}%
3888 }
```

\GLSdescplural behaves like \glsdescplural except that the link text is converted to uppercase.

\GLSdescplural

```
3889 \newrobustcmd*{\GLSdescplural}{\@gls@hyp@opt\@GLSdescplural}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3890 \newcommand*{\@GLSdescplural}[2] [] {%
3891   \new@ifnextchar [{\@GLSdescplural@{#1}{#2}}]{\@GLSdescplural@{#1}{#2} []}}
```

Read in the final optional argument:

```
3892 \def\@GLSdescplural@#1#2[#3] {%
3893   \@gls@field@link{#1}{#2}{\mfirstucMakeUppercase{\glsentrydescplural{#2}#3}}%
3894 }
```

\glssymbol behaves like \gls except it always uses the value given by the symbol key and it doesn't mark the entry as used.

\glssymbol

```
3895 \newrobustcmd*{\glssymbol}{\@gls@hyp@opt\@glssymbol}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3896 \newcommand*{\@glssymbol}[2] [] {%
3897   \new@ifnextchar [{\@glssymbol@{#1}{#2}}]{\@glssymbol@{#1}{#2} []}}
```

Read in the final optional argument:

```
3898 \def\@glssymbol@#1#2[#3] {%
3899   \@gls@field@link{#1}{#2}{\glsentrysymbol{#2}#3}%
3900 }
```

`\Glssymbol` behaves like `\glssymbol` except that the first letter is converted to uppercase.

`\Glssymbol`

```
3901 \newrobustcmd*{\Glssymbol}{\@gls@hyp@opt\@Glssymbol}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3902 \newcommand*{\@Glssymbol}[2] [] {%
```

```
3903   \new@ifnextchar[{\@Glssymbol@{#1}{#2}}{\@Glssymbol@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3904 \def\@Glssymbol@#1#2[#3] {%
```

```
3905   \@gls@field@link{#1}{#2}{\glstentrysymbol{#2}#3}%
```

```
3906 }
```

`\GLSsymbol` behaves like `\glssymbol` except that the link text is converted to uppercase.

`\GLSsymbol`

```
3907 \newrobustcmd*{\GLSsymbol}{\@gls@hyp@opt\@GLSsymbol}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3908 \newcommand*{\@GLSsymbol}[2] [] {%
```

```
3909   \new@ifnextchar[{\@GLSsymbol@{#1}{#2}}{\@GLSsymbol@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3910 \def\@GLSsymbol@#1#2[#3] {%
```

```
3911   \@gls@field@link{#1}{#2}{\mfirstucMakeUppercase{\glstentrysymbol{#2}#3}%
```

```
3912 }
```

`\glssymbolplural` behaves like `\gls` except it always uses the value given by the symbol-plural key and it doesn't mark the entry as used.

`glssymbolplural`

```
3913 \newrobustcmd*{\glssymbolplural}{\@gls@hyp@opt\@glssymbolplural}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3914 \newcommand*{\@glssymbolplural}[2] [] {%
```

```
3915   \new@ifnextchar[{\@glssymbolplural@{#1}{#2}}{\@glssymbolplural@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3916 \def\@glssymbolplural@#1#2[#3] {%
```

```
3917   \@gls@field@link{#1}{#2}{\glstentrysymbolplural{#2}#3}%
```

```
3918 }
```

`\Glssymbolplural` behaves like `\glssymbolplural` except that the first letter is converted to uppercase.

`Glssymbolplural`

```
3919 \newrobustcmd*{\Glssymbolplural}{\@gls@hyp@opt\@Glssymbolplural}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3920 \newcommand*{\@Glssymbolplural}[2] [] {%
```

```
3921   \new@ifnextchar[{\@Glssymbolplural@{#1}{#2}}{\@Glssymbolplural@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3922 \def\@Glsymbolplural@#1#2[#3]{%
3923   \@gls@field@link{#1}{#2}{\Glsentrysymbolplural{#2}#3}%
3924 }
```

\Glsymbolplural behaves like \glsymbolplural except that the link text is converted to uppercase.

GLSsymbolplural

```
3925 \newrobustcmd*{\Glsymbolplural}{\@gls@hyp@opt\@Glsymbolplural}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3926 \newcommand*{\@Glsymbolplural}[2] [] {%
3927   \new@ifnextchar[{\@Glsymbolplural@{#1}{#2}}{\@Glsymbolplural@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3928 \def\@Glsymbolplural@#1#2[#3]{%
3929   \@gls@field@link{#1}{#2}{\mfirstucMakeUppercase{\Glsentrysymbolplural{#2}#3}}%
3930 }
```

\glsuseri behaves like \gls except it always uses the value given by the user1 key and it doesn't mark the entry as used.

\glsuseri

```
3931 \newrobustcmd*{\glsuseri}{\@gls@hyp@opt\@glsuseri}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3932 \newcommand*{\@glsuseri}[2] [] {%
3933   \new@ifnextchar[{\@glsuseri@{#1}{#2}}{\@glsuseri@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3934 \def\@glsuseri@#1#2[#3]{%
3935   \@gls@field@link{#1}{#2}{\Glsentryuseri{#2}#3}%
3936 }
```

\Glsuseri behaves like \glsuseri except that the first letter is converted to uppercase.

\Glsuseri

```
3937 \newrobustcmd*{\Glsuseri}{\@gls@hyp@opt\@Glsuseri}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3938 \newcommand*{\@Glsuseri}[2] [] {%
3939   \new@ifnextchar[{\@Glsuseri@{#1}{#2}}{\@Glsuseri@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3940 \def\@Glsuseri@#1#2[#3]{%
3941   \@gls@field@link{#1}{#2}{\Glsentryuseri{#2}#3}%
3942 }
```

\GLSuseri behaves like \glsuseri except that the link text is converted to uppercase.

\GLSuseri

```
3943 \newrobustcmd*{\GLSuseri}{\@gls@hyp@opt\@GLSuseri}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3944 \newcommand*{\@GLSuseri}[2] [] {%  
3945   \new@ifnextchar[{\@GLSuseri@{#1}{#2}}{\@GLSuseri@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3946 \def\@GLSuseri@#1#2[#3] {%  
3947   \@gls@field@link{#1}{#2}{\mfirstucMakeUppercase{\glsentryuseri{#2}#3}}%  
3948 }
```

\glsuserii behaves like \gls except it always uses the value given by the user2 key and it doesn't mark the entry as used.

\glsuserii

```
3949 \newrobustcmd*{\glsuserii}{\@gls@hyp@opt\@glsuserii}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3950 \newcommand*{\@glsuserii}[2] [] {%  
3951   \new@ifnextchar[{\@glsuserii@{#1}{#2}}{\@glsuserii@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3952 \def\@glsuserii@#1#2[#3] {%  
3953   \@gls@field@link{#1}{#2}{\glsentryuserii{#2}#3}}%  
3954 }
```

\Glsuserii behaves like \glsuserii except that the first letter is converted to uppercase.

\Glsuserii

```
3955 \newrobustcmd*{\Glsuserii}{\@gls@hyp@opt\@Glsuserii}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3956 \newcommand*{\@Glsuserii}[2] [] {%  
3957   \new@ifnextchar[{\@Glsuserii@{#1}{#2}}{\@Glsuserii@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3958 \def\@Glsuserii@#1#2[#3] {%  
3959   \@gls@field@link{#1}{#2}{\Glsentryuserii{#2}#3}}%  
3960 }
```

\GLSuserii behaves like \glsuserii except that the link text is converted to uppercase.

\GLSuserii

```
3961 \newrobustcmd*{\GLSuserii}{\@gls@hyp@opt\@GLSuserii}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
3962 \newcommand*{\@GLSuserii}[2] [] {%  
3963   \new@ifnextchar[{\@GLSuserii@{#1}{#2}}{\@GLSuserii@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3964 \def\@GLSuserii@#1#2[#3] {%  
3965   \@gls@field@link{#1}{#2}{\mfirstucMakeUppercase{\glsentryuserii{#2}#3}}%  
3966 }
```

\glsuseriii behaves like \gls except it always uses the value given by the user3 key and it doesn't mark the entry as used.

`\glsuseriii`

```
3967 \newrobustcmd*{\glsuseriii}{\@gls@hyp@opt\@glsuseriii}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3968 \newcommand*{\@glsuseriii}[2] [] {%
```

```
3969   \new@ifnextchar[{\@glsuseriii@{#1}{#2}}{\@glsuseriii@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3970 \def\@glsuseriii@#1#2[#3] {%
```

```
3971   \@gls@field@link{#1}{#2}{\glstryuseriii{#2}#3}%
```

```
3972 }
```

`\Glsuseriii` behaves like `\glsuseriii` except that the first letter is converted to upper-case.

`\Glsuseriii`

```
3973 \newrobustcmd*{\Glsuseriii}{\@gls@hyp@opt\@Glsuseriii}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3974 \newcommand*{\@Glsuseriii}[2] [] {%
```

```
3975   \new@ifnextchar[{\@Glsuseriii@{#1}{#2}}{\@Glsuseriii@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3976 \def\@Glsuseriii@#1#2[#3] {%
```

```
3977   \@gls@field@link{#1}{#2}{\glstryuseriii{#2}#3}%
```

```
3978 }
```

`\GLSuseriii` behaves like `\glsuseriii` except that the link text is converted to uppercase.

`\GLSuseriii`

```
3979 \newrobustcmd*{\GLSuseriii}{\@gls@hyp@opt\@GLSuseriii}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3980 \newcommand*{\@GLSuseriii}[2] [] {%
```

```
3981   \new@ifnextchar[{\@GLSuseriii@{#1}{#2}}{\@GLSuseriii@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3982 \def\@GLSuseriii@#1#2[#3] {%
```

```
3983   \@gls@field@link{#1}{#2}{\mfirstucMakeUppercase{\glstryuseriii{#2}#3}}%
```

```
3984 }
```

`\glsuseriv` behaves like `\gls` except it always uses the value given by the `user4` key and it doesn't mark the entry as used.

`\glsuseriv`

```
3985 \newrobustcmd*{\glsuseriv}{\@gls@hyp@opt\@glsuseriv}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3986 \newcommand*{\@glsuseriv}[2] [] {%
```

```
3987   \new@ifnextchar[{\@glsuseriv@{#1}{#2}}{\@glsuseriv@{#1}{#2} []}]}
```

Read in the final optional argument:

```
3988 \def\@glsuseriv@#1#2[#3]{%
3989   \@gls@field@link{#1}{#2}{\glsentryuseriv{#2}#3}%
3990 }
```

\Glsuseriv behaves like \glsuseriv except that the first letter is converted to uppercase.

\Glsuseriv

```
3991 \newrobustcmd*{\Glsuseriv}{\@gls@hyp@opt\@Glsuseriv}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3992 \newcommand*{\@Glsuseriv}[2][\@Glsuseriv@{#1}{#2}]{%
3993   \new@ifnextchar[\@Glsuseriv@{#1}{#2}]{\@Glsuseriv@{#1}{#2}[]}}
```

Read in the final optional argument:

```
3994 \def\@Glsuseriv@#1#2[#3]{%
3995   \@gls@field@link{#1}{#2}{\glsentryuseriv{#2}#3}%
3996 }
```

\GLSuseriv behaves like \glsuseriv except that the link text is converted to uppercase.

\GLSuseriv

```
3997 \newrobustcmd*{\GLSuseriv}{\@gls@hyp@opt\@GLSuseriv}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
3998 \newcommand*{\@GLSuseriv}[2][\@GLSuseriv@{#1}{#2}]{%
3999   \new@ifnextchar[\@GLSuseriv@{#1}{#2}]{\@GLSuseriv@{#1}{#2}[]}}
```

Read in the final optional argument:

```
4000 \def\@GLSuseriv@#1#2[#3]{%
4001   \@gls@field@link{#1}{#2}{\mfirstucMakeUppercase{\glsentryuseriv{#2}#3}}%
4002 }
```

\glsuserv behaves like \gls except it always uses the value given by the user5 key and it doesn't mark the entry as used.

\glsuserv

```
4003 \newrobustcmd*{\glsuserv}{\@gls@hyp@opt\@glsuserv}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
4004 \newcommand*{\@glsuserv}[2][\@glsuserv@{#1}{#2}]{%
4005   \new@ifnextchar[\@glsuserv@{#1}{#2}]{\@glsuserv@{#1}{#2}[]}}
```

Read in the final optional argument:

```
4006 \def\@glsuserv@#1#2[#3]{%
4007   \@gls@field@link{#1}{#2}{\glsentryuserv{#2}#3}%
4008 }
```

\Glsuserv behaves like \glsuserv except that the first letter is converted to uppercase.

\Glsuserv

```
4009 \newrobustcmd*{\Glsuserv}{\@gls@hyp@opt\@Glsuserv}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
4010 \newcommand*{\@Glsuserv}[2] [] {%  
4011 \new@ifnextchar [{\@Glsuserv@{#1}{#2}}{\@Glsuserv@{#1}{#2} [] }}
```

Read in the final optional argument:

```
4012 \def\@Glsuserv@#1#2[#3] {%  
4013 \@gls@field@link{#1}{#2}{\Glsentryuserv{#2}#3}%  
4014 }
```

\Glsuserv behaves like \glsuserv except that the link text is converted to uppercase.

\Glsuserv

```
4015 \newrobustcmd*{\Glsuserv}{\@gls@hyp@opt\@Glsuserv}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
4016 \newcommand*{\@GLSuserv}[2] [] {%  
4017 \new@ifnextchar [{\@GLSuserv@{#1}{#2}}{\@GLSuserv@{#1}{#2} [] }}
```

Read in the final optional argument:

```
4018 \def\@GLSuserv@#1#2[#3] {%  
4019 \@gls@field@link{#1}{#2}{\mfirstucMakeUppercase{\glsentryuserv{#2}#3}}%  
4020 }
```

\glsuservi behaves like \gls except it always uses the value given by the user6 key and it doesn't mark the entry as used.

\glsuservi

```
4021 \newrobustcmd*{\glsuservi}{\@gls@hyp@opt\@glsuservi}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
4022 \newcommand*{\@glsuservi}[2] [] {%  
4023 \new@ifnextchar [{\@glsuservi@{#1}{#2}}{\@glsuservi@{#1}{#2} [] }}
```

Read in the final optional argument:

```
4024 \def\@glsuservi@#1#2[#3] {%  
4025 \@gls@field@link{#1}{#2}{\glsentryuservi{#2}#3}%  
4026 }
```

\Glsuservi behaves like \glsuservi except that the first letter is converted to uppercase.

\Glsuservi

```
4027 \newrobustcmd*{\Glsuservi}{\@gls@hyp@opt\@Glsuservi}
```

Defined the un-starred form. Need to determine if there is a final optional argument

```
4028 \newcommand*{\@Glsuservi}[2] [] {%  
4029 \new@ifnextchar [{\@Glsuservi@{#1}{#2}}{\@Glsuservi@{#1}{#2} [] }}
```

Read in the final optional argument:

```
4030 \def\@Glsuservi@#1#2[#3] {%  
4031 \@gls@field@link{#1}{#2}{\Glsentryuservi{#2}#3}%  
4032 }
```

\Glsuservi behaves like \glsuservi except that the link text is converted to uppercase.

\GLSuservi

```
4033 \newrobustcmd*{\GLSuservi}{\@gls@hyp@opt\@GLSuservi}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
4034 \newcommand*{\@GLSuservi}[2] [] {%
```

```
4035   \new@ifnextchar[{\@GLSuservi@{#1}{#2}}{\@GLSuservi@{#1}{#2} []}]}
```

Read in the final optional argument:

```
4036 \def\@GLSuservi@#1#2[#3] {%
```

```
4037   \@gls@field@link{#1}{#2}{\mfirstucMakeUppercase{\glsentryuservi{#2}{#3}}}%
```

```
4038 }
```

Now deal with acronym related keys. First the short form:

\acrshort

```
4039 \newrobustcmd*{\acrshort}{\@gls@hyp@opt\@ns@acrshort}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
4040 \newcommand*{\@ns@acrshort}[2] [] {%
```

```
4041   \new@ifnextchar[{\@acrshort{#1}{#2}}{\@acrshort{#1}{#2} []}]%
```

```
4042 }
```

Read in the final optional argument:

```
4043 \def\@acrshort#1#2[#3] {%
```

```
4044   \glsdoifexists{#2}%
```

```
4045   {%
```

```
4046     \let\do@gls@link@checkfirsthyper\@gls@link@nocheckfirsthyper
```

```
4047     \let\glsifplural\@secondoftwo
```

```
4048     \let\gls@caps@case\@firstofthree
```

```
4049     \let\glsinsert\@empty
```

```
4050     \def\gls@customtext{%
```

```
4051       \acronymfont{\glsentryshort{#2}}#3%
```

```
4052     }%
```

Call \@gls@link Note that \@gls@link sets \glstype.

```
4053   \@gls@link[#1]{#2}{\csname gls@\glstype @entryfmt\endcsname}%
```

```
4054   }%
```

```
4055   \gls@postlinkhook
```

```
4056 }
```

\Acrshort

```
4057 \newrobustcmd*{\Acrshort}{\@gls@hyp@opt\@ns@Acrshort}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
4058 \newcommand*{\@ns@Acrshort}[2] [] {%
```

```
4059   \new@ifnextchar[{\@Acrshort{#1}{#2}}{\@Acrshort{#1}{#2} []}]%
```

```
4060 }
```

Read in the final optional argument:

```
4061 \def\@Acrshort#1#2[#3]{%
4062   \glsdoifexists{#2}%
4063   {%
4064     \let\do@gl@link@checkfirsthyper\@gl@link@nocheckfirsthyper
4065     \def\glslabel{#2}%
4066     \let\glsifplural\@secondoftwo
4067     \let\glscapscase\@thirdofthree
4068     \let\glsinsert\@empty
4069     \def\glscustomtext{%
4070       \acronymfont{\Glsentryshort{#2}}#3%
4071     }%
4072     \@gl@link[#1]{#2}{\csname gls@glstype @entryfmt\endcsname}%
4073   }%
4074   \glspostlinkhook
4075 }
```

Call \@gl@link Note that \@gl@link sets \glstype.

\ACRshort

```
4076 \newrobustcmd*{\ACRshort}{\@gl@hyp@opt\@ns@ACRshort}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
4077 \newcommand*{\ns@ACRshort}[2][ ]{%
4078   \new@ifnextchar[{\@ACRshort{#1}{#2}}{\@ACRshort{#1}{#2}[]}%
4079 }
```

Read in the final optional argument:

```
4080 \def\@ACRshort#1#2[#3]{%
4081   \glsdoifexists{#2}%
4082   {%
4083     \let\do@gl@link@checkfirsthyper\@gl@link@nocheckfirsthyper
4084     \def\glslabel{#2}%
4085     \let\glsifplural\@secondoftwo
4086     \let\glscapscase\@thirdofthree
4087     \let\glsinsert\@empty
4088     \def\glscustomtext{%
4089       \mfirstucMakeUppercase{\acronymfont{\Glsentryshort{#2}}#3}%
4090     }%
4091     \@gl@link[#1]{#2}{\csname gls@glstype @entryfmt\endcsname}%
4092   }%
4093   \glspostlinkhook
4094 }
```

Call \@gl@link Note that \@gl@link sets \glstype.

Short plural:

\acrshortpl

```
4095 \newrobustcmd*{\acrshortpl}{\@gls@hyp@opt\ns@acrshortpl}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
4096 \newcommand*{\ns@acrshortpl}[2] [] {%
4097   \new@ifnextchar[{\@acrshortpl{#1}{#2}}{\@acrshortpl{#1}{#2} []}%
4098 }
```

Read in the final optional argument:

```
4099 \def\@acrshortpl#1#2[#3] {%
4100   \glsdoifexists{#2}%
4101   {%
4102     \let\do@gls@link@checkfirsthyper\@gls@link@nocheckfirsthyper
4103     \def\glslabel{#2}%
4104     \let\glsifplural\@firstoftwo
4105     \let\glsapscase\@firstofthree
4106     \let\glsinsert\@empty
4107     \def\glscustomtext{%
4108       \acronymfont{\glsentryshortpl{#2}}#3%
4109     }%
```

Call \@gls@link Note that \@gls@link sets \glsstyle.

```
4110   \@gls@link[#1]{#2}{\csname gls@\glsstyle @entryfmt\endcsname}%
4111   }%
4112   \glspostlinkhook
4113 }
```

\Acrshortpl

```
4114 \newrobustcmd*{\Acrshortpl}{\@gls@hyp@opt\ns@Acrshortpl}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
4115 \newcommand*{\ns@Acrshortpl}[2] [] {%
4116   \new@ifnextchar[{\@Acrshortpl{#1}{#2}}{\@Acrshortpl{#1}{#2} []}%
4117 }
```

Read in the final optional argument:

```
4118 \def\@Acrshortpl#1#2[#3] {%
4119   \glsdoifexists{#2}%
4120   {%
4121     \let\do@gls@link@checkfirsthyper\@gls@link@nocheckfirsthyper
4122     \def\glslabel{#2}%
4123     \let\glsifplural\@firstoftwo
4124     \let\glsapscase\@secondofthree
4125     \let\glsinsert\@empty
```

```

4126 \def\glscustomtext{%
4127 \acronymfont{\Glsentryshortpl{#2}}#3%
4128 }%

Call \@gls@link Note that \@gls@link sets \glstype.
4129 \@gls@link[#1]{#2}{\csname gls@\glstype @entryfmt\endcsname}%
4130 }%

4131 \glspostlinkhook
4132 }

```

\ACRshortpl

```

4133 \newrobustcmd*{\ACRshortpl}{\@gls@hyp@opt\ns@ACRshortpl}

```

Define the un-starred form. Need to determine if there is a final optional argument

```

4134 \newcommand*{\ns@ACRshortpl}[2][{}]{%
4135 \new@ifnextchar[{\@ACRshortpl{#1}{#2}}{\@ACRshortpl{#1}{#2}[]}%
4136 }

```

Read in the final optional argument:

```

4137 \def\@ACRshortpl#1#2[#3]{%
4138 \glsdoifexists{#2}%
4139 {%
4140 \let\do@gls@link@checkfirsthyper\@gls@link@nocheckfirsthyper

4141 \def\glslabel{#2}%
4142 \let\glsifplural\@firstoftwo
4143 \let\glsupcase\@thirdofthree
4144 \let\glsinsert\@empty
4145 \def\glscustomtext{%
4146 \mfirstucMakeUppercase{\acronymfont{\Glsentryshortpl{#2}}#3}%
4147 }%

```

Call \@gls@link Note that \@gls@link sets \glstype.

```

4148 \@gls@link[#1]{#2}{\csname gls@\glstype @entryfmt\endcsname}%
4149 }%

4150 \glspostlinkhook
4151 }

```

\acrlong

```

4152 \newrobustcmd*{\acrlong}{\@gls@hyp@opt\ns@acrlong}

```

Define the un-starred form. Need to determine if there is a final optional argument

```

4153 \newcommand*{\ns@acrlong}[2][{}]{%
4154 \new@ifnextchar[{\@acrlong{#1}{#2}}{\@acrlong{#1}{#2}[]}%
4155 }

```

Read in the final optional argument:

```
4156 \def\@acrlong#1#2[#3]{%
4157   \glsdoifexists{#2}%
4158   {%
4159     \let\do@gl@link@checkfirsthyper\@gl@link@nocheckfirsthyper
4160     \def\glslabel{#2}%
4161     \let\glsifplural\@secondoftwo
4162     \let\glscapscase\@firstofthree
4163     \let\glsinsert\@empty
```

Bug fix v4.02 removed \acronymfont from \glscustomtext (\acronymfont only designed for short form).

```
4164   \def\glscustomtext{%
4165     \glstrylong{#2}#3%
4166   }%
```

Call \@gl@link Note that \@gl@link sets \glstype.

```
4167   \@gl@link[#1]{#2}{\csname gls@glstype @entryfmt\endcsname}%
4168   }%
4169   \glspostlinkhook
4170 }
```

\Acrlong

```
4171 \newrobustcmd*{\Acrlong}{\@gl@hyp@opt\@ns@Acrlong}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
4172 \newcommand*{\ns@Acrlong}[2][ ]{%
4173   \new@ifnextchar{\@Acrlong{#1}{#2}}{\@Acrlong{#1}{#2}[ ]}%
4174 }
```

Read in the final optional argument:

```
4175 \def\@Acrlong#1#2[#3]{%
4176   \glsdoifexists{#2}%
4177   {%
4178     \let\do@gl@link@checkfirsthyper\@gl@link@nocheckfirsthyper
4179     \def\glslabel{#2}%
4180     \let\glsifplural\@secondoftwo
4181     \let\glscapscase\@secondofthree
4182     \let\glsinsert\@empty
```

Bug fix v4.02 removed \acronymfont from \glscustomtext (\acronymfont only designed for short form).

```
4183   \def\glscustomtext{%
4184     \Glsentrylong{#2}#3%
4185   }%
```

Call \@gls@link. Note that \@gls@link sets \gls@type.

```
4186 \gls@link[#1]{#2}{\csname gls@\gls@type @entryfmt\endcsname}%
4187 }%

4188 \gls@postlinkhook
4189 }
```

\ACRlong

```
4190 \newrobustcmd*{\ACRlong}{\@gls@hyp@opt\@ns@ACRlong}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
4191 \newcommand*{\ns@ACRlong}[2][\%
4192 \new@ifnextchar[\@ACRlong{#1}{#2}]{\@ACRlong{#1}{#2}[]}%
4193 }
```

Read in the final optional argument:

```
4194 \def\@ACRlong#1#2[#3]{%
4195 \glsdoifexists{#2}%
4196 {%

4197 \let\do@gls@link@checkfirsthyper\@gls@link@nocheckfirsthyper

4198 \def\glslabel{#2}%
4199 \let\glsifplural\@secondoftwo
4200 \let\gls@scapscase\@thirdofthree
4201 \let\glsinsert\@empty
```

Bug fix v4.02 removed \acronymfont from \gls@customtext (\acronymfont only designed for short form).

```
4202 \def\gls@customtext{%
4203 \mfirstucMakeUppercase{\gls@entrylong{#2}{#3}}%
4204 }%
```

Call \@gls@link. Note that \@gls@link sets \gls@type.

```
4205 \gls@link[#1]{#2}{\csname gls@\gls@type @entryfmt\endcsname}%
4206 }%

4207 \gls@postlinkhook
4208 }
```

Short plural:

\acrlongpl

```
4209 \newrobustcmd*{\acrlongpl}{\@gls@hyp@opt\@ns@acrlongpl}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
4210 \newcommand*{\ns@acrlongpl}[2][\%
4211 \new@ifnextchar[\@acrlongpl{#1}{#2}]{\@acrlongpl{#1}{#2}[]}%
4212 }
```

Read in the final optional argument:

```
4213 \def\@acrlongpl#1#2[#3]{%
4214   \glsdoifexists{#2}%
4215   {%
4216     \let\do@gl@link@checkfirsthyper\@gl@link@nocheckfirsthyper
4217     \def\glslabel{#2}%
4218     \let\glsifplural\@firstoftwo
4219     \let\glscapscase\@firstofthree
4220     \let\glsinsert\@empty
```

Bug fix v4.02 removed \acronymfont from \glscustomtext (\acronymfont only designed for short form).

```
4221   \def\glscustomtext{%
4222     \glstrylongpl{#2}#3%
4223   }%
```

Call \@gl@link. Note that \@gl@link sets \glstype.

```
4224   \@gl@link[#1]{#2}{\csname gls@glstype @entryfmt\endcsname}%
4225   }%
4226   \glspostlinkhook
4227 }
```

\Acrlongpl

```
4228 \newrobustcmd*{\Acrlongpl}{\@gl@hyp@opt\@ns@Acrlongpl}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
4229 \newcommand*{\ns@Acrlongpl}[2][\@gl@hyp@opt\@ns@Acrlongpl]{%
4230   \new@ifnextchar[\@Acrlongpl{#1}{#2}}{\@Acrlongpl{#1}{#2}[]}%
4231 }
```

Read in the final optional argument:

```
4232 \def\@Acrlongpl#1#2[#3]{%
4233   \glsdoifexists{#2}%
4234   {%
4235     \let\do@gl@link@checkfirsthyper\@gl@link@nocheckfirsthyper
4236     \def\glslabel{#2}%
4237     \let\glsifplural\@firstoftwo
4238     \let\glscapscase\@secondofthree
4239     \let\glsinsert\@empty
```

Bug fix v4.02 removed \acronymfont from \glscustomtext (\acronymfont only designed for short form).

```
4240   \def\glscustomtext{%
4241     \Glsentrylongpl{#2}#3%
4242   }%
```

Call `\@gls@link`. Note that `\@gls@link` sets `\glstype`.

```
4243 \gls@link[#1]{#2}{\csname gls@\glstype @entryfmt\endcsname}%  
4244 }%  
  
4245 \glspostlinkhook  
4246 }
```

`\ACRlongpl`

```
4247 \newrobustcmd*{\ACRlongpl}{\@gls@hyp@opt\ns@ACRlongpl}
```

Define the un-starred form. Need to determine if there is a final optional argument

```
4248 \newcommand*{\ns@ACRlongpl}[2][{}]{%  
4249 \new@ifnextchar[{\@ACRlongpl{#1}{#2}}{\@ACRlongpl{#1}{#2}[]}%  
4250 }
```

Read in the final optional argument:

```
4251 \def\@ACRlongpl#1#2[#3]{%  
4252 \glsdoifexists{#2}%  
4253 {%  
  
4254 \let\do@gls@link@checkfirsthyper\@gls@link@nocheckfirsthyper  
  
4255 \def\glslabel{#2}%  
4256 \let\glsifplural\@firstoftwo  
4257 \let\gls caps case\@thirdofthree  
4258 \let\glsinsert\@empty
```

Bug fix v4.02 removed `\acronymfont` from `\gls customtext` (`\acronymfont` only designed for short form).

```
4259 \def\gls customtext{%  
4260 \mfirstucMakeUppercase{\glsentrylongpl{#2}{#3}}%  
4261 }%
```

Call `\@gls@link`. Note that `\@gls@link` sets `\glstype`.

```
4262 \gls@link[#1]{#2}{\csname gls@\glstype @entryfmt\endcsname}%  
4263 }%  
  
4264 \glspostlinkhook  
4265 }
```

Displaying entry details without adding information to the glossary

These commands merely display entry information without adding entries in the associated file or having hyperlinks.

`\gls@entry@field` Generic version.

`\@gls@entry@field{<label>}{<field>}`

```
4266 \newcommand*{\@gls@entry@field}[2]{%
```

```

4267 \csname glo@\glsdetoklabel{#1}@#2\endcsname
4268 }

```

`\glsletentryfield` `\glsletentryfield{<cs>}{<label>}{<field>}`

```

4269 \newcommand*{\glsletentryfield}[3]{%
4270   \letcs{#1}{glo@\glsdetoklabel{#2}@#3}%
4271 }

```

`\Gls@entry@field` Generic first letter uppercase version.

`\@Gls@entry@field{<label>}{<field>}`

```

4272 \newcommand*{\@Gls@entry@field}[2]{%
4273   \glsdoifexistsordo{#1}%
4274   {%
4275     \letcs{@glo@text}{glo@\glsdetoklabel{#1}@#2}%
4276     \ifdef{@glo@text
4277     {%
4278       \xmakefirstuc{@glo@text}%
4279     }%
4280     {%
4281       ??\PackageError{glossaries}{The field ‘#2’ doesn’t exist for glossary
4282       entry ‘\glsdetoklabel{#1}’}{Check you have correctly spelt the entry
4283       label and the field name}%
4284     }%
4285   }%
4286   {%
4287     ??%
4288   }%
4289 }

```

Get the entry name (as specified by the name key when the entry was defined). The argument is the label associated with the entry. Note that unless you used `name=false` in the `sanitize` package option you may get unexpected results if the name key contains any commands.

`\glsentryname`

```

4290 \newcommand*{\glsentryname}[1]{\@gls@entry@field{#1}{name}}

```

`\Glsentryname`

```

4291 \newrobustcmd*{\Glsentryname}[1]{%
4292   \@Gls@entryname{#1}%
4293 }

```

`\@Gls@entryname` This is a workaround in the event that the user defies the warning in the manual about not using `\Glsname` or `\Glsentryname` with acronyms. First the default behaviour:

```

4294 \newcommand*{\@Gls@entryname}[1]{%
4295   \@Gls@entry@field{#1}{name}%
4296 }

```

ls@acentryname Now the behaviour when \setacronymstyle is used:

```

4297 \newcommand*{\@Gls@acentryname}[1]{%
4298   \ifglshaslong{#1}%
4299   {%
4300     \letcs\@glo@text{glo\@glsdetoklabel{#1}@name}%
4301     \expandafter\@gls@getbody\@glo@text{}\@nil
4302     \expandafter\ifx\@gls@body\glsentrylong\relax
4303       \expandafter\Glsentrylong\@gls@rest
4304     \else
4305       \expandafter\ifx\@gls@body\glsentryshort\relax
4306         \expandafter\Glsentryshort\@gls@rest
4307       \else
4308         \expandafter\ifx\@gls@body\acronymfont\relax

```

Temporarily make \glsentryshort behave like \Glsentryshort. (This is on the assumption that the argument of \acronymfont is \glsentryshort{\label}), as that's the behaviour of the predefined acronym styles.) This is scoped to localise the effect of the assignment.

```

4309     {%
4310       \let\glsentryshort\Glsentryshort
4311       \@glo@text
4312     }%
4313     \else
4314       \xmakefirstuc{\@glo@text}%
4315     \fi
4316   \fi
4317 \fi
4318 }%
4319 {%

```

Not an acronym

```

4320   \@Gls@entry@field{#1}{name}%
4321 }%
4322 }

```

Get the entry description (as specified by the description when the entry was defined). The argument is the label associated with the entry. Note that unless you used `description=false` in the `sanitize` package option you may get unexpected results if the description key contained any commands.

\glsentrydesc

```

4323 \newcommand*{\glsentrydesc}[1]{\@gls@entry@field{#1}{desc}}

```

\Glsentrydesc

```

4324 \newrobustcmd*{\Glsentrydesc}[1]{%
4325   \@Gls@entry@field{#1}{desc}%
4326 }

```

Plural form:

entrydescplural

```
4327 \newcommand*{\glentrydescplural}[1]{%
4328   \@gls@entry@field{#1}{descplural}%
4329 }
```

entrydescplural

```
4330 \newrobustcmd*{\Glsentrydescplural}[1]{%
4331   \@Gls@entry@field{#1}{descplural}%
4332 }
```

Get the entry text, as specified by the text key when the entry was defined. The argument is the label associated with the entry:

\glentrytext

```
4333 \newcommand*{\glentrytext}[1]{\@gls@entry@field{#1}{text}}
```

\Glsentrytext

```
4334 \newrobustcmd*{\Glsentrytext}[1]{%
4335   \@Gls@entry@field{#1}{text}%
4336 }
```

Get the plural form:

\glentryplural

```
4337 \newcommand*{\glentryplural}[1]{%
4338   \@gls@entry@field{#1}{plural}%
4339 }
```

\Glsentryplural

```
4340 \newrobustcmd*{\Glsentryplural}[1]{%
4341   \@Gls@entry@field{#1}{plural}%
4342 }
```

Get the symbol associated with this entry. The argument is the label associated with the entry.

\glentrysymbol

```
4343 \newcommand*{\glentrysymbol}[1]{%
4344   \@gls@entry@field{#1}{symbol}%
4345 }
```

\Glsentrysymbol

```
4346 \newrobustcmd*{\Glsentrysymbol}[1]{%
4347   \@Gls@entry@field{#1}{symbol}%
4348 }
```

Plural form:

trysymbolplural

```
4349 \newcommand*{\glsentrysymbolplural}[1]{%
4350   \@gls@entry@field{#1}{symbolplural}%
4351 }
```

trysymbolplural

```
4352 \newrobustcmd*{\Glsentrysymbolplural}[1]{%
4353   \@Gls@entry@field{#1}{symbolplural}%
4354 }
```

Get the entry text to be used when the entry is first used in the document (as specified by the first key when the entry was defined).

\glsentryfirst

```
4355 \newcommand*{\glsentryfirst}[1]{%
4356   \@gls@entry@field{#1}{first}%
4357 }
```

\Glsentryfirst

```
4358 \newrobustcmd*{\Glsentryfirst}[1]{%
4359   \@Gls@entry@field{#1}{first}%
4360 }
```

Get the plural form (as specified by the firstplural key when the entry was defined).

ntryfirstplural

```
4361 \newcommand*{\glsentryfirstplural}[1]{%
4362   \@gls@entry@field{#1}{firstpl}%
4363 }
```

ntryfirstplural

```
4364 \newrobustcmd*{\Glsentryfirstplural}[1]{%
4365   \@Gls@entry@field{#1}{firstpl}%
4366 }
```

sentrytitlecase

```
4367 \newrobustcmd*{@glsentrytitlecase}[2]{%
4368   \glsfieldfetch{#1}{#2}{\@gls@value}%
4369   \xcapitalisewords{\@gls@value}%
4370 }
4371 \ifdef\texorpdfstring
4372 {
4373   \newcommand*{\glsentrytitlecase}[2]{%
4374     \texorpdfstring
4375       {\@glsentrytitlecase{#1}{#2}}%
4376       {\@gls@entry@field{#1}{#2}}%
4377   }
4378 }
4379 {
```

```

4380 \newcommand*{\glsentrytitlecase}[2]{\@glsentrytitlecase{#1}{#2}}
4381 }

```

Display the glossary type with which this entry is associated (as specified by the type key used when the entry was defined)

`\glsentrytype`

```

4382 \newcommand*{\glsentrytype}[1]{\@gls@entry@field{#1}{type}}

```

Display the sort text used for this entry. Note that the sort key is sanitized, so unexpected results may occur if the sort key contained commands.

`\glsentrysort`

```

4383 \newcommand*{\glsentrysort}[1]{%
4384   \@gls@entry@field{#1}{sort}%
4385 }

```

`\glsentryuseri` Get the first user key (as specified by the user1 when the entry was defined). The argument is the label associated with the entry.

```

4386 \newcommand*{\glsentryuseri}[1]{%
4387   \@gls@entry@field{#1}{useri}%
4388 }

```

`\Glsentryuseri`

```

4389 \newrobustcmd*{\Glsentryuseri}[1]{%
4390   \@Gls@entry@field{#1}{useri}%
4391 }

```

`\glsentryuserii` Get the second user key (as specified by the user2 when the entry was defined). The argument is the label associated with the entry.

```

4392 \newcommand*{\glsentryuserii}[1]{%
4393   \@gls@entry@field{#1}{userii}%
4394 }

```

`\Glsentryuserii`

```

4395 \newrobustcmd*{\Glsentryuserii}[1]{%
4396   \@Gls@entry@field{#1}{userii}%
4397 }

```

`\glsentryuseriii` Get the third user key (as specified by the user3 when the entry was defined). The argument is the label associated with the entry.

```

4398 \newcommand*{\glsentryuseriii}[1]{%
4399   \@gls@entry@field{#1}{useriii}%
4400 }

```

`\Glsentryuseriii`

```

4401 \newrobustcmd*{\Glsentryuseriii}[1]{%
4402   \@Gls@entry@field{#1}{useriii}%
4403 }

```

\glentryuseriv Get the fourth user key (as specified by the user4 when the entry was defined). The argument is the label associated with the entry.

```
4404 \newcommand*{\glentryuseriv}[1]{%
4405   \@gls@entry@field{#1}{useriv}%
4406 }
```

\Glsentryuseriv

```
4407 \newrobustcmd*{\Glsentryuseriv}[1]{%
4408   \@Gls@entry@field{#1}{useriv}%
4409 }
```

\glentryserv Get the fifth user key (as specified by the user5 when the entry was defined). The argument is the label associated with the entry.

```
4410 \newcommand*{\glentryserv}[1]{%
4411   \@gls@entry@field{#1}{useriv}%
4412 }
```

\Glsentryserv

```
4413 \newrobustcmd*{\Glsentryserv}[1]{%
4414   \@Gls@entry@field{#1}{useriv}%
4415 }
```

\glentryservi Get the sixth user key (as specified by the user6 when the entry was defined). The argument is the label associated with the entry.

```
4416 \newcommand*{\glentryservi}[1]{%
4417   \@gls@entry@field{#1}{useriv}%
4418 }
```

\Glsentryservi

```
4419 \newrobustcmd*{\Glsentryservi}[1]{%
4420   \@Gls@entry@field{#1}{useriv}%
4421 }
```

\glentryshort Get the short key (as specified by the short the entry was defined). The argument is the label associated with the entry.

```
4422 \newcommand*{\glentryshort}[1]{\@gls@entry@field{#1}{short}}
```

\Glsentryshort

```
4423 \newrobustcmd*{\Glsentryshort}[1]{%
4424   \@Gls@entry@field{#1}{short}%
4425 }
```

glentryshortpl Get the short plural key (as specified by the shortplural the entry was defined). The argument is the label associated with the entry.

```
4426 \newcommand*{\glentryshortpl}[1]{\@gls@entry@field{#1}{shortpl}}
```

Glsentryshortpl

```
4427 \newrobustcmd*{\Glsentryshortpl}[1]{%
4428   \@Gls@entry@field{#1}{shortpl}%
4429 }
```

\glsentrylong Get the long key (as specified by the long the entry was defined). The argument is the label associated with the entry.

```
4430 \newcommand*{\glsentrylong}[1]{\@Gls@entry@field{#1}{long}}
```

\Glsentrylong

```
4431 \newrobustcmd*{\Glsentrylong}[1]{%
4432   \@Gls@entry@field{#1}{long}%
4433 }
```

\glsentrylongpl Get the long plural key (as specified by the longplural the entry was defined). The argument is the label associated with the entry.

```
4434 \newcommand*{\glsentrylongpl}[1]{\@Gls@entry@field{#1}{longpl}}
```

\Glsentrylongpl

```
4435 \newrobustcmd*{\Glsentrylongpl}[1]{%
4436   \@Gls@entry@field{#1}{longpl}%
4437 }
```

Short cut macros to access full form:

\glsentryfull

```
4438 \newcommand*{\glsentryfull}[1]{%
4439   \acrfullformat{\glsentrylong{#1}}{\acronymfont{\glsentryshort{#1}}}%
4440 }
```

\Glsentryfull

```
4441 \newrobustcmd*{\Glsentryfull}[1]{%
4442   \acrfullformat{\Glsentrylong{#1}}{\acronymfont{\glsentryshort{#1}}}%
4443 }
```

\glsentryfullpl

```
4444 \newcommand*{\glsentryfullpl}[1]{%
4445   \acrfullformat{\glsentrylongpl{#1}}{\acronymfont{\glsentryshortpl{#1}}}%
4446 }
```

\Glsentryfullpl

```
4447 \newrobustcmd*{\Glsentryfullpl}[1]{%
4448   \acrfullformat{\Glsentrylongpl{#1}}{\acronymfont{\glsentryshortpl{#1}}}%
4449 }
```

entrynumberlist Displays the number list as is.

```

4450 \newcommand*\glsentrynumberlist}[1]{%
4451   \glsdoifexists{#1}%
4452   {%
4453     \@gls@entry@field{#1}{numberlist}%
4454   }%
4455 }

```

splaynumberlist Formats the number list for the given entry label. Doesn't work with hyperref.

```

4456 \@ifpackageloaded{hyperref} {%
4457   \newcommand*\glsdisplaynumberlist}[1]{%
4458     \GlossariesWarning
4459     {%
4460       \string\glsdisplaynumberlist\space
4461       doesn't work with hyperref.^^JUsing
4462       \string\glsentrynumberlist\space instead%
4463     }%
4464     \glsentrynumberlist{#1}%
4465   }%
4466 }%
4467 {%
4468   \newcommand*\glsdisplaynumberlist}[1]{%
4469     \glsdoifexists{#1}%
4470     {%
4471       \bgroup
4472
4473       \edef\@glo@label{\glsdetoklabel{#1}}%
4474       \let\@org@glsnumberformat\glsnumberformat
4475       \def\glsnumberformat##1{##1}%
4476       \protected@edef\the@numberlist{%
4477         \csname glo@\@glo@label @numberlist\endcsname}%
4478       \def\@gls@numlist@sep{%
4479       \def\@gls@numlist@nextsep{%
4480       \def\@gls@numlist@lastsep{%
4481       \def\@gls@thislist{%
4482       \def\@gls@donext@def{%
4483       \renewcommand\do[1]{%
4484         \protected@edef\@gls@thislist{%
4485           \@gls@thislist
4486           \noexpand\@gls@numlist@sep
4487           ##1%
4488         }%
4489         \let\@gls@numlist@sep\@gls@numlist@nextsep
4490         \def\@gls@numlist@nextsep{\glsnumlistsep}%
4491         \@gls@donext@def
4492         \def\@gls@donext@def{%
4493           \def\@gls@numlist@lastsep{\glsnumlistlastsep}%
4494         }%
4495       }%
4496     }%
4497   }%
4498 }%

```

```

4495         \expandafter \glsnumlistparser \expandafter{\the@numberlist}%
4496         \let\@gls@numlist@sep\@gls@numlist@lastsep
4497         \@gls@thislist
4498     \egroup
4499 }%
4500 }
4501 }

```

`\glsnumlistsep`

```

4502 \newcommand*{\glsnumlistsep}{, }

```

`\glsnumlistlastsep`

```

4503 \newcommand*{\glsnumlistlastsep}{ \& }

```

`\gls hyperlink`

Provide a hyperlink to a glossary entry without adding information to the glossary file. The entry needs to be added using a command like `\gls link` or `\gls add` to ensure that the target is defined. The first (optional) argument specifies the link text. The entry name is used by default. The second argument is the entry label.

```

4504 \newcommand*{\gls hyperlink}[2][\gls entrytext{\@glo@label}]{%
4505   \def\@glo@label{#2}%
4506   \@gls link{\glo link prefix\gls detok label{#2}}{#1}}

```

1.12 Adding an entry to the glossary without generating text

The following keys are provided for `\gls add` and `\gls add all`:

```

4507 \define@key{gloss add}{counter}{\def\@gls@counter{#1}}
4508 \define@key{gloss add}{format}{\def\@gls number format{#1}}

```

This key is only used by `\gls add all`:

```

4509 \define@key{gloss add}{types}{\def\@glo@type{#1}}

```

`\gls add[<options>]{<label>}`

Add a term to the glossary without generating any link text. The optional argument indicates which counter to use, and how to format it (using a key-value list) the second argument is the entry label. Note that *<options>* only has two keys: counter and format (the types key will be ignored).

`\gls add`

```

4510 \newrobustcmd*{\gls add}[2][ ]{%

```

Need to move to horizontal mode if not already in it, but only if not in preamble.

```

4511   \@gls@adjustmode
4512   \gls do if exists{#2}%
4513   {%
4514     \def\@gls number format{gls number format}%

```

```

4515 \edef\@gls@counter{\csname glo@\glsdetoklabel{#2}@counter\endcsname}%
4516 \setkeys{glossadd}{#1}%
Store the entry's counter in \theglsentrycounter
4517 \@gls@saveentrycounter
This should use \@do@wrglossary rather than \do@wrglossary since the whole point of
\glsadd is to add a line to the glossary.
4518 \@do@wrglossary{#2}%
4519 }%
4520 }

```

@gls@adjustmode

```

4521 \newcommand*{\@gls@adjustmode}{}
4522 \AtBeginDocument{\renewcommand*{\@gls@adjustmode}{\ifvmode\mbox{}\fi}}

```

\glsaddall[*<option list>*]

Add all terms defined for the listed glossaries (without displaying any text). If types key is omitted, apply to all glossary types.

\glsaddall

```

4523 \newrobustcmd*{\glsaddall}[1][]{%
4524 \edef\@glo@type{\@glo@types}%
4525 \setkeys{glossadd}{#1}%
4526 \forallglsentries[\@glo@type]{\@glo@entry}{%
4527 \glsadd[#1]{\@glo@entry}%
4528 }%
4529 }

```

\glsaddallunused

\glsaddallunused[*<glossary type>*]

Add all used terms defined for the listed glossaries (without displaying any text). If optional argument is omitted, apply to all glossary types. This should typically go at the end of the document.

```

4530 \newrobustcmd*{\glsaddallunused}[1][\@glo@types]{%
4531 \forallglsentries[#1]{\@glo@entry}%
4532 {%
4533 \ifglsused{\@glo@entry}{\glsadd[format=glsignore]{\@glo@entry}}%
4534 }%
4535 }

```

\glsignore

```

4536 \newcommand*{\glsignore}[1]{}

```

1.13 Creating associated files

The `\writeist` command creates the associated customized `.ist` `makeindex` style file. While defining this command, some characters have their catcodes temporarily changed to ensure they get written to the `.ist` file correctly. The `makeindex` actual character (usually `@`) is redefined to be a `?`, to allow internal commands to be written to the glossary file output file.

The special characters are stored in `\@gls@actualchar`, `\@gls@encapchar`, `\@gls@levelchar` and `\@gls@quotechar` to make them easier to use later, but don't change these values, because the characters are encoded in the command definitions that are used to escape the special characters (which means that the user no longer needs to worry about `makeindex` special characters).

The symbols and numbers label for group headings are hardwired into the `.ist` file as `glssymbols` and `glsnumbers`, the group titles can be translated (so that `\glssymbolsgroupname` replaces `glssymbols` and `\glsnumbersgroupname` replaces `glsnumbers`) using the command `\glsgroupname` which is defined in `.` This is done to prevent any problem characters in `\glssymbolsgroupname` and `\glsnumbersgroupname` from breaking hyperlinks.

```
\glsopenbrace  Define \glsopenbrace to make it easier to write an opening brace to a file.
4537 \edef\glsopenbrace{\expandafter\@gobble\string\{}}

\glsclosebrace Define \glsclosebrace to make it easier to write an opening brace to a file.
4538 \edef\glsclosebrace{\expandafter\@gobble\string\}}

\glsbackslash  Define \glsbackslash to make it easier to write a backslash to a file.
4539 \edef\glsbackslash{\expandafter\@gobble\string\\}

\glsquote      Define command that makes it easier to write quote marks to a file in the event that the double quote character has been made active.
4540 \edef\glsquote#1{\string"#1\string"}

\glspcentchar  Define \glspcentchar to make it easier to write a percent character to a file.
4541 \edef\glspcentchar{\expandafter\@gobble\string\%}

\glstildechar  Define \glstildechar to make it easier to write a tilde character to a file.
4542 \edef\glstildechar{\string~}

\@glsfirstletter Define the first letter to come after the digits 0,...,9. Only required for xindy.
4543 \ifglsxindy
4544   \newcommand*{\@glsfirstletter}{A}
4545 \fi

\GlsSetXdyFirstLetterAfterDigits Sets the first letter to come after the digits 0,...,9.
4546 \ifglsxindy
4547   \newcommand*{\GlsSetXdyFirstLetterAfterDigits}[1]{%
4548     \renewcommand*{\@glsfirstletter}{#1}}
4549 \else
```

```

4550 \newcommand*{\GlsSetXdyFirstLetterAfterDigits}[1]{%
4551 \glsnoxywarning\GlsSetXdyFirstLetterAfterDigits}
4552 \fi

```

`\@glsminrange` Define the minimum number of successive location references to merge into a range.

```

4553 \newcommand*{\@glsminrange}{2}

```

`yMinRangeLength` Set the minimum range length. The value must either be none or a positive integer. The glossaries package doesn't check if the argument is valid, that is left to xindy.

```

4554 \ifglsxindy
4555 \newcommand*{\GlsSetXdyMinRangeLength}[1]{%
4556 \renewcommand*{\@glsminrange}{#1}}
4557 \else
4558 \newcommand*{\GlsSetXdyMinRangeLength}[1]{%
4559 \glsnoxywarning\GlsSetXdyMinRangeLength}
4560 \fi

```

`\writeist`

```

4561 \ifglsxindy

```

Code to use if xindy is required.

```

4562 \def\writeist{%

```

Define write register if not already defined

```

4563 \ifundef{\glswrite}{\newwrite\glswrite}{}%

```

Update attributes list

```

4564 \@gls@addpredefinedattributes

```

Open the file.

```

4565 \openout\glswrite=\istfilename

```

Write header comment at the start of the file

```

4566 \write\glswrite{;; xindy style file created by the glossaries
4567 package}%
4568 \write\glswrite{;; for document '\jobname' on
4569 \the\year-\the\month-\the\day}%

```

Specify the required styles

```

4570 \write\glswrite{^^J; required styles^^J}
4571 \@for\@xdystyle:=\@xdyrequiredstyles\do{%
4572 \ifx\@xdystyle\@empty
4573 \else
4574 \protected@write\glswrite{{(require
4575 \string"\@xdystyle.xdy\string")}}%
4576 \fi
4577 }%

```

List the allowed attributes (possible values used by the format key)

```

4578 \write\glswrite{^^J%
4579 ; list of allowed attributes (number formats)^^J}%
4580 \write\glswrite{(define-attributes ((\@xdyattributes)))}%

```

Define any additional alphabets

```
4581 \write\glswrite{^^J; user defined alphabets^^J}%
4582 \write\glswrite{\@xdyuseralphabets}%
```

Define location classes.

```
4583 \write\glswrite{^^J; location class definitions^^J}%
```

As from version 3.0, locations are now specified as $\{\langle Hprefix \rangle\}\{\langle number \rangle\}$, so need to add all possible combinations of location types.

```
4584 \@for\@gls@classI:=\@gls@xdy@locationlist\do{%
```

Case were $\langle Hprefix \rangle$ is empty:

```
4585 \protected@write\glswrite{}\{(define-location-class
4586 \string"\@gls@classI\string"^^J\space\space\space
4587 (
4588 :sep "{"
4589 \csname @gls@xdy@Lclass@\@gls@classI\endcsname\space
4590 :sep "}"
4591 )
4592 ^^J\space\space\space
4593 :min-range-length \@glsminrange^^J%
4594 )
4595 }%
```

Nested iteration over all classes:

```
4596 {%
4597 \@for\@gls@classII:=\@gls@xdy@locationlist\do{%
4598 \protected@write\glswrite{}\{(define-location-class
4599 \string"\@gls@classII-\@gls@classI\string"
4600 ^^J\space\space\space
4601 (
4602 :sep "{"
4603 \csname @gls@xdy@Lclass@\@gls@classII\endcsname\space
4604 :sep "}"
4605 \csname @gls@xdy@Lclass@\@gls@classI\endcsname\space
4606 :sep "}"
4607 )
4608 ^^J\space\space\space
4609 :min-range-length \@glsminrange^^J%
4610 )
4611 }%
4612 }%
4613 }%
4614 }%
```

User defined location classes (needs checking for new location format).

```
4615 \write\glswrite{^^J; user defined location classes}%
4616 \write\glswrite{\@xdyuserlocationdefs}%
```

Cross-reference class. (The unverified option is used as the cross-references are supplied using the list of labels along with the optional argument for `\glsseeformat` which xindy won't recognise.)

```

4617 \write\glswrite{^^J; define cross-reference class^^J}%
4618 \write\glswrite{(define-crossref-class \string"see\string"
4619 :unverified )}%

```

Define how cross-references should be displayed. This adds an empty set of braces after the cross-referencing information allowing for the final argument of `\glsseeformat` which gets ignored. (When using `makeindex` this final argument contains the location information which is not required.)

```

4620 \write\glswrite{(markup-crossref-list
4621 :class \string"see\string"^^J\space\space\space
4622 :open \string"\string\glsseeformat\string"
4623 :close \string"{\string")}%

```

List the order to sort the classes.

```

4624 \write\glswrite{^^J; define the order of the location classes}%
4625 \write\glswrite{(define-location-class-order
4626 (\@xdylocationclassorder))}%

```

Specify what to write to the start and end of the glossary file.

```

4627 \write\glswrite{^^J; define the glossary markup^^J}%

4628 \write\glswrite{(markup-index^^J\space\space\space
4629 :open \string"\string
4630 \glossarysection[\string\glossarytoctitle]{\string
4631 \glossarytitle}\string\glossarypreamble}%

```

Add all the xindy-only macro definitions (needed to prevent errors in the event that the user changes from xindy to makeindex)

```

4632 \@for\@this@ctr:=\@xdycounters\do{%
4633   {%
4634     \@for\@this@attr:=\@xdyattributelist\do{%
4635       \protected@write\glswrite{}{\string\providecommand*%
4636       \expandafter\string
4637       \csname glsX\@this@ctr X\@this@attr\endcsname[2]%
4638       {%
4639         \string\setentrycounter
4640         [\expandafter\@gobble\string\#1]{\@this@ctr}%
4641         \expandafter\string
4642         \csname\@this@attr\endcsname
4643         {\expandafter\@gobble\string\#2}%
4644       }%
4645     }%
4646   }%
4647 }%
4648 }%

```

Add the end part of the open tag and the rest of the markup-index information:

```

4649 \write\glswrite{%
4650 \string\begin
4651 {theglossary}\string\glossaryheader\glstildechar n\string" ^^J\space
4652 \space\space:close \string"\glspercentchar\glstildechar n\string

```

```

4653         \end{theglossary}\string\glossarypostamble
4654         \glstildechar n\string" ^^J\space\space\space
4655         :tree)}}%

```

Specify what to put between letter groups

```

4656     \write\glswrite{(markup-letter-group-list
4657         :sep \string"\string\glsgroupskip\glstildechar n\string")}%

```

Specify what to put between entries

```

4658     \write\glswrite{(markup-indexentry
4659         :open \string"\string\relax \string\glresetentrylist
4660         \glstildechar n\string")}%

```

Specify how to format entries

```

4661     \write\glswrite{(markup-locclass-list :open
4662         \string"\glsoopenbrace\string\glossaryentrynumbers
4663         \glsoopenbrace\string\relax\space \string"^^J\space\space\space
4664         :sep \string", \string"
4665         :close \string"\glsclosebrace\glsclosebrace\string")}%

```

Specify how to separate location numbers

```

4666     \write\glswrite{(markup-locref-list
4667         :sep \string"\string\delimN\space\string")}%

```

Specify how to indicate location ranges

```

4668     \write\glswrite{(markup-range
4669         :sep \string"\string\delimR\space\string")}%

```

Specify 2-page and 3-page suffixes, if defined. First, the values must be sanitized to write them explicitly.

```

4670     \@onelevel@sanitize\gls@suffixF
4671     \@onelevel@sanitize\gls@suffixFF
4672     \ifx\gls@suffixF\@empty
4673     \else
4674         \write\glswrite{(markup-range
4675             :close "\gls@suffixF" :length 1 :ignore-end)}}%
4676     \fi
4677     \ifx\gls@suffixFF\@empty
4678     \else
4679         \write\glswrite{(markup-range
4680             :close "\gls@suffixFF" :length 2 :ignore-end)}}%
4681     \fi

```

Specify how to format locations.

```

4682     \write\glswrite{^^J; define format to use for locations^^J}%
4683     \write\glswrite{@xdylocref}%

```

Specify how to separate letter groups.

```

4684     \write\glswrite{^^J; define letter group list format^^J}%
4685     \write\glswrite{(markup-letter-group-list
4686         :sep \string"\string\glsgroupskip\glstildechar n\string")}%

```

Define letter group headings.

```
4687 \write\glswrite{^^J; letter group headings^^J}%
4688 \write\glswrite{(markup-letter-group
4689   :open-head \string\string\glsgroupheading
4690   \glsoopenbrace\string"^^J\space\space\space
4691   :close-head \string\glsclosebrace\string")}%
```

Define additional letter groups.

```
4692 \write\glswrite{^^J; additional letter groups^^J}%
4693 \write\glswrite{\@xdylettergroups}%
```

Define additional sort rules

```
4694 \write\glswrite{^^J; additional sort rules^^J}
4695 \write\glswrite{\@xdysortrules}%
```

Hook for any additional information:

```
4696 \@gls@writeisthook
```

Close the style file

```
4697 \closeout\glswrite
```

Suppress any further calls.

```
4698 \let\writeist\relax
4699 }
4700 \else
```

Code to use if makeindex is required.

```
4701 \edef\@gls@actualchar{\string?}
4702 \edef\@gls@encapchar{\string|}
4703 \edef\@gls@levelchar{\string!}
4704 \edef\@gls@quotechar{\string"}%
4705 \let\GlsSetQuote\gls@nosetquote
4706 \def\writeist{\relax
4707   \ifundef{\glswrite}{\newwrite\glswrite}{\relax
4708     \openout\glswrite=\istfilename
4709     \write\glswrite{\glspersentchar\space makeindex style file
4710       created by the glossaries package}
4711     \write\glswrite{\glspersentchar\space for document
4712       '\jobname' on \the\year-\the\month-\the\day}
4713     \write\glswrite{actual '@gls@actualchar'}
4714     \write\glswrite{encap '@gls@encapchar'}
4715     \write\glswrite{level '@gls@levelchar'}
4716     \write\glswrite{quote '@gls@quotechar'}
4717     \write\glswrite{keyword \string\string\glossaryentry\string"}
4718     \write\glswrite{preamble \string\string\glossarysection[\string
4719       \glossarytoctitle]{\string\glossarytitle}\string
4720       \glossarypreamble\string\n\string\begin{theglossary}\string
4721       \glossaryheader\string\n\string"}
4722     \write\glswrite{postamble \string\string%\string\n\string
4723       \end{theglossary}\string\glossarypostamble\string\n
4724       \string"}
4725     \write\glswrite{group_skip \string\string\glsgroupskip\string\n
```

```

4726     \string"}
4727     \write\glswrite{item_0 \string"\string%\string\n\string"}
4728     \write\glswrite{item_1 \string"\string%\string\n\string"}
4729     \write\glswrite{item_2 \string"\string%\string\n\string"}
4730     \write\glswrite{item_01 \string"\string%\string\n\string"}
4731     \write\glswrite{item_x1
4732         \string"\string\relax \string\glresetentrylist\string\n
4733         \string"}
4734     \write\glswrite{item_12 \string"\string%\string\n\string"}
4735     \write\glswrite{item_x2
4736         \string"\string\relax \string\glresetentrylist\string\n
4737         \string"}

4738     \write\glswrite{delim_0 \string"\string\{\string
4739         \glossaryentrynumbers\string\{\string\relax \string"}
4740     \write\glswrite{delim_1 \string"\string\{\string
4741         \glossaryentrynumbers\string\{\string\relax \string"}
4742     \write\glswrite{delim_2 \string"\string\{\string
4743         \glossaryentrynumbers\string\{\string\relax \string"}
4744     \write\glswrite{delim_t \string"\string\}\string\}\string"}
4745     \write\glswrite{delim_n \string"\string\delimN \string"}
4746     \write\glswrite{delim_r \string"\string\delimR \string"}
4747     \write\glswrite{headings_flag 1}
4748     \write\glswrite{heading_prefix
4749         \string"\string\glsgroupheading\string\{\string"}
4750     \write\glswrite{heading_suffix
4751         \string"\string\}\string\relax
4752         \string\glresetentrylist \string"}
4753     \write\glswrite{symhead_positive \string"glssymbols\string"}
4754     \write\glswrite{numhead_positive \string"glsnnumbers\string"}
4755     \write\glswrite{page_compositor \string"glscpositor\string"}
4756     \@gls@escbsdq\gls@suffixF
4757     \@gls@escbsdq\gls@suffixFF
4758     \ifx\gls@suffixF\@empty
4759     \else
4760         \write\glswrite{suffix_2p \string"\gls@suffixF\string"}
4761     \fi
4762     \ifx\gls@suffixFF\@empty
4763     \else
4764         \write\glswrite{suffix_3p \string"\gls@suffixFF\string"}
4765     \fi

```

Hook for any additional information:

```

4766     \@gls@writeisthook

```

Close the file and disable \writeist.

```

4767     \closeout\glswrite
4768     \let\writeist\relax
4769 }
4770 \fi

```

SetWriteIstHook Allow user to append information to the style file.

```
4771 \newcommand*\GlsSetWriteIstHook}[1]{\renewcommand*\@gls@writeisthook}{#1}}
4772 \@onlypremakeg\GlsSetWriteIstHook
```

ls@writeisthook

```
4773 \newcommand*\@gls@writeisthook}{}
```

\GlsSetQuote Allow user to set the makeindex quote character. This is primarily for ngerman users who want to use makeindex's -g option.

```
4774 \ifglxsindy
4775 \newcommand*\GlsSetQuote}[1]{\glsnomakeindexwarning\GlsSetQuote}
4776 \newcommand*\gls@nosetquote}[1]{\glsnomakeindexwarning\GlsSetQuote}
4777 \else
4778 \newcommand*\GlsSetQuote}[1]{\edef\@gls@quotechar{\string#1}}%
```

If German is in use, set the extra makeindex option so makeglossaries can pick it up.

```
4779 \@ifpackageloaded{tracklang}%
4780 {%
4781 \IfTrackedLanguage{german}%
4782 {%
4783 \def\@gls@extramakeindexopts{-g}%
4784 }%
4785 }%
4786 }%
4787 {}%
```

Need to redefine \@gls@checkquote

```
4788 \edef\@gls@docheckquotedef{%
4789 \noexpand\def\noexpand\@gls@checkquote####1#1####2#1####3\noexpand\null{%
4790 \noexpand\@gls@tmpb=\noexpand\expandafter\noexpand\@gls@checkedmkidx}%
4791 \noexpand\toks@={####1}%
4792 \noexpand\ifx\noexpand\null####2\noexpand\null
4793 \noexpand\ifx\noexpand\null####3\noexpand\null
4794 \noexpand\edef\noexpand\@gls@checkedmkidx{%
4795 \noexpand\the\noexpand\@gls@tmpb\noexpand\the\noexpand\toks@}%
4796 \noexpand\def\noexpand\@gls@checkquote{\noexpand\relax}%
4797 \noexpand\else
4798 \noexpand\edef\noexpand\@gls@checkedmkidx{%
4799 \noexpand\the\noexpand\@gls@tmpb\noexpand\the\noexpand\toks@
4800 \noexpand\@gls@quotechar\noexpand\@gls@quotechar
4801 \noexpand\@gls@quotechar\noexpand\@gls@quotechar}%
4802 \noexpand\def\noexpand\@gls@checkquote{%
4803 \noexpand\@gls@checkquote####3\noexpand\null}%
4804 \noexpand\fi
4805 \noexpand\else
4806 \noexpand\edef\noexpand\@gls@checkedmkidx{%
4807 \noexpand\the\noexpand\@gls@tmpb\noexpand\the\noexpand\toks@
4808 \noexpand\@gls@quotechar\noexpand\@gls@quotechar}%
4809 \noexpand\ifx\noexpand\null####3\noexpand\null
4810 \noexpand\def\noexpand\@gls@checkquote{%
```

```

4811         \noexpand\@gls@checkquote####2#1#1\noexpand\null}%
4812     \noexpand\else
4813         \noexpand\def\noexpand\@gls@checkquote{%
4814             \noexpand\@gls@checkquote####2#1###3\noexpand\null}%
4815     \noexpand\fi
4816 \noexpand\fi
4817 \noexpand\@gls@checkquote
4818 }%
4819 }%
4820 \@gls@docheckquotedef
4821 \edef\@gls@docheckquotedef{%
4822     \noexpand\renewcommand{\noexpand\@gls@checkmkidxchars}[1]{%
4823         \noexpand\def\noexpand\@gls@checkedmkidx{%
4824             \noexpand\expandafter\noexpand\@gls@checkquote####1\noexpand\@nil
4825             #1#1\noexpand\null
4826             \noexpand\expandafter\noexpand\@gls@updatechecked
4827             \noexpand\@gls@checkedmkidx{####1}%
4828             \noexpand\def\noexpand\@gls@checkedmkidx{%
4829                 \noexpand\expandafter\noexpand\@gls@checkescquote####1\noexpand\@nil
4830                 \expandonce{\csname#1\endcsname}\expandonce{\csname#1\endcsname}%
4831                 \noexpand\null
4832                 \noexpand\expandafter\noexpand\@gls@updatechecked
4833                 \noexpand\@gls@checkedmkidx{####1}%
4834                 \noexpand\def\noexpand\@gls@checkedmkidx{%
4835                     \noexpand\expandafter\noexpand\@gls@checkescactual####1\noexpand\@nil
4836                     \noexpand\?\noexpand\?\noexpand\null
4837                     \noexpand\expandafter\noexpand\@gls@updatechecked
4838                     \noexpand\@gls@checkedmkidx{####1}%
4839                     \noexpand\def\noexpand\@gls@checkedmkidx{%
4840                         \noexpand\expandafter\noexpand\@gls@checkactual####1\noexpand\@nil
4841                         \noexpand?\noexpand?\noexpand\null
4842                         \noexpand\expandafter\noexpand\@gls@updatechecked
4843                         \noexpand\@gls@checkedmkidx{####1}%
4844                         \noexpand\def\noexpand\@gls@checkedmkidx{%
4845                             \noexpand\expandafter\noexpand\@gls@checkbar####1\noexpand\@nil
4846                             \noexpand|\noexpand|\noexpand\null
4847                             \noexpand\expandafter\noexpand\@gls@updatechecked
4848                             \noexpand\@gls@checkedmkidx{####1}%
4849                             \noexpand\def\noexpand\@gls@checkedmkidx{%
4850                                 \noexpand\expandafter\noexpand\@gls@checkescbar####1\noexpand\@nil
4851                                 \noexpand\\|\noexpand\\|\noexpand\null
4852                                 \noexpand\expandafter\noexpand\@gls@updatechecked
4853                                 \noexpand\@gls@checkedmkidx{####1}%
4854                                 \noexpand\def\noexpand\@gls@checkedmkidx{%
4855                                     \noexpand\expandafter\noexpand\@gls@checklevel####1\noexpand\@nil
4856                                     \noexpand!\noexpand!\noexpand\null
4857                                     \noexpand\expandafter\noexpand\@gls@updatechecked
4858                                     \noexpand\@gls@checkedmkidx{####1}%
4859                                 }%

```

```

4860 }%
4861 \@gls@docheckquotedef
4862 \edef\@gls@docheckquotedef{%
4863   \noexpand\def\noexpand\@gls@checkescquote####1%
4864     \expandonce{\csname#1\endcsname}####2\expandonce{\csname#1\endcsname}%
4865     ####3\noexpand\null{%
4866       \noexpand\@gls@tmpb=\noexpand\expandafter{\noexpand\@gls@checkedmkidx}%
4867       \noexpand\toks@={####1}%
4868       \noexpand\ifx\noexpand\null####2\noexpand\null
4869       \noexpand\ifx\noexpand\null####3\noexpand\null
4870       \noexpand\edef\noexpand\@gls@checkedmkidx{%
4871         \noexpand\the\noexpand\@gls@tmpb\noexpand\the\noexpand\toks@}%
4872       \noexpand\def\noexpand\@gls@checkescquote{\noexpand\relax}%
4873       \noexpand\else
4874       \noexpand\edef\noexpand\@gls@checkedmkidx{%
4875         \noexpand\the\noexpand\@gls@tmpb\noexpand\the\noexpand\toks@
4876         \noexpand\@gls@quotechar\noexpand\string\expandonce{%
4877           \csname#1\endcsname}\noexpand\@gls@quotechar
4878         \noexpand\@gls@quotechar\noexpand\string\expandonce{%
4879           \csname#1\endcsname}\noexpand\@gls@quotechar}%
4880       \noexpand\def\noexpand\@gls@checkescquote{%
4881         \noexpand\@gls@checkescquote####3\noexpand\null}%
4882       \noexpand\fi
4883       \noexpand\else
4884       \noexpand\edef\noexpand\@gls@checkedmkidx{%
4885         \noexpand\the\noexpand\@gls@tmpb\noexpand\the\noexpand\toks@
4886         \noexpand\@gls@quotechar\noexpand\string
4887         \expandonce{\csname#1\endcsname}\noexpand\@gls@quotechar}%
4888       \noexpand\ifx\noexpand\null####3\noexpand\null
4889       \noexpand\def\noexpand\@gls@checkescquote{%
4890         \noexpand\@gls@checkescquote####2\expandonce{\csname#1\endcsname}%
4891         \expandonce{\csname#1\endcsname}\noexpand\null}%
4892       \noexpand\else
4893       \noexpand\def\noexpand\@gls@checkescquote{%
4894         \noexpand\@gls@checkescquote####2\expandonce{\csname#1\endcsname}%
4895         ####3\noexpand\null}%
4896       \noexpand\fi
4897       \noexpand\fi
4898       \noexpand\@gls@checkescquote
4899     }%
4900 }%
4901 \@gls@docheckquotedef
4902 }
4903 \newcommand*{\gls@nosetquote}[1]{\PackageError{glossaries}%
4904   {\string\GlsSetQuote\space not permitted here}%
4905   {Move \string\GlsSetQuote\space earlier in the preamble, as
4906     soon as possible after glossaries.sty has been loaded}}
4907 \fi

```

ramakeindexopts

```
4908 \newcommand*{\@gls@extramakeindexopts}[1]{}
```

The command `\noist` will suppress the creation of the `.ist` file. Obviously you need to use this command before `\writeist` to have any effect.

`\noist`

```
4909 \newcommand{\noist}{%
```

Update attributes list

```
4910 \@gls@addpredefinedattributes
```

```
4911 \let\writeist\relax
```

```
4912 }
```

`\@makeglossary` is an internal command that takes an argument indicating the glossary type. This command will create the glossary file required by `makeindex` for the given glossary type, using the extension supplied by the `<out-ext>` parameter used in `\newglossary` (and it will also activate the `\glossary` command, and create the customized `.ist` `makeindex` style file).

Note that you can't use `\@makeglossary` for only some of the defined glossaries. You either need to have a `\makeglossary` for all glossaries or none (otherwise you will end up with a situation where `TEX` is trying to write to a non-existent file). The relevant glossary must be defined prior to using `\@makeglossary`.

`\@makeglossary`

```
4913 \newcommand*{\@makeglossary}[1]{%
```

```
4914 \ifglossaryexists{#1}%
```

```
4915 {%
```

Only create a new write if `savewrites=false` otherwise create a token to collect the information.

```
4916 \ifglssavewrites
```

```
4917 \expandafter\newtoks\csname glo@#1@filetok\endcsname
```

```
4918 \else
```

```
4919 \expandafter\newwrite\csname glo@#1@file\endcsname
```

```
4920 \expandafter\@glsopenfile\csname glo@#1@file\endcsname{#1}%
```

```
4921 \fi
```

```
4922 \@gls@renewglossary
```

```
4923 \writeist
```

```
4924 }%
```

```
4925 {%
```

```
4926 \PackageError{glossaries}%
```

```
4927 {Glossary type ‘#1’ not defined}%
```

```
4928 {New glossaries must be defined before using \string\makeglossary}%
```

```
4929 }%
```

```
4930 }
```

`\@glsopenfile` Open write file associated with the given glossary.

```
4931 \newcommand*{\@glsopenfile}[2]{%
```

```

4932 \immediate\openout#1=\jobname.\csname @glotype@#2@out\endcsname
4933 \PackageInfo{glossaries}{Writing glossary file
4934 \jobname.\csname @glotype@#2@out\endcsname}%
4935 }

```

\@closegls

```

4936 \newcommand*{\@closegls}[1]{%
4937 \closeout\csname glo@#1@file\endcsname
4938 }
4939 % \end{macrocode}
4940 %\end{macro}
4941 %
4942 %\begin{macro}{\@gls@automake}
4943 %\changes{4.08}{2014-07-30}{new}
4944 % \begin{macrocode}
4945 \ifglsxindy
4946 \newcommand*{\@gls@automake}[1]{%
4947 \ifglossaryexists{#1}
4948 {%
4949 \@closegls{#1}%
4950 \ifdefstring{\glsorder}{letter}%
4951 {\def\@gls@order{-M ord/letorder }}%
4952 {\let\@gls@order\@empty}%
4953 \ifcsundef{@xdy@#1@language}%
4954 {\let\@gls@langmod\@xdy@main@language}%
4955 {\letcs\@gls@langmod{@xdy@#1@language}}%
4956 \edef\@gls@dothiswrite{\noexpand\write18{xindy
4957 -I xindy
4958 \@gls@order
4959 -L \@gls@langmod\space
4960 -M \@gls@istfilebase\space
4961 -C \@gls@codepage\space
4962 -t \jobname.\csuse{@glotype@#1@log}
4963 -o \jobname.\csuse{@glotype@#1@in}
4964 \jobname.\csuse{@glotype@#1@out}}}%
4965 }%
4966 \@gls@dothiswrite
4967 }%
4968 {%
4969 \GlossariesWarning{Can't make glossary '#1', it doesn't exist}%
4970 }%
4971 }
4972 \else
4973 \newcommand*{\@gls@automake}[1]{%
4974 \ifglossaryexists{#1}
4975 {%
4976 \@closegls{#1}%
4977 \ifdefstring{\glsorder}{letter}%
4978 {\def\@gls@order{-l }}%

```

```

4979     {\let\@gls@order\@empty}%
4980     \edef\@gls@dothiswrite{\noexpand\write18{makeindex \@gls@order
4981     -s \istfilename\space
4982     -t \jobname.\csuse{\@glotype@#1@log}
4983     -o \jobname.\csuse{\@glotype@#1@in}
4984     \jobname.\csuse{\@glotype@#1@out}}}%
4985     }%
4986     \@gls@dothiswrite
4987 }%
4988 {%
4989     \GlossariesWarning{Can't make glossary '#1', it doesn't exist}%
4990 }%
4991 }
4992 \fi

```

`\makeglossaries` Issue warning that `\makeglossaries` hasn't been used.

```

4993 \newcommand*{\@warn@nomakeglossaries}{}

```

Only use this if warning if `\printglossary` has been used without `\makeglossaries`

```

4994 \newcommand*{\@warn@nomakeglossaries}{\@warn@nomakeglossaries}

```

`\makeglossaries` will use `\@makeglossary` for each glossary type that has been defined. New glossaries need to be defined before using `\makeglossary`, so have `\makeglossaries` redefine `\newglossary` to prevent it being used afterwards.

`\makeglossaries`

```

4995 \newcommand*{\makeglossaries}{%

```

Define the write used for style file also used for all other output files if `savewrites=true`.

```

4996 \ifundef{\glswrite}{\newwrite\glswrite}{}%

```

If the user removes the glossary package from their document, ensure the next run doesn't throw a load of undefined control sequence errors when the aux file is parsed.

```

4997 \protected@write\@auxout{}{\string\providecommand\string\@glsorder[1]{} }
4998 \protected@write\@auxout{}{\string\providecommand\string\@istfilename[1]{} }

```

If `\@gls@extramakeindexopts` has been defined, write it:

```

4999 \ifundef\@gls@extramakeindexopts
5000 {}%
5001 {%
5002     \protected@write\@auxout{}{\string\providecommand
5003     \string\@gls@extramakeindexopts[1]{} }
5004     \protected@write\@auxout{}{\string\@gls@extramakeindexopts
5005     {\@gls@extramakeindexopts}}%
5006 }%

```

Write the name of the style file to the aux file (needed by `makeglossaries`)

```

5007 \protected@write\@auxout{}{\string\@istfilename{\istfilename}}%
5008 \protected@write\@auxout{}{\string\@glsorder{\glsorder}}

```

Iterate through each glossary type and activate it.

```
5009 \for\@glo@type:=\@glo@types\do{%
5010 \ifthenelse{\equal{\@glo@type}{}}{}{}{%
5011 \@makeglossary{\@glo@type}}%
5012 }%
```

New glossaries must be created before `\makeglossaries` so disable `\newglossary`.

```
5013 \renewcommand*\newglossary[4][]{%
5014 \PackageError{glossaries}{New glossaries
5015 must be created before \string\makeglossaries}{You need
5016 to move \string\makeglossaries\space after all your
5017 \string\newglossary\space commands}}%
```

Any subsequence instances of this command should have no effect

```
5018 \let\@makeglossary\relax
5019 \let\makeglossary\relax
5020 \let\makeglossaries\relax
```

Disable all commands that have no effect after `\makeglossaries`

```
5021 \@disable@onlypremakeg
```

Allow see key:

```
5022 \let\gls@checkseeallowed\relax
```

Suppress warning about no `\makeglossaries`

```
5023 \let\warn@nomakeglossaries\relax
```

Activate warning about missing `\printglossary`

```
5024 \def\warn@noprintglossary{%
5025 \ifdefstring{\@glo@types}{,}%
5026 {%
5027 \GlossariesWarningNoLine{No glossaries have been defined}%
5028 }%
5029 {%
5030 \GlossariesWarningNoLine{No \string\printglossary\space
5031 or \string\printglossaries\space
5032 found. ^^J(Remove \string\makeglossaries\space if you
5033 don't want any glossaries.) ^^JThis document will not
5034 have a glossary}%
5035 }%
5036 }%
```

Declare list parser for `\glsdisplaynumberlist`

```
5037 \ifglssavenumberlist
5038 \edef\@gls@doddeflistparser{\noexpand\DeclareListParser
5039 {\noexpand\glsnumlistparser}{\delimN}}%
5040 \@gls@doddeflistparser
5041 \fi
```

Prevent user from also using `\makenoidxglossaries`

```
5042 \let\makenoidxglossaries\@no@makeglossaries
```

Prohibit sort key in printgloss family:

```
5043 \renewcommand*{\@printgloss@setsort}{%
5044 \let\@glo@assign@sortkey\@glo@no@assign@sortkey
5045 }%
```

Check the automake setting:

```
5046 \ifglsautomake
5047 \renewcommand*{\@gls@doautomake}{%
5048 \@for\@gls@type:=\@glo@types\do{%
5049 \ifdefempty{\@gls@type}{}%
5050 {\@gls@automake{\@gls@type}}%
5051 }%
5052 }%
5053 \fi
5054 }
```

Must occur in the preamble:

```
5055 \@onlypreamble{\makeglossaries}
```

`\glswrite` The definition of `\glswrite` has now been moved to `\makeglossaries` so that it's only defined if needed.

The `\makeglossary` command is redefined to be identical to `\makeglossaries`. (This is done to reinforce the message that you must either use `\@makeglossary` for all the glossaries or for none of them.)

`\makeglossary`

```
5056 \let\makeglossary\makeglossaries
```

If `\makeglossaries` hasn't been used, issue a warning. Also issue a warning if neither `\printglossaries` nor `\printglossary` have been used.

```
5057 \AtEndDocument{%
5058 \warn@nomakeglossaries
5059 \warn@noprintglossary
5060 }
```

`noidxglossaries` Analogous to `\makeglossaries` this activates the commands needed for `\printnoidxglossary`

```
5061 \newcommand*{\makenoidxglossaries}{%
```

Redefine empty glossary warning:

```
5062 \renewcommand{\@gls@noref@warn}[1]{%
5063 \GlossariesWarning{Empty glossary for
5064 \string\printnoidxglossary[type={##1}].
5065 Rerun may be required (or you may have forgotten to use
5066 commands like \string\gls)}}%
5067 }%
```

Don't escape makeindex/xindy characters

```
5068 \let\@gls@checkmkidxchars\@gobble
```

Write glossary information to aux instead of glossary files

```
5069 \let\do@do@wrglossary\gls@noidxglossary
```

Switch on group headings that use the character code:

```
5070 \let\gls@getgrouptitle\gls@noidx@getgrouptitle
```

Allow see key:

```
5071 \let\gls@checkseeallowed\relax
```

Redefine cross-referencing macro:

```
5072 \renewcommand{\do@seeglossary}[2]{%
5073   \edef\gls@label{\glsdetoklabel{##1}}%
5074   \protected@write\@auxout{}\{%
5075     \string\gls@reference
5076     {\csname glo@\gls@label @type\endcsname}%
5077     {\gls@label}%
5078     {%
5079       \string\glsseeformat##2}%
5080     }%
5081   }%
5082 }%
```

If user removes the glossaries package from their document, ensure the next run doesn't throw a load of undefined control sequence errors when the aux file is parsed.

```
5083 \AtBeginDocument
5084 {%
5085   \write\@auxout{\string\providecommand\string\gls@reference[3]{}}%
5086 }%
```

Change warning about no glossaries

```
5087 \def\warn@noprintglossary{%
5088   \GlossariesWarningNoLine{No \string\printnoidxglossary\space
5089     or \string\printnoidxglossaries ^^J
5090     found. (Remove \string\makenoidxglossaries\space if you
5091     don't want any glossaries.)^^JThis document will not have a glossary}%
5092 }%
```

Suppress warning about no \makeglossaries

```
5093 \let\warn@nomakeglossaries\relax
```

Prevent user from also using \makeglossaries

```
5094 \let\makeglossaries\@no@makeglossaries
```

Allow sort key in printgloss family:

```
5095 \renewcommand*{\@printgloss@setsort}{%
5096   \let\glo@assign@sortkey\@glo@assign@sortkey
```

Initialise default sort order:

```
5097   \def\glo@sorttype{\glo@default@sorttype}%
5098 }%
```

All entries must be defined in the preamble:

```

5099 \renewcommand*{\new@glossaryentry}[2]{%
5100   \PackageError{glossaries}{Glossary entries must be
5101     defined in the preamble^^Jwhen you use
5102     \string\makenoidxglossaries}%
5103   {Either move your definitions to the preamble or use
5104     \string\makeglossaries}%
5105 }%

Redefine \glsentrynumberlist
5106 \renewcommand*{\glsentrynumberlist}[1]{%
5107   \letcs{\@gls@loclist}{glo@\glsdetoklabel{##1}@loclist}%
5108   \ifdef\@gls@loclist
5109   {%
5110     \glsnoidxloclist{\@gls@loclist}%
5111   }%
5112   {%
5113     ??\glsdoifexists{##1}%
5114     {%
5115       \GlossariesWarning{Missing location list for ‘##1’. Either
5116         a rerun is required or you haven’t referenced the entry}%
5117     }%
5118   }%
5119 }%

Redefine \glsdisplaynumberlist
5120 \renewcommand*{\glsdisplaynumberlist}[1]{%
5121   \letcs{\@gls@loclist}{glo@\glsdetoklabel{##1}@loclist}%
5122   \ifdef\@gls@loclist
5123   {%
5124     \def\@gls@noidxloclist@sep{%
5125       \def\@gls@noidxloclist@sep{%
5126         \def\@gls@noidxloclist@sep{%
5127           \glsnumlistsep
5128         }%
5129       \def\@gls@noidxloclist@finalsep{\glsnumlistlastsep}%
5130     }%
5131   }%
5132   \def\@gls@noidxloclist@finalsep{}%
5133   \def\@gls@noidxloclist@prev{}%
5134   \forlistloop{\glsnoidxdisplayloclisthandler}{\@gls@loclist}%
5135   \@gls@noidxloclist@finalsep
5136   \@gls@noidxloclist@prev
5137 }%
5138 {%
5139   ??\glsdoifexists{##1}%
5140   {%
5141     \GlossariesWarning{Missing location list for ‘##1’. Either
5142       a rerun is required or you haven’t referenced the entry}%
5143   }%

```

```

5144 }%
5145 }%

```

Provide a generic way of iterating through the number list:

```

5146 \renewcommand*{\glsnumberlistloop}[3]{%
5147   \letcs{\@gls@loclist}{glo@\glsdetoklabel{##1}@loclist}%
5148   \let\@gls@org@glsnoidxdisplayloc\glsnoidxdisplayloc
5149   \let\@gls@org@glssееformat\glssееformat
5150   \let\glsnoidxdisplayloc##2\relax
5151   \let\glssееformat##3\relax
5152   \ifdef\@gls@loclist
5153   {%
5154     \forlistloop{\glsnoidxnumberlistloophandler}{\@gls@loclist}%
5155   }%
5156   {%
5157     ??\glsdoifexists{##1}%
5158     {%
5159       \GlossariesWarning{Missing location list for ‘##1’. Either
5160         a rerun is required or you haven’t referenced the entry}%
5161     }%
5162   }%
5163   \let\glsnoidxdisplayloc\@gls@org@glsnoidxdisplayloc
5164   \let\glssееformat\@gls@org@glssееformat
5165 }%

```

Modify sanitize sort function

```

5166 \let\@gls@sanitizesort\@gls@noidx@sanitizesort
5167 \let\@gls@nosanitizesort\@gls@noidx@nosanitizesort
5168 \@gls@noidx@setsanitizesort
5169 }

```

Preamble-only command:

```

5170 \@onlypreamble{\makenoidxglossaries}

```

`\glsnumberlistloop` `\glsnumberlistloop{<label>}{<handler>}`

```

5171 \newcommand*{\glsnumberlistloop}[2]{%
5172   \PackageError{glossaries}{\string\glsnumberlistloop\space
5173     only works with \string\makenoidxglossaries}{}%
5174 }

```

`\listloophandler` Handler macro for `\glsnumberlistloop`. (The argument should be in the form `\glsnoidxdisplayloc {<prefix>}{<counter>}{<format>}{<n>}`)

```

5175 \newcommand*{\glsnoidxnumberlistloophandler}[1]{%
5176   #1%
5177 }

```

`@makeglossaries` Can’t use both `\makeglossaries` and `\makenoidxglossaries`

```

5178 \newcommand*{\@no@makeglossaries}{%
5179   \PackageError{glossaries}{You can't use both
5180   \string\makeglossaries\space and \string\makenoidxglossaries}%
5181   {Either use one or other (or none) of those commands but not both
5182   together.}%
5183 }

```

`@gls@noref@warn` Warning when no instances of `\@gls@reference` found.

```

5184 \newcommand{\@gls@noref@warn}[1]{%
5185   \GlossariesWarning{\string\makenoidxglossaries\space
5186   is required to make \string\printnoidxglossary[type={#1}] work}%
5187 }

```

`s@noidxglossary` Write the glossary information to the aux file:

```

5188 \newcommand*{\@gls@noidxglossary}{%
5189   \protected@write\@auxout{}{%
5190     \string\@gls@reference
5191     {\csname glo@\@gls@label @type\endcsname}%
5192     {\@gls@label}%
5193     {\string\glsnoidxdisplayloc
5194     {\@glo@counterprefix}%
5195     {\@gls@counter}%
5196     {\@glsnumberformat}%
5197     {\@glslocref}%
5198     }%
5199   }%
5200 }

```

1.14 Writing information to associated files

`\istfile` Deprecated.

```

5201 \def\istfile{\glswrite}

```

At the end of the document, the files should be created if `savewrites=true`.

```

5202 \AtEndDocument{%
5203   \glswritefiles
5204 }

```

`\@glswritefiles` Only write the files if `savewrites=true`

```

5205 \newcommand*{\@glswritefiles}{%

```

Iterate through all the glossaries

```

5206   \forallglossaries{\@glo@type}{%

```

Check for empty glossaries (patch provided by Patrick Häcker)

```

5207     \ifcsundef{glo@\@glo@type @filetok}%
5208     {%
5209       \def\gls@tmp{}%

```

```

5210 }%
5211 {%
5212     \edef\gls@tmp{\expandafter\the
5213         \csname glo@\@glo@type @filetok\endcsname}%
5214 }%
5215 \ifx\gls@tmp\@empty
5216     \ifx\@glo@type\glsdefaulttype
5217         \GlossariesWarningNoLine{Glossary '@@glo@type' has no
5218             entries.^^JRemember to use package option 'nomain' if
5219 you
5220             don't want to^^Juse the main glossary}%
5221     \else
5222         \GlossariesWarningNoLine{Glossary '@@glo@type' has no
5223             entries}%
5224     \fi
5225 \else
5226     \@glsopenfile{\glswrite}{\@glo@type}%
5227     \immediate\write\glswrite{%
5228         \expandafter\the
5229         \csname glo@\@glo@type @filetok\endcsname}%
5230     \immediate\closeout\glswrite
5231 \fi
5232 }%
5233 }

```

As from v4.10, the `\glossary` command is used by the `glossaries` package. Since the user isn't expected to use this command (as `glossaries` takes care of the particular format required for `makeindex/xindy`) there's no need for a user level command. Using a custom internal command prevents any conflict with other packages (and with the `\mark` mechanism).

In v4.10, the redefinition of `\glossary` was removed since it wasn't intended as a user level command, however it seems there are packages that have hacked the internal macros used by `glossaries` and no longer work with this redefinition removed, so it's been restored in v4.11 but is not used at all by `glossaries`. (This may be removed or moved to a compatibility mode in future.)

`\glossary`

```

5234 \if@gls@docloaded
5235 \else
5236     \renewcommand*{\glossary}[1][main]{\gls@glossary{#1}}
5237 \fi

```

The associated number should be stored in `\theglentrycounter` before using `\gls@glossary`.

`\gls@glossary`

```

5238 \newcommand*{\gls@glossary}[1]{%
5239     \@gls@glossary{#1}%
5240 }

```

`\@gls@glossary` (In v4.10, `\@glossary` was redefined to `\@gls@glossary` to avoid conflict with other packages.) Define internal `\@gls@glossary` to ignore its argument. This gets redefined in

`\@makeglossary`. This is defined to just `\index` as memoir changes the definition of `\@index`. (Thanks to Dan Luecking for pointing this out.) The argument #1 is the glossary type.

```
5241 \newcommand*{\@gls@glossary}[2]{%
5242   \if@gls@debug
5243     \PackageInfo{glossaries}{wrglossary(#1)(#2)}%
5244   \fi
5245   \index{#2}}%
5246 }
```

This is a convenience command to set `\@gls@glossary`. It's used by `\@makeglossary` and then redefined to do nothing, as it only needs to be done once.

`s@renewglossary`

```
5247 \newcommand{\@gls@renewglossary}{%
5248   \gdef\@gls@glossary##1{\@bsphack\begin@group\gls@wrglossary{##1}}%
5249   \let\@gls@renewglossary\@empty
5250 }
```

The `\gls@wrglossary` command is defined to have two arguments. The first argument is the glossary type, the second argument is the glossary entry (the format of which is set in `\glslink`).

`\gls@wrglossary`

```
5251 \newcommand*{\gls@wrglossary}[2]{%
5252   \ifglssavewrites
5253     \protected@edef\@gls@tmp{\the\csname glo@#1@filetok\endcsname#2}%
5254     \expandafter\global\expandafter\csname glo@#1@filetok\endcsname
5255       \expandafter{\@gls@tmp^^J}%
5256   \else
5257     \ifcsdef{glo@#1@file}%
5258     {%
5259       \expandafter\protected@write\csname glo@#1@file\endcsname{%
5260         \gls@disablepagerefexpansion}{#2}%
5261     }%
5262     {%
5263       \ifignoredglossary{#1}{}%
5264       {%
5265         \GlossariesWarning{No file defined for glossary ‘#1’}%
5266       }%
5267     }%
5268   \fi
5269   \endgroup\@esphack
5270 }
```

`\@do@wrglossary`

```
5271 \newcommand*{\@do@wrglossary}[1]{%
5272   \glswriteentry{#1}{\@do@wrglossary{#1}}%
5273 }
```

`\glswriteentry` Provide a user level command so the user can customize whether or not a line should be added to the glossary. The arguments are the label and the code that writes to the glossary file.

```
5274 \newcommand*{\glswriteentry}[2]{%
5275   \ifglindexonlyfirst
5276     \ifglused{#1}{#2}%
5277   \else
5278     #2%
5279   \fi
5280 }
```

`protected@pagefmts` List of page formats to be protected against expansion.

```
5281 \newcommand{\gls@protected@pagefmts}{%
5282   \gls@numberpage,\gls@alphpage,\gls@Alphpage,\gls@romanpage,\gls@Romanpage,\gls@arabicpage%
5283 }
```

`pagerefexpansion`

```
5284 \newcommand*{\gls@disablepagerefexpansion}{%
5285   \@for\@gls@this:=\gls@protected@pagefmts\do
5286   {%
5287     \expandafter\let\@gls@this\relax
5288   }%
5289 }
```

`\gls@alphpage`

```
5290 \newcommand*{\gls@alphpage}{\@alph\c@page}
```

`\gls@Alphpage`

```
5291 \newcommand*{\gls@Alphpage}{\@Alph\c@page}
```

`\gls@numberpage`

```
5292 \newcommand*{\gls@numberpage}{\number\c@page}
```

`\gls@arabicpage`

```
5293 \newcommand*{\gls@arabicpage}{\@arabic\c@page}
```

`\gls@romanpage`

```
5294 \newcommand*{\gls@romanpage}{\romannumeral\c@page}
```

`\gls@Romanpage`

```
5295 \newcommand*{\gls@Romanpage}{\@Roman\c@page}
```

`protectedpagefmt`

```
\glsaddprotectedpagefmt{<cs name>}
```

Added a page format to the list of protected page formats. The argument should be the name (without a backslash) of the command that takes a \TeX register as the argument (`\<csname>\c@page` must be valid).

```

5296 \newcommand*{\glsaddprotectedpagefmt}[1]{%
5297   \eappto\gls@protected@pagefmts{\expandonce{\csname gls#1page\endcsname}}%
5298   \csedef{gls#1page}{\expandonce{\csname#1\endcsname}\noexpand\c@page}%
5299   \eappto\@wrglossarynumberhook{%
5300     \noexpand\let\expandonce{\csname org@gls#1\endcsname}%
5301     \expandonce{\csname#1\endcsname}%
5302     \noexpand\def\expandonce{\csname#1\endcsname}{%
5303       \noexpand\@wrglossary@pageformat
5304       \expandonce{\csname gls#1page\endcsname}%
5305       \expandonce{\csname org@gls#1\endcsname}%
5306     }%
5307   }%
5308 }

```

`\gls@numberhook` Hook used by `\@do@wrglossary`

```

5309 \newcommand*\@wrglossarynumberhook{}

```

`\gls@pageformat`

```

5310 \newcommand{\@wrglossary@pageformat}[3]{%
5311   \ifx#3\c@page #1\else #2#3\fi
5312 }

```

`\gls@allowprimitivemods` Conditional to determine whether or not `\@do@wrglossary` should be allowed to temporarily redefine `\the` and `\number`.

```

5313 \newif\ifglswrallowprimitivemods
5314 \glswrallowprimitivemodstrue

```

`\@do@wrglossary` Write the glossary entry in the appropriate format. (Need to set `\@glsnumberformat` and `\@gls@counter` prior to use.) The argument is the entry's label.

```

5315 \newcommand*{\@do@wrglossary}[1]{%
5316   \begingroup

```

First a bit of hackery to prevent premature expansion of `\c@page`. Store original definitions:

```

5317   \let\orgthe\the
5318   \let\orgnumber\number

5319   \let\orgarabic\@arabic
5320   \let\orgromannumeral\romannumeral
5321   \let\orgalph\@alph
5322   \let\orgAlph\@Alph
5323   \let\orgRoman\@Roman

```

Redefine:

```

5324   \ifglswrallowprimitivemods
5325     \def\the##1{%
5326       \ifx##1\c@page \gls@numberpage\else\orgthe##1\fi}%
5327     \def\number##1{%
5328       \ifx##1\c@page \gls@numberpage\else\orgnumber##1\fi}%
5329   \fi

```

```

5330 \def\@arabic##1{%
5331 \ifx##1\c@page \gls@arabicpage\else\orgarabic##1\fi}%
5332 \def\romannumeral##1{%
5333 \ifx##1\c@page \gls@romanpage\else\orgromannumeral##1\fi}%
5334 \def\@Roman##1{%
5335 \ifx##1\c@page \gls@Romanpage\else\orgRoman##1\fi}%
5336 \def\@alph##1{%
5337 \ifx##1\c@page \gls@alphpage\else\orgalph##1\fi}%
5338 \def\@Alph##1{%
5339 \ifx##1\c@page \gls@Alphpage\else\orgAlph##1\fi}%

```

Add hook to allow for other number formats:

```

5340 \@wrglossarynumberhook

```

Prevent expansion:

```

5341 \gls@disablepagerefexpansion

```

Now store location in \@glslocref:

```

5342 \protected@xdef\@glslocref{\theglsentrycounter}%
5343 \endgroup

```

Escape any special characters

```

5344 \@gls@checkmkidxchars\@glslocref

```

Check if the hyper-location is the same as the location and set the hyper prefix.

```

5345 \expandafter\ifx\theglsentrycounter\theglsentrycounter\relax
5346 \def\@glo@counterprefix{}%
5347 \else
5348 \protected@edef\@glsHlocref{\theglsentrycounter}%
5349 \@gls@checkmkidxchars\@glsHlocref
5350 \edef\@do@gls@getcounterprefix{\noexpand\@gls@getcounterprefix
5351 {\@glslocref}{\@glsHlocref}%
5352 }%
5353 \@do@gls@getcounterprefix
5354 \fi

```

De-tok label if required

```

5355 \edef\@gls@label{\glsdetoklabel{#1}}%

```

Write the information to file:

```

5356 \@do@wrglossary
5357 }

```

@do@wrglossary

```

5358 \newcommand*{\@do@wrglossary}{%

```

Determine whether to use xindy or makeindex syntax

```

5359 \ifglsxindy

```

Need to determine if the formatting information starts with a (or) indicating a range.

```

5360 \expandafter\@glo@check@mkidxrangechar\@glsnumberformat\@nil
5361 \def\@glo@range{}%
5362 \expandafter\if\@glo@prefix(\relax

```

```

5363     \def\@glo@range{:open-range}%
5364 \else
5365     \expandafter\if\@glo@prefix)\relax
5366     \def\@glo@range{:close-range}%
5367 \fi
5368 \fi

Write to the glossary file using xindy syntax.

5369 \gls@glossary{\csname glo@\@gls@label @type\endcsname}{%
5370 (indexentry :tkey (\csname glo@\@gls@label @index\endcsname)

5371 :locref \string"\@glo@counterprefix}{\@gls@locref}\string" %
5372 :attr \string"\@gls@counter\@glo@suffix\string"
5373 \@glo@range
5374 )
5375 }%
5376 \else

```

Convert the format information into the format required for makeindex

```

5377 \set@glo@numformat{\@glo@numfmt}{\@gls@counter}{\@gls@numberformat}%
5378 {\@glo@counterprefix}%

```

Write to the glossary file using makeindex syntax.

```

5379 \gls@glossary{\csname glo@\@gls@label @type\endcsname}{%
5380 \string\glossaryentry{\csname glo@\@gls@label @index\endcsname
5381 \@gls@encapchar\@glo@numfmt}{\@gls@locref}}}%
5382 \fi
5383 }

```

etcounterprefix Get the prefix that needs to be prepended to counter in order to get the hyper counter. (For example, with the standard article class and hyperref, \theequation needs to be prefixed with <section num>. to get the equivalent \theHequation.) NB this assumes that the prefix ends with a dot, which is the standard. (Otherwise it makes the xindy location classes more complicated.)

```

5384 \newcommand*\@gls@getcounterprefix[2]{%
5385 \edef\@gls@thisloc{#1}\edef\@gls@thisHloc{#2}%
5386 \ifx\@gls@thisloc\@gls@thisHloc
5387 \def\@glo@counterprefix{}%
5388 \else
5389 \def\@gls@get@counterprefix##1.#1##2\end@getprefix{%
5390 \def\@glo@tmp{##2}%
5391 \ifx\@glo@tmp\@empty
5392 \def\@glo@counterprefix{}%
5393 \else
5394 \def\@glo@counterprefix{##1}%
5395 \fi
5396 }%
5397 \@gls@get@counterprefix#2.#1\end@getprefix

```

Warn if no prefix can be formed.

```

5398 \ifx\@glo@counterprefix\@empty
5399 \GlossariesWarning{Hyper target ‘#2’ can’t be formed by
5400 prefixing^^Jlocation ‘#1’. You need to modify the
5401 definition of \string\theH\@gls@counter^^Jotherwise you
5402 will get the warning: “name{\@gls@counter.#1}’ has been^^J
5403 referenced but does not exist”}%
5404 \fi
5405 \fi
5406 }

```

1.15 Glossary Entry Cross-References

`@do@seeglossary` Write the glossary entry with a cross reference. The first argument is the entry’s label, the second must be in the form `[\langle tag \rangle]{\langle list \rangle}`, where `\langle tag \rangle` is a tag such as “see” and `\langle list \rangle` is a list of labels.

```

5407 \newcommand{\@do@seeglossary}[2]{%
5408 \def\@gls@xref{#2}%
5409 \@onelevel@sanitize\@gls@xref
5410 \@gls@checkmkidxchars\@gls@xref
5411 \ifglxindy
5412 \gls@glossary{\csname glo@#1@type\endcsname}{%
5413 (indexentry
5414 :tkey (\csname glo@#1@index\endcsname)
5415 :xref (\string"\@gls@xref\string")
5416 :attr \string"see\string"
5417 )
5418 }%
5419 \else
5420 \gls@glossary{\csname glo@#1@type\endcsname}{%
5421 \string@glossaryentry{\csname glo@#1@index\endcsname
5422 \@gls@encapchar glsseeformat\@gls@xref}{Z}}%
5423 \fi
5424 }

```

`\@gls@fixbraces` If no optional argument is specified, list needs to be enclosed in a set of braces.

```

5425 \def\@gls@fixbraces#1#2#3\@nil{%
5426 \ifx#2[\relax
5427 \@gls@fixbraces#1#2#3\@end@fixbraces
5428 \else
5429 \def#1{{#2#3}}%
5430 \fi
5431 }

```

`@@gls@fixbraces`

```

5432 \def\@@gls@fixbraces#1[#2]#3\@end@fixbraces{%
5433 \def#1{[#2]{#3}}%
5434 }

```

```

\glssee \glssee{<label>}{<cross-ref list>}
5435 \DeclareRobustCommand*\glssee}[3][\seename]{%
5436 \do@seeglossary{#2}{#1}{#3}}
5437 \newcommand*\@glssee}[3][\seename]{%
5438 \glssee[#1]{#3}{#2}}

\glsseeformat The first argument specifies what tag to use (e.g. “see”), the second argument is a comma-
separated list of labels. The final argument (the location) is ignored.
5439 \DeclareRobustCommand*\glsseeformat}[3][\seename]{%
5440 \emph{#1} \glsseelist{#2}}

\glsseelist \glsseelist{<list>} formats list of entry labels.
5441 \DeclareRobustCommand*\glsseelist}[1]{%
If there is only one item in the list, set the last separator to do nothing.
5442 \let\@gls@dolast\relax
Don’t display separator on the first iteration of the loop
5443 \let\@gls@donext\relax
Iterate through the labels
5444 \@for\@gls@thislabel:=#1\do{%
Check if on last iteration of loop
5445 \ifx\@xfor@nextelement\@nnil
5446 \@gls@dolast
5447 \else
5448 \@gls@donext
5449 \fi
Display the entry for this label. (Expanding label as it’s a temporary control sequence that’s
used elsewhere.)
5450 \expandafter\glsseeitem\expandafter{\@gls@thislabel}%
Update separators
5451 \let\@gls@dolast\glsseelastsep
5452 \let\@gls@donext\glsseesep
5453 }%
5454 }

\glsseelastsep Separator to use between penultimate and ultimate entries in a cross-referencing list.
5455 \newcommand*\glsseelastsep}{\space\andname\space}

\glsseesep Separator to use between entires in a cross-referencing list.
5456 \newcommand*\glsseesep}{, }

\glsseeitem \glsseeitem{<label>} formats individual entry in a cross-referencing list.
5457 \DeclareRobustCommand*\glsseeitem}[1]{\gls hyperlink[\glsseeitemformat{#1}]{#1}}

\glsseeitemformat As from v3.0, default is to use \glsentrytext instead of \glsentryname. (To avoid problems
with the name key being sanitized.)
5458 \newcommand*\glsseeitemformat}[1]{\glsentrytext{#1}}

```

1.16 Displaying the glossary

An individual glossary is displayed in the text using `\printglossary` [*<key-val list>*]. If the type key is omitted, the default glossary is displayed. The optional argument can be used to specify an alternative glossary, and can also be used to set the style, title and entry in the table of contents. Available keys are defined below.

`save@numberlist` Provide command to store number list.

```
5459 \newcommand*{\gls@save@numberlist}[1]{%
5460   \ifglssavenumberlist
5461     \toks@{#1}%
5462     \edef\@do@writeaux@info{%
5463       \noexpand\csgdef{glo@\glscurrententrylabel @numberlist}{\the\toks@}%
5464     }%
5465     \@onelevel@sanitize\@do@writeaux@info
5466     \protected@write\@auxout{}\@do@writeaux@info}%
5467   \fi
5468 }
```

`noprintglossary` Warn the user if they have forgotten `\printglossaries` or `\printglossary`. (Will be suppressed if there is at least one occurrence of `\printglossary`. There is no check to ensure that there is a `\printglossary` for each defined glossary.)

```
5469 \newcommand*{\warn@noprintglossary}{}%
```

`\printglossary` The TOC title needs to be processed in a different manner to the main title in case the translator and hyperref packages are both being used.

```
5470 \ifcsundef{printglossary}{}%
5471 {%
```

If `\printglossary` is already defined, issue a warning and undefine it.

```
5472 \@gls@warnonglossdefined
5473 \undef\printglossary
5474 }
```

`\printglossary` has an optional argument. The default value is to set the glossary type to the main glossary.

```
5475 \newcommand*{\printglossary}[1] [type=\glsdefaulttype] {%
5476   \@printglossary{#1}{\@print@glossary}%
5477 }
```

The `\printglossaries` command will do `\printglossary` for each glossary type that has been defined. It is better to use `\printglossaries` rather than individual `\printglossary` commands to ensure that you don't forget any new glossaries you may have created. It also makes it easier to chop and change the value of the acronym package option. However, if you want to list the glossaries in a different order, or if you want to set the title or table of contents entry, or if you want to use different glossary styles for each glossary, you will need to use `\printglossary` explicitly for each glossary type.

printglossaries

```
5478 \newcommand*{\printglossaries}{%
5479   \forallglossaries{\@glo@type}{\printglossary[type=\@glo@type]}%
5480 }
```

printnoidxglossary Provide an alternative to \printglossary that doesn't require an external indexing application. Entries won't be sorted and the location list will be empty.

```
5481 \newcommand*{\printnoidxglossary}[1][type=\glsdefaulttype]{%
5482   \@printglossary{#1}{\@printnoidxglossary}%
5483 }
```

printnoidxglossaries Analogous to \printglossaries

```
5484 \newcommand*{\printnoidxglossaries}{%
5485   \forallglossaries{\@glo@type}{\printnoidxglossary[type=\@glo@type]}%
5486 }
```

printgloss@setsort Initialise to do nothing.

```
5487 \newcommand*{\@printgloss@setsort}{}%
```

preglossaryhook

```
5488 \newcommand*{\@gls@preglossaryhook}{}%
```

\@printglossary Sets up the glossary for either \printglossary or \printnoidxglossary. The first argument is the options list, the second argument is the handler macro that deals with the actual glossary.

```
5489 \newcommand{\@printglossary}[2]{%
```

Set up defaults.

```
5490   \def\@glo@type{\glsdefaulttype}%
5491   \def\glossarytitle{\csname @glotype@\@glo@type @title\endcsname}%

5492   \def\glossarytoctitle{\glossarytitle}%
5493   \let\org@glossarytitle\glossarytitle

5494   \def\@glossarystyle{%
5495     \ifx\@glossary@default@style\relax
5496       \GlossariesWarning{No default glossary style provided \MessageBreak
5497         for the glossary '\@glo@type'. \MessageBreak
5498         Using deprecated fallback. \MessageBreak
5499         To fix this set the style with \MessageBreak
5500         \string\setglossarystyle\space or use the \MessageBreak
5501         style key=value option}%
5502     \fi
5503   }%
5504   \def\gls@dotoc@title{\glssettoc@title{\@glo@type}}%
```

Store current value of \glossaryentrynumbers. (This may be changed via the optional argument)

```
5505   \let\@org@glossaryentrynumbers\glossaryentrynumbers
```

Localise the effects of the optional argument

```
5506 \bgroup
```

Activate or deactivate sort key:

```
5507 \@printgloss@setsort
```

Determine settings specified in the optional argument.

```
5508 \setkeys{printgloss}{#1}%
```

If title has been set, but toctitle hasn't, make toctitle the same as given title (rather than the title used when the glossary was defined)

```
5509 \ifx\glossarytitle\org@glossarytitle
```

```
5510 \else
```

```
5511 \expandafter\let\csname @glo@type\@glo@type @title\endcsname
```

```
5512 \glossarytitle
```

```
5513 \fi
```

Allow a high-level user command to indicate the current glossary

```
5514 \let\currentglossary\@glo@type
```

Enable individual number lists to be suppressed.

```
5515 \let\org@glossaryentrynumbers\glossaryentrynumbers
```

```
5516 \let\glsnonextpages\@glsnonextpages
```

Enable individual number list to be activated:

```
5517 \let\glsnextpages\@glsnextpages
```

Enable suppression of description terminators.

```
5518 \let\nopostdesc\@nopostdesc
```

Set up the entry for the TOC

```
5519 \gls@dotoc@title
```

Set the glossary style

```
5520 \@glossarystyle
```

Added a way to fetch the current entry label (v3.08 updated for new \glossentry and \subglossentry, but this is now only needed for backward compatibility):

```
5521 \let\gls@org@glossaryentryfield\glossentry
```

```
5522 \let\gls@org@glossarysubentryfield\subglossentry
```

```
5523 \renewcommand{\glossentry}[1]{%
```

```
5524 \xdef\glscurrententrylabel{\glsdetoklabel{##1}}%
```

```
5525 \gls@org@glossaryentryfield{##1}%
```

```
5526 }%
```

```
5527 \renewcommand{\subglossentry}[2]{%
```

```
5528 \xdef\glscurrententrylabel{\glsdetoklabel{##2}}%
```

```
5529 \gls@org@glossarysubentryfield{##1}{##2}%
```

```
5530 }%
```

```
5531 \@gls@preglossaryhook
```

Now do the handler macro that deals with the actual glossary:

```
5532 #2%
```

End the current scope

```
5533 \egroup
```

Reset \glossaryentrynumbers

```
5534 \global\let\glossaryentrynumbers\@org@glossaryentrynumbers
```

Suppress warning about no \printglossary

```
5535 \global\let\warn@noprntglossary\relax
```

```
5536 }
```

@print@glossary Internal workings of \printglossary dealing with reading the external file.

```
5537 \newcommand{\@print@glossary}{%
```

Some macros may end up being expanded into internals in the glossary, so need to make @ a letter. (Unlikely to be a problem since v3.08a but kept for backward compatibility.)

```
5538 \makeatletter
```

Input the glossary file, if it exists.

```
5539 \@input@{\jobname.\csname @glo@type@\@glo@type @in\endcsname}%
```

If the glossary file doesn't exist, do \null. (This ensures that the page is shipped out and all write commands are done.) This might produce an empty page, but at this point the document isn't complete, so it shouldn't matter.

```
5540 \IfFileExists{\jobname.\csname @glo@type@\@glo@type @in\endcsname}%
```

```
5541 {}%
```

```
5542 {\null}%
```

If xindy is being used, need to write the language dependent information to the .aux file for makeglossaries.

```
5543 \ifglxindy
```

```
5544 \ifcsundef{@xdy@\@glo@type @language}%
```

```
5545 {%
```

```
5546 \edef\@do@auxoutstuff{%
```

```
5547 \noexpand\AtEndDocument{%
```

If the user removes the glossary package from their document, ensure the next run doesn't throw a load of undefined control sequence errors when the aux file is parsed.

```
5548 \noexpand\immediate\noexpand\write\@auxout{%
```

```
5549 \string\providecommand\string\@xdylanguage[2]{}}%
```

```
5550 \noexpand\immediate\noexpand\write\@auxout{%
```

```
5551 \string\@xdylanguage{\@glo@type}{\@xdy@main@language}}%
```

```
5552 }%
```

```
5553 }%
```

```
5554 }%
```

```
5555 {%
```

```
5556 \edef\@do@auxoutstuff{%
```

```
5557 \noexpand\AtEndDocument{%
```

```
5558 \noexpand\immediate\noexpand\write\@auxout{%
```

```
5559 \string\providecommand\string\@xdylanguage[2]{}}%
```

```
5560 \noexpand\immediate\noexpand\write\@auxout{%
```

```
5561 \string\@xdylanguage{\@glo@type}{\csname @xdy@\@glo@type
```

```

5562         @language\endcsname}}}%
5563     }%
5564 }%
5565 }%
5566 \do@auxoutstuff
5567 \edef\do@auxoutstuff{%
5568     \noexpand\AtEndDocument{%

```

If the user removes the glossaries package from their document, ensure the next run doesn't throw a load of undefined control sequence errors when the aux file is parsed.

```

5569     \noexpand\immediate\noexpand\write\@auxout{%
5570         \string\providecommand\string\@gls@codepage[2]{}}}%
5571     \noexpand\immediate\noexpand\write\@auxout{%
5572         \string\@gls@codepage{\@glo@type}{\@gls@codepage}}}%
5573     }%
5574 }%
5575 \do@auxoutstuff
5576 \fi

```

Activate warning if \makeglossaries hasn't been used.

```

5577 \renewcommand*{\@warn@nomakeglossaries}{%
5578     \GlossariesWarningNoLine{\string\makeglossaries\space
5579         hasn't been used,^^Jthe glossaries will not be updated}%
5580 }%
5581 }

```

The sort macros all have the syntax:

`\@glo@sortmacro@{<order>}{<type>}`

where <order> is the sort order as specified by the sort key and <type> is the glossary type. (The referenced entry list is stored in \@glsref@<type>. The actual sorting is done by \@glo@sortentries{<handler>}{<type>}.

glo@sortentries

```

5582 \newcommand*{\@glo@sortentries}[2]{%
5583     \def\@glo@sortinglist{}%
5584     \def\@glo@sortinghandler{#1}%
5585     \edef\@glo@type{#2}%
5586     \forlistcsloop{\@glo@do@sortentries}{\@glsref@#2}%
5587     \csdef{\@glsref@#2}{}%
5588     \@for\@this@label:=\@glo@sortinglist\do{%

```

Has this entry already been added?

```

5589     \xifinlistcs{\@this@label}{\@glsref@#2}%
5590     {}%
5591     {%
5592         \listcsxadd{\@glsref@#2}{\@this@label}%
5593     }%
5594     \ifcsdef{\@glo@sortingchildren@\@this@label}%

```

```

5595     {%
5596         \@glo@addchildren{#2}{\@this@label}%
5597     }%
5598     {}%
5599 }%
5600 }

```

@glo@addchildren

```
\@glo@addchildren{<type>}{<parent>}
```

```
5601 \newcommand*{\@glo@addchildren}[2]{%
```

Scope to allow nesting.

```

5602   \bgroup
5603       \letcs{\@glo@childlist}{@glo@sortingchildren@#2}%
5604       \@for\@this@childlabel:=\@glo@childlist\do
5605       {%

```

Check this label hasn't already been added.

```

5606         \xifinlistcs{\@this@childlabel}{@glsref@#1}%
5607         {}%
5608         {%
5609             \listcsxadd{@glsref@#1}{\@this@childlabel}%
5610         }%

```

Does this child have children?

```

5611         \ifcsdef{@glo@sortingchildren@\@this@childlabel}%
5612         {%
5613             \@glo@addchildren{#1}{\@this@childlabel}%
5614         }%
5615         {%
5616         }%
5617     }%
5618 \egroup
5619 }

```

@do@sortentries

```

5620 \newcommand*{\@glo@do@sortentries}[1]{%
5621     \ifglshasparent{#1}%
5622     {%

```

This entry has a parent, so add it to the child list

```

5623     \edef\@glo@parent{\csuse{glo@glstetoklabel{#1}@parent}}%
5624     \ifcsundef{@glo@sortingchildren@\@glo@parent}%
5625     {%
5626         \csdef{@glo@sortingchildren@\@glo@parent}{}%
5627     }%
5628     {}%
5629     \expandafter\@glo@sortedinsert
5630     \csname @glo@sortingchildren@\@glo@parent\endcsname{#1}%

```

Has the parent been added?

```
5631 \xifinlistcs{\@glo@parent}{\@glsref\@glo@type}%
5632 {%
```

Yes, it has so do nothing.

```
5633 }%
5634 {%
```

No, it hasn't so add it now.

```
5635 \expandafter\@glo@do@sortentries\expandafter{\@glo@parent}%
5636 }%
5637 }%
5638 {%
5639 \@glo@sortedinsert{\@glo@sortinglist}{#1}%
5640 }%
5641 }
```

```
glo@sortedinsert \@glo@sortedinsert{\<list>}{\<entry label>}
```

Insert into list.

```
5642 \newcommand*{\@glo@sortedinsert}[2]{%
5643 \dtl@insertinto{#2}{#1}{\@glo@sortinghandler}%
5644 }%
```

The sort handlers need to be in the form required by datatool's `\dtl@sortlist` macro. These must set the count register `\dtl@sortresult` to either -1 ($\#1$ less than $\#2$), 0 ($\#1 = \#2$) or $+1$ ($\#1$ greater than $\#2$).

orthandler@word

```
5645 \newcommand*{\@glo@sorthandler@word}[2]{%
5646 \letcs\@gls@sort@A{glo\glsdetoklabel{#1}@sort}%
5647 \letcs\@gls@sort@B{glo\glsdetoklabel{#2}@sort}%
5648 \edef\glo@do@compare{%
5649 \noexpand\dtlwordindexcompare{\noexpand\dtl@sortresult}%
5650 {\expandonce\@gls@sort@B}%
5651 {\expandonce\@gls@sort@A}%
5652 }%
5653 \glo@do@compare
5654 }
```

thandler@letter

```
5655 \newcommand*{\@glo@sorthandler@letter}[2]{%
5656 \letcs\@gls@sort@A{glo\glsdetoklabel{#1}@sort}%
5657 \letcs\@gls@sort@B{glo\glsdetoklabel{#2}@sort}%
5658 \edef\glo@do@compare{%
5659 \noexpand\dtlletterindexcompare{\noexpand\dtl@sortresult}%
5660 {\expandonce\@gls@sort@B}%
5661 {\expandonce\@gls@sort@A}%
5662 }
```

```

5662 }%
5663 \glo@do@compare
5664 }

```

sorthandler@case Case-sensitive sort.

```

5665 \newcommand*{\@glo@sorthandler@case}[2]{%
5666 \letcs\@gls@sort@A{glo\glsdetoklabel{#1}@sort}%
5667 \letcs\@gls@sort@B{glo\glsdetoklabel{#2}@sort}%
5668 \edef\glo@do@compare{%
5669 \noexpand\dtlcompare{\noexpand\dtl@sortresult}%
5670 {\expandonce\@gls@sort@B}%
5671 {\expandonce\@gls@sort@A}%
5672 }%
5673 \glo@do@compare
5674 }

```

thandler@nocase Case-insensitive sort.

```

5675 \newcommand*{\@glo@sorthandler@nocase}[2]{%
5676 \letcs\@gls@sort@A{glo\glsdetoklabel{#1}@sort}%
5677 \letcs\@gls@sort@B{glo\glsdetoklabel{#2}@sort}%
5678 \edef\glo@do@compare{%
5679 \noexpand\dtlcompare{\noexpand\dtl@sortresult}%
5680 {\expandonce\@gls@sort@B}%
5681 {\expandonce\@gls@sort@A}%
5682 }%
5683 \glo@do@compare
5684 }

```

@sortmacro@word Sort macro for ‘word’

```

5685 \newcommand*{\@glo@sortmacro@word}[1]{%
5686 \ifdefstring{\@glo@default@sorttype}{standard}%
5687 {%
5688 \@glo@sortentries{\@glo@sorthandler@word}{#1}%
5689 }%
5690 {%
5691 \PackageError{glossaries}{Conflicting sort options:^^J
5692 \string\usepackage[sort=\@glo@default@sorttype]{glossaries}^^J
5693 \string\printnoidxglossary[sort=word]}{}}%
5694 }%
5695 }

```

ortmacro@letter Sort macro for ‘letter’

```

5696 \newcommand*{\@glo@sortmacro@letter}[1]{%
5697 \ifdefstring{\@glo@default@sorttype}{standard}%
5698 {%
5699 \@glo@sortentries{\@glo@sorthandler@letter}{#1}%
5700 }%
5701 {%
5702 \PackageError{glossaries}{Conflicting sort options:^^J

```

```

5703     \string\usepackage[sort=\@glo@default@sorttype]{glossaries}^^J
5704     \string\printnoidxglossary[sort=letter]}{}%
5705 }%
5706 }

```

tmacro@standard Sort macro for ‘standard’. (Use either ‘word’ or ‘letter’ order.)

```

5707 \newcommand*{\@glo@sortmacro@standard}[1]{%
5708   \ifdefstring{\@glo@default@sorttype}{standard}%
5709   {%
5710     \ifcsdef{\@glo@sorthandler@\glsorder}%
5711     {%
5712       \@glo@sortentries{\csuse{\@glo@sorthandler@\glsorder}}{#1}%
5713     }%
5714     {%
5715       \PackageError{glossaries}{Unknown sort handler ‘\glsorder’}{}%
5716     }%
5717   }%
5718   {%
5719     \PackageError{glossaries}{Conflicting sort options:^^J
5720       \string\usepackage[sort=\@glo@default@sorttype]{glossaries}^^J
5721       \string\printnoidxglossary[sort=standard]}{}%
5722   }%
5723 }

```

@sortmacro@case Sort macro for ‘case’

```

5724 \newcommand*{\@glo@sortmacro@case}[1]{%
5725   \ifdefstring{\@glo@default@sorttype}{standard}%
5726   {%
5727     \@glo@sortentries{\@glo@sorthandler@case}{#1}%
5728   }%
5729   {%
5730     \PackageError{glossaries}{Conflicting sort options:^^J
5731       \string\usepackage[sort=\@glo@default@sorttype]{glossaries}^^J
5732       \string\printnoidxglossary[sort=case]}{}%
5733   }%
5734 }

```

ortmacro@nocase Sort macro for ‘nocase’

```

5735 \newcommand*{\@glo@sortmacro@nocase}[1]{%
5736   \ifdefstring{\@glo@default@sorttype}{standard}%
5737   {%
5738     \@glo@sortentries{\@glo@sorthandler@nocase}{#1}%
5739   }%
5740   {%
5741     \PackageError{glossaries}{Conflicting sort options:^^J
5742       \string\usepackage[sort=\@glo@default@sorttype]{glossaries}^^J
5743       \string\printnoidxglossary[sort=nocase]}{}%
5744   }%
5745 }

```

o@sortmacro@def Sort macro for ‘def’. The order of definition is given in \glo@list@{type}.

```
5746 \newcommand*{\@glo@sortmacro@def}[1]{%
5747   \def\@glo@sortinglist{}%
5748   \for@gl@sentries[#1]{\@gl@thislabel}%
5749   {%
5750     \xifinlistcs{\@gl@thislabel}{\@gl@sref@#1}%
5751     {%
5752       \list@add{\@glo@sortinglist}{\@gl@thislabel}%
5753     }%
5754   }%
5755 }%
5756 }%
5757 \cslet{\@gl@sref@#1}{\@glo@sortinglist}%
5758 }
```

Hasn't been referenced.

ortmacro@def@do This won't include parent entries that haven't been referenced.

```
5759 \newcommand*{\@glo@sortmacro@def@do}[1]{%
5760   \ifinlistcs{#1}{\@gl@sref@\@glo@type}%
5761   {}%
5762   {%
5763     \listcsadd{\@gl@sref@\@glo@type}{#1}%
5764   }%
5765   \ifcsdef{\@glo@sortingchildren@#1}%
5766   {%
5767     \@glo@addchildren{\@glo@type}{#1}%
5768   }%
5769   {}%
5770 }
```

o@sortmacro@use Sort macro for ‘use’. (No sorting is required, as the entries are already in order of use, so do nothing.)

```
5771 \newcommand*{\@glo@sortmacro@use}[1]{}
```

@noidx@glossary Glossary handler for \printnoidxglossary which doesn't use an indexing application. Since \printnoidxglossary may occur at the start of the document, we can't just check if an entry has been used. Instead, the first pass needs to write information to the aux file every time an entry is referenced. This needs to be read in on the second run and stored in a list corresponding to the appropriate glossary.

```
5772 \newcommand*{\@print@noidx@glossary}{%
5773   \ifcsdef{\@gl@sref@\@glo@type}%
5774   {%
```

Sort the entries:

```
5775   \ifcsdef{\@glo@sortmacro@\@glo@sorttype}%
5776   {%
5777     \csuse{\@glo@sortmacro@\@glo@sorttype}{\@glo@type}%
5778   }%
```

```

5779     {%
5780     \PackageError{glossaries}{Unknown sort handler ‘\@glo@sorttype’}{}%
5781     }%

```

Do the glossary heading and preamble

```

5782     \glossarysection[\glossarytoctitle]{\glossarytitle}%
5783     \glossarypreamble
5784     \begin{theglossary}%
5785     \glossaryheader
5786     \glsresetentrylist
5787     \def\@gls@currentlettergroup{%

```

Iterate through the entries.

```

5788     \forlistcsloop{\@gls@noidx@do}{\@glsref@{\@glo@type}%

```

Finally end the glossary and do the postamble:

```

5789     \end{theglossary}%
5790     \glossarypostamble
5791     }%
5792     {%
5793     \@gls@noref@warn{\@glo@type}%
5794     }%
5795 }

```

\glo@grabfirst

```

5796 \def\glo@grabfirst#1#2\@nil{%
5797   \def\@gls@firsttok{#1}%
5798   \ifdefempty\@gls@firsttok
5799   {%
5800     \def\@glo@thislettergrp{0}%
5801   }%
5802   {%

```

Sanitize it:

```

5803     \@onelevel@sanitize\@gls@firsttok

```

Fetch the first letter:

```

5804     \expandafter\@glo@grabfirst\@gls@firsttok{}{}\@nil
5805   }%
5806 }

```

\@glo@grabfirst

```

5807 \def\@glo@grabfirst#1#2\@nil{%
5808   \ifdefempty\@glo@thislettergrp
5809   {%
5810     \def\@glo@thislettergrp{glssymbols}%
5811   }%
5812   {%
5813     \count@=\uccode‘#1\relax
5814     \ifnum\count@=0\relax
5815     \def\@glo@thislettergrp{glssymbols}%

```

```

5816 \else
5817 \ifdefstring\@glo@sorttype{case}%
5818 {%
5819 \count@=#1\relax
5820 }%
5821 {%
5822 }%
5823 \edef\@glo@thislettergrp{\the\count@}%
5824 \fi
5825 }%
5826 }

```

\@gls@noidx@do Handler for list iteration used by \@print@noidx@glossary. The argument is the entry label. This only allows one sublevel.

```

5827 \newcommand{\@gls@noidx@do}[1]{%

```

Get this entry's location list

```

5828 \global\letcs{\@gls@loclist}{glo@glstdetoklabel{#1}@loclist}%

```

Does this entry have a parent?

```

5829 \ifglshasparent{#1}%

```

```

5830 {%

```

Has a parent.

```

5831 \gls@level=\csuse{glo@glstdetoklabel{#1}@level}\relax

```

```

5832 \ifdefvoid{\@gls@loclist}

```

```

5833 {%

```

```

5834 \subglossentry{\gls@level}{#1}{}%

```

```

5835 }%

```

```

5836 {%

```

```

5837 \subglossentry{\gls@level}{#1}%

```

```

5838 {%

```

```

5839 \glossaryentrynumbers{\glsnoidxloclist{\@gls@loclist}}%

```

```

5840 }%

```

```

5841 }%

```

```

5842 }%

```

```

5843 {%

```

Doesn't have a parent Get this entry's sort key

```

5844 \letcs{\@gls@sort}{glo@glstdetoklabel{#1}@sort}%

```

Fetch the first letter:

```

5845 \expandafter\glo@grabfirst\@gls@sort{}{}\@nil

```

```

5846 \ifdefequal{\@glo@thislettergrp}{\@gls@currentlettergroup}%

```

```

5847 {}%

```

```

5848 {%

```

Do the group header:

```

5849 \ifdefempty{\@gls@currentlettergroup}{\@gls@groupskip}%

```

```

5850 \gls@groupheading{\@glo@thislettergrp}%

```

```

5851 }%

```

```

5852 \let\@gls@currentlettergroup\@glo@thislettergrp

```

Do this entry:

```

5853 \ifdefvoid{\@gls@loclist}
5854 {%
5855 \glossentry{#1}{}%
5856 }%
5857 {%
5858 \glossentry{#1}%
5859 {%
5860 \glossaryentrynumbers{\glsnoidxloclist{\@gls@loclist}}%
5861 }%
5862 }%
5863 }%
5864 }

```

`\glsnoidxloclist` `\glsnoidxloclist{<list cs>}`

Display location list.

```

5865 \newcommand*{\glsnoidxloclist}[1]{%
5866 \def\@gls@noidxloclist@sep{}%
5867 \def\@gls@noidxloclist@prev{}%
5868 \forlistloop{\glsnoidxloclisthandler}{#1}%
5869 }

```

`xloclisthandler` Handler for location list iterator.

```

5870 \newcommand*{\glsnoidxloclisthandler}[1]{%
5871 \ifdefstring{\@gls@noidxloclist@prev}{#1}%
5872 {%
5873 }%
5874 {%
5875 \@gls@noidxloclist@sep
5876 #1%
5877 \def\@gls@noidxloclist@sep{\delimN}%
5878 \def\@gls@noidxloclist@prev{#1}%
5879 }%
5880 }

```

`yloclisthandler` Handler for location list iterator when used with `\glsdisplaynumberlist`.

```

5881 \newcommand*{\glsnoidxdisplayloclisthandler}[1]{%
5882 \ifdefstring{\@gls@noidxloclist@prev}{#1}%
5883 {%
5884 }%
5885 {%
5886 \@gls@noidxloclist@sep
5887 \@gls@noidxloclist@prev

```

```

5888 \def\@gls@noidxloclist@prev{#1}%
5889 }%
5890 }

```

`\glsnoidxdisplayloc` `\glsnoidxdisplayloc{<prefix>}{<counter>}{<format>}{<location>}`

Display a location in the location list.

```

5891 \newcommand*\glsnoidxdisplayloc[4]{%
5892 \setentrycounter[#1]{#2}%
5893 \csuse{#3}{#4}%
5894 }

```

`\@gls@reference` `\@gls@reference{<type>}{<label>}{<loc>}`

Identifies that a reference has been used (for use in the aux file). All entries must be defined in the preamble.

```

5895 \newcommand*\@gls@reference}[3]{%

```

Add to label list

```

5896 \glsdoifexistsorwarn{#2}%
5897 {%
5898 \ifcsundef{@glsref@#1}{\csgdef{@glsref@#1}{}}{}%
5899 \ifinlistcs{#2}{@glsref@#1}%
5900 {}%
5901 {\listcsgadd{@glsref@#1}{#2}}%

```

Add to location list

```

5902 \ifcsundef{glo@glstdetoklabel{#2}@loclist}%
5903 {\csgdef{glo@glstdetoklabel{#2}@loclist}{}}%
5904 {}%
5905 \listcsgadd{glo@glstdetoklabel{#2}@loclist}{#3}%
5906 }%
5907 }

```

The keys that can be used in the optional argument to `\printglossary` or `\printnoidxglossary` are as follows: The type key sets the glossary type.

```

5908 \define@key{printgloss}{type}{\def\@glo@type{#1}}

```

The title key sets the title used in the glossary section header. This overrides the title used in `\newglossary`.

```

5909 \define@key{printgloss}{title}{%
5910 \def\glossarytitle{#1}%
5911 \let\gls@dotocitle\relax
5912 }

```

The toctitle sets the text used for the relevant entry in the table of contents.

```

5913 \define@key{printgloss}{toctitle}{%

```

```

5914 \def\glossarytoctitle{#1}%
5915 \let\gls@dotoc\title\relax
5916 }

```

The style key sets the glossary style (but only for the given glossary).

```

5917 \define@key{printgloss}{style}{%
5918   \ifcsundef{@glsstyle@#1}%
5919   {%
5920     \PackageError{glossaries}%
5921     {Glossary style ‘#1’ undefined}{}%
5922   }%
5923   {%
5924     \def\@glossarystyle{\setglossentrycompatibility
5925       \csname @glsstyle@#1\endcsname}%
5926   }%
5927 }

```

The numberedsection key determines if this glossary should be in a numbered section.

```

5928 \define@choicekey{printgloss}{numberedsection}[\val\nr]{%
5929 false,nolabel,autolabel,nameref}[nolabel]{%
5930   \ifcase\nr\relax
5931     \renewcommand*{\@glossarysecstar}{*}%
5932     \renewcommand*{\@glossaryseclabel}{}%
5933   \or
5934     \renewcommand*{\@glossarysecstar}{}%
5935     \renewcommand*{\@glossaryseclabel}{}%
5936   \or
5937     \renewcommand*{\@glossarysecstar}{}%
5938     \renewcommand*{\@glossaryseclabel}{\label{\glsautoprefix\@glo@type}}%
5939   \or
5940     \renewcommand*{\@glossarysecstar}{*}%
5941     \renewcommand*{\@glossaryseclabel}{%
5942       \protected@edef\@currentlabelname{\glossarytoctitle}%
5943       \label{\glsautoprefix\@glo@type}}%
5944   \fi
5945 }

```

The nogroupskip key determines whether or not there should be a vertical gap between glossary groups.

```

5946 \define@choicekey{printgloss}{nogroupskip}{true,false}[true]{%
5947   \csuse{glsnogroupskip#1}%
5948 }

```

The nopostdot key has the same effect as the package option of the same name.

```

5949 \define@choicekey{printgloss}{nopostdot}{true,false}[true]{%
5950   \csuse{glsnopostdot#1}%
5951 }

```

The entrycounter key is the same as the package option but localised to the current glossary.

```

5952 \define@choicekey{printgloss}{entrycounter}{true,false}[true]{%
5953   \csuse{glsentrycounter#1}%

```

```

5954 \ifglentrycounter
5955   \ifx\@gls@counterwithin\@empty
5956     \newcounter{glossaryentry}%
5957   \else
5958     \newcounter{glossaryentry}[\@gls@counterwithin]%
5959   \fi
5960   \def\theHglossaryentry{\currentglossary.\theglossaryentry}%
5961   \renewcommand*\@glsresetentrycounter{%
5962     \setcounter{glossaryentry}{0}%
5963   }%
5964   \renewcommand*\@glsstepentry}[1]{%
5965     \refstepcounter{glossaryentry}%
5966     \label{glentry-\@glsdetoklabel{##1}}%
5967   }%
5968   \renewcommand*\@glentrycounterlabel{\theglossaryentry.\space}%
5969   \renewcommand*\@glentryitem}[1]{%
5970     \glsstepentry{##1}\glentrycounterlabel
5971   }%
5972 \else
5973   \renewcommand*\@glsresetentrycounter{%
5974     \renewcommand*\@glsstepentry}[1]{}%
5975     \renewcommand*\@glentrycounterlabel{}%
5976     \renewcommand*\@glentryitem}[1]{\@glsresetsubentrycounter}
5977 \fi
5978 }

```

The subentrycounter key is the same as the package option but localised to the current glossary. Note that this doesn't affect the master/slave counter attributes, which occurs if subentrycounter and entrycounter package options are set to true.

```

5979 \define@choicekey{printgloss}{subentrycounter}{true,false}[true]{%
5980   \csuse{glssubentrycounter#1}%
5981   \ifglssubentrycounter
5982     \ifundef\c@glossarysubentry
5983     {%
5984       \ifglentrycounter
5985         \newcounter{glossarysubentry}[glossaryentry]%
5986       \else
5987         \newcounter{glossarysubentry}
5988       \fi
5989     }{}%
5990   \renewcommand*\@glsstepsubentry}[1]{%
5991     \edef\currentglssubentry{\@glsdetoklabel{##1}}%
5992     \refstepcounter{glossarysubentry}%
5993     \label{glentry-\currentglssubentry}%
5994   }%
5995   \renewcommand*\@glsresetsubentrycounter{%
5996     \setcounter{glossarysubentry}{0}%
5997   }%
5998   \renewcommand*\@glssubentryitem}[1]{%
5999     \glsstepsubentry{##1}\glssubentrycounterlabel

```

```

6000 }%
6001 \renewcommand*{\glssubentrycounterlabel}{\theglossarysubentry}\space}%
6002 \def\theHglossarysubentry{\currentglssubentry.\theglossarysubentry}
6003 \else
6004 \renewcommand*{\glssubentryitem}[1]{}%
6005 \renewcommand*{\glssubentry}[1]{}%
6006 \renewcommand*{\glssubentrycounter}{}%
6007 \renewcommand*{\glssubentrycounterlabel}{}%
6008 \fi
6009 }

```

The nonnumberlist key determines if this glossary should have a number list.

```

6010 \define@boolkey{printgloss}[gls]{nonnumberlist}[true]{%
6011 \ifglslnonnumberlist
6012 \def\glossaryentrynumbers##1{}%
6013 \else
6014 \def\glossaryentrynumbers##1{##1}%
6015 \fi}

```

The sort key sets the glossary sort handler (\printnoidxglossary only).

```

6016 \define@key{printgloss}{sort}{\@glo@assign@sortkey{#1}}

```

@assign@sortkey Issue error if used with \printglossary

```

6017 \newcommand*{\@glo@no@assign@sortkey}[1]{%
6018 \PackageError{glossaries}{'sort' key not permitted with
6019 \string\printglossary}%
6020 {The 'sort' key may only be used with \string\printnoidxglossary}%
6021 }

```

@assign@sortkey For use with \printnoidxglossary

```

6022 \newcommand*{\@glo@assign@sortkey}[1]{%
6023 \def\@glo@sorttype{#1}%
6024 }

```

@glslnonexpages Suppresses the next number list only. Global assignments required as it may not occur in the same level of grouping as the next numberlist. (For example, if \glslnonexpages is place in the entry's description and 3 column tabular style glossary is used.) \org@glossaryentrynumbers needs to be set at the start of each glossary, in the event that \glossaryentrynumber is re-defined.

```

6025 \newcommand*{\@glslnonexpages}{%
6026 \gdef\glossaryentrynumbers##1{%
6027 \glslresetentrylist
6028 }%
6029 }

```

\@glslnextpages Activate the next number list only. Global assignments required as it may not occur in the same level of grouping as the next numberlist. (For example, if \@glslnextpages is place in the entry's description and 3 column tabular style glossary is used.) \org@glossaryentrynumbers

needs to be set at the start of each glossary, in the event that `\glossaryentrynumber` is re-defined.

```
6030 \newcommand*{\@glsnextpages}{%
6031   \gdef\glossaryentrynumbers##1{%
6032     ##1\glsresetentrylist}}
```

`\glsresetentrylist` Resets `\glossaryentrynumbers`

```
6033 \newcommand*{\glsresetentrylist}{%
6034   \global\let\glossaryentrynumbers\org@glossaryentrynumbers}
```

`\glsnonextpages` Outside of `\printglossary` this does nothing.

```
6035 \newcommand*{\glsnonextpages}{}%
```

`\glsnextpages` Outside of `\printglossary` this does nothing.

```
6036 \newcommand*{\glsnextpages}{}%
```

`\glossaryentry` If the `entrycounter` package option has been used, define a counter to number each level 0 entry.

```
6037 \ifglentrycounter
6038   \ifx\@gls@counterwithin\@empty
6039     \newcounter{glossaryentry}
6040   \else
6041     \newcounter{glossaryentry}[\@gls@counterwithin]
6042   \fi
6043   \def\theHglossaryentry{\currentglossary.\theglossaryentry}
6044 \fi
```

`\glossarysubentry` If the `subentrycounter` package option has been used, define a counter to number each level 1 entry.

```
6045 \ifglssubentrycounter
6046   \ifglentrycounter
6047     \newcounter{glossarysubentry}[glossaryentry]
6048   \else
6049     \newcounter{glossarysubentry}
6050   \fi
6051   \def\theHglossarysubentry{\currentglssubentry.\theglossarysubentry}
6052 \fi
```

`\glsresetentrylist` Resets the `\glossarysubentry` counter.

```
6053 \ifglssubentrycounter
6054   \newcommand*{\glsresetentrylist}{%
6055     \setcounter{glossarysubentry}{0}%
6056   }
6057 \else
6058   \newcommand*{\glsresetentrylist}{}%
6059 \fi
```

`subentrycounter` Resets the glossaryentry counter.

```
6060 \ifglentrycounter
6061   \newcommand*{\glsresetentrycounter}{%
6062     \setcounter{glossaryentry}{0}%
6063   }
6064 \else
6065   \newcommand*{\glsresetentrycounter}{}
6066 \fi
```

`\glsstepentry` Advance the glossaryentry counter if in use. The argument is the label associated with the entry.

```
6067 \ifglentrycounter
6068   \newcommand*{\glsstepentry}[1]{%
6069     \refstepcounter{glossaryentry}%
6070     \label{glentry-\glsdetoklabel{#1}}%
6071   }
6072 \else
6073   \newcommand*{\glsstepentry}[1]{}
6074 \fi
```

`glsstepsubentry` Advance the glossarysubentry counter if in use. The argument is the label associated with the subentry.

```
6075 \ifglssubentrycounter
6076   \newcommand*{\glsstepsubentry}[1]{%
6077     \edef\currentglssubentry{\glsdetoklabel{#1}}%
6078     \refstepcounter{glossarysubentry}%
6079     \label{glentry-\currentglssubentry}%
6080   }
6081 \else
6082   \newcommand*{\glsstepsubentry}[1]{}
6083 \fi
```

`\glsrefentry` Reference the entry or sub-entry counter if in use, otherwise just do `\gls`.

```
6084 \ifglentrycounter
6085   \newcommand*{\glsrefentry}[1]{\ref{glentry-\glsdetoklabel{#1}}}
6086 \else
6087   \ifglssubentrycounter
6088     \newcommand*{\glsrefentry}[1]{\ref{glentry-\glsdetoklabel{#1}}}
6089   \else
6090     \newcommand*{\glsrefentry}[1]{\gls{#1}}
6091   \fi
6092 \fi
```

`trycounterlabel` Defines how to display the glossaryentry counter.

```
6093 \ifglentrycounter
6094   \newcommand*{\glsentrycounterlabel}{\theglossaryentry.\space}
6095 \else
6096   \newcommand*{\glsentrycounterlabel}{}
6097 \fi
```

trycounterlabel Defines how to display the glossarysubentry counter.

```
6098 \ifglssubentrycounter
6099   \newcommand*{\glssubentrycounterlabel}{\theglossarysubentry}\space}
6100 \else
6101   \newcommand*{\glssubentrycounterlabel}{}
6102 \fi
```

\glstentryitem Step and display glossaryentry counter, if appropriate.

```
6103 \ifglstentrycounter
6104   \newcommand*{\glstentryitem}[1]{%
6105     \glstepentry{#1}\glstentrycounterlabel
6106   }
6107 \else
6108   \newcommand*{\glstentryitem}[1]{\glstresetcounter}
6109 \fi
```

glssubentryitem Step and display glossarysubentry counter, if appropriate.

```
6110 \ifglssubentrycounter
6111   \newcommand*{\glssubentryitem}[1]{%
6112     \glstepsubentry{#1}\glssubentrycounterlabel
6113   }
6114 \else
6115   \newcommand*{\glssubentryitem}[1]{}
6116 \fi
```

theglossary If the theglossary environment has already been defined, a warning will be issued. This environment should be redefined by glossary styles.

```
6117 \ifcsundef{theglossary}%
6118 {%
6119   \newenvironment{theglossary}{}{}%
6120 }%
6121 {%
6122   \@gls@warnontheglossdefined
6123   \renewenvironment{theglossary}{}{}%
6124 }
```

The glossary header is given by \glossaryheader. This forms part of the glossary style, and must indicate what should appear immediately after the start of the theglossary environment. (For example, if the glossary uses a tabular-like environment, it may be used to set the header row.) Note that if you don't want a header row, the glossary style must redefine \glossaryheader to do nothing.

\glossaryheader

```
6125 \newcommand*{\glossaryheader}{}%
```

\glstarget \glstarget{<label>}{<name>}

Provide user interface to \@glstarget to make it easier to modify the glossary style in the document.

```
6126 \newcommand*{\glstarget}[2]{\@glstarget{\glolinkprefix#1}{#2}}
```

As from version 3.08, glossary information is now written to the external files using `\glossentry` and `\subglossentry` instead of `\glossaryentryfield` and `\glossarysubentryfield`. The default definition provides backward compatibility for glossary styles that use the old forms.

`\compatibleglossentry`

```
\glossentry{<label>}{<page-list>}
```

```
6127 \providecommand*{\compatibleglossentry}[2]{%
6128   \toks@{#2}%
6129   \protected@edef\@do@glossentry{\noexpand\glossaryentryfield{#1}%
6130     {\noexpand\glsnamefont
6131       {\expandafter\expandonce\csname glo@#1@name\endcsname}}}%
6132     {\expandafter\expandonce\csname glo@#1@desc\endcsname}%
6133     {\expandafter\expandonce\csname glo@#1@symbol\endcsname}%
6134     {\the\toks@}}%
6135   }%
6136   \@do@glossentry
6137 }
```

`\glossentryname`

```
6138 \newcommand*{\glossentryname}[1]{%
6139   \glsdoifexistsorwarn{#1}%
6140   {%
6141     \letcs{\glo@name}{\glo@\glsdetoklabel{#1}@name}%
6142     \expandafter\glsnamefont\expandafter{\glo@name}%
6143   }%
6144 }
```

`\Glossentryname`

```
6145 \newcommand*{\Glossentryname}[1]{%
6146   \glsdoifexistsorwarn{#1}%
6147   {%
6148     \glsnamefont{\Glsentryname{#1}}%
6149   }%
6150 }
```

`\glossentrydesc`

```
6151 \newcommand*{\glossentrydesc}[1]{%
6152   \glsdoifexistsorwarn{#1}%
6153   {%
6154     \glsentrydesc{#1}%
6155   }%
6156 }
```

`\Glossentrydesc`

```

6157 \newcommand*{\Glossentrydesc}[1]{%
6158   \glsdoifexistsorwarn{#1}%
6159   {%
6160     \Glsentrydesc{#1}%
6161   }%
6162 }

```

lossentrysymbol

```

6163 \newcommand*{\glossentrysymbol}[1]{%
6164   \glsdoifexistsorwarn{#1}%
6165   {%
6166     \glsentrysymbol{#1}%
6167   }%
6168 }

```

lossentrysymbol

```

6169 \newcommand*{\Glossentrysymbol}[1]{%
6170   \glsdoifexistsorwarn{#1}%
6171   {%
6172     \Glsentrysymbol{#1}%
6173   }%
6174 }

```

blesubglossentry `\subglossentry{<level>}{<label>}{<page-list>}`

```

6175 \providecommand*{\compatiblesubglossentry}[3]{%
6176   \toks@{#3}%
6177   \protected@edef\@do@subglossentry{\noexpand\glossarysubentryfield{\number#1}%
6178     {#2}%
6179     {\noexpand\glsnamefont
6180       {\expandafter\expandonce\csname glo@#2@name\endcsname}}%
6181     {\expandafter\expandonce\csname glo@#2@desc\endcsname}%
6182     {\expandafter\expandonce\csname glo@#2@symbol\endcsname}%
6183     {\the\toks@}%
6184   }%
6185   \@do@subglossentry
6186 }

```

rycompatibility

```

6187 \newcommand*{\setglossentrycompatibility}{%
6188   \let\glossentry\compatibleglossentry
6189   \let\subglossentry\compatiblesubglossentry
6190 }
6191 \setglossentrycompatibility

```

ossaryentryfield `\glossaryentryfield{<label>}{<name>}{<description>}{<symbol>}{<page-list>}`

This command formerly governed how each entry row should be formatted in the glossary. Now deprecated.

```
6192 \newcommand{\glossaryentryfield}[5]{%
6193   \GlossariesWarning
6194   {Deprecated use of \string\glossaryentryfield.^^J
6195    I recommend you change to \string\glossentry.^^J
6196    If you've just upgraded, try removing your gls auxiliary
6197    files^^J and recompile}%
6198   \noindent\textbf{\glstarget{#1}{#2}} #4 #3. #5\par}
```

arysubentryfield

```
\glossarysubentryfield{<level>}{<label>}{<name>}{<description>}{<symbol>}{<page-list>}
```

This command governs how each subentry should be formatted in the glossary. Glossary styles need to redefine this command. Most of the predefined styles ignore *<symbol>*. The first argument is a number indicating the level. (The level should be greater than or equal to 1.)

```
6199 \newcommand*{\glossarysubentryfield}[6]{%
6200   \GlossariesWarning
6201   {Deprecated use of \string\glossarysubentryfield.^^J
6202    I recommend you change to \string\subglossentry.^^J
6203    If you've just upgraded, try removing your gls auxiliary
6204    files^^J and recompile}%
6205   \glstarget{#2}{\strut}#4. #6\par}
```

Within each glossary, the entries form distinct groups which are determined by the first character of the sort key. When using `makeindex`, there will be a maximum of 28 groups: symbols, numbers, and the 26 alphabetical groups A, ..., Z. If you use `xindy` the groups will depend on whatever alphabet is used. This is determined by the language or custom alphabets can be created in the `xindy` style file. The command `\glsgroupskip` specifies what to do between glossary groups. Glossary styles must redefine this command. (Note that `\glsgroupskip` only occurs between groups, not at the start or end of the glossary.)

\glsgroupskip

```
6206 \newcommand*{\glsgroupskip}{}%
```

Each of the 28 glossary groups described above is preceded by a group heading. This is formatted by the command `\glsgroupheading` which takes one argument which is the *label* assigned to that group (not the title). The corresponding labels are: `glssymbols`, `glsnumbers`, A, ..., Z. Glossary styles must redefine this command. (In between groups, `\glsgroupheading` comes immediately after `\glsgroupskip`.)

glsgroupheading

```
6207 \newcommand*{\glsgroupheading}[1]{%}
```

It is possible to “trick” `makeindex` into treating entries as though they belong to the same group, even if the terms don’t start with the same letter, by modifying the sort key. For example, all entries belonging to one group could be defined so that the sort key starts with an a, while entries belonging to another group could be defined so that the sort key starts with a b, and so on. If you want each group to have a heading, you would then need to modify the translation control sequences `\glsgetgrouptitle` and `\glsgetgrouplabel` so that the label is translated into the required title (and vice-versa).

```
\glsgetgrouptitle{<label>}
```

This command produces the title for the glossary group whose label is given by `<label>`. By default, the group labelled `glssymbols` produces `\glssymbolsgroupname`, the group labelled `glsnumbers` produces `\glsnumbersgroupname` and all the other groups simply produce their label. As mentioned above, the group labels are: `glssymbols`, `glsnumbers`, `A`, ..., `Z`. If you want to redefine the group titles, you will need to redefine this command. Languages other than English may produce labels that are non-expandable, so we need to check for that otherwise it will create a “missing `\endcsname` inserted” error.

`\glsgetgrouptitle`

```
6208 \newcommand*{\glsgetgrouptitle}[1]{%
6209   \@gls@getgrouptitle{#1}{\@gls@grptitle}%
6210   \@gls@grptitle
6211 }
```

`\@gls@getgrouptitle` Gets the group title specified by the label (first argument) and stores in the second argument, which must be a control sequence.

```
6212 \newcommand*{\@gls@getgrouptitle}[2]{%
    Even if the argument appears to be a single letter, it won't be considered a single letter by
    \dtl@ifsingle if it's an active character.
6213   \dtl@ifsingle{#1}%
6214   {%
6215     \ifcsundef{#1groupname}{\def#2{#1}}{\letcs#2{#1groupname}}%
6216   }%
6217   {%
6218     \ifboolexpr{test{\ifstrequal{#1}{glssymbols}}
6219               or test{\ifstrequal{#1}{glsnumbers}}}%
6220     {%
6221       \ifcsundef{#1groupname}{\def#2{#1}}{\letcs#2{#1groupname}}%
6222     }%
6223     {%
6224       \def#2{#1}%
6225     }%
6226   }%
6227 }
```

`\othergrouptitle` Version for the no-indexing app option:

```

6228 \newcommand*{\@gls@noidx@getgrouptitle}[2]{%
6229   \DTLifint{#1}%
6230   {\edef#2{\char#1\relax}}%
6231   {%
6232     \ifcsundef{#1groupname}{\def#2{#1}}{\letcs#2{#1groupname}}%
6233   }%
6234 }

```

`\glsgetgrouplabel{<title>}`

This command does the reverse to the previous command. The argument is the group title, and it produces the group label. Note that if you redefine `\glsgetgrouptitle`, you will also need to redefine `\glsgetgrouplabel`.

`\glsgetgrouplabel`

```

6235 \newcommand*{\glsgetgrouplabel}[1]{%
6236 \ifthenelse{\equal{#1}{\glssymbolsgroupname}}{\glssymbols}{%
6237 \ifthenelse{\equal{#1}{\glsnumbersgroupname}}{\glsnumbers}{#1}}

```

The command `\setentrycounter` sets the entry's associated counter (required by `\glshypernumber` etc.) `\glslink` and `\glsadd` encode the `\glossary` argument so that the relevant counter is set prior to the formatting command.

`\setentrycounter`

```

6238 \newcommand*{\setentrycounter}[2][ ]{%
6239   \def\@glo@counterprefix{#1}%
6240   \ifx\@glo@counterprefix\empty
6241     \def\@glo@counterprefix{.}%
6242   \else
6243     \def\@glo@counterprefix{.#1.}%
6244   \fi
6245   \def\glsentrycounter{#2}%
6246 }

```

The current glossary style can be set using `\setglossarystyle{<style>}`.

`\setglossarystyle`

```

6247 \newcommand*{\setglossarystyle}[1]{%
6248   \ifcsundef{@glsstyle@#1}%
6249   {%
6250     \PackageError{glossaries}{Glossary style ‘#1’ undefined}{}%
6251   }%
6252   {%
6253     \csname @glsstyle@#1\endcsname
6254   }%

```

Set the default style if it's not already set.

```

6255   \ifx\@glossary@default@style\relax
6256     \protected@edef\@glossary@default@style{#1}%

```

```

6257 \fi
6258 }

```

`\glossarystyle`

```

6259 \newcommand*{\glossarystyle}[1]{%
6260   \ifcsundef{@glsstyle@#1}%
6261   {%
6262     \PackageError{glossaries}{Glossary style ‘#1’ undefined}{}%
6263   }%
6264   {%
6265     \GlossariesWarning
6266     {Deprecated command \string\glossarystyle.^^J
6267      I recommend you switch to \string\setglossarystyle\space unless
6268      you want to maintain backward compatibility}%
6269     \setglossentrycompatibility
6270     \csname @glsstyle@#1\endcsname

6271   \ifcsdef{@glscompstyle@#1}%
6272   {\setglossentrycompatibility\csuse{@glscompstyle@#1}}%
6273   }%
6274 }%

```

Set the default style if it isn't already set so that `\printglossary` can warn if the fallback style is in use.

```

6275 \ifx\@glossary@default@style\relax
6276   \protected@edef\@glossary@default@style{#1}%
6277 \fi
6278 }

```

`\ewglossarystyle` New glossary styles can be defined using:

`\newglossarystyle{<name>}{<definition>}`

The *<definition>* argument should redefine `\theglossary`, `\glossaryheader`, `\glsgroupheading`, `\glossaryentryfield` and `\glsgroupskip` (see [section 1.19](#) for the definitions of predefined styles). Glossary styles should not redefine `\glossarypreamble` and `\glossarypostamble`, as the user should be able to switch between styles without affecting the pre- and postambles.

```

6279 \newcommand{\newglossarystyle}[2]{%
6280   \ifcsundef{@glsstyle@#1}%
6281   {%
6282     \expandafter\def\csname @glsstyle@#1\endcsname{#2}%
6283   }%
6284   {%
6285     \PackageError{glossaries}{Glossary style ‘#1’ is already defined}{}%
6286   }%
6287 }

```

`\ewglossarystyle` Code for this macro supplied by Marco Daniel.

```

6288 \newcommand{\renewglossarystyle}[2]{%
6289   \ifcsundef{@glsstyle@#1}%
6290   {%
6291     \PackageError{glossaries}{Glossary style ‘#1’ isn’t already defined}{}%
6292   }%
6293   {%
6294     \csdef{@glsstyle@#1}{#2}%
6295   }%
6296 }

```

Glossary entries are encoded so that the second argument to `\glossaryentryfield` is always specified as `\glsnamefont{<name>}`. This allows the user to change the font used to display the name term without having to redefine `\glossaryentryfield`. The default uses the surrounding font, so in the list type styles (which place the name in the optional argument to `\item`) the name will appear in bold.

`\glsnamefont`

```

6297 \newcommand*{\glsnamefont}[1]{#1}

```

Each glossary entry has an associated number list (usually page numbers) that indicate where in the document the entry has been used. The format for these number lists can be changed using the format key in commands like `\glslink`. The default format is given by `\glshypernumber`. This takes a single argument which may be a single number, a number range or a number list. The number ranges are delimited with `\delimR`, the number lists are delimited with `\delimN`.

If the document doesn’t have hyperlinks, the numbers can be displayed just as they are, but if the document supports hyperlinks, the numbers should link to the relevant location. This means extracting the individual numbers from the list or ranges. The package does this with the `\hyperpage` command, but this is encoded for comma and dash delimiters and only for the page counter, but this code needs to be more general. So I have adapted the code used in the package.

`\glshypernumber`

```

6298 \ifcsundef{hyperlink}%
6299 {%
6300   \def\glshypernumber#1{#1}%
6301 }%
6302 {%
6303   \def\glshypernumber#1{\@glshypernumber#1\nohyperpage{}}\@nil}
6304 }

```

`@glshypernumber` This code was provided by Heiko Oberdiek to allow material to be attached to the location.

```

6305 \def\@glshypernumber#1\nohyperpage#2#3\@nil{%
6306   \ifx\#1\%
6307   \else
6308     \@delimR#1\delimR\delimR\%
6309   \fi
6310   \ifx\#2\%

```

```

6311 \else
6312   #2%
6313 \fi
6314 \ifx\\#3\\%
6315 \else
6316   \@glshypernumber#3\@nil
6317 \fi
6318 }

```

`\@delimR` displays a range of numbers for the counter whose name is given by `\@gls@counter` (which must be set prior to using `\glshypernumber`).

`\@delimR`

```

6319 \def\@delimR#1\delimR #2\delimR #3\\{%
6320 \ifx\\#2\\%
6321   \@delimN{#1}%
6322 \else
6323   \@gls@numberlink{#1}\delimR\@gls@numberlink{#2}%
6324 \fi}

```

`\@delimN` displays a list of individual numbers, instead of a range:

`\@delimN`

```

6325 \def\@delimN#1{\@delimN#1\delimN \delimN\\}
6326 \def\@delimN#1\delimN #2\delimN#3\\{%
6327 \ifx\\#3\\%
6328   \@gls@numberlink{#1}%
6329 \else
6330   \@gls@numberlink{#1}\delimN\@gls@numberlink{#2}%
6331 \fi
6332 }

```

The following code is modified from `hyperref's \HyInd@pagelink` where the name of the counter being used is given by `\@gls@counter`.

```

6333 \def\@gls@numberlink#1{%
6334 \begingroup
6335 \toks@={}%
6336 \@gls@removespaces#1 \@nil
6337 \endgroup}

6338 \def\@gls@removespaces#1 #2\@nil{%
6339 \toks@=\expandafter{\the\toks@#1}%
6340 \ifx\\#2\\%
6341   \edef\x{\the\toks@}%
6342   \ifx\x\empty
6343   \else

6344     \hyperlink{\glstrycounter\@gls@counterprefix\the\toks@}%
6345     {\the\toks@}%
6346   \fi

```

```

6347 \else
6348   \@gls@ReturnAfterFi{%
6349     \@gls@removespaces#2\@nil
6350   }%
6351 \fi
6352 }
6353 \long\def\@gls@ReturnAfterFi#1\fi{\fi#1}

```

The following commands will switch to the appropriate font, and create a hyperlink, if hyperlinks are supported. If hyperlinks are not supported, they will just display their argument in the appropriate font.

`\hyperrm`

```
6354 \newcommand*\hyperrm[1]{\textrm{\glshypernumber{#1}}}
```

`\hypersf`

```
6355 \newcommand*\hypersf[1]{\textsf{\glshypernumber{#1}}}
```

`\hypertt`

```
6356 \newcommand*\hypertt[1]{\texttt{\glshypernumber{#1}}}
```

`\hyperbf`

```
6357 \newcommand*\hyperbf[1]{\textbf{\glshypernumber{#1}}}
```

`\hypermd`

```
6358 \newcommand*\hypermd[1]{\textmd{\glshypernumber{#1}}}
```

`\hyperit`

```
6359 \newcommand*\hyperit[1]{\textit{\glshypernumber{#1}}}
```

`\hypersl`

```
6360 \newcommand*\hypersl[1]{\textsl{\glshypernumber{#1}}}
```

`\hyperup`

```
6361 \newcommand*\hyperup[1]{\textup{\glshypernumber{#1}}}
```

`\hypersc`

```
6362 \newcommand*\hypersc[1]{\textsc{\glshypernumber{#1}}}
```

`\hyperemph`

```
6363 \newcommand*\hyperemph[1]{\emph{\glshypernumber{#1}}}
```

1.17 Acronyms

`\oldacronym` `\oldacronym[⟨label⟩]{⟨abbrv⟩}{⟨long⟩}{⟨key-val list⟩}`

This emulates the way the old package defined acronyms. It is equivalent to `\newacronym[⟨key-val list⟩]{⟨label⟩}{⟨abbrv⟩}{⟨long⟩}` and it additionally defines the command `\⟨label⟩` which is equivalent to `\gls{⟨label⟩}` (thus `⟨label⟩` must only contain alphabetical characters). If `⟨label⟩` is omitted, `⟨abbrv⟩` is used. This only emulates the syntax of the old package. The way the acronyms appear in the list of acronyms is determined by the definition of `\newacronym` and the glossary style.

Note that `\⟨label⟩` can't have an optional argument if the package is loaded. If hasn't been loaded then you can do `\⟨label⟩[⟨insert⟩]` but you can't do `\⟨label⟩[⟨key-val list⟩]`. For example if you define the acronym `svm`, then you can do `\svm['s]` but you can't do `\svm[format=textbf]`. If the package is loaded, `\svm['s]` will appear as `svm ['s]` which is unlikely to be the desired result. In this case, you will need to use `\gls` explicitly, e.g. `\gls{svm}['s]`. Note that it is up to the user to load if desired.

```
6364 \newcommand{\oldacronym}[4][\gls@label]{%
6365   \def\gls@label{#2}%
6366   \newacronym[#4]{#1}{#2}{#3}%
6367   \ifcsundef{xspace}%
6368   {%
6369     \expandafter\edef\csname#1\endcsname{%
6370       \noexpand@ifstar{\noexpand\Gls{#1}}{\noexpand\gls{#1}}}%
6371   }%
6372 }%
6373 {%
6374   \expandafter\edef\csname#1\endcsname{%
6375     \noexpand@ifstar{\noexpand\Gls{#1}\noexpand\xspace}%
6376     \noexpand\gls{#1}\noexpand\xspace}%
6377   }%
6378 }%
6379 }
```

`\newacronym[⟨key-val list⟩]{⟨label⟩}{⟨abbrv⟩}{⟨long⟩}`

This is a quick way of defining acronyms, using `\newglossaryentry` with the appropriate values. It sets the glossary type to `\acronymtype` which will be `acronym` if the package option `acronym` has been used, otherwise it will be the default glossary. Since `\newacronym` merely calls `\newglossaryentry`, the acronym is treated like any other glossary entry.

If you prefer a different format, you can redefine `\newacronym` as required. The optional argument can be used to override any of the settings.

This is just a stub. It's redefined by commands like `\SetDefaultAcronymStyle`.

`\newacronym`

```
6380 \newcommand{\newacronym}[4][{}]{}
```

Set up some convenient short cuts. These need to be changed if `\newacronym` is changed (or if the description key is changed).

`\acrpluralsuffix` Plural suffix used by `\newacronym`. This just defaults to `\glspluralsuffix` but is changed to include `\textup` if the `smallcaps` option is used, so that the suffix doesn't appear in small caps as it doesn't look right. For example, `ABCS` looks as though the “s” is part of the acronym, but `ABCS` looks as though the “s” is a plural suffix. Since the entire text `abcs` is set in `\textsc`, `\textup` is need to cancel it out.

```
6381 \newcommand*{\acrpluralsuffix}{\glsacrpluralsuffix}
```

If `garamondx` has been loaded, need to use `\textulc` instead of `\textup`.

`\glstextup`

```
6382 \newrobustcmd*{\glstextup}[1]{\ifdef\textulc{\textulc{#1}}{\textup{#1}}}
```

The following are defined for compatibility with version 2.07 and earlier.

`\glsshortkey`

```
6383 \newcommand*{\glsshortkey}{short}
```

`\sshortpluralkey`

```
6384 \newcommand*{\glsshortpluralkey}{shortplural}
```

`\glslongkey`

```
6385 \newcommand*{\glslongkey}{long}
```

`\lslongpluralkey`

```
6386 \newcommand*{\glslongpluralkey}{longplural}
```

`\acrfull` Full form of the acronym.

```
6387 \newrobustcmd*{\acrfull}{\@gls@hyp@opt\@ns@acrfull}
```

```
6388 \newcommand*{\ns@acrfull}[2][]{\%
```

```
6389 \new@ifnextchar[{\@acrfull{#1}{#2}}{\%
```

```
6390 {\@acrfull{#1}{#2}[]}\%
```

```
6391 }
```

`\@acrfull` Low-level macro:

```
6392 \def\@acrfull#1#2[#3]{\%
```

Make it easier for acronym styles to change this:

```
6393 \acrfullfmt{#1}{#2}{#3}\%
```

```
6394 }
```

Using `\acrlinkfullformat` and `\acrfullformat` is now deprecated as it can cause complications with the first letter upper case variants, but the package needs to provide backward compatibility support.

```

\acrfullfmt   No case change full format.
6395 \newcommand*{\acrfullfmt}[3]{%
6396   \acrlinkfullformat{\@acrlong}{\@acrshort}{#1}{#2}{#3}%
6397 }

\acrlinkfullformat   Format for full links like \acrfull. Syntax: \acrlinkfullformat{<long cs>}{<short cs>}{<options>}{<label>}{<insert>}
6398 \newcommand{\acrlinkfullformat}[5]{%
6399   \acrfullformat{#1}{#3}{#4}[#5]{#2}{#3}{#4}[]}%
6400 }

\acrfullformat   Default full form is <long> (<short>).
6401 \newcommand{\acrfullformat}[2]{#1\glsspace(#2)}

\glsspace   Robust space to ensure it's written to the .glsdefs file.
6402 \newrobustcmd{\glsspace}{\space}

        Default format for full acronym

\Acrfull
6403 \newrobustcmd*{\Acrfull}{\@gls@hyp@opt\ns@Acrfull}

6404 \newcommand*\ns@Acrfull[2][]{%
6405   \new@ifnextchar[{\@Acrfull{#1}{#2}}%
6406     {\@Acrfull{#1}{#2}[]}%
6407 }

        Low-level macro:
6408 \def\@Acrfull#1#2[#3]{%

        Make it easier for acronym styles to change this:
6409   \Acrfullfmt{#1}{#2}{#3}%
6410 }

\Acrfullfmt   First letter upper case full format.
6411 \newcommand*{\Acrfullfmt}[3]{%
6412   \acrlinkfullformat{\@acrlong}{\@acrshort}{#1}{#2}{#3}%
6413 }

\ACRfull
6414 \newrobustcmd*{\ACRfull}{\@gls@hyp@opt\ns@ACRfull}

6415 \newcommand*\ns@ACRfull[2][]{%
6416   \new@ifnextchar[{\@ACRfull{#1}{#2}}%
6417     {\@ACRfull{#1}{#2}[]}%
6418 }

        Low-level macro:
6419 \def\@ACRfull#1#2[#3]{%

```

Make it easier for acronym styles to change this:

```
6420 \ACRfullfmt{#1}{#2}{#3}%  
6421 }
```

\ACRfullfmt All upper case full format.

```
6422 \newcommand*\ACRfullfmt}[3]{%  
6423 \acrlinkfullformat{\@ACRlong}{\@ACRshort}{#1}{#2}{#3}%  
6424 }
```

Plural:

\acrfullpl

```
6425 \newrobustcmd*\acrfullpl{\@gls@hyp@opt\ns@acrfullpl}  
  
6426 \newcommand*\ns@acrfullpl[2][{}]{%  
6427 \new@ifnextchar[\@acrfullpl{#1}{#2}}%  
6428 {\@acrfullpl{#1}{#2}[]}%  
6429 }
```

Low-level macro:

```
6430 \def\@acrfullpl#1#2[#3]{%
```

Make it easier for acronym styles to change this:

```
6431 \acrfullplfmt{#1}{#2}{#3}%  
6432 }
```

\acrfullplfmt No case change plural full format.

```
6433 \newcommand*\acrfullplfmt}[3]{%  
6434 \acrlinkfullformat{\@acrlongpl}{\@acrshortpl}{#1}{#2}{#3}%  
6435 }
```

\Acrfullpl

```
6436 \newrobustcmd*\Acrfullpl{\@gls@hyp@opt\ns@Acrfullpl}  
  
6437 \newcommand*\ns@Acrfullpl[2][{}]{%  
6438 \new@ifnextchar[\@Acrfullpl{#1}{#2}}%  
6439 {\@Acrfullpl{#1}{#2}[]}%  
6440 }
```

Low-level macro:

```
6441 \def\@Acrfullpl#1#2[#3]{%
```

Make it easier for acronym styles to change this:

```
6442 \Acrfullplfmt{#1}{#2}{#3}%  
6443 }
```

\Acrfullplfmt First letter upper case plural full format.

```
6444 \newcommand*\Acrfullplfmt}[3]{%  
6445 \acrlinkfullformat{\@Acrlongpl}{\@acrshortpl}{#1}{#2}{#3}%  
6446 }
```

```

\ACRfullpl
6447 \newrobustcmd*{\ACRfullpl}{\@gls@hyp@opt\@ns@ACRfullpl}

6448 \newcommand*\ns@ACRfullpl[2][{}]{%
6449   \new@ifnextchar[{\@ACRfullpl{#1}{#2}}{%
6450     {\@ACRfullpl{#1}{#2}[]}%
6451 }

```

Low-level macro:

```

6452 \def\@ACRfullpl#1#2[#3]{%
  Make it easier for acronym styles to change this:
6453   \ACRfullplfmt{#1}{#2}{#3}%
6454 }

```

```

\ACRfullplfmt  All upper case plural full format.
6455 \newcommand*\ACRfullplfmt[3]{%
6456   \acrlinkfullformat{\@ACRlongpl}{\@ACRshortpl}{#1}{#2}{#3}%
6457 }

```

1.18 Predefined acronym styles

```

\acronymfont  This is only used with the additional acronym styles:
6458 \newcommand{\acronymfont}[1]{#1}

```

```

firstacronymfont  This is only used with the additional acronym styles:
6459 \newcommand{\firstacronymfont}[1]{\acronymfont{#1}}

```

```

\acrnameformat  The styles that allow an additional description use \acrnameformat{<short>}{<long>} to de-
  termine what information is displayed in the name.
6460 \newcommand*\acrnameformat[2]{\acronymfont{#1}}

```

Define some tokens used by \newacronym:

```

\glskeylisttok
6461 \newtoks\glskeylisttok

```

```

\glslabeltok
6462 \newtoks\glslabeltok

```

```

\glsshorttok
6463 \newtoks\glsshorttok

```

```

\gslongtok
6464 \newtoks\gslongtok

```

```

\newacronymhook  Provide a hook for \newacronym:
6465 \newcommand*\newacronymhook{}

```

genericNewAcronym New improved version of setting the acronym style.

```
6466 \newcommand*{\SetGenericNewAcronym}{%
```

Change the behaviour of \Glsentryname to workaround expansion issues that cause a problem for \makefirstuc

```
6467 \let\@Gls@entryname\@Gls@acrentryname
```

Change the way acronyms are defined:

```
6468 \renewcommand{\newacronym}[4][\{%
6469   \ifdefempty{\@glsacronymlists}%
6470   {%
6471     \def\@glo@type{\acronymtype}%
6472     \setkeys{glossentry}{##1}%
6473     \DeclareAcronymList{\@glo@type}%
6474   }%
6475 }%
6476 \glskeylisttok{##1}%
6477 \glslabeltok{##2}%
6478 \glsshorttok{##3}%
6479 \glslongtok{##4}%
6480 \newacronymhook
6481 \protected@edef\@do@newglossaryentry{%
6482   \noexpand\newglossaryentry{\the\glslabeltok}%
6483   {%
6484     type=\acronymtype,%
6485     name={\expandonce{\acronymentry{##2}}},%
6486     sort={\acronymsort{\the\glsshorttok}{\the\glslongtok}},%
6487     text={\the\glsshorttok},%
6488     short={\the\glsshorttok},%
6489     shortplural={\the\glsshorttok\noexpand\acrpluralsuffix},%
6490     long={\the\glslongtok},%
6491     longplural={\the\glslongtok\noexpand\acrpluralsuffix},%
6492     \GenericAcronymFields,%
6493     \the\glskeylisttok
6494   }%
6495 }%
6496 \@do@newglossaryentry
6497 }%
```

Make sure that \acrfull etc reflects the new style:

```
6498 \renewcommand*{\acrfullfmt}[3]{%
6499   \glslink[##1]{##2}{\genacrfullformat{##2}{##3}}}%
6500 \renewcommand*{\Acrfullfmt}[3]{%
6501   \glslink[##1]{##2}{\Genacrfullformat{##2}{##3}}}%
6502 \renewcommand*{\ACRfullfmt}[3]{%
6503   \glslink[##1]{##2}{%
6504     \mfirstucMakeUppercase{\genacrfullformat{##2}{##3}}}%
6505 \renewcommand*{\acrfullplfmt}[3]{%
6506   \glslink[##1]{##2}{\genplacrfullformat{##2}{##3}}}%
6507 \renewcommand*{\Acrfullplfmt}[3]{%
```

```

6508 \glslink{##1}{##2}{\Genplacrformat{##2}{##3}}}%
6509 \renewcommand*{\ACRfullplfmt}[3]{%
6510 \glslink{##1}{##2}{%
6511 \mfirstucMakeUppercase{\genplacrformat{##2}{##3}}}}%

```

Make sure that `\glsentryfull` etc reflects the new style:

```

6512 \renewcommand*{\glsentryfull}[1]{\genacrformat{##1}{}}%
6513 \renewcommand*{\Glsentryfull}[1]{\Genacrformat{##1}{}}%
6514 \renewcommand*{\glsentryfullpl}[1]{\genplacrformat{##1}{}}%
6515 \renewcommand*{\Glsentryfullpl}[1]{\Genplacrformat{##1}{}}%
6516 }

```

`\icAcronymFields` Fields used by `\SetGenericNewAcronym` that can be changed by the acronym style.

```

6517 \newcommand*{\GenericAcronymFields}{description={\the\glslongtok}}

```

`\acronymentry` `\acronymentry{<label>}`

Display style for the name field in the list of acronyms.

```

6518 \newcommand*{\acronymentry}[1]{\acronymfont{\glsentryshort{#1}}}

```

`\acronymsort` `\acronymsort{<short>}{<long>}`

Default sort format for acronyms.

```

6519 \newcommand*{\acronymsort}[2]{#1}

```

`\setacronymstyle` `\setacronymstyle{<style name>}`

```

6520 \newcommand*{\setacronymstyle}[1]{%
6521 \ifcsundef{@glsacr@dispstyle@#1}
6522 {%
6523 \PackageError{glossaries}{Undefined acronym style ‘#1’}{%
6524 }%
6525 {%
6526 \ifdefempty{\@glsacronymlists}%
6527 {%
6528 \DeclareAcronymList{\acronymtype}%
6529 }%
6530 }%
6531 \SetGenericNewAcronym
6532 \GlsUseAcrStyleDefs{#1}%
6533 \@for\@gls@type:=\@glsacronymlists\do{%
6534 \defglsentryfmt[\@gls@type]{\GlsUseAcrEntryDispStyle{#1}}%
6535 }%
6536 }%
6537 }

```

\newacronymstyle	\newacronymstyle{<style name>}{<entry format definition>}{<display definitions>}
------------------	--

Defines a new acronym style called <style name>.

```

6538 \newcommand*{\newacronymstyle}[3]{%
6539   \ifcsdef{@glsacr@dispstyle@#1}%
6540   {%
6541     \PackageError{glossaries}{Acronym style ‘#1’ already exists}{}%
6542   }%
6543   {%
6544     \csdef{@glsacr@dispstyle@#1}{#2}%
6545     \csdef{@glsacr@styledefs@#1}{#3}%
6546   }%
6547 }
```

\renewacronymstyle Redefines the given acronym style.

```

6548 \newcommand*{\renewacronymstyle}[3]{%
6549   \ifcsdef{@glsacr@dispstyle@#1}%
6550   {%
6551     \csdef{@glsacr@dispstyle@#1}{#2}%
6552     \csdef{@glsacr@styledefs@#1}{#3}%
6553   }%
6554   {%
6555     \PackageError{glossaries}{Acronym style ‘#1’ doesn’t exist}{}%
6556   }%
6557 }
```

\rEntryDispStyle

```

6558 \newcommand*{\GlsUseAcrEntryDispStyle}[1]{\csuse{@glsacr@dispstyle@#1}}
```

\UseAcrStyleDefs

```

6559 \newcommand*{\GlsUseAcrStyleDefs}[1]{\csuse{@glsacr@styledefs@#1}}
```

Predefined acronym styles:

long-short <long> (<short>) acronym style.

```

6560 \newacronymstyle{long-short}%
6561 {%
```

Check for long form in case this is a mixed glossary.

```

6562   \ifglshaslong{\glslabel}{\glsgenacfmt}{\glsgenentryfmt}%
6563 }%
6564 {%
6565   \renewcommand*{\GenericAcronymFields}{description={\the\glslongtok}}%
6566   \renewcommand*{\genacrfullformat}[2]{%
6567     \glsentrylong{##1}##2\space
6568     (\protect\firstacronymfont{\glsentryshort{##1}})%
6569   }%
6570   \renewcommand*{\Genacrfullformat}[2]{%
```

```

6571 \Glsentrylong{##1}##2\space
6572 (\protect\firstacronymfont{\glsentryshort{##1}})%
6573 }%
6574 \renewcommand*{\genplacrfullformat}[2]{%
6575 \glsentrylongpl{##1}##2\space
6576 (\protect\firstacronymfont{\glsentryshortpl{##1}})%
6577 }%
6578 \renewcommand*{\Genplacrfullformat}[2]{%
6579 \Glsentrylongpl{##1}##2\space
6580 (\protect\firstacronymfont{\glsentryshortpl{##1}})%
6581 }%
6582 \renewcommand*{\acronymentry}[1]{\acronymfont{\glsentryshort{##1}}}%
6583 \renewcommand*{\acronymsort}[2]{##1}%
6584 \renewcommand*{\acronymfont}[1]{##1}%
6585 \renewcommand*{\firstacronymfont}[1]{\acronymfont{##1}}%
6586 \renewcommand*{\acrpluralsuffix}{\glspluralsuffix}%
6587 }

```

long-sp-short Similar to the previous style but allows the space between the long and short form to be customized.

```

6588 \newacronymstyle{long-sp-short}%
6589 {%
  Check for long form in case this is a mixed glossary.
6590 \ifglshaslong{\glslabel}{\glsgenacfmt}{\glsgenentryfmt}%
6591 }%
6592 {%
6593 \renewcommand*{\GenericAcronymFields}{description={\the\glslongtok}}%
6594 \renewcommand*{\genacrfullformat}[2]{%
6595 \glsentrylong{##1}##2\glsacspace{##1}%
6596 (\protect\firstacronymfont{\glsentryshort{##1}})%
6597 }%
6598 \renewcommand*{\Genacrfullformat}[2]{%
6599 \Glsentrylong{##1}##2\glsacspace{##1}%
6600 (\protect\firstacronymfont{\glsentryshort{##1}})%
6601 }%
6602 \renewcommand*{\genplacrfullformat}[2]{%
6603 \glsentrylongpl{##1}##2\glsacspace{##1}%
6604 (\protect\firstacronymfont{\glsentryshortpl{##1}})%
6605 }%
6606 \renewcommand*{\Genplacrfullformat}[2]{%
6607 \Glsentrylongpl{##1}##2\glsacspace{##1}%
6608 (\protect\firstacronymfont{\glsentryshortpl{##1}})%
6609 }%
6610 \renewcommand*{\acronymentry}[1]{\acronymfont{\glsentryshort{##1}}}%
6611 \renewcommand*{\acronymsort}[2]{##1}%
6612 \renewcommand*{\acronymfont}[1]{##1}%
6613 \renewcommand*{\firstacronymfont}[1]{\acronymfont{##1}}%
6614 \renewcommand*{\acrpluralsuffix}{\glspluralsuffix}%
6615 }

```

`\glsacspace` Space between long and short form for the above style. This uses a non-breakable space if the short form is less than 3em, otherwise it uses a regular space.

```
6616 \newcommand*{\glsacspace}[1]{%
6617   \settowidth{\dimen@}{(\firstacronymfont{\glsentryshort{#1}})}%
6618   \ifdim\dimen@<3em~\else\space\fi
6619 }
```

`short-long` *(short)* (*long*) acronym style.

```
6620 \newacronymstyle{short-long}%
6621 {%
```

Check for long form in case this is a mixed glossary.

```
6622   \ifglshaslong{\glslabel}{\glsacspace}{\glsacspace}%
6623 }%
6624 {%
6625   \renewcommand*{\GenericAcronymFields}{description={\the\glslongtok}}%
6626   \renewcommand*{\genacrfullformat}[2]{%
6627     \protect\firstacronymfont{\glsentryshort{##1}}##2\space
6628     (\glsentrylong{##1})%
6629   }%
6630   \renewcommand*{\Genacrfullformat}[2]{%
6631     \protect\firstacronymfont{\Glsentryshort{##1}}##2\space
6632     (\glsentrylong{##1})%
6633   }%
6634   \renewcommand*{\genplacrfullformat}[2]{%
6635     \protect\firstacronymfont{\glsentryshortpl{##1}}##2\space
6636     (\glsentrylongpl{##1})%
6637   }%
6638   \renewcommand*{\Genplacrfullformat}[2]{%
6639     \protect\firstacronymfont{\Glsentryshortpl{##1}}##2\space
6640     (\glsentrylongpl{##1})%
6641   }%
6642   \renewcommand*{\acronymentry}[1]{\acronymfont{\glsentryshort{##1}}}%
6643   \renewcommand*{\acronymsort}[2]{##1}%
6644   \renewcommand*{\acronymfont}[1]{##1}%
6645   \renewcommand*{\firstacronymfont}[1]{\acronymfont{##1}}%
6646   \renewcommand*{\acrpluralsuffix}{\glspluralsuffix}%
6647 }
```

`long-sc-short` *(long)* (*textsc{short}*) acronym style.

```
6648 \newacronymstyle{long-sc-short}%
6649 {%
6650   \GlsUseAcrEntryDispStyle{long-short}%
6651 }%
6652 {%
6653   \GlsUseAcrStyleDefs{long-short}%
6654   \renewcommand*{\acronymfont}[1]{\textsc{##1}}%
6655   \renewcommand*{\acrpluralsuffix}{\glsupacrpluralsuffix}%
6656 }
```

long-sm-short *<long>* (\textsmaller{<short>}) acronym style.

```

6657 \newacronymstyle{long-sm-short}%
6658 {%
6659   \GlsUseAcrEntryDisplayStyle{long-short}%
6660 }%
6661 {%
6662   \GlsUseAcrStyleDefs{long-short}%
6663   \renewcommand{\acronymfont}[1]{\textsmaller{##1}}%
6664   \renewcommand*{\acrpluralsuffix}{\glsacrpluralsuffix}%
6665 }

```

sc-short-long *<short>* (\textsc{<long>}) acronym style.

```

6666 \newacronymstyle{sc-short-long}%
6667 {%
6668   \GlsUseAcrEntryDisplayStyle{short-long}%
6669 }%
6670 {%
6671   \GlsUseAcrStyleDefs{short-long}%
6672   \renewcommand{\acronymfont}[1]{\textsc{##1}}%
6673   \renewcommand*{\acrpluralsuffix}{\glsupacrpluralsuffix}%
6674 }

```

sm-short-long *<short>* (\textsmaller{<long>}) acronym style.

```

6675 \newacronymstyle{sm-short-long}%
6676 {%
6677   \GlsUseAcrEntryDisplayStyle{short-long}%
6678 }%
6679 {%
6680   \GlsUseAcrStyleDefs{short-long}%
6681   \renewcommand{\acronymfont}[1]{\textsmaller{##1}}%
6682   \renewcommand*{\acrpluralsuffix}{\glsacrpluralsuffix}%
6683 }

```

long-short-desc *<long>* ({<short>}) acronym style that has an accompanying description (which the user needs to supply).

```

6684 \newacronymstyle{long-short-desc}%
6685 {%
6686   \GlsUseAcrEntryDisplayStyle{long-short}%
6687 }%
6688 {%
6689   \GlsUseAcrStyleDefs{long-short}%
6690   \renewcommand*{\GenericAcronymFields}{}%
6691   \renewcommand*{\acronymsort}[2]{##2}%
6692   \renewcommand*{\acronymentry}[1]{%
6693     \glsentrylong{##1}\space (\acronymfont{\glsentryshort{##1}})}%
6694 }

```

g-sp-short-desc *<long>* ({<short>}) acronym style that has an accompanying description (which the user needs to supply). The space between the long and short form is given by \glsacspace.

```

6695 \newacronymstyle{long-sp-short-desc}%
6696 {%
6697   \GlsUseAcrEntryDisplayStyle{long-sp-short}%
6698 }%
6699 {%
6700   \GlsUseAcrStyleDefs{long-sp-short}%
6701   \renewcommand*{\GenericAcronymFields}{}%
6702   \renewcommand*{\acronymsort}[2]{##2}%
6703   \renewcommand*{\acronymentry}[1]{%
6704     \glentrylong{##1}\glspacespace{##1}(\acronymfont{\glentryshort{##1}})}%
6705 }

```

g-sc-short-desc *<long>* (\textsc{<short>}) acronym style that has an accompanying description (which the user needs to supply).

```

6706 \newacronymstyle{long-sc-short-desc}%
6707 {%
6708   \GlsUseAcrEntryDisplayStyle{long-sc-short}%
6709 }%
6710 {%
6711   \GlsUseAcrStyleDefs{long-sc-short}%
6712   \renewcommand*{\GenericAcronymFields}{}%
6713   \renewcommand*{\acronymsort}[2]{##2}%
6714   \renewcommand*{\acronymentry}[1]{%
6715     \glentrylong{##1}\space (\acronymfont{\glentryshort{##1}})}%
6716 }

```

g-sm-short-desc *<long>* (\textsmaller{<short>}) acronym style that has an accompanying description (which the user needs to supply).

```

6717 \newacronymstyle{long-sm-short-desc}%
6718 {%
6719   \GlsUseAcrEntryDisplayStyle{long-sm-short}%
6720 }%
6721 {%
6722   \GlsUseAcrStyleDefs{long-sm-short}%
6723   \renewcommand*{\GenericAcronymFields}{}%
6724   \renewcommand*{\acronymsort}[2]{##2}%
6725   \renewcommand*{\acronymentry}[1]{%
6726     \glentrylong{##1}\space (\acronymfont{\glentryshort{##1}})}%
6727 }

```

short-long-desc *<short>* ({<long>}) acronym style that has an accompanying description (which the user needs to supply).

```

6728 \newacronymstyle{short-long-desc}%
6729 {%
6730   \GlsUseAcrEntryDisplayStyle{short-long}%
6731 }%
6732 {%
6733   \GlsUseAcrStyleDefs{short-long}%
6734   \renewcommand*{\GenericAcronymFields}{}%

```

```

6735 \renewcommand*{\acronymsort}[2]{##2}%
6736 \renewcommand*{\acronymentry}[1]{%
6737     \glsentrylong{##1}\space (\acronymfont{\glsentryshort{##1}})}%
6738 }

```

short-long-desc *<long>* (\textsc{<short>}) acronym style that has an accompanying description (which the user needs to supply).

```

6739 \newacronymstyle{sc-short-long-desc}%
6740 {%
6741     \GlsUseAcrEntryDisplayStyle{sc-short-long}%
6742 }%
6743 {%
6744     \GlsUseAcrStyleDefs{sc-short-long}%
6745     \renewcommand*{\GenericAcronymFields}{}%
6746     \renewcommand*{\acronymsort}[2]{##2}%
6747     \renewcommand*{\acronymentry}[1]{%
6748         \glsentrylong{##1}\space (\acronymfont{\glsentryshort{##1}})}%
6749 }

```

short-long-desc *<long>* (\textsmaller{<short>}) acronym style that has an accompanying description (which the user needs to supply).

```

6750 \newacronymstyle{sm-short-long-desc}%
6751 {%
6752     \GlsUseAcrEntryDisplayStyle{sm-short-long}%
6753 }%
6754 {%
6755     \GlsUseAcrStyleDefs{sm-short-long}%
6756     \renewcommand*{\GenericAcronymFields}{}%
6757     \renewcommand*{\acronymsort}[2]{##2}%
6758     \renewcommand*{\acronymentry}[1]{%
6759         \glsentrylong{##1}\space (\acronymfont{\glsentryshort{##1}})}%
6760 }

```

dua *<long>* only acronym style.

```

6761 \newacronymstyle{dua}%
6762 {%

```

Check for long form in case this is a mixed glossary.

```

6763 \ifdefempty\glscustomtext
6764 {%
6765     \ifglshaslong{\glslabel}%
6766     {%
6767         \glsifplural
6768         {%

```

Plural form:

```

6769         \glscapscase
6770     }%

```

Plural form, don't adjust case:

```
6771      \glsentrylongpl{\glslabel}\glsinsert
6772      }%
6773      {%
```

Plural form, make first letter upper case:

```
6774      \Glsentrylongpl{\glslabel}\glsinsert
6775      }%
6776      {%
```

Plural form, all caps:

```
6777      \mfirstucMakeUppercase
6778      {\glsentrylongpl{\glslabel}\glsinsert}%
6779      }%
6780      }%
6781      {%
```

Singular form

```
6782      \glscapscase
6783      {%
```

Singular form, don't adjust case:

```
6784      \glsentrylong{\glslabel}\glsinsert
6785      }%
6786      {%
```

Subsequent singular form, make first letter upper case:

```
6787      \Glsentrylong{\glslabel}\glsinsert
6788      }%
6789      {%
```

Subsequent singular form, all caps:

```
6790      \mfirstucMakeUppercase
6791      {\glsentrylong{\glslabel}\glsinsert}%
6792      }%
6793      }%
6794      }%
6795      {%
```

Not an acronym:

```
6796      \glsgenentryfmt
6797      }%
6798      }%
6799      {\glscustomtext\glsinsert}%
6800      }%
6801      {%
6802      \renewcommand*{\GenericAcronymFields}{description={\the\glslongtok}}%

6803      \renewcommand*{\acrfullfmt}[3]{%
6804          \glslink{##1}{##2}{\glsentrylong{##2}##3\space
6805              (\acronymfont{\glsentryshort{##2}})}}%
6806      \renewcommand*{\Acrfullfmt}[3]{%
```

```

6807 \glslink{##1}{##2}{\Glsentrylong{##2}##3\space
6808 (\acronymfont{\glsentryshort{##2}})}}%
6809 \renewcommand*{\ACRfullfmt}[3]{%
6810 \glslink{##1}{##2}{%
6811 \mfirstucMakeUppercase{\glsentrylong{##2}##3\space
6812 (\acronymfont{\glsentryshort{##2}})}}}%

6813 \renewcommand*{\acrfullplfmt}[3]{%
6814 \glslink{##1}{##2}{\Glsentrylongpl{##2}##3\space
6815 (\acronymfont{\glsentryshortpl{##2}})}}%

6816 \renewcommand*{\Acrfullplfmt}[3]{%
6817 \glslink{##1}{##2}{\Glsentrylongpl{##2}##3\space
6818 (\acronymfont{\glsentryshortpl{##2}})}}%
6819 \renewcommand*{\ACRfullplfmt}[3]{%
6820 \glslink{##1}{##2}{%
6821 \mfirstucMakeUppercase{\glsentrylongpl{##2}##3\space
6822 (\acronymfont{\glsentryshortpl{##2}})}}}%
6823 \renewcommand*{\glsentryfull}[1]{%
6824 \glsentrylong{##1}\space(\acronymfont{\glsentryshort{##1}})%
6825 }%
6826 \renewcommand*{\Glsentryfull}[1]{%
6827 \Glsentrylong{##1}\space(\acronymfont{\glsentryshort{##1}})%
6828 }%
6829 \renewcommand*{\glsentryfullpl}[1]{%
6830 \glsentrylongpl{##1}\space(\acronymfont{\glsentryshortpl{##1}})%
6831 }%
6832 \renewcommand*{\Glsentryfullpl}[1]{%
6833 \Glsentrylongpl{##1}\space(\acronymfont{\glsentryshortpl{##1}})%
6834 }%
6835 \renewcommand*{\acronymentry}[1]{\acronymfont{\glsentryshort{##1}}}%
6836 \renewcommand*{\acronymsort}[2]{##1}%
6837 \renewcommand*{\acronymfont}[1]{##1}%
6838 \renewcommand*{\acrpluralsuffix}{\glsacrpluralsuffix}%
6839 }

```

dua-desc <long> only acronym style with user-supplied description.

```

6840 \newacronymstyle{dua-desc}%
6841 {%
6842 \GlsUseAcrEntryDispStyle{dua}%
6843 }%
6844 {%
6845 \GlsUseAcrStyleDefs{dua}%
6846 \renewcommand*{\GenericAcronymFields}{}%

6847 \renewcommand*{\acronymentry}[1]{\acronymfont{\glsentrylong{##1}}}%
6848 \renewcommand*{\acronymsort}[2]{##2}%
6849 }%

```

footnote *<short>*\footnote{*<long>*} acronym style.

```
6850 \newacronymstyle{footnote}%
6851 {%
```

Check for long form in case this is a mixed glossary.

```
6852 \ifglshaslong{\glslabel}{\glsgenacfmt}{\glsgenentryfmt}%
6853 }%
6854 {%
6855 \renewcommand*{\GenericAcronymFields}{description={\the\glslongtok}}%
```

Need to ensure hyperlinks are switched off on first use:

```
6856 \glshyperfirstfalse
6857 \renewcommand*{\genacrfullformat}[2]{%
6858 \protect\firstacronymfont{\glsentryshort{##1}}##2%
6859 \protect\footnote{\glsentrylong{##1}}%
6860 }%
6861 \renewcommand*{\Genacrfullformat}[2]{%
6862 \firstacronymfont{\Glsentryshort{##1}}##2%
6863 \protect\footnote{\glsentrylong{##1}}%
6864 }%
6865 \renewcommand*{\genplacrfullformat}[2]{%
6866 \protect\firstacronymfont{\glsentryshortpl{##1}}##2%
6867 \protect\footnote{\glsentrylongpl{##1}}%
6868 }%
6869 \renewcommand*{\Genplacrfullformat}[2]{%
6870 \protect\firstacronymfont{\Glsentryshortpl{##1}}##2%
6871 \protect\footnote{\glsentrylongpl{##1}}%
6872 }%
6873 \renewcommand*{\acronymentry}[1]{\acronymfont{\glsentryshort{##1}}}%
6874 \renewcommand*{\acronymsort}[2]{##1}%
6875 \renewcommand*{\acronymfont}[1]{##1}%
6876 \renewcommand*{\acrpluralsuffix}{\glssacrpluralsuffix}%
```

Don't use footnotes for \acrfull:

```
6877 \renewcommand*{\acrfullfmt}[3]{%
6878 \glslink[##1]{##2}{\acronymfont{\glsentryshort{##2}}##3\space
6879 (\glsentrylong{##2})}%
6880 \renewcommand*{\Acrfullfmt}[3]{%
6881 \glslink[##1]{##2}{\acronymfont{\Glsentryshort{##2}}##3\space
6882 (\glsentrylong{##2})}%
6883 \renewcommand*{\ACRfullfmt}[3]{%
6884 \glslink[##1]{##2}{%
6885 \mfirstucMakeUppercase{\acronymfont{\glsentryshort{##2}}##3\space
6886 (\glsentrylong{##2})}}}%
6887 \renewcommand*{\acrfullplfmt}[3]{%
6888 \glslink[##1]{##2}{\acronymfont{\glsentryshortpl{##2}}##3\space
6889 (\glsentrylongpl{##2})}%
6890 \renewcommand*{\Acrfullplfmt}[3]{%
6891 \glslink[##1]{##2}{\acronymfont{\Glsentryshortpl{##2}}##3\space
6892 (\glsentrylongpl{##2})}%
```

```

6893 \renewcommand*{\ACRfullplfmt}[3]{%
6894   \glslink{##1}{##2}{%
6895     \mfirstucMakeUppercase{\acronymfont{\glsentryshortpl{##2}}##3\space
6896     (\glsentrylongpl{##2})}}}%

```

Similarly for \glsentryfull etc:

```

6897 \renewcommand*{\glsentryfull}[1]{%
6898   \acronymfont{\glsentryshort{##1}}\space(\glsentrylong{##1})}%
6899 \renewcommand*{\Glsentryfull}[1]{%
6900   \acronymfont{\Glsentryshort{##1}}\space(\glsentrylong{##1})}%
6901 \renewcommand*{\glsentryfullpl}[1]{%
6902   \acronymfont{\glsentryshortpl{##1}}\space(\glsentrylongpl{##1})}%
6903 \renewcommand*{\Glsentryfullpl}[1]{%
6904   \acronymfont{\Glsentryshortpl{##1}}\space(\glsentrylongpl{##1})}%
6905 }

```

footnote-sc \textsc{\<short>}\footnote{\<long>} acronym style.

```

6906 \newacronymstyle{footnote-sc}%
6907 {%
6908   \GlsUseAcrEntryDisplayStyle{footnote}%
6909 }%
6910 {%
6911   \GlsUseAcrStyleDefs{footnote}%
6912   \renewcommand{\acronymentry}[1]{\acronymfont{\glsentryshort{##1}}}
6913   \renewcommand{\acronymfont}[1]{\textsc{##1}}%
6914   \renewcommand*{\acrpluralsuffix}{\glsupacrpluralsuffix}%
6915 }%

```

footnote-sm \textsmaller{\<short>}\footnote{\<long>} acronym style.

```

6916 \newacronymstyle{footnote-sm}%
6917 {%
6918   \GlsUseAcrEntryDisplayStyle{footnote}%
6919 }%
6920 {%
6921   \GlsUseAcrStyleDefs{footnote}%
6922   \renewcommand{\acronymentry}[1]{\acronymfont{\glsentryshort{##1}}}
6923   \renewcommand{\acronymfont}[1]{\textsmaller{##1}}%
6924   \renewcommand*{\acrpluralsuffix}{\glsacrpluralsuffix}%
6925 }%

```

footnote-desc \<short>\footnote{\<long>} acronym style that has an accompanying description (which the user needs to supply).

```

6926 \newacronymstyle{footnote-desc}%
6927 {%
6928   \GlsUseAcrEntryDisplayStyle{footnote}%
6929 }%
6930 {%
6931   \GlsUseAcrStyleDefs{footnote}%
6932   \renewcommand*{\GenericAcronymFields}{}%

```

```

6933 \renewcommand*{\acronymsort}[2]{##2}%
6934 \renewcommand*{\acronymentry}[1]{%
6935     \glsentrylong{##1}\space (\acronymfont{\glsentryshort{##1}})}%
6936 }

```

ootnote-sc-desc \textsc{<short>}\footnote{<long>} acronym style that has an accompanying description (which the user needs to supply).

```

6937 \newacronymstyle{footnote-sc-desc}%
6938 {%
6939     \GlsUseAcrEntryDisplayStyle{footnote-sc}%
6940 }%
6941 {%
6942     \GlsUseAcrStyleDefs{footnote-sc}%
6943     \renewcommand*{\GenericAcronymFields}{}%
6944     \renewcommand*{\acronymsort}[2]{##2}%
6945     \renewcommand*{\acronymentry}[1]{%
6946         \glsentrylong{##1}\space (\acronymfont{\glsentryshort{##1}})}%
6947 }

```

ootnote-sm-desc \textsmaller{<short>}\footnote{<long>} acronym style that has an accompanying description (which the user needs to supply).

```

6948 \newacronymstyle{footnote-sm-desc}%
6949 {%
6950     \GlsUseAcrEntryDisplayStyle{footnote-sm}%
6951 }%
6952 {%
6953     \GlsUseAcrStyleDefs{footnote-sm}%
6954     \renewcommand*{\GenericAcronymFields}{}%
6955     \renewcommand*{\acronymsort}[2]{##2}%
6956     \renewcommand*{\acronymentry}[1]{%
6957         \glsentrylong{##1}\space (\acronymfont{\glsentryshort{##1}})}%
6958 }

```

AcronymSynonyms

```

6959 \newcommand*{\DefineAcronymSynonyms}{%

```

Short form

\acs

```

6960 \let\acs\acrshort

```

First letter uppercase short form

\Acs

```

6961 \let\Acs\Acrshort

```

Plural short form

\acsp

```

6962 \let\acsp\acrshortpl

```

First letter uppercase plural short form

\Acsp

6963 \let\Acsp\Acrshortpl

Long form

\acl

6964 \let\acl\acrlong

Plural long form

\aclp

6965 \let\aclp\acrlongpl

First letter upper case long form

\Acl

6966 \let\Acl\Acrlong

First letter upper case plural long form

\Aclp

6967 \let\Aclp\Acrlongpl

Full form

\acf

6968 \let\acf\acrfull

Plural full form

\acfp

6969 \let\acfp\acrfullpl

First letter upper case full form

\Acf

6970 \let\Acf\Acrfull

First letter upper case plural full form

\Acfp

6971 \let\Acfp\Acrfullpl

Standard form

\ac

6972 \let\ac\gls

First upper case standard form

\Ac

6973 \let\Ac\Gls

Standard plural form

`\acp`

```
6974 \let\acp\glspl
```

Standard first letter upper case plural form

`\Acp`

```
6975 \let\Acp\Glspl
```

```
6976 }
```

Define synonyms if required

```
6977 \ifglsacrshortcuts
```

```
6978 \DefineAcronymSynonyms
```

```
6979 \fi
```

These commands for setting the style are now deprecated but are kept for backward compatibility.

`\glsAcronymDisplayStyle` Sets the default acronym display style for given glossary.

```
6980 \newcommand*{\SetDefaultAcronymDisplayStyle}[1]{%
```

```
6981 \defglsentryfmt[#1]{\glsentryfmt}%
```

```
6982 }
```

`\glsNewAcronymDef` Sets up the acronym definition for the default style. The information is provided by the tokens

`\glslabeltok`, `\glsshorttok`, `\glslongtok` and `\glskeylisttok`.

```
6983 \newcommand*{\DefaultNewAcronymDef}{%
```

```
6984 \edef\@do@newglossaryentry{%
```

```
6985 \noexpand\newglossaryentry{\the\glslabeltok}%
```

```
6986 {%
```

```
6987 type=\acronymtype,%
```

```
6988 name={\the\glsshorttok},%
```

```
6989 sort={\the\glsshorttok},%
```

```
6990 text={\the\glsshorttok},%
```

```
6991 first={\acrfullformat{\the\glslongtok}{\the\glsshorttok}},%
```

```
6992 plural={\noexpand\expandonce\noexpand\@glo@shortpl},%
```

```
6993 firstplural={\acrfullformat{\noexpand\expandonce\noexpand\@glo@longpl}%
```

```
6994 {\noexpand\expandonce\noexpand\@glo@shortpl}},%
```

```
6995 short={\the\glsshorttok},%
```

```
6996 shortplural={\the\glsshorttok\noexpand\acrpluralsuffix},%
```

```
6997 long={\the\glslongtok},%
```

```
6998 longplural={\the\glslongtok\noexpand\acrpluralsuffix},%
```

```
6999 description={\the\glslongtok},%
```

```
7000 descriptionplural={\noexpand\expandonce\noexpand\@glo@longpl},%
```

Remaining options specified by the user:

```
7001 \the\glskeylisttok
```

```
7002 }%
```

```
7003 }%
```

```
7004 \let\@org@gls@assign@firstpl\gls@assign@firstpl
```

```

7005 \let\@org@gl@s@assign@plural\gl@s@assign@plural
7006 \let\@org@gl@s@assign@descplural\gl@s@assign@descplural
7007 \def\gl@s@assign@firstpl##1##2{%
7008   \@@gl@s@expand@field{##1}{firstpl}{##2}%
7009 }%
7010 \def\gl@s@assign@plural##1##2{%
7011   \@@gl@s@expand@field{##1}{plural}{##2}%
7012 }%
7013 \def\gl@s@assign@descplural##1##2{%
7014   \@@gl@s@expand@field{##1}{descplural}{##2}%
7015 }%
7016 \do@newglossaryentry
7017 \let\gl@s@assign@firstpl\@org@gl@s@assign@firstpl
7018 \let\gl@s@assign@plural\@org@gl@s@assign@plural
7019 \let\gl@s@assign@symbolplural\@org@gl@s@assign@symbolplural
7020 }

```

ultAcronymStyle Set up the default acronym style:

```
7021 \newcommand*{\SetDefaultAcronymStyle}{%
```

Set the display style:

```

7022   \@for\@gl@s@type:=\@gl@sacronymlists\do{%
7023     \SetDefaultAcronymDisplayStyle{\@gl@s@type}%
7024   }%

```

Set up the definition of `\newacronym`:

```
7025 \renewcommand{\newacronym}[4][{}]{%
```

If user is just using the main glossary and hasn't identified it as a list of acronyms, then update.
(This is done to ensure backwards compatibility with versions prior to 2.04).

```

7026   \ifx\@gl@sacronymlists\empty
7027     \def\@glo@type{\acronymtype}%
7028     \setkeys{glossentry}{##1}%
7029     \DeclareAcronymList{\@glo@type}%
7030     \SetDefaultAcronymDisplayStyle{\@glo@type}%
7031   \fi
7032   \gl@keylisttok{##1}%
7033   \gl@labeltok{##2}%
7034   \gl@shorttok{##3}%
7035   \gl@longtok{##4}%
7036   \newacronymhook
7037   \DefaultNewAcronymDef
7038 }%
7039 \renewcommand*{\acrpluralsuffix}{\gl@sacrpluralsuffix}%
7040 }

```

\acrfootnote Used by the footnote acronym styles.

```
7041 \newcommand*{\acrfootnote}[3]{\acrlinkfootnote{#1}{#2}{#3}}
```

acrlinkfootnote

```

7042 \newcommand*{\acrlinkfootnote}[3]{%
7043   \footnote{\glslink[#1]{#2}{#3}}%
7044 }

```

acrnolinkfootnote

```

7045 \newcommand*{\acrnolinkfootnote}[3]{%
7046   \footnote{#3}%
7047 }

```

acronymDisplayStyle Sets the acronym display style for given glossary for the description and footnote combination.

```

7048 \newcommand*{\SetDescriptionFootnoteAcronymDisplayStyle}[1]{%
7049   \defglsentryfmt[#1]{%

7050     \ifdefempty\glscustomtext
7051     {%
7052       \ifglsused{\glslabel}%
7053       {%
7054         \acronymfont{\glsentryfmt}%
7055       }%
7056       {%
7057         \firstacronymfont{\glsentryfmt}%
7058         \ifgls hassymbol{\glslabel}%
7059         {%
7060           \expandafter\protect\expandafter\acrfootnote\expandafter
7061             {\@gls@link@opts}{\@gls@link@label}%
7062           {%
7063             \glsifplural
7064               {\glsentrysymbolplural{\glslabel}}%
7065               {\glsentrysymbol{\glslabel}}%
7066             }%
7067           }%
7068         }%
7069       }%
7070     {\glscustomtext\glsinsert}%
7071   }%
7072 }

```

acronymNewAcronymDef

```

7073 \newcommand*{\DescriptionFootnoteNewAcronymDef}{%
7074   \edef\@do@newglossaryentry{%
7075     \noexpand\newglossaryentry{\the\glslabeltok}%
7076     {%
7077       type=\acronymtype,%
7078       name={\noexpand\acronymfont{\the\glsshorttok}},%
7079       sort={\the\glsshorttok},%
7080       first={\the\glsshorttok},%
7081       firstplural={\noexpand\expandonce\noexpand\@glo@shortpl},%
7082       text={\the\glsshorttok},%

```

```

7083 plural={\noexpand\expandonce\noexpand\@glo@shortpl},%
7084 short={\the\glsshorttok},%
7085 shortplural={\the\glsshorttok\noexpand\acrpluralsuffix},%
7086 long={\the\glslongtok},%
7087 longplural={\the\glslongtok\noexpand\acrpluralsuffix},%
7088 symbol={\the\glslongtok},%
7089 symbolplural={\noexpand\expandonce\noexpand\@glo@longpl},%
7090 \the\glskeylisttok
7091 }%
7092 }%
7093 \let\@org@gls@assign@firstpl\gls@assign@firstpl
7094 \let\@org@gls@assign@plural\gls@assign@plural
7095 \let\@org@gls@assign@symbolplural\gls@assign@symbolplural
7096 \def\gls@assign@firstpl##1##2{%
7097   \@@gls@expand@field{##1}{firstpl}{##2}%
7098 }%
7099 \def\gls@assign@plural##1##2{%
7100   \@@gls@expand@field{##1}{plural}{##2}%
7101 }%
7102 \def\gls@assign@symbolplural##1##2{%
7103   \@@gls@expand@field{##1}{symbolplural}{##2}%
7104 }%
7105 \do@newglossaryentry
7106 \let\gls@assign@plural\@org@gls@assign@plural
7107 \let\gls@assign@firstpl\@org@gls@assign@firstpl
7108 \let\gls@assign@symbolplural\@org@gls@assign@symbolplural
7109 }

```

oteAcronymStyle If a description and footnote are both required, store the long form in the symbol key. Store the short form in text key. Note that since the long form is stored in the symbol key, if you want the long form to appear in the list of acronyms, you need to use a glossary style that displays the symbol key.

```

7110 \newcommand*{\SetDescriptionFootnoteAcronymStyle}{%
7111   \renewcommand{\newacronym}[4][\]{%
7112     \ifx\@glsacronymlists\@empty
7113       \def\@glo@type{\acronymtype}%
7114       \setkeys{glossentry}{##1}%
7115       \DeclareAcronymList{\@glo@type}%
7116       \SetDescriptionFootnoteAcronymDisplayStyle{\@glo@type}%
7117     \fi
7118     \glskeylisttok{##1}%
7119     \glslabeltok{##2}%
7120     \glsshorttok{##3}%
7121     \glslongtok{##4}%
7122     \newacronymhook
7123     \DescriptionFootnoteNewAcronymDef
7124   }%

```

If footnote package option is specified, set the first use to append the long form (stored in

symbol) as a footnote.

```
7125 \for\@gls@type:=\@glsacronymlists\do{%
7126   \SetDescriptionFootnoteAcronymDisplayStyle{\@gls@type}%
7127 }%
```

Redefine \acronymfont if small caps required. The plural suffix is set in an upright font so that it remains in normal lower case, otherwise it looks as though it's part of the acronym.

```
7128 \ifglsacrsmallcaps
7129   \renewcommand*{\acronymfont}[1]{\textsc{##1}}%
7130   \renewcommand*{\acrpluralsuffix}{\glsupacrpluralsuffix}%
7131 \else
7132   \ifglsacrsmaller
7133     \renewcommand*{\acronymfont}[1]{\textsmaller{##1}}%
7134   \fi
7135 \fi
```

Check for package option clash

```
7136 \ifglsacrdua
7137   \PackageError{glossaries}{Option clash: ‘footnote’ and ‘dua’
7138     can’t both be set}{}%
7139 \fi
7140 }%
```

nymDisplayStyle Sets the acronym display style for given glossary with description and dua combination.

```
7141 \newcommand*{\SetDescriptionDUAAcronymDisplayStyle}[1]{%
7142   \defglsentryfmt[##1]{\glsentryfmt}%
7143 }
```

UANewAcronymDef

```
7144 \newcommand*{\DescriptionDUANewAcronymDef}{%
7145   \edef\@do@newglossaryentry{%
7146     \noexpand\newglossaryentry{\the\glslabeltok}%
7147     {%
7148       type=\acronymtype,%
7149       name={\the\glslongtok},%
7150       sort={\the\glslongtok},%
7151       text={\the\glslongtok},%
7152       first={\the\glslongtok},%
7153       plural={\noexpand\expandonce\noexpand\@glo@longpl},%
7154       firstplural={\noexpand\expandonce\noexpand\@glo@longpl},%
7155       short={\the\glsshorttok},%
7156       shortplural={\the\glsshorttok\noexpand\acrpluralsuffix},%
7157       long={\the\glslongtok},%
7158       longplural={\the\glslongtok\noexpand\acrpluralsuffix},%
7159       symbol={\the\glsshorttok},%
7160       symbolplural={\noexpand\expandonce\noexpand\@glo@shortpl},%
7161       \the\glskeylisttok
7162     }%
7163   }%
```

```

7164 \let\@org@gl@s@assign@firstpl\gl@s@assign@firstpl
7165 \let\@org@gl@s@assign@plural\gl@s@assign@plural
7166 \let\@org@gl@s@assign@symbolplural\gl@s@assign@symbolplural
7167 \def\gl@s@assign@firstpl##1##2{%
7168   \@@gl@s@expand@field{##1}{firstpl}{##2}%
7169 }%
7170 \def\gl@s@assign@plural##1##2{%
7171   \@@gl@s@expand@field{##1}{plural}{##2}%
7172 }%
7173 \def\gl@s@assign@symbolplural##1##2{%
7174   \@@gl@s@expand@field{##1}{symbolplural}{##2}%
7175 }%
7176 \do@newglossaryentry
7177 \let\gl@s@assign@firstpl\@org@gl@s@assign@firstpl
7178 \let\gl@s@assign@plural\@org@gl@s@assign@plural
7179 \let\gl@s@assign@symbolplural\@org@gl@s@assign@symbolplural
7180 }

```

DUAACronymStyle Description, don't use acronym and no footnote. Note that the short form is stored in the symbol key, so if the short form needs to be displayed in the glossary, use a style the displays the symbol.

```

7181 \newcommand*{\SetDescriptionDUAACronymStyle}{%
7182   \ifgl@sacrsmallcaps
7183     \PackageError{glossaries}{Option clash: 'smallcaps' and 'dua'
7184       can't both be set}{}%
7185   \else
7186     \ifgl@sacrsmaller
7187       \PackageError{glossaries}{Option clash: 'smaller' and 'dua'
7188         can't both be set}{}%
7189     \fi
7190   \fi
7191   \renewcommand{\newacronym}[4][ ]{%
7192     \ifx\@gl@sacronymlists\@empty
7193       \def\@glo@type{\acronymtype}%
7194       \setkeys{glossentry}{##1}%
7195       \DeclareAcronymList{\@glo@type}%
7196       \SetDescriptionDUAACronymDisplayStyle{\@glo@type}%
7197     \fi
7198     \gl@keylisttok{##1}%
7199     \gl@labeltok{##2}%
7200     \gl@shorttok{##3}%
7201     \gl@longtok{##4}%
7202     \newacronymhook
7203     \DescriptionDUANewAcronymDef
7204   }%

```

Set display.

```

7205 \@for\@gl@s@type:=\@gl@sacronymlists\do{%
7206   \SetDescriptionDUAACronymDisplayStyle{\@gl@s@type}%

```

```

7207 }%
7208 }%

```

`\acronymDisplayStyle` Sets the acronym display style for given glossary using the description setting (but not footnote or dua).

```

7209 \newcommand*{\SetDescriptionAcronymDisplayStyle}[1]{%
7210   \def\glsentryfmt[#1]{%

7211     \ifdefempty\glscustomtext
7212     {%
7213       \ifglssused{\glslabel}%
7214       {%

```

Move the inserted text outside of `\acronymfont`

```

7215       \let\gls@org@insert\glsinsert
7216       \let\glsinsert\@empty
7217       \acronymfont{\glsentryfmt}\gls@org@insert
7218     }%
7219     {%
7220       \glsentryfmt
7221       \ifglshassymbol{\glslabel}%
7222       {%
7223         \glsifplural
7224         {%
7225           \def\@glo@symbol{\glsentrysymbolplural{\glslabel}}%
7226           }%
7227           {%
7228             \def\@glo@symbol{\glsentrysymbol{\glslabel}}%
7229             }%
7230           \space(\protect\firstacronymfont
7231             {\glscapscase
7232               {\@glo@symbol}
7233               {\@glo@symbol}
7234               {\mfirstucMakeUppercase{\@glo@symbol}}})%
7235           }%
7236         }%
7237       }%
7238     }%
7239     {\glscustomtext\glsinsert}%
7240   }%
7241 }

```

`\onNewAcronymDef`

```

7242 \newcommand*{\DescriptionNewAcronymDef}{%
7243   \edef\@do@newglossaryentry{%
7244     \noexpand\newglossaryentry{\the\glslabeltok}%
7245     {%
7246       type=\acronymtype,%
7247       name={\noexpand

```

```

7248     \acronymformat{\the\glsshorttok}{\the\glslongtok}},%
7249     sort={\the\glsshorttok},%
7250     first={\the\glslongtok},%
7251     firstplural={\noexpand\expandonce\noexpand\@glo@longpl},%
7252     text={\the\glsshorttok},%
7253     plural={\noexpand\expandonce\noexpand\@glo@shortpl},%
7254     short={\the\glsshorttok},%
7255     shortplural={\the\glsshorttok\noexpand\acrpluralsuffix},%
7256     long={\the\glslongtok},%
7257     longplural={\the\glslongtok\noexpand\acrpluralsuffix},%
7258     symbol={\noexpand\@glo@text},%
7259     symbolplural={\noexpand\expandonce\noexpand\@glo@shortpl},%
7260     \the\glskeylisttok}%
7261 }%
7262 \let\@org@gls@assign@firstpl\gls@assign@firstpl
7263 \let\@org@gls@assign@plural\gls@assign@plural
7264 \let\@org@gls@assign@symbolplural\gls@assign@symbolplural
7265 \def\gls@assign@firstpl##1##2{%
7266   \@gls@expand@field{##1}{firstpl}{##2}%
7267 }%
7268 \def\gls@assign@plural##1##2{%
7269   \@gls@expand@field{##1}{plural}{##2}%
7270 }%
7271 \def\gls@assign@symbolplural##1##2{%
7272   \@gls@expand@field{##1}{symbolplural}{##2}%
7273 }%
7274 \do@newglossaryentry
7275 \let\gls@assign@firstpl\@org@gls@assign@firstpl
7276 \let\gls@assign@plural\@org@gls@assign@plural
7277 \let\gls@assign@symbolplural\@org@gls@assign@symbolplural
7278 }

```

ionAcronymStyle Option description is used, but not dua or footnote. Store long form in first key and short form in text and symbol key. The name is stored using \acronymformat to allow the user to override the way the name is displayed in the list of acronyms.

```

7279 \newcommand*\SetDescriptionAcronymStyle{%
7280   \renewcommand{\newacronym}[4][]{%
7281     \ifx\@glsacronymlists\@empty
7282       \def\@glo@type{\acronymtype}%
7283       \setkeys{glossentry}{##1}%
7284       \DeclareAcronymList{\@glo@type}%
7285       \SetDescriptionAcronymDisplayStyle{\@glo@type}%
7286     \fi
7287     \glskeylisttok{##1}%
7288     \glslabeltok{##2}%
7289     \glsshorttok{##3}%
7290     \glslongtok{##4}%
7291     \newacronymhook
7292     \DescriptionNewAcronymDef

```

7293 }%

Set display.

```
7294 \@for\@gls@type:=\@glsacronymlists\do{%
7295   \SetDescriptionAcronymDisplayStyle{\@gls@type}%
7296 }%
```

Redefine `\acronymfont` if small caps required. The plural suffix is set in an upright font so that it remains in normal lower case, otherwise it looks as though it's part of the acronym.

```
7297 \ifglsacrsmallcaps
7298   \renewcommand{\acronymfont}[1]{\textsc{##1}}
7299   \renewcommand*{\acrpluralsuffix}{\glsupacrpluralsuffix}%
7300 \else
7301   \ifglsacrsmaller
7302     \renewcommand*{\acronymfont}[1]{\textsmaller{##1}}%
7303   \fi
7304 \fi
7305 }%
```

`\acronymDisplayStyle` Sets the acronym display style for given glossary with footnote setting (but not description or dua).

```
7306 \newcommand*{\SetFootnoteAcronymDisplayStyle}[1]{%
7307   \defglsentryfmt[#1]{%
```

```
7308     \ifdefempty\glscustomtext
7309     {%
```

Move the inserted text outside of `\acronymfont`

```
7310     \let\gls@org@insert\glsinsert
7311     \let\glsinsert\@empty
7312     \ifglsused{\glslabel}%
7313     {%
7314       \acronymfont{\glsentryfmt}\gls@org@insert
7315     }%
7316     {%
7317       \firstacronymfont{\glsentryfmt}\gls@org@insert
7318       \ifglsashaslong{\glslabel}%
7319       {%
7320         \expandafter\protect\expandafter\acrfootnote\expandafter
7321         {\@gls@link@opts}{\@gls@link@label}%
7322         {%
7323           \glsifplural
7324             {\glsentrylongpl{\glslabel}}%
7325             {\glsentrylong{\glslabel}}%
7326         }%
7327       }%
7328     }%
7329   }%
7330 }%
```

```

7331     {\glscustomtext\glsinsert}%
7332 }%
7333 }

```

teNewAcronymDef

```

7334 \newcommand*{\FootnoteNewAcronymDef}{%
7335   \edef\@do@newglossaryentry{%
7336     \noexpand\newglossaryentry{\the\glslabeltok}%
7337     {%
7338       type=\acronymtype,%
7339       name={\noexpand\acronymfont{\the\glsshorttok}},%
7340       sort={\the\glsshorttok},%
7341       text={\the\glsshorttok},%
7342       plural={\noexpand\expandonce\noexpand\@glo@shortpl},%
7343       first={\the\glsshorttok},%
7344       firstplural={\noexpand\expandonce\noexpand\@glo@shortpl},%
7345       short={\the\glsshorttok},%
7346       shortplural={\the\glsshorttok\noexpand\acrpluralsuffix},%
7347       long={\the\glslongtok},%
7348       longplural={\the\glslongtok\noexpand\acrpluralsuffix},%
7349       description={\the\glslongtok},%
7350       descriptionplural={\noexpand\expandonce\noexpand\@glo@longpl},%
7351       \the\glskeylisttok
7352     }%
7353   }%
7354   \let\@org@gls@assign@plural\gls@assign@plural
7355   \let\@org@gls@assign@firstpl\gls@assign@firstpl
7356   \let\@org@gls@assign@descplural\gls@assign@descplural
7357   \def\gls@assign@firstpl##1##2{%
7358     \@@gls@expand@field{##1}{firstpl}{##2}%
7359   }%
7360   \def\gls@assign@plural##1##2{%
7361     \@@gls@expand@field{##1}{plural}{##2}%
7362   }%
7363   \def\gls@assign@descplural##1##2{%
7364     \@@gls@expand@field{##1}{descplural}{##2}%
7365   }%
7366   \@do@newglossaryentry
7367   \let\gls@assign@plural\@org@gls@assign@plural
7368   \let\gls@assign@firstpl\@org@gls@assign@firstpl
7369   \let\gls@assign@descplural\@org@gls@assign@descplural
7370 }

```

oteAcronymStyle If footnote package option is specified, set the first use to append the long form (stored in description) as a footnote. Use the description key to store the long form.

```

7371 \newcommand*{\SetFootnoteAcronymStyle}{%
7372   \renewcommand{\newacronym}[4][\]{%
7373     \ifx\@glsacronymlists\empty
7374       \def\@glo@type{\acronymtype}%

```

```

7375     \setkeys{glossentry}{##1}%
7376     \DeclareAcronymList{\@glo@type}%
7377     \SetFootnoteAcronymDisplayStyle{\@glo@type}%
7378     \fi
7379     \glskeylisttok{##1}%
7380     \glslabeltok{##2}%
7381     \glsshorttok{##3}%
7382     \glslongtok{##4}%
7383     \newacronymhook
7384     \FootnoteNewAcronymDef
7385 }%

```

Set display

```

7386 \@for\@gls@type:=\@glsacronymlists\do{%
7387   \SetFootnoteAcronymDisplayStyle{\@gls@type}%
7388 }%

```

Redefine `\acronymfont` if small caps required. The plural suffix is set in an upright font so that it remains in normal lower case, otherwise it looks as though it's part of the acronym.

```

7389 \ifglsacrsmallcaps
7390   \renewcommand*{\acronymfont}[1]{\textsc{##1}}%
7391   \renewcommand*{\acrpluralsuffix}{\glsupacrpluralsuffix}%
7392 \else
7393   \ifglsacrsmaller
7394     \renewcommand*{\acronymfont}[1]{\textsmaller{##1}}%
7395   \fi
7396 \fi

```

Check for option clash

```

7397 \ifglsacrdua
7398   \PackageError{glossaries}{Option clash: ‘footnote’ and ‘dua’
7399     can’t both be set}{}%
7400 \fi
7401 }%

```

`\parenifnotempty` Do a space followed by the argument if the argument doesn't expand to empty or `\relax`. If argument isn't empty (or `\relax`), apply the macro to it given in the second argument.

```

7402 \DeclareRobustCommand*\glsdoparenifnotempty[2]{%
7403   \protected@edef\gls@tmp{##1}%
7404   \ifdefempty\gls@tmp
7405   {}%
7406   {%
7407     \ifx\gls@tmp\@gls@default@value
7408     \else
7409       \space (#2{##1})%
7410     \fi
7411   }%
7412 }

```

`\acronymDisplayStyle` Sets the acronym display style for given glossary where neither footnote nor description is required, but smallcaps or smaller specified.

```

7413 \newcommand*{\SetSmallAcronymDisplayStyle}[1]{%
7414   \def\glsentryfmt[#1]{%

7415     \ifdefempty\glscustomtext
7416     {%

      Move the inserted text outside of \acronymfont

7417       \let\gls@org@insert\glsinsert
7418       \let\glsinsert\@empty
7419       \ifglsused{\glslabel}%
7420       {%
7421         \acronymfont{\glsentryfmt}\gls@org@insert
7422       }%
7423       {%
7424         \glsentryfmt
7425         \ifgls hassymbol{\glslabel}%
7426         {%
7427           \glsifplural
7428           {%
7429             \def\@glo@symbol{\glsentrysymbolplural{\glslabel}}%
7430           }%
7431           {%
7432             \def\@glo@symbol{\glsentrysymbol{\glslabel}}%
7433           }%
7434           \space
7435           (\gls caps case
7436             {\firstacronymfont{\@glo@symbol}}%
7437             {\firstacronymfont{\@glo@symbol}}%
7438             {\firstacronymfont{\mfirstucMakeUppercase{\@glo@symbol}}})%
7439           }%
7440           {}%
7441         }%
7442       }%
7443       {\gls customtext\glsinsert}%
7444     }%
7445 }

```

`\allNewAcronymDef`

```

7446 \newcommand*{\SmallNewAcronymDef}{%
7447   \edef\@do@newglossaryentry{%
7448     \noexpand\newglossaryentry{\the\glslabeltok}%
7449     {%
7450       type=\acronymtype,%
7451       name={\noexpand\acronymfont{\the\glsshorttok}},%
7452       sort={\the\glsshorttok},%
7453       text={\the\glsshorttok},%

```

Default to the short plural.

```

7454 plural={\noexpand\expandonce\noexpand\@glo@shortpl},%
7455 first={\the\glslongtok},%
    Default to the long plural.
7456 firstplural={\noexpand\expandonce\noexpand\@glo@longpl},%
7457 short={\the\glsshorttok},%
7458 shortplural={\the\glsshorttok\noexpand\acrpluralsuffix},%
7459 long={\the\glslongtok},%
7460 longplural={\the\glslongtok\noexpand\acrpluralsuffix},%
7461 description={\noexpand\@glo@first},%
7462 descriptionplural={\noexpand\expandonce\noexpand\@glo@longpl},%
7463 symbol={\the\glsshorttok},%
    Default to the short plural.
7464 symbolplural={\noexpand\expandonce\noexpand\@glo@shortpl},%
7465 \the\glskeylisttok
7466 }%
7467 }%
7468 \let\@org@gls@assign@firstpl\gls@assign@firstpl
7469 \let\@org@gls@assign@plural\gls@assign@plural
7470 \let\@org@gls@assign@descplural\gls@assign@descplural
7471 \let\@org@gls@assign@symbolplural\gls@assign@symbolplural
7472 \def\gls@assign@firstpl##1##2{%
7473   \@@gls@expand@field{##1}{firstpl}{##2}%
7474 }%
7475 \def\gls@assign@plural##1##2{%
7476   \@@gls@expand@field{##1}{plural}{##2}%
7477 }%
7478 \def\gls@assign@descplural##1##2{%
7479   \@@gls@expand@field{##1}{descplural}{##2}%
7480 }%
7481 \def\gls@assign@symbolplural##1##2{%
7482   \@@gls@expand@field{##1}{symbolplural}{##2}%
7483 }%
7484 \do@newglossaryentry
7485 \let\gls@assign@firstpl\@org@gls@assign@firstpl
7486 \let\gls@assign@plural\@org@gls@assign@plural
7487 \let\gls@assign@descplural\@org@gls@assign@descplural
7488 \let\gls@assign@symbolplural\@org@gls@assign@symbolplural
7489 }

```

allAcronymStyle Neither footnote nor description required, but smallcaps or smaller specified. Use the symbol key to store the short form and first to store the long form.

```

7490 \newcommand*{\SetSmallAcronymStyle}{%
7491   \renewcommand{\newacronym}[4][\]{%
7492     \ifx\@glsacronymlists\@empty
7493       \def\@glo@type{\acronymtype}%
7494       \setkeys{glossentry}{##1}%
7495       \DeclareAcronymList{\@glo@type}%
7496       \SetSmallAcronymDisplayStyle{\@glo@type}%

```

```

7497 \fi
7498 \glskeylisttok{##1}%
7499 \glslabeltok{##2}%
7500 \glsshorttok{##3}%
7501 \glslongtok{##4}%
7502 \newacronymhook
7503 \SmallNewAcronymDef
7504 }%

```

Change the display since first only contains long form.

```

7505 \@for\@gls@type:=\@glsacronymlists\do{%
7506 \SetSmallAcronymDisplayStyle{\@gls@type}%
7507 }%

```

Redefine \acronymfont if small caps required. The plural suffix is set in an upright font so that it remains in normal lower case, otherwise it looks as though it's part of the acronym.

```

7508 \ifglsacrsmallcaps
7509 \renewcommand*\acronymfont[1]{\textsc{##1}}
7510 \renewcommand*\acrpluralsuffix{\glsupacrpluralsuffix}%
7511 \else
7512 \renewcommand*\acronymfont[1]{\textsmaller{##1}}
7513 \fi

```

check for option clash

```

7514 \ifglsacrdua
7515 \ifglsacrsmallcaps
7516 \PackageError{glossaries}{Option clash: ‘smallcaps’ and ‘dua’
7517 can’t both be set}{}%
7518 \else
7519 \PackageError{glossaries}{Option clash: ‘smaller’ and ‘dua’
7520 can’t both be set}{}%
7521 \fi
7522 \fi
7523 }%

```

DUADisplayStyle Sets the acronym display style for given glossary with dua setting.

```

7524 \newcommand*\SetDUADisplayStyle[1]{%
7525 \defglsentryfmt[1]{\glsentryfmt}%
7526 }

```

UANewAcronymDef

```

7527 \newcommand*\DUANewAcronymDef{%
7528 \edef\@do@newglossaryentry{%
7529 \noexpand\newglossaryentry{\the\glslabeltok}%
7530 {%
7531 type=\acronymtype,%
7532 name={\the\glsshorttok},%
7533 text={\the\glslongtok},%
7534 first={\the\glslongtok},%
7535 plural={\noexpand\expandonce\noexpand\@glo@longpl},%

```

```

7536     firstplural={\noexpand\expandonce\noexpand\@glo@longpl},%
7537     short={\the\glsshorttok},%
7538     shortplural={\the\glsshorttok\noexpand\acrpluralsuffix},%
7539     long={\the\glslongtok},%
7540     longplural={\the\glslongtok\noexpand\acrpluralsuffix},%
7541     description={\the\glslongtok},%
7542     descriptionplural={\noexpand\expandonce\noexpand\@glo@longpl},%
7543     symbol={\the\glsshorttok},%
7544     symbolplural={\noexpand\expandonce\noexpand\@glo@shortpl},%
7545     \the\glskeylisttok
7546   }%
7547 }%
7548 \let\@org@gls@assign@firstpl\gls@assign@firstpl
7549 \let\@org@gls@assign@plural\gls@assign@plural
7550 \let\@org@gls@assign@symbolplural\gls@assign@symbolplural
7551 \let\@org@gls@assign@descplural\gls@assign@descplural
7552 \def\gls@assign@firstpl##1##2{%
7553   \@gls@expand@field{##1}{firstpl}{##2}%
7554 }%
7555 \def\gls@assign@plural##1##2{%
7556   \@gls@expand@field{##1}{plural}{##2}%
7557 }%
7558 \def\gls@assign@symbolplural##1##2{%
7559   \@gls@expand@field{##1}{symbolplural}{##2}%
7560 }%
7561 \def\gls@assign@descplural##1##2{%
7562   \@gls@expand@field{##1}{descplural}{##2}%
7563 }%
7564 \do@newglossaryentry
7565 \let\gls@assign@firstpl\@org@gls@assign@firstpl
7566 \let\gls@assign@plural\@org@gls@assign@plural
7567 \let\gls@assign@symbolplural\@org@gls@assign@symbolplural
7568 \let\gls@assign@descplural\@org@gls@assign@descplural
7569 }

```

\SetDUASStyle Always expand acronyms.

```

7570 \newcommand*{\SetDUASStyle}{%
7571   \renewcommand{\newacronym}[4][]{%
7572     \ifx\@glsacronymlists\@empty
7573       \def\@glo@type{\acronymtype}%
7574       \setkeys{glossentry}{##1}%
7575       \DeclareAcronymList{\@glo@type}%
7576       \SetDUADisplayStyle{\@glo@type}%
7577     \fi
7578     \glskeylisttok{##1}%
7579     \glslabeltok{##2}%
7580     \glsshorttok{##3}%
7581     \glslongtok{##4}%
7582     \newacronymhook

```

```

7583     \DUANewAcronymDef
7584 }%

Set the display
7585 \@for\@gls@type:=\@glsacronymlists\do{%
7586     \SetDUADisplayStyle{\@gls@type}%
7587 }%
7588 }

```

SetAcronymStyle

```

7589 \newcommand*{\SetAcronymStyle}{%
7590     \SetDefaultAcronymStyle
7591     \ifglsacrdescription
7592         \ifglsacrfootnote
7593             \SetDescriptionFootnoteAcronymStyle
7594         \else
7595             \ifglsacrdua
7596                 \SetDescriptionDUAAcronymStyle
7597             \else
7598                 \SetDescriptionAcronymStyle
7599             \fi
7600         \fi
7601     \else
7602         \ifglsacrfootnote
7603             \SetFootnoteAcronymStyle
7604         \else
7605             \ifthenelse{\boolean{glsacrsmalldcaps}\OR
7606                 \boolean{glsacrsmaller}}{%
7607                 {%
7608                     \SetSmallAcronymStyle
7609                 }%
7610             }%
7611             \ifglsacrdua
7612                 \SetDUASyle
7613             \fi
7614         }%
7615     \fi
7616 \fi
7617 }

```

Set the acronym style according to the package options

```
7618 \SetAcronymStyle
```

Allow user to define their own custom acronyms. (For compatibility with versions before v3.0, the short form is stored in the user1 key, the plural short form is stored in the user2 key, the long form is stored in the user3 key and the plural long form is stored in the user4 key.) Defaults to displaying only the acronym with the long form as the description.

`\SetCustomDisplayStyle` Sets the acronym display style.

```
7619 \newcommand*{\SetCustomDisplayStyle}[1]{%
```

```

7620 \defglentryfmt[#1]{\glsgenentryfmt}%
7621 }

```

omAcronymFields

```

7622 \newcommand*{\CustomAcronymFields}{%
7623   name={\the\glsshorttok},%
7624   description={\the\glslongtok},%
7625   first={\acrfullformat{\the\glslongtok}{\the\glsshorttok}},%
7626   firstplural={\acrfullformat
7627     {\noexpand\glentrylongpl{\the\glslabeltok}}%
7628     {\noexpand\glentryshortpl{\the\glslabeltok}}},%

7629   text={\the\glsshorttok},%
7630   plural={\the\glsshorttok\noexpand\acrpluralsuffix}%
7631 }

```

omNewAcronymDef

```

7632 \newcommand*{\CustomNewAcronymDef}{%
7633   \protected@edef\@do@newglossaryentry{%
7634     \noexpand\newglossaryentry{\the\glslabeltok}%
7635     {%
7636       type=\acronymtype,%
7637       short={\the\glsshorttok},%
7638       shortplural={\the\glsshorttok\noexpand\acrpluralsuffix},%
7639       long={\the\glslongtok},%
7640       longplural={\the\glslongtok\noexpand\acrpluralsuffix},%
7641       user1={\the\glsshorttok},%
7642       user2={\the\glsshorttok\noexpand\acrpluralsuffix},%
7643       user3={\the\glslongtok},%
7644       user4={\the\glslongtok\noexpand\acrpluralsuffix},%
7645       \CustomAcronymFields,%
7646       \the\glskeylisttok
7647     }%
7648   }%
7649   \@do@newglossaryentry
7650 }

```

\SetCustomStyle

```

7651 \newcommand*{\SetCustomStyle}{%
7652   \renewcommand{\newacronym}[4][\{%
7653     \ifx\@glsacronymlists\@empty
7654       \def\@glo@type{\acronymtype}%
7655       \setkeys{glossentry}{##1}%
7656       \DeclareAcronymList{\@glo@type}%
7657       \SetCustomDisplayStyle{\@glo@type}%
7658     \fi
7659     \glskeylisttok{##1}%
7660     \glslabeltok{##2}%
7661     \glsshorttok{##3}%

```

```

7662 \glslongtok{##4}%
7663 \newacronymhook
7664 \CustomNewAcronymDef
7665 }%
Set the display
7666 \@for\@gls@type:=\@glsacronymlists\do{%
7667 \SetCustomDisplayStyle{\@gls@type}%
7668 }%
7669 }

```

1.19 Predefined Glossary Styles

The glossaries bundle comes with some predefined glossary styles. These need to be loaded now for the style option to use them.

First, the glossary hyper-navigation commands need to be loaded.

```
7670 \RequirePackage{glossary-hypermnav}
```

The styles that use list-like environments. These are not loaded if the nolist option is used:

```
7671 \@gls@loadlist
```

The styles that use the longtable environment. These are not loaded if the nolong package option is used.

```
7672 \@gls@loadlong
```

The styles that use the supertabular environment. These are not loaded if the nosuper package option is used or if the package isn't installed.

```
7673 \@gls@loadsuper
```

The tree-like styles. These are not loaded if the notree package option is used.

```
7674 \@gls@loadtree
```

The default glossary style is set according to the style package option, but can be overridden by \glossarystyle. The required style must be defined at this point.

```

7675 \ifx\@glossary@default@style\relax
7676 \else
7677 \setglossarystyle{\@glossary@default@style}
7678 \fi

```

1.20 Debugging Commands

\showgloparent `\showgloparent{\label}`

```

7679 \newcommand*{\showgloparent}[1]{%
7680 \expandafter\show\csname glo@\glsdetoklabel{#1}@parent\endcsname
7681 }

```

`\showglolevel` `\showglolevel{<label>}`

```
7682 \newcommand*{\showglolevel}[1]{%
7683   \expandafter\show\csname glo@glstetoklabel{#1}@level\endcsname
7684 }
```

`\showglotext` `\showglotext{<label>}`

```
7685 \newcommand*{\showglotext}[1]{%
7686   \expandafter\show\csname glo@glstetoklabel{#1}@text\endcsname
7687 }
```

`\showgloplural` `\showgloplural{<label>}`

```
7688 \newcommand*{\showgloplural}[1]{%
7689   \expandafter\show\csname glo@glstetoklabel{#1}@plural\endcsname
7690 }
```

`\showglofirst` `\showglofirst{<label>}`

```
7691 \newcommand*{\showglofirst}[1]{%
7692   \expandafter\show\csname glo@glstetoklabel{#1}@first\endcsname
7693 }
```

`\showglofirstpl` `\showglofirstpl{<label>}`

```
7694 \newcommand*{\showglofirstpl}[1]{%
7695   \expandafter\show\csname glo@glstetoklabel{#1}@firstpl\endcsname
7696 }
```

`\showglotype` `\showglotype{<label>}`

```
7697 \newcommand*{\showglotype}[1]{%
7698   \expandafter\show\csname glo@glstetoklabel{#1}@type\endcsname
7699 }
```

`\showglocounter` `\showglocounter{<label>}`

```
7700 \newcommand*{\showglocounter}[1]{%
7701   \expandafter\show\csname glo@glstdetoklabel{#1}@counter\endcsname
7702 }
```

`\showglouser` `\showglouser{<label>}`

```
7703 \newcommand*{\showglouser}[1]{%
7704   \expandafter\show\csname glo@glstdetoklabel{#1}@useri\endcsname
7705 }
```

`\showglouserii` `\showglouserii{<label>}`

```
7706 \newcommand*{\showglouserii}[1]{%
7707   \expandafter\show\csname glo@glstdetoklabel{#1}@userii\endcsname
7708 }
```

`\showglouseriii` `\showglouseriii{<label>}`

```
7709 \newcommand*{\showglouseriii}[1]{%
7710   \expandafter\show\csname glo@glstdetoklabel{#1}@useriii\endcsname
7711 }
```

`\showglouseriv` `\showglouseriv{<label>}`

```
7712 \newcommand*{\showglouseriv}[1]{%
7713   \expandafter\show\csname glo@glstdetoklabel{#1}@useriv\endcsname
7714 }
```

`\showglouserv` `\showglouserv{<label>}`

```
7715 \newcommand*{\showglouserv}[1]{%
7716   \expandafter\show\csname glo@glstdetoklabel{#1}@userv\endcsname
7717 }
```

\showglouservi \showglouservi{<label>}

```
7718 \newcommand*{\showglouservi}[1]{%
7719   \expandafter\show\csname glo@glstdetoklabel{#1}@uservi\endcsname
7720 }
```

\showgloname \showgloname{<label>}

```
7721 \newcommand*{\showgloname}[1]{%
7722   \expandafter\show\csname glo@glstdetoklabel{#1}@name\endcsname
7723 }
```

\showglodesc \showglodesc{<label>}

```
7724 \newcommand*{\showglodesc}[1]{%
7725   \expandafter\show\csname glo@glstdetoklabel{#1}@desc\endcsname
7726 }
```

howglodescplural \showglodescplural{<label>}

```
7727 \newcommand*{\showglodescplural}[1]{%
7728   \expandafter\show\csname glo@glstdetoklabel{#1}@descplural\endcsname
7729 }
```

\showglosort \showglosort{<label>}

```
7730 \newcommand*{\showglosort}[1]{%
7731   \expandafter\show\csname glo@glstdetoklabel{#1}@sort\endcsname
7732 }
```

\showglosymbol \showglosymbol{<label>}

```
7733 \newcommand*{\showglosymbol}[1]{%
7734   \expandafter\show\csname glo@glstdetoklabel{#1}@symbol\endcsname
7735 }
```

wglosymbolplural `\showglosymbolplural{<label>}`

```
7736 \newcommand*{\showglosymbolplural}[1]{%
7737   \expandafter\show\csname glo@glstetoklabel{#1}@symbolplural\endcsname
7738 }
```

\showgloshort `\showgloshort{<label>}`

```
7739 \newcommand*{\showgloshort}[1]{%
7740   \expandafter\show\csname glo@glstetoklabel{#1}@short\endcsname
7741 }
```

\showglolong `\showglolong{<label>}`

```
7742 \newcommand*{\showglolong}[1]{%
7743   \expandafter\show\csname glo@glstetoklabel{#1}@long\endcsname
7744 }
```

\showgloindex `\showgloindex{<label>}`

```
7745 \newcommand*{\showgloindex}[1]{%
7746   \expandafter\show\csname glo@glstetoklabel{#1}@index\endcsname
7747 }
```

\showgloflag `\showgloflag{<label>}`

```
7748 \newcommand*{\showgloflag}[1]{%
7749   \expandafter\show\csname ifglo@glstetoklabel{#1}@flag\endcsname
7750 }
```

\showgloloclist `\showgloloclist{<label>}`

```
7751 \newcommand*{\showgloloclist}[1]{%
7752   \expandafter\show\csname glo@glstetoklabel{#1}@loclist\endcsname
7753 }
```

`\showglofield` `\showglofield{<label>}{<field>}`

```
7754 \newcommand*{\showglofield}[2]{%
7755   \csshow{glo@glstetoklabel{#1}@#2}%
7756 }
```

`showacronymlists` `\showacronymlists`

Show list of glossaries that have been flagged as a list of acronyms.

```
7757 \newcommand*{\showacronymlists}{%
7758   \show\@glsacronymlists
7759 }
```

`\showglossaries` `\showglossaries`

Show list of defined glossaries.

```
7760 \newcommand*{\showglossaries}{%
7761   \show\@glo@types
7762 }
```

`\showglossaryin` `\showglossaryin{<glossary-label>}`

Show the ‘in’ extension for the given glossary.

```
7763 \newcommand*{\showglossaryin}[1]{%
7764   \expandafter\show\csname @glotype@#1@in\endcsname
7765 }
```

`\showglossaryout` `\showglossaryout{<glossary-label>}`

Show the ‘out’ extension for the given glossary.

```
7766 \newcommand*{\showglossaryout}[1]{%
7767   \expandafter\show\csname @glotype@#1@out\endcsname
7768 }
```

`showglossarytitle` `\showglossarytitle{<glossary-label>}`

Show the title for the given glossary.

```
7769 \newcommand*{\showglossarytitle}[1]{%
7770   \expandafter\show\csname @glotype@#1@title\endcsname
7771 }
```

wglossarycounter `\showglossarycounter{<glossary-label>}`

Show the counter for the given glossary.

```
7772 \newcommand*{\showglossarycounter}[1]{%
7773   \expandafter\show\csname @glotype@#1@counter\endcsname
7774 }
```

wglossaryentries `\showglossaryentries{<glossary-label>}`

Show the list of entry labels for the given glossary.

```
7775 \newcommand*{\showglossaryentries}[1]{%
7776   \expandafter\show\csname glolist@#1\endcsname
7777 }
```

1.21 Compatibility with version 2.07 and below

In order to fix some bugs in v3.0, it was necessary to change the way information is written to the `glo` file, which also meant a change in the format of the Xindy style file. The compatibility option is meant for documents that use a customised Xindy style file with `\noist`. With the compatibility option, hopefully xindy will still be able to process the old document, but the bugs will remain. The issues in versions 2.07 and below:

- With xindy, the counter used by the entry was hard-coded into the Xindy style file. This meant that you couldn't use the counter to swap counters.
- With both xindy and makeindex, if used with `hyperref` and `\theH<counter>` was different to `\thecounter`, the link in the location number would be undefined.

```
7778 \csname ifglcompatible-2.07\endcsname
7779   \RequirePackage{glossaries-compatible-207}
7780 \fi
```

2 Prefix Support (glossaries-prefix Code)

This package provides a means of adding prefixes to your glossary entries. For example, you may want to use “`\gls{<label>}`” on first use but use “`\an\gls{<label>}`” on subsequent use.

```
7781 \NeedsTeXFormat{LaTeX2e}
```

```
7782 \ProvidesPackage{glossaries-prefix}[2017/01/07 v4.28 (NLCT)]
```

Pass all options to glossaries:

```
7783 \DeclareOption*{\PassOptionsToPackage{\CurrentOption}{glossaries}}
```

Process options:

```
7784 \ProcessOptions
```

Load glossaries:

```
7785 \RequirePackage{glossaries}
```

Add the new keys:

```
7786 \define@key{glossentry}{prefixfirst}{\def\@glo@entryprefixfirst{#1}}%
```

```
7787 \define@key{glossentry}{prefixfirstplural}{\def\@glo@entryprefixfirstplural{#1}}%
```

```
7788 \define@key{glossentry}{prefix}{\def\@glo@entryprefix{#1}}%
```

```
7789 \define@key{glossentry}{prefixplural}{\def\@glo@entryprefixplural{#1}}%
```

Add them to `\@gls@keymap`:

```
7790 \appto\@gls@keymap{,%
```

```
7791   {prefixfirst}{prefixfirst},%
```

```
7792   {prefixfirstplural}{prefixfirstplural},%
```

```
7793   {prefix}{prefix},%
```

```
7794   {prefixplural}{prefixplural}}%
```

```
7795 }
```

Set the default values:

```
7796 \appto\@newglossaryentryprehook{%
```

```
7797   \def\@glo@entryprefix{}
```

```
7798   \def\@glo@entryprefixplural{}
```

```
7799   \let\@glo@entryprefixfirst\@gls@default@value
```

```
7800   \let\@glo@entryprefixfirstplural\@gls@default@value
```

```
7801 }
```

Set the assignment code:

```
7802 \appto\@newglossaryentryposthook{%
```

```
7803   \gls@assign@field{\@glo@label}{prefix}{\@glo@entryprefix}%
```

```
7804   \gls@assign@field{\@glo@label}{prefixplural}{\@glo@entryprefixplural}%
```

If `prefixfirst` has not been supplied, make it the same as `prefix`.

```
7805   \expandafter\gls@assign@field\expandafter
```

```
7806     {\csname glo@\@glo@label @prefix\endcsname}{\@glo@label}{prefixfirst}%
```

```
7807     {\@glo@entryprefixfirst}}%
```

If prefixfirstplural has not been supplied, make it the same as prefixplural.

```
7808 \expandafter\gls@assign@field\expandafter
7809 {\csname glo@\@glo@label @prefixplural\endcsname}{\@glo@label}%
7810 {prefixfirstplural}{\@glo@entryprefixfirstplural}%
7811 }
```

Define commands to access these fields:

entryprefixfirst

```
7812 \newcommand*\glsentryprefixfirst[1]{\csuse{glo@#1@prefixfirst}}
```

entryfirstplural

```
7813 \newcommand*\glsentryprefixfirstplural[1]{\csuse{glo@#1@prefixfirstplural}}
```

\glsentryprefix

```
7814 \newcommand*\glsentryprefix[1]{\csuse{glo@#1@prefix}}
```

entryprefixplural

```
7815 \newcommand*\glsentryprefixplural[1]{\csuse{glo@#1@prefixplural}}
```

Now for the initial upper case variants:

entryprefixfirst

```
7816 \newrobustcmd*\Glsentryprefixfirst[1]{%
7817 \protected@edef\@glo@text{\csname glo@#1@prefixfirst\endcsname}%
7818 \xmakefirstuc\@glo@text
7819 }
```

entryfirstplural

```
7820 \newrobustcmd*\Glsentryprefixfirstplural[1]{%
7821 \protected@edef\@glo@text{\csname glo@#1@prefixfirstplural\endcsname}%
7822 \xmakefirstuc\@glo@text
7823 }
```

\Glsentryprefix

```
7824 \newrobustcmd*\Glsentryprefix[1]{%
7825 \protected@edef\@glo@text{\csname glo@#1@prefix\endcsname}%
7826 \xmakefirstuc\@glo@text
7827 }
```

entryprefixplural

```
7828 \newrobustcmd*\Glsentryprefixplural[1]{%
7829 \protected@edef\@glo@text{\csname glo@#1@prefixplural\endcsname}%
7830 \xmakefirstuc\@glo@text
7831 }
```

Define commands to determine if the prefix keys have been set:

\ifglshasprefix

```
7832 \newcommand*{\ifglshasprefix}[3]{%
7833   \ifcempty{glo@#1@prefix}%
7834   {#3}%
7835   {#2}%
7836 }
```

hasprefixplural

```
7837 \newcommand*{\ifglshasprefixplural}[3]{%
7838   \ifcempty{glo@#1@prefixplural}%
7839   {#3}%
7840   {#2}%
7841 }
```

shasprefixfirst

```
7842 \newcommand*{\ifglshasprefixfirst}[3]{%
7843   \ifcempty{glo@#1@prefixfirst}%
7844   {#3}%
7845   {#2}%
7846 }
```

efixfirstplural

```
7847 \newcommand*{\ifglshasprefixfirstplural}[3]{%
7848   \ifcempty{glo@#1@prefixfirstplural}%
7849   {#3}%
7850   {#2}%
7851 }
```

Define commands that insert the prefix before commands like \gls:

\pgls

```
7852 \newrobustcmd{\pgls}{\@gls@hyp@opt\@pgls}
```

\@pgls Unstarred version.

```
7853 \newcommand*{\@pgls}[2][ ]{%
7854   \new@ifnextchar[%
7855   {\@pgls@{#1}{#2}}%
7856   {\@pgls@{#1}{#2}[ ]}%
7857 }
```

\@pgls@ Read in the final optional argument:

```
7858 \def\@pgls@#1#2[#3]{%
7859   \glsdoifexists{#2}%
7860   {%
7861     \ifglsused{#2}%
7862     {%
7863       \glsentryprefix{#2}%
7864     }%

```

```

7865     {%
7866     \glsentryprefixfirst{#2}%
7867     }%
7868     \@gls@{#1}{#2}[#3]%
7869     }%
7870 }

```

Similarly for the plural version:

```

\pglsp1
7871 \newrobustcmd{\pglsp1}{\@gls@hyp@opt\@pglsp1}

```

\@pglsp1 Unstarred version.

```

7872 \newcommand*{\@pglsp1}[2][{}]{%
7873   \new@ifnextchar[%
7874     {\@pglsp1@{#1}{#2}}%
7875     {\@pglsp1@{#1}{#2}[]}%
7876 }

```

\@pglsp1@ Read in the final optional argument:

```

7877 \def\@pglsp1@#1#2[#3]{%
7878   \glsdoifexists{#2}%
7879   {%
7880     \ifglsused{#2}%
7881     {%
7882       \glsentryprefixplural{#2}%
7883     }%
7884     {%
7885       \glsentryprefixfirstplural{#2}%
7886     }%
7887     \@glspl@{#1}{#2}[#3]%
7888   }%
7889 }

```

Now for the first letter upper case versions:

```

\Pgls
7890 \newrobustcmd{\Pgls}{\@gls@hyp@opt\@Pgls}

```

\@Pgls Unstarred version.

```

7891 \newcommand*{\@Pgls}[2][{}]{%
7892   \new@ifnextchar[%
7893     {\@Pgls@{#1}{#2}}%
7894     {\@Pgls@{#1}{#2}[]}%
7895 }

```

\@Pgls@ Read in the final optional argument:

```

7896 \def\@Pgls@#1#2[#3]{%

```

```

7897 \glsdoifexists{#2}%
7898 {%
7899   \ifglsused{#2}%
7900   {%
7901     \ifglshasprefix{#2}%
7902     {%
7903       \Glsentryprefix{#2}%
7904       \@gls@{#1}{#2}[#3]%
7905     }%
7906     {\@Gls@{#1}{#2}[#3]}%
7907   }%
7908   {%
7909     \ifglshasprefixfirst{#2}%
7910     {%
7911       \Glsentryprefixfirst{#2}%
7912       \@gls@{#1}{#2}[#3]%
7913     }%
7914     {\@Gls@{#1}{#2}[#3]}%
7915   }%
7916 }%
7917 }

```

Similarly for the plural version:

```

\Pglspl
7918 \newrobustcmd{\Pglspl}{\@gls@hyp@opt\@Pglspl}

```

\@Pglspl Unstarred version.

```

7919 \newcommand*{\@Pglspl}[2] [] {%
7920   \new@ifnextchar[%
7921     {\@Pglspl@{#1}{#2}}%
7922     {\@Pglspl@{#1}{#2} []}%
7923 }

```

\@Pglspl@ Read in the final optional argument:

```

7924 \def\@Pglspl@#1#2[#3] {%
7925   \glsdoifexists{#2}%
7926   {%
7927     \ifglsused{#2}%
7928     {%
7929       \ifglshasprefixplural{#2}%
7930       {%
7931         \Glsentryprefixplural{#2}%
7932         \@glspl@{#1}{#2}[#3]%
7933       }%
7934       {\@Glspl@{#1}{#2}[#3]}%
7935     }%
7936     {%
7937       \ifglshasprefixfirstplural{#2}%

```

```

7938      {%
7939      \Glsentryprefixfirstplural{#2}%
7940      \@glsp1@{#1}{#2}[#3]%
7941      }%
7942      {\@Glspl@{#1}{#2}[#3]}%
7943      }%
7944  }%
7945 }

```

Finally the all upper case versions:

\PGLS

```

7946 \newrobustcmd{\PGLS}{\@gls@hyp@opt\PGLS}

```

\@PGLS Unstarred version.

```

7947 \newcommand*{\@PGLS}[2][{}]{%
7948   \new@ifnextchar[%
7949   {\@PGLS@{#1}{#2}}%
7950   {\@PGLS@{#1}{#2}[]}%
7951 }

```

\@PGLS@ Read in the final optional argument:

```

7952 \def\@PGLS@#1#2[#3]{%
7953   \glsdoifexists{#2}%
7954   {%
7955     \ifglsused{#2}%
7956     {%
7957       \mfirstucMakeUppercase{\glsentryprefix{#2}}%
7958     }%
7959     {%
7960       \mfirstucMakeUppercase{\glsentryprefixfirst{#2}}%
7961     }%
7962     \@GLS@{#1}{#2}[#3]%
7963   }%
7964 }

```

Plural version:

\PGLSp1

```

7965 \newrobustcmd{\PGLSp1}{\@gls@hyp@opt\PGLSp1}

```

\@PGLSp1 Unstarred version.

```

7966 \newcommand*{\@PGLSp1}[2][{}]{%
7967   \new@ifnextchar[%
7968   {\@PGLSp1@{#1}{#2}}%
7969   {\@PGLSp1@{#1}{#2}[]}%
7970 }

```

\@PGLSp1@ Read in the final optional argument:

```
7971 \def\@PGLSp1@#1#2[#3]{%
7972   \glsoifexists{#2}%
7973   {%
7974     \ifglused{#2}%
7975     {%
7976       \mfirstucMakeUppercase{\glentryprefixplural{#2}}%
7977     }%
7978     {%
7979       \mfirstucMakeUppercase{\glentryprefixfirstplural{#2}}%
7980     }%
7981     \@GLSp1@{#1}{#2}[#3]%
7982   }%
7983 }
```

3 Glossary Styles

3.1 Glossary hyper-navigation definitions (glossary-hypernav package)

Package Definition:

```
7984 \ProvidesPackage{glossary-hypernav}[2017/01/07 v4.28 (NLCT)]
```

The commands defined in this package are provided to help navigate around the groups within a glossary (see [section 1.16](#).) `\printglossary` (and `\printglossaries`) set `\@glo@type` to the label of the current glossary. This is used to create a unique hypertarget in the event of multiple glossaries.

```
\glsnavhyperlink[<type>]{<label>}{<text>}
```

This command makes `<text>` a hyperlink to the glossary group whose label is given by `<label>` for the glossary given by `<type>`.

`glsnavhyperlink`

```
7985 \newcommand*{\glsnavhyperlink}[3][\@glo@type]{%
7986   \edef\gls@grplabel{#2}\protected@edef\gls@grptitle{#3}%
7987   \@glslink{glsn:#1@#2}{#3}}
```

```
\glsnavhypertarget[<type>]{<label>}{<text>}
```

This command makes `<text>` a hypertarget for the glossary group whose label is given by `<label>` in the glossary given by `<type>`. If `<type>` is omitted, `\@glo@type` is used which is set by `\printglossary` to the current glossary label.

`glsnavhypertarget`

```
7988 \newcommand*{\glsnavhypertarget}[3][\@glo@type]{%
  Add this group to the aux file for re-run check.
7989   \protected@write\@auxout{}{\string\@gls@hypergroup{#1}{#2}}%
  Add the target.
7990   \@glstarget{glsn:#1@#2}{#3}%
  Check list of know groups to determine if a re-run is required.
7991   \expandafter\let
7992     \expandafter\@gls@list\csname @gls@hypergroup@#1\endcsname
  Iterate through list and terminate loop if this group is found.
7993   \@for\@gls@elem:=\@gls@list\do{%
7994     \ifthenelse{equal{\@gls@elem}{#2}}{\@endfortrue}{}%
}
```

Check if list terminated prematurely.

```
7995 \if@endfor
7996 \else
```

This group was not included in the list, so issue a warning.

```
7997 \GlossariesWarningNoLine{Navigation panel
7998     for glossary type ‘#1’^^Jmissing group ‘#2’}%
7999 \gdef\gls@hypergrouprerun{%
8000     \GlossariesWarningNoLine{Navigation panel
8001     has changed. Rerun LaTeX}}}%
8002 \fi
8003 }
```

hypergrouprerun Give a warning at the end if re-run required

```
8004 \let\gls@hypergrouprerun\relax
8005 \AtEndDocument{\gls@hypergrouprerun}
```

@gls@hypergroup This adds to (or creates) the command \@gls@hypergroup@list@<glossary type> which lists all groups for a given glossary, so that the navigation bar only contains those groups that are present. However it requires at least 2 runs to ensure the information is up-to-date.

```
8006 \newcommand*{\@gls@hypergroup}[2]{%
8007 \ifundefined{\@gls@hypergroup@list@#1}{%
8008     \expandafter\xdef\csname @gls@hypergroup@list@#1\endcsname{#2}%
8009 }{%
8010     \expandafter\let\expandafter\@gls@tmp
8011         \csname @gls@hypergroup@list@#1\endcsname
8012     \expandafter\xdef\csname @gls@hypergroup@list@#1\endcsname{%
8013         \@gls@tmp,#2}%
8014 }%
8015 }
```

The \glsnavigation command displays a simple glossary group navigation. The symbol and number elements are defined separately, so that they can be suppressed if need be. Note that this command will produce a link to all 28 groups, but some groups may not be defined if there are groups that do not contain any terms, in which case you will get an undefined hyperlink warning. Now for the whole navigation bit:

\glsnavigation

```
8016 \newcommand*{\glsnavigation}{%
8017 \def\@gls@between{}%
8018 \ifcsundef{\@gls@hypergroup@list@\@glo@type}%
8019 {%
8020     \def\@gls@list{}%
8021 }%
8022 {%
8023     \expandafter\let\expandafter\@gls@list
8024         \csname @gls@hypergroup@list@\@glo@type\endcsname
8025 }%
8026 \@for\@gls@tmp:=\@gls@list\do{%
```

```

8027 \gls@between

8028 \gls@getgrouptitle{\gls@tmp}{\gls@grptitle}%
8029 \glsnavhyperlink{\gls@tmp}{\gls@grptitle}%
8030 \let\gls@between\glshypernavsep
8031 }%
8032 }

```

`\glshypernavsep` Separator for the hyper navigation bar.

```

8033 \newcommand*{\glshypernavsep}{\space\textbar\space}

```

The `\glssymbolnav` produces a simple navigation set of links for just the symbol and number groups. This used to be used at the start of `\glsnavigation`. This command is no longer needed.

`\glssymbolnav`

```

8034 \newcommand*{\glssymbolnav}{%
8035 \glsnavhyperlink{glssymbols}{\glsgetgrouptitle{glssymbols}}%
8036 \glshypernavsep
8037 \glsnavhyperlink{glsnumbers}{\glsgetgrouptitle{glsnumbers}}%
8038 \glshypernavsep
8039 }

```

3.2 In-line Style (glossary-inline.sty)

This defines an in-line style where the entries are comma-separated with just the name and description displayed.

```

8040 \ProvidesPackage{glossary-inline}[2017/01/07 v4.28 (NLCT)]

```

`inline` Define the inline style.

```

8041 \newglossarystyle{inline}{%
    Start of glossary sets up first empty separator between entries. (This is then changed by
    \glossentry)
8042 \renewenvironment{theglossary}%
8043 {%
8044 \def\gls@inlinesep{}%
8045 \def\gls@inlinesubsep{}%
8046 \def\gls@inlinepostchild{}%
8047 }%
8048 {\glspostinline}%

    No header:
8049 \renewcommand*{\glossaryheader}{}%

    No group headings (if heading is required, add \glsinlinedopostchild to start definition
    in case heading follows a child entry):
8050 \renewcommand*{\glsgroupheading}[1]{}%

```

Just display separator followed by name and description:

```

8051 \renewcommand{\glossentry}[2]{%
8052   \glsinlinedopostchild
8053   \gls@inlinesep
8054   \glsentryitem{##1}%
8055   \glsinlinenameformat{##1}{%
8056     \glossentryname{##1}%
8057   }%
8058   \ifglshasdescsuppressed{##1}%
8059   {%
8060     \glsinlineemptydescformat
8061     {%
8062       \glossentrysymbol{##1}%
8063     }%
8064     {%
8065       ##2%
8066     }%
8067   }%
8068   {%
8069     \ifglshasdesc{##1}%
8070     {\glsinlinedescformat{\glossentrydesc{##1}}{\glossentrysymbol{##1}}{##2}}%
8071     {\glsinlineemptydescformat{\glossentrysymbol{##1}}{##2}}%
8072   }%
8073   \ifglshaschildren{##1}%
8074   {%
8075     \glsresetsubentrycounter
8076     \glsinlineparentchildseparator
8077     \def\gls@inlinesubsep{%
8078       \def\gls@inlinepostchild{\glsinlinepostchild}%
8079     }%
8080     {}%
8081     \def\gls@inlinesep{\glsinlineseparator}%
8082   }%

```

Sub-entries display description:

```

8083 \renewcommand{\subglossentry}[3]{%
8084   \gls@inlinesubsep%
8085   \glsinlinesubnameformat{##2}{%
8086     \glossentryname{##2}%
8087   }%
8088   \glsinlinesubdescformat{\glossentrydesc{##2}}{\glossentrysymbol{##2}}{##3}%
8089   \def\gls@inlinesubsep{\glsinlinesubseparator}%
8090 }%

```

Nothing special between groups:

```

8091 \renewcommand*{\glsgroupskip}{}%
8092 }

```

linedopostchild

```

8093 \newcommand*{\glsinlinedopostchild}{%

```

```

8094 \gls@inlinepostchild
8095 \def\gls@inlinepostchild{}%
8096 }

```

`inlineseparator` Separator to use between entries.

```
8097 \newcommand*{\glsinlineseparator}{;\space}
```

`inlinesubseparator` Separator to use between sub-entries.

```
8098 \newcommand*{\glsinlinesubseparator}{,\space}
```

`parentchildseparator` Separator to use between parent and children.

```
8099 \newcommand*{\glsinlineparentchildseparator}{:\space}
```

`inlinepostchild` Hook to use between child and next entry

```
8100 \newcommand*{\glsinlinepostchild}{}
```

`\glspostinline` Terminator for inline glossary.

```
8101 \newcommand*{\glspostinline}{\glspostdescription\space}
```

`inlinenameformat` Formats the name of the entry (first argument label, second argument name):

```
8102 \newcommand*{\glsinlinenameformat}[2]{\glstarget{#1}{#2}}
```

`inlinedescformat` Formats the entry's description, symbol and location list:

```
8103 \newcommand*{\glsinlinedescformat}[3]{\space#1}
```

`emptydescformat` Formats the entry's symbol and location list when the description is empty:

```
8104 \newcommand*{\glsinlineemptydescformat}[2]{}
```

`inlinesubnameformat` Formats the name of the subentry (first argument label, second argument name):

```
8105 \newcommand*{\glsinlinesubnameformat}[2]{\glstarget{#1}{}}
```

`inlinesubdescformat` Formats the subentry's description, symbol and location list:

```
8106 \newcommand*{\glsinlinesubdescformat}[3]{#1}
```

3.3 List Style (glossary-list.sty)

The style file defines glossary styles that use the description environment. Note that since the entry name is placed in the optional argument to the `\item` command, it will appear in a bold font by default.

```
8107 \ProvidesPackage{glossary-list}[2017/01/07 v4.28 (NLCT)]
```

`\indexspace` There are a few classes that don't define `\indexspace`, so provide a definition if it hasn't been defined.

```

8108 \providecommand{\indexspace}{%
8109 \par \vskip 10\p@ \@plus 5\p@ \@minus 3\p@ \relax
8110 }

```

tgrouphaderfmt Provide a way of adjusting the format of the group headings.

```
8111 \newcommand*{\glslistgrouphaderfmt}[1]{#1}
```

tnavigationitem Provide a way of adjusting the format of the navigation header. This puts the navigation line inside the optional argument of item to prevent unwanted space occurring at the start, but this can cause a problem if the navigation line is too long. With this command, it makes it easier for the user to customise the style without having to remember to modify `\glossaryheader` after the style has been set.

```
8112 \newcommand*{\glslistnavigationitem}[1]{\item[#1]}
```

list The list glossary style uses the description environment. The group separator `\glsgroupskip` is redefined as `\indexspace` which produces a gap between groups. The glossary heading and the group headings do nothing. Sub-entries immediately follow the main entry without the sub-entry name. This style does not use the entry's symbol. This is used as the default style for the glossaries package.

```
8113 \newglossarystyle{list}{%
  Use description environment:
8114   \renewenvironment{theglossary}%
8115     {\begin{description}}{\end{description}}%
  No header at the start of the environment:
8116   \renewcommand*{\glossaryheader}{}%
  No group headings:
8117   \renewcommand*{\glsgroupheading}[1]{}%
  Main (level 0) entries start a new item in the list:
8118   \renewcommand*{\glossentry}[2]{%
8119     \item[\glsentryitem{##1}]%
8120       \glstarget{##1}{\glossentryname{##1}}]
8121     \glossentrydesc{##1}\glspostdescription\space ##2}%
  Sub-entries continue on the same line:
8122   \renewcommand*{\subglossentry}[3]{%
8123     \glssubentryitem{##2}%
8124     \glstarget{##2}{\strut}\space
8125     \glossentrydesc{##2}\glspostdescription\space ##3.}%
8126 %   \end{macrocode}
8127 % Add vertical space between groups:
8128 %\changes{3.03}{2012/09/21}{added check for glsnogroupskip}
8129 %   \begin{macrocode}
8130   \renewcommand*{\glsgroupskip}{\ifglslsnogroupskip\else\indexspace\fi}%
8131 }
```

listgroup The listgroup style is like the list style, but the glossary groups have headings.

```
8132 \newglossarystyle{listgroup}{%
  Base it on the list style:
8133   \setglossarystyle{list}%
```

Each group has a heading:

```
8134 \renewcommand*{\glsgroupheading}[1]{%
8135 \item[\glslistgroupheaderfmt{\glsgrouptitle{##1}}]}
```

listhypergroup The listhypergroup style is like the listgroup style, but has a set of links to the groups at the start of the glossary.

```
8136 \newglossarystyle{listhypergroup}{%
```

Base it on the list style:

```
8137 \setglossarystyle{list}%
```

Add navigation links at the start of the environment.

```
8138 \renewcommand*{\glossaryheader}{%
8139 \glslstnavigationitem{\glslnavigation}}%
```

Each group has a heading with a hypertext:

```
8140 \renewcommand*{\glsgroupheading}[1]{%
8141 \item[\glslistgroupheaderfmt
8142 {\glslnavhypertarget{##1}{\glsgrouptitle{##1}}}]}
```

altlist The altlist glossary style is like the list style, but places the description on a new line. Sub-entries follow in separate paragraphs without the sub-entry name. This style does not use the entry's symbol.

```
8143 \newglossarystyle{altlist}{%
```

Base it on the list style:

```
8144 \setglossarystyle{list}%
```

Main (level 0) entries start a new item in the list with a line break after the entry name:

```
8145 \renewcommand*{\glossentry}[2]{%
8146 \item[\glssentryitem{##1}%
8147 \glstarget{##1}{\glossentryname{##1}}]}%
```

Version 3.04 changed \newline to the following paragraph break stuff (thanks to Daniel Gebhardt for supplying the fix) to prevent a page break occurring at this point.

```
8148 \mbox{}\par\nobreak\@afterheading
8149 \glossentrydesc{##1}\glspostdescription\space ##2}%
```

Sub-entries start a new paragraph:

```
8150 \renewcommand{\subglossentry}[3]{%
8151 \par
8152 \glssubentryitem{##2}%
8153 \glstarget{##2}{\strut}\glossentrydesc{##2}\glspostdescription\space ##3}%
8154 }
```

altlistgroup The altlistgroup glossary style is like the altlist style, but the glossary groups have headings.

```
8155 \newglossarystyle{altlistgroup}{%
```

Base it on the altlist style:

```
8156 \setglossarystyle{altlist}%
```

Each group has a heading:

```
8157 \renewcommand*{\glsgroupheading}[1]{%
8158 \item[\glslistgroupheaderfmt{\glsgetgrouptitle{##1}}]}
```

`altlisthypergroup` The `altlisthypergroup` glossary style is like the `altlistgroup` style, but has a set of links to the groups at the start of the glossary.

```
8159 \newglossarystyle{altlisthypergroup}{%
```

Base it on the `altlist` style:

```
8160 \setglossarystyle{altlist}%
```

Add navigation links at the start of the environment.

```
8161 \renewcommand*{\glossaryheader}{%
8162 \glslistnavigationitem{\glsnavigation}}%
```

Each group has a heading with a `hypertarget`:

```
8163 \renewcommand*{\glsgroupheading}[1]{%
8164 \item[\glslistgroupheaderfmt
8165 {\glsnavhypertarget{##1}{\glsgetgrouptitle{##1}}}]}
```

`listdotted` The `listdotted` glossary style was supplied by Axel Menzel. I've modified it slightly so that the distance from the start of the name to the end of the dotted line is specified by `\glslistdottedwidth`. Note that this style ignores the page numbers as well as the symbol. Sub-entries are displayed in the same way as top-level entries.

```
8166 \newglossarystyle{listdotted}{%
```

Base it on the `list` style:

```
8167 \setglossarystyle{list}%
```

Each main (level 0) entry starts a new item:

```
8168 \renewcommand*{\glossentry}[2]{%
8169 \item[]\makebox[\glslistdottedwidth][l]{%
8170 \glsentryitem{##1}%
8171 \glstarget{##1}{\glossentryname{##1}}%
8172 \unskip\leaders\hbox to 2.9mm{\hss.}\hfill\strut}\glossentrydesc{##1}}%
```

Sub entries have the same format as main entries:

```
8173 \renewcommand*{\subglossentry}[3]{%
8174 \item[]\makebox[\glslistdottedwidth][l]{%
8175 \glssubentryitem{##2}%
8176 \glstarget{##2}{\glossentryname{##2}}%
8177 \unskip\leaders\hbox to 2.9mm{\hss.}\hfill\strut}\glossentrydesc{##2}}%
8178 }
```

`listdottedwidth`

```
8179 \newlength\glslistdottedwidth
8180 \setlength{\glslistdottedwidth}{.5\hsize}
```

`sublistdotted` This style is similar to the `glostylelistdotted` style, except that the main entries just have the name displayed.

```
8181 \newglossarystyle{sublistdotted}{%
```

Base it on the listdotted style:

```
8182 \setglossarystyle{listdotted}%
```

Main (level 0) entries just display the name:

```
8183 \renewcommand*{\glossentry}[2]{%
8184   \item[\glentryitem{##1}\glstarget{##1}{\glossentryname{##1}}}%
8185 }
```

3.4 Glossary Styles using longtable (the glossary-long package)

The glossary styles defined in the package used the longtable environment in the glossary.

```
8186 \ProvidesPackage{glossary-long}[2017/01/07 v4.28 (NLCT)]
```

Requires the package:

```
8187 \RequirePackage{longtable}
```

`\glsdescwidth` This is a length that governs the width of the description column. (There's a chance that the user may specify `nolong` and then load later, in which case `\glsdescwidth` may have already been defined by . The same goes for `\glspagelistwidth`.)

```
8188 \@ifundefined{glsdescwidth}{%
8189   \newlength\glsdescwidth
8190   \setlength{\glsdescwidth}{0.6\hsize}
8191 }{}
```

`\glspagelistwidth` This is a length that governs the width of the page list column.

```
8192 \@ifundefined{glspagelistwidth}{%
8193   \newlength\glspagelistwidth
8194   \setlength{\glspagelistwidth}{0.1\hsize}
8195 }{}
```

`long` The long glossary style command which uses the longtable environment:

```
8196 \newglossarystyle{long}{%
```

Use longtable with two columns:

```
8197 \renewenvironment{theglossary}%
8198   {\begin{longtable}\lp{\glsdescwidth}}%
8199   {\end{longtable}}%
```

Do nothing at the start of the environment:

```
8200 \renewcommand*{\glossaryheader}{}%
```

No heading between groups:

```
8201 \renewcommand*{\glsgroupheading}[1]{}%
```

Main (level 0) entries displayed in a row:

```
8202 \renewcommand{\glossentry}[2]{%
8203   \glentryitem{##1}\glstarget{##1}{\glossentryname{##1}} &
8204   \glossentrydesc{##1}\glspostdescription\space ##2\tabularnewline
8205   }%
```

Sub entries displayed on the following row without the name:

```
8206 \renewcommand{\subglossentry}[3]{%
8207     &
8208     \glssubentryitem{##2}%
8209     \glstarget{##2}{\strut}\glossentrydesc{##2}\glspostdescription\space
8210     ##3\tabularnewline
8211 }%
```

Blank row between groups: The check for nogroupskip must occur outside \glsgroupskip
(<http://www.dickimaw-books.com/cgi-bin/bugtracker.cgi?action=view&key=108>)

```
8212 \ifglsgroupskip
8213 \renewcommand*{\glsgroupskip}{}%
8214 \else
8215 \renewcommand*{\glsgroupskip}{ & \tabularnewline}%
8216 \fi
8217 }
```

longborder The longborder style is like the above, but with horizontal and vertical lines:

```
8218 \newglossarystyle{longborder}{%
```

Base it on the glostylelong style:

```
8219 \setglossarystyle{long}%
```

Use longtable with two columns with vertical lines between each column:

```
8220 \renewenvironment{theglossary}{%
8221 \begin{longtable}{|l|p{\glsglwdwidth}|}{\end{longtable}}%
```

Place horizontal lines at the head and foot of the table:

```
8222 \renewcommand*{\glossaryheader}{\hline\endhead\hline\endfoot}%
8223 }
```

longheader The longheader style is like the long style but with a header:

```
8224 \newglossarystyle{longheader}{%
```

Base it on the glostylelong style:

```
8225 \setglossarystyle{long}%
```

Set the table's header:

```
8226 \renewcommand*{\glossaryheader}{%
8227 \bfseries \entryname & \bfseries \descriptionname\tabularnewline\endhead}%
8228 }
```

longheaderborder The longheaderborder style is like the long style but with a header and border:

```
8229 \newglossarystyle{longheaderborder}{%
```

Base it on the glostylelongborder style:

```
8230 \setglossarystyle{longborder}%
```

Set the table's header and add horizontal line to table's foot:

```
8231 \renewcommand*{\glossaryheader}{%
8232 \hline\bfseries \entryname & \bfseries
8233 \descriptionname\tabularnewline\hline
```

```

8234 \endhead
8235 \hline\endfoot}%
8236 }

```

long3col The long3col style is like long but with 3 columns

```

8237 \newglossarystyle{long3col}{%
    Use a longtable with 3 columns:
8238 \renewenvironment{theglossary}%
8239 {\begin{longtable}{lp{\glstdescwidth}p{\glspagelistwidth}}}%
8240 {\end{longtable}}%

```

No table header:

```

8241 \renewcommand*\glossaryheader{}%

```

No headings between groups:

```

8242 \renewcommand*\glsgroupheading[1]{}%

```

Main (level 0) entries on a row (name in first column, description in second column, page list in last column):

```

8243 \renewcommand{\glossentry}[2]{%
8244 \glstryitem{##1}\glstarget{##1}{\glossentryname{##1}} &
8245 \glossentrydesc{##1} & ##2\tabularnewline
8246 }%

```

Sub-entries on a separate row (no name, description in second column, page list in third column):

```

8247 \renewcommand{\subglossentry}[3]{%
8248 &
8249 \glssubentryitem{##2}%
8250 \glstarget{##2}{\strut}\glossentrydesc{##2} &
8251 ##3\tabularnewline
8252 }%

```

Blank row between groups: The check for nogroupskip must occur outside \glsgroupskip (<http://www.dickimaw-books.com/cgi-bin/bugtracker.cgi?action=view&key=108>)

```

8253 \ifglsnogroupskip
8254 \renewcommand*\glsgroupskip{}%
8255 \else
8256 \renewcommand*\glsgroupskip{{ & & \tabularnewline}%
8257 \fi
8258 }

```

long3colborder The long3colborder style is like the long3col style but with a border:

```

8259 \newglossarystyle{long3colborder}{%
    Base it on the glostylelong3col style:
8260 \setglossarystyle{long3col}%
    Use a longtable with 3 columns with vertical lines around them:
8261 \renewenvironment{theglossary}%
8262 {\begin{longtable}{|l|p{\glstdescwidth}|p{\glspagelistwidth}|}%
8263 {\end{longtable}}%

```

Place horizontal lines at the head and foot of the table:

```
8264 \renewcommand*{\glossaryheader}{\hline\endhead\hline\endfoot}%
8265 }
```

`long3colheader` The `long3colheader` style is like `long3col` but with a header row:

```
8266 \newglossarystyle{long3colheader}{%
```

Base it on the `glostylelong3col` style:

```
8267 \setglossarystyle{long3col}%
```

Set the table's header:

```
8268 \renewcommand*{\glossaryheader}{%
8269 \bfseries\entryname&\bfseries\descriptionname&
8270 \bfseries\pagelistname\tabularnewline\endhead}%
8271 }
```

`colheaderborder` The `long3colheaderborder` style is like the above but with a border

```
8272 \newglossarystyle{long3colheaderborder}{%
```

Base it on the `glostylelong3colborder` style:

```
8273 \setglossarystyle{long3colborder}%
```

Set the table's header and add horizontal line at table's foot:

```
8274 \renewcommand*{\glossaryheader}{%
8275 \hline
8276 \bfseries\entryname&\bfseries\descriptionname&
8277 \bfseries\pagelistname\tabularnewline\hline\endhead
8278 \hline\endfoot}%
8279 }
```

`long4col` The `long4col` style has four columns where the third column contains the value of the associated symbol key.

```
8280 \newglossarystyle{long4col}{%
```

Use a `longtable` with 4 columns:

```
8281 \renewenvironment{theglossary}%
8282 {\begin{longtable}{llll}}%
8283 {\end{longtable}}%
```

No table header:

```
8284 \renewcommand*{\glossaryheader}{}%
```

No group headings:

```
8285 \renewcommand*{\glsgroupheading}[1]{}%
```

Main (level 0) entries on a single row (name in first column, description in second column, symbol in third column, page list in last column):

```
8286 \renewcommand{\glossentry}[2]{%
8287 \glstentryitem{##1}\glstarget{##1}{\glossentryname{##1}} &
8288 \glossentrydesc{##1} &
8289 \glossentrysymbol{##1} &
8290 ##2\tabularnewline
8291 }%
```

Sub entries on a single row with no name (description in second column, symbol in third column, page list in last column):

```
8292 \renewcommand{\subglossentry}[3]{%
8293     &
8294     \glssubentryitem{##2}%
8295     \glstarget{##2}{\strut}\glossentrydesc{##2} &
8296     \glossentrysymbol{##2} & ##3\tabularnewline
8297 }%
```

Blank row between groups: The check for nogroupskip must occur outside \glsgroupskip (<http://www.dickimaw-books.com/cgi-bin/bugtracker.cgi?action=view&key=108>)

```
8298 \ifglsgroupskip
8299 \renewcommand*{\glsgroupskip}{}%
8300 \else
8301 \renewcommand*{\glsgroupskip}{ & & & \tabularnewline}%
8302 \fi
8303 }
```

long4colheader The long4colheader style is like long4col but with a header row.

```
8304 \newglossarystyle{long4colheader}{%
```

Base it on the glostylelong4col style:

```
8305 \setglossarystyle{long4col}{%
```

Table has a header:

```
8306 \renewcommand*{\glossaryheader}{%
8307 \bfseries\entryname&\bfseries\descriptionname&
8308 \bfseries \symbolname&
8309 \bfseries\pagelistname\tabularnewline\endhead}%
8310 }
```

long4colborder The long4colborder style is like long4col but with a border.

```
8311 \newglossarystyle{long4colborder}{%
```

Base it on the glostylelong4col style:

```
8312 \setglossarystyle{long4col}{%
```

Use a longtable with 4 columns surrounded by vertical lines:

```
8313 \renewenvironment{theglossary}%
8314 {\begin{longtable}{|l|l|l|l|}}%
8315 {\end{longtable}}%
```

Add horizontal lines to the head and foot of the table:

```
8316 \renewcommand*{\glossaryheader}{\hline\endhead\hline\endfoot}%
8317 }
```

colheaderborder The long4colheaderborder style is like the above but with a border.

```
8318 \newglossarystyle{long4colheaderborder}{%
```

Base it on the glostylelong4col style:

```
8319 \setglossarystyle{long4col}{%
```

Use a longtable with 4 columns surrounded by vertical lines:

```
8320 \renewenvironment{theglossary}%
8321   {\begin{longtable}{|l|l|l|l|}}%
8322   {\end{longtable}}%
```

Add table header and horizontal line at the table's foot:

```
8323 \renewcommand*{\glossaryheader}{%
8324   \hline\bfseries\entryname&\bfseries\descriptionname&
8325   \bfseries \symbolname&
8326   \bfseries\pagelistname\tabularnewline\hline\endhead
8327   \hline\endfoot}%
8328 }
```

altlong4col The altlong4col style is like the long4col style but can have multiline descriptions and page lists.

```
8329 \newglossarystyle{altlong4col}{%
```

Base it on the glostylelong4col style:

```
8330 \setglossarystyle{long4col}%
```

Use a longtable with 4 columns where the second and last columns may have multiple lines in each row:

```
8331 \renewenvironment{theglossary}%
8332   {\begin{longtable}{lp{\glsdescwidth}lp{\glspagelistwidth}}}%
8333   {\end{longtable}}%
8334 }
```

altlong4colheader The altlong4colheader style is like altlong4col but with a header row.

```
8335 \newglossarystyle{altlong4colheader}{%
```

Base it on the glostylelong4colheader style:

```
8336 \setglossarystyle{long4colheader}%
```

Use a longtable with 4 columns where the second and last columns may have multiple lines in each row:

```
8337 \renewenvironment{theglossary}%
8338   {\begin{longtable}{lp{\glsdescwidth}lp{\glspagelistwidth}}}%
8339   {\end{longtable}}%
8340 }
```

altlong4colborder The altlong4colborder style is like altlong4col but with a border.

```
8341 \newglossarystyle{altlong4colborder}{%
```

Base it on the glostylelong4colborder style:

```
8342 \setglossarystyle{long4colborder}%
```

Use a longtable with 4 columns where the second and last columns may have multiple lines in each row:

```
8343 \renewenvironment{theglossary}%
8344   {\begin{longtable}{|lp{\glsdescwidth}|lp{\glspagelistwidth}|}}%
8345   {\end{longtable}}%
8346 }
```

colheaderborder The altlong4colheaderborder style is like the above but with a header as well as a border.

```
8347 \newglossarystyle{altlong4colheaderborder}{%
```

Base it on the glostylelong4colheaderborder style:

```
8348 \setglossarystyle{long4colheaderborder}{%
```

Use a longtable with 4 columns where the second and last columns may have multiple lines in each row:

```
8349 \renewenvironment{theglossary}{%
```

```
8350 {\begin{longtable}{|l|p{\glstdescwidth}|l|p{\glspagelistwidth}|}}%
```

```
8351 {\end{longtable}}%
```

```
8352 }
```

3.5 Glossary Styles using longtable and booktabs (the glossary-longbooktabs) package

The styles here are based on David Carlisle's patch at <http://tex.stackexchange.com/a/56890>

```
8353 \ProvidesPackage{glossary-longbooktabs}[2017/01/07 v4.28 (NLCT)]
```

Requires booktabs package:

```
8354 \RequirePackage{booktabs}
```

and the base packages for long styles:

```
8355 \RequirePackage{glossary-long}
```

```
8356 \RequirePackage{glossary-longragged}
```

(longtable and array loaded by those packages).

long-booktabs The long-booktabs style is similar to the longheader style but uses the booktabs rules and patches longtable to check for group skip occurring at a page break.

```
8357 \newglossarystyle{long-booktabs}{%
```

If the style change is scoped, the patch will only have a local effect, which may be useful if it conflicts with other tables in the document.

```
8358 \glspatchLToutput
```

As with the longheader style, use the long style as a base.

```
8359 \setglossarystyle{long}{%
```

Add a header with rules.

```
8360 \renewcommand*{\glossaryheader}{%
```

```
8361 \toprule \bfseries \entryname & \bfseries
```

```
8362 \descriptionname\tabularnewline\midrule\endhead
```

```
8363 \bottomrule\endfoot}%
```

Check for the nogroupskip package option. If there should be a gap between groups, insert the penalty and the vertical space. The check for nogroupskip should occur outside \glsgroupskip to be on the safe side.

```
8364 \ifglsnogroupskip
```

```

8365 \renewcommand*{\glsgroupskip}{}%
8366 \else
8367 \renewcommand*{\glsgroupskip}{\glspenaltygroupskip}%
8368 \fi
8369 }

```

ng3col-booktabs The long3col-booktabs style is similar to the long3colheader style but uses the booktabs rules and patches longtable to check for group skip occurring at a page break.

```
8370 \newglossarystyle{long3col-booktabs}{%
```

If the style change is scoped, the patch will only have a local effect, which may be useful if it conflicts with other tables in the document.

```
8371 \glspatchLToutput
```

Use the long3col style as a base.

```
8372 \setglossarystyle{long3col}{%
```

Add a header with rules.

```

8373 \renewcommand*{\glossaryheader}{%
8374 \toprule \bfseries \entryname &
8375 \bfseries \descriptionname &
8376 \bfseries \pagelistname
8377 \tabularnewline\midrule\endhead
8378 \bottomrule\endfoot}%

```

Check for the nogroupskip package option. If there should be a gap between groups, insert the penalty and the vertical space. The check for nogroupskip should occur outside \glsgroupskip to be on the safe side.

```

8379 \ifglsnogroupskip
8380 \renewcommand*{\glsgroupskip}{}%
8381 \else
8382 \renewcommand*{\glsgroupskip}{\glspenaltygroupskip}%
8383 \fi
8384 }

```

ng4col-booktabs The long4col-booktabs style is similar to the long4colheader style but uses the booktabs rules and patches longtable to check for group skip occurring at a page break.

```
8385 \newglossarystyle{long4col-booktabs}{%
```

If the style change is scoped, the patch will only have a local effect, which may be useful if it conflicts with other tables in the document.

```
8386 \glspatchLToutput
```

Use the long4col style as a base.

```
8387 \setglossarystyle{long4col}{%
```

Add a header with rules.

```

8388 \renewcommand*{\glossaryheader}{%
8389 \toprule \bfseries \entryname &
8390 \bfseries \descriptionname &
8391 \bfseries \symbolname &

```

```

8392 \bfseries \pagelistname
8393 \tabularnewline\midrule\endhead
8394 \bottomrule\endfoot}%

```

Check for the `nogroupskip` package option. If there should be a gap between groups, insert the penalty and the vertical space. The check for `nogroupskip` should occur outside `\glsgroupskip` to be on the safe side.

```

8395 \ifglsgnogroupskip
8396 \renewcommand*{\glsgroupskip}{}%
8397 \else
8398 \renewcommand*{\glsgroupskip}{\glspenaltygroupskip}%
8399 \fi
8400 }

```

`ng4col-booktabs` The `altlong4col-booktabs` style is similar to the `altlong4colheader` style but uses the `booktabs` rules and patches `longtable` to check for group skip occurring at a page break.

```

8401 \newglossarystyle{altlong4col-booktabs}{%

```

If the style change is scoped, the patch will only have a local effect, which may be useful if it conflicts with other tables in the document.

```

8402 \glspatchLToutput

```

Use the `long4col-booktabs` style as a base.

```

8403 \setglossarystyle{long4col-booktabs}%

```

Change the column specifications:

```

8404 \renewenvironment{theglossary}%
8405 {\begin{longtable}{lp{\glstdescwidth}lp{\glspagelistwidth}}}%
8406 {\end{longtable}}%
8407 }

```

Ragged styles.

`ragged-booktabs` The `longragged-booktabs` style is similar to the `longragged` style but uses the `booktabs` rules and patches `longtable` to check for group skip occurring at a page break.

```

8408 \newglossarystyle{longragged-booktabs}{%

```

If the style change is scoped, the patch will only have a local effect, which may be useful if it conflicts with other tables in the document.

```

8409 \glspatchLToutput

```

Use the `long-booktabs` style as a base.

```

8410 \setglossarystyle{long-booktabs}%

```

Adjust the column specification.

```

8411 \renewenvironment{theglossary}%
8412 {\begin{longtable}{l>\raggedright}p{\glstdescwidth}}}%
8413 {\end{longtable}}%
8414 }

```

ed3col-booktabs The longragged3col-booktabs style is similar to the longragged3col style but uses the booktabs rules and patches longtable to check for group skip occurring at a page break.

```
8415 \newglossarystyle{longragged3col-booktabs}{%
```

If the style change is scoped, the patch will only have a local effect, which may be useful if it conflicts with other tables in the document.

```
8416 \glspatchLToutput
```

Use the long3col-booktabs style as a base.

```
8417 \setglossarystyle{long3col-booktabs}{%
```

Adjust the column specification.

```
8418 \renewenvironment{theglossary}{%
```

```
8419 {\begin{longtable}{l>{\raggedright}p{\glsdescwidth}}%
```

```
8420 >{\raggedright}p{\glspagelistwidth}}}%
```

```
8421 {\end{longtable}}}%
```

```
8422 }
```

ed4col-booktabs The altlongragged4col-booktabs style is similar to the altlongragged4col style but uses the booktabs rules and patches longtable to check for group skip occurring at a page break.

```
8423 \newglossarystyle{altlongragged4col-booktabs}{%
```

If the style change is scoped, the patch will only have a local effect, which may be useful if it conflicts with other tables in the document.

```
8424 \glspatchLToutput
```

Use the altlong4col-booktabs style as a base.

```
8425 \setglossarystyle{altlong4col-booktabs}{%
```

Adjust the column specification.

```
8426 \renewenvironment{theglossary}{%
```

```
8427 {\begin{longtable}{l>{\raggedright}p{\glsdescwidth}l%
```

```
8428 >{\raggedright}p{\glspagelistwidth}}}%
```

```
8429 {\end{longtable}}}%
```

```
8430 }
```

sLTpenaltycheck

```
8431 \newcommand*{\glsLTpenaltycheck}{%
```

```
8432 \ifnum\outputpenalty=-50\vskip-\normalbaselineskip\relax\fi
```

```
8433 }
```

enaltygroupskip

```
8434 \newcommand{\glspenaltygroupskip}{%
```

```
8435 \noalign{\penalty-50\vskip\normalbaselineskip}}
```

restoreLToutput Provide a way of restoring \LT@output for the user.

```
8436 \let\@gls@org@LT@output\LT@output
```

```
8437 \newcommand*{\glsrestoreLToutput}{\let\LT@output\@gls@org@LT@output}
```

This is David's patch, but I've replaced the hard-coded values with \glsLTpenaltycheck to make it easier to adjust.

lspatchLToutput

```
8438 \newcommand*{\glspatchLToutput}{%
8439 \renewcommand*{\LT@output}{%
8440 \ifnum\outputpenalty <-\@Mi
8441 \ifnum\outputpenalty > -\LT@end@pen
8442 \LT@err{floats and marginpars not allowed in a longtable}\@ehc
8443 \else
8444 \setbox\z@\vbox{\unvbox\@cclv}%
8445 \ifdim \ht\LT@lastfoot>\ht\LT@foot
8446 \dimen@\pagegoal
8447 \advance\dimen@-\ht\LT@lastfoot
8448 \ifdim\dimen@<\ht\z@
8449 \setbox\@cclv\vbox{\unvbox\z@\copy\LT@foot\vss}%
8450 \@makecol
8451 \@outputpage
8452 \setbox\z@\vbox{\box\LT@head\glslTpenaltycheck}%
8453 \fi
8454 \fi
8455 \global\@colroom\@colht
8456 \global\vsizel\@colht
8457 {\unvbox\z@\box\ifvoid\LT@lastfoot\LT@foot\else\LT@lastfoot\fi}%
8458 \fi
8459 \else
8460 \setbox\@cclv\vbox{\unvbox\@cclv\copy\LT@foot\vss}%
8461 \@makecol
8462 \@outputpage
8463 \global\vsizel\@colroom
8464 \copy\LT@head
8465 \glslTpenaltycheck
8466 \nobreak
8467 \fi
8468 }%
8469 }
```

3.6 Glossary Styles using longtable (the glossary-longragged package)

The glossary styles defined in the package used the longtable environment in the glossary and use ragged right formatting for the multiline columns.

8470 \ProvidesPackage{glossary-longragged}[2017/01/07 v4.28 (NLCT)]

Requires the package:

8471 \RequirePackage{array}

Requires the package:

8472 \RequirePackage{longtable}

`\glsdescwidth` This is a length that governs the width of the description column. This may have already been defined.

```

8473 \@ifundefined{glsdescwidth}{%
8474   \newlength{glsdescwidth
8475   \setlength{glsdescwidth}{0.6\hsize}
8476 }{}

```

`lspagelistwidth` This is a length that governs the width of the page list column. This may already have been defined.

```

8477 \@ifundefined{glspagelistwidth}{%
8478   \newlength{glspagelistwidth
8479   \setlength{glspagelistwidth}{0.1\hsize}
8480 }{}

```

`longragged` The longragged glossary style is like the long but uses ragged right formatting for the description column.

```

8481 \newglossarystyle{longragged}{%

```

Use longtable with two columns:

```

8482   \renewenvironment{theglossary}%
8483     {\begin{longtable}{l>{\raggedright}p{glsdescwidth}}}%
8484     {\end{longtable}}%

```

Do nothing at the start of the environment:

```

8485   \renewcommand*{\glossaryheader}{}%

```

No heading between groups:

```

8486   \renewcommand*{\glsgroupheading}[1]{}%

```

Main (level 0) entries displayed in a row:

```

8487   \renewcommand{\glossentry}[2]{%
8488     \glstryitem{##1}\glstarget{##1}{\glossentryname{##1}} &
8489     \glossentrydesc{##1}\glspostdescription\space ##2%
8490     \tabularnewline
8491   }%

```

Sub entries displayed on the following row without the name:

```

8492   \renewcommand{\subglossentry}[3]{%
8493     &
8494     \glssubentryitem{##2}%
8495     \glstarget{##2}{\strut}\glossentrydesc{##2}%
8496     \glspostdescription\space ##3%
8497     \tabularnewline
8498   }%

```

Blank row between groups: The check for nogroupskip must occur outside `\glsgroupskip` (<http://www.dickimaw-books.com/cgi-bin/bugtracker.cgi?action=view&key=108>)

```

8499   \ifglsnogroupskip
8500     \renewcommand*{\glsgroupskip}{}%
8501   \else
8502     \renewcommand*{\glsgroupskip}{ & \tabularnewline}%

```

```

8503 \fi
8504 }

```

`longraggedborder` The `longraggedborder` style is like the above, but with horizontal and vertical lines:

```

8505 \newglossarystyle{longraggedborder}{%
    Base it on the glostylelongragged style:
8506 \setglossarystyle{longragged}%
    Use longtable with two columns with vertical lines between each column:
8507 \renewenvironment{theglossary}{%
8508 \begin{longtable}{|l|>{\raggedright}p{\glsgdescwidth}|}%
8509 {\end{longtable}}%
    Place horizontal lines at the head and foot of the table:
8510 \renewcommand*{\glossaryheader}{\hline\endhead\hline\endfoot}%
8511 }

```

`longraggedheader` The `longraggedheader` style is like the `longragged` style but with a header:

```

8512 \newglossarystyle{longraggedheader}{%
    Base it on the glostylelongragged style:
8513 \setglossarystyle{longragged}%
    Set the table's header:
8514 \renewcommand*{\glossaryheader}{%
8515 \bfseries \entryname & \bfseries \descriptionname
8516 \tabularnewline\endhead}%
8517 }

```

`longraggedheaderborder` The `longraggedheaderborder` style is like the `longragged` style but with a header and border:

```

8518 \newglossarystyle{longraggedheaderborder}{%
    Base it on the glostylelongraggedborder style:
8519 \setglossarystyle{longraggedborder}%
    Set the table's header and add horizontal line to table's foot:
8520 \renewcommand*{\glossaryheader}{%
8521 \hline\bfseries \entryname & \bfseries \descriptionname
8522 \tabularnewline\hline
8523 \endhead
8524 \hline\endfoot}%
8525 }

```

`longragged3col` The `longragged3col` style is like `longragged` but with 3 columns

```

8526 \newglossarystyle{longragged3col}{%
    Use a longtable with 3 columns:
8527 \renewenvironment{theglossary}{%
8528 {\begin{longtable}{l>{\raggedright}p{\glsgdescwidth}%
8529 >{\raggedright}p{\glspagelistwidth}}}%
8530 {\end{longtable}}%

```

No table header:

```
8531 \renewcommand*\glossaryheader{}\%
```

No headings between groups:

```
8532 \renewcommand*\glsgroupheading[1]{}\%
```

Main (level 0) entries on a row (name in first column, description in second column, page list in last column):

```
8533 \renewcommand\glossentry[2]{%
8534   \glstentryitem{##1}\glstarget{##1}{\glossentryname{##1}} &
8535   \glossentrydesc{##1} & ##2\tabularnewline
8536 }%
```

Sub-entries on a separate row (no name, description in second column, page list in third column):

```
8537 \renewcommand\subglossentry[3]{%
8538   &
8539   \glssubentryitem{##2}%
8540   \glstarget{##2}{\strut}\glossentrydesc{##2} &
8541   ##3\tabularnewline
8542 }%
```

Blank row between groups: The check for nogroupskip must occur outside \glsgroupskip (<http://www.dickimaw-books.com/cgi-bin/bugtracker.cgi?action=view&key=108>)

```
8543 \ifglsgnogroupskip
8544 \renewcommand*\glsgroupskip{}\%
8545 \else
8546 \renewcommand*\glsgroupskip{\ & \tabularnewline}%
8547 \fi
8548 }
```

agged3colborder The longragged3colborder style is like the longragged3col style but with a border:

```
8549 \newglossarystyle{longragged3colborder}{%
```

Base it on the glostylelongragged3col style:

```
8550 \setglossarystyle{longragged3col}%
```

Use a longtable with 3 columns with vertical lines around them:

```
8551 \renewenvironment{theglossary}%
8552   {\begin{longtable}{|l|>{\raggedright}p{\glstdescwidth}|}%
8553    >{\raggedright}p{\glspagelistwidth}|}%
8554   {\end{longtable}}%
```

Place horizontal lines at the head and foot of the table:

```
8555 \renewcommand*\glossaryheader{\hline\endhead\hline\endfoot}%
8556 }
```

agged3colheader The longragged3colheader style is like longragged3col but with a header row:

```
8557 \newglossarystyle{longragged3colheader}{%
```

Base it on the glostylelongragged3col style:

```
8558 \setglossarystyle{longragged3col}%
```

Set the table's header:

```
8559 \renewcommand*{\glossaryheader}{%
8560   \bfseries\entryname&\bfseries\descriptionname&
8561   \bfseries\pagelistname\tabularnewline\endhead}%
8562 }
```

`colheaderborder` The `longragged3colheaderborder` style is like the above but with a border

```
8563 \newglossarystyle{longragged3colheaderborder}{%
```

Base it on the `glostylelongragged3colborder` style:

```
8564 \setglossarystyle{longragged3colborder}%
```

Set the table's header and add horizontal line at table's foot:

```
8565 \renewcommand*{\glossaryheader}{%
8566   \hline
8567   \bfseries\entryname&\bfseries\descriptionname&
8568   \bfseries\pagelistname\tabularnewline\hline\endhead
8569   \hline\endfoot}%
8570 }
```

`longragged4col` The `altlongragged4col` style is like the `altlong4col` style defined in the package, except that ragged right formatting is used for the description and page list columns.

```
8571 \newglossarystyle{altlongragged4col}{%
```

Use a longtable with 4 columns where the second and last columns may have multiple lines in each row:

```
8572 \renewenvironment{theglossary}%
8573   {\begin{longtable}{1>{\raggedright}p{\glstdescwidth}1%
8574     >{\raggedright}p{\glspagelistwidth}}}%
8575   {\end{longtable}}%
```

No table header:

```
8576 \renewcommand*{\glossaryheader}{}%
```

No group headings:

```
8577 \renewcommand*{\glsgroupheading}[1]{}%
```

Main (level 0) entries on a single row (name in first column, description in second column, symbol in third column, page list in last column):

```
8578 \renewcommand{\glossentry}[2]{%
8579   \glstryitem{##1}\glstarget{##1}{\glossentryname{##1}} &
8580   \glossentrydesc{##1} & \glossentrysymbol{##1} &
8581   ##2\tabularnewline
8582 }%
```

Sub entries on a single row with no name (description in second column, symbol in third column, page list in last column):

```
8583 \renewcommand{\subglossentry}[3]{%
8584   &
8585   \glssubentryitem{##2}%
8586   \glstarget{##2}{\strut}\glossentrydesc{##2} &
```

```

8587 \glossentrysymbol{##2} & ##3\tabularnewline
8588 }%

```

Blank row between groups: The check for nogroupskip must occur outside \glsgroupskip (<http://www.dickimaw-books.com/cgi-bin/bugtracker.cgi?action=view&key=108>)

```

8589 \ifglsgroupskip
8590 \renewcommand*{\glsgroupskip}{}%
8591 \else
8592 \renewcommand*{\glsgroupskip}{ & & \tabularnewline}%
8593 \fi
8594 }

```

agged4colheader The altlongragged4colheader style is like altlongragged4col but with a header row.

```
8595 \newglossarystyle{altlongragged4colheader}{%
```

Base it on the glostylealtlongragged4col style:

```
8596 \setglossarystyle{altlongragged4col}%
```

Use a longtable with 4 columns where the second and last columns may have multiple lines in each row:

```

8597 \renewenvironment{theglossary}%
8598 {\begin{longtable}{l>{\raggedright}p{\glsgdescwidth}l%
8599 >{\raggedright}p{\glspagelistwidth}}}%
8600 {\end{longtable}}%

```

Table has a header:

```

8601 \renewcommand*{\glossaryheader}{%
8602 \bfseries\entryname&\bfseries\descriptionname&
8603 \bfseries \symbolname&
8604 \bfseries\pagelistname\tabularnewline\endhead}%
8605 }

```

agged4colborder The altlongragged4colborder style is like altlongragged4col but with a border.

```
8606 \newglossarystyle{altlongragged4colborder}{%
```

Base it on the glostylealtlongragged4col style:

```
8607 \setglossarystyle{altlongragged4col}%
```

Use a longtable with 4 columns where the second and last columns may have multiple lines in each row:

```

8608 \renewenvironment{theglossary}%
8609 {\begin{longtable}{|l|>{\raggedright}p{\glsgdescwidth}|l|}%
8610 >{\raggedright}p{\glspagelistwidth}|}%
8611 {\end{longtable}}%

```

Add horizontal lines to the head and foot of the table:

```

8612 \renewcommand*{\glossaryheader}{\hline\endhead\hline\endfoot}%
8613 }

```

colheaderborder The altlongragged4colheaderborder style is like the above but with a header as well as a border.

```
8614 \newglossarystyle{altlongragged4colheaderborder}{%
```

Base it on the `glostylealtlongragged4col` style:

```
8615 \setglossarystyle{altlongragged4col}%
```

Use a `longtable` with 4 columns where the second and last columns may have multiple lines in each row:

```
8616 \renewenvironment{theglossary}%  
8617 {\begin{longtable}{|l|>{\raggedright}p{\glstdescwidth}|l|}%  
8618 >{\raggedright}p{\glspagelistwidth}|}}%  
8619 {\end{longtable}}%
```

Add table header and horizontal line at the table's foot:

```
8620 \renewcommand*{\glossaryheader}{%  
8621 \hline\bfseries\entryname&\bfseries\descriptionname&  
8622 \bfseries \symbolname&  
8623 \bfseries\pagelistname\tabularnewline\hline\endhead  
8624 \hline\endfoot}%  
8625 }
```

3.7 Glossary Styles using multicol (`glossary-mcols.sty`)

The style file defines glossary styles that use the `multicol` package. These use the tree-like glossary styles in a `multicol` environment.

```
8626 \ProvidesPackage{glossary-mcols}[2017/01/07 v4.28 (NLCT)]
```

Required packages:

```
8627 \RequirePackage{multicol}  
8628 \RequirePackage{glossary-tree}
```

`\indexspace` The are a few classes that don't define `\indexspace`, so provide a definition if it hasn't been defined.

```
8629 \providecommand{\indexspace}{%  
8630 \par \vskip 10\p@ \@plus 5\p@ \@minus 3\p@ \relax  
8631 }
```

`\glsmcols` Define macro in which to store the number of columns. (Defaults to 2.)

```
8632 \newcommand*{\glsmcols}{2}
```

`mcolindex` Multi-column index style. Same as the index, but puts the glossary in multiple columns. (Ideally the glossary title should go in the optional argument of `multicols`, but the title isn't part of the glossary style.)

```
8633 \newglossarystyle{mcolindex}{%  
8634 \setglossarystyle{index}%  
8635 \renewenvironment{theglossary}%  
8636 {%  
  
8637 \begin{multicols}{\glsmcols}  
8638 \setlength{\parindent}{0pt}%  
8639 \setlength{\parskip}{0pt plus 0.3pt}%
```

```

8640      \let\item\glstreeitem
8641      \let\subitem\glstreesubitem
8642      \let\subsubitem\glstreesubsubitem
8643  }%
8644  {\end{multicols}}}%
8645 }

```

mcindexgroup As **mcindex** but has headings:

```

8646 \newglossarystyle{mcindexgroup}{%
8647   \setglossarystyle{mcindex}%
8648   \renewcommand*{\glsgroupheading}[1]{%
8649     \item\glstreegroupheaderfmt{\glsgrouptitle{##1}}\indexspace}%
8650 }

```

indexhypergroup The **mcindexhypergroup** style is like the **mcindexgroup** style but has hyper navigation.

```

8651 \newglossarystyle{mcindexhypergroup}{%

```

Base it on the **glostylemcindex** style:

```

8652   \setglossarystyle{mcindex}%

```

Put navigation links to the groups at the start of the glossary:

```

8653   \renewcommand*{\glossaryheader}{%
8654     \item\glstreenavigationfmt{\glsnavigation}\indexspace}%

```

Add a heading for each group (with a target). The group's title is in bold followed by a vertical gap.

```

8655   \renewcommand*{\glsgroupheading}[1]{%
8656     \item\glstreegroupheaderfmt
8657       {\glsnahypertarget{##1}{\glsgrouptitle{##1}}}%
8658     \indexspace}%
8659 }

```

colindexspannav Similar to **mcindexhypergroup**, but puts the navigation line in the optional argument of **multicols**.

```

8660 \newglossarystyle{colindexspannav}{%
8661   \setglossarystyle{index}%
8662   \renewenvironment{theglossary}%
8663   {%
8664     \begin{multicols}{\glsmcols}[\noindent\glstreenavigationfmt{\glsnavigation}]
8665     \setlength{\parindent}{0pt}%
8666     \setlength{\parskip}{0pt plus 0.3pt}%
8667     \let\item\glstreeitem}%
8668   {\end{multicols}}}%

```

Add a heading for each group (with a target). The group's title is in bold followed by a vertical gap.

```

8669   \renewcommand*{\glsgroupheading}[1]{%
8670     \item\glstreegroupheaderfmt

```

```

8671      {\glsnavhypertarget{##1}{\glsgetgrouptitle{##1}}}%
8672      \indexspace}%
8673 }

```

mcoltree Multi-column index style. Same as the tree, but puts the glossary in multiple columns.

```

8674 \newglossarystyle{mcoltree}{%
8675   \setglossarystyle{tree}%
8676   \renewenvironment{theglossary}%
8677   {%
8678     \begin{multicols}{\glsmcols}
8679     \setlength{\parindent}{0pt}%
8680     \setlength{\parskip}{0pt plus 0.3pt}%
8681   }%
8682   {\end{multicols}}%
8683 }

```

mcoltreegroup Like the mcoltree style but the glossary groups have headings.

```

8684 \newglossarystyle{mcoltreegroup}{%
      Base it on the glostylemcoltree style:
8685   \setglossarystyle{mcoltree}%
      Each group has a heading (in bold) followed by a vertical gap):
8686   \renewcommand{\glsgroupheading}[1]{\par
8687     \noindent\glstreegroupheaderfmt{\glsgetgrouptitle{##1}}\par\indexspace}%
8688 }

```

ltreehypergroup The mcoltreehypergroup style is like the treegroup style, but has a set of links to the groups at the start of the glossary.

```

8689 \newglossarystyle{mcoltreehypergroup}{%
      Base it on the glostylemcoltree style:
8690   \setglossarystyle{mcoltree}%
      Put navigation links to the groups at the start of the theglossary environment:
8691   \renewcommand*{\glossaryheader}{%
8692     \par\noindent\glstreenavigationfmt{\glsnavigation}\par\indexspace}%
      Each group has a heading (in bold with a target) followed by a vertical gap):
8693   \renewcommand*{\glsgroupheading}[1]{%
8694     \par\noindent
8695     \glstreegroupheaderfmt{\glsnavhypertarget{##1}{\glsgetgrouptitle{##1}}}\par
8696     \indexspace}%
8697 }

```

mcoltreespannav Similar to the mcoltreehypergroup style but the navigation line is put in the optional argument of the multicols environment.

```

8698 \newglossarystyle{mcoltreespannav}{%
8699   \setglossarystyle{tree}%
8700   \renewenvironment{theglossary}%
8701   {%

```

```

8702     \begin{multicols}{\glsmcols}[\noindent\glstreenavigationfmt{\glsnavigation}]
8703     \setlength{\parindent}{0pt}%
8704     \setlength{\parskip}{0pt plus 0.3pt}%
8705 }%
8706 {\end{multicols}}%

```

Each group has a heading (in bold with a target) followed by a vertical gap):

```

8707 \renewcommand*{\glsgroupheading}[1]{%
8708   \par\noindent
8709   \glstreegroupheaderfmt{\glsnahypertarget{##1}{\glsgetgrouptitle{##1}}}\par
8710   \indexspace}%
8711 }

```

mcoltreenoname Multi-column index style. Same as the **treenoname**, but puts the glossary in multiple columns.

```

8712 \newglossarystyle{mcoltreenoname}{%
8713   \setglossarystyle{treenoname}%
8714   \renewenvironment{theglossary}%
8715   {%
8716     \begin{multicols}{\glsmcols}
8717     \setlength{\parindent}{0pt}%
8718     \setlength{\parskip}{0pt plus 0.3pt}%
8719   }%
8720   {\end{multicols}}%
8721 }

```

treenonamegroup Like the **mcoltreenoname** style but the glossary groups have headings.

```

8722 \newglossarystyle{mcoltreenonamegroup}{%
      Base it on the glostylemcoltreenoname style:
8723   \setglossarystyle{mcoltreenoname}%
      Give each group a heading:
8724   \renewcommand{\glsgroupheading}[1]{\par
8725     \noindent\glstreegroupheaderfmt{\glsgetgrouptitle{##1}}\par\indexspace}%
8726 }

```

onamehypergroup The **mcoltreenonamehypergroup** style is like the **mcoltreenonamegroup** style, but has a set of links to the groups at the start of the glossary.

```

8727 \newglossarystyle{mcoltreenonamehypergroup}{%
      Base it on the glostylemcoltreenoname style:
8728   \setglossarystyle{mcoltreenoname}%
      Put navigation links to the groups at the start of the theglossary environment:
8729   \renewcommand*{\glossaryheader}{%
8730     \par\noindent\glstreenavigationfmt{\glsnavigation}\par\indexspace}%
      Each group has a heading (in bold with a target) followed by a vertical gap):
8731   \renewcommand*{\glsgroupheading}[1]{%
8732     \par\noindent

```

```

8733 \glstreegroupheaderfmt{\glshypertarget{##1}{\glsgrouptitle{##1}}}\par
8734 \indexspace}%
8735 }

```

treenonamespannav Similar to the **mcoltreenonamehypergroup** style but the navigation line is put in the optional argument of the **multicols** environment.

```

8736 \newglossarystyle{mcoltreenonamespannav}{%
8737 \setglossarystyle{treenoname}%
8738 \renewenvironment{theglossary}%
8739 {%
8740 \begin{multicols}{\glsmcols}[\noindent\glstreenavigationfmt{\glsnavigation}]
8741 \setlength{\parindent}{0pt}%
8742 \setlength{\parskip}{0pt plus 0.3pt}%
8743 }%
8744 {\end{multicols}}%

```

Each group has a heading (in bold with a target) followed by a vertical gap):

```

8745 \renewcommand*{\glsgroupheading}[1]{%
8746 \par\noindent
8747 \glstreegroupheaderfmt{\glshypertarget{##1}{\glsgrouptitle{##1}}}\par
8748 \indexspace}%
8749 }

```

mcolalmtree Multi-column index style. Same as the **almtree**, but puts the glossary in multiple columns.

```

8750 \newglossarystyle{mcolalmtree}{%
8751 \setglossarystyle{almtree}%
8752 \renewenvironment{theglossary}%
8753 {%
8754 \begin{multicols}{\glsmcols}
8755 \def\@gls@prevlevel{-1}%
8756 \mbox{}\par
8757 }%
8758 {\par\end{multicols}}%
8759 }

```

mcolalmtreegroup Like the **mcolalmtree** style but the glossary groups have headings.

```

8760 \newglossarystyle{mcolalmtreegroup}{%

```

Base it on the **glostylemcolalmtree** style:

```

8761 \setglossarystyle{mcolalmtree}%

```

Give each group a heading.

```

8762 \renewcommand{\glsgroupheading}[1]{\par
8763 \def\@gls@prevlevel{-1}%
8764 \hangindent0pt\relax
8765 \parindent0pt\relax
8766 \glstreegroupheaderfmt{\glsgrouptitle{##1}}\par\indexspace}%
8767 }

```

treehypergroup The mcolalttreehypergroup style is like the mcolalttreegroup style, but has a set of links to the groups at the start of the glossary.

```
8768 \newglossarystyle{mcolalttreehypergroup}{%
```

Base it on the glostylemcolalttree style:

```
8769 \setglossarystyle{mcolalttree}%
```

Put the navigation links in the header

```
8770 \renewcommand*{\glossaryheader}{%
```

```
8771 \par
```

```
8772 \def\@gls@prevlevel{-1}%
```

```
8773 \hangindent0pt\relax
```

```
8774 \parindent0pt\relax
```

```
8775 \glstreenavigationfmt{\glsnavigation}\par\indexspace}%
```

Put a hypertarget at the start of each group

```
8776 \renewcommand*{\glsgroupheading}[1]{%
```

```
8777 \par
```

```
8778 \def\@gls@prevlevel{-1}%
```

```
8779 \hangindent0pt\relax
```

```
8780 \parindent0pt\relax
```

```
8781 \glstreegroupheaderfmt{\glsnavhypertarget{##1}{\glsgetgrouptitle{##1}}}\par
```

```
8782 \indexspace}%
```

```
8783 }
```

alttreespannav Similar to the mcolalttreehypergroup style but the navigation line is put in the optional argument of the multicols environment.

```
8784 \newglossarystyle{mcolalttreespannav}{%
```

```
8785 \setglossarystyle{alttree}%
```

```
8786 \renewenvironment{theglossary}%
```

```
8787 {%
```

```
8788 \begin{multicols}{\glsncols}[\noindent\glstreenavigationfmt{\glsnavigation}]
```

```
8789 \def\@gls@prevlevel{-1}%
```

```
8790 \mbox{}\par
```

```
8791 }%
```

```
8792 {\par\end{multicols}}}%
```

Put a hypertarget at the start of each group

```
8793 \renewcommand*{\glsgroupheading}[1]{%
```

```
8794 \par
```

```
8795 \def\@gls@prevlevel{-1}%
```

```
8796 \hangindent0pt\relax
```

```
8797 \parindent0pt\relax
```

```
8798 \glstreegroupheaderfmt{\glsnavhypertarget{##1}{\glsgetgrouptitle{##1}}}\par
```

```
8799 \indexspace}
```

```
8800 }
```

3.8 Glossary Styles using supertabular environment (glossary-super package)

The glossary styles defined in the package use the supertabular environment.

8801 \ProvidesPackage{glossary-super}[2017/01/07 v4.28 (NLCT)]

Requires the package:

8802 \RequirePackage{supertabular}

\glsdescwidth This is a length that governs the width of the description column. This may already have been defined if has been loaded.

8803 \@ifundefined{glsdescwidth}{%

8804 \newlength{glsdescwidth

8805 \setlength{glsdescwidth}{0.6\hsize}

8806 }{}

glspagelistwidth This is a length that governs the width of the page list column. This may already have been defined if has been loaded.

8807 \@ifundefined{glspagelistwidth}{%

8808 \newlength{glspagelistwidth

8809 \setlength{glspagelistwidth}{0.1\hsize}

8810 }{}

super The super glossary style uses the supertabular environment (it uses lengths defined in the package.)

8811 \newglossarystyle{super}{%

Put the glossary in a supertabular environment with two columns and no head or tail:

8812 \renewenvironment{theglossary}{%

8813 {\tablehead{}\tabletail{}}%

8814 \begin{supertabular}{lp{glsdescwidth}}%

8815 {\end{supertabular}}%

Do nothing at the start of the table:

8816 \renewcommand*{\glossaryheader}{}%

No group headings:

8817 \renewcommand*{\glsgroupheading}[1]{}%

Main (level 0) entries put in a row (name in first column, description and page list in second column):

8818 \renewcommand{\glossentry}[2]{%

8819 \glsentryitem{##1}\glstarget{##1}{\glossentryname{##1}} &

8820 \glossentrydesc{##1}\glspostdescription\space ##2\tabularnewline

8821 }%

Sub entries put in a row (no name, description and page list in second column):

8822 \renewcommand{\subglossentry}[3]{%

8823 &

8824 \glssubentryitem{##2}%

```

8825 \glstarget{##2}{\strut}\glossentrydesc{##2}\glspostdescription\space
8826 ##3\tabularnewline
8827 }%

```

Blank row between groups: The check for nogroupskip must occur outside \glsgroupskip (<http://www.dickimaw-books.com/cgi-bin/bugtracker.cgi?action=view&key=108>)

```

8828 \ifglsgroupskip
8829 \renewcommand*{\glsgroupskip}{}%
8830 \else
8831 \renewcommand*{\glsgroupskip}{& \tabularnewline}%
8832 \fi
8833 }

```

superborder The superborder style is like the above, but with horizontal and vertical lines:

```
8834 \newglossarystyle{superborder}{%
```

Base it on the glostylesuper style:

```
8835 \setglossarystyle{super}%
```

Put the glossary in a supertabular environment with two columns and a horizontal line in the head and tail:

```

8836 \renewenvironment{theglossary}%
8837 {\tablehead{\hline}\tabletail{\hline}%
8838 \begin{supertabular}{|l|p{\glsgdescwidth}|}%
8839 {\end{supertabular}}%
8840 }

```

superheader The superheader style is like the super style, but with a header:

```
8841 \newglossarystyle{superheader}{%
```

Base it on the glostylesuper style:

```
8842 \setglossarystyle{super}%
```

Put the glossary in a supertabular environment with two columns, a header and no tail:

```

8843 \renewenvironment{theglossary}%
8844 {\tablehead{\bfseries \entryname &
8845 \bfseries\descriptionname\tabularnewline}%
8846 \tabletail{}}%
8847 \begin{supertabular}{lp{\glsgdescwidth}}%
8848 {\end{supertabular}}%
8849 }

```

superheaderborder The superheaderborder style is like the super style but with a header and border:

```
8850 \newglossarystyle{superheaderborder}{%
```

Base it on the glostylesuper style:

```
8851 \setglossarystyle{super}%
```

Put the glossary in a supertabular environment with two columns, a header and horizontal lines above and below the table:

```
8852 \renewenvironment{theglossary}%
```

```

8853   {\tablehead{\hline\bfseries \entryname &
8854             \bfseries \descriptionname\tabularnewline\hline}%
8855     \tabletail{\hline}
8856     \begin{supertabular}{|l|p{\glstdescwidth}|}%
8857   {\end{supertabular}}%
8858 }

```

super3col The super3col style is like the super style, but with 3 columns:

```
8859 \newglossarystyle{super3col}{%
```

Put the glossary in a supertabular environment with three columns and no head or tail:

```

8860   \renewenvironment{theglossary}%
8861   {\tablehead{}\tabletail{}}%
8862   \begin{supertabular}{lp{\glstdescwidth}p{\glspagelistwidth}}%
8863   {\end{supertabular}}%

```

Do nothing at the start of the table:

```
8864   \renewcommand*{\glossaryheader}{}%
```

No group headings:

```
8865   \renewcommand*{\glsgroupheading}[1]{}%
```

Main (level 0) entries on a row (name in first column, description in second column, page list in last column):

```

8866   \renewcommand{\glossentry}[2]{%
8867     \glstryitem{##1}\glstarget{##1}{\glossentryname{##1}} &
8868     \glossentrydesc{##1} & ##2\tabularnewline
8869   }%

```

Sub entries on a row (no name, description in second column, page list in last column):

```

8870   \renewcommand{\subglossentry}[3]{%
8871     &
8872     \glssubentryitem{##2}%
8873     \glstarget{##2}{\strut}\glossentrydesc{##2} &
8874     ##3\tabularnewline
8875   }%

```

Blank row between groups: The check for nogroupskip must occur outside \glsgroupskip (<http://www.dickimaw-books.com/cgi-bin/bugtracker.cgi?action=view&key=108>)

```

8876   \ifglsnogroupskip
8877     \renewcommand*{\glsgroupskip}{}%
8878   \else
8879     \renewcommand*{\glsgroupskip}{& & \tabularnewline}%
8880   \fi
8881 }

```

super3colborder The super3colborder style is like the super3col style, but with a border:

```
8882 \newglossarystyle{super3colborder}{%
```

Base it on the glostylesuper3col style:

```
8883   \setglossarystyle{super3col}%

```

Put the glossary in a supertabular environment with three columns and a horizontal line in the head and tail:

```
8884 \renewenvironment{theglossary}%
8885   {\tablehead{\hline}\tabletail{\hline}%
8886    \begin{supertabular}{|l|p{\glsgdescwidth}|p{\glspagelistwidth}|}%
8887    {\end{supertabular}}}%
8888 }
```

super3colheader The super3colheader style is like the super3col style but with a header row:

```
8889 \newglossarystyle{super3colheader}{%
      Base it on the glostylessuper3col style:
8890   \setglossarystyle{super3col}%
      Put the glossary in a supertabular environment with three columns, a header and no tail:
8891   \renewenvironment{theglossary}%
8892     {\tablehead{\bfseries\entryname&\bfseries\descriptionname&
8893      \bfseries\pagelistname\tabularnewline}\tabletail{}}%
8894     \begin{supertabular}{|lp{\glsgdescwidth}|p{\glspagelistwidth}}}%
8895     {\end{supertabular}}}%
8896 }
```

colheaderborder The super3colheaderborder style is like the super3col style but with a header and border:

```
8897 \newglossarystyle{super3colheaderborder}{%
      Base it on the glostylessuper3colborder style:
8898   \setglossarystyle{super3colborder}%
      Put the glossary in a supertabular environment with three columns, a header with horizontal
      lines and a horizontal line in the tail:
8899   \renewenvironment{theglossary}%
8900     {\tablehead{\hline
8901      \bfseries\entryname&\bfseries\descriptionname&
8902      \bfseries\pagelistname\tabularnewline\hline}%
8903     \tabletail{\hline}%
8904     \begin{supertabular}{|l|p{\glsgdescwidth}|p{\glspagelistwidth}|}%
8905     {\end{supertabular}}}%
8906 }
```

super4col The super4col glossary style has four columns, where the third column contains the value of the corresponding symbol key used when that entry was defined.

```
8907 \newglossarystyle{super4col}{%
      Put the glossary in a supertabular environment with four columns and no head or tail:
8908   \renewenvironment{theglossary}%
8909     {\tablehead{}\tabletail{}}%
8910     \begin{supertabular}{|llll|}%
8911     \end{supertabular}}%
      Do nothing at the start of the table:
8912   \renewcommand*{\glossaryheader}{}%

```

No group headings:

```
8913 \renewcommand*\glsgroupheading}[1]{}%
```

Main (level 0) entries on a row with the name in the first column, description in second column, symbol in third column and page list in last column:

```
8914 \renewcommand{\glossentry}[2]{%
8915   \glsentryitem{##1}\glstarget{##1}{\glossentryname{##1}} &
8916   \glossentrydesc{##1} &
8917   \glossentrysymbol{##1} & ##2\tabularnewline
8918 }%
```

Sub entries on a row with no name, the description in the second column, symbol in third column and page list in last column:

```
8919 \renewcommand{\subglossentry}[3]{%
8920   &
8921   \glssubentryitem{##2}%
8922   \glstarget{##2}{\strut}\glossentrydesc{##2} &
8923   \glossentrysymbol{##2} & ##3\tabularnewline
8924 }%
```

Blank row between groups: The check for nogroupskip must occur outside \glsgroupskip (<http://www.dickimaw-books.com/cgi-bin/bugtracker.cgi?action=view&key=108>)

```
8925 \ifglsnogroupskip
8926 \renewcommand*\glsgroupskip{}{%
8927 \else
8928 \renewcommand*\glsgroupskip}{& & \tabularnewline}%
8929 \fi
8930 }
```

super4colheader The super4colheader style is like the super4col but with a header row.

```
8931 \newglossarystyle{super4colheader}{%
```

Base it on the glostylesuper4col style:

```
8932 \setglossarystyle{super4col}%
```

Put the glossary in a supertabular environment with four columns, a header and no tail:

```
8933 \renewenvironment{theglossary}%
8934   {\tablehead{\bfseries\entryname&\bfseries\descriptionname&
8935     \bfseries\symbolname &
8936     \bfseries\pagelistname\tabularnewline}%
8937   \tabletail{}%
8938   \begin{supertabular}{l1111}}%
8939   {\end{supertabular}}%
8940 }
```

super4colborder The super4colborder style is like the super4col but with a border.

```
8941 \newglossarystyle{super4colborder}{%
```

Base it on the glostylesuper4col style:

```
8942 \setglossarystyle{super4col}%
```

Put the glossary in a supertabular environment with four columns and a horizontal line in the head and tail:

```

8943 \renewenvironment{theglossary}%
8944   {\tablehead{\hline}\tabletail{\hline}%
8945    \begin{supertabular}{|l|l|l|l|}%
8946    {\end{supertabular}}}%
8947 }
```

colheaderborder The super4colheaderborder style is like the super4col but with a header and border.

```
8948 \newglossarystyle{super4colheaderborder}{%
```

Base it on the glostylessuper4col style:

```
8949 \setglossarystyle{super4col}%
```

Put the glossary in a supertabular environment with four columns and a header bordered by horizontal lines and a horizontal line in the tail:

```

8950 \renewenvironment{theglossary}%
8951   {\tablehead{\hline\bfseries\entryname&\bfseries\descriptionname&
8952    \bfseries\symbolname &
8953    \bfseries\pagelistname\tabularnewline\hline}%
8954    \tabletail{\hline}%
8955    \begin{supertabular}{|l|l|l|l|}%
8956    {\end{supertabular}}}%
8957 }
```

altsuper4col The altsuper4col glossary style is like super4col but has provision for multiline descriptions.

```
8958 \newglossarystyle{altsuper4col}{%
```

Base it on the glostylessuper4col style:

```
8959 \setglossarystyle{super4col}%
```

Put the glossary in a supertabular environment with four columns and no head or tail:

```

8960 \renewenvironment{theglossary}%
8961   {\tablehead{}\tabletail{}\%
8962    \begin{supertabular}{lp{\glsgdescwidth}lp{\glspagelistwidth}}}%
8963   {\end{supertabular}}}%
8964 }
```

super4colheader The altsuper4colheader style is like the altsuper4col but with a header row.

```
8965 \newglossarystyle{altsuper4colheader}{%
```

Base it on the glostylessuper4colheader style:

```
8966 \setglossarystyle{super4colheader}%
```

Put the glossary in a supertabular environment with four columns, a header and no tail:

```

8967 \renewenvironment{theglossary}%
8968   {\tablehead{\bfseries\entryname&\bfseries\descriptionname&
8969    \bfseries\symbolname &
8970    \bfseries\pagelistname\tabularnewline}\tabletail{}\%
8971    \begin{supertabular}{lp{\glsgdescwidth}lp{\glspagelistwidth}}}%
8972   {\end{supertabular}}}%
8973 }
```

`super4colborder` The `altsuper4colborder` style is like the `altsuper4col` but with a border.

```
8974 \newglossarystyle{altsuper4colborder}{%
```

Base it on the `glostylesuper4colborder` style:

```
8975 \setglossarystyle{super4colborder}{%
```

Put the glossary in a `supertabular` environment with four columns and a horizontal line in the head and tail:

```
8976 \renewenvironment{theglossary}{%
8977   {\tablehead{\hline}\tabletail{\hline}%
8978   \begin{supertabular}%
8979     {lllp{\glsgdescwidth}lllp{\glspagelistwidth}}}%
8980   {\end{supertabular}}}%
8981 }
```

`colheaderborder` The `altsuper4colheaderborder` style is like the `altsuper4col` but with a header and border.

```
8982 \newglossarystyle{altsuper4colheaderborder}{%
```

Base it on the `glostylesuper4colheaderborder` style:

```
8983 \setglossarystyle{super4colheaderborder}{%
```

Put the glossary in a `supertabular` environment with four columns and a header bordered by horizontal lines and a horizontal line in the tail:

```
8984 \renewenvironment{theglossary}{%
8985   {\tablehead{\hline
8986     \bfseries\entryname &
8987     \bfseries\descriptionname &
8988     \bfseries\symbolname &
8989     \bfseries\pagelistname\tabularnewline\hline}%
8990   \tabletail{\hline}%
8991   \begin{supertabular}%
8992     {lllp{\glsgdescwidth}lllp{\glspagelistwidth}}}%
8993   {\end{supertabular}}}%
8994 }
```

3.9 Glossary Styles using `supertabular` environment (`glossary-superragged` package)

The glossary styles defined in the package use the `supertabular` environment. These styles are like those provided by the package, except that the multiline columns have ragged right justification.

```
8995 \ProvidesPackage{glossary-superragged}[2017/01/07 v4.28 (NLCT)]
```

Requires the package:

```
8996 \RequirePackage{array}
```

Requires the package:

```
8997 \RequirePackage{supertabular}
```

`\glsdescwidth` This is a length that governs the width of the description column. This may already have been defined.

```

8998 \@ifundefined{glsdescwidth}{%
8999   \newlength{glsdescwidth
9000   \setlength{glsdescwidth}{0.6\hsize}
9001 }{}

```

`lspagelistwidth` This is a length that governs the width of the page list column. This may already have been defined.

```

9002 \@ifundefined{glspagelistwidth}{%
9003   \newlength{glspagelistwidth
9004   \setlength{glspagelistwidth}{0.1\hsize}
9005 }{}

```

`superragged` The superragged glossary style uses the supertabular environment.

```

9006 \newglossarystyle{superragged}{%

```

Put the glossary in a supertabular environment with two columns and no head or tail:

```

9007   \renewenvironment{theglossary}%
9008     {\tablehead{}\tabletail{}}%
9009     \begin{supertabular}[1>{\raggedright}p{glsdescwidth}]{}%
9010     {\end{supertabular}}%

```

Do nothing at the start of the table:

```

9011   \renewcommand*{\glossaryheader}{}%

```

No group headings:

```

9012   \renewcommand*{\glsgroupheading}[1]{}%

```

Main (level 0) entries put in a row (name in first column, description and page list in second column):

```

9013   \renewcommand{\glossentry}[2]{%
9014     \glstryitem{##1}\glstarget{##1}{\glossentryname{##1}} &
9015     \glossentrydesc{##1}\glspostdescription\space ##2%
9016     \tabularnewline
9017   }%

```

Sub entries put in a row (no name, description and page list in second column):

```

9018   \renewcommand{\subglossentry}[3]{%
9019     &
9020     \glssubentryitem{##2}%
9021     \glstarget{##2}{\strut}\glossentrydesc{##2}\glspostdescription\space
9022     ##3%
9023     \tabularnewline
9024   }%

```

Blank row between groups: The check for nogroupskip must occur outside `\glsgroupskip` (<http://www.dickimaw-books.com/cgi-bin/bugtracker.cgi?action=view&key=108>)

```

9025   \ifglsnogroupskip
9026     \renewcommand*{\glsgroupskip}{}%
9027   \else

```

```

9028 \renewcommand*{\glsgroupskip}{& \tabularnewline}%
9029 \fi
9030 }

```

superraggedborder The superraggedborder style is like the above, but with horizontal and vertical lines:

```

9031 \newglossarystyle{superraggedborder}{%
    Base it on the glostylesuperragged style:
9032 \setglossarystyle{superragged}%
    Put the glossary in a supertabular environment with two columns and a horizontal line in the
    head and tail:
9033 \renewenvironment{theglossary}%
9034 {\tablehead{\hline}\tabletail{\hline}%
9035 \begin{supertabular}{|l|>{\raggedright}p{\glsgdescwidth}|}}%
9036 {\end{supertabular}}%
9037 }

```

superraggedheader The superraggedheader style is like the super style, but with a header:

```

9038 \newglossarystyle{superraggedheader}{%
    Base it on the glostylesuperragged style:
9039 \setglossarystyle{superragged}%
    Put the glossary in a supertabular environment with two columns, a header and no tail:
9040 \renewenvironment{theglossary}%
9041 {\tablehead{\bfseries \entryname & \bfseries \descriptionname
9042 \tabularnewline}%
9043 \tabletail{}}%
9044 \begin{supertabular}{l>{\raggedright}p{\glsgdescwidth}}}%
9045 {\end{supertabular}}%
9046 }

```

superraggedheaderborder The superraggedheaderborder style is like the superragged style but with a header and border:

```

9047 \newglossarystyle{superraggedheaderborder}{%
    Base it on the glostylesuper style:
9048 \setglossarystyle{superragged}%
    Put the glossary in a supertabular environment with two columns, a header and horizontal
    lines above and below the table:
9049 \renewenvironment{theglossary}%
9050 {\tablehead{\hline\bfseries \entryname &
9051 \bfseries \descriptionname\tabletail{\hline}%
9052 \tabletail{\hline}
9053 \begin{supertabular}{|l|>{\raggedright}p{\glsgdescwidth}|}}%
9054 {\end{supertabular}}%
9055 }

```

superragged3col The superragged3col style is like the superragged style, but with 3 columns:

```

9056 \newglossarystyle{superragged3col}{%

```

Put the glossary in a supertabular environment with three columns and no head or tail:

```
9057 \renewenvironment{theglossary}%
9058   {\tablehead{}\tabletail{}}%
9059   \begin{supertabular}{l>{\raggedright}p{\glsgdescwidth}%
9060     >{\raggedright}p{\glspagelistwidth}}}%
9061   {\end{supertabular}}%
```

Do nothing at the start of the table:

```
9062 \renewcommand*{\glossaryheader}{}%
```

No group headings:

```
9063 \renewcommand*{\glsgroupheading}[1]{}%
```

Main (level 0) entries on a row (name in first column, description in second column, page list in last column):

```
9064 \renewcommand{\glossentry}[2]{%
9065   \glssentryitem{##1}\glstarget{##1}{\glossentryname{##1}} &
9066   \glossentrydesc{##1} &
9067   ##2\tabularnewline
9068 }%
```

Sub entries on a row (no name, description in second column, page list in last column):

```
9069 \renewcommand{\subglossentry}[3]{%
9070   &
9071   \glssubentryitem{##2}%
9072   \glstarget{##2}{\strut}\glossentrydesc{##2} &
9073   ##3\tabularnewline
9074 }%
```

Blank row between groups: The check for nogroupskip must occur outside \glsgroupskip (<http://www.dickimaw-books.com/cgi-bin/bugtracker.cgi?action=view&key=108>)

```
9075 \ifglsgroupskip
9076 \renewcommand*{\glsgroupskip}{}%
9077 \else
9078 \renewcommand*{\glsgroupskip}{& & \tabularnewline}%
9079 \fi
9080 }
```

`ragged3colborder` The `superragged3colborder` style is like the `superragged3col` style, but with a border:

```
9081 \newglossarystyle{superragged3colborder}{%
```

Base it on the `glostylesuperragged3col` style:

```
9082 \setglossarystyle{superragged3col}%
```

Put the glossary in a supertabular environment with three columns and a horizontal line in the head and tail:

```
9083 \renewenvironment{theglossary}%
9084   {\tablehead{\hline}\tabletail{\hline}%
9085   \begin{supertabular}{|l|>{\raggedright}p{\glsgdescwidth}|}%
9086     >{\raggedright}p{\glspagelistwidth}|}%
9087   {\end{supertabular}}%
9088 }
```

ragged3colheader The superragged3colheader style is like the superragged3col style but with a header row:

```
9089 \newglossarystyle{superragged3colheader}{%
```

Base it on the glostylesuperragged3col style:

```
9090 \setglossarystyle{superragged3col}{%
```

Put the glossary in a supertabular environment with three columns, a header and no tail:

```
9091 \renewenvironment{theglossary}{%
9092   {\tablehead{\bfseries\entryname&\bfseries\descriptionname&
9093     \bfseries\pagelistname\tabularnewline}\tabletail{}}%
9094   \begin{supertabular}{l>{\raggedright}p{\glstdescwidth}%
9095     >{\raggedright}p{\glspagelistwidth}}}%
9096   {\end{supertabular}}}%
9097 }
```

colheaderborder The superragged3colheaderborder style is like the superragged3col style but with a header and border:

```
9098 \newglossarystyle{superragged3colheaderborder}{%
```

Base it on the glostylesuperragged3colborder style:

```
9099 \setglossarystyle{superragged3colborder}{%
```

Put the glossary in a supertabular environment with three columns, a header with horizontal lines and a horizontal line in the tail:

```
9100 \renewenvironment{theglossary}{%
9101   {\tablehead{\hline
9102     \bfseries\entryname&\bfseries\descriptionname&
9103     \bfseries\pagelistname\tabularnewline\hline}%
9104   \tabletail{\hline}%
9105   \begin{supertabular}{|l|>{\raggedright}p{\glstdescwidth}|%
9106     >{\raggedright}p{\glspagelistwidth}|}%
9107   {\end{supertabular}}}%
9108 }
```

superragged4col The altsuperragged4col glossary style is like altsuper4col style in the package but uses ragged right formatting in the description and page list columns.

```
9109 \newglossarystyle{altsuperragged4col}{%
```

Put the glossary in a supertabular environment with four columns and no head or tail:

```
9110 \renewenvironment{theglossary}{%
9111   {\tablehead{}\tabletail{}}%
9112   \begin{supertabular}{l>{\raggedright}p{\glstdescwidth}l%
9113     >{\raggedright}p{\glspagelistwidth}}}%
9114   {\end{supertabular}}%
```

Do nothing at the start of the table:

```
9115 \renewcommand*{\glossaryheader}{}%
```

No group headings:

```
9116 \renewcommand*{\glsgroupheading}[1]{}%
```

Main (level 0) entries on a row with the name in the first column, description in second column, symbol in third column and page list in last column:

```

9117 \renewcommand{\glossentry}[2]{%
9118   \glentryitem{##1}\glstarget{##1}{\glossentryname{##1}} &
9119   \glossentrydesc{##1} &
9120   \glossentrysymbol{##1} & ##2\tabularnewline
9121 }%
```

Sub entries on a row with no name, the description in the second column, symbol in third column and page list in last column:

```

9122 \renewcommand{\subglossentry}[3]{%
9123   &
9124   \glssubentryitem{##2}%
9125   \glstarget{##2}{\strut}\glossentrydesc{##2} &
9126   \glossentrysymbol{##2} & ##3\tabularnewline
9127 }%
```

Blank row between groups: The check for nogroupskip must occur outside \glsgroupskip (<http://www.dickimaw-books.com/cgi-bin/bugtracker.cgi?action=view&key=108>)

```

9128 \ifglsgroupskip
9129   \renewcommand*{\glsgroupskip}{}%
9130 \else
9131   \renewcommand*{\glsgroupskip}{& & \tabularnewline}%
9132 \fi
9133 }
```

agged4colheader The altsuperragged4colheader style is like the altsuperragged4col style but with a header row.

```

9134 \newglossarystyle{altsuperragged4colheader}{%
```

Base it on the glostylealtsuperragged4col style:

```

9135 \setglossarystyle{altsuperragged4col}{%
```

Put the glossary in a supertabular environment with four columns, a header and no tail:

```

9136 \renewenvironment{theglossary}%
9137   {\tablehead{\bfseries\entryname&\bfseries\descriptionname&
9138     \bfseries\symbolname &
9139     \bfseries\pagelistname\tabularnewline}\tabletail{}}%
9140   \begin{supertabular}{l>{\raggedright}p{\glsgdescwidth}l%
9141     >{\raggedright}p{\glspagelistwidth}}}%
9142   {\end{supertabular}}%
9143 }
```

agged4colborder The altsuperragged4colborder style is like the altsuperragged4col style but with a border.

```

9144 \newglossarystyle{altsuperragged4colborder}{%
```

Base it on the glostylealtsuperragged4col style:

```

9145 \setglossarystyle{altsuper4col}{%
```

Put the glossary in a supertabular environment with four columns and a horizontal line in the head and tail:

```

9146 \renewenvironment{theglossary}%
```

```

9147   {\tablehead{\hline}\tabletail{\hline}%
9148   \begin{supertabular}%
9149   {||>{\raggedright}p{\glsgdescwidth}||}%
9150   >{\raggedright}p{\glspagelistwidth}||}%
9151   {\end{supertabular}}}%
9152 }

```

`colheaderborder` The `altsuperragged4colheaderborder` style is like the `altsuperragged4col` style but with a header and border.

```

9153 \newglossarystyle{altsuperragged4colheaderborder}{%

```

Base it on the `glostylealtsuperragged4col` style:

```

9154 \setglossarystyle{altsuperragged4col}%

```

Put the glossary in a `supertabular` environment with four columns and a header bordered by horizontal lines and a horizontal line in the tail:

```

9155 \renewenvironment{theglossary}%
9156 {\tablehead{\hline
9157   \bfseries\entryname &
9158   \bfseries\descriptionname &
9159   \bfseries\symbolname &
9160   \bfseries\pagelistname\tabularnewline\hline}%
9161 \tabletail{\hline}%
9162 \begin{supertabular}%
9163 {||>{\raggedright}p{\glsgdescwidth}||}%
9164 >{\raggedright}p{\glspagelistwidth}||}%
9165 {\end{supertabular}}}%
9166 }

```

3.10 Tree Styles (`glossary-tree.sty`)

The style file defines glossary styles that have a tree-like structure. These are designed for hierarchical glossaries.

```

9167 \ProvidesPackage{glossary-tree}[2017/01/07 v4.28 (NLCT)]

```

`\indexspace` There are a few classes that don't define `\indexspace`, so provide a definition if it hasn't been defined.

```

9168 \providecommand{\indexspace}{%
9169 \par \vskip 10\p@ \@plus 5\p@ \@minus 3\p@ \relax
9170 }

```

`\glstreenamefmt` Format used to display the name in the tree styles. (This may be counteracted by `\glsglfont`.) This command was previously also used to format the group headings.

```

9171 \newcommand*{\glstreenamefmt}[1]{\textbf{#1}}

```

`\glstreegroupheaderfmt` Format used to display the group header in the tree styles. Before v4.22, `\glstreenamefmt` was used for the group header, so the default definition uses that to help maintain backward-compatibility, since in previous versions redefining `\glstreenamefmt` would've also affected the group headings.

```
9172 \newcommand*{\glstreegroupheaderfmt}[1]{\glstreenamefmt{#1}}
```

`\glstreenavigationfmt` Format used to display the navigation header in the tree styles.

```
9173 \newcommand*{\glstreenavigationfmt}[1]{\glstreenamefmt{#1}}
```

Allow the user to adjust the index style without disturbing the index.

`\glstreeitem` Top level item used in index style.

```
9174 \ifdef\@idxitem
9175 {\newcommand{\glstreeitem}{\@idxitem}}
9176 {\newcommand{\glstreeitem}{\par\hangindent40\p@}}
```

`\glstreesubitem` Level 1 item used in index style.

```
9177 \ifdef\subitem
9178 {\let\glstreesubitem\subitem}
9179 {\newcommand\glstreesubitem{\glstreeitem\hspace*{20\p@}}}
```

`\glstreesubsubitem` Level 1 item used in index style.

```
9180 \ifdef\subsubitem
9181 {\let\glstreesubsubitem\subsubitem}
9182 {\newcommand\glstreesubsubitem{\glstreeitem\hspace*{30\p@}}}
```

`\glstreepredesc` Allow the user to adjust the space before the description (except for the `alttree` style).

```
9183 \newcommand{\glstreepredesc}{\space}
```

`\glstreechildpredesc` Allow the user to adjust the space before the description for sub-entries (except for the `treenoname` and `alttree` style).

```
9184 \newcommand{\glstreechildpredesc}{\space}
```

`index` The index glossary style is similar in style to the way indices are usually typeset using `\item`, `\subitem` and `\subsubitem`. The entry name is set in bold. If an entry has a symbol, it is placed in brackets after the name. Then the description is displayed, followed by the number list. This style allows up to three levels.

```
9185 \newglossarystyle{index}{%
```

Set the paragraph indentation and skip and define `\item` to be the same as that used by `theindex`:

```
9186 \renewenvironment{theglossary}%
9187 {\setlength{\parindent}{0pt}%
9188 \setlength{\parskip}{0pt plus 0.3pt}%
9189 \let\item\glstreeitem
9190 \let\subitem\glstreesubitem
9191 \let\subsubitem\glstreesubsubitem
9192 }%
```

9193 {\par}%

Do nothing at the start of the environment:

9194 \renewcommand*{\glossaryheader}{}%

No group headers:

9195 \renewcommand*{\glsgroupheading}[1]{}%

Main (level 0) entry starts a new item with the name in bold followed by the symbol in brackets (if it exists), the description and the page list.

9196 \renewcommand*{\glossentry}[2]{%

9197 \item\glstentryitem{##1}\glstreenamefmt{\glstarget{##1}{\glossentryname{##1}}}%

9198 \ifglshassymbol{##1}{\space(\glossentrysymbol{##1})}{}%

9199 \glstreepredesc \glossentrydesc{##1}\glspostdescription\space ##2%

9200 }%

Sub entries: level 1 entries use \subitem, levels greater than 1 use \subsubitem. The level (##1) shouldn't be 0, as that's catered by \glossentry, but for completeness, if the level is 0, \item is used. The name is put in bold, followed by the symbol in brackets (if it exists), the description and the page list.

9201 \renewcommand{\subglossentry}[3]{%

9202 \ifcase##1\relax

9203 % level 0

9204 \item

9205 \or

9206 % level 1

9207 \subitem

9208 \glssubentryitem{##2}%

9209 \else

9210 % all other levels

9211 \subsubitem

9212 \fi

9213 \glstreenamefmt{\glstarget{##2}{\glossentryname{##2}}}%

9214 \ifglshassymbol{##2}{\space(\glossentrysymbol{##2})}{}%

9215 \glstreechildpredesc\glossentrydesc{##2}\glspostdescription\space ##3%

9216 }%

Vertical gap between groups is the same as that used by indices:

9217 \renewcommand*{\glsgroupskip}{\ifglsnogroupskip\else\indexspace\fi}}

indexgroup The indexgroup style is like the index style but has headings.

9218 \newglossarystyle{indexgroup}{%

Base it on the glostyleindex style:

9219 \setglossarystyle{index}%

Add a heading for each group. This puts the group's title in bold followed by a vertical gap.

9220 \renewcommand*{\glsgroupheading}[1]{%

9221 \item\glstreegroupheaderfmt{\glsggetgrouptitle{##1}}%

9222 \indexspace

9223 }%

9224 }

indexhypergroup The indexhypergroup style is like the indexgroup style but has hyper navigation.

```
9225 \newglossarystyle{indexhypergroup}{%
```

Base it on the glostyleindex style:

```
9226 \setglossarystyle{index}{%
```

Put navigation links to the groups at the start of the glossary:

```
9227 \renewcommand*{\glossaryheader}{%
```

```
9228 \item\glstreenavigationfmt{\glsnavigation}\indexspace}%
```

Add a heading for each group (with a target). The group's title is in bold followed by a vertical gap.

```
9229 \renewcommand*{\glsgroupheading}[1]{%
```

```
9230 \item\glstreegroupheaderfmt
```

```
9231 {\glsnahypertarget{##1}{\glsgrouptitle{##1}}}%
```

```
9232 \indexspace}%
```

```
9233 }
```

tree The tree glossary style is similar in style to the index style, but can have arbitrary levels.

```
9234 \newglossarystyle{tree}{%
```

Set the paragraph indentation and skip:

```
9235 \renewenvironment{theglossary}{%
```

```
9236 {\setlength{\parindent}{0pt}%
```

```
9237 \setlength{\parskip}{0pt plus 0.3pt}}%
```

```
9238 {}%
```

Do nothing at the start of the theglossary environment:

```
9239 \renewcommand*{\glossaryheader}{}%
```

No group headings:

```
9240 \renewcommand*{\glsgroupheading}[1]{}%
```

Main (level 0) entries: name in bold, followed by symbol in brackets (if it exists), the description and the page list:

```
9241 \renewcommand{\glossentry}[2]{%
```

```
9242 \hangindent0pt\relax
```

```
9243 \parindent0pt\relax
```

```
9244 \glstentryitem{##1}\glstreenamefmt{\glstarget{##1}{\glossentryname{##1}}}%
```

```
9245 \ifglshassymbol{##1}{\space(\glossentrysymbol{##1})}{}%
```

```
9246 \glstreepredesc\glossentrydesc{##1}\glspostdescription\space##2\par
```

```
9247 }%
```

Sub entries: level $\langle n \rangle$ is indented by $\langle n \rangle$ times `\glstreeindent`. The name is in bold, followed by the symbol in brackets (if it exists), the description and the page list.

```
9248 \renewcommand{\subglossentry}[3]{%
```

```
9249 \hangindent##1\glstreeindent\relax
```

```
9250 \parindent##1\glstreeindent\relax
```

```
9251 \ifnum##1=1\relax
```

```
9252 \glssubentryitem{##2}%
```

```
9253 \fi
```

```
9254 \glstreenamefmt{\glstarget{##2}{\glossentryname{##2}}}%
```

```

9255 \ifglshassymbol{##2}{\space(\glossentrysymbol{##2})}{}%
9256 \glstreechildpredesc\glossentrydesc{##2}\glspostdescription\space ##3\par
9257 }%

```

Vertical gap between groups is the same as that used by indices:

```

9258 \renewcommand*{\glsgroupskip}{\ifglsnogroupskip\else\indexspace\fi}}

```

treegroup Like the tree style but the glossary groups have headings.

```

9259 \newglossarystyle{treegroup}{%

```

Base it on the `glostyletree` style:

```

9260 \setglossarystyle{tree}%

```

Each group has a heading (in bold) followed by a vertical gap):

```

9261 \renewcommand{\glsgroupheading}[1]{\par
9262 \noindent\glstreegroupheaderfmt{\glsgrouptitle{##1}}\par
9263 \indexspace}%
9264 }

```

treehypergroup The `treehypergroup` style is like the `treegroup` style, but has a set of links to the groups at the start of the glossary.

```

9265 \newglossarystyle{treehypergroup}{%

```

Base it on the `glostyletree` style:

```

9266 \setglossarystyle{tree}%

```

Put navigation links to the groups at the start of the `theglossary` environment:

```

9267 \renewcommand*{\glossaryheader}{%
9268 \par\noindent\glstreenavigationfmt{\glsnavigation}\par\indexspace}%

```

Each group has a heading (in bold with a target) followed by a vertical gap):

```

9269 \renewcommand*{\glsgroupheading}[1]{%
9270 \par\noindent
9271 \glstreegroupheaderfmt
9272 {\glsnavigationtarget{##1}{\glsgrouptitle{##1}}}\par
9273 \indexspace}%
9274 }

```

\glstreeindent Length governing left indent for each level of the tree style.

```

9275 \newlength\glstreeindent
9276 \setlength{\glstreeindent}{10pt}

```

treenoname The `treenoname` glossary style is like the tree style, but doesn't print the name or symbol for sub-levels.

```

9277 \newglossarystyle{treenoname}{%

```

Set the paragraph indentation and skip:

```

9278 \renewenvironment{theglossary}%
9279 {\setlength{\parindent}{0pt}%
9280 \setlength{\parskip}{0pt plus 0.3pt}}%
9281 {}%

```

No header:

```
9282 \renewcommand*{\glossaryheader}{}%
```

No group headings:

```
9283 \renewcommand*{\glsgroupheading}[1]{}%
```

Main (level 0) entries: the name is in bold, followed by the symbol in brackets (if it exists), the description and the page list.

```
9284 \renewcommand{\glossentry}[2]{%
9285   \hangindent0pt\relax
9286   \parindent0pt\relax
9287   \glstentryitem{##1}\glstreenamefmt{\glstarget{##1}{\glossentryname{##1}}}%
9288   \ifglshassymbol{##1}{\space(\glossentrysymbol{##1})}{}%
9289   \glstreepredesc\glossentrydesc{##1}\glspostdescription\space##2\par
9290 }%
```

Sub entries: level $\langle n \rangle$ is indented by $\langle n \rangle$ times `\glstreeindent`. The name and symbol are omitted. The description followed by the page list are displayed.

```
9291 \renewcommand{\subglossentry}[3]{%
9292   \hangindent##1\glstreeindent\relax
9293   \parindent##1\glstreeindent\relax
9294   \ifnum##1=1\relax
9295     \glssubentryitem{##2}%
9296     \fi
9297     \glstarget{##2}{\strut}%
9298     \glossentrydesc{##2}\glspostdescription\space##3\par
9299   }%
```

Vertical gap between groups is the same as that used by indices:

```
9300 \renewcommand*{\glsgroupskip}{\ifglsnogroupskip\else\indexspace\fi}%
9301 }
```

treenonamegroup Like the `treenoname` style but the glossary groups have headings.

```
9302 \newglossarystyle{treenonamegroup}{%
```

Base it on the `glostyletreenoname` style:

```
9303 \setglossarystyle{treenoname}%
```

Give each group a heading:

```
9304 \renewcommand{\glsgroupheading}[1]{\par
9305   \noindent\glstreegroupheaderfmt
9306   {\glsgrouptitle{##1}}\par\indexspace}%
9307 }
```

onamehypergroup The `treenonamehypergroup` style is like the `treenonamegroup` style, but has a set of links to the groups at the start of the glossary.

```
9308 \newglossarystyle{treenonamehypergroup}{%
```

Base it on the `glostyletreenoname` style:

```
9309 \setglossarystyle{treenoname}%
```

Put navigation links to the groups at the start of the theglossary environment:

```
9310 \renewcommand*{\glossaryheader}{%
9311 \par\noindent\glstreenavigationfmt{\glsnavigation}\par\indexspace}%
```

Each group has a heading (in bold with a target) followed by a vertical gap):

```
9312 \renewcommand*{\glsgroupheading}[1]{%
9313 \par\noindent
9314 \glstreegroupheaderfmt
9315 {\glsnavhypertarget{##1}{\glsgetgrouptitle{##1}}}\par
9316 \indexspace}%
9317 }
```

esttoplevelname Find the widest name over all parentless entries in the given glossary or glossaries.

```
9318 \newrobustcmd*{\glsfindwidesttoplevelname}[1][\@glo@types]{%
9319 \dimen@=0pt\relax
9320 \gls@tmplen=0pt\relax
9321 \forallglossaries[#1]{\@gls@type}%
9322 {%
9323 \forglsentries[\@gls@type]{\@glo@label}%
9324 {%
9325 \ifglshasparent{\@glo@label}%
9326 }%
9327 {%
9328 \settowidth{\dimen@}%
9329 {\glstreenamfmt{\glsentryname{\@glo@label}}}%
9330 \ifdim\dimen@>\gls@tmplen
9331 \gls@tmplen=\dimen@
9332 \letcs{\@glswidestname}{glo@\glsdetoklabel{\@glo@label}@name}%
9333 \fi
9334 }%
9335 }%
9336 }%
9337 }
```

\glssetwidest `\glssetwidest[<level>]{<text>}` sets the widest text for the given level. It is used by the alt-tree glossary styles to determine the indentation of each level.

```
9338 \newcommand*{\glssetwidest}[2][0]{%
9339 \expandafter\def\csname @glswidestname\romannumeral#1\endcsname{%
9340 #2}%
9341 }
```

\@glswidestname Initialise \@glswidestname.

```
9342 \newcommand*{\@glswidestname}{}
```

\glstreenambox Used by the alttree style to create the box for the name and associated information.

```
9343 \newcommand*{\glstreenambox}[2]{%
9344 \makebox[#1][l]{#2}%
9345 }
```

`alttree` The `alttree` glossary style is similar in style to the `tree` style, but the indentation is obtained from the width of `\@glswidestname` which is set using `\glssetwidest`.

```
9346 \newglossarystyle{alttree}{%
```

Redefine the `glossary` environment.

```
9347 \renewenvironment{theglossary}{%
```

```
9348 {\def\@gls@prevlevel{-1}%
```

```
9349 \mbox{}\par}%
```

```
9350 {\par}%
```

Set the header and group headers to nothing.

```
9351 \renewcommand*{\glossaryheader}{}%
```

```
9352 \renewcommand*{\glsgroupheading}[1]{}%
```

Redefine the way that the level 0 entries are displayed.

```
9353 \renewcommand{\glossentry}[2]{%
```

```
9354 \ifnum\@gls@prevlevel=0\relax
```

```
9355 \else
```

Find out how big the indentation should be by measuring the widest entry.

```
9356 \settowidth{\glstreeindent}{\glstreenamfmt{\@glswidestname\space}}%
```

```
9357 \fi
```

Set the hangindent and paragraph indent.

```
9358 \hangindent\glstreeindent
```

```
9359 \parindent\glstreeindent
```

Put the name to the left of the paragraph block.

```
9360 \makebox[0pt][r]{\glstreenambox{\glstreeindent}{%
```

```
9361 \glsentryitem{##1}\glstreenamfmt{\glstarget{##1}{\glossentryname{##1}}}}%
```

If the symbol is missing, ignore it, otherwise put it in brackets.

```
9362 \ifglshassymbol{##1}{(\glossentrysymbol{##1})\space}{}%
```

Do the description followed by the description terminator and location list.

```
9363 \glossentrydesc{##1}\glspostdescription \space ##2\par
```

Set the previous level to 0.

```
9364 \def\@gls@prevlevel{0}%
```

```
9365 }%
```

Redefine the way sub-entries are displayed.

```
9366 \renewcommand{\subglossentry}[3]{%
```

Increment and display the sub-entry counter if this is a level 1 entry and the sub-entry counter is in use.

```
9367 \ifnum##1=1\relax
```

```
9368 \glssubentryitem{##2}%
```

```
9369 \fi
```

If the level hasn't changed, keep the same settings, otherwise adjust `\glstreeindent` accordingly.

```
9370 \ifnum\@gls@prevlevel=##1\relax
```

```
9371 \else
```

Compute the widest entry for this level, or for level 0 if not defined for this level. Store in \gls@tmplen

```

9372      \@ifundefined{glswidestname\romannumeral##1}{%
9373          \settowidth{\gls@tmplen}{\glstreenamefmt{\glswidestname\space}}{%
9374          \settowidth{\gls@tmplen}{\glstreenamefmt{%
9375              \csname @glswidestname\romannumeral##1\endcsname\space}}}%

```

Determine if going up or down a level

```

9376      \ifnum\@gls@prevlevel<##1\relax

```

Depth has increased, so add the width of the widest entry to \glstreeindent.

```

9377          \setlength\glstreeindent\gls@tmplen
9378          \addtolength\glstreeindent\parindent
9379          \parindent\glstreeindent
9380      \else

```

Depth has decreased, so subtract width of the widest entry from the previous level to \glstreeindent. First determine the width of the widest entry for the previous level and store in \glstreeindent.

```

9381          \@ifundefined{glswidestname\romannumeral\@gls@prevlevel}{%
9382              \settowidth{\glstreeindent}{\glstreenamefmt{%
9383                  \glswidestname\space}}}%
9384              \settowidth{\glstreeindent}{\glstreenamefmt{%
9385                  \csname @glswidestname\romannumeral\@gls@prevlevel
9386                      \endcsname\space}}}%

```

Subtract this length from the previous level's paragraph indent and set to \glstreeindent.

```

9387          \addtolength\parindent{-\glstreeindent}%
9388          \setlength\glstreeindent\parindent
9389      \fi
9390  \fi

```

Set the hanging indentation.

```

9391      \hangindent\glstreeindent

```

Put the name to the left of the paragraph block

```

9392      \makebox[0pt][r]{\glstreenamebox{\gls@tmplen}{%
9393          \glstreenamefmt{\glstarget{##2}{\glossentryname{##2}}}}}%

```

If the symbol is missing, ignore it, otherwise put it in brackets.

```

9394      \ifglshassymbol{##2}{(\glossentrysymbol{##2})\space}{}%

```

Do the description followed by the description terminator and location list.

```

9395      \glossentrydesc{##2}\glspostdescription\space ##3\par

```

Set the previous level macro to the current level.

```

9396      \def\@gls@prevlevel{##1}%
9397  }%

```

Vertical gap between groups is the same as that used by indices:

```

9398      \renewcommand*{\glsgroupskip}{\ifglsnogroupskip\else\indexspace\fi}%
9399  }

```

`alttreegroup` Like the `alttree` style but the glossary groups have headings.

```
9400 \newglossarystyle{alttreegroup}{%  
    Base it on the glostylealttree style:  
9401   \setglossarystyle{alttree}%  
    Give each group a heading.  
9402   \renewcommand{\glsgroupheading}[1]{\par  
9403     \def\@gls@prevlevel{-1}%  
9404     \hangindent0pt\relax  
9405     \parindent0pt\relax  
9406     \glstreegroupheaderfmt{\glsgetgrouptitle{##1}}%  
9407     \par\indexspace}%  
9408 }
```

`alttreehypergroup` The `alttreehypergroup` style is like the `alttreegroup` style, but has a set of links to the groups at the start of the glossary.

```
9409 \newglossarystyle{alttreehypergroup}{%  
    Base it on the glostylealttree style:  
9410   \setglossarystyle{alttree}%  
    Put the navigation links in the header  
9411   \renewcommand*{\glossaryheader}{%  
9412     \par  
9413     \def\@gls@prevlevel{-1}%  
9414     \hangindent0pt\relax  
9415     \parindent0pt\relax  
9416     \glstreenavigationfmt{\glsnavigation}\par\indexspace}%  
    Put a hypertarget at the start of each group  
9417   \renewcommand*{\glsgroupheading}[1]{%  
9418     \par  
9419     \def\@gls@prevlevel{-1}%  
9420     \hangindent0pt\relax  
9421     \parindent0pt\relax  
9422     \glstreegroupheaderfmt  
9423     {\glsnavhypertarget{##1}{\glsgetgrouptitle{##1}}}\par  
9424     \indexspace}}
```

4 Backwards Compatibility

4.1 glossaries-compatible-207

Provides compatibility with version 2.07 and below. This uses original glossaries xindy and makeindex formatting, so can be used with old documents that had customized style files, but hyperlinks may not work properly.

```
9425 \NeedsTeXFormat{LaTeX2e}
9426 \ProvidesPackage{glossaries-compatible-207}[2017/01/07 v4.28 (NLCT)]
```

AddXdyAttribute Adds an attribute in old format.

```
9427 \ifglsxindy
9428   \renewcommand*\GlsAddXdyAttribute[1]{%
9429     \edef\@xdyattributes{\@xdyattributes ^^J \string"#1\string"}%
9430     \expandafter\toks@\expandafter{\@xdylocref}%
9431     \edef\@xdylocref{\the\toks@ ^^J}%
9432     (markup-locref
9433     :open \string"\string~n\string\setentrycounter
9434       {\noexpand\glscounter}%
9435       \expandafter\string\csname#1\endcsname
9436       \expandafter\@gobble\string\{\string" ^^J
9437       :close \string"\expandafter\@gobble\string\}\string" ^^J
9438       :attr \string"#1\string"))}}
```

Only has an effect before `\writeist`:

```
9439 \fi
```

sAddXdyCounters

```
9440 \renewcommand*\GlsAddXdyCounters[1]{%
9441   \GlossariesWarning{\string\GlsAddXdyCounters\space not available
9442     in compatibility mode.}%
9443 }
```

Add predefined attributes

```
9444 \GlsAddXdyAttribute{glsnumberformat}
9445 \GlsAddXdyAttribute{textrm}
9446 \GlsAddXdyAttribute{textsf}
9447 \GlsAddXdyAttribute{texttt}
9448 \GlsAddXdyAttribute{textbf}
9449 \GlsAddXdyAttribute{textmd}
9450 \GlsAddXdyAttribute{textit}
9451 \GlsAddXdyAttribute{textup}
9452 \GlsAddXdyAttribute{textsl}
```

```

9453 \GlsAddXdyAttribute{textsc}
9454 \GlsAddXdyAttribute{emph}
9455 \GlsAddXdyAttribute{glshypernumber}
9456 \GlsAddXdyAttribute{hyperrm}
9457 \GlsAddXdyAttribute{hypersf}
9458 \GlsAddXdyAttribute{hypertt}
9459 \GlsAddXdyAttribute{hyperbf}
9460 \GlsAddXdyAttribute{hypermd}
9461 \GlsAddXdyAttribute{hyperit}
9462 \GlsAddXdyAttribute{hyperup}
9463 \GlsAddXdyAttribute{hypersl}
9464 \GlsAddXdyAttribute{hypersc}
9465 \GlsAddXdyAttribute{hyperemph}

```

sAddXdyLocation Restore v2.07 definition:

```

9466 \ifglxindy
9467   \renewcommand*{\GlsAddXdyLocation}[2]{%
9468     \edef\@xdyuserlocationdefs{%
9469       \@xdyuserlocationdefs ^^J%
9470       (define-location-class \string"#1\string"^^J\space\space
9471       \space(#2))
9472     }%
9473     \edef\@xdyuserlocationnames{%
9474       \@xdyuserlocationnames^^J\space\space\space
9475       \string"#1\string"}%
9476   }
9477 \fi

```

\@do@wrglossary

```

9478 \renewcommand{\@do@wrglossary}[1]{%
  Determine whether to use xindy or makeindex syntax
9479 \ifglxindy
  Need to determine if the formatting information starts with a ( or ) indicating a range.
9480 \expandafter\@glo@check@mkidxrangechar\@glsnumberformat\@nil
9481 \def\@glo@range{}%
9482 \expandafter\if\@glo@prefix(\relax
9483   \def\@glo@range{:open-range}%
9484 \else
9485   \expandafter\if\@glo@prefix)\relax
9486   \def\@glo@range{:close-range}%
9487 \fi
9488 \fi

  Get the location and escape any special characters
9489 \protected@edef\@glslocref{\theglentrycounter}%
9490 \@gls@checkmkidxchars\@glslocref

  Write to the glossary file using xindy syntax.
9491 \glossary[\csname glo@#1@type\endcsname]{%

```

```

9492 (indexentry :tkey (\csname glo@#1@index\endcsname)
9493 :locoref \string"\@glslocoref\string" %
9494 :attr \string"\@glo@suffix\string" \@glo@range
9495 )
9496 }%
9497 \else

```

Convert the format information into the format required for makeindex

```

9498 \@set@glo@numformat\@glo@numfmt\@gls@counter\@glsnumberformat

```

Write to the glossary file using makeindex syntax.

```

9499 \glossary[\csname glo@#1@type\endcsname]{%
9500 \string\glossaryentry{\csname glo@#1@index\endcsname
9501 \@gls@encapchar\@glo@numfmt}{\theglsentrycounter}}%
9502 \fi
9503 }

```

t@glo@numformat Only had 3 arguments in v2.07

```

9504 \def\@set@glo@numformat#1#2#3{%
9505 \expandafter\@glo@check@mkidxrangechar#3\@nil
9506 \protected@edef#1{%
9507 \@glo@prefix setentrycounter[]{\#2}%
9508 \expandafter\string\csname\@glo@suffix\endcsname
9509 }%
9510 \@gls@checkmkidxchars#1%
9511 }

```

\writeist Redefine \writeist back to the way it was in v2.07, but change \istfile to \glswrite.

```

9512 \ifglxsindy
9513 \def\writeist{%
9514 \openout\glswrite=\istfilename
9515 \write\glswrite{;; xindy style file created by the glossaries
9516 package in compatible-2.07 mode}%
9517 \write\glswrite{;; for document '\jobname' on
9518 \the\year-\the\month-\the\day}%
9519 \write\glswrite{^^J; required styles^^J}
9520 \@for\@xdystyle:=\@xdyrequiredstyles\do{%
9521 \ifx\@xdystyle\@empty
9522 \else
9523 \protected@write\glswrite{{(require
9524 \string"\@xdystyle.xdy\string")}}%
9525 \fi
9526 }%
9527 \write\glswrite{^^J%
9528 ; list of allowed attributes (number formats)^^J}%
9529 \write\glswrite{(define-attributes ((\@xdyattributes)))}%
9530 \write\glswrite{^^J; user defined alphabets^^J}%
9531 \write\glswrite{\@xdyuseralphabets}%
9532 \write\glswrite{^^J; location class definitions^^J}%
9533 \protected@edef\@gls@roman{\@roman{0}\string"

```

```

9534     \string"roman-numbers-lowercase\string" :sep \string"}}%
9535 \@onelevel@sanitize\@gls@roman
9536 \edef\@tmp{\string" \string"roman-numbers-lowercase\string"
9537     :sep \string"}}%
9538 \@onelevel@sanitize\@tmp
9539 \ifx\@tmp\@gls@roman
9540     \write\glswrite{(define-location-class
9541         \string"roman-page-numbers\string"^^J\space\space\space
9542         (\string"roman-numbers-lowercase\string")
9543         :min-range-length \@glsminrange)}}%
9544 \else
9545     \write\glswrite{(define-location-class
9546         \string"roman-page-numbers\string"^^J\space\space\space
9547         (:sep "\@gls@roman")
9548         :min-range-length \@glsminrange)}}%
9549 \fi
9550 \write\glswrite{(define-location-class
9551     \string"Roman-page-numbers\string"^^J\space\space\space
9552     (\string"roman-numbers-uppercase\string")
9553     :min-range-length \@glsminrange)}}%
9554 \write\glswrite{(define-location-class
9555     \string"arabic-page-numbers\string"^^J\space\space\space
9556     (\string"arabic-numbers\string")
9557     :min-range-length \@glsminrange)}}%
9558 \write\glswrite{(define-location-class
9559     \string"alpha-page-numbers\string"^^J\space\space\space
9560     (\string"alpha\string")
9561     :min-range-length \@glsminrange)}}%
9562 \write\glswrite{(define-location-class
9563     \string"Alpha-page-numbers\string"^^J\space\space\space
9564     (\string"ALPHA\string")
9565     :min-range-length \@glsminrange)}}%
9566 \write\glswrite{(define-location-class
9567     \string"Appendix-page-numbers\string"^^J\space\space\space
9568     (\string"ALPHA\string"
9569     :sep \string"\@glsAlphacompositor\string"
9570     \string"arabic-numbers\string")
9571     :min-range-length \@glsminrange)}}%
9572 \write\glswrite{(define-location-class
9573     \string"arabic-section-numbers\string"^^J\space\space\space
9574     (\string"arabic-numbers\string"
9575     :sep \string"\glscompositor\string"
9576     \string"arabic-numbers\string")
9577     :min-range-length \@glsminrange)}}%
9578 \write\glswrite{^^J; user defined location classes}%
9579 \write\glswrite{\@xdyuserlocationdefs}%
9580 \write\glswrite{^^J; define cross-reference class^^J}%
9581 \write\glswrite{(define-crossref-class \string"see\string"
9582     :unverified )}%

```

```

9583 \write\glswrite{(markup-crossref-list
9584 :class \string"see\string"^^J\space\space\space
9585 :open \string"\string\glseeformat\string"
9586 :close \string"{}\string")}%
9587 \write\glswrite{^^J; define the order of the location classes}%
9588 \write\glswrite{(define-location-class-order
9589 (\@xdylocationclassorder))}%
9590 \write\glswrite{^^J; define the glossary markup^^J}%
9591 \write\glswrite{(markup-index^^J\space\space\space
9592 :open \string"\string
9593 \glossarysection[\string\glossarytoctitle]{\string
9594 \glossarytitle}\string\glossarypreamble\string~n\string\begin
9595 {theglossary}\string\glossaryheader\string~n\string" ^^J\space
9596 \space\space:close \string"\expandafter\@gobble
9597 \string%\string~n\string
9598 \end{theglossary}\string\glossarypostamble
9599 \string~n\string" ^^J\space\space\space
9600 :tree)}}%
9601 \write\glswrite{(markup-letter-group-list
9602 :sep \string"\string\glsgroupskip\string~n\string")}%
9603 \write\glswrite{(markup-indexentry
9604 :open \string"\string\relax \string\glresetentrylist
9605 \string~n\string")}%
9606 \write\glswrite{(markup-locclass-list :open
9607 \string"\glsoopenbrace\string\glossaryentrynumbers
9608 \glsoopenbrace\string\relax\space \string"^^J\space\space\space
9609 :sep \string", \string"
9610 :close \string"\glsclosebrace\glsclosebrace\string")}%
9611 \write\glswrite{(markup-locref-list
9612 :sep \string"\string\delimN\space\string")}%
9613 \write\glswrite{(markup-range
9614 :sep \string"\string\delimR\space\string")}%
9615 \@onelevel@sanitize\gls@suffixF
9616 \@onelevel@sanitize\gls@suffixFF
9617 \ifx\gls@suffixF\@empty
9618 \else
9619 \write\glswrite{(markup-range
9620 :close "\gls@suffixF" :length 1 :ignore-end)}%
9621 \fi
9622 \ifx\gls@suffixFF\@empty
9623 \else
9624 \write\glswrite{(markup-range
9625 :close "\gls@suffixFF" :length 2 :ignore-end)}%
9626 \fi
9627 \write\glswrite{^^J; define format to use for locations^^J}%
9628 \write\glswrite{\@xdylocref}%
9629 \write\glswrite{^^J; define letter group list format^^J}%
9630 \write\glswrite{(markup-letter-group-list
9631 :sep \string"\string\glsgroupskip\string~n\string")}%

```

```

9632 \write\glswrite{^^J; letter group headings^^J}%
9633 \write\glswrite{(markup-letter-group
9634   :open-head \string"\string\glsgroupheading
9635   \glsoopenbrace\string"^^J\space\space\space
9636   :close-head \string"\glsclosebrace\string")}%
9637 \write\glswrite{^^J; additional letter groups^^J}%
9638 \write\glswrite{\@xdylettergroups}%
9639 \write\glswrite{^^J; additional sort rules^^J}
9640 \write\glswrite{\@xdysortrules}%
9641 \noist}
9642 \else
9643 \edef\@gls@actualchar{\string?}
9644 \edef\@gls@encapchar{\string|}
9645 \edef\@gls@levelchar{\string!}
9646 \edef\@gls@quotechar{\string"}
9647 \def\writeist{\relax
9648   \openout\glswrite=\istfilename
9649   \write\glswrite{\expandafter\@gobble\string\% makeindex style file
9650     created by the glossaries package}
9651   \write\glswrite{\expandafter\@gobble\string\% for document
9652     '\jobname' on \the\year-\the\month-\the\day}
9653   \write\glswrite{actual '\@gls@actualchar'}
9654   \write\glswrite{encap '\@gls@encapchar'}
9655   \write\glswrite{level '\@gls@levelchar'}
9656   \write\glswrite{quote '\@gls@quotechar'}
9657   \write\glswrite{keyword \string"\string\glossaryentry\string"}
9658   \write\glswrite{preamble \string"\string\glossarysection[\string
9659     \glossarytoctitle]{\string\glossarytitle}\string
9660     \glossarypreamble\string\n\string\begin{theglossary}\string
9661     \glossaryheader\string\n\string"}
9662   \write\glswrite{postamble \string"\string%\string\n\string
9663     \end{theglossary}\string\glossarypostamble\string\n
9664     \string"}
9665   \write\glswrite{group_skip \string"\string\glsgroupskip\string\n
9666     \string"}
9667   \write\glswrite{item_0 \string"\string%\string\n\string"}
9668   \write\glswrite{item_1 \string"\string%\string\n\string"}
9669   \write\glswrite{item_2 \string"\string%\string\n\string"}
9670   \write\glswrite{item_01 \string"\string%\string\n\string"}
9671   \write\glswrite{item_x1
9672     \string"\string\relax \string\glsresetentrylist\string\n
9673     \string"}
9674   \write\glswrite{item_12 \string"\string%\string\n\string"}
9675   \write\glswrite{item_x2
9676     \string"\string\relax \string\glsresetentrylist\string\n
9677     \string"}
9678   \write\glswrite{delim_0 \string"\string\{\string
9679     \glossaryentrynumbers\string\{\string\relax \string"}
9680   \write\glswrite{delim_1 \string"\string\{\string

```

```

9681      \glossaryentrynumbers\string\{\string\relax \string}
9682      \write\glswrite{delim_2 \string"\string\{\string
9683      \glossaryentrynumbers\string\{\string\relax \string}
9684      \write\glswrite{delim_t \string"\string\}\string\}\string}
9685      \write\glswrite{delim_n \string"\string\delimN \string}
9686      \write\glswrite{delim_r \string"\string\delimR \string}
9687      \write\glswrite{headings_flag 1}
9688      \write\glswrite{heading_prefix
9689      \string"\string\glsgroupheading\string\{\string}
9690      \write\glswrite{heading_suffix
9691      \string"\string\}\string\relax
9692      \string\glresetentrylist \string}
9693      \write\glswrite{symhead_positive \string"glssymbols\string}
9694      \write\glswrite{numhead_positive \string"glslnumbers\string}
9695      \write\glswrite{page_compositor \string"glscpositor\string}
9696      \@gls@escbsdq\gls@suffixF
9697      \@gls@escbsdq\gls@suffixFF
9698      \ifx\gls@suffixF\@empty
9699      \else
9700      \write\glswrite{suffix_2p \string"\gls@suffixF\string}
9701      \fi
9702      \ifx\gls@suffixFF\@empty
9703      \else
9704      \write\glswrite{suffix_3p \string"\gls@suffixFF\string}
9705      \fi
9706      \noist
9707  }
9708 \fi

```

\noist

```

9709 \renewcommand*{\noist}{\let\writeist\relax}

```

4.2 glossaries-compatible-307

```

9710 \NeedsTeXFormat{LaTeX2e}
9711 \ProvidesPackage{glossaries-compatible-307}[2017/01/07 v4.28 (NLCT)]

```

Compatibility macros for predefined glossary styles:

`\atglossarystyle` Defines a compatibility glossary style.

```

9712 \newcommand{\compatglossarystyle}[2]{%
9713   \ifcsundef{@glscompstyle@#1}%
9714   {%
9715     \csdef{@glscompstyle@#1}{#2}%
9716   }%
9717   {%
9718     \PackageError{glossaries}{Glossary compatibility style ‘#1’ is already defined}{}%
9719   }%
9720 }

```

Backward compatible inline style.

```

9721 \compatglossarystyle{inline}{%
9722   \renewcommand{\glossaryentryfield}[5]{%
9723     \glsinlinedopostchild
9724     \gls@inlinesep
9725     \def\glo@desc{##3}%
9726     \def\@no@post@desc{\nopostdesc}%
9727     \glstentryitem{##1}\glsinlinenameformat{##1}{##2}%
9728     \ifx\glo@desc\@no@post@desc
9729       \glsinlineemptydescformat{##4}{##5}%
9730     \else
9731       \ifstrepty{##3}%
9732         {\glsinlineemptydescformat{##4}{##5}}%
9733         {\glsinlinedescformat{##3}{##4}{##5}}%
9734     \fi
9735     \ifglshaschildren{##1}%
9736     {%
9737       \glsresetsubentrycounter
9738       \glsinlineparentchildseparator
9739       \def\gls@inlinesubsep{}%
9740       \def\gls@inlinepostchild{\glsinlinepostchild}%
9741     }%
9742   }%
9743   \def\gls@inlinesep{\glsinlineseparator}%
9744 }%
```

Sub-entries display description:

```

9745 \renewcommand{\glossarysubentryfield}[6]{%
9746   \gls@inlinesubsep%
9747   \glsinlinesubnameformat{##2}{##3}%
9748   \glssubentryitem{##2}\glsinlinesubdescformat{##4}{##5}{##6}%
9749   \def\gls@inlinesubsep{\glsinlinesubseparator}%
9750 }%
9751 }
```

Backward compatible list style.

```

9752 \compatglossarystyle{list}{%
9753   \renewcommand*\{\glossaryentryfield}[5]{%
9754     \item[\glstentryitem{##1}\glstarget{##1}{##2}]
9755       ##3\glspostdescription\space ##5}%
9756 }
```

Sub-entries continue on the same line:

```

9756 \renewcommand*\{\glossarysubentryfield}[6]{%
9757   \glssubentryitem{##2}%
9758   \glstarget{##2}{\strut}##4\glspostdescription\space ##6.}%
9759 }
```

Backward compatible listgroup style.

```

9760 \compatglossarystyle{listgroup}{%
9761   \csuse{@glscompstyle@list}%
9762 }%
```

Backward compatible listhypergroup style.

```
9763 \compatglossarystyle{listhypergroup}{%  
9764   \csuse{@glscompstyle@list}%  
9765 }%
```

Backward compatible altlist style.

```
9766 \compatglossarystyle{altlist}{%  
9767   \renewcommand*{\glossaryentryfield}[5]{%  
9768     \item[\glstentryitem{##1}\glstarget{##1}{##2}]%  
9769       \mbox{} \par \nobreak \afterheading  
9770       ##3 \glspostdescription \space ##5}%  
9771   \renewcommand{\glossarysubentryfield}[6]{%  
9772     \par  
9773     \glssubentryitem{##2}%  
9774     \glstarget{##2}{\strut}##4 \glspostdescription \space ##6}%  
9775 }%
```

Backward compatible altlistgroup style.

```
9776 \compatglossarystyle{altlistgroup}{%  
9777   \csuse{@glscompstyle@altlist}%  
9778 }%
```

Backward compatible altlisthypergroup style.

```
9779 \compatglossarystyle{altlisthypergroup}{%  
9780   \csuse{@glscompstyle@altlist}%  
9781 }%
```

Backward compatible listdotted style.

```
9782 \compatglossarystyle{listdotted}{%  
9783   \renewcommand*{\glossaryentryfield}[5]{%  
9784     \item[] \makebox[\glslistdottedwidth][l]{%  
9785       \glstentryitem{##1}\glstarget{##1}{##2}%  
9786       \unskip \leaders \hbox to 2.9mm{\hss.} \hfill \strut}##3}%  
9787   \renewcommand*{\glossarysubentryfield}[6]{%  
9788     \item[] \makebox[\glslistdottedwidth][l]{%  
9789       \glssubentryitem{##2}%  
9790       \glstarget{##2}{##3}%  
9791       \unskip \leaders \hbox to 2.9mm{\hss.} \hfill \strut}##4}%  
9792 }%
```

Backward compatible sublistdotted style.

```
9793 \compatglossarystyle{sublistdotted}{%  
9794   \csuse{@glscompstyle@listdotted}%  
9795   \renewcommand*{\glossaryentryfield}[5]{%  
9796     \item[\glstentryitem{##1}\glstarget{##1}{##2}]}%  
9797 }%
```

Backward compatible long style.

```
9798 \compatglossarystyle{long}{%  
9799   \renewcommand*{\glossaryentryfield}[5]{%  
9800     \glstentryitem{##1}\glstarget{##1}{##2} & ##3 \glspostdescription \space ##5 \\\%  
9801   \renewcommand*{\glossarysubentryfield}[6]{%  
9802     \glssubentryitem{##2}\glstarget{##2}{##3} & ##4 \glspostdescription \space ##5 \\\%  
9803   }%
```

```

9802      &
9803      \glssubentryitem{##2}%
9804      \glstarget{##2}{\strut}##4\glspostdescription\space ##6\\}%
9805 }%

```

Backward compatible longborder style.

```

9806 \compatglossarystyle{longborder}{%
9807   \csuse{@glscmpstyle@long}%
9808 }%

```

Backward compatible longheader style.

```

9809 \compatglossarystyle{longheader}{%
9810   \csuse{@glscmpstyle@long}%
9811 }%

```

Backward compatible longheaderborder style.

```

9812 \compatglossarystyle{longheaderborder}{%
9813   \csuse{@glscmpstyle@long}%
9814 }%

```

Backward compatible long3col style.

```

9815 \compatglossarystyle{long3col}{%
9816   \renewcommand*{\glossaryentryfield}[5]{%
9817     \glstarget{##1}{\glstarget{##1}{##2} & ##3 & ##5\\}%
9818     \renewcommand*{\glossarysubentryfield}[6]{%
9819       &
9820       \glssubentryitem{##2}%
9821       \glstarget{##2}{\strut}##4 & ##6\\}%
9822 }%

```

Backward compatible long3colborder style.

```

9823 \compatglossarystyle{long3colborder}{%
9824   \csuse{@glscmpstyle@long3col}%
9825 }%

```

Backward compatible long3colheader style.

```

9826 \compatglossarystyle{long3colheader}{%
9827   \csuse{@glscmpstyle@long3col}%
9828 }%

```

Backward compatible long3colheaderborder style.

```

9829 \compatglossarystyle{long3colheaderborder}{%
9830   \csuse{@glscmpstyle@long3col}%
9831 }%

```

Backward compatible long4col style.

```

9832 \compatglossarystyle{long4col}{%
9833   \renewcommand*{\glossaryentryfield}[5]{%
9834     \glstarget{##1}{\glstarget{##1}{##2} & ##3 & ##4 & ##5\\}%
9835     \renewcommand*{\glossarysubentryfield}[6]{%
9836       &
9837       \glssubentryitem{##2}%

```

```

9838 \glstarget{##2}{\strut}##4 & ##5 & ##6\\}%
9839 }%

Backward compatible long4colheader style.
9840 \compatglossarystyle{long4colheader}{%
9841 \csuse{@glscompstyle@long4col}%
9842 }%

Backward compatible long4colborder style.
9843 \compatglossarystyle{long4colborder}{%
9844 \csuse{@glscompstyle@long4col}%
9845 }%

Backward compatible long4colheaderborder style.
9846 \compatglossarystyle{long4colheaderborder}{%
9847 \csuse{@glscompstyle@long4col}%
9848 }%

Backward compatible altlong4col style.
9849 \compatglossarystyle{altlong4col}{%
9850 \csuse{@glscompstyle@long4col}%
9851 }%

Backward compatible altlong4colheader style.
9852 \compatglossarystyle{altlong4colheader}{%
9853 \csuse{@glscompstyle@long4col}%
9854 }%

Backward compatible altlong4colborder style.
9855 \compatglossarystyle{altlong4colborder}{%
9856 \csuse{@glscompstyle@long4col}%
9857 }%

Backward compatible altlong4colheaderborder style.
9858 \compatglossarystyle{altlong4colheaderborder}{%
9859 \csuse{@glscompstyle@long4col}%
9860 }%

Backward compatible long style.
9861 \compatglossarystyle{longragged}{%
9862 \renewcommand*{\glossaryentryfield}[5]{%
9863 \glstarget{##1}{\strut}##4 & ##3\glspostdescription\space ##5%
9864 \tabularnewline}%
9865 \renewcommand*{\glossarysubentryfield}[6]{%
9866 &
9867 \glssubentryitem{##2}%
9868 \glstarget{##2}{\strut}##4\glspostdescription\space ##6%
9869 \tabularnewline}%
9870 }%

Backward compatible longraggedborder style.
9871 \compatglossarystyle{longraggedborder}{%
9872 \csuse{@glscompstyle@longragged}%
9873 }%

```

Backward compatible longraggedheader style.

```
9874 \compatglossarystyle{longraggedheader}{%  
9875 \csuse{@glscompstyle@longragged}%  
9876 }%
```

Backward compatible longraggedheaderborder style.

```
9877 \compatglossarystyle{longraggedheaderborder}{%  
9878 \csuse{@glscompstyle@longragged}%  
9879 }%
```

Backward compatible longragged3col style.

```
9880 \compatglossarystyle{longragged3col}{%  
9881 \renewcommand*{\glossaryentryfield}[5]{%  
9882 \glentryitem{##1}\glstarget{##1}{##2} & ##3 & ##5\tabularnewline}%  
9883 \renewcommand*{\glossarysubentryfield}[6]{%  
9884 &  
9885 \glssubentryitem{##2}%  
9886 \glstarget{##2}{\strut}##4 & ##6\tabularnewline}%  
9887 }%
```

Backward compatible longragged3colborder style.

```
9888 \compatglossarystyle{longragged3colborder}{%  
9889 \csuse{@glscompstyle@longragged3col}%  
9890 }%
```

Backward compatible longragged3colheader style.

```
9891 \compatglossarystyle{longragged3colheader}{%  
9892 \csuse{@glscompstyle@longragged3col}%  
9893 }%
```

Backward compatible longragged3colheaderborder style.

```
9894 \compatglossarystyle{longragged3colheaderborder}{%  
9895 \csuse{@glscompstyle@longragged3col}%  
9896 }%
```

Backward compatible altlongragged4col style.

```
9897 \compatglossarystyle{altlongragged4col}{%  
9898 \renewcommand*{\glossaryentryfield}[5]{%  
9899 \glentryitem{##1}\glstarget{##1}{##2} & ##3 & ##4 & ##5\tabularnewline}%  
9900 \renewcommand*{\glossarysubentryfield}[6]{%  
9901 &  
9902 \glssubentryitem{##2}%  
9903 \glstarget{##2}{\strut}##4 & ##5 & ##6\tabularnewline}%  
9904 }%
```

Backward compatible altlongragged4colheader style.

```
9905 \compatglossarystyle{altlongragged4colheader}{%  
9906 \csuse{@glscompstyle@altlong4col}%  
9907 }%
```

Backward compatible altlongragged4colborder style.

```
9908 \compatglossarystyle{altlongragged4colborder}{%
```

```

9909 \csuse{@glscompstyle@altlong4col}%
9910 }%

```

Backward compatible altlongragged4colheaderborder style.

```

9911 \compatglossarystyle{altlongragged4colheaderborder}{%
9912 \csuse{@glscompstyle@altlong4col}%
9913 }%

```

Backward compatible index style.

```

9914 \compatglossarystyle{index}{%
9915 \renewcommand*{\glossaryentryfield}[5]{%
9916 \item\glsentryitem{##1}\textbf{\glstarget{##1}{##2}}%
9917 \ifx\relax##4\relax
9918 \else
9919 \space{##4}%
9920 \fi
9921 \space ##3\glspostdescription \space ##5}%
9922 \renewcommand*{\glossarysubentryfield}[6]{%
9923 \ifcase##1\relax
9924 % level 0
9925 \item
9926 \or
9927 % level 1
9928 \subitem
9929 \glssubentryitem{##2}%
9930 \else
9931 % all other levels
9932 \subsubitem
9933 \fi
9934 \textbf{\glstarget{##2}{##3}}%
9935 \ifx\relax##5\relax
9936 \else
9937 \space{##5}%
9938 \fi
9939 \space##4\glspostdescription\space ##6}%
9940 }%

```

Backward compatible indexgroup style.

```

9941 \compatglossarystyle{indexgroup}{%
9942 \csuse{@glscompstyle@index}%
9943 }%

```

Backward compatible indexhypergroup style.

```

9944 \compatglossarystyle{indexhypergroup}{%
9945 \csuse{@glscompstyle@index}%
9946 }%

```

Backward compatible tree style.

```

9947 \compatglossarystyle{tree}{%
9948 \renewcommand{\glossaryentryfield}[5]{%
9949 \hangindent0pt\relax

```

```

9950 \parindent0pt\relax
9951 \glentryitem{##1}\textbf{\glstarget{##1}{##2}}%
9952 \ifx\relax##4\relax
9953 \else
9954 \space{##4}%
9955 \fi
9956 \space ##3\glspostdescription \space ##5\par}%
9957 \renewcommand{\glossarysubentryfield}[6]{%
9958 \hangindent##1\glstreeindent\relax
9959 \parindent##1\glstreeindent\relax
9960 \ifnum##1=1\relax
9961 \glssubentryitem{##2}%
9962 \fi
9963 \textbf{\glstarget{##2}{##3}}%
9964 \ifx\relax##5\relax
9965 \else
9966 \space{##5}%
9967 \fi
9968 \space##4\glspostdescription\space ##6\par}%
9969 }%

```

Backward compatible treegroup style.

```

9970 \compatglossarystyle{treegroup}{%
9971 \csuse{@glscmpstyle@tree}%
9972 }%

```

Backward compatible treehypergroup style.

```

9973 \compatglossarystyle{treehypergroup}{%
9974 \csuse{@glscmpstyle@tree}%
9975 }%

```

Backward compatible treenoname style.

```

9976 \compatglossarystyle{treenoname}{%
9977 \renewcommand{\glossaryentryfield}[5]{%
9978 \hangindent0pt\relax
9979 \parindent0pt\relax
9980 \glentryitem{##1}\textbf{\glstarget{##1}{##2}}%
9981 \ifx\relax##4\relax
9982 \else
9983 \space{##4}%
9984 \fi
9985 \space ##3\glspostdescription \space ##5\par}%
9986 \renewcommand{\glossarysubentryfield}[6]{%
9987 \hangindent##1\glstreeindent\relax
9988 \parindent##1\glstreeindent\relax
9989 \ifnum##1=1\relax
9990 \glssubentryitem{##2}%
9991 \fi
9992 \glstarget{##2}{\strut}%
9993 ##4\glspostdescription\space ##6\par}%
9994 }%

```

Backward compatible treenonamegroup style.

```

9995 \compatglossarystyle{treenonamegroup}{%
9996   \csuse{@glscompstyle@treenoname}%
9997 }%
```

Backward compatible treenonamehypergroup style.

```

9998 \compatglossarystyle{treenonamehypergroup}{%
9999   \csuse{@glscompstyle@treenoname}%
10000 }%
```

Backward compatible alttree style.

```

10001 \compatglossarystyle{almtree}{%
10002   \renewcommand{\glossaryentryfield}[5]{%
10003     \ifnum\@gls@prevlevel=0\relax
10004     \else
10005       \settowidth{\glstreeindent}{\textbf{\@glswidestname\space}}%
10006       \hangindent\glstreeindent
10007       \parindent\glstreeindent
10008     \fi
10009     \makebox[0pt][r]{\makebox[\glstreeindent][l]{%
10010       \glssentryitem{##1}\textbf{\glstarget{##1}{##2}}}%
10011     \ifx\relax##4\relax
10012     \else
10013       (##4)\space
10014     \fi
10015     ##3\glspostdescription \space ##5\par
10016     \def\@gls@prevlevel{0}%
10017   }%
10018   \renewcommand{\glossarysubentryfield}[6]{%
10019     \ifnum##1=1\relax
10020       \glssubentryitem{##2}%
10021     \fi
10022     \ifnum\@gls@prevlevel=##1\relax
10023     \else
10024       \@ifundefined{@glswidestname\romannumeral##1}{%
10025         \settowidth{\gls@tmplen}{\textbf{\@glswidestname\space}}{%
10026         \settowidth{\gls@tmplen}{\textbf{%
10027           \csname @glswidestname\romannumeral##1\endcsname\space}}}%
10028       \ifnum\@gls@prevlevel<##1\relax
10029         \setlength\glstreeindent\gls@tmplen
10030         \addtolength\glstreeindent\parindent
10031         \parindent\glstreeindent
10032       \else
10033         \@ifundefined{@glswidestname\romannumeral\@gls@prevlevel}{%
10034           \settowidth{\glstreeindent}{\textbf{%
10035             \@glswidestname\space}}{%
10036           \settowidth{\glstreeindent}{\textbf{%
10037             \csname @glswidestname\romannumeral\@gls@prevlevel
10038             \endcsname\space}}}%
10039           \addtolength\parindent{-\glstreeindent}%

```

```

10040      \setlength\glstreeindent\parindent
10041      \fi
10042      \fi
10043      \hangindent\glstreeindent
10044      \makebox[0pt][r]{\makebox[\glstemplen][l]{%
10045        \textbf{\glstarget{##2}{##3}}}%
10046      \ifx##5\relax\relax
10047      \else
10048        (##5)\space
10049      \fi
10050      ##4\glspostdescription\space ##6\par
10051      \def\@gls@prevlevel{##1}%
10052    }%
10053 }%

```

Backward compatible alttreegroup style.

```

10054 \compatglossarystyle{alttreegroup}{%
10055   \csuse{@glscompstyle@almtree}%
10056 }%

```

Backward compatible almtreehypergroup style.

```

10057 \compatglossarystyle{almtreehypergroup}{%
10058   \csuse{@glscompstyle@almtree}%
10059 }%

```

Backward compatible mcolindex style.

```

10060 \compatglossarystyle{mcolindex}{%
10061   \csuse{@glscompstyle@index}%
10062 }%

```

Backward compatible mcolindexgroup style.

```

10063 \compatglossarystyle{mcolindexgroup}{%
10064   \csuse{@glscompstyle@index}%
10065 }%

```

Backward compatible mcolindexhypergroup style.

```

10066 \compatglossarystyle{mcolindexhypergroup}{%
10067   \csuse{@glscompstyle@index}%
10068 }%

```

Backward compatible mcoltree style.

```

10069 \compatglossarystyle{mcoltree}{%
10070   \csuse{@glscompstyle@tree}%
10071 }%

```

Backward compatible mcoltreegroup style.

```

10072 \compatglossarystyle{mcolindextreegroup}{%
10073   \csuse{@glscompstyle@tree}%
10074 }%

```

Backward compatible mcoltreehypergroup style.

```

10075 \compatglossarystyle{mcolindextreehypergroup}{%

```

```

10076 \csuse{@glscompstyle@tree}%
10077 }%

    Backward compatible mcoltreenoname style.
10078 \compatglossarystyle{mcoltreenoname}{%
10079 \csuse{@glscompstyle@tree}%
10080 }%

    Backward compatible mcoltreenonamegroup style.
10081 \compatglossarystyle{mcoltreenonamegroup}{%
10082 \csuse{@glscompstyle@tree}%
10083 }%

    Backward compatible mcoltreenonamehypergroup style.
10084 \compatglossarystyle{mcoltreenonamehypergroup}{%
10085 \csuse{@glscompstyle@tree}%
10086 }%

    Backward compatible mcolalmtree style.
10087 \compatglossarystyle{mcolalmtree}{%
10088 \csuse{@glscompstyle@almtree}%
10089 }%

    Backward compatible mcolalmtreegroup style.
10090 \compatglossarystyle{mcolalmtreegroup}{%
10091 \csuse{@glscompstyle@almtree}%
10092 }%

    Backward compatible mcolalmtreehypergroup style.
10093 \compatglossarystyle{mcolalmtreehypergroup}{%
10094 \csuse{@glscompstyle@almtree}%
10095 }%

    Backward compatible superragged style.
10096 \compatglossarystyle{superragged}{%
10097 \renewcommand*{\glossaryentryfield}[5]{%
10098 \glsentryitem{##1}\glstarget{##1}{##2} & ##3\glspostdescription\space ##5%
10099 \tabularnewline}%
10100 \renewcommand*{\glossarysubentryfield}[6]{%
10101 &
10102 \glssubentryitem{##2}%
10103 \glstarget{##2}{\strut}##4\glspostdescription\space ##6%
10104 \tabularnewline}%
10105 }%

    Backward compatible superraggedborder style.
10106 \compatglossarystyle{superraggedborder}{%
10107 \csuse{@glscompstyle@superragged}%
10108 }%

    Backward compatible superraggedheader style.
10109 \compatglossarystyle{superraggedheader}{%
10110 \csuse{@glscompstyle@superragged}%
10111 }%

```

Backward compatible superraggedheaderborder style.

```
10112 \compatglossarystyle{superraggedheaderborder}{%
10113   \csuse{@glscompstyle@superragged}%
10114 }%
```

Backward compatible superragged3col style.

```
10115 \compatglossarystyle{superragged3col}{%
10116   \renewcommand*{\glossaryentryfield}[5]{%
10117     \glstentryitem{##1}\glstarget{##1}{##2} & ##3 & ##5\tabularnewline}%
10118   \renewcommand*{\glossarysubentryfield}[6]{%
10119     &
10120     \glssubentryitem{##2}%
10121     \glstarget{##2}{\strut}##4 & ##6\tabularnewline}%
10122 }%
```

Backward compatible superragged3colborder style.

```
10123 \compatglossarystyle{superragged3colborder}{%
10124   \csuse{@glscompstyle@superragged3col}%
10125 }%
```

Backward compatible superragged3colheader style.

```
10126 \compatglossarystyle{superragged3colheader}{%
10127   \csuse{@glscompstyle@superragged3col}%
10128 }%
```

Backward compatible superragged3colheaderborder style.

```
10129 \compatglossarystyle{superragged3colheaderborder}{%
10130   \csuse{@glscompstyle@superragged3col}%
10131 }%
```

Backward compatible altsuperragged4col style.

```
10132 \compatglossarystyle{altsuperragged4col}{%
10133   \renewcommand*{\glossaryentryfield}[5]{%
10134     \glstentryitem{##1}\glstarget{##1}{##2} & ##3 & ##4 & ##5\tabularnewline}%
10135   \renewcommand*{\glossarysubentryfield}[6]{%
10136     &
10137     \glssubentryitem{##2}%
10138     \glstarget{##2}{\strut}##4 & ##5 & ##6\tabularnewline}%
10139 }%
```

Backward compatible altsuperragged4colheader style.

```
10140 \compatglossarystyle{altsuperragged4colheader}{%
10141   \csuse{@glscompstyle@altsuperragged4col}%
10142 }%
```

Backward compatible altsuperragged4colborder style.

```
10143 \compatglossarystyle{altsuperragged4colborder}{%
10144   \csuse{@glscompstyle@altsuperragged4col}%
10145 }%
```

Backward compatible altsuperragged4colheaderborder style.

```
10146 \compatglossarystyle{altsuperragged4colheaderborder}{%
```

```
10147 \csuse{@glscompstyle@altsuperragged4col}%
10148 }%
```

Backward compatible super style.

```
10149 \compatglossarystyle{super}{%
10150   \renewcommand*{\glossaryentryfield}[5]{%
10151     \glentryitem{##1}\glstarget{##1}{##2} & ##3\glspostdescription\space ##5\\}%
10152   \renewcommand*{\glossarysubentryfield}[6]{%
10153     &
10154     \glssubentryitem{##2}%
10155     \glstarget{##2}{\strut}##4\glspostdescription\space ##6\\}%
10156 }%
```

Backward compatible superborder style.

```
10157 \compatglossarystyle{superborder}{%
10158   \csuse{@glscompstyle@super}%
10159 }%
```

Backward compatible superheader style.

```
10160 \compatglossarystyle{superheader}{%
10161   \csuse{@glscompstyle@super}%
10162 }%
```

Backward compatible superheaderborder style.

```
10163 \compatglossarystyle{superheaderborder}{%
10164   \csuse{@glscompstyle@super}%
10165 }%
```

Backward compatible super3col style.

```
10166 \compatglossarystyle{super3col}{%
10167   \renewcommand*{\glossaryentryfield}[5]{%
10168     \glentryitem{##1}\glstarget{##1}{##2} & ##3 & ##5\\}%
10169   \renewcommand*{\glossarysubentryfield}[6]{%
10170     &
10171     \glssubentryitem{##2}%
10172     \glstarget{##2}{\strut}##4 & ##6\\}%
10173 }%
```

Backward compatible super3colborder style.

```
10174 \compatglossarystyle{super3colborder}{%
10175   \csuse{@glscompstyle@super3col}%
10176 }%
```

Backward compatible super3colheader style.

```
10177 \compatglossarystyle{super3colheader}{%
10178   \csuse{@glscompstyle@super3col}%
10179 }%
```

Backward compatible super3colheaderborder style.

```
10180 \compatglossarystyle{super3colheaderborder}{%
10181   \csuse{@glscompstyle@super3col}%
10182 }%
```

Backward compatible super4col style.

```
10183 \compatglossarystyle{super4col}{%
10184   \renewcommand*{\glossaryentryfield}[5]{%
10185     \glentryitem{##1}\glstarget{##1}{##2} & ##3 & ##4 & ##5\\}%
10186   \renewcommand*{\glossarysubentryfield}[6]{%
10187     &
10188     \glssubentryitem{##2}%
10189     \glstarget{##2}{\strut}##4 & ##5 & ##6\\}%
10190 }%
```

Backward compatible super4colheader style.

```
10191 \compatglossarystyle{super4colheader}{%
10192   \csuse{@glscompstyle@super4col}%
10193 }%
```

Backward compatible super4colborder style.

```
10194 \compatglossarystyle{super4colborder}{%
10195   \csuse{@glscompstyle@super4col}%
10196 }%
```

Backward compatible super4colheaderborder style.

```
10197 \compatglossarystyle{super4colheaderborder}{%
10198   \csuse{@glscompstyle@super4col}%
10199 }%
```

Backward compatible altsuper4col style.

```
10200 \compatglossarystyle{altsuper4col}{%
10201   \csuse{@glscompstyle@super4col}%
10202 }%
```

Backward compatible altsuper4colheader style.

```
10203 \compatglossarystyle{altsuper4colheader}{%
10204   \csuse{@glscompstyle@super4col}%
10205 }%
```

Backward compatible altsuper4colborder style.

```
10206 \compatglossarystyle{altsuper4colborder}{%
10207   \csuse{@glscompstyle@super4col}%
10208 }%
```

Backward compatible altsuper4colheaderborder style.

```
10209 \compatglossarystyle{altsuper4colheaderborder}{%
10210   \csuse{@glscompstyle@super4col}%
10211 }%
```

5 Accessibility Support (glossaries-accsupp Code)

The package is experimental. It is intended to provide a means of using the PDF accessibility support in glossary entries. See the documentation for further details about accessibility support.

```
10212 \NeedsTeXFormat{LaTeX2e}
```

Package version number now in line with main glossaries package number.

```
10213 \ProvidesPackage{glossaries-accsupp}[2017/01/07 v4.28 (NLCT)]
```

```
10214 Experimental glossaries accessibility]
```

Pass all options to glossaries:

```
10215 \DeclareOption*{\PassOptionsToPackage{\CurrentOption}{glossaries}}
```

Process options:

```
10216 \ProcessOptions
```

This package should be loaded before glossaries-extra, so complain if that has already been loaded.

```
10217 \@ifpackageloaded{glossaries-extra}
```

```
10218 {%
```

```
10219 \PackageWarning{glossaries-accsupp}{The ‘glossaries-accsupp’
```

```
10220 package has been loaded after the ‘glossaries-extra’
```

```
10221 package. This can cause a failure to integrate both
```

```
10222 packages. Either use the ‘accsupp’ option when you
```

```
10223 load ‘glossaries-extra’ or load ‘glossaries-accsupp’
```

```
10224 before loading ‘glossaries-extra’}%
```

```
10225 }
```

```
10226 {}
```

`\tumbleglossentry` Override style compatibility macros:

```
10227 \def\compatibleglossentry#1#2{%
```

```
10228 \toks@{#2}%
```

```
10229 \protected@edef\@do@glossentry{%
```

```
10230 \noexpand\accsuppglossaryentryfield{#1}%
```

```
10231 {\noexpand\glsnamefont
```

```
10232 {\expandafter\expandonce\csname glo@\glsdetoklabel{#1}@name\endcsname}}%
```

```
10233 {\expandafter\expandonce\csname glo@\glsdetoklabel{#1}@desc\endcsname}%
```

```
10234 {\expandafter\expandonce\csname glo@\glsdetoklabel{#1}@symbol\endcsname}%
```

```
10235 {\the\toks@}%
```

```
10236 }%
```

```
10237 \@do@glossentry
```

```
10238 }
```

lesubglossentry

```
10239 \def\compatiblesubglossentry#1#2#3{%
10240   \toks@{#3}%
10241   \protected@edef\@do@subglossentry{%
10242     \noexpand\accsuppglossarysubentryfield{\number#1}%
10243     {#2}%
10244     {\noexpand\glsnamefont
10245      {\expandafter\expandonce\csname glo@\glsdetoklabel{#2}@name\endcsname}}}%
10246     {\expandafter\expandonce\csname glo@\glsdetoklabel{#2}@desc\endcsname}%
10247     {\expandafter\expandonce\csname glo@\glsdetoklabel{#2}@symbol\endcsname}%
10248     {\the\toks@}%
10249   }%
10250   \@do@subglossentry
10251 }
```

Required packages:

```
10252 \RequirePackage{glossaries}
10253 \RequirePackage{accsupp}
```

5.1 Defining Replacement Text

The version 0.1 stored the replacement text in the symbol key. This has been changed to use the new keys defined here. Example of use:

```
\newglossaryentry{dr}{name=Dr,description={},access={Doctor}}
```

access The replacement text corresponding to the name key:

```
10254 \define@key{glossentry}{access}{%
10255   \def\@glo@access{#1}%
10256 }
```

textaccess The replacement text corresponding to the text key:

```
10257 \define@key{glossentry}{textaccess}{%
10258   \def\@glo@textaccess{#1}%
10259 }
```

firstaccess The replacement text corresponding to the first key:

```
10260 \define@key{glossentry}{firstaccess}{%
10261   \def\@glo@firstaccess{#1}%
10262 }
```

pluralaccess The replacement text corresponding to the plural key:

```
10263 \define@key{glossentry}{pluralaccess}{%
10264   \def\@glo@pluralaccess{#1}%
10265 }
```

firstpluralaccess The replacement text corresponding to the firstplural key:

```
10266 \define@key{glossentry}{firstpluralaccess}{%
10267   \def\@glo@firstpluralaccess{#1}%
10268 }
```

symbolaccess The replacement text corresponding to the symbol key:

```
10269 \define@key{glossentry}{symbolaccess}{%
10270   \def\@glo@symbolaccess{#1}%
10271 }
```

symbolpluralaccess The replacement text corresponding to the symbolplural key:

```
10272 \define@key{glossentry}{symbolpluralaccess}{%
10273   \def\@glo@symbolpluralaccess{#1}%
10274 }
```

descriptionaccess The replacement text corresponding to the description key:

```
10275 \define@key{glossentry}{descriptionaccess}{%
10276   \def\@glo@descaccess{#1}%
10277 }
```

descriptionpluralaccess The replacement text corresponding to the descriptionplural key:

```
10278 \define@key{glossentry}{descriptionpluralaccess}{%
10279   \def\@glo@descpluralaccess{#1}%
10280 }
```

shortaccess The replacement text corresponding to the short key:

```
10281 \define@key{glossentry}{shortaccess}{%
10282   \def\@glo@shortaccess{#1}%
10283 }
```

shortpluralaccess The replacement text corresponding to the shortplural key:

```
10284 \define@key{glossentry}{shortpluralaccess}{%
10285   \def\@glo@shortpluralaccess{#1}%
10286 }
```

longaccess The replacement text corresponding to the long key:

```
10287 \define@key{glossentry}{longaccess}{%
10288   \def\@glo@longaccess{#1}%
10289 }
```

longpluralaccess The replacement text corresponding to the longplural key:

```
10290 \define@key{glossentry}{longpluralaccess}{%
10291   \def\@glo@longpluralaccess{#1}%
10292 }
```

There are no equivalent keys for the user1...user6 keys. The replacement text would have to be explicitly put in the value, e.g., user1={\glsacccsupp{inches}{in}}.

Append these new keys to \@gls@keymap:

```

10293 \appto\@gls@keymap{,%
10294   {access}{access},%
10295   {textaccess}{textaccess},%
10296   {firstaccess}{firstaccess},%
10297   {pluralaccess}{pluralaccess},%
10298   {firstpluralaccess}{firstpluralaccess},%
10299   {symbolaccess}{symbolaccess},%
10300   {symbolpluralaccess}{symbolpluralaccess},%
10301   {descaccess}{descaccess},%
10302   {descpluralaccess}{descpluralaccess},%
10303   {shortaccess}{shortaccess},%
10304   {shortpluralaccess}{shortpluralaccess},%
10305   {longaccess}{longaccess},%
10306   {longpluralaccess}{longpluralaccess}%
10307 }
```

\@gls@noaccess Indicates that no replacement text has been provided.

```

10308 \def\@gls@noaccess{\relax}
```

Add to the start hook (the access key is initialised to the value of the symbol key at the start for backwards compatibility):

```

10309 \let\@gls@oldnewglossaryentryprehook\@newglossaryentryprehook
10310 \renewcommand*{\@newglossaryentryprehook}{%
10311   \@gls@oldnewglossaryentryprehook
10312   \def\@glo@access{\@glo@symbol}%
```

Initialise the other keys:

```

10313 \def\@glo@textaccess{\@glo@access}%
10314 \def\@glo@firstaccess{\@glo@access}%
10315 \def\@glo@pluralaccess{\@glo@textaccess}%
10316 \def\@glo@firstpluralaccess{\@glo@pluralaccess}%
10317 \def\@glo@symbolaccess{\relax}%
10318 \def\@glo@symbolpluralaccess{\@glo@symbolaccess}%
10319 \def\@glo@descaccess{\relax}%
10320 \def\@glo@descpluralaccess{\@glo@descaccess}%
10321 \def\@glo@shortaccess{\relax}%
10322 \def\@glo@shortpluralaccess{\@glo@shortaccess}%
10323 \def\@glo@longaccess{\relax}%
10324 \def\@glo@longpluralaccess{\@glo@longaccess}%
10325 }
```

Add to the end hook:

```

10326 \let\@gls@oldnewglossaryentryposthook\@newglossaryentryposthook
10327 \renewcommand*{\@newglossaryentryposthook}{%
10328   \@gls@oldnewglossaryentryposthook
```

Store the access information:

```

10329 \expandafter
10330 \protected@xdef\csname glo@\@glo@label @access\endcsname{%
```

```

10331      \@glo@access}%
10332 \expandafter
10333   \protected@xdef\csname glo@\@glo@label @textaccess\endcsname{%
10334     \@glo@textaccess}%
10335 \expandafter
10336   \protected@xdef\csname glo@\@glo@label @firstaccess\endcsname{%
10337     \@glo@firstaccess}%
10338 \expandafter
10339   \protected@xdef\csname glo@\@glo@label @pluralaccess\endcsname{%
10340     \@glo@pluralaccess}%
10341 \expandafter
10342   \protected@xdef\csname glo@\@glo@label @firstpluralaccess\endcsname{%
10343     \@glo@firstpluralaccess}%
10344 \expandafter
10345   \protected@xdef\csname glo@\@glo@label @symbolaccess\endcsname{%
10346     \@glo@symbolaccess}%
10347 \expandafter
10348   \protected@xdef\csname glo@\@glo@label @symbolpluralaccess\endcsname{%
10349     \@glo@symbolpluralaccess}%
10350 \expandafter
10351   \protected@xdef\csname glo@\@glo@label @descaccess\endcsname{%
10352     \@glo@descaccess}%
10353 \expandafter
10354   \protected@xdef\csname glo@\@glo@label @descpluralaccess\endcsname{%
10355     \@glo@descpluralaccess}%
10356 \expandafter
10357   \protected@xdef\csname glo@\@glo@label @shortaccess\endcsname{%
10358     \@glo@shortaccess}%
10359 \expandafter
10360   \protected@xdef\csname glo@\@glo@label @shortpluralaccess\endcsname{%
10361     \@glo@shortpluralaccess}%
10362 \expandafter
10363   \protected@xdef\csname glo@\@glo@label @longaccess\endcsname{%
10364     \@glo@longaccess}%
10365 \expandafter
10366   \protected@xdef\csname glo@\@glo@label @longpluralaccess\endcsname{%
10367     \@glo@longpluralaccess}%
10368 }

```

5.2 Accessing Replacement Text

`\glsentryaccess` Get the value of the access key for the entry with the given label:

```

10369 \newcommand*{\glsentryaccess}[1]{%
10370   \@gls@entry@field{#1}{access}%
10371 }

```

`\glsentrytextaccess` Get the value of the textaccess key for the entry with the given label:

```

10372 \newcommand*{\glsentrytextaccess}[1]{%

```

```

10373 \@gls@entry@field{#1}{textaccess}%
10374 }

```

entryfirstaccess Get the value of the firstaccess key for the entry with the given label:

```

10375 \newcommand*{\glsentryfirstaccess}[1]{%
10376 \@gls@entry@field{#1}{firstaccess}%
10377 }

```

entrypluralaccess Get the value of the pluralaccess key for the entry with the given label:

```

10378 \newcommand*{\glsentrypluralaccess}[1]{%
10379 \@gls@entry@field{#1}{pluralaccess}%
10380 }

```

entryfirstpluralaccess Get the value of the firstpluralaccess key for the entry with the given label:

```

10381 \newcommand*{\glsentryfirstpluralaccess}[1]{%
10382 \csname glo@#1@firstpluralaccess\endcsname
10383 }

```

entrysymbolaccess Get the value of the symbolaccess key for the entry with the given label:

```

10384 \newcommand*{\glsentrysymbolaccess}[1]{%
10385 \@gls@entry@field{#1}{symbolaccess}%
10386 }

```

entrysymbolpluralaccess Get the value of the symbolpluralaccess key for the entry with the given label:

```

10387 \newcommand*{\glsentrysymbolpluralaccess}[1]{%
10388 \@gls@entry@field{#1}{symbolpluralaccess}%
10389 }

```

entrydescaccess Get the value of the descriptionaccess key for the entry with the given label:

```

10390 \newcommand*{\glsentrydescaccess}[1]{%
10391 \@gls@entry@field{#1}{descaccess}%
10392 }

```

entrydescpluralaccess Get the value of the descriptionpluralaccess key for the entry with the given label:

```

10393 \newcommand*{\glsentrydescpluralaccess}[1]{%
10394 \@gls@entry@field{#1}{descaccess}%
10395 }

```

entryshortaccess Get the value of the shortaccess key for the entry with the given label:

```

10396 \newcommand*{\glsentryshortaccess}[1]{%
10397 \@gls@entry@field{#1}{shortaccess}%
10398 }

```

entryshortpluralaccess Get the value of the shortpluralaccess key for the entry with the given label:

```

10399 \newcommand*{\glsentryshortpluralaccess}[1]{%
10400 \@gls@entry@field{#1}{shortpluralaccess}%
10401 }

```

entrylongaccess Get the value of the longaccess key for the entry with the given label:

```
10402 \newcommand*{\glsentrylongaccess}[1]{%
10403   \@gls@entry@field{#1}{longaccess}%
10404 }
```

ongpluralaccess Get the value of the longpluralaccess key for the entry with the given label:

```
10405 \newcommand*{\glsentrylongpluralaccess}[1]{%
10406   \@gls@entry@field{#1}{longpluralaccess}%
10407 }
```

\glsaccsupp \glsaccsupp{<replacement text>}{<text>}

This can be redefined to use E or Alt instead of ActualText. (I don't have the software to test the E or Alt options.)

```
10408 \newcommand*{\glsaccsupp}[2]{%
10409   \BeginAccSupp{ActualText=#1}#2\EndAccSupp{}%
10410 }
```

\xglsaccsupp Fully expands replacement text before calling \glsaccsupp

```
10411 \newcommand*{\xglsaccsupp}[2]{%
10412   \protected@edef\@gls@replacementtext{#1}%
10413   \expandafter\glsaccsupp\expandafter{\@gls@replacementtext}{#2}%
10414 }
```

@access@display

```
10415 \newcommand*{\@gls@access@display}[2]{%
10416   \protected@edef\@glo@access{#2}%
10417   \ifx\@glo@access\@gls@noaccess
10418     #1%
10419   \else
10420     \xglsaccsupp{\@glo@access}{#1}%
10421   \fi
10422 }
```

meaccessdisplay Displays the first argument with the accessibility text for the entry with the label given by the second argument (if set).

```
10423 \DeclareRobustCommand*{\glsnameaccessdisplay}[2]{%
10424   \@gls@access@display{#1}{\glsentryaccess{#2}}%
10425 }
```

xtaccessdisplay As above but for the textaccess replacement text.

```
10426 \DeclareRobustCommand*{\glsstextaccessdisplay}[2]{%
10427   \@gls@access@display{#1}{\glsentrytextaccess{#2}}%
10428 }
```

alaccessdisplay As above but for the pluralaccess replacement text.

```
10429 \DeclareRobustCommand*{\glspluralaccessdisplay}[2]{%
10430   \@gls@access@display{#1}{\glsentrypluralaccess{#2}}%
10431 }
```

staccessdisplay As above but for the firstaccess replacement text.

```

10432 \DeclareRobustCommand*\glsfirstaccessdisplay}[2]{%
10433   \@gls@access@display{#1}{\glsentryfirstaccess{#2}}%
10434 }

```

alaccessdisplay As above but for the firstpluralaccess replacement text.

```

10435 \DeclareRobustCommand*\glsfirstpluralaccessdisplay}[2]{%
10436   \@gls@access@display{#1}{\glsentryfirstpluralaccess{#2}}%
10437 }

```

olaccessdisplay As above but for the symbolaccess replacement text.

```

10438 \DeclareRobustCommand*\glsymbolaccessdisplay}[2]{%
10439   \@gls@access@display{#1}{\glsentrysymbolaccess{#2}}%
10440 }

```

alaccessdisplay As above but for the symbolpluralaccess replacement text.

```

10441 \DeclareRobustCommand*\glsymbolpluralaccessdisplay}[2]{%
10442   \@gls@access@display{#1}{\glsentrysymbolpluralaccess{#2}}%
10443 }

```

onaccessdisplay As above but for the descriptionaccess replacement text.

```

10444 \DeclareRobustCommand*\glsdescriptionaccessdisplay}[2]{%
10445   \@gls@access@display{#1}{\glsentrydescaccess{#2}}%
10446 }

```

alaccessdisplay As above but for the descriptionpluralaccess replacement text.

```

10447 \DeclareRobustCommand*\glsdescriptionpluralaccessdisplay}[2]{%
10448   \@gls@access@display{#1}{\glsentrydescpluralaccess{#2}}%
10449 }

```

rtaccessdisplay As above but for the shortaccess replacement text.

```

10450 \DeclareRobustCommand*\glsshortaccessdisplay}[2]{%
10451   \@gls@access@display{#1}{\glsentryshortaccess{#2}}%
10452 }

```

alaccessdisplay As above but for the shortpluralaccess replacement text.

```

10453 \DeclareRobustCommand*\glsshortpluralaccessdisplay}[2]{%
10454   \@gls@access@display{#1}{\glsentryshortpluralaccess{#2}}%
10455 }

```

ngaccessdisplay As above but for the longaccess replacement text.

```

10456 \DeclareRobustCommand*\glslongaccessdisplay}[2]{%
10457   \@gls@access@display{#1}{\glsentrylongaccess{#2}}%
10458 }

```

alaccessdisplay As above but for the longpluralaccess replacement text.

```

10459 \DeclareRobustCommand*\glslongpluralaccessdisplay}[2]{%
10460   \@gls@access@display{#1}{\glsentrylongpluralaccess{#2}}%
10461 }

```

`\glsaccessdisplay` Gets the replacement text corresponding to the named key given by the first argument and calls the appropriate command defined above.

```

10462 \DeclareRobustCommand*\glsaccessdisplay}[3]{%
10463   \@ifundefined{gls#1accessdisplay}%
10464   {%
10465     \PackageError{glossaries-accsupp}{No accessibility support
10466       for key ‘#1’}{}%
10467   }%
10468   {%
10469     \csname gls#1accessdisplay\endcsname{#2}{#3}%
10470   }%
10471 }

```

`\default@entryfmt` Redefine the default entry format to use accessibility information

```

10472 \renewcommand*\@@gls@default@entryfmt}[2]{%
10473   \ifdefempty\glscustomtext
10474   {%
10475     \glsifplural
10476     {%

```

Plural form

```

10477     \glscapscase
10478     {%

```

Don't adjust case

```

10479     \ifglsused\glslabel
10480     {%

```

Subsequent use

```

10481         #2{\glspluralaccessdisplay
10482           {\glsentryplural{\glslabel}}{\glslabel}}%
10483         {\glsdescriptionpluralaccessdisplay
10484           {\glsentrydescplural{\glslabel}}{\glslabel}}%
10485         {\glsymbolpluralaccessdisplay
10486           {\glsentrysymbolplural{\glslabel}}{\glslabel}}
10487         {\glsinsert}%
10488     }%
10489     {%

```

First use

```

10490         #1{\glsfirstpluralaccessdisplay
10491           {\glsentryfirstplural{\glslabel}}{\glslabel}}%
10492         {\glsdescriptionpluralaccessdisplay
10493           {\glsentrydescplural{\glslabel}}{\glslabel}}%
10494         {\glsymbolpluralaccessdisplay
10495           {\glsentrysymbolplural{\glslabel}}{\glslabel}}%
10496         {\glsinsert}%
10497     }%
10498     }%
10499     {%

```

Make first letter upper case

```
10500      \ifglsused\glslabel
10501      {%
```

Subsequent use.

```
10502      #2{\glspluralaccessdisplay
10503          {\Glsentryplural{\glslabel}}{\glslabel}}%
10504          {\glsdescriptionpluralaccessdisplay
10505          {\glsentrydescplural{\glslabel}}{\glslabel}}%
10506          {\glsymbolpluralaccessdisplay
10507          {\glsentrysymbolplural{\glslabel}}{\glslabel}}%
10508          {\glsinsert}}%
10509      }%
10510      {%
```

First use

```
10511      #1{\glsfirstpluralaccessdisplay
10512          {\Glsentryfirstplural{\glslabel}}{\glslabel}}%
10513          {\glsdescriptionpluralaccessdisplay
10514          {\glsentrydescplural{\glslabel}}{\glslabel}}%
10515          {\glsymbolpluralaccessdisplay
10516          {\glsentrysymbolplural{\glslabel}}{\glslabel}}%
10517          {\glsinsert}}%
10518      }%
10519      }%
10520      {%
```

Make all upper case

```
10521      \ifglsused\glslabel
10522      {%
```

Subsequent use

```
10523      \MakeUppercase{%
10524      #2{\glspluralaccessdisplay
10525          {\glsentryplural{\glslabel}}{\glslabel}}%
10526          {\glsdescriptionpluralaccessdisplay
10527          {\glsentrydescplural{\glslabel}}{\glslabel}}%
10528          {\glsymbolpluralaccessdisplay
10529          {\glsentrysymbolplural{\glslabel}}{\glslabel}}%
10530          {\glsinsert}}}%
10531      }%
10532      {%
```

First use

```
10533      \MakeUppercase{%
10534      #1{\glsfirstpluralaccessdisplay
10535          {\glsentryfirstplural{\glslabel}}{\glslabel}}%
10536          {\glsdescriptionpluralaccessdisplay
10537          {\glsentrydescplural{\glslabel}}{\glslabel}}%
10538          {\glsymbolpluralaccessdisplay
10539          {\glsentrysymbolplural{\glslabel}}{\glslabel}}%
```

```

10540          {\glsinsert}}}%
10541      }%
10542  }%
10543  }%
10544  {%

```

Singular form

```

10545      \glscapscase
10546      {%

```

Don't adjust case

```

10547      \ifglsused\glslabel
10548      {%

```

Subsequent use

```

10549      #2{\glstextaccessdisplay
10550          {\glsentrytext{\glslabel}}{\glslabel}}%
10551      {\glsdescriptionaccessdisplay
10552          {\glsentrydesc{\glslabel}}{\glslabel}}%
10553      {\glssymbolaccessdisplay
10554          {\glsentrysymbol{\glslabel}}{\glslabel}}%
10555      {\glsinsert}}%
10556  }%
10557  {%

```

First use

```

10558      #1{\glsfirstaccessdisplay
10559          {\glsentryfirst{\glslabel}}{\glslabel}}%
10560      {\glsdescriptionaccessdisplay
10561          {\glsentrydesc{\glslabel}}{\glslabel}}%
10562      {\glssymbolaccessdisplay
10563          {\glsentrysymbol{\glslabel}}{\glslabel}}%
10564      {\glsinsert}}%
10565  }%
10566  }%
10567  {%

```

Make first letter upper case

```

10568      \ifglsused\glslabel
10569      {%

```

Subsequent use

```

10570      #2{\glstextaccessdisplay
10571          {\Glsentrytext{\glslabel}}{\glslabel}}%
10572      {\glsdescriptionaccessdisplay
10573          {\glsentrydesc{\glslabel}}{\glslabel}}%
10574      {\glssymbolaccessdisplay
10575          {\glsentrysymbol{\glslabel}}{\glslabel}}%
10576      {\glsinsert}}%
10577  }%
10578  {%

```

First use

```

10579      #1{\glsfirstaccessdisplay
10580          {\Glsentryfirst{\glslabel}}{\glslabel}}%
10581          {\glsdescriptionaccessdisplay
10582              {\glsentrydesc{\glslabel}}{\glslabel}}%
10583          {\glsymbolaccessdisplay
10584              {\glsentrysymbol{\glslabel}}{\glslabel}}%
10585          {\glsinsert}}%
10586      }%
10587  }%
10588  {%

```

Make all upper case

```

10589      \ifglsused\glslabel
10590      {%

```

Subsequent use

```

10591      \MakeUppercase{%
10592          #2{\glstextaccessdisplay
10593              {\glsentrytext{\glslabel}}{\glslabel}}%
10594              {\glsdescriptionaccessdisplay
10595                  {\glsentrydesc{\glslabel}}{\glslabel}}%
10596                  {\glsymbolaccessdisplay
10597                      {\glsentrysymbol{\glslabel}}{\glslabel}}%
10598                      {\glsinsert}}}%
10599      }%
10600  {%

```

First use

```

10601      \MakeUppercase{%
10602          #1{\glsfirstaccessdisplay
10603              {\glsentryfirst{\glslabel}}{\glslabel}}%
10604              {\glsdescriptionaccessdisplay
10605                  {\glsentrydesc{\glslabel}}{\glslabel}}%
10606                  {\glsymbolaccessdisplay
10607                      {\glsentrysymbol{\glslabel}}{\glslabel}}%
10608                      {\glsinsert}}}%
10609      }%
10610  }%
10611  }%
10612  }%
10613  {%

```

Custom text provided in \glsdisp

```

10614      \ifglsused{\glslabel}%
10615      {%

```

Subsequent use

```

10616      #2{\glscustomtext}%
10617      {\glsdescriptionaccessdisplay
10618          {\glsentrydesc{\glslabel}}{\glslabel}}%

```

```

10619      {\glssymbolaccessdisplay
10620        {\glentrysymbol{\glslabel}}{\glslabel}}%
10621      {\glsinsert}%
10622    }%
10623    {%

```

First use

```

10624      #1{\glscustomtext}%
10625      {\glsdescriptionaccessdisplay
10626        {\glentrydesc{\glslabel}}{\glslabel}}%
10627      {\glssymbolaccessdisplay
10628        {\glentrysymbol{\glslabel}}{\glslabel}}%
10629      {\glsinsert}%
10630    }%
10631  }%
10632 }

```

`\glsgenentryfmt` Redefine to use accessibility information.

```

10633 \renewcommand*{\glsgenentryfmt}{%
10634   \ifdefempty\glscustomtext
10635     {%
10636       \glsifplural
10637       {%

```

Plural form

```

10638       \glscapscase
10639     {%

```

Don't adjust case

```

10640       \ifglused\glslabel
10641     {%

```

Subsequent use

```

10642       \glspluralaccessdisplay
10643         {\glentryplural{\glslabel}}{\glslabel}%
10644       \glsinsert
10645     }%
10646     {%

```

First use

```

10647       \glsfirstpluralaccessdisplay
10648         {\glentryfirstplural{\glslabel}}{\glslabel}%
10649       \glsinsert
10650     }%
10651   }%
10652   {%

```

Make first letter upper case

```

10653       \ifglused\glslabel
10654     {%

```

Subsequent use.

```
10655      \glspluralaccessdisplay
10656      {\Glsentryplural{\glslabel}}{\glslabel}%
10657      \glsinsert
10658      }%
10659      {%
```

First use

```
10660      \glsfirstpluralaccessdisplay
10661      {\Glsentryfirstplural{\glslabel}}{\glslabel}%
10662      \glsinsert
10663      }%
10664      }%
10665      {%
```

Make all upper case

```
10666      \ifglsused\glslabel
10667      {%
```

Subsequent use

```
10668      \glspluralaccessdisplay
10669      {\mfirstucMakeUppercase{\glsentryplural{\glslabel}}}%
10670      {\glslabel}%
10671      \mfirstucMakeUppercase{\glsinsert}%
10672      }%
10673      {%
```

First use

```
10674      \glsfirstpluralaccessdisplay
10675      {\mfirstucMakeUppercase{\glsentryfirstplural{\glslabel}}}%
10676      {\glslabel}%
10677      \mfirstucMakeUppercase{\glsinsert}%
10678      }%
10679      }%
10680      }%
10681      {%
```

Singular form

```
10682      \glscapscase
10683      {%
```

Don't adjust case

```
10684      \ifglsused\glslabel
10685      {%
```

Subsequent use

```
10686      \glstextaccessdisplay{\glsentrytext{\glslabel}}{\glslabel}%
10687      \glsinsert
10688      }%
10689      {%
```

First use

```

10690      \glsfirstaccessdisplay{\glsentryfirst{\glslabel}}{\glslabel}%
10691      \glsinsert
10692      }%
10693      }%
10694      {%

```

Make first letter upper case

```

10695      \ifglsused\glslabel
10696      {%

```

Subsequent use

```

10697      \glstextaccessdisplay{\Glsentrytext{\glslabel}}{\glslabel}%
10698      \glsinsert
10699      }%
10700      {%

```

First use

```

10701      \glsfirstaccessdisplay{\Glsentryfirst{\glslabel}}{\glslabel}%
10702      \glsinsert
10703      }%
10704      }%
10705      {%

```

Make all upper case

```

10706      \ifglsused\glslabel
10707      {%

```

Subsequent use

```

10708      \glstextaccessdisplay
10709      {\mfirstucMakeUppercase{\glsentrytext{\glslabel}}}{\glslabel}%
10710      \mfirstucMakeUppercase{\glsinsert}%
10711      }%
10712      {%

```

First use

```

10713      \glsfirstaccessdisplay
10714      {\mfirstucMakeUppercase{\glsentryfirst{\glslabel}}}{\glslabel}%
10715      \mfirstucMakeUppercase{\glsinsert}%
10716      }%
10717      }%
10718      }%
10719      }%
10720      {%

```

Custom text provided in `\glsdisp`. (The insert should be empty at this point.) The accessibility information, if required, will have to be explicitly included in the custom text.

```

10721      \glscustomtext\glsinsert
10722      }%
10723      }

```

`\glsgenacfmt` Redefine to include accessibility information.

```
10724 \renewcommand*{\glsgenacfmt}{%
10725   \ifdefempty\glscustomtext
10726   {%
10727     \ifglused\glslabel
10728     {%
```

Subsequent use:

```
10729     \glsifplural
10730     {%
```

Subsequent plural form:

```
10731     \glscapscase
10732     {%
```

Subsequent plural form, don't adjust case:

```
10733     \acronymfont
10734     {\glsshortpluralaccessdisplay
10735      {\glentryshortpl{\glslabel}}{\glslabel}}%
10736     \glsinsert
10737   }%
10738   {%
```

Subsequent plural form, make first letter upper case:

```
10739     \acronymfont
10740     {\glsshortpluralaccessdisplay
10741      {\Glsentryshortpl{\glslabel}}{\glslabel}}%
10742     \glsinsert
10743   }%
10744   {%
```

Subsequent plural form, all caps:

```
10745     \mfirstucMakeUppercase
10746     {\acronymfont
10747      {\glsshortpluralaccessdisplay
10748       {\glentryshortpl{\glslabel}}{\glslabel}}%
10749      \glsinsert}%
10750   }%
10751   }%
10752   {%
```

Subsequent singular form

```
10753     \glscapscase
10754     {%
```

Subsequent singular form, don't adjust case:

```
10755     \acronymfont
10756     {\glsshortaccessdisplay{\glentryshort{\glslabel}}{\glslabel}}%
10757     \glsinsert
10758   }%
10759   {%
```

Subsequent singular form, make first letter upper case:

```
10760      \acronymfont
10761      {\glsshortaccessdisplay{\Glsentryshort{\glslabel}}{\glslabel}}%
10762      \glsinsert
10763      }%
10764      {%
```

Subsequent singular form, all caps:

```
10765      \mfirstucMakeUppercase
10766      {\acronymfont{%
10767      \glsshortaccessdisplay{\Glsentryshort{\glslabel}}{\glslabel}}%
10768      \glsinsert}%
10769      }%
10770      }%
10771      }%
10772      {%
```

First use:

```
10773      \glsifplural
10774      {%
```

First use plural form:

```
10775      \glscapscase
10776      {%
```

First use plural form, don't adjust case:

```
10777      \genplacrfullformat{\glslabel}{\glsinsert}%
10778      }%
10779      {%
```

First use plural form, make first letter upper case:

```
10780      \Genplacrfullformat{\glslabel}{\glsinsert}%
10781      }%
10782      {%
```

First use plural form, all caps:

```
10783      \mfirstucMakeUppercase
10784      {\genplacrfullformat{\glslabel}{\glsinsert}}%
10785      }%
10786      }%
10787      {%
```

First use singular form

```
10788      \glscapscase
10789      {%
```

First use singular form, don't adjust case:

```
10790      \genacrfullformat{\glslabel}{\glsinsert}%
10791      }%
10792      {%
```

First use singular form, make first letter upper case:

```
10793      \Genacrfullformat{\glslabel}{\glsinsert}%
10794      }%
10795      {%
```

First use singular form, all caps:

```
10796      \mfirstucMakeUppercase
10797      {\genacrfullformat{\glslabel}{\glsinsert}}%
10798      }%
10799      }%
10800      }%
10801      }%
10802      {%
```

User supplied text. (The insert should be empty at this point.) The accessibility information, if required, will have to be explicitly included in the custom text.

```
10803      \glscustomtext
10804      }%
10805 }
```

enacrfullformat Redefine to include accessibility information.

```
10806 \renewcommand*{\genacrfullformat}[2]{%
10807   \glslongaccessdisplay{\glsentrylong{#1}}{#1}#2\space
10808   (\glsshortaccessdisplay{\protect\firstacronymfont{\glsentryshort{#1}}}{#1}}%
10809 }
```

enacrfullformat Redefine to include accessibility information.

```
10810 \renewcommand*{\Genacrfullformat}[2]{%
10811   \glslongaccessdisplay{\Glsentrylong{#1}}{#1}#2\space
10812   (\glsshortaccessdisplay{\protect\firstacronymfont{\Glsentryshort{#1}}}{#1}}%
10813 }
```

placrfullformat Redefine to include accessibility information.

```
10814 \renewcommand*{\genplacrfullformat}[2]{%
10815   \glslongpluralaccessdisplay{\glsentrylongpl{#1}}{#1}#2\space
10816   (\glsshortpluralaccessdisplay
10817     {\protect\firstacronymfont{\glsentryshortpl{#1}}}{#1}}%
10818 }
```

placrfullformat Redefine to include accessibility information.

```
10819 \renewcommand*{\Genplacrfullformat}[2]{%
10820   \glslongpluralaccessdisplay{\Glsentrylongpl{#1}}{#1}#2\space
10821   (\glsshortpluralaccessdisplay
10822     {\protect\firstacronymfont{\glsentryshortpl{#1}}}{#1}}%
10823 }
```

\@acrshort

```
10824 \def\@acrshort#1#2[#3]{%
10825   \glsdoifexists{#2}%
```

```

10826 {%
10827   \let\do@gl@link@checkfirsthyper\relax

10828   \let\gl@sifplural\@secondoftwo
10829   \let\gl@scapscase\@firstofthree
10830   \let\gl@insert\@empty
10831   \def\glscustomtext{%
10832     \acronymfont{\glsshortaccessdisplay{\gl@entryshort{#2}}{#2}}#3%
10833   }%

   Call \@gl@link
10834   \@gl@link[#1]{#2}{\csname gls@\glstype @entryfmt\endcsname}%
10835   }%

10836   \glspostlinkhook
10837 }

```

\@Acrshort

```

10838 \def\@Acrshort#1#2[#3]{%
10839   \gl@doifexists{#2}%
10840   {%
10841     \let\do@gl@link@checkfirsthyper\relax

10842     \let\gl@sifplural\@secondoftwo
10843     \let\gl@scapscase\@secondofthree
10844     \let\gl@insert\@empty
10845     \def\glscustomtext{%
10846       \acronymfont{\glsshortaccessdisplay{\gl@entryshort{#2}}{#2}}#3%
10847     }%

     Call \@gl@link
10848     \@gl@link[#1]{#2}{\csname gls@\glstype @entryfmt\endcsname}%
10849     }%

10850     \glspostlinkhook
10851 }

```

\@ACRshort

```

10852 \def\@ACRshort#1#2[#3]{%
10853   \gl@doifexists{#2}%
10854   {%
10855     \let\do@gl@link@checkfirsthyper\relax

10856     \let\gl@sifplural\@secondoftwo
10857     \let\gl@scapscase\@thirdofthree
10858     \let\gl@insert\@empty
10859     \def\glscustomtext{%
10860       \acronymfont{\glsshortaccessdisplay
10861         {\MakeUppercase{\gl@entryshort{#2}}}{#2}}#3%
10862     }%

```

```

    Call \@gls@link
10863   \@gls@link[#1]{#2}{\csname gls@\glstype @entryfmt\endcsname}%
10864   }%

10865   \glspostlinkhook
10866 }

```

\@acrlong

```

10867 \def\@acrlong#1#2[#3]{%
10868   \glsdoifexists{#2}%
10869   {%
10870     \let\do@gls@link@checkfirsthyper\relax

10871     \let\glsifplural\@secondoftwo
10872     \let\glscapscase\@firstofthree
10873     \let\glsinsert\@empty
10874     \def\glscustomtext{%
10875       \acronymfont{\glslongaccessdisplay{\glsentrylong{#2}}{#2}}#3%
10876     }%

```

```

    Call \@gls@link
10877   \@gls@link[#1]{#2}{\csname gls@\glstype @entryfmt\endcsname}%
10878   }%

10879   \glspostlinkhook
10880 }

```

\@Acrlong

```

10881 \def\@Acrlong#1#2[#3]{%
10882   \glsdoifexists{#2}%
10883   {%
10884     \let\do@gls@link@checkfirsthyper\relax

10885     \let\glsifplural\@secondoftwo
10886     \let\glscapscase\@firstofthree
10887     \let\glsinsert\@empty
10888     \def\glscustomtext{%
10889       \acronymfont{\glslongaccessdisplay{\Glsentrylong{#2}}{#2}}#3%
10890     }%

```

```

    Call \@gls@link
10891   \@gls@link[#1]{#2}{\csname gls@\glstype @entryfmt\endcsname}%
10892   }%

10893   \glspostlinkhook
10894 }

```

\@ACRlong

```

10895 \def\@ACRlong#1#2[#3]{%
10896   \glsdoifexists{#2}%
10897   {%
10898     \let\do@gls@link@checkfirsthyper\relax

```

```

10899 \let\glsifplural\@secondoftwo
10900 \let\glsifscapscase\@firstofthree
10901 \let\glsinsert\@empty
10902 \def\glscustomtext{%
10903     \acronymfont{\glslongaccessdisplay{%
10904         \MakeUppercase{\glsentrylong{#2}}}{#2}#3}%
10905     }%

    Call \@gls@link
10906     \@gls@link[#1]{#2}{\csname gls@\glstype @entryfmt\endcsname}%
10907 }%

10908 \glspostlinkhook
10909 }

```

5.3 Displaying the Glossary

We need to redefine the way the glossary entries are formatted to include the accessibility support. The predefined glossary styles use `\glossentryname`, `\glossentrydesc` and `\glossentrysymbol`, but we need to provide compatibility with earlier versions in case users have defined their own styles using `\accsuppglossaryentryfield` and `\accsuppglossarysubentryfield`.

Now redefine `\glossentryname`, `\glossentrydesc` and `\glossentrysymbol` etc so they use the accessibility stuff.

```

10910 \renewcommand*{\glossentryname}[1]{%
10911     \glsdoifexists{#1}%
10912     {%
10913         \glsnamefont{\glsnameaccessdisplay{\glsentryname{#1}}{#1}}%
10914     }%
10915 }

10916 \renewcommand*{\glossentryname}[1]{%
10917     \glsdoifexists{#1}%
10918     {%
10919         \glsnamefont{\glsnameaccessdisplay{\Glsentryname{#1}}{#1}}%
10920     }%
10921 }

10922 \renewcommand*{\glossentrydesc}[1]{%
10923     \glsdoifexists{#1}%
10924     {%
10925         \glsdescriptionaccessdisplay{\glsentrydesc{#1}}{#1}%
10926     }%
10927 }

10928 \renewcommand*{\Glossentrydesc}[1]{%
10929     \glsdoifexists{#1}%
10930     {%
10931         \glsdescriptionaccessdisplay{\Glsentrydesc{#1}}{#1}%
10932     }%
10933 }

```

```

10934 \renewcommand*{\glossentrysymbol}[1]{%
10935   \glsdoifexists{#1}%
10936   {%
10937     \glssymbolaccessdisplay{\glentrysymbol{#1}}{#1}%
10938   }%
10939 }

10940 \renewcommand*{\Glossentrysymbol}[1]{%
10941   \glsdoifexists{#1}%
10942   {%
10943     \glssymbolaccessdisplay{\Glentrysymbol{#1}}{#1}%
10944   }%
10945 }

```

ssaryentryfield

```

10946 \newcommand*{\accsuppglossaryentryfield}[5]{%
10947   \glossaryentryfield{#1}%
10948   {\glsnameaccessdisplay{#2}{#1}}%
10949   {\glsdescriptionaccessdisplay{#3}{#1}}%
10950   {\glssymbolaccessdisplay{#4}{#1}}{#5}%
10951 }

```

rysubentryfield

```

10952 \newcommand*{\accsuppglossarysubentryfield}[6]{%
10953   \glossarysubentryfield{#1}{#2}%
10954   {\glsnameaccessdisplay{#3}{#2}}%
10955   {\glsdescriptionaccessdisplay{#4}{#2}}%
10956   {\glssymbolaccessdisplay{#5}{#2}}{#6}%
10957 }

```

5.4 Acronyms

Redefine acronym styles provided by glossaries:

long-short *<long>* (*<short>*) acronym style.

```

10958 \renewacronymstyle{long-short}%
10959 {%

```

Check for long form in case this is a mixed glossary.

```

10960   \ifglshaslong{\glslabel}{\glsgenacfmt}{\glsgenentryfmt}%
10961 }%
10962 {%
10963   \renewcommand*{\GenericAcronymFields}{description={\the\glslongtok}}%
10964   \renewcommand*{\genacrfullformat}[2]{%
10965     \glslongaccessdisplay{\glentrylong{##1}}{##1}##2\space
10966     (\glsshortaccessdisplay
10967       {\protect\firstacronymfont{\glentryshort{##1}}}{##1})%
10968   }%
10969   \renewcommand*{\Genacrfullformat}[2]{%

```

```

10970 \glslongaccessdisplay{\Glsentrylong{##1}}{##1}##2\space
10971 (\glsshortaccessdisplay
10972   {\protect\firstacronymfont{\glsentryshort{##1}}}{##1})%
10973 }%
10974 \renewcommand*{\genplacrfullformat}[2]{%
10975   \glslongpluralaccessdisplay{\glsentrylongpl{##1}}{##1}##2\space
10976   (\glsshortpluralaccessdisplay
10977     {\protect\firstacronymfont{\glsentryshortpl{##1}}}{##1})%
10978   }%
10979 \renewcommand*{\Genplacrfullformat}[2]{%
10980   \glslongpluralaccessdisplay{\Glsentrylongpl{##1}}{##1}##2\space
10981   (\glsshortpluralaccessdisplay
10982     {\protect\firstacronymfont{\glsentryshortpl{##1}}}{##1})%
10983   }%
10984 \renewcommand*{\acronymentry}[1]{%
10985   \glsshortaccessdisplay{\acronymfont{\glsentryshort{##1}}}{##1}}
10986 \renewcommand*{\acronymsort}[2]{##1}%
10987 \renewcommand*{\acronymfont}[1]{##1}%
10988 \renewcommand*{\firstacronymfont}[1]{\acronymfont{##1}}%
10989 \renewcommand*{\acrpluralsuffix}{\glspluralsuffix}%
10990 }

```

short-long (*short*) (*long*) acronym style.

```

10991 \renewacronymstyle{short-long}%
10992 {%
10993   Check for long form in case this is a mixed glossary.
10994   \ifglshaslong{\glslabel}{\glsgenacfmt}{\glsgenentryfmt}%
10995 }%
10996 \renewcommand*{\GenericAcronymFields}{description={\the\glslongtok}}%
10997 \renewcommand*{\genacrfullformat}[2]{%
10998   \glsshortaccessdisplay
10999     {\protect\firstacronymfont{\glsentryshort{##1}}}{##1}##2\space
11000   (\glslongaccessdisplay{\glsentrylong{##1}}{##1})%
11001   }%
11002 \renewcommand*{\Genacrfullformat}[2]{%
11003   \glsshortaccessdisplay
11004     {\protect\firstacronymfont{\Glsentryshort{##1}}}{##1}##2\space
11005   (\glslongaccessdisplay{\glsentrylong{##1}}{##1})%
11006   }%
11007 \renewcommand*{\genplacrfullformat}[2]{%
11008   \glsshortpluralaccessdisplay
11009     {\protect\firstacronymfont{\glsentryshortpl{##1}}}{##1}##2\space
11010   (\glslongpluralaccessdisplay
11011     {\glsentrylongpl{##1}}{##1})%
11012   }%
11013 \renewcommand*{\Genplacrfullformat}[2]{%
11014   \glsshortpluralaccessdisplay
11015     {\protect\firstacronymfont{\Glsentryshortpl{##1}}}{##1}##2\space

```

```

11016 (\glslongpluralaccessdisplay{\glsentrylongpl{##1}}{##1})%
11017 }%
11018 \renewcommand*{\acronymentry}[1]{%
11019 \glsshortaccessdisplay{\acronymfont{\glsentryshort{##1}}}{##1}}%
11020 \renewcommand*{\acronymsort}[2]{##1}%
11021 \renewcommand*{\acronymfont}[1]{##1}%
11022 \renewcommand*{\firstacronymfont}[1]{\acronymfont{##1}}%
11023 \renewcommand*{\acrpluralsuffix}{\glspluralsuffix}%
11024 }

```

long-short-desc *<long>* (*<short>*) acronym style that has an accompanying description (which the user needs to supply).

```

11025 \renewacronymstyle{long-short-desc}%
11026 {%
11027 \GlsUseAcrEntryDispStyle{long-short}%
11028 }%
11029 {%
11030 \GlsUseAcrStyleDefs{long-short}%
11031 \renewcommand*{\GenericAcronymFields}{}%
11032 \renewcommand*{\acronymsort}[2]{##2}%
11033 \renewcommand*{\acronymentry}[1]{%
11034 \glslongaccessdisplay{\glsentrylong{##1}}{##1}\space
11035 (\glsshortaccessdisplay{\acronymfont{\glsentryshort{##1}}}{##1})}%
11036 }

```

g-sc-short-desc *<long>* (\textsc{<short>}) acronym style that has an accompanying description (which the user needs to supply).

```

11037 \renewacronymstyle{long-sc-short-desc}%
11038 {%
11039 \GlsUseAcrEntryDispStyle{long-sc-short}%
11040 }%
11041 {%
11042 \GlsUseAcrStyleDefs{long-sc-short}%
11043 \renewcommand*{\GenericAcronymFields}{}%
11044 \renewcommand*{\acronymsort}[2]{##2}%
11045 \renewcommand*{\acronymentry}[1]{%
11046 \glslongaccessdisplay{\glsentrylong{##1}}{##1}\space
11047 (\glsshortaccessdisplay{\acronymfont{\glsentryshort{##1}}}{##1})}%
11048 }

```

g-sm-short-desc *<long>* (\textsmaller{<short>}) acronym style that has an accompanying description (which the user needs to supply).

```

11049 \renewacronymstyle{long-sm-short-desc}%
11050 {%
11051 \GlsUseAcrEntryDispStyle{long-sm-short}%
11052 }%
11053 {%
11054 \GlsUseAcrStyleDefs{long-sm-short}%
11055 \renewcommand*{\GenericAcronymFields}{}%

```

```

11056 \renewcommand*{\acronymsort}[2]{##2}%
11057 \renewcommand*{\acronymentry}[1]{%
11058   \glslongaccessdisplay{\glsentrylong{##1}}{##1}\space
11059   (\glsshortaccessdisplay{\acronymfont{\glsentryshort{##1}}}{##1})}%
11060 }

```

short-long-desc *<short>* (*<long>*) acronym style that has an accompanying description (which the user needs to supply).

```

11061 \renewacronymstyle{short-long-desc}%
11062 {%
11063   \GlsUseAcrEntryDispStyle{short-long}%
11064 }%
11065 {%
11066   \GlsUseAcrStyleDefs{short-long}%
11067   \renewcommand*{\GenericAcronymFields}{}%
11068   \renewcommand*{\acronymsort}[2]{##2}%
11069   \renewcommand*{\acronymentry}[1]{%
11070     \glslongaccessdisplay{\glsentrylong{##1}}{##1}\space
11071     (\glsshortaccessdisplay{\acronymfont{\glsentryshort{##1}}}{##1})}%
11072 }

```

short-long-desc *<long>* (*\textsc{<short>}*) acronym style that has an accompanying description (which the user needs to supply).

```

11073 \renewacronymstyle{sc-short-long-desc}%
11074 {%
11075   \GlsUseAcrEntryDispStyle{sc-short-long}%
11076 }%
11077 {%
11078   \GlsUseAcrStyleDefs{sc-short-long}%
11079   \renewcommand*{\GenericAcronymFields}{}%
11080   \renewcommand*{\acronymsort}[2]{##2}%
11081   \renewcommand*{\acronymentry}[1]{%
11082     \glslongaccessdisplay{\glsentrylong{##1}}{##1}\space
11083     (\glsshortaccessdisplay{\acronymfont{\glsentryshort{##1}}}{##1})}%
11084 }

```

short-long-desc *<long>* (*\textsmaller{<short>}*) acronym style that has an accompanying description (which the user needs to supply).

```

11085 \renewacronymstyle{sm-short-long-desc}%
11086 {%
11087   \GlsUseAcrEntryDispStyle{sm-short-long}%
11088 }%
11089 {%
11090   \GlsUseAcrStyleDefs{sm-short-long}%
11091   \renewcommand*{\GenericAcronymFields}{}%
11092   \renewcommand*{\acronymsort}[2]{##2}%
11093   \renewcommand*{\acronymentry}[1]{%
11094     \glslongaccessdisplay{\glsentrylong{##1}}{##1}\space
11095     (\glsshortaccessdisplay{\acronymfont{\glsentryshort{##1}}}{##1})}%

```

11096 }

dua *<long>* only acronym style.

11097 \renewacronymstyle{dua}%
11098 {%

Check for long form in case this is a mixed glossary.

11099 \ifdefempty\glscustomtext
11100 {%
11101 \ifglshaslong{\glslabel}%
11102 {%
11103 \glssifplural
11104 {%

Plural form:

11105 \glscapscase
11106 {%

Plural form, don't adjust case:

11107 \glslongpluralaccessdisplay{\glsentrylongpl{\glslabel}}{\glslabel}%
11108 \glinsert
11109 }%
11110 {%

Plural form, make first letter upper case:

11111 \glslongpluralaccessdisplay{\Glentrylongpl{\glslabel}}{\glslabel}%
11112 \glinsert
11113 }%
11114 {%

Plural form, all caps:

11115 \glslongpluralaccessdisplay
11116 {\mfirstucMakeUppercase{\glsentrylongpl{\glslabel}}}{\glslabel}%
11117 \mfirstucMakeUppercase{\glinsert}%
11118 }%
11119 }%
11120 {%

Singular form

11121 \glscapscase
11122 {%

Singular form, don't adjust case:

11123 \glslongaccessdisplay{\glsentrylong{\glslabel}}{\glslabel}\glinsert
11124 }%
11125 {%

Subsequent singular form, make first letter upper case:

11126 \glslongaccessdisplay{\Glentrylong{\glslabel}}{\glslabel}\glinsert
11127 }%
11128 {%

Subsequent singular form, all caps:

```

11129         \glslongaccessdisplay
11130         {\mfirstucMakeUppercase
11131          {\glsentrylong{\glslabel}\glsinsert}}{\glslabel}%
11132         \mfirstucMakeUppercase{\glsinsert}%
11133     }%
11134 }%
11135 }%
11136 {%

```

Not an acronym:

```

11137     \glsgenentryfmt
11138 }%
11139 }%
11140 {\glscustomtext\glsinsert}%
11141 }%
11142 {%
11143 \renewcommand*{\GenericAcronymFields}{description={\the\glslongtok}}%
11144 \renewcommand*{\acrfullfmt}[3]{%
11145     \glslink[##1]{##2}{%
11146         \glslongaccessdisplay{\glsentrylong{##2}}{##2}##3\space
11147         (\glsshortaccessdisplay{\acronymfont{\glsentryshort{##2}}}{##2}}}%
11148 \renewcommand*{\Acrfullfmt}[3]{%
11149     \glslink[##1]{##2}{%
11150         \glslongaccessdisplay{\Glsentrylong{##2}}{##2}##3\space
11151         (\glsshortaccessdisplay{\acronymfont{\glsentryshort{##2}}}{##2}}}%
11152 \renewcommand*{\ACRfullfmt}[3]{%
11153     \glslink[##1]{##2}{%
11154         \glslongaccessdisplay
11155         {\mfirstucMakeUppercase{\glsentrylong{##2}}{##2}##3\space
11156         (\glsshortaccessdisplay{\acronymfont{\glsentryshort{##2}}}{##2}}}}}%
11157 \renewcommand*{\acrfullplfmt}[3]{%
11158     \glslink[##1]{##2}{%
11159         \glslongpluralaccessdisplay
11160         {\glsentrylongpl{##2}}{##2}##3\space
11161         (\glsshortpluralaccessdisplay
11162         {\acronymfont{\glsentryshortpl{##2}}}{##2}}}%
11163 \renewcommand*{\Acrfullplfmt}[3]{%
11164     \glslink[##1]{##2}{%
11165         \glslongpluralaccessdisplay
11166         {\Glsentrylongpl{##2}}{##2}##3\space
11167         (\glsshortpluralaccessdisplay
11168         {\acronymfont{\glsentryshortpl{##2}}}{##2}}}%
11169 \renewcommand*{\ACRfullplfmt}[3]{%
11170     \glslink[##1]{##2}{%
11171         \glslongpluralaccessdisplay
11172         {\mfirstucMakeUppercase{\glsentrylongpl{##2}}{##2}##3\space
11173         (\glsshortpluralaccessdisplay
11174         {\acronymfont{\glsentryshortpl{##2}}}{##2}}}}}%
11175 \renewcommand*{\glsentryfull}[1]{%

```

```

11176 \glslongaccessdisplay{\glsentrylong{##1}}\space
11177 (\glsshortaccessdisplay{\acronymfont{\glsentryshort{##1}}}{##1})%
11178 }%
11179 \renewcommand*{\Glsentryfull}[1]{%
11180 \glslongaccessdisplay{\Glsentrylong{##1}}{##1}\space
11181 (\glsshortaccessdisplay{\acronymfont{\glsentryshort{##1}}}{##1})%
11182 }%
11183 \renewcommand*{\Glsentryfullpl}[1]{%
11184 \glslongpluralaccessdisplay{\Glsentrylongpl{##1}}{##1}\space
11185 (\glsshortpluralaccessdisplay{\acronymfont{\glsentryshortpl{##1}}}{##1})%
11186 }%
11187 \renewcommand*{\Glsentryfullpl}[1]{%
11188 \glslongpluralaccessdisplay{\Glsentrylongpl{##1}}{##1}\space
11189 (\glsshortpluralaccessdisplay{\acronymfont{\glsentryshortpl{##1}}}{##1})%
11190 }%
11191 \renewcommand*{\acronymentry}[1]{%
11192 \glsshortaccessdisplay{\acronymfont{\glsentryshort{##1}}}{##1}}%
11193 \renewcommand*{\acronymsort}[2]{##1}%
11194 \renewcommand*{\acronymfont}[1]{##1}%
11195 \renewcommand*{\acrpluralsuffix}{\glspluralsuffix}%
11196 }

```

dua-desc *<long>* only acronym style with user-supplied description.

```

11197 \renewacronymstyle{dua-desc}%
11198 {%
11199 \GlsUseAcrEntryDispStyle{dua}%
11200 }%
11201 {%
11202 \GlsUseAcrStyleDefs{dua}%
11203 \renewcommand*{\GenericAcronymFields}{}%
11204 \renewcommand*{\acronymentry}[1]{%
11205 \glslongaccessdisplay{\acronymfont{\glsentrylong{##1}}}{##1}}%
11206 \renewcommand*{\acronymsort}[2]{##2}%
11207 }%

```

footnote *<short>*\footnote{*<long>*} acronym style.

```

11208 \renewacronymstyle{footnote}%
11209 {%
11210 \ifglshaslong{\glslabel}{\glsgenacfmt}{\glsgenentryfmt}%
11211 }%
11212 {%
11213 \renewcommand*{\GenericAcronymFields}{description={\the\glslongtok}}%

```

Need to ensure hyperlinks are switched off on first use:

```

11214 \glshyperfirstfalse
11215 \renewcommand*{\genacrfullformat}[2]{%
11216 \glsshortaccessdisplay
11217 {\protect\firstacronymfont{\glsentryshort{##1}}}{##1}##2%

```

```

11218 \protect\footnote{\glslongaccessdisplay{\glsentrylong{##1}}{##1}}%
11219 }%
11220 \renewcommand*{\Genacrfullformat}[2]{%
11221 \glsshortaccessdisplay
11222   {\firstacronymfont{\Glsentryshort{##1}}{##1}##2%
11223 \protect\footnote{\glslongaccessdisplay{\glsentrylong{##1}}{##1}}%
11224 }%
11225 \renewcommand*{\genplacrfullformat}[2]{%
11226 \glsshortpluralaccessdisplay
11227   {\protect\firstacronymfont{\glsentryshortpl{##1}}{##1}##2%
11228 \protect\footnote{\glslongpluralaccessdisplay{\glsentrylongpl{##1}}{##1}}%
11229 }%
11230 \renewcommand*{\Genplacrfullformat}[2]{%
11231 \glsshortpluralaccessdisplay
11232   {\protect\firstacronymfont{\Glsentryshortpl{##1}}{##1}##2%
11233 \protect\footnote{\glslongpluralaccessdisplay{\glsentrylongpl{##1}}{##1}}%
11234 }%
11235 \renewcommand*{\acronymentry}[1]{%
11236 \glsshortaccessdisplay{\acronymfont{\glsentryshort{##1}}{##1}}%
11237 \renewcommand*{\acronymsort}[2]{##1}%
11238 \renewcommand*{\acronymfont}[1]{##1}%
11239 \renewcommand*{\acrpluralsuffix}{\glspluralsuffix}%

```

Don't use footnotes for \acrfull:

```

11240 \renewcommand*{\acrfullfmt}[3]{%
11241 \glslink{##1}{##2}{%
11242 \glsshortaccessdisplay{\acronymfont{\glsentryshort{##2}}{##2}##3\space
11243 (\glslongaccessdisplay{\glsentrylong{##2}}{##2})}}}%
11244 \renewcommand*{\Acrfullfmt}[3]{%
11245 \glslink{##1}{##2}{%
11246 \glsshortaccessdisplay{\acronymfont{\Glsentryshort{##2}}{##2}##3\space
11247 (\glslongaccessdisplay{\glsentrylong{##2}}{##2})}}}%
11248 \renewcommand*{\ACRfullfmt}[3]{%
11249 \glslink{##1}{##2}{%
11250 \glsshortaccessdisplay
11251   {\mfirstucMakeUppercase
11252   {\acronymfont{\glsentryshort{##2}}{##2}##3\space
11253   (\glslongaccessdisplay{\glsentrylong{##2}}{##2})}}}%
11254 \renewcommand*{\acrfullplfmt}[3]{%
11255 \glslink{##1}{##2}{%
11256 \glsshortpluralaccessdisplay
11257   {\acronymfont{\glsentryshortpl{##2}}{##2}##3\space
11258   (\glslongpluralaccessdisplay{\glsentrylongpl{##2}}{##2})}}}%
11259 \renewcommand*{\Acrfullplfmt}[3]{%
11260 \glslink{##1}{##2}{%
11261 \glsshortpluralaccessdisplay
11262   {\acronymfont{\Glsentryshortpl{##2}}{##2}##3\space
11263   (\glslongpluralaccessdisplay{\glsentrylongpl{##2}}{##2})}}}%
11264 \renewcommand*{\ACRfullplfmt}[3]{%
11265 \glslink{##1}{##2}{%

```

```

11266 \glsshortpluralaccessdisplay
11267 {\mfirstucMakeUppercase
11268 {\acronymfont{\glentryshortpl{##2}}}{##2}##3\space
11269 (\glslongpluralaccessdisplay{\glentrylongpl{##2}}{##2}}}%

```

Similarly for \glentryfull etc:

```

11270 \renewcommand*{\glentryfull}[1]{%
11271 \glsshortaccessdisplay{\acronymfont{\glentryshort{##1}}}{##1}\space
11272 (\glslongaccessdisplay{\glentrylong{##1}}{##1}}}%
11273 \renewcommand*{\Glsentryfull}[1]{%
11274 \glsshortaccessdisplay{\acronymfont{\Glsentryshort{##1}}}{##1}\space
11275 (\glslongaccessdisplay{\glentrylong{##1}}{##1}}}%
11276 \renewcommand*{\glentryfullpl}[1]{%
11277 \glsshortpluralaccessdisplay
11278 {\acronymfont{\glentryshortpl{##1}}}{##1}\space
11279 (\glslongpluralaccessdisplay{\glentrylongpl{##1}}{##1}}}%
11280 \renewcommand*{\Glsentryfullpl}[1]{%
11281 \glsshortpluralaccessdisplay
11282 {\acronymfont{\Glsentryshortpl{##1}}}{##1}\space
11283 (\glslongpluralaccessdisplay{\glentrylongpl{##1}}{##1}}}%
11284 }

```

footnote-sc \textsc{<short>}\footnote{<long>} acronym style.

```

11285 \renewacronymstyle{footnote-sc}%
11286 {%
11287 \GlsUseAcrEntryDispStyle{footnote}%
11288 }%
11289 {%
11290 \GlsUseAcrStyleDefs{footnote}%
11291 \renewcommand{\acronymentry}[1]{%
11292 \glsshortaccessdisplay{\acronymfont{\glentryshort{##1}}}{##1}}
11293 \renewcommand{\acronymfont}[1]{\textsc{##1}}%
11294 \renewcommand*{\acrpluralsuffix}{\glstextup{\glspluralsuffix}}%
11295 }%

```

footnote-sm \textsmaller{<short>}\footnote{<long>} acronym style.

```

11296 \renewacronymstyle{footnote-sm}%
11297 {%
11298 \GlsUseAcrEntryDispStyle{footnote}%
11299 }%
11300 {%
11301 \GlsUseAcrStyleDefs{footnote}%
11302 \renewcommand{\acronymentry}[1]{%
11303 \glsshortaccessdisplay{\acronymfont{\glentryshort{##1}}}{##1}}
11304 \renewcommand{\acronymfont}[1]{\textsmaller{##1}}%
11305 \renewcommand*{\acrpluralsuffix}{\glspluralsuffix}%
11306 }%

```

footnote-desc <short>\footnote{<long>} acronym style that has an accompanying description (which the user needs to supply).

```

11307 \renewacronymstyle{footnote-desc}%
11308 {%
11309   \GlsUseAcrEntryDisplayStyle{footnote}%
11310 }%
11311 {%
11312   \GlsUseAcrStyleDefs{footnote}%
11313   \renewcommand*{\GenericAcronymFields}{}%
11314   \renewcommand*{\acronymsort}[2]{##2}%
11315   \renewcommand*{\acronymentry}[1]{%
11316     \glslongaccessdisplay{\glsentrylong{##1}}{##1}\space
11317     (\glsshortaccessdisplay{\acronymfont{\glsentryshort{##1}}}{##1})}%
11318 }

```

ootnote-sc-desc \textsc{\<short>}\footnote{\<long>} acronym style that has an accompanying description (which the user needs to supply).

```

11319 \renewacronymstyle{footnote-sc-desc}%
11320 {%
11321   \GlsUseAcrEntryDisplayStyle{footnote-sc}%
11322 }%
11323 {%
11324   \GlsUseAcrStyleDefs{footnote-sc}%
11325   \renewcommand*{\GenericAcronymFields}{}%
11326   \renewcommand*{\acronymsort}[2]{##2}%
11327   \renewcommand*{\acronymentry}[1]{%
11328     \glslongaccessdisplay{\glsentrylong{##1}}{##1}\space
11329     (\glsshortaccessdisplay{\acronymfont{\glsentryshort{##1}}}{##1})}%
11330 }

```

ootnote-sm-desc \textsmaller{\<short>}\footnote{\<long>} acronym style that has an accompanying description (which the user needs to supply).

```

11331 \renewacronymstyle{footnote-sm-desc}%
11332 {%
11333   \GlsUseAcrEntryDisplayStyle{footnote-sm}%
11334 }%
11335 {%
11336   \GlsUseAcrStyleDefs{footnote-sm}%
11337   \renewcommand*{\GenericAcronymFields}{}%
11338   \renewcommand*{\acronymsort}[2]{##2}%
11339   \renewcommand*{\acronymentry}[1]{%
11340     \glslongaccessdisplay{\glsentrylong{##1}}{##1}\space
11341     (\glsshortaccessdisplay{\acronymfont{\glsentryshort{##1}}}{##1})}%
11342 }

```

Use \newacronymhook to modify the key list to set the access text to the long version by default.

```

11343 \renewcommand*{\newacronymhook}{%
11344   \edef\@gls@keylist{shortaccess=\the\glslongtok,%
11345     \the\glskeylisttok}%
11346   \expandafter\glskeylisttok\expandafter{\@gls@keylist}%

```

11347 }

1tNewAcronymDef Modify default style to use access text:

```
11348 \renewcommand*{\DefaultNewAcronymDef}{%
11349   \edef\@do@newglossaryentry{%
11350     \noexpand\newglossaryentry{\the\glslabeltok}%
11351     {%
11352       type=\acronymtype,%
11353       name={\the\glsshorttok},%
11354       description={\the\glslongtok},%
11355       descriptionaccess=\relax,%
11356       text={\the\glsshorttok},%
11357       access={\noexpand\@glo@textaccess},%
11358       sort={\the\glsshorttok},%
11359       short={\the\glsshorttok},%
11360       shortplural={\the\glsshorttok\noexpand\acrpluralsuffix},%
11361       shortaccess={\the\glslongtok},%
11362       long={\the\glslongtok},%
11363       longplural={\the\glslongtok\noexpand\acrpluralsuffix},%
11364       descriptionplural={\the\glslongtok\noexpand\acrpluralsuffix},%
11365       first={\noexpand\glslongaccessdisplay
11366         {\the\glslongtok}{\the\glslabeltok}\space
11367         (\noexpand\glsshortaccessdisplay
11368           {\the\glsshorttok}{\the\glslabeltok})},%
11369       plural={\the\glsshorttok\acrpluralsuffix},%
11370       firstplural={\noexpand\glslongpluralaccessdisplay
11371         {\noexpand\@glo@longpl}{\the\glslabeltok}\space
11372         (\noexpand\glsshortpluralaccessdisplay
11373           {\noexpand\@glo@shortpl}{\the\glslabeltok})},%
11374       firstaccess=\relax,%
11375       firstpluralaccess=\relax,%
11376       textaccess={\noexpand\@glo@shortaccess},%
11377       \the\glskeylisttok
11378     }%
11379   }%
11380   \let\@org@gls@assign@firstpl\gls@assign@firstpl
11381   \let\@org@gls@assign@plural\gls@assign@plural
11382   \let\@org@gls@assign@descplural\gls@assign@descplural
11383   \def\gls@assign@firstpl##1##2{%
11384     \@gls@expand@field{##1}{firstpl}{##2}%
11385   }%
11386   \def\gls@assign@plural##1##2{%
11387     \@gls@expand@field{##1}{plural}{##2}%
11388   }%
11389   \def\gls@assign@descplural##1##2{%
11390     \@gls@expand@field{##1}{descplural}{##2}%
11391   }%
11392   \@do@newglossaryentry
11393   \let\gls@assign@firstpl\@org@gls@assign@firstpl
```

```

11394 \let\gls@assign@plural\@org@gls@assign@plural
11395 \let\gls@assign@symbolplural\@org@gls@assign@symbolplural
11396 }

```

teNewAcronymDef

```

11397 \renewcommand*{\DescriptionFootnoteNewAcronymDef}{%
11398   \edef\@do@newglossaryentry{%
11399     \noexpand\newglossaryentry{\the\glslabeltok}%
11400     {%
11401       type=\acronymtype,%
11402       name={\noexpand\acronymfont{\the\glsshorttok}},%
11403       sort={\the\glsshorttok},%
11404       text={\the\glsshorttok},%
11405       short={\the\glsshorttok},%
11406       shortplural={\the\glsshorttok\noexpand\acrpluralsuffix},%
11407       shortaccess={\the\glslongtok},%
11408       long={\the\glslongtok},%
11409       longplural={\the\glslongtok\noexpand\acrpluralsuffix},%
11410       access={\noexpand\@glo@textaccess},%
11411       plural={\the\glsshorttok\noexpand\acrpluralsuffix},%
11412       symbol={\the\glslongtok},%
11413       symbolplural={\the\glslongtok\noexpand\acrpluralsuffix},%
11414       firstpluralaccess=\relax,
11415       textaccess={\noexpand\@glo@shortaccess},%
11416       \the\glskeylisttok
11417     }%
11418   }%
11419   \let\@org@gls@assign@firstpl\gls@assign@firstpl
11420   \let\@org@gls@assign@plural\gls@assign@plural
11421   \let\@org@gls@assign@symbolplural\gls@assign@symbolplural
11422   \def\gls@assign@firstpl##1##2{%
11423     \@@gls@expand@field{##1}{firstpl}{##2}%
11424   }%
11425   \def\gls@assign@plural##1##2{%
11426     \@@gls@expand@field{##1}{plural}{##2}%
11427   }%
11428   \def\gls@assign@symbolplural##1##2{%
11429     \@@gls@expand@field{##1}{symbolplural}{##2}%
11430   }%
11431   \@do@newglossaryentry
11432   \let\gls@assign@plural\@org@gls@assign@plural
11433   \let\gls@assign@firstpl\@org@gls@assign@firstpl
11434   \let\gls@assign@symbolplural\@org@gls@assign@symbolplural
11435 }

```

onNewAcronymDef

```

11436 \renewcommand*{\DescriptionNewAcronymDef}{%
11437   \edef\@do@newglossaryentry{%
11438     \noexpand\newglossaryentry{\the\glslabeltok}%

```

```

11439 {%
11440     type=\acronymtype,%
11441     name={\noexpand
11442         \acrnameformat{\the\glsshorttok}{\the\glslongtok}},%
11443     access={\noexpand\@glo@textaccess},%
11444     sort={\the\glsshorttok},%
11445     short={\the\glsshorttok},%
11446     shortplural={\the\glsshorttok\noexpand\acrpluralsuffix},%
11447     shortaccess={\the\glslongtok},%
11448     long={\the\glslongtok},%
11449     longplural={\the\glslongtok\noexpand\acrpluralsuffix},%
11450     first={\the\glslongtok},%
11451     firstaccess=\relax,
11452     firstplural={\the\glslongtok\noexpand\acrpluralsuffix},%
11453     text={\the\glsshorttok},%
11454     textaccess={\the\glslongtok},%
11455     plural={\the\glsshorttok\noexpand\acrpluralsuffix},%
11456     symbol={\noexpand\@glo@text},%
11457     symbolaccess={\noexpand\@glo@textaccess},%
11458     symbolplural={\noexpand\@glo@plural},%
11459     firstpluralaccess=\relax,
11460     textaccess={\noexpand\@glo@shortaccess},%
11461     \the\glskeylisttok}%
11462 }%
11463 \let\@org@gls@assign@firstpl\gls@assign@firstpl
11464 \let\@org@gls@assign@plural\gls@assign@plural
11465 \let\@org@gls@assign@symbolplural\gls@assign@symbolplural
11466 \def\gls@assign@firstpl##1##2{%
11467     \@gls@expand@field{##1}{firstpl}{##2}%
11468 }%
11469 \def\gls@assign@plural##1##2{%
11470     \@gls@expand@field{##1}{plural}{##2}%
11471 }%
11472 \def\gls@assign@symbolplural##1##2{%
11473     \@gls@expand@field{##1}{symbolplural}{##2}%
11474 }%
11475 \do@newglossaryentry
11476 \let\gls@assign@firstpl\@org@gls@assign@firstpl
11477 \let\gls@assign@plural\@org@gls@assign@plural
11478 \let\gls@assign@symbolplural\@org@gls@assign@symbolplural
11479 }

```

teNewAcronymDef

```

11480 \renewcommand*{\FootnoteNewAcronymDef}{%
11481     \edef\@do@newglossaryentry{%
11482         \noexpand\newglossaryentry{\the\glslabeltok}%
11483         {%
11484             type=\acronymtype,%
11485             name={\noexpand\acronymfont{\the\glsshorttok}},%

```

```

11486     sort={\the\glsshorttok},%
11487     text={\the\glsshorttok},%
11488     textaccess={\the\glslongtok},%
11489     access={\noexpand\@glo@textaccess},%
11490     plural={\the\glsshorttok\noexpand\acrpluralsuffix},%
11491     short={\the\glsshorttok},%
11492     shortplural={\the\glsshorttok\noexpand\acrpluralsuffix},%
11493     long={\the\glslongtok},%
11494     longplural={\the\glslongtok\noexpand\acrpluralsuffix},%
11495     description={\the\glslongtok},%
11496     descriptionplural={\the\glslongtok\noexpand\acrpluralsuffix},%
11497     \the\glskeylisttok
11498   }%
11499 }%
11500 \let\@org@gls@assign@plural\gls@assign@plural
11501 \let\@org@gls@assign@firstpl\gls@assign@firstpl
11502 \let\@org@gls@assign@descplural\gls@assign@descplural
11503 \def\gls@assign@firstpl##1##2{%
11504   \@@gls@expand@field{##1}{firstpl}{##2}%
11505 }%
11506 \def\gls@assign@plural##1##2{%
11507   \@@gls@expand@field{##1}{plural}{##2}%
11508 }%
11509 \def\gls@assign@descplural##1##2{%
11510   \@@gls@expand@field{##1}{descplural}{##2}%
11511 }%
11512 \do@newglossaryentry
11513 \let\gls@assign@plural\@org@gls@assign@plural
11514 \let\gls@assign@firstpl\@org@gls@assign@firstpl
11515 \let\gls@assign@descplural\@org@gls@assign@descplural
11516 }

```

11NewAcronymDef

```

11517 \renewcommand*{\SmallNewAcronymDef}{%
11518   \edef\@do@newglossaryentry{%
11519     \noexpand\newglossaryentry{\the\glslabeltok}%
11520     {%
11521       type=\acronymtype,%
11522       name={\noexpand\acronymfont{\the\glsshorttok}},%
11523       access={\noexpand\@glo@symbolaccess},%
11524       sort={\the\glsshorttok},%
11525       short={\the\glsshorttok},%
11526       shortplural={\the\glsshorttok\noexpand\acrpluralsuffix},%
11527       shortaccess={\the\glslongtok},%
11528       long={\the\glslongtok},%
11529       longplural={\the\glslongtok\noexpand\acrpluralsuffix},%
11530       text={\noexpand\@glo@short},%
11531       textaccess={\noexpand\@glo@shortaccess},%
11532       plural={\noexpand\@glo@shortpl},%

```

```

11533     first={\the\glslongtok},%
11534     firstaccess=\relax,
11535     firstplural={\the\glslongtok\noexpand\acrpluralsuffix},%
11536     description={\noexpand\@glo@first},%
11537     descriptionplural={\noexpand\@glo@firstplural},%
11538     symbol={\the\glsshorttok},%
11539     symbolaccess={\the\glslongtok},%
11540     symbolplural={\the\glsshorttok\noexpand\acrpluralsuffix},%
11541     \the\glskeylisttok
11542   }%
11543 }%
11544 \let\@org@gls@assign@firstpl\gls@assign@firstpl
11545 \let\@org@gls@assign@plural\gls@assign@plural
11546 \let\@org@gls@assign@descplural\gls@assign@descplural
11547 \let\@org@gls@assign@symbolplural\gls@assign@symbolplural
11548 \def\gls@assign@firstpl##1##2{%
11549   \@@gls@expand@field{##1}{firstpl}{##2}%
11550 }%
11551 \def\gls@assign@plural##1##2{%
11552   \@@gls@expand@field{##1}{plural}{##2}%
11553 }%
11554 \def\gls@assign@descplural##1##2{%
11555   \@@gls@expand@field{##1}{descplural}{##2}%
11556 }%
11557 \def\gls@assign@symbolplural##1##2{%
11558   \@@gls@expand@field{##1}{symbolplural}{##2}%
11559 }%
11560 \do@newglossaryentry
11561 \let\gls@assign@firstpl\@org@gls@assign@firstpl
11562 \let\gls@assign@plural\@org@gls@assign@plural
11563 \let\gls@assign@descplural\@org@gls@assign@descplural
11564 \let\gls@assign@symbolplural\@org@gls@assign@symbolplural
11565 }

```

The following are kept for compatibility with versions before 3.0:

sshortaccesskey

```
11566 \newcommand*{\glsshortaccesskey}{\glsshortkey access}%
```

pluralaccesskey

```
11567 \newcommand*{\glsshortpluralaccesskey}{\glsshortpluralkey access}%
```

lslongaccesskey

```
11568 \newcommand*{\glslongaccesskey}{\glslongkey access}%
```

pluralaccesskey

```
11569 \newcommand*{\glslongpluralaccesskey}{\glslongpluralkey access}%
```

5.5 Debugging Commands

owglongnameaccess

```
11570 \newcommand*{\showglongnameaccess}[1]{%
11571   \expandafter\show\csname glo@\glsdetoklabel{#1}@textaccess\endcsname
11572 }
```

owglotextaccess

```
11573 \newcommand*{\showglotextaccess}[1]{%
11574   \expandafter\show\csname glo@\glsdetoklabel{#1}@textaccess\endcsname
11575 }
```

glopluralaccess

```
11576 \newcommand*{\showglopluralaccess}[1]{%
11577   \expandafter\show\csname glo@\glsdetoklabel{#1}@pluralaccess\endcsname
11578 }
```

wglofirstaccess

```
11579 \newcommand*{\showglofirstaccess}[1]{%
11580   \expandafter\show\csname glo@\glsdetoklabel{#1}@firstaccess\endcsname
11581 }
```

rstpluralaccess

```
11582 \newcommand*{\showglofirstpluralaccess}[1]{%
11583   \expandafter\show\csname glo@\glsdetoklabel{#1}@firstpluralaccess\endcsname
11584 }
```

glosymbolaccess

```
11585 \newcommand*{\showglosymbolaccess}[1]{%
11586   \expandafter\show\csname glo@\glsdetoklabel{#1}@symbolaccess\endcsname
11587 }
```

bolpluralaccess

```
11588 \newcommand*{\showglosymbolpluralaccess}[1]{%
11589   \expandafter\show\csname glo@\glsdetoklabel{#1}@symbolpluralaccess\endcsname
11590 }
```

owglodescaccess

```
11591 \newcommand*{\showglodescaccess}[1]{%
11592   \expandafter\show\csname glo@\glsdetoklabel{#1}@descaccess\endcsname
11593 }
```

escpluralaccess

```
11594 \newcommand*{\showglodescpluralaccess}[1]{%
11595   \expandafter\show\csname glo@\glsdetoklabel{#1}@descpluralaccess\endcsname
11596 }
```

wgloshortaccess

```
11597 \newcommand*{\showgloshortaccess}[1]{%  
11598   \expandafter\show\csname glo@\glsdetoklabel{#1}@shortaccess\endcsname  
11599 }
```

ortpluralaccess

```
11600 \newcommand*{\showgloshortpluralaccess}[1]{%  
11601   \expandafter\show\csname glo@\glsdetoklabel{#1}@shortpluralaccess\endcsname  
11602 }
```

owglolongaccess

```
11603 \newcommand*{\showglolongaccess}[1]{%  
11604   \expandafter\show\csname glo@\glsdetoklabel{#1}@longaccess\endcsname  
11605 }
```

ongpluralaccess

```
11606 \newcommand*{\showglolongpluralaccess}[1]{%  
11607   \expandafter\show\csname glo@\glsdetoklabel{#1}@longpluralaccess\endcsname  
11608 }
```

6 Multi-Lingual Support

Many thanks to everyone who contributed to the translations both via email and on comp.text.tex. Language support has now been split off into independent language modules.

```
11609 \NeedsTeXFormat{LaTeX2e}
11610 \ProvidesPackage{glossaries-babel}[2017/01/07 v4.28 (NLCT)]
```

Load tracklang to obtain language settings.

```
11611 \RequirePackage{tracklang}
11612 \let\glsifusetranslator\@secondoftwo
```

Check for tracked languages:

```
11613 \AnyTrackedLanguages
11614 {%
11615   \ForEachTrackedDialect{\this@dialect}{%
11616     \IfTrackedLanguageFileExists{\this@dialect}%
11617       {glossaries-}% prefix
11618       {.ldf}%
11619       {%
11620         \RequireGlossariesLang{\CurrentTrackedTag}%
11621       }%
11622     {%
11623       \PackageWarningNoLine{glossaries}%
11624         {No language module detected for ‘\this@dialect’.\MessageBreak
11625         Language modules need to be installed separately.\MessageBreak
11626         Please check on CTAN for a bundle called\MessageBreak
11627         ‘glossaries-\CurrentTrackedLanguage’ or similar}%
11628     }%
11629   }%
11630 }%
11631 {}%
```

6.1 Polyglossia Captions

Language support has now been split off into independent language modules.

```
11632 \NeedsTeXFormat{LaTeX2e}
11633 \ProvidesPackage{glossaries-polyglossia}[2017/01/07 v4.28 (NLCT)]
```

Load tracklang to obtain language settings.

```
11634 \RequirePackage{tracklang}
11635 \let\glsifusetranslator\@secondoftwo
```

Check for tracked languages:

```
11636 \AnyTrackedLanguages
```

```

11637 {%
11638     \ForEachTrackedDialect{\this@dialect}{%
11639         \IfTrackedLanguageFileExists{\this@dialect}%
11640         {glossaries-}% prefix
11641         {.ldf}%
11642         {%
11643             \RequireGlossariesLang{\CurrentTrackedTag}%
11644         }%
11645         {%
11646             \PackageWarningNoLine{glossaries}%
11647             {No language module detected for ‘\this@dialect’.\MessageBreak
11648             Language modules need to be installed separately.\MessageBreak
11649             Please check on CTAN for a bundle called\MessageBreak
11650             ‘glossaries-\CurrentTrackedLanguage’ or similar}%
11651         }%
11652     }%
11653 }%
11654 {}%

```

Glossary

`makeindex` An indexing application. [10](#), [25](#), [26](#), [174](#)

`xindy` An flexible indexing application with multilingual support written in Perl. [10](#), [25](#), [26](#), [174](#)

Change History

1.01 (2007-05-17)	numberline: numberline option added .. 6
General: Added range facility in format key 109	1.12 (2008-03-08)
\writeist: Added spaces after \delimN and \delimR in ist file 156	\@GLSpl: now uses
1.04 (2007-08-03)	\glentrydescplural and
General: Added \glstextformat 93	\glentrysymbolplural instead of
1.05 (2007-08-10)	\glentrydesc and
\glossarysection: added \@mkboth to \glossarysection 37	\glentrysymbol 123
\gls@defglossaryentry: Changed the default value of the sort key to just the value of the name key 78	\@Glspl@: now uses
1.07 (2007-09-13)	\glentrydescplural and
\@gls@link: fixed bug caused by \theglentrycounter setting the page number too soon 107	\glentrysymbolplural instead of
\glsadd: fixed bug caused by \theglentrycounter setting the page number too soon 153	\glentrydesc and
1.08 (2007-10-13)	\glentrysymbol 122
General: Added babel support 31	\@glspl@: now uses
listgroup: changed listgroup style to use \glsgetgrouptitle 266	\glentrydescplural and
altlistgroup: changed altlistgroup style to use \glsgetgrouptitle 267	\glentrysymbolplural instead of
1.1 (2008-02-22)	\glentrydesc and
\@glossarysection: numbered sections and auto label added 39	\glentrysymbol 121
\@gls@tmpb: changed \toksdef to \newtoks 111	General: added check for \hypertarget separate to \hyperlink (memoir defines \hyperlink but not \hypertarget) 117
\@gls@toc: numberline added 40	descriptionplural: new 60
\@p@glossarysection: numbered sections and auto label added 39	\gls@defglossaryentry: Changed default first plural to be first key with s appended (was text key with s appended) 77
General: amsgen now loaded (\new@ifnextchar needed) 4	descriptionplural support added 77
translate: translate option added 23	symbolplural support added 77
\setglossarysection: new 38	\Glsentrydescplural: New 147
numberedsection: numberedsection package option added 7	\glentrydescplural: New 147
	\Glsentrysymbolplural: New 148
	\glentrysymbolplural: New 148
	\SetDescriptionFootnoteAcronymStyle: Added \protect before \footnote and \glslink 234
	\SetFootnoteAcronymStyle: Added \protect before \footnote and \glslink 240
	symbolplural: new 61

1.13 (2008-05-10)	
General: fixed bug that ignored 3rd parameter	125–132
\ACRfullpl: new	215
\Acrfullpl: new	214
\acrfullpl: new	214
\acrpluralsuffix: New	212
\gls@defglossaryentry: Changed default first value	77
Changed default firstplural value	77
Removed restriction on only using \newglossaryentry in the preamble	83
\newacronym: Removed restriction on only using \newacronym in the preamble	212
1.14 (2008-06-17)	
\@gls@hypergroup: new	262
General: added nonumberlist key to \printglossary	198
added numberedsection key to \printglossary	196
\firstacronymfont: new	215
\glsautoprefix: new	7
\glsnavhyperlink: changed \edef to \protected@edef	261
\glsnavhypertarget: added write to aux file	261
\glsnavigation: changed to only use labels for groups that are present ..	262
1.15 (2008-08-15)	
\@gls@link: added \glslabel	107
\gls@defglossaryentry: check for \@glo@first in description	81
check for \@glo@text in symbol	82
\gls@hypergroup: new	262
\glsnavhypertarget: added check if rerun required	261
\glssettoctitle: new	31
\printglossary: changed the way the TOC title is set	182
1.16 (2008-08-27)	
\@GLS@: Test glossary type is \acronymtype in addition to checking if footnote option has been used	121
\@GLSpl: Test glossary type is \acronymtype in addition to checking if footnote option has been used	123
\@GLS@: Test glossary type is \acronymtype in addition to checking if footnote option has been used	120
\@GLspl@: Test glossary type is \acronymtype in addition to checking if footnote option has been used	122
\@gls@: Test glossary type is \acronymtype in addition to checking if footnote option has been used	119
\@glsdisp: Test glossary type is \acronymtype in addition to checking if footnote option has been used	124
\@glspl@: Test glossary type is \acronymtype in addition to checking if footnote option has been used	121
\@gls@target: raised the hypertarget so the target text doesn't scroll off the top of the page	118
\gls@defglossaryentry: Changed def to let	77
1.17 (2008-12-26)	
\@do@wrglossary: new	177
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