

# Section name references in L<sup>A</sup>T<sub>E</sub>X\*

Sebastian Rahtz

2010/01/25

## Documentation overview for hyperref

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

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

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

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

**Options** This file provides a short option summary.

**Bookmark talk, slides** Slides for the talk “PDF information and navigation elements with hyperref, pdfTeX and thumbpdf” at EuroT<sub>E</sub>X 1999.

**Bookmark talk, paper** The paper version of the talk.

Source code documentation:

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

**backref.dtx** “Back referencing from bibliographical citations”

 **nameref.dtx** “Section name references in L<sup>A</sup>T<sub>E</sub>X” (this file)

## Contents

<b>1</b>	<b>Introduction</b>	<b>2</b>
<b>2</b>	<b>History</b>	<b>2</b>
<b>3</b>	<b>Implementation</b>	<b>2</b>
3.1	<code>\label</code> stuff . . . . .	2
3.2	Changes of section macros . . . . .	4
3.2.1	Class beamer . . . . .	6
3.3	Referencing stuff . . . . .	6
3.4	Usage and frontend . . . . .	7
3.5	Package ifthen support . . . . .	8
3.6	Compatibility with <code>varioref</code> . . . . .	8
3.7	Support for listings . . . . .	10

---

\*This file has version number v2.36, last revised 2010/01/25.

## 1 Introduction

Cross-referencing to include the *name* of the section, rather than just the number or page. This works by redefining some of the inside L<sup>A</sup>T<sub>E</sub>X macros, so it is vulnerable to future changes.

## 2 History

Sebastian Rahtz, for Lou Burnard, March 15th 1994;  
 SPQR CERN July 1994;  
 Last mod. Sept. 3th MG;  
 Sept. 19th SPQR;  
 April 11th 1995 SPQR (added section formatting hook);  
 April 14th 1995 SPQR (compatibility with hyperref);  
 June 22 1995 SPQR (removed typeout from Sectionformat);  
 September 22 1997 added varioref hacks by Corey Minyard;  
 September 28th changes by David Carlisle.  
 More recent changes are recorded in ChangeLog.

The versions before 2009/11/27 v2.32 did not expand the title strings (of `\section`, `\caption`, ...). Then the behaviour switched to expanding, because this allows to remove unwanted macros (`\label`, ...). Despite this method is used in package `titleref` and class `memoir`, the first feedbacks let me conclude that this is not robust enough. Therefore I wrote package `getttitlestring` that uses the non-expanding method as default. It also allows me to use this package in package `zref-titleref`. See the package documentation of package `getttitlestring` how to change the method. It also provides a hook to remove additional unwanted macros, not supported by the package. Example:

```
\usepackage{getttitlestring}
\GetTitleStringDisableCommands{%
  \let\mylabel\@gobble
  \renewcommand\myindex[2]{}%
}
```

## 3 Implementation

```
1 (*package)
2 \RequirePackage{refcount}[2006/02/12]
3 \RequirePackage{getttitlestring}[2009/12/18]
```

We redefine `\label` so that it also writes the name of the current section to the `.aux` file; if the name ends in a dot, we zap it. To allow for the `hyperref` package, also write fourth and fifth fields (empty by default; used for cross-ref name, and file).

```
4 \def\strip@period#1.\relax#2\@@@{#1}
```

### 3.1 `\label` stuff

Here is tested, whether package `showkeys` is loaded. But if option `final` is used, the macros of `showkeys` are not defined, so we have to check an additional test.

```
5 \newif\ifNR@showkeys
```

```

6 \NR@showkeysfalse
7 \@ifpackageloaded{showkeys}{%
8   \begingroup
9     \@ifundefined{SK@@label}{%
10      }{%
11        \global\NR@showkeystrue
12      }%
13    \endgroup
14  }{}

15 \def\label#1{%
16   \bsphack
17   \begingroup
18     \@onelevel@sanitize\@currentlabelname
19     \edef\@currentlabelname{%
20       \expandafter\strip@period\@currentlabelname\relax.\relax\@@@%
21     }%
22     \protected@write\@auxout{}{%
23       \string\newlabel{#1}{%
24         {\@currentlabel}%
25         {\thepage}%
26         {\@currentlabelname}%
27         {\@currentHref}{}%
28       }%
29     }%
30   \endgroup
31   \esphack
32 }%

33 \ifNR@showkeys
34   \def\label#1{%
35     \bsphack
36     \SK@\SK@@label{#1}%
37     \begingroup
38       \@onelevel@sanitize\@currentlabelname
39       \edef\@currentlabelname{%
40         \expandafter\strip@period\@currentlabelname\relax.\relax\@@@%
41       }%
42       \protected@write\@auxout{}{%
43         \string\newlabel{#1}{%
44           {\@currentlabel}%
45           {\thepage}%
46           {\@currentlabelname}%
47           {\@currentHref}{}%
48         }%
49       }%
50     \endgroup
51     \esphack
52   }%
53 \fi

54 \let\ltx@label\label

```

Needed for the *subeqnarray* package.

```

55 \@ifundefined{slabel}{}{%
56   \def\slabel#1{%
57     \bsphack
58     \if@files
59       {%
60         \@onelevel@sanitize\@currentlabelname

```

```

61      \edef\@currentlabelname{%
62        \expandafter\strip@period\@currentlabelname\relax.\relax\@@@%
63      }%
64      \let\thepage\relax
65      \def\protect{\noexpand\noexpand\noexpand}%
66      \edef\@tempa{%
67        \write\@auxout{%
68          \string\newlabel{#1}{%
69            {\thesubequation}%
70            {\thepage}%
71            {\@currentlabelname}%
72            {\@currentHref}{}}%
73        }%
74      }%
75    }%
76    \expandafter
77  }%
78  \@tempa
79  \if@nobreak\ifvmode\nobreak\fi\fi
80 \fi
81 \esphack
82 }%
83 }

```

Overload an AMS L<sup>A</sup>T<sub>E</sub>X command, which uses `\newlabel`. Sigh!

```

84 \def\@writetocindent@{%
85   \begingroup
86   \@for\@tempa:=-1,0,1,2,3\do{%
87     \immediate\write\@auxout{%
88       \string\newlabel{tocindent\@tempa}{%
89         \csname r@tocindent\@tempa\endcsname}{ }{ }{ }%
90       }%
91     }%
92   }%
93   \endgroup
94 }

```

## 3.2 Changes of section macros

Add to the underlying section heading macros so that they note the section name for use by label.

If a section heading or the like has a `\label` in it, we need to extract it, or subsequent processing breaks.

```

95 \def\NR@getttitle#1{%
96   \GetTitleString{#1}%
97   \let\@currentlabelname\GetTitleStringResult
98 }

```

First the numbered sections. While we are about it, put in a useful section formatting macro.

```

99 \let\NR@sect\@sect
100 \newcounter{section@level}
101 \def\@sect#1#2#3#4#5#6[#7]#8{%
102   \setcounter{section@level}{#2}%
103   \NR@getttitle{#7}%
104   \NR@sect{#1}{#2}{#3}{#4}{#5}{#6}[{#7}]{\Sectionformat{#8}{#2}}%
105 }

```

and now the unnumbered ones

```

106 \let\NR@ssect\@ssect
107 \def\@ssect#1#2#3#4#5{%
108   \NR@getttitle{#5}%
109   \NR@ssect{#1}{#2}{#3}{#4}{\Sectionformat{#5}{#1}}%
110 }

```

Parts and chapters are treated differently. sigh.

```

111 \let\NR@part\@part
112 \def\@part[#1]#2{%
113   \NR@getttitle{#1}%
114   \NR@part[{#1}]{#2}%
115 }
116 \let\NR@chapter\@chapter
117 \def\@chapter[#1]#2{%
118   \NR@getttitle{#1}%
119   \NR@chapter[{#1}]{#2}%
120 }
121 \let\NR@schapter\@schapter
122 \def\@schapter#1{%
123   \NR@getttitle{#1}%
124   \NR@schapter{#1}%
125 }

```

Captions

```

126 \AtBeginDocument{%
127   \@ifpackageloaded{hyperref}{%
128     \ifpackagelater{hyperref}{2009/12/05}\@gobble\@firstofone
129   }\@firstofone
130   {%
131     \let\NR@@caption\@caption
132     \long\def\@caption#1[#2]{%
133       \NR@getttitle{#2}%
134       \NR@@caption{#1}[{#2}]]%
135     }%
136   }%
137 }
138 \AtBeginDocument{%
139   \@ifpackageloaded{longtable}{%
140     \let\NRorg@LT@c@ption\LT@c@ption
141     \def\LT@c@ption#1[#2]#3{%
142       \NRorg@LT@c@ption{#1}[{#2}]{#3}%
143       \def\@tempa{#2}%
144       \ifx\@tempa\@empty
145         \else
146           \NR@getttitle{#2}%
147         \fi
148       }%
149     }{}%
150 }

```

Compatibility for package titlesec.

```

151 \AtBeginDocument{%
152   \@ifpackageloaded{titlesec}{%
153     \let\NRorg@ttl@sect@i\ttl@sect@i
154     \def\ttl@sect@i#1#2[#3]#4{%
155       \NR@getttitle{#4}%

```

```

156     \NRorg@ttl@sect@i{#1}{#2}[#{3}]{#4}%
157   }%
158 }{}%
159 }

```

### 3.2.1 Class beamer

```

160 \@ifclassloaded{beamer}{%
161   \def\NR@PatchBeamer#1{%
162     \expandafter\let\csname NRorg@beamer@#1\expandafter\endcsname
163       \csname beamer@#1\endcsname
164     \begingroup
165       \edef\x{\endgroup
166         \long\def\expandafter\noexpand\csname beamer@#1\endcsname
167           [####1]{% hash-ok
168             \noexpand\NR@getttitle{####1}%
169             \expandafter\noexpand\csname NRorg@beamer@#1\endcsname
170               [####1]}%
171         }%
172       }%
173     \x
174   }%
175   \NR@PatchBeamer{section}%
176   \NR@PatchBeamer{subsection}%
177   \NR@PatchBeamer{subsubsection}%
178 }{}

```

### 3.3 Referencing stuff

We default the label and hypertext reference to be empty.

```

179 \def\@currentlabelname{}
180 \def\@currentHref{}

```

Since the second part of the preserved reference now has five parts (number, page, name, hypertext reference and file), we need extra utility macros:

```

181 \long\def\@firstoffive#1#2#3#4#5{#1}
182 \long\def\@secondoffive#1#2#3#4#5{#2}
183 \long\def\@thirdoffive#1#2#3#4#5{#3}
184 \long\def\@fourthoffive#1#2#3#4#5{#4}
185 \long\def\@fifthoffive#1#2#3#4#5{#5}

```

We have to redefine `\ref` and `\pageref` to know about extra reference elements. Make them robust, and compatible with Babel. The Babel switch is mimicked if not already defined. Some support for package `showkeys` is implemented. If option `notref` of that package is set, `\SK@ref` has the meaning of `\@empty`.

```

186 \providecommand*\@safe@activestruetrue{}%
187 \providecommand*\@safe@activesfalse{}%
188 \def\NR@setref#1{%
189   \begingroup
190     \@safe@activestruetrue
191     \expandafter
192   \endgroup
193   \expandafter\NR@@setref\csname r@#1\endcsname
194 }
195 \def\NR@@setref#1{%
196   \ifx\@undefined#1%
197     \let#1\relax
198   \fi

```

```

199 \setref#1%
200 }
201 \def\T@ref#1{%
202   \NR@setref{#1}\@firstoffive{#1}%
203 }%
204 \def\T@pageref#1{%
205   \NR@setref{#1}\@secondoffive{#1}%
206 }%
207 \ifNR@showkeys
208   \ifx\SK@ref\@empty
209   \else
210     \def\T@ref#1{%
211       \@safe@activetrue
212       \SK@\SK@@ref{#1}%
213       \@safe@activesfalse
214       \NR@setref{#1}\@firstoffive{#1}%
215     }%
216     \def\T@pageref#1{%
217       \@safe@activetrue
218       \SK@\SK@@ref{#1}%
219       \@safe@activesfalse
220       \NR@setref{#1}\@secondoffive{#1}%
221     }%
222   \fi
223 \fi

```

Package `hyperref` uses its own definitions of `\ref` and `\pageref` because it extends the syntax by the star form. `\DeclareRobustCommand` is used by `hyperref`. Package `nameref` can be loaded before, after `hyperref` or after `hyperref`'s definitions in `\AtBeginDocument`.

```

224 \@ifpackageloaded{hyperref}{%
225 }{%
226   \DeclareRobustCommand{\ref}{\T@ref}%
227   \DeclareRobustCommand{\pageref}{\T@pageref}%
228 }

```

### 3.4 Usage and frontend

Access the (third) name part with `\nameref`;

```

229 \def\T@nameref#1{%
230   \begingroup
231     \let\label\@gobble
232     \NR@setref{#1}\@thirdoffive{#1}%
233   \endgroup
234 }%
235 \ifNR@showkeys
236   \ifx\SK@ref\@empty
237   \else
238     \def\T@nameref#1{%
239       \@safe@activetrue
240       \SK@\SK@@ref{#1}%
241       \@safe@activesfalse
242       \begingroup
243         \let\label\@gobble
244         \NR@setref{#1}\@thirdoffive{#1}%
245       \endgroup
246     }%

```

```

247 \fi
248 \fi
249 \def\nameref{\protect\T@nameref}

```

An extended form which gives title and page number.

```

250 \def\Nameref#1{'\nameref{#1}' on page~\pageref{#1}}

```

The default for \Sectionformat

```

251 \providecommand\Sectionformat[2]{#1}

```

### 3.5 Package ifthen support

Package `ifthen's` `\isodd` does not work with `\pageref` because of the extra link and the star form. Therefore we need an expandable variant.

Unfortunately there is no hook in `\ifthenelse` in order to provide expandable versions without link of `\ref` and `\pageref`. As possible target I could only find `\begingroup`:

```

252 \@ifpackageloaded{ifthen}{%
253   \let\NROrg@ifthenelse\ifthenelse
254   \def\ifthenelse{%
255     \let\begin@group\NR@TE@begin@group
256     \NROrg@ifthenelse
257   }%
258   \let\NROrg@begin@group\begin@group
259   \def\NR@TE@begin@group{%
260     \let\begin@group\NROrg@begin@group
261     \begin@group
262     \def\ref##1{\getrefbykeydefault{##1}{}{??}}%
263     \def\pageref##1{\getrefbykeydefault{##1}{page}{0}}%
264   }%
265 }{}

```

### 3.6 Compatibility with varioref

[This section was derived by Corey Minyard [minyard@acm.org](mailto:minyard@acm.org) from the varioref package]

```

266 \AtBeginDocument{%
267   \ifx\csname @vppageref\endcsname\relax
268   \else
269     \def@@vppageref#1[#2]#3{%
270       \begingroup
271         \csname @safe@activestrue\endcsname
272         \edef\x{#3}%
273         \@onelevel@sanitize\x
274         \toks@{%
275           \NR@@vppageref{#1}[-#2]}%
276         }%
277         \edef\x{\endgroup
278           \the\toks@{\x}%
279         }%
280       \x
281     }%
282     \def\NR@@vppageref#1[#2]#3{%
283       \leavevmode\unskip
284       \global\advance\c@vrcnt\@ne
285       \ifundefined{r@the\c@vrcnt @vr}%
286         {\@namedef{r@the\c@vrcnt @vr}{???}{??}{?}{?}{?}{?}{?}{?}{?}}%

```



```

287 \edef\@tempa{%
288   \expandafter\expandafter\expandafter
289   \@secondoffive\csname r@\the\c@vrcnt @vr\endcsname
290 }%
291 \@ifundefined{r@\the\c@vrcnt @xvr}%
292   {\@namedef{r@\the\c@vrcnt @xvr}{\{?\}\{?\}\{\}\{\}\}\{}}%
293 \edef\@tempb{%
294   \expandafter\expandafter\expandafter
295   \@secondoffive\csname r@\the\c@vrcnt @xvr\endcsname
296 }%
297 {%
298   \let\@currentlabel\@empty
299   \expandafter\label\expandafter{\the\c@vrcnt @xvr}%
300 }%
301 \ifx\@tempa\@tempb
302 \else
303   \vref@err{%
304     \noexpand\vref at page boundary %
305     \@tempb-\@tempa\space (may loop)%
306   }%
307 \fi
308 \@ifundefined{r@#3}{\@namedef{r@#3}{\{?\}\{?\}\{\}\{\}\}\{}}%
309 \edef\thevpagerefnum{%
310   \expandafter\expandafter\expandafter
311   \@secondoffive\csname r@#3\endcsname
312 }%
313 \ifx\vref@space\@undefined
314   \space
315 \else
316   \vref@space
317 \fi
318 \ifx\@tempa\thevpagerefnum
319   #1%
320 \else
321   #2%
322   \is@pos@number\thevpagerefnum{%
323     \is@pos@number\@tempa{%
324       \@tempcnta\@tempa
325       \advance\@tempcnta\@ne
326     }{%
327       \@tempcnta\maxdimen
328     }%
329     \ifnum \thevpagerefnum =\@tempcnta
330       \ifodd\@tempcnta
331         \if@twoside
332           \reftextfaceafter
333         \else
334           \reftextafter
335         \fi
336       \else
337         \reftextafter
338       \fi
339     \else
340       \advance\@tempcnta-2 %
341       \ifnum \thevpagerefnum =\@tempcnta
342         \ifodd\@tempcnta
343           \reftextbefore

```

```

344         \else
345         \if@twoside
346         \reftextfacebefore
347         \else
348         \reftextbefore
349         \fi
350     \fi
351     \else
352     \reftextfaraway{#3}%
353     \fi
354     \fi
355     }{%
356     \reftextfaraway{#3}%
357     }%
358     \fi
359     {%
360     \let\@currentlabel\@empty
361     \expandafter\label\expandafter{\the\c@vrcnt @vr}%
362     }%
363     }%
364     \DeclareRobustCommand\vnameref[1]{%
365     \unskip~\nameref{#1}%
366     \vpageref[\unskip]{#1}%
367     }%
368     \fi
369 }

370 \@ifundefined{@Refstar}{%
371     \def\T@Ref#1{%
372         \NR@setref{#1}\NR@MakeUppercaseFirstOfFive{#1}%
373     }%
374     \def\NR@MakeUppercaseFirstOfFive#1#2#3#4#5{%
375         \MakeUppercase#1%
376     }%
377 }{}%
378 \AtBeginDocument{%
379     \@ifpackageloaded{varioref}{%
380         \@ifundefined{@Refstar}{%
381             \DeclareRobustCommand*\{Ref}[1]{%
382                 \T@Ref{#1}%
383             }%
384         }{}%
385     }{}%
386 }%

```

### 3.7 Support for listings

```

387 \AtBeginDocument{%
388     \@ifpackageloaded{listings}{%
389         \let\NR@Org@lst@MakeCaption\lst@MakeCaption
390         \def\lst@MakeCaption{%
391             \ifx\lst@label\@empty
392             \else
393                 \let\@currentlabelname\lst@@caption
394             \fi
395             \NR@Org@lst@MakeCaption
396         }%
397     }{}%

```

398 }  
 399 </package>

## 4 Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.

Symbols		
\@@@ . . . . . 4, 20, 40, 62	\@secondoffive . . . . . 117, 122, 132,	
\@vpageref . . . . . 269	. . . . . 182, 205, 141, 143, 154,	
\@auxout . . . . . 22, 42, 67, 87	220, 289, 295, 311 161, 166, 179,	
\@bsphack . . . . . 16, 35, 57	\@sect . . . . . 99, 101 180, 181, 182,	
\@caption . . . . . 131, 132	\@setref . . . . . 199 183, 184, 185,	
\@chapter . . . . . 116, 117	\@ssect . . . . . 106, 107 188, 195, 201,	
\@currentHref . . . . .	\@tempa . . . . . 66, 78, 204, 210, 216,	
. . . . . 27, 47, 72, 180	86, 88, 89, 143, 229, 238, 249,	
\@currentlabel . . . . .	144, 287, 301, 250, 254, 259,	
. . . . . 24, 44, 298, 360	305, 318, 323, 324 262, 263, 269,	
\@currentlabelname . . . . .	\@tempb . . . . . 293, 301, 305 282, 371, 374, 390	
. . . . . 18, 19,	\@tempcnta . . . . . 324, \do . . . . . 86	
20, 26, 38, 39,	325, 327, 329,	
40, 46, 60, 61,	330, 340, 341, 342	
62, 71, 97, 179, 393	\@thirdoffive . . . . .	<b>E</b>
\@empty . . . . . 144, 208,	. . . . . 183, 232, 244	\edef . . . . . 19, 39,
236, 298, 360, 391	\@undefined . . . . . 196, 313	61, 66, 165, 272,
\@esphack . . . . . 31, 51, 81	\@vpageref . . . . . 366 277, 287, 293, 309	\else . . . . . 145,
\@fifthoffive . . . . . 185	\@writetocindents@ . . . . . 84	209, 237, 268,
\@firstoffive . . . . .		302, 315, 320,
. . . . . 181, 202, 214	<b>A</b> 333, 336, 339,	344, 347, 351, 392
\@firstofone . . . . . 128, 129	\advance . . . . . 284, 325, 340	\endcsname . . . . . 89,
\@for . . . . . 86	\AtBeginDocument . . . . . 126, 138,	162, 163, 166,
\@fourthoffive . . . . . 184	151, 266, 378, 387	169, 193, 267,
\@gobble . . . . . 128, 231, 243	<b>B</b> 271, 289, 295, 311	\endgroup . . . . . 13,
\@ifclassloaded . . . . . 160	\begingroup . . . . . 8, 17,	30, 50, 93, 165,
\@ifpackagelater . . . . . 128	37, 85, 164, 189,	192, 233, 245, 277
\@ifpackageloaded . . . . .	230, 242, 255,	\expandafter . . . . .
7, 127, 139, 152,	258, 260, 261, 270	. . . . . 20, 40, 62, 76,
224, 252, 379, 388	<b>C</b> 162, 166, 169,	191, 193, 288,
\@ifundefined . . . . .	\c@vrcnt . . . . . 284, 285,	294, 299, 310, 361
. . . . . 9, 55, 285,	286, 289, 291,	<b>F</b>
291, 308, 370, 380	292, 295, 299, 361	\fi . . . . . 53, 79, 80, 147,
\@namedef . . . . . 286, 292, 308	\csname . . . . . 89,	198, 222, 223,
\@ne . . . . . 284, 325	162, 163, 166,	247, 248, 307,
\@onelevel@sanitize	169, 193, 267,	317, 335, 338,
. . . . . 18, 38, 60, 273	271, 289, 295, 311	349, 350, 353,
\@part . . . . . 111, 112	<b>D</b> 354, 358, 368, 394	
\@safe@activesfalse	\DeclareRobustCommand	<b>G</b>
. . . . . 187, 213, 219, 241	. . . . . 226, 227, 364, 381	\getrefbykeydefault
\@safe@activestrue . . . . . 186,	\def . . . . . 4, 15, 34,	. . . . . 262, 263
190, 211, 217, 239	56, 65, 84, 95,	\GetTitleString . . . . . 96
\@schapter . . . . . 121, 122	101, 107, 112,	

\GetTitleStringResult	\nobreak . . . . . 79	\reftextfacebefore . 346
..... 97	\noexpand . . . . . 65,	\reftextfaraway 352, 356
\global . . . . . 11, 284	166, 168, 169, 304	\relax . . . . . 4, 20,
	\NR@@caption . . 131, 134	40, 62, 64, 197, 267
I	\NR@@setref . . . 193, 195	\RequirePackage . . 2, 3
\if@filesw . . . . . 58	\NR@@vpageref . . 275, 282	
\if@nobreak . . . . . 79	\NR@chapter . . . 116, 119	S
\if@twoside . . . 331, 345	\NR@getttitle . . . . .	\Sectionformat . . . .
\ifNR@showkeys . . . .	. . . 95, 103, 108,	. . . . 104, 109, 251
. . . 5, 33, 207, 235	113, 118, 123,	\setcounter . . . . . 102
\ifnum . . . . . 329, 341	133, 146, 155, 168	\SK@ . . . 36, 212, 218, 240
\ifodd . . . . . 330, 342	\NR@MakeUppercaseFirstOfFive	\SK@label . . . . . 36
\ifthenelse . . . 253, 254	. . . . . 372, 374	\SK@ref . . 212, 218, 240
\ifvmode . . . . . 79	\NR@part . . . . . 111, 114	\SK@ref . . . . . 208, 236
\ifx . . . . . 144, 196,	\NR@PatchBeamer . . . .	\slabel . . . . . 56
208, 236, 267,	. 161, 175, 176, 177	\space . . . . . 305, 314
301, 313, 318, 391	\NR@schapter . . 121, 124	\string . . 23, 43, 68, 88
\immediate . . . . . 87	\NR@sect . . . . . 99, 104	\strip@period . . . . .
\is@pos@number 322, 323	\NR@setref . . . 188,	. . . . . 4, 20, 40, 62
	202, 205, 214,	
L	220, 232, 244, 372	T
\label . . . 15, 34, 54,	\NR@showkeysfalse . . 6	\T@nameref 229, 238, 249
231, 243, 299, 361	\NR@showkeystrue . . 11	\T@pageref 204, 216, 227
\leavevmode . . . . . 283	\NR@ssect . . . . 106, 109	\T@Ref . . . . . 371, 382
\let . . 54, 64, 97, 99,	\NR@TE@begingroup . .	\T@ref . . . . 201, 210, 226
106, 111, 116,	. . . . . 255, 259	\the . . . . . 278, 285,
121, 131, 140,	\NR@Org@begingroup . .	286, 289, 291,
153, 162, 197,	. . . . . 258, 260	292, 295, 299, 361
231, 243, 253,	\NR@Org@ifthenelse . .	\thepage . . 25, 45, 64, 70
255, 258, 260,	. . . . . 253, 256	\thesubequation . . . 69
298, 360, 389, 393	\NR@Org@lst@MakeCaption	\thevpagerefnum 309,
\long . 132, 166, 181,	. . . . . 389, 395	318, 322, 329, 341
182, 183, 184, 185	\NR@Org@LT@c@ption . .	\toks@ . . . . . 274, 278
\lst@@caption . . . . 393	. . . . . 140, 142	\ttl@sect@i . . . 153, 154
\lst@label . . . . . 391	\NR@Org@ttl@sect@i . .	
\lst@MakeCaption . .	. . . . . 153, 156	U
. . . . . 389, 390		\unskip . . . 283, 365, 366
\LT@c@ption . . . 140, 141	P	
\ltx@label . . . . . 54	\pageref . . 227, 250, 263	V
	\protect . . . . . 65, 249	\vnameref . . . . . 364
M	\protected@write 22, 42	\vref . . . . . 304
\MakeUppercase . . . 375	\providecommand . . .	\vref@err . . . . . 303
\maxdimen . . . . . 327	. . . . 186, 187, 251	\vref@space . . . 313, 316
N	R	W
\Nameref . . . . . 250	\Ref . . . . . 381	\write . . . . . 67, 87
\nameref . . 249, 250, 365	\ref . . . . . 226, 262	
\newcounter . . . . . 100	\reftextafter . 334, 337	X
\newif . . . . . 5	\reftextbefore 343, 348	\x . . . 165, 173, 272,
\newlabel 23, 43, 68, 88	\reftextfaceafter . 332	273, 277, 278, 280