

Hypertext marks in L^AT_EX

Sebastian Rahtz

Email: [sebastian.rahtz at oucs.ox.ac.uk](mailto:sebastian.rahtz@oucs.ox.ac.uk)

Heiko Oberdiek

Email: [heiko.oberdiek at gmail.com](mailto:heiko.oberdiek@gmail.com)

2011/11/21 v6.82l

1 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_EX 1999.

[Bookmark talk, paper](#) The paper version of the talk.

Source code documentation:

 [hyperref.dtx](#) This is the source code documentation for hyperref (this file).

[backref.dtx](#) “Back referencing from bibliographical citations”

[nameref.dtx](#) “Section name references in L^AT_EX”

2 Contents

| | | |
|----------|--|-----------|
| 1 | Documentation overview for hyperref | 1 |
| 2 | Contents | 2 |
| 3 | File hycheck.tex | 7 |
| 4 | Package options and setup | 11 |
| 4.1 | Save catcodes | 11 |
| 4.2 | Version check | 13 |
| 4.3 | Checks with regular expressions | 14 |
| 4.4 | Compatibility with format dumps | 15 |
| 4.5 | Switches | 15 |
| 5 | Common help macros | 17 |
| 5.1 | Macros for recursions | 17 |
| 5.2 | Babel's protection of shorthand characters | 17 |
| 5.3 | Coordinate transformations | 17 |
| 6 | Dealing with PDF strings | 19 |
| 6.1 | Description of PDF strings | 19 |
| 6.2 | Definition of <code>\pdfstringdef</code> | 19 |
| 6.2.1 | Preprocessing | 20 |
| 6.2.2 | Expansion | 25 |
| 6.2.3 | Postprocessing | 26 |
| 6.3 | Encodings | 31 |
| 6.3.1 | XeTeX | 31 |
| 6.3.2 | Workaround for package linguex | 32 |
| 6.3.3 | PD1 encoding | 33 |
| 6.3.4 | PU encoding | 33 |
| 6.4 | Additional user commands | 33 |
| 6.4.1 | <code>\texorpdfstring</code> | 33 |
| 6.4.2 | Hooks for <code>\pdfstringdef</code> | 33 |
| 6.5 | Help macros for expansion | 34 |
| 6.5.1 | <code>\ignorespaces</code> | 34 |
| 6.5.2 | Babel languages | 35 |
| 6.5.3 | CJK patch | 40 |
| 6.5.4 | CJK bookmarks | 40 |
| 6.5.5 | CJK unicode | 42 |
| 6.5.6 | <code>\@inmathwarn-Patch</code> | 46 |
| 6.5.7 | Unexpandable spaces | 48 |
| 6.5.8 | Marker for commands | 48 |
| 6.5.9 | <code>\hspace fix</code> | 48 |
| 6.5.10 | Fix for AMS classes | 49 |
| 6.5.11 | Reference commands | 49 |
| 6.5.12 | Redefining the defining commands | 51 |
| 6.5.13 | <code>\ifnextchar</code> | 52 |
| 6.5.14 | <code>\@protected@testoptifnextchar</code> | 53 |
| 6.6 | Help macros for postprocessing | 53 |
| 6.6.1 | Generic warning. | 53 |
| 6.6.2 | Protecting spaces | 53 |
| 6.6.3 | Remove grouping braces | 54 |
| 6.6.4 | Catcode check | 55 |

| | | |
|-----------|---|------------|
| 6.6.5 | Check for wrong glyphs | 59 |
| 6.6.6 | Replacing tokens | 60 |
| 6.6.7 | Support for package <code>xspace</code> | 60 |
| 6.6.8 | Converting to Unicode | 61 |
| 6.6.9 | Support for UTF-8 input encoding | 63 |
| 7 | Support of other packages | 67 |
| 7.1 | Class memoir | 67 |
| 7.2 | Package subfigure | 67 |
| 7.3 | Package xr and xr-hyper | 68 |
| 8 | Help macros for links | 68 |
| 9 | Options | 70 |
| 9.1 | Help macros | 70 |
| 9.2 | Defining the options | 72 |
| 10 | Options for different drivers | 77 |
| 11 | Options to add extra features | 80 |
| 12 | Language options | 81 |
| 13 | Options to change appearance of links | 88 |
| 14 | Bookmarking | 88 |
| 15 | PDF-specific options | 91 |
| 15.1 | Package xspace support | 101 |
| 15.2 | Option draft | 102 |
| 15.3 | PDF/A | 102 |
| 15.4 | Patch for babel's <code>\texttilde</code> | 103 |
| 15.4.1 | Driver loading | 105 |
| 15.4.2 | Bookmarks | 108 |
| 16 | User hypertext macros | 111 |
| 17 | Underlying basic hypertext macros | 117 |
| 18 | Compatibility with the <i>L^AT_EX</i>2html package | 121 |
| 19 | Forms creation | 121 |
| 19.1 | Field flags | 121 |
| 19.1.1 | Declarations of field flags | 123 |
| 19.1.2 | Set submit flags | 125 |
| 19.1.3 | Set annot flags in fields | 126 |
| 19.1.4 | Pushbutton field | 126 |
| 19.1.5 | Check box field | 127 |
| 19.1.6 | Radio button field | 127 |
| 19.1.7 | Text fields | 127 |
| 19.1.8 | Choice fields | 128 |
| 19.2 | Choice field | 128 |
| 19.3 | Forms | 130 |
| 20 | Setup | 138 |

| | |
|--|------------|
| 21 Low-level utility macros | 139 |
| 22 Localized nullifying of package | 140 |
| 23 Package nohyperref | 140 |
| 24 The Mangling Of Aux and Toc Files | 141 |
| 25 Title strings | 143 |
| 26 Page numbers | 144 |
| 27 Every page | 144 |
| 27.1 PDF /PageLabels | 144 |
| 27.1.1 pdfTeX and VTeX | 148 |
| 27.1.2 xetex | 150 |
| 27.1.3 pdfmarkbase, dvipdfm, xetex | 150 |
| 28 Automated L^AT_EX hypertext cross-references | 152 |
| 29 Package lastpage support | 156 |
| 30 Package ifthen support | 158 |
| 31 Package titlesec and titletoc support | 158 |
| 32 Package varioref support | 159 |
| 33 Package longtable support | 159 |
| 34 Equations | 160 |
| 35 Footnotes | 165 |
| 36 Float captions | 169 |
| 37 Bibliographic references | 171 |
| 37.1 Package harvard | 175 |
| 37.2 Package chicago | 176 |
| 38 Page numbers | 177 |
| 39 Table of contents | 179 |
| 40 New counters | 181 |
| 41 AMSL^AT_EX compatibility | 181 |
| 41.1 \@addtoreset and \numberwithin patches | 182 |
| 42 Included figures | 183 |
| 43 hyperindex entries | 183 |
| 44 Compatibility with foiltex | 186 |
| 45 Compatibility with seminar slide package | 186 |

| | |
|--|------------|
| 46 Configuration files | 195 |
| 46.1 PS/PDF strings | 195 |
| 46.2 pdftex | 196 |
| 46.2.1 Fix for problem with different nesting levels | 209 |
| 46.3 hypertext | 209 |
| 46.4 dviwindo | 212 |
| 46.5 dvipdfm/xetex dvi to PDF converter | 217 |
| 46.6 VTeX typesetting system | 226 |
| 46.7 Fix for Adobe bug number 466320 | 239 |
| 46.8 Direct pdfmark support | 240 |
| 46.9 Rokicki's dvips | 253 |
| 46.10 VTeX's vtexpdfmark driver | 255 |
| 46.11 Textures | 256 |
| 46.12 dvipsone | 261 |
| 46.13 TeX4ht | 264 |
| 47 Driver-specific form support | 267 |
| 47.1 pdfmarks | 267 |
| 47.2 HyperTeX | 274 |
| 47.3 TeX4ht | 274 |
| 47.4 pdfTeX | 276 |
| 47.5 dvipdfm, xetex | 284 |
| 47.6 Common forms part | 291 |
| 48 Bookmarks in the PDF file | 298 |
| 48.1 Bookmarks | 298 |
| 48.1.1 Rerun warning | 301 |
| 48.1.2 Driver stuff | 301 |
| 49 Compatibility with koma-script classes | 307 |
| 50 Encoding definition files for encodings of PDF strings | 308 |
| 50.1 PD1 encoding | 308 |
| 50.2 PU encoding | 316 |
| 50.2.1 NFSS2 accents | 316 |
| 50.2.2 Basic Latin: U+0000 to U+007F | 318 |
| 50.2.3 Latin-1 Supplement: U+0080 to U+00FF | 320 |
| 50.2.4 Latin Extended-A: U+0080 to U+017F | 323 |
| 50.2.5 Latin Extended-B: U+0180 to U+024F | 328 |
| 50.2.6 Spacing Modifier Letters: U+02B0 to U+02FF | 330 |
| 50.2.7 Combining Diacritical Marks: U+0300 to U+036F | 330 |
| 50.2.8 Greek and Coptic: U+0370 to U+03FF | 330 |
| 50.2.9 Cyrillic: U+0400 to U+04FF | 333 |
| 50.2.10 Thai: U+0E00 to U+0E7F | 344 |
| 50.2.11 Latin Extended Additional: U+1E00 to U+1EFF | 344 |
| 50.2.12 General Punctuation: U+2000 to U+206F | 347 |
| 50.2.13 Superscripts and Subscripts: U+2070 to U+209F | 347 |
| 50.2.14 Currency Symbols: U+20A0 to U+20CF | 348 |
| 50.2.15 Letterlike Symbols: U+2100 to U+214F | 349 |
| 50.2.16 Arrows: U+2190 to U+21FF | 349 |
| 50.2.17 Mathematical Operators: U+2200 to U+22FF | 349 |
| 50.2.18 Miscellaneous Technical: U+2300 to U+23FF | 349 |
| 50.2.19 Control Pictures: U+2400 to U+243F | 349 |

| | |
|--|------------|
| 50.2.20 Enclosed Alphanumerics: U+2460 to U+24FF | 350 |
| 50.2.21 Box Drawing: U+2500 to U+257F | 352 |
| 50.2.22 Miscellaneous Symbols: U+2600 to U+26FF | 352 |
| 50.2.23 Miscellaneous Mathematical Symbols-A: U+27C0 to U+27EF | 352 |
| 50.2.24 Alphabetic Presentation Forms: U+FB00 to U+FB4F . . . | 353 |
| 50.2.25 Miscellaneous | 353 |
| 50.2.26 Aliases | 353 |
| 50.3 PU encoding, additions for VnT _E X | 353 |
| 50.4 PU encoding, additions for Arabi | 356 |
| 51 End of file hycheck.tex | 357 |
| 52 Index | 358 |

3 File hycheck.tex

Many commands of L^AT_EX or other packages cannot be overloaded, but have to be redefined by hyperref directly. If these commands change in newer versions, these changes are not noticed by hyperref. With this test file this situation can be checked. It defines the command `\checkcommand` that is more powerful than L^AT_EX's `\CheckCommand`, because it takes `\DeclareRobustCommand` and optional parameters better into account.

```
1 \langle*check\rangle
2 \documentclass{article}
3 \makeatletter
```

`\checklatex` Optional argument: release date of L^AT_EX.

```
4 \newcommand*{\checklatex}[1]{}{
5   \typeout{}{
6     \typeout{* Format: 'LaTeX2e' #1}{
7       \typeout{\space\space Loaded: '\fmtname' \fmtversion}{
8     }}
```

`\checkpackage` The argument of `\checkpackage` is the package name without extension optionally followed by a release date.

```
9 \newcommand*{\checkpackage}[1]{
10   \def\HyC@package{#1}{
11     \let\HyC@date\@empty
12     \ifnextchar\HyC@getDate\HyC@checkPackage
13   }
```

`\HyC@getDate` The release date is scanned.

```
14 \def\HyC@getDate[#1]{
15   \def\HyC@date{#1}{
16     \HyC@checkPackage
17   }
```

`\HyC@checkPackage`

```
18 \def\HyC@checkPackage{
19   \typeout{}{
20     \begingroup
21       \edef\x{\endgroup
22         \noexpand\RequirePackage{\HyC@package}{
23           \ifx\HyC@date\@empty\relax\else\HyC@date\fi
24         }}{
25       \x
26       \typeout{}{
27         \typeout{
28           * Package '\HyC@package'
29           \ifx\HyC@date\@empty
30             \else
31               \space\HyC@date
32             \fi
33         }}{
34       \@ifundefined{ver@\HyC@package.sty}{
35         }{
36           \typeout{
37             \space\space Loaded: '\HyC@package' %
38             \csname ver@\HyC@package.sty\endcsname
39           }}
```

```

40 }%
41 }

```

`\checkcommand` The macro `\checkcommand` parses the next tokens as a \LaTeX definition and compares this definition with the current meaning of that command.

```

42 \newcommand*{\checkcommand}[1]{%
43   \begingroup
44   \ifx\long#1\relax
45     \expandafter\HyC@checklong
46   \else
47     \def\HyC@defcmd{#1}%
48     \expandafter\let\expandafter\HyC@next
49       \csname HyC@\expandafter\@gobble\string#1\endcsname
50     \expandafter\HyC@checkcommand
51   \fi
52 }

```

`\HyC@checklong` The definition command `\def` or `\edef` is read.

```

53 \def\HyC@checklong#1{%
54   \def\HyC@defcmd{\long#1}%
55   \expandafter\let\expandafter\HyC@next
56     \csname HyC@\expandafter\@gobble\string#1\endcsname
57   \HyC@checkcommand
58 }

```

`\HyC@checkcommand` The optional star of \LaTeX 's definitions is parsed.

```

59 \def\HyC@checkcommand{%
60   \ifx\HyC@next\relax
61     \PackageError{hycheck}{%
62       Unknown command '\expandafter\strip@prefix\meaning\HyC@cmd'%
63     }\@ehd
64     \expandafter\endinput
65   \fi
66   \@ifstar{%
67     \def\HyC@star{*}%
68     \HyC@check
69   }{%
70     \let\HyC@star\@empty
71     \HyC@check
72   }%
73 }

```

`\HyC@check` The macro `\HyC@check` reads the definition command.

```

74 \def\HyC@check#1{%
75   \def\HyC@cmd{#1}%
76   \let\HyC@org@cmd#1%
77   \let#1\relax
78   \let\HyC@param\@empty
79   \HyC@Toks{}%
80   \let\HyC@org@optcmd\HyC@noValue
81   \let\HyC@org@robustcmd\HyC@noValue
82   \let\HyC@org@robustoptcmd\HyC@noValue
83   \HyC@next
84 }

```

`\HyC@noValue`

```

85 \def\HyC@noValue{NoValue}

```


`\HyC@newcommand` The code for `\newcommand`.

```
86 \def\HyC@newcommand{%
87   \let\HyC@@cmd\HyC@cmd
88   \@ifnextchar[\HyC@nc@opt\HyC@nc@noopt
89 }
```

`\HyC@Toks` A register for storing the default value of an optional argument.

```
90 \newtoks\HyC@Toks
```

`\HyC@nc@noopt` This macro `\HyC@nc@noopt` is called, if the parser has reached the definition text.

```
91 \long\def\HyC@nc@noopt#1{%
92   \edef\x{%
93     \expandafter\noexpand\HyC@defcmd
94     \HyC@star
95     \expandafter\noexpand\HyC@cmd
96     \HyC@param\the\HyC@Toks
97   }%
98   \x{#1}%
99   \HyC@doCheck
100 }
```

`\HyC@nc@opt` This macro scans the first optional argument of a L^AT_EX definition (number of arguments).

```
101 \def\HyC@nc@opt[#1]{%
102   \def\HyC@param{{#1}}%
103   \@ifnextchar[\HyC@nc@default\HyC@nc@noopt
104 }
```

`\HyC@nc@default` Macro `\HyC@nc@default` scans the default for an optional argument.

```
105 \def\HyC@nc@default[#1]{%
106   \HyC@Toks={{#1}}%
107   \edef\HyC@optcmd{%
108     \expandafter\noexpand
109     \csname\expandafter\string\HyC@@cmd\endcsname
110   }%
111   \expandafter\let\expandafter\HyC@org@optcmd\HyC@optcmd
112   \HyC@nc@noopt
113 }
```

`\HyC@DeclareRobustCommand` `\DeclareRobustCommand{\cmd}` makes the command `\cmd` robust, that then calls `\cmd␣` with an space at the end of the command name, defined by `\newcommand`. Therefore the further parsing is done by `\HyC@nc@opt` or `\HyC@nc@noopt` of the `\HyC@newcommand` chain.

```
114 \def\HyC@DeclareRobustCommand{%
115   \edef\HyC@robustcmd{%
116     \expandafter\noexpand
117     \csname\expandafter\expandafter\expandafter\@gobble
118     \expandafter\string\HyC@cmd\space\endcsname
119   }%
120   \expandafter\let\expandafter\HyC@org@robustcmd\HyC@robustcmd
121   \expandafter\let\HyC@robustcmd\relax
122   \let\HyC@@cmd\HyC@robustcmd
123   \@ifnextchar[\HyC@nc@opt\HyC@nc@noopt
124 }
```

`\HyC@def` The parameter text of `\def` or `\edef` is stored in the token register `\HyC@Toks`.

`\HyC@edef`

```

125 \def\HyC@def#1#{%
126   \HyC@Toks={#1}%
127   \HyC@nc@noopt
128 }
129 \let\HyC@edef\HyC@def

```

`\HyC@doCheck` This command performs the checks and prints the result.

```

130 \def\HyC@doCheck{%
131   \typeout{* Checking ‘\HyC@string\HyC@cmd’}%
132   \HyC@checkItem{cmd}%
133   \HyC@checkItem{robustcmd}%
134   \HyC@checkItem{optcmd}%
135   \HyC@checkItem{robustoptcmd}%
136   \endgroup
137 }

```

`\HyC@checkItem` A single check.

```

138 \def\HyC@checkItem#1{%
139   \expandafter\ifx\csname HyC@org@#1\endcsname\HyC@noValue
140   \else
141     \expandafter\expandafter\expandafter\ifx
142     \csname HyC@#1\expandafter\endcsname
143     \csname HyC@org@#1\endcsname
144     \expandafter\HyC@checkOk\csname HyC@#1\endcsname
145   \else
146     \expandafter\HyC@checkFailed
147     \csname HyC@#1\expandafter\endcsname
148     \csname HyC@org@#1\endcsname
149   \fi
150 \fi
151 }

```

`\HyC@string` Some shorthands.

`\HyC@meaning`

```

152 \def\HyC@string#1{\expandafter\string#1}
153 \def\HyC@meaning#1{\expandafter\meaning#1}

```

`\HyC@checkOk` The result, if the check succeeds.

```

154 \def\HyC@checkOk#1{%
155   \typeout{\space\space‘\HyC@string#1’ ok.}%
156 }

```

`\HyC@checkFailed` The result, if the check fails.

```

157 \def\HyC@checkFailed#1#2{%
158   \typeout{\space\space‘\HyC@string#1’ failed.}%
159   \typeout{\space\space* original: \meaning#2}%
160   \typeout{\space\space* expected: \HyC@meaning#1}%
161 }

162 % *****
163 \</check>
164 \<*/package>

```

4 Package options and setup

4.1 Save catcodes

There are many packages that change the standard catcodes.

First we save the original meaning of ‘ and = in the token register \toks@, because we need the two characters in the macros \Hy@SetCatcodes and \Hy@RestoreCatcodes.

```
165 \begingroup
166 \makeother\‘%
167 \makeother\=%
168 \edef\x{%
169   \edef\noexpand\x{%
170     \endgroup
171     \noexpand\toks@{%
172       \catcode 96=\noexpand\the\catcode'\noexpand'\relax
173       \catcode 61=\noexpand\the\catcode'\noexpand\=\relax
174     }%
175   }%
176   \noexpand\x
177 }%
178 \x
179 \makeother\‘
180 \makeother\=
```

\Hy@SetCatcodes

```
181 \def\Hy@SetCatcodes{%
182   \makeother\‘%
183   \makeother\=%
184   \catcode'\$=3 %
185   \catcode'\&=4 %
186   \catcode'\^=7 %
187   \catcode'\_ =8 %
188   \makeother\| %
189   \makeother\:%
190   \makeother\(%
191   \makeother\)%
192   \makeother\[ %
193   \makeother\] %
194   \makeother\/ %
195   \makeother\! %
196   \makeother\< %
197   \makeother\> %
198   \makeother\.%
199   \makeother\;%
200   \makeother\+ %
201   \makeother\-%
202   \makeother\" %
203   \makeother\' %
204 }
```

\Hy@RestoreCatcodes

```
205 \begingroup
206 \def\x#1{\catcode'\noexpand#1=\the\catcode'#1\relax}%
207 \xdef\Hy@RestoreCatcodes{%
208   \the\toks@
209   \x\$%

```

```

210 \x\&%
211 \x\^%
212 \x\_%
213 \x\|%
214 \x\:%
215 \x\( %
216 \x\) %
217 \x\[ %
218 \x\] %
219 \x\/%
220 \x\!%
221 \x\<%
222 \x\>%
223 \x\.%
224 \x\;%
225 \x\+%
226 \x\-%
227 \x\"%
228 \x\'%
229 }%
230 \endgroup

```

```

231 \Hy@SetCatcodes

```

It needs the December 95 release of L^AT_EX, because it uses `\protected@write`, and it defines commands in options; and the page setup internal code changed at that point. It'll probably break with the later releases!

Use package `hobsub-hyperref` for faster package loading.

```

232 \IfFileExists{hobsub-hyperref.sty}{%
233 \RequirePackage{hobsub-hyperref}[2011/01/30]%
234 }{}

235 \RequirePackage{ltxcmds}[2010/10/25]
236 \RequirePackage{ifpdf}[2006/02/20]
237 \RequirePackage{pdftexcmds}[2009/04/10]
238 \@ifpackagelater{pdftexcmds}{2010/11/04}{%}{%
239 \ltx@ifundefined{pdfdraftmode}{%
240 \let\pdf@ifdraftmode\ltx@secondoftwo
241 }{%
242 \ifpdf
243 \def\pdf@ifdraftmode{%
244 \ifnum\pdfdraftmode=\ltx@one
245 \expandafter\ltx@firstoftwo
246 \else
247 \expandafter\ltx@secondoftwo
248 \fi
249 }%
250 \else
251 \let\pdf@ifdraftmode\ltx@secondoftwo
252 \fi
253 }%
254 }

255 \RequirePackage{infwarerr}[2010/04/08]
256 \RequirePackage{keyval}[1997/11/10]
257 \RequirePackage{kvsetkeys}[2007/09/29]
258 \RequirePackage{pdfescape}[2007/11/11]
259 \RequirePackage{ifvtex}
260 \RequirePackage{ifxetex}[2006/08/21]

```

```

261 \RequirePackage{hycolor}
262 \RequirePackage{letltxmacro}[2008/06/13]
263 \def\Hy@Error{\@PackageError{hyperref}}
264 \def\Hy@Warning{\@PackageWarning{hyperref}}
265 \def\Hy@WarningNoLine{\@PackageWarningNoLine{hyperref}}
266 \def\Hy@Info{\@PackageInfo{hyperref}}
267 \def\Hy@InfoNoLine{\@PackageInfoNoLine{hyperref}}
268 \def\Hy@Message#1{%
269   \GenericWarning{%
270     (hyperref)\@spaces\@spaces\@spaces\@spaces
271   }{%
272     Package hyperref Message: #1\ltx@gobble
273   }%
274 }

```

4.2 Version check

\Hy@VersionChecked

```

275 \chardef\Hy@VersionChecked=0 %

```

\Hy@VersionCheck

```

276 \def\Hy@VersionCheck#1{%
277   \begingroup
278   \ltx@ifundefined{ver@hyperref.sty}{%
279     \Hy@Error{%
280       This should not happen!\MessageBreak
281       Missing hyperref version%
282     }\@ehd
283   }{%
284     \ltx@ifundefined{ver@#1}{%
285       \Hy@Error{%
286         This should not happen!\MessageBreak
287         Missing version of '#1'%
288       }\@ehd
289     }{%
290       \def\x##1##2##3{%
291         \expandafter\expandafter\expandafter\Hy@@VersionCheck
292         \expandafter\expandafter\expandafter##2%
293         \csname ver@##3\endcsname##1##1\@nil
294       }%
295       \x{ }\y{hyperref.sty}%
296       \x{ }\z{#1}%
297       \ifx\y\z
298       \else
299         \Hy@Error{%
300           Version mismatch!\MessageBreak
301           * \y: hyperref.sty\MessageBreak
302           * \z: #1%
303         }\@ehd
304       \fi
305     }%
306   }%
307   \endgroup
308   \chardef\Hy@VersionChecked=1 %
309 }

```

\Hy@@VersionCheck

```

310 \def\Hy@@VersionCheck #1#2 #3 #4\@nil{%
311   \def#1{#2 #3}%
312 }

```

4.3 Checks with regular expressions

```

313 \ltx@ifundefined{pdfmatch}{%
314   \let\Hy@Match\ltx@gobblefour
315 }{%
316   \def\Hy@Match#1#2{%
317     \begingroup
318     \edef\^{\ltx@backslashchar\string^}%
319     \edef\.\{\ltx@backslashchar.}%
320     \edef\[\{\ltx@backslashchar[]%
321     \edef\${\ltx@backslashchar$}%
322     \edef\(\{\ltx@backslashchar(%
323     \edef\)\{\ltx@backslashchar)%
324     \edef\|\{\ltx@backslashchar|}%
325     \edef\*\{\ltx@backslashchar*}%
326     \edef\+\{\ltx@backslashchar+}%
327     \edef\?\{\ltx@backslashchar?}%
328     \edef\{\{\ltx@backslashchar\ltx@leftbracechar}%
329     \edef\}\{\ltx@backslashchar\ltx@rightbracechar}%
330     \edef\\{\ltx@backslashchar\ltx@backslashchar}%
331     \let\ \ltx@space
332     \ifcase\pdfmatch{#2}{#1} %
333       \endgroup
334       \expandafter\ltx@secondoftwo
335     \or
336       \endgroup
337       \expandafter\ltx@firstoftwo
338     \else
339       \Hy@Warning{%
340         Internal error: Wrong pattern!\MessageBreak
341         --> #2 <--\MessageBreak
342         Pattern check ignored%
343       }%
344       \endgroup
345       \expandafter\ltx@firstoftwo
346     \fi
347   }%
348   \ltx@ifpackagelater{ltxcmds}{2010/09/11}{%
349     \begingroup
350     \lccode'0=\{\relax
351     \lowercase{\endgroup
352       \def\ltx@leftbracechar{0}%
353     }%
354     \begingroup
355     \lccode'0=\}\relax
356     \lowercase{\endgroup
357       \def\ltx@rightbracechar{0}%
358     }%
359   }%
360 }

```

4.4 Compatibility with format dumps

`\AfterBeginDocument` For use with pre-compiled formats, created using the `ldump` package, there needs to be 2 hooks for adding material delayed until `\begin{document}`. These are called `\AfterBeginDocument` and `\AtBeginDocument`. If `ldump` is not loaded, then a single hook suffices for normal L^AT_EX processing.

The default definition of `\AfterBeginDocument` cannot be done by `\let` because of problems with `xypic`.

```
361 \@ifundefined{AfterBeginDocument}{%
362   \def\AfterBeginDocument{\AtBeginDocument}%
363 }{}%
```

`\Hy@AtBeginDocument` For the case that package ‘hyperref’ is loaded using `\AtBeginDocument`, we have to wrap the calls of `\AtBeginDocument`/`\AfterBeginDocument` in `\AtEndOfPackage`. However, packages must be loaded in `\AtEndOfPackage` *before* package ‘kvoptions’ has to perform its option cleanup. Therefore we use a hook.

```
364 \def\Hy@AtBeginDocument{%
365   \ltx@LocalAppendToMacro\Hy@AtBeginDocumentHook
366 }
```

`\Hy@AtEndOfPackage`

```
367 \def\Hy@AtEndOfPackage{%
368   \ltx@LocalAppendToMacro\Hy@AtEndOfPackageHook
369 }
```

`\Hy@AtBeginDocumentHook`

```
370 \let\Hy@AtBeginDocumentHook\ltx@empty
```

`\Hy@AtEndOfPackageHook`

```
371 \let\Hy@AtEndOfPackageHook\ltx@empty
```

Install the hook, before package ‘kvoptions’ is loaded.

```
372 \AtEndOfPackage{%
373   \Hy@AtEndOfPackageHook
374   \let\Hy@AtEndOfPackageHook\@undefined
375   \AfterBeginDocument{%
376     \Hy@AtBeginDocumentHook}%
377   \let\Hy@AtBeginDocumentHook\@undefined
378 }%
379 }
```

Package `kvoptions` is used for processing options that are given as key value pairs. The package provides `\ProcessKeyvalOptions`, formerly known as `\ProcessOptionsWithKV`.

```
380 \RequirePackage{kvoptions}[2009/07/21]
```

4.5 Switches

```
381 \newif\ifHy@stoppedearly
382 \newif\ifHy@typexml
383 \newif\ifHy@activeanchor
384 \newif\ifHy@backref
385 \newif\ifHy@bookmarks
386 \newif\ifHy@bookmarksnumbered
387 \newif\ifHy@bookmarksopen
388 \newif\ifHy@breaklinks
```

```

389 \newif\ifHy@pdfcenterwindow
390 \newif\ifHy@CJKbookmarks
391 \newif\ifHy@colorlinks
392 \newif\ifHy@draft
393 \let\Hy@finaltrue\Hy@draftfalse
394 \let\Hy@finalfalse\Hy@drafttrue
395 \newif\ifHy@pdfescapeform
396 \newif\ifHy@hyperfigures
397 \newif\ifHy@pdffitwindow
398 \newif\ifHy@frenchlinks
399 \newif\ifHy@hyperfootnotes
400 \newif\ifHy@hyperindex
401 \newif\ifHy@hypertextnames
402 \newif\ifHy@implicit
403 \newif\ifHy@linktocpage
404 \newif\ifHy@localanchorname
405 \newif\ifHy@pdfmenubar
406 \newif\ifHy@naturalnames
407 \newif\ifHy@nesting
408 \newif\ifHy@pdfnewwindowset
409 \newif\ifHy@pdfnewwindow
410 \newif\ifHy@ocgcolorlinks
411 \newif\ifHy@pageanchor
412 \newif\ifHy@pdfpagelabels
413 \newif\ifHy@pdfpagehidden
414 \newif\ifHy@pdfstring
415 \newif\ifHy@plainpages
416 \newif\ifHy@psize
417 \newif\ifHy@raiselinks
418 \newif\ifHy@seminarslides
419 \newif\ifHy@setpagesize
420 \newif\ifHy@texht
421 \newif\ifHy@pdftoolbar
422 \newif\ifHy@unicode
423 \newif\ifHy@pdfusetitle
424 \newif\ifHy@verbose
425 \let\Hy@debugtrue\Hy@verbosetrue
426 \let\Hy@debugfalse\Hy@verbosefalse
427 \newif\ifHy@pdfwindowui
428 \newif\ifHy@pdfdisplaydoctitle
429 \newif\ifHy@pdfa

```

Defaults for the switches are now set.

```

430 \Hy@backreffalse
431 \Hy@bookmarksnumberedfalse
432 \Hy@bookmarksopenfalse
433 \Hy@bookmarkstrue
434 \Hy@breaklinksfalse
435 \Hy@pdfcenterwindowfalse
436 \Hy@CJKbookmarksfalse
437 \Hy@pdfescapeformfalse
438 \Hy@hyperfiguresfalse
439 \Hy@pdffitwindowfalse
440 \Hy@hyperfootnotetrue
441 \Hy@hyperindextrue
442 \Hy@hypertextnametrue
443 \Hy@implicittrue
444 \Hy@linktocpagefalse

```



```

445 \Hy@localanchornamefalse
446 \Hy@pdfmenubartrue
447 \Hy@naturalnamesfalse
448 \Hy@nestingfalse
449 \Hy@pdfnewwindowsetfalse
450 \Hy@pdfnewwindowfalse
451 \Hy@pageanchortrue
452 \Hy@pdfpagelabelstrue
453 \Hy@pdfpagehiddenfalse
454 \Hy@pdfstringfalse
455 \Hy@plainpagesfalse
456 \Hy@raiselinksfalse
457 \Hy@setpagesizetrue
458 \Hy@texhtfalse
459 \Hy@pdftoolbartrue
460 \Hy@typexmlfalse
461 \Hy@unicodetrue
462 \Hy@pdfusetitlefalse
463 \Hy@verbosefalse
464 \Hy@pdfwindowuitrue
465 \Hy@pdfdisplaydoctitlefalse
466 \Hy@pdfafalse

```

5 Common help macros

\Hy@StepCount

```
467 \def\Hy@StepCount#1{\advance#1 by 1 }%
```

\Hy@GlobalStepCount

```
468 \def\Hy@GlobalStepCount#1{\global\advance#1 by 1 }%
```

```

469 \newdimen\@linkdim
470 \let\Hy@driver\ltx@empty
471 \let\MaybeStopEarly\relax
472 \newcount\Hy@linkcounter
473 \newcount\Hy@pagecounter
474 \Hy@linkcounter0
475 \Hy@pagecounter0

```

5.1 Macros for recursions

```

476 \let\Hy@ReturnEnd\@empty
477 \long\def\Hy@ReturnAfterFiFiEnd#1\fi#2\Hy@ReturnEnd{\fi\fi#1}
478 \long\def\Hy@ReturnAfterElseFiFiEnd#1\else#2\Hy@ReturnEnd{\fi\fi#1}

```

5.2 Babel's protection of shorthand characters

\Hy@safe@activetrue Babel's switch setting commands cannot be used directly, because they can be undefined if babel is not loaded.

```

479 \def\Hy@safe@activetrue{\csname @safe@activetrue\endcsname}
480 \def\Hy@safe@activesfalse{\csname @safe@activesfalse\endcsname}

```

5.3 Coordinate transformations

At some places numbers in pdf units are expected (eg: FitBH, ...). The following macros perform the transformation from TeX units (pt) to PDF units (bp).

`\hypercalcbp` The user macro `\hypercalcbp` can be used, for example, inside option values:

```
pdfstartview={FitBH \hypercalcbp{\paperheight-\topmargin-1in}}
```

- It cannot be used inside `\usepackage`, because LaTeX expands the options before package `hyperref` is loaded and `\hypercalcbp` is defined.
- With e-TeX extensions an expandable implementation is very easy; `\hypercalcbp` can be used everywhere and is expanded at use.
- Without e-TeX's features `\hypercalcbp` cannot be implemented expandable (practically) and have to be supported by `\hypercalcbpdef`. Limitations:
 - Works only in options that use `\hypercalcbpdef` (currently only `pdfstartview`).
 - For calculations package `calc` has to be loaded.
 - The expansion of the argument is done at definition time.

Example (T_EX):

```
\usepackage{calc}
\usepackage[...]{hyperref}
\hypersetup{
  pdfstartview={FitBH \hypercalcbp{\paperheight-\topmargin-1in
    -\headheight-\headsep}
}
```

`\hypercalcbp`

```
481 \begingroup\expandafter\expandafter\expandafter\endgroup
482 \expandafter\ifx\csname dimexpr\endcsname\relax
483   \def\hypercalcbpdef#1#2{%
484     \begingroup
485       \toks@{}%
486       \HyCal@scan#2\hypercalcbp\@nil
487     \expandafter\endgroup
488     \expandafter\def\expandafter#1\expandafter{\the\toks@}%
489   }%
490   \def\HyCal@scan#1\hypercalcbp#2\@nil{%
491     \toks@\expandafter{\the\toks@ #1}%
492     \ifx\#2\%
493       \else
494         \ltx@ReturnAfterFi{%
495           \HyCal@do#2\@nil
496         }%
497       \fi
498     }%
499   \def\HyCal@do#1#2\@nil{%
500     \@ifpackageloaded{calc}{-}{%
501       \Hy@Warning{%
502         For calculations \string\hypercalcbp\space needs\MessageBreak
503         package calc or e-TeX%
504       }%
505     }%
506     \setlength{\dimen@}{#1}%
507     \setlength{\dimen@}{0.99626401\dimen@}%
508     \edef\x{%
509       \toks@{%
510         \the\toks@
```

```

511     \strip@pt\dimen@
512   }%
513 } \x
514   \HyCal@scan#2\@nil
515 }%
516 \else
517   \def\hypercalcbp#1{%
518     \strip@pt\dimexpr 0.99626401\dimexpr(#1)\relax\relax
519   }%
520   \def\hypercalcbpdef{\def}%
521 \fi

```

6 Dealing with PDF strings

The PDF string stuff done by Heiko Oberdiek.

Naming convention: All internal commands that are only needed by `\pdfstringdef` are prefixed with `\HyPsd@`.

6.1 Description of PDF strings

The PDF specification defines several places to hold text strings (bookmark names, document information, text annotations, etc.). The PDF strings have following properties:

- They are surrounded by parentheses. The hexadecimal form is not supported.
- Like PostScript language strings they use the same escaping mechanism:

| | |
|---------------------------------|---------------------------------------|
| <code>\\</code> | the backslash itself |
| <code>\), \((</code> | unbalanced parentheses |
| <code>\n, \r, \t, \b, \f</code> | special white space escape sequences |
| <code>\ddd</code> | octal character code <code>ddd</code> |
- Strings are stored either in `PDFDocEncoding`, which is a superset of ISO-Latin1 and is compatible with Unicode with character codes below 256, or in Unicode.

6.2 Definition of `\pdfstringdef`

The central macro for dealing with PDF strings is `\pdfstringdef`. It defines a command `#1` to be the result of the conversion from the string in `#2` to a legal `PDFDocEncoded` string. Currently the definition is global, but this can be changed in the future.

Important: In \TeX 's view PDF strings are written to a file and are expanded only in its mouth. Stomach commands that cannot be expanded further aren't executed, they are written verbatim. But the PDF reader that reads such a string isn't a \TeX interpreter!

The macro `\pdfstringdef` consists of three main parts:

1. Preprocessing. Here the expansion is prepared. The encoding is set and many commands are redefined, so that they work appropriate.
2. Expansion. The \TeX string is expanded the first time to get a PDF string.
3. Postprocessing. The result of the expansion is checked and converted to the final form.

`\pdfstringdef` `\pdfstringdef` works on the tokens in `#2` and converts them to a PDF string as far as possible:

- The result should obey the rules of the PDF specification for strings.
- The string can safely be processed by \TeX , because the tokens have only cat-codes 10 until 12.

The result is stored in the command token given in `#1`.

```
522 \def\pdfstringdef#1#2{%
```

Many redefinitions are needed, so all the work is done in a group.

```
523 \begingroup
```

6.2.1 Preprocessing

Octal escape sequences. To avoid problems with eight bit or non printable characters, the octal escape notation is supported. So most glyphs in the encoding definitions for PD1 and PU produce these octal escape sequences. All three octal digits have to be used:

- Wrong results are avoided, if digits follow that are not part of the octal sequence.
- Macros rely on the fact that the octal sequences always consist of three digits (vtex driver, Unicode support).

The escape sequences start with a backslash. By `\string` it will be printed. Therefore it is ensured that the \TeX escape character indeed prints as a normal backslash. Eventually this line can be removed, because this is standard \LaTeX behaviour.

```
524 \escapechar'\%
```

From the view of \TeX an octal sequence consists of the command tokens `\0` until `\3` and two digits. For saving tokens `\0`, `\1`, `\2`, and `\3` are directly used without a preceding `\string` in the glyph definitions. This is done here locally by defining the `\0` until `\3` commands. So the user can use octal escape sequences directly, the disadvantage is that a previous definition of this short commands does not apply.

```
525 \edef\0{\string\0}%
526 \edef\1{\string\1}%
527 \edef\2{\string\2}%
528 \edef\3{\string\3}%
```

Setting font encoding. The unicode encoding uses `\8` and `\9` as marker for the higher byte. `\8` is an abbreviation for the higher bytes 0 until 7 that can be expressed by one digit. `\8` will be converted to `\00`. However `\9` only marks the next three digits as higher byte and will be removed later.

The encoding is set by `\enc@update` for optimizing reasons.

```
529 \ifHy@unicode
530 \edef\8{\string\8}%
531 \edef\9{\string\9}%
532 \fontencoding{PU}%
533 \HyPsd@UTFviii
534 \def\ifpdfstringunicode##1##2{##1}%
535 \else
536 \fontencoding{PD1}%
```

```

537 \def\ifpdfstringunicode##1##2{##2}%
538 \fi
539 \let\utf@viii@undeferr\HyPsd@utf@viii@undeferr
540 \enc@update

```

Internal encoding commands. `\pdfstringdef` interpretes text strings which are not allowed to contain mathematical stuff. The text glyph commands will produce a warning, if called in math mode. But this warning disturbs while expanding. Therefore we check for math mode here, before `\@inmathwarn` will be disabled (see below).

```

541 \@inmathwarn\pdfstringdef

```

If a glyph is used, that isn't in the PD1/PU encoding there will be an infinite error loop, because the NFSS encoding stuff have to be expanded unprotected (`\edef`), so that the assignments of `\@changed@cmd` don't take place. To patch this behaviour I only found `\@inmathwarn` as a usable hook. While an `\edef` a warning message by `\@inmathwarn` or `\TextSymbolUnavailable` cannot be give out, so `\@inmathwarn` should be disabled. And with the help of it the assignments in `\@changed@cmd` can easily be caught (see below).

```

542 \let\@inmathwarn\HyPsd@inmathwarn

```

Unknown composite characters are built with `\add@accent`, so it is redefined to provide a warning.

```

543 \let\add@accent\HyPsd@add@accent

```

Commands that don't use NFSS directly. There are several commands that prints characters in the printable ASCII area that don't obey the NFSS, so they have to be redefined here.

```

544 \let\{\textbraceleft
545 \let\}\textbraceright
546 \let\\\textbackslash
547 \let\#\textnumbersign
548 \let\$\textdollar
549 \let\%\textpercent
550 \let\&\textampersand
551 % \let\~\textasciitilde
552 \let\_ \textunderscore
553 \let\P\textparagraph
554 \let\ldots\textellipsis
555 \let\dots\textellipsis

```

Newline `\newline` or `\\` do not work in bookmarks, in text annotations they should expand to `\r`. In pdf strings `\\` stands for a backslash. Therefore the commands are disabled now. The user can redefine them for a result what he want:

backslash: `\pdfstringdefDisableCommands{\let\\\textbackslash}`

new line: `\pdfstringdefDisableCommands{\let\\\textCR}`

disabled: `\pdfstringdefDisableCommands{\let\\\empty}`

At any case, however, the optional argument or the star cannot be scanned in a 100% sure manner.

```

556 \def\{\pdfstringdefWarn\}%
557 \def\newline{\pdfstringdefWarn\newline}%

```

Logos. Because the box shifting used in the T_EX logo does not work while writing to a file, the standard T_EX logos are redefined.

```

558 \def\TeX{\TeX}%
559 \def\LaTeX{\LaTeX}%
560 \def\LaTeXe{%
561   \LaTeX2%
562   \ifHy@unicode\textepsilon\else e\fi
563 }%
564 \def\eTeX{%
565   \ifHy@unicode\textepsilon\else e\fi
566   -\TeX%
567 }%
568 \def\SliTeX{\SliTeX}%
569 \def\MF{Metafont}%
570 \def\MP{Metapost}%

```

Standard font commands. Because font changes do not work, the standard font switching commands are disabled.

```

571 \let\fontencoding\@gobble
572 \let\fontfamily\@gobble
573 \let\fontseries\@gobble
574 \let\fontshape\@gobble
575 \let\fontsize\@gobbletwo
576 \let\selectfont\@empty
577 \let\usefont\@gobblefour
578 \let\emph\@firstofone
579 \let\textnormal\@firstofone
580 \let\textrm\@firstofone
581 \let\textsf\@firstofone
582 \let\texttt\@firstofone
583 \let\textbf\@firstofone
584 \let\textmd\@firstofone
585 \let\textit\@firstofone
586 \let\textsc\@firstofone
587 \let\textsl\@firstofone
588 \let\textup\@firstofone
589 \let\normalfont\@empty
590 \let\rmfamily\@empty
591 \let\sffamily\@empty
592 \let\ttfamily\@empty
593 \let\bfseries\@empty
594 \let\mdseries\@empty
595 \let\itshape\@empty
596 \let\scshape\@empty
597 \let\slshape\@empty
598 \let\upshape\@empty
599 \let\em\@empty
600 \let\rm\@empty
601 \let\Huge\@empty
602 \let\LARGE\@empty
603 \let\Large\@empty
604 \let\footnotesize\@empty
605 \let\huge\@empty
606 \let\large\@empty
607 \let\normalsize\@empty
608 \let\scriptsize\@empty

```

```

609 \let\small\@empty
610 \let\tiny\@empty
611 \let\mathversion\@gobble
612 \let\phantom\@gobble
613 \let\vphantom\@gobble
614 \let\hphantom\@gobble

```

Environments.

```

615 \def\begin#1{\csname#1\endcsname}%
616 \def\end#1{\csname end#1\endcsname}%

```

Package color.

```

617 \def\textcolor##1##{\@secondoftwo}%

```

Upper- and lowercase.

```

618 \def\MakeUppercase{\MakeUppercaseUnsupportedInPdfStrings}%
619 \def\MakeLowercase{\MakeLowercaseUnsupportedInPdfStrings}%

```

Package babel. Whereever “naturalnames” is used, disable `\textlatin` (from Babel 3.6k). Thanks to Felix Neubauer (Email: Felix.Neubauer@gmx.net).

```

620 \let\foreignlanguage\@secondoftwo
621 \let\textlatin\@firstofone
622 \ltx@ifundefined{language@group}{\}%
623   \csname HyPsd@babel@language@group\endcsname
624 }%
625 \HyPsd@GreekPatch
626 \HyPsd@SpanishPatch
627 \HyPsd@RussianPatch
628 \HyPsd@BabelPatch
629 \let\@safe@activetrue\relax
630 \let\@safe@activesfalse\relax

```

Disable `\cyr`, used in `russianb.ldf`.

```

631 \let\cyr\relax

```

Redefine `\es@roman`, used in `spanish.ldf`.

```

632 \let\es@roman\@Roman

```

Package german.

```

633 \let\glqq\textglqq
634 \let\grqq\textgrqq
635 \let\glq\textglq
636 \let\grq\textgrq
637 \let\flqq\textflqq
638 \let\frqq\textfrqq
639 \let\flq\textflq
640 \let\frq\textfrq

```

Package french. The support is deferred, because it needs `\GenericError` to be disabled (see below).

Package FrenchPro. This package uses:

```
\if@mid@expandable{not fully expandable code}{fully expandable
code}
```

```
641 \let\if@mid@expandable\@firstoftwo
```

AMS classes.

```
642 \HyPsd@AMSclassfix
```

Redefinition of `\hspace` `\hspace` don't work in bookmarks, the following fix tries to set a space if the argument is a positive length.

```
643 \let\hspace\HyPsd@hspace
```

Commands of referencing and indexing systems. Some L^AT_EX commands that are legal in `\section` commands have to be disabled here.

```
644 \let\label\@gobble
645 \let\index\@gobble
646 \let\glossary\@gobble
647 \let\href\HyPsd@href
648 \let\@mkboth\@gobbletwo
```

The `\ref` and `\pageref` is much more complicate because of their star form.

```
649 \let\ref\HyPsd@ref
650 \let\pageref\HyPsd@pageref
651 \let\nameref\HyPsd@nameref
652 \let\autoref\HyPsd@autoref
```

Miscellaneous commands.

```
653 \let\leavevmode\@empty
654 \let\mbox\@empty
```

`\halign` causes error messages because of the template character `#`.

```
655 \def\halign{\pdfstringdefWarn\halign\@gobble}%
656 \let\ignorespaces\HyPsd@ignorespaces
657 \let\Hy@SectionAnchorHref\@gobble
```

Patch for cjk bookmarks.

```
658 \HyPsd@CJKhook
```

User hook. The switch `\Hy@pdfstring` is turned on. So user commands can detect that they are processed not to be typesetted within T_EX's stomach, but to be expanded by the mouth to give a PDF string. At this place before interpreting the string in `#2` additional redefinitions can be added by the hook `\pdfstringdef-PreHook`.

The position in the middle of the redefinitions is a compromise: The user should be able to provide his own (perhaps better) redefinitions, but some commands should have their original meaning, because they can be used in the hook (`\bgroup`, or `\@protected@testopt`, and `\@ifnextchar` for `\renewcommand`).

```
659 \Hy@pdfstringtrue
660 \pdfstringdefPreHook
```


Spaces. For checking the token of the string, spaces must be masked, because they cannot be caught by unlimited arguments.

```
661 \HyPsd@LetUnexpandableSpace\space
662 \HyPsd@LetUnexpandableSpace\ %
663 \HyPsd@LetUnexpandableSpace~%
664 \HyPsd@LetUnexpandableSpace\nobreakspace
```

Package xspace.

```
665 \ltx@ifundefined{@xspace}{%
666 \let\xspace\HyPsd@ITALCORR
667 }{%
668 \let\xspace\HyPsd@XSPACE
669 }%
670 \let\/\HyPsd@ITALCORR
671 \let\bgroup\/%
672 \let\egroup\/%
```

Redefinitions of miscellaneous commands. Hyphenation does not make sense.

```
673 \let\discretionary\@gobbletwo
\@ifstar is defined in LATEX as follows:
```

```
\def\@ifstar#1{\@ifnextchar *{\@firstoftwo{#1}}}
```

\@ifnextchar doesn't work, because it uses stomach commands like \let and \futurelet. But it doesn't break. Whereas \@firstoftwo{#1} gives an error message because \@firstoftwo misses its second argument.

A mimicry of \@ifnextchar only with expandible commands would be very extensive and the result would be only an approximation. So here a cheaper solution follows in order to get rid of the error message at least:

```
674 \def\@ifnextchar{\HyPsd@ifnextchar\@ifnextchar}%
675 \def\kernel@ifnextchar{\HyPsd@ifnextchar\kernel@ifnextchar}%
676 \def\new@ifnextchar{\HyPsd@ifnextchar\new@ifnextchar}%
677 \let\@protected@testopt\HyPsd@protected@testopt
```

Support for package 'xargs':

```
678 \let\@protected@testopt@xargs\HyPsd@protected@testopt
```

6.2.2 Expansion

There are several possibilities to expand tokens within L^AT_EX:

\protected@edef: The weakest form isn't usable, because it does not expand the font encoding commands. They are made robust and protect themselves.

\csname: First the string is expanded within a \csname and \endcsname. Then the command name is converted to characters with catcode 12 by \string and the first escape character removed by \@gobble. This method has the great *advantage* that stomach tokens that aren't allowed in PDF strings are detected by T_EX and reported as errors in order to force the user to write correct things. So he get no wrong results by forgetting the proofreading of his text. But the *disadvantage* is that old wrong code cannot processed without errors. Mainly the error message is very cryptic and for the normal user hard to understand. T_EX provides no way to catch the error caused by \csname or allows to support the user with a descriptive error message.

Therefore the experienced user had to enable this behaviour by an option `exactdef` in previous versions less or equal 6.50.

`\edef` This version uses this standard form for expansion. It is stronger than \LaTeX 's `\protected@edef`. So the font encoding mechanism works and the glyph commands are converted to the correct tokens for PDF strings with the definitions of the PD1 encoding. Because the protecting mechanism of \LaTeX doesn't work within an `\edef`, there are situations thinkable where code can break. For example, assignments and definitions aren't performed and so undefined command errors or argument parsing errors can occur. But this is only a compatibility problem with old texts. Now there are possibilities to write code that gives correct PDF strings (see `\texorpdfstring`). In the most cases unexpandable commands and tokens (math shift, grouping characters) remains. They don't cause an error like with `\csname`. However a PDF reader isn't \TeX , so these tokens are viewed verbatim. So this version detects them now, and removes them with an descriptive warning for the user. As additional features xspace support is possible and grouping characters can be used without problems, because they are removed silently.

Generic messages. While expanding via `\xdef` the `\Generic...` messages don't work and causes problems (error messages, invalid .out file). So they are disabled while expanding and removed silently, because a user warning would be too expensive (memory and runtime, `\pdfstringdef` is slow enough).

```
679 \begingroup
680 \let\GenericError\@gobblefour
681 \let\GenericWarning\@gobbletwo
682 \let\GenericInfo\@gobbletwo
```

Package french. This fix only works, if `\GenericError` is disabled.

```
683 \ifx\nofrenchguillemets\@undefined
684 \else
685 \nofrenchguillemets
686 \fi
```

Definition commands and expansion. Redefining the defining commands (see sec. 6.5.12). The original meaning of `\xdef` is saved in `\Hy@temp`.

```
687 \let\Hy@temp\xdef
688 \let\def\HyPsd@DefCommand
689 \let\gdef\HyPsd@DefCommand
690 \let\edef\HyPsd@DefCommand
691 \let\xdef\HyPsd@DefCommand
692 \let\futurelet\HyPsd@LetCommand
693 \let\let\HyPsd@LetCommand
694 \Hy@temp#1{#2}%
695 \endgroup
```

6.2.3 Postprocessing

If the string is empty time can be saved by omitting the postprocessing process.

```
696 \ifx#1\@empty
697 \else
```

Protecting spaces and removing grouping characters. In order to check the tokens we must separate them. This will be done with \TeX 's argument parsing. With this method we must the following item takes into account, that makes makes things a litte more complicate:

- \TeX does not accept a space as an undelimited argument, it cancels space tokens while looking for an undelimited argument. Therefore we must protect the spaces now.
- An argument can be a single token or a group of many tokens. And within curly braces tokens aren't find by \TeX 's argument scanning process. Third curly braces as grouping characters cannot be expanded further, so they don't vanish by the string expansion above. So these characters with catcode 1 and 2 are removed in the following and replaced by an marker for the xspace support.
- \TeX silently removes the outmost pair of braces of an argument. To prevent this on unwanted places, in the following the character | is appended to the string to make an outer brace to an inner one.

First the top level spaces are protected by replacing. Then the string is scanned to detect token groups. Each token group will now be space protected and again scanned for another token groups.

```

698 \HyPsd@ProtectSpaces#1%
699 \let\HyPsd@String\@empty
700 \expandafter\HyPsd@RemoveBraces\expandafter{#1|}%
701 \global\let#1\HyPsd@String

```

Check tokens. After removing the spaces and the grouping characters the string now should only consists of the following tokens/catcodes:

- 0 command names with start with an escape character.
- 3 math shift
- 4 alignment tabs
- 6 parameter, but this is unlikely.
- 7 superscript
- 8 subscript
- 11 letter
- 12 other
- 13 commands that are active characters.

After `\HyPsd@CheckCatcodes` the command `\HyPsd@RemoveMask` is reused to remove the group protection character |. This character is needed to ensure that the string at least consists of one token if `\HyPsd@CheckCatcodes` is called.

Because of internal local assignments and tabulars group braces are used.

```

702 \let\HyPsd@SPACEOPTI\relax
703 {%
704 \let\HyPsd@String\@empty
705 \expandafter\HyPsd@CheckCatcodes#1\HyPsd@End
706 \global\let#1\HyPsd@String
707 }%
708 \expandafter\HyPsd@RemoveMask\expandafter
709 | \expandafter\@empty#1\HyPsd@End#1%

```

`\HyPsd@CheckCatcodes` should no have removed the tokens with catcode 3, 4, 7, and 8. Because a parameter token (6) would cause to many errors before, there

should now be only tokens with catcodes 11 or 12. So I think there is no need for a safety step like:

```
\xdef#1{\expandafter\strip@prefix\meaning#1}%
```

Looking for wrong glyphs. The case that glyphs aren't defined in the PD1 encoding is caught above in such a way, that the glyph name and a marker is inserted into the string. Now we can safely scan the string for this marker and provide a descriptive warning.

```
710 \expandafter\HyPsd@Subst\expandafter{\HyPsd@GLYPHERR}{\relax}#1%
711 \let\HyPsd@String\@empty
712 \expandafter\HyPsd@GlyphProcess#1\relax\@empty
713 \global\let#1\HyPsd@String
```

Backslash. The double backslash disturbs parsing octal sequences, for example in an string like `abc\\051` the sequence `\051` is detected although the second `\` belongs to the first backslash.

```
714 \HyPsd@StringSubst{\\}{\textbackslash}#1%
```

Spaces. All spaces have already the form `\040`. The last postprocessing step will be an optimizing of the spaces, so we already introduce already the necessary command `\HyPsd@SPACEOPTI`. But first it is defined to be `\relax` in order to prevent a too early expansion by an `\edef`. Secondly a `\relax` serves as a marker for a token that is detected by `\xspace`.

The code of `frenchb.ldf` can produce an additional space before `\guillemotright`, because `\lastskip` and `\unskip` do not work. Therefore it is removed here.

```
715 \ifHy@unicode
716 \expandafter\HyPsd@StringSubst\csname 80\040\endcsname
717 \HyPsd@SPACEOPTI#1%
718 \edef\Hy@temp@A{\HyPsd@SPACEOPTI\HyPsd@SPACEOPTI\80\273}%
719 \expandafter\HyPsd@Subst\expandafter{\Hy@temp@A}%
720 {\HyPsd@SPACEOPTI\80\273}#1%
721 \else
722 \HyPsd@StringSubst{\040}\HyPsd@SPACEOPTI#1%
723 \expandafter\HyPsd@Subst\expandafter{%
724 \expandafter\HyPsd@SPACEOPTI\expandafter\HyPsd@SPACEOPTI
725 \string\273}\HyPsd@SPACEOPTI\273}#1%
726 \fi
```

Right parenthesis. Also `\xspace` detects a right parenthesis. For the `\xspace` support and the following parenthesis check the different parenthesis notations `)`, `\)`, and `\051` are converted to one type `\)` and before `\HyPsd@empty` with the meaning of `\relax` is introduced for `\xspace`. By redefining to `\@empty` `\HyPsd@empty` can easily removed later.

```
727 \ifHy@unicode
728 \HyPsd@StringSubst{)}{\80\051}#1%
729 \HyPsd@Subst){\80\051}#1%
730 \let\HyPsd@empty\relax
731 \expandafter\HyPsd@StringSubst\csname 80\051\endcsname
732 {\HyPsd@empty\80\051}#1%
733 \else
734 \HyPsd@StringSubst{)}{\051}#1%
735 \HyPsd@Subst){\051}#1%
```

```

736     \let\HyPsd@empty\relax
737     \HyPsd@StringSubst{\051}{\HyPsd@empty\string\)}#1%
738     \fi

```

Support for package `xspace`. `\xspace` looks for the next token and decides if it expands to a space or not. Following tokens prevent its transformation to a space: Beginning and end of group, handled above by replacing by an italic correction, several punctuation marks, a closing parentheses, and several spaces.

Without package `xspace` there are tokens with catcode 11 and 12, `\HyPsd@empty` and `\HyPsd@SPACEOPTI`. With package `xspace` marker for the italic correction `\/` and `\xspace` come with. In the package `xspace` case the two markers are replaced by commands and an `\edef` performs the `\xspace` processing.

In the opposite of the original `\xspace` `\HyPsd@xspace` uses an argument instead of a `\futurelet`, so we have to provide such an argument, if `\HyPsd@xspace` comes last. Because `\HyPsd@Subst` with several equal tokens (`--`) needs a safe last token, in both cases the string gets an additional `\HyPsd@empty`.

```

739     \expandafter\HyPsd@Subst\expandafter{\}/\HyPsd@empty#1%
740     \ltx@ifundefined{@xspace}{%
741     }{%
742     \let\HyPsd@xspace\relax
743     \expandafter\HyPsd@Subst\expandafter
744     {\HyPsd@XSPACE}\HyPsd@xspace#1%
745     \let\HyPsd@xspace\HyPsd@doxspace
746     }%
747     \xdef#1{#1\HyPsd@empty}%

```

Ligatures. \TeX forms ligatures in its stomach, but the PDF strings are treated only by \TeX 's mouth. The `PDFDocEncoding` contains some ligatures, but the current version 3 of the `AcrobatReader` lacks the `fi` and `fl` glyphs, and the Linux version lacks the `emdash` and `endash` glyphs. So the necessary code is provided here, but currently disabled, hoping that version 4 of the `AcrobatReader` is better. To break the ligatures the user can use an empty group, because it leads to an insertion of an `\HyPsd@empty`. If this ligature code will be enabled some day, then the italic correction should also break the ligatures. Currently this occurs only, if package `xspace` is loaded.

Since newer `AcrobatReader` versions now show the `en-` and `emdash` in a correct way (`AR7/Linux`, `AR8/Linux`), the substitution code for them is enabled starting with version 6.78l.

```

748     \HyPsd@Subst{---}\textemdash#1%
749     \HyPsd@Subst{--}\textendash#1%
750 %     \HyPsd@Subst{fi}\textfi#1%
751 %     \HyPsd@Subst{fl}\textfl#1%
752     \HyPsd@Subst{!'}\textexclamdown#1%
753     \HyPsd@Subst{?'}\textquestiondown#1%

```

With the next `\edef` we get rid of the token `\HyPsd@empty`.

```

754     \let\HyPsd@empty\@empty

```

Left parentheses. Left parentheses are now converted to safe forms to avoid problems with unmatched ones (`\(` with `PDFDocEncoding`, the octal sequence with Unicode).

An optimization is possible. Matched parentheses can be replaced by a `()` pair. But this code is removed to save \TeX memory and time.

```

755     \ifHy@unicode

```

```

756 \HyPsd@StringSubst\(\textparenleft#1%
757 \HyPsd@Subst(\textparenleft#1%
758 \else
759 \HyPsd@StringSubst\({\050}#1%
760 \HyPsd@Subst({\050}#1%
761 \HyPsd@StringSubst{\050}{\string\{ }#1%
762 \fi

```

Optimizing spaces. Spaces are often used, but they have a very long form \040. They are converted back to real spaces, but not all, so that no space follows after another. In the bookmark case several spaces are written to the .out file, but if the entries are read back, several spaces are merged to a single one.

With Unicode the spaces are replaced by their octal sequences.

```

763 \ifHy@unicode
764 \edef\HyPsd@SPACEOPTI{\80\040}%
765 \else
766 \let\HyPsd@SPACEOPTI\HyPsd@spaceopti
767 \fi
768 \xdef#1{#1\@empty}%
769 \fi

```

Converting to Unicode. At last the eight bit letters have to be converted to Unicode, the masks \8 and \9 are removed and the Unicode marker is added.

```

770 \endgroup
771 \begingroup
772 \ifHy@unicode
773 \HyPsd@ConvertToUnicode#1%

```

Try conversion back to PDFDocEncoding.

```

774 \ifx\HyPsd@pdfencoding\HyPsd@pdfencoding@auto
775 \ltx@ifundefined{StringEncodingConvertTest}{%
776 }{%
777 \EdefUnescapeString\HyPsd@temp#1%
778 \ifxetex
779 \let\HyPsd@UnescapedString\HyPsd@temp
780 \StringEncodingConvertTest\HyPsd@temp\HyPsd@temp
781 {utf16be}{ascii-print}{%
782 \EdefEscapeString\HyPsd@temp\HyPsd@temp
783 \global\let#1\HyPsd@temp
784 \HyPsd@EscapeTeX#1%
785 \Hy@unicodedefalse
786 }{%
787 \HyPsd@ToBigChars#1%
788 }%
789 \else
790 \StringEncodingConvertTest\HyPsd@temp\HyPsd@temp
791 {utf16be}{pdfdoc}{%
792 \EdefEscapeString\HyPsd@temp\HyPsd@temp
793 \global\let#1\HyPsd@temp
794 \HyPsd@EscapeTeX#1%
795 \Hy@unicodedefalse
796 }{}%
797 \fi
798 }%
799 \fi

```

```

800 \fi
801 \HyPsd@XeTeXBigCharsfalse

```

User hook. The hook `\pdfstringdefPostHook` can be used for the purpose to postprocess the string further.

```

802 \pdfstringdefPostHook#1%
803 \endgroup
804 }

```

`\Hy@pdfstringdef`

```

805 \def\Hy@pdfstringdef#1#2{%
806 \pdfstringdef\Hy@gtemp{#2}%
807 \let#1\Hy@gtemp
808 }

```

6.3 Encodings

6.3.1 XeTeX

```

809 \edef\Hy@temp{\catcode0=\the\catcode0\relax}
810 \catcode\z@=12 %
811 \ifxetex
812 \expandafter\@firstofone
813 \else
814 \let\HyPsd@XeTeXBigCharstrue\@empty
815 \let\HyPsd@XeTeXBigCharsfalse\@empty
816 \expandafter\@gobble
817 \fi
818 {%
819 \newif\ifHyPsd@XeTeXBigChars
820 \def\HyPsd@XeTeXBigCharsfalse{%
821 \global\let\ifHyPsd@XeTeXBigChars\iffalse
822 }%
823 \def\HyPsd@XeTeXBigCharstrue{%
824 \global\let\ifHyPsd@XeTeXBigChars\iftrue
825 }%
826 \def\HyPsd@ToBigChars#1{%
827 \ifHyPsd@XeTeXBigChars
828 \EdefEscapeHex\HyPsd@UnescapedString{%
829 \expandafter\@gobbletwo\HyPsd@UnescapedString
830 }%
831 \begingroup
832 \toks@{}%
833 \escapechar=92\relax
834 \let\x\HyPsd@ToBigChar
835 \expandafter\HyPsd@ToBigChar\HyPsd@UnescapedString
836 \relax\relax\relax\relax\relax\relax\relax
837 \edef\x{%
838 \endgroup
839 \gdef\noexpand#1{\the\toks@}%
840 }%
841 \x
842 \fi
843 }%
844 \def\HyPsd@ToBigChar#1#2#3#4{%
845 \ifx\relax#1\relax
846 \let\x\relax

```

```

847 \else
848 \count@=" #1#2#3#4\relax
849 \let\y\@empty
850 \lccode\z@=\count@
851 \ifnum\count@=40 % (
852 \let\y\@backslashchar
853 \else
854 \ifnum\count@=41 % )
855 \let\y\@backslashchar
856 \else
857 \ifnum\count@=92 % backslash
858 \let\y\@backslashchar
859 \else
860 \ifnum\count@=10 % newline
861 \edef\y##1{\string\n}%
862 \else
863 \ifnum\count@=13 % carriage return
864 \edef\y##1{\string\r}%
865 \fi
866 \fi
867 \fi
868 \fi
869 \fi
870 \lowercase{%
871 \toks@\expandafter{%
872 \the\expandafter\toks@
873 \y
874 ^^@%
875 }%
876 }%
877 \fi
878 \x
879 }%
880 }
881 \Hy@temp

```

6.3.2 Workaround for package linguex

```

882 \@ifpackageloaded{linguex}{%
883 \let\HyLinguex@OrgB\b
884 \let\HyLinguex@OrgC\c
885 \let\HyLinguex@OrgD\d
886 \def\HyLinguex@Restore{%
887 \let\b\HyLinguex@OrgB
888 \let\c\HyLinguex@OrgC
889 \let\d\HyLinguex@OrgD
890 }%
891 \Hy@AtEndOfPackage{%
892 \pdfstringdefDisableCommands{%
893 \ltx@ifundefined{oldb}{\let\b\oldb}%
894 \ltx@ifundefined{oldc}{\let\c\oldc}%
895 \ltx@ifundefined{oldd}{\let\d\oldd}%
896 }%
897 }%
898 }{%
899 \let\HyLinguex@Restore\relax
900 }%

```


6.3.3 PD1 encoding

The PD1 encoding implements the PDFDocEncoding for use with L^AT_EX 2_ε's NFSS. Because the informational strings are not set by T_EX's typesetting mechanism but for interpreting by the PDF reader, the glyphs of the PD1 encoding are implemented to be safely written to a file (PDF output file, .out file).

The PD1 encoding can be specified as an option of the 'fontenc' package or loaded here. It does not matter what font family is selected, as T_EX does not process it anyway. So use CM.

```
901 \@ifundefined{T@PD1}{%
902   \input{pd1enc.def}%
903   \HyLinguex@Restore
904 }{}
905 \DeclareFontFamily{PD1}{pdf}{}
906 \DeclareFontShape{PD1}{pdf}{m}{n}{ <-> cmr10 }{}
907 \DeclareFontSubstitution{PD1}{pdf}{m}{n}
```

6.3.4 PU encoding

The PU encoding implements the Unicode encoding for use with L^AT_EX's NFSS. Because of large memory requirements the encoding file for Unicode support is only loaded, if option `unicode` is specified as package option.

`\HyPsd@InitUnicode` Because the file `puenc.def` takes a lot of memory, the loading is defined in the macro `\HyPsd@InitUnicode` called by the package option `unicode`.

```
908 \def\HyPsd@InitUnicode{%
909   \@ifundefined{T@PU}{%
910     \input{puenc.def}%
911     \HyLinguex@Restore
912   }{}%
913   \DeclareFontFamily{PU}{pdf}{}%
914   \DeclareFontShape{PU}{pdf}{m}{n}{ <-> cmr10 }{}%
915   \DeclareFontSubstitution{PU}{pdf}{m}{n}%
916   \let\HyPsd@InitUnicode\relax
917 }
```

6.4 Additional user commands

6.4.1 \texorpdfstring

`\texorpdfstring` While expanding the string in `\pdfstringdef` the switch `\ifHy@pdfstring` is set. This is used by the full expandible macro `\texorpdfstring`. It expects two arguments, the first contains the string that will be set and processed by T_EX's stomach, the second contains the replacement for PDF strings.

```
918 \def\texorpdfstring{%
919   \ifHy@pdfstring
920     \expandafter\@secondoftwo
921   \else
922     \expandafter\@firstoftwo
923   \fi
924 }
```

6.4.2 Hooks for \pdfstringdef

`\pdfstringdefPreHook` Default definition of the hooks for `\pdfstringdef`. The construct `\@ifundefined`
`\pdfstringdefPostHook` with `\let` is a little bit faster than `\providecommand`.

```

925 \@ifundefined{pdfstringdefPreHook}{%
926   \let\pdfstringdefPreHook\@empty
927 }{}
928 \@ifundefined{pdfstringdefPostHook}{%
929   \let\pdfstringdefPostHook\@gobble
930 }{}

```

`\pdfstringdefDisableCommands` In `\pdfstringdefPreHook` the user can add code that is executed before the string, that have to be converted by `\pdfstringdef`, is expanded. So replacements for problematic macros can be given. The code in `\pdfstringdefPreHook` should not be replaced perhaps by an `\renewcommand`, because a previous meaning gets lost.

Macro `\pdfstringdefDisableCommands` avoids this, because it reuses the old meaning of the hook and appends the new code to `\pdfstringdefPreHook`, e.g.:

```

\pdfstringdefDisableCommands{%
  \let~\textasciitilde
  \def\url{\pdfstringdefWarn\url}%
  \let\textcolor\@gobble
}%

```

In the argument of `\pdfstringdefDisableCommands` the character `@` can be used in command names. So it is easy to use useful L^AT_EX commands like `\@gobble` or `\@firstofone`.

```

931 \def\pdfstringdefDisableCommands{%
932   \begingroup
933   \makeatletter
934   \HyPsd@DisableCommands
935 }

```

`\HyPsd@DisableCommands`

```

936 \long\def\HyPsd@DisableCommands#1{%
937   \ltx@GlobalAppendToMacro\pdfstringdefPreHook{#1}%
938   \endgroup
939 }

```

`\pdfstringdefWarn` The purpose of `\pdfstringdefWarn` is to produce a warning message, so the user can see, that something can go wrong with the conversion to PDF strings.

The prefix `\<>-` is added to the token. `\noexpand` protects the probably undefined one during the first expansion step. Then `\HyPsd@CheckCatcodes` can detect the not allowed token, `\HyPsd@CatcodeWarning` prints a warning message, after `\HyPsd@RemovePrefix` has removed the prefix.

`\pdfstringdefWarn` is intended for document authors or package writers, examples for use can be seen in the definition of `\HyPsd@ifnextchar` or `\HyPsd@protected@testopt`.

```

940 \def\pdfstringdefWarn#1{%
941   \expandafter\noexpand\csname<>-string#1\endcsname
942 }

```

6.5 Help macros for expansion

6.5.1 `\ignorespaces`

`\HyPsd@ignorespaces` With the help of a trick using `\romannumeral` the effect of `\ignorespaces` can be simulated a little, In a special case using an alphabetic constant `\romannumeral` eats an optional space. If the constant is zero, then the `\romannumeral` expression

vanishes. The following macro uses this trick twice, thus `\HyPsd@ignorespaces` eats up to two following spaces.

```

943 \begingroup
944 \catcode0=12 %
945 \def\x{\endgroup
946   \def\HyPsd@ignorespaces{%
947     \romannumeral\expandafter'\expandafter^^@%
948     \romannumeral'^^@%
949   }%
950 }%
951 \x

```

6.5.2 Babel languages

Since version 2008/03/16 v3.8j babel uses inside `\AtBeginDocument`:

```

\pdfstringdefDisableCommands{%
  \languageshorthands{system}%
}

```

As consequence the shorthands are shown in the bookmarks, not its result. Therefore `\languageshorthands` is disabled before the user hook. If there is a need to use the command, then `\HyOrg@languageshorthands` can be used inside `\pdfstringdefDisableCommands`.

```

952 \def\HyPsd@BabelPatch{%
953   \let\HyOrg@languageshorthands\languageshorthands
954   \let\languageshorthands\HyPsd@LanguageShorthands
955 }
956 \begingroup\expandafter\expandafter\expandafter\endgroup
957 \expandafter\ifx\csname pdf@strcmp\endcsname\relax
958   \let\HyPsd@langshort@system\@empty
959   \def\HyPsd@LanguageShorthands#1{%
960     \expandafter\ifx\csname HyPsd@langshort@#1\endcsname
961       \HyPsd@langshort@system
962     \expandafter\@gobble
963   \else
964     \expandafter\@firstofone
965   \fi
966   {%
967     \HyOrg@languageshorthands{#1}%
968   }%
969 }%
970 \else
971   \def\HyPsd@LanguageShorthands#1{%
972     \ifnum\pdf@strcmp{#1}{system}=\z@
973       \expandafter\@gobble
974     \else
975       \expandafter\@firstofone
976     \fi
977     {%
978       \HyOrg@languageshorthands{#1}%
979     }%
980   }%
981 \fi
982 \def\Hy@temp{%
983   \@ifpackageloaded{babel}{%
984     \@ifpackagelater{babel}{2008/03/16}{%

```

```

985 \let\Hy@temp\@empty
986 }{%
987 \def\HyPsd@BabelPatch{%
988 \let\HyOrg@languageshorthands\languageshorthands
989 }%
990 }%
991 }{}%
992 }
993 \Hy@temp
994 \expandafter\Hy@AtBeginDocument\expandafter{\Hy@temp}
995 \newif\ifHy@next

Nothing to do for english.

996 \ltx@ifundefined{danish@sh@}{}{}%
997 \def\HyPsd@babel@danish{%
998 \declare@shorthand{danish}{"}|{}%
999 \declare@shorthand{danish}{"}~{}-{}%
1000 }%
1001 }
1002 \ltx@ifundefined{dutch@sh@}{}{}%
1003 \def\HyPsd@babel@dutch{%
1004 \declare@shorthand{dutch}{"}|{}%
1005 \declare@shorthand{dutch}{"}~{}-{}%
1006 }%
1007 }
1008 \ltx@ifundefined{finnish@sh@}{}{}%
1009 \def\HyPsd@babel@finnish{%
1010 \declare@shorthand{finnish}{"}|{}%
1011 }%
1012 }
1013 \ltx@ifundefined{french@sh@}{}{}%
1014 \def\HyPsd@babel@frenchb{%
1015 \def\guill@spacing{ }%
1016 }%
1017 }
1018 \ltx@ifundefined{german@sh@}{}{}%
1019 \def\HyPsd@babel@german{%
1020 \declare@shorthand{german}{"}f{}f{}%
1021 \declare@shorthand{german}{"}|{}%
1022 \declare@shorthand{german}{"}~{}-{}%
1023 }%
1024 }
1025 \ltx@ifundefined{macedonian@sh@}{}{}%
1026 \def\HyPsd@babel@macedonian{%
1027 \declare@shorthand{macedonian}{"}|{}%
1028 \declare@shorthand{macedonian}{"}~{}-{}%
1029 }%
1030 }{}
1031 \ltx@ifundefined{ngerman@sh@}{}{}%
1032 \def\HyPsd@babel@ngerman{%
1033 \declare@shorthand{ngerman}{"}|{}%
1034 \declare@shorthand{ngerman}{"}~{}-{}%
1035 }%
1036 }
1037 \ltx@ifundefined{portuges@sh@}{}{}%
1038 \def\HyPsd@babel@portuges{%
1039 \declare@shorthand{portuges}{"}|{}%

```

```

1040 }%
1041 }
1042 \ltx@ifundefined{russian@sh@}{}{}%
1043 \def\HyPsd@babel@russian{%
1044   \declare@shorthand{russian}{"}|{}{}%
1045   \declare@shorthand{russian}{"}~{}{}%
1046 }%
1047 }
1048 \ltx@ifundefined{slovene@sh@}{}{}%
1049 \def\HyPsd@babel@slovene{%
1050   \declare@shorthand{slovene}{"}|{}{}%
1051 }%
1052 }

Nested quoting environments are not supported (<<, >>).
1053 \ltx@ifundefined{spanish@sh@>}{}{}%
1054 \def\HyPsd@babel@spanish{%
1055   \declare@shorthand{spanish}{<<}{\guillemotleft}%
1056   \declare@shorthand{spanish}{>>}{\guillemotright}%
1057   \declare@shorthand{spanish}{"}=}{-}%
1058   \declare@shorthand{spanish}{"}~}{-}%
1059   \declare@shorthand{spanish}{"}!}{\textexclamdown}%
1060   \declare@shorthand{spanish}{"}?}{\textquestiondown}%
1061 }%
1062 }
1063 \ltx@ifundefined{swedish@sh@}{}{}%
1064 \def\HyPsd@babel@swedish{%
1065   \declare@shorthand{swedish}{"}|{}{}%
1066   \declare@shorthand{swedish}{"}~{}{}%
1067 }%
1068 }
1069 \ltx@ifundefined{ukrainian@sh@}{}{}%
1070 \def\HyPsd@babel@ukrainian{%
1071   \declare@shorthand{ukrainian}{"}|{}{}%
1072   \declare@shorthand{ukrainian}{"}~{}{}%
1073 }%
1074 }
1075 \ltx@ifundefined{usorbian@sh@}{}{}%
1076 \def\HyPsd@babel@usorbian{%
1077   \declare@shorthand{usorbian}{"}f}{f}%
1078   \declare@shorthand{usorbian}{"}|{}{}%
1079 }%
1080 }
1081 \ltx@ifundefined{greek@sh@\string~}{}{}%
1082 \let\HyPsd@GreekPatch\@empty
1083 }{}%
1084 \def\HyPsd@GreekPatch{%
1085   \let\greeknumeral\HyPsd@greeknumeral
1086   \let\Greeknumeral\HyPsd@Greeknumeral
1087 }%
1088 }
1089 \def\HyPsd@greeknumeral#1{%
1090   \HyPsd@GreekNum\@firstoftwo{#1}%
1091 }
1092 \def\HyPsd@Greeknumeral#1{%
1093   \HyPsd@GreekNum\@secondoftwo{#1}%
1094 }
1095 \def\HyPsd@GreekNum#1#2{%

```

```

1096 \ifHy@unicode
1097 \ifnum#2<\@ne
1098 \@arabic{#2}%
1099 \else
1100 \ifnum#2<1000000 %
1101 \HyPsd@@GreekNum#1{#2}%
1102 \else
1103 \@arabic{#2}%
1104 \fi
1105 \fi
1106 \else
1107 \@arabic{#2}%
1108 \fi
1109 }
1110 \def\HyPsd@@GreekNum#1#2{%
1111 \ifnum#2<\@m
1112 \ifnum#2<10 %
1113 \expandafter\HyPsd@GreekNumI
1114 \expandafter\@gobble\expandafter#1\number#2%
1115 \else
1116 \ifnum#2<100 %
1117 \expandafter\HyPsd@GreekNumII
1118 \expandafter\@gobble\expandafter#1\number#2%
1119 \else
1120 \expandafter\HyPsd@GreekNumIII
1121 \expandafter\@gobble\expandafter#1\number#2%
1122 \fi
1123 \fi
1124 \ifnum#2>\z@
1125 \textnumeralsigngreek
1126 \fi
1127 \else
1128 \ifnum#2<\@M
1129 \expandafter\HyPsd@GreekNumIV\expandafter#1\number#2%
1130 \else
1131 \ifnum#2<100000 %
1132 \expandafter\HyPsd@GreekNumV\expandafter#1\number#2%
1133 \else
1134 \expandafter\HyPsd@GreekNumVI\expandafter#1\number#2%
1135 \fi
1136 \fi
1137 \fi
1138 }
1139 \def\HyPsd@GreekNumI#1#2#3{%
1140 #1{%
1141 \ifnum#3>\z@
1142 \textnumeralsignlowergreek
1143 \fi
1144 }%
1145 \expandafter#2%
1146 \ifcase#3 %
1147 {}{}%
1148 \or\textalpha\textAlpha
1149 \or\textbeta\textBeta
1150 \or\textgamma\textGamma
1151 \or\textdelta\textDelta
1152 \or\textepsilon\textEpsilon

```

```

1153 \or\textstigmagreek\textStigmagreek
1154 \or\textzeta\textZeta
1155 \or\texteta\textEta
1156 \or\texttheta\textTheta
1157 \else
1158   {}{}%
1159 \fi
1160 }
1161 \def\HyPsd@GreekNumII#1#2#3#4{%
1162   #1{%
1163     \ifnum#3>\z@
1164       \textnumeralsignlowergreek
1165     \fi
1166   }%
1167   \expandafter#2%
1168   \ifcase#3 %
1169     {}{}%
1170     \or\textiota\textIota
1171     \or\textkappa\textKappa
1172     \or\textlambda\textLambda
1173     \or\textmu\textMu
1174     \or\textnu\textNu
1175     \or\textxi\textXi
1176     \or\textomicron\textOmicron
1177     \or\textpi\textPi
1178     \or\textkoppagreek\textKoppagreek
1179   \else
1180     {}{}%
1181   \fi
1182   \HyPsd@GreekNumI#1#2#4%
1183 }
1184 \def\HyPsd@GreekNumIII#1#2#3#4#5{%
1185   #1{%
1186     \ifnum#3>\z@
1187       \textnumeralsignlowergreek
1188     \fi
1189   }%
1190   \expandafter#2%
1191   \ifcase#3 %
1192     {}{}%
1193     \or\textrho\textRho
1194     \or\textsigma\textSigma
1195     \or\texttau\textTau
1196     \or\textupsilon\textUpsilon
1197     \or\textphi\textPhi
1198     \or\textchi\textChi
1199     \or\textpsi\textPsi
1200     \or\textomega\textOmega
1201     \or\textsampigreek\textSampigreek
1202   \else
1203     {}{}%
1204   \fi
1205   \HyPsd@GreekNumII#1#2#4#5%
1206 }
1207 \def\HyPsd@GreekNumIV#1#2#3#4#5{%
1208   \HyPsd@GreekNumI\@firstofone#1#2%
1209   \HyPsd@@@GreekNum#1{#3#4#5}%

```

```

1210 }
1211 \def\HyPsd@GreekNumV#1#2#3#4#5#6{%
1212   \HyPsd@GreekNumII\@firstofone#1#2#3%
1213   \HyPsd@@@GreekNum#1{#4#5#6}%
1214 }
1215 \def\HyPsd@GreekNumVI#1#2#3#4#5#6#7{%
1216   \HyPsd@GreekNumIII\@firstofone#1#2#3#4%
1217   \HyPsd@@@GreekNum#1{#5#6#7}%
1218 }

1219 \def\HyPsd@SpanishPatch{%
1220   \ltx@ifundefined{es@save@dot}{%
1221     }{%
1222     \let\.\es@save@dot
1223   }%
1224 }

```

Shorthand "- of 'russianb.ldr' is not expandable, therefore it is disabled and replaced by -.

```

1225 \def\HyPsd@RussianPatch{%
1226   \ltx@ifundefined{russian@sh@"@-@}{%
1227     }{%
1228     \@namedef{russian@sh@"@-@}{-}%
1229   }%
1230 }

```

6.5.3 CJK patch

```

1231 \RequirePackage{intcalc}[2007/09/27]

```

\HyPsd@CJKhook

```

1232 \def\HyPsd@CJKhook{%
1233   \ltx@ifpackageloaded{CJK}{%
1234     \let\CJK@kern\relax
1235     \let\CJKkern\relax
1236     \let\CJK@CJK\relax
1237     \ifHy@CJKbookmarks
1238       \HyPsd@CJKhook@bookmarks
1239     \fi
1240     \HyPsd@CJKhook@unicode
1241   }{}%
1242 }

```

6.5.4 CJK bookmarks

\HyPsd@CJKhook Some internal commands of package cjk are redefined to avoid error messages. For a rudimental support of CJK bookmarks the active characters are redefined so that they print themselves.

After preprocessing of Big5 encoded data the following string for a double-byte character is emitted:

```
^^7f<arg1>^^7f<arg2>^^7f
```

<arg1> is the first byte in the range (always > 0x80); <arg2> is the second byte in decimal notation ($\geq 0x40$).

```

1243 \begingroup
1244   \catcode"7F=\active
1245   \toks@{%

```



```

1246 \let\CJK@ignorespaces\empty
1247 \def\CJK@char#1{\@gobbletwo}%
1248 \let\CJK@charx\@gobblefour
1249 \let\CJK@punctchar\@gobblefour
1250 \def\CJK@punctcharx#1{\@gobblefour}%
1251 \catcode"7F=\active
1252 \def^^7f#1^^7f#2^^7f{%
1253   \string #1\HyPsd@DecimalToOctal{#2}%
1254 }%
1255 % ... ?
1256 \ifHy@unicode
1257   \def\Hy@cjku{\80}%
1258   \else
1259     \let\Hy@cjku\@empty
1260   \fi
1261   \HyPsd@CJKActiveChars
1262 }%
1263 \count@=127 %
1264 \@whilenum\count@<255 \do{%
1265   \advance\count@ by 1 %
1266   \lccode'\~=\count@
1267   \lowercase{%
1268     \toks@\expandafter{\the\toks@ ~}%
1269   }%
1270 }%
1271 \toks@\expandafter{\the\toks@ !}%
1272 \xdef\HyPsd@CJKhook@bookmarks{%
1273   \the\toks@
1274 }%
1275 \endgroup

```

`\HyPsd@CJKActiveChars` The macro `\HyPsd@CJKActiveChars` is only defined to limit the memory consumption of `\HyPsd@CJKhook`.

```

1276 \def\HyPsd@CJKActiveChars#1{%
1277   \ifx#1!%
1278     \let\HyPsd@CJKActiveChars\relax
1279   \else
1280     \edef#1{\noexpand\Hy@cjku\string#1}%
1281   \fi
1282   \HyPsd@CJKActiveChars
1283 }

```

`\HyPsd@DecimalToOctal` A character, given by the decimal number is converted to a PDF character.

```

1284 \def\HyPsd@DecimalToOctal#1{%
1285   \ifcase #1 %
1286     \000\or \001\or \002\or \003\or \004\or \005\or \006\or \007%
1287     \or \010\or \011\or \012\or \013\or \014\or \015\or \016\or \017%
1288     \or \020\or \021\or \022\or \023\or \024\or \025\or \026\or \027%
1289     \or \030\or \031\or \032\or \033\or \034\or \035\or \036\or \037%
1290     \or \040\or \041\or \042\or \043\or \044\or \045\or \046\or \047%
1291     \or \050\or \051\or \052\or \053\or \054\or \055\or \056\or \057%
1292     \or 0\or 1\or 2\or 3\or 4\or 5\or 6\or 7%
1293     \or 8\or 9\or \072\or \073\or \074\or \075\or \076\or \077%
1294     \or @\or A\or B\or C\or D\or E\or F\or G%
1295     \or H\or I\or J\or K\or L\or M\or N\or O%
1296     \or P\or Q\or R\or S\or T\or U\or V\or W%
1297     \or X\or Y\or Z\or \133\or \134\or \135\or \136\or \137%

```

```

1298 \or \140\or a\or b\or c\or d\or e\or f\or g%
1299 \or h\or i\or j\or k\or l\or m\or n\or o%
1300 \or p\or q\or r\or s\or t\or u\or v\or w%
1301 \or x\or y\or z\or \173\or \174\or \175\or \176\or \177%
1302 \or \200\or \201\or \202\or \203\or \204\or \205\or \206\or \207%
1303 \or \210\or \211\or \212\or \213\or \214\or \215\or \216\or \217%
1304 \or \220\or \221\or \222\or \223\or \224\or \225\or \226\or \227%
1305 \or \230\or \231\or \232\or \233\or \234\or \235\or \236\or \237%
1306 \or \240\or \241\or \242\or \243\or \244\or \245\or \246\or \247%
1307 \or \250\or \251\or \252\or \253\or \254\or \255\or \256\or \257%
1308 \or \260\or \261\or \262\or \263\or \264\or \265\or \266\or \267%
1309 \or \270\or \271\or \272\or \273\or \274\or \275\or \276\or \277%
1310 \or \300\or \301\or \302\or \303\or \304\or \305\or \306\or \307%
1311 \or \310\or \311\or \312\or \313\or \314\or \315\or \316\or \317%
1312 \or \320\or \321\or \322\or \323\or \324\or \325\or \326\or \327%
1313 \or \330\or \331\or \332\or \333\or \334\or \335\or \336\or \337%
1314 \or \340\or \341\or \342\or \343\or \344\or \345\or \346\or \347%
1315 \or \350\or \351\or \352\or \353\or \354\or \355\or \356\or \357%
1316 \or \360\or \361\or \362\or \363\or \364\or \365\or \366\or \367%
1317 \or \370\or \371\or \372\or \373\or \374\or \375\or \376\or \377%
1318 \fi
1319 }

```

6.5.5 CJK unicode

\HyPsd@CJKhook@unicode

```

1320 \def\HyPsd@CJKhook@unicode{%
1321 \let\Unicode\HyPsd@CJK@Unicode
1322 \let\CJKnumber\HyPsd@CJKnumber
1323 \let\CJKdigits\HyPsd@CJKdigits
1324 }

```

\HyPsd@CJK@Unicode

```

1325 \def\HyPsd@CJK@Unicode#1#2{%
1326 \ifnum#1<256 %
1327 \HyPsd@DecimalToOctalFirst{#1}%
1328 \HyPsd@DecimalToOctalSecond{#2}%
1329 \else
1330 \933%
1331 \expandafter\expandafter\expandafter\HyPsd@HighA
1332 \intcalcDiv{#1}{4}!%
1333 \933%
1334 \ifcase\intcalcMod{#1}{4} %
1335 4\or 5\or 6\or 7%
1336 \fi
1337 \HyPsd@DecimalToOctalSecond{#2}%
1338 \fi
1339 }

1340 \def\HyPsd@HighA#1!{%
1341 \expandafter\expandafter\expandafter\HyPsd@HighB
1342 \IntCalcDiv#1!64!!%
1343 \expandafter\expandafter\expandafter\HyPsd@HighD
1344 \IntCalcMod#1!64!!%
1345 }
1346 \def\HyPsd@HighB#1!{%
1347 \expandafter\expandafter\expandafter\HyPsd@HighC

```

```

1348 \IntCalcDec#1!!%
1349 }
1350 \def\HyPsd@HighC#1!{%
1351 \IntCalcDiv#1!4!%
1352 \@backslashchar
1353 \IntCalcMod#1!4!%
1354 }
1355 \def\HyPsd@HighD#1!{%
1356 \ifcase\IntCalcDiv#1!8! %
1357 0\or 1\or 2\or 3\or 4\or 5\or 6\or 7%
1358 \fi
1359 \ifcase\IntCalcMod#1!8! %
1360 0\or 1\or 2\or 3\or 4\or 5\or 6\or 7%
1361 \fi
1362 }
1363 \def\HyPsd@DecimalToOctalFirst#1{%
1364 \9%
1365 \ifcase#1 %
1366 000\or 001\or 002\or 003\or 004\or 005\or 006\or 007%
1367 \or 010\or 011\or 012\or 013\or 014\or 015\or 016\or 017%
1368 \or 020\or 021\or 022\or 023\or 024\or 025\or 026\or 027%
1369 \or 030\or 031\or 032\or 033\or 034\or 035\or 036\or 037%
1370 \or 040\or 041\or 042\or 043\or 044\or 045\or 046\or 047%
1371 \or 050\or 051\or 052\or 053\or 054\or 055\or 056\or 057%
1372 \or 060\or 061\or 062\or 063\or 064\or 065\or 066\or 067%
1373 \or 070\or 071\or 072\or 073\or 074\or 075\or 076\or 077%
1374 \or 100\or 101\or 102\or 103\or 104\or 105\or 106\or 107%
1375 \or 120\or 111\or 112\or 113\or 114\or 115\or 116\or 117%
1376 \or 120\or 121\or 122\or 123\or 124\or 125\or 126\or 127%
1377 \or 130\or 131\or 132\or 133\or 134\or 135\or 136\or 137%
1378 \or 140\or 141\or 142\or 143\or 144\or 145\or 146\or 147%
1379 \or 150\or 151\or 152\or 153\or 154\or 155\or 156\or 157%
1380 \or 160\or 161\or 162\or 163\or 164\or 165\or 166\or 167%
1381 \or 170\or 171\or 172\or 173\or 174\or 175\or 176\or 177%
1382 \or 200\or 201\or 202\or 203\or 204\or 205\or 206\or 207%
1383 \or 210\or 211\or 212\or 213\or 214\or 215\or 216\or 217%
1384 \or 220\or 221\or 222\or 223\or 224\or 225\or 226\or 227%
1385 \or 230\or 231\or 232\or 233\or 234\or 235\or 236\or 237%
1386 \or 240\or 241\or 242\or 243\or 244\or 245\or 246\or 247%
1387 \or 250\or 251\or 252\or 253\or 254\or 255\or 256\or 257%
1388 \or 260\or 261\or 262\or 263\or 264\or 265\or 266\or 267%
1389 \or 270\or 271\or 272\or 273\or 274\or 275\or 276\or 277%
1390 \or 300\or 301\or 302\or 303\or 304\or 305\or 306\or 307%
1391 \or 310\or 311\or 312\or 313\or 314\or 315\or 316\or 317%
1392 \or 320\or 321\or 322\or 323\or 324\or 325\or 326\or 327%
1393 \or 330\or 331\or 332\or 333\or 334\or 335\or 336\or 337%
1394 \or 340\or 341\or 342\or 343\or 344\or 345\or 346\or 347%
1395 \or 350\or 351\or 352\or 353\or 354\or 355\or 356\or 357%
1396 \or 360\or 361\or 362\or 363\or 364\or 365\or 366\or 367%
1397 \or 370\or 371\or 372\or 373\or 374\or 375\or 376\or 377%
1398 \fi
1399 }
1400 \def\HyPsd@DecimalToOctalSecond#1{%
1401 \ifcase #1 %
1402 \000\or \001\or \002\or \003\or \004\or \005\or \006\or \007%
1403 \or \010\or \011\or \012\or \013\or \014\or \015\or \016\or \017%
1404 \or \020\or \021\or \022\or \023\or \024\or \025\or \026\or \027%

```

```

1405 \or \030\or \031\or \032\or \033\or \034\or \035\or \036\or \037%
1406 \or \040\or \041\or \042\or \043\or \044\or \045\or \046\or \047%
1407 \or \050\or \051\or \052\or \053\or \054\or \055\or \056\or \057%
1408 \or \060\or \061\or \062\or \063\or \064\or \065\or \066\or \067%
1409 \or \070\or \071\or \072\or \073\or \074\or \075\or \076\or \077%
1410 \or \100\or \101\or \102\or \103\or \104\or \105\or \106\or \107%
1411 \or \110\or \111\or \112\or \113\or \114\or \115\or \116\or \117%
1412 \or \120\or \121\or \122\or \123\or \124\or \125\or \126\or \127%
1413 \or \130\or \131\or \132\or \133\or \134\or \135\or \136\or \137%
1414 \or \140\or \141\or \142\or \143\or \144\or \145\or \146\or \147%
1415 \or \150\or \151\or \152\or \153\or \154\or \155\or \156\or \157%
1416 \or \160\or \161\or \162\or \163\or \164\or \165\or \166\or \167%
1417 \or \170\or \171\or \172\or \173\or \174\or \175\or \176\or \177%
1418 \or \200\or \201\or \202\or \203\or \204\or \205\or \206\or \207%
1419 \or \210\or \211\or \212\or \213\or \214\or \215\or \216\or \217%
1420 \or \220\or \221\or \222\or \223\or \224\or \225\or \226\or \227%
1421 \or \230\or \231\or \232\or \233\or \234\or \235\or \236\or \237%
1422 \or \240\or \241\or \242\or \243\or \244\or \245\or \246\or \247%
1423 \or \250\or \251\or \252\or \253\or \254\or \255\or \256\or \257%
1424 \or \260\or \261\or \262\or \263\or \264\or \265\or \266\or \267%
1425 \or \270\or \271\or \272\or \273\or \274\or \275\or \276\or \277%
1426 \or \300\or \301\or \302\or \303\or \304\or \305\or \306\or \307%
1427 \or \310\or \311\or \312\or \313\or \314\or \315\or \316\or \317%
1428 \or \320\or \321\or \322\or \323\or \324\or \325\or \326\or \327%
1429 \or \330\or \331\or \332\or \333\or \334\or \335\or \336\or \337%
1430 \or \340\or \341\or \342\or \343\or \344\or \345\or \346\or \347%
1431 \or \350\or \351\or \352\or \353\or \354\or \355\or \356\or \357%
1432 \or \360\or \361\or \362\or \363\or \364\or \365\or \366\or \367%
1433 \or \370\or \371\or \372\or \373\or \374\or \375\or \376\or \377%
1434 \fi
1435 }

1436 \def\HyPsd@CJKnumber#1{%
1437 \ifnum#1<\z@
1438 \CJK@minus
1439 \expandafter\HyPsd@@CJKnumber\expandafter{\number-\number#1}%
1440 \else
1441 \expandafter\HyPsd@@CJKnumber\expandafter{\number#1}%
1442 \fi
1443 }

1444 \def\HyPsd@@CJKnumber#1{%
1445 \ifcase#1 %
1446 \CJK@zero\or\CJK@one\or\CJK@two\or\CJK@three\or\CJK@four\or
1447 \CJK@five\or\CJK@six\or\CJK@seven\or\CJK@eight\or\CJK@nine\or
1448 \CJK@ten\or\CJK@ten\CJK@one\or\CJK@ten\CJK@two\or
1449 \CJK@ten\CJK@three\or\CJK@ten\CJK@four\or\CJK@ten\CJK@five\or
1450 \CJK@ten\CJK@six\or\CJK@ten\CJK@seven\or\CJK@ten\CJK@eight\or
1451 \CJK@ten\CJK@nine
1452 \else
1453 \ifnum#1<10000 %
1454 \HyPsd@CJKnumberFour#1!\@empty{20}%
1455 \@empty
1456 \else
1457 \ifnum#1<100000000 %
1458 \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1459 \IntCalcDiv#1!10000!%
1460 !{ }{20}%
1461 \CJK@tenthousand

```

```

1462     \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1463     \IntCalcMod#1!10000!%
1464     !\CJK@zero{10}%
1465     \@empty
1466   \else
1467     \expandafter\HyPsd@CJKnumberLarge
1468     \number\IntCalcDiv#1!100000000!\expandafter!%
1469     \number\IntCalcMod#1!100000000!!%
1470   \fi
1471 \fi
1472 \fi
1473 }
1474 \def\HyPsd@CJKnumberLarge#1!#2!{%
1475   \HyPsd@CJKnumberFour#1!{ }{20}%
1476   \CJK@hundredmillion
1477   \ifnum#2=\z@
1478   \else
1479     \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1480     \IntCalcDiv#2!10000!%
1481     !\CJK@zero{10}%
1482     \CJK@tenthousand
1483     \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1484     \IntCalcMod#2!10000!%
1485     !\CJK@zero{10}%
1486     \@empty
1487   \fi
1488 }
1489 \def\HyPsd@CJKnumberFour#1!#2#3{%
1490   \ifnum#1=\z@
1491     \expandafter\@gobble
1492   \else
1493     \ifnum#1<1000 %
1494       #2%
1495       \HyPsd@CJKnumberThree#1!{ }{#3}%
1496     \else
1497       \HyPsd@@@CJKnumber{\IntCalcDiv#1!1000!}%
1498       \CJK@thousand
1499       \expandafter\expandafter\expandafter\HyPsd@CJKnumberThree
1500       \IntCalcMod#1!1000!%
1501       !\CJK@zero{10}%
1502     \fi
1503   \fi
1504 }
1505 \def\HyPsd@CJKnumberThree#1!#2#3{%
1506   \ifnum#1=\z@
1507   \else
1508     \ifnum#1<100 %
1509       #2%
1510       \HyPsd@CJKnumberTwo#1!{ }{#3}%
1511     \else
1512       \HyPsd@@@CJKnumber{\IntCalcDiv#1!100!}%
1513       \CJK@hundred
1514       \expandafter\expandafter\expandafter\HyPsd@CJKnumberTwo
1515       \IntCalcMod#1!100!%
1516       !\CJK@zero{10}%
1517     \fi
1518   \fi

```

```

1519 }
1520 \def\HyPsd@CJKnumberTwo#1!#2#3{%
1521   \ifnum#1=\z@
1522   \else
1523     \ifnum#1<#3 %
1524       #2%
1525       \HyPsd@@@CJKnumber{#1}%
1526     \else
1527       \HyPsd@@@CJKnumber{\IntCalcDiv#1!10!}%
1528       \CJK@ten
1529       \ifnum\IntCalcMod#1!10!=\z@
1530       \else
1531         \HyPsd@@@CJKnumber{\IntCalcMod#1!10!}%
1532       \fi
1533     \fi
1534   \fi
1535 }

1536 \def\HyPsd@CJKdigits#1{%
1537   \ifx*#1\relax
1538     \expandafter\HyPsd@@@CJKdigits\expandafter\CJK@zero
1539   \else
1540     \HyPsd@@@CJKdigits\CJK@null{#1}%
1541   \fi
1542 }

1543 \def\HyPsd@@@CJKdigits#1#2{%
1544   \ifx\#2\%
1545   \else
1546     \HyPsd@@@CJKdigits#1#2\@nil
1547   \fi
1548 }%

1549 \def\HyPsd@@@CJKdigits#1#2#3\@nil{%
1550   \HyPsd@CJKdigit#1{#2}%
1551   \ifx\#3\%
1552     \expandafter\@gobble
1553   \else
1554     \expandafter\@firstofone
1555   \fi
1556   {%
1557     \HyPsd@@@CJKdigits#1#3\@nil
1558   }%
1559 }

1560 \def\HyPsd@CJKdigit#1#2{%
1561   \ifcase#2 %
1562     #1\or
1563     \CJK@one\or\CJK@two\or\CJK@three\or\CJK@four\or
1564     \CJK@five\or\CJK@six\or\CJK@seven\or\CJK@eight\or\CJK@nine
1565   \fi
1566 }

```

6.5.6 \@inmathwarn-Patch

`\HyPsd@inmathwarn` The patch of `\@inmathwarn` is needed to get rid of the infinite error loop with glyphs of other encodings (see the explanation above). Potentially the patch is dangerous, if the code in `ltoutenc.dtx` changes. Checked with $\text{\LaTeX} 2_{\epsilon}$ versions [1998/06/01] and [1998/12/01]. I expect that versions below [1995/12/01] don't work.

To understand the patch easier, the original code of `\@current@cmd` and `\@changed@cmd` follows (L^AT_EX 2_ε release [1998/12/01]). In the normal case `\pdfstringdef` is executed in a context where `\protect` has the meaning of `\@typeset-protect` (`=\relax`).

```

\def\@current@cmd#1{%
  \ifx\protect\@typeset@protect
    \@inmathwarn#1%
  \else
    \noexpand#1\expandafter\@gobble
  \fi}
\def\@changed@cmd#1#2{%
  \ifx\protect\@typeset@protect
    \@inmathwarn#1%
    \expandafter\ifx\csname\cf@encoding\string#1\endcsname\relax
      \expandafter\ifx\csname?\string#1\endcsname\relax
        \expandafter\def\csname?\string#1\endcsname{%
          \TextSymbolUnavailable#1%
        }%
      \fi
      \global\expandafter\let
        \csname\cf@encoding\string#1\endcsname\expandafter\endcsname
        \csname?\string#1\endcsname
    \fi
    \csname\cf@encoding\string#1%
    \expandafter\endcsname
  \else
    \noexpand#1%
  \fi}
\gdef\TextSymbolUnavailable#1{%
  \@latex@error{%
    Command \protect#1 unavailable in encoding \cf@encoding%
  }\@eha}
\def\@inmathwarn#1{%
  \ifmmode
    \@latex@warning{Command \protect#1 invalid in math mode}%
  \fi}

1567 \def\HyPsd@inmathwarn#1#2{%
1568   \ifx#2\expandafter
1569     \expandafter\ifx\csname\cf@encoding\string#1\endcsname\relax
1570       \HyPsd@GLYPHERR
1571       \expandafter\@gobble\string#1%
1572       >%
1573       \expandafter\expandafter\expandafter\HyPsd@EndWithElse
1574     \else
1575       \expandafter\expandafter\expandafter\HyPsd@GobbleFiFi
1576     \fi
1577   \else
1578     \expandafter#2%
1579   \fi
1580 }
1581 \def\HyPsd@GobbleFiFi#1\fi#2\fi{%
1582 \def\HyPsd@EndWithElse#1\else\else{
\HyPsd@add@accent

1583 \def\HyPsd@add@accent#1#2{%
1584   \HyPsd@GLYPHERR\expandafter\@gobble\string#1+\string#2>%

```

```

1585  #2%
1586 }%

```

6.5.7 Unexpandable spaces

`\HyPsd@LetUnexpandableSpace` In `\HyPsd@@ProtectSpaces` the space tokens are replaced by not expandable commands, that work like spaces:

- So they can caught by undelimited arguments.
- And they work in number, dimen, and skip assignments.

These properties are used in `\HyPsd@CheckCatcodes`.

```

1587 \def\HyPsd@LetUnexpandableSpace#1{%
1588   \expandafter\futurelet\expandafter#1\expandafter\@gobble\space\relax
1589 }

```

`\HyPsd@UnexpandableSpace` `\HyPsd@UnexpandableSpace` is used in `\HyPsd@@ProtectSpaces`. In `\yPsd@@ProtectSpaces` the space tokens are replaced by unexpandable commands `\HyPsd@UnexpandableSpace`, but that have the effect of spaces.

```

1590 \HyPsd@LetUnexpandableSpace\HyPsd@UnexpandableSpace

```

6.5.8 Marker for commands

`\HyPsd@XSPACE` `\HyPsd@ITALCORR` `\HyPsd@GLYPHERR` Some commands and informations cannot be utilized before the string expansion and the checking process. Command names are filtered out, so we need another way to transport the information: An unusual `#` with catcode 12 marks the beginning of the extra information.

```

1591 \edef\HyPsd@XSPACE{\string#\string X}
1592 \edef\HyPsd@ITALCORR{\string#\string I}
1593 \edef\HyPsd@GLYPHERR{\string#\string G}

```

6.5.9 `\hspace` fix

`\HyPsd@hspace`

```

1594 \def\HyPsd@hspace#1{\HyPsd@@hspace#1*\END}

```

`\HyPsd@@hspace` `\HyPsd@@hspace` checks whether `\hspace` is called in its star form.

```

1595 \def\HyPsd@@hspace#1*##2\END{%
1596   \ifx\##2\%
1597     \HyPsd@hspacetest{#1}%
1598   \else
1599     \expandafter\HyPsd@hspacetest
1600   \fi
1601 }

```

`\HyPsd@hspacetest` `\HyPsd@hspacetest` replaces the `\hspace` by a space, if the length is greater than zero.

```

1602 \def\HyPsd@hspacetest#1{\ifdim#1>\z@\space\fi}

```


6.5.10 Fix for AMS classes

```

1603 \ltx@ifundefined{tocsection}{%
1604   \let\HyPsd@AMSclassfix\relax
1605 }{%
1606   \def\HyPsd@AMSclassfix{%
1607     \let\tocpart\HyPsd@tocsection
1608     \let\tocchapter\HyPsd@tocsection
1609     \let\tocappendix\HyPsd@tocsection
1610     \let\tocsection\HyPsd@tocsection
1611     \let\tocsubsection\HyPsd@tocsection
1612     \let\tocsubsubsection\HyPsd@tocsection
1613     \let\tocparagraph\HyPsd@tocsection
1614   }%
1615   \def\HyPsd@tocsection#1#2#3{%
1616     \if @#2@ \else \if @#1@ \else #1 \fi #2. \fi
1617     #3%
1618   }%
1619 }

```

6.5.11 Reference commands

`\HyPsd@href`

```

1620 \def\HyPsd@href#1#{\@secondoftwo}

```

`\HyPsd@ref` Macro `\HyPsd@ref` calls the macro `\HyPsd@@ref` for star checking. The same methods like in `\HyPsd@hspace` is used.

```

1621 \def\HyPsd@ref#1{\HyPsd@@ref#1*\END}%

```

`\HyPsd@@ref` Macro `\HyPsd@@ref` checks if a star is present.

```

1622 \def\HyPsd@@ref#1*#2\END{%
1623   \ifx\#2\%
1624     \HyPsd@@@ref{#1}%
1625   \else
1626     \expandafter\HyPsd@@@ref
1627   \fi
1628 }%

```

`\HyPsd@@@ref` `\HyPsd@@@ref` does the work and extracts the first argument.

```

1629 \def\HyPsd@@@ref#1{%
1630   \expandafter\ifx\csname r@#1\endcsname\relax
1631     ??%
1632   \else
1633     \expandafter\expandafter\expandafter
1634     \@car\csname r@#1\endcsname\@nil
1635   \fi
1636 }

```

`\HyPsd@pageref` Macro `\HyPsd@pageref` calls the macro `\HyPsd@@pageref` for star checking. The same methods like in `\HyPsd@hspace` is used.

```

1637 \def\HyPsd@pageref#1{\HyPsd@@pageref#1*\END}

```

`\HyPsd@@pageref` Macro `\HyPsd@@pageref` checks if a star is present.

```

1638 \def\HyPsd@@pageref#1*#2\END{%
1639   \ifx\#2\%
1640     \HyPsd@@@pageref{#1}%
1641   \else
1642     \expandafter\HyPsd@@@pageref

```

```

1643 \fi
1644 }

```

`\HyPsd@@@pageref` `\HyPsd@@@pageref` does the work and extracts the second argument.

```

1645 \def\HyPsd@@@pageref#1{%
1646 \expandafter\ifx\csname r@#1\endcsname\relax
1647 ??%
1648 \else
1649 \expandafter\expandafter\expandafter\expandafter
1650 \expandafter\expandafter\expandafter\@car
1651 \expandafter\expandafter\expandafter\@gobble
1652 \csname r@#1\endcsname{}\@nil
1653 \fi
1654 }

```

`\HyPsd@nameref` Macro `\HyPsd@nameref` calls the macro `\HyPsd@@nameref` for star checking. The same methods like in `\HyPsd@hspace` is used.

```

1655 \def\HyPsd@nameref#1{\HyPsd@@nameref#1*\END}

```

`\HyPsd@@nameref` Macro `\HyPsd@@nameref` checks if a star is present.

```

1656 \def\HyPsd@@nameref#1*#2\END{%
1657 \ifx\#2\%
1658 \HyPsd@@@nameref{#1}%
1659 \else
1660 \expandafter\HyPsd@@@nameref
1661 \fi
1662 }

```

`\HyPsd@@@nameref` `\HyPsd@@@nameref` does the work and extracts the third argument.

```

1663 \def\HyPsd@@@nameref#1{%
1664 \expandafter\ifx\csname r@#1\endcsname\relax
1665 ??%
1666 \else
1667 \expandafter\expandafter\expandafter\expandafter
1668 \expandafter\expandafter\expandafter\@car
1669 \expandafter\expandafter\expandafter\@gobbletwo
1670 \csname r@#1\endcsname{}\@nil
1671 \fi
1672 }

```

`\HyPsd@autoref` Macro `\HyPsd@autoref` calls the macro `\HyPsd@@autoref` for star checking. The same methods like in `\HyPsd@hspace` is used.

```

1673 \def\HyPsd@autoref#1{\HyPsd@@autoref#1*\END}

```

`\HyPsd@@autoref` Macro `\HyPsd@@autoref` checks if a star is present.

```

1674 \def\HyPsd@@autoref#1*#2\END{%
1675 \ifx\#2\%
1676 \HyPsd@@@autoref{#1}%
1677 \else
1678 \expandafter\HyPsd@@@autoref
1679 \fi
1680 }

```

`\HyPsd@@@autoref` `\HyPsd@@@autoref` does the work and extracts the second argument.

```

1681 \def\HyPsd@@@autoref#1{%
1682 \expandafter\ifx\csname r@#1\endcsname\relax

```

```

1683   ??%
1684   \else
1685     \expandafter\expandafter\expandafter\HyPsd@autorefname
1686       \csname r@#1\endcsname\}\}\}\@nil
1687     \expandafter\expandafter\expandafter
1688       \@car\csname r@#1\endcsname\@nil
1689   \fi
1690 }

```

`\HyPsd@autorefname` At least a basic definition for getting the `\autoref` name.

```

1691 \def\HyPsd@autorefname#1#2#3#4#5\@nil{%
1692   \ifx\#4\%
1693   \else
1694     \HyPsd@@autorefname#4.\@nil
1695   \fi
1696 }

```

`\HyPsd@@autorefname`

```

1697 \def\HyPsd@@autorefname#1.#2\@nil{%
1698   \ltx@ifundefined{#1autorefname}{%
1699     \ltx@ifundefined{#1name}{%
1700     }{%
1701       \csname#1name\endcsname\space
1702     }%
1703   }{%
1704     \csname#1autorefname\endcsname\space
1705   }%
1706 }

```

6.5.12 Redefining the defining commands

Definitions aren't allowed, because they aren't executed in an only expanding context. So the command to be defined isn't defined and can perhaps be undefined. This would causes TeX to stop with an error message. With a deep trick it is possible to define commands in such a context: `\csname` does the job, it defines the command to be `\relax`, if it has no meaning.

Active characters cannot be defined with this trick. It is possible to define all undefined active characters (perhaps that they have the meaning of `\relax`). To avoid side effects this should be done in `\pdfstringdef` shortly before the `\xdef` job. But checking and defining all possible active characters of the full range (0 until 255) would take a while. `\pdfstringdef` is slow enough, so this isn't done.

`\HyPsd@DefCommand` and `\HyPsd@LetCommand` expands to the commands `\<def>-command` and `\<let>-command` with the meaning of `\def` and `\let`. So it is detected by `\HyPsd@CheckCatcodes` and the command name `\<def>-command` or `\<let>-command` should indicate a forbidden definition command.

The command to be defined is converted to a string and back to a command name with the help of `\csname`. If the command is already defined, `\noexpand` prevents a further expansion, even though the command would expand to legal stuff. If the command don't have the meaning of `\relax`, `\HyPsd@CheckCatcodes` will produce a warning. (The command itself can be legal, but the warning is legitimate because of the position after a defining command.)

The difference between `\HyPsd@DefCommand` and `\HyPsd@LetCommand` is that the first one also cancels this arguments, the parameter and definition text.

The right side of the `\let` commands cannot be canceled with an undelimited parameter because of a possible space token after `\futurelet`.

To avoid unmatched `\if...` tokens, the cases `\let\if...\iftrue` and `\let\if...\iffalse` are checked and ignored.

```
\HyPsd@DefCommand
\HyPsd@LetCommand 1707 \begingroup
1708   \def\x#1#2{%
1709     \endgroup
1710     \let#1\def
1711     \def\HyPsd@DefCommand##1##2###{%
1712       #1%
1713       \expandafter\noexpand
1714       \csname\expandafter\@gobble\string##1\@empty\endcsname
1715       \@gobble
1716     }%
1717     \let#2\let
1718     \def\HyPsd@@LetCommand##1{%
1719       \expandafter\ifx\csname##1\expandafter\endcsname
1720         \csname iftrue\endcsname
1721         \pdfstringdefWarn\let
1722         \expandafter\@gobble
1723       \else
1724         \expandafter\ifx\csname##1\expandafter\endcsname
1725           \csname iffalse\endcsname
1726           \pdfstringdefWarn\let
1727           \expandafter\expandafter\expandafter\@gobble
1728         \else
1729           #2%
1730           \expandafter\noexpand
1731           \csname##1\expandafter\expandafter\expandafter\endcsname
1732         \fi
1733       \fi
1734     }%
1735   }%
1736   \expandafter\x\csname <def>-command\expandafter\endcsname
1737     \csname <let>-command\endcsname
1738   \def\HyPsd@LetCommand#1{%
1739     \expandafter\expandafter\expandafter\HyPsd@@LetCommand
1740     \expandafter\expandafter\expandafter{%
1741       \expandafter\@gobble\string#1\@empty
1742     }%
1743   }
```

6.5.13 `\ifnextchar`

`\HyPsd@ifnextchar` In `\pdfstringdef \@ifnextchar` is disabled via a `\let` command to save time. First a warning message is given, then the three arguments are canceled. `\@ifnextchar` cannot work in a correct manner, because it uses `\futurelet`, but this is a stomach feature, that doesn't work in an expanding context. There are several variants of `\@ifnextchar`:

- `\@ifnextchar`
- `\kernel@ifnextchar`
- `\new@ifnextchar` from package `amsgen.sty` (bug report latex/3662).

```

1744 \def\HyPsd@ifnextchar#1{%
1745   \pdfstringdefWarn#1%
1746   \expandafter\@gobbletwo\@gobble
1747 }

```

6.5.14 \@protected@testoptifnextchar

`\HyPsd@protected@testopt` Macros with optional arguments doesn't work properly, because they call `\@ifnextchar` to detect the optional argument (see the explanation of `\HyPsd@ifnextchar`). But a warning, that `\@ifnextchar` doesn't work, doesn't help the user very much. Therefore `\@protected@testopt` is also disabled, because its first argument is the problematic macro with the optional argument and it is called before `\@ifnextchar`.

```

1748 \def\HyPsd@protected@testopt#1{%
1749   \pdfstringdefWarn#1%
1750   \@gobbletwo
1751 }

```

6.6 Help macros for postprocessing

6.6.1 Generic warning.

`\HyPsd@Warning` For several reasons `\space` is masked and does not have its normal meaning. But it is used in warning messages, so it is redefined locally:

```

1752 \def\HyPsd@Warning#1{%
1753   \begingroup
1754   \let\space\ltx@space
1755   \Hy@Warning{#1}%
1756   \endgroup
1757 }

```

6.6.2 Protecting spaces

```

1758 \RequirePackage{etexcmds}[2007/09/09]
1759 \ifetex@unexpanded
1760   \expandafter\@secondoftwo
1761 \else
1762   \expandafter\@firstoftwo
1763 \fi
1764 {%

```

`\HyPsd@ProtectSpaces` `\HyPsd@ProtectSpaces` calls with the expanded string `\HyPsd@@ProtectSpacesFi`. The expanded string is protected by `|` at the beginning and end of the expanded string. Because of this there can be no group at the beginning or end of the string and grouping characters are not removed by the call of `\HyPsd@@ProtectSpacesFi`.

```

1765   \def\HyPsd@ProtectSpaces#1{%
1766     \iftrue
1767       \expandafter\HyPsd@@ProtectSpacesFi
1768       \expandafter|\expandafter\@empty#1| \HyPsd@End#1%
1769     \fi
1770   }%

```

`\HyPsd@@ProtectSpacesFi` The string can contain command tokens, so it is better to use an `\def` instead of an `\edef`.

```

1771   \def\HyPsd@@ProtectSpacesFi#1 #2\HyPsd@End#3\fi{%

```

```

1772 \fi
1773 \ifx\scrollmode#2\scrollmode
1774 \HyPsd@RemoveMask#1\HyPsd@End#3%
1775 \else
1776 \gdef#3{#1\HyPsd@UnexpandableSpace#2}%
1777 \expandafter\HyPsd@@ProtectSpacesFi#3\HyPsd@End#3%
1778 \fi
1779 }%

```

Remove mask.

`\HyPsd@RemoveMask` `\HyPsd@RemoveMask` removes the protecting `|`. It is used by `\HyPsd@@ProtectSpacesFi` and by the code in `\pdfstringdef` that removes the grouping characters.

```

1780 \def\HyPsd@RemoveMask|#1|\HyPsd@End#2{%
1781 \toks@{\expandafter{#1}}%
1782 \xdef#2{\the\toks@}%
1783 }%

1784 }{%
1785 \let\HyPsd@fi\fi
1786 \def\HyPsd@ProtectSpaces#1{%
1787 \xdef#1{%
1788 \iftrue
1789 \expandafter\HyPsd@@ProtectSpacesFi
1790 \expandafter|\expandafter\@empty#1| %
1791 \HyPsd@fi
1792 }%
1793 \expandafter\HyPsd@RemoveMask#1\HyPsd@End#1%
1794 }%
1795 \def\HyPsd@@ProtectSpacesFi#1 #2\HyPsd@fi{%
1796 \fi
1797 \etex@unexpanded{#1}%
1798 \ifx\scrollmode#2\scrollmode
1799 \else
1800 \HyPsd@@ProtectSpacesFi\HyPsd@UnexpandableSpace#2%
1801 \HyPsd@fi
1802 }%
1803 \def\HyPsd@RemoveMask|#1|\HyPsd@End#2{%
1804 \xdef#2{\etex@unexpanded\expandafter{#1}}%
1805 }%
1806 }

```

6.6.3 Remove grouping braces

`\HyPsd@RemoveBraces` `#1` contains the expanded string, the result will be locally written in command `\HyPsd@String`.

```

1807 \def\HyPsd@RemoveBraces#1{%
1808 \ifx\scrollmode#1\scrollmode
1809 \else
1810 \HyPsd@@RemoveBracesFi#1\HyPsd@End{#1}%
1811 \fi
1812 }

```

`\HyPsd@@RemoveBraces` `\HyPsd@@RemoveBraces` is called with the expanded string, the end marked by `\HyPsd@End`, the expanded string again, but enclosed in braces and the string command. The first expanded string is scanned by the parameter text `#1#2`. By

a comparison with the original form in `#3` we can decide whether `#1` is a single token or a group. To avoid the case that `#2` is a group, the string is extended by a `|` before.

While removing the grouping braces an italic correction marker is inserted for supporting package `xspace` and letting ligatures broken.

Because the string is already expanded, the `\if` commands should disappeared. So we can move some parts out of the argument of `\ltx@ReturnAfterFi`.

```

1813 \def\HyPsd@@RemoveBracesFi#1#2\HyPsd@End#3\fi{%
1814   \fi
1815   \def\Hy@temp@A{#1#2}%
1816   \def\Hy@temp@B{#3}%
1817   \ifx\Hy@temp@A\Hy@temp@B
1818     \expandafter\def\expandafter\HyPsd@String\expandafter{%
1819       \HyPsd@String#1%
1820     }%
1821     \ifx\scrollmode#2\scrollmode
1822     \else
1823       \Hy@ReturnAfterFiFiEnd{%
1824         \HyPsd@RemoveBraces{#2}%
1825       }%
1826     \fi
1827   \else
1828     \def\Hy@temp@A{#1}%
1829     \HyPsd@AppendItalcrr\HyPsd@String
1830     \ifx\Hy@temp@A\@empty
1831       \Hy@ReturnAfterElseFiFiEnd{%
1832         \HyPsd@RemoveBraces{#2}%
1833       }%
1834     \else
1835       \HyPsd@ProtectSpaces\Hy@temp@A
1836       \HyPsd@AppendItalcrr\Hy@temp@A
1837       \Hy@ReturnAfterFiFiEnd{%
1838         \expandafter\HyPsd@RemoveBraces\expandafter
1839           {\Hy@temp@A#2}%
1840       }%
1841     \fi
1842   \fi
1843   \Hy@ReturnEnd
1844 }
```

`\HyPsd@AppendItalcrr` The string can contain commands yet, so it is better to use `\def` instead of a shorter `\edef`. The two help macros limit the count of `\expandafter`.

```

1845 \def\HyPsd@AppendItalcrr#1{%
1846   \expandafter\HyPsd@@AppendItalcrr\expandafter{\/#1%
1847 }
1848 \def\HyPsd@@AppendItalcrr#1#2{%
1849   \expandafter\def\expandafter#2\expandafter{#2#1}%
1850 }
```

6.6.4 Catcode check

Check catcodes.

`\HyPsd@CheckCatcodes` Because `\ifcat` expands its arguments, this is prevented by `\noexpand`. In case of command tokens and active characters `\ifcat` now sees a `\relax`. After protecting spaces and removing braces `#1` should be a single token, no group of several

tokens, nor an empty group. (So the `\expandafter\relax` between `\ifcat` and `\noexpand` is only for safety and it should be possible to remove it.)

`\protect` and `\relax` should be removed silently. But it is too dangerous and breaks some code giving them the meaning of `\@empty`. So commands with the meaning of `\protect` are removed here. (`\protect` should have the meaning of `\@typeset@protect` that is equal to `\relax`).

```

1851 \def\HyPsd@CheckCatcodes#1#2\HyPsd@end{%
1852   \global\let\HyPsd@Rest\relax
1853   \ifcat\relax\noexpand#1\relax
1854     \ifx#1\protect
1855       \else
1856         \ifx#1\penalty
1857           \setbox\z@=\hbox{%
1858             \afterassignment\HyPsd@AfterCountRemove
1859             \count@=#2\HyPsd@end
1860           }%
1861         \else
1862           \ifx#1\kern
1863             \setbox\z@=\hbox{%
1864               \afterassignment\HyPsd@AfterDimenRemove
1865               \dimen@=#2\HyPsd@end
1866             }%
1867           \else
1868             \ifx#1\hskip
1869               \setbox\z@=\hbox{%
1870                 \afterassignment\HyPsd@AfterSkipRemove
1871                 \skip@=#2\HyPsd@end
1872               }%
1873             \else
1874               \HyPsd@CatcodeWarning{#1}%
1875             \fi
1876           \fi
1877         \fi
1878       \fi
1879     \else
1880       \ifcat#1A% letter
1881         \expandafter\def\expandafter\HyPsd@String\expandafter{%
1882           \HyPsd@String#1%
1883         }%
1884       \else
1885         \ifcat#1 % SPACE
1886           \expandafter\def\expandafter\HyPsd@String\expandafter{%
1887             \HyPsd@String\HyPsd@SPACEOPTI
1888           }%
1889         \else
1890           \ifcat$#1%
1891             \HyPsd@CatcodeWarning{math shift}%
1892           \else
1893             \ifcat&#1%
1894               \HyPsd@CatcodeWarning{alignment tab}%
1895             \else
1896               \ifcat^#1%
1897                 \HyPsd@CatcodeWarning{superscript}%
1898               \else
1899                 \ifcat_#1%
1900                   \HyPsd@CatcodeWarning{subscript}%
1901                 \else

```



```

1902         \expandafter\def\expandafter\HyPsd@String\expandafter{%
1903         \HyPsd@String#1%
1904         }%
1905     \fi
1906 \fi
1907 \fi
1908 \fi
1909 \fi
1910 \fi
1911 \fi
1912 \ifx\HyPsd@Rest\relax
1913 \ifx\scrollmode#2\scrollmode
1914 \else
1915 \Hy@ReturnAfterFiFiEnd{%
1916 \HyPsd@CheckCatcodes#2\HyPsd@end
1917 }%
1918 \fi
1919 \else
1920 \ifx\HyPsd@Rest\@empty
1921 \else
1922 \Hy@ReturnAfterFiFiEnd{%
1923 \expandafter\HyPsd@CheckCatcodes\HyPsd@Rest\HyPsd@end
1924 }%
1925 \fi
1926 \fi
1927 \Hy@ReturnEnd
1928 }

```

Remove counts, dimens, skips.

\HyPsd@AfterCountRemove Counts like `\penalty` are removed silently.

```

1929 \def\HyPsd@AfterCountRemove#1\HyPsd@end{%
1930 \gdef\HyPsd@Rest{#1}%
1931 }

```

\HyPsd@AfterDimenRemove If the value of the `dimen` (`\kern`) is zero, it can be removed silently. All other values are difficult to interpret. Negative values do not work in bookmarks. Should positive values be removed or should they be replaced by space(s)? The following code replaces positive values greater than `1ex` with a space and removes them else.

```

1932 \def\HyPsd@AfterDimenRemove#1\HyPsd@end{%
1933 \ifdim\ifx\HyPsd@String\@empty\z@\else\dimen@>1ex %
1934 \HyPsd@ReplaceSpaceWarning{\string\kern\space\the\dimen@}%
1935 \gdef\HyPsd@Rest{\HyPsd@UnexpandableSpace #1}%
1936 \else
1937 \ifdim\dimen@=\z@
1938 \else
1939 \HyPsd@RemoveSpaceWarning{\string\kern\space\the\dimen@}%
1940 \fi
1941 \gdef\HyPsd@Rest{#1}%
1942 \fi
1943 }

```

\HyPsd@AfterSkipRemove The glue part of skips do not work in PDF strings and are ignored. Skips (`\hskip`), that are not zero, have the same interpreting problems like `dimens` (see above).

```

1944 \def\HyPsd@AfterSkipRemove#1\HyPsd@end{%
1945 \ifdim\ifx\HyPsd@String\@empty\z@\else\skip@>1ex %
1946 \HyPsd@ReplaceSpaceWarning{\string\hskip\space\the\skip@}%

```

```

1947 \gdef\HyPsd@Rest{\HyPsd@UnexpandableSpace #1}%
1948 \else
1949 \ifdim\skip@=\z@
1950 \else
1951 \HyPsd@RemoveSpaceWarning{\string\kern\space\the\skip@}%
1952 \fi
1953 \gdef\HyPsd@Rest{#1}%
1954 \fi
1955 }

```

Catcode warnings.

\HyPsd@CatcodeWarning \HyPsd@CatcodeWarning produces a warning for the user.

```

1956 \def\HyPsd@CatcodeWarning#1{%
1957 \HyPsd@Warning{%
1958 Token not allowed in a PDF string (%)
1959 \ifHy@unicode
1960 Unicode%
1961 \else
1962 PDFDocEncoding%
1963 \fi
1964 }:%
1965 \MessageBreak removing '\HyPsd@RemoveCmdPrefix#1'%
1966 }%
1967 }
1968 \begingroup
1969 \catcode'\|=0 %
1970 \catcode'\|=12 %
1971 \gdef\HyPsd@RemoveCmdPrefix#1{%
1972 |expandafter\HyPsd@@RemoveCmdPrefix
1973 |string#1|@empty\<>-|@empty|@empty
1974 }%
1975 \gdef\HyPsd@@RemoveCmdPrefix#1\<>-#2|@empty#3|@empty{#1#2}%
1976 \endgroup

```

\HyPsd@RemoveSpaceWarning

```

1977 \def\HyPsd@RemoveSpaceWarning#1{%
1978 \HyPsd@Warning{%
1979 Token not allowed in a PDF string (%)
1980 \ifHy@unicode
1981 Unicode%
1982 \else
1983 PDFDocEncoding%
1984 \fi
1985 }:%
1986 \MessageBreak #1\MessageBreak
1987 removed%
1988 }%
1989 }

```

\HyPsd@ReplaceSpaceWarning

```

1990 \def\HyPsd@ReplaceSpaceWarning#1{%
1991 \HyPsd@Warning{%
1992 Token not allowed in a PDF string (%)
1993 \ifHy@unicode
1994 Unicode%
1995 \else

```

```

1996     PDFDocEncoding%
1997     \fi
1998     ):%
1999     \MessageBreak #1\MessageBreak
2000     replaced by space%
2001     }%
2002 }

```

6.6.5 Check for wrong glyphs

A wrong glyph is marked with `\relax`, the glyph name follows, delimited by `>`. `\@empty` ends the string.

```

2003 \def\HyPsd@GlyphProcess#1\relax#2\@empty{%
2004   \expandafter\def\expandafter\HyPsd@String\expandafter{%
2005     \HyPsd@String#1%
2006   }%
2007   \ifx\#2\%
2008   \else
2009     \ltx@ReturnAfterFi{%
2010       \HyPsd@GlyphProcessWarning#2\@empty
2011     }%
2012   \fi
2013 }
2014 \def\HyPsd@GlyphProcessWarning#1>#2\@empty{%
2015   \HyPsd@@@GlyphProcessWarning#1++>%
2016   \HyPsd@GlyphProcess#2\@empty
2017 }
2018 \def\HyPsd@@@GlyphProcessWarning#1+#2+#3>{%
2019   \ifx\#2\%
2020     \HyPsd@Warning{%
2021       Glyph not defined in %
2022       P\ifHy@unicode U\else D1\fi\space encoding,\MessageBreak
2023       removing '@backslashchar#1'%
2024     }%
2025   \else
2026     \HyPsd@Warning{%
2027       Composite letter '@backslashchar#1+#2'\MessageBreak
2028       not defined in P\ifHy@unicode U\else D1\fi\space encoding,%
2029       \MessageBreak
2030       removing '@backslashchar#1'%
2031     }%
2032   \fi
2033 }

```

Spaces.

`\HyPsd@spaceopti` In the string the spaces are represented by `\HyPsd@spaceopti` tokens. Within an `\edef` it prints itself as a simple space and looks for its next argument. If another space follows, so it replaces the next `\HyPsd@spaceopti` by an protected space `\040`.

```

2034 \def\HyPsd@spaceopti#1{ % first space
2035   \ifx\HyPsd@spaceopti#1%
2036     \040%
2037   \else
2038     #1%
2039   \fi
2040 }%

```

6.6.6 Replacing tokens

`\HyPsd@Subst` To save tokens `\HyPsd@StringSubst` is a wrapper for the command `\HyPsd@Subst` that does all the work: In string stored in command `#3` it replaces the tokens `#1` with `#2`.

```
#1    Exact the tokens that should be replaced.
#2    The replacement (don't need to be expanded).
#3    Command with the string.
2041 \def\HyPsd@Subst#1#2#3{%
2042   \def\HyPsd@@ReplaceFi##1#1##2\END\fi{%
2043     \fi
2044     ##1%
2045     \ifx\scrollmode##2\scrollmode
2046     \else
2047       #2%
2048       \HyPsd@@ReplaceFi##2\END
2049     \fi
2050   }%
2051   \xdef#3{%
2052     \iftrue
2053       \expandafter\HyPsd@@ReplaceFi#3#1\END
2054     \fi
2055   }%
2056 }
```

`\HyPsd@StringSubst` To save tokens in `\pdfstringdef` `\HyPsd@StringSubst` is a wrapper, that expands argument `#1` before calling `\HyPsd@Subst`.

```
2057 \def\HyPsd@StringSubst#1{%
2058   \expandafter\HyPsd@Subst\expandafter{\string#1}%
2059 }
```

`\HyPsd@EscapeTeX`

```
2060 \begingroup
2061   \lccode'\!='\%%
2062   \lccode'\|='\%%
2063   \lccode'\(='\{%
2064   \lccode'\)='\}%
2065   \lccode'0=\ltx@zero
2066   \lccode'1=\ltx@zero
2067   \lccode'3=\ltx@zero
2068   \lccode'4=\ltx@zero
2069   \lccode'5=\ltx@zero
2070   \lccode'7=\ltx@zero
2071 \lowercase{\endgroup
2072   \def\HyPsd@EscapeTeX#1{%
2073     \HyPsd@Subst!{|045}#1%
2074     \HyPsd@Subst({|173}#1%
2075     \HyPsd@Subst){|175}#1%
2076   }%
2077 }
```

6.6.7 Support for package `xspace`

`\HyPsd@doxspace` `\xspace` does not work, because it uses a `\futurelet` that cannot be executed in \TeX 's mouth. So this implementation uses an argument to examine the next token. In a previous version I reused `\@xspace`, but this version is shorter and easier to understand.

```

2078 \def\HyPsd@doxspace#1{%
2079   \ifx#1\relax\else
2080   \ifx#1.\else
2081   \ifx#1:\else
2082   \ifx#1,\else
2083   \ifx#1;\else
2084   \ifx#1!\else
2085   \ifx#1?\else
2086   \ifx#1/\else
2087   \ifx#1-\else
2088   \ifx#1'\else
2089   \HyPsd@SPACEOPTI
2090   \fi
2091   \fi
2092   \fi
2093   \fi
2094   \fi
2095   \fi
2096   \fi
2097   \fi
2098   \fi
2099   \fi
2100   #1%
2101 }%

```

6.6.8 Converting to Unicode

Eight bit characters are converted to the sixteen bit ones, \8 is replaced by \00, and \9 is removed. The result should be a valid Unicode PDF string without the Unicode marker at the beginning.

```

2102 \begingroup
2103   \catcode'\|=0 %
2104   \catcode'\|=12 %

```

\HyPsd@ConvertToUnicode

```

2105 |gdef|HyPsd@ConvertToUnicode#1{%
2106   |xdef#1{%
2107     |expandafter|HyPsd@DoConvert#1|@empty|@empty|@empty
2108   }%
2109   |ifx#1|@empty
2110   |else
2111     |xdef#1{%
2112       \376\377%
2113       #1%
2114     }%
2115   |fi
2116 }%

```

\HyPsd@DoConvert

```

2117 |gdef|HyPsd@DoConvert#1{%
2118   |ifx#1|@empty
2119   |else
2120     |ltx@ReturnAfterFi{%
2121       |ifx#1\%%
2122       \%%
2123       |expandafter|HyPsd@DoEscape
2124     |else

```

```

2125     |HyPsd@Char{#1}%
2126     |expandafter|HyPsd@DoConvert
2127     |fi
2128   }%
2129   |fi
2130 }%

```

\HyPsd@DoEscape

```

2131 |gdef|HyPsd@DoEscape#1{%
2132   |ifx#19%
2133   |expandafter|HyPsd@GetTwoBytes
2134   |else
2135   |ltx@ReturnAfterFi{%
2136   |ifx#18%
2137   00%
2138   |expandafter|HyPsd@GetTwoBytes
2139   |else
2140   #1%
2141   |expandafter|HyPsd@GetOneByte
2142   |fi
2143   }%
2144   |fi
2145 }%

```

\HyPsd@GetTwoBytes

```

2146 |gdef|HyPsd@GetTwoBytes#1\#2#3#4{%
2147   #1\#2#3#4%
2148   |HyPsd@DoConvert
2149   }%

```

\HyPsd@GetOneByte

```

2150 |gdef|HyPsd@GetOneByte#1#2{%
2151   #1#2%
2152   |HyPsd@DoConvert
2153   }%
2154 |endgroup

```

\HyPsd@@GetNextTwoTokens \TeX does only allow nine parameters, so we need another macro to get more arguments.

```

2155 \def\HyPsd@GetNextTwoTokens#1#2#3\END#4{%
2156   \xdef#4{#4#1#2}%
2157   \HyPsd@@ConvertToUnicode#3\END#4%
2158 }

```

\HyPsd@Char

```

2159 \begingroup
2160   \catcode0=9 %
2161   \catcode'\^=7 %
2162   \catcode'\^^=12 %
2163   \def\x{^^^^0000}%
2164   \expandafter\endgroup
2165   \ifx\x\@empty
2166     \def\HyPsd@Char#1{%
2167       \ifnum'#1<128 %
2168         \@backslashchar 000#1%
2169       \else
2170         \ifnum'#1<65536 %

```

```

2171 \expandafter\HyPsd@CharTwoByte\number'#1!%
2172 \else
2173 \expandafter\expandafter\expandafter\HyPsd@CharSurrogate
2174 \intcalcSub{'#1}{65536}!%
2175 \fi
2176 \fi
2177 }%
2178 \def\HyPsd@CharTwoByte#1!{%
2179 \expandafter\expandafter\expandafter\HyPsd@CharOctByte
2180 \IntCalcDiv#1!256!!%
2181 \expandafter\expandafter\expandafter\HyPsd@CharOctByte
2182 \IntCalcMod#1!256!!%
2183 }%
2184 \def\HyPsd@CharOctByte#1!{%
2185 \@backslashchar
2186 \IntCalcDiv#1!64!%
2187 \intcalcDiv{\IntCalcMod#1!64!}{8}%
2188 \IntCalcMod#1!8!%
2189 }%
2190 \def\HyPsd@CharSurrogate#1!{%
2191 \@backslashchar 33%
2192 \IntCalcDiv#1!262144!%
2193 \expandafter\expandafter\expandafter\HyPsd@CharOctByte
2194 \intcalcDiv{\IntCalcMod#1!262144!}{1024}!%
2195 \@backslashchar 33%
2196 \expandafter\expandafter\expandafter\IntCalcAdd
2197 \intcalcDiv{\IntCalcMod#1!1024!}{256}!4!%
2198 \expandafter\expandafter\expandafter\HyPsd@CharOctByte
2199 \IntCalcMod#1!256!!%
2200 }%
2201 \else
2202 \def\HyPsd@Char#1{%
2203 \@backslashchar 000#1%
2204 }%
2205 \fi

```

6.6.9 Support for UTF-8 input encoding

After `\usepackage[utf8]{inputenc}` there are macros that expect the UTF-8 octets as arguments. Therefore we can calculate the PDF octal sequences directly. Because the PDF format is limited to UCS-2, conversion macros are needed for UTF-8 sequences with two and three octets only.

This calculation must be done in an expandable context, so we use `eTeX` here for performance reasons. Unhappily the results of divisions are rounded. Thus a circumvention via `\dimexpr` is used, e.g.:

`\numexpr 123/4\relax` is replaced by
`\number\dimexpr.25\dimexpr 123sp\relax\relax`

```

2206 \begingroup\expandafter\expandafter\expandafter\endgroup
2207 \expandafter\ifx\csname numexpr\endcsname\relax
2208 \let\HyPsd@UTFviii\relax
2209 \else
2210 \begingroup
2211 \lccode'\~='^^f4\relax
2212 \lowercase{\endgroup
2213 \def\HyPsd@UTFviii{%

```

```

2214 \let\UTFviii@two@octets\HyPsd@UTFviii@two
2215 \let\UTFviii@three@octets\HyPsd@UTFviii@three
2216 \let\UTFviii@four@octets\HyPsd@UTFviii@four
2217 \ifx~\HyPsd@UTFviii@ccxliv@undef
2218 \let~\HyPsd@UTFviii@ccxliv@def
2219 \fi
2220 \let\unichar\HyPsd@unichar
2221 }%
2222 }%
2223 \def\HyPsd@UTFviii@ccxliv@undef{\@inpenc@undefined@{utf8}}}%
2224 \edef\HyPsd@UTFviii@ccxliv@def{%
2225 \noexpand\UTFviii@four@octets\string~^f4%
2226 }%

```

The two octet form of UTF-8 110aaabb (A) and 10cccd (B) must be converted into octal numbers 00a and bcd. The result is \8a\bcd (with a, b, c, d as octal numbers). The conversion equations.

$$a := A/4 - 48 \quad (1)$$

$$b := A - 4 * (A/4) \quad (2)$$

$$c := B/8 - 8 * ((8 * (B/8))/8) \quad (3)$$

$$d := B - 8 * (B/8) \quad (4)$$

$$(5)$$

```

2227 \def\HyPsd@UTFviii@two#1#2{%
2228 \expandafter\HyPsd@UTFviii@@two
2229 \number\dimexpr.25\dimexpr'#1sp\expandafter\relax\expandafter| %
2230 \number'#1\expandafter| %
2231 \number\dimexpr.125\dimexpr'#2sp\expandafter\relax\expandafter| %
2232 \number'#2 \@nil
2233 }%
2234 \def\HyPsd@UTFviii@@two#1|#2|#3|#4@nil{%
2235 \expandafter\8%
2236 \number\numexpr #1-48\expandafter\relax
2237 \csname\number\numexpr #2-4*#1\relax\expandafter\endcsname
2238 \number\numexpr #3-8*%
2239 \number\dimexpr.125\dimexpr#3sp\relax\relax\expandafter\relax
2240 \number\numexpr #4-8*#3\relax
2241 }%

```

Three octet form: 1110aabb (A), 10bcccd (B), and 10eeefff (C). The result is \9abc\def (with a, ..., f as octal numbers). The conversion equations:

$$a := A/4 - 56 \quad (6)$$

$$b := 2 * (A - 4 * (A/4)) + ((B - 128 < 32)?0 : 1) \quad (7)$$

$$c := B/4 - 32 - ((B - 128 < 32)?0 : 8) \quad (8)$$

$$d := B - 4 * (B/4) \quad (9)$$

$$e := C/8 - 16 \quad (10)$$

$$f := C - 8 * (C/8) \quad (11)$$

$$(12)$$

```

2242 \def\HyPsd@UTFviii@three#1#2#3{%
2243 \expandafter\HyPsd@UTFviii@@three
2244 \number\dimexpr.25\dimexpr'#1sp\expandafter\relax\expandafter| %
2245 \number'#1\expandafter| %

```



```

2246 \number\ifnum\numexpr'#2-128\relax <32 0\else 1\fi\expandafter| %
2247 \number\dimexpr.25\dimexpr'#2sp\expandafter\relax\expandafter| %
2248 \number'#2\expandafter| %
2249 \number\dimexpr.125\dimexpr'#3sp\expandafter\relax\expandafter| %
2250 \number'#3 \@nil
2251 }%
2252 \def\HyPsd@UTFviii@@three#1|#2|#3|#4|#5|#6|#7\@nil{%
2253 \expandafter\9%
2254 \number\numexpr #1-56\expandafter\relax
2255 \number\numexpr 2*(#2-4*#1)+#3\expandafter\relax
2256 \number\numexpr #4 - 32 -\ifcase#3 0\else 8\fi\expandafter\relax
2257 \csname\number\numexpr #5-4*#4\relax\expandafter\endcsname
2258 \number\numexpr #6-16\expandafter\relax
2259 \number\numexpr #7-8*#6\relax
2260 }%

```

Surrogates: 4 octets in UTF-8, a surrogate pair in UTF-16. High surrogate range: U+D800–U+DBFF, low surrogate range: U+DC00–U+DFFF.

```

UTF-8: 11110uuu 10uuzzzz 10yyyyyy 10xxxxxx
www = uuuu - 1
UTF-16: 110110ww wwzzzzyy 110111yy yyxxxxxx
octal: 011 011 0ww 0ww zzz zyy 011 011 1yy 0yy xxx xxx

```

```

2261 \def\HyPsd@UTFviii@four#1#2{%
2262 \expandafter\HyPsd@UTFviii@four\number
2263 \numexpr-1+('#1-240)*4+\dimexpr.0625\dimexpr'#2sp-128sp%
2264 \expandafter|\number
2265 \numexpr'#2-16*\dimexpr.0625\dimexpr'#2sp| %
2266 }%
2267 \def\HyPsd@@UTFviii@four#1|#2|#3{%
2268 \933\number\dimexpr.25\dimexpr#1sp\relax\relax
2269 \csname\number\numexpr#1-4*\dimexpr.25\dimexpr#1sp\endcsname
2270 \ifodd#2 %
2271 \number\numexpr(#2-1)/2\relax
2272 \else
2273 \number\numexpr#2/2\relax
2274 \fi
2275 \number\numexpr\ifodd#2 4+\fi
2276 \dimexpr.0625\dimexpr'#3sp-128sp\relax\relax\relax
2277 \933%
2278 \expandafter\HyPsd@@@UTFviii@four\number
2279 \numexpr'#3-16*\dimexpr.0625\dimexpr'#3sp| %
2280 }%
2281 \def\HyPsd@@@UTFviii@four#1|#2{%
2282 \number\numexpr4+\dimexpr.25\dimexpr#1sp\relax\relax\relax
2283 \csname\number\numexpr#1-4*\dimexpr.25\dimexpr#1sp\endcsname
2284 \number\dimexpr.125\dimexpr'#2sp-128sp\relax\relax
2285 \number\numexpr'#2-8*\dimexpr.125\dimexpr'#2sp\relax\relax\relax
2286 }%

```

Input encoding utf8x of package ucs uses macro \unichar. Values greater than "FFFF are not supported.

```

2287 \def\HyPsd@unichar#1{%
2288 \ifHy@unicode
2289 \ifnum#1>"10FFFF %
2290 \HyPsd@UnicodeReplacementCharacter % illegal
2291 \else
2292 \ifnum#1>"FFFF %

```

High-surrogate code point. ("D800 = 55296, \p@ = 1pt = 65536sp)

```
2293 \expandafter\HyPsd@unichar\expandafter{%
2294 \number\numexpr 55296+%
2295 \dimexpr.0009765625\dimexpr\number#1sp-\p@
2296 \relax\relax\relax
2297 }%
```

Low-surrogate code point. ("DC00 = 56320, "DC00 - 65536 = -9216)

```
2298 \expandafter\HyPsd@unichar\expandafter{%
2299 \number\numexpr#1-9216%
2300 -1024*\dimexpr.0009765625\dimexpr\number#1sp-\p@
2301 \relax\relax\relax
2302 }%
2303 \else
2304 \ifnum#1>"7FF %
2305 \9%
2306 \expandafter\HyPsd@unichar@first@byte\expandafter{%
2307 \number
2308 \dimexpr.00390625\dimexpr\number#1sp\relax\relax
2309 }%
2310 \else
2311 \8%
2312 \number\dimexpr.00390625\dimexpr\number#1sp\relax\relax
2313 \fi
2314 \expandafter\HyPsd@unichar@second@byte\expandafter{%
2315 \number
2316 \numexpr#1-256*\number
2317 \dimexpr.00390625\dimexpr\number#1sp\relax\relax\relax
2318 }%
2319 \fi
2320 \fi
2321 \else
2322 .% unsupported (Unicode -> PDF Doc Encoding)
2323 \fi
2324 }%
2325 \def\HyPsd@UnicodeReplacementCharacter{\9377\375}%
2326 \def\HyPsd@unichar@first@byte#1{%
2327 \number\dimexpr.015625\dimexpr#1sp\relax\relax
2328 \expandafter\HyPsd@unichar@octtwo\expandafter{%
2329 \number
2330 \numexpr#1-64*\number\dimexpr.015625\dimexpr#1sp%
2331 \relax\relax\relax
2332 }%
2333 }%
2334 \def\HyPsd@unichar@second@byte#1{%
2335 \csname\number\dimexpr.015625\dimexpr#1sp\relax\relax\endcsname
2336 \expandafter\HyPsd@unichar@octtwo\expandafter{%
2337 \number
2338 \numexpr#1-64*\number\dimexpr.015625\dimexpr#1sp%
2339 \relax\relax\relax
2340 }%
2341 }%
2342 \def\HyPsd@unichar@octtwo#1{%
2343 \number\dimexpr.125\dimexpr#1sp\relax\relax
2344 \number\numexpr#1-8*\number\dimexpr.125\dimexpr#1sp%
2345 \relax\relax\relax
2346 }%
```

2347 \fi

\HyPsd@utf@viii@undeferr \utf@viii@undeferr comes from file utf8x.def from package ucs.

```

2348 \def\HyPsd@utf@viii@undeferr#1#2#3#4#5#6{%
2349   \ifx\@gobble#1%
2350   \else
2351     [Please insert \textbackslash PrerenderUnicode%
2352     \textbraceleft#1\textbraceright\space
2353     into preamble]%
2354   \fi
2355 }%
```

7 Support of other packages

7.1 Class memoir

```

2356 \@ifclassloaded{memoir}{%
2357   \Hy@AtEndOfPackage{\RequirePackage{memhfixc}}}%
2358 }
```

7.2 Package subfigure

Added fix for version 2.1. Here \sub@label is defined.

```

2359 \@ifpackageloaded{subfigure}{%
2360   \ltx@ifundefined{sub@label}{%
2361     \Hy@hypertexnamesfalse
2362   }{%
2363     \renewcommand*{\sub@label}[1]{%
2364       \@bsphack
2365       \subfig@oldlabel{#1}%
2366       \if@filesw
2367         \begingroup
2368         \edef\@currentlabstr{%
2369           \expandafter\strip@prefix\meaning\@currentlabelname
2370         }%
2371         \protected@write\@auxout{}{%
2372           \string\newlabel{sub@#1}{%
2373             {\@nameuse{\@thesub\@capttype}}%
2374             {\thepage}%
2375             {%
2376               \expandafter\strip@period\@currentlabstr
2377               \relax.\relax\@@@%
2378             }%
2379             {\@currentHref}%
2380             {}%
2381           }%
2382         }%
2383         \endgroup
2384       \fi
2385       \@esphack
2386     }%
2387     \@ifpackagelater{subfigure}{2002/03/26}{%
2388       \providecommand*{\toclevel@subfigure}{1}%
2389       \providecommand*{\toclevel@subtable}{1}%
2390     }%
2391   }%
2392 }
```

7.3 Package xr and xr-hyper

The beta version of xr that supports `\XR@addURL` is called `xr-hyper`. Therefore we test for the macro itself and not for the package name:

```
2393 \ltx@ifundefined{XR@addURL}{%
2394 }{%
```

If reading external aux files check whether they have a non zero fourth field in `\newlabel` and if so, add the URL as the fifth field.

```
2395 \def\xR@addURL#1{\xR@dURL#1{}{}{}}\}%
2396 \def\xR@dURL#1#2#3#4#5\{%
2397   {#1}{#2}%
2398   \if!#4!%
2399   \else
2400     {#3}{#4}{\xR@URL}%
2401   \fi
2402 }%
2403 }
```

```
2404 \def\Hy@true{true}
2405 \def\Hy@false{false}
```

Providing dummy definitions.

```
2406 \let\literalps@out\@gobble
2407 \newcommand\pdfbookmark[3]{}{}
2408 \def\Acrobatmenu#1#2{\leavevmode#2}
2409 \def\Hy@writebookmark#1#2#3#4#5{}%
```

8 Help macros for links

Anchors get created on the baseline of where they occur. If an XYZ PDF view is set, this means that the link places the top of the screen *on the baseline* of the target. If this is an equation, for instance, it means that you cannot see anything. Some links, of course, are created at the start of environments, and so it works. To allow for this, anchors are raised, where possible, by some small amount. This defaults to `\baselineskip`, but users can set it to something else in two ways (thanks to Heiko Oberdiek for suggesting this):

1. Redefine `\HyperRaiseLinkDefault` to be eg the height of a `\strut`
2. Redefine `\HyperRaiseLinkHook` to do something complicated; it must give a value to `\HyperRaiseLinkLength`, which is what actually gets used

```
2410 \let\HyperRaiseLinkHook\@empty
2411 \def\HyperRaiseLinkDefault{\baselineskip}
```

`\HyperRaiseLinkHook` allows the user to reassign `\HyperRaiseLinkLength`.

```
2412 \newcount\Hy@SavedSpaceFactor
2413 \def\Hy@SaveSpaceFactor{%
2414   \global\Hy@SavedSpaceFactor=\ifhmode\spacefactor\else\z@\fi
2415 }
2416 \def\Hy@RestoreSpaceFactor{%
2417   \relax
2418   \ifhmode
2419     \ifnum\Hy@SavedSpaceFactor>\z@
2420       \spacefactor=\Hy@SavedSpaceFactor
2421     \fi
2422   \fi
```

```

2423 }
2424 \def\Hy@SaveSavedSpaceFactor{%
2425 \edef\Hy@RestoreSavedSpaceFactor{%
2426 \global\Hy@SavedSpaceFactor=\the\Hy@SavedSpaceFactor\relax
2427 }%
2428 }
2429 \def\Hy@raisedlink#1{%
2430 \ifvmode
2431 #1%
2432 \else
2433 \Hy@SaveSpaceFactor
2434 \penalty\@M
2435 \smash{%
2436 \begingroup
2437 \let\HyperRaiseLinkLength\@tempdima
2438 \setlength\HyperRaiseLinkLength\HyperRaiseLinkDefault
2439 \HyperRaiseLinkHook
2440 \expandafter\endgroup
2441 \expandafter\raise\the\HyperRaiseLinkLength\hbox{%
2442 \Hy@RestoreSpaceFactor
2443 #1%
2444 \Hy@SaveSpaceFactor
2445 }%
2446 }%
2447 \Hy@RestoreSpaceFactor
2448 \fi
2449 }

```

\Hy@SaveLastskip Inserting a \special command to set a destination destroys the \lastskip value.
\Hy@RestoreLastskip

```

2450 \def\Hy@SaveLastskip{%
2451 \let\Hy@RestoreLastskip\relax
2452 \ifvmode
2453 \ifdim\lastskip=\z@
2454 \let\Hy@RestoreLastskip\nobreak
2455 \else
2456 \begingroup
2457 \skip@=-\lastskip
2458 \edef\x{%
2459 \endgroup
2460 \def\noexpand\Hy@RestoreLastskip{%
2461 \noexpand\ifvmode
2462 \noexpand\nobreak
2463 \vskip\the\skip@
2464 \vskip\the\lastskip\relax
2465 \noexpand\fi
2466 }%
2467 }%
2468 \x
2469 \fi
2470 \else
2471 \ifhmode
2472 \ifdim\lastskip=\z@
2473 \let\Hy@RestoreLastskip\nobreak
2474 \else
2475 \begingroup
2476 \skip@=-\lastskip
2477 \edef\x{%

```

```

2478         \endgroup
2479         \def\noexpand\Hy@RestoreLastskip{%
2480             \noexpand\ifhmode
2481                 \noexpand\nobreak
2482                 \hskip\the\skip@
2483                 \hskip\the\lastskip\relax
2484             \noexpand\fi
2485         }%
2486     }%
2487     \x
2488     \fi
2489     \fi
2490     \fi
2491 }%

```

9 Options

```

2492 \SetupKeyvalOptions{%
2493     family=Hyp,%
2494     prefix=HyOpt%
2495 }

```

9.1 Help macros

`\IfHyperBooleanExists`

```

2496 \def\IfHyperBooleanExists#1{%
2497     \ltx@ifundefined{Hy@#1false}\ltx@secondoftwo{%
2498         \ltx@ifundefined{KV@Hyp@#1@default}\ltx@secondoftwo\ltx@firstoftwo
2499     }%
2500 }

2501 \@namedef{KV@Hyp@stoppeearly@default}{\}

```

`\IfHyperBoolean`

```

2502 \def\IfHyperBoolean#1{%
2503     \IfHyperBooleanExists{#1}{%
2504         \csname ifHy@#1\endcsname
2505         \expandafter\ltx@firstoftwo
2506     \else
2507         \expandafter\ltx@secondoftwo
2508     \fi
2509 } \ltx@secondoftwo
2510 }

```

`\Hy@boolkey`

```

2511 \def\Hy@boolkey#1#2{%
2512     \edef\Hy@tempa{#2}%
2513     \lowercase\expandafter{%
2514         \expandafter\def\expandafter\Hy@tempa\expandafter{\Hy@tempa}%
2515     }%
2516     \ifx\Hy@tempa\@empty
2517         \let\Hy@tempa\Hy@true
2518     \fi
2519     \ifx\Hy@tempa\Hy@true
2520     \else
2521         \ifx\Hy@tempa\Hy@false
2522         \else

```

```

2523 \let\Hy@tempa\relax
2524 \fi
2525 \fi
2526 \ifx\Hy@tempa\relax
2527 \Hy@WarnOptionValue{#2}{#1}{‘true’ or ‘false’}%
2528 \else
2529 \Hy@Info{Option ‘#1’ set ‘\Hy@tempa’}%
2530 \csname Hy@#1\Hy@tempa\endcsname
2531 \fi
2532 }

```

\Hy@WarnOptionValue

```

2533 \def\Hy@WarnOptionValue#1#2#3{%
2534 \Hy@Warning{%
2535 Unexpected value ‘#1’\MessageBreak
2536 of option ‘#2’ instead of\MessageBreak
2537 #3%
2538 }%
2539 }

```

\Hy@DisableOption

```

2540 \def\Hy@DisableOption#1{%
2541 \ltx@ifundefined{KV@Hyp@#1@default}{%
2542 \define@key{Hyp}{#1}%
2543 }{%
2544 \define@key{Hyp}{#1}[]%
2545 }%
2546 {\Hy@WarnOptionDisabled{#1}}%
2547 }

```

\Hy@WarnOptionDisabled

```

2548 \def\Hy@WarnOptionDisabled#1{%
2549 \Hy@Warning{%
2550 Option ‘#1’ has already been used,\MessageBreak
2551 setting the option has no effect%
2552 }%
2553 }

```

\Hy@CheckOptionValue Some options take a string value out of a limited set of values. Macro \Hy@CheckOptionValue checks whether the given value #1 for option #2 is a member of the value list #3.

```

2554 \def\Hy@CheckOptionValue#1#2#3{%
2555 \begingroup
2556 \edef\x{#1}%
2557 \@onelevel@sanitize\x
2558 \let\y=y%
2559 \def\do##1##2{%
2560 \def\z{##1}%
2561 \@onelevel@sanitize\z
2562 \ifx\x\z
2563 \let\y=n%
2564 \let\do\@gobbletwo
2565 \fi
2566 }%
2567 #3%
2568 \ifx\y y%
2569 \def\do##1##2{%

```

```

2570      * '#1'%
2571      \ifx\##2\\\else\space(##2)\fi
2572      \MessageBreak
2573    }%
2574    \Hy@Warning{%
2575      Values of option '#2':\MessageBreak
2576      #3%
2577      * An empty value disables the option.\MessageBreak
2578      Unknown value '\x'%
2579    }%
2580    \fi
2581  \endgroup
2582 }

```

`\Hy@DefNameKey` **#1**: option name
#2: \do list with known values, first argument of \do is value, second argument is a comment.

```

2583 \def\Hy@DefNameKey#1{%
2584   \expandafter\Hy@@DefNameKey\csname @#1\endcsname{#1}%
2585 }

```

`\Hy@@DefNameKey` **#1**: macro for value storage
#2: option name
#3: \do list with known values.

```

2586 \def\Hy@@DefNameKey#1#2#3{%
2587   \define@key{Hyp}{#2}{%
2588     \edef#1{##1}%
2589     \ifx#1\@empty
2590     \else
2591       \Hy@CheckOptionValue{##1}{#2}{#3}%
2592     \fi
2593   }%
2594   \let#1\@empty
2595 }

```

`\Hy@UseNameKey`

```

2596 \def\Hy@UseNameKey#1#2{%
2597   \ifx#2\@empty
2598   \else
2599     /#1/#2%
2600   \fi
2601 }

```

9.2 Defining the options

```

2602 \define@key{Hyp}{implicit}[true]{%
2603   \Hy@boolkey{implicit}{#1}%
2604 }
2605 \define@key{Hyp}{draft}[true]{%
2606   \Hy@boolkey{draft}{#1}%
2607 }
2608 \define@key{Hyp}{final}[true]{%
2609   \Hy@boolkey{final}{#1}%
2610 }
2611 \let\KV@Hyp@nolinks\KV@Hyp@draft
2612 \def\Hy@ObsoletePaperOption#1{%

```



```

2613 \Hy@WarningNoLine{%
2614   Option '#1' is no longer used%
2615 }%
2616 \define@key{Hyp}{#1}[true]{}%
2617 }
2618 \def\Hy@temp#1{%
2619   \define@key{Hyp}{#1}[true]{}%
2620   \Hy@ObsoletePaperOption{#1}%
2621 }%
2622 }
2623 \Hy@temp{a4paper}
2624 \Hy@temp{a5paper}
2625 \Hy@temp{b5paper}
2626 \Hy@temp{letterpaper}
2627 \Hy@temp{legalpaper}
2628 \Hy@temp{executivepaper}

2629 \define@key{Hyp}{setpagesize}[true]{}%
2630 \Hy@boolkey{setpagesize}{#1}%
2631 }
2632 \define@key{Hyp}{debug}[true]{}%
2633 \Hy@boolkey{debug}{#1}%
2634 }
2635 \define@key{Hyp}{linktocpage}[true]{}%
2636 \Hy@boolkey{linktocpage}{#1}%
2637 \ifHy@linktocpage
2638   \let\Hy@linktoc\Hy@linktoc@page
2639 \else
2640   \let\Hy@linktoc\Hy@linktoc@section
2641 \fi
2642 }
2643 \chardef\Hy@linktoc@none=0 %
2644 \chardef\Hy@linktoc@section=1 %
2645 \chardef\Hy@linktoc@page=2 %
2646 \chardef\Hy@linktoc@all=3 %
2647 \ifHy@linktocpage
2648   \let\Hy@linktoc\Hy@linktoc@page
2649 \else
2650   \let\Hy@linktoc\Hy@linktoc@section
2651 \fi
2652 \define@key{Hyp}{linktoc}{}%
2653 \@ifundefined{Hy@linktoc@#1}{}%
2654 \Hy@Warning{%
2655   Unexpected value '#1' of\MessageBreak
2656   option 'linktoc' instead of 'none',\MessageBreak
2657   'section', 'page' or 'all'%
2658 }%
2659 }{}%
2660 \expandafter\let\expandafter\Hy@linktoc
2661 \csname Hy@linktoc@#1\endcsname
2662 }%
2663 }
2664 \define@key{Hyp}{extension}{\def\XR@ext{#1}}
2665 \let\XR@ext\relax
2666 \define@key{Hyp}{verbose}[true]{}%
2667 \Hy@boolkey{verbose}{#1}%
2668 }
2669 \define@key{Hyp}{typexml}[true]{}%

```

```

2670 \Hy@boolkey{typexml}{#1}%
2671 }

```

If we are going to PDF via HyperTeX `\special` commands, the dvips (-z option) processor does not know the *height* of a link, as it works solely on the position of the closing `\special`. If we use this option, the `\special` is raised up by the right amount, to fool the dvi processor.

```

2672 \define@key{Hyp}{raiselinks}[true]{%
2673 \Hy@boolkey{raiselinks}{#1}%
2674 }

```

Most PDF-creating drivers do not allow links to be broken

```

2675 \def\Hy@setbreaklinks#1{%
2676 \csname breaklinks#1\endcsname
2677 }

2678 \def\Hy@breaklinks@unsupported{%
2679 \ifx\Hy@setbreaklinks\@gobble
2680 \ifHy@breaklinks
2681 \Hy@WarningNoLine{%
2682 You have enabled option 'breaklinks'.\MessageBreak
2683 But driver '\Hy@driver.def' does not support this.\MessageBreak
2684 Expect trouble with the link areas of broken links%
2685 }%
2686 \fi
2687 \fi
2688 }

```

```

2689 \define@key{Hyp}{breaklinks}[true]{%
2690 \Hy@boolkey{breaklinks}{#1}%
2691 \let\Hy@setbreaklinks\@gobble
2692 }

```

```

2693 \define@key{Hyp}{localanchorname}[true]{%
2694 \Hy@boolkey{localanchorname}{#1}%
2695 }

```

Determines whether an automatic anchor is put on each page

```

2696 \define@key{Hyp}{pageanchor}[true]{%
2697 \Hy@boolkey{pageanchor}{#1}%
2698 }

```

Are the page links done as plain arabic numbers, or do they follow the formatting of the package? The latter loses if you put in typesetting like `\textbf` or the like.

```

2699 \define@key{Hyp}{plainpages}[true]{%
2700 \Hy@boolkey{plainpages}{#1}%
2701 }

```

Are the names for anchors made as per the HyperTeX system, or do they simply use what L^AT_EX provides?

```

2702 \define@key{Hyp}{naturalnames}[true]{%
2703 \Hy@boolkey{naturalnames}{#1}%
2704 }

```

Completely ignore the names as per the HyperTeX system, and use unique counters.

```

2705 \define@key{Hyp}{hypertexnames}[true]{%
2706 \Hy@boolkey{hypertexnames}{#1}%
2707 }

```

Currently, dvips doesn't allow anchors nested within targets, so this option tries to stop that happening. Other processors may be able to cope.

```

2708 \define@key{Hyp}{nesting}[true]{%

```

```

2709 \Hy@boolkey{nesting}{#1}%
2710 }
2711 \define@key{Hyp}{unicode}[true]{%
2712 \Hy@boolkey{unicode}{#1}%
2713 \ifHy@unicode
2714 \def\HyPsd@pdfencoding{unicode}%
2715 \HyPsd@LoadUnicode
2716 \else
2717 \def\HyPsd@pdfencoding{pdfdoc}%
2718 \fi
2719 }
2720 \def\HyPsd@LoadUnicode{%
2721 \@ifundefined{T@PU}{%
2722 \input{puenc.def}%
2723 \HyLinguex@Restore
2724 }{}%
2725 \DeclareFontFamily{PU}{pdf}{}%
2726 \DeclareFontShape{PU}{pdf}{m}{n}{ <-> cmr10 }{}%
2727 \DeclareFontSubstitution{PU}{pdf}{m}{n}%
2728 \global\let\HyPsd@LoadUnicode\relax
2729 }
2730 \Hy@AtBeginDocument{%
2731 \ifx\HyPsd@LoadUnicode\relax
2732 \else
2733 \def\HyPsd@LoadUnicode{%
2734 \Hy@Error{%
2735 Unicode support for bookmarks is not available.\MessageBreak
2736 Activate unicode support by using one of the options\MessageBreak
2737 'unicode', 'pdfencoding=unicode', 'pdfencoding=auto'\MessageBreak
2738 in the preamble%
2739 } \@ehc
2740 \global\let\HyPsd@LoadUnicode\relax
2741 \global\Hy@unicodetrue
2742 \global\let\Hy@unicodetrue\Hy@unicodetrue
2743 }%
2744 \fi
2745 }
2746 \define@key{Hyp}{pdfencoding}{%
2747 \edef\HyPsd@temp{#1}%
2748 \ifx\HyPsd@temp\HyPsd@pdfencoding@pdfdoc
2749 \let\HyPsd@pdfencoding\HyPsd@temp
2750 \Hy@unicodetrue
2751 \else
2752 \ifcase\ifx\HyPsd@temp\HyPsd@pdfencoding@unicode
2753 \z@
2754 \else
2755 \ifx\HyPsd@temp\HyPsd@pdfencoding@auto
2756 \z@
2757 \else
2758 \@ne
2759 \fi
2760 \fi
2761 \let\HyPsd@pdfencoding\HyPsd@temp
2762 \hypersetup{unicode}%
2763 \ifHy@unicode
2764 \def\HyPsd@pdfencoding{#1}%
2765 \ifx\HyPsd@pdfencoding\HyPsd@pdfencoding@auto

```

```

2766     \HyPsd@LoadStringEnc
2767   \fi
2768 \else
2769   \Hy@Warning{Cannot switch to unicode bookmarks}%
2770   \let\HyPsd@pdfencoding\HyPsd@pdfencoding@pdfdoc
2771 \fi
2772 \else
2773   \@onelevel@sanitize\HyPsd@temp
2774   \Hy@Warning{%
2775     Values of option 'pdfencoding':\MessageBreak
2776     'pdfdoc', 'unicode', 'auto'.\MessageBreak
2777     Ignoring unknown value '\HyPsd@temp'%
2778   }%
2779 \fi
2780 \fi
2781 }
2782 \def\HyPsd@pdfencoding@auto{auto}
2783 \def\HyPsd@pdfencoding@pdfdoc{pdfdoc}
2784 \def\HyPsd@pdfencoding@unicode{unicode}
2785 \let\HyPsd@pdfencoding\HyPsd@pdfencoding@pdfdoc
2786 \def\HyPsd@LoadStringEnc{%
2787   \RequirePackage{stringenc}[2009/12/15]%
2788   \let\HyPsd@LoadStringEnc\relax
2789 }
2790 \Hy@AtBeginDocument{%
2791   \@ifpackageloaded{stringenc}{%
2792     \let\HyPsd@LoadStringEnc\relax
2793   }{%
2794     \def\HyPsd@LoadStringEnc{%
2795       \Hy@WarningNoLine{%
2796         Missing package 'stringenc'. Use 'pdfencoding=auto'\MessageBreak
2797         in the preamble or load the package there%
2798       }%
2799     }%
2800   }%
2801 }
2802 \def\hypersetup{\kvsetkeys{Hyp}}
2803 \newif\ifHy@setpdfversion
2804 \define@key{Hyp}{pdfversion}{%
2805   \@ifundefined{Hy@pdfversion@#1}{%
2806     \PackageWarning{hyperref}{%
2807       Unsupported PDF version '#1'.\MessageBreak
2808       Valid values: 1.2 until 1.9%
2809     }%
2810   }{%
2811     \Hy@setpdfversiontrue
2812     \edef\Hy@pdfversion{\@nameuse{Hy@pdfversion@#1}}%
2813   }%
2814 }
2815 \@namedef{Hy@pdfversion@1.2}{2}%
2816 \@namedef{Hy@pdfversion@1.3}{3}%
2817 \@namedef{Hy@pdfversion@1.4}{4}%
2818 \@namedef{Hy@pdfversion@1.5}{5}%
2819 \@namedef{Hy@pdfversion@1.6}{6}%
2820 \@namedef{Hy@pdfversion@1.7}{7}%
2821 \@namedef{Hy@pdfversion@1.8}{8}%
2822 \@namedef{Hy@pdfversion@1.9}{9}%

```

```
2823 \def\Hy@pdfversion{2}
```

10 Options for different drivers

```
2824 \newif\ifHy@DviMode
2825 \let\Hy@DviErrMsg\ltx@empty
2826 \ifpdf
2827   \def\Hy@DviErrMsg{pdfTeX or LuaTeX is running in PDF mode}%
2828 \else
2829   \ifxetex
2830     \def\Hy@DviErrMsg{XeTeX is running}%
2831   \else
2832     \ifvtex
2833       \ifvtexdvi
2834         \Hy@DviModetrue
2835       \else
2836         \def\Hy@DviErrMsg{VTeX is running, but not in DVI mode}%
2837       \fi
2838     \else
2839       \Hy@DviModetrue
2840     \fi
2841   \fi
2842 \fi
2843 \def\HyOpt@CheckDvi#1{%
2844   \ifHy@DviMode
2845     \expandafter\ltx@firstofone
2846   \else
2847     \Hy@Error{%
2848       Wrong DVI mode driver option ‘#1’,\MessageBreak
2849       because \Hy@DviErrMsg
2850     }\@ehc
2851     \expandafter\ltx@gobble
2852   \fi
2853 }

2854 \DeclareVoidOption{tex4ht}{%
2855   \Hy@texhttrue
2856   \kvsetkeys{Hyp}{colorlinks=true}%
2857   \def\BeforeTeXIVht{\RequirePackage{color}}}%
2858 \def\Hy@driver{htex4ht}%
2859 \def\MaybeStopEarly{%
2860   \Hy@Message{Stopped early}%
2861   \Hy@AtBeginDocument{%
2862     \PDF@FinishDoc
2863     \gdef\PDF@FinishDoc{}%
2864   }%
2865   \endinput
2866 }%
2867 }

2868 \DeclareVoidOption{pdftex}{%
2869   \ifpdf
2870     \def\Hy@driver{hpdftex}%
2871   \else
2872     \Hy@Error{%
2873       Wrong driver option ‘pdftex’,\MessageBreak
2874       because pdfTeX in PDF mode is not detected%
2875     }\@ehc
2876   \fi
```

```

2877 }
2878 \DeclareVoidOption{nativepdf}{%
2879   \HyOpt@CheckDvi{nativepdf}{%
2880     \def\Hy@driver{hdvips}%
2881   }%
2882 }
2883 \DeclareVoidOption{dvipdfm}{%
2884   \HyOpt@CheckDvi{dvipdfm}{%
2885     \def\Hy@driver{hdvipdfm}%
2886   }%
2887 }
2888 \DeclareVoidOption{dvipdfmx}{%
2889   \HyOpt@CheckDvi{dvipdfmx}{%
2890     \def\Hy@driver{hdvipdfm}%
2891   }%
2892 }
2893 \define@key{Hyp}{dvipdfmx-outline-open}[true]{%
2894   \expandafter\ifx\csname if#1\expandafter\endcsname
2895     \csname iftrue\endcsname
2896   \chardef\SpecialDvipdfmxOutlineOpen\@ne
2897   \else
2898     \chardef\SpecialDvipdfmxOutlineOpen\z@
2899   \fi
2900 }
2901 \DeclareVoidOption{xetex}{%
2902   \ifxetex
2903     \def\Hy@driver{hxetex}%
2904   \else
2905     \Hy@Error{%
2906       Wrong driver option 'xetex',\MessageBreak
2907       because XeTeX is not detected%
2908     }\@ehc
2909   \fi
2910 }
2911 \DeclareVoidOption{pdfmark}{%
2912   \HyOpt@CheckDvi{pdfmark}{%
2913     \def\Hy@driver{hdvips}%
2914   }%
2915 }
2916 \DeclareVoidOption{dvips}{%
2917   \HyOpt@CheckDvi{dvips}{%
2918     \def\Hy@driver{hdvips}%
2919   }%
2920 }
2921 \DeclareVoidOption{hypertex}{%
2922   \HyOpt@CheckDvi{hypertex}{%
2923     \def\Hy@driver{hypertex}%
2924   }%
2925 }
2926 \let\Hy@MaybeStopNow\relax
2927 \DeclareVoidOption{vtex}{%
2928   \ifvtex
2929     \ifnum 0\ifnum\OpMode<1 1\fi \ifnum\OpMode>3 1\fi =0 %
2930     \def\Hy@driver{hvtex}%
2931   \else
2932     \ifnum\OpMode=10\relax
2933     \def\Hy@driver{hvtexhtm}%

```

```

2934     \def\MaybeStopEarly{%
2935         \Hy@Message{Stopped early}%
2936         \Hy@AtBeginDocument{%
2937             \PDF@FinishDoc
2938             \gdef\PDF@FinishDoc{}%
2939         }%
2940     \endinput
2941 }%
2942 \else
2943     \Hy@Error{%
2944         Wrong driver option 'vtex',\MessageBreak
2945         because of wrong OpMode (\the\OpMode)%
2946     }\@ehc
2947 \fi
2948 \fi
2949 \else
2950     \Hy@Error{%
2951         Wrong driver option 'vtex',\MessageBreak
2952         because VTeX is not running%
2953     }\@ehc
2954 \fi
2955 }
2956 \DeclareVoidOption{vtexpdfmark}{%
2957     \ifvtex
2958         \ifnum 0\ifnum\OpMode<1 1\fi \ifnum\OpMode>3 1\fi =0 %
2959         \def\Hy@driver{hvtexmrk}%
2960     \else
2961         \Hy@Error{%
2962             Wrong driver option 'vtexpdfmark',\MessageBreak
2963             because of wrong OpMode (\the\OpMode)%
2964         }\@ehc
2965     \fi
2966 \else
2967     \Hy@Error{%
2968         Wrong driver option 'vtexpdfmark',\MessageBreak
2969         because VTeX is not running%
2970     }\@ehc
2971 \fi
2972 }
2973 \DeclareVoidOption{dviwindo}{%
2974     \HyOpt@CheckDvi{dviwindo}{%
2975         \def\Hy@driver{hdviwind}%
2976         \kvsetkeys{Hyp}{colorlinks}%
2977         \PassOptionsToPackage{dviwindo}{color}%
2978     }%
2979 }
2980 \DeclareVoidOption{dvipsone}{%
2981     \HyOpt@CheckDvi{dvipsone}{%
2982         \def\Hy@driver{hdvipson}%
2983     }%
2984 }
2985 \DeclareVoidOption{textures}{%
2986     \HyOpt@CheckDvi{textures}{%
2987         \def\Hy@driver{htexture}%
2988     }%
2989 }
2990 \DeclareVoidOption{latex2html}{%

```

```

2991 \HyOpt@CheckDvi{latex2html}{}%
2992 \Hy@AtBeginDocument{\@latex2htmlX}%
2993 }%
2994 }

```

No more special treatment for ps2pdf. Let it sink or swim.

```

2995 \DeclareVoidOption{ps2pdf}{}%
2996 \HyOpt@CheckDvi{ps2pdf}{}%
2997 \def\Hy@driver{hdvips}%
2998 }%
2999 }

3000 \let\HyOpt@DriverFallback\ltx@empty
3001 \define@key{Hyp}{driverfallback}{}%
3002 \ifHy@DviMode
3003   \def\HyOpt@DriverFallback{#1}%
3004   \Hy@Match\HyOpt@DriverFallback{%
3005     ~(|dvipdfm|dvipdfmx|dvips|dvipsone|dviwindo|hypertex|ps2pdf|
3006       latex2html|tex4ht)$%
3007   }{}%
3008   \let\HyOpt@DriverFallback\ltx@empty
3009 }%
3010 \fi
3011 }

```

11 Options to add extra features

Make included figures (assuming they use the standard graphics package) be hypertext links. Off by default. Needs more work.

```

3012 \define@key{Hyp}{hyperfigures}[true]{%
3013   \Hy@boolkey{hyperfigures}{#1}%
3014 }

```

The automatic footnote linking can be disabled by option hyperfootnotes.

```

3015 \define@key{Hyp}{hyperfootnotes}[true]{%
3016   \Hy@boolkey{hyperfootnotes}{#1}%
3017 }

```

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

```

3018 \def\back@none{none}
3019 \def\back@section{section}
3020 \def\back@page{page}
3021 \def\back@slide{slide}
3022 \define@key{Hyp}{backref}[section]{%
3023   \lowercase{\def\Hy@tempa{#1}}%
3024   \ifx\Hy@tempa\@empty
3025     \let\Hy@tempa\back@section
3026   \fi
3027   \ifx\Hy@tempa\Hy@false
3028     \let\Hy@tempa\back@none
3029   \fi
3030   \ifx\Hy@tempa\back@slide
3031     \let\Hy@tempa\back@section
3032   \fi
3033   \ifx\Hy@tempa\back@page
3034     \PassOptionsToPackage{hyperpageref}{backref}%
3035     \Hy@backreftrue
3036   \else
3037     \ifx\Hy@tempa\back@section

```



```

3038 \PassOptionsToPackage{hyperref}{backref}%
3039 \Hy@backreftrue
3040 \else
3041 \ifx\Hy@tempa\back@none
3042 \Hy@backreffalse
3043 \else
3044 \Hy@WarnOptionValue{#1}{backref}{%
3045 'section', 'slide', 'page', 'none',\MessageBreak
3046 or 'false'}%
3047 \fi
3048 \fi
3049 \fi
3050 }
3051 \define@key{Hyp}{pagebackref}[true]{%
3052 \edef\Hy@tempa{#1}%
3053 \lowercase\expandafter{%
3054 \expandafter\def\expandafter\Hy@tempa\expandafter{\Hy@tempa}%
3055 }%
3056 \ifx\Hy@tempa\@empty
3057 \let\Hy@tempa\Hy@true
3058 \fi
3059 \ifx\Hy@tempa\Hy@true
3060 \PassOptionsToPackage{hyperpageref}{backref}%
3061 \Hy@backreftrue
3062 \else
3063 \ifx\Hy@tempa\Hy@false
3064 \Hy@backreffalse
3065 \else
3066 \Hy@WarnOptionValue{#1}{pagebackref}{'true' or 'false'}%
3067 \fi
3068 \fi
3069 }

```

Make index entries be links back to the relevant pages. By default this is turned on, but may be stopped.

```

3070 \define@key{Hyp}{hyperindex}[true]{%
3071 \Hy@boolkey{hyperindex}{#1}%
3072 }

```

Configuration of encap char.

```

3073 \define@key{Hyp}{encap}[|]{%
3074 \def\HyInd@EncapChar{#1}%
3075 }

```

12 Language options

The `\autoref` feature depends on the language.

```

3076 \def\HyLang@afrikaans{%
3077 \def\equationautorefname{Vergelyking}%
3078 \def\footnoteautorefname{Voetnota}%
3079 \def\itemautorefname{Item}%
3080 \def\figureautorefname{Figuur}%
3081 \def\tableautorefname{Tabel}%
3082 \def\partautorefname{Deel}%
3083 \def\appendixautorefname{Bylae}%
3084 \def\chapterautorefname{Hoofstuk}%
3085 \def\sectionautorefname{Afdeling}%

```

```

3086 \def\subsectionautorefname{Subafdeling}%
3087 \def\subsubsectionautorefname{Subsubafdeling}%
3088 \def\paragraphautorefname{Paragraaf}%
3089 \def\subparagraphautorefname{Subparagraaf}%
3090 \def\FancyVerbLineautorefname{Lyn}%
3091 \def\theoremautorefname{Teorema}%
3092 \def\pageautorefname{Bladsy}%
3093 }
3094 \def\HyLang@english{%
3095 \def\equationautorefname{Equation}%
3096 \def\footnoteautorefname{footnote}%
3097 \def\itemautorefname{item}%
3098 \def\figureautorefname{Figure}%
3099 \def\tableautorefname{Table}%
3100 \def\partautorefname{Part}%
3101 \def\appendixautorefname{Appendix}%
3102 \def\chapterautorefname{chapter}%
3103 \def\sectionautorefname{section}%
3104 \def\subsectionautorefname{subsection}%
3105 \def\subsubsectionautorefname{subsubsection}%
3106 \def\paragraphautorefname{paragraph}%
3107 \def\subparagraphautorefname{subparagraph}%
3108 \def\FancyVerbLineautorefname{line}%
3109 \def\theoremautorefname{Theorem}%
3110 \def\pageautorefname{page}%
3111 }
3112 \def\HyLang@french{%
3113 \def\equationautorefname{'Equation}%
3114 \def\footnoteautorefname{note}%
3115 \def\itemautorefname{item}%
3116 \def\figureautorefname{Figure}%
3117 \def\tableautorefname{Tableau}%
3118 \def\partautorefname{Partie}%
3119 \def\appendixautorefname{Appendice}%
3120 \def\chapterautorefname{chapitre}%
3121 \def\sectionautorefname{section}%
3122 \def\subsectionautorefname{sous-section}%
3123 \def\subsubsectionautorefname{sous-sous-section}%
3124 \def\paragraphautorefname{paragraphe}%
3125 \def\subparagraphautorefname{sous-paragraphe}%
3126 \def\FancyVerbLineautorefname{ligne}%
3127 \def\theoremautorefname{Th'eor'eme}%
3128 \def\pageautorefname{page}%
3129 }
3130 \def\HyLang@german{%
3131 \def\equationautorefname{Gleichung}%
3132 \def\footnoteautorefname{Fu'ss note}%
3133 \def\itemautorefname{Punkt}%
3134 \def\figureautorefname{Abbildung}%
3135 \def\tableautorefname{Tabelle}%
3136 \def\partautorefname{Teil}%
3137 \def\appendixautorefname{Anhang}%
3138 \def\chapterautorefname{Kapitel}%
3139 \def\sectionautorefname{Abschnitt}%
3140 \def\subsectionautorefname{Unterabschnitt}%
3141 \def\subsubsectionautorefname{Unterunterabschnitt}%
3142 \def\paragraphautorefname{Absatz}%

```

```

3143 \def\subparagraphautorefname{Unterabsatz}%
3144 \def\FancyVerbLineautorefname{Zeile}%
3145 \def\theoremautorefname{Theorem}%
3146 \def\pageautorefname{Seite}%
3147 }
3148 \def\HyLang@italian{%
3149 \def\equationautorefname{Equazione}%
3150 \def\footnoteautorefname{nota}%
3151 \def\itemautorefname{punto}%
3152 \def\figureautorefname{Figura}%
3153 \def\tableautorefname{Tabella}%
3154 \def\partautorefname{Parte}%
3155 \def\appendixautorefname{Appendice}%
3156 \def\chapterautorefname{Capitolo}%
3157 \def\sectionautorefname{sezione}%
3158 \def\subsectionautorefname{sottosezione}%
3159 \def\subsubsectionautorefname{sottosottosezione}%
3160 \def\paragraphautorefname{paragrafo}%
3161 \def\subparagraphautorefname{sottoparagrafo}%
3162 \def\FancyVerbLineautorefname{linea}%
3163 \def\theoremautorefname{Teorema}%
3164 \def\pageautorefname{Pag.\@}%
3165 }
3166 \def\HyLang@magyar{%
3167 \def\equationautorefname{Egyenlet}%
3168 \def\footnoteautorefname{l'abjegyzet}%
3169 \def\itemautorefname{Elem}%
3170 \def\figureautorefname{'Abra}%
3171 \def\tableautorefname{T'abl'azat}%
3172 \def\partautorefname{R'esz}%
3173 \def\appendixautorefname{F'uggel'ek}%
3174 \def\chapterautorefname{fejezet}%
3175 \def\sectionautorefname{szakasz}%
3176 \def\subsectionautorefname{alszakasz}%
3177 \def\subsubsectionautorefname{alalszakasz}%
3178 \def\paragraphautorefname{bekezd'es}%
3179 \def\subparagraphautorefname{albekezd'es}%
3180 \def\FancyVerbLineautorefname{sor}%
3181 \def\theoremautorefname{T'etel}%
3182 \def\pageautorefname{oldal}%
3183 }
3184 \def\HyLang@portuges{%
3185 \def\equationautorefname{Equa\c c\~ao}%
3186 \def\footnoteautorefname{Nota de rodap'e}%
3187 \def\itemautorefname{Item}%
3188 \def\figureautorefname{Figura}%
3189 \def\tableautorefname{Tabela}%
3190 \def\partautorefname{Parte}%
3191 \def\appendixautorefname{Ap\~endice}%
3192 \def\chapterautorefname{Cap'itulo}%
3193 \def\sectionautorefname{Se\c c\~ao}%
3194 \def\subsectionautorefname{Subse\c c\~ao}%
3195 \def\subsubsectionautorefname{Subsubse\c c\~ao}%
3196 \def\paragraphautorefname{par'agrafo}%
3197 \def\subparagraphautorefname{subpar'agrafo}%
3198 \def\FancyVerbLineautorefname{linha}%
3199 \def\theoremautorefname{Teorema}%

```

```

3200 \def\pageautorefname{P\'agina}%
3201 }

```

Next commented section for Russian is provided by Olga Lapko.

Next follow the checked reference names with commented variants and explanations. All they are abbreviated and they won't create a grammatical problems in the *middle* of sentences.

The most weak points in these abbreviations are the `\equationautorefname`, `\theoremautorefname` and the `\FancyVerbLineautorefname`. But those three, and also the `\footnoteautorefname` are not *too* often referenced. Another rather weak point is the `\appendixautorefname`.

```

3202 \def\HyLang@russian{%

```

The abbreviated reference to the equation: it is not for “the good face of the book”, but maybe it will be better to get the company for the `\theoremautorefname`?

```

3203 \def\equationautorefname{\cyr\cyrv\cyrry\cyrr.}%

```

The name of the equation reference has common form for both nominative and accusative but changes in other forms, like “of `\autoref{auto}`” etc. The full name must follow full name of the `\theoremautorefname`.

```

3204 % \def\equationautorefname{%
3205 %   \cyr\cyrv\cyrry\cyrr\cyra\cyrrh\cyre\cyrn\cyri\cyre
3206 % }%

```

The variant of footnote has abbreviation form of the synonym of the word “footnote”. This variant of abbreviated synonym has alternative status (maybe obsolete?).

```

3207 \def\footnoteautorefname{%
3208   \cyr\cyrp\cyro\cyrd\cyrs\cyrt\cyrr.\ \cyrp\cyrr\cyri\cyrm.%
3209 }%

```

Commented form of the full synonym for “footnote”. It has common form for both nominative and accusative but changes in other forms, like “of `\autoref{auto}`”

```

3210 % \def\footnoteautorefname{%
3211 %   \cyr\cyrp\cyro\cyrd\cyrs\cyrt\cyrr\cyro\cyrch\cyrn\cyro\cyre\ %
3212 %   \cyrp\cyrr\cyri\cyrm\cyre\cyrch\cyra\cyrn\cyri\cyre
3213 % }%

```

Commented forms of the “footnote”: have different forms, the same is for the nominative and accusative. (The others needed?)

```

3214 % \def\Nomfootnoteautorefname{\cyr\cyrs\cyrn\cyro\cyrs\cyrk\cyra}%
3215 % \def\Accfootnoteautorefname{\cyr\cyrs\cyrn\cyro\cyrs\cyrk\cyru}%

```

Name of the list item, can be confused with the paragraph reference name, but reader could understand meaning from context(?). Commented variant has common form for both nominative and accusative but changes in other forms, like “of `\autoref{auto}`” etc.

```

3216 \def\itemautorefname{\cyr\cyrp.}%
3217 % \def\itemautorefname{\cyr\cyrp\cyru\cyrn\cyrk\cyrt}%

```

Names of the figure and table have stable (standard) abbreviation forms. No problem in the middle of sentence.

```

3218 \def\figureautorefname{\cyr\cyrr\cyri\cyrs.}%
3219 \def\tableautorefname{\cyr\cyrt\cyra\cyrb\cyrl.}%

```

Names of the part, chapter, section(s) have stable (standard) abbreviation forms. No problem in the middle of sentence.

```

3220 \def\partautorefname{\cyr\cyrch.}%
3221 \def\chapterautorefname{\cyr\cyrg\cyrl.}%
3222 \def\sectionautorefname{\cyr\cyrr\cyra\cyrz\cyrd.}%

```

Name of the appendix can use this abbreviation, but it is not standard for books, i.e, not for “the good face of the book”. Commented variant has common form for both nominative and accusative but changes in other forms, like “of \autoref{auto}” etc.

```
3223 \def\appendixautorefname{\cyr\cyrp\cyrr\cyri\cyr1.}%
3224 % \def\appendixautorefname{%
3225 % \cyr\cyrp\cyrr\cyri\cyr1\cyro\cyrzh\cyre\cyrn\cyri\cyre
3226 % }%
```

The sectioning command have stable (almost standard) and common abbreviation form for all levels (the meaning of these references visible from the section number). No problem.

```
3227 \def\subsectionautorefname{\cyr\cyrr\cyra\cyrz\cyrd.}%
3228 \def\subsubsectionautorefname{\cyr\cyrr\cyra\cyrz\cyrd.}%
```

The names of references to paragraphs also have stable (almost standard) and common abbreviation form for all levels (the meaning of these references is visible from the section number). No problem in the middle of sentence.

```
3229 \def\paragraphautorefname{\cyr\cyrp.}%
3230 \def\subparagraphautorefname{\cyr\cyrp.}%
```

Commented variant can be used in books but since it has common form for both nominative and accusative but it changes in other forms, like “of \autoref{auto}” etc.

```
3231 % \def\paragraphautorefname{\cyr\cyrp\cyru\cyrn\cyrk\cyrt}%
3232 % \def\subparagraphautorefname{\cyr\cyrp\cyru\cyrn\cyrk\cyrt}%
```

The name of verbatim line. Here could be a standard of the abbreviation (used very rare). But the author preprint publications (which have not any editor or corrector) can use this abbreviation for the page reference. So the meaning of the line reference can be read as reference to the page.

```
3233 \def\FancyVerbLineautorefname{\cyr\cyrs\cyrt\cyrr.}%
```

Commented names of the “verbatim line”: have different forms, also the nominative and accusative.

```
3234 % \def\NomFancyVerbLineautorefname{\cyr\cyrs\cyrt\cyrr\cyro\cyrk\cyra}%
3235 % \def\AccFancyVerbLineautorefname{\cyr\cyrs\cyrt\cyrr\cyro\cyrk\cyru}%
```

The alternative, ve-e-e-ery professional abbreviation, was used in typography markup for typesetters.

```
3236 % \def\FancyVerbLineautorefname{\cyr\cyrs\cyrt\cyrr\cyrk.}%
```

The names of theorem: if we want have “the good face of the book”, so the theorem reference must have the full name (like equation reference). But ...

```
3237 \def\theoremautorefname{\cyr\cyrt\cyre\cyro\cyrr.}%
```

Commented forms of the “theorem”: have different forms, also the nominative and accusative.

```
3238 % \def\Nomtheoremautorefname{\cyr\cyrt\cyre\cyro\cyrr\cyre\cyrm\cyra}%
3239 % \def\Acctheoremautorefname{\cyr\cyrt\cyre\cyro\cyrr\cyre\cyrm\cyru}%
```

Name of the page stable (standard) abbreviation form. No problem.

```
3240 \def\pageautorefname{\cyr\cyrs.}%
3241 }
```

```
3242 \def\HyLang@spanish{%
3243 \def\equationautorefname{Ecuaci'on}%
3244 \def\footnoteautorefname{Nota a pie de p'agina}%
3245 \def\itemautorefname{Elemento}%
3246 \def\figureautorefname{Figura}%
```

```

3247 \def\tableautorefname{Tabla}%
3248 \def\partautorefname{Parte}%
3249 \def\appendixautorefname{Ap\`endice}%
3250 \def\chapterautorefname{Cap\`itulo}%
3251 \def\sectionautorefname{Secci\`on}%
3252 \def\subsectionautorefname{Subsecci\`on}%
3253 \def\subsubsectionautorefname{Subsubsecci\`on}%
3254 \def\paragraphautorefname{P\`arrafo}%
3255 \def\subparagraphautorefname{Subp\`arrafo}%
3256 \def\FancyVerbLineautorefname{L\`inea}%
3257 \def\theoremautorefname{Teorema}%
3258 \def\pageautorefname{P\`agina}%
3259 }
3260 \def\HyLang@vietnamese{%
3261 \def\equationautorefname{Ph\`uhorn{}}\ohorn{}ng tr\`inh}%
3262 \def\footnoteautorefname{Ch\`u th\`ich}%
3263 \def\itemautorefname{m\`d{u}c}%
3264 \def\figureautorefname{H\`inh}%
3265 \def\tableautorefname{B\`h{a}ng}%
3266 \def\partautorefname{Ph\`acircumflex{n}}%
3267 \def\appendixautorefname{Ph\`d{u} l\`d{u}c}%
3268 \def\chapterautorefname{ch\`uhorn{}}\ohorn{}ng}%
3269 \def\sectionautorefname{m\`d{u}c}%
3270 \def\subsectionautorefname{m\`d{u}c}%
3271 \def\subsubsectionautorefname{m\`d{u}c}%
3272 \def\paragraphautorefname{d{u}o\`d{a}n}%
3273 \def\subparagraphautorefname{d{u}o\`d{a}n}%
3274 \def\FancyVerbLineautorefname{d\`ong}%
3275 \def\theoremautorefname{D{J}{d{i}nh l\`y}}%
3276 \def\pageautorefname{Trang}%
3277 }

```

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

```

3278 \def\HyLang@addto#1#2{%
3279 #2%
3280 \@temptokena{#2}%
3281 \ifx#1\relax
3282 \let#1\@empty
3283 \fi
3284 \ifx#1\@undefined
3285 \edef#1{\the\@temptokena}%
3286 \else
3287 \toks@\expandafter{#1}%
3288 \edef#1{\the\toks@\the\@temptokena}%
3289 \fi
3290 \@temptokena{}\toks@\@temptokena
3291 }
3292 \def\HyLang@DeclareLang#1#2#3{%
3293 \@ifpackagewith{babel}{#1}{%
3294 \expandafter\HyLang@addto
3295 \csname extras#1\expandafter\endcsname
3296 \csname HyLang@#2\endcsname
3297 \begingroup
3298 \edef\x{\endgroup
3299 #3%
3300 }%

```

```

3301 \x
3302 \@namedef{HyLang@#1@done}{}%
3303 }{}%
3304 \begingroup
3305 \edef\x##1##2{%
3306   \noexpand\ifx##2\relax
3307     \errmessage{No definitions for language #2' found!}%
3308   \noexpand\fi
3309 \endgroup
3310 \noexpand\define@key{Hyp}{#1}[]{}%
3311 \noexpand\@ifundefined{HyLang@#1@done}{%
3312   \noexpand\HyLang@addto{\noexpand##1}{\noexpand##2}%
3313   #3%
3314   \noexpand\@namedef{HyLang@#1@done}{}%
3315 }{}%
3316 }%
3317 }%
3318 \expandafter\x\csname extras#1\expandafter\endcsname
3319 \csname HyLang@#2\endcsname
3320 }
3321 \HyLang@DeclareLang{english}{english}{}
3322 \HyLang@DeclareLang{UKenglish}{english}{}
3323 \HyLang@DeclareLang{british}{english}{}
3324 \HyLang@DeclareLang{USenglish}{english}{}
3325 \HyLang@DeclareLang{american}{english}{}
3326 \HyLang@DeclareLang{german}{german}{}
3327 \HyLang@DeclareLang{austrian}{german}{}
3328 \HyLang@DeclareLang{ngerman}{german}{}
3329 \HyLang@DeclareLang{naustrian}{german}{}
3330 \HyLang@DeclareLang{russian}{russian}{\noexpand\hypersetup{unicode}}
3331 \HyLang@DeclareLang{brazil}{portuges}{}
3332 \HyLang@DeclareLang{brazilian}{portuges}{}
3333 \HyLang@DeclareLang{portuguese}{portuges}{}
3334 \HyLang@DeclareLang{spanish}{spanish}{}
3335 \HyLang@DeclareLang{afrikaans}{afrikaans}{}
3336 \HyLang@DeclareLang{french}{french}{}
3337 \HyLang@DeclareLang{frenchb}{french}{}
3338 \HyLang@DeclareLang{francais}{french}{}
3339 \HyLang@DeclareLang{acadian}{french}{}
3340 \HyLang@DeclareLang{canadien}{french}{}
3341 \HyLang@DeclareLang{italian}{italian}{}
3342 \HyLang@DeclareLang{magyar}{magyar}{}
3343 \HyLang@DeclareLang{hungarian}{magyar}{}

```

More work is needed in case of options vietnamese and vietnam.

```

3344 \DeclareVoidOption{vietnamese}{%
3345   \HyLang@addto\extrasvietnamese\HyLang@vietnamese
3346   \Hy@AtEndOfPackage{%
3347     \@ifundefined{T@PU}{}{}%
3348     \input{puvnenc.def}%
3349   }%
3350 }%
3351 }
3352 \DeclareVoidOption{vietnam}{%
3353   \HyLang@addto\extrasvietnam\HyLang@vietnamese
3354   \Hy@AtEndOfPackage{%
3355     \@ifundefined{T@PU}{}{}%
3356     \input{puvnenc.def}%

```

```

3357 }%
3358 }%
3359 }

```

Similar for option arabic that just loads the additions to PU encoding for Arabi.

```

3360 \DeclareVoidOption{arabic}{%
3361   \Hy@AtEndOfPackage{%
3362     \@ifundefined{T@PU}{}{%
3363       \input{puarenc.def}%
3364     }%
3365   }%
3366 }

```

13 Options to change appearance of links

Colouring links at the L^AT_EX level is useful for debugging, perhaps.

```

3367 \define@key{Hyp}{colorlinks}[true]{%
3368   \Hy@boolkey{colorlinks}{#1}%
3369 }
3370 \DeclareVoidOption{hidelinks}{%
3371   \Hy@colorlinksfalse
3372   \Hy@ocgcolorlinksfalse
3373   \Hy@frenchlinksfalse
3374   \def\Hy@colorlink##1{\begingroup}%
3375   \def\Hy@endcolorlink{\endgroup}%
3376   \def\@pdfborder{0 0 0}%
3377   \let\@pdfborderstyle\ltx@empty
3378 }
3379 \define@key{Hyp}{ocgcolorlinks}[true]{%
3380   \Hy@boolkey{ocgcolorlinks}{#1}%
3381 }
3382 \Hy@AtBeginDocument{%
3383   \begingroup
3384   \@ifundefined{OBJ@OCG@view}{%
3385     \ifHy@ocgcolorlinks
3386       \Hy@Warning{%
3387         Driver does not support ‘ocgcolorlinks’,\MessageBreak
3388         using ‘colorlinks’ instead%
3389       }%
3390     \fi
3391   }{}%
3392   \endgroup
3393 }
3394 \define@key{Hyp}{frenchlinks}[true]{%
3395   \Hy@boolkey{frenchlinks}{#1}%
3396 }

```

14 Bookmarking

```

3397 \begingroup\expandafter\expandafter\expandafter\endgroup
3398 \expandafter\ifx\csname chapter\endcsname\relax
3399   \def\toclevel@part{0}%
3400 \else
3401   \def\toclevel@part{-1}%
3402 \fi
3403 \def\toclevel@chapter{0}

```



```

3404 \def\toclevel@section{1}
3405 \def\toclevel@subsection{2}
3406 \def\toclevel@subsubsection{3}
3407 \def\toclevel@paragraph{4}
3408 \def\toclevel@subparagraph{5}
3409 \def\toclevel@figure{0}
3410 \def\toclevel@table{0}
3411 \ifpackageloaded{listings}{%
3412   \providecommand*\theHlstlisting{\thelstlisting}%
3413   \providecommand*\toclevel@lstlisting{0}%
3414 }{}
3415 \ifpackageloaded{listing}{%
3416   \providecommand*\theHlisting{\thelisting}%
3417   \providecommand*\toclevel@listing{0}%
3418 }{}

3419 \define@key{Hyp}{bookmarks}[true]{%
3420   \Hy@boolkey{bookmarks}{#1}%
3421 }

3422 \define@key{Hyp}{bookmarksopen}[true]{%
3423   \Hy@boolkey{bookmarksopen}{#1}%
3424 }

```

The depth of the outlines is controlled by option `bookmarksdepth`. The option acts globally and distinguishes three cases:

- `bookmarksdepth`: Without value `hyperref` uses counter `tocdepth` (compatible behaviour and default).
- `bookmarksdepth=<number>`: the depth is set to `<number>`.
- `bookmarksdepth=<name>`: The `<name>` must not start with a number or minus sign. It is a document division name (part, chapter, section, ...). Internally the value of macro `\toclevel@<name>` is used.

```

3425 \let\Hy@bookmarksdepth\c@tocdepth
3426 \define@key{Hyp}{bookmarksdepth}[]{}%
3427 \begingroup
3428   \edef\x{#1}%
3429   \ifx\x\empty
3430     \global\let\Hy@bookmarksdepth\c@tocdepth
3431   \else
3432     \@ifundefined{toclevel@\x}{%
3433       \@onelevel@sanitize\x
3434       \edef\y{\expandafter\@car\x\@nil}%
3435       \ifcase 0\expandafter\ifx\y-1\fi
3436         \expandafter\ifnum\expandafter'\y>47 %
3437         \expandafter\ifnum\expandafter'\y<58 1\fi\fi\relax
3438       \Hy@Warning{Unknown document division name (\x)}%
3439     \else
3440       \setbox\z@=\hbox{%
3441         \count@=\x
3442         \xdef\Hy@bookmarksdepth{\the\count@}%
3443       }%
3444     \fi
3445   }{}%
3446   \setbox\z@=\hbox{%
3447     \count@=\csname toclevel@\x\endcsname
3448     \xdef\Hy@bookmarksdepth{\the\count@}%

```

```

3449     }%
3450   }%
3451   \fi
3452 \endgroup
3453 }

```

‘bookmarksopenlevel’ to specify the open level. From Heiko Oberdiek.

```

3454 \define@key{Hyp}{bookmarksopenlevel}{%
3455   \def\@bookmarksopenlevel{#1}%
3456 }
3457 \def\@bookmarksopenlevel{\maxdimen}
3458 % ‘bookmarkstype’ to specify which ‘toc’ file to mimic
3459 \define@key{Hyp}{bookmarkstype}{%
3460   \def\Hy@bookmarkstype{#1}%
3461 }
3462 \def\Hy@bookmarkstype{toc}

```

Richard Curnow <richard@curnow.demon.co.uk> suggested this functionality. It adds section numbers etc to bookmarks.

```

3463 \define@key{Hyp}{bookmarksnumbered}[true]{%
3464   \Hy@boolkey{bookmarksnumbered}{#1}%
3465 }

```

Option CJKbookmarks enables the patch for CJK bookmarks.

```

3466 \define@key{Hyp}{CJKbookmarks}[true]{%
3467   \Hy@boolkey{CJKbookmarks}{#1}%
3468 }

3469 \def\Hy@temp#1{%
3470   \expandafter\Hy@@temp\csname @#1color\endcsname{#1}%
3471 }
3472 \def\Hy@@temp#1#2#3{%
3473   \define@key{Hyp}{#2color}{%
3474     \HyColor@HyperrefColor{##1}#1%
3475   }%
3476   \def#1{#3}%
3477 }
3478 \Hy@temp{link}{red}
3479 \Hy@temp{anchor}{black}
3480 \Hy@temp{cite}{green}
3481 \Hy@temp{file}{cyan}
3482 \Hy@temp{url}{magenta}
3483 \Hy@temp{menu}{red}
3484 \Hy@temp{run}{\@filecolor}
3485 \define@key{Hyp}{pagecolor}{%
3486   \Hy@WarningPageColor
3487 }
3488 \def\Hy@WarningPageColor{%
3489   \Hy@WarningNoLine{Option ‘pagecolor’ is not available anymore}%
3490   \global\let\Hy@WarningPageColor\relax
3491 }
3492 \define@key{Hyp}{allcolors}{%
3493   \HyColor@HyperrefColor{#1}\@linkcolor
3494   \HyColor@HyperrefColor{#1}\@anchorcolor
3495   \HyColor@HyperrefColor{#1}\@citecolor
3496   \HyColor@HyperrefColor{#1}\@filecolor
3497   \HyColor@HyperrefColor{#1}\@urlcolor
3498   \HyColor@HyperrefColor{#1}\@menucolor
3499   \HyColor@HyperrefColor{#1}\@runcolor

```

```

3500 }
3501 \def\hyperbaseurl#1{\def\@baseurl{#1}}
3502 \define@key{Hyp}{baseurl}{\hyperbaseurl{#1}}
3503 \let\@baseurl\@empty
3504 \def\hyperlinkfileprefix#1{\def\Hy@linkfileprefix{#1}}
3505 \define@key{Hyp}{linkfileprefix}{\hyperlinkfileprefix{#1}}
3506 \hyperlinkfileprefix{file:}

```

15 PDF-specific options

`\@pdfpagetransition` The value of option `pdfpagetransition` is stored in `\@pdfpagetransition`. Its initial value is set to `\relax` in order to be able to differentiate between a not used option and an option with an empty value.

```

3507 \let\@pdfpagetransition\relax
3508 \define@key{Hyp}{pdfpagetransition}{%
3509   \def\@pdfpagetransition{#1}%
3510 }

```

`\@pdfpageduration` The value of option `pdfpageduration` is stored in `\@pdfpageduration`. Its initial value is set to `\relax` in order to be able to differentiate between a not used option and an option with an empty value.

```

3511 \let\@pdfpageduration\relax
3512 \define@key{Hyp}{pdfpageduration}{%
3513   \def\@pdfpageduration{#1}%
3514   \Hy@Match\@pdfpageduration{%
3515     ^(|[0-9]+\.[0-9]*|[0-9]*\.[0-9]+)$%
3516   }{%
3517     \Hy@Warning{%
3518       Invalid value '@pdfpageduration'\MessageBreak
3519       of option 'pdfpageduration'\MessageBreak
3520       is replaced by an empty value%
3521     }%
3522     \let\@pdfpageduration\ltx@empty
3523   }%
3524 }

```

The entry for the `/Hid` key in the page object is only necessary, if it is used and set to true for at least one time. If it is always false, then the `/Hid` key is not written to the pdf page object in order not to enlarge the pdf file.

```

3525 \newif\ifHy@useHidKey
3526 \Hy@useHidKeyfalse
3527 \define@key{Hyp}{pdfpagehidden}[true]{%
3528   \Hy@boolkey{pdfpagehidden}{#1}%
3529   \ifHy@pdfpagehidden
3530     \global\Hy@useHidKeytrue
3531   \fi
3532 }

```

The value of the `bordercolor` options are not processed by the color package. Therefore the value consists of space separated rgb numbers in the range 0 until 1.

Package `xcolor` provides `\XC@bordercolor` since version 1.1. If the two spaces in the color specification are missing, then the value is processed as color specification from package `xcolor` by using `\XC@bordercolor` (since `xcolor` 2004/05/09

v1.11, versions 2005/03/24 v2.02 until 2006/11/28 v2.10 do not work because of a bug that is fixed in 2007/01/21 v2.11).

```

3533 \def\Hy@ColorList{cite,file,link,menu,run,url}
3534 \@for\Hy@temp:=\Hy@ColorList\do{%
3535   \edef\Hy@temp{%
3536     \noexpand\define@key{Hyp}{\Hy@temp bordercolor}{%
3537       \noexpand\HyColor@HyperrefBorderColor
3538       {##1}%
3539       \expandafter\noexpand\csname @\Hy@temp bordercolor\endcsname
3540       {hyperref}%
3541       {\Hy@temp bordercolor}%
3542     }%
3543   }%
3544   \Hy@temp
3545 }
3546 \define@key{Hyp}{pagebordercolor}{%
3547   \Hy@WarningPageBorderColor
3548 }
3549 \def\Hy@WarningPageBorderColor{%
3550   \Hy@WarningNoLine{Option 'pagebordercolor' is not available anymore}%
3551   \global\let\Hy@WarningPageBorderColor\relax
3552 }
3553 \define@key{Hyp}{allbordercolors}{%
3554   \def\Hy@temp##1##2{%
3555     \HyColor@HyperrefBorderColor{#1}##1{hyperref}{##2bordercolor}%
3556   }%
3557   \Hy@temp\@citebordercolor{cite}%
3558   \Hy@temp\@filebordercolor{file}%
3559   \Hy@temp\@linkbordercolor{link}%
3560   \Hy@temp\@menubordercolor{menu}%
3561   \Hy@temp\@runbordercolor{run}%
3562   \Hy@temp\@urlbordercolor{url}%
3563 }
3564 \define@key{Hyp}{pdfhighlight}{\def\@pdfhighlight{#1}}
3565 \Hy@DefNameKey{pdfhighlight}{%
3566   \do{/I}{Invert}%
3567   \do{/N}{None}%
3568   \do{/O}{Outline}%
3569   \do{/P}{Push}%
3570 }
3571 \define@key{Hyp}{pdfborder}{%
3572   \let\Hy@temp\@pdfborder
3573   \def\@pdfborder{#1}%
3574   \Hy@Match\@pdfborder{%
3575     ^\HyPat@NonNegativeReal/ %
3576     \HyPat@NonNegativeReal/ %
3577     \HyPat@NonNegativeReal/%
3578     ( ?[\HyPat@NonNegativeReal/( \HyPat@NonNegativeReal/)*])?%%
3579   }{}{%
3580     \Hy@Warning{%
3581       Invalid value '\@pdfborder'\MessageBreak
3582       for option 'pdfborder'\MessageBreak
3583       Option setting is ignored%
3584     }%
3585     \let\@pdfborder\Hy@temp
3586   }%
3587 }

```

```

3588 \define@key{Hyp}{pdfborderstyle}{%
3589   \let\Hy@temp\@pdfborderstyle
3590   \def\@pdfborderstyle{#1}%
3591   \Hy@Match\@pdfborderstyle{%
3592     ~%
3593     ( */Type */Border%
3594     | */W +\HyPat@NonNegativeReal/%
3595     | */S */[SDBIU]%
3596     | */D *\[ *(\HyPat@NonNegativeReal/( \HyPat@NonNegativeReal/)?)?]%
3597     )* *$%
3598   }{}{%
3599     \Hy@Warning{%
3600       Invalid value '\@pdfborderstyle'\MessageBreak
3601       for option 'pdfborderstyle'\MessageBreak
3602       Option setting is ignored%
3603     }%
3604     \let\@pdfborderstyle\Hy@temp
3605   }%
3606 }
3607 \def\Hy@setpdfborder{%
3608   \ifx\@pdfborder\@empty
3609     \else
3610       /Border[\@pdfborder]%
3611     \fi
3612   \ifx\@pdfborderstyle\@empty
3613     \else
3614       /BS<<\@pdfborderstyle>>%
3615     \fi
3616 }
3617 \Hy@DefNameKey{pdfpagemode}{%
3618   \do{UseNone}{}%
3619   \do{UseOutlines}{}%
3620   \do{UseThumbs}{}%
3621   \do{FullScreen}{}%
3622   \do{UseOC}{PDF 1.5}%
3623   \do{UseAttachments}{PDF 1.6}%
3624 }
3625 \Hy@DefNameKey{pdfnonfullscreenpagemode}{%
3626   \do{UseNone}{}%
3627   \do{UseOutlines}{}%
3628   \do{UseThumbs}{}%
3629   \do{FullScreen}{}%
3630   \do{UseOC}{PDF 1.5}%
3631   \do{UseAttachments}{PDF 1.6}%
3632 }
3633 \Hy@DefNameKey{pdfdirection}{%
3634   \do{L2R}{Left to right}%
3635   \do{R2L}{Right to left}%
3636 }
3637 \Hy@DefNameKey{pdfviewarea}{%
3638   \do{MediaBox}{}%
3639   \do{CropBox}{}%
3640   \do{BleedBox}{}%
3641   \do{TrimBox}{}%
3642   \do{ArtBox}{}%
3643 }
3644 \Hy@DefNameKey{pdfviewclip}{%

```

```

3645 \do{MediaBox}{}%
3646 \do{CropBox}{}%
3647 \do{BleedBox}{}%
3648 \do{TrimBox}{}%
3649 \do{ArtBox}{}%
3650 }
3651 \Hy@DefNameKey{pdfprintarea}{%
3652 \do{MediaBox}{}%
3653 \do{CropBox}{}%
3654 \do{BleedBox}{}%
3655 \do{TrimBox}{}%
3656 \do{ArtBox}{}%
3657 }
3658 \Hy@DefNameKey{pdfprintclip}{%
3659 \do{MediaBox}{}%
3660 \do{CropBox}{}%
3661 \do{BleedBox}{}%
3662 \do{TrimBox}{}%
3663 \do{ArtBox}{}%
3664 }
3665 \Hy@DefNameKey{pdfprintscaling}{%
3666 \do{AppDefault}{}%
3667 \do{None}{}%
3668 }
3669 \Hy@DefNameKey{pdfduplex}{%
3670 \do{Simplex}{}%
3671 \do{DuplexFlipShortEdge}{}%
3672 \do{DuplexFlipLongEdge}{}%
3673 }
3674 \Hy@DefNameKey{pdfpicktraybypdfsize}{%
3675 \do{true}{}%
3676 \do{false}{}%
3677 }
3678 \define@key{Hyp}{pdfprintpagerange}{%
3679 \def\@pdfprintpagerange{#1}%
3680 }
3681 \Hy@DefNameKey{pdfnumcopies}{%
3682 \do{2}{two copies}%
3683 \do{3}{three copies}%
3684 \do{4}{four copies}%
3685 \do{5}{five copies}%
3686 }
3687 \define@key{Hyp}{pdfusetitle}[true]{%
3688 \Hy@boolkey{pdfusetitle}{#1}%
3689 }
3690 \def\HyXeTeX@CheckUnicode{%
3691 \ifxetex
3692 \ifHy@unicode
3693 \else
3694 \Hy@WarningNoLine{%
3695 XeTeX driver only supports unicode.\MessageBreak
3696 Enabling option 'unicode'%
3697 }%
3698 \kvsetkeys{Hyp}{unicode}%
3699 \fi
3700 \else
3701 \let\HyXeTeX@CheckUnicode\relax

```

```

3702 \fi
3703 }
3704 \def\HyPsd@PrerenderUnicode#1{%
3705 \begingroup
3706 \expandafter\ifx\csname PrerenderUnicode\endcsname\relax
3707 \else
3708 \sbox0{%
3709 \let\GenericInfo\@gobbletwo
3710 \let\GenericWarning\@gobbletwo
3711 \let\GenericError\@gobblefour
3712 \PrerenderUnicode{#1}%
3713 }%
3714 \fi
3715 \endgroup
3716 }
3717 \define@key{Hyp}{pdftitle}{%
3718 \HyXeTeX@CheckUnicode
3719 \HyPsd@XeTeXBigCharstrue
3720 \HyPsd@PrerenderUnicode{#1}%
3721 \pdfstringdef\@pdftitle{#1}%
3722 }
3723 \define@key{Hyp}{pdfauthor}{%
3724 \HyXeTeX@CheckUnicode
3725 \HyPsd@XeTeXBigCharstrue
3726 \HyPsd@PrerenderUnicode{#1}%
3727 \pdfstringdef\@pdfauthor{#1}%
3728 }
3729 \define@key{Hyp}{pdfproducer}{%
3730 \HyXeTeX@CheckUnicode
3731 \HyPsd@XeTeXBigCharstrue
3732 \HyPsd@PrerenderUnicode{#1}%
3733 \pdfstringdef\@pdfproducer{#1}%
3734 }
3735 \define@key{Hyp}{pdfcreator}{%
3736 \HyXeTeX@CheckUnicode
3737 \HyPsd@XeTeXBigCharstrue
3738 \HyPsd@PrerenderUnicode{#1}%
3739 \pdfstringdef\@pdfcreator{#1}%
3740 }
3741 \define@key{Hyp}{pdfcreationdate}{%
3742 \begingroup
3743 \Hy@unicodedefalse
3744 \pdfstringdef\@pdfcreationdate{#1}%
3745 \endgroup
3746 }
3747 \define@key{Hyp}{pdfmoddate}{%
3748 \begingroup
3749 \Hy@unicodedefalse
3750 \pdfstringdef\@pdfmoddate{#1}%
3751 \endgroup
3752 }
3753 \define@key{Hyp}{pdfsubject}{%
3754 \HyXeTeX@CheckUnicode
3755 \HyPsd@XeTeXBigCharstrue
3756 \HyPsd@PrerenderUnicode{#1}%
3757 \pdfstringdef\@pdfsubject{#1}%
3758 }

```

```

3759 \define@key{Hyp}{pdfkeywords}{%
3760   \HyXeTeX@CheckUnicode
3761   \HyPsd@XeTeXBigCharstrue
3762   \HyPsd@PrerenderUnicode{#1}%
3763   \pdfstringdef\@pdfkeywords{#1}%
3764 }
3765 \define@key{Hyp}{pdftrapped}{%
3766   \lowercase{\edef\Hy@temp{#1}}%
3767   \ifx\Hy@temp\HyInfo@trapped@true
3768     \def\@pdftrapped{True}%
3769   \else
3770     \ifx\Hy@temp\HyInfo@trapped@false
3771       \def\@pdftrapped{False}%
3772     \else
3773       \ifx\Hy@temp\HyInfo@trapped@unknown
3774         \def\@pdftrapped{Unknown}%
3775       \else
3776         \ifx\Hy@temp\@empty
3777           \else
3778             \Hy@Warning{%
3779               Unsupported value '#1'\MessageBreak
3780               for option 'pdftrapped'%
3781             }%
3782           \fi
3783         \def\@pdftrapped{}%
3784       \fi
3785     \fi
3786   \fi
3787 }
3788 \def\HyInfo@trapped@true{true}
3789 \def\HyInfo@trapped@false{false}
3790 \def\HyInfo@trapped@unknown{unknown}
3791 \def\HyInfo@TrappedUnsupported{%
3792   \ifx\@pdftrapped\@empty
3793   \else
3794     \Hy@WarningNoLine{'pdftrapped' is not supported by this driver}%
3795     \gdef\HyInfo@TrappedUnsupported{}%
3796   \fi
3797 }
3798 \define@key{Hyp}{pdfinfo}{%
3799   \kvsetkeys{pdfinfo}{#1}%
3800 }
3801 \def\Hy@temp#1{%
3802   \lowercase{\Hy@temp@A{#1}}{#1}%
3803 }
3804 \def\Hy@temp@A#1#2{%
3805   \define@key{pdfinfo}{#2}{%
3806     \hypersetup{pdf#1={##1}}%
3807   }%
3808 }
3809 \Hy@temp{Title}
3810 \Hy@temp{Author}
3811 \Hy@temp{Keywords}
3812 \Hy@temp{Subject}
3813 \Hy@temp{Creator}
3814 \Hy@temp{Producer}
3815 \Hy@temp{CreationDate}

```



```

3816 \Hy@temp{ModDate}
3817 \Hy@temp{Trapped}
3818 \newif\ifHyInfo@AddonUnsupported
3819 \kv@set@family@handler{pdfinfo}{%
3820   \HyInfo@AddonHandler{#1}{#2}%
3821 }
3822 \let\HyInfo@do\relax
3823 \def\HyInfo@AddonHandler#1#2{%
3824   \ifx\kv@value\relax
3825     \Hy@Warning{%
3826       Option 'pdfinfo': ignoring key '\kv@key' without value%
3827     }%
3828   \else
3829     \EdefEscapeName\HyInfo@KeyEscaped{\kv@key}%
3830     \EdefUnescapeName\HyInfo@Key{\HyInfo@KeyEscaped}%
3831     \expandafter\ifx\csname KV@pdfinfo@\HyInfo@Key\endcsname\relax
3832     \ifHyInfo@AddonUnsupported
3833       \Hy@Warning{%
3834         This driver does not support additional\MessageBreak
3835         information entries, therefore\MessageBreak
3836         '\kv@key' is ignored%
3837       }%
3838     \else
3839       \define@key{pdfinfo}{\HyInfo@Key}{%
3840         \HyXeTeX@CheckUnicode
3841         \HyPsd@XeTeXBigCharstrue
3842         \HyPsd@PrerenderUnicode{##1}%
3843         \pdfstringdef\HyInfo@Value{##1}%
3844         \expandafter\let\csname HyInfo@Value@\HyInfo@Key\endcsname
3845         \HyInfo@Value
3846       }%
3847     \edef\HyInfo@AddonList{%
3848       \HyInfo@AddonList
3849       \HyInfo@do{\HyInfo@Key}%
3850     }%
3851     \kv@parse@normalized{%
3852       \HyInfo@Key={#2}%
3853     }{%
3854       \kv@processor@default{pdfinfo}%
3855     }%
3856   \fi
3857 \else
3858   \kv@parse@normalized{%
3859     \HyInfo@Key={#2}%
3860   }{%
3861     \kv@processor@default{pdfinfo}%
3862   }%
3863 \fi
3864 \fi
3865 }
3866 \def\HyInfo@GenerateAddons{%
3867   \ifHyInfo@AddonUnsupported
3868     \def\HyInfo@Addons{}%
3869   \else
3870     \begingroup
3871     \toks@{}%
3872     \def\HyInfo@do##1{%

```

```

3873 \EdefEscapeName\HyInfo@Key{##1}%
3874 \edef\x{%
3875 \toks@{%
3876 \the\toks@
3877 /\HyInfo@Key(\csname HyInfo@Value@##1\endcsname)%
3878 }%
3879 }%
3880 \x
3881 }%
3882 \HyInfo@AddonList
3883 \edef\x{\endgroup
3884 \def\noexpand\HyInfo@Addons{\the\toks@}%
3885 }%
3886 \x
3887 \fi
3888 }
3889 \let\HyInfo@AddonList\ltx@empty

3890 \define@key{Hyp}{pdfview}{\calculate@pdfview#1 \}
3891 \define@key{Hyp}{pdfinkmargin}{\setpdfinkmargin{#1}}
3892 \let\setpdfinkmargin@gobble
3893 \def\calculate@pdfview#1 #2\{%
3894 \def\@pdfview{#1}%
3895 \ifx\#2\%
3896 \def\@pdfviewparams{-32768}%
3897 \else
3898 \def\@pdfviewparams{#2}%
3899 \fi
3900 }
3901 \begingroup\expandafter\expandafter\expandafter\endgroup
3902 \expandafter\ifx\csname numexpr\endcsname\relax
3903 \def\Hy@number#1{%
3904 \expandafter\@firstofone\expandafter{\number#1}%
3905 }%
3906 \else
3907 \def\Hy@number#1{%
3908 \the\numexpr#1\relax
3909 }%
3910 \fi
3911 \define@key{Hyp}{pdfstartpage}{%
3912 \ifx\#1\%
3913 \let\@pdfstartpage\ltx@empty
3914 \else
3915 \edef\@pdfstartpage{\Hy@number{#1}}%
3916 \fi
3917 }%
3918 \define@key{Hyp}{pdfstartview}{%
3919 \ifx\#1\%
3920 \let\@pdfstartview\ltx@empty
3921 \else
3922 \hypercalcbpdef\@pdfstartview{/#1}%
3923 \fi
3924 }
3925 \def\HyPat@NonNegativeReal/{%
3926 \ *([0-9]+\.[0-9]*|[0-9]*\.[0-9]+) *%
3927 }
3928 \define@key{Hyp}{pdfremotestartview}{%
3929 \ifx\#1\%

```

```

3930 \def\@pdfremotestartview{/Fit}%
3931 \else
3932 \hypercalcbpdef\@pdfremotestartview{#1}%
3933 \edef\@pdfremotestartview{\@pdfremotestartview}%
3934 \Hy@Match\@pdfremotestartview{%
3935   ^{XYZ -?(null|\HyPat@NonNegativeReal/) %
3936   -(null|\HyPat@NonNegativeReal/) %
3937   (null|\HyPat@NonNegativeReal/)|%
3938   Fit(|B| %
3939   (H|V|BH|BV) (null|\HyPat@NonNegativeReal/)|%
3940   R \HyPat@NonNegativeReal/ \HyPat@NonNegativeReal/ %
3941   \HyPat@NonNegativeReal/ \HyPat@NonNegativeReal/%
3942   )}$%
3943 }-}%
3944 \Hy@Warning{%
3945   Invalid value '\@pdfremotestartview'\MessageBreak
3946   of 'pdfremotestartview'\MessageBreak
3947   is replaced by 'Fit'%
3948 }%
3949 \let\@pdfremotestartview\@empty
3950 }%
3951 \ifx\@pdfremotestartview\@empty
3952 \def\@pdfremotestartview{/Fit}%
3953 \else
3954 \edef\@pdfremotestartview{/ \@pdfremotestartview}%
3955 \fi
3956 \fi
3957 }
3958 \define@key{Hyp}{pdfpagescrop}{\edef\@pdfpagescrop{#1}}
3959 \define@key{Hyp}{pdftoolbar}[true]{%
3960   \Hy@boolkey{pdftoolbar}{#1}%
3961 }
3962 \define@key{Hyp}{pdfmenubar}[true]{%
3963   \Hy@boolkey{pdfmenubar}{#1}%
3964 }
3965 \define@key{Hyp}{pdfwindowui}[true]{%
3966   \Hy@boolkey{pdfwindowui}{#1}%
3967 }
3968 \define@key{Hyp}{pdffitwindow}[true]{%
3969   \Hy@boolkey{pdffitwindow}{#1}%
3970 }
3971 \define@key{Hyp}{pdfcenterwindow}[true]{%
3972   \Hy@boolkey{pdfcenterwindow}{#1}%
3973 }
3974 \define@key{Hyp}{pdfdisplaydoctitle}[true]{%
3975   \Hy@boolkey{pdfdisplaydoctitle}{#1}%
3976 }
3977 \define@key{Hyp}{pdfa}[true]{%
3978   \Hy@boolkey{pdfa}{#1}%
3979 }
3980 \define@key{Hyp}{pdfnewwindow}[true]{%
3981   \def\Hy@temp{#1}%
3982   \ifx\Hy@temp\@empty
3983     \Hy@pdfnewwindowsetfalse
3984   \else
3985     \Hy@pdfnewwindowsettrue
3986     \Hy@boolkey{pdfnewwindow}{#1}%

```

```

3987 \fi
3988 }
3989 \def\Hy@SetNewWindow{%
3990 \ifHy@pdfnewwindowset
3991 /NewWindow %
3992 \ifHy@pdfnewwindow true\else false\fi
3993 \fi
3994 }
3995 \Hy@DefNameKey{pdfpagelayout}{%
3996 \do{SinglePage}{}%
3997 \do{OneColumn}{}%
3998 \do{TwoColumnLeft}{}%
3999 \do{TwoColumnRight}{}%
4000 \do{TwoPageLeft}{PDF 1.5}%
4001 \do{TwoPageRight}{PDF 1.5}%
4002 }
4003 \define@key{Hyp}{pdflang}{%
4004 \def\@pdflang{#1}%
4005 }
4006 \define@key{Hyp}{pdfpagelabels}[true]{%
4007 \Hy@boolkey{pdfpagelabels}{#1}%
4008 }
4009 \define@key{Hyp}{pdfescapeform}[true]{%
4010 \Hy@boolkey{pdfescapeform}{#1}%
4011 }

```

Default values:

```

4012 \def\@linkbordercolor{1 0 0}
4013 \def\@urlbordercolor{0 1 1}
4014 \def\@menubordercolor{1 0 0}
4015 \def\@filebordercolor{0 .5 .5}
4016 \def\@runbordercolor{0 .7 .7}
4017 \def\@citebordercolor{0 1 0}
4018 \def\@pdfhighlight{/I}
4019 \let\@pdftitle\ltx@empty
4020 \let\@pdfauthor\ltx@empty
4021 \let\@pdfproducer\relax
4022 \def\@pdfcreator{LaTeX with hyperref package}
4023 \let\@pdfcreationdate\ltx@empty
4024 \let\@pdfmoddate\ltx@empty
4025 \let\@pdfsubject\ltx@empty
4026 \let\@pdfkeywords\ltx@empty
4027 \let\@pdftrapped\ltx@empty
4028 \let\@pdfpagescrop\ltx@empty
4029 \def\@pdfstartview{/Fit}
4030 \def\@pdfremotestartview{/Fit}
4031 \def\@pdfstartpage{1}
4032 \let\@pdfprintpagerange\ltx@empty
4033 \let\@pdflang\ltx@empty
4034 \let\PDF@SetupDoc\@empty
4035 \let\PDF@FinishDoc\@empty
4036 \let\phantomsection\@empty
4037 \let\special@paper\@empty
4038 \def\HyperDestNameFilter#1{#1}
4039 \Hy@AtBeginDocument{%
4040 \begingroup
4041 \edef\x{\@ifundefined{stockheight}\paperheight\stockheight}%
4042 \dimen@=\x\relax

```

```

4043 \ifdim\dimen@>\z@
4044 \else
4045 \dimen@=11in\relax
4046 \Hy@WarningNoLine{%
4047   Height of page (\expandafter\string\x) %
4048   is invalid (\the\x),\MessageBreak
4049   using 11in%
4050 }%
4051 \fi
4052 \dimen@=0.99626401\dimen@
4053 \xdef\Hy@pageheight{\strip@pt\dimen@}%
4054 \endgroup
4055 }
4056 \def\HyInd@EncapChar{\|}

```

Allow the user to use `\ExecuteOptions` in the `cfg` file even though this package does not use the normal option mechanism. Use `\hyper@normalise` as a scratch macro, since it is going to be defined in a couple of lines anyway.

```

4057 \let\hyper@normalise\ExecuteOptions
4058 \let\ExecuteOptions\hypersetup
4059 \Hy@RestoreCatcodes
4060 \InputIfFileExists{hyperref.cfg}{-}{-}
4061 \Hy@SetCatcodes
4062 \let\ExecuteOptions\hyper@normalise
4063 \ifx\Hy@MaybeStopNow\relax
4064 \else
4065 \Hy@stoppedearlytrue
4066 \expandafter\Hy@MaybeStopNow
4067 \fi
4068 \Hy@stoppedearlyfalse

```

To add flexibility, we will not use the ordinary processing of package options, but put them through the *keyval* package. This section was written by David Carlisle.

```

4069 \SetupKeyvalOptions{family=Hyp}
4070 \DeclareLocalOptions{%
4071   a4paper,a5paper,b5paper,letterpaper,legalpaper,executivepaper%
4072 }

```

Add option `tex4ht` if package `tex4ht` is loaded.

```

4073 \@ifpackageloaded{tex4ht}{%
4074   \@ifpackagewith{hyperref}{tex4ht}{-}{-}%
4075   \PassOptionsToPackage{tex4ht}{hyperref}%
4076 }%
4077 }{-}

4078 \let\ReadBookmarks\relax
4079 \ProcessKeyvalOptions{Hyp}

```

After processing options.

15.1 Package `xspace` support

```

4080 \def\Hy@xspace@end{}
4081 \ltx@ifundefined{xspaceaddeceptions}{%
4082   \Hy@AtBeginDocument{%
4083     \ltx@ifundefined{xspaceaddeceptions}{%
4084       }{%
4085         \def\Hy@xspace@end{%
4086           \ltx@gobble{end for xspace}%

```

```

4087 }%
4088 \xspaceaddeceptions{\Hy@xspace@end,\hyper@linkend,\hyper@anchorend}%
4089 }%
4090 }%
4091 }{%
4092 \def\Hy@xspace@end{%
4093 \ltx@gobble{end for xspace}%
4094 }%
4095 \xspaceaddeceptions{\Hy@xspace@end,\hyper@linkend,\hyper@anchorend}%
4096 }

```

15.2 Option draft

```

4097 \Hy@AtBeginDocument{%
4098 \ifHy@draft
4099 \let\hyper@@anchor\@gobble
4100 \gdef\hyper@link#1#2#3{#3\Hy@xspace@end}%
4101 \def\hyper@anchorstart#1#2{#2\Hy@xspace@end}%
4102 \def\hyper@anchorend{\Hy@xspace@end}%
4103 \let\hyper@linkstart\@gobbletwo
4104 \def\hyper@linkend{\Hy@xspace@end}%
4105 \def\hyper@linkurl#1#2{#1\Hy@xspace@end}%
4106 \def\hyper@linkfile#1#2#3{#1\Hy@xspace@end}%
4107 \def\hyper@link@{#1}#2#3#4{#4\Hy@xspace@end}%
4108 \def\Acrobatmenu#1#2{\leavevmode#2\Hy@xspace@end}%
4109 \let\PDF@SetupDoc\@empty
4110 \let\PDF@FinishDoc\@empty
4111 \let\@fifthoffive\@secondoftwo
4112 \let\@secondoffive\@secondoftwo
4113 \let\ReadBookmarks\relax
4114 \let\WriteBookmarks\relax
4115 \Hy@WarningNoLine{Draft mode on}%
4116 \fi
4117 \Hy@DisableOption{draft}%
4118 \Hy@DisableOption{nolinks}%
4119 \Hy@DisableOption{final}%
4120 }

```

15.3 PDF/A

```

4121 \Hy@DisableOption{pdfa}
4122 \ifHy@pdfa
4123 \kvsetkeys{Hyp}{pdfversion=1.4}%
4124 \def\Hy@Acrobatmenu#1#2{%
4125 \leavevmode
4126 \begingroup
4127 \edef\x{#1}%
4128 \@onelevel@sanitize\x
4129 \ifx\x\Hy@NextPage
4130 \let\y=Y%
4131 \else
4132 \ifx\x\Hy@PrevPage
4133 \let\y=Y%
4134 \else
4135 \ifx\x\Hy@FirstPage
4136 \let\y=Y%
4137 \else
4138 \ifx\x\Hy@LastPage
4139 \let\y=Y%

```

```

4140         \else
4141         \let\y=N%
4142         \fi
4143     \fi
4144     \fi
4145     \fi
4146 \expandafter\endgroup
4147 \ifx\y Y%
4148 \else
4149     \Hy@Error{%
4150         PDF/A: Named action ‘#1’ is not permitted%
4151     }\@ehc
4152     {#2}%
4153     \expandafter\@gobble
4154 \fi
4155 }%
4156 \def\Hy@temp#1{%
4157     \expandafter\def\csname Hy@#1\endcsname{#1}%
4158     \expandafter\@onelevel@sanitize\csname Hy@#1\endcsname
4159 }%
4160 \Hy@temp{NextPage}%
4161 \Hy@temp{PrevPage}%
4162 \Hy@temp{FirstPage}%
4163 \Hy@temp{LastPage}%
4164 \else
4165     \def\Hy@Acrobatmenu#1#2{\leavevmode}%
4166 \fi

```

15.4 Patch for babel’s \texttilde

Babel does not define \texttilde in NFSS2 manner, so the NFSS2 definitions of PD1 or PU encoding is not compatible. To fix this, \texttilde is defined in babel manner.

```

4167 \Hy@nextfalse
4168 \ltx@ifundefined{spanish@sh@}{\Hy@nexttrue}
4169 \ltx@ifundefined{galician@sh@}{\Hy@nexttrue}
4170 \ltx@ifundefined{estonian@sh@}{\Hy@nexttrue}
4171 \ifHy@next
4172     \let\texttilde\~%
4173 \fi

4174 \def\Hy@wrapper@babel#1#2{%
4175     \begingroup
4176     \Hy@safe@activetrue
4177     \set@display@protect
4178     \edef\x{#2}%
4179     \@onelevel@sanitize\x
4180     \toks@{#1}%
4181     \edef\x{\endgroup\the\toks@{\x}}%
4182     \x
4183 }
4184 \def\Hy@WrapperDef#1{%
4185     \begingroup
4186     \escapechar=\m@ne
4187     \xdef\Hy@gtemp{%
4188         \expandafter\noexpand\csname HyWrap@\string#1\endcsname
4189     }%
4190     \endgroup

```

```

4191 \edef#1{%
4192   \noexpand\Hy@wrapper@babel
4193   \expandafter\noexpand\Hy@gtemp
4194 }%
4195 \expandafter\def\Hy@gtemp
4196 }

4197 \ifHy@hyperfigures
4198   \Hy@Info{Hyper figures ON}%
4199 \else
4200   \Hy@Info{Hyper figures OFF}%
4201 \fi
4202 \ifHy@nesting
4203   \Hy@Info{Link nesting ON}%
4204 \else
4205   \Hy@Info{Link nesting OFF}%
4206 \fi
4207 \ifHy@hyperindex
4208   \Hy@Info{Hyper index ON}%
4209 \else
4210   \Hy@Info{Hyper index OFF}%
4211 \fi
4212 \ifHy@plainpages
4213   \Hy@Info{Plain pages ON}%
4214 \else
4215   \Hy@Info{Plain pages OFF}%
4216 \fi
4217 \ifHy@backref
4218   \Hy@Info{Backreferencing ON}%
4219 \else
4220   \Hy@Info{Backreferencing OFF}%
4221 \fi
4222 \ifHy@typexml
4223   \Hy@AtEndOfPackage{%
4224     \RequirePackage{color}%
4225     \RequirePackage{nameref}%
4226   }%
4227 \fi
4228 \Hy@DisableOption{typexml}
4229 \ifHy@implicit
4230   \Hy@InfoNoLine{Implicit mode ON; LaTeX internals redefined}%
4231 \else
4232   \Hy@InfoNoLine{Implicit mode OFF; no redefinition of LaTeX internals}%
4233   \def\MaybeStopEarly{%
4234     \Hy@Message{Stopped early}%
4235     \Hy@AtBeginDocument{%
4236       \PDF@FinishDoc
4237       \gdef\PDF@FinishDoc{}}%
4238   }%
4239   \endinput
4240 }%
4241 \Hy@AtBeginDocument{%
4242   \let\autoref\ref
4243   \let\autopageref\pageref
4244   \ifx\@pdfpagemode\@empty
4245     \gdef\@pdfpagemode{UseNone}%
4246   \fi
4247   \global\Hy@backreffalse

```



```

4248 }%
4249 \Hy@AtEndOfPackage{%
4250   \global\let\ReadBookmarks\relax
4251   \global\let\WriteBookmarks\relax
4252 }%
4253 \fi
4254 \Hy@DisableOption{implicit}

```

15.4.1 Driver loading

```

4255 \Hy@AtEndOfPackage{%
4256   \@ifpackageloaded{tex4ht}{%
4257     \def\Hy@driver{htex4ht}%
4258     \Hy@texhttrue
4259   }{}%

```

Some drivers can be detected. Check for these drivers, whether the given driver option is ok. Otherwise force the right driver or use the default driver.

```

4260   \ifx\Hy@driver\@empty
4261   \else
4262     \def\Hy@temp{hpdftex}%
4263     \ifpdf
4264       \ifx\Hy@driver\Hy@temp
4265       \else
4266         \Hy@WarningNoLine{%
4267           Wrong driver ‘\Hy@driver.def’;\MessageBreak
4268           pdfTeX is running in PDF mode.\MessageBreak
4269           Forcing driver ‘\Hy@temp.def’%
4270         }%
4271       \let\Hy@driver\Hy@temp
4272     \fi
4273   \else
4274     \ifx\Hy@driver\Hy@temp
4275     \Hy@WarningNoLine{%
4276       Wrong driver ‘\Hy@driver.def’;\MessageBreak
4277       pdfTeX is not running in PDF mode.\MessageBreak
4278       Using default driver%
4279     }%
4280     \let\Hy@driver\@empty
4281   \fi
4282 \fi
4283 \fi
4284 \ifHy@texht
4285 \else
4286   \ifx\Hy@driver\@empty
4287   \else
4288     \def\Hy@temp{hxdetex}%
4289     \ifxdetex
4290       \ifx\Hy@driver\Hy@temp
4291       \else
4292         \Hy@WarningNoLine{%
4293           Wrong driver ‘\Hy@driver.def’;\MessageBreak
4294           XeTeX is running.\MessageBreak
4295           Forcing driver ‘\Hy@temp.def’ for XeTeX%
4296         }%
4297       \let\Hy@driver\Hy@temp
4298     \fi
4299   \fi

```

```

4300 \fi
4301 \fi
4302 \ifx\Hy@driver\@empty
4303 \else
4304 \def\Hy@temp{hvtexhtm}%
4305 \ifvtexhtml
4306 \ifx\Hy@driver\Hy@temp
4307 \else
4308 \Hy@WarningNoLine{%
4309 Wrong driver '\Hy@driver.def';\MessageBreak
4310 VTeX is running in HTML mode.\MessageBreak
4311 Forcing driver '\Hy@temp.def'%
4312 }%
4313 \let\Hy@driver\Hy@temp
4314 \fi
4315 \else
4316 \ifx\Hy@driver\Hy@temp
4317 \Hy@WarningNoLine{%
4318 Wrong driver '\Hy@driver.def';\MessageBreak
4319 VTeX is not running in HTML mode.\MessageBreak
4320 Using default driver%
4321 }%
4322 \let\Hy@driver\@empty
4323 \fi
4324 \fi
4325 \fi

```

If the driver is not given, find the right driver or use the default driver.

```

4326 \def\HyOpt@DriverType{%
4327 \ifx\Hy@driver\@empty
4328 \def\HyOpt@DriverType{ (autodetected)}%
4329 \providecommand*\Hy@defaultdriver{\hypertex}%
4330 \ifpdf
4331 \def\Hy@driver{hpdftex}%
4332 \else
4333 \ifxetex
4334 \def\Hy@driver{hxetex}%
4335 \else
4336 \ifvtexhtml
4337 \def\Hy@driver{hvtexhtm}%
4338 \def\MaybeStopEarly{%
4339 \Hy@Message{Stopped early}%
4340 \Hy@AtBeginDocument{%
4341 \PDF@FinishDoc
4342 \gdef\PDF@FinishDoc{}}%
4343 }%
4344 \endinput
4345 }%
4346 \else
4347 \ifvtexpdf
4348 \def\Hy@driver{hvtex}%
4349 \else
4350 \ifvtexps
4351 \def\Hy@driver{hvtex}%
4352 \else
4353 \ifx\HyOpt@DriverFallback\ltx@empty
4354 \let\Hy@driver\Hy@defaultdriver
4355 \def\HyOpt@DriverType{ (default)}%

```

```

4356         \else
4357         \begingroup
4358         \toks@\expandafter{\HyOpt@DriverFallback}%
4359         \edef\x{\endgroup
4360         \noexpand\kvsetkeys{Hyp}{\the\toks@}%
4361         }%
4362         \x
4363         \ifx\Hy@driver\ltx@empty
4364         \let\Hy@driver\Hy@defaultdriver
4365         \def\HyOpt@DriverType{ (default)}%
4366         \else
4367         \def\HyOpt@DriverType{ (fallback)}%
4368         \fi
4369     \fi
4370 \fi
4371 \fi
4372 \fi
4373 \fi
4374 \fi
4375 \ifx\Hy@driver\Hy@defaultdriver
4376 \def\Hy@temp{hdvwind}%
4377 \ifx\Hy@temp\Hy@driver
4378 \kvsetkeys{Hyp}{colorlinks}%
4379 \PassOptionsToPackage{dviwindo}{color}%
4380 \fi
4381 \fi
4382 \fi
4383 \Hy@Message{Driver\HyOpt@DriverType: \Hy@driver}%
4384 \chardef\Hy@VersionChecked=0 %
4385 \input{\Hy@driver.def}%
4386 \ifcase\Hy@VersionChecked
4387 \Hy@VersionCheck{\Hy@driver.def}%
4388 \fi
4389 \let\@unprocessedoptions\relax
4390 \Hy@RestoreCatcodes
4391 \Hy@DisableOption{tex4ht}%
4392 \Hy@DisableOption{pdftex}%
4393 \Hy@DisableOption{nativepdf}%
4394 \Hy@DisableOption{dvipdfm}%
4395 \Hy@DisableOption{dvipdfmx}%
4396 \Hy@DisableOption{dvipdfmx-outline-open}%
4397 \Hy@DisableOption{pdfmark}%
4398 \Hy@DisableOption{dvips}%
4399 \Hy@DisableOption{hypertex}%
4400 \Hy@DisableOption{vtex}%
4401 \Hy@DisableOption{vtexpdfmark}%
4402 \Hy@DisableOption{dviwindo}%
4403 \Hy@DisableOption{dvipsone}%
4404 \Hy@DisableOption{textures}%
4405 \Hy@DisableOption{latex2html}%
4406 \Hy@DisableOption{ps2pdf}%
4407 \Hy@DisableOption{xetex}%
4408 \Hy@DisableOption{pdfversion}%
4409 }

```

Support for open outlines is enabled for XeTeX >= 0.9995. I don't know, if older versions also support this. AFAIK older dvipdfmx versions will break, thus the switch cannot be turned on by default.

```

4410 \newif\ifHy@DvipdfmxOutlineOpen
4411 \ifxetex
4412 \ifdim\number\XeTeXversion\XeTeXrevision in<0.9995in %
4413 \else
4414 \chardef\SpecialDvipdfmxOutlineOpen\@ne
4415 \Hy@DvipdfmxOutlineOpenttrue
4416 \fi
4417 \fi
4418 \begingroup\expandafter\expandafter\expandafter\endgroup
4419 \expandafter\ifx\csname SpecialDvipdfmxOutlineOpen\endcsname\relax
4420 \else
4421 \ifnum\SpecialDvipdfmxOutlineOpen>\z@
4422 \Hy@DvipdfmxOutlineOpenttrue
4423 \fi
4424 \fi

```

15.4.2 Bookmarks

```

4425 \def\WriteBookmarks{0}
4426 \def\@bookmarkopenstatus#1{%
4427 \ifHy@bookmarksopen

```

The purpose of the \@firstofone-number-space-construct is that no \relax will be inserted by T_EX before the \else:

```

4428 \ifnum#1<\expandafter\@firstofone\expandafter
4429 \{\number\@bookmarksopenlevel\} % explicit space
4430 \else
4431 -%
4432 \fi
4433 \else
4434 -%
4435 \fi
4436 }
4437 \ifHy@bookmarks
4438 \Hy@Info{Bookmarks ON}%
4439 \ifx\@pdfpagemode\@empty
4440 \def\@pdfpagemode{UseOutlines}%
4441 \fi
4442 \else
4443 \let\@bookmarkopenstatus\ltx@gobble
4444 \Hy@Info{Bookmarks OFF}%
4445 \Hy@AtEndOfPackage{%
4446 \global\let\ReadBookmarks\relax
4447 \global\let\WriteBookmarks\relax
4448 }%
4449 \ifx\@pdfpagemode\@empty
4450 \def\@pdfpagemode{UseNone}%
4451 \fi
4452 \fi
4453 \Hy@DisableOption{bookmarks}

```

Add wrapper for setting standard catcodes (babel's shorthands).

```

4454 \def\Hy@CatcodeWrapper#1{%
4455 \let\Hy@endWrap\ltx@empty
4456 \def\TMP@EnsureCode##1##2{%
4457 \edef\Hy@endWrap{%
4458 \Hy@endWrap
4459 \catcode##1 \the\catcode##1\relax
4460 }%
4461 \catcode##1 ##2\relax

```

```

4462 }%
4463 \TMP@EnsureCode{10}{12}% ^^J
4464 \TMP@EnsureCode{33}{12}% !
4465 \TMP@EnsureCode{34}{12}% "
4466 \TMP@EnsureCode{36}{3}% $ (math)
4467 \TMP@EnsureCode{38}{4}% & (alignment)
4468 \TMP@EnsureCode{39}{12}% '
4469 \TMP@EnsureCode{40}{12}% (
4470 \TMP@EnsureCode{41}{12}% )
4471 \TMP@EnsureCode{42}{12}% *
4472 \TMP@EnsureCode{43}{12}% +
4473 \TMP@EnsureCode{44}{12}% ,
4474 \TMP@EnsureCode{45}{12}% -
4475 \TMP@EnsureCode{46}{12}% .
4476 \TMP@EnsureCode{47}{12}% /
4477 \TMP@EnsureCode{58}{12}% :
4478 \TMP@EnsureCode{59}{12}% ;
4479 \TMP@EnsureCode{60}{12}% <
4480 \TMP@EnsureCode{61}{12}% =
4481 \TMP@EnsureCode{62}{12}% >
4482 \TMP@EnsureCode{63}{12}% ?
4483 \TMP@EnsureCode{91}{12}% [
4484 \TMP@EnsureCode{93}{12}% ]
4485 \TMP@EnsureCode{94}{7}% ^ (superscript)
4486 \TMP@EnsureCode{95}{8}% _ (subscript)
4487 \TMP@EnsureCode{96}{12}% '
4488 \TMP@EnsureCode{124}{12}% |
4489 \TMP@EnsureCode{126}{13}% ~ (active)
4490 #1\relax
4491 \Hy@EndWrap
4492 }

```

`\HyColor@UseColor` expects a macro as argument. It contains the color specification.

```

4493 \Hy@AtBeginDocument{%
4494   \ifHy@ocgcolorlinks
4495     \kvsetkeys{Hyp}{colorlinks}%
4496     \ifHy@pdfa
4497       \Hy@Warning{%
4498         PDF/A: Optional Content Groups are prohibited,\MessageBreak
4499         using 'colorlinks' instead of 'ocgcolorlinks'%
4500       }%
4501       \Hy@ocgcolorlinksfalse
4502     \fi
4503   \fi
4504   \ifHy@ocgcolorlinks
4505   \else
4506     \Hy@DisableOption{ocgcolorlinks}%
4507   \fi
4508   \ifHy@colorlinks
4509     \def\@pdfborder{0 0 0}%
4510     \let\@pdfborderstyle\@empty
4511   \ifHy@typexml
4512   \else
4513     \Hy@CatcodeWrapper{%
4514       \RequirePackage{color}%
4515     }%
4516   \fi

```

```

4517 \def\Hy@colorlink#1{%
4518 \begingroup
4519 \HyColor@UseColor#1%
4520 }%
4521 \def\Hy@endcolorlink{\endgroup}%
4522 \Hy@Info{Link coloring ON}%
4523 \else
4524 \ifHy@frenchlinks
4525 \def\Hy@colorlink#1{\begingroup\fontshape{sc}\selectfont}%
4526 \def\Hy@endcolorlink{\endgroup}%
4527 \Hy@Info{French linking ON}%
4528 \else
for grouping consistency:
4529 \def\Hy@colorlink#1{\begingroup}%
4530 \def\Hy@endcolorlink{\endgroup}%
4531 \Hy@Info{Link coloring OFF}%
4532 \fi
4533 \fi
4534 \Hy@DisableOption{colorlinks}%
4535 \Hy@DisableOption{frenchlinks}%
4536 \ifHy@texht
4537 \long\def\@firstoffive#1#2#3#4#5{#1}%
4538 \long\def\@secondoffive#1#2#3#4#5{#2}%
4539 \long\def\@thirdoffive#1#2#3#4#5{#3}%
4540 \long\def\@fourthoffive#1#2#3#4#5{#4}%
4541 \long\def\@fifthoffive#1#2#3#4#5{#5}%
4542 \providecommand*\@safe@activetrue{}%
4543 \providecommand*\@safe@activesfalse{}%
4544 \def\T@ref#1{%
4545 \Hy@safe@activetrue
4546 \expandafter\@setref\csname r@#1\endcsname\@firstoffive{#1}%
4547 \Hy@safe@activesfalse
4548 }%
4549 \def\T@pageref#1{%
4550 \Hy@safe@activetrue
4551 \expandafter\@setref\csname r@#1\endcsname\@secondoffive{#1}%
4552 \Hy@safe@activesfalse
4553 }%
4554 \else
4555 \ifHy@typexml
4556 \else
4557 \Hy@CatcodeWrapper{%
4558 \RequirePackage{nameref}%
4559 }%
4560 \fi
4561 \fi
4562 \DeclareRobustCommand\ref{%
4563 \@ifstar\@refstar\T@ref
4564 }%
4565 \DeclareRobustCommand\pageref{%
4566 \@ifstar\@pagerefstar\T@pageref
4567 }%
4568 % \ifclassloaded{memoir}{%
4569 % \ltx@ifundefined{@mem@titlerefno link}\ltx@secondoftwo{%
4570 % \ltx@ifundefined{@mem@titleref}\ltx@secondoftwo\ltx@firstoftwo
4571 % }%
4572 % }\ltx@secondoftwo

```

```

4573 % {%
4574 %   \DeclareRobustCommand*{\nameref}{%
4575 %     \@ifstar\@mem@titleref\@mem@titleref
4576 %   }%
4577 % }{%
4578   \DeclareRobustCommand*{\nameref}{%
4579     \@ifstar\@namerefstar\T@nameref
4580   }%
4581 % }%
4582 }
4583 \Hy@AtBeginDocument{%
4584   \ifHy@texht
4585   \else
4586     \Hy@CatcodeWrapper\ReadBookmarks
4587   \fi
4588 }
4589 \ifHy@backref
4590   \RequirePackage{backref}%
4591 \else
4592   \let\Hy@backout\@gobble
4593 \fi
4594 \Hy@DisableOption{backref}
4595 \Hy@DisableOption{pagebackref}
4596 \Hy@activeanchorfalse

```

16 User hypertext macros

We need to normalise all user commands taking a URL argument; Within the argument the following special definitions apply: `\#`, `\%`, `\~` produce `#`, `%`, `~` respectively. for consistency `\~` produces `~` as well. At the *top level only* ie not within the argument of another command, you can use `#` and `%` unescaped, to produce themselves. even if, say, `#` is entered as `#` it will be converted to `\#` so it does not die if written to an aux file etc. `\#` will write as `#` locally while making `\specials`.

```

4597 \begingroup
4598   \endlinechar=-1 %
4599   \catcode'\^^A=14 %
4600   \catcode'\^^M\active
4601   \catcode'\%\active
4602   \catcode'\#\active
4603   \catcode'\_\active
4604   \catcode'\$\active
4605   \catcode'\&\active
4606   \gdef\hyper@normalise{^^A
4607     \begingroup
4608       \catcode'\^^M\active
4609       \def^^M{ }^^A
4610       \catcode'\%\active
4611       \let%\@percentchar
4612       \let\%\@percentchar
4613       \catcode'\#\active
4614       \def#{\hyper@hash}^^A
4615       \def\#{\hyper@hash}^^A
4616       \@makeother\&^^A
4617       \edef&{\string&}^^A
4618       \edef\&{\string&}^^A

```

```

4619 \edef\textunderscore{\string_}^^A
4620 \let\_ \textunderscore
4621 \catcode'\_ \active
4622 \let\_ \textunderscore
4623 \let~\hyper@tilde
4624 \let\~\hyper@tilde
4625 \let\textasciitilde\hyper@tilde
4626 \let\\\@backslashchar
4627 \edef$\string$}^^A
4628 \Hy@safe@activetrue
4629 \hyper@n@rmalise
4630 }^^A
4631 \catcode'\#=6 ^^A
4632 \gdef\Hy@ActiveCarriageReturn{^^M}^^A
4633 \gdef\hyper@n@rmalise#1#2{^^A
4634 \def\Hy@tempa{#2}^^A
4635 \ifx\Hy@tempa\Hy@ActiveCarriageReturn
4636 \ltx@ReturnAfterElseFi{^^A
4637 \hyper@@normalise{#1}^^A
4638 }^^A
4639 \else
4640 \ltx@ReturnAfterFi{^^A
4641 \hyper@@normalise{#1}{#2}^^A
4642 }^^A
4643 \fi
4644 }^^A
4645 \gdef\hyper@@normalise#1#2{^^A
4646 \edef\Hy@tempa{^^A
4647 \endgroup
4648 \noexpand#1{\Hy@RemovePercentCr#2%^^M\@nil}^^A
4649 }^^A
4650 \Hy@tempa
4651 }^^A
4652 \gdef\Hy@RemovePercentCr#1%^^M#2\@nil{^^A
4653 #1^^A
4654 \ifx\limits#2\limits
4655 \else
4656 \ltx@ReturnAfterFi{^^A
4657 \Hy@RemovePercentCr #2\@nil
4658 }^^A
4659 \fi
4660 }^^A
4661 \endgroup
4662 \providecommand*\hyper@chars{%
4663 \let\#\hyper@hash
4664 \let\%\@percentchar
4665 \Hy@safe@activetrue
4666 }

4667 \def\hyperlink#1#2{%
4668 \hyper@@link{}{#1}{#2}%
4669 }

4670 \def\Hy@VerboseLinkStart#1#2{%
4671 \ifHy@verbose
4672 \begingroup
4673 \Hy@safe@activetrue
4674 \xdef\Hy@VerboseGlobalTemp{(#1) '#2'}%
4675 \Hy@Info{Reference \Hy@VerboseGlobalTemp}%

```



```

4676 \xdef\Hy@VerboseGlobalTemp{%
4677 \Hy@VerboseGlobalTemp, %
4678 line \the\inputlineno
4679 }%
4680 \endgroup
4681 \let\Hy@VerboseLinkInfo\Hy@VerboseGlobalTemp
4682 \@onelevel@sanitize\Hy@VerboseLinkInfo
4683 \fi
4684 }

4685 \def\Hy@VerboseLinkInfo{<VerboseLinkInfo>}
4686 \def\Hy@VerboseLinkStop{%
4687 \ifHy@verbose
4688 \begingroup
4689 \edef\x{\endgroup
4690 \write\m@ne{%
4691 Package ‘hyperref’ Info: %
4692 End of reference \Hy@VerboseLinkInfo.%
4693 }%
4694 }%
4695 \x
4696 \fi
4697 }

4698 \def\Hy@VerboseAnchor#1{%
4699 \ifHy@verbose
4700 \begingroup
4701 \Hy@safe@activetrue
4702 \Hy@Info{Anchor ‘\HyperDestNameFilter{#1}’}%
4703 \endgroup
4704 \fi
4705 }

4706 \def\Hy@AllowHyphens{%
4707 \relax
4708 \ifhmode
4709 \penalty\@M
4710 \hskip\z@skip
4711 \fi
4712 }

4713 \DeclareRobustCommand*{\href}[1][]{%
4714 \begingroup
4715 \setkeys{href}{#1}%
4716 \@ifnextchar\bgroup\Hy@href{\hyper@normalise\href@}%
4717 }
4718 \def\Hy@href#1{%
4719 \hyper@normalise\href@
4720 }
4721 \begingroup
4722 \catcode'\$=6 %
4723 \catcode'\#=12 %
4724 \gdef\href@#1{\expandafter\href@split$1##\}%
4725 \gdef\href@split$1##$2##$3\\$4{%
4726 \hyper@@link{#1}{#2}{#3}{#4}%
4727 \endgroup
4728 }%
4729 \endgroup

```

Option ‘page’.

```

4730 \define@key{href}{page}{%
4731   \def\Hy@href@page{#1}%
4732 }
4733 \let\Hy@href@page\@empty
4734 \newcount\c@Hy@tempcnt
4735 \def\theHy@tempcnt{\the\c@Hy@tempcnt}
4736 \def\Hy@MakeRemoteAction{%
4737   \ifx\Hy@href@page\@empty
4738     \def\Hy@href@page{0}%
4739   \else
4740     \setcounter{Hy@tempcnt}{\Hy@href@page}%
4741     \ifnum\c@Hy@tempcnt<\@ne
4742       \Hy@Warning{%
4743         Invalid page number (\theHy@tempcnt)\MessageBreak
4744         for remote PDF file.\MessageBreak
4745         Using page 1%
4746       }%
4747     \def\Hy@href@page{0}%
4748   \else
4749     \global\advance\c@Hy@tempcnt\m@ne
4750   \edef\Hy@href@page{\theHy@tempcnt}%
4751   \fi
4752 }

```

If a next action is set, then also a new window should be opened. Otherwise AR reclaims that it closes the current file with discarding the next actions.

```

4753 \ifx\Hy@href@nextactionraw\@empty
4754 \else
4755   \Hy@pdfnewwindowsettrue
4756   \Hy@pdfnewwindowtrue
4757 \fi
4758 }

```

Option ‘pdfremotestartview’.

```

4759 \define@key{href}{pdfremotestartview}{%
4760   \setkeys{Hyp}{pdfremotestartview={#1}}}%
4761 }

```

Option ‘pdfnewwindow’.

```

4762 \let\KV@href@pdfnewwindow\KV@Hyp@pdfnewwindow
4763 \let\KV@href@pdfnewwindow@default\KV@Hyp@pdfnewwindow@default

```

Option ‘ismap’.

```

4764 \newif\ifHy@href@ismap
4765 \define@key{href}{ismap}[true]{%
4766   \ltx@ifundefined{Hy@href@ismap#1}{%
4767     \Hy@Error{%
4768       Invalid value (#1) for key ‘ismap’.\MessageBreak
4769       Permitted values are ‘true’ or ‘false’.\MessageBreak
4770       Ignoring ‘ismap’%
4771     }\@ehc
4772   }{%
4773     \csname Hy@href@ismap#1\endcsname
4774   }%
4775 }

```

Option ‘nextactionraw’.

```

4776 \let\Hy@href@nextactionraw\@empty
4777 \define@key{href}{nextactionraw}{%

```

```

4778 \edef\Hy@href@nextactionraw{#1}%
4779 \ifx\Hy@href@nextactionraw\@empty
4780 \else
4781 \Hy@Match\Hy@href@nextactionraw{%
4782 ~(\HyPat@ObjRef/|<<./S[ /.+>>|%
4783 \[( ?\HyPat@ObjRef/|<<./S[ /.+>>)+ ?])$%
4784 }-}%
4785 \Hy@Warning{Invalid value for 'nextactionraw':\MessageBreak
4786 \Hy@href@nextactionraw\MessageBreak
4787 The action is discarded%
4788 }%
4789 }%
4790 \ifx\Hy@href@nextactionraw\@empty
4791 \else
4792 \edef\Hy@href@nextactionraw{/Next \Hy@href@nextactionraw}%
4793 \fi
4794 \fi
4795 }
4796 \def\HyPat@ObjRef/{.+}

```

Load package `url.sty` and save the meaning of the original `\url` in `\nolinkurl`.

```

4797 \RequirePackage{url}
4798 \let\HyOrg@url\url
4799 \def\Hurl{\begingroup \Url}
4800 \DeclareRobustCommand*{\nolinkurl}{\hyper@normalise\nolinkurl@}
4801 \def\nolinkurl@#1{\Hurl{#1}}
4802 \DeclareRobustCommand*{\url}{\hyper@normalise\url@}
4803 \def\url@#1{\hyper@linkurl{\Hurl{#1}}{#1}}
4804 \DeclareRobustCommand*{\hyperimage}{\hyper@normalise\hyper@image}
4805 \providecommand\hyper@image[2]{#2}
4806 \def\hypertarget#1#2{%
4807 \ifHy@nesting
4808 \hyper@@anchor{#1}{#2}%
4809 \else
4810 \hyper@@anchor{#1}{\relax}#2%
4811 \fi
4812 }

```

`\hyperref` is more complicated, as it includes the concept of a category of link, used to make the name. This is not really used in this package. `\hyperdef` sets up an anchor in the same way. They each have three parameters of category, linkname, and marked text, and `\hyperref` also has a first parameter of URL. If there is an optional first parameter to `\hyperdef`, it is the name of a \LaTeX label which can be used in a short form of `\hyperref` later, to avoid remembering the name and category.

```

4813 \DeclareRobustCommand*{\hyperref}{%
4814 \@ifnextchar{\Hy@babelnormalise\label@hyperref}\@hyperref
4815 }
4816 \def\Hy@babelnormalise#1[#2]{%
4817 \begingroup
4818 \Hy@safe@activestruer
4819 \edef\Hy@tempa{%
4820 \endgroup
4821 \noexpand#1[#2]}%
4822 }%
4823 \Hy@tempa
4824 }

```

```

4825 \def\@hyperref{\hyper@normalise\@hyperref}
4826 \def\@hyperref#1#2#3{%
4827   \edef\ref@one{\ifx\#2\#2\else#2.\fi#3}%
4828   \expandafter\tryhyper@link\ref@one\{#1}%
4829 }
4830 \def\tryhyper@link#1\#2{%
4831   \hyper@@link{#2}{#1}%
4832 }

4833 \def\hyperdef{\@ifnextchar{\label@hyperdef}{\@hyperdef}}
4834 \def\@hyperdef#1#2#3{% category, name, text
4835   \ifx\#1\%
4836     \def\Hy@AnchorName{#2}%
4837   \else
4838     \def\Hy@AnchorName{#1.#2}%
4839   \fi
4840   \ifHy@nesting
4841     \expandafter\hyper@@anchor\expandafter{\Hy@AnchorName}{#3}%
4842   \else
4843     \expandafter\hyper@@anchor\expandafter{\Hy@AnchorName}{\relax}{#3}%
4844   \fi
4845 }

```

We also have a need to give a L^AT_EX *label* to a hyper reference, to ease the pain of referring to it later.

```

4846 \def\label@hyperref[#1]{%
4847   \expandafter\label@@hyperref\csname r@#1\endcsname{#1}%
4848 }%
4849 \def\label@@hyperref#1#2#3{%
4850   \ifx#1\relax
4851     \protect\G@refundefinedtrue
4852     \@latex@warning{%
4853       Hyper reference ‘#2’ on page \thepage \space undefined%
4854     }%
4855     \begingroup
4856       #3%
4857     \endgroup
4858   \else
4859     \hyper@@link{\expandafter\@fifthoffive#1}%
4860     {\expandafter\@fourthoffive#1\@empty\@empty}{#3}%
4861   \fi
4862 }
4863 \def\label@hyperdef[#1]#2#3#4{% label name, category, name,
4864                               % anchor text
4865   \@bsphack
4866   \ifx\#2\%
4867     \def\Hy@AnchorName{#3}%
4868   \else
4869     \def\Hy@AnchorName{#2.#3}%
4870   \fi
4871   \if@filesw
4872     \protected@write\@auxout{}{%
4873       \string\newlabel{#1}{\{#\}\}\{\Hy@AnchorName\}\}%
4874     }%
4875   \fi
4876   \@esphack
4877   \ifHy@nesting
4878     \expandafter\hyper@@anchor\expandafter{\Hy@AnchorName}{#4}%

```

```

4879 \else
4880 \expandafter\hyper@@anchor\expandafter{\Hy@AnchorName}{\relax}#4%
4881 \fi
4882 }

```

17 Underlying basic hypertext macros

Links have an optional type, a filename (possibly a URL), an internal name, and some marked text. (Caution: the internal name may contain babel shorthand characters.) If the second parameter is empty, its an internal link, otherwise we need to open another file or a URL. A link start has a type, and a URL.

```

4883 \def\hyper@link{\let\Hy@reserved@a\relax
4884 \ifnextchar{\hyper@link@}{\hyper@link@[link]}%
4885 }
4886 \def\hyper@link@[#1]#2#3#4{%
4887 \begingroup
4888 \protected@edef\Hy@tempa{#2}%
4889 \Hy@safe@activetrue
4890 \edef\x{#3}%
4891 \ifx\Hy@tempa\@empty
4892 \toks0{\hyper@link{#1}}%
4893 \else
4894 \toks0{\expandafter\hyper@readexternallink#2\{#1}}%
4895 \fi
4896 \toks2{%
4897 \Hy@safe@activesfalse
4898 #4%
4899 }%
4900 \edef\Hy@tempa{\the\toks2}%
4901 \edef\x{\endgroup
4902 \ifx\Hy@tempa\@empty
4903 \noexpand\Hy@Warning{Suppressing empty link}%
4904 \else
4905 \the\toks0 {\x}{\the\toks2}}%%
4906 \fi
4907 }%
4908 \x
4909 }

```

The problem here is that the first (URL) parameter may be a local **file**: reference (in which case some browsers treat it differently) or a genuine URL, in which case we'll have to activate a real Web browser. Note that a simple name is also a URL, as that is interpreted as a relative file name. We have to worry about **#** signs in a local file as well.

```

4910 \def\hyper@readexternallink#1\{#2#3#4{%
4911 \begingroup
4912 \let\\\relax
4913 \expandafter\endgroup
4914 \expandafter\@hyper@@readexternallink#1\{#2}{#3}{#4}%
4915 }
4916 \def\@hyper@@readexternallink#1\{#2#3#4{%

```

Parameters are:

1. The URL or file name
2. The type

3. The internal name

4. The link string

We need to get the 1st parameter properly expanded, so we delimit the arguments rather than passing it inside a group.

```
4917 \@hyper@readexternallink{#2}{#3}{#4}#1::\{#1}%  
4918 }
```

Now (potentially), we are passed: 1) The link type 2) The internal name, 3) the link string, 4) the URL type (http, mailto, file etc), 5) the URL details 6) anything after a real : in the URL 7) the whole URL again

```
4919 \def\@pdftempwordfile{file}%  
4920 \def\@pdftempwordrun{run}%  
4921 \def\@hyper@readexternallink#1#2#3#4:#5:#6\#7{%
```

If there are no colons at all (**#6** is blank), its a local file; if the URL type (**#4**) is blank, its probably a Mac filename, so treat it like a **file:** URL. The only flaw is if its a relative Mac path, with several colon-separated elements — then we lose. Such names must be prefixed with an explicit dvi:

```
4922 \ifx\#6\%  
4923   \@hyper@linkfile file:#7\{#3}{#2}{#7}%  
4924 \else  
4925   \ifx\#4\%  
4926     \@hyper@linkfile file:#7\{#3}{#2}{#7}%  
4927   \else
```

If the URL type is ‘file’, pass it for local opening

```
4928   \def\@pdftempa{#4}%  
4929   \ifx\@pdftempa\@pdftempwordfile  
4930     \@hyper@linkfile#7\{#3}{#2}{#7}%  
4931   \else
```

if it starts ‘run:’, its to launch an application.

```
4932     \ifx\@pdftempa\@pdftempwordrun  
4933       \ifHy@pdfa  
4934         \Hy@Error{%  
4935           PDF/A: Launch action is prohibited%  
4936         }\@ehc  
4937       \begingroup  
4938         \leavevmode  
4939         #2%  
4940       \endgroup  
4941     \else  
4942       \@hyper@launch#7\{#3}{#2}%  
4943     \fi  
4944   \else
```

otherwise its a URL

```
4945     \hyper@linkurl{#3}{#7\ifx\#2\%else\hyper@hash#2\fi}%  
4946   \fi  
4947 \fi  
4948 \fi  
4949 \fi  
4950 }
```

By default, turn run: into file:

```
4951 \def\@hyper@launch run:#1\#2#3{% filename, anchor text, linkname  
4952   \hyper@linkurl{#2}{%
```

```

4953 \Hy@linkfileprefix
4954 #1%
4955 \ifx\\#3\\%
4956 \else
4957 \hyper@hash
4958 #3%
4959 \fi
4960 }%
4961 }

```

D P Story <story@uakron.edu> pointed out that relative paths starting .. fell over. Switched to using \filename@parse to solve this.

```

4962 \def\@hyper@linkfile file:#1\\#2#3#4{%
4963 %file url,link string, name, original uri
4964 \filename@parse{#1}%
4965 \ifx\filename@ext\relax
4966 \edef\filename@ext{\XR@ext}%
4967 \fi
4968 \def\use@file{\filename@area\filename@base.\filename@ext}%
4969 \Hy@ifStringEndsWith\filename@ext\XR@ext{%
4970 \hyper@linkfile{#2}{\use@file}{#3}%
4971 }{%
4972 \ifx\@baseurl\@empty
4973 \hyper@linkurl{#2}{%
4974 #4\ifx\\#3\\%
4975 }%
4976 \else
4977 \hyper@linkurl{#2}{\use@file\ifx\\#3\\%
4978 }%
4979 }%
4980 }

4981 \def\Hy@ifStringEndsWith#1#2{%
4982 \begingroup
4983 \edef\x{#1}%
4984 \@onelevel@sanitize\x
4985 \edef\x{.\x}%
4986 \edef\y{#2}%
4987 \@onelevel@sanitize\y
4988 \edef\y{.\y}%
4989 \expandafter\def\expandafter\z\expandafter##\expandafter1\y##2\@nil{%
4990 \endgroup
4991 \ifx\relax##2\relax
4992 \expandafter\ltx@secondoftwo
4993 \else
4994 \expandafter\ltx@firstoftwo
4995 \fi
4996 }%
4997 \expandafter\expandafter\expandafter\z\expandafter\x\y\@nil
4998 }

4999 \def\Hy@StringLocalhost{localhost}
5000 \@onelevel@sanitize\Hy@StringLocalhost
5001 \def\Hy@CleanupFile#1{%
5002 \edef#1{#1}%
5003 \expandafter\Hy@@CleanupFile#1\hbox{//\hbox\@nil{#1}%
5004 }
5005 \def\Hy@@CleanupFile#1//#2/#3\hbox#4\@nil#5{%
5006 \begingroup

```

```

5007 \toks@{\endgroup}%
5008 \def\x{#1}%
5009 \ifx\x\@empty
5010 \def\x{#2}%
5011 \ifx\x\@empty
5012 \toks@{\endgroup\def#5{/#3}}%
5013 \else
5014 \@onelevel@sanitize\x
5015 \ifx\x\Hy@StringLocalhost
5016 \toks@{\endgroup\def#5{/#3}}%
5017 \fi
5018 \fi
5019 \fi
5020 \the\toks@
5021 }

```

Anchors have a name, and marked text. We have to be careful with the marked text, as if we break off part of something to put a `\special` around it, all hell breaks loose. Therefore, we check the category code of the first token, and only proceed if its safe. Tanmoy sorted this out.

A curious case arises if the original parameter was in braces. That means that `#2` comes here a multiple letters, and the `noexpand` just looks at the first one, putting the rest in the output. Yuck.

```

5022 \long\def\hyper@@anchor#1#2{\@hyper@@anchor#1\relax#2\relax}
5023 \long\def\@hyper@@anchor#1\relax#2#3\relax{%
5024 \ifx\#1\%
5025 #2\Hy@Warning{Ignoring empty anchor}%
5026 \else
5027 \def\anchor@spot{#2#3}%
5028 \let\put@me@back\@empty
5029 \ifx\relax#2\relax
5030 \else
5031 \ifHy@nesting
5032 \else
5033 \ifcat a\noexpand#2\relax
5034 \else
5035 \ifcat 0\noexpand#2 \relax
5036 \else
5037 % \typeout{Anchor start is not alphanumeric %
5038 % on input line\the\inputlineno%
5039 % }%
5040 \let\anchor@spot\@empty
5041 \def\put@me@back{#2#3}%
5042 \fi
5043 \fi
5044 \fi
5045 \fi
5046 \ifHy@activeanchor
5047 \anchor@spot
5048 \else
5049 \hyper@anchor{#1}%
5050 \fi
5051 \expandafter\put@me@back
5052 \fi
5053 \let\anchor@spot\@empty
5054 }
5055 \let\anchor@spot\ltx@empty

```


18 Compatibility with the *L^AT_EX2html* package

Map our macro names on to Nikos', so that documents prepared for that system will work without change.

Note, however, that the whole complicated structure for segmenting documents is not supported; it is assumed that the user will load `html.sty` first, and then `hyperref.sty`, so that the definitions in `html.sty` take effect, and are then overridden in a few circumstances by this package.

```
5056 \let\htmladdimg\hyperimage
5057 \def\htmladdnormallink#1#2{\href{#2}{#1}}
5058 \def\htmladdnormallinkfoot#1#2{\href{#2}{#1}\footnote{#2}}
5059 \def\htmlref#1#2{% anchor text, label
5060   \label@hyperref[{#2}]{#1}%
5061 }
```

This is really too much. The *L^AT_EX2html* package defines its own `\hyperref` command, with a different syntax. Was this always here? Its weird, anyway. We interpret it in the 'printed' way, since we are about fidelity to the page.

```
5062 \def\@@latextohtmlX{%
5063   \let\hhyperref\hyperref
5064   \def\hyperref##1##2##3##4{% anchor text for HTML
5065     % text to print before label in print
5066     % label
5067     % post-label text in print
5068     ##2\ref{##4}##3%
5069   }%
5070 }
```

19 Forms creation

Allow for creation of PDF or HTML forms. The effects here are limited somewhat by the need to support both output formats, so it may not be as clever as something which only wants to make PDF forms.

I (Sebastian) could not have started this without the encouragement of T V Raman.

19.1 Field flags

The field flags are organized in a bit set.

```
5071 \RequirePackage{bitset}
```

Each flag has a option name, an `\if` switch, and a bit position. The default is always 'false', the flag is clear. This is also the default of the switch created by `\newif`.

The names of the flags in the PDF specification (1.7) are used as lowercase option names.

```
\HyField@NewFlag #1: type: F annot flags, Ff field flags
#2: PDF name
#3: PDF position
5072 \def\HyField@NewFlag#1#2{%
5073   \lowercase{\HyField@NewOption{#2}}%
5074   \lowercase{\HyField@NewBitsetFlag{#2}}{#2}{#1}%
5075 }
```

```

\HyField@NewFlagOnly
5076 \def\HyField@NewFlagOnly#1#2{%
5077   \lowercase{\HyField@NewBitsetFlag{#2}}{#2}{#1}%
5078 }

\HyField@NewOption #1: option name
5079 \def\HyField@NewOption#1{%
5080   \expandafter\newif\csname ifFld@#1\endcsname
5081   \define@key{Field}{#1}[true]{%
5082     \lowercase{\Field@boolkey{##1}}{#1}%
5083   }%
5084 }

\HyField@NewBitsetFlag Package 'bitset' uses zero based positions, the PDF specification starts with one.
#1: option
#2: PDF name
#3: type: F annot flags, Ff field flags
#4: PDF position
5085 \def\HyField@NewBitsetFlag#1#2#3#4{%
5086   \begingroup
5087     \count@=#4\relax
5088     \advance\count@\m@ne
5089     \def\x##1{%
5090       \endgroup
5091       \expandafter\def\csname HyField@#3@#1\endcsname{##1}%
5092       \expandafter\ifx\csname HyField@#3@#1\endcsname\relax
5093         \expandafter\edef\csname HyField@#3@#1\endcsname{%
5094           (\number#4) #2%
5095         }%
5096       \else
5097         \expandafter\edef\csname HyField@#3@#1\endcsname{%
5098           \csname HyField@#3@#1\endcsname
5099           /#2%
5100         }%
5101       \fi
5102     }%
5103   \expandafter\x\expandafter{\the\count@}%
5104 }

\HyField@UseFlag The bit set is HyField@#1
5105 \def\HyField@UseFlag#1#2{%
5106   \lowercase{\HyField@@UseFlag{#2}}{#1}%
5107 }

\HyField@@UseFlag
5108 \def\HyField@@UseFlag#1#2{%
5109   \bitsetSetValue{HyField@#2}{%
5110     \csname HyField@#2@#1\endcsname
5111   }{%
5112     \csname ifFld@#1\endcsname 1\else 0\fi
5113   }%
5114 }

\HyField@SetFlag The bit set is HyField@#1
5115 \def\HyField@SetFlag#1#2{%
5116   \lowercase{\HyField@@SetFlag{#2}}{#1}%
5117 }

```

```

\HyField@@SetFlag
5118 \def\HyField@@SetFlag#1#2{%
5119 \bitsetSetValue{HyField@#2}{%
5120 \csname HyField@#2@#1\endcsname
5121 }{1}%
5122 }

\HyField@PrintFlags
5123 \def\HyField@PrintFlags#1#2{%
5124 \ifHy@verbose
5125 \begingroup
5126 \let\Hy@temp\@empty
5127 \let\MessageBreak\relax
5128 \expandafter\@for\expandafter\x\expandafter:\expandafter=%
5129 \bitsetGetSetBitList{HyField@#1}\do{%
5130 \edef\Hy@temp{%
5131 \Hy@temp
5132 \csname HyField@#1@\x\endcsname\MessageBreak
5133 }%
5134 }%
5135 \edef\x{\endgroup
5136 \noexpand\Hy@Info{%
5137 Field flags: %
5138 \expandafter\ifx\@car#1\@nil S\else/\fi
5139 #1 %
5140 \bitsetGetDec{HyField@#1} %
5141 (0x\bitsetGetHex{HyField@#1}{32})\MessageBreak
5142 \Hy@temp
5143 for #2%
5144 }%
5145 }\x
5146 \fi
5147 }

```

19.1.1 Declarations of field flags

“Table 8.70 Field flags common to all field types”

```

5148 \HyField@NewFlag{Ff}{ReadOnly}{1}
5149 \HyField@NewFlag{Ff}{Required}{2}
5150 \HyField@NewFlag{Ff}{NoExport}{3}

```

“Table 8.75 Field flags specific to button fields”

```

5151 \HyField@NewFlag{Ff}{NoToggleToOff}{15}
5152 \HyField@NewFlag{Ff}{Radio}{16}
5153 \HyField@NewFlag{Ff}{Pushbutton}{17}
5154 \HyField@NewFlag{Ff}{RadiosInUnison}{26}

```

“Table 8.77 Field flags specific to text fields”

```

5155 \HyField@NewFlag{Ff}{Multiline}{13}
5156 \HyField@NewFlag{Ff}{Password}{14}
5157 \HyField@NewFlag{Ff}{FileSelect}{21}% PDF 1.4
5158 \HyField@NewFlag{Ff}{DoNotSpellCheck}{23}% PDF 1.4
5159 \HyField@NewFlag{Ff}{DoNotScroll}{24}% PDF 1.4
5160 \HyField@NewFlag{Ff}{Comb}{25}% PDF 1.4
5161 \HyField@NewFlag{Ff}{RichText}{26}% PDF 1.5

```

“Table 8.79 field flags specific to choice fields”

```

5162 \HyField@NewFlag{Ff}{Combo}{18}

```

```

5163 \HyField@NewFlag{Ff}{Edit}{19}
5164 \HyField@NewFlag{Ff}{Sort}{20}
5165 \HyField@NewFlag{Ff}{MultiSelect}{22}% PDF 1.4
5166 % \HyField@NewFlag{Ff}{DoNotSpellCheck}{23}% PDF 1.4
5167 \HyField@NewFlag{Ff}{CommitOnSelChange}{27}% PDF 1.5

```

Signature fields are not supported.

Until 6.76i hyperref uses field option ‘combo’ to set three flags ‘Combo’, ‘Edit’, and ‘Sort’. Option ‘popdown’ sets flag ‘Combo’ only.

```

5168 \newif\ifFld@popdown
5169 \define@key{Field}{popdown}{true}{%
5170 \lowercase{\Field@boolkey{#1}}{popdown}%
5171 }

```

Annotation flags. The form objects are widget annotations. There are two flags for readonly settings, the one in the annotation flags is ignored, instead the other in the field flags is used.

Flag **Print** is not much useful, because hyperref do not use the appearance entry of the annotations for most fields.

```

5172 \HyField@NewFlag{F}{Invisible}{1}
5173 \HyField@NewFlag{F}{Hidden}{2}% PDF 1.2
5174 \HyField@NewFlag{F}{Print}{3}% PDF 1.2
5175 \HyField@NewFlag{F}{NoZoom}{4}% PDF 1.2
5176 \HyField@NewFlag{F}{NoRotate}{5}% PDF 1.3
5177 \HyField@NewFlag{F}{NoView}{6}% PDF 1.3
5178 \HyField@NewFlag{F}{Locked}{8}% PDF 1.4
5179 \HyField@NewFlag{F}{ToggleNoView}{9}% PDF 1.5
5180 \HyField@NewFlag{F}{LockedContents}{10}% PDF 1.7

5181 \ifHy@pdfa
5182 \def\HyField@PDFAFflagWarning#1#2{%
5183 \Hy@Warning{%
5184 PDF/A: Annotation flag ‘#1’ must\MessageBreak
5185 be set to ‘#2’%
5186 }%
5187 }%
5188 \Fld@invisiblefalse
5189 \def\Fld@invisibletrue{%
5190 \HyField@PDFAFflagWarning{invisible}{false}%
5191 }%
5192 \Fld@hiddenfalse
5193 \def\Fld@hiddentrue{%
5194 \HyField@PDFAFflagWarning{hidden}{false}%
5195 }%
5196 \Fld@printtrue
5197 \def\Fld@printfalse{%
5198 \HyField@PDFAFflagWarning{print}{true}%
5199 }%
5200 \Fld@nozoomtrue
5201 \def\Fld@nozoomfalse{%
5202 \HyField@PDFAFflagWarning{nozoom}{true}%
5203 }%
5204 \Fld@norotatetrue
5205 \def\Fld@norotatefalse{%
5206 \HyField@PDFAFflagWarning{norotate}{true}%
5207 }%
5208 \Fld@noviewfalse
5209 \def\Fld@noviewtrue{%

```

```

5210 \HyField@PDFAFIWarning{noview}{false}%
5211 }%
5212 \fi

```

Submit flags. Flag 1 Include/Exclude is not supported, use option noexport instead.

```

5213 \HyField@NewFlag{Submit}{IncludeNoValueFields}{2}
5214 \HyField@NewFlagOnly{Submit}{ExportFormat}{3}
5215 \HyField@NewFlag{Submit}{GetMethod}{4}
5216 \HyField@NewFlag{Submit}{SubmitCoordinates}{5}
5217 \HyField@NewFlagOnly{Submit}{XFDF}{6}
5218 \HyField@NewFlag{Submit}{IncludeAppendSaves}{7}
5219 \HyField@NewFlag{Submit}{IncludeAnnotations}{8}
5220 \HyField@NewFlagOnly{Submit}{SubmitPDF}{9}
5221 \HyField@NewFlag{Submit}{CanonicalFormat}{10}
5222 \HyField@NewFlag{Submit}{ExclNonUserAnnots}{11}
5223 \HyField@NewFlag{Submit}{ExclFKey}{12}
5224 \HyField@NewFlag{Submit}{EmbedForm}{14}

5225 \define@key{Field}{export}{%
5226 \lowercase{\def\Hy@temp{#1}}%
5227 \@ifundefined{Fld@export@\Hy@temp}{%
5228 \onelevel@sanitize\Hy@temp
5229 \Hy@Error{%
5230 Unknown export format '\Hy@temp'.\MessageBreak
5231 Known formats are 'FDF', 'HTML', 'XFDF', and 'PDF'%
5232 }\@ehc
5233 }%
5234 \let\Fld@export\Hy@temp
5235 }%
5236 }
5237 \def\Fld@export{fdf}
5238 \@namedef{Fld@export@fdf}{0}%
5239 \@namedef{Fld@export@html}{1}%
5240 \@namedef{Fld@export@xfdf}{2}%
5241 \@namedef{Fld@export@pdf}{3}%

```

19.1.2 Set submit flags

\HyField@FlagsSubmit

```

5242 \def\HyField@FlagsSubmit{%
5243 \bitsetReset{HyField@Submit}%
5244 \ifcase\@nameuse{Fld@export@\Fld@export} %
5245 % FDF
5246 \HyField@UseFlag{Submit}{IncludeNoValueFields}%
5247 \HyField@UseFlag{Submit}{SubmitCoordinates}%
5248 \HyField@UseFlag{Submit}{IncludeAppendSaves}%
5249 \HyField@UseFlag{Submit}{IncludeAnnotations}%
5250 \HyField@UseFlag{Submit}{CanonicalFormat}%
5251 \HyField@UseFlag{Submit}{ExclNonUserAnnots}%
5252 \HyField@UseFlag{Submit}{ExclFKey}%
5253 \HyField@UseFlag{Submit}{EmbedForm}%
5254 \or % HTML
5255 \HyField@SetFlag{Submit}{ExportFormat}%
5256 \HyField@UseFlag{Submit}{IncludeNoValueFields}%
5257 \HyField@UseFlag{Submit}{GetMethod}%
5258 \HyField@UseFlag{Submit}{SubmitCoordinates}%
5259 \HyField@UseFlag{Submit}{CanonicalFormat}%

```

```

5260 \or % XFDF
5261   \HyField@SetFlag{Submit}{XFDF}%
5262   \HyField@UseFlag{Submit}{IncludeNoValueFields}%
5263   \HyField@UseFlag{Submit}{SubmitCoordinates}%
5264   \HyField@UseFlag{Submit}{CanonicalFormat}%
5265 \or % PDF
5266   \HyField@SetFlag{Submit}{SubmitPDF}%
5267   \HyField@UseFlag{Submit}{GetMethod}%
5268 \fi
5269 \HyField@PrintFlags{Submit}{submit button field}%
5270 \bitsetIsEmpty{HyField@Submit}{%
5271   \let\Fld@submitflags\tx@empty
5272 }{%
5273   \edef\Fld@submitflags{/Flags \bitsetGetDec{HyField@Submit}}%
5274 }%
5275 }

```

19.1.3 Set annot flags in fields

\HyField@FlagsAnnot

```

5276 \def\HyField@FlagsAnnot#1{%
5277   \bitsetReset{HyField@F}%
5278   \HyField@UseFlag{F}{Invisible}%
5279   \HyField@UseFlag{F}{Hidden}%
5280   \HyField@UseFlag{F}{Print}%
5281   \HyField@UseFlag{F}{NoZoom}%
5282   \HyField@UseFlag{F}{NoRotate}%
5283   \HyField@UseFlag{F}{NoView}%
5284   \HyField@UseFlag{F}{Locked}%
5285   \HyField@UseFlag{F}{ToggleNoView}%
5286   \HyField@UseFlag{F}{LockedContents}%
5287   \HyField@PrintFlags{F}{#1}%
5288   \bitsetIsEmpty{HyField@F}{%
5289     \let\Fld@annotflags\tx@empty
5290   }{%
5291     \edef\Fld@annotflags{/F \bitsetGetDec{HyField@F}}%
5292   }%
5293 }

```

19.1.4 Pushbutton field

\HyField@FlagsPushButton

```

5294 \def\HyField@FlagsPushButton{%
5295   \HyField@FlagsAnnot{push button field}%
5296   \bitsetReset{HyField@Ff}%
5297   \HyField@UseFlag{Ff}{ReadOnly}%
5298   \HyField@UseFlag{Ff}{Required}%
5299   \HyField@UseFlag{Ff}{NoExport}%
5300   \HyField@SetFlag{Ff}{Pushbutton}%
5301   \HyField@PrintFlags{Ff}{push button field}%
5302   \bitsetIsEmpty{HyField@Ff}{%
5303     \let\Fld@flags\tx@empty
5304   }{%
5305     \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5306   }%
5307 }

```

19.1.5 Check box field

\HyField@FlagsCheckBox

```
5308 \def\HyField@FlagsCheckBox{%
5309   \HyField@FlagsAnnot{check box field}%
5310   \bitsetReset{HyField@Ff}%
5311   \HyField@UseFlag{Ff}{ReadOnly}%
5312   \HyField@UseFlag{Ff}{Required}%
5313   \HyField@UseFlag{Ff}{NoExport}%
5314   \HyField@PrintFlags{Ff}{check box field}%
5315   \bitsetIsEmpty{HyField@Ff}{%
5316     \let\Fld@flags\ltx@empty
5317   }{%
5318     \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5319   }%
5320 }
```

19.1.6 Radio button field

\HyField@FlagsRadioButton

```
5321 \def\HyField@FlagsRadioButton{%
5322   \HyField@FlagsAnnot{radio button field}%
5323   \bitsetReset{HyField@Ff}%
5324   \HyField@UseFlag{Ff}{ReadOnly}%
5325   \HyField@UseFlag{Ff}{Required}%
5326   \HyField@UseFlag{Ff}{NoExport}%
5327   \HyField@UseFlag{Ff}{NoToggleToOff}%
5328   \HyField@SetFlag{Ff}{Radio}%
5329   \HyField@UseFlag{Ff}{RadiosInUnison}%
5330   \HyField@PrintFlags{Ff}{radio button field}%
5331   \bitsetIsEmpty{HyField@Ff}{%
5332     \let\Fld@flags\ltx@empty
5333   }{%
5334     \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5335   }%
5336 }
```

19.1.7 Text fields

\HyField@FlagsText

```
5337 \def\HyField@FlagsText{%
5338   \HyField@FlagsAnnot{text field}%
5339   \bitsetReset{HyField@Ff}%
5340   \HyField@UseFlag{Ff}{ReadOnly}%
5341   \HyField@UseFlag{Ff}{Required}%
5342   \HyField@UseFlag{Ff}{NoExport}%
5343   \HyField@UseFlag{Ff}{Multiline}%
5344   \HyField@UseFlag{Ff}{Password}%
5345   \HyField@UseFlag{Ff}{FileSelect}%
5346   \HyField@UseFlag{Ff}{DoNotSpellCheck}%
5347   \HyField@UseFlag{Ff}{DoNotScroll}%
5348   \ifFld@comb
5349     \ifcase0\ifFld@multiline
5350       \else\ifFld@password
5351       \else\ifFld@fileselect
5352       \else 1\fi\fi\fi\relax
5353     \Hy@Error{%
```

```

5354     Field option 'comb' cannot used together with\MessageBreak
5355     'multiline', 'password', or 'fileselect'%
5356   }\@ehc
5357   \else
5358     \HyField@UseFlag{Ff}{Comb}%
5359   \fi
5360 \fi
5361 \HyField@UseFlag{Ff}{RichText}%
5362 \HyField@PrintFlags{Ff}{text field}%
5363 \bitsetIsEmpty{HyField@Ff}{%
5364   \let\Fld@flags\ltx@empty
5365 }{%
5366   \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5367 }%
5368 }

```

19.1.8 Choice fields

\HyField@FlagsChoice

```

5369 \def\HyField@FlagsChoice{%
5370   \HyField@FlagsAnnot{choice field}%
5371   \bitsetReset{HyField@Ff}%
5372   \HyField@UseFlag{Ff}{ReadOnly}%
5373   \HyField@UseFlag{Ff}{Required}%
5374   \HyField@UseFlag{Ff}{NoExport}%
5375   \HyField@UseFlag{Ff}{Combo}%
5376   \ifFld@combo
5377     \HyField@UseFlag{Ff}{Edit}%
5378   \fi
5379   \HyField@UseFlag{Ff}{Sort}%
5380   \HyField@UseFlag{Ff}{MultiSelect}%
5381   \ifFld@combo
5382     \ifFld@edit
5383       \HyField@UseFlag{Ff}{DoNotSpellCheck}%
5384     \fi
5385   \fi
5386   \HyField@UseFlag{Ff}{CommitOnSelChange}%
5387   \HyField@PrintFlags{Ff}{choice field}%
5388   \bitsetIsEmpty{HyField@Ff}{%
5389     \let\Fld@flags\ltx@empty
5390   }{%
5391     \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5392   }%
5393 }

```

19.2 Choice field

\HyField@PDFChoices #1: list of choices in key value syntax, key = exported name, value = displayed text.

Input: \Fld@default, \Fld@value, \ifFld@multiselect

Result: \Fld@choices with entries: /Opt, /DV, /V, /I.

```

5394 \def\HyField@PDFChoices#1{%
5395   \begingroup
5396   \global\let\Fld@choices\ltx@empty
5397   \let\HyTmp@optlist\ltx@empty
5398   \let\HyTmp@optitem\relax

```



```

5399 \count@=0 %
5400 \kv@parse{#1}{%
5401 \Hy@pdfstringdef\kv@key\kv@key
5402 \ifx\kv@value\relax
5403 \ifnum\Hy@pdfversion<3 % implementation note 122, PDF spec 1.7
5404 \xdef\Fld@choices{\Fld@choices(\kv@key)(\kv@key)}}%
5405 \else
5406 \xdef\Fld@choices{\Fld@choices(\kv@key)}%
5407 \fi
5408 \else
5409 \Hy@pdfstringdef\kv@value\kv@value
5410 \xdef\Fld@choices{\Fld@choices(\kv@value)(\kv@key)}}%
5411 \fi
5412 \edef\HyTmp@optlist{%
5413 \HyTmp@optlist
5414 \HyTmp@optitem{\the\count@}{\kv@key}0%
5415 }%
5416 \advance\count@ by 1 %
5417 \@gobbletwo
5418 }%
5419 \xdef\Fld@choices{/Opt[\Fld@choices]}%
5420 \ifFld@multiselect
5421 \HyField@@PDFChoices{DV}\Fld@default
5422 \HyField@@PDFChoices{V}\Fld@value
5423 \else
5424 \ifx\Fld@default\relax
5425 \else
5426 \pdfstringdef\Hy@gtemp\Fld@default
5427 \xdef\Fld@choices{\Fld@choices/DV(\Hy@gtemp)}%
5428 \fi
5429 \ifx\Fld@value\relax
5430 \else
5431 \pdfstringdef\Hy@gtemp\Fld@value
5432 \xdef\Fld@choices{\Fld@choices/V(\Hy@gtemp)}%
5433 \fi
5434 \fi
5435 \endgroup
5436 }

```

\HyField@@PDFChoices

```

5437 \def\HyField@@PDFChoices#1#2{%
5438 \ifx#2\relax
5439 \else
5440 \count@=0 %
5441 \def\HyTmp@optitem##1##2##3{%
5442 \def\HyTmp@key{##2}%
5443 \ifx\HyTmp@key\Hy@gtemp
5444 \expandafter\def\expandafter\HyTmp@optlist\expandafter{%
5445 \HyTmp@optlist
5446 \HyTmp@optitem{##1}{##2}1%
5447 }%
5448 \let\HyTmp@found=Y%
5449 \else
5450 \expandafter\def\expandafter\HyTmp@optlist\expandafter{%
5451 \HyTmp@optlist
5452 \HyTmp@optitem{##1}{##2}##3%
5453 }%
5454 \fi

```

```

5455 }%
5456 \expandafter\comma@parse\expandafter{#2}{%
5457 \pdfstringdef\Hy@gtemp\comma@entry
5458 \let\HyTmp@found=N %
5459 \expandafter\let\expandafter\HyTmp@optlist\expandafter\@empty
5460 \HyTmp@optlist
5461 \ifx\HyTmp@found Y%
5462 \advance\count@ by 1 %
5463 \else
5464 \@onelevel@sanitize\comma@entry
5465 \PackageWarning{hyperref}{%
5466 \string\ChoiceBox: Ignoring value ‘\comma@entry’,%
5467 \MessageBreak
5468 it cannot be found in the choices%
5469 }%
5470 \fi
5471 \@gobble
5472 }%
5473 \def\HyTmp@optitem##1##2##3{%
5474 \ifnum##3=1 %
5475 (##2)%
5476 \fi
5477 }%
5478 \ifcase\count@
5479 \or
5480 \xdef\Fld@choices{\Fld@choices/#1\HyTmp@optlist}%
5481 \else
5482 \xdef\Fld@choices{\Fld@choices/#1[\HyTmp@optlist]}%
5483 \ifx#1V%
5484 \def\HyTmp@optitem##1##2##3{%
5485 \ifnum##3=1 %
5486 \@firstofone{ ##1}%
5487 \fi
5488 }%
5489 \edef\HyTmp@optlist{\HyTmp@optlist}%
5490 \xdef\Fld@choices{%
5491 \Fld@choices
5492 /I[\expandafter\@firstofone\HyTmp@optlist]%
5493 }%
5494 \fi
5495 \fi
5496 \fi
5497 }

```

19.3 Forms

\HyField@SetKeys

```

5498 \def\HyField@SetKeys{%
5499 \kvsetkeys{Field}%
5500 }

5501 \newif\ifFld@checked
5502 \newif\ifFld@disabled
5503 \Fld@checkedfalse
5504 \Fld@disabledfalse
5505 \newcount\Fld@menulength
5506 \newdimen\Field@Width

```

```

5507 \newdimen\Fld@charsize
5508 \Fld@charsize=10\p@
5509 \def\Fld@maxlen{0}
5510 \def\Fld@align{0}
5511 \def\Fld@color{0 0 0 rg}
5512 \def\Fld@bcolor{1 1 1}
5513 \def\Fld@bordercolor{1 0 0}
5514 \def\Fld@bordersep{1\p@}
5515 \def\Fld@borderwidth{1}
5516 \def\Fld@borderstyle{S}
5517 \def\Fld@cbsymbol{4}
5518 \def\Fld@radiosymbol{H}
5519 \def\Fld@rotation{0}
5520 \def\Form{\@ifnextchar{\@Form}{\@Form[]}}
5521 \def\endForm{\@endForm}
5522 \newif\ifForm@html
5523 \Form@htmlfalse
5524 \def\Form@boolkey#1#2{%
5525   \csname Form@#2\ifx\relax#1\relax true\else#1\fi\endcsname
5526 }
5527 \define@key{Form}{action}{%
5528   \hyper@normalise\Hy@DefFormAction{#1}%
5529 }
5530 \def\Hy@DefFormAction{\def\Form@action}
5531 \def\enc@html{html}
5532 \define@key{Form}{encoding}{%
5533   \def\Hy@tempa{#1}%
5534   \ifx\Hy@tempa\enc@html
5535     \Form@htmltrue
5536     \def\Fld@export{html}%
5537   \else
5538     \Hy@Warning{%
5539       Form 'encoding' key with \MessageBreak
5540       unknown value '#1'%
5541     }%
5542     \Form@htmlfalse
5543   \fi
5544 }
5545 \define@key{Form}{method}{%
5546   \lowercase{\def\Hy@temp{#1}}%
5547   \@ifundefined{Form@method@\Hy@temp}{%
5548     \@onelevel@sanitize\Hy@temp
5549     \Hy@Error{%
5550       Unknown method '\Hy@temp'\MessageBreak
5551       Known values are 'post' and 'get'%
5552     }\@ehc
5553   }{%
5554     \let\Form@method\Hy@temp
5555     \ifcase\@nameuse{Form@method@\Hy@temp} %
5556       \Fld@getmethodfalse
5557     \else
5558       \Fld@getmethodtrue
5559     \fi
5560   }%
5561 }
5562 \def\Form@method{}
5563 \@namedef{Form@method@post}{0}

```

```

5564 \@namedef{Form@method@get}{1}
5565 \newif\ifHyField@NeedAppearances
5566 \def\HyField@NeedAppearancesfalse{%
5567   \global\let\ifHyField@NeedAppearances\iffalse
5568 }
5569 \def\HyField@NeedAppearancetrue{%
5570   \global\let\ifHyField@NeedAppearances\iftrue
5571 }
5572 \HyField@NeedAppearancetrue
5573 \define@key{Form}{NeedAppearances}[true]{%
5574   \edef\Hy@tempa{#1}%
5575   \ifx\Hy@tempa\Hy@true
5576     \HyField@NeedAppearancetrue
5577   \else
5578     \ifx\Hy@tempa\Hy@false
5579       \HyField@NeedAppearancesfalse
5580     \else
5581       \Hy@Error{%
5582         Unexpected value '\Hy@tempa'\MessageBreak
5583         of option 'NeedAppearances' instead of\MessageBreak
5584         'true' or 'false'%
5585       }\@ehc
5586     \fi
5587   \fi
5588 }
5589 \def\Field@boolkey#1#2{%
5590   \csname Fld@#2\ifx\relax#1\relax true\else#1\fi\endcsname
5591 }
5592 \ifHy@texht
5593   \newtoks\Field@toks
5594   \Field@toks={ }%
5595   \def\Field@addtoks#1#2{%
5596     \edef\@processme{\Field@toks{\the\Field@toks\space #1="#2"}}%
5597     \@processme
5598   }%
5599 \else
5600   \def\Hy@WarnHTMLFieldOption#1{%
5601     \Hy@Warning{%
5602       HTML field option '#1'\MessageBreak
5603       is ignored%
5604     }%
5605   }%
5606 \fi
5607 \def\Fld@checkequals#1=#2=#3\\{%
5608   \def\@currDisplay{#1}%
5609   \ifx\\#2\\%
5610     \def\@currValue{#1}%
5611   \else
5612     \def\@currValue{#2}%
5613   \fi
5614 }
5615 \define@key{Field}{loc}{%
5616   \def\Fld@loc{#1}%
5617 }
5618 \define@key{Field}{checked}[true]{%
5619   \lowercase{\Field@boolkey{#1}}{checked}%
5620 }

```

```

5621 \define@key{Field}{disabled}[true]{%
5622   \lowercase{\Field@boolkey{#1}}{disabled}%
5623 }
5624 \ifHy@texht
5625   \define@key{Field}{accesskey}{%
5626     \Field@addtoks{accesskey}{#1}%
5627   }%
5628   \define@key{Field}{tabkey}{%
5629     \Field@addtoks{tabkey}{#1}%
5630   }%
5631 \else
5632   \define@key{Field}{accesskey}{%
5633     \Hy@WarnHTMLFieldOption{accesskey}%
5634   }%
5635   \define@key{Field}{tabkey}{%
5636     \Hy@WarnHTMLFieldOption{tabkey}%
5637   }%
5638 \fi
5639 \define@key{Field}{name}{%
5640   \def\Fld@name{#1}%
5641 }
5642 \let\Fld@altname\relax
5643 \define@key{Field}{altname}{%
5644   \def\Fld@altname{#1}%
5645 }
5646 \let\Fld@mappingname\relax
5647 \define@key{Field}{mappingname}{%
5648   \def\Fld@mappingname{#1}%
5649 }
5650 \define@key{Field}{width}{%
5651   \def\Fld@width{#1}%
5652   \Field@Width#1\setbox0=\hbox{m}%
5653 }
5654 \define@key{Field}{maxlen}{%
5655   \def\Fld@maxlen{#1}%
5656 }
5657 \define@key{Field}{menulength}{%
5658   \Fld@menulength=#1\relax
5659 }
5660 \define@key{Field}{height}{%
5661   \def\Fld@height{#1}%
5662 }
5663 \define@key{Field}{charsize}{%
5664   \setlength{\Fld@charsize}{#1}%
5665 }
5666 \define@key{Field}{borderwidth}{%
5667   \Hy@defaultbp\Fld@borderwidth{#1}%
5668 }
5669 \def\Hy@defaultbp#1#2{%
5670   \begingroup
5671     \afterassignment\Hy@defaultbpAux
5672     \dimen@=#2bp\relax{#1}{#2}%
5673 }
5674 \begingroup\expandafter\expandafter\expandafter\endgroup
5675 \expandafter\ifx\csname dimexpr\endcsname\relax
5676   \def\Hy@defaultbpAux#1\relax#2#3{%
5677     \ifx!#1!%

```

```

5678 \endgroup
5679 \def#2{#3}%
5680 \else
5681 \dimen@=.99626\dimen@
5682 \edef\x{\endgroup
5683 \def\noexpand#2{%
5684 \strip@pt\dimen@
5685 }%
5686 }\x
5687 \fi
5688 }%
5689 \else
5690 \def\Hy@defaultbpAux#1\relax#2#3{%
5691 \ifx!#1!%
5692 \endgroup
5693 \def#2{#3}%
5694 \else
5695 \edef\x{\endgroup
5696 \def\noexpand#2{%
5697 \strip@pt\dimexpr\dimen@*800/803\relax
5698 }%
5699 }\x
5700 \fi
5701 }%
5702 \fi
5703 \define@key{Field}{borderstyle}{%
5704 \let\Hy@temp\Fld@borderstyle
5705 \def\Fld@borderstyle{#1}%
5706 \Hy@Match\Fld@borderstyle{%
5707 ^[SDBIU]$%
5708 }-}{%
5709 \Hy@Warning{%
5710 Invalid value '@pdfborderstyle'\MessageBreak
5711 for option 'pdfborderstyle'. Valid values:\MessageBreak
5712 \space\space S (Solid), D (Dashed), B (Beveled),\MessageBreak
5713 \space\space I (Inset), U (Underline)\MessageBreak
5714 Option setting is ignored%
5715 }%
5716 \let\Fld@borderstyle\Hy@temp
5717 }%
5718 }
5719 \define@key{Field}{bordersep}{%
5720 \def\Fld@bordersep{#1}%
5721 }
5722 \define@key{Field}{default}{%
5723 \def\Fld@default{#1}%
5724 }
5725 \define@key{Field}{align}{%
5726 \def\Fld@align{#1}%
5727 }
5728 \define@key{Field}{value}{%
5729 \def\Fld@value{#1}%
5730 }
5731 \define@key{Field}{checkboxsymbol}{%
5732 \Fld@DingDef\Fld@cbsymbol{#1}%
5733 }
5734 \define@key{Field}{radiosymbol}{%

```

```

5735 \Fld@DingDef\Fld@radiosymbol{#1}%
5736 }
5737 \def\Fld@DingDef#1#2{%
5738 \let\Fld@temp\ltx@empty
5739 \Fld@@@DingDef#2\ding{}}\@nil
5740 \let#1\Fld@temp
5741 }
5742 \def\Fld@@@DingDef#1\ding#2#3\@nil{%
5743 \expandafter\def\expandafter\Fld@temp\expandafter{%
5744 \Fld@temp
5745 #1%
5746 }%
5747 \ifx\\#3\\%
5748 \expandafter\@gobble
5749 \else
5750 \begingroup
5751 \lccode'0=#2\relax
5752 \lowercase{\endgroup
5753 \expandafter\def\expandafter\Fld@temp\expandafter{%
5754 \Fld@temp
5755 0%
5756 }%
5757 }%
5758 \expandafter\@firstofone
5759 \fi
5760 {%
5761 \Fld@@@DingDef#3\@nil
5762 }%
5763 }

5764 \define@key{Field}{rotation}{%
5765 \def\Fld@rotation{#1}%
5766 }

5767 \define@key{Field}{backgroundcolor}{%
5768 \HyColor@FieldBColor{#1}\Fld@bcolor{hyperref}{backgroundcolor}%
5769 }

5770 \define@key{Field}{bordercolor}{%
5771 \HyColor@FieldBColor{#1}\Fld@bordercolor{hyperref}{bordercolor}%
5772 }

5773 \define@key{Field}{color}{%
5774 \HyColor@FieldColor{#1}\Fld@color{hyperref}{color}%
5775 }

5776 \let\Fld@onclick@code\ltx@empty
5777 \let\Fld@format@code\ltx@empty
5778 \let\Fld@validate@code\ltx@empty
5779 \let\Fld@calculate@code\ltx@empty
5780 \let\Fld@keystroke@code\ltx@empty
5781 \let\Fld@onfocus@code\ltx@empty
5782 \let\Fld@onblur@code\ltx@empty
5783 \let\Fld@onmousedown@code\ltx@empty
5784 \let\Fld@onmouseup@code\ltx@empty
5785 \let\Fld@onenter@code\ltx@empty
5786 \let\Fld@onexit@code\ltx@empty
5787 \def\Hy@temp#1{%
5788 \expandafter\Hy@@temp\csname Fld@#1@code\endcsname{#1}%
5789 }
5790 \def\Hy@@temp#1#2{%

```

```

5791 \ifHy@pdfa
5792   \define@key{Field}{#2}{%
5793     \Hy@Error{%
5794       PDF/A: Additional action '#2' is prohibited%
5795     }\@ehc
5796   }%
5797 \else
5798   \define@key{Field}{#2}{%
5799     \def#1{##1}%
5800   }%
5801 \fi
5802 }
5803 \Hy@temp{keystroke}
5804 \Hy@temp{format}
5805 \Hy@temp{validate}
5806 \Hy@temp{calculate}
5807 \Hy@temp{onfocus}
5808 \Hy@temp{onblur}
5809 \Hy@temp{onenter}
5810 \Hy@temp{onexit}
5811 \ifHy@texht
5812   \def\Hy@temp#1{%
5813     \define@key{Field}{#1}{%
5814       \Field@addtoks{#1}{##1}%
5815     }%
5816   }%
5817 \else
5818   \def\Hy@temp#1{%
5819     \define@key{Field}{#1}{%
5820       \Hy@WarnHTMLFieldOption{#1}%
5821     }%
5822   }%
5823 \fi
5824 \Hy@temp{ondblclick}
5825 \Hy@temp{onmousedown}
5826 \Hy@temp{onmouseup}
5827 \Hy@temp{onmouseover}
5828 \Hy@temp{onmousemove}
5829 \Hy@temp{onmouseout}
5830 \Hy@temp{onkeydown}
5831 \Hy@temp{onkeyup}
5832 \Hy@temp{onselect}
5833 \Hy@temp{onchange}
5834 \Hy@temp{onkeypress}
5835 \ifHy@texht
5836   \define@key{Field}{onclick}{%
5837     \Field@addtoks{onclick}{#1}%
5838   }%
5839 \else
5840   \ifHy@pdfa
5841     \define@key{Field}{onclick}{%
5842       \Hy@Error{%
5843         PDF/A: Action 'onclick' is prohibited%
5844       }\@ehc
5845     }%
5846   \else
5847     \define@key{Field}{onclick}{%

```



```

5848 \def\Fld@onclick@code{#1}%
5849 }%
5850 \fi
5851 \fi

5852 \DeclareRobustCommand\TextField{%
5853 \@ifnextchar[{\@TextField}{\@TextField[]}%
5854 }
5855 \DeclareRobustCommand\ChoiceMenu{%
5856 \@ifnextchar[{\@ChoiceMenu}{\@ChoiceMenu[]}%
5857 }
5858 \DeclareRobustCommand\CheckBox{%
5859 \@ifnextchar[{\@CheckBox}{\@CheckBox[]}%
5860 }
5861 \DeclareRobustCommand\PushButton{%
5862 \@ifnextchar[{\@PushButton}{\@PushButton[]}%
5863 }
5864 \DeclareRobustCommand\Gauge{%
5865 \@ifnextchar[{\@Gauge}{\@Gauge[]}%
5866 }
5867 \DeclareRobustCommand\Submit{%
5868 \@ifnextchar[{\@Submit}{\@Submit[]}%
5869 }
5870 \DeclareRobustCommand\Reset{%
5871 \@ifnextchar[{\@Reset}{\@Reset[]}%
5872 }
5873 \def\LayoutTextField#1#2{% label, field
5874 #1 #2%
5875 }
5876 \def\LayoutChoiceField#1#2{% label, field
5877 #1 #2%
5878 }
5879 \def\LayoutCheckField#1#2{% label, field
5880 #1 #2%
5881 }
5882 \def\LayoutPushButtonField#1{% button
5883 #1%
5884 }
5885 \def\MakeRadioField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
5886 \def\MakeCheckField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
5887 \def\MakeTextField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
5888 \def\MakeChoiceField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
5889 \def\MakeButtonField#1{%
5890 \sbox0{%
5891 \hskip\Fld@borderwidth bp#1\hskip\Fld@borderwidth bp%
5892 }%
5893 \@tempdima\ht0 %
5894 \advance\@tempdima by \Fld@borderwidth bp %
5895 \advance\@tempdima by \Fld@borderwidth bp %
5896 \ht0\@tempdima
5897 \@tempdima\dp0 %
5898 \advance\@tempdima by \Fld@borderwidth bp %
5899 \advance\@tempdima by \Fld@borderwidth bp %
5900 \dp0\@tempdima
5901 \box0\relax
5902 }
5903 \def\DefaultHeightofSubmit{14pt}
5904 \def\DefaultWidthofSubmit{2cm}

```

```

5905 \def\DefaultHeightofReset{14pt}
5906 \def\DefaultWidthofReset{2cm}
5907 \def\DefaultHeightofCheckBox{\baselineskip}
5908 \def\DefaultWidthofCheckBox{\baselineskip}
5909 \def\DefaultHeightofChoiceMenu{\baselineskip}
5910 \def\DefaultWidthofChoiceMenu{\baselineskip}
5911 \def\DefaultHeightofText{\baselineskip}
5912 \def\DefaultHeightofTextMultiline{4\baselineskip}
5913 \def\DefaultWidthofText{3cm}
5914 \def\DefaultOptionsofSubmit{print,name=Submit,noexport}
5915 \def\DefaultOptionsofReset{print,name=Reset,noexport}
5916 \def\DefaultOptionsofPushButton{print}
5917 \def\DefaultOptionsofCheckBox{print}
5918 \def\DefaultOptionsofText{print}

```

Default options for the types of \ChoiceMenu.

```

5919 \def\DefaultOptionsofListBox{print}
5920 \def\DefaultOptionsofComboBox{print,edit,sort}
5921 \def\DefaultOptionsofPopdownBox{print}
5922 \def\DefaultOptionsofRadio{print,notoggletooff}

```

20 Setup

```

5923 \ifHy@hyperfigures
5924 \Hy@Info{Hyper figures ON}%
5925 \else
5926 \Hy@Info{Hyper figures OFF}%
5927 \fi
5928 \ifHy@nesting
5929 \Hy@Info{Link nesting ON}%
5930 \else
5931 \Hy@Info{Link nesting OFF}%
5932 \fi
5933 \ifHy@hyperindex
5934 \Hy@Info{Hyper index ON}%
5935 \else
5936 \Hy@Info{Hyper index OFF}%
5937 \fi
5938 \ifHy@backref
5939 \Hy@Info{backreferencing ON}%
5940 \else
5941 \Hy@Info{backreferencing OFF}%
5942 \fi
5943 \ifHy@colorlinks
5944 \Hy@Info{Link coloring ON}%
5945 \else
5946 \Hy@Info{Link coloring OFF}%
5947 \fi
5948 \ifHy@ocgcolorlinks
5949 \Hy@Info{Link coloring with OCG ON}%
5950 \else
5951 \Hy@Info{Link coloring with OCG OFF}%
5952 \fi
5953 \ifHy@pdfa
5954 \Hy@Info{PDF/A mode ON}%
5955 \else
5956 \Hy@Info{PDF/A mode OFF}%

```

5957 \fi

21 Low-level utility macros

We need unrestricted access to the #, ~ and " characters, so make them nice macros.

```
5958 \edef\hyper@hash{\string#}  
5959 \edef\hyper@tilde{\string~}  
5960 \edef\hyper@quote{\string"}
```

Support \label before \begin{document}.

```
5961 \def\@currentHref{Doc-Start}  
5962 \let\Hy@footnote@currentHref\@empty
```

We give the start of document a special label; this is used in backreferencing-by-section, to allow for cites before any sectioning commands. Set up PDF info.

```
5963 \Hy@AtBeginDocument{%  
5964   \Hy@pdfstringtrue  
5965   \PDF@SetupDoc  
5966   \let\PDF@SetupDoc\@empty  
5967   \Hy@DisableOption{pdfpagescrop}%  
5968   \Hy@DisableOption{pdfpagemode}%  
5969   \Hy@DisableOption{pdfnonfullscreenpagemode}%  
5970   \Hy@DisableOption{pdfdirection}%  
5971   \Hy@DisableOption{pdfviewarea}%  
5972   \Hy@DisableOption{pdfviewclip}%  
5973   \Hy@DisableOption{pdfprintarea}%  
5974   \Hy@DisableOption{pdfprintclip}%  
5975   \Hy@DisableOption{pdfprintsclning}%  
5976   \Hy@DisableOption{pdfduplex}%  
5977   \Hy@DisableOption{pdfpicktraybypdfsize}%  
5978   \Hy@DisableOption{pdfprintpagerange}%  
5979   \Hy@DisableOption{pdfnumcopies}%  
5980   \Hy@DisableOption{pdfstartview}%  
5981   \Hy@DisableOption{pdfstartpage}%  
5982   \Hy@DisableOption{pdftoolbar}%  
5983   \Hy@DisableOption{pdfmenubar}%  
5984   \Hy@DisableOption{pdfwindowui}%  
5985   \Hy@DisableOption{pdfitwindow}%  
5986   \Hy@DisableOption{pdfcenterwindow}%  
5987   \Hy@DisableOption{pdfdisplaydoctitle}%  
5988   \Hy@DisableOption{pdfpagelayout}%  
5989   \Hy@DisableOption{pdflang}%  
5990   \Hy@DisableOption{baseurl}%  
5991   \ifHy@texht\else\hyper@anchorstart{Doc-Start}\hyper@anchorend\fi  
5992   \Hy@pdfstringfalse  
5993 }
```

Ignore star from referencing macros:

```
5994 \LetLtxMacro\NoHy@OrgRef\ref  
5995 \DeclareRobustCommand*{\ref}{%  
5996   \@ifstar\NoHy@OrgRef\NoHy@OrgRef  
5997 }  
5998 \LetLtxMacro\NoHy@OrgPageRef\pageref  
5999 \DeclareRobustCommand*{\pageref}{%  
6000   \@ifstar\NoHy@OrgPageRef\NoHy@OrgPageRef  
6001 }
```

22 Localized nullifying of package

Sometimes we just don't want the wretched package interfering with us. Define an environment we can put in manually, or include in a style file, which stops the hypertext functions doing anything. This is used, for instance, in the Elsevier classes, to stop `hyperref` playing havoc in the front matter.

```

6002 \def\NoHyper{%
6003   \def\hyper@link@[##1]##2##3##4{##4\Hy@xspace@end}%
6004   \def\hyper@@anchor##1##2{##2\Hy@xspace@end}%
6005   \global\let\hyper@livelink\hyper@link
6006   \gdef\hyper@link##1##2##3{##3\Hy@xspace@end}%
6007   \let\hyper@anchor\ltx@gobble
6008   \let\hyper@anchorstart\ltx@gobble
6009   \def\hyper@anchorend{\Hy@xspace@end}%
6010   \let\hyper@linkstart\ltx@gobbletwo
6011   \def\hyper@linkend{\Hy@xspace@end}%
6012   \def\hyper@linkurl##1##2{##1\Hy@xspace@end}%
6013   \def\hyper@linkfile##1##2##3{##1\Hy@xspace@end}%
6014   \let\Hy@backout\@gobble
6015 }
6016 \def\stop@hyper{%
6017   \def\hyper@link@[##1]##2##3##4{##4\Hy@xspace@end}%
6018   \let\Hy@backout\@gobble
6019   \let\hyper@@anchor\ltx@gobble
6020   \def\hyper@link##1##2##3{##3\Hy@xspace@end}%
6021   \let\hyper@anchor\ltx@gobble
6022   \let\hyper@anchorstart\ltx@gobble
6023   \def\hyper@anchorend{\Hy@xspace@end}%
6024   \let\hyper@linkstart\ltx@gobbletwo
6025   \def\hyper@linkend{\Hy@xspace@end}%
6026   \def\hyper@linkurl##1##2{##1\Hy@xspace@end}%
6027   \def\hyper@linkfile##1##2##3{##1\Hy@xspace@end}%
6028 }
6029 \def\endNoHyper{%
6030   \global\let\hyper@link\hyper@livelink
6031 }
6032 \end{package}

```

23 Package nohyperref

This package is introduced by Sebastian Rahtz.

Package `nohyperref` is a dummy package that defines some low level and some top-level commands. It is done for `jadetex`, which calls `hyperref` low-level commands, but it would also be useful with people using normal `hyperref`, who really do not want the package loaded at all.

Some low-level commands:

```

6033 \nohyperref
6034 \RequirePackage{letltxmacro}[2008/06/13]
6035 \let\hyper@@anchor\@gobble
6036 \def\hyper@link##1##2##3{##3}%
6037 \let\hyper@anchorstart\@gobble
6038 \let\hyper@anchorend\@empty
6039 \let\hyper@linkstart\@gobbletwo
6040 \let\hyper@linkend\@empty
6041 \def\hyper@linkurl##1##2{##1}%

```

```

6042 \def\hyper@linkfile#1#2#3{#1}%
6043 \def\hyper@link@{#1}#2#3{}%
6044 \let\PDF@SetupDoc\@empty
6045 \let\PDF@FinishDoc\@empty
6046 \def\nohyperpage#1{#1}

```

Some top-level commands:

```

6047 \def\Acrobatmenu#1#2{\leavevmode#2}
6048 \let\pdfstringdefDisableCommands\@gobbletwo
6049 \let\texorpdfstring\@firstoftwo
6050 \let\pdfbookmark\@undefined
6051 \newcommand\pdfbookmark[3]{}{}
6052 \let\phantomsection\@empty
6053 \let\hypersetup\@gobble
6054 \let\hyperbaseurl\@gobble
6055 \newcommand*{\href}[3][]{#3}
6056 \let\hyperdef\@gobbletwo
6057 \let\hyperlink\@gobble
6058 \let\hypertarget\@gobble
6059 \def\hyperref{%
6060   \@ifnextchar{\@gobbleopt{\expandafter\@gobbletwo\@gobble}%
6061 }
6062 \long\def\@gobbleopt[#1]{}
6063 \let\hyperpage\@empty

```

Ignore star from referencing macros:

```

6064 \LetLtxMacro\NoHy@OrgRef\ref
6065 \DeclareRobustCommand*{\ref}{%
6066   \@ifstar\NoHy@OrgRef\NoHy@OrgRef
6067 }
6068 \LetLtxMacro\NoHy@OrgPageRef\pageref
6069 \DeclareRobustCommand*{\pageref}{%
6070   \@ifstar\NoHy@OrgPageRef\NoHy@OrgPageRef
6071 }
6072 </nohyperref>

```

24 The Mangling Of Aux and Toc Files

Some extra tests so that the hyperref package may be removed or added to a document without having to remove .aux and .toc files (this section is by David Carlisle) All the code is delayed to `\begin{document}`

```

6073 <*package>
6074 \Hy@AtBeginDocument{%

```

First the code to deal with removing the hyperref package from a document.

Write some stuff into the aux file so if the next run is done without hyperref, then `\contentsline` and `\newlabel` are defined to cope with the extra arguments.

```

6075   \if@filesw
6076     \ifHy@typexml
6077       \immediate\closeout\@mainaux
6078       \immediate\openout\@mainaux\jobname.aux\relax
6079       \immediate\write\@auxout{<relaxxml>\relax}%
6080     \fi
6081     \immediate\write\@auxout{%
6082       \string\providecommand\string\HyperFirstAtBeginDocument{%
6083         \string\AtBeginDocument}^^J%
6084       \string\HyperFirstAtBeginDocument{%

```

```

6085 \string\ifx\string\hyper@anchor\string\@undefined^^J%
6086 \string\global\string\let\string\oldcontentsline\string\contentsline^^J%
6087 \string\gdef\string\contentsline%
6088 \string#1\string#2\string#3\string#4{%
6089 \string\oldcontentsline%
6090 {\string#1}{\string#2}{\string#3}}^^J%
6091 \string\global\string\let\string\oldnewlabel\string\newlabel^^J%
6092 \string\gdef\string\newlabel\string#1\string#2{%
6093 \string\newlabelxx{\string#1}\string#2}^^J%
6094 \string\gdef\string\newlabelxx%
6095 \string#1\string#2\string#3\string#4\string#5\string#6{%
6096 \string\oldnewlabel{\string#1}{\string#2}{\string#3}}^^J%

```

But the new aux file will be read again at the end, with the normal definitions expected, so better put things back as they were.

```

6097 \string\AtEndDocument{%
6098 \string\ifx\string\hyper@anchor\string\@undefined^^J%
6099 \string\let\string\contentsline\string\oldcontentsline^^J%
6100 \string\let\string\newlabel\string\oldnewlabel^^J%
6101 \string\fi%
6102 }^^J%

```

If the document is being run with hyperref put this definition into the aux file, so we can spot it on the next run.

```

6103 \string\fi%
6104 }^^J%
6105 \string\global\string\let\string\hyper@last\relax^^J%
6106 \string\gdef\string\HyperFirstAtBeginDocument\string#1{\string#1}%
6107 }%
6108 \fi
6109 \let\HyperFirstAtBeginDocument\ltx@firstofone

```

Now the code to deal with adding the hyperref package to a document with aux and toc written the standard way.

If hyperref was used last time, do nothing. If it was not used, or an old version of hyperref was used, don't use that TOC at all but generate a warning. Not ideal, but better than failing with pre-5.0 hyperref TOCs.

```

6110 \ifx\hyper@last\@undefined
6111 \def\@starttoc#1{%
6112 \begingroup
6113 \makeatletter
6114 \IfFileExists{\jobname.#1}{%
6115 \Hy@WarningNoLine{%
6116 old #1 file detected, not used; run LaTeX again%
6117 }%
6118 }{}%
6119 \if@files
6120 \expandafter\newwrite\csname tf@#1\endcsname
6121 \immediate\openout\csname tf@#1\endcsname \jobname.#1\relax
6122 \fi
6123 \@nobreakfalse
6124 \endgroup
6125 }%
6126 \def\newlabel#1#2{\@newl@bel r{#1}{#2}{-}{-}{-}}%
6127 \fi
6128 }

```

25 Title strings

If options `pdftitle` and `pdfauthor` are not used, these informations for the pdf information dictionary can be extracted by the nd

```

6129 \ifHy@pdfusetitle
6130   \let\HyOrg@title\title
6131   \let\HyOrg@author\author
6132   \def\title{\@ifnextchar{\Hy@scanopttitle}{\Hy@scantitle}}%
6133   \def\Hy@scanopttitle[#1]{%
6134     \gdef\Hy@title{#1}%
6135     \HyOrg@title{#1}%
6136   }%
6137   \def\Hy@scantitle#1{%
6138     \gdef\Hy@title{#1}%
6139     \HyOrg@title{#1}%
6140   }%
6141   \def\author{\@ifnextchar{\Hy@scanoptauthor}{\Hy@scanauthor}}%
6142   \def\Hy@scanoptauthor[#1]{%
6143     \gdef\Hy@author{#1}%
6144     \HyOrg@author{#1}%
6145   }%
6146   \def\Hy@scanauthor#1{%
6147     \gdef\Hy@author{#1}%
6148     \HyOrg@author{#1}%
6149   }%

```

The case, that `or` re given before `hyperref` is loaded, is much more complicate, because LaTeX initializes the macros `title` and `author` with LaTeX error and warning messages.

```

6150 \begingroup
6151   \def\process@me#1\@nil#2{%
6152     \expandafter\let\expandafter\x\csname @#2\endcsname
6153     \edef\y{\expandafter\strip@prefix\meaning\x}%
6154     \def\c##1##2\@nil{%
6155       \ifx\\##1\\%
6156         \else
6157           \expandafter\gdef\csname Hy@#2\expandafter\endcsname
6158             \expandafter{\x}%
6159       \fi
6160     }%
6161     \expandafter\c\y\relax#1\@nil
6162   }%
6163   \expandafter\process@me\string\@latex@\@nil{title}%
6164   \expandafter\process@me\string\@latex@\@nil{author}%
6165 \endgroup
6166 \fi
6167 \Hy@DisableOption{pdfusetitle}

```

Macro `\Hy@UseMaketitleInfos` is used in the driver files, before the information entries are used.

The newline macro `\newline` or `\\` is much more complicate. In the title a good replacement can be a space, but can be already a space after `\\` in the title string. So this space is removed by scanning for the next non-empty argument.

In the macro `\author` the newline can perhaps separate the different authors, so the newline expands here to a comma with space.

The possible arguments such as space or the optional argument after the newline macros are not detected.

```

6168 \def\Hy@UseMaketitleString#1{%
6169 \ltx@ifundefined{Hy@#1}{}%
6170 \begingroup
6171 \let\Hy@saved@hook\pdfstringdefPreHook
6172 \pdfstringdefDisableCommands{%
6173 \expandafter\let\expandafter\\\csname Hy@newline@#1\endcsname
6174 \let\newline\\%
6175 }%
6176 \expandafter\ifx\csname @pdf#1\endcsname\@empty
6177 \expandafter\pdfstringdef\csname @pdf#1\endcsname{%
6178 \csname Hy@#1\endcsname\@empty
6179 }%
6180 \fi
6181 \global\let\pdfstringdefPreHook\Hy@saved@hook
6182 \endgroup
6183 }%
6184 }
6185 \def\Hy@newline@title#1{ #1}
6186 \def\Hy@newline@author#1{, #1}
6187 \def\Hy@UseMaketitleInfos{%
6188 \Hy@UseMaketitleString{title}%
6189 \Hy@UseMaketitleString{author}%
6190 }

```

26 Page numbers

This stuff is done by Heiko Oberdiek.

27 Every page

```

6191 \RequirePackage{atbegshi}[2007/09/09]
6192 \let\Hy@EveryPageHook\ltx@empty
6193 \let\Hy@EveryPageBoxHook\ltx@empty
6194 \let\Hy@FirstPageHook\ltx@empty
6195 \AtBeginShipout{%
6196 \Hy@EveryPageHook
6197 \ifx\Hy@EveryPageBoxHook\ltx@empty
6198 \else
6199 \setbox\AtBeginShipoutBox=\vbox{%
6200 \offinterlineskip
6201 \Hy@EveryPageBoxHook
6202 \box\AtBeginShipoutBox
6203 }%
6204 \fi
6205 }
6206 \AtBeginShipoutFirst{%
6207 \Hy@FirstPageHook
6208 }
6209 \g@addto@macro\Hy@FirstPageHook{%
6210 \PDF@FinishDoc
6211 \global\let\PDF@FinishDoc\ltx@empty
6212 }

```

27.1 PDF /PageLabels

Internal macros of this module are marked with \HyPL@.


```

6213 \ifHy@pdfpagelabels
6214 \begingroup\expandafter\expandafter\expandafter\endgroup
6215 \expandafter\ifx\csname thepage\endcsname\relax
6216 \Hy@pdfpagelabelsfalse
6217 \Hy@WarningNoLine{%
6218 Option 'pdfpagelabels' is turned off\MessageBreak
6219 because \string\thepage\space is undefined%
6220 }%
6221 \csname fi\endcsname
6222 \csname iffalse\expandafter\endcsname
6223 \fi

```

`\thispdfpagelabel` The command `\thispdfpagelabel` allows to label a special page without the re-definition of `\thepage` for the page.

```

6224 \def\thispdfpagelabel#1{%
6225 \gdef\HyPL@thisLabel{#1}%
6226 }%
6227 \global\let\HyPL@thisLabel\relax

```

`\HyPL@Labels` The page labels are collected in `\HyPL@Labels` and set at the end of the document.

```

6228 \let\HyPL@Labels\ltx@empty

```

`\Hy@abspage` We have to know the the absolute page number and introduce a new counter for that.

```

6229 \newcount\Hy@abspage
6230 \Hy@abspage=0 %

```

For comparisons with the values of the previous page, some variables are needed:

```

6231 \def\HyPL@LastType{init}%
6232 \def\HyPL@LastNumber{0}%
6233 \let\HyPL@LastPrefix\ltx@empty

```

Definitions for the PDF names of the L^AT_EX pendants.

```

6234 \def\HyPL@arabic{D}%
6235 \def\HyPL@Roman{R}%
6236 \def\HyPL@roman{r}%
6237 \def\HyPL@Alph{A}%
6238 \def\HyPL@alph{a}%

6239 \let\HyPL@SlidesSetPage\ltx@empty
6240 \ltx@ifclassloaded{slides}{%
6241 \def\HyPL@SlidesSetPage{%
6242 \advance\c@page\ltx@one
6243 \ifnum\value{page}>\ltx@one
6244 \protected@edef\HyPL@SlidesOptionalPage{%
6245 \Hy@SlidesFormatOptionalPage{\thepage}%
6246 }%
6247 \else
6248 \let\HyPL@SlidesOptionalPage\ltx@empty
6249 \fi
6250 \advance\c@page-\ltx@one
6251 \def\HyPL@page{%
6252 \csname the\Hy@SlidesPage\endcsname
6253 \HyPL@SlidesOptionalPage
6254 }%
6255 }%
6256 }{}%

```

`\HyPL@EveryPage` If a page is shipout and the page number is known, `\HyPL@EveryPage` has to be called. It stores the current page label.

```

6257 \def\HyPL@EveryPage{%
6258   \begingroup
6259   \ifx\HyPL@thisLabel\relax
6260     \let\HyPL@page\thepage
6261     \HyPL@SlidesSetPage
6262   \else
6263     \let\HyPL@page\HyPL@thisLabel
6264     \global\let\HyPL@thisLabel\relax
6265   \fi
6266   \let\HyPL@Type\relax
6267   \ifnum\c@page>0 %
6268     \ifx\HyPL@SlidesSetPage\ltx@empty
6269       \expandafter\HyPL@CheckThePage\HyPL@page\@nil
6270     \fi
6271   \fi
6272   \let\Hy@temp Y%
6273   \ifx\HyPL@Type\HyPL@LastType
6274   \else
6275     \let\Hy@temp N%
6276   \fi
6277   \ifx\HyPL@Type\relax
6278     \pdfstringdef\HyPL@Prefix{\HyPL@page}%
6279   \else
6280     \pdfstringdef\HyPL@Prefix\HyPL@Prefix
6281   \fi
6282   \ifx\HyPL@Prefix\HyPL@LastPrefix
6283   \else
6284     \let\Hy@temp N%
6285   \fi
6286   \if Y\Hy@temp
6287     \advance\c@page by -1 %
6288     \ifnum\HyPL@LastNumber=\the\c@page\relax
6289     \else
6290       \let\Hy@temp N%
6291     \fi
6292     \Hy@StepCount\c@page
6293   \fi
6294   \if N\Hy@temp
6295     \ifx\HyPL@Type\relax
6296       \HyPL@StorePageLabel{/P(\HyPL@Prefix)}%
6297     \else
6298       \HyPL@StorePageLabel{%
6299         \ifx\HyPL@Prefix\@empty
6300         \else
6301           /P(\HyPL@Prefix)%
6302         \fi
6303         /S/\cname HyPL\HyPL@Type\endcsname
6304         \ifnum\the\c@page=1 %
6305         \else
6306           \space/St \the\c@page
6307         \fi
6308       }%
6309     \fi
6310   \fi
6311   \xdef\HyPL@LastNumber{\the\c@page}%

```

```

6312 \global\let\HyPL@LastType\HyPL@Type
6313 \global\let\HyPL@LastPrefix\HyPL@Prefix
6314 \endgroup
6315 \Hy@GlobalStepCount\Hy@abspage
6316 }%

```

`\HyPL@CheckThePage` Macro `\HyPL@CheckThePage` calls `\HyPL@@CheckThePage` that does the job.

```

6317 \def\HyPL@CheckThePage#1\@nil{%
6318 \HyPL@@CheckThePage{#1}#1\csname\endcsname\c@page\@nil
6319 }%

```

`\HyPL@@CheckThePage` The first check is, is `\thepage` is defined such as in L^AT_EX, e.g.: `\csname @arabic\endcsname\c@page`. In the current implemenation the check fails, if there is another `\csname` before.

The second check tries to detect `\arabic{page}` at the end of the definition text of `\thepage`.

```

6320 \def\HyPL@@CheckThePage#1#2\csname#3\endcsname\c@page#4\@nil{%
6321 \def\Hy@tempa{#4}%
6322 \def\Hy@tempb{\csname\endcsname\c@page}%
6323 \ifx\Hy@tempa\Hy@tempb
6324 \expandafter\ifx\csname HyPL#3\endcsname\relax
6325 \else
6326 \def\HyPL@Type{#3}%
6327 \def\HyPL@Prefix{#2}%
6328 \fi
6329 \else
6330 \begingroup
6331 \let\Hy@next\endgroup
6332 \let\HyPL@found\@undefined
6333 \def\arabic{\HyPL@Format{arabic}}%
6334 \def\Roman{\HyPL@Format{Roman}}%
6335 \def\roman{\HyPL@Format{roman}}%
6336 \def\Alph{\HyPL@Format{Alph}}%
6337 \def\alph{\HyPL@Format{alph}}%
6338 \protected@edef\Hy@temp{#1}%
6339 \ifx\HyPL@found\relax
6340 \toks@\expandafter{\Hy@temp}%
6341 \edef\Hy@next{\endgroup
6342 \noexpand\HyPL@@@CheckThePage\the\toks@
6343 \noexpand\HyPL@found\relax\noexpand\@nil
6344 }%
6345 \fi
6346 \Hy@next
6347 \fi
6348 }%

```

`\HyPL@Format` The help macro `\HyPL@Format` is executed while a `\protected@edef` in the second check method of `\HyPL@@CheckPage`. The first occurrences of, for example, `\arabic{page}` is marked by `\HyPL@found` that is also defined by `\csname`.

```

6349 \def\HyPL@Format#1#2{%
6350 \ifx\HyPL@found\@undefined
6351 \expandafter\ifx\csname c@#2\endcsname\c@page
6352 \expandafter\noexpand\csname HyPL@found\endcsname{#1}%
6353 \else
6354 \expandafter\noexpand\csname#1\endcsname{#2}%
6355 \fi
6356 \else

```

```

6357 \expandafter\noexpand\csname#1\endcsname{#2}%
6358 \fi
6359 }%

```

`\HyPL@@@CheckThePage` If the second check method is successful, `\HyPL@@@CheckThePage` scans the result of `\HyPL@Format` and stores the found values.

```

6360 \def\HyPL@@@CheckThePage#1\HyPL@found#2#3\@nil{%
6361 \def\Hy@tempa{#3}%
6362 \def\Hy@tempb{\HyPL@found\relax}%
6363 \ifx\Hy@tempa\Hy@tempb
6364 \def\HyPL@Type{#2}%
6365 \def\HyPL@Prefix{#1}%
6366 \fi
6367 }%

```

`\HyPL@StorePageLabel` Dummy for drivers that does not support `/PageLabel`.

```

6368 \providecommand*\HyPL@StorePageLabel}[1]{}%

```

`\HyPL@Useless` The `/PageLabels` entry does not make sense, if the absolute page numbers and the page labels are the same. Then `\HyPL@Labels` has the meaning of `\HyPL@Useless`.

```

6369 \def\HyPL@Useless{0<</S/D>>}%
6370 \@onelevel@sanitize\HyPL@Useless

```

`\HyPL@SetPageLabels` The page labels are written to the PDF cataloge. The command `\Hy@PutCatalog` is defined in the driver files.

```

6371 \def\HyPL@SetPageLabels{%
6372 \@onelevel@sanitize\HyPL@Labels
6373 \ifx\HyPL@Labels\@empty
6374 \else
6375 \ifx\HyPL@Labels\HyPL@Useless
6376 \else
6377 \Hy@PutCatalog{/PageLabels<</Nums[\HyPL@Labels]>>}%
6378 \fi
6379 \fi
6380 }%

```

```

6381 \g@addto@macro\Hy@EveryPageHook{\HyPL@EveryPage}%
6382 \fi

```

Option ‘pdfpagelabels’ has been used and is now disabled.

```

6383 \Hy@DisableOption{pdfpagelabels}
6384 </package>

```

27.1.1.1 pdfTeX and VTeX

Because of pdfTeX’s `\pdfcatalog` command the `/PageLabels` entry can set at end of document in the first run.

`\Hy@PutCatalog`

```

6385 (*pdfTeX)
6386 \pdf@ifdraftmode{%
6387 \let\Hy@PutCatalog\ltx@gobble
6388 }{%
6389 \let\Hy@PutCatalog\pdfcatalog
6390 }
6391 </pdfTeX>

```

The code for VTeX is more complicate, because it does not allow the direct access to the /Catalog object. The command scans its argument and looks for a /PageLabels entry.

VTeX 6.59g is the first version, that implements \special{!pdfpagelabels...}. For this version \VTeXversion reports 660.

```

6392 <*vtex>
6393 \providecommand*\XR@ext}{pdf}
6394 \edef\Hy@VTeXversion{%
6395   \ifx\VTeXversion\@undefined
6396     \z@
6397   \else
6398     \ifx\VTeXversion\relax
6399       \z@
6400     \else
6401       \VTeXversion
6402     \fi
6403   \fi
6404 }
6405 \begingroup
6406   \ifnum\Hy@VTeXversion<660 %
6407     \gdef\Hy@PutCatalog#1{%
6408       \Hy@WarningNoLine{%
6409         VTeX 6.59g or above required for pdfpagelabels%
6410       }%
6411     }%
6412   \else
6413     \gdef\Hy@PutCatalog#1{%
6414       \Hy@vt@PutCatalog#1/PageLabels<<>>\@nil
6415     }%
6416     \gdef\Hy@vt@PutCatalog#1/PageLabels<<#2>>#3\@nil{%
6417       \ifx\#2\%
6418         \else
6419           \immediate\special{!pdfpagelabels #2}%
6420         \fi
6421       }%
6422     \fi
6423 \endgroup
6424 </vtex>

6425 <*pdftex|vtex>

```

\HyPL@StorePageLabel This macro adds the entry #1 to \HyPL@Labels.

```

6426 \ifHy@pdfpagelabels
6427   \def\HyPL@StorePageLabel#1{%
6428     \toks@\expandafter{\HyPL@Labels}%
6429     \xdef\HyPL@Labels{%
6430       \the\toks@
6431       \the\Hy@abspace<<#1>>%
6432     }%
6433   }%

```

Package atveryend is used to get behind the final \clearpage and to avoid a \clearpage in \AtEndDocument. Then the PDF catalog entry for \PageLabels is set.

```

6434 \RequirePackage{atveryend}[2009/12/07]%
6435 \AtVeryEndDocument{%
6436   \HyPL@SetPageLabels

```

```

6437 }%
6438 \fi
6439 </pdfTeX | vTeX>

```

27.1.2 xetex

```

6440 <*xetex>
6441 \HyPsd@LoadUnicode
6442 \Hy@unicodetrue
6443 \ifx\HyPsd@pdfencoding\HyPsd@pdfencoding@unicode
6444 \else
6445 \let\HyPsd@pdfencoding\HyPsd@pdfencoding@auto
6446 \fi
6447 \HyPsd@LoadStringEnc
6448 \define@key{Hyp}{unicode}[true]{%
6449 \Hy@boolkey{unicode}{#1}%
6450 \ifHy@unicode
6451 \else
6452 \Hy@Warning{%
6453 XeTeX driver only supports 'unicode=true'. Ignoring\MessageBreak
6454 option setting 'unicode=false'%
6455 }%
6456 \Hy@unicodetrue
6457 \fi
6458 }
6459 \define@key{Hyp}{pdfencoding}{%
6460 \edef\HyPsd@temp{#1}%
6461 \ifx\HyPsd@temp\HyPsd@pdfencoding@unicode
6462 \let\HyPsd@pdfencoding\HyPsd@temp
6463 \else
6464 \ifx\HyPsd@temp\HyPsd@pdfencoding@auto
6465 \let\HyPsd@pdfencoding\HyPsd@temp
6466 \else
6467 \Hy@Warning{%
6468 XeTeX driver only supports\MessageBreak
6469 'pdfencoding=unicode|auto'. Ignoring option\MessageBreak
6470 setting 'pdfencoding=\HyPsd@temp'%
6471 }%
6472 \fi
6473 \fi
6474 }
6475 \let\HyXeTeX@CheckUnicode\relax
6476 </xetex>

```

27.1.3 pdfmarkbase, dvipdfm, xetex

```

6477 <*pdfmarkbase>
6478 \begingroup
6479 \@ifundefined{headerps@out}{-}{%
6480 \toks@\expandafter{\Hy@FirstPageHook}%
6481 \xdef\Hy@FirstPageHook{%
6482 \noexpand\headerps@out{%
6483 systemdict /pdfmark known%
6484 {%
6485 userdict /?pdfmark systemdict /exec get put%
6486 }{%
6487 userdict /?pdfmark systemdict /pop get put %
6488 userdict /pdfmark systemdict /cleartomark get put%

```

```

6489     }%
6490     ifelse%
6491     }%
6492     \the\toks@
6493     }%
6494     }%
6495 \endgroup
6496 \pdfmarkbase>

```

\Hy@PutCatalog

```

6497 <dvipdfm | xetex>\def\Hy@PutCatalog#1{\@pdfmark{docview << #1 >>}}
6498 <*pdfmarkbase>
6499 \def\Hy@PutCatalog#1{%
6500   \pdfmark{pdfmark=/PUT,Raw={\string{Catalog\string} << #1 >>}}}%
6501 }
6502 \pdfmarkbase>

6503 <*pdfmarkbase | dvipdfm | xetex>
6504 \ifHy@pdfpagelabels

```

\HyPL@StorePageLabel This macro writes a string to the .aux file.

```

6505 \def\HyPL@StorePageLabel#1{%
6506   \if@filesw
6507     \begingroup
6508     \edef\Hy@tempa{\the\Hy@abspage<<#1>>}%
6509     \immediate\write\@mainaux{%
6510       \string\HyPL@Entry{\Hy@tempa}%
6511     }%
6512   \endgroup
6513   \fi
6514 }%

```

Write a dummy definition of \HyPL@Entry for the case, that the next run is done without hyperref. A marker for the rerun warning is set and the /PageLabels is written.

```

6515 \Hy@AtBeginDocument{%
6516   \if@filesw
6517     \immediate\write\@mainaux{%
6518       \string\providecommand\string*\string\HyPL@Entry[1]{}%
6519     }%
6520   \fi
6521   \ifx\HyPL@Labels\@empty
6522     \Hy@WarningNoLine{Rerun to get /PageLabels entry}%
6523   \else
6524     \HyPL@SetPageLabels
6525   \fi
6526   \let\HyPL@Entry\@gobble
6527 }%

```

\HyPL@Entry

```

6528 \def\HyPL@Entry#1{%
6529   \expandafter\gdef\expandafter\HyPL@Labels\expandafter{%
6530     \HyPL@Labels
6531     #1%
6532   }%
6533 }%

```

```

6534 \fi
6535 </pdfmarkbase | dvipdfm | xetex>
6536 (*package)
6537 \ifx\MaybeStopEarly\relax
6538 \else
6539 \Hy@stoppedearlytrue
6540 \expandafter\MaybeStopEarly
6541 \fi
6542 \Hy@stoppedearlyfalse

```

28 Automated L^AT_EX hypertext cross-references

Anything which can be referenced advances some counter; we overload this to put in a hypertext starting point (with no visible anchor), and make a note of that for later use in `\label`. This will fail badly if `\theH<name>` does not expand to a sensible reference. This means that classes or package which introduce new elements need to define an equivalent `\theH<name>` for every `\the<name>`. We do make a trap to make `\theH<name>` be the same as `\arabic{<name>}`, if `\theH<name>` is not defined, but this is not necessarily a good idea. Alternatively, the ‘naturalnames’ option uses whatever L^AT_EX provides, which may be useable. But then its up to you to make sure these are legal PDF and HTML names. The ‘hypertextnames=false’ option just makes up arbitrary names.

All the shenanigans is to make sure section numbers etc are always arabic, separated by dots. Who knows how people will set up `\@currentlabel`? If they put spaces in, or brackets (quite legal) then the hypertext processors will get upset.

But this is flaky, and open to abuse. Styles like `subeqn` will mess it up, for starters. Appendices are an issue, too. We just hope to cover most situations. We can at least cope with the standard sectioning structure, allowing for `\part` and `\chapter`.

Start with a fallback for equations

```

6543 \def\Hy@CounterExists#1{%
6544 \begingroup\expandafter\expandafter\expandafter\endgroup
6545 \expandafter\ifx\csname c@#1\endcsname\relax
6546 \expandafter\@gobble
6547 \else
6548 \begingroup\expandafter\expandafter\expandafter\endgroup
6549 \expandafter\ifx\csname the#1\endcsname\relax
6550 \expandafter\expandafter\expandafter\@gobble
6551 \else
6552 \expandafter\expandafter\expandafter\@firstofone
6553 \fi
6554 \fi
6555 }
6556 \Hy@CounterExists{section}{%
6557 \providecommand\theHequation{\theHsection.\arabic{equation}}}%
6558 }
6559 \Hy@CounterExists{part}{%
6560 \providecommand\theHpart{\arabic{part}}}%
6561 }
6562 \ltx@ifundefined{thechapter}{%
6563 \providecommand\theHsection {\arabic{section}}}%
6564 \providecommand\theHfigure {\arabic{figure}}}%
6565 \providecommand\theHtable {\arabic{table}}}%
6566 }{%

```



```

6567 \providecommand\theHchapter {\arabic{chapter}}%
6568 \providecommand\theHfigure {\theHchapter.\arabic{figure}}%
6569 \providecommand\theHtable {\theHchapter.\arabic{table}}%
6570 \providecommand\theHsection {\theHchapter.\arabic{section}}%
6571 }
6572 \providecommand\theHsubsection {\theHsection.\arabic{subsection}}
6573 \providecommand\theHsubsubsection{\theHsubsection.\arabic{subsubsection}}
6574 \providecommand\theHparagraph {\theHsubsubsection.\arabic{paragraph}}
6575 \providecommand\theHsubparagraph {\theHparagraph.\arabic{subparagraph}}
6576 \providecommand\theHtheorem {\theHsection.\arabic{theorem}}
6577 \providecommand\theHthm {\theHsection.\arabic{thm}}

```

Thanks to Greta Meyer (gbd@pop.cwru.edu) for making me realize that enumeration starts at 0 for every list! But `\item` occurs inside `\trivlist`, so check if its a real `\item` before incrementing counters.

```

6578 \let\H@item\item
6579 \newcounter{Item}
6580 \def\theHItem{\arabic{Item}}
6581 \def\item{%
6582   \@hyper@itemfalse
6583   \if@nmbrlist\@hyper@itemtrue\fi
6584   \H@item
6585 }

6586 \providecommand\theHenumi {\theHItem}
6587 \providecommand\theHenumii {\theHItem}
6588 \providecommand\theHenumiii {\theHItem}
6589 \providecommand\theHenumiv {\theHItem}
6590 \providecommand\theHHfootnote {\arabic{Hfootnote}}
6591 \providecommand\theHmpfootnote{\arabic{mpfootnote}}
6592 \@ifundefined{theHHmpfootnote}{%
6593   \let\theHHmpfootnote\theHHfootnote
6594 }{}

```

Tanmoy asked for this default handling of undefined `\theH<name>` situations. It really isn't clear what would be ideal, whether to turn off hyperizing of unknown elements, to pick up the textual definition of the counter, or to default it to something like `\arabic{name}`. We take the latter course, slightly worriedly.

```

6595 \let\H@refstepcounter\refstepcounter
6596 \edef\name@of@eq{equation}%
6597 \edef\name@of@slide{slide}%

```

We do not want the handler for `\refstepcounter` to cut in during the processing of `\item` (we handle that separately), so we provide a bypass conditional.

```

6598 \newif\if@hyper@item
6599 \newif\if@skiphyperref
6600 \@hyper@itemfalse
6601 \@skiphyperreffalse
6602 \def\refstepcounter#1{%
6603   \ifHy@pdfstring
6604   \else
6605     \H@refstepcounter{#1}%
6606     \edef\This@name{#1}%
6607     \ifx\This@name\name@of@slide
6608     \else
6609       \if@skiphyperref
6610       \else
6611         \if@hyper@item
6612         \stepcounter{Item}%

```

```

6613     \hyper@refstepcounter{Item}%
6614     \@hyper@itemfalse
6615   \else
6616     \hyper@refstepcounter{#1}%
6617   \fi
6618 \fi
6619 \fi
6620 \fi
6621 }
6622 \let\Hy@saved@refstepcounter\refstepcounter

```

AMS¹TeX processes all equations twice; we want to make sure that the hyper stuff is not executed twice, so we use the AMS `\ifmeasuring@`, initialized if AMS math is not used.

```

6623 \@ifpackageloaded{amsmath}{\newif\ifmeasuring@\measuring@false}

```

`\hyper@refstepcounter`

```

6624 \def\hyper@refstepcounter#1{%
6625   \edef\This@name{#1}%
6626   \ifx\This@name\name@of@eq
6627     \@ifundefined{theHequation}{%
6628       \make@stripped@name{\theequation}%
6629       \let\theHequation\newname
6630     }{}%
6631   \fi
6632   \@ifundefined{theH#1}{%
6633     \expandafter\def\csname theH#1\endcsname{\arabic{#1}}%
6634   }{}%
6635   \hyper@makecurrent{#1}%
6636   \ifmeasuring@
6637   \else
6638     \Hy@raisedlink{%
6639       \hyper@anchorstart{\@currentHref}\hyper@anchorend
6640     }%
6641   \fi
6642 }

```

After `\appendix` “chapter” (or “section” for classes without chapter) should be replaced by “appendix” to get `\autoref` work. Macro `\Hy@chapapp` contains the current valid name like `\@chapapp`, which cannot be used, because this string depends on the current language.

The “french” package defines counter `\thechapter` by `\newcounterchapter`, if `\@ifundefinedchapter`.

```

6643 \begingroup\expandafter\expandafter\expandafter\endgroup
6644 \expandafter\ifx\csname chapter\endcsname\relax
6645   \def\Hy@chapterstring{section}%
6646 \else
6647   \def\Hy@chapterstring{chapter}%
6648 \fi
6649 \def\Hy@appendixstring{appendix}
6650 \def\Hy@chapapp{\Hy@chapterstring}
6651 \ltx@ifundefined{appendix}{%
6652 }{%
6653   \let\HyOrg@appendix\appendix
6654   \def\appendix{%
6655     \ltx@ifundefined{chapter}%
6656     {\gdef\theHsection{\Alph{section}}}%

```

```

6657     {\gdef\theHchapter{\Alph{chapter}}}%
6658     \xdef\Hy@chapapp{\Hy@appendixstring}%
6659     \HyOrg@appendix
6660 }%
6661 }

```

\Hy@Test@alph

```

6662 \def\Hy@Test@alph#1{%
6663   \ifcase#1\or
6664     a\or b\or c\or d\or e\or f\or g\or h\or i\or j\or
6665     k\or l\or m\or n\or o\or p\or q\or r\or s\or t\or
6666     u\or v\or w\or x\or y\or z%
6667   \else
6668     \@ctrerr
6669   \fi
6670 }

```

\Hy@Test@Alph

```

6671 \def\Hy@Test@Alph#1{%
6672   \ifcase#1\or
6673     A\or B\or C\or D\or E\or F\or G\or H\or I\or J\or
6674     K\or L\or M\or N\or O\or P\or Q\or R\or S\or T\or
6675     U\or V\or W\or X\or Y\or Z%
6676   \else
6677     \@ctrerr
6678   \fi
6679 }

```

\hyper@makecurrent Because of Babel mucking around, nullify \textlatin when making names. And \@number because of babel's lrbabel.def.

```

6680 \def\hyper@makecurrent#1{%
6681   \begingroup
6682   \edef\Hy@param{#1}%
6683   \ifx\Hy@param\Hy@chapterstring
6684     \let\Hy@param\Hy@chapapp
6685   \fi
6686   \ifHy@hypertextnames
6687     \let\@number\@firstofone
6688     \def\@fnsymbol##1{\fnsymbol\number##1}%
6689     \def\@arabic##1{\number##1}%
6690     \ifx\@alph\Hy@Test@alph
6691     \else
6692       \def\@alph{alph\number}%
6693     \fi
6694     \ifx\@Alph\Hy@Test@Alph
6695     \else
6696       \def\@Alph{Alph\number}%
6697     \fi
6698     \ifHy@naturalnames
6699       \let\textlatin\@firstofone
6700       \xdef\HyperGlobalCurrentHref{\csname the#1\endcsname}%
6701     \else
6702       \xdef\HyperGlobalCurrentHref{%
6703         \csname
6704           the%
6705           \expandafter\ifx\csname theH#1\endcsname\relax\else H\fi
6706         #1%

```

```

6707     \endcsname
6708   }%
6709 \fi
6710 \xdef\HyperGlobalCurrentHref{%
6711   \Hy@param.\expandafter\strip@prefix\meaning\HyperGlobalCurrentHref
6712 }%
6713 \else
6714   \Hy@GlobalStepCount\Hy@linkcounter
6715   \xdef\HyperGlobalCurrentHref{\Hy@param.\the\Hy@linkcounter}%
6716 \fi
6717 \endgroup
6718 \let\HyperLocalCurrentHref\HyperGlobalCurrentHref
6719 \ifHy@localanchorname
6720   \let\@currentHref\HyperLocalCurrentHref
6721 \else
6722   \global\let\@currentHref\HyperGlobalCurrentHref
6723 \fi
6724 }

```

`\Hy@MakeCurrentHref`

```

6725 \def\Hy@MakeCurrentHref#1{%
6726   \edef\HyperLocalCurrentHref{#1}%
6727   \@onelevel@sanitize\HyperLocalCurrentHref
6728   \global\let\HyperGlobalCurrentHref\HyperLocalCurrentHref
6729   \let\HyperLocalCurrentHref\HyperGlobalCurrentHref
6730   \ifHy@localanchorname
6731     \let\@currentHref\HyperLocalCurrentHref
6732   \else
6733     \global\let\@currentHref\HyperGlobalCurrentHref
6734   \fi
6735 }

```

`\Hy@MakeCurrentHrefAuto`

```

6736 \def\Hy@MakeCurrentHrefAuto#1{%
6737   \Hy@GlobalStepCount\Hy@linkcounter
6738   \Hy@MakeCurrentHref{#1.\the\Hy@linkcounter}%
6739 }

```

`\@currentHlabel` `\@currentHlabel` is only defined for compatibility with package ‘hypdvips’.

```

6740 \def\@currentHlabel{\@currentHref}

6741 \@ifpackageloaded{fancyvrb}{%
6742   \@ifpackagelater{fancyvrb}{1998/05/20}{}{%
6743     \def\FV@StepLineNo{%
6744       \FV@SetLineNo
6745       \def\FV@StepLineNo{\H@refstepcounter{FancyVerbLine}}%
6746       \FV@StepLineNo
6747     }%
6748   }%
6749 }{}

```

29 Package lastpage support

Package `lastpage` directly writes the `\newlabel` command to the aux file. Because package `hyperref` requires additional arguments, the internal command `\lastpage@putlabel` is redefined. The patch is deferred by `\AtBeginDocument`,

because it is possible that package `lastpage` is loaded after package `hyperref`. The same algorithm (options `hypertextnames` and `plainpages`) is used to get the page anchor name as in `\Hy@EveryPageAnchor` (see sec. 38). The link will not work if option `pageanchor` is set to `false`.

`\lastpage@putlabel`

```

6750 \Hy@AtBeginDocument{%
6751   \@ifclassloaded{revtex4}{}%
6752   \@namedef{ver@lastpage.sty}{1994/06/25}%
6753 }{%
6754   \@ifpackageloaded{lastpage}{%
6755     \ifHy@pageanchor
6756     \else
6757       \Hy@WarningNoLine{%
6758         The \string\pageref{LastPage} link doesn't work\MessageBreak
6759         with disabled option 'pageanchor'%
6760       }%
6761     \fi
6762     \def\lastpage@putlabel{%
6763       \addtocounter{page}{-1}%
6764       \if@filesw
6765         \begingroup
6766           \let\@number\@firstofone
6767           \ifHy@pageanchor
6768             \ifHy@hypertextnames
6769               \ifHy@plainpages
6770                 \def\Hy@temp{\arabic{page}}%
6771               \else
6772                 \Hy@unicodedefalse
6773                 \pdfstringdef\Hy@temp{\thepage}%
6774               \fi
6775             \else
6776               \def\Hy@temp{\the\Hy@pagecounter}%
6777             \fi
6778           \fi
6779           \immediate\write\@auxout{%
6780             \string\newlabel
6781             {LastPage}{\the\Hy@temp}{\thepage}{\thepage}%
6782             \ifHy@pageanchor page.\Hy@temp\fi}{\thepage}%
6783           }%
6784         \endgroup
6785       \fi
6786       \addtocounter{page}{1}%
6787     }%
6788   \@ifclassloaded{revtex4}{%
6789     \begingroup
6790     \toks@{\expandafter\lastpage@putlabel}%
6791     \edef\x{\endgroup
6792       \def\noexpand\lastpage@putlabel{%
6793         \noexpand\stepcounter{page}%
6794         \the\toks@
6795         \noexpand\addtocounter{page}\noexpand\m@ne
6796       }%
6797     }%
6798     \x
6799   }{%
6800   }%

```

```

6801 }
6802 </package>
6803 <*check>
6804 \checkpackage{lastpage}[1994/06/25]
6805 \checkcommand\def\lastpage@putlabel{%
6806   \addtocounter{page}{-1}%
6807   \immediate\write\@auxout{%
6808     \string\newlabel{LastPage}{\the\thepage}}%
6809   }%
6810   \addtocounter{page}{1}%
6811 }
6812 </check>
6813 <*package>

```

30 Package ifthen support

Since version 6.75a this is done in package nameref.

For compatibility `\hypergetref` and `\hypergetpageref` are still provided. But they do not generate warnings, if the reference is undefined.

```

6814 \def\hypergetref#1{\getrefbykeydefault{#1}{-}{??}}
6815 \def\hypergetpageref#1{\getrefbykeydefault{#1}{page}{0}}

```

31 Package titlesec and titletoc support

This code is contributed by Javier Bezos (Email: jbezos@arrakis.es).

Package titlesec support:

```

6816 \@ifpackageloaded{titlesec}{%
6817   \def\ttl@Hy@steplink#1{%
6818     \Hy@MakeCurrentHrefAuto{#1*}%
6819     \edef\ttl@Hy@saveanchor{%
6820       \noexpand\Hy@raisedlink{%
6821         \noexpand\hyper@anchorstart{\@currentHref}%
6822         \noexpand\hyper@anchorend
6823         \def\noexpand\ttl@Hy@SavedCurrentHref{\@currentHref}%
6824         \noexpand\ttl@Hy@PatchSaveWrite
6825       }%
6826     }%
6827   }%
6828   \def\ttl@Hy@PatchSaveWrite{%
6829     \begingroup
6830     \toks@{\expandafter{\ttl@savewrite}}%
6831     \edef\x{\endgroup
6832       \def\noexpand\ttl@savewrite{%
6833         \let\noexpand\@currentHref
6834         \noexpand\ttl@Hy@SavedCurrentHref
6835         \the\toks@
6836       }%
6837     }%
6838     \x
6839   }%
6840   \def\ttl@Hy@refstepcounter#1{%
6841     \let\ttl@b\Hy@raisedlink
6842     \def\Hy@raisedlink##1{%
6843       \def\ttl@Hy@saveanchor{\Hy@raisedlink{##1}}%
6844     }%

```

```

6845 \refstepcounter{#1}%
6846 \let\Hy@raisedlink\ttl@b
6847 }%
6848 }{}

Package titletoc support:

6849 \@ifpackageloaded{titletoc}{%
6850 \def\ttl@gobblecontents#1#2#3#4{\ignorespaces}%
6851 }{}

```

32 Package varioref support

Package nameref uses five arguments for the ref system. Fix provided by Felix Neubauer (felix.neubauer@gmx.net).

```

6852 \def\Hy@varioref@undefined{{??}{??}{}}{}
6853 \@ifpackageloaded{varioref}{%
6854 \def\vref@pagenum#1#2{%
6855 \ifundefined{r@#2}{%
6856 \expandafter\let\csname r@#2\endcsname\Hy@varioref@undefined
6857 }{}%
6858 \edef#1{\getpagerefnumber{#2}}%
6859 }%
6860 }{}

```

Package varioref redefines `\refstepcounter`, thus it needs fixing, if the package is loaded *after* `hyperref`.

```

6861 \def\Hy@varioref@refstepcounter#1{%
6862 \stepcounter{#1}%
6863 \protected@edef\@currentlabel{%
6864 \csname p@#1\expandafter\endcsname\csname the#1\endcsname
6865 }%
6866 }
6867 \AtBeginDocument{%
6868 \ifx\refstepcounter\Hy@varioref@refstepcounter
6869 \let\H@refstepcounter\refstepcounter
6870 \let\refstepcounter\Hy@saved@refstepcounter
6871 \fi
6872 }

```

33 Package longtable support

Sometimes the anchor of the longtable goes to the previous page. Thus the following patch separates the anchor setting and counter incrementation by `hyperref`'s `\refstepcounter` and the anchor setting is moved after `\vskip\LTpre`.

Patch of `\LT@array`: replace `\refstepcounter` by the original `\H@refstepcounter` without anchor generation

```

6873 \@ifpackageloaded{longtable}{%
6874 \begingroup
6875 \def\y{\LT@array}%
6876 \@ifundefined{scr@LT@array}{%
6877 \ifundefined{adl@LT@array}{\def\y{\adl@LT@array}}%
6878 }\def\y{\scr@LT@array}%
6879 \long\def\x\refstepcounter#1#2\sharp#3#4\@nil{%
6880 \expandafter\endgroup
6881 \expandafter\def\y[##1]##2{%

```

```

6882 \H@refstepcounter{#1}%
6883 \hyper@makecurrent{table}%
6884 \let\Hy@LT@currentHref\@currentHref
6885 #2\@sharp#####4%
6886 }%
6887 }%
6888 \expandafter\expandafter\expandafter\x\y[{#1}]{#2}\@nil
Patch of \LT@start: add anchor before first line after \vskip\LTpre
6889 \begingroup
6890 \def\x#1\ifvoid\LT@foot#2\fi#3\@nil{%
6891 \endgroup
6892 \def\LT@start{%
6893 #1%
6894 \ifvoid\LT@foot#2\fi
6895 \let\@currentHref\Hy@LT@currentHref
6896 \Hy@raisedlink{%
6897 \hyper@anchorstart{\@currentHref}\hyper@anchorend
6898 }%
6899 #3%
6900 }%
6901 }%
6902 \expandafter\x\LT@start\@nil
6903 }{}

```

34 Equations

We want to make the whole equation a target anchor. Overload `equation`, temporarily reverting to original `\refstepcounter`. If, however, it is in AMS math, we do not do anything, as the tag mechanism is used there (see section 41). The exception is that we move the equation incrementation inside the `math` environment to avoid specials outside and a wrong vertical spacing of equation environments.

```

6904 \let\new@refstepcounter\refstepcounter
6905 \let\H@equation\equation
6906 \let\H@endequation\endequation
6907 \@ifpackageloaded{amsmath}{%
6908 \long\def\Hy@temp{%
6909 \incr@eqnum
6910 \mathdisplay@push
6911 \st@rredfalse \global\@eqnswtrue
6912 \mathdisplay{equation}%
6913 }%
6914 \ifx\Hy@temp\equation
6915 \expandafter\ifx\csname if@fleqn\expandafter\endcsname
6916 \csname iftrue\endcsname
6917 \else
6918 \long\def\equation{%
6919 \mathdisplay@push
6920 \st@rredfalse \global\@eqnswtrue
6921 \mathdisplay{equation}%
6922 \incr@eqnum
6923 }%
6924 \fi
6925 \fi
6926 }{%
6927 \def\equation{%

```



```

6928 \let\refstepcounter\H@refstepcounter
6929 \H@equation
6930 \@ifundefined{theHequation}{%
6931   \make@stripped@name{\theequation}%
6932   \let\theHequation\newname
6933 }{}%
6934 \hyper@makecurrent{equation}%
6935 \Hy@raisedlink{\hyper@anchorstart{\@currentHref}}%
6936 \let\refstepcounter\new@refstepcounter
6937 }%
6938 \def\endequation{\Hy@raisedlink{\hyper@anchorend}\H@endequation}%
6939 }

```

My goodness, why can't L^AT_EX be consistent? Why is `\eqnarray` set up differently from other objects?

People (you know who you are, Thomas Beuth) sometimes make an `eqnarray` where *all* the lines end with `\notag`, so there is no suitable anchor at all. In this case, pass by on the other side.

```

6940 \newif\if@eqnstar
6941 \@eqnstarfalse
6942 \let\H@eqnarray\eqnarray
6943 \let\H@endeqnarray\endeqnarray
6944 \def\eqnarray{%
6945   \let\Hy@reserved@a\relax
6946   \def\@currentHref{}%
6947   \H@eqnarray
6948   \if@eqnstar
6949   \else
6950     \ifx\\\@currentHref\\%
6951     \else
6952       \@ifundefined{theHequation}{%
6953         \make@stripped@name{\theequation}%
6954         \let\theHequation\newname
6955       }{}%
6956       \hyper@makecurrent{equation}%
6957       \hyper@anchorstart{\@currentHref}{\hyper@anchorend
6958     \fi
6959   \fi
6960 }
6961 \def\endeqnarray{%
6962   \H@endeqnarray
6963 }

```

This is quite heavy-handed, but it works for now. If its an `eqnarray*` we need to disable the hyperref actions. There may well be a cleaner way to trap this. Bill Moss found this.

```

6964 \@namedef{eqnarray*}{%
6965   \def\@eqnocr{\nonumber\@seqnocr}\@eqnstartrue\eqnarray
6966 }
6967 \@namedef{endeqnarray*}{%
6968   \nonumber\endeqnarray\@eqnstarfalse
6969 }

```

Then again, we have the `subeqnarray` package. Tanmoy provided some code for this:

```

6970 \ltx@ifundefined{subeqnarray}{-}{%
6971   \let\H@subeqnarray\subeqnarray
6972   \let\H@endsubeqnarray\endsubeqnarray

```

```

6973 \def\subeqnarray{%
6974   \let\Hy@reserved@a\relax
6975   \H@subeqnarray
6976   \@ifundefined{theHequation}{%
6977     \make@stripped@name{\theequation}%
6978     \let\theHequation\newname
6979   }{}%
6980   \hyper@makecurrent{equation}%
6981   \hyper@anchorstart{\@currentHref}{\hyper@anchorend
6982 }%
6983 \def\endsubeqnarray{%
6984   \H@endsubeqnarray
6985 }%
6986 \providecommand\theHsubequation{\theHequation\alph{subequation}}%
6987 }

```

The aim of this macro is to produce a sanitized version of its argument, to make it a safe label.

```

6988 \def\make@stripped@name#1{%
6989   \begingroup
6990   \escapechar\m@ne
6991   \global\let\newname\@empty
6992   \protected@edef\Hy@tempa{#1}%
6993   \edef\@tempb{%
6994     \noexpand\@tfor\noexpand\Hy@tempa:=%
6995     \expandafter\strip@prefix\meaning\Hy@tempa
6996   }%
6997   \@tempb\do{%
6998     \if{\Hy@tempa\else
6999     \if}\Hy@tempa\else
7000     \xdef\newname{\newname\Hy@tempa}%
7001     \fi
7002   }%
7003 }%
7004 \endgroup
7005 }

```

Support for amsmath's subequations:

```

7006 \begingroup\expandafter\expandafter\expandafter\endgroup
7007 \expandafter\ifx\csname subequations\endcsname\relax
7008 \else
7009   \let\HyOrg@subequations\subequations
7010   \def\subequations{%
7011     \stepcounter{equation}%
7012     \protected@edef\theHparentequation{%
7013       \@ifundefined{theHequation}\theequation\theHequation
7014     }%
7015     \addtocounter{equation}{-1}%
7016     \HyOrg@subequations
7017     \def\theHequation{\theHparentequation\alph{equation}}%
7018     \ignorespaces
7019   }%
7020 \fi

```

Support for package `amsthm` (Daniel Müllner):

```

7021 \@ifpackageloaded{amsthm}{%

```

Class `amsbook` uses a different definition of `\@thm`, where two lines are added (thanks to Dan Luecking for his analysis):

```

\let\thm@indent\indent % indent
\thm@headfont{\scshape}% heading font small caps

7022 \def\Hy@temp#1#2#3{%
7023   \ifhmode\unskip\unskip\par\fi
7024   \normalfont
7025   \trivlist
7026   \let\thmheadnl\relax
7027   \let\thm@swap\@gobble
7028   \let\thm@indent\indent % indent
7029   \thm@headfont{\scshape}% heading font small caps
7030   \thm@notefont{\fontseries\mddefault\upshape}%
7031   \thm@headpunct{.}% add period after heading
7032   \thm@headsep 5\p@ plus\p@ minus\p@\relax
7033   \thm@space@setup
7034   #1% style overrides
7035   \@topsep \thm@preskip % used by thm head
7036   \@topsepadd \thm@postskip % used by \@endparenv
7037   \def\@tempa{#2}\ifx\@empty\@tempa
7038     \def\@tempa{\@oparg{\@begintheorem{#3}{}}}%
7039   \else
7040     \refstepcounter{#2}%
7041     \def\@tempa{\@oparg{\@begintheorem{#3}{\csname the#2\endcsname}}}%
7042   \fi
7043   \@tempa
7044 }%
7045 \ifx\Hy@temp\@thm
7046   \def\@thm#1#2#3{%
7047     \ifhmode
7048       \unskip\unskip\par
7049     \fi
7050     \normalfont
7051     \trivlist
7052     \let\thmheadnl\relax
7053     \let\thm@swap\@gobble
7054     \let\thm@indent\indent % indent
7055     \thm@headfont{\scshape}% heading font small caps
7056     \thm@notefont{\fontseries\mddefault\upshape}%
7057     \thm@headpunct{.}% add period after heading
7058     \thm@headsep 5\p@ plus\p@ minus\p@\relax
7059     \thm@space@setup
7060     #1% style overrides
7061     \@topsep \thm@preskip % used by thm head
7062     \@topsepadd \thm@postskip % used by \@endparenv
7063     \def\dth@counter{#2}%
7064     \ifx\@empty\dth@counter
7065       \def\@tempa{%
7066         \@oparg{\@begintheorem{#3}{}}}%
7067     }%
7068   \else
7069     \H@refstepcounter{#2}%
7070     \hyper@makecurrent{#2}%
7071     \let\Hy@dth@currentHref\@currentHref
7072     \def\@tempa{%
7073       \@oparg{\@begintheorem{#3}{\csname the#2\endcsname}}}%
7074   }%
7075   \fi
7076   \@tempa

```

```

7077 }%
7078 \else
7079 \def\@thm#1#2#3{%
7080 \ifhmode
7081 \unskip\unskip\par
7082 \fi
7083 \normalfont
7084 \trivlist
7085 \let\thmheadnl\relax
7086 \let\thm@swap\@gobble
7087 \thm@notefont{\fontseries\mddefault\upshape}%
7088 \thm@headpunct{.}% add period after heading
7089 \thm@headsep 5\p@ plus\p@ minus\p@\relax
7090 \thm@space@setup
7091 #1% style overrides
7092 \@topsep \thm@preskip % used by thm head
7093 \@topsepadd \thm@postskip % used by \@endparenv
7094 \def\dth@counter{#2}%
7095 \ifx\@empty\dth@counter
7096 \def\@tempa{%
7097 \@oparg{\@begintheorem{#3}{}}}%
7098 }%
7099 \else
7100 \H@refstepcounter{#2}%
7101 \hyper@makecurrent{#2}%
7102 \let\Hy@dth@currentHref\@currentHref
7103 \def\@tempa{%
7104 \@oparg{\@begintheorem{#3}{\csname the#2\endcsname}}}%
7105 }%
7106 \fi
7107 \@tempa
7108 }%
7109 \fi
7110 \dth@everypar={%
7111 \@minipagefalse
7112 \global\@newlistfalse
7113 \@nparitemfalse
7114 \if@inlabel
7115 \global\@inlabelfalse
7116 \begingroup
7117 \setbox\z@\lastbox
7118 \ifvoid\z@
7119 \kern-\itemindent
7120 \fi
7121 \endgroup
7122 \ifx\@empty\dth@counter
7123 \else
7124 \Hy@raisedlink{%
7125 \hyper@anchorstart{%
7126 \ltx@ifundefined{Hy@dth@currentHref}%
7127 \@currentHref\Hy@dth@currentHref
7128 }\hyper@anchorend
7129 }%
7130 \fi
7131 \unhbox\@labels
7132 \fi
7133 \if@nobreak

```

```

7134 \clubpenalty\@M
7135 \else
7136 \clubpenalty\clubpenalty \everypar{}%
7137 \fi
7138 }%
7139 }{}

```

35 Footnotes

The footnote mark is a hypertext link, and the text is a target. We separately number the footnotes sequentially through the text, separately from whatever labels the text assigns. Too hard to keep track of markers otherwise. If the raw forms `\footnotemark` and `\footnotetext` are used, force them to use un-hyper original.

```

7140 \ifHy@hyperfootnotes
7141 \newcounter{Hfootnote}%
7142 \let\H@@footnotetext\@footnotetext
7143 \let\H@@footnotemark\@footnotemark
7144 \def\xfootnotenext[#1]{%
7145 \begingroup
7146 \csname c@\@mpfn\endcsname #1\relax
7147 \unrestored@protected@xdef\@thefnmark{\thempfn}%
7148 \endgroup
7149 \ifx\@footnotetext\@mpfootnotetext
7150 \expandafter\H@@mpfootnotetext
7151 \else
7152 \expandafter\H@@footnotetext
7153 \fi
7154 }%
7155 \def\xfootnotemark[#1]{%
7156 \begingroup
7157 \c@footnote #1\relax
7158 \unrestored@protected@xdef\@thefnmark{\thefootnote}%
7159 \endgroup
7160 \H@@footnotemark
7161 }%
7162 \let\H@@mpfootnotetext\@mpfootnotetext
7163 \long\def\@mpfootnotetext#1{%
7164 \H@@mpfootnotetext{%
7165 \ifHy@nesting
7166 \expandafter\hyper@@anchor\expandafter{%
7167 \Hy@footnote@currentHref
7168 }{#1}%
7169 \else
7170 \Hy@raisedlink{%
7171 \expandafter\hyper@@anchor\expandafter{%
7172 \Hy@footnote@currentHref
7173 }{\relax}%
7174 }#1%
7175 \fi
7176 }%
7177 }%
7178 \long\def\@footnotetext#1{%
7179 \H@@footnotetext{%
7180 \ifHy@nesting
7181 \expandafter\hyper@@anchor\expandafter{%

```

```

7182     \Hy@footnote@currentHref
7183   }{#1}%
7184 \else
7185   \Hy@raisedlink{%
7186     \expandafter\hyper@@anchor\expandafter{%
7187       \Hy@footnote@currentHref
7188     }{\relax}%
7189   }%
7190   \let\@currentHref\Hy@footnote@currentHref
7191   \let\@currentlabelname\@empty
7192   #1%
7193 \fi
7194 }%
7195 }%

```

Redefine `\@footnotemark`, borrowing its code (at the cost of getting out of sync with `latex.ltx`), to take advantage of its white space and hyphenation fudges. If we just overload it, we can get variant documents (the word before the footnote is treated differently). Thanks to David Carlisle and Brian Ripley for confusing and helping me on this.

```

7196 \def\@footnotemark{%
7197   \leavevmode
7198   \ifhmode\edef\@x@sf{\the\spacefactor}\nobreak\fi
7199   \stepcounter{Hfootnote}%
7200   \global\let\Hy@saved@currentHref\@currentHref
7201   \hyper@makecurrent{Hfootnote}%
7202   \global\let\Hy@footnote@currentHref\@currentHref
7203   \global\let\@currentHref\Hy@saved@currentHref
7204   \hyper@linkstart{link}{\Hy@footnote@currentHref}%
7205   \@makefnmark
7206   \hyper@linkend
7207   \ifhmode\spacefactor\@x@sf\fi
7208   \relax
7209 }%

```

`Tabularx` causes footnote problems, disable the linking if that is loaded. Since v6.82i footnotes are only disabled inside the environment ‘`tabularx`’.

```

7210 \@ifpackageloaded{tabularx}{%
7211   \let\HyOrg@TX@endtabularx\TX@endtabularx
7212   \def\Hy@tabularx@hook{%
7213     \let\@footnotetext\H@@@footnotetext
7214     \let\@footnotemark\H@@@footnotemark
7215     \let\@mpfootnotetext\H@@@mpfootnotetext
7216   }%
7217   \begingroup
7218     \toks@{\expandafter{\TX@endtabularx}}%
7219     \xdef\Hy@gtemp{%
7220       \noexpand\Hy@tabularx@hook
7221       \the\toks@
7222     }%
7223   \endgroup
7224   \let\TX@endtabularx\Hy@gtemp
7225 }{}%

```

Support for footnotes in `p` columns of `longtable`. Here `\footnote` commands are splitted into `\footnotemark` and a call of `\footnotetext` with the optional argument, that is not supported by `hyperref`. The result is a link by `\footnotemark` without valid anchor

```

7226 \@ifpackageloaded{longtable}{%
7227   \CheckCommand*{\LT@p@ftntext}[1]{%
7228     \edef\@tempa{%
7229       \the\LT@p@ftn
7230       \noexpand\footnotetext[\the\c@footnote]%
7231     }%
7232     \global\LT@p@ftn\expandafter{\@tempa{#1}}%
7233   }%
7234   \long\def\LT@p@ftntext#1{%
7235     \edef\@tempa{%
7236       \the\LT@p@ftn
7237       \begingroup
7238         \noexpand\c@footnote=\the\c@footnote\relax
7239         \noexpand\protected@xdef\noexpand\@thefnmark{%
7240           \noexpand\thempfn
7241         }%
7242         \noexpand\Hy@LT@footnotetext{%
7243           \Hy@footnote@currentHref
7244         }%
7245       }%
7246       \global\LT@p@ftn\expandafter{%
7247         \@tempa{#1}%
7248       }\endgroup
7249     }%
7250   }%
7251   \long\def\Hy@LT@footnotetext#1#2{%
7252     \H@@@footnotetext{%
7253       \ifHy@nesting
7254         \hyper@@anchor{#1}{#2}%
7255       \else
7256         \Hy@raisedlink{%
7257           \hyper@@anchor{#1}{\relax}%
7258         }%
7259       \def\@currentHref{#1}%
7260       \let\@currentlabelname\@empty
7261       #2%
7262     }\fi
7263   }%
7264 }%
7265 }{}%

```

Footnotes for fancyvrb (Fix by Manuel Pégourié-Gonnard).

```

7266 \@ifpackageloaded{fancyvrb}{%
7267   \def\V@@@footnotetext{%
7268     \insert\footins\bgroup
7269     \csname reset@font\endcsname
7270     \footnotesize
7271     \interlinepenalty\interfootnotelinepenalty
7272     \splittopskip\footnotesep
7273     \splitmaxdepth\dp\strutbox
7274     \floatingpenalty \@MM
7275     \hsize\columnwidth
7276     \@parboxrestore
7277     \edef\@currentlabel{\csname p@footnote\endcsname\@thefnmark}%
7278     \@makefnmark{}%
7279     \rule{\z@}{\footnotesep}%
7280     \bgroup
7281     \aftergroup\V@@@footnotetext

```

```

7282 \Hy@raisedlink{%
7283 \expandafter\hyper@@anchor\expandafter{%
7284 \Hy@footnote@currentHref
7285 }\relax}%
7286 }%
7287 \let\@currentHref\Hy@footnote@currentHref
7288 \let\@currentlabelname\@empty
7289 \ignorespaces
7290 }%
7291 }{}%

```

KOMA-Script defines `\footref` that uses both `\ref` and `\@footnotemark` resulting in two links, one of them wrong.

```

7292 \def\Hy@temp#1{%
7293 \begingroup
7294 \unrestored@protected@xdef\@thefnmark{\ref{#1}}%
7295 \endgroup
7296 \@footnotemark
7297 }%
7298 \ifx\Hy@temp\footref
7299 \def\footref#1{%
7300 \begingroup
7301 \unrestored@protected@xdef\@thefnmark{\ref{#1}}%
7302 \endgroup
7303 \H@@@footnotemark
7304 }%
7305 \fi

```

But the special footnotes in `\maketitle` are much too hard to deal with properly. Let them revert to plain behaviour. The koma classes add an optional argument.

```

7306 \let\HyOrg@maketitle\maketitle
7307 \def\maketitle{%
7308 \let\Hy@saved@footnotemark\@footnotemark
7309 \let\Hy@saved@footnotetext\@footnotetext
7310 \let\@footnotemark\H@@@footnotemark
7311 \let\@footnotetext\H@@@footnotetext
7312 \@ifnextchar[\Hy@maketitle@optarg{% ]
7313 \HyOrg@maketitle
7314 \Hy@maketitle@end
7315 }%
7316 }%
7317 \def\Hy@maketitle@optarg[#1]{%
7318 \HyOrg@maketitle[{#1}]%
7319 \Hy@maketitle@end
7320 }%
7321 \def\Hy@maketitle@end{%
7322 \ifx\@footnotemark\H@@@footnotemark
7323 \let\@footnotemark\Hy@saved@footnotemark
7324 \fi
7325 \ifx\@footnotetext\H@@@footnotetext
7326 \let\@footnotetext\Hy@saved@footnotetext
7327 \fi
7328 }%

```

`\realfootnote` Does anyone remember the function and purpose of `\realfootnote`?

```

7329 \def\realfootnote{%
7330 \@ifnextchar[\@xfootnote{%

```



```

7331 \stepcounter{\@mpfn}%
7332 \protected@xdef\@thefnmark{\thempfn}%
7333 \H@@footnotemark\H@@footnotetext
7334 }%
7335 }%

7336 \fi
7337 \Hy@DisableOption{hyperfootnotes}

7338 \</package>
7339 \< *check>
7340 \checklatex
7341 \checkcommand\def\@xfootnotenext[#1]{%
7342 \begingroup
7343 \csname c@\@mpfn\endcsname #1\relax
7344 \unrestored@protected@xdef\@thefnmark{\thempfn}%
7345 \endgroup
7346 \@footnotetext
7347 }
7348 \checkcommand\def\@xfootnotemark[#1]{%
7349 \begingroup
7350 \c@footnote #1\relax
7351 \unrestored@protected@xdef\@thefnmark{\thefootnote}%
7352 \endgroup
7353 \@footnotemark
7354 }
7355 \checkcommand\def\@footnotemark{%
7356 \leavevmode
7357 \ifhmode\edef\@x@sf{\the\spacefactor}\nobreak\fi
7358 \@makefnmark
7359 \ifhmode\spacefactor\@x@sf\fi
7360 \relax
7361 }
7362 \</check>
7363 \< *package>

```

36 Float captions

Make the float caption the hypertext anchor; curiously enough, we can't just copy the definition of `\@caption`. Its all to do with expansion. It screws up. Sigh.

```

7364 \def\caption{%
7365 \ifx\@captive\@undefined
7366 \latex@error{\noexpand\caption outside float}\@ehd
7367 \expandafter\@gobble
7368 \else
7369 \H@refstepcounter\@captive
7370 \let\Hy@tempa\@caption
7371 \ifundefined{float@caption}{%
7372 }{%
7373 \expandafter\ifx\csname @float@c@\@captive\endcsname
7374 \float@caption
7375 \let\Hy@tempa\Hy@float@caption
7376 \fi
7377 }%
7378 \expandafter\@firstofone
7379 \fi
7380 {\@dblarg{\Hy@tempa\@captive}}}%

```

```

7381 }
7382 \long\def\@caption#1[#2]#3{%
7383   \expandafter\ifx\csname if@capstart\expandafter\endcsname
7384     \csname iftrue\endcsname
7385     \global\let\@currentHref\hc@currentHref
7386   \else
7387     \hyper@makecurrent{\@cuptype}%
7388   \fi
7389   \@ifundefined{NR@gettitle}{%
7390     \def\@currentlabelname{#2}%
7391   }{%
7392     \NR@gettitle{#2}%
7393   }%
7394   \par\addcontentsline{\csname ext@#1\endcsname}{#1}{%
7395     \protect\numberline{\csname the#1\endcsname}{\ignorespaces #2}%
7396   }%
7397   \begingroup
7398     \@parboxrestore
7399     \if@minipage
7400       \setminipage
7401     \fi
7402     \normalsize
7403     \expandafter\ifx\csname if@capstart\expandafter\endcsname
7404       \csname iftrue\endcsname
7405       \global\@capstartfalse
7406       \@makecaption{\csname fnum@#1\endcsname}{\ignorespaces#3}%
7407     \else
7408       \@makecaption{\csname fnum@#1\endcsname}{%
7409         \ignorespaces

```

If we cannot have nesting, the anchor is empty.

```

7410     \ifHy@nesting
7411       \expandafter\hyper@@anchor\expandafter{\@currentHref}{#3}%
7412     \else
7413       \Hy@raisedlink{%
7414         \expandafter\hyper@@anchor\expandafter{%
7415           \@currentHref
7416         }\relax}%
7417       }%
7418       #3%
7419     \fi
7420   }%
7421 \fi
7422 \par
7423 \endgroup
7424 }

```

Compatibility with float.sty: anchor setting at the top of the float, if the float is controlled by float.sty. Several `\caption` commands inside one float are not supported.

```

7425 \let\Hy@float@caption\@caption
7426 \@ifpackageloaded{float}{%
7427   \def\Hy@float@caption{%
7428     \ifx\Hy@float@currentHref\@undefined
7429       \hyper@makecurrent{\@cuptype}%
7430       \global\let\Hy@float@currentHref\@currentHref
7431     \else
7432       \let\@currentHref\Hy@float@currentHref

```

```

7433 \fi
7434 \float@caption
7435 }%
7436 \let\HyOrg@float@makebox\float@makebox
7437 \renewcommand{\float@makebox}[1]{%
7438 \HyOrg@float@makebox{%
7439 #1\relax
7440 \ifx\Hy@float@currentHref\@undefined
7441 \else
7442 \expandafter\hyper@@anchor\expandafter{%
7443 \Hy@float@currentHref
7444 }{\relax}%
7445 \global\let\Hy@float@currentHref\@undefined
7446 \fi
7447 }%
7448 }%
7449 }{}
7450 \</package>
7451 \< *check>
7452 \checklatex[1999/06/01 - 2000/06/01]
7453 \checkcommand\def\caption{%
7454 \ifx\@capttype\@undefined
7455 \@latex@error{\noexpand\caption outside float}\@ehd
7456 \expandafter\@gobble
7457 \else
7458 \refstepcounter\@capttype
7459 \expandafter\@firstofone
7460 \fi
7461 {\@dblarg{\@caption\@capttype}}}%
7462 }
7463 \checkcommand\long\def\@caption#1[#2]#3{%
7464 \par
7465 \addcontentsline{\csname ext@#1\endcsname}{#1}{%
7466 \protect\numberline{\csname the#1\endcsname}{\ignorespaces #2}%
7467 }%
7468 \begingroup
7469 \@parboxrestore
7470 \if@minipage
7471 \@setminipage
7472 \fi
7473 \normalsize
7474 \@makecaption{\csname fnum@#1\endcsname}{\ignorespaces #3}\par
7475 \endgroup
7476 }
7477 \</check>
7478 \< *package>

```

37 Bibliographic references

This is not very robust, since many styles redefine these things. The package used to redefine `\@citex` and the like; then we tried adding the `hyperref` call explicitly into the `.aux` file. Now we redefine `\bibcite`; this still breaks some citation packages so we have to work around them. But this remains extremely dangerous. Any or all of *achemso* and *drftcite* may break.

However, lets make an attempt to get *natbib* right, because thats a powerful, important package. Patrick Daly (daly@linmpi.mpg.de) has provided hooks for

us, so all we need to do is activate them.

```

7479 \def\hyper@natlinkstart#1{%
7480   \Hy@backout{#1}%
7481   \hyper@linkstart{cite}{cite.#1}%
7482   \def\hyper@nat@current{#1}%
7483 }
7484 \def\hyper@natlinkend{%
7485   \hyper@linkend
7486 }
7487 \def\hyper@natlinkbreak#1#2{%
7488   \hyper@linkend#1\hyper@linkstart{cite}{cite.#2}%
7489 }
7490 \def\hyper@natanchorstart#1{%
7491   \Hy@raisedlink{\hyper@anchorstart{cite.#1}}%
7492 }
7493 \def\hyper@natanchorend{\hyper@anchorend}

```

Do not play games if we have natbib support. Macro `extra@binfo` added for chapterbib support. Chapterbib also wants `\@extra@binfo` in the hyper-link, but since the link tag is not expanded immediately, we use `\@extra@b@citeb`, so cites in a chapter will link to the bibliography in that chapter.

```

7494 \ltx@ifundefined{NAT@parse}{%
7495   \providecommand*\@extra@binfo{}%
7496   \providecommand*\@extra@b@citeb{}%
7497   \def\bibcite#1#2{%
7498     \@newl@bel{b}{#1\@extra@binfo}{%
7499       \hyper@link{cite}{cite.#1\@extra@b@citeb}{#2}%
7500     }%
7501   }%
7502   \gdef\@extra@binfo{}%

```

Package `babel` redefines `\bibcite` with macro `\bbl@cite@choice`. It needs to be overwritten to avoid the warning “Label(s) may have changed.”

```

7503 \let\Hy@bibcite\bibcite
7504 \begingroup
7505   \@ifundefined{bbl@cite@choice}{}{%
7506     \g@addto@macro\bbl@cite@choice{%
7507       \let\bibcite\Hy@bibcite
7508     }%
7509   }%
7510 \endgroup

```

`\@BIBLABEL` is working around a ‘feature’ of RevTeX.

```

7511 \providecommand*\@BIBLABEL{\@biblabel}%
7512 \def\@bibitem[#1]#2{%
7513   \@skiphyperrreftrue
7514   \H@item[%
7515     \ifx\Hy@raisedlink\@empty
7516       \hyper@anchorstart{cite.#2\@extra@b@citeb}%
7517       \@BIBLABEL{#1}%
7518       \hyper@anchorend
7519     \else
7520       \Hy@raisedlink{%
7521         \hyper@anchorstart{cite.#2\@extra@b@citeb}\hyper@anchorend
7522       }%
7523       \@BIBLABEL{#1}%
7524     \fi
7525   \hfill

```

```

7526 ]%
7527 \@skiphyperreffalse
7528 \if@filesw
7529 \begingroup
7530 \let\protect\noexpand
7531 \immediate\write\@auxout{%
7532 \string\bibcite{#2}{#1}%
7533 }%
7534 \endgroup
7535 \fi
7536 \ignorespaces
7537 }%

```

Since `\bibitem` is doing its own labelling, call the raw version of `\item`, to avoid extra spurious labels

```

7538 \def\@bibitem#1{%
7539 \@skiphyperrefftrue\H@item\@skiphyperreffalse
7540 \Hy@raisedlink{%
7541 \hyper@anchorstart{cite.#1\@extra@b@citeb}\relax\hyper@anchorend
7542 }%
7543 \if@filesw
7544 \begingroup
7545 \let\protect\noexpand
7546 \immediate\write\@auxout{%
7547 \string\bibcite{#1}{\the\value{\@listctr}}}%
7548 }%
7549 \endgroup
7550 \fi
7551 \ignorespaces
7552 }%
7553 }{}

7554 </package>
7555 <*check>
7556 \checklatex
7557 \checkcommand\def\@lbibitem[#1]#2{%
7558 \item[\@biblabel{#1}\hfill]%
7559 \if@filesw
7560 {%
7561 \let\protect\noexpand
7562 \immediate\write\@auxout{%
7563 \string\bibcite{#2}{#1}%
7564 }%
7565 }%
7566 \fi
7567 \ignorespaces
7568 }
7569 \checkcommand\def\@bibitem#1{%
7570 \item
7571 \if@filesw
7572 \immediate\write\@auxout{%
7573 \string\bibcite{#1}{\the\value{\@listctr}}}%
7574 }%
7575 \fi
7576 \ignorespaces
7577 }
7578 </check>
7579 <*package>

```

Revtext (bless its little heart) takes over \bibcite and looks at the result to measure something. Make this a hypertext link and it goes ape. Therefore, make an anodyne result first, call its business, then go back to the real thing.

```

7580 \ifclassloaded{revtext}{%
7581   \Hy@Info{*** compatibility with revtext **** }%
7582   \def\revtext@checking#1#2{%
7583     \expandafter\let\expandafter\T@temp\csname b@#1\endcsname
7584     \expandafter\def\csname b@#1\endcsname{#2}%
7585     \@SetMaxRnhefLabel{#1}%
7586     \expandafter\let\csname b@#1\endcsname\T@temp
7587   }%

```

Tanmoy provided this replacement for CITEX. Lord knows what it does. For chapterbib added: extra@b@citeb

```

7588 \@ifundefined{CITE}{\def\CITE{\@cite}}{}%
7589 \providecommand*{\@extra@b@citeb}{}%
7590 \def\CITEX[#1]#2{%
7591   \let\@citea\@empty
7592   \leavevmode
7593   \unskip
7594   $\{
7595   \scriptstyle
7596   \@CITE{
7597     \@for\@citeb:=#2\do{
7598       \@citea
7599       \def\@citea{,\penalty\@m\ }%
7600       \edef\@citeb{\expandafter\@firstofone\@citeb}%
7601       \if@filesw
7602         \immediate\write\@auxout{\string\citation{\@citeb}}%
7603       \fi
7604       \@ifundefined{b@\@citeb\@extra@b@citeb}{%
7605         \mbox{\reset@font\bfseries ?}%
7606         \G@refundefinedtrue
7607         \@latex@warning{%
7608           Citation ‘\@citeb’ on page \thepage \space undefined%
7609         }%
7610       }{%
7611         {\csname b@\@citeb\@extra@b@citeb\endcsname}%
7612       }%
7613     }%
7614   }\{#1}%
7615   }$%
7616 }%

```

No, life is too short. I am not going to understand the Revtext \@collapse macro, I shall just restore the original behaviour of \@citex; sigh. This is SO vile.

```

7617 \def\@citex[#1]#2{%
7618   \let\@citea\@empty
7619   \@cite{
7620     \@for\@citeb:=#2\do{
7621       \@citea
7622       \def\@citea{,\penalty\@m\ }%
7623       \edef\@citeb{\expandafter\@firstofone\@citeb}%
7624       \if@filesw
7625         \immediate\write\@auxout{\string\citation{\@citeb}}%
7626       \fi
7627       \@ifundefined{b@\@citeb\@extra@b@citeb}{%
7628         \mbox{\reset@font\bfseries ?}%

```

```

7629      \G@refundefinedtrue
7630      \@latex@warning{%
7631          Citation ‘\@citeb’ on page \thepage \space undefined%
7632      }%
7633      }{%
7634          \hbox{\csname b@\@citeb\@extra@b@citeb\endcsname}%
7635      }%
7636      }%
7637      }{#1}%
7638      }%
7639      }{}

```

37.1 Package harvard

Override Peter Williams’ Harvard package; we have to a) make each of the citation types into a link; b) make each citation write a backref entry, and c) kick off a backreference section for each bibliography entry.

The redefinitions have to be deferred to `\begin{document}`, because if `harvard.sty` is loaded and `html.sty` is present and detects pdf \TeX , then `hyperref` is already loaded at the begin of `harvard.sty`, and the `\newcommand` macros causes error messages.

```

7640 \ifpackageloaded{harvard}{%
7641   \Hy@AtBeginDocument{%
7642     \Hy@Info{*** compatibility with harvard **** }%
7643     \Hy@raiselinksfalse
7644     \def\harvardcite#1#2#3#4{%
7645       \global\@namedef{HAR@fn@#1}{\hyper@link[cite]{#1}{#2}}%
7646       \global\@namedef{HAR@an@#1}{\hyper@link[cite]{#1}{#3}}%
7647       \global\@namedef{HAR@yr@#1}{\hyper@link[cite]{#1}{#4}}%
7648       \global\@namedef{HAR@df@#1}{\csname HAR@fn@#1\endcsname}%
7649     }%
7650     \def\HAR@citetoaux#1{%
7651       \iffilesw\immediate\write\@auxout{\string\citation{#1}}\fi%
7652       \ifHy@backref
7653         \ifx\@empty\@currentlabel
7654           \else
7655             \@bsphack
7656             \iffilesw
7657               \protected@write\@auxout{}{%
7658                 \string\@writefile{brf}{%
7659                   \string\backcite{#1}{%
7660                     {\thepage}{\@currentlabel}{\@currentHref}%
7661                   }%
7662                 }%
7663               }%
7664             \fi
7665             \@esphack
7666           \fi
7667         \fi
7668       }%
7669       \def\harvarditem{%
7670         \ifnextchar{\@harvarditem}{\@harvarditem[\null]}%
7671       }%
7672       \def\@harvarditem[#1]#2#3#4#5\par{%
7673         \item[]%
7674         \hyper@anchorstart{cite.#4}\relax\hyper@anchorend

```

```

7675 \if@filesw
7676 \begingroup
7677 \def\protect##1{\string ##1\space}%
7678 \ifthenelse{\equal{#1}{\null}}{%
7679 {\def\next{{#4}{#2}{#2}{#3}}}%
7680 {\def\next{{#4}{#2}{#1}{#3}}}%
7681 \immediate\write\@auxout{\string\harvardcite\codeof\next}%
7682 \endgroup
7683 \fi
7684 \protect\hspace*{-\labelwidth}%
7685 \protect\hspace*{-\labelsep}%
7686 \ignorespaces
7687 #5%
7688 \ifHy@backref
7689 \newblock
7690 \backref{\csname br@#4\endcsname}%
7691 \fi
7692 \par
7693 }%

```

\HAR@checkcitations Package hyperref has added \hyper@@link, so the original test \HAR@checkcitations will fail every time and always will appear the “Changed labels” warning. So we have to redefine \Har@checkcitations:

```

7694 \long\def\HAR@checkcitations#1#2#3#4{%
7695 \def\HAR@tempa{\hyper@@link[cite]{}{cite.#1}{#2}}%
7696 \expandafter\ifx\csname HAR@fn@#1\endcsname\HAR@tempa
7697 \def\HAR@tempa{\hyper@@link[cite]{}{cite.#1}{#3}}%
7698 \expandafter\ifx\csname HAR@an@#1\endcsname\HAR@tempa
7699 \def\HAR@tempa{\hyper@@link[cite]{}{cite.#1}{#4}}%
7700 \expandafter\ifx\csname HAR@yr@#1\endcsname\HAR@tempa
7701 \else
7702 \@tempswatrue
7703 \fi
7704 \else
7705 \@tempswatrue
7706 \fi
7707 \else
7708 \@tempswatrue
7709 \fi
7710 }%
7711 }%
7712 {}

```

37.2 Package chicago

The links by \citeN and \shortciteN should include the closing parentheses.

```

7713 \@ifpackageloaded{chicago}{%

```

\citeN

```

7714 \def\citeN{%
7715 \def\@citesep{-1000}%
7716 \def\@cite##1##2{{##1}}%
7717 \def\citeauthoryear##1##2##3{{##1} (##3\@cite@opt)}}%
7718 \@citedata@opt
7719 }%

```


\shortciteN

```

7720 \def\shortciteN{%
7721   \def\@citeseppen{-1000}%
7722   \def\@cite##1##2{##1}%
7723   \def\citeauthoryear##1##2##3{##2 (##3\@cite@opt)}%
7724   \@citedata@opt
7725 }%

```

\@citedata@opt

```

7726 \def\@citedata@opt{%
7727   \let\@cite@opt\@empty
7728   \@ifnextchar [{%
7729     \@tempswatrue
7730     \@citedatax@opt
7731   }{%
7732     \@tempswafalse
7733     \@citedatax[]%
7734   }%
7735 }%

```

\@citedatax@opt

```

7736 \def\@citedatax@opt[#1]{%
7737   \def\@cite@opt{, #1}%
7738   \@citedatax[{#1}]%
7739 }%

7740 }{}

```

38 Page numbers

The last page should not contain a /Dur key, because there is no page after the last page. Therefore at the last page there should be a command `\hypersetup{pdfpageduration={}}`. This can be set with `\AtEndDocument`, but it can be too late, if the last page is already finished, or too early, if lots of float pages will follow. Therefore currently nothing is done by hyperref.

This where we supply a destination for each page.

```

7741 \ltx@ifclassloaded{slides}{%
7742   \def\Hy@SlidesFormatOptionalPage#1{(#1)}%
7743   \def\Hy@PageAnchorSlidesPlain{%
7744     \advance\c@page\ltx@one
7745     \edef\Hy@TempPageAnchor{%
7746       \noexpand\hyper@@anchor{%
7747         page.\the\c@slide.\the\c@overlay.\the\c@note%
7748         \ifnum\c@page=\ltx@one
7749           \else
7750             .\the\c@page
7751           \fi
7752         }%
7753       }%
7754       \advance\c@page-\ltx@one
7755     }%
7756     \def\Hy@PageAnchorSlide{%
7757       \advance\c@page\ltx@one
7758       \ifnum\c@page>\ltx@one
7759         \ltx@ifundefined{theHpage}{%
7760           \protected@edef\Hy@TheSlideOptionalPage{%

```

```

7761     \Hy@SlidesFormatOptionalPage{\thepage}%
7762     }%
7763   }{%
7764     \protected@edef\Hy@TheSlideOptionalPage{%
7765       \Hy@SlidesFormatOptionalPage{\theHpage}%
7766     }%
7767   }%
7768   \else
7769     \def\Hy@TheSlideOptionalPage{}%
7770   \fi
7771   \advance\c@page-\ltx@one
7772   \pdfstringdef\@the@H@page{%
7773     \csname
7774       the%
7775       \ltx@ifundefined{theH\Hy@SlidesPage}{H}%
7776       \Hy@SlidesPage
7777     \endcsname
7778     \Hy@TheSlideOptionalPage
7779   }%
7780   \ltx@gobblethree
7781 }%
7782 \def\Hy@SlidesPage{slide}%
7783 \g@addto@macro\slide{%
7784   \def\Hy@SlidesPage{slide}%
7785 }%
7786 \g@addto@macro\overlay{%
7787   \def\Hy@SlidesPage{overlay}%
7788 }%
7789 \g@addto@macro\note{%
7790   \def\Hy@SlidesPage{note}%
7791 }%
7792 }{%
7793   \def\Hy@PageAnchorSlidesPlain{}%
7794   \def\Hy@PageAnchorSlide{}%
7795 }
7796 \def\Hy@EveryPageAnchor{%
7797   \Hy@DistillerDestFix
7798   \ifHy@pageanchor
7799     \ifHy@hypertextnames
7800       \ifHy@plainpages
7801         \def\Hy@TempPageAnchor{\hyper@@anchor{page.\the\c@page}}%
7802         \Hy@PageAnchorSlidesPlain
7803       \else
7804         \begingroup
7805           \let\@number\@firstofone
7806           \Hy@unicodedefalse
7807           \Hy@PageAnchorSlide
7808           \pdfstringdef\@the@H@page{\thepage}%
7809         \endgroup
7810         \EdefUnescapeString\@the@H@page{\@the@H@page}%
7811         \def\Hy@TempPageAnchor{\hyper@@anchor{page.\@the@H@page}}%
7812       \fi
7813     \else
7814       \Hy@GlobalStepCount\Hy@pagecounter
7815       \def\Hy@TempPageAnchor{%
7816         \hyper@@anchor{page.\the\Hy@pagecounter}%
7817       }%

```

```

7818 \fi
7819 \vbox to 0pt{%
7820 \kern\voffset
7821 \kern\topmargin
7822 \kern-1bp\relax
7823 \hbox to 0pt{%
7824 \kern\hoffset
7825 \kern\ifodd\value{page}%
7826 \oddsidemargin
7827 \else
7828 \evensidemargin
7829 \fi
7830 \kern-1bp\relax
7831 \Hy@TempPageAnchor\relax
7832 \hss
7833 }%
7834 \vss
7835 }%
7836 \fi
7837 }
7838 \g@addto@macro\Hy@EveryPageBoxHook{%
7839 \Hy@EveryPageAnchor
7840 }

```

39 Table of contents

TV Raman noticed that people who add arbitrary material into the TOC generate a bad or null link. We avoid that by checking if the current destination is empty. But if ‘the most recent destination’ is not what you expect, you will be in trouble.

```

7841 \def\addcontentsline#1#2#3{% toc extension, type, tag
7842 \begingroup
7843 \let\label\@gobble
7844 \ifx\@currentHref\@empty
7845 \Hy@Warning{%
7846 No destination for bookmark of \string\addcontentsline,%
7847 \MessageBreak destination is added%
7848 }%
7849 \phantomsection
7850 \fi
7851 \expandafter\ifx\csname toplevel@#2\endcsname\relax
7852 \begingroup
7853 \def\Hy@tempa{#1}%
7854 \ifx\Hy@tempa\Hy@bookmarkstype
7855 \Hy@WarningNoLine{%
7856 bookmark level for unknown #2 defaults to 0%
7857 }%
7858 \else
7859 \Hy@Info{bookmark level for unknown #2 defaults to 0}%
7860 \fi
7861 \endgroup
7862 \expandafter\gdef\csname toplevel@#2\endcsname{0}%
7863 \fi
7864 \edef\Hy@toclevel{\csname toplevel@#2\endcsname}%
7865 \Hy@writebookmark{\csname the#2\endcsname}%
7866 {#3}%
7867 {\@currentHref}%

```

```

7868     {\Hy@toclevel}%
7869     {#1}%
7870     \ifHy@verbose
7871     \begingroup
7872     \def\Hy@tempa{#3}%
7873     \@onelevel@sanitize\Hy@tempa
7874     \let\temp@online\on@line
7875     \let\on@line\@empty
7876     \Hy@Info{%
7877         bookmark\temp@online:\MessageBreak
7878         thecounter {\csname the#2\endcsname}\MessageBreak
7879         text {\Hy@tempa}\MessageBreak
7880         reference {\@currentHref}\MessageBreak
7881         toclevel {\Hy@toclevel}\MessageBreak
7882         type {#1}%
7883     }%
7884     \endgroup
7885     \fi
7886     \addtocontents{#1}{%
7887         \protect\contentsline{#2}{#3}{\thepage}{\@currentHref}%
7888     }%
7889     \endgroup
7890 }
7891 \def\contentsline#1#2#3#4{%
7892     \ifx\#4\%
7893         \csname l@#1\endcsname{#2}{#3}%
7894     \else
7895         \ifcase\Hy@linktoc % none
7896             \csname l@#1\endcsname{#2}{#3}%
7897         \or % section
7898             \csname l@#1\endcsname{%
7899                 \hyper@linkstart{link}{#4}{#2}\hyper@linkend
7900             }{#3}%
7901         \or % page
7902             \csname l@#1\endcsname{{#2}}{%
7903                 \hyper@linkstart{link}{#4}{#3}\hyper@linkend
7904             }%
7905         \else % all
7906             \csname l@#1\endcsname{%
7907                 \hyper@linkstart{link}{#4}{#2}\hyper@linkend
7908             }{%
7909                 \hyper@linkstart{link}{#4}{#3}\hyper@linkend
7910             }%
7911         \fi
7912     \fi
7913 }
7914 \</package>
7915 \< *check>
7916 \checklatex
7917 \checkcommand\def\addcontentsline#1#2#3{%
7918     \addtocontents{#1}{\protect\contentsline{#2}{#3}{\thepage}}%
7919 }
7920 \checkcommand\def\contentsline#1{\csname l@#1\endcsname}
7921 \</check>
7922 \< *package>

```

40 New counters

The whole theorem business makes up new counters on the fly; we are going to intercept this. Sigh. Do it at the level where new counters are defined.

```

7923 \let\H@definecounter\@definecounter
7924 \def\@definecounter#1{%
7925   \H@definecounter{#1}%
7926   \expandafter\def\csname theH#1\endcsname{\arabic{#1}}%
7927 }
```

But what if they have used the optional argument to e.g. `\newtheorem` to determine when the numbering is reset? OK, we'll trap that too.

```

7928 \let\H@newctr\@newctr
7929 \def\@newctr#1[#2]{%
7930   \H@newctr#1[{#2}]%
7931   \expandafter\def\csname theH#1\endcsname{%
7932     \csname the\@ifundefined{theH#2}{H}{H}#2\endcsname.\arabic{#1}%
7933   }%
7934 }
```

41 AMS \LaTeX compatibility

Oh, no, they don't use anything as simple as `\refstepcounter` in the AMS! We need to intercept some low-level operations of theirs. Damned if we are going to try and work out what they get up to. Just stick a label of 'AMS' on the front, and use the label *they* worked out. If that produces something invalid, I give up. They'll change all the code again anyway, I expect (SR).

Version 6.77p uses a patch by Ross Moore.

```

7935 \@ifpackageloaded{amsmath}{%
7936   \def\Hy@make@anchor{%
7937     \Hy@MakeCurrentHrefAuto{AMS}%
7938     \Hy@raisedlink{\hyper@anchorstart{\@currentHref}\hyper@anchorend}%
7939   }%
7940   \def\Hy@make@df@tag@@#1{%
7941     \gdef\df@tag{%
7942       \maketag@@@{\Hy@make@anchor#1}%
7943       \def\@currentlabel{#1}%
7944     }%
7945   }%
7946   \def\Hy@make@df@tag@@@#1{%
7947     \gdef\df@tag{%
7948       \tagform@{\Hy@make@anchor#1}%
7949       \toks@{\xp{p@equation{#1}}}%
7950       \edef\@currentlabel{\the\toks@}%
7951     }%
7952   }%
7953   \let\HyOrg@make@df@tag@@\make@df@tag@@
7954   \let\HyOrg@make@df@tag@@@\make@df@tag@@@
7955   \let\make@df@tag@@\Hy@make@df@tag@@
7956   \let\make@df@tag@@@\Hy@make@df@tag@@@
7957 }
```

Only play with `\seteqlebal` if we are using pdf \TeX . Other drivers cause problems; requested by Michael Downes (AMS).

```

7958 \@ifpackagewith{hyperref}{pdf $\TeX$ }{%
7959   \let\H@seteqlabel\@seteqlabel
```

```

7960 \def\@seteqlabel#1{%
7961   \H@seteqlabel{#1}%
7962   \xdef\@currentHref{AMS.\the\Hy@linkcounter}%
7963   \Hy@raisedlink{%
7964     \hyper@anchorstart{\@currentHref}\hyper@anchorend
7965   }%
7966 }%
7967 }{}

```

This code I simply cannot remember what I was trying to achieve. The final result seems to do nothing anyway.

```

\let\H@tagform@\tagform@
\def\tagform@#1{%
  \maketag@@@{\hyper@@anchor{\@currentHref}%
    {(\ignorespaces#1\unskip)}}%
}
\def\eqref#1{\textup{\H@tagform@\ref{#1}}}

```

41.1 \@addtoreset and \numberwithin patches

\@addtoreset puts a counter to the reset list of another counter. After a reset the counter starts again with perhaps already used values. Therefore the hyperref version of the counter print command \theHcounter is redefined in order to add the parent counter.

```

7968 \let\HyOrg@addtoreset\@addtoreset
7969 \def\@addtoreset#1#2{%
7970   \HyOrg@addtoreset{#1}{#2}%
7971   \expandafter\xdef\csname theH#1\endcsname{%
7972     \expandafter\noexpand
7973       \csname the\@ifundefined{theH#2}{}H#2\endcsname
7974     .\noexpand\the\noexpand\value{#1}%
7975   }%
7976 }

```

\numberwithin A appropriate definition of hyperref's companion counter (\theH...) is added for correct link names.

```

7977 \</package>
7978 \<{*check>
7979 \checkpackage{amsmath}[1999/12/14 - 2000/06/06]
7980 \checkcommand\newcommand{\numberwithin}[3][\arabic]{%
7981   \@ifundefined{c@#2}{\@nocounterr{#2}}{%
7982     \@ifundefined{c@#3}{\@nocnterr{#3}}{%
7983       \@addtoreset{#2}{#3}%
7984       \@xp\xdef\csname the#2\endcsname{%
7985         \@xp\@nx\csname the#3\endcsname .\@nx#1{#2}%
7986       }%
7987     }%
7988   }%
7989 }%
7990 \</check>
7991 \<{*package>
7992 \@ifpackageloaded{amsmath}{%
7993   \@ifpackagelater{amsmath}{1999/12/14}{%
7994     \renewcommand*\numberwithin[3][\arabic]{%
7995       \@ifundefined{c@#2}{\@nocounterr{#2}}{%
7996         \@ifundefined{c@#3}{\@nocnterr{#3}}{%

```

```

7997      \HyOrg@addtoreset{#2}{#3}%
7998      \@xp\xdef\csname the#2\endcsname{%
7999      \xp\@nx\csname the#3\endcsname .\@nx#1{#2}%
8000      }%
8001      \@xp\xdef\csname theH#2\endcsname{%
8002      \@xp\@nx
8003      \csname the\@ifundefined{theH#3}{H#3\endcsname
8004      .\@nx#1{#2}%
8005      }%
8006      }%
8007      }%
8008      }%
8009      }{%
8010      \Hy@WarningNoLine{%
8011      \string\numberwithin\space of package 'amsmath' %
8012      only fixed\MessageBreak
8013      for version 2000/06/06 v2.12 or newer%
8014      }%
8015      }%
8016      }{}

```

42 Included figures

Simply intercept the low level graphics package macro.

```

8017 \ifHy@hyperfigures
8018 \let\Hy@Gin@setfile\Gin@setfile
8019 \def\Gin@setfile#1#2#3{%
8020 \hyperimage{#3}{\Hy@Gin@setfile{#1}{#2}{#3}}%
8021 }%
8022 \fi
8023 \Hy@DisableOption{hyperfigures}

```

43 hyperindex entries

Internal command names are prefixed with `\HyInd@`.

Hyper-indexing works crudely, by forcing code onto the end of the index entry with the `|` feature; this puts a hyperlink around the printed page numbers. It will not proceed if the author has already used the `|` specifier for something like boldening entries. That would make `Makeindex` fail (cannot have two `|` specifiers). The solution is for the author to use generic coding, and put in the requisite `\hyperpage` in his/her own macros along with the boldness.

This section is poor stuff; it's open to all sorts of abuse. Sensible large projects will design their own indexing macros any bypass this.

```

8024 \ifHy@hyperindex
8025 \def\HyInd@ParenLeft{({}%
8026 \def\HyInd@ParenRight{)}}%
8027 \def\hyperindexformat#1#2{%
8028 \let\HyOrg@hyperpage\hyperpage
8029 \let\hyperpage\@firstofone
8030 #1{\HyOrg@hyperpage{#2}}%
8031 \let\hyperpage\HyOrg@hyperpage
8032 }%
8033 \Hy@nextfalse
8034 \@ifpackageloaded{multind}{\Hy@nexttrue}{}%

```

```

8035 \@ifpackageloaded{index}{\Hy@nexttrue}{}%
8036 \@ifpackageloaded{amsmidx}{\Hy@nexttrue}{}%
8037 \begingroup
8038 \lccode'\|=\expandafter'\HyInd@EncapChar\relax
8039 \lccode'\|/='\|\\relax
8040 \lowercase{\endgroup
8041 \ifHy@next
8042 \let\HyInd@org@wrindex\@wrindex
8043 \def\@wrindex#1#2{\HyInd@@wrindex{#1}#2||\}%
8044 \def\HyInd@@wrindex#1#2|#3|#4\\{\%
8045 \ifx\\#3\\%
8046 \HyInd@org@wrindex{#1}{#2|hyperpage}%
8047 \else
8048 \HyInd@@@wrindex{#1}{#2}#3\\%
8049 \fi
8050 }%
8051 \def\HyInd@@@wrindex#1#2#3#4\\{\%
8052 \def\Hy@temp@A{#3}%
8053 \ifcase0\ifx\Hy@temp@A\HyInd@ParenLeft 1\fi
8054 \ifx\Hy@temp@A\HyInd@ParenRight 1\fi
8055 \relax
8056 \HyInd@org@wrindex{#1}{%
8057 #2|hyperindexformat{/#3#4}%
8058 }%
8059 \else
8060 \ifx\\#4\\%
8061 \ifx\Hy@temp@A\HyInd@ParenRight
8062 \HyInd@org@wrindex{#1}{#2|#3}%
8063 \else
8064 \HyInd@org@wrindex{#1}{#2|#3hyperpage}%
8065 \fi
8066 \else
8067 \HyInd@org@wrindex{#1}{%
8068 #2|#3hyperindexformat{/#4}%
8069 }%
8070 \fi
8071 \fi
8072 }%
8073 \else
8074 \def\@wrindex#1{\@@wrindex#1||\}%
8075 \def\@@wrindex#1|#2|#3\\{\%
8076 \if@filesw
8077 \ifx\\#2\\%
8078 \protected@write\@indexfile{}{\%
8079 \string\indexentry{#1|hyperpage}{\thepage}%
8080 }%
8081 \else
8082 \HyInd@@@wrindex{#1}#2\\%
8083 \fi
8084 \fi
8085 \endgroup
8086 \@esphack
8087 }%
8088 \def\HyInd@@@wrindex#1#2#3\\{\%
8089 \def\Hy@temp@A{#2}%
8090 \ifcase0\ifx\Hy@temp@A\HyInd@ParenLeft 1\fi
8091 \ifx\Hy@temp@A\HyInd@ParenRight 1\fi

```



```

8092         \relax
8093     \protected@write\@indexfile{}\{%
8094         \string\indexentry{%
8095             #1|hyperindexformat{/#2#3}%
8096         }\thepage}%
8097     }%
8098 \else
8099     \ifx\#3\%
8100         \ifx\Hy@temp@A\HyInd@ParenRight
8101             \protected@write\@indexfile{}\{%
8102                 \string\indexentry{#1|#2}\thepage}%
8103             }%
8104         \else
8105             \protected@write\@indexfile{}\{%
8106                 \string\indexentry{#1|#2hyperpage}\thepage}%
8107             }%
8108         \fi
8109     \else
8110         \protected@write\@indexfile{}\{%
8111             \string\indexentry{%
8112                 #1|#2hyperindexformat{/#3}%
8113             }\thepage}%
8114         }%
8115     \fi
8116 \fi
8117 }%
8118 \fi
8119 }%
8120 \fi
8121 \Hy@DisableOption{hyperindex}
8122 \Hy@DisableOption{encap}

```

`\nohyperpage` The definition of `\nohyperpage` is just a precaution. It is used to mark code that does not belong to a page number, but `\nohyperpage` is never executed.

```
8123 \def\nohyperpage#1{#1}
```

This again is quite flaky, but allow for the common situation of a page range separated by en-rule. We split this into two different hyperlinked pages.

```

8124 \def\hyperpage#1{%
8125     \HyInd@hyperpage#1\nohyperpage{}\@nil
8126 }
8127 \def\HyInd@hyperpage#1\nohyperpage#2#3\@nil{%
8128     \HyInd@@hyperpage{#1}%
8129     #2%
8130     \def\Hy@temp{#3}%
8131     \ifx\Hy@temp\@empty
8132     \else
8133         \ltx@ReturnAfterFi{%
8134             \HyInd@hyperpage#3\@nil
8135         }%
8136     \fi
8137 }
8138 \def\HyInd@@hyperpage#1{\@hyperpage#1----\}
8139 \def\@hyperpage#1--#2--#3\{%
8140     \ifx\#2\%
8141         \@commahyperpage{#1}%
8142     \else

```

```

8143 \HyInd@pagelink{#1}--\HyInd@pagelink{#2}%
8144 \fi
8145 }
8146 \def\@commahyperpage#1{\@commahyperpage#1, \\\}
8147 \def\@commahyperpage#1, #2,#3\\\{%
8148 \ifx\\#2\\\%
8149 \HyInd@pagelink{#1}%
8150 \else
8151 \HyInd@pagelink{#1}, \HyInd@pagelink{#2}%
8152 \fi
8153 }

```

The argument of `\hyperpage` can be empty. And the line breaking algorithm of `Makeindex` can introduce spaces. So we have to remove them.

```

8154 \def\HyInd@pagelink#1{%
8155 \begingroup
8156 \toks@={}%
8157 \HyInd@removespaces#1 \@nil
8158 \endgroup
8159 }
8160 \def\HyInd@removespaces#1 #2\@nil{%
8161 \toks@=\expandafter{\the\toks@#1}%
8162 \ifx\\#2\\\%
8163 \edef\x{\the\toks@}%
8164 \ifx\x\@empty
8165 \else
8166 \hyperlink{page.\the\toks@}{\the\toks@}%
8167 \fi
8168 \else
8169 \ltx@ReturnAfterFi{%
8170 \HyInd@removespaces#2\@nil
8171 }%
8172 \fi
8173 }

```

44 Compatibility with foiltex

```

8174 \@ifclassloaded{foils}{%
8175 \providecommand*\ext@table{lot}%
8176 \providecommand*\ext@figure{lof}%
8177 }{}

```

45 Compatibility with seminar slide package

This requires `seminar.bg2`, version 1.6 or later. Contributions by Denis Girou (denis.girou@idris.fr).

```

8178 \@ifclassloaded{seminar}{%
8179 \Hy@seminarslides true
8180 \providecommand\theHslide{\arabic{slide}}%
8181 }{%
8182 \Hy@seminarslides false
8183 }
8184 \@ifpackageloaded{slidesec}{%
8185 \providecommand\theHslide section {\arabic{slide section}}%
8186 \providecommand\theHslidesubsection{%
8187 \theHslide section.\arabic{slide subsection}}%

```

```

8188 }%
8189 \def\slide@heading[#1]#2{%
8190   \H@refstepcounter{slidesection}%
8191   \@addtoreset{slidesubsection}{slidesection}%
8192   \addtocontents{los}{%
8193     \protect\l@slide{\the\c@slidesection}{\ignorespaces#1}%
8194     {\@SCTR}{slideheading.\theslidesection}%
8195   }%
8196   \def\Hy@tempa{#2}%
8197   \ifx\Hy@tempa\@empty
8198   \else
8199   {%
8200     \edef\@currentlabel{%
8201       \csname p@slidesection\endcsname\theslidesection
8202     }%
8203     \makeslideheading{#2}%
8204   }%
8205   \fi
8206   \gdef\theslideheading{#1}%
8207   \gdef\theslidesubheading{}%
8208   \ifHy@bookmarksnumbered
8209     \def\Hy@slidetitle{\theslidesection\space #1}%
8210   \else
8211     \def\Hy@slidetitle{#1}%
8212   \fi
8213   \ifHy@hypertextnames
8214     \ifHy@naturalnames
8215       \hyper@@anchor{slideheading.\theslidesection}{\relax}%
8216       \Hy@writebookmark
8217         {\theslidesection}%
8218         {\Hy@slidetitle}%
8219         {slideheading.\theslidesection}%
8220         {1}%
8221         {toc}%
8222     \else
8223       \hyper@@anchor{slideheading.\theHslidesection}{\relax}%
8224       \Hy@writebookmark
8225         {\theslidesection}%
8226         {\Hy@slidetitle}%
8227         {slideheading.\theHslidesection}%
8228         {1}%
8229         {toc}%
8230     \fi
8231   \else
8232     \Hy@GlobalStepCount\Hy@linkcounter
8233     \hyper@@anchor{slideheading.\the\Hy@linkcounter}{\relax}%
8234     \Hy@writebookmark
8235       {\theslidesection}%
8236       {\Hy@slidetitle}%
8237       {slideheading.\the\Hy@linkcounter}%
8238       {1}%
8239       {toc}%
8240   \fi
8241 }%
8242 \def\slide@subheading[#1]#2{%
8243   \H@refstepcounter{slidesubsection}%
8244   \addtocontents{los}{%

```

```

8245 \protect\l@subslide{\the\c@slidesubsection}{\ignorespaces#1}%
8246 {\@SCTR}{slideheading.\theslidesubsection}%
8247 }%
8248 \def\Hy@tempa{#2}%
8249 \ifx\Hy@tempa\@empty
8250 \else
8251 {%
8252 \edef\@currentlabel{%
8253 \csname p@slidesubsection\endcsname\theslidesubsection
8254 }%
8255 \makeslidesubheading{#2}%
8256 }%
8257 \fi
8258 \gdef\theslidesubheading{#1}%
8259 \ifHy@bookmarksnumbered
8260 \def\Hy@slidetitle{\theslidesubsection\space #1}%
8261 \else
8262 \def\Hy@slidetitle{#1}%
8263 \fi
8264 \ifHy@hypertexnames
8265 \ifHy@naturalnames
8266 \hyper@@anchor{slideheading.\theslidesubsection}{\relax}%
8267 \Hy@writebookmark
8268 {\theslidesubsection}%
8269 {\Hy@slidetitle}%
8270 {slideheading.\theslidesubsection}%
8271 {2}%
8272 {toc}%
8273 \else
8274 \hyper@@anchor{slideheading.\theHslidesubsection}{\relax}%
8275 \Hy@writebookmark
8276 {\theslidesubsection}%
8277 {\Hy@slidetitle}%
8278 {slideheading.\theHslidesubsection}%
8279 {2}%
8280 {toc}%
8281 \fi
8282 \else
8283 \Hy@GlobalStepCount\Hy@linkcounter
8284 \hyper@@anchor{slideheading.\the\Hy@linkcounter}{\relax}%
8285 \Hy@writebookmark
8286 {\theslidesubsection}%
8287 {\Hy@slidetitle}%
8288 {slideheading.\the\Hy@linkcounter}%
8289 {1}%
8290 {toc}%
8291 \fi
8292 }%
8293 \providecommand*\listslidenamelist{List of Slides}%
8294 \def\listofslides{%
8295 \section*{%
8296 \listslidenamelist
8297 \@mkboth{%
8298 \expandafter\MakeUppercase\listslidenamelist
8299 }{%
8300 \expandafter\MakeUppercase\listslidenamelist
8301 }%

```

```

8302 }%
8303 \def\l@slide###1##2##3##4{%
8304   \slide@undottedcline{%
8305     \slidenumberline{##3}{\hyperlink{##4}{##2}}%
8306   }%
8307 }%
8308 \let\l@subslide\l@slide
8309 \@startlos
8310 }%
8311 \def\slide@contents{%
8312   \def\l@slide###1##2##3##4{%
8313     \slide@cline{\slidenumberline{##3}{\hyperlink{##4}{##2}}}{##3}%
8314   }%
8315   \let\l@subslide\@gobblefour
8316   \@startlos
8317 }%
8318 \def\Slide@contents{%
8319   \def\l@slide###1##2##3##4{%
8320     \ifcase\lslide@flag
8321       \message{##1 ** \the\c@slidesection}%
8322       \ifnum##1>\c@slidesection
8323         \def\lslide@flag{1}%
8324         {%
8325           \large
8326           \slide@cline{%
8327             \slidenumberline{$\Rightarrow\bullet$}%
8328             {\hyperlink{##4}{##2}}%
8329           }{##3}%
8330         }%
8331       \else
8332         {%
8333           \large
8334           \slide@cline{%
8335             \slidenumberline{$\surd\;\bullet$}%
8336             {\hyperlink{##4}{##2}}%
8337           }{##3}%
8338         }%
8339       \fi
8340     \or
8341     \def\lslide@flag{2}%
8342     {%
8343       \large
8344       \slide@cline{%
8345         \slidenumberline{$\bullet$}%
8346         {\hyperlink{##4}{##2}}%
8347       }{##3}%
8348     }%
8349     \or
8350     {%
8351       \large
8352       \slide@cline{%
8353         \slidenumberline{$\bullet$}%
8354         {\hyperlink{##4}{##2}}%
8355       }{##3}%
8356     }%
8357     \fi
8358   }%

```

```

8359 \def\l@subslide##1##2##3##4{%
8360 \ifnum\lslide@flag=1 %
8361 \@undottedtocline{2}{3.8em}{3.2em}{\hyperlink{##4}{##2}}{}}%
8362 \fi
8363 }%
8364 \def\lslide@flag{0}%
8365 \@startlos
8366 }%
8367 }{}

```

This breaks TeX4ht, so leave it to last. Emend `\@setref` to put out a hypertext link as well as its normal text (which is used as an anchor). (`\endinput` have to be on the same line like `\fi`, or you have to use `\expandafter` before.)

```

8368 \ifHy@texht
8369 \expandafter\endinput
8370 \fi
8371 \let\real@setref\@setref
8372 \def\@setref#1#2#3{% csname, extract group, refname
8373 \ifx#1\relax
8374 \protect\G@refundefinedtrue
8375 \nfss@text{\reset@font\bfseries ??}%
8376 \@latex@warning{%
8377 Reference ‘#3’ on page \thepage \space undefined%
8378 }%
8379 \else
8380 \expandafter\Hy@setref@link#1\@empty\@empty\@nil{#2}%
8381 \fi
8382 }

```

`\Hy@setref@link` extracts the reference information entries, because `\hyper@@link` does not expand arguments for the automatic link type detection.

```

8383 \def\Hy@setref@link#1#2#3#4#5#6\@nil#7{%
8384 \begingroup
8385 \toks0={\hyper@@link{#5}{#4}}%
8386 \toks1=\expandafter{#7{#1}{#2}{#3}{#4}{#5}}%
8387 \edef\x{\endgroup
8388 \the\toks0 \the\toks1 }%
8389 }%
8390 \x
8391 }
8392 \def\@pagesetref#1#2#3{% csname, extract macro, ref
8393 \ifx#1\relax
8394 \protect\G@refundefinedtrue
8395 \nfss@text{\reset@font\bfseries ??}%
8396 \@latex@warning{%
8397 Reference ‘#3’ on page \thepage \space undefined%
8398 }%
8399 \else
8400 \protect\hyper@@link
8401 {\expandafter\@fifthoffive#1}%
8402 {page.\expandafter\@secondoffive#1}%
8403 {\expandafter\@secondoffive#1}%
8404 \fi
8405 }
8406 \</package>
8407 \< *check>
8408 \checklatex
8409 \checkcommand\def\@setref#1#2#3{%

```

```

8410 \ifx#1\relax
8411   \protect\G@refundefinedtrue
8412   \nfss@text{\reset@font\bfseries ??}%
8413   \@latex@warning{%
8414     Reference ‘#3’ on page \thepage\space undefined%
8415   }%
8416 \else
8417   \expandafter#2#1\null
8418 \fi
8419 }
8420 </check>
8421 <*package>

```

Now some extended referencing. `\ref*` and `\pageref*` are not linked, and `\autoref` prefixes with a tag based on the type.

```

8422 \def\HyRef@StarSetRef#1{%
8423   \begingroup
8424   \Hy@safe@activestrue
8425   \edef\x{#1}%
8426   \@onelevel@sanitize\x
8427   \edef\x{\endgroup
8428     \noexpand\HyRef@@StarSetRef
8429     \expandafter\noexpand\csname r@\x\endcsname{\x}%
8430   }%
8431   \x
8432 }
8433 \def\HyRef@@StarSetRef#1#2#3{%
8434   \ifx#1\@undefined
8435     \let#1\relax
8436   \fi
8437   \real@setref#1#3{#2}%
8438 }
8439 \def\@refstar#1{%
8440   \HyRef@StarSetRef{#1}\@firstoffive
8441 }
8442 \def\@pagerefstar#1{%
8443   \HyRef@StarSetRef{#1}\@secondoffive
8444 }
8445 \def\@namerefstar#1{%
8446   \HyRef@StarSetRef{#1}\@thirdoffive
8447 }
8448 \Hy@AtBeginDocument{%
8449   \@ifpackageloaded{varioref}{%
8450     \def\@Refstar#1{%
8451       \HyRef@StarSetRef{#1}\HyRef@MakeUppercaseFirstOfFive
8452     }%
8453     \def\HyRef@MakeUppercaseFirstOfFive#1#2#3#4#5{%
8454       \MakeUppercase#1%
8455     }%
8456     \DeclareRobustCommand*\Ref}{%
8457       \@ifstar\@Refstar\HyRef@Ref
8458     }%
8459     \def\HyRef@Ref#1{%
8460       \hyperref[{#1}]{\Ref*{#1}}%
8461     }%
8462     \def\Vr@f#1{%
8463       \leavevmode\unskip\vref@space
8464       \hyperref[{#1}]{%

```

```

8465 \Ref*{#1}%
8466 \let\vref@space\nobreakspace
8467 \@vpageref[\unskip]{#1}%
8468 }%
8469 }%
8470 \def\vr@f#1{%
8471 \leavevmode\unskip\vref@space
8472 \begingroup
8473 \let\T@pageref\@pagerefstar
8474 \hyperref[{#1}]{%
8475 \ref*{#1}%
8476 \vpageref[\unskip]{#1}%
8477 }%
8478 \endgroup
8479 }%
8480 }{}%
8481 }
8482 \DeclareRobustCommand*\autopageref{%
8483 \ifstar{%
8484 \HyRef@autopagerefname\pageref*%
8485 }\HyRef@autopageref
8486 }
8487 \def\HyRef@autopageref#1{%
8488 \hyperref[{#1}]{\HyRef@autopagerefname\pageref*{#1}}%
8489 }
8490 \def\HyRef@autopagerefname{%
8491 \ltx@ifundefined{pageautorefname}{%
8492 \ltx@ifundefined{pagename}{%
8493 \Hy@Warning{No autoref name for 'page'}%
8494 }{%
8495 \pagename\nobreakspace
8496 }%
8497 }{%
8498 \pageautorefname\nobreakspace
8499 }%
8500 }

```

\leavevmode is added to make package wrapfigure happy, if \autoref starts a paragraph.

```

8501 \DeclareRobustCommand*\autoref{%
8502 \leavevmode
8503 \@ifstar{\HyRef@autoref@gobbletwo}{\HyRef@autoref\hyper@link}%
8504 }
8505 \def\HyRef@autoref#1#2{%
8506 \begingroup
8507 \Hy@safe@activetrue
8508 \expandafter\HyRef@autosetref\csname r@#2\endcsname{#2}{#1}%
8509 \endgroup
8510 }
8511 \def\HyRef@autosetref#1#2#3{% link command, csname, refname
8512 \HyRef@ShowKeysRef{#2}%
8513 \ifcase 0\ifx#1\relax 1\fi\ifx#1\Hy@varioref@undefined 1\fi\relax
8514 \edef\HyRef@thisref{%
8515 \expandafter\@fourthoffive#1\@empty\@empty\@empty
8516 }%
8517 \expandafter\HyRef@testreftype\HyRef@thisref.\.%
8518 \Hy@safe@activetrue
8519 #3}%

```



```

8520 \expandafter\@fifthoffive#1\@empty\@empty\@empty
8521 }{%
8522 \expandafter\@fourthoffive#1\@empty\@empty\@empty
8523 }{%
8524 \HyRef@currentHtag
8525 \expandafter\@firstoffive#1\@empty\@empty\@empty
8526 \null
8527 }%
8528 \else
8529 \protect\G@refundefinedtrue
8530 \nfss@text{\reset@font\bfseries ??}%
8531 \@latex@warning{%
8532 Reference '#2' on page \thepage\space undefined%
8533 }%
8534 \fi
8535 }
8536 \def\HyRef@testreftype#1.#2\{%
8537 \ltx@ifundefined{#1autorefname}{%
8538 \ltx@ifundefined{#1name}{%
8539 \HyRef@StripStar#1\*\@nil{#1}%
8540 \ltx@ifundefined{\HyRef@name autorefname}{%
8541 \ltx@ifundefined{\HyRef@name name}{%
8542 \def\HyRef@currentHtag{%
8543 \Hy@Warning{No autoref name for '#1'}%
8544 }{%
8545 \edef\HyRef@currentHtag{%
8546 \expandafter\noexpand\csname\HyRef@name name\endcsname
8547 \noexpand~%
8548 }%
8549 }%
8550 }{%
8551 \edef\HyRef@currentHtag{%
8552 \expandafter\noexpand
8553 \csname\HyRef@name autorefname\endcsname
8554 \noexpand~%
8555 }%
8556 }%
8557 }{%
8558 \edef\HyRef@currentHtag{%
8559 \expandafter\noexpand\csname#1name\endcsname
8560 \noexpand~%
8561 }%
8562 }%
8563 }{%
8564 \edef\HyRef@currentHtag{%
8565 \expandafter\noexpand\csname#1autorefname\endcsname
8566 \noexpand~%
8567 }%
8568 }%
8569 }
8570 \def\HyRef@StripStar#1*\#2\@nil#3{%
8571 \def\HyRef@name{#2}%
8572 \ifx\HyRef@name\HyRef@CaseStar
8573 \def\HyRef@name{#1}%
8574 \else
8575 \def\HyRef@name{#3}%
8576 \fi

```

```

8577 }
8578 \def\HyRef@CaseStar{*\\}
8579 \def\HyRef@currentHtag{}

```

Support for package showkeys.

\HyRef@showkeysRef

```

8580 \let\HyRef@showkeysRef\@gobble
8581 \def\HyRef@showkeysInit{%
8582   \begingroup\expandafter\expandafter\expandafter\endgroup
8583   \expandafter\ifx\csname SK@@label\endcsname\relax
8584   \else
8585     \ifx\SK@ref\@empty
8586     \else
8587       \def\HyRef@showkeysRef{%
8588         \SK@\SK@@ref
8589       }%
8590     \fi
8591   \fi
8592 }
8593 \@ifpackageloaded{showkeys}{%
8594   \HyRef@showkeysInit
8595 }{%
8596   \Hy@AtBeginDocument{%
8597     \@ifpackageloaded{showkeys}{%
8598       \HyRef@showkeysInit
8599     }{}%
8600   }%
8601 }

```

Defaults for the names that \autoref uses.

```

8602 \providecommand*\AMSautorefname{\equationautorefname}
8603 \providecommand*\Hfootnoteautorefname{\footnoteautorefname}
8604 \providecommand*\Itemautorefname{\itemautorefname}
8605 \providecommand*\itemautorefname{item}
8606 \providecommand*\equationautorefname{Equation}
8607 \providecommand*\footnoteautorefname{footnote}
8608 \providecommand*\itemautorefname{item}
8609 \providecommand*\figureautorefname{Figure}
8610 \providecommand*\tableautorefname{Table}
8611 \providecommand*\partautorefname{Part}
8612 \providecommand*\appendixautorefname{Appendix}
8613 \providecommand*\chapterautorefname{chapter}
8614 \providecommand*\sectionautorefname{section}
8615 \providecommand*\subsectionautorefname{subsection}
8616 \providecommand*\subsubsectionautorefname{subsubsection}
8617 \providecommand*\paragraphautorefname{paragraph}
8618 \providecommand*\subparagraphautorefname{subparagraph}
8619 \providecommand*\FancyVerbLineautorefname{line}
8620 \providecommand*\theoremautorefname{Theorem}
8621 \providecommand*\pageautorefname{page}
8622 \end{package}

```

46 Configuration files

46.1 PS/PDF strings

Some drivers write PS or PDF strings. These strings are delimited by parentheses, therefore a lonely unmatched parenthesis must be avoided to avoid PS or PDF syntax errors. Also the backslash character itself has to be protected.

`\Hy@pstringdef` Therefore such strings should be passed through `\Hy@pstringdef`. The first argument holds a macro for the result, the second argument is the string that needs protecting. Since version 1.30.0 pdf_T_EX offers `\pdfescapestring`.

```
8623 \*pdfTeX | dvipdfm | xetex | vtex | pdfmarkbase | dviwindo)
8624 \begingroup\expandafter\expandafter\expandafter\endgroup
8625 \expandafter\ifx\csname pdf@escapestring\endcsname\relax
8626 \begingroup
8627 \catcode'\=0 %
8628 \@makeother\%
8629 |@firstofone{|endgroup
8630 |def|Hy@pstringdef#1#2{%
8631 |begingroup
8632 |edef~{|string~}%
8633 |xdef|Hy@gtemp{#2}%
8634 |endgroup
8635 |let#1|Hy@gtemp
8636 |@onelevel@sanitize#1%
8637 |edef#1{|expandafter|Hy@ExchangeBackslash#1|@nil}%
8638 |edef#1{|expandafter|Hy@ExchangeLeftParenthesis#1(|@nil}%
8639 |edef#1{|expandafter|Hy@ExchangeRightParenthesis#1)|@nil}%
8640 }%
8641 |def|Hy@ExchangeBackslash#1|#2|@nil{%
8642 #1%
8643 |ifx|\#2|\%
8644 |else
8645 \\\%
8646 |ltx@ReturnAfterFi{%
8647 |Hy@ExchangeBackslash#2|@nil
8648 }%
8649 |fi
8650 }%
8651 }%
8652 \def\Hy@ExchangeLeftParenthesis#1(#2\@nil{%
8653 #1%
8654 \ifx\#2\%
8655 \else
8656 \@backslashchar(%
8657 \ltx@ReturnAfterFi{%
8658 \Hy@ExchangeLeftParenthesis#2\@nil
8659 }%
8660 \fi
8661 }%
8662 \def\Hy@ExchangeRightParenthesis#1)#2\@nil{%
8663 #1%
8664 \ifx\#2\%
8665 \else
8666 \@backslashchar)%
8667 \ltx@ReturnAfterFi{%
8668 \Hy@ExchangeRightParenthesis#2\@nil
```

```

8669     }%
8670     \fi
8671 }%
8672 \else
8673 \def\Hy@pstringdef#1#2{%
8674     \begingroup
8675     \edef~{\string~}%
8676     \xdef\Hy@gtemp{\pdf@escapestring{#2}}%
8677     \endgroup
8678     \let#1\Hy@gtemp
8679 }%
8680 \fi
8681 </pdfTeX | dvipdfm | xetex | vtex | pdfmarkbase | dviwindo>

```

46.2 pdfTeX

```

8682 <*pdfTeX>
8683 \providecommand*\XR@ext}{pdf}
8684 \Hy@setbreaklinks{true}
8685 \def\HyPat@ObjRef{%
8686     [0-9]*[1-9][0-9]* 0 R%
8687 }

```

This driver is for Han The Thanh's T_EX variant which produces PDF directly. This has new primitives to do PDF things, which usually translate almost directly to PDF code, so there is a lot of flexibility which we do not at present harness.

Set PDF version if requested by option pdfversion.

- pdfT_EX 1.10a, 2003-01-16: \pdfoptionpdfminorversion
- pdfT_EX 1.30, 2005-08-081: \pdfminorversion

```

8688 \let\Hy@pdfminorversion\relax
8689 \begingroup\expandafter\expandafter\expandafter\endgroup
8690 \expandafter\ifx\csname pdfminorversion\endcsname\relax
8691     \begingroup\expandafter\expandafter\expandafter\endgroup
8692     \expandafter\ifx\csname pdfoptionpdfminorversion\endcsname\relax
8693     \else
8694         \def\Hy@pdfminorversion{\pdfoptionpdfminorversion}%
8695     \fi
8696 \else
8697     \def\Hy@pdfminorversion{\pdfminorversion}%
8698 \fi
8699 \@ifundefined{Hy@pdfminorversion}{%
8700     \PackageInfo{hyperref}{%
8701         PDF version is not set, because pdfTeX is too old (<1.10a)%
8702     }%
8703 }{%
8704     \ifHy@ocgcolorlinks
8705         \ifnum\Hy@pdfminorversion<5 %
8706             \kvsetkeys{Hyp}{pdfversion=1.5}%
8707         \fi
8708     \fi
8709     \ifHy@setpdfversion
8710         \ifnum\Hy@pdfminorversion=\Hy@pdfversion\relax
8711         \else
8712             \Hy@pdfminorversion=\Hy@pdfversion\relax
8713         \fi
8714     \PackageInfo{hyperref}{%

```

```

8715     \expandafter\string\Hy@pdfminorversion
8716     :=\number\Hy@pdfversion\space
8717   }%
8718 \fi
8719 \edef\Hy@pdfversion{\number\Hy@pdfminorversion}%
8720 }
8721 \Hy@DisableOption{pdfversion}%

8722 \ifHy@ocgcolorlinks
8723   \pdf@ifdraftmode{ }{%
8724     \immediate\pdfobj{%
8725       <<%
8726         /Type/OCG%
8727         /Name(View)%
8728         /Usage<<%
8729         /Print<<%
8730         /PrintState/OFF%
8731         >>%
8732         /View<<%
8733         /ViewState/ON%
8734         >>%
8735         >>%
8736       >>%
8737     }%
8738     \edef\OBJ@OCG@view{\the\pdfastobj\space 0 R}%
8739     \immediate\pdfobj{%
8740       <<%
8741         /Type/OCG%
8742         /Name(Print)%
8743         /Usage<<%
8744         /Print<<%
8745         /PrintState/ON%
8746         >>%
8747         /View<<%
8748         /ViewState/OFF%
8749         >>%
8750         >>%
8751       >>%
8752     }%
8753     \edef\OBJ@OCG@print{\the\pdfastobj\space 0 R}%
8754     \immediate\pdfobj{%
8755       [%
8756         \OBJ@OCG@view\space\OBJ@OCG@print
8757       ]%
8758     }%
8759     \edef\OBJ@OCGs{\the\pdfastobj\space 0 R}%
8760     \pdfcatalog{%
8761       /OCProperties<<%
8762       /OCGs \OBJ@OCGs
8763       /D<<%
8764       /OFF[\OBJ@OCG@print]%
8765       /AS[%
8766         <<%
8767         /Event/View%
8768         /OCGs \OBJ@OCGs
8769         /Category[/View]%
8770         >>%
8771       <<%

```

```

8772         /Event/Print%
8773         /OCGs \OBJ@OCGs
8774         /Category[/Print]%
8775     >>%
8776     <<%
8777         /Event/Export%
8778         /OCGs \OBJ@OCGs
8779         /Category[/Print]%
8780     >>%
8781     ]%
8782     >>%
8783     >>%
8784     }%
8785     \begingroup
8786     \edef\x{\endgroup
8787     \pdfpageresources{%
8788         /Properties<<%
8789         /OCView \OBJ@OCG@view
8790         /OCPrint \OBJ@OCG@print
8791     >>%
8792     }%
8793     }%
8794     \x
8795     }%
8796     \Hy@AtBeginDocument{%
8797     \def\Hy@colorlink#1{%
8798     \begingroup
8799     \ifHy@ocgcolorlinks
8800     \def\Hy@ocgcolor{#1}%
8801     \setbox0=\hbox\bgroup\color@begingroup
8802     \else
8803     \HyColor@UseColor#1%
8804     \fi
8805     }%
8806     \def\Hy@endcolorlink{%
8807     \ifHy@ocgcolorlinks
8808     \color@endgroup\egroup
8809     \mbox{%
8810     \pdfliteral page{/OC/OCPrint BDC}%
8811     \rlap{\copy0}%
8812     \pdfliteral page{EMC/OC/OCView BDC}%
8813     \begingroup
8814     \expandafter\HyColor@UseColor\Hy@ocgcolor
8815     \box0 %
8816     \endgroup
8817     \pdfliteral page{EMC}%
8818     }%
8819     \fi
8820     \endgroup
8821     }%
8822     }%
8823     \else
8824     \Hy@DisableOption{ocgcolorlinks}%
8825     \fi

```

First, allow for some changes and additions to pdftex syntax:

```

8826 \def\setpdfinkmargin#1{\pdfinkmargin#1}
8827 \ifx\pdfstartlink\@undefined% less than version 14

```

```

8828 \let\pdfstartlink\pdfannotlink
8829 \let\pdfinkmargin\@tempdima
8830 \let\pdfxform\pdfform
8831 \let\pdfastxform\pdfastform
8832 \let\pdfrefxform\pdfrefform
8833 \else
8834 \pdfinkmargin1pt %
8835 \fi

```

First set up the default linking

```
8836 \providecommand*\@pdfview{XYZ}
```

First define the anchors:

```

8837 \Hy@WrapperDef\new@pdfink#1{%
8838 \ifhmode
8839 \@savsf\spacefactor
8840 \fi
8841 \Hy@SaveLastskip
8842 \Hy@VerboseAnchor{#1}%
8843 \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
8844 \Hy@DestName\Hy@pstringDest\@pdfview
8845 \Hy@RestoreLastskip
8846 \ifhmode
8847 \spacefactor\@savsf
8848 \fi
8849 }
8850 \let\pdf@endanchor\@empty

```

`\Hy@DestName` Wrap the call of `\pdfdest name` in `\Hy@DestName`. Then it can easier be caught by package `hypdestopt`.

```

8851 \def\Hy@DestName#1#2{%
8852 \pdfdest name{#1}#2\relax
8853 }

```

Now the links; the interesting part here is the set of attributes which define how the link looks. We probably want to add a border and color it, but there are other choices. This directly translates to PDF code, so consult the manual for how to change this. We will add an interface at some point.

```

8854 \providecommand*\@pdfborder{0 0 1}
8855 \providecommand*\@pdfborderstyle{}
8856 \def\Hy@undefinedname{UNDEFINED}
8857 \def\find@pdfink#1#2{%
8858 \leavevmode
8859 \protected@edef\Hy@testname{#2}%
8860 \ifx\Hy@testname\@empty
8861 \Hy@Warning{%
8862 Empty destination name,\MessageBreak
8863 using ‘\Hy@undefinedname’%
8864 }%
8865 \let\Hy@testname\Hy@undefinedname
8866 \else
8867 \Hy@pstringdef\Hy@testname{%
8868 \expandafter\HyperDestNameFilter\expandafter{\Hy@testname}%
8869 }%
8870 \fi
8871 \Hy@StartlinkName{%
8872 \ifHy@pdfa /F 4\fi
8873 \Hy@setpdfborder

```

```

8874 \ifx\@pdfhighlight\@empty
8875 \else
8876 /H\@pdfhighlight
8877 \fi
8878 \ifx\CurrentBorderColor\relax
8879 \else
8880 /C[\CurrentBorderColor]%
8881 \fi
8882 }\Hy@testname
8883 \expandafter\Hy@colorlink\csname @#1color\endcsname
8884 }
8885 \def\Hy@StartlinkName#1#2{%
8886 \pdfstartlink attr{#1}goto name{#2}\relax
8887 }
8888 \def\close@pdfink{%
8889 \Hy@endcolorlink
8890 \Hy@VerboseLinkStop
8891 \pdfendlink
8892 }
8893 \def\hyper@anchor#1{%
8894 \new@pdfink{#1}\anchor@spot\pdf@endanchor
8895 }
8896 \def\hyper@anchorstart#1{%
8897 \new@pdfink{#1}%
8898 \Hy@activeanchortrue
8899 }
8900 \def\hyper@anchorend{%
8901 \pdf@endanchor
8902 \Hy@activeanchorfalse
8903 }
8904 \def\hyper@linkstart#1#2{%
8905 \Hy@VerboseLinkStart{#1}{#2}%
8906 \ltx@ifundefined{@#1bordercolor}{%
8907 \let\CurrentBorderColor\relax
8908 }{%
8909 \edef\CurrentBorderColor{\csname @#1bordercolor\endcsname}%
8910 }%
8911 \find@pdfink{#1}{#2}%
8912 }
8913 \def\hyper@linkend{\close@pdfink}
8914 \def\hyper@link#1#2#3{%
8915 \Hy@VerboseLinkStart{#1}{#2}%
8916 \ltx@ifundefined{@#1bordercolor}{%
8917 \let\CurrentBorderColor\relax
8918 }{%
8919 \edef\CurrentBorderColor{\csname @#1bordercolor\endcsname}%
8920 }%
8921 \find@pdfink{#1}{#2}#3\Hy@xspace@end
8922 \close@pdfink
8923 }
8924 \let\CurrentBorderColor\@linkbordercolor
8925 \def\hyper@linkurl#1#2{%
8926 \begingroup
8927 \Hy@pstringdef\Hy@pstringURI{#2}%
8928 \hyper@chars
8929 \leavevmode
8930 \pdfstartlink

```



```

8931 attr{%
8932   \Hy@setpdfborder
8933   \ifx\@pdfhighlight\@empty
8934   \else
8935     /H\@pdfhighlight
8936   \fi
8937   \ifx\@urlbordercolor\relax
8938   \else
8939     /C[\@urlbordercolor]%
8940   \fi
8941 }%
8942 user{%
8943   /Subtype/Link%
8944   \ifHy@pdfa /F 4\fi
8945   /A<<%
8946   /Type/Action%
8947   /S/URI%
8948   /URI(\Hy@pstringURI)%
8949   \ifHy@href@ismap
8950     /IsMap true%
8951   \fi
8952   \Hy@href@nextactionraw
8953   >>%
8954 }%
8955 \relax
8956 \Hy@colorlink\@urlcolor#1\Hy@xspace@end
8957 \close@pdflink
8958 \endgroup
8959 }
8960 \def\hyper@linkfile#1#2#3{% anchor text, filename, linkname
8961   \begingroup
8962     \def\Hy@pstringF{#2}%
8963     \Hy@CleanupFile\Hy@pstringF
8964     \Hy@pstringdef\Hy@pstringF\Hy@pstringF
8965     \Hy@pstringdef\Hy@pstringD{#3}%
8966     \Hy@MakeRemoteAction
8967     \leavevmode
8968     \pdfstartlink
8969     attr{%
8970       \Hy@setpdfborder
8971       \ifx\@pdfhighlight\@empty
8972       \else
8973         /H\@pdfhighlight
8974       \fi
8975       \ifx\@filebordercolor\relax
8976       \else
8977         /C[\@filebordercolor]%
8978       \fi
8979     }%
8980     user {%
8981       /Subtype/Link%
8982       \ifHy@pdfa /F 4\fi
8983       /A<<%
8984       /F(\Hy@pstringF)%
8985       /S/GoToR%
8986       \Hy@SetNewWindow

```

If #3 is empty, page 0; if its a number, Page number, otherwise a named destination.

```

\afterassignment\xxx\count@=0\foo!%

\def\xxx#1!{%
  \ifx\xxx#1\xxx
    foo was an integer
  \else
    it wasnt
  \fi}

8987      \ifx\#3\%
8988        /D[\Hy@href@page\@pdfremotestartview]%
8989      \else
8990        /D(\Hy@pstringD)%
8991      \fi
8992      \Hy@href@nextactionraw
8993      >>%
8994    }%
8995    \relax
8996    \Hy@colorlink\@filecolor#1\Hy@xspace@end
8997    \close@pdflink
8998  \endgroup
8999 }
9000 \def\@hyper@launch run:#1\#2#3{% filename, anchor text linkname
9001  \begingroup
9002  \Hy@pstringdef\Hy@pstringF{#1}%
9003  \Hy@pstringdef\Hy@pstringP{#3}%
9004  \leavevmode
9005  \pdfstartlink
9006  attr{%
9007    \Hy@setpdfborder
9008    \ifx\@pdfhighlight\@empty
9009    \else
9010      /H\@pdfhighlight
9011    \fi
9012    \ifx\@runbordercolor\relax
9013    \else
9014      /C[\@runbordercolor]%
9015    \fi
9016  }%
9017  user {%
9018    /Subtype/Link%
9019    \ifHy@pdfa /F 4\fi
9020    /A<<%
9021      /F(\Hy@pstringF)%
9022      /S/Launch%
9023      \Hy@SetNewWindow
9024      \ifx\#3\%
9025      \else
9026        /Win<</P(\Hy@pstringP)/F(\Hy@pstringF)>>%
9027      \fi
9028      \Hy@href@nextactionraw
9029      >>%
9030    }%
9031    \relax

```

```

9032 \Hy@colorlink\@runcolor#2\Hy@xspace@end
9033 \close@pdflink
9034 \endgroup
9035 }

```

\@pdfproducer

```

9036 \ifx\@pdfproducer\relax
9037 \begingroup\expandafter\expandafter\expandafter\endgroup
9038 \expandafter\ifx\csname luatexversion\endcsname\relax
9039 \def\@pdfproducer{pdfTeX}%
9040 \ifx\eTeXversion\@undefined
9041 \else
9042 \ifx\eTeXversion\relax
9043 \else
9044 \ifnum\eTeXversion>0 %
9045 \def\@pdfproducer{pdfTeX}%
9046 \fi
9047 \fi
9048 \fi
9049 \ifx\pdfTeXversion\@undefined
9050 \else
9051 \ifnum\pdfTeXversion<100 %
9052 \edef\@pdfproducer{%
9053 \@pdfproducer
9054 \the\pdfTeXversion.\pdfTeXrevision
9055 }%
9056 \else
9057 \ifnum\pdfTeXversion<130 %
9058 \edef\@pdfproducer{%
9059 \@pdfproducer-%
9060 \expandafter\@car\the\pdfTeXversion\@empty\@nil.%
9061 \expandafter\@cdr\the\pdfTeXversion\@empty\@nil
9062 \pdfTeXrevision
9063 }%
9064 \else
9065 \ifnum\pdfTeXversion<140 %
9066 \else
9067 \def\@pdfproducer{pdfTeX}%
9068 \fi
9069 \edef\@pdfproducer{%
9070 \@pdfproducer-%
9071 \expandafter\@car\the\pdfTeXversion\@empty\@nil.%
9072 \expandafter\@cdr\the\pdfTeXversion\@empty\@nil.%
9073 \pdfTeXrevision
9074 }%
9075 \fi
9076 \fi
9077 \fi
9078 \else
9079 \begingroup
9080 \count@=\luatexversion
9081 \divide\count@ by 100 %
9082 \edef\x{\the\count@}%
9083 \count@=-\x\relax
9084 \multiply\count@ by 100 %
9085 \advance\count@ by \luatexversion
9086 \edef\x{\endgroup

```

```

9087     \def\noexpand\@pdfproducer{%
9088         LuaTeX-\x.\the\count@.luaTeXrevision
9089     }%
9090 }%
9091 \x
9092 \fi
9093 \fi

```

\PDF@SetupDox

```

9094 \def\PDF@SetupDoc{%
9095     \ifx\@pdfpagescrop\@empty
9096     \else
9097         \edef\process@me{%
9098             \pdfpagesattr={%
9099                 /CropBox[\@pdfpagescrop]%
9100                 \expandafter\ifx\expandafter\\\the\pdfpagesattr\\%
9101                 \else
9102                     ^^J\the\pdfpagesattr
9103                 \fi
9104             }%
9105         }%
9106         \process@me
9107     \fi
9108     \Hy@pstringdef\Hy@pstringB{\@baseurl}%
9109     \pdfcatalog{%
9110         /PageMode/\@pdfpagemode
9111         \ifx\@baseurl\@empty
9112         \else
9113             /URI<</Base(\Hy@pstringB)>>%
9114         \fi
9115     }%
9116     \ifx\@pdfstartpage\@empty
9117     \else
9118         \ifx\@pdfstartview\@empty
9119         \else
9120             openaction goto page\@pdfstartpage{\@pdfstartview}%
9121         \fi
9122     \fi
9123     \edef\Hy@temp{%
9124         \ifHy@pdftoolbar\else /HideToolbar true\fi
9125         \ifHy@pdfmenubar\else /HideMenubar true\fi
9126         \ifHy@pdfwindowui\else /HideWindowUI true\fi
9127         \ifHy@pdffitwindow /FitWindow true\fi
9128         \ifHy@pdfcenterwindow /CenterWindow true\fi
9129         \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
9130         \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
9131         \Hy@UseNameKey{Direction}\@pdfdirection
9132         \Hy@UseNameKey{ViewArea}\@pdfviewarea
9133         \Hy@UseNameKey{ViewClip}\@pdfviewclip
9134         \Hy@UseNameKey{PrintArea}\@pdfprintarea
9135         \Hy@UseNameKey{PrintClip}\@pdfprintclip
9136         \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
9137         \Hy@UseNameKey{Duplex}\@pdfduplex
9138         \ifx\@pdfpicktraybypdfsize\@empty
9139         \else
9140             /PickTrayByPDFSize \@pdfpicktraybypdfsize
9141         \fi
9142         \ifx\@pdfprintpagerange\@empty

```

```

9143 \else
9144 /PrintPageRange[\@pdfprintpagerange]%
9145 \fi
9146 \ifx\@pdfnumcopies\@empty
9147 \else
9148 /NumCopies \@pdfnumcopies
9149 \fi
9150 }%
9151 \pdfcatalog{%
9152 \ifx\Hy@temp\@empty
9153 \else
9154 /ViewerPreferences<<\Hy@temp>>%
9155 \fi
9156 \Hy@UseNameKey{PageLayout}\@pdfpagelayout
9157 \ifx\@pdflang\@empty
9158 \else
9159 /Lang(\@pdflang)%
9160 \fi
9161 }%
9162 }

```

\PDF@FinishDoc

```

9163 \def\PDF@FinishDoc{%
9164 \pdf@ifdraftmode{}{%
9165 \Hy@UseMaketitleInfos
9166 \HyInfo@GenerateAddons
9167 \pdfinfo{%
9168 /Author(\@pdfauthor)%
9169 /Title(\@pdftitle)%
9170 /Subject(\@pdfsubject)%
9171 /Creator(\@pdfcreator)%
9172 \ifx\@pdfcreationdate\@empty
9173 \else
9174 /CreationDate(\@pdfcreationdate)%
9175 \fi
9176 \ifx\@pdfmoddate\@empty
9177 \else
9178 /ModDate(\@pdfmoddate)%
9179 \fi
9180 \ifx\@pdfproducer\relax
9181 \else
9182 /Producer(\@pdfproducer)%
9183 \fi
9184 /Keywords(\@pdfkeywords)%
9185 \ifx\@pdftrapped\@empty
9186 \else
9187 /Trapped/\@pdftrapped
9188 \fi
9189 \HyInfo@Addons
9190 }%
9191 }%
9192 \Hy@DisableOption{pdfauthor}%
9193 \Hy@DisableOption{pdftitle}%
9194 \Hy@DisableOption{pdfsubject}%
9195 \Hy@DisableOption{pdfcreator}%
9196 \Hy@DisableOption{pdfcreationdate}%
9197 \Hy@DisableOption{pdfmoddate}%
9198 \Hy@DisableOption{pdfproducer}%

```

```

9199 \Hy@DisableOption{pdfkeywords}%
9200 \Hy@DisableOption{pdftrapped}%
9201 \Hy@DisableOption{pdfinfo}%
9202 }

```

`\hyper@pagetransition` `\@pdfpagetransition` is initialized with `\relax`. So it indicates, if option `pdfpagetransition` is used. First previous `/Trans` entries are removed. If a new `/Trans` key exists, it is appended to `\pdfpageattr`.

```

9203 \def\hyper@pagetransition{%
9204   \ifx\@pdfpagetransition\relax
9205   \else
9206     \expandafter\Hy@RemoveTransPageAttr
9207     \the\pdfpageattr^^J/Trans{}>>\END
9208     \ifx\@pdfpagetransition\@empty
9209     \else
9210       \edef\@processme{%
9211         \global\pdfpageattr{%
9212           \the\pdfpageattr
9213             ^^J/Trans << /S /\@pdfpagetransition\space >>%
9214         }%
9215       }%
9216       \@processme
9217     \fi
9218   \fi
9219 }

```

`\Hy@RemoveTransPageAttr` Macro `\Hy@RemoveTransPageAttr` removes a `/Trans` entry from `\pdfpageattr`. It is called with the end marker `^^J/Trans{}>>\END`. The trick is the empty group that does not appear in legal `\pdfpageattr` code. It appears in argument `#2` and shows, whether the parameter text catches a really `/Trans` object or the end marker.

```

9220 \gdef\Hy@RemoveTransPageAttr#1^^J/Trans#2#3>>#4\END{%
9221   \ifx\#2\%
9222     \global\pdfpageattr{#1}%
9223   \else
9224     \Hy@RemoveTransPageAttr#1#4\END
9225   \fi
9226 }

```

`\hyper@pageduration` `\@pdfpageduration` is initialized with `\relax`. So it indicates, if option `pdfpageduration` is used. First previous `/Dur` entries are removed. If a new `/Dur` key exists, it is appended to `\pdfpageattr`.

```

9227 \def\hyper@pageduration{%
9228   \ifx\@pdfpageduration\relax
9229   \else
9230     \expandafter
9231     \Hy@RemoveDurPageAttr\the\pdfpageattr^^J/Dur{} \END
9232     \ifx\@pdfpageduration\@empty
9233     \else
9234       \edef\@processme{%
9235         \global\pdfpageattr{%
9236           \the\pdfpageattr
9237             ^^J/Dur \@pdfpageduration\space
9238         }%
9239       }%
9240       \@processme

```

```

9241 \fi
9242 \fi
9243 }

```

`\Hy@RemoveDurPageAttr` Macro `\Hy@RemoveDurPageAttr` removes a `/Dur` entry from `\pdfpageattr`. It is called with the end marker `^^J/Dur{} \END`. The trick is the empty group that does not appear in legal `\pdfpageattr` code. It appears in argument `#2` and shows, whether the parameter text catches a really `/Dur` object or the end marker.

```

9244 \gdef\Hy@RemoveDurPageAttr#1^^J/Dur#2#3 #4\END{%
9245 \ifx\#2\%
9246 \global\pdfpageattr{#1}%
9247 \else
9248 \Hy@RemoveDurPageAttr#1#4\END
9249 \fi
9250 }

```

`\hyper@pagehidden` The boolean value of the key `/Hid` is stored in switch `\ifHy@pdfpagehidden`. First previous `/Hid` entries are removed, then the new one is appended, if the value is true (the PDF default is false).

```

9251 \def\hyper@pagehidden{%
9252 \ifHy@useHidKey
9253 \expandafter
9254 \Hy@RemoveHidPageAttr\the\pdfpageattr^^J/Hid{} \END
9255 \ifHy@pdfpagehidden
9256 \edef\@processme{%
9257 \global\pdfpageattr{%
9258 \the\pdfpageattr
9259 ^^J/Hid true % SPACE
9260 }%
9261 }%
9262 \@processme
9263 \fi
9264 \fi
9265 }

```

`\Hy@RemoveHidPageAttr` Macro `\Hy@RemoveHidPageAttr` removes a `/Hid` entry from `\pdfpageattr`. It is called with the end marker `^^J/Hid{} \END`. The trick is the empty group that does not appear in legal `\pdfpageattr` code. It appears in argument `#2` and shows, whether the parameter text catches a really `/Hid` object or the end marker.

```

9266 \gdef\Hy@RemoveHidPageAttr#1^^J/Hid#2#3 #4\END{%
9267 \ifx\#2\%
9268 \global\pdfpageattr{#1}%
9269 \else
9270 \Hy@RemoveHidPageAttr#1#4\END
9271 \fi
9272 }

9273 \pdf@ifdraftmode{}{%
9274 \g@addto@macro\Hy@EveryPageHook{%
9275 \hyper@pagetransition
9276 \hyper@pageduration
9277 \hyper@pagehidden
9278 }%
9279 }

```

Also XeTeX support `\pdfpagewidth` and `\pdfpageheight`, but it does not provide `\pdfhorigin` and `\pdfvorigin`.

```

9280 </pdftex>
9281 <*pdftex | xetex>
9282 \Hy@AtBeginDocument{%
9283   \ifHy@setpagesize
9284     \expandafter\@firstofone
9285   \else
9286     \expandafter\@gobble
9287   \fi
9288   {%
9289     \ifclassloaded{seminar}{%
9290 <*pdftex>
9291   \setlength{\pdfhorigin}{1truein}%
9292   \setlength{\pdfvorigin}{1truein}%
9293 </pdftex>
9294   \ifportrait
9295     \ifdim\paperwidth=\z@
9296     \else
9297       \setlength{\pdfpagewidth}{\strip@pt\paperwidth truept}%
9298     \fi
9299     \ifdim\paperheight=\z@
9300     \else
9301       \setlength{\pdfpageheight}{\strip@pt\paperheight truept}%
9302     \fi
9303   \else
9304     \ifdim\paperheight=\z@
9305     \else
9306       \setlength{\pdfpagewidth}{\strip@pt\paperheight truept}%
9307     \fi
9308     \ifdim\paperwidth=\z@
9309     \else
9310       \setlength{\pdfpageheight}{\strip@pt\paperwidth truept}%
9311     \fi
9312   \fi
9313 }{%
9314   \ltx@ifundefined{stockwidth}{%
9315     \ifdim\paperwidth>\z@
9316       \setlength{\pdfpagewidth}{\paperwidth}%
9317     \fi
9318     \ifdim\paperheight>\z@
9319       \setlength{\pdfpageheight}{\paperheight}%
9320     \fi
9321   }{%
9322     \ifdim\stockwidth>\z@
9323       \setlength{\pdfpagewidth}{\stockwidth}%
9324     \fi
9325     \ifdim\stockheight>\z@
9326       \setlength{\pdfpageheight}{\stockheight}%
9327     \fi
9328   }%
9329 }%
9330 }%
9331 \Hy@DisableOption{setpagesize}%
9332 }
9333 </pdftex | xetex>
9334 <*pdftex>
9335 \def\Acrobatmenu#1#2{%
9336   \Hy@Acrobatmenu{#1}{#2}{%

```



```

9337 \leavevmode
9338 \pdfstartlink
9339   attr{%
9340     \Hy@setpdfborder
9341     \ifx\@pdfhighlight\@empty
9342     \else
9343     /H\@pdfhighlight
9344     \fi
9345     \ifx\@menubordercolor\relax
9346     \else
9347     /C[\@menubordercolor]%
9348     \fi
9349   }%
9350   user{%
9351     /Subtype/Link%
9352     \ifHy@pdfa /F 4\fi
9353     /A<<%
9354     /S/Named%
9355     /N/#1%
9356     \Hy@href@nextactionraw
9357     >>%
9358   }%
9359   \relax
9360   \Hy@colorlink\@menucolor#2%
9361   \close@pdflink
9362 }%
9363 }

```

46.2.1 Fix for problem with different nesting levels

`\AtBeginShipoutFirst` adds an additional box layer around the first output page. This disturbs pdfTeX's low level link commands `\pdfstartlink` and `\pdfendlink`, if a link is broken across the first and second output page.

The problem could be fixed by replacing `\AtBeginShipoutFirst`, because the box layer is not necessary for pdfTeX—no `\specials` need to be inserted. However it's easier to add an additional box level for the pages after the first one. Also `\AtBeginShipoutFirst` could be invoked independently from `hyperref`.

```

9364 \def\Hy@FixNotFirstPage{%
9365   \gdef\Hy@FixNotFirstPage{%
9366     \setbox\AtBeginShipoutBox=\hbox{%
9367       \copy\AtBeginShipoutBox
9368     }%
9369   }%
9370 }
9371 \AtBeginShipout{\Hy@FixNotFirstPage}
9372 </pdfTeX>

```

46.3 hypertex

The HyperTeX specification (this is borrowed from an article by Arthur Smith) says that conformant viewers/translators must recognize the following set of `\special` commands:

href: `html:`

name: `html:`

end: `html:`

image: `html:`

base_name: `html:<base href = "href_string">`

The *href*, *name* and *end* commands are used to do the basic hypertext operations of establishing links between sections of documents. The *image* command is intended (as with current html viewers) to place an image of arbitrary graphical format on the page in the current location. The *base_name* command is be used to communicate to the *dvi* viewer the full (URL) location of the current document so that files specified by relative URL's may be retrieved correctly.

The *href* and *name* commands must be paired with an *end* command later in the \TeX file — the \TeX commands between the two ends of a pair form an *anchor* in the document. In the case of an *href* command, the *anchor* is to be highlighted in the *dvi* viewer, and when clicked on will cause the scene to shift to the destination specified by *href_string*. The *anchor* associated with a name command represents a possible location to which other hypertext links may refer, either as local references (of the form `href="#name_string"` with the *name_string* identical to the one in the name command) or as part of a URL (of the form `URL#name_string`). Here *href_string* is a valid URL or local identifier, while *name_string* could be any string at all: the only caveat is that `"` characters should be escaped with a backslash (`\`), and if it looks like a URL name it may cause problems.

```
9373 \*hypertex
9374 \providecommand*\XR@ext{}\dvi
9375 \let\PDF@FinishDoc\ltx@empty
9376 \def\PDF@SetupDoc{%
9377   \ifx\@baseurl\@empty
9378     \else
9379       \special{html:<base href="\@baseurl">}%
9380     \fi
9381 }
9382 \Hy@WrapperDef\hyper@anchor#1{%
9383   \Hy@SaveLastskip
9384   \Hy@VerboseAnchor{#1}%
9385   \begingroup
9386     \let\protect=\string
9387     \hyper@chars
9388     \special{html:<a name=%
9389       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
9390   \endgroup
9391   \Hy@activeanchortrue
9392   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
9393   \special{html:</a>}%
9394   \Hy@activeanchorfalse
9395   \Hy@RestoreLastskip
9396 }
9397 \Hy@WrapperDef\hyper@anchorstart#1{%
9398   \Hy@SaveLastskip
9399   \Hy@VerboseAnchor{#1}%
9400   \begingroup
9401     \hyper@chars
9402     \special{html:<a name=%
9403       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
9404   \endgroup
9405   \Hy@activeanchortrue
```

```

9406 }
9407 \def\hyper@anchorend{%
9408 \special{html:</a>}}%
9409 \Hy@activeanchorfalse
9410 \Hy@RestoreLastskip
9411 }
9412 \def\@urltype{url}
9413 \def\hyper@linkstart#1#2{%
9414 \Hy@VerboseLinkStart{#1}{#2}%
9415 \expandafter\Hy@colorlink\csname @#1color\endcsname
9416 \def\Hy@tempa{#1}%
9417 \ifx\Hy@tempa\@urltype
9418 \special{html:<a href=\hyper@quote#2\hyper@quote>}}%
9419 \else
9420 \begingroup
9421 \hyper@chars
9422 \special{html:<a href=%
9423 \hyper@quote\#\Hy@DestNameFilter{#2}\hyper@quote>}}%
9424 \endgroup
9425 \fi
9426 }
9427 \def\hyper@linkend{%
9428 \special{html:</a>}}%
9429 \Hy@endcolorlink
9430 }
9431 \def\hyper@linkfile#1#2#3{%
9432 \hyper@linkurl{#1}{\Hy@linkfileprefix#2\ifx\\#3\\\else\##3\fi}%
9433 }
9434 \def\hyper@linkurl#1#2{%

```

If we want to raise up the final link `\special`, we need to get its height; ask me why \LaTeX constructs make this totally foul up, and make us revert to basic \TeX . I do not know.

```

9435 \leavevmode
9436 \ifHy@raiselinks
9437 \Hy@SaveSpaceFactor
9438 \Hy@SaveSavedSpaceFactor
9439 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
9440 \Hy@RestoreSavedSpaceFactor
9441 \@linkdim\dp\@tempboxa
9442 \lower\@linkdim\hbox{%
9443 \hyper@chars
9444 \special{html:<a href=\hyper@quote#2\hyper@quote>}}%
9445 }%
9446 \Hy@colorlink\@urlcolor
9447 \Hy@RestoreSpaceFactor
9448 #1%
9449 \Hy@SaveSpaceFactor
9450 \@linkdim\ht\@tempboxa

```

Because of the interaction with the `dvi` processor, we have to subtract a little from the height. This is not clean, or checked. Check with Mark Doyle about what gives here. It may not be needed with the new `dvips` (Jan 1997).

```

9451 \advance\@linkdim by -6.5\p@
9452 \raise\@linkdim\hbox{\special{html:</a>}}%
9453 \Hy@endcolorlink
9454 \Hy@RestoreSpaceFactor
9455 \else

```

```

9456 \begingroup
9457 \hyper@chars
9458 \special{html:<a href=\hyper@quote#2\hyper@quote>}%
9459 \Hy@colorlink\@urlcolor#1\Hy@xspace@end
9460 \special{html:</a>}%
9461 \Hy@endcolorlink
9462 \endgroup
9463 \fi
9464 }

```

Very poor implementation of `\hyper@link` without considering #1.

```

9465 \def\hyper@link#1#2#3{%
9466 \Hy@VerboseLinkStart{#1}{#2}%
9467 \hyper@linkurl{#3}{\#\HyperDestNameFilter{#2}}%
9468 }

9469 \def\hyper@image#1#2{%
9470 \begingroup
9471 \hyper@chars
9472 \special{html:<img src=\hyper@quote#1\hyper@quote>}%
9473 \endgroup
9474 }
9475 </hypertex>
9476 <*dviwindo>

```

46.4 dviwindo

[This was developed by David Carlisle]. Within a file `dviwindo` hyperlinking is used, for external URL's a call to `\wwwbrowser` is made. (You can define this command before or after loading the `hyperref` package if the default `c:/netscape/netscape` is not suitable) `Dviwindo` could in fact handle external links to dvi files on the same machine without calling a web browser, but that would mean parsing the URL to recognise such, and this is currently not done.

This was more or less blindly copied from the `hypertex` `cfg`. For `dviwindo`, \LaTeX must specify the size of the active area for links. For some hooks this information is available but for some, the start and end of the link are specified separately in which case a fixed size area of 10000000sp wide by `\baselineskip` high is used.

```

9477 \providecommand*\XR@ext}{dvi}
9478 \providecommand*\wwwbrowser{c:\string\netscape\string\netscape}
9479 \Hy@WrapperDef\hyper@anchor#1{%
9480 \Hy@SaveLastskip
9481 \Hy@VerboseAnchor{#1}%
9482 \begingroup
9483 \let\protect=\string
9484 \special{mark: #1}%
9485 \endgroup
9486 \Hy@activeanchortrue
9487 \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
9488 \Hy@activeanchorfalse
9489 \Hy@RestoreLastskip
9490 }
9491 \Hy@WrapperDef\hyper@anchorstart#1{%
9492 \Hy@SaveLastskip
9493 \Hy@VerboseAnchor{#1}%
9494 \special{mark: #1}%
9495 \Hy@activeanchortrue

```

```

9496 }
9497 \def\hyper@anchorend{%
9498 \Hy@activeanchorfalse
9499 \Hy@RestoreLastskip
9500 }
9501 \def\hyper@linkstart#1#2{%
9502 \Hy@VerboseLinkStart{#1}{#2}%
9503 \expandafter\Hy@colorlink\csname @#1color\endcsname
9504 \special{button: %
9505 10000000 %
9506 \number\baselineskip\space
9507 #2%
9508 }%
9509 }
9510 \def\hyper@linkend{%
9511 \Hy@endcolorlink
9512 }
9513 \def\hyper@link#1#2#3{%
9514 \Hy@VerboseLinkStart{#1}{#2}%
9515 \leavevmode
9516 \ifHy@raiselinks
9517 \Hy@SaveSpaceFactor
9518 \Hy@SaveSavedSpaceFactor
9519 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#3}%
9520 \Hy@RestoreSavedSpaceFactor
9521 \@linkdim\dp\@tempboxa
9522 \lower\@linkdim\hbox{%
9523 \special{button: %
9524 \number\wd\@tempboxa\space
9525 \number\ht\@tempboxa\space
9526 #2%
9527 }%
9528 \expandafter\Hy@colorlink\csname @#1color\endcsname
9529 \Hy@RestoreSpaceFactor
9530 #3\Hy@xspace@end
9531 \Hy@SaveSpaceFactor
9532 \Hy@endcolorlink
9533 }%
9534 \@linkdim\ht\@tempboxa
9535 \advance\@linkdim by -6.5\p@
9536 \raise\@linkdim\hbox{}}%
9537 \Hy@RestoreSpaceFactor
9538 \else
9539 \special{button: %
9540 \number\wd\@tempboxa\space
9541 \number\ht\@tempboxa\space
9542 #2%
9543 }%
9544 \expandafter\Hy@colorlink\csname @#1color\endcsname
9545 #3\Hy@xspace@end
9546 \Hy@endcolorlink
9547 \fi
9548 }
9549 \def\hyper@linkurl#1#2{%
9550 \begingroup
9551 \hyper@chars
9552 \leavevmode

```

```

9553 \ifHy@raiselinks
9554 \Hy@SaveSpaceFactor
9555 \Hy@SaveSavedSpaceFactor
9556 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
9557 \Hy@RestoreSavedSpaceFactor
9558 \@linkdim\dp\@tempboxa
9559 \lower\@linkdim\hbox{%
9560 \special{button: %
9561 \number\wd\@tempboxa\space
9562 \number\ht\@tempboxa\space
9563 launch: \wwwbrowser\space
9564 #2%
9565 }%
9566 \Hy@colorlink\@urlcolor
9567 \Hy@RestoreSpaceFactor
9568 #1\Hy@xspace@end
9569 \Hy@SaveSpaceFactor
9570 \Hy@endcolorlink
9571 }%
9572 \@linkdim\ht\@tempboxa
9573 \advance\@linkdim by -6.5\p@
9574 \raise\@linkdim\hbox{}%
9575 \Hy@RestoreSpaceFactor
9576 \else
9577 \special{button: %
9578 \number\wd\@tempboxa\space
9579 \number\ht\@tempboxa\space
9580 launch: \wwwbrowser\space
9581 #2%
9582 }%
9583 \Hy@colorlink\@urlcolor
9584 #1\Hy@xspace@end
9585 \Hy@endcolorlink
9586 \fi
9587 \endgroup
9588 }
9589 \def\hyper@linkfile#1#2#3{%
9590 \begingroup
9591 \hyper@chars
9592 \leavevmode
9593 \ifHy@raiselinks
9594 \Hy@SaveSpaceFactor
9595 \Hy@SaveSavedSpaceFactor
9596 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
9597 \Hy@RestoreSavedSpaceFactor
9598 \@linkdim\dp\@tempboxa
9599 \lower\@linkdim\hbox{%
9600 \special{button: %
9601 \number\wd\@tempboxa\space
9602 \number\ht\@tempboxa\space
9603 #3,%
9604 file: #2%
9605 }%
9606 \Hy@colorlink\@filecolor
9607 \Hy@RestoreSpaceFactor
9608 #1\Hy@xspace@end
9609 \Hy@SaveSpaceFactor

```

```

9610     \Hy@endcolorlink
9611   }%
9612   \@linkdim\ht\@tempboxa
9613   \advance\@linkdim by -6.5\p@
9614   \raise\@linkdim\hbox{}%
9615   \Hy@RestoreSpaceFactor
9616 \else
9617   \special{button: %
9618     \number\wd\@tempboxa\space
9619     \number\ht\@tempboxa\space
9620     #3,%
9621     file: #2%
9622   }%
9623   \Hy@colorlink\@filecolor
9624   #1\Hy@xspace@end
9625   \Hy@endcolorlink
9626 \fi
9627 \endgroup
9628 }
9629 \ifx\@pdfproducer\relax
9630   \def\@pdfproducer{dviwindo + Distiller}%
9631 \fi
9632 \HyInfo@AddonUnsupportedtrue
9633 \def\PDF@FinishDoc{%
9634   \Hy@UseMaketitleInfos
9635   \HyInfo@TrappedUnsupported
9636   \special{PDF: Keywords \@pdfkeywords}%
9637   \special{PDF: Title \@pdftitle}%
9638   \special{PDF: Creator \@pdfcreator}%
9639   \ifx\@pdfcreationdate\@empty
9640   \else
9641     \special{PDF: CreationDate \@pdfcreationdate}%
9642   \fi
9643   \ifx\@pdfmoddate\@empty
9644   \else
9645     \special{PDF: ModDate \@pdfmoddate}%
9646   \fi
9647   \special{PDF: Author \@pdfauthor}%
9648   \ifx\@pdfproducer\relax
9649   \else
9650     \special{PDF: Producer \@pdfproducer}%
9651   \fi
9652   \special{PDF: Subject \@pdfsubject}%
9653   \Hy@DisableOption{pdfauthor}%
9654   \Hy@DisableOption{pdftitle}%
9655   \Hy@DisableOption{pdfsubject}%
9656   \Hy@DisableOption{pdfcreator}%
9657   \Hy@DisableOption{pdfcreationdate}%
9658   \Hy@DisableOption{pdfmoddate}%
9659   \Hy@DisableOption{pdfproducer}%
9660   \Hy@DisableOption{pdfkeywords}%
9661   \Hy@DisableOption{pdftrapped}%
9662   \Hy@DisableOption{pdfinfo}%
9663 }
9664 \def\PDF@SetupDoc{%
9665   \ifx\@baseurl\@empty
9666   \else

```

```

9667 \special{PDF: Base \@baseurl}%
9668 \fi
9669 \ifx\@pdfpagescrop\@empty\else
9670 \special{PDF: BBox \@pdfpagescrop}%
9671 \fi
9672 \def\Hy@temp{}%
9673 \ifx\@pdfstartpage\@empty
9674 \else
9675 \ifx\@pdfstartview\@empty
9676 \else
9677 \edef\Hy@temp{%
9678 ,Page=\@pdfstartpage
9679 ,View=\@pdfstartview
9680 }%
9681 \fi
9682 \fi
9683 \edef\Hy@temp{%
9684 \noexpand\pdfmark{%
9685 pdfmark=/DOCVIEW,%
9686 PageMode=/\@pdfpagemode
9687 \Hy@temp
9688 }%
9689 }%
9690 \Hy@temp
9691 \ifx\@pdfpagescrop\@empty
9692 \else
9693 \pdfmark{pdfmark=/PAGES,CropBox=\@pdfpagescrop}%
9694 \fi
9695 \edef\Hy@temp{%
9696 \ifHy@pdftoolbar\else /HideToolbar true\fi
9697 \ifHy@pdfmenubar\else /HideMenubar true\fi
9698 \ifHy@pdfwindowui\else /HideWindowUI true\fi
9699 \ifHy@pdfwindow /FitWindow true\fi
9700 \ifHy@pdfcenterwindow /CenterWindow true\fi
9701 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
9702 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
9703 \Hy@UseNameKey{Direction}\@pdfdirection
9704 \Hy@UseNameKey{ViewArea}\@pdfviewarea
9705 \Hy@UseNameKey{ViewClip}\@pdfviewclip
9706 \Hy@UseNameKey{PrintArea}\@pdfprintarea
9707 \Hy@UseNameKey{PrintClip}\@pdfprintclip
9708 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
9709 \Hy@UseNameKey{Duplex}\@pdfduplex
9710 \ifx\@pdfpicktraybypdfsize\@empty
9711 \else
9712 /PickTrayByPDFSize \@pdfpicktraybypdfsize
9713 \fi
9714 \ifx\@pdfprintpagerange\@empty
9715 \else
9716 /PrintPageRange[\@pdfprintpagerange]%
9717 \fi
9718 \ifx\@pdfnumcopies\@empty
9719 \else
9720 /NumCopies \@pdfnumcopies
9721 \fi
9722 }%
9723 \pdfmark{pdfmark=/PUT,%

```



```

9724 Raw={%
9725   \string{Catalog\string}<<%
9726   \ifx\Hy@temp\@empty
9727     \else
9728       /ViewerPreferences<<\Hy@temp>>%
9729     \fi
9730     \Hy@UseNameKey{PageLayout}\@pdfpagelayout
9731     \ifx\@pdflang\@empty
9732     \else
9733       /Lang(\@pdflang)%
9734     \fi
9735   >>%
9736 }%
9737 }%
9738 }
9739 </dviwindo>
9740 <*dvipdfm | xetex>

```

46.5 dvipdfm/xetex dvi to PDF converter

Provided by Mark Wicks (mwicks@kettering.edu)

```

9741 \providecommand*{\XR@ext}{pdf}
9742 \Hy@setbreaklinks{true}
9743 \def\HyPat@ObjRef{%
9744   @[\^ ]+}%
9745 }
9746 \newsavebox{\pdfm@box}
9747 \def\@pdfm@mark#1{\special{pdf:#1}}
9748 \Hy@WrapperDef\@pdfm@dest#1{%
9749   \Hy@SaveLastskip
9750   \Hy@VerboseAnchor{#1}%
9751   \begingroup
9752     \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
9753     \def\x{XYZ}%
9754     \ifx\x\@pdfview
9755       \def\x{XYZ @xpos @ypos null}%
9756     \else
9757       \def\x{FitH}%
9758       \ifx\x\@pdfview
9759         \def\x{FitH @ypos}%
9760       \else
9761         \def\x{FitBH}%
9762         \ifx\x\@pdfview
9763           \def\x{FitBH @ypos}%
9764         \else
9765           \def\x{FitV}%
9766           \ifx\x\@pdfview
9767             \def\x{FitV @xpos}%
9768           \else
9769             \def\x{FitBV}%
9770             \ifx\x\@pdfview
9771               \def\x{FitBV @xpos}%
9772             \else
9773               \def\x{Fit}%
9774               \ifx\x\@pdfview
9775                 \let\x\@pdfview
9776               \else

```

```

9777         \def\x{FitB}%
9778         \ifx\x\@pdfview
9779             \let\x\@pdfview
9780         \else
9781             \def\x{FitR}%
9782             \ifx\x\@pdfview
9783                 \Hy@Warning{'pdfview=FitR' is not supported}%
9784             \def\x{XYZ @xpos @ypos null}%
9785         \else
9786             \@onelevel@sanitize\@pdfview
9787             \Hy@Warning{%
9788                 Unknown value '\@pdfview' for pdfview%
9789             }%
9790             \def\x{XYZ @xpos @ypos null}%
9791         \fi
9792     \fi
9793 \fi
9794 \fi
9795 \fi
9796 \fi
9797 \fi
9798 \fi
9799 \@pdfm@mark{dest (\Hy@pstringDest) [@thispage /\x]}%
9800 \endgroup
9801 \Hy@RestoreLastskip
9802 }
9803 \providecommand*\@pdfview{XYZ}
9804 \providecommand*\@pdfborder{0 0 1}
9805 \providecommand*\@pdfborderstyle{}
9806 \def\hyper@anchor#1{%
9807     \@pdfm@dest{#1}%
9808 }
9809 \def\hyper@anchorstart#1{%
9810     \Hy@activeanchortrue
9811     \@pdfm@dest{#1}%
9812 }
9813 \def\hyper@anchorend{%
9814     \Hy@activeanchorfalse
9815 }
9816 \newcounter{Hy@AnnotLevel}
9817 \ifHy@ocgcolorlinks
9818     \def\OBJ@OCG@view{@OCG@view}%
9819     \@pdfm@mark{%
9820         obj \OBJ@OCG@view <<%
9821         /Type/OCG%
9822         /Name(View)%
9823         /Usage<<%
9824         /Print<<%
9825         /PrintState/OFF%
9826         >>%
9827         /View<<%
9828         /ViewState/ON%
9829         >>%
9830         >>%
9831         >>%
9832     }%
9833     \@pdfm@mark{close \OBJ@OCG@view}%

```

```

9834 \def\OBJ@OCG@print{@OCG@print}%
9835 \@pdfm@mark{%
9836   obj \OBJ@OCG@print <<%
9837     /Type/OCG%
9838     /Name(Print)%
9839     /Usage<<%
9840     /Print<<%
9841     /PrintState/ON%
9842     >>%
9843     /View<<%
9844     /ViewState/OFF%
9845     >>%
9846   >>%
9847 >>%
9848 }%
9849 \@pdfm@mark{close \OBJ@OCG@print}%
9850 \def\OBJ@OCGs{@OCGs}%
9851 \@pdfm@mark{%
9852   obj \OBJ@OCGs [%
9853     \OBJ@OCG@view\space\OBJ@OCG@print
9854   ]%
9855 }%
9856 \@pdfm@mark{close \OBJ@OCGs}%
9857 \@pdfm@mark{%
9858   put @catalog <<%
9859     /OCProperties<<%
9860     /OCGs \OBJ@OCGs
9861     /D<<%
9862     /OFF[\OBJ@OCG@print]%
9863     /AS[%
9864       <<%
9865         /Event/View%
9866         /OCGs \OBJ@OCGs
9867         /Category[/View]%
9868       >>%
9869       <<%
9870         /Event/Print%
9871         /OCGs \OBJ@OCGs
9872         /Category[/Print]%
9873       >>%
9874       <<%
9875         /Event/Export%
9876         /OCGs \OBJ@OCGs
9877         /Category[/Print]%
9878       >>%
9879     ]%
9880   >>%
9881 >>%
9882 >>%
9883 }%
9884 \AtBeginShipout{%
9885   \setbox\AtBeginShipoutBox=\hbox{%
9886     \copy\AtBeginShipoutBox
9887   \@pdfm@mark{%
9888     put @resources <<%
9889     /Properties<<%
9890     /OCView \OBJ@OCG@view

```

```

9891      /OCPrint \OBJ@OCG@print
9892      >>%
9893      >>%
9894      }%
9895      }%
9896      }%
9897      \Hy@AtBeginDocument{%
9898      \def\Hy@colorlink#1{%
9899      \begingroup
9900      \ifHy@ocgcolorlinks
9901      \def\Hy@ocgcolor{#1}%
9902      \setbox0=\hbox\bgroup\color@begingroup
9903      \else
9904      \HyColor@UseColor#1%
9905      \fi
9906      }%
9907      \def\Hy@endcolorlink{%
9908      \ifHy@ocgcolorlinks
9909      \color@endgroup\egroup
9910      \mbox{%
9911      \@pdfm@mark{content /OC/OCPrint BDC}%
9912      \rlap{\copy0}%
9913      \@pdfm@mark{content EMC/OC/OCView BDC}%
9914      \begingroup
9915      \expandafter\HyColor@UseColor\Hy@ocgcolor
9916      \box0 %
9917      \endgroup
9918      \@pdfm@mark{content EMC}%
9919      }%
9920      \fi
9921      \endgroup
9922      }%
9923      }%
9924      \else
9925      \Hy@DisableOption{ocgcolorlinks}%
9926      \fi
9927      \def\Hy@BeginAnnot#1{%
9928      \stepcounter{Hy@AnnotLevel}%
9929      \ifnum\value{Hy@AnnotLevel}=\@ne
9930      #1%
9931      \fi
9932      }
9933      \def\Hy@endAnnot{%
9934      \ifnum\value{Hy@AnnotLevel}=\@ne
9935      \Hy@endcolorlink
9936      \@pdfm@mark{eann}%
9937      \fi
9938      \addtocounter{Hy@AnnotLevel}\m@ne
9939      }
9940      \def\Hy@undefinedname{UNDEFINED}
9941      \def\hyper@linkstart#1#2{%
9942      \Hy@VerboseLinkStart{#1}{#2}%
9943      \leavevmode
9944      \Hy@BeginAnnot{%
9945      \protected@edef\Hy@testname{#2}%
9946      \ifx\Hy@testname\@empty
9947      \Hy@Warning{%

```

```

9948     Empty destination name,\MessageBreak
9949     using '\Hy@undefinedname'%
9950 }%
9951 \let\Hy@testname\Hy@undefinedname
9952 \else
9953 \Hy@pstringdef\Hy@testname{%
9954 \expandafter\HyperDestNameFilter\expandafter{%
9955 \Hy@testname
9956 }%
9957 }%
9958 \fi
9959 \@pdfm@mark{%
9960 bann<<%
9961 /Type/Annot%
9962 /Subtype/Link%
9963 \ifHy@pdfa /F 4\fi
9964 \Hy@setpdfborder
9965 \expandafter\ifx\csname @#1bordercolor\endcsname\relax
9966 \else
9967 /C[\csname @#1bordercolor\endcsname]%
9968 \fi
9969 /A<<%
9970 /S/GoTo%
9971 /D(\Hy@testname)%
9972 \Hy@href@nextactionraw
9973 >>%
9974 >>%
9975 }%
9976 \expandafter\Hy@colorlink\csname @#1color\endcsname
9977 }%
9978 }
9979 \def\hyper@linkend{\Hy@EndAnnot}%
9980 \def\hyper@link#1#2#3{%
9981 \hyper@linkstart{#1}{#2}#3\Hy@xspace@end\hyper@linkend
9982 }
9983 \def\hyper@linkfile#1#2#3{%
9984 \leavevmode
9985 \Hy@BeginAnnot{%
9986 \def\Hy@pstringF{#2}%
9987 \Hy@CleanupFile\Hy@pstringF
9988 \Hy@pstringdef\Hy@pstringF\Hy@pstringF
9989 \Hy@pstringdef\Hy@pstringD{#3}%
9990 \Hy@MakeRemoteAction
9991 \@pdfm@mark{%
9992 bann<<%
9993 /Type/Annot%
9994 /Subtype/Link%
9995 \ifHy@pdfa /F 4\fi
9996 \Hy@setpdfborder
9997 \ifx\@filebordercolor\relax
9998 \else
9999 /C[\@filebordercolor]%
10000 \fi
10001 /A<<%
10002 /S/GoToR%
10003 /F(\Hy@pstringF)%
10004 /D%

```

```

10005      \ifx\\#3\\%
10006      [\Hy@href@page\@pdfremotestartview]%
10007      \else
10008      (\Hy@pstringD)%
10009      \fi
10010      \Hy@SetNewWindow
10011      \Hy@href@nextactionraw
10012      >>%
10013      >>%
10014      }%
10015      \Hy@colorlink\@filecolor
10016      }%
10017      #1\Hy@xspace@end
10018      \Hy@EndAnnot
10019      }
10020      \def\@hyper@launch run:#1\\#2#3{% filename, anchor text linkname
10021      \leavevmode
10022      \Hy@BeginAnnot{%
10023      \Hy@pstringdef\Hy@pstringF{#1}%
10024      \Hy@pstringdef\Hy@pstringP{#3}%
10025      \@pdfm@mark{%
10026      bann<<%
10027      /Type/Annot%
10028      /Subtype/Link%
10029      \ifHy@pdfa /F 4\fi
10030      \Hy@setpdfborder
10031      \ifx\@runbordercolor\relax
10032      \else
10033      /C[\@runbordercolor]%
10034      \fi
10035      /A<<%
10036      /F(\Hy@pstringF)%
10037      /S/Launch%
10038      \Hy@SetNewWindow
10039      \ifx\\#3\\%
10040      \else
10041      /Win<</P(\Hy@pstringP)/F(\Hy@pstringF)>>%
10042      \fi
10043      \Hy@href@nextactionraw
10044      >>%
10045      >>%
10046      }%
10047      \Hy@colorlink\@runcolor
10048      }%
10049      #2\Hy@xspace@end
10050      \Hy@EndAnnot
10051      }
10052      \def\hyper@linkurl#1#2{%
10053      \leavevmode
10054      \Hy@BeginAnnot{%
10055      \Hy@pstringdef\Hy@pstringURI{#2}%
10056      \@pdfm@mark{%
10057      bann<<%
10058      /Type/Annot%
10059      /Subtype/Link%
10060      \ifHy@pdfa /F 4\fi
10061      \Hy@setpdfborder

```

```

10062 \ifx\@urlbordercolor\relax
10063 \else
10064 /C[\@urlbordercolor]%
10065 \fi
10066 /A<<%
10067 /S/URI%
10068 /URI(\Hy@pstringURI)%
10069 \ifHy@href@ismap
10070 /IsMap true%
10071 \fi
10072 \Hy@href@nextactionraw
10073 >>%
10074 >>%
10075 }%
10076 \Hy@colorlink\@urlcolor
10077 }%
10078 #1\Hy@xspace@end
10079 \Hy@EndAnnot
10080 }
10081 \def\Acrobatmenu#1#2{%
10082 \Hy@Acrobatmenu{#1}{#2}{%
10083 \Hy@BeginAnnot{%
10084 \@pdfm@mark{%
10085 bann<<%
10086 /Type/Annot%
10087 /Subtype/Link%
10088 \ifHy@pdfa /F 4\fi
10089 /A<<%
10090 /S/Named%
10091 /N/#1%
10092 \Hy@href@nextactionraw
10093 >>%
10094 \Hy@setpdfborder
10095 \ifx\@menubordercolor\relax
10096 \relax
10097 /C[\@menubordercolor]%
10098 \fi
10099 >>%
10100 }%
10101 \Hy@colorlink\@menucolor
10102 }%
10103 #2\Hy@xspace@end
10104 \Hy@EndAnnot
10105 }%
10106 }
10107 \ifx\@pdfproducer\relax
10108 \def\@pdfproducer{dvipdfm}%

```

Detect XeTeX. However, but xdvipdfmx will overwrite it in the final PDF file.

```

10109 \begingroup\expandafter\expandafter\expandafter\endgroup
10110 \expandafter\ifx\csname XeTeXversion\endcsname\relax
10111 \else
10112 \edef\@pdfproducer{XeTeX \the\XeTeXversion\XeTeXrevision}%
10113 \fi
10114 \fi
10115 \def\PDF@FinishDoc{%
10116 \Hy@UseMaketitleInfos
10117 \HyInfo@GenerateAddons

```

```

10118 \@pdfm@mark{%
10119   docinfo<<%
10120     /Title(\@pdftitle)%
10121     /Subject(\@pdfsubject)%
10122     /Creator(\@pdfcreator)%
10123     \ifx\@pdfcreationdate\@empty
10124     \else
10125       /CreationDate(\@pdfcreationdate)%
10126     \fi
10127     \ifx\@pdfmoddate\@empty
10128     \else
10129       /ModDate(\@pdfmoddate)%
10130     \fi
10131     /Author(\@pdfauthor)%
10132     \ifx\@pdfproducer\relax
10133     \else
10134       /Producer(\@pdfproducer)%
10135     \fi
10136     /Keywords(\@pdfkeywords)%
10137     \ifx\@pdftrapped\@empty
10138     \else
10139       /Trapped/\@pdftrapped
10140     \fi
10141     \HyInfo@Addons
10142   >>%
10143 }%
10144 \Hy@DisableOption{pdfauthor}%
10145 \Hy@DisableOption{pdftitle}%
10146 \Hy@DisableOption{pdfsubject}%
10147 \Hy@DisableOption{pdfcreator}%
10148 \Hy@DisableOption{pdfcreationdate}%
10149 \Hy@DisableOption{pdfmoddate}%
10150 \Hy@DisableOption{pdfproducer}%
10151 \Hy@DisableOption{pdfkeywords}%
10152 \Hy@DisableOption{pdftrapped}%
10153 \Hy@DisableOption{pdfinfo}%
10154 }

10155 \def\PDF@SetupDoc{%
10156   \edef\Hy@temp{%
10157     \ifHy@pdftoolbar\else /HideToolbar true\fi
10158     \ifHy@pdfmenubar\else /HideMenubar true\fi
10159     \ifHy@pdfwindowui\else /HideWindowUI true\fi
10160     \ifHy@pdfitwindow /FitWindow true\fi
10161     \ifHy@pdfcenterwindow /CenterWindow true\fi
10162     \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
10163     \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
10164     \Hy@UseNameKey{Direction}\@pdfdirection
10165     \Hy@UseNameKey{ViewArea}\@pdfviewarea
10166     \Hy@UseNameKey{ViewClip}\@pdfviewclip
10167     \Hy@UseNameKey{PrintArea}\@pdfprintarea
10168     \Hy@UseNameKey{PrintClip}\@pdfprintclip
10169     \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
10170     \Hy@UseNameKey{Duplex}\@pdfduplex
10171     \ifx\@pdfpicktraybypdfsize\@empty
10172     \else
10173       /PickTrayByPDFSize \@pdfpicktraybypdfsize
10174     \fi

```



```

10175 \ifx\@pdfprintpagerange\@empty
10176 \else
10177 /PrintPageRange[\@pdfprintpagerange]%
10178 \fi
10179 \ifx\@pdfnumcopies\@empty
10180 \else
10181 /NumCopies \@pdfnumcopies
10182 \fi
10183 }%
10184 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
10185 \@pdfm@mark{%
10186 docview<<%
10187 \ifx\@pdfstartpage\@empty
10188 \else
10189 \ifx\@pdfstartview\@empty
10190 \else
10191 /OpenAction[@page\@pdfstartpage\@pdfstartview]%
10192 \fi
10193 \fi
10194 \ifx\@baseurl\@empty
10195 \else
10196 /URI<</Base(\Hy@pstringB)>>%
10197 \fi
10198 /PageMode/\@pdfpagemode
10199 \ifx\Hy@temp\@empty
10200 \else
10201 /ViewerPreferences<<\Hy@temp>>%
10202 \fi
10203 \Hy@UseNameKey{PageLayout}\@pdfpagelayout
10204 \ifx\@pdflang\@empty
10205 \else
10206 /Lang(\@pdflang)%
10207 \fi
10208 >>%
10209 }%
10210 \ifx\@pdfpagescrop\@empty
10211 \else
10212 \@pdfm@mark{put @pages <</CropBox[\@pdfpagescrop]>>}%
10213 \fi
10214 }
10215 </dvipdfm | xetex>
10216 < *dvipdfm | xetex>

```

\hyper@pagetransition

```

10217 \def\hyper@pagetransition{%
10218 \ifx\@pdfpagetransition\relax
10219 \else
10220 \ifx\@pdfpagetransition\@empty
10221 \else
10222 \special{pdf:put @thispage %
10223 <</Trans<</S/\@pdfpagetransition>>>>%
10224 }%
10225 \fi
10226 \fi
10227 }

```

\hyper@pageduration

```

10228 \def\hyper@pageduration{%
10229   \ifx\@pdfpageduration\relax
10230   \else
10231     \ifx\@pdfpageduration\@empty
10232     \else
10233       \special{pdf:put @thispage %
10234         <</Dur \@pdfpageduration>>%
10235       }%
10236     \fi
10237   \fi
10238 }

```

\hyper@pagehidden

```

10239 \def\hyper@pagehidden{%
10240   \ifHy@useHidKey
10241     \special{pdf:put @thispage %
10242       <</Hid \ifHy@pdfpagehidden true\else false\fi>>%
10243     }%
10244   \fi
10245 }

10246 \g@addto@macro\Hy@EveryPageBoxHook{%
10247   \hyper@pagetransition
10248   \hyper@pageduration
10249   \hyper@pagehidden
10250 }

10251 </dvipdfm | xetex>

```

XeTeX uses pdfTeX's method \pdfpagewidth and \pdfpageheight for setting the paper size.

```

10252 <*\dvipdfm>
10253 \AtBeginShipoutFirst{%
10254   \ifHy@setpagesize
10255     \begingroup
10256       \ifundefined{stockwidth}{%
10257         \ifdim\paperwidth>\z@
10258         \ifdim\paperheight>\z@
10259           \special{papersize=\the\paperwidth,\the\paperheight}%
10260         \fi
10261       \fi
10262     }{%
10263       \ifdim\stockwidth>\z@
10264       \ifdim\stockheight>\z@
10265         \special{papersize=\the\stockwidth,\the\stockheight}%
10266       \fi
10267     \fi
10268   }%
10269   \endgroup
10270 \fi
10271 \Hy@DisableOption{setpagesize}%
10272 }
10273 </dvipdfm>

```

46.6 VTeX typesetting system

Provided by MicroPress, May 1998. They require VTeX version 6.02 or newer; see <http://www.micropress-inc.com/> for details.

```

10274 \*{vtexhtml}
10275 \providecommand*\XR@ext}{htm}
10276 \RequirePackage{vtexhtml}
10277 \newif\if@Localurl
10278 \let\PDF@FinishDoc\ltx@empty
10279 \def\PDF@SetupDoc{%
10280   \ifx\@baseurl\@empty
10281   \else
10282     \special{!direct <base href="\@baseurl">}%
10283   \fi
10284 }
10285 \def\@urltype{url}
10286 \def\hyper@link#1#2#3{%
10287   \Hy@VerboseLinkStart{#1}{#2}%
10288   \leavevmode
10289   \special{!direct <a href=%
10290     \hyper@quote\hyper@hash\HyperDestNameFilter{#2}\hyper@quote>}%
10291   #3\Hy@xspace@end
10292   \special{!direct </a>}%
10293 }
10294 \def\hyper@linkurl#1#2{%
10295   \begingroup
10296     \hyper@chars
10297     \leavevmode
10298     \MathBSuppress=1\relax
10299     \special{!direct <a href=%
10300       \hyper@quote\HyperDestNameFilter{#2}\hyper@quote>}%
10301     #1\Hy@xspace@end
10302     \MathBSuppress=0\relax
10303     \special{!direct </a>}%
10304   \endgroup
10305 }
10306 \def\hyper@linkfile#1#2#3{%
10307   \hyper@linkurl{#1}{\Hy@linkfileprefix#2\ifx\\#3\\\else\##3\fi}%
10308 }
10309 \def\hyper@linkstart#1#2{%
10310   \Hy@VerboseLinkStart{#1}{#2}%
10311   \def\Hy@tempa{#1}\ifx\Hy@tempa\@urltype
10312     \@Localurltrue
10313     \special{!direct <a href=\hyper@quote#2\hyper@quote>}%
10314   \else
10315     \@Localurlfalse
10316     \begingroup
10317       \hyper@chars
10318       \special{!aref \HyperDestNameFilter{#2}}%
10319     \endgroup
10320   \fi
10321 }
10322 \def\hyper@linkend{%
10323   \if@Localurl
10324     \special{!endaref}%
10325   \else
10326     \special{!direct </a>}%
10327   \fi
10328 }
10329 \Hy@WrapperDef\hyper@anchorstart#1{%
10330   \Hy@SaveLastskip

```

```

10331 \Hy@VerboseAnchor{#1}%
10332 \begingroup
10333 \hyper@chars
10334 \special{!aname #1}%
10335 \special{!direct <a name=%
10336 \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
10337 \endgroup
10338 \Hy@activeanchortrue
10339 }
10340 \def\hyper@anchorend{%
10341 \special{!direct </a>}%
10342 \Hy@activeanchorfalse
10343 \Hy@RestoreLastskip
10344 }
10345 \Hy@WrapperDef\hyper@anchor#1{%
10346 \Hy@SaveLastskip
10347 \Hy@VerboseAnchor{#1}%
10348 \begingroup
10349 \let\protect=\string
10350 \hyper@chars
10351 \leavevmode
10352 \special{!aname #1}%
10353 \special{!direct <a name=%
10354 \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
10355 \endgroup
10356 \Hy@activeanchortrue
10357 \bgroup\anchor@spot\egroup
10358 \special{!direct </a>}%
10359 \Hy@activeanchorfalse
10360 \Hy@RestoreLastskip
10361 }
10362 \def\@Form[#1]{%
10363 \Hy@Message{Sorry, TeXpider does not yet support FORMs}%
10364 }
10365 \let\@endForm\ltx@empty
10366 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
10367 \Hy@Message{Sorry, TeXpider does not yet support FORM gauges}%
10368 }
10369 \def\@TextField[#1]#2{% parameters, label
10370 \Hy@Message{Sorry, TeXpider does not yet support FORM text fields}%
10371 }
10372 \def\@CheckBox[#1]#2{% parameters, label
10373 \Hy@Message{Sorry, TeXpider does not yet support FORM checkboxes}%
10374 }
10375 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
10376 \Hy@Message{Sorry, TeXpider does not yet support FORM choice menus}%
10377 }
10378 \def\@PushButton[#1]#2{% parameters, label
10379 \Hy@Message{Sorry, TeXpider does not yet support FORM pushbuttons}%
10380 }
10381 \def\@Reset[#1]#2{%
10382 \Hy@Message{Sorry, TeXpider does not yet support FORMs}%
10383 }
10384 \def\@Submit[#1]#2{%
10385 \Hy@Message{Sorry, TeXpider does not yet support FORMs}%
10386 }
10387 \</vtexhtml>

```

10388 $\langle *vtex \rangle$

VT_EX version 6.68 supports `\mediawidth` and `\mediaheight`. The `\ifx` construct is better than a `\csname`, because it avoids the definition and the hash table entry of a previous undefined macro.

```

10389 \ifx\mediaheight\@undefined
10390 \else
10391   \ifx\mediaheight\relax
10392   \else
10393     \ifHy@setpagesize
10394       \providecommand*\VTEXInitMediaSize}{%
10395         \ltx@ifundefined{stockwidth}{%
10396           \ifdim\paperheight>0pt %
10397             \setlength\mediaheight\paperheight
10398           \fi
10399           \ifdim\paperheight>0pt %
10400             \setlength\mediawidth\paperwidth
10401           \fi
10402         }{%
10403           \ifdim\stockheight>0pt %
10404             \setlength\mediaheight\stockheight
10405           \fi
10406           \ifdim\stockwidth>0pt %
10407             \setlength\mediawidth\stockwidth
10408           \fi
10409         }%
10410       }%
10411     \Hy@AtBeginDocument{\VTEXInitMediaSize}%
10412   \fi
10413   \Hy@DisableOption{setpagesize}%
10414 \fi
10415 \fi

```

Older versions of VT_EX require `xyz` in lower case.

```

10416 \providecommand*\@pdfview{xyz}
10417 \providecommand*\@pdfborder{0 0 1}
10418 \providecommand*\@pdfborderstyle{}
10419 \let\CurrentBorderColor\@linkbordercolor
10420 \Hy@WrapperDef\hyper@anchor#1{%
10421   \Hy@SaveLastskip
10422   \Hy@VerboseAnchor{#1}%
10423   \begingroup
10424     \let\protect=\string
10425     \hyper@chars
10426     \special{!aname \HyperDestNameFilter{#1};\@pdfview}%
10427   \endgroup
10428   \Hy@activeanchortrue
10429   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
10430   \Hy@activeanchorfalse
10431   \Hy@RestoreLastskip
10432 }
10433 \Hy@WrapperDef\hyper@anchorstart#1{%
10434   \Hy@SaveLastskip
10435   \Hy@VerboseAnchor{#1}%
10436   \begingroup
10437     \hyper@chars
10438     \special{!aname \HyperDestNameFilter{#1};\@pdfview}%
10439   \endgroup

```

```

10440 \Hy@activeanchortrue
10441 }
10442 \def\hyper@anchorend{%
10443 \Hy@activeanchorfalse
10444 \Hy@RestoreLastskip
10445 }
10446 \def\@urltype{url}
10447 \def\Hy@undefinedname{UNDEFINED}
10448 \def\hyper@linkstart#1#2{%
10449 \Hy@VerboseLinkStart{#1}{#2}%
10450 \Hy@pstringdef\Hy@pstringURI{#2}%
10451 \expandafter\Hy@colorlink\csname @#1color\endcsname
10452 \ltx@ifundefined{@#1bordercolor}{%
10453 \let\CurrentBorderColor\relax
10454 }{%
10455 \edef\CurrentBorderColor{%
10456 \csname @#1bordercolor\endcsname
10457 }%
10458 }%
10459 \def\Hy@tempa{#1}%
10460 \ifx\Hy@tempa\@urltype
10461 \special{!%
10462   aref <u=/Type/Action/S/URI/URI(\Hy@pstringURI)%
10463   \ifHy@href@ismap
10464   /IsMap true%
10465   \fi
10466   \Hy@href@nextactionraw
10467   >;%
10468   a=<%
10469   \ifHy@pdfa /F 4\fi
10470   \Hy@setpdfborder
10471   \ifx\CurrentBorderColor\relax
10472   \else
10473   /C [\CurrentBorderColor]%
10474   \fi
10475   >%
10476   }%
10477 \else
10478 \protected@edef\Hy@testname{#2}%
10479 \ifx\Hy@testname\@empty
10480 \Hy@Warning{%
10481   Empty destination name,\MessageBreak
10482   using '\Hy@undefinedname'%
10483   }%
10484 \let\Hy@testname\Hy@undefinedname
10485 \fi
10486 \special{!%
10487   aref \expandafter\HyperDestNameFilter
10488   \expandafter{\Hy@testname};%
10489   a=<%
10490   \ifHy@pdfa /F 4\fi
10491   \Hy@setpdfborder
10492   \ifx\CurrentBorderColor\relax
10493   \else
10494   /C [\CurrentBorderColor]%
10495   \fi
10496   >%

```

```

10497 }%
10498 \fi
10499 }
10500 \def\hyper@linkend{%
10501 \special{!endaref}%
10502 \Hy@endcolorlink
10503 }
10504 \def\hyper@linkfile#1#2#3{%
10505 \leavevmode
10506 \def\Hy@pstringF{#2}%
10507 \Hy@CleanupFile\Hy@pstringF
10508 \special{!%
10509   aref <%
10510   \ifnum\Hy@VTeXversion>753 \ifHy@pdfnewwindow n\fi\fi
10511   f=\Hy@pstringF>#3;%
10512   a=<%
10513     \ifHy@pdfa /F 4\fi
10514     \Hy@setpdfborder
10515     \ifx\@filebordercolor\relax
10516     \else
10517       /C [\@filebordercolor]%
10518     \fi
10519   >%
10520 }%
10521 \Hy@colorlink\@filecolor
10522 #1\Hy@xspace@end
10523 \Hy@endcolorlink
10524 \special{!endaref}%
10525 }
10526 \def\hyper@linkurl#1#2{%
10527 \begingroup
10528 \Hy@pstringdef\Hy@pstringURI{#2}%
10529 \hyper@chars
10530 \leavevmode
10531 \special{!%
10532   aref <u=/Type/Action/S/URI/URI(\Hy@pstringURI)%
10533   \ifHy@href@ismap
10534     /IsMap true%
10535   \fi
10536   \Hy@href@nextactionraw
10537   >;%
10538   a=<%
10539     \ifHy@pdfa /F 4\fi
10540     \Hy@setpdfborder
10541     \ifx\@urlbordercolor\relax
10542     \else
10543       /C [\@urlbordercolor]%
10544     \fi
10545   >%
10546 }%
10547 \Hy@colorlink\@urlcolor
10548 #1\Hy@xspace@end
10549 \Hy@endcolorlink
10550 \special{!endaref}%
10551 \endgroup
10552 }
10553 \def\hyper@link#1#2#3{%

```

```

10554 \Hy@VerboseLinkStart{#1}{#2}%
10555 \ltx@ifundefined{#1bordercolor}{%
10556   \let\CurrentBorderColor\relax
10557 }{%
10558   \edef\CurrentBorderColor{\csname @#1bordercolor\endcsname}%
10559 }%
10560 \leavevmode
10561 \protected@edef\Hy@testname{#2}%
10562 \ifx\Hy@testname\@empty
10563   \Hy@Warning{%
10564     Empty destination name,\MessageBreak
10565     using '\Hy@undefinedname'%
10566   }%
10567   \let\Hy@testname\Hy@undefinedname
10568 \fi
10569 \special{!%
10570   aref \expandafter\HyperDestNameFilter
10571   \expandafter{\Hy@testname};%
10572   a=<%
10573   \ifHy@pdfa /F 4\fi
10574   \Hy@setpdfborder
10575   \ifx\CurrentBorderColor\relax
10576   \else
10577     /C [\CurrentBorderColor]%
10578   \fi
10579   >%
10580 }%
10581 \expandafter
10582 \Hy@colorlink\csname @#1color\endcsname
10583   #3\Hy@xspace@end
10584 \Hy@endcolorlink
10585 \special{!endaref}%
10586 }
10587 \def\hyper@image#1#2{%
10588   \hyper@linkurl{#2}{#1}%
10589 }
10590 \def\@hyper@launch run:#1\#2#3{%
10591   \Hy@pstringdef\Hy@pstringF{#1}%
10592   \Hy@pstringdef\Hy@pstringP{#3}%
10593   \leavevmode
10594   \special{!aref %
10595     <u=%
10596     /Type/Action%
10597     /S/Launch%
10598     /F(\Hy@pstringF)%
10599     \Hy@SetNewWindow
10600     \ifx\#3\%
10601     \else
10602       /Win<</F(\Hy@pstringF)/P(\Hy@pstringP)>>%
10603     \fi
10604     \Hy@href@nextactionraw
10605     >,%
10606     a=<%
10607     \ifHy@pdfa /F 4\fi
10608     \Hy@setpdfborder
10609     \ifx\@runbordercolor\relax
10610     \else

```



```

10611      /C[\@runbordercolor]%
10612      \fi
10613      >%
10614      }%
10615      \Hy@colorlink\@runcolor
10616      #2\Hy@xspace@end
10617      \Hy@endcolorlink
10618      \special{!endaref}%
10619      }
10620      \def\Acrobatmenu#1#2{%
10621      \Hy@Acrobatmenu{#1}{#2}{%
10622      \special{!%
10623      aref <u=/S /Named /N /#1>;%
10624      a=<%
10625      \ifHy@pdfa /F 4\fi
10626      \Hy@setpdfborder
10627      \ifx\@menubordercolor\relax
10628      \else
10629      /C[\@menubordercolor]%
10630      \fi
10631      >%
10632      }%
10633      \Hy@colorlink\@menucolor
10634      #2\Hy@xspace@end
10635      \Hy@endcolorlink
10636      \special{!endaref}%
10637      }%
10638      }

```

The following code (transition effects) is made by Alex Kostin.

The code below makes sense for VTeX 7.02 or later.

Please never use `\@ifundefined{VTeXversion}{..}{..}` *globally*.

```

10639 \ifnum\Hy@VTeXversion<702 %
10640 \else
10641 \def\hyper@pagetransition{%
10642 \ifx\@pdfpagetransition\relax
10643 \else
10644 \ifx\@pdfpagetransition\@empty

```

Standard incantation.

1. Does an old entry have to be deleted? 2. If 1=yes, how to delete?

```

10645 \else
10646 \hvtex@parse@trans\@pdfpagetransition
10647 \fi
10648 \fi
10649 }%

```

I have to write an “honest” parser to convert raw PDF code into VTeX `\special`. (AVK)

Syntax of VTeX `\special{!trans <transition_effect>}`:

```

<transition_effect> ::= <transition_style>[,<transition_duration>]
<transition_style> ::= <Blinds_effect> | <Box_effect> |
                     <Dissolve_effect> | <Glitter_effect> |
                     <Split_effect> | <Wipe_effect>
<Blinds_effect> ::= B[<effect_dimension>]
<Box_effect> ::= X[<effect_motion>]
<Dissolve_effect> ::= D
<Glitter_effect> ::= G[<effect_direction>]

```

```

<Split_effect> ::= S[<effect_motion>][<effect_dimension>]
<Wipe_effect> ::= W[<effect_direction>]
<Replace_effect> ::= R
<effect_direction> ::= <number>
<effect_dimension> ::= H | V
<effect_motion> ::= I | O
<transition_duration> ::= <number>

```

Transition codes:

```

10650 \def\hvtex@trans@effect@Blinds{\def\hvtex@trans@code{B}}%
10651 \def\hvtex@trans@effect@Box{\def\hvtex@trans@code{X}}%
10652 \def\hvtex@trans@effect@Dissolve{\def\hvtex@trans@code{D}}%
10653 \def\hvtex@trans@effect@Glitter{\def\hvtex@trans@code{G}}%
10654 \def\hvtex@trans@effect@Split{\def\hvtex@trans@code{S}}%
10655 \def\hvtex@trans@effect@Wipe{\def\hvtex@trans@code{W}}%
10656 \def\hvtex@trans@effect@R{\def\hvtex@trans@code{R}}%

```

Optional parameters:

```

10657 \def\hvtex@par@dimension{/Dm}%
10658 \def\hvtex@par@direction{/Di}%
10659 \def\hvtex@par@duration{/D}%
10660 \def\hvtex@par@motion{/M}%

```

Tokenizer:

```

10661 \def\hvtex@gettoken{%
10662   \expandafter\hvtex@gettoken@\hvtex@buffer\@nil
10663 }%

```

Notice that tokens in the input buffer must be space delimited.

```

10664 \def\hvtex@gettoken@#1 #2\@nil{%
10665   \edef\hvtex@token{#1}%
10666   \edef\hvtex@buffer{#2}%
10667 }%
10668 \def\hvtex@parse@trans#1{%

```

Initializing code:

```

10669 \let\hvtex@trans@code\@empty
10670 \let\hvtex@param@dimension\@empty
10671 \let\hvtex@param@direction\@empty
10672 \let\hvtex@param@duration\@empty
10673 \let\hvtex@param@motion\@empty
10674 \edef\hvtex@buffer{#1\space}%

```

First token is the PDF transition name without escape.

```

10675 \hvtex@gettoken
10676 \ifx\hvtex@token\@empty

```

Leading space(s)?

```

10677 \ifx\hvtex@buffer\@empty

```

The buffer is empty, nothing to do.

```

10678   \else
10679     \hvtex@gettoken
10680   \fi
10681 \fi
10682 \csname hvtex@trans@effect@\hvtex@token\endcsname

```

Now is time to parse optional parameters.

```

10683 \hvtex@trans@params
10684 }%

```

Reentrant macro to parse optional parameters.

```

10685 \def\hvtex@trans@params{%
10686   \ifx\hvtex@buffer\@empty
10687   \else
10688     \hvtex@gettoken
10689     \let\hvtex@trans@par\hvtex@token
10690     \ifx\hvtex@buffer\@empty
10691     \else
10692       \hvtex@gettoken
10693       \ifx\hvtex@trans@par\hvtex@par@duration
/D is the effect duration in seconds. VTEX special takes it in milliseconds.
10694       \let\hvtex@param@duration\hvtex@token
10695       \else \ifx\hvtex@trans@par\hvtex@par@motion
/M can be either /I or /O
10696       \expandafter\edef\expandafter\hvtex@param@motion
10697       \expandafter{\expandafter\@gobble\hvtex@token}%
10698       \else \ifx\hvtex@trans@par\hvtex@par@dimension
/Dm can be either /H or /V
10699       \expandafter\edef\expandafter\hvtex@param@dimension
10700       \expandafter{\expandafter\@gobble\hvtex@token}%
10701       \else \ifx\hvtex@trans@par\hvtex@par@direction

```

Valid values for /Di are 0, 270, 315 (the Glitter effect) or 0, 90, 180, 270 (the Wipe effect).

```

10702       \let\hvtex@param@direction\hvtex@token
10703       \fi\fi\fi\fi
10704     \fi
10705   \fi
10706   \ifx\hvtex@buffer\@empty
10707     \let\next\hvtex@produce@trans
10708   \else
10709     \let\next\hvtex@trans@params
10710   \fi
10711   \next
10712 }%

```

Merge <transition_effect> and issue the special when possible. Too lazy to validate optional parameters.

```

10713 \def\hvtex@produce@trans{%
10714   \let\vtex@trans@special\@empty
10715   \if S\hvtex@trans@code
10716     \edef\vtex@trans@special{\hvtex@trans@code
10717       \hvtex@param@dimension\hvtex@param@motion}%
10718   \else\if B\hvtex@trans@code
10719     \edef\vtex@trans@special{%
10720       \hvtex@trans@code\hvtex@param@dimension
10721     }%
10722   \else\if X\hvtex@trans@code
10723     \edef\vtex@trans@special{%
10724       \hvtex@trans@code\hvtex@param@motion
10725     }%
10726   \else\if W\hvtex@trans@code
10727     \edef\vtex@trans@special{%
10728       \hvtex@trans@code\hvtex@param@direction
10729     }%
10730   \else\if D\hvtex@trans@code

```

```

10731 \let\vtex@trans@special\hvtex@trans@code
10732 \else\if R\hvtex@trans@code
10733 \let\vtex@trans@special\hvtex@trans@code
10734 \else\if G\hvtex@trans@code
10735 \edef\vtex@trans@special{%
10736 \hvtex@trans@code\hvtex@param@direction
10737 }%
10738 \fi\fi\fi\fi\fi\fi
10739 \ifx\vtex@trans@special\@empty
10740 \else
10741 \ifx\hvtex@param@duration\@empty
10742 \else
10743 \setlength{\dimen@}{\hvtex@param@duration\p@}%

```

I'm not guilty of possible overflow.

```

10744 \multiply\dimen@\@m
10745 \edef\vtex@trans@special{%
10746 \vtex@trans@special,\strip@pt\dimen@
10747 }%
10748 \fi

```

And all the mess is just for this.

```

10749 \special{!trans \vtex@trans@special}%
10750 \fi
10751 }%

10752 \def\hyper@pageduration{%
10753 \ifx\@pdfpageduration\relax
10754 \else
10755 \ifx\@pdfpageduration\@empty
10756 \special{!duration-}%
10757 \else
10758 \special{!duration \@pdfpageduration}%
10759 \fi
10760 \fi
10761 }%

10762 \def\hyper@pagehidden{%
10763 \ifHy@useHidKey
10764 \special{!hidden\ifHy@pdfpagehidden +\else -\fi}%
10765 \fi
10766 }%

10767 \g@addto@macro\Hy@EveryPageBoxHook{%
10768 \hyper@pagetransition
10769 \hyper@pageduration
10770 \hyper@pagehidden
10771 }%
10772 \fi

```

Caution: In opposite to the other drivers, the argument of `\special{!onopen #1}` is a reference name. The VTeX's postscript mode will work with a version higher than 7.0x.

The command `\VTeXOS` is defined since version 7.45. Magic values encode the operating system:

- 1: WinTel
- 2: Linux
- 3: OS/2
- 4: MacOS
- 5: MacOS/X

```

10773 \ifx\@pdfproducer\relax
10774 \def\@pdfproducer{VTeX}%
10775 \ifnum\Hy@VTeXversion>\z@
10776 \count@\VTeXversion
10777 \divide\count@ 100 %
10778 \edef\@pdfproducer{\@pdfproducer\space v\the\count@}%
10779 \multiply\count@ -100 %
10780 \advance\count@\VTeXversion
10781 \edef\@pdfproducer{%
10782 \@pdfproducer
10783 .\ifnum\count@<10 0\fi\the\count@
10784 \ifx\VTeXOS\@undefined\else
10785 \ifnum\VTeXOS>0 %
10786 \ifnum\VTeXOS<6 %
10787 \space(%
10788 \ifcase\VTeXOS
10789 \or Windows\or Linux\or OS/2\or MacOS\or MacOS/X%
10790 \fi
10791 )%
10792 \fi
10793 \fi
10794 \fi
10795 ,\space
10796 \ifnum\OpMode=\@one PDF\else PS\fi
10797 \space backend%
10798 \ifx\gexmode\@undefined\else
10799 \ifnum\gexmode>\z@\space with GeX\fi
10800 \fi
10801 }%
10802 \fi
10803 \fi

```

Current `!pdfinfo` key syntax:

| Key | Field | Type |
|----------|----------------------------------|--------|
| a | A uthor | String |
| b | C rop B ox | String |
| c | C reator | String |
| k | K eywords | String |
| l | P age L ayout | PS |
| p | P age M ode | PS |
| r | P roducer | String |
| s | S ubject | String |
| t | T itle | String |
| u | U RI | PS |
| v | V iew P references | PS |

Note: PS objects that are dicts are in <<.>>> (yuck; no choice).

```

10804 \def\PDF@SetupDoc{%
10805 \ifx\@pdfpagescrop\@empty
10806 \else
10807 \special{!pdfinfo b=<\@pdfpagescrop>}%
10808 \fi
10809 \ifx\@pdfstartpage\@empty
10810 \else
10811 \ifx\@pdfstartview\@empty
10812 \else
10813 \special{!onopen Page\@pdfstartpage}%
10814 \fi

```

```

10815 \fi
10816 \special{!pdfinfo p=</\@pdfpagemode>}%
10817 \ifx\@baseurl\@empty
10818 \else
10819 \special{!pdfinfo u=<<</Base (\@baseurl)>>>}%
10820 \fi
10821 \special{!pdfinfo v=<<<%
10822 \ifHy@pdftoolbar\else /HideToolbar true\fi
10823 \ifHy@pdfmenubar\else /HideMenubar true\fi
10824 \ifHy@pdfwindowui\else /HideWindowUI true\fi
10825 \ifHy@pdfwindow /FitWindow true\fi
10826 \ifHy@pdfcenterwindow /CenterWindow true\fi
10827 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
10828 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
10829 \Hy@UseNameKey{Direction}\@pdfdirection
10830 \Hy@UseNameKey{ViewArea}\@pdfviewarea
10831 \Hy@UseNameKey{ViewClip}\@pdfviewclip
10832 \Hy@UseNameKey{PrintArea}\@pdfprintarea
10833 \Hy@UseNameKey{PrintClip}\@pdfprintclip
10834 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
10835 \Hy@UseNameKey{Duplex}\@pdfduplex
10836 \ifx\@pdfpicktraybypdfsize\@empty
10837 \else
10838 /PickTrayByPDFSize \@pdfpicktraybypdfsize
10839 \fi
10840 \ifx\@pdfprintpagerange\@empty
10841 \else
10842 /PrintPageRange[\@pdfprintpagerange]%
10843 \fi
10844 \ifx\@pdfnumcopies\@empty
10845 \else
10846 /NumCopies \@pdfnumcopies
10847 \fi
10848 >>>}%
10849 \ifx\@pdfpagelayout\@empty
10850 \else
10851 \special{!pdfinfo l=</\@pdfpagelayout\space>}%
10852 \fi
10853 }%
10854 \HyInfo@AddonUnsupportedtrue
10855 \def\PDF@FinishDoc{%
10856 \Hy@UseMaketitleInfos
10857 \HyInfo@TrappedUnsupported
10858 \special{!pdfinfo a=<\@pdfauthor>}%
10859 \special{!pdfinfo t=<\@pdftitle>}%
10860 \special{!pdfinfo s=<\@pdfsubject>}%
10861 \special{!pdfinfo c=<\@pdfcreator>}%
10862 \ifx\@pdfproducer\relax
10863 \else
10864 \special{!pdfinfo r=<\@pdfproducer>}%
10865 \fi
10866 \special{!pdfinfo k=<\@pdfkeywords>}%
10867 \Hy@DisableOption{pdfauthor}%
10868 \Hy@DisableOption{pdftitle}%
10869 \Hy@DisableOption{pdfsubject}%
10870 \Hy@DisableOption{pdfcreator}%
10871 \Hy@DisableOption{pdfcreationdate}%

```

```

10872 \Hy@DisableOption{pdfmoddate}%
10873 \Hy@DisableOption{pdfproducer}%
10874 \Hy@DisableOption{pdfkeywords}%
10875 \Hy@DisableOption{pdftrapped}%
10876 \Hy@DisableOption{pdfinfo}%
10877 }
10878 </vtx>

```

46.7 Fix for Adobe bug number 466320

If a destination occurs at the very begin of a page, the destination is moved to the previous page by Adobe Distiller 5. As workaround Adobe suggests:

```

/showpage {
  //showpage
  clippath stroke erasepage
} bind def

```

But unfortunately this fix generates an empty page at the end of the document. Therefore another fix is used by writing some clipped text.

```

10879 <dviwindo>\def\literalps@out##1{\special{ps:##1}}%
10880 <package>\providecommand*{\Hy@DistillerDestFix}{%
10881 <*pdfmark | dviwindo>
10882 \def\Hy@DistillerDestFix{%
10883 \begingroup
10884 \let\x\literalps@out

```

The fix has to be passed unchanged through GeX, if VTeX in PostScript mode with GeX is used.

```

10885 \ifnum \@ifundefined{OpMode}{0}{%
10886 \ifundefined{gexmode}{0}{%
10887 \ifnum\gexmode>0 \OpMode\else 0\fi
10888 }>1 %
10889 \def\x##1{%
10890 \immediate\special{!=##1}%
10891 }%
10892 \fi
10893 \x{%
10894 /product where{%
10895 pop %
10896 product(Distiller)search{%
10897 pop pop pop %
10898 version(.)search{%
10899 exch pop exch pop%
10900 (3011)eq{%
10901 gsave %
10902 newpath 0 0 moveto closepath clip%
10903 /Courier findfont 10 scalefont setfont %
10904 72 72 moveto(.)show %
10905 grestore%
10906 }if%
10907 }{pop}ifelse%
10908 }{pop}ifelse%
10909 }if%
10910 }%
10911 \endgroup
10912 }
10913 </pdfmark | dviwindo>

```

46.8 Direct pdfmark support

Drivers that load `pdfmark.def` have to provide the correct macro definitions of

| | |
|-----------------------------|--|
| <code>\@pdfproducer</code> | for document information |
| <code>\literalps@out</code> | PostScript output |
| <code>\headerps@out</code> | PostScript output that goes in the header area |

and the correct definitions of the following PostScript procedures:

| | |
|---------------------|--|
| <code>H.S</code> | start of anchor, link or rect |
| <code>#1 H.A</code> | end of anchor, argument=baselineskip in pt |
| <code>#1 H.L</code> | end of link, argument=baselineskip in pt |
| <code>H.R</code> | end of rect |
| <code>H.B</code> | raw rect code |

```

10914 \pdfmark
10915 \Hy@breaklinks@unsupported
10916 \def\HyPat@ObjRef{%
10917   \[~{}]+\}%
10918 }
10919 \Hy@WrapperDef\hyper@anchor#1{%
10920   \Hy@SaveLastskip
10921   \Hy@VerboseAnchor{#1}%
10922   \begingroup
10923     \pdfmark[\anchor@spot]{%
10924       pdfmark=/DEST,%
10925       linktype=anchor,%
10926       View=/\@pdfview \@pdfviewparams,%
10927       DestAnchor={#1}%
10928     }%
10929   \endgroup
10930   \Hy@RestoreLastskip
10931 }
10932 \ifx\IfUndefined\hyper@anchorstart\endinput
10933 \Hy@WrapperDef\hyper@anchorstart#1{%
10934   \Hy@SaveLastskip
10935   \Hy@VerboseAnchor{#1}%
10936   \literalps@out{H.S}%
10937   \Hy@AllowHyphens
10938   \xdef\hyper@currentanchor{#1}%
10939   \Hy@activeanchortrue
10940 }
10941 \def\hyper@anchorend{%
10942   \literalps@out{\strip@pt@and@otherjunk\baselineskip\space H.A}%
10943   \pdfmark{%
10944     pdfmark=/DEST,%
10945     linktype=anchor,%
10946     View=/\@pdfview \@pdfviewparams,%
10947     DestAnchor=\hyper@currentanchor,%
10948   }%
10949   \Hy@activeanchortrue
10950   \Hy@RestoreLastskip
10951 }
10952 \def\hyper@linkstart#1#2{%
10953   \Hy@VerboseLinkStart{#1}{#2}%
10954   \ifHy@breaklinks
10955     \else
10956     \leavevmode

```



```

10957 \ifmmode
10958   \def\Hy@LinkMath{$}%
10959 \else
10960   \let\Hy@LinkMath\ltx@empty
10961 \fi
10962 \Hy@SaveSpaceFactor
10963 \hbox\bgroup
10964 \Hy@RestoreSpaceFactor
10965 \Hy@LinkMath
10966 \fi
10967 \expandafter\Hy@colorlink\csname @#1color\endcsname
10968 \literalps@out{H.S}%
10969 \Hy@AllowHyphens
10970 \xdef\hyper@currentanchor{#2}%
10971 \gdef\hyper@currentlinktype{#1}%
10972 }
10973 \def\hyper@linkend{%
10974   \literalps@out{\strip@pt@and@otherjunk\baselineskip\space H.L}%
10975   \ltx@ifundefined{@\hyper@currentlinktype bordercolor}{%
10976     \let\Hy@tempcolor\relax
10977   }{%
10978     \edef\Hy@tempcolor{%
10979       \csname @\hyper@currentlinktype bordercolor\endcsname
10980     }%
10981   }%
10982   \pdfmark{%
10983     pdfmark=/ANN,%
10984     linktype=link,%
10985     Subtype=/Link,%
10986     PDFAFlags=4,%
10987     Dest=\hyper@currentanchor,%
10988     AcroHighlight=\@pdfhighlight,%
10989     Border=\@pdfborder,%
10990     BorderStyle=\@pdfborderstyle,%
10991     Color=\Hy@tempcolor,%
10992     Raw=H.B%
10993   }%
10994   \Hy@endcolorlink
10995   \ifHy@breaklinks
10996   \else
10997     \Hy@LinkMath
10998     \Hy@SaveSpaceFactor
10999     \egroup
11000     \Hy@RestoreSpaceFactor
11001   \fi
11002 }

```

We have to allow for `\baselineskip` having an optional stretch and shrink (you meet this in slide packages, for instance), so we need to strip off the junk. David Carlisle, of course, wrote this bit of code.

```

11003 \begingroup
11004   \catcode'P=12 %
11005   \catcode'T=12 %
11006   \lowercase{\endgroup
11007   \gdef\rem@ptetc#1.#2PT#3!{#1\ifnum#2>\z@.#2\fi}%
11008 }
11009 \def\strip@pt@and@otherjunk#1{\expandafter\rem@ptetc\the#1!}

```

\hyper@pagetransition

```
11010 \def\hyper@pagetransition{%
11011 \ifx\@pdfpagetransition\relax
11012 \else
11013 \ifx\@pdfpagetransition\@empty
11014 % 1. Does an old entry have to be deleted?
11015 % 2. If 1=yes, how to delete?
11016 \else
11017 \pdfmark{%
11018 pdfmark=/PUT,%
11019 Raw={%
11020 \string{ThisPage\string}%
11021 <</Trans << /S /\@pdfpagetransition\space >> >>%
11022 }%
11023 }%
11024 \fi
11025 \fi
11026 }
```

\hyper@pageduration

```
11027 \def\hyper@pageduration{%
11028 \ifx\@pdfpageduration\relax
11029 \else
11030 \ifx\@pdfpageduration\@empty
11031 % 1. Does an old entry have to be deleted?
11032 % 2. If 1=yes, how to delete?
11033 \else
11034 \pdfmark{%
11035 pdfmark=/PUT,%
11036 Raw={%
11037 \string{ThisPage\string}%
11038 <</Dur \@pdfpageduration>>%
11039 }%
11040 }%
11041 \fi
11042 \fi
11043 }
```

\hyper@pagehidden

```
11044 \def\hyper@pagehidden{%
11045 \ifHy@useHidKey
11046 \pdfmark{%
11047 pdfmark=/PUT,%
11048 Raw={%
11049 \string{ThisPage\string}%
11050 <</Hid \ifHy@pdfpagehidden true\else false\fi>>%
11051 }%
11052 }%
11053 \fi
11054 }

11055 \g@addto@macro\Hy@EveryPageBoxHook{%
11056 \hyper@pagetransition
11057 \hyper@pageduration
11058 \hyper@pagehidden
11059 }

11060 \def\hyper@image#1#2{%
```

```

11061 \hyper@linkurl{#2}{#1}%
11062 }
11063 \def\Hy@undefinedname{UNDEFINED}
11064 \def\hyper@link#1#2#3{%
11065 \Hy@VerboseLinkStart{#1}{#2}%
11066 \ltx@ifundefined{#1bordercolor}{%
11067 \let\Hy@tempcolor\relax
11068 }{%
11069 \edef\Hy@tempcolor{\csname @#1bordercolor\endcsname}%
11070 }%
11071 \begingroup
11072 \protected@edef\Hy@testname{#2}%
11073 \ifx\Hy@testname\@empty
11074 \Hy@Warning{%
11075 Empty destination name,\MessageBreak
11076 using '\Hy@undefinedname'%
11077 }%
11078 \let\Hy@testname\Hy@undefinedname
11079 \fi
11080 \pdfmark[{#3}]{%
11081 Color=\Hy@tempcolor,%
11082 linktype={#1},%
11083 AcroHighlight=\@pdfhighlight,%
11084 Border=\@pdfborder,%
11085 BorderStyle=\@pdfborderstyle,%
11086 pdfmark=/ANN,%
11087 Subtype=/Link,%
11088 PDFAFlags=4,%
11089 Dest=\Hy@testname
11090 }%
11091 \endgroup
11092 }
11093 \newtoks\pdf@docset
11094 \def\PDF@FinishDoc{%
11095 \Hy@UseMaketitleInfos
11096 \Hy@Info@GenerateAddons
11097 \let\Hy@temp\@empty
11098 \ifx\@pdfcreationdate\@empty
11099 \else
11100 \def\Hy@temp{CreationDate=\@pdfcreationdate,}%
11101 \fi
11102 \ifx\@pdfmoddate\@empty
11103 \else
11104 \expandafter\def\expandafter\Hy@temp\expandafter{%
11105 \Hy@temp
11106 ModDate=\@pdfmoddate,%
11107 }%
11108 \fi
11109 \ifx\@pdfproducer\relax
11110 \else
11111 \expandafter\def\expandafter\Hy@temp\expandafter{%
11112 \Hy@temp
11113 Producer=\@pdfproducer,%
11114 }%
11115 \fi
11116 \expandafter
11117 \pdfmark\expandafter{%

```

```

11118 \Hy@temp
11119 pdfmark=/DOCINFO,%
11120 Title=\@pdftitle,%
11121 Subject=\@pdfsubject,%
11122 Creator=\@pdfcreator,%
11123 Author=\@pdfauthor,%
11124 Keywords=\@pdfkeywords,%
11125 Trapped=\@pdftrapped
11126 }%
11127 \ifx\HyInfo@Addons\@empty
11128 \else
11129 \pdfmark{%
11130 pdfmark=/DOCINFO,%
11131 Raw={\HyInfo@Addons}%
11132 }%
11133 \fi
11134 \Hy@DisableOption{pdfauthor}%
11135 \Hy@DisableOption{pdftitle}%
11136 \Hy@DisableOption{pdfsubject}%
11137 \Hy@DisableOption{pdfcreator}%
11138 \Hy@DisableOption{pdfcreationdate}%
11139 \Hy@DisableOption{pdfmoddate}%
11140 \Hy@DisableOption{pdfproducer}%
11141 \Hy@DisableOption{pdfkeywords}%
11142 \Hy@DisableOption{pdftrapped}%
11143 \Hy@DisableOption{pdfinfo}%
11144 }
11145 \def\PDF@SetupDoc{%
11146 \def\Hy@temp{}%
11147 \ifx\@pdfstartpage\@empty
11148 \else
11149 \ifx\@pdfstartview\@empty
11150 \else
11151 \edef\Hy@temp{%
11152 ,Page=\@pdfstartpage
11153 ,View=\@pdfstartview
11154 }%
11155 \fi
11156 \fi
11157 \edef\Hy@temp{%
11158 \noexpand\pdfmark{%
11159 pdfmark=/DOCVIEW,%
11160 PageMode=/\@pdfpagemode
11161 \Hy@temp
11162 }%
11163 }%
11164 \Hy@temp
11165 \ifx\@pdfpagescrop\@empty
11166 \else
11167 \pdfmark{pdfmark=/PAGES,CropBox=\@pdfpagescrop}%
11168 \fi
11169 \edef\Hy@temp{%
11170 \ifHy@pdftoolbar\else /HideToolbar true\fi
11171 \ifHy@pdfmenubar\else /HideMenubar true\fi
11172 \ifHy@pdfwindowui\else /HideWindowUI true\fi
11173 \ifHy@pdfwindow /FitWindow true\fi
11174 \ifHy@pdfcenterwindow /CenterWindow true\fi

```

```

11175 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
11176 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
11177 \Hy@UseNameKey{Direction}\@pdfdirection
11178 \Hy@UseNameKey{ViewArea}\@pdfviewarea
11179 \Hy@UseNameKey{ViewClip}\@pdfviewclip
11180 \Hy@UseNameKey{PrintArea}\@pdfprintarea
11181 \Hy@UseNameKey{PrintClip}\@pdfprintclip
11182 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
11183 \Hy@UseNameKey{Duplex}\@pdfduplex
11184 \ifx\@pdfpicktraybypdfsize\@empty
11185 \else
11186 /PickTrayByPDFSize \@pdfpicktraybypdfsize
11187 \fi
11188 \ifx\@pdfprintpagerange\@empty
11189 \else
11190 /PrintPageRange[\@pdfprintpagerange]%
11191 \fi
11192 \ifx\@pdfnumcopies\@empty
11193 \else
11194 /NumCopies \@pdfnumcopies
11195 \fi
11196 }%
11197 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
11198 \pdfmark{%
11199 pdfmark=/PUT,%
11200 Raw={%
11201 \string{Catalog\string}<<%
11202 \ifx\Hy@temp\@empty
11203 \else
11204 /ViewerPreferences<<\Hy@temp>>%
11205 \fi
11206 \Hy@UseNameKey{PageLayout}\@pdfpagelayout
11207 \ifx\@pdflang\@empty
11208 \else
11209 /Lang(\@pdflang)%
11210 \fi
11211 \ifx\@baseurl\@empty
11212 \else
11213 /URI<</Base(\Hy@pstringB)>>%
11214 \fi
11215 >>%
11216 }%
11217 }%
11218 }
11219 \pdfmark>
11220 \pdfmarkbase>

```

We define a single macro, pdfmark, which uses the ‘keyval’ system to define the various allowable keys; these are *exactly* as listed in the pdfmark reference for Acrobat 3.0. The only addition is pdfmark which specifies the type of pdfmark to create (like ANN, LINK etc). The surrounding round and square brackets in the pdfmark commands are supplied, but you have to put in / characters as needed for the values.

```

11221 \newif\ifHy@pdfmarkerror
11222 \def\pdfmark{\ifnextchar{\pdfmark@}\pdfmark@{}}
11223 \def\pdfmark@[#1]#2{%
11224 \Hy@pdfmarkerrorfalse

```

```

11225 \edef\@processme{\noexpand\pdf@toks={\the\pdf@defaulttoks}}%
11226 \@processme
11227 \let\pdf@type\relax
11228 \kvsetkeys{PDF}{#2}%
11229 \ifHy@pdfmarkerror
11230 \else
11231 \ifx\pdf@type\relax
11232 \Hy@WarningNoLine{no pdfmark type specified in #2!!}%
11233 \ifx\#1\%
11234 \else
11235 \pdf@rect{#1}%
11236 \fi
11237 \else
11238 \ifx\#1\%
11239 \literalps@out{%
11240 [\the\pdf@toks\space\pdf@type\space pdfmark%
11241 ]%
11242 \else
11243 \ltx@ifundefined{\pdf@linktype color}{%
11244 \Hy@colorlink\@linkcolor
11245 }{%
11246 \expandafter\Hy@colorlink
11247 \csname @\pdf@linktype color\endcsname
11248 }%
11249 \pdf@rect{#1}%
11250 \literalps@out{%
11251 [\the\pdf@toks\space\pdf@type\space pdfmark%
11252 ]%
11253 \Hy@endcolorlink
11254 \fi
11255 \fi
11256 \fi
11257 }

```

The complicated bit is working out the right enclosing rectangle of some piece of T_EX text, needed by the /Rect key. This solution originates with Toby Thain (toby@netspace.net.au).

For the case breaklinks is enabled, I have added two hooks, the first one for package setouterhbox, it provides a hopefully better method without setting the text twice.

```
\usepackage[hyperref]{setouterhbox}
```

With the second hook, also you can set the text twice, e.g.:

```

\long\def\Hy@setouterhbox#1#2{\long\def\my@temp{#2}}
\def\Hy@breaklinksunhbox#1{\my@temp}

```

```

11258 \newsavebox{\pdf@box}
11259 \providecommand*\Hy@setouterhbox{\sbox}
11260 \providecommand*\Hy@breaklinksunhbox{\unhbox}
11261 \def\Hy@DEST{/DEST}
11262 \def\pdf@rect#1{%
11263 \begingroup
11264 \chardef\x=1 %
11265 \def\Hy@temp{#1}%
11266 \ifx\Hy@temp\ltx@empty
11267 \chardef\x=0 %
11268 \else

```

```

11269 \def\y{\anchor@spot}%
11270 \ifx\Hy@temp\y
11271 \def\y{\relax}%
11272 \ifx\anchor@spot\y
11273 \chardef\x=0 %
11274 \fi
11275 \fi
11276 \fi
11277 \expandafter\endgroup
11278 \ifcase\x
11279 \literalps@out{H.S}%
11280 \literalps@out{H.R}%
11281 \else
11282 \leavevmode
11283 \Hy@SaveSpaceFactor
11284 \ifmmode
11285 \def\Hy@LinkMath{$}%
11286 \else
11287 \let\Hy@LinkMath\ltx@empty
11288 \fi
11289 \ifHy@breaklinks
11290 \Hy@setouterhbox\pdf@box{%
11291 \Hy@RestoreSpaceFactor
11292 \Hy@LinkMath
11293 \Hy@AllowHyphens#1\Hy@xspace@end
11294 \Hy@LinkMath
11295 \Hy@SaveSpaceFactor
11296 }%
11297 \else
11298 \sbox\pdf@box{%
11299 \Hy@RestoreSpaceFactor
11300 \Hy@LinkMath
11301 #1\Hy@xspace@end
11302 \Hy@LinkMath
11303 \Hy@SaveSpaceFactor
11304 }%
11305 \fi
11306 \dimen@ht\pdf@box
11307 \ifdim\dp\pdf@box=\z@
11308 \literalps@out{H.S}%
11309 \else
11310 \lower\dp\pdf@box\hbox{\literalps@out{H.S}}%
11311 \fi

```

If the text has to be horizontal mode stuff then just unbox the saved box like this, which saves executing it twice, which can mess up counters etc (thanks DPC...).

```

11312 \ifHy@breaklinks
11313 \ifhmode
11314 \Hy@breaklinksunhbox\pdf@box
11315 \else
11316 \box\pdf@box
11317 \fi
11318 \else
11319 \expandafter\box\pdf@box
11320 \fi

```

but if it can have multiple paragraphs you'd need one of these, but in that case the measured box size would be wrong anyway.

```

\ifHy@breaklinks#1\else\box\pdf@box\fi
\ifHy@breaklinks{#1}\else\box\pdf@box\fi

11321 \ifdim\dimen@=\z@
11322 \literalps@out{H.R.}%
11323 \else
11324 \raise\dimen@\hbox{\literalps@out{H.R.}}%
11325 \fi
11326 \Hy@RestoreSpaceFactor
11327 \fi
11328 \ifx\pdf@type\Hy@DEST
11329 \else
11330 \pdf@addtoksx{H.B}%
11331 \fi
11332 }

```

All the supplied material is stored in a token list; since I do not feel sure I quite understand these, things may not work as expected with expansion. We'll have to experiment.

```

11333 \newtoks\pdf@toks
11334 \newtoks\pdf@defaulttoks
11335 \pdf@defaulttoks={}%
11336 \def\pdf@addtoks#1#2{%
11337 \edef\@processme{\pdf@toks{\the\pdf@toks/#2 #1}}%
11338 \@processme
11339 }
11340 \def\pdf@addtoksx#1{%
11341 \edef\@processme{\pdf@toks{\the\pdf@toks\space #1}}%
11342 \@processme
11343 }
11344 \def\PDFdefaults#1{%
11345 \pdf@defaulttoks={#1}%
11346 }

```

This is the list of allowed keys. See the Acrobat manual for an explanation.

```

11347 % what is the type of pdfmark?
11348 \define@key{PDF}{pdfmark}{\def\pdf@type{#1}}
11349 % what is the link type?
11350 \define@key{PDF}{linktype}{\def\pdf@linktype{#1}}
11351 \def\pdf@linktype{link}
11352 % parameter is a stream of PDF
11353 \define@key{PDF}{Raw}{\pdf@addtoksx{#1}}
11354 % parameter is a name
11355 \define@key{PDF}{Action}{\pdf@addtoks{#1}{Action}}
11356 % parameter is a array
11357 \define@key{PDF}{Border}{%
11358 \edef\Hy@temp{#1}%
11359 \ifx\Hy@temp@empty
11360 \else
11361 \pdf@addtoks{[#1]\Hy@BorderArrayPatch}{Border}% hash-ok
11362 \fi
11363 }
11364 \let\Hy@BorderArrayPatch@empty
11365 % parameter is a dictionary
11366 \define@key{PDF}{BorderStyle}{%
11367 \edef\Hy@temp{#1}%
11368 \ifx\Hy@temp@empty
11369 \else

```



```

11370 \pdf@addtoks{<<#1>>}{BS}%
11371 \fi
11372 }
11373 % parameter is a array
11374 \define@key{PDF}{Color}{%
11375 \ifx\relax#1\relax
11376 \else
11377 \pdf@addtoks{[#1]}{Color}% hash-ok
11378 \fi
11379 }
11380 % parameter is a string
11381 \define@key{PDF}{Contents}{\pdf@addtoks{(#1)}{Contents}}
11382 % parameter is a integer
11383 \define@key{PDF}{Count}{\pdf@addtoks{#1}{Count}}
11384 % parameter is a array
11385 \define@key{PDF}{CropBox}{\pdf@addtoks{[#1]}{CropBox}}% hash-ok
11386 % parameter is a string
11387 \define@key{PDF}{DOSFile}{\pdf@addtoks{(#1)}{DOSFile}}
11388 % parameter is a string or file
11389 \define@key{PDF}{DataSource}{\pdf@addtoks{(#1)}{DataSource}}
11390 % parameter is a destination
11391 \define@key{PDF}{Dest}{%
11392 \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
11393 \ifx\Hy@pstringDest\@empty
11394 \Hy@pdfmarkerrortrue
11395 \Hy@Warning{Destination with empty name ignored}%
11396 \else
11397 \pdf@addtoks{(\Hy@pstringDest) cvn}{Dest}%
11398 \fi
11399 }
11400 \define@key{PDF}{DestAnchor}{%
11401 \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
11402 \ifx\Hy@pstringDest\@empty
11403 \Hy@pdfmarkerrortrue
11404 \Hy@Warning{Destination with empty name ignored}%
11405 \else
11406 \pdf@addtoks{(\Hy@pstringDest) cvn}{Dest}%
11407 \fi
11408 }
11409 % parameter is a string
11410 \define@key{PDF}{Dir}{\pdf@addtoks{(#1)}{Dir}}
11411 % parameter is a string
11412 \define@key{PDF}{File}{\pdf@addtoks{(#1)}{File}}
11413 % parameter is a int
11414 \define@key{PDF}{Flags}{\pdf@addtoks{#1}{Flags}}
11415 \define@key{PDF}{PDFAFlags}{%
11416 \ifHy@pdfa
11417 \pdf@addtoks{#1}{F}%
11418 \fi
11419 }
11420 % parameter is a name
11421 \define@key{PDF}{AcroHighlight}{%
11422 \begingroup
11423 \edef\x{#1}%
11424 \expandafter\endgroup\ifx\x\@empty
11425 \else
11426 \pdf@addtoks{#1}{H}%

```

```

11427 \fi
11428 }
11429 % parameter is a string
11430 \define@key{PDF}{ID}{\pdf@addtoks{[#1]}{ID}}% hash-ok
11431 % parameter is a string
11432 \define@key{PDF}{MacFile}{\pdf@addtoks{(#1)}{MacFile}}
11433 % parameter is a string
11434 \define@key{PDF}{ModDate}{\pdf@addtoks{(#1)}{ModDate}}
11435 % parameter is a string
11436 \define@key{PDF}{Op}{\pdf@addtoks{(#1)}{Op}}
11437 % parameter is a Boolean
11438 \define@key{PDF}{Open}{\pdf@addtoks{#1}{Open}}
11439 % parameter is a integer or name
11440 \define@key{PDF}{Page}{\pdf@addtoks{#1}{Page}}
11441 % parameter is a name
11442 \define@key{PDF}{PageMode}{\pdf@addtoks{#1}{PageMode}}
11443 % parameter is a string
11444 \define@key{PDF}{Params}{\pdf@addtoks{(#1)}{Params}}
11445 % parameter is a array
11446 \define@key{PDF}{Rect}{\pdf@addtoks{[#1]}{Rect}}% hash-ok
11447 % parameter is a integer
11448 \define@key{PDF}{SrcPg}{\pdf@addtoks{#1}{SrcPg}}
11449 % parameter is a name
11450 \define@key{PDF}{Subtype}{\pdf@addtoks{#1}{Subtype}}
11451 % parameter is a string
11452 \define@key{PDF}{Title}{\pdf@addtoks{(#1)}{Title}}
11453 % parameter is a string
11454 \define@key{PDF}{Unix}{\pdf@addtoks{(#1)}{Unix}}
11455 % parameter is a string
11456 \define@key{PDF}{UnixFile}{\pdf@addtoks{(#1)}{UnixFile}}
11457 % parameter is an array
11458 \define@key{PDF}{View}{\pdf@addtoks{[#1]}{View}}% hash-ok
11459 % parameter is a string
11460 \define@key{PDF}{WinFile}{\pdf@addtoks{(#1)}{WinFile}}

```

These are the keys used in the DOCINFO section.

```

11461 \define@key{PDF}{Author}{\pdf@addtoks{(#1)}{Author}}
11462 \define@key{PDF}{Creator}{\pdf@addtoks{(#1)}{Creator}}
11463 \define@key{PDF}{CreationDate}{\pdf@addtoks{(#1)}{CreationDate}}
11464 \define@key{PDF}{ModDate}{\pdf@addtoks{(#1)}{ModDate}}
11465 \define@key{PDF}{Producer}{\pdf@addtoks{(#1)}{Producer}}
11466 \define@key{PDF}{Subject}{\pdf@addtoks{(#1)}{Subject}}
11467 \define@key{PDF}{Keywords}{\pdf@addtoks{(#1)}{Keywords}}
11468 \define@key{PDF}{ModDate}{\pdf@addtoks{(#1)}{ModDate}}
11469 \define@key{PDF}{Base}{\pdf@addtoks{(#1)}{Base}}
11470 \define@key{PDF}{URI}{\pdf@addtoks{#1}{URI}}
11471 \define@key{PDF}{Trapped}{%
11472 \edef\Hy@temp{#1}%
11473 \ifx\Hy@temp\@empty
11474 \else
11475 \pdf@addtoks{/#1}{Trapped}%
11476 \fi
11477 }
11478
11479 </pdfmarkbase>
11480 <*pdfmark>
11481 \def\Acrobatmenu#1#2{%
11482 \Hy@Acrobatmenu{#1}{#2}{%

```

```

11483 \pdfmark[{#2}]{%
11484   linktype=menu,%
11485   pdfmark=/ANN,%
11486   AcroHighlight=\@pdfhighlight,%
11487   Border=\@pdfborder,%
11488   BorderStyle=\@pdfborderstyle,%
11489   Action={<< /Subtype /Named /N /#1 >>},%
11490   Subtype=/Link,%
11491   PDFAFlags=4%
11492 }%
11493 }%
11494 }

```

And now for some useful examples:

```

11495 \def\PDFNextPage{\@ifnextchar{\PDFNextPage@}{\PDFNextPage@[]}}
11496 \def\PDFNextPage@[#1]#2{%
11497   \pdfmark[{#2}]{%
11498     #1,%
11499     Border=\@pdfborder,%
11500     BorderStyle=\@pdfborderstyle,%
11501     Color=.2 .1 .5,%
11502     pdfmark=/ANN,%
11503     Subtype=/Link,%
11504     PDFAFlags=4,%
11505     Page=/Next%
11506   }%
11507 }
11508 \def\PDFPreviousPage{%
11509   \@ifnextchar{\PDFPreviousPage@}{\PDFPreviousPage@[]}%
11510 }
11511 \def\PDFPreviousPage@[#1]#2{%
11512   \pdfmark[{#2}]{%
11513     #1,%
11514     Border=\@pdfborder,%
11515     BorderStyle=\@pdfborderstyle,%
11516     Color=.4 .4 .1,%
11517     pdfmark=/ANN,%
11518     Subtype=/Link,%
11519     PDFAFlags=4,%
11520     Page=/Prev%
11521   }%
11522 }
11523 \def\PDFOpen#1{%
11524   \pdfmark{#1,pdfmark=/DOCVIEW}%
11525 }

```

This will only work if you use Distiller 2.1 or higher.

```

11526 \def\hyper@linkurl#1#2{%
11527   \begingroup
11528   \Hy@pstringdef\Hy@pstringURI{#2}%
11529   \hyper@chars
11530   \leavevmode
11531   \pdfmark[{#1}]{%
11532     pdfmark=/ANN,%
11533     linktype=url,%
11534     AcroHighlight=\@pdfhighlight,%
11535     Border=\@pdfborder,%
11536     BorderStyle=\@pdfborderstyle,%

```

```

11537 Color=\@urlbordercolor,%
11538 Action={<<%
11539 /Subtype/URI%
11540 /URI(\Hy@pstringURI)%
11541 \ifHy@href@ismap
11542 /IsMap true%
11543 \fi
11544 >>},%
11545 Subtype=/Link,%
11546 PDFAFlags=4%
11547 }%
11548 \endgroup
11549 }
11550 \def\hyper@linkfile#1#2#3{%
11551 \begingroup
11552 \def\Hy@pstringF{#2}%
11553 \Hy@CleanupFile\Hy@pstringF
11554 \Hy@pstringdef\Hy@pstringF\Hy@pstringF
11555 \Hy@pstringdef\Hy@pstringD{#3}%
11556 \Hy@MakeRemoteAction
11557 \leavevmode
11558 \pdfmark[{#1}]{%
11559 pdfmark=/ANN,%
11560 Subtype=/Link,%
11561 PDFAFlags=4,%
11562 AcroHighlight=\@pdfhighlight,%
11563 Border=\@pdfborder,%
11564 BorderStyle=\@pdfborderstyle,%
11565 linktype=file,%
11566 Color=\@filebordercolor,%
11567 Action={%
11568 <<%
11569 /S/GoToR%
11570 \Hy@SetNewWindow
11571 /F(\Hy@pstringF)%
11572 /D%
11573 \ifx\\#3\\%
11574 [\Hy@href@page\@pdfremotestartview]%
11575 \else
11576 (\Hy@pstringD)cvn%
11577 \fi
11578 \Hy@href@nextactionraw
11579 >>%
11580 }%
11581 }%
11582 \endgroup
11583 }
11584 \def\@hyper@launch run:#1\\#2#3{%
11585 \begingroup
11586 \Hy@pstringdef\Hy@pstringF{#1}%
11587 \Hy@pstringdef\Hy@pstringP{#3}%
11588 \leavevmode
11589 \pdfmark[{#2}]{%
11590 pdfmark=/ANN,%
11591 Subtype=/Link,%
11592 PDFAFlags=4,%
11593 AcroHighlight=\@pdfhighlight,%

```

```

11594   Border=\@pdfborder,%
11595   BorderStyle=\@pdfborderstyle,%
11596   linktype=run,%
11597   Color=\@runbordercolor,%
11598   Action={%
11599     <<%
11600       /S/Launch%
11601       \Hy@SetNewWindow
11602       /F(\Hy@pstringF)%
11603       \ifx\#3\%
11604       \else
11605       /Win<</P(\Hy@pstringP)/F(\Hy@pstringF)>>%
11606       \fi
11607       \Hy@href@nextactionraw
11608     >>%
11609   }%
11610 }%
11611 \endgroup
11612 }
11613 </pdfmark>

```

Unfortunately, some parts of the pdfmark PostScript code depend on vagaries of the dvi driver. We isolate here all the problems.

46.9 Rokicki's dvips

dvips thinks in 10ths of a big point, its coordinate space is resolution dependent, and its *y* axis starts at the top of the page. Other drivers can and will be different!

The work is done in SDict, because we add in some header definitions in a moment.

```

11614 < *dvips>
11615 \providecommand*\XR@ext\{pdf}
11616 \let\Hy@raisedlink\ltx@empty
11617 \def\litalps@out#1{\special{ps:SDict begin #1 end}}%
11618 \def\headerps@out#1{\special{! #1}}%
11619 \input{pdfmark.def}%
11620 \ifx\@pdfproducer\relax
11621   \def\@pdfproducer{dvips + Distiller}%
11622 \fi
11623 \providecommand*\@pdfborder{0 0 1}
11624 \providecommand*\@pdfborderstyle{}
11625 \providecommand*\@pdfview{XYZ}
11626 \providecommand*\@pdfviewparams{ H.V}
11627 \def\Hy@BorderArrayPatch{BorderArrayPatch}
11628 \g@addto@macro\Hy@FirstPageHook{%
11629   \headerps@out{%

```

Unless I am going mad, this *appears* to be the relationship between the default coordinate system (PDF), and dvips;

```

/DvipsToPDF { .01383701 div Resolution div } def
/PDFToDvips { .01383701 mul Resolution mul } def

```

the latter's coordinates are resolution dependent, but what that .01383701 is, who knows? well, almost everyone except me, I expect...And yes, Maarten Gelderman <mgelderman@econ.vu.nl> points out that its 1/72.27 (the number of points to an inch, big points to inch is 1/72). This also suggests that the code would be

more understandable (and exact) if 0.013 div would be replaced by 72.27 mul, so here we go. If this isn't right, I'll revert it.

```
11630 /DvipsToPDF{72.27 mul Resolution div} def%
11631 /PDFToDvips{72.27 div Resolution mul} def%
11632 /BPToDvips{72 div Resolution mul}def%
```

The values inside the /Boder array are not taken literally, but interpreted by ghostscript using the resolution of the dvi driver. I don't know how other distiller programs behaves in this manner.

```
11633 /BorderArrayPatch{%
11634   [exch{%
11635     dup dup type/integertype eq exch type/realtype eq or%
11636     {BPToDvips}if%
11637   }forall]%
11638 }def%
```

The rectangle around the links starts off *exactly* the size of the box; we will to make it slightly bigger, 1 point on all sides.

```
11639 /HyperBorder {1 PDFToDvips} def%
11640 /H.V {pdf@hoff pdf@voff null} def%
11641 /H.B {/Rect[pdf@llx pdf@lly pdf@urx pdf@ury]} def%
```

H.S (start of anchor, link, or rect) stores the x and y coordinates of the current point, in PDF coordinates

```
11642 /H.S {%
11643   currentpoint %
11644   HyperBorder add /pdf@lly exch def %
11645   dup DvipsToPDF 72 add /pdf@hoff exch def %
11646   HyperBorder sub /pdf@llx exch def%
11647 } def%
```

The calculation of upper left y is done without raising the point in \TeX , by simply adding on the current `\baselineskip` to the current y . This is usually too much, so we remove a notional 2 points.

We have to see what the current baselineskip is, and convert it to the dvips coordinate system.

Argument: baselineskip in pt. The x and y coordinates of the current point, minus the baselineskip

```
11648 /H.L {%
11649   2 sub dup%
11650   /HyperBasePt exch def %
11651   PDFToDvips /HyperBaseDvips exch def %
11652   currentpoint %
11653   HyperBaseDvips sub /pdf@ury exch def%
11654   /pdf@urx exch def%
11655 } def%
11656 /H.A {%
11657   H.L %
11658 % |pdf@voff| = the distance from the top of the page to a point
11659 % |\baselineskip| above the current point in PDF coordinates
11660   currentpoint exch pop %
11661   vsize 72 sub exch DvipsToPDF %
11662   HyperBasePt sub % baseline skip
11663   sub /pdf@voff exch def%
11664 } def%
11665 /H.R {%
11666   currentpoint %
11667   HyperBorder sub /pdf@ury exch def %
```

```

11668   HyperBorder add /pdf@urx exch def %
11669 % | /pdf@voff| = the distance from the top of the page to the current point, in
11670 % PDF coordinates
11671   currentpoint exch pop vsize 72 sub %
11672   exch DvipsToPDF sub /pdf@voff exch def%
11673 } def%
11674 }%
11675 }
11676 \AtBeginShipoutFirst{%
11677   \ifHy@setpagesize
11678   \begingroup
11679     \@ifundefined{stockwidth}{%
11680       \ifdim\paperwidth>\z@
11681         \ifdim\paperheight>\z@
11682           \special{papersize=\the\paperwidth,\the\paperheight}%
11683         \fi
11684       \fi
11685     }{%
11686       \ifdim\stockwidth>\z@
11687         \ifdim\stockheight>\z@
11688           \special{papersize=\the\stockwidth,\the\stockheight}%
11689         \fi
11690       \fi
11691     }%
11692   \endgroup
11693   \fi
11694   \Hy@DisableOption{setpagesize}%
11695 }
11696 </dvips>

```

46.10 VTeX's vtexpdfmark driver

This part is derived from the dvips (many names reflect this).

The origin seems to be the same as TeX's origin, 1 in from the left and 1 in downwards from the top. The direction of the y axis is downwards, the opposite of the dvips case. Units seems to be pt or bp.

```

11697 <*vtexpdfmark>
11698 \providecommand*\XR@ext}{pdf}
11699 \let\Hy@raisedlink\ltx@empty
11700 \def\literalps@out#1{\special{pS:#1}}%
11701 \def\headerps@out#1{\immediate\special{pS:#1}}%
11702 \input{pdfmark.def}%
11703 \ifx\@pdfproducer\relax
11704   \ifnum\OpMode=\@ne
11705     \def\@pdfproducer{VTeX}%
11706   \else
11707     \def\@pdfproducer{VTeX + Distiller}%
11708   \fi
11709 \fi
11710 \providecommand*\@pdfborder{0 0 1}
11711 \providecommand*\@pdfborderstyle{}
11712 \providecommand*\@pdfview{XYZ}
11713 \providecommand*\@pdfviewparams{ H.V}
11714 \g@addto@macro\Hy@FirstPageHook{%
11715   \headerps@out{%
11716     /vsize {\Hy@pageheight} def%

```

The rectangle around the links starts off *exactly* the size of the box; we will to make it slightly bigger, 1 point on all sides.

```
11717 /HyperBorder {1} def%
11718 /H.V {pdf@hoff pdf@voff null} def%
11719 /H.B {/Rect[pdf@llx pdf@lly pdf@urx pdf@ury]} def%
```

H.S (start of anchor, link, or rect) stores the x and y coordinates of the current point, in PDF coordinates: $\text{pdf@lly} = Y_c - \text{HyperBorder}$, $\text{pdf@hoff} = X_c + 72$, $\text{pdf@llx} = X_c - \text{HyperBorder}$

```
11720 /H.S {%
11721     currentpoint %
11722     HyperBorder sub%
11723     /pdf@lly exch def %
11724     dup 72 add /pdf@hoff exch def %
11725     HyperBorder sub%
11726     /pdf@llx exch def%
11727 } def%
```

The x and y coordinates of the current point, minus the `\baselineskip`: $\text{pdf@ury} = Y_c + \text{HyperBasePt} + \text{HyperBorder}$, $\text{pdf@urx} = X_c + \text{HyperBorder}$

```
11728 /H.L {%
11729     2 sub%
11730     /HyperBasePt exch def %
11731     currentpoint %
11732     HyperBasePt add HyperBorder add%
11733     /pdf@ury exch def %
11734     HyperBorder add%
11735     /pdf@urx exch def%
11736 } def%
11737 /H.A {%
11738     H.L %
11739     currentpoint exch pop %
11740     vsize 72 sub exch %
11741     HyperBasePt add add%
11742     /pdf@voff exch def%
11743 } def%
```

$\text{pdf@ury} = Y_c + \text{HyperBorder}$, $\text{pdf@urx} = X_c + \text{HyperBorder}$

```
11744 /H.R {%
11745     currentpoint %
11746     HyperBorder add%
11747     /pdf@ury exch def %
11748     HyperBorder add%
11749     /pdf@urx exch def %
11750     currentpoint exch pop vsize 72 sub add%
11751     /pdf@voff exch def%
11752 } def%
11753 }%
11754 }
11755 </vtxpdfmark>
```

46.11 Textures

```
11756 <*textures>
11757 \providecommand*\XR@ext}{pdf}
```

At the suggestion of Jacques Distler (distler@golem.ph.utexas.edu), try to derive a suitable driver for Textures. This was initially a copy of dvips, with

some guesses about Textures behaviour. Ross Moore (ross@maths.mq.edu.au) has added modifications for better compatibility, and to support use of pdfmark.

Start by defining a macro that expands to the end-of-line character. This will be used to format the appearance of PostScript code, to enhance readability, and avoid excessively long lines which might otherwise become broken to bad places.

`\Hy@ps@CR` The macro `\Hy@ps@CR` contains the end-of-line character.

```
11758 \begingroup
11759 \obeylines %
11760 \gdef\Hy@ps@CR{\noexpand
11761 }%
11762 \endgroup %
```

Textures has two types of `\special` command for inserting PostScript code directly into the dvi output. The ‘postscript’ way preserves TeX’s idea of where on the page the `\special` occurred, but it wraps the contents with a `save-restore` pair, and adjusts the user-space coordinate system for local drawing commands. The ‘rawpostscript’ way simply inserts code, without regard for the location on the page.

Thus, to put arbitrary PostScript coding at a fixed location requires using *both* `\special` constructions. It works by pushing the device-space coordinates onto the operand stack, where they can be used to transform back to the correct user-space coordinates for the whole page, within a ‘rawpostscript’ `\special`.

```
11763 \def\literalps@out#1{%
11764 \special{postscript 0 0 transform}%
11765 \special{rawpostscript itransform moveto\Hy@ps@CR #1}%
11766 }%
11767 %
```

The ‘prepostscript’ is a 3rd kind of `\special`, used for inserting definitions into the dictionaries, before page-building begins. These are to be available for use on all pages.

```
11768 \def\headerps@out#1{%
11769 \special{%
11770 prepostscript TeXdict begin\Hy@ps@CR
11771 #1\Hy@ps@CR
11772 end%
11773 }%
11774 }%
11775 %
```

To correctly support the `pdfmark` method, for embedding PDF definitions with `.ps` files in a non-intrusive way, an appropriate definition needs to be made *before* the file `pdfmark.def` is read. Other parameters are best set afterwards.

```
11776 \g@addto@macro\Hy@FirstPageHook{%
11777 \headerps@out{%
11778 /betterpdfmark {%
11779 systemdict begin %
11780 dup /BP eq%
11781 {cleartomark gsave nulldevice []%
11782 {dup /EP eq%
11783 {cleartomark cleartomark grestore}%
11784 {cleartomark}%
11785 ifelse%
11786 }ifelse %
11787 end%
```

```

11788   }def\Hy@ps@CR
11789   ____pdfmark__ not{/pdfmark /betterpdfmark load def}if%
11790   }% end of \headerps@out
11791 }% end of \AtBeginShipoutFirst
11792 %
11793 \input{pdfmark.def}%
11794 %
11795 \ifx\@pdfproducer\relax
11796   \def\@pdfproducer{Textures + Distiller}%
11797 \fi
11798 \providecommand*\@pdfborder{0 0 1}
11799 \providecommand*\@pdfborderstyle{}
11800 \providecommand*\@pdfview{XYZ}
11801 \providecommand*\@pdfviewparams{ H.V}
11802 %

```

These are called at the start and end of unboxed links; their job is to leave available PS variables called `pdf@llx pdf@lly pdf@urx pdf@ury`, which are the coordinates of the bounding rectangle of the link, and `pdf@hoff pdf@voff` which are the PDF page offsets. The `Rect` pair are called at the LL and UR corners of a box known to \TeX .

```

11803 \Hy@AtBeginDocument{%
11804   \headerps@out{%

```

`Textures` lives in normal points, I think. So conversion from one coordinate system to another involves doing nothing.

```

11805   /vsize {\Hy@pageheight} def%
11806   /DvipsToPDF {} def%
11807   /PDFToDvips {} def%
11808   /BPToDvips {} def%
11809   /HyperBorder { 1 PDFToDvips } def\Hy@ps@CR
11810   /H.V {pdf@hoff pdf@voff null} def\Hy@ps@CR
11811   /H.B {/Rect[pdf@llx pdf@lly pdf@urx pdf@ury]} def\Hy@ps@CR
11812   /H.S {%
11813     currentpoint %
11814     HyperBorder add /pdf@lly exch def %
11815     dup DvipsToPDF 72 add /pdf@hoff exch def %
11816     HyperBorder sub /pdf@llx exch def%
11817   } def\Hy@ps@CR
11818   /H.L {%
11819     2 sub %
11820     PDFToDvips /HyperBase exch def %
11821     currentpoint %
11822     HyperBase sub /pdf@ury exch def%
11823     /pdf@urx exch def%
11824   } def\Hy@ps@CR
11825   /H.A {%
11826     H.L %
11827     currentpoint exch pop %
11828     vsize 72 sub exch DvipsToPDF %
11829     HyperBase sub % baseline skip
11830     sub /pdf@voff exch def%
11831   } def\Hy@ps@CR
11832   /H.R {%
11833     currentpoint %
11834     HyperBorder sub /pdf@ury exch def %
11835     HyperBorder add /pdf@urx exch def %
11836     currentpoint exch pop vsize 72 sub %

```

```

11837     exch DvipsToPDF sub /pdf@voff exch def%
11838   } def\Hy@ps@CR
11839 }%
11840 }

11841 \Hy@AtBeginDocument{%
11842   \ifHy@colorlinks
11843     \headerps@out{/PDFBorder{/Border [0 0 0]}def}%
11844   \fi
11845 }

```

Textures provides built-in support for HyperTeX specials so this part combines code from `hypertex.def` with what is established by loading `pdfmark.def`, or any other driver.

```

11846 \expandafter\let\expandafter\keepPDF@SetupDoc
11847   \csname PDF@SetupDoc\endcsname
11848 \def\PDF@SetupDoc{%
11849   \ifx\@baseurl\@empty
11850     \else
11851       \special{html:<base href="\@baseurl">}%
11852     \fi
11853   \keepPDF@SetupDoc
11854 }

11855 \Hy@WrapperDef\hyper@anchor#1{%
11856   \Hy@SaveLastskip
11857   \Hy@VerboseAnchor{#1}%
11858   \begingroup
11859     \let\protect=\string
11860     \special{html:<a name=%
11861       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
11862   \endgroup
11863   \Hy@activeanchortrue
11864   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
11865   \special{html:</a>}%
11866   \Hy@activeanchorfalse
11867   \Hy@RestoreLastskip
11868 }

11869 \Hy@WrapperDef\hyper@anchorstart#1{%
11870   \Hy@SaveLastskip
11871   \Hy@VerboseAnchor{#1}%
11872   \begingroup
11873     \hyper@chars
11874     \special{html:<a name=%
11875       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
11876   \endgroup
11877   \Hy@activeanchortrue
11878 }

11879 \def\hyper@anchorend{%
11880   \special{html:</a>}%
11881   \Hy@activeanchorfalse
11882   \Hy@RestoreLastskip
11883 }

11884 \def\@urltype{url}
11885 \def\hyper@linkstart#1#2{%
11886   \Hy@VerboseLinkStart{#1}{#2}%
11887   \expandafter\Hy@colorlink\csname @#1color\endcsname
11888   \def\Hy@tempa{#1}%
11889   \ifx\Hy@tempa\@urltype

```

```

11890 \special{html:<a href=\hyper@quote#2\hyper@quote>}%
11891 \else
11892 \begingroup
11893 \hyper@chars
11894 \special{%
11895     html:<a href=%
11896     \hyper@quote\#\HyperDestNameFilter{#2}\hyper@quote>%
11897     }%
11898 \endgroup
11899 \fi
11900 }
11901 \def\hyper@linkend{%
11902 \special{html:</a>}%
11903 \Hy@endcolorlink
11904 }
11905 \def\hyper@linkfile#1#2#3{%
11906 \hyper@linkurl{#1}{%
11907     \Hy@linkfileprefix#2\ifx\#3\\\else\##3\fi
11908 }%
11909 }
11910 \def\hyper@linkurl#1#2{%
11911 \leavevmode
11912 \ifHy@raiselinks
11913 \Hy@SaveSpaceFactor
11914 \Hy@SaveSavedSpaceFactor
11915 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
11916 \Hy@RestoreSavedSpaceFactor
11917 \@linkdim\dp\@tempboxa
11918 \lower\@linkdim\hbox{%
11919     \hyper@chars
11920     \special{html:<a href=\hyper@quote#2\hyper@quote>}%
11921     }%
11922     \Hy@colorlink\@urlcolor
11923     \Hy@RestoreSpaceFactor
11924     #1\Hy@xspace@end
11925     \Hy@SaveSpaceFactor
11926     \@linkdim\ht\@tempboxa
11927     \advance\@linkdim by -6.5\p@
11928     \raise\@linkdim\hbox{\special{html:</a>}}%
11929     \Hy@endcolorlink
11930     \Hy@RestoreSpaceFactor
11931 \else
11932 \begingroup
11933 \hyper@chars
11934 \special{html:<a href=\hyper@quote#2\hyper@quote>}%
11935 \Hy@colorlink\@urlcolor#1\Hy@xspace@end
11936 \special{html:</a>}%
11937 \Hy@endcolorlink
11938 \endgroup
11939 \fi
11940 }

```

Very poor implementation of \hyper@link without considering #1.

```

11941 \def\hyper@link#1#2#3{%
11942 \Hy@VerboseLinkStart{#1}{#2}%
11943 \hyper@linkurl{#3}{\#\HyperDestNameFilter{#2}}%
11944 }
11945 \def\hyper@image#1#2{%

```

```

11946 \begingroup
11947   \hyper@chars
11948   \special{html:<img src=\hyper@quote#1\hyper@quote>}%
11949 \endgroup
11950 }
11951 </textures>

```

46.12 dvipsone

```

11952 % \subsection{dvipsone driver}
11953 % Over-ride the default setup macro in pdfmark driver to use Y\&Y
11954 % |\special| commands.
11955 <*dvipsone>
11956 \providecommand*\XR@ext>{pdf}
11957 \let\Hy@raisedlink\ltx@empty
11958 \providecommand*\@pdfborder{0 0 1}
11959 \providecommand*\@pdfborderstyle{}
11960 \def\literalps@out#1{\special{ps:#1}}%
11961 \def\headerps@out#1{\special{headertext=#1}}%
11962 \input{pdfmark.def}%
11963 \ifx\@pdfproducer\relax
11964   \def\@pdfproducer{dvipsone + Distiller}%
11965 \fi
11966 \HyInfo@AddonUnsupportedtrue
11967 \def\PDF@FinishDoc{%
11968   \Hy@UseMaketitleInfos
11969   \HyInfo@TrappedUnsupported
11970   \special{PDF: Keywords \@pdfkeywords}%
11971   \special{PDF: Title \@pdftitle}%
11972   \special{PDF: Creator \@pdfcreator}%
11973   \ifx\@pdfcreationdate\@empty
11974     \else
11975     \special{PDF: CreationDate \@pdfcreationdate}%
11976   \fi
11977   \ifx\@pdfmoddate\@empty
11978     \else
11979     \special{PDF: ModDate \@pdfmoddate}%
11980   \fi
11981   \special{PDF: Author \@pdfauthor}%
11982   \ifx\@pdfproducer\relax
11983     \else
11984     \special{PDF: Producer \@pdfproducer}%
11985   \fi
11986   \special{PDF: Subject \@pdfsubject}%
11987   \Hy@DisableOption{pdfauthor}%
11988   \Hy@DisableOption{pdftitle}%
11989   \Hy@DisableOption{pdfsubject}%
11990   \Hy@DisableOption{pdfcreator}%
11991   \Hy@DisableOption{pdfcreationdate}%
11992   \Hy@DisableOption{pdfmoddate}%
11993   \Hy@DisableOption{pdfproducer}%
11994   \Hy@DisableOption{pdfkeywords}%
11995   \Hy@DisableOption{pdftrapped}%
11996   \Hy@DisableOption{pdfinfo}%
11997 }
11998 \def\PDF@SetupDoc{%
11999   \def\Hy@temp{}%

```

```

12000 \ifx\@pdfstartpage\@empty
12001 \else
12002 \ifx\@pdfstartview\@empty
12003 \else
12004 \edef\Hy@temp{%
12005     ,Page=\@pdfstartpage
12006     ,View=\@pdfstartview
12007 }%
12008 \fi
12009 \fi
12010 \edef\Hy@temp{%
12011 \noexpand\pdfmark{%
12012     pdfmark=/DOCVIEW,%
12013     PageMode=/\@pdfpagemode
12014     \Hy@temp
12015 }%
12016 }%
12017 \Hy@temp
12018 \ifx\@pdfpagescrop\@empty
12019 \else
12020 \pdfmark{pdfmark=/PAGES,CropBox=\@pdfpagescrop}%
12021 \fi
12022 \edef\Hy@temp{%
12023 \ifHy@pdftoolbar\else /HideToolbar true\fi
12024 \ifHy@pdfmenubar\else /HideMenubar true\fi
12025 \ifHy@pdfwindowui\else /HideWindowUI true\fi
12026 \ifHy@pdfwindow /FitWindow true\fi
12027 \ifHy@pdfcenterwindow /CenterWindow true\fi
12028 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
12029 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
12030 \Hy@UseNameKey{Direction}\@pdfdirection
12031 \Hy@UseNameKey{ViewArea}\@pdfviewarea
12032 \Hy@UseNameKey{ViewClip}\@pdfviewclip
12033 \Hy@UseNameKey{PrintArea}\@pdfprintarea
12034 \Hy@UseNameKey{PrintClip}\@pdfprintclip
12035 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
12036 \Hy@UseNameKey{Duplex}\@pdfduplex
12037 \ifx\@pdfpicktraybypdfsize\@empty
12038 \else
12039 /PickTrayByPDFSize \@pdfpicktraybypdfsize
12040 \fi
12041 \ifx\@pdfprintpagerange\@empty
12042 \else
12043 /PrintPageRange[\@pdfprintpagerange]%
12044 \fi
12045 \ifx\@pdfnumcopies\@empty
12046 \else
12047 /NumCopies \@pdfnumcopies
12048 \fi
12049 }%
12050 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
12051 \pdfmark{%
12052     pdfmark=/PUT,%
12053     Raw={%
12054         \string{Catalog\string}<<%
12055         \ifx\Hy@temp\@empty
12056         \else

```

```

12057      /ViewerPreferences<<\Hy@temp>>%
12058      \fi
12059      \Hy@UseNameKey{PageLayout}\@pdfpagelayout
12060      \ifx\@pdflang\@empty
12061      \else
12062      /Lang(\@pdflang)%
12063      \fi
12064      \ifx\@baseurl\@empty
12065      \else
12066      /URI<</Base(\Hy@pstringB)>>%
12067      \fi
12068      >>%
12069    }%
12070  }%
12071 }
12072 \providecommand*\@pdfview{XYZ}
12073 \providecommand*\@pdfviewparams{ %
12074   gsave revscl currentpoint grestore %
12075   72 add exch pop null exch null%
12076 }
12077 \def\Hy@BorderArrayPatch{BorderArrayPatch}

```

These are called at the start and end of unboxed links; their job is to leave available PS variables called `pdf@llx pdf@lly pdf@urx pdf@ury`, which are the coordinates of the bounding rectangle of the link, and `pdf@hoff pdf@voff` which are the PDF page offsets. These latter are currently not used in the dvipsone setup. The Rect pair are called at the LL and UR corners of a box known to \TeX .

```

12078 \g@addto@macro\Hy@FirstPageHook{%
12079   \headerps@out{%

```

dvipsone lives in scaled points; does this mean 65536 or 65781?

```

12080   /DvipsToPDF { 65781 div } def%
12081   /PDFToDvips { 65781 mul } def%
12082   /BPToDvips{65781 mul}def%
12083   /HyperBorder { 1 PDFToDvips } def%
12084   /H.B {/Rect[pdf@llx pdf@lly pdf@urx pdf@ury]} def%

```

The values inside the /Boder array are not taken literally, but interpreted by ghostscript using the resolution of the dvi driver. I don't know how other distiller programs behaves in this manner.

```

12085   /BorderArrayPatch{%
12086     [exch{%
12087       dup dup type/integertype eq exch type/realtype eq or%
12088       {BPToDvips}if%
12089     }forall]%
12090   }def%
12091   /H.S {%
12092     currentpoint %
12093     HyperBorder add /pdf@lly exch def %
12094     dup DvipsToPDF 72 add /pdf@hoff exch def %
12095     HyperBorder sub /pdf@llx exch def%
12096   } def%
12097   /H.L {%
12098     2 sub %
12099     PDFToDvips /HyperBase exch def %
12100     currentpoint %
12101     HyperBase sub /pdf@ury exch def%
12102     /pdf@urx exch def%
12103   } def%

```

```

12104 /H.A {%
12105     H.L %
12106     currentpoint exch pop %
12107     HyperBase sub % baseline skip
12108     DvipsToPDF /pdf@voff exch def%
12109 } def%
12110 /H.R {%
12111     currentpoint %
12112     HyperBorder sub /pdf@ury exch def %
12113     HyperBorder add /pdf@urx exch def %
12114     currentpoint exch pop DvipsToPDF /pdf@voff exch def%
12115 } def%
12116 }%
12117 }
12118 </dvipsone>

```

46.13 TeX4ht

```

12119 (*tex4ht)
12120 \providecommand*{\XR@ext}{html}
12121 \let\Hy@raisedlink\ltx@empty
12122 \@ifpackageloaded{tex4ht}{%
12123   \Hy@InfoNoLine{tex4ht is already loaded}%
12124 }{%
12125   \RequirePackage[hTeX4ht]{tex4ht}%
12126 }
12127 \hyperlinkfileprefix{}
12128 \let\PDF@FinishDoc\ltx@empty
12129 \def\PDF@SetupDoc{%
12130   \ifx\@baseurl\@empty
12131     \else
12132       \special{t4ht=<base href="\@baseurl">}%
12133     \fi
12134 }
12135 \Hy@WrapperDef\hyper@anchor#1{%
12136   \Hy@SaveLastskip
12137   \Hy@VerboseAnchor{#1}%
12138   \begingroup
12139     \let\protect=\string
12140     \special{t4ht=<a name=%
12141       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
12142   \endgroup
12143   \Hy@activeanchortrue
12144   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
12145   \special{t4ht=</a>}%
12146   \Hy@activeanchorfalse
12147   \Hy@RestoreLastskip
12148 }
12149 \Hy@WrapperDef\hyper@anchorstart#1{%
12150   \Hy@SaveLastskip
12151   \Hy@VerboseAnchor{#1}%
12152   \begingroup
12153     \hyper@chars\special{t4ht=<a name=%
12154       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
12155   \endgroup
12156   \Hy@activeanchortrue
12157 }
12158 \def\hyper@anchorend{%

```



```

12159 \special{t4ht=</a>}%
12160 \Hy@activeanchorfalse
12161 \Hy@RestoreLastskip
12162 }
12163 \def\@urltype{url}
12164 \def\hyper@linkstart#1#2{%
12165   \Hy@VerboseLinkStart{#1}{#2}%
12166   \expandafter\Hy@colorlink\csname @#1color\endcsname
12167   \def\Hy@tempa{#1}%
12168   \ifx\Hy@tempa\@urltype
12169     \special{t4ht=<a href=\hyper@quote#2\hyper@quote>}%
12170   \else
12171     \begingroup
12172     \hyper@chars
12173     \special{t4ht=<a href=%
12174       \hyper@quote\#\HyperDestNameFilter{#2}\hyper@quote>}%
12175     \endgroup
12176   \fi
12177 }
12178 \def\hyper@linkend{%
12179   \special{t4ht=</a>}%
12180   \Hy@endcolorlink
12181 }
12182 \def\hyper@linkfile#1#2#3{%
12183   \hyper@linkurl{#1}{\Hy@linkfileprefix#2\ifx\\#3\\\else\##3\fi}%
12184 }
12185 \def\hyper@linkurl#1#2{%
12186   \leavevmode
12187   \ifHy@raiselinks
12188     \Hy@SaveSpaceFactor
12189     \Hy@SaveSavedSpaceFactor
12190     \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
12191     \Hy@RestoreSavedSpaceFactor
12192     \@linkdim\dp\@tempboxa
12193     \lower\@linkdim\hbox{%
12194       \begingroup
12195       \hyper@chars
12196       \special{%
12197         t4ht=<a href=\hyper@quote#2\hyper@quote>%
12198       }%
12199       \endgroup
12200     }%
12201     \Hy@colorlink\@urlcolor
12202     \Hy@RestoreSpaceFactor
12203     #1\Hy@xspace@end
12204     \Hy@SaveSpaceFactor
12205     \Hy@endcolorlink
12206     \@linkdim\ht\@tempboxa
12207     \advance\@linkdim by -6.5\p@
12208     \raise\@linkdim\hbox{\special{t4ht=</a>}}%
12209     \Hy@RestoreSpaceFactor
12210   \else
12211     \begingroup
12212     \hyper@chars
12213     \special{t4ht=<a href=\hyper@quote#2\hyper@quote>}%
12214     \Hy@colorlink\@urlcolor
12215     #1\Hy@xspace@end

```

```

12216 \Hy@endcolorlink
12217 \special{t4ht=</a>}%
12218 \endgroup
12219 \fi
12220 }

Poor implementation of \hyper@link without considering #1.
12221 \def\hyper@link#1#2#3{%
12222 \Hy@VerboseLinkStart{#1}{#2}%
12223 \hyper@linkurl{#3}{\#\Hy@DestNameFilter{#2}}%
12224 }
12225 \def\hyper@image#1#2{%
12226 \begin{group}
12227 \hyper@chars
12228 \special{t4ht=<img src=\hyper@quote#1\hyper@quote>}%
12229 \endgroup
12230 }
12231 \let\autoref\ref
12232 \ifx \rEFLiNK \UnDef
12233 \def\rEFLiNK #1#2{#2}%
12234 \fi
12235 \let\backref\ltx@gobble

Fix for tex4ht.
12236 \AtBeginDocument{%
12237 \expandafter\let\expandafter\Hy@OrgMakeLabel\csname Make:Label\endc-
sname
12238 \expandafter\def\csname Make:Label\endcsname#1#2{%
12239 \ifhmode
12240 \Hy@SaveSpaceFactor
12241 \else
12242 \global\Hy@SavedSpaceFactor=1000 %
12243 \fi
12244 \Hy@OrgMakeLabel{#1}{%
12245 \Hy@RestoreSpaceFactor
12246 #2\Hy@xspace@end%
12247 \Hy@SaveSpaceFactor
12248 }%
12249 \Hy@RestoreSpaceFactor
12250 }%
12251 }
12252 </tex4ht>
12253 <*tex4htcfg>
12254 \IfFileExists{\jobname.cfg}{\endinput}{}
12255 \Preamble{html}
12256 \begin{document}%
12257 \EndPreamble
12258 \def\TeX{TeX}
12259 \def\OMEGA{\Omega}
12260 \def\LaTeX{LaTeX}
12261 \def\LaTeXe{\LaTeX2e}
12262 \def\eTeX{e-TeX}
12263 \def\MF{Metafont}
12264 \def\MP{MetaPost}
12265 </tex4htcfg>

```

47 Driver-specific form support

47.1 pdfmarks

```
12266 (*pdfmark)
12267 \long\def\@Form[#1]{%
12268 \g@addto@macro\Hy@FirstPageHook{%
12269 \headerps@out{%
12270 [%
12271 /_objdef{pdfDocEncoding}%
12272 /type/dict%
12273 /OBJ pdfmark%
12274 [%
12275 {pdfDocEncoding}%
12276 <<%
12277 /Type/Encoding%
12278 /Differences[%
12279 24/breve/caron/circumflex/dotaccent/hungarumlaut/ogonek/ring%
12280 /tilde %
12281 39/quotesingle %
12282 96/grave %
12283 128/bullet/dagger/daggerdbl/ellipsis/emdash/endash/florin%
12284 /fraction/guilsinglleft/guilsinglright/minus/perthousand%
12285 /quotedblbase/quotedblleft/quotedblright/quoteleft%
12286 /quoteright/quotesinglbase/trademark/fi/fl/Lslash/OE/Scaron%
12287 /Ydieresis/Zcaron/dotlessi/lslash/oe/scaron/zcaron %
12288 164/currency %
12289 166/brokenbar %
12290 168/dieresis/copyright/ordfeminine %
12291 172/logicalnot/.notdef/registered/macron/degree/plusminus%
12292 /twosuperior/threesuperior/acute/mu %
12293 183/periodcentered/cedilla/onesuperior/ordmasculine %
12294 188/onequarter/onehalf/threequarters %
12295 192/Agrave/Aacute/Acircumflex/Atilde/Adieresis/Aring/AE%
12296 /Ccedilla/Egrave/Eacute/Ecircumflex/Edieresis/Igrave%
12297 /Iacute/Icircumflex/Idieresis/Eth/Ntilde/Ograve/Oacute%
12298 /Ocircumflex/Otilde/Odieresis/multiply/Oslash/Ugrave%
12299 /Uacute/Ucircumflex/Udieresis/Yacute/Thorn/germandbls%
12300 /agrave/aacute/acircumflex/atilde/adieresis/aring/ae%
12301 /ccedilla/egrave/eacute/ecircumflex/edieresis/igrave%
12302 /iacute/icircumflex/idieresis/eth/ntilde/ograde/oacute%
12303 /ocircumflex/otilde/odieresis/divide/oslash/ugrave/uacute%
12304 /ucircumflex/udieresis/yacute/thorn/ydieresis%
12305 ]%
12306 >>%
12307 /PUT pdfmark%
12308 [%
12309 /_objdef{ZaDb}%
12310 /type/dict%
12311 /OBJ pdfmark%
12312 [%
12313 {ZaDb}%
12314 <<%
12315 /Type/Font%
12316 /Subtype/Type1%
12317 /Name/ZaDb%
12318 /BaseFont/ZapfDingbats%
12319 >>%
```

```

12320 /PUT pdfmark%
12321 [%
12322   /__objdef{Helv}%
12323   /type/dict%
12324 /OBJ pdfmark%
12325 [%
12326   {Helv}%
12327   <<%
12328     /Type/Font%
12329     /Subtype/Type1%
12330     /Name/Helv%
12331     /BaseFont/Helvetica%
12332     /Encoding{pdfDocEncoding}%
12333   >>%
12334 /PUT pdfmark%
12335 [%
12336   /__objdef{aform}%
12337   /type/dict%
12338 /OBJ pdfmark%
12339 [%
12340   /__objdef{afields}%
12341   /type/array%
12342 /OBJ pdfmark%
12343 {%
12344   [%
12345     /BBox[0 0 100 100]%
12346     /__objdef{Check}%
12347 /BP pdfmark %
12348   1 0 0 setrgbcolor%
12349 /ZapfDingbats 80 selectfont %
12350   20 20 moveto%
12351   (4)show%
12352 [/EP pdfmark%
12353 [%
12354   /BBox[0 0 100 100]%
12355   /__objdef{Cross}%
12356 /BP pdfmark %
12357   1 0 0 setrgbcolor%
12358 /ZapfDingbats 80 selectfont %
12359   20 20 moveto%
12360   (8)show%
12361 [/EP pdfmark%
12362 [%
12363   /BBox[0 0 250 100]%
12364   /__objdef{Submit}%
12365 /BP pdfmark %
12366   0.6 setgray %
12367   0 0 250 100 rectfill %
12368   1 setgray %
12369   2 2 moveto %
12370   2 98 lineto %
12371   248 98 lineto %
12372   246 96 lineto %
12373   4 96 lineto %
12374   4 4 lineto %
12375   fill %
12376   0.34 setgray %

```

```

12377 248 98 moveto %
12378 248 2 lineto %
12379 2 2 lineto %
12380 4 4 lineto %
12381 246 4 lineto %
12382 246 96 lineto %
12383 fill%
12384 /Helvetica 76 selectfont %
12385 0 setgray %
12386 8 22.5 moveto%
12387 (Submit)show%
12388 [/EP pdfmark%
12389 [%
12390 /BBox[0 0 250 100]%
12391 /_objdef{SubmitP}%
12392 /BP pdfmark %
12393 0.6 setgray %
12394 0 0 250 100 rectfill %
12395 0.34 setgray %
12396 2 2 moveto %
12397 2 98 lineto %
12398 248 98 lineto %
12399 246 96 lineto %
12400 4 96 lineto %
12401 4 4 lineto %
12402 fill %
12403 1 setgray %
12404 248 98 moveto %
12405 248 2 lineto %
12406 2 2 lineto %
12407 4 4 lineto %
12408 246 4 lineto %
12409 246 96 lineto %
12410 fill%
12411 /Helvetica 76 selectfont %
12412 0 setgray %
12413 10 20.5 moveto%
12414 (Submit)show%
12415 [/EP pdfmark%
12416 } ?pdfmark%
12417 [%
12418 {aform}%
12419 <<%
12420 /Fields{afields}%
12421 /DR<<%
12422 /Font<<%
12423 /ZaDb{ZaDb}%
12424 /Helv{Helv}%
12425 >>%
12426 >>%
12427 /DA(/Helv 10 Tf 0 g)%
12428 /CO{corder}%
12429 \ifHy@pdfa
12430 \else
12431 \ifHyField@NeedAppearances
12432 /NeedAppearances true%
12433 \fi

```

```

12434 \fi
12435 >>%
12436 /PUT pdfmark%
12437 [%
12438 {Catalog}%
12439 <<%
12440 /AcroForm{aform}%
12441 >>%
12442 /PUT pdfmark%
12443 [%
12444 /_objdef{corder}%
12445 /type/array%
12446 /OBJ pdfmark% dps
12447 }}%
12448 \kvsetkeys{Form}{#1}%
12449 }
12450 \let\@endForm\ltx@empty
12451 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
12452 \Hy@Message{Sorry, pdfmark drivers do not support FORM gauges}%
12453 }
12454 \def\@TextField[#1]#2{% parameters, label
12455 \def\Fld@name{#2}%
12456 \let\Fld@default\ltx@empty
12457 \let\Fld@value\@empty
12458 \def\Fld@width{\DefaultWidthofText}%
12459 \def\Fld@height{%
12460 \ifFld@multiline
12461 \DefaultHeightofTextMultiline
12462 \else
12463 \DefaultHeightofText
12464 \fi
12465 }%
12466 \begingroup
12467 \expandafter\HyField@SetKeys\expandafter{%
12468 \DefaultOptionsofText,#1%
12469 }%
12470 \HyField@FlagsText
12471 \ifFld@hidden\def\Fld@width{1sp}\fi
12472 \ifx\Fld@value\@empty\def\Fld@value{\Fld@default}\fi
12473 \LayoutTextField{#2}{%
12474 \leavevmode
12475 \Hy@escapeform\PDFForm@Text
12476 \pdfmark{\MakeTextField{\Fld@width}{\Fld@height}}{%
12477 pdfmark=/ANN,Raw={\PDFForm@Text}%
12478 }%
12479 }%
12480 \endgroup
12481 }
12482 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
12483 \def\Fld@name{#2}%
12484 \let\Fld@default\relax
12485 \let\Fld@value\relax
12486 \def\Fld@width{\DefaultWidthofChoiceMenu}%
12487 \def\Fld@height{\DefaultHeightofChoiceMenu}%
12488 \begingroup
12489 \Fld@menulength=0 %
12490 \@tempdima\z@

```

```

12491 \@for\@curropt:=#3\do{%
12492 \expandafter\Fld@checkequals\@curropt==\\%
12493 \Hy@StepCount\Fld@menulength
12494 \settowidth{\@tempdimb}{\@currDisplay}%
12495 \ifdim\@tempdimb>\@tempdima\@tempdima\@tempdimb\fi
12496 }%
12497 \advance\@tempdima by 15\p@
12498 \begingroup
12499 \HyField@SetKeys{#1}%
12500 \edef\x{\endgroup
12501 \noexpand\expandafter
12502 \noexpand\HyField@SetKeys
12503 \noexpand\expandafter{%
12504 \expandafter\noexpand\csname DefaultOptionsof%
12505 \ifFld@radio
12506 Radio%
12507 \else
12508 \ifFld@combo
12509 \ifFld@popdown
12510 PopdownBox%
12511 \else
12512 ComboBox%
12513 \fi
12514 \else
12515 ListBox%
12516 \fi
12517 \fi
12518 \endcsname
12519 }%
12520 }\x
12521 \HyField@SetKeys{#1}%
12522 \ifFld@hidden\def\Fld@width{1sp}\fi
12523 \ifx\Fld@value\relax
12524 \let\Fld@value\Fld@default
12525 \fi
12526 \LayoutChoiceField{#2}{%
12527 \ifFld@radio
12528 \HyField@FlagsRadioButton
12529 \@@Radio{#3}%
12530 \else
12531 \begingroup
12532 \HyField@FlagsChoice
12533 \ifdim\Fld@width<\@tempdima
12534 \ifdim\@tempdima<1cm\@tempdima1cm\fi
12535 \edef\Fld@width{\the\@tempdima}%
12536 \fi
12537 \ifFld@combo
12538 \else
12539 \@tempdima=\the\Fld@menulength\Fld@charsize
12540 \advance\@tempdima by \Fld@borderwidth bp %
12541 \advance\@tempdima by \Fld@borderwidth bp %
12542 \edef\Fld@height{\the\@tempdima}%
12543 \fi
12544 \@@Listbox{#3}%
12545 \endgroup
12546 \fi
12547 }%

```

```

12548 \endgroup
12549 }
12550 \def\@@Radio#1{%
12551   \Fld@listcount=0 %
12552   \EdefEscapeName\Fld@default{\Fld@default}%
12553   \@for\@curropt:=#1\do{%
12554     \expandafter\Fld@checkequals\@curropt==\%
12555     \EdefEscapeName\@currValue{\@currValue}%
12556     \Hy@StepCount\Fld@listcount
12557     \@currDisplay\space
12558     \Hy@escapeform\PDFForm@Radio
12559     \pdfmark[\MakeRadioField{\Fld@width}{\Fld@height}]{%
12560       pdfmark=/ANN,%
12561       Raw={%
12562         \PDFForm@Radio /AP <</N <</\@currValue\space {Check}>> >>%
12563       }%
12564     } % deliberate space between radio buttons
12565   }%
12566 }
12567 \newcount\Fld@listcount
12568 \def\@@Listbox#1{%
12569   \HyField@PDFChoices{#1}%
12570   \Hy@escapeform\PDFForm@List
12571   \pdfmark[\MakeChoiceField{\Fld@width}{\Fld@height}]{%
12572     pdfmark=/ANN,Raw={\PDFForm@List}%
12573   }%
12574 }
12575 \def\@PushButton[#1]#2{% parameters, label
12576   \def\Fld@name{#2}%
12577   \begingroup
12578     \expandafter\HyField@SetKeys\expandafter{%
12579       \DefaultOptionsofPushButton,#1%
12580     }%
12581     \ifHy@pdfa
12582       \Hy@Error{%
12583         PDF/A: Push button with JavaScript is prohibited%
12584       }\@ehc
12585       \LayoutPushButtonField{%
12586         \leavevmode
12587         \MakeButtonField{#2}%
12588       }%
12589     \else
12590       \HyField@FlagsPushButton
12591       \ifFld@hidden\def\Fld@width{1sp}\fi
12592       \LayoutPushButtonField{%
12593         \leavevmode
12594         \Hy@escapeform\PDFForm@Push
12595         \pdfmark[\MakeButtonField{#2}]{%
12596           pdfmark=/ANN,Raw={\PDFForm@Push}%
12597         }%
12598       }%
12599     \fi
12600   \endgroup
12601 }
12602 \def\@Submit[#1]#2{%
12603   \def\Fld@width{\DefaultWidthofSubmit}%
12604   \def\Fld@height{\DefaultHeightofSubmit}%

```



```

12605 \begingroup
12606   \expandafter\HyField@SetKeys\expandafter{%
12607     \DefaultOptionsofSubmit,#1%
12608   }%
12609   \HyField@FlagsPushButton
12610   \HyField@FlagsSubmit
12611   \ifFld@hidden\def\Fld@width{1sp}\fi
12612   \Hy@escapeform\PDFForm@Submit
12613   \pdfmark[\MakeButtonField{#2}]{%
12614     pdfmark=/ANN,%
12615     Raw={\PDFForm@Submit /AP << /N {Submit} /D {SubmitP} >>}%
12616   }%
12617 \endgroup
12618 }
12619 \def\@Reset[#1]#2{%
12620   \def\Fld@width{\DefaultWidthofReset}%
12621   \def\Fld@height{\DefaultHeightofReset}%
12622   \begingroup
12623     \expandafter\HyField@SetKeys\expandafter{%
12624       \DefaultOptionsofReset,#1%
12625     }%
12626     \leavevmode
12627     \ifHy@pdfa
12628       \Hy@Error{%
12629         PDF/A: Reset action is prohibited%
12630       }\@ehc
12631       \MakeButtonField{#2}%
12632     \else
12633       \HyField@FlagsPushButton
12634       \ifFld@hidden\def\Fld@width{1sp}\fi
12635       \Hy@escapeform\PDFForm@Reset
12636       \pdfmark[\MakeButtonField{#2}]{%
12637         pdfmark=/ANN,Raw={\PDFForm@Reset}%
12638       }%
12639     \fi
12640   \endgroup
12641 }%
12642 \def\@CheckBox[#1]#2{% parameters, label
12643   \def\Fld@name{#2}%
12644   \def\Fld@default{0}%
12645   \begingroup
12646     \def\Fld@width{\DefaultWidthofCheckBox}%
12647     \def\Fld@height{\DefaultHeightofCheckBox}%
12648     \expandafter\HyField@SetKeys\expandafter{%
12649       \DefaultOptionsofCheckBox,#1%
12650     }%
12651     \HyField@FlagsCheckBox
12652     \ifFld@hidden\def\Fld@width{1sp}\fi
12653     \LayoutCheckField{#2}{%
12654       \leavevmode
12655       \Hy@escapeform\PDFForm@Check
12656       \pdfmark[\MakeCheckField{\Fld@width}{\Fld@height}]{%
12657         pdfmark=/ANN,Raw={\PDFForm@Check}%
12658       }%
12659     }%
12660   \endgroup
12661 }

```

12662 \langle /pdfmark \rangle

47.2 HyperTeX

```
12663  $\langle$ *hypertex $\rangle$ 
12664 \def\@Form[#1]{\Hy@Message{Sorry, HyperTeX does not support FORMs}}
12665 \let\@endForm\ltx@empty
12666 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
12667   \Hy@Message{Sorry, HyperTeX does not support FORM gauges}%
12668 }
12669 \def\@TextField[#1]#2{% parameters, label
12670   \Hy@Message{Sorry, HyperTeX does not support FORM text fields}%
12671 }
12672 \def\@CheckBox[#1]#2{% parameters, label
12673   \Hy@Message{Sorry, HyperTeX does not support FORM checkboxes}%
12674 }
12675 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
12676   \Hy@Message{Sorry, HyperTeX does not support FORM choice menus}%
12677 }
12678 \def\@PushButton[#1]#2{% parameters, label
12679   \Hy@Message{Sorry, HyperTeX does not support FORM pushbuttons}%
12680 }
12681 \def\@Reset[#1]#2{\Hy@Message{Sorry, HyperTeX does not support FORMs}}
12682 \def\@Submit[#1]#2{\Hy@Message{Sorry, HyperTeX does not support FORMs}}
12683  $\langle$ /hypertex $\rangle$ 
```

47.3 TeX4ht

```
12684  $\langle$ *tex4ht $\rangle$ 
12685 \def\@Form[#1]{%
12686   \kvsetkeys{Form}{#1}%
12687   \HCode{<form action="\Form@action" method="\Form@method">}%
12688 }
12689 \def\@endForm{\HCode{</form>}}
12690 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
12691   \Hy@Message{Sorry, TeX4ht does not support gauges}%
12692 }
12693 \def\@TextField[#1]#2{% parameters, label
12694   \let\Hy@reserved@a\@empty
12695   \def\Fld@name{#2}%
12696   \let\Fld@default\ltx@empty
12697   \bgroup
12698     \Field@toks={ }%
12699     \kvsetkeys{Field}{#1}%
12700     \HCode{<label for="\Fld@name">#2</label>}%
12701     \ifFld@password
12702       \@@PasswordField
12703     \else
12704       \@@TextField
12705     \fi
12706   \egroup
12707 }
12708 \def\@@PasswordField{%
12709   \HCode{%
12710     <input type="password" %
12711       id="\Fld@name" %
12712       name="\Fld@name" %
12713       \ifFld@hidden type="hidden" \fi
12714       value="\Fld@default" %
```

```

12715     \the\Field@toks
12716     >%
12717 }%
12718 }
12719 \def\@@TextField{%
12720   \ifFld@multiline
12721     \HCode{<textarea %
12722       \ifFld@readonly readonly \fi
12723       id="\Fld@name" %
12724       name="\Fld@name" %
12725       \ifFld@hidden type="hidden" \fi
12726       \the\Field@toks>%
12727     }%
12728     \Fld@default
12729     \HCode{</textarea>}%
12730   \else
12731     \HCode{<input type="text" %
12732       \ifFld@readonly readonly \fi
12733       id="\Fld@name" %
12734       name="\Fld@name" %
12735       \ifFld@hidden type="hidden" \fi
12736       value="\Fld@default" %
12737       \the\Field@toks>%
12738     }%
12739   \fi
12740 }
12741 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
12742   \def\Fld@name{#2}%
12743   \let\Fld@default\ltx@empty
12744   \let\Hy@reserved@a\relax
12745   \begingroup
12746     \expandafter\Fld@findlength#3\\%
12747     \Field@toks={ }%
12748     \kvsetkeys{Field}{#1}%
12749     #2%
12750     \ifFld@radio
12751       \expandafter\@@Radio#3\\%
12752     \else
12753       \expandafter\@@Menu#3\\%
12754     \fi
12755   \endgroup
12756 }
12757 \def\Fld@findlength#1\\{%
12758   \Fld@menulength=0 %
12759   \@for\@curropt:=#1\do{\Hy@StepCount\Fld@menulength}%
12760 }
12761 \def\@@Menu#1\\{%
12762   \HCode{<select size="\the\Fld@menulength" %
12763     name="\Fld@name" %
12764     \the\Field@toks>%
12765   }%
12766   \@for\@curropt:=#1\do{%
12767     \expandafter\Fld@checkequals\@curropt==\\%
12768     \HCode{<option %
12769       \ifx\@curropt\Fld@default selected \fi
12770       value="\@currValue">\@currDisplay</option>%
12771     }%

```

```

12772 }%
12773 \HCode{</select>}%
12774 }
12775 \def\@@Radio#1\{\%
12776 \@for\@curropt:=#1\do{%
12777 \expandafter\Fld@checkequals\@curropt==\%
12778 \HCode{<input type="radio" %
12779 \ifx\@curropt\Fld@default checked \fi
12780 name="\Fld@name" %
12781 value="\@currValue" %
12782 \the\Fld@toks>%
12783 }%
12784 \@currDisplay
12785 }%
12786 }
12787 \def\@PushButton[#1]#2{% parameters, label
12788 \def\Fld@name{#2}%
12789 \bgroup
12790 \Fld@toks={ }%
12791 \kvsetkeys{Field}{#1}%
12792 \HCode{<input type="button" %
12793 name="\Fld@name" %
12794 value="#2" %
12795 \the\Fld@toks>%
12796 }%
12797 \HCode{</button>}%
12798 \egroup
12799 }
12800 \def\@Submit[#1]#2{%
12801 \HCode{<button type="submit">#2</button>}%
12802 }
12803 \def\@Reset[#1]#2{%
12804 \HCode{<button type="reset">#2</button>}%
12805 }
12806 \def\@CheckBox[#1]#2{% parameters, label
12807 \let\Hy@reserved@a\@empty
12808 \def\Fld@name{#2}%
12809 \def\Fld@default{0}%
12810 \bgroup
12811 \Fld@toks={ }%
12812 \kvsetkeys{Field}{#1}%
12813 \HCode{<input type="checkbox" %
12814 \ifFld@checked checked \fi
12815 \ifFld@disabled disabled \fi
12816 \ifFld@readonly readonly \fi
12817 name="\Fld@name" %
12818 \ifFld@hidden type="hidden" \fi
12819 value="\Fld@default" %
12820 \the\Fld@toks>%
12821 #2%
12822 }%
12823 \egroup
12824 }
12825 </tex4ht>

```

47.4 pdfTeX

```

12826 <*pdfTeX>

```

```

12827 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
12828 \Hy@Message{Sorry, pdftex does not support FORM gauges}%
12829 }
12830 \def\MakeFieldObject#1#2{\sbox0{#1}%
12831 \immediate\pdfxform0 %
12832 \expandafter\edef\csname #2Object\endcsname{%
12833 \the\pdfastxform\space 0 R%
12834 }%
12835 % \hbox to Opt{\hskip-\maxdimen{\pdfrefxform \the\pdfastxform}}}%
12836 }%
12837 \let\HyField@afields\ltx@empty
12838 \begingroup\expandafter\expandafter\expandafter\endgroup
12839 \expandafter\ifx\csname pdfastlink\endcsname\relax
12840 \let\HyField@AddToFields\relax
12841 \PackageInfo{hyperref}{%
12842 You need pdfTeX 1.40.0 for setting the /Fields entry.%
12843 \MessageBreak
12844 Adobe Reader/Acrobat accepts an empty /Field array,%
12845 \MessageBreak
12846 but other PDF viewers might complain%
12847 }%
12848 \else
12849 \let\HyField@AuxAddToFields\ltx@gobble
12850 \def\HyField@AfterAuxOpen{\Hy@AtBeginDocument}%
12851 \Hy@AtBeginDocument{%
12852 \if@filesw
12853 \immediate\write\@mainaux{%
12854 \string\providecommand\string\HyField@AuxAddToFields[1]{}%
12855 }%
12856 \fi
12857 \let\HyField@AfterAuxOpen\@firstofone
12858 \def\HyField@AuxAddToFields#1{%
12859 \xdef\HyField@afields{%
12860 \ifx\HyField@afields\@empty
12861 \else
12862 \HyField@afields
12863 \space
12864 \fi
12865 #1 0 R%
12866 }%
12867 }%
12868 }%
12869 \def\HyField@AddToFields{%
12870 \expandafter\HyField@@AddToFields\expandafter{%
12871 \the\pdfastlink
12872 }%
12873 }%
12874 \def\HyField@@AddToFields#1{%
12875 \HyField@AfterAuxOpen{%
12876 \if@filesw
12877 \write\@mainaux{%
12878 \string\HyField@AuxAddToFields{#1}%
12879 }%
12880 \fi
12881 }%
12882 }%
12883 \fi

```

```

12884 \def\@Form[#1]{%
12885   \ifundefined{textcolor}{\let\textcolor\@gobble}{}%
12886   \kvsetkeys{Form}{#1}%
12887   \pdf@ifdraftmode{}{%
12888     \Hy@FormObjects
12889     \ifnum\pdfTeXversion>13 %
12890       \pdfrefobj\OBJ@pdfdocencoding
12891       \pdfrefobj\OBJ@ZaDb
12892       \pdfrefobj\OBJ@Helv
12893     \fi
12894     \AtVeryEndDocument{%
12895       \immediate\pdfobj{%
12896         <<%
12897         /Fields[\HyField@afields]%
12898         /DR<<%
12899         /Font<<%
12900         /ZaDb \OBJ@ZaDb\space 0 R%
12901         /Helv \OBJ@Helv\space 0 R%
12902         >>%
12903         >>%
12904         /DA(/Helv 10 Tf 0 g)%
12905         \ifHy@pdfa
12906         \else
12907           \ifHyField@NeedAppearances
12908             /NeedAppearances true%
12909           \fi
12910         \fi
12911         >>%
12912       }%
12913       \edef\OBJ@acroform{\the\pdflastobj}%
12914       \pdfcatalog{/AcroForm \OBJ@acroform\space 0 R}%
12915     }%
12916   }%
12917   \MakeFieldObject{%
Same as \ding{123} of package pifont.
12918   \begingroup
12919     \fontfamily{pzd}%
12920     \fontencoding{U}%
12921     \fontseries{m}%
12922     \fontshape{n}%
12923     \selectfont
12924     \char123 %
12925   \endgroup
12926   }{Ding}%
12927   \MakeFieldObject{%
12928     \fbox{\textcolor{yellow}{\textsf{Submit}}}%
12929   }{Submit}%
12930   \MakeFieldObject{%
12931     \fbox{\textcolor{yellow}{\textsf{SubmitP}}}%
12932   }{SubmitP}%
12933 }
12934 \let\@endForm\ltx@empty
12935 \def\@TextField[#1]#2{% parameters, label
12936   \def\Fld@name{#2}%
12937   \let\Fld@default\ltx@empty
12938   \let\Fld@value\@empty
12939   \def\Fld@width{\DefaultWidthofText}%

```

```

12940 \def\Fld@height{%
12941   \ifFld@multiline
12942     \DefaultHeightofTextMultiline
12943   \else
12944     \DefaultHeightofText
12945   \fi
12946 }%
12947 \begingroup
12948   \expandafter\HyField@SetKeys\expandafter{%
12949     \DefaultOptionsofText,#1%
12950   }%
12951   \PDFForm@Name
12952   \HyField@FlagsText
12953   \ifFld@hidden\def\Fld@width{1sp}\fi
12954   \ifx\Fld@value\@empty\def\Fld@value{\Fld@default}\fi
12955   \LayoutTextField{#2}{%
12956     \leavevmode
12957     \Hy@escapeform\PDFForm@Text
12958     \pdfstartlink user {\PDFForm@Text}\relax
12959     \MakeTextField{\Fld@width}{\Fld@height}\pdfendlink
12960     \HyField@AddToFields
12961   }%
12962 \endgroup
12963 }
12964 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
12965   \def\Fld@name{#2}%
12966   \let\Fld@default\relax
12967   \let\Fld@value\relax
12968   \def\Fld@width{\DefaultWidthofChoiceMenu}%
12969   \def\Fld@height{\DefaultHeightofChoiceMenu}%
12970   \begingroup
12971     \Fld@menulength=0 %
12972     \@tempdima\z@
12973     \@for\@curropt:=#3\do{%
12974       \expandafter\Fld@checkequals\@curropt==\\%
12975       \Hy@StepCount\Fld@menulength
12976       \settowidth{\@tempdimb}{\@currDisplay}%
12977       \ifdim\@tempdimb>\@tempdima\@tempdima\@tempdimb\fi
12978     }%
12979     \advance\@tempdima by 15\p@
12980     \begingroup
12981       \HyField@SetKeys{#1}%
12982     \edef\x{\endgroup
12983       \noexpand\expandafter
12984       \noexpand\HyField@SetKeys
12985       \noexpand\expandafter{%
12986         \expandafter\noexpand\csname DefaultOptionsof%
12987           \ifFld@radio
12988             Radio%
12989           \else
12990             \ifFld@combo
12991               \ifFld@popdown
12992                 PopdownBox%
12993               \else
12994                 ComboBox%
12995             \fi
12996           \else

```

```

12997         ListBox%
12998     \fi
12999 \fi
13000 \endcsname
13001 }%
13002 }\x
13003 \HyField@SetKeys{#1}%
13004 \PDFForm@Name
13005 \ifFld@hidden\def\Fld@width{1sp}\fi
13006 \ifx\Fld@value\relax
13007     \let\Fld@value\Fld@default
13008 \fi
13009 \LayoutChoiceField{#2}{%
13010     \ifFld@radio
13011         \HyField@FlagsRadioButton
13012         \@@Radio{#3}%
13013     \else
13014         \begingroup
13015         \HyField@FlagsChoice
13016         \ifdim\Fld@width<\@tempdima
13017             \ifdim\@tempdima<1cm\@tempdima1cm\fi
13018             \edef\Fld@width{\the\@tempdima}%
13019         \fi
13020         \ifFld@combo
13021         \else
13022             \@tempdima=\the\Fld@menulength\Fld@charsize
13023             \advance\@tempdima by \Fld@borderwidth bp %
13024             \advance\@tempdima by \Fld@borderwidth bp %
13025             \edef\Fld@height{\the\@tempdima}%
13026         \fi
13027         \@@Listbox{#3}%
13028     \endgroup
13029 \fi
13030 }%
13031 \endgroup
13032 }
13033 \def\@@Radio#1{%
13034     \Fld@listcount=0 %
13035     \EdefEscapeName\Fld@default{\Fld@default}%
13036     \@for\@curropt:=#1\do{%
13037         \expandafter\Fld@checkequals\@curropt==\%
13038         \EdefEscapeName\@currValue{\@currValue}%
13039         \Hy@StepCount\Fld@listcount
13040         \@currDisplay\space
13041         \leavevmode
13042         \Hy@escapeform\PDFForm@Radio
13043         \pdfstartlink user {%
13044             \PDFForm@Radio
13045             /AP<<%
13046             /N<<%

```

Laurent.Guillope@math.univ-nantes.fr (Laurent Guillope) persuades me that this was wrong: `/\Fld@name\the\Fld@listcount`. But I leave it here to remind me that it is untested.

```

13047         /\@currValue\space \DingObject
13048         >>%
13049         >>%
13050     }%

```



```

13051 \relax
13052 \MakeRadioField{\Fld@width}{\Fld@height}\pdfendlink
13053 \ifnum\Fld@listcount=1 %
13054 \HyField@AddToFields
13055 \fi
13056 \space % deliberate space between radio buttons
13057 }%
13058 }
13059 \newcount\Fld@listcount
13060 \def\@@ListBox#1{%
13061 \HyField@PDFChoices{#1}%
13062 \leavevmode
13063 \Hy@escapeform\PDFForm@List
13064 \pdfstartlink user {\PDFForm@List}\relax
13065 \MakeChoiceField{\Fld@width}{\Fld@height}%
13066 \pdfendlink
13067 \HyField@AddToFields
13068 }
13069 \def\@PushButton[#1]#2{% parameters, label
13070 \def\Fld@name{#2}%
13071 \begingroup
13072 \expandafter\HyField@SetKeys\expandafter{%
13073 \DefaultOptionsofPushButton,#1%
13074 }%
13075 \PDFForm@Name
13076 \ifHy@pdfa
13077 \Hy@Error{%
13078 PDF/A: Push button with JavaScript is prohibited%
13079 } \@ehc
13080 \LayoutPushButtonField{%
13081 \leavevmode
13082 \MakeButtonField{#2}%
13083 }%
13084 \else
13085 \HyField@FlagsPushButton
13086 \ifFld@hidden\def\Fld@width{1sp}\fi
13087 \LayoutPushButtonField{%
13088 \leavevmode
13089 \Hy@escapeform\PDFForm@Push
13090 \pdfstartlink user {\PDFForm@Push}\relax
13091 \MakeButtonField{#2}%
13092 \pdfendlink
13093 \HyField@AddToFields
13094 }%
13095 \fi
13096 \endgroup
13097 }
13098 \def\@Submit[#1]#2{%
13099 \def\Fld@width{\DefaultWidthofSubmit}%
13100 \def\Fld@height{\DefaultHeightofSubmit}%
13101 \begingroup
13102 \expandafter\HyField@SetKeys\expandafter{%
13103 \DefaultOptionsofSubmit,#1%
13104 }%
13105 \HyField@FlagsPushButton
13106 \HyField@FlagsSubmit
13107 \ifFld@hidden\def\Fld@width{1sp}\fi

```

```

13108 \leavevmode
13109 \Hy@escapeform\PDFForm@Submit
13110 \pdfstartlink user {%
13111 \PDFForm@Submit
13112 /AP<</N \SubmitObject/D \SubmitPObject>>%
13113 }%
13114 \relax
13115 \MakeButtonField{#2}%
13116 \pdfendlink
13117 \HyField@AddToFields
13118 \endgroup
13119 }
13120 \def\@Reset[#1]#2{%
13121 \def\Fld@width{\DefaultWidthofReset}%
13122 \def\Fld@height{\DefaultHeightofReset}%
13123 \begingroup
13124 \expandafter\HyField@SetKeys\expandafter{%
13125 \DefaultOptionsofReset,#1%
13126 }%
13127 \leavevmode
13128 \ifHy@pdfa
13129 \Hy@Error{%
13130 PDF/A: Reset action is prohibited%
13131 }\@ehc
13132 \MakeButtonField{#2}%
13133 \else
13134 \HyField@FlagsPushButton
13135 \ifFld@hidden\def\Fld@width{1sp}\fi
13136 \Hy@escapeform\PDFForm@Reset
13137 \pdfstartlink user {\PDFForm@Reset}\relax
13138 \MakeButtonField{#2}%
13139 \pdfendlink
13140 \HyField@AddToFields
13141 \fi
13142 \endgroup
13143 }
13144 \def\@CheckBox[#1]#2{% parameters, label
13145 \def\Fld@name{#2}%
13146 \def\Fld@default{0}%
13147 \begingroup
13148 \def\Fld@width{\DefaultWidthofCheckBox}%
13149 \def\Fld@height{\DefaultHeightofCheckBox}%
13150 \expandafter\HyField@SetKeys\expandafter{%
13151 \DefaultOptionsofCheckBox,#1%
13152 }%
13153 \PDFForm@Name
13154 \HyField@FlagsCheckBox
13155 \ifFld@hidden\def\Fld@width{1sp}\fi
13156 \LayoutCheckField{#2}{%
13157 \leavevmode
13158 \Hy@escapeform\PDFForm@Check
13159 \pdfstartlink user {\PDFForm@Check}\relax
13160 \MakeCheckField{\Fld@width}{\Fld@height}%
13161 \pdfendlink
13162 \HyField@AddToFields
13163 }%
13164 \endgroup

```

```

13165 }
13166 \def\Hy@FormObjects{%
13167 \pdfobj {%
13168 <<%
13169 /Type/Encoding%
13170 /Differences[%
13171 24/breve/caron/circumflex/dotaccent/hungarumlaut/ogonek%
13172 /ring/tilde %
13173 39/quotesingle %
13174 96/grave %
13175 128/bullet/dagger/daggerdbl/ellipsis/emdash/endash/florin%
13176 /fraction/guilsinglleft/guilsinglright/minus/perthousand%
13177 /quotedblbase/quotedblleft/quotedblright/quoteleft%
13178 /quoteright/quotesinglbase/trademark/fi/fl/Lslash/OE%
13179 /Scaron/Ydieresis/Zcaron/dotlessi/lslash/oe/scaron/zcaron %
13180 164/currency %
13181 166/brokenbar %
13182 168/dieresis/copyright/ordfeminine %
13183 172/logicalnot/.notdef/registered/macron/degree/plusminus%
13184 /twosuperior/threesuperior/acute/mu %
13185 183/periodcentered/cedilla/onesuperior/ordmasculine %
13186 188/onequarter/onehalf/threequarters %
13187 192/Agrave/Aacute/Acircumflex/Atilde/Adieresis/Aring/AE%
13188 /Ccedilla/Egrave/Eacute/Ecircumflex/Edieresis/Igrave%
13189 /Iacute/Icircumflex/Idieresis/Eth/Ntilde/Ograve/Oacute%
13190 /Ocircumflex/Otilde/Odieresis/multiply/Oslash/Ugrave%
13191 /Uacute/Ucircumflex/Udieresis/Yacute/Thorn/germandbls%
13192 /agrave/aacute/acircumflex/atilde/adieresis/aring/ae%
13193 /ccedilla/egrave/eacute/ecircumflex/edieresis/igrave%
13194 /iacute/icircumflex/idieresis/eth/ntilde/ograde/oacute%
13195 /ocircumflex/otilde/odieresis/divide/oslash/ugrave%
13196 /uacute/ucircumflex/udieresis/yacute/thorn/ydieresis%
13197 ]%
13198 >>%
13199 }%
13200 \xdef\OBJ@pdfdocencoding{\the\pdflastobj}%
13201 \pdfobj{%
13202 <<%
13203 /Type/Font%
13204 /Subtype/Type1%
13205 /Name/ZaDb%
13206 /BaseFont/ZapfDingbats%
13207 >>%
13208 }%
13209 \xdef\OBJ@ZaDb{\the\pdflastobj}%
13210 \pdfobj{%
13211 <<%
13212 /Type/Font%
13213 /Subtype/Type1%
13214 /Name/Helv%
13215 /BaseFont/Helvetica%
13216 /Encoding \OBJ@pdfdocencoding\space 0 R%
13217 >>%
13218 }%
13219 \xdef\OBJ@Helv{\the\pdflastobj}%
13220 \global\let\Hy@FormObjects\relax
13221 }

```

```
13222 </pdfTeX>
```

47.5 dvipdfm, xetex

D. P. Story adapted the pdf_TE_X forms part for dvipdfm, of which version 0.12.7b or higher is required because of a bug.

```
13223 <*dvipdfm | xetex>
```

`\@Gauge`

```
13224 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
13225 \Hy@Message{Sorry, dvipdfm/XeTeX does not support FORM gauges}%
13226 }
```

`\@Form`

```
13227 \def\@Form[#1]{%
13228 \ifundefined{textcolor}{\let\textcolor\@gobble}{}%
13229 \kvsetkeys{Form}{#1}%
13230 \Hy@FormObjects
13231 \@pdfm@mark{obj @afields []}%
13232 \@pdfm@mark{obj @corder []}%
13233 \@pdfm@mark{%
13234   obj @aform <<%
13235     /Fields @afields%
13236     /DR<<%
13237     /Font<<%
13238     /ZaDb @OBJZaDb%
13239     /Helv @OBJHelv%
13240     >>%
13241     >>%
13242     /DA(/Helv 10 Tf 0 g)%
13243     /CO @corder%
13244     \ifHy@pdfa
13245     \else
13246     \ifHyField@NeedAppearances
13247     /NeedAppearances true%
13248     \fi
13249     \fi
13250     >>%
13251   }%
13252   \@pdfm@mark{put @catalog <</AcroForm @aform>>}%
13253 }
```

`\@endForm`

```
13254 \let\@endForm\ltx@empty
```

`\dvipdfm@setdim` `\dvipdfm@setdim` sets dimensions for ann using `\pdfm@box`.

```
13255 \def\dvipdfm@setdim{%
13256   height \the\ht\pdfm@box\space
13257   width \the\wd\pdfm@box\space
13258   depth \the\dp\pdfm@box\space
13259 }
```

`\HyField@AnnotCount`

```
13260 \newcount\HyField@AnnotCount
13261 \HyField@AnnotCount=\z@
```

\HyField@AdvanceAnnotCount

```
13262 \def\HyField@AdvanceAnnotCount{%
13263   \global\advance\HyField@AnnotCount\@ne
13264 }
```

\HyField@TheAnnotCount

```
13265 \def\HyField@TheAnnotCount{%
13266   \the\HyField@AnnotCount
13267 }
```

\@TextField

```
13268 \def\@TextField[#1]#2{% parameters, label
13269   \def\Fld@name{#2}%
13270   \let\Fld@default\ltx@empty
13271   \let\Fld@value\@empty
13272   \def\Fld@width{\DefaultWidthofText}%
13273   \def\Fld@height{%
13274     \ifFld@multiline
13275       \DefaultHeightofTextMultiline
13276     \else
13277       \DefaultHeightofText
13278     \fi
13279   }%
13280   \begingroup
13281     \expandafter\HyField@SetKeys\expandafter{%
13282       \DefaultOptionsofText,#1%
13283     }%
13284     \PDFForm@Name
13285     \HyField@FlagsText
13286     \ifFld@hidden\def\Fld@width{1sp}\fi
13287     \ifx\Fld@value\@empty\def\Fld@value{\Fld@default}\fi
13288     \setbox\pdfm@box=\hbox{%
13289       \MakeTextField{\Fld@width}{\Fld@height}%
13290     }%
13291     \HyField@AdvanceAnnotCount
13292     \LayoutTextField{#2}{%
13293       \leavevmode
13294       \Hy@escapeform\PDFForm@Text
13295       \@pdfm@mark{%
13296         ann @text\HyField@TheAnnotCount\space
13297         \dvipdfm@setdim << \PDFForm@Text >>%
13298       }%
13299     }%
13300     \unhbox\pdfm@box
13301     \@pdfm@mark{put @afields @text\HyField@TheAnnotCount}%
13302     % record in @afields array
13303   \endgroup
13304 }
```

\@ChoiceMenu

```
13305 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13306   \def\Fld@name{#2}%
13307   \let\Fld@default\relax
13308   \let\Fld@value\relax
13309   \def\Fld@width{\DefaultWidthofChoiceMenu}%
13310   \def\Fld@height{\DefaultHeightofChoiceMenu}%
13311   \begingroup
```

```

13312 \Fld@menulength=0 %
13313 \@tempdima\z@
13314 \@for\@curropt:=#3\do{%
13315 \expandafter\Fld@checkequals\@curropt==\\%
13316 \Hy@StepCount\Fld@menulength
13317 \settowidth{\@tempdimb}{\@currDisplay}%
13318 \ifdim\@tempdimb>\@tempdima\@tempdima\@tempdimb\fi
13319 }%
13320 \advance\@tempdima by 15\p@
13321 \begingroup
13322 \HyField@SetKeys{#1}%
13323 \edef\x{\endgroup
13324 \noexpand\expandafter
13325 \noexpand\HyField@SetKeys
13326 \noexpand\expandafter{%
13327 \expandafter\noexpand\csname DefaultOptionsof%
13328 \ifFld@radio
13329 Radio%
13330 \else
13331 \ifFld@combo
13332 \ifFld@popdown
13333 PopdownBox%
13334 \else
13335 ComboBox%
13336 \fi
13337 \else
13338 ListBox%
13339 \fi
13340 \fi
13341 \endcsname
13342 }%
13343 }\x
13344 \HyField@SetKeys{#1}%
13345 \PDFForm@Name
13346 \ifFld@hidden\def\Fld@width{1sp}\fi
13347 \ifx\Fld@value\relax
13348 \let\Fld@value\Fld@default
13349 \fi
13350 \LayoutChoiceField{#2}{%
13351 \ifFld@radio
13352 \HyField@FlagsRadioButton
13353 \@@Radio{#3}%
13354 \else
13355 \begingroup
13356 \HyField@FlagsChoice
13357 \ifdim\Fld@width<\@tempdima
13358 \ifdim\@tempdima<1cm\@tempdima1cm\fi
13359 \edef\Fld@width{\the\@tempdima}%
13360 \fi
13361 \ifFld@combo
13362 \else
13363 \@tempdima=\the\Fld@menulength\Fld@charsize
13364 \advance\@tempdima by \Fld@borderwidth bp %
13365 \advance\@tempdima by \Fld@borderwidth bp %
13366 \edef\Fld@height{\the\@tempdima}%
13367 \fi
13368 \@@ListBox{#3}%

```

```

13369     \endgroup
13370     \fi
13371 }%
13372 \endgroup
13373 }

\@@Radio

13374 \def\@@Radio#1{%
13375   \Fld@listcount=0 %
13376   \EdefEscapeName\Fld@default{\Fld@default}%
13377   \setbox\pdfm@box=\hbox{%
13378     \MakeRadioField{\Fld@width}{\Fld@height}%
13379   }%
13380   \@for\@curropt:=#1\do{%
13381     \expandafter\Fld@checkequals\@curropt==\%
13382     \EdefEscapeName\@currValue{\@currValue}%
13383     \Hy@StepCount\Fld@listcount
13384     \@currDisplay\space
13385     \leavevmode
13386     \Hy@escapeform\PDFForm@Radio
13387     \ifnum\Fld@listcount=1 %
13388       \HyField@AdvanceAnnotCount
13389     \fi
13390     \@pdfm@mark{%
13391       ann %
13392       \ifnum\Fld@listcount=1 %
13393         @radio\HyField@TheAnnotCount%
13394       \space
13395     \fi
13396     \dvipdfm@setdim
13397     <<%
13398     \PDFForm@Radio
13399     /AP<</N<</\@currValue /null>>>%
13400     >>%
13401   }%
13402   \unhcopy\pdfm@box\space% deliberate space between radio buttons
13403   \ifnum\Fld@listcount=1 %
13404     \@pdfm@mark{%
13405       put @afields @radio\HyField@TheAnnotCount
13406     }%
13407   \fi
13408 }%
13409 }

\Fld@listcount

13410 \newcount\Fld@listcount

\@@Listbox

13411 \def\@@Listbox#1{%
13412   \HyField@PDFChoices{#1}%
13413   \setbox\pdfm@box=\hbox{%
13414     \MakeChoiceField{\Fld@width}{\Fld@height}%
13415   }%
13416   \leavevmode
13417   \Hy@escapeform\PDFForm@List
13418   \HyField@AdvanceAnnotCount
13419   \@pdfm@mark{%

```

```

13420 ann @list\HyField@TheAnnotCount\space
13421 \dvipdfm@setdim
13422 <<\PDFForm@List>>%
13423 }%
13424 \unhbox\pdfm@box
13425 \@pdfm@mark{put @afields @list\HyField@TheAnnotCount}%
13426 }

```

\@PushButton

```

13427 \def\@PushButton[#1]#2{% parameters, label
13428 \def\Fld@name{#2}%
13429 \begingroup
13430 \expandafter\HyField@SetKeys\expandafter{%
13431 \DefaultOptionsofPushButton,#1%
13432 }%
13433 \PDFForm@Name
13434 \ifHy@pdfa
13435 \Hy@Error{%
13436 PDF/A: Push button with JavaScript is prohibited%
13437 } \@ehc
13438 \LayoutPushButtonField{%
13439 \leavevmode
13440 \MakeButtonField{#2}%
13441 }%
13442 \else
13443 \setbox\pdfm@box=\hbox{\MakeButtonField{#2}}%
13444 \HyField@FlagsPushButton
13445 \ifFld@hidden\def\Fld@width{1sp}\fi
13446 \HyField@AdvanceAnnotCount
13447 \LayoutPushButtonField{%
13448 \leavevmode
13449 \Hy@escapeform\PDFForm@Push
13450 \@pdfm@mark{%
13451 ann @push\HyField@TheAnnotCount\space
13452 \dvipdfm@setdim
13453 <<\PDFForm@Push>>%
13454 }%
13455 }%
13456 \unhbox\pdfm@box
13457 \@pdfm@mark{put @afields @push\HyField@TheAnnotCount}%
13458 \fi
13459 \endgroup
13460 }

```

\@Submit

```

13461 \def\@Submit[#1]#2{%
13462 \def\Fld@width{\DefaultWidthofSubmit}%
13463 \def\Fld@height{\DefaultHeightofSubmit}%
13464 \begingroup
13465 \expandafter\HyField@SetKeys\expandafter{%
13466 \DefaultOptionsofSubmit,#1%
13467 }%
13468 \HyField@FlagsPushButton
13469 \HyField@FlagsSubmit
13470 \ifFld@hidden\def\Fld@width{1sp}\fi
13471 \setbox\pdfm@box=\hbox{\MakeButtonField{#2}}%
13472 \leavevmode

```



```

13473 \Hy@escapeform\PDFForm@Submit
13474 \HyField@AdvanceAnnotCount
13475 \@pdfm@mark{%
13476   ann @submit\HyField@TheAnnotCount\space
13477   \dvipdfm@setdim
13478   <<\PDFForm@Submit>>%
13479 }%
13480 \unhbox\pdfm@box%
13481 \@pdfm@mark{put @afields @submit\HyField@TheAnnotCount}%
13482 \endgroup
13483 }

```

\@Reset

```

13484 \def\@Reset[#1]#2{%
13485   \def\Fld@width{\DefaultWidthofReset}%
13486   \def\Fld@height{\DefaultHeightofReset}%
13487   \begingroup
13488     \expandafter\HyField@SetKeys\expandafter{%
13489       \DefaultOptionsofReset,#1%
13490     }%
13491     \leavevmode
13492     \ifHy@pdfa
13493       \Hy@Error{%
13494         PDF/A: Reset action is prohibited%
13495       }\@ehc
13496       \MakeButtonField{#2}%
13497     \else
13498       \HyField@FlagsPushButton
13499       \ifFld@hidden\def\Fld@width{1sp}\fi
13500       \setbox\pdfm@box=\hbox{\MakeButtonField{#2}}%
13501       \Hy@escapeform\PDFForm@Reset
13502       \HyField@AdvanceAnnotCount
13503       \@pdfm@mark{%
13504         ann @reset\HyField@TheAnnotCount\space
13505         \dvipdfm@setdim
13506         <<\PDFForm@Reset>>%
13507       }%
13508       \unhbox\pdfm@box
13509       \@pdfm@mark{put @afields @reset\HyField@TheAnnotCount}%
13510     \fi
13511   \endgroup
13512 }

```

\@CheckBox

```

13513 \def\@CheckBox[#1]#2{% parameters, label
13514   \def\Fld@name{#2}%
13515   \def\Fld@default{0}%
13516   \begingroup
13517     \def\Fld@width{\DefaultWidthofCheckBox}%
13518     \def\Fld@height{\DefaultHeightofCheckBox}%
13519     \expandafter\HyField@SetKeys\expandafter{%
13520       \DefaultOptionsofCheckBox,#1%
13521     }%
13522     \PDFForm@Name
13523     \HyField@FlagsCheckBox
13524     \ifFld@hidden\def\Fld@width{1sp}\fi
13525     \setbox\pdfm@box=\hbox{%

```

```

13526 \MakeCheckField{\Fld@width}{\Fld@height}%
13527 }%
13528 \HyField@AdvanceAnnotCount
13529 \LayoutCheckField{#2}{%
13530 \leavevmode
13531 \Hy@escapeform\PDFForm@Check
13532 \@pdfm@mark{%
13533 ann @check\HyField@TheAnnotCount\space
13534 \dvipdfm@setdim
13535 <<\PDFForm@Check>>%
13536 }%
13537 \unhbox\pdfm@box
13538 \@pdfm@mark{put @afields @check\HyField@TheAnnotCount}%
13539 }%
13540 \endgroup
13541 }

13542 \def\Hy@FormObjects{%
13543 \@pdfm@mark{obj @OBJpdfdocencoding%
13544 <<%
13545 /Type/Encoding%
13546 /Differences[
13547 24/breve/caron/circumflex/dotaccent/hungarumlaut/ogonek/ring/tilde %
13548 39/quotesingle %
13549 96/grave %
13550 128/bullet/dagger/daggerdbl/ellipsis/emdash/endash/florin%
13551 /fraction/guilsinglleft/guilsinglright/minus/perthousand%
13552 /quotedblbase/quotedblleft/quotedblright/quoteleft/quoteright%
13553 /quotesinglbase/trademark/fl/fl/Lslash/OE/Scaron/Ydieresis%
13554 /Zcaron/dotlessi/lslash/oe/scaron/zcaron %
13555 164/currency %
13556 166/brokenbar %
13557 168/dieresis/copyright/ordfeminine %
13558 172/logicalnot/.notdef/registered/macron/degree/plusminus%
13559 /twosuperior/threesuperior/acute/mu %
13560 183/periodcentered/cedilla/onesuperior/ordmasculine %
13561 188/onequarter/onehalf/threequarters %
13562 192/Agrave/Aacute/Acircumflex/Atilde/Adieresis/Aring/AE%
13563 /Ccedilla/Egrave/Eacute/Ecircumflex/Edieresis/Igrave/Iacute%
13564 /Icircumflex/Idieresis/Eth/Ntilde/Ograve/Oacute/Ocircumflex%
13565 /Otilde/Odieresis/multiply/Oslash/Ugrave/Uacute/Ucircumflex%
13566 /Udieresis/Yacute/Thorn/germandbls/agrave/aacute/acircumflex%
13567 /atilde/adieresis/aring/ae/ccedilla/egrave/eacute%
13568 /ecircumflex/edieresis/igrave/iacute/icircumflex/idieresis%
13569 /eth/ntilde/ograde/oacute/ocircumflex/otilde/odieresis%
13570 /divide/oslash/ugrave/uacute/ucircumflex/udieresis/yacute%
13571 /thorn/ydieresis%
13572 ]%
13573 >>%
13574 }%
13575 \@pdfm@mark{obj @OBJZaDb%
13576 <<%
13577 /Type/Font%
13578 /Subtype/Type1%
13579 /Name/ZaDb%
13580 /BaseFont/ZapfDingbats%
13581 >>%
13582 }%

```

```

13583 \@pdfm@mark{obj @OBJHelv%
13584 <<%
13585 /Type/Font%
13586 /Subtype/Type1%
13587 /Name/Helv%
13588 /BaseFont/Helvetica%
13589 /Encoding @OBJpdfdocencoding%
13590 >>%
13591 }%
13592 \global\let\Hy@FormObjects\relax
13593 }
13594 (/dvipdfm | xetex)

```

47.6 Common forms part

```

13595 (*pdfform)

\Hy@escapestring

13596 \begingroup\expandafter\expandafter\expandafter\endgroup
13597 \expandafter\ifx\csname pdfescapestring\endcsname\relax
13598 \let\Hy@escapestring\@firstofone
13599 \def\Hy@escapeform#1{%
13600 \ifHy@pdfescapeform
13601 \def\Hy@escapestring##1{%
13602 \noexpand\Hy@escapestring{\noexpand##1}%
13603 }%
13604 \edef\Hy@temp{#1}%
13605 \expandafter\Hy@@@escapeform\Hy@temp\Hy@escapestring{}\@nil
13606 \def\Hy@escapestring##1{%
13607 \@ifundefined{Hy@esc@\string##1}{%
13608 ##1%
13609 \ThisShouldNotHappen
13610 }{%
13611 \csname Hy@esc@\string##1\endcsname
13612 }%
13613 }%
13614 \else
13615 \let\Hy@escapestring\@firstofone
13616 \fi
13617 }%
13618 \def\Hy@@@escapeform#1\Hy@escapestring#2#3\@nil{%
13619 \ifx\#3\%
13620 \else
13621 \expandafter
13622 \Hy@pstringdef\csname Hy@esc@\string#2\endcsname{#2}%
13623 \ltx@ReturnAfterFi{%
13624 \Hy@@@escapeform#3\@nil
13625 }%
13626 \fi
13627 }%
13628 \else
13629 \def\Hy@escapeform#1{%
13630 \ifHy@pdfescapeform
13631 \let\Hy@escapestring\pdfescapestring
13632 \else
13633 \let\Hy@escapestring\@firstofone
13634 \fi
13635 }%

```

```

13636 \Hy@escapeform{}%
13637 \fi

```

\PDFForm@Name

```

13638 \def\PDFForm@Name{%
13639 \PDFForm@@Name\Fld@name
13640 \ifx\Fld@altname\relax
13641 \else
13642 \PDFForm@@Name\Fld@altname
13643 \fi
13644 \ifx\Fld@mappingname\relax
13645 \else
13646 \PDFForm@@Name\Fld@mappingname
13647 \fi
13648 }

```

\PDFForm@@Name

```

13649 \def\PDFForm@@Name#1{%
13650 \begingroup
13651 \ifnum\Hy@pdfversion<5 % implementation note 117, PDF spec 1.7
13652 \ifHy@unicode
13653 \Hy@unicodetrue
13654 \fi
13655 \fi
13656 \HyPsd@XeTeXBigCharstrue
13657 \pdfstringdef\Hy@gtemp#1%
13658 \endgroup
13659 \let#1\Hy@gtemp
13660 }

```

\Fld@additionalactions

```

13661 \def\Fld@@additionalactions{%
K input (keystroke) format
13662 \ifx\Fld@keystroke@code\@empty
13663 \else
13664 /K<</S/JavaScript/JS(\Hy@escapestring{\Fld@keystroke@code})>>%
13665 \fi
F display format
13666 \ifx\Fld@format@code\@empty
13667 \else
13668 /F<</S/JavaScript/JS(\Hy@escapestring{\Fld@format@code})>>%
13669 \fi
V validation
13670 \ifx\Fld@validate@code\@empty
13671 \else
13672 /V<</S/JavaScript/JS(\Hy@escapestring{\Fld@validate@code})>>%
13673 \fi
C calculation
13674 \ifx\Fld@calculate@code\@empty
13675 \else
13676 /C<</S/JavaScript/JS(\Hy@escapestring{\Fld@calculate@code})>>%
13677 \fi
Fo receiving the input focus
13678 \ifx\Fld@onfocus@code\@empty

```

```

13679 \else
13680 /Fo<</S/JavaScript/JS(\Hy@escapestring{\Fld@onfocus@code})>>%
13681 \fi

Bl loosing the input focus (blurred)
13682 \ifx\Fld@onblur@code\@empty
13683 \else
13684 /Bl<</S/JavaScript/JS(\Hy@escapestring{\Fld@onblur@code})>>%
13685 \fi

D pressing the mouse button (down)
13686 \ifx\Fld@onmousedown@code\@empty
13687 \else
13688 /D<</S/JavaScript/JS(\Hy@escapestring{\Fld@onmousedown@code})>>%
13689 \fi

U releasing the mouse button (up)
13690 \ifx\Fld@onmouseup@code\@empty
13691 \else
13692 /U<</S/JavaScript/JS(\Hy@escapestring{\Fld@onmouseup@code})>>%
13693 \fi

E cursor enters the annotation's active area.
13694 \ifx\Fld@onenter@code\@empty
13695 \else
13696 /E<</S/JavaScript/JS(\Hy@escapestring{\Fld@onenter@code})>>%
13697 \fi

X cursor exits the annotation's active area.
13698 \ifx\Fld@onexit@code\@empty
13699 \else
13700 /X<</S/JavaScript/JS(\Hy@escapestring{\Fld@onexit@code})>>%
13701 \fi
13702 }
13703 \def\Fld@additionalactions{%
13704 \if\Fld@@additionalactions-%
13705 \else
13706 \ifHy@pdfa
13707 \else
13708 /AA<<\Fld@@additionalactions>>%
13709 \fi
13710 \fi
13711 }

```

\Fld@annotnames

```

13712 \def\Fld@annotnames{%
13713 /T(\Fld@name)%
13714 \ifx\Fld@altname\relax
13715 \else
13716 /TU(\Fld@altname)%
13717 \fi
13718 \ifx\Fld@mappingname\relax
13719 \else
13720 /TM(\Fld@mappingname)%
13721 \fi
13722 }

```

\PDFForm@Check

```

13723 \def\PDFForm@Check{%

```

```

13724 /Subtype/Widget%
13725 \Fld@annotflags
13726 \Fld@annotnames
13727 /FT/Btn%
13728 \Fld@flags
13729 /Q \Fld@align
13730 /BS<</W \Fld@borderwidth /S/\Fld@borderstyle>>%
13731 /MK<<%
13732 \ifnum\Fld@rotation=\z@
13733 \else
13734 /R \Fld@rotation
13735 \fi
13736 \ifx\Fld@bordercolor\relax
13737 \else
13738 /BC[\Fld@bordercolor]%
13739 \fi
13740 \ifx\Fld@bcolor\relax
13741 \else
13742 /BG[\Fld@bcolor]%
13743 \fi
13744 /CA(\Hy@escapestring{\Fld@cbsymbol})%
13745 >>%
13746 /DA(/ZaDb \strip@pt\Fld@charsize\space Tf%
13747 \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
13748 /H/P%
13749 \ifFld@checked /V/Yes\else /V/Off\fi
13750 \Fld@additionalactions
13751 }

```

\PDFForm@Push

```

13752 \ifHy@pdfa
13753 \else
13754 \def\PDFForm@Push{%
13755 /Subtype/Widget%
13756 \Fld@annotflags
13757 \Fld@annotnames
13758 /FT/Btn%
13759 \Fld@flags
13760 /H/P%
13761 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
13762 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
13763 \ifx\Fld@bordercolor\relax\else 1\fi
13764 \space
13765 \else
13766 /MK<<%
13767 \ifnum\Fld@rotation=\z@
13768 \else
13769 /R \Fld@rotation
13770 \fi
13771 \ifx\Fld@bordercolor\relax
13772 \else
13773 /BC[\Fld@bordercolor]%
13774 \fi
13775 >>%
13776 \fi
13777 /A<</S/JavaScript/JS(\Hy@escapestring{\Fld@onclick@code})>>%
13778 \Fld@additionalactions
13779 }%

```

13780 \fi

\PDFForm@List

```
13781 \def\PDFForm@List{%
13782   /Subtype/Widget%
13783   \Fld@annotflags
13784   \Fld@annotnames
13785   /FT/Ch%
13786   \Fld@flags
13787   /Q \Fld@align
13788   /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
13789   \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
13790     \ifx\Fld@bordercolor\relax\else 1\fi
13791     \ifx\Fld@bcolor\relax \else 1\fi
13792     \space
13793   \else
13794     /MK<<%
13795     \ifnum\Fld@rotation=\z@
13796     \else
13797       /R \Fld@rotation
13798     \fi
13799     \ifx\Fld@bordercolor\relax
13800     \else
13801       /BC[\Fld@bordercolor]%
13802     \fi
13803     \ifx\Fld@bcolor\relax
13804     \else
13805       /BG[\Fld@bcolor]%
13806     \fi
13807     >>%
13808   \fi
13809   /DA(/Helv \strip@pt\Fld@charsize\space Tf%
13810     \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
13811   \Fld@choices
13812   \Fld@additionalactions
13813 }
```

\PDFForm@Radio

```
13814 \def\PDFForm@Radio{%
13815   /Subtype/Widget%
13816   \Fld@annotflags
13817   \Fld@annotnames
13818   /FT/Btn%
13819   \Fld@flags
13820   /H/P%
13821   /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
13822   /MK<<%
13823   \ifnum\Fld@rotation=\z@
13824   \else
13825     /R \Fld@rotation
13826   \fi
13827   \ifx\Fld@bordercolor\relax
13828   \else
13829     /BC[\Fld@bordercolor]%
13830   \fi
13831   \ifx\Fld@bcolor\relax
13832   \else
```

```

13833    /BG[\Fld@bcolor]%
13834    \fi
13835    /CA(\Fld@radiosymbol)%
13836    >>%
13837    /DA(/ZaDb \strip@pt\Fld@charsize\space Tf%
13838        \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
13839    \ifx\@currValue\Fld@default
13840        /V/\Fld@default
13841        /DV/\Fld@default
13842    \else
13843        /V/Off%
13844        /DV/Off%
13845    \fi
13846    \Fld@additionalactions
13847 }

```

\PDFForm@Text

```

13848 \def\PDFForm@Text{%
13849     /Subtype/Widget%
13850     \Fld@annotflags
13851     \Fld@annotnames
13852     /FT/Tx%
13853     \Fld@flags
13854     /Q \Fld@align
13855     /BS<</W \Fld@borderwidth\space /S /\Fld@borderstyle>>%
13856     \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
13857         \ifx\Fld@bordercolor\relax\else 1\fi
13858         \ifx\Fld@bcolor\relax \else 1\fi
13859         \space
13860     \else
13861         /MK<<%
13862         \ifnum\Fld@rotation=\z@
13863             \else
13864                 /R \Fld@rotation
13865             \fi
13866         \ifx\Fld@bordercolor\relax
13867             \else
13868                 /BC[\Fld@bordercolor]%
13869             \fi
13870         \ifx\Fld@bcolor\relax
13871             \else
13872                 /BG[\Fld@bcolor]%
13873             \fi
13874         >>%
13875     \fi
13876     /DA(/Helv \strip@pt\Fld@charsize\space Tf%
13877         \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
13878     /DV(\Hy@escapestring{\Fld@default})%
13879     /V(\Hy@escapestring{\Fld@value})%
13880     \Fld@additionalactions
13881     \ifnum\Fld@maxlen>\z@/MaxLen \Fld@maxlen \fi
13882 }

```

\PDFForm@Submit

```

13883 \def\PDFForm@Submit{%
13884     /Subtype/Widget%
13885     \Fld@annotflags

```



```

13886 \Fld@annotnames
13887 /FT/Btn%
13888 \Fld@flags
13889 /H/P%
13890 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
13891 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
13892 \ifx\Fld@bordercolor\relax\else 1\fi
13893 \space
13894 \else
13895 /MK<<%
13896 \ifnum\Fld@rotation=\z@
13897 \else
13898 /R \Fld@rotation
13899 \fi
13900 \ifx\Fld@bordercolor\relax
13901 \else
13902 /BC[\Fld@bordercolor]%
13903 \fi
13904 >>%
13905 \fi
13906 /A<<%
13907 /S/SubmitForm%
13908 /F<<%
13909 /FS/URL%
13910 /F(\Hy@escapestring{\Form@action})%
13911 >>%
13912 \Fld@submitflags
13913 >>%
13914 \Fld@additionalactions
13915 }

```

\PDFForm@Reset

```

13916 \ifHy@pdfa
13917 \else
13918 \def\PDFForm@Reset{%
13919 /Subtype/Widget%
13920 \Fld@annotflags
13921 \Fld@annotnames
13922 /FT/Btn%
13923 \Fld@flags
13924 /H/P%
13925 /DA(/Helv \strip@pt\Fld@charsize\space Tf 0 0 1 rg)%
13926 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
13927 \ifx\Fld@bordercolor\relax\else 1\fi
13928 \space
13929 \else
13930 /MK<<%
13931 \ifnum\Fld@rotation=\z@
13932 \else
13933 /R \Fld@rotation
13934 \fi
13935 \ifx\Fld@bordercolor\relax
13936 \else
13937 /BC[\Fld@bordercolor]%
13938 \fi
13939 % /CA (Clear)
13940 % /AC (Done)
13941 >>%

```

```

13942 \fi
13943 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
13944 /A<</S/ResetForm>>%
13945 \Fld@additionalactions
13946 }%
13947 \fi

13948 </pdfform>
13949 <*package>

```

48 Bookmarks in the PDF file

This was originally developed by Yannis Haralambous (it was the separate `repere.sty`); it needed the `repere` or `makebook.pl` post-processor to work properly. Now redundant, as it is done entirely in L^AT_EX macros.

To write out the current section title, and its rationalized number, we have to intercept the `\@sect` command, which is rather dangerous. But how else to see the information we need? We do the *same* for `\@ssect`, giving anchors to unnumbered sections. This allows things like bibliographies to get bookmarks when used with a manual `\addcontentsline`

```

13950 \def\phantomsection{%
13951 \Hy@MakeCurrentHrefAuto{section*}%
13952 \Hy@raisedlink{\hyper@anchorstart{\@currentHref}\hyper@anchorend}%
13953 }
13954 </package>

```

48.1 Bookmarks

```
13955 <*outlines>
```

This section was written by Heiko Oberdiek; the code replaces an earlier version by David Carlisle.

The first part of bookmark code is in section 6. Further documentation is available as paper and slides of the talk, that Heiko Oberdiek has given at the EuroTeX'99 meeting in Heidelberg. See `paper.pdf` and `slides.pdf` in the `doc` directory of `hyperref`.

When using the right-to-left typesetting based on ε -T_EX, the order of the `\BOOKMARK` commands written to the `\@outlinefile` could appear wrong, because of mis-feature of ε -T_EX's implementation (that it processes the shipped out lines left-to-right, instead of the order in which they appear in the document). The wrong order will appear when the file contains two bookmarks on the same line typeset right-to-left.

To work around this problem, the `bookmark@seq@number` counter is used to write the bookmark's sequential number into a comment in the `\@outlinefile`, which could be used to post-process it to achieve the proper ordering of `\BOOKMARK` commands in that file.

```

13956 \def\Hy@writebookmark#1#2#3#4#5{%
13957 % section number, text, label, level, file
13958 \ifx\WriteBookmarks\relax%
13959 \else
13960 \ifnum#4>\Hy@bookmarksdepth\relax
13961 \else
13962 \@@writetorep{#1}{#2}{#3}{#4}{#5}%
13963 \fi
13964 \fi

```

```

13965 }
13966 \def\Hy@currentbookmarklevel{0}
13967 \def\Hy@numberline#1{#1 }
13968 \def\@writetorep#1#2#3#4#5{%
13969   \begingroup
13970     \edef\Hy@tempa{#5}%
13971     \ifx\Hy@tempa\Hy@bookmarkstype
13972       \edef\Hy@level{#4}%
13973       \ifx\Hy@levelcheck Y%
13974         \@tempcnta\Hy@level\relax
13975         \advance\@tempcnta by -1 %
13976         \ifnum\Hy@currentbookmarklevel<\@tempcnta
13977           \advance\@tempcnta by -\Hy@currentbookmarklevel\relax
13978           \advance\@tempcnta by 1 %
13979           \Hy@Warning{%
13980             Difference (\the\@tempcnta) between bookmark levels is %
13981             greater \MessageBreak than one, level fixed%
13982           }%
13983           \@tempcnta\Hy@currentbookmarklevel
13984           \advance\@tempcnta by 1 %
13985           \edef\Hy@level{\the\@tempcnta}%
13986         \fi
13987       \else
13988         \global\let\Hy@levelcheck Y%
13989       \fi
13990       \global\let\Hy@currentbookmarklevel\Hy@level
13991       \@tempcnta\Hy@level\relax
13992       \expandafter\xdef\csname Parent\Hy@level\endcsname{#3}%
13993       \advance\@tempcnta by -1 %
13994       \edef\Hy@tempa{#3}%
13995       \edef\Hy@tempb{\csname Parent\the\@tempcnta\endcsname}%
13996       \ifx\Hy@tempa\Hy@tempb
13997         \Hy@Warning{%
13998           The anchor of a bookmark and its parent's must not%
13999           \MessageBreak be the same. Added a new anchor%
14000         }%
14001       \phantomsection
14002     \fi
14003     \ifHy@bookmarksnumbered
14004       \let\numberline\Hy@numberline
14005       \let\booknumberline\Hy@numberline
14006       \let\partnumberline\Hy@numberline
14007       \let\chapternumberline\Hy@numberline
14008     \else
14009       \let\numberline\@gobble
14010       \let\booknumberline\@gobble
14011       \let\partnumberline\@gobble
14012       \let\chapternumberline\@gobble
14013     \fi
14014     \HyPsd@XeTeXBigCharstrue
14015     \pdfstringdef\Hy@tempa{#2}%
14016     \HyPsd@SanitizeForOutFile\Hy@tempa
14017     \if@filesw
14018       \stepcounter{bookmark@seq@number}%
14019       \@ifundefined{@outlinefile}{%
14020       }{%
14021         \protected@write\@outlinefile{}{%

```

```

14022         \protect\BOOKMARK
14023         [\Hy@level][\@bookmarkopenstatus{\Hy@level}]{#3}%
14024         {\Hy@tempa}{\Hy@tempb}%
14025         \@percentchar\space\thebookmark@seq@number
14026     }%
14027 }%
14028 \fi
14029 \fi
14030 \endgroup
14031 }
14032 \newcounter{bookmark@seq@number}

14033 \begingroup
14034 \lccode'('= '{%
14035 \lccode'='}'%
14036 \lccode'1=\z@
14037 \lccode'2=\z@
14038 \lccode'3=\z@
14039 \lccode'5=\z@
14040 \lccode'7=\z@
14041 \lccode'\#=\z@
14042 \lccode'\='=\z@
14043 \lccode'\{=\z@
14044 \lccode'\}=\z@
14045 \lowercase{%
14046 \endgroup
14047 \def\HyPsd@SanitizeForOutFile#1{%
14048     \@onelevel@sanitize\Hy@tempa
14049     \escapechar'\%
14050     \edef\Hy@tempa{%
14051         \expandafter\HyPsd@SanitizeOut@BraceLeft\Hy@tempa(\@nil
14052     }%
14053     \edef\Hy@tempa{%
14054         \expandafter\HyPsd@SanitizeOut@BraceRight\Hy@tempa)\@nil
14055     }%
14056 }%
14057 \def\HyPsd@SanitizeOut@BraceLeft#1(#2\@nil{%
14058     #1%
14059     \ifx\#2\%
14060         \expandafter\ltx@gobble
14061     \else
14062         \expandafter\ltx@firstofone
14063     \fi
14064     {%
14065         \string\173%
14066         \HyPsd@SanitizeOut@BraceLeft#2\@nil
14067     }%
14068 }%
14069 \def\HyPsd@SanitizeOut@BraceRight#1)#2\@nil{%
14070     #1%
14071     \ifx\#2\%
14072         \expandafter\ltx@gobble
14073     \else
14074         \expandafter\ltx@firstofone
14075     \fi
14076     {%
14077         \string\175%
14078         \HyPsd@SanitizeOut@BraceRight#2\@nil

```

```

14079 }%
14080 }%
14081 }

```

In the call of `\BOOKMARK` the braces around `#4` are omitted, because it is not likely, that the level number contains `]`.

```

14082 \newcommand{\currentpdfbookmark}{%
14083   \pdfbookmark[\Hy@currentbookmarklevel]%
14084 }
14085 \newcommand{\subpdfbookmark}{%
14086   \@tempcnta\Hy@currentbookmarklevel
14087   \Hy@StepCount\@tempcnta
14088   \expandafter\pdfbookmark\expandafter[\the\@tempcnta]%
14089 }
14090 \newcommand{\belowpdfbookmark}[2]{%
14091   \@tempcnta\Hy@currentbookmarklevel
14092   \Hy@StepCount\@tempcnta
14093   \expandafter\pdfbookmark\expandafter[\the\@tempcnta]{#1}{#2}%
14094   \advance\@tempcnta by -1 %
14095   \xdef\Hy@currentbookmarklevel{\the\@tempcnta}%
14096 }

```

Tobias Oetiker rightly points out that we need a way to force a bookmark entry. So we introduce `\pdfbookmark`, with two parameters, the title, and a symbolic name. By default this is at level 1, but we can reset that with the optional first argument.

```

14097 \renewcommand\pdfbookmark[3][0]{%
14098   \Hy@writebookmark{#2}{#3.#1}{#1}{toc}%
14099   \hyper@anchorstart{#3.#1}\hyper@anchorend
14100 }
14101 \def\BOOKMARK{%
14102   \@ifnextchar{\@BOOKMARK}{\@@BOOKMARK[1][-]}%
14103 }
14104 \def\@BOOKMARK[#1]{%
14105   \@ifnextchar{\@@BOOKMARK[{#1}]}{\@@BOOKMARK[{#1}][-]}%
14106 }

```

The macros for calculating structure of outlines are derived from those by Petr Olsak used in the `texinfopdf` macros.

48.1.1 Rerun warning

```
\Hy@OutlineRerunCheck
```

```

14107 \RequirePackage{rerunfilecheck}[2009/12/10]
14108 \def\Hy@OutlineRerunCheck{%
14109   \RerunFileCheck{\jobname.out}{%
14110     \immediate\closeout\@outlinefile
14111   }{%
14112     Rerun to get outlines right\MessageBreak
14113     or use package 'bookmark'%
14114   }%
14115 }

```

48.1.2 Driver stuff

The `VTEX` section was written originally by `VTEX`, but then amended by Denis Girou (denis.girou@idris.fr), then by by Taco Hoekwater (taco.hoekwater@wkap.nl). The problem is that `VTEX`, with its close integration of the PDF backend, does look at the contents of bookmarks, escaping `\` and the like.

```

14116 {*vtex}
14117 \newcount\@serial@counter\@serial@counter=1\relax

```

\hv@pdf@char Plain octal codes doesn't work with versions below 6.50. So for early versions hex numbers have to be used. It would be possible to program this instead of the large \ifcase, but I'm too lazy to sort that out now.

```

14118 \begingroup
14119 \catcode'\'=12 %
14120 \ifnum\Hy@VTeXversion<650 %
14121 \catcode'\''=12 %
14122 \gdef\hv@pdf@char#1#2#3{%
14123 \char
14124 \ifcase'#1#2#3 %
14125 "00\or"01\or"02\or"03\or"04\or"05\or"06\or"07%
14126 \or"08\or"09\or"0A\or"0B\or"0C\or"0D\or"0E\or"0F%
14127 \or"10\or"11\or"12\or"13\or"14\or"15\or"16\or"17%
14128 \or"18\or"19\or"1A\or"1B\or"1C\or"1D\or"1E\or"1F%
14129 \or"20\or"21\or"22\or"23\or"24\or"25\or"26\or"27%
14130 \or"28\or"29\or"2A\or"2B\or"2C\or"2D\or"2E\or"2F%
14131 \or"30\or"31\or"32\or"33\or"34\or"35\or"36\or"37%
14132 \or"38\or"39\or"3A\or"3B\or"3C\or"3D\or"3E\or"3F%
14133 \or"40\or"41\or"42\or"43\or"44\or"45\or"46\or"47%
14134 \or"48\or"49\or"4A\or"4B\or"4C\or"4D\or"4E\or"4F%
14135 \or"50\or"51\or"52\or"53\or"54\or"55\or"56\or"57%
14136 \or"58\or"59\or"5A\or"5B\or"5C\or"5D\or"5E\or"5F%
14137 \or"60\or"61\or"62\or"63\or"64\or"65\or"66\or"67%
14138 \or"68\or"69\or"6A\or"6B\or"6C\or"6D\or"6E\or"6F%
14139 \or"70\or"71\or"72\or"73\or"74\or"75\or"76\or"77%
14140 \or"78\or"79\or"7A\or"7B\or"7C\or"7D\or"7E\or"7F%
14141 \or"80\or"81\or"82\or"83\or"84\or"85\or"86\or"87%
14142 \or"88\or"89\or"8A\or"8B\or"8C\or"8D\or"8E\or"8F%
14143 \or"90\or"91\or"92\or"93\or"94\or"95\or"96\or"97%
14144 \or"98\or"99\or"9A\or"9B\or"9C\or"9D\or"9E\or"9F%
14145 \or"A0\or"A1\or"A2\or"A3\or"A4\or"A5\or"A6\or"A7%
14146 \or"A8\or"A9\or"AA\or"AB\or"AC\or"AD\or"AE\or"AF%
14147 \or"B0\or"B1\or"B2\or"B3\or"B4\or"B5\or"B6\or"B7%
14148 \or"B8\or"B9\or"BA\or"BB\or"BC\or"BD\or"BE\or"BF%
14149 \or"C0\or"C1\or"C2\or"C3\or"C4\or"C5\or"C6\or"C7%
14150 \or"C8\or"C9\or"CA\or"CB\or"CC\or"CD\or"CE\or"CF%
14151 \or"D0\or"D1\or"D2\or"D3\or"D4\or"D5\or"D6\or"D7%
14152 \or"D8\or"D9\or"DA\or"DB\or"DC\or"DD\or"DE\or"DF%
14153 \or"E0\or"E1\or"E2\or"E3\or"E4\or"E5\or"E6\or"E7%
14154 \or"E8\or"E9\or"EA\or"EB\or"EC\or"ED\or"EE\or"EF%
14155 \or"F0\or"F1\or"F2\or"F3\or"F4\or"F5\or"F6\or"F7%
14156 \or"F8\or"F9\or"FA\or"FB\or"FC\or"FD\or"FE\or"FF%
14157 \fi
14158 }%
14159 \else
14160 \gdef\hv@pdf@char{\char'}%
14161 \fi
14162 \endgroup

```

\@@BOOKMARK

```

14163 \def\@@BOOKMARK[#1][#2]#3#4#5{%
14164 \expandafter\edef\csname @count@#3\endcsname{%
14165 \the\@serial@counter
14166 }%

```

```

14167 \edef\@mycount{\the\@serial@counter}%
14168 \Hy@StepCount\@serial@counter
14169 \edef\@parcount{%
14170   \expandafter\ifx\csname @count@#5\endcsname\relax
14171     0%
14172   \else
14173     \csname @count@#5\endcsname
14174   \fi
14175 }%
14176 \immediate\special{%
14177   !outline \HyperDestNameFilter{#3};p=\@parcount,i=\@mycount,%
14178   s=\ifx#2-c\else o\fi,t=#4%
14179 }%
14180 }%

```

\ReadBookmarks

```

14181 \def\ReadBookmarks{%
14182   \begingroup
14183   \def\0{\hv@pdf@char 0}%
14184   \def\1{\hv@pdf@char 1}%
14185   \def\2{\hv@pdf@char 2}%
14186   \def\3{\hv@pdf@char 3}%
14187   \def\({}%
14188   \def\)}%
14189   \def\do##1{%
14190     \ifnum\catcode'##1=\active
14191       \@makeother##1%
14192     \else
14193       \ifnum\catcode'##1=6 %
14194         \@makeother##1%
14195       \fi
14196     \fi
14197   }%
14198   \dospecials
14199   \Hy@safe@activetrue
14200   \InputIfFileExists{\jobname.out}{\}{}%
14201 \endgroup
14202 \ifx\WriteBookmarks\relax
14203 \else
14204   \if@filesw
14205     \newwrite\@outlinefile
14206     \Hy@OutlineRerunCheck
14207     \immediate\openout\@outlinefile=\jobname.out\relax
14208     \ifHy@typexml
14209       \immediate\write\@outlinefile{<relaxxml>\relax}%
14210     \fi
14211   \fi
14212 \fi
14213 }

14214 </vtex>

14215 <*\vtex>
14216 \def\ReadBookmarks{%
14217   \pdf@ifdraftmode{\}%
14218   \begingroup
14219   \def\do##1{%
14220     \ifnum\catcode'##1=\active

```

```

14221      \@makeother##1%
14222      \else
14223      \ifnum\catcode'##1=6 %
14224      \@makeother##1%
14225      \fi
14226      \fi
14227  }%
14228  \dospecials
14229  \Hy@safe@activetrue
14230  \escapechar='\%
14231  \def\@BOOKMARK[##1][##2]##3##4##5{%
14232      \calc@bm@number{##5}%
14233  }%
14234  \InputIfFileExists{\jobname.out}{-}{-}%
14235  \ifx\WriteBookmarks\relax
14236      \global\let\WriteBookmarks\relax
14237  \fi
14238  \def\@BOOKMARK[##1][##2]##3##4##5{%
14239      \def\Hy@temp{##4}%
14240  (*pdfTeX)
14241      \Hy@pstringdef\Hy@pstringName{\HyperDestNameFilter{##3}}%
14242      \Hy@OutlineName{}\Hy@pstringName{%
14243          ##2\check@bm@number{##3}}%
14244      }{%
14245          \expandafter\strip@prefix\meaning\Hy@temp
14246      }%
14247  \pdfTeX)
14248  (*pdfmark)
14249      \pdfmark{%
14250          pdfmark=/OUT,%
14251          Count={##2\check@bm@number{##3}},%
14252          Dest={##3},%
14253          Title=\expandafter\strip@prefix\meaning\Hy@temp
14254      }%
14255  \pdfmark)
14256  (*dvipdfm|xetex)
14257      \Hy@pstringdef\Hy@pstringName{\HyperDestNameFilter{##3}}%
14258      \@pdfm@mark{%
14259          outline \ifHy@DvipdfmxOutlineOpen
14260              [%
14261              \ifnum##21>\z@
14262              \else
14263              -%
14264              \fi
14265              ] %
14266              \fi
14267              ##1<<%
14268              /Title(\expandafter\strip@prefix\meaning\Hy@temp)%
14269              /A<<%
14270              /S/GoTo%
14271              /D(\Hy@pstringName)%
14272              >>%
14273              >>%
14274              }%
14275  \dvipdfm|xetex)
14276      }%
14277      \begingroup

```



```

14278     \def\WriteBookmarks{0}%
14279     \InputIfFileExists{\jobname.out}{-}{-}%
14280     \endgroup
14281     %{\escapechar\m@ne\InputIfFileExists{\jobname.out}{-}{-}}%
14282     \endgroup
14283 }%
14284 \ifx\WriteBookmarks\relax
14285 \else
14286     \if@filesw
14287         \newwrite\@outlinefile
14288         \Hy@OutlineRerunCheck
14289         \immediate\openout\@outlinefile=\jobname.out\relax
14290         \ifHy@typexml
14291             \immediate\write\@outlinefile{<relaxxml>\relax}%
14292         \fi
14293     \fi
14294 \fi
14295 }
14296 <*pdfTeX>
14297 \def\Hy@OutlineName#1#2#3#4{%
14298     \pdfoutline goto name{#2}count#3{#4}%
14299 }
14300 </pdfTeX>
14301 \def\check@bm@number#1{%
14302     \expandafter\ifx\csname B_#1\endcsname\relax
14303         0%
14304     \else
14305         \csname B_#1\endcsname
14306     \fi
14307 }
14308 \def\calc@bm@number#1{%
14309     \@tempcnta=\check@bm@number{#1}\relax
14310     \advance\@tempcnta by 1 %
14311     \expandafter\xdef\csname B_#1\endcsname{the\@tempcnta}%
14312 }
14313 </!vTeX>
14314 \ifHy@implicit
14315 \else
14316     \expandafter\endinput
14317 \fi
14318 </outlines>
14319 <*outlines | hypertex>
14320 \newlength\Hy@SectionHShift
14321 \def\Hy@SectionAnchorHref#1{%
14322     \ifx\protect\@typeset@protect
14323         \Hy@@@SectionAnchor{#1}%
14324     \fi
14325 }
14326 \DeclareRobustCommand*{\Hy@@@SectionAnchor}[1]{%
14327     \leavevmode
14328     \hbox to 0pt{%
14329         \kern-\Hy@SectionHShift
14330         \Hy@raisedlink{%
14331             \hyper@anchorstart{#1}\hyper@anchorend
14332         }%
14333         \hss

```

```

14334 }%
14335 }
14336 \let\H@old@ssect\@ssect
14337 \def\@ssect#1#2#3#4#5{%
14338 \Hy@MakeCurrentHrefAuto{section*}%
14339 \setlength{\Hy@SectionHShift}{#1}%
14340 \begingroup
14341 \toks@{\H@old@ssect{#1}{#2}{#3}{#4}}%
14342 \toks\tw@\expandafter{%
14343 \expandafter\Hy@SectionAnchorHref\expandafter{\@currentHref}%
14344 #5%
14345 }%
14346 \edef\x{\endgroup
14347 \the\toks@{\the\toks\tw@}}%
14348 }\x
14349 }
14350 \let\H@old@schapter\@schapter
14351 \def\@schapter#1{%
14352 \begingroup
14353 \let\@mkboth\@gobbletwo
14354 \Hy@MakeCurrentHrefAuto{\Hy@chapapp*}%
14355 \Hy@raisedlink{%
14356 \hyper@anchorstart{\@currentHref}\hyper@anchorend
14357 }%
14358 \endgroup
14359 \H@old@schapter{#1}%
14360 }

```

If there is no chapter number (`\frontmatter` or `\backmatter`) then `\refstepcounter{chapter}` is not executed, so there will be no destination for `\ddcontentsline`. So `\@chapter` is overloaded to avoid this:

```

14361 \ltx@ifundefined{@chapter}{}{%
14362 \let\Hy@org@chapter\@chapter
14363 \def\@chapter{%
14364 \def\Hy@next{%
14365 \Hy@MakeCurrentHrefAuto{\Hy@chapapp*}%
14366 \Hy@raisedlink{%
14367 \hyper@anchorstart{\@currentHref}\hyper@anchorend
14368 }%
14369 }%
14370 \ifnum\c@secnumdepth>\m@ne
14371 \ltx@ifundefined{if@mainmatter}%
14372 \iftrue{\csname if@mainmatter\endcsname}%
14373 \let\Hy@next\relax
14374 \fi
14375 \fi
14376 \Hy@next
14377 \Hy@org@chapter
14378 }%
14379 }
14380 \let\H@old@part\@part
14381 \begingroup\expandafter\expandafter\endgroup
14382 \expandafter\ifx\csname chapter\endcsname\relax
14383 \let\Hy@secnum@part\z@
14384 \else
14385 \let\Hy@secnum@part\m@ne
14386 \fi

```

```

14387 \def\@part{%
14388   \ifnum\Hy@secnum@part>\c@secnumdepth
14389     \phantomsection
14390   \fi
14391   \H@old@part
14392 }

14393 \let\H@old@spart\@spart
14394 \def\@spart#1{%
14395   \Hy@MakeCurrentHrefAuto{part*}%
14396   \Hy@raisedlink{%
14397     \hyper@anchorstart{\@currentHref}\hyper@anchorend
14398   }%
14399   \H@old@spart{#1}%
14400 }

14401 \let\H@old@sect\@sect
14402 \def\@sect#1#2#3#4#5#6[#7]#8{%
14403   \ifnum #2>\c@secnumdepth
14404     \expandafter\@firstoftwo
14405   \else
14406     \expandafter\@secondoftwo
14407   \fi
14408   {%
14409     \Hy@MakeCurrentHrefAuto{section*}%
14410     \setlength{\Hy@SectionHShift}{#3}%
14411     \begingroup
14412       \toks@{\H@old@sect{#1}{#2}{#3}{#4}{#5}{#6}{#7}}%
14413       \toks\tw@\expandafter{%
14414         \expandafter\Hy@SectionAnchorHref\expandafter{\@currentHref}%
14415         #8%
14416       }%
14417       \edef\x{\endgroup
14418         \the\toks@{\the\toks\tw@}}%
14419       }\x
14420   }{%
14421     \H@old@sect{#1}{#2}{#3}{#4}{#5}{#6}{#7}{#8}%
14422   }%
14423 }

14424 </outlines | hypertex>
14425 <*outlines>

14426 \expandafter\def\csname Parent-4\endcsname{}
14427 \expandafter\def\csname Parent-3\endcsname{}
14428 \expandafter\def\csname Parent-2\endcsname{}
14429 \expandafter\def\csname Parent-1\endcsname{}
14430 \expandafter\def\csname Parent0\endcsname{}
14431 \expandafter\def\csname Parent1\endcsname{}
14432 \expandafter\def\csname Parent2\endcsname{}
14433 \expandafter\def\csname Parent3\endcsname{}
14434 \expandafter\def\csname Parent4\endcsname{}

14435 </outlines>

```

49 Compatibility with koma-script classes

```
14436 <*outlines | hypertex>
```

Hard-wire in an unpleasant over-ride of komascript ‘scrbook’ class for Tobias Isenberg (Tobias.Isenberg@gmx.de). With version 6.71b the hack is also applied

to ‘scrreprt’ class and is removed for koma-script versions since 2001/01/01, because Markus Kohm supports hyperref in komascript.

```

14437 \def\Hy@tempa{%
14438   \def\@addchap[##1]##2{%
14439     \typeout{##2}%
14440     \if@twoside
14441       \@mkboth{##1}{}%
14442     \else
14443       \@mkboth{}{##1}%
14444     \fi
14445     \addtocontents{lof}{\protect\addvspace{10\p@}}%
14446     \addtocontents{lot}{\protect\addvspace{10\p@}}%
14447     \Hy@MakeCurrentHrefAuto{\Hy@chapapp*}%
14448     \Hy@raisedlink{%
14449       \hyper@anchorstart{\@currentHref}\hyper@anchorend
14450     }%
14451     \if@twocolumn
14452       \@topnewpage[\@makeschapterhead{##2}]%
14453     \else
14454       \@makeschapterhead{##2}%
14455       \@afterheading
14456     \fi
14457     \addcontentsline{toc}{chapter}{##1}%
14458   }%
14459 }
14460 \ifclassloaded{scrbook}{%
14461   \ifclasslater{scrbook}{2001/01/01}{%
14462     \let\Hy@tempa\@empty
14463   }{}%
14464 }{%
14465   \ifclassloaded{scrreprt}{%
14466     \ifclasslater{scrreprt}{2001/01/01}{%
14467       \let\Hy@tempa\@empty
14468     }{}%
14469   }{%
14470     \let\Hy@tempa\@empty
14471   }%
14472 }%
14473 \Hy@tempa
14474 \</outlines | hypertex>

```

50 Encoding definition files for encodings of PDF strings

This was contributed by Heiko Oberdiek.

50.1 PD1 encoding

```

14475 \<*pd1enc>
14476 \DeclareFontEncoding{PD1}{}{}

Accents
14477 \DeclareTextAccent{'}{PD1}{\textasciigrave}
14478 \DeclareTextAccent{'}{PD1}{\textacute}
14479 \DeclareTextAccent{~}{PD1}{\textasciicircum}
14480 \DeclareTextAccent{~}{PD1}{\texttilde}
14481 \DeclareTextAccent{~}{PD1}{\textasciidieresis}

```

```

14482 \DeclareTextAccent{\r}{PD1}{\textring}
14483 \DeclareTextAccent{\v}{PD1}{\textasciicaron}
14484 \DeclareTextAccent{\.}{PD1}{\textdotaccent}
14485 \DeclareTextAccent{\c}{PD1}{\textcedilla}
14486 \DeclareTextAccent{\=}{PD1}{\textasciimacron}
14487 \DeclareTextAccent{\b}{PD1}{\textmacronbelow}
14488 \DeclareTextAccent{\d}{PD1}{\textdotbelow}
14489 \DeclareTextCompositeCommand{\`}{PD1}{\@empty}{\textasciigrave}
14490 \DeclareTextCompositeCommand{\'}{PD1}{\@empty}{\textacute}
14491 \DeclareTextCompositeCommand{\~}{PD1}{\@empty}{\textasciicircum}
14492 \DeclareTextCompositeCommand{\~}{PD1}{\@empty}{\texttilde}
14493 \DeclareTextCompositeCommand{\"}{PD1}{\@empty}{\textasciidieresis}
14494 \DeclareTextCompositeCommand{\r}{PD1}{\@empty}{\textring}
14495 \DeclareTextCompositeCommand{\v}{PD1}{\@empty}{\textasciicaron}
14496 \DeclareTextCompositeCommand{\.}{PD1}{\@empty}{\textdotaccent}
14497 \DeclareTextCompositeCommand{\c}{PD1}{\@empty}{\textcedilla}
14498 \DeclareTextCompositeCommand{\=}{PD1}{\@empty}{\textasciimacron}
14499 \DeclareTextCompositeCommand{\b}{PD1}{\@empty}{\textmacronbelow}
14500 \DeclareTextCompositeCommand{\d}{PD1}{\@empty}{\textdotbelow}
14501 \DeclareTextCompositeCommand{\`}{PD1}{\ }{\textasciigrave}
14502 \DeclareTextCompositeCommand{\'}{PD1}{\ }{\textacute}
14503 \DeclareTextCompositeCommand{\~}{PD1}{\ }{\textasciicircum}
14504 \DeclareTextCompositeCommand{\~}{PD1}{\ }{\texttilde}
14505 \DeclareTextCompositeCommand{\"}{PD1}{\ }{\textasciidieresis}
14506 \DeclareTextCompositeCommand{\r}{PD1}{\ }{\textring}
14507 \DeclareTextCompositeCommand{\v}{PD1}{\ }{\textasciicaron}
14508 \DeclareTextCompositeCommand{\.}{PD1}{\ }{\textdotaccent}
14509 \DeclareTextCompositeCommand{\c}{PD1}{\ }{\textcedilla}
14510 \DeclareTextCompositeCommand{\=}{PD1}{\ }{\textasciimacron}
14511 \DeclareTextCompositeCommand{\b}{PD1}{\ }{\textmacronbelow}
14512 \DeclareTextCompositeCommand{\d}{PD1}{\ }{\textdotbelow}
14513 \DeclareTextCommand{\k}{PD1}[1]{\TextSymbolUnavailable{\k{#1}}#1}
14514 \DeclareTextCommand{\t}{PD1}[1]{\TextSymbolUnavailable{\t{#1}}#1}
14515 \DeclareTextCommand{\newtie}{PD1}[1]{%
14516 \TextSymbolUnavailable{\newtie{#1}}#1%
14517 }

```

Special white space escape characters not for use in bookmarks but for other PDF strings.

```

14518 % U+0009 (CHARACTER TABULATION)
14519 \DeclareTextCommand{\textHT}{PD1}{\011}% U+0009
14520 % U+000A (LINE FEED)
14521 \DeclareTextCommand{\textLF}{PD1}{\012}% U+000A
14522 % U+000D (CARRIAGE RETURN)
14523 \DeclareTextCommand{\textCR}{PD1}{\015}% U+000D

```

Accent glyph names

```

14524 % U+02D8 BREVE; breve
14525 \DeclareTextCommand{\textasciibreve}{PD1}{\030}% U+02D8
14526 % U+02C7 CARON; caron
14527 \DeclareTextCommand{\textasciicaron}{PD1}{\031}% U+02C7
14528 % U+02C6 MODIFIER LETTER CIRCUMFLEX ACCENT; circumflex
14529 \DeclareTextCommand{\textcircumflex}{PD1}{\032}% U+02C6
14530 % U+02D9 DOT ABOVE; dotaccent
14531 \DeclareTextCommand{\textdotaccent}{PD1}{\033}% U+02D9
14532 % U+02DD DOUBLE ACUTE ACCENT; hungarumlaut
14533 \DeclareTextCommand{\texthungarumlaut}{PD1}{\034}% U+02DD
14534 % U+02DB OGONEK; ogonek
14535 \DeclareTextCommand{\textogonek}{PD1}{\035}% U+02DB

```

14536 % U+02DA RING ABOVE; ring
 14537 \DeclareTextCommand{\textring}{PD1}{\036}% U+02DA
 14538 % U+02DC SMALL TILDE; ilde, *tilde
 14539 \DeclareTextCommand{\texttilde}{PD1}{\037}% U+02DC
 \040: U+0020 SPACE; *space, spacehackarabic
 \041: U+0021 EXCLAMATION MARK; exclam
 14540 % U+0022 QUOTATION MARK; quotedbl
 14541 \DeclareTextCommand{\textquotedbl}{PD1}{\string"}% \042 U+0022
 14542 % U+0023 NUMBER SIGN; numbersign
 14543 \DeclareTextCommand{\textnumbersign}{PD1}{\043}% U+0023
 14544 % U+0024 DOLLAR SIGN; dollar
 14545 \DeclareTextCommand{\textdollar}{PD1}{\044}% U+0024
 14546 % U+0025 PERCENT SIGN; percent
 14547 \DeclareTextCommand{\textpercent}{PD1}{\045}% U+0025
 14548 % U+0026 AMPERSAND; ampersand
 14549 \DeclareTextCommand{\textampersand}{PD1}{\046}% U+0026
 \047: U+0027 APOSTROPHE; quotesingle

 14550 % U+0028 LEFT PARENTHESIS; parenleft
 14551 \DeclareTextCommand{\textparenleft}{PD1}{\string\(% \050 U+0028
 14552 % U+0029 RIGHT PARENTHESIS; parenright
 14553 \DeclareTextCommand{\textparenright}{PD1}{\string\)% \051 U+0029
 \052: U+002A ASTERISK; asterisk
 \053: U+002B PLUS SIGN; plus
 \054: U+002C COMMA; comma
 \055: U+002D HYPHEN-MINUS; hyphen
 \056: U+002E FULL STOP; period
 14554 % U+002E FULL STOP; period
 14555 \DeclareTextCommand{\textdotbelow}{PD1}{.}% \056 U+002E
 \057: U+002F SOLIDUS; slash
 \060: U+0030 DIGIT ZERO; zero
 ...
 \071: U+0039 DIGIT NINE; nine
 \072: U+003A COLON; colon
 \073: U+003B SEMICOLON; semicolon
 14556 % U+003C LESS-THAN SIGN; less
 14557 \DeclareTextCommand{\textless}{PD1}{<}% \074 U+003C
 \075: U+003D EQUALS SIGN; equal
 14558 % U+003E GREATER-THAN SIGN; greater
 14559 \DeclareTextCommand{\textgreater}{PD1}{>}% \076 U+003E
 \077: U+003F QUESTION MARK; question
 \100: U+0040 COMMERCIAL AT; at
 \101: U+0041 LATIN CAPITAL LETTER A; A
 ...
 \132: U+005A LATIN CAPITAL LETTER Z; Z
 \133: U+005B LEFT SQUARE BRACKET; bracketleft
 14560 % U+005C REVERSE SOLIDUS; backslash
 14561 \DeclareTextCommand{\textbackslash}{PD1}{\134}% U+005C
 \135: U+005D RIGHT SQUARE BRACKET; bracketright
 14562 % U+005E CIRCUMFLEX ACCENT; asciicircum
 14563 \DeclareTextCommand{\textasciicircum}{PD1}{\136}% U+005E
 14564 % U+005F LOW LINE; underscore
 14565 \DeclareTextCommand{\textunderscore}{PD1}{\137}% U+005F
 14566 \DeclareTextCommand{\textmacronbelow}{PD1}{\137}% U+005F

14567 % U+0060 GRAVE ACCENT; grave
 14568 \DeclareTextCommand{\textasciigrave}{PD1}{\140}% U+0060
 \141: U+0061 LATIN SMALL LETTER A; a
 ...
 \150: U+0068 LATIN SMALL LETTER H; h
 14569 % U+0069 LATIN SMALL LETTER I; i
 14570 \DeclareTextCompositeCommand{\.}{PD1}{i}{i}% \151 U+0069
 \152: U+006A LATIN SMALL LETTER J; j
 ...
 \172: U+007A LATIN SMALL LETTER Z; z
 14571 % U+007B LEFT CURLY BRACKET; braceleft
 14572 \DeclareTextCommand{\textbraceleft}{PD1}{\173}% U+007B
 14573 % U+007C VERTICAL LINE; *bar, verticalbar
 14574 \DeclareTextCommand{\textbar}{PD1}{|}% U+007C
 14575 % U+007D RIGHT CURLY BRACKET; braceright
 14576 \DeclareTextCommand{\textbraceright}{PD1}{\175}% U+007D
 14577 % U+007E TILDE; asciitilde
 14578 \DeclareTextCommand{\textasciitilde}{PD1}{\176}% U+007E
 Slot \177 (0x7F) is undefined in PDFDocEncoding.
 14579 % U+2022 BULLET; bullet
 14580 \DeclareTextCommand{\textbullet}{PD1}{\200}% U+2022
 14581 % U+2020 DAGGER; dagger
 14582 \DeclareTextCommand{\textdagger}{PD1}{\201}% U+2020
 14583 % U+2021 DOUBLE DAGGER; daggerdbl
 14584 \DeclareTextCommand{\textdaggerdbl}{PD1}{\202}% U+2021
 14585 % U+2026 HORIZONTAL ELLIPSIS; ellipsis
 14586 \DeclareTextCommand{\textellipsis}{PD1}{\203}% U+2026
 14587 % U+2014 EM DASH; emdash
 14588 \DeclareTextCommand{\textemdash}{PD1}{\204}% U+2014
 14589 % U+2013 EN DASH; endash
 14590 \DeclareTextCommand{\textendash}{PD1}{\205}% U+2013
 14591 % U+0192 LATIN SMALL LETTER F WITH HOOK; florin
 14592 \DeclareTextCommand{\textflorin}{PD1}{\206}% U+0192
 14593 % U+2044 FRACTION SLASH; fraction
 14594 \DeclareTextCommand{\textfractionsolidus}{PD1}{\207}% U+2044
 14595 % U+2039 SINGLE LEFT-POINTING ANGLE QUOTATION MARK; guil-
 left
 14596 \DeclareTextCommand{\guilsinglleft}{PD1}{\210}% U+2039
 14597 % U+203A SINGLE RIGHT-POINTING ANGLE QUOTATION MARK; guil-
 singlright
 14598 \DeclareTextCommand{\guilsinglright}{PD1}{\211}% U+203A
 14599 % U+2212 MINUS SIGN; minus
 14600 \DeclareTextCommand{\textminus}{PD1}{\212}% U+2212
 14601 % U+2030 PER MILLE SIGN; perthousand
 14602 \DeclareTextCommand{\textperthousand}{PD1}{\213}% U+2030
 14603 % U+201E DOUBLE LOW-9 QUOTATION MARK; quotedblbase
 14604 \DeclareTextCommand{\quotedblbase}{PD1}{\214}% U+201E
 14605 % U+201C LEFT DOUBLE QUOTATION MARK; quotedblleft
 14606 \DeclareTextCommand{\textquotedblleft}{PD1}{\215}% U+201C
 14607 % U+201D RIGHT DOUBLE QUOTATION MARK; quotedblright
 14608 \DeclareTextCommand{\textquotedblright}{PD1}{\216}% U+201D
 14609 % U+2018 LEFT SINGLE QUOTATION MARK; quoteleft
 14610 \DeclareTextCommand{\textquoteleft}{PD1}{\217}% U+2018
 14611 % U+2019 RIGHT SINGLE QUOTATION MARK; quoteright
 14612 \DeclareTextCommand{\textquoteright}{PD1}{\220}% U+2019
 14613 % U+201A SINGLE LOW-9 QUOTATION MARK; quotesinglbase

14614 \DeclareTextCommand{\quotesinglbase}{PD1}{\221}% U+201A
14615 % U+2122 TRADE MARK SIGN; trademark
14616 \DeclareTextCommand{\texttrademark}{PD1}{\222}% U+2122
14617 % U+FB01 LATIN SMALL LIGATURE FI; fi
14618 \DeclareTextCommand{\textfi}{PD1}{\223}% U+FB01
14619 % U+FB02 LATIN SMALL LIGATURE FL; fl
14620 \DeclareTextCommand{\textfl}{PD1}{\224}% U+FB02
14621 % U+0141 LATIN CAPITAL LETTER L WITH STROKE; Lslash
14622 \DeclareTextCommand{\L}{PD1}{\225}% U+0141
14623 % U+0152 LATIN CAPITAL LIGATURE OE; OE
14624 \DeclareTextCommand{\OE}{PD1}{\226}% U+0152
14625 % U+0160 LATIN CAPITAL LETTER S WITH CARON; Scaron
14626 \DeclareTextCompositeCommand{\v}{PD1}{S}{\227}% U+0160
14627 % U+0178 LATIN CAPITAL LETTER Y WITH DIAERESIS; Ydieresis
14628 \DeclareTextCompositeCommand{\Y}{PD1}{Y}{\230}% U+0178
14629 \DeclareTextCommand{\IJ}{PD1}{\230}
14630 % U+017D LATIN CAPITAL LETTER Z WITH CARON; Zcaron
14631 \DeclareTextCompositeCommand{\v}{PD1}{Z}{\231}% U+017D
14632 % U+0131 LATIN SMALL LETTER DOTLESS I; dotlessi
14633 \DeclareTextCommand{\i}{PD1}{\232}% U+0131
14634 % U+0142 LATIN SMALL LETTER L WITH STROKE; lslash
14635 \DeclareTextCommand{\l}{PD1}{\233}% U+0142
14636 % U+0153 LATIN SMALL LIGATURE OE; oe
14637 \DeclareTextCommand{\oe}{PD1}{\234}% U+0153
14638 % U+0161 LATIN SMALL LETTER S WITH CARON; scaron
14639 \DeclareTextCompositeCommand{\v}{PD1}{s}{\235}% U+0161
14640 % U+017E LATIN SMALL LETTER Z WITH CARON; zcaron
14641 \DeclareTextCompositeCommand{\v}{PD1}{z}{\236}% U+017E

Slot \237 (0x9F) is not defined in PDFDocEncoding.

The euro \240 is inserted in version 1.3 of the pdf specification.

14642 % U+20AC EURO SIGN; *Euro, euro
14643 \DeclareTextCommand{\texteuro}{PD1}{\240}% U+20AC
14644 % U+00A1 INVERTED EXCLAMATION MARK; exclamdown
14645 \DeclareTextCommand{\textexclamdown}{PD1}{\241}% U+00A1
14646 % U+00A2 CENT SIGN; cent
14647 \DeclareTextCommand{\textcent}{PD1}{\242}% U+00A2
14648 % U+00A3 POUND SIGN; sterling
14649 \DeclareTextCommand{\textsterling}{PD1}{\243}% U+00A3
14650 % U+00A4 CURRENCY SIGN; currency
14651 \DeclareTextCommand{\textcurrency}{PD1}{\244}% U+00A4
14652 % U+00A5 YEN SIGN; yen
14653 \DeclareTextCommand{\textyen}{PD1}{\245}% U+00A5
14654 % U+00A6 BROKEN BAR; brokenbar
14655 \DeclareTextCommand{\textbrokenbar}{PD1}{\246}% U+00A6
14656 % U+00A7 SECTION SIGN; section
14657 \DeclareTextCommand{\textsection}{PD1}{\247}% U+00A7
14658 % U+00A8 DIAERESIS; dieresis
14659 \DeclareTextCommand{\textasciidieresis}{PD1}{\250}% U+00A8
14660 % U+00A9 COPYRIGHT SIGN; copyright
14661 \DeclareTextCommand{\textcopyright}{PD1}{\251}% U+00A9
14662 % U+00AA FEMININE ORDINAL INDICATOR; ordfeminine
14663 \DeclareTextCommand{\textordfeminine}{PD1}{\252}% U+00AA
14664 % U+00AB LEFT-POINTING DOUBLE ANGLE QUOTATION MARK; guille-
motleft
14665 \DeclareTextCommand{\guillemotleft}{PD1}{\253}% U+00AB
14666 % U+00AC NOT SIGN; logicalnot
14667 \DeclareTextCommand{\textlogicalnot}{PD1}{\254}% U+00AC

14668 \DeclareTextCommand{\textlnot}{PD1}{\254}% logical not
 No glyph \255 in PDFDocEncoding.
 14669 % U+00AE REGISTERED SIGN; registered
 14670 \DeclareTextCommand{\textregistered}{PD1}{\256}% U+00AE
 14671 % U+00AF MACRON; *macron, overscore
 14672 \DeclareTextCommand{\textasciimacron}{PD1}{\257}% U+00AF
 14673 % U+00B0 DEGREE SIGN; degree
 14674 \DeclareTextCommand{\textdegree}{PD1}{\260}% U+00B0
 14675 % U+00B1 PLUS-MINUS SIGN; plusminus
 14676 \DeclareTextCommand{\textplusminus}{PD1}{\261}% U+00B1
 14677 % U+00B2 SUPERSCRIPT TWO; twosuperior
 14678 \DeclareTextCommand{\texttwosuperior}{PD1}{\262}% U+00B2
 14679 % U+00B3 SUPERSCRIPT THREE; threesuperior
 14680 \DeclareTextCommand{\textthreesuperior}{PD1}{\263}% U+00B3
 14681 % U+00B4 ACUTE ACCENT; acute
 14682 \DeclareTextCommand{\textacute}{PD1}{\264}% U+00B4
 14683 % U+00B5 MICRO SIGN; mu, mul
 14684 \DeclareTextCommand{\textmu}{PD1}{\265}% U+00B5
 14685 % U+00B6 PILCROW SIGN; paragraph
 14686 \DeclareTextCommand{\textparagraph}{PD1}{\266}% U+00B6
 14687 % U+00B7 MIDDLE DOT; middot, *periodcentered
 14688 \DeclareTextCommand{\textperiodcentered}{PD1}{\267}% U+00B7
 14689 % U+00B8 CEDILLA; cedilla
 14690 \DeclareTextCommand{\textcedilla}{PD1}{\270}% U+00B8
 14691 % U+00B9 SUPERSCRIPT ONE; onesuperior
 14692 \DeclareTextCommand{\textonesuperior}{PD1}{\271}% U+00B9
 14693 % U+00BA MASCULINE ORDINAL INDICATOR; ordmasculine
 14694 \DeclareTextCommand{\textordmasculine}{PD1}{\272}% U+00BA
 14695 % U+00BB RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK; guille-
 motright
 14696 \DeclareTextCommand{\guillemotright}{PD1}{\273}% U+00BB
 14697 % U+00BC VULGAR FRACTION ONE QUARTER; onequarter
 14698 \DeclareTextCommand{\textonequarter}{PD1}{\274}% U+00BC
 14699 % U+00BD VULGAR FRACTION ONE HALF; onehalf
 14700 \DeclareTextCommand{\textonehalf}{PD1}{\275}% U+00BD
 14701 % U+00BE VULGAR FRACTION THREE QUARTERS; threequarters
 14702 \DeclareTextCommand{\textthreequarters}{PD1}{\276}% U+00BE
 14703 % U+00BF INVERTED QUESTION MARK; questiondown
 14704 \DeclareTextCommand{\textquestiondown}{PD1}{\277}% U+00BF
 14705 % U+00C0 LATIN CAPITAL LETTER A WITH GRAVE; Agrave
 14706 \DeclareTextCompositeCommand{\`}{PD1}{A}{\300}% U+00C0
 14707 % U+00C1 LATIN CAPITAL LETTER A WITH ACUTE; Aacute
 14708 \DeclareTextCompositeCommand{\'}{PD1}{A}{\301}% U+00C1
 14709 % U+00C2 LATIN CAPITAL LETTER A WITH CIRCUMFLEX; Acircumflex
 14710 \DeclareTextCompositeCommand{\^}{PD1}{A}{\302}% U+00C2
 14711 % U+00C3 LATIN CAPITAL LETTER A WITH TILDE; Atilde
 14712 \DeclareTextCompositeCommand{\~}{PD1}{A}{\303}% U+00C3
 14713 % U+00C4 LATIN CAPITAL LETTER A WITH DIAERESIS; Adieresis
 14714 \DeclareTextCompositeCommand{\"}{PD1}{A}{\304}% U+00C4
 14715 % U+00C5 LATIN CAPITAL LETTER A WITH RING ABOVE; Aring
 14716 \DeclareTextCompositeCommand{\r}{PD1}{A}{\305}% U+00C5
 14717 % U+00C6 LATIN CAPITAL LETTER AE; AE
 14718 \DeclareTextCommand{\AE}{PD1}{\306}% U+00C6
 14719 % U+00C7 LATIN CAPITAL LETTER C WITH CEDILLA; Ccedilla
 14720 \DeclareTextCompositeCommand{\c}{PD1}{C}{\307}% U+00C7
 14721 % U+00C8 LATIN CAPITAL LETTER E WITH GRAVE; Egrave
 14722 \DeclareTextCompositeCommand{\`}{PD1}{E}{\310}% U+00C8

14723 % U+00C9 LATIN CAPITAL LETTER E WITH ACUTE; Eacute
14724 \DeclareTextCompositeCommand{\'}{PD1}{E}{\311}% U+00C9
14725 % U+00CA LATIN CAPITAL LETTER E WITH CIRCUMFLEX; Ecircumflex
14726 \DeclareTextCompositeCommand{\~}{PD1}{E}{\312}% U+00CA
14727 % U+00CB LATIN CAPITAL LETTER E WITH DIAERESIS; Edieresis
14728 \DeclareTextCompositeCommand{\"}{PD1}{E}{\313}% U+00CB
14729 % U+00CC LATIN CAPITAL LETTER I WITH GRAVE; Igrave
14730 \DeclareTextCompositeCommand{\'}{PD1}{I}{\314}% U+00CC
14731 % U+00CD LATIN CAPITAL LETTER I WITH ACUTE; Iacute
14732 \DeclareTextCompositeCommand{\'}{PD1}{I}{\315}% U+00CD
14733 % U+00CE LATIN CAPITAL LETTER I WITH CIRCUMFLEX; Icircumflex
14734 \DeclareTextCompositeCommand{\~}{PD1}{I}{\316}% U+00CE
14735 % U+00CF LATIN CAPITAL LETTER I WITH DIAERESIS; Idieresis
14736 \DeclareTextCompositeCommand{\"}{PD1}{I}{\317}% U+00CF
14737 % U+00D0 LATIN CAPITAL LETTER ETH; Eth
14738 \DeclareTextCommand{\DH}{PD1}{\320}% U+00D0
14739 \DeclareTextCommand{\DJ}{PD1}{\320}% U+00D0
14740 % U+00D1 LATIN CAPITAL LETTER N WITH TILDE; Ntilde
14741 \DeclareTextCompositeCommand{\~}{PD1}{N}{\321}% U+00D1
14742 % U+00D2 LATIN CAPITAL LETTER O WITH GRAVE; Ograve
14743 \DeclareTextCompositeCommand{\'}{PD1}{O}{\322}% U+00D2
14744 % U+00D3 LATIN CAPITAL LETTER O WITH ACUTE; Oacute
14745 \DeclareTextCompositeCommand{\'}{PD1}{O}{\323}% U+00D3
14746 % U+00D4 LATIN CAPITAL LETTER O WITH CIRCUMFLEX; Ocircumflex
14747 \DeclareTextCompositeCommand{\~}{PD1}{O}{\324}% U+00D4
14748 % U+00D5 LATIN CAPITAL LETTER O WITH TILDE; Otilde
14749 \DeclareTextCompositeCommand{\~}{PD1}{O}{\325}% U+00D5
14750 % U+00D6 LATIN CAPITAL LETTER O WITH DIAERESIS; Odieresis
14751 \DeclareTextCompositeCommand{\"}{PD1}{O}{\326}% U+00D6
14752 % U+00D7 MULTIPLICATION SIGN; multiply
14753 \DeclareTextCommand{\textmultiply}{PD1}{\327}% U+00D7
14754 % U+00D8 LATIN CAPITAL LETTER O WITH STROKE; Oslash
14755 \DeclareTextCommand{\O}{PD1}{\330}% U+00D8
14756 % U+00D9 LATIN CAPITAL LETTER U WITH GRAVE; Ugrave
14757 \DeclareTextCompositeCommand{\'}{PD1}{U}{\331}% U+00D9
14758 % U+00DA LATIN CAPITAL LETTER U WITH ACUTE; Uacute
14759 \DeclareTextCompositeCommand{\'}{PD1}{U}{\332}% U+00DA
14760 % U+00DB LATIN CAPITAL LETTER U WITH CIRCUMFLEX; Ucircumflex
14761 \DeclareTextCompositeCommand{\~}{PD1}{U}{\333}% U+00DB
14762 % U+00DC LATIN CAPITAL LETTER U WITH DIAERESIS; Udieresis
14763 \DeclareTextCompositeCommand{\"}{PD1}{U}{\334}% U+00DC
14764 % U+00DD LATIN CAPITAL LETTER Y WITH ACUTE; Yacute
14765 \DeclareTextCompositeCommand{\'}{PD1}{Y}{\335}% U+00DD
14766 % U+00DE LATIN CAPITAL LETTER THORN; Thorn
14767 \DeclareTextCommand{\TH}{PD1}{\336}% U+00DE
14768 % U+00DF LATIN SMALL LETTER SHARP S; germandbls
14769 \DeclareTextCommand{\ss}{PD1}{\337}% U+00DF
14770 % U+00E0 LATIN SMALL LETTER A WITH GRAVE; agrave
14771 \DeclareTextCompositeCommand{\'}{PD1}{a}{\340}% U+00E0
14772 % U+00E1 LATIN SMALL LETTER A WITH ACUTE; aacute
14773 \DeclareTextCompositeCommand{\'}{PD1}{a}{\341}% U+00E1
14774 % U+00E2 LATIN SMALL LETTER A WITH CIRCUMFLEX; acircumflex
14775 \DeclareTextCompositeCommand{\~}{PD1}{a}{\342}% U+00E2
14776 % U+00E3 LATIN SMALL LETTER A WITH TILDE; atilde
14777 \DeclareTextCompositeCommand{\~}{PD1}{a}{\343}% U+00E3
14778 % U+00E4 LATIN SMALL LETTER A WITH DIAERESIS; adieresis
14779 \DeclareTextCompositeCommand{\"}{PD1}{a}{\344}% U+00E4

14780 % U+00E5 LATIN SMALL LETTER A WITH RING ABOVE; aring
14781 \DeclareTextCompositeCommand{\r}{PD1}{a}{\345}% U+00E5
14782 % U+00E6 LATIN SMALL LETTER AE; ae
14783 \DeclareTextCommand{\ae}{PD1}{\346}% U+00E6
14784 % U+00E7 LATIN SMALL LETTER C WITH CEDILLA; ccedilla
14785 \DeclareTextCompositeCommand{\c}{PD1}{c}{\347}% U+00E7
14786 % U+00E8 LATIN SMALL LETTER E WITH GRAVE; egrave
14787 \DeclareTextCompositeCommand{\`}{PD1}{e}{\350}% U+00E8
14788 % U+00E9 LATIN SMALL LETTER E WITH ACUTE; eacute
14789 \DeclareTextCompositeCommand{\'}{PD1}{e}{\351}% U+00E9
14790 % U+00EA LATIN SMALL LETTER E WITH CIRCUMFLEX; ecircumflex
14791 \DeclareTextCompositeCommand{\^}{PD1}{e}{\352}% U+00EA
14792 % U+00EB LATIN SMALL LETTER E WITH DIAERESIS; edieresis
14793 \DeclareTextCompositeCommand{\"}{PD1}{e}{\353}% U+00EB
14794 % U+00EC LATIN SMALL LETTER I WITH GRAVE; igrave
14795 \DeclareTextCompositeCommand{\`}{PD1}{i}{\354}% U+00EC
14796 \DeclareTextCompositeCommand{\'}{PD1}{i}{\354}% U+00EC
14797 % U+00ED LATIN SMALL LETTER I WITH ACUTE; iacute
14798 \DeclareTextCompositeCommand{\'}{PD1}{i}{\355}% U+00ED
14799 \DeclareTextCompositeCommand{\'}{PD1}{i}{\355}% U+00ED
14800 % U+00EE LATIN SMALL LETTER I WITH CIRCUMFLEX; icircumflex
14801 \DeclareTextCompositeCommand{\^}{PD1}{i}{\356}% U+00EE
14802 \DeclareTextCompositeCommand{\^}{PD1}{i}{\356}% U+00EE
14803 % U+00EF LATIN SMALL LETTER I WITH DIAERESIS; idieresis
14804 \DeclareTextCompositeCommand{\"}{PD1}{i}{\357}% U+00EF
14805 \DeclareTextCompositeCommand{\"}{PD1}{i}{\357}% U+00EF
14806 % U+00F0 LATIN SMALL LETTER ETH; eth
14807 \DeclareTextCommand{\dh}{PD1}{\360}% U+00F0
14808 % U+00F1 LATIN SMALL LETTER N WITH TILDE; ntilde
14809 \DeclareTextCompositeCommand{\~}{PD1}{n}{\361}% U+00F1
14810 % U+00F2 LATIN SMALL LETTER O WITH GRAVE; ograve
14811 \DeclareTextCompositeCommand{\`}{PD1}{o}{\362}% U+00F2
14812 % U+00F3 LATIN SMALL LETTER O WITH ACUTE; oacute
14813 \DeclareTextCompositeCommand{\'}{PD1}{o}{\363}% U+00F3
14814 % U+00F4 LATIN SMALL LETTER O WITH CIRCUMFLEX; ocircumflex
14815 \DeclareTextCompositeCommand{\^}{PD1}{o}{\364}% U+00F4
14816 % U+00F5 LATIN SMALL LETTER O WITH TILDE; otilde
14817 \DeclareTextCompositeCommand{\~}{PD1}{o}{\365}% U+00F5
14818 % U+00F6 LATIN SMALL LETTER O WITH DIAERESIS; odieresis
14819 \DeclareTextCompositeCommand{\"}{PD1}{o}{\366}% U+00F6
14820 % U+00F7 DIVISION SIGN; divide
14821 \DeclareTextCommand{\textdivide}{PD1}{\367}% U+00F7
14822 % U+00F8 LATIN SMALL LETTER O WITH STROKE; oslash
14823 \DeclareTextCommand{\o}{PD1}{\370}% U+00F8
14824 % U+00F9 LATIN SMALL LETTER U WITH GRAVE; ugrave
14825 \DeclareTextCompositeCommand{\`}{PD1}{u}{\371}% U+00F9
14826 % U+00FA LATIN SMALL LETTER U WITH ACUTE; uacute
14827 \DeclareTextCompositeCommand{\'}{PD1}{u}{\372}% U+00FA
14828 % U+00FB LATIN SMALL LETTER U WITH CIRCUMFLEX; ucircumflex
14829 \DeclareTextCompositeCommand{\^}{PD1}{u}{\373}% U+00FB
14830 % U+00FC LATIN SMALL LETTER U WITH DIAERESIS; udieresis
14831 \DeclareTextCompositeCommand{\"}{PD1}{u}{\374}% U+00FC
14832 % U+00FD LATIN SMALL LETTER Y WITH ACUTE; yacute
14833 \DeclareTextCompositeCommand{\'}{PD1}{y}{\375}% U+00FD
14834 % U+00FE LATIN SMALL LETTER THORN; thorn
14835 \DeclareTextCommand{\th}{PD1}{\376}% U+00FE
14836 % U+00FF LATIN SMALL LETTER Y WITH DIAERESIS; ydieresis

```

14837 \DeclareTextCompositeCommand{\"}{PD1}{y}{\377}% U+00FF
14838 \DeclareTextCommand{\ij}{PD1}{\377}% U+00FF

```

Glyphs that consist of several characters.

```

14839 \DeclareTextCommand{\SS}{PD1}{SS}
14840 \DeclareTextCommand{\textcelsius}{PD1}{\textdegree C}

```

Aliases (german.sty)

```

14841 \DeclareTextCommand{\textglqq}{PD1}{\quotedblbase}
14842 \DeclareTextCommand{\textgrqq}{PD1}{\textquotedblleft}
14843 \DeclareTextCommand{\textglq}{PD1}{\quotesinglbase}
14844 \DeclareTextCommand{\textgrq}{PD1}{\textquoteleft}
14845 \DeclareTextCommand{\textflqq}{PD1}{\guillemotleft}
14846 \DeclareTextCommand{\textfrqq}{PD1}{\guillemotright}
14847 \DeclareTextCommand{\textflq}{PD1}{\guilsinglleft}
14848 \DeclareTextCommand{\textfrq}{PD1}{\guilsinglright}

```

Aliases (math names)

```

14849 \DeclareTextCommand{\textneg}{PD1}{\textlogicalnot}
14850 \DeclareTextCommand{\texttimes}{PD1}{\textmultiply}
14851 \DeclareTextCommand{\textdiv}{PD1}{\textdivide}
14852 \DeclareTextCommand{\textpm}{PD1}{\textplusminus}
14853 \DeclareTextCommand{\textcdot}{PD1}{\textperiodcentered}
14854 \DeclareTextCommand{\textbeta}{PD1}{\ss}

```

Polish aliases. PDF encoding does not have the characters, but it is useful to Poles to have the plain letters regardless. Requested by Wojciech Myszka (W.Myszka@immt.pwr.wroc.pl).

```

14855 \DeclareTextCompositeCommand{\k}{PD1}{a}{a}% aogonek
14856 \DeclareTextCompositeCommand{\'}{PD1}{c}{c}% cacute
14857 \DeclareTextCompositeCommand{\k}{PD1}{e}{e}% eogonek
14858 \DeclareTextCompositeCommand{\'}{PD1}{n}{n}% nacute
14859 \DeclareTextCompositeCommand{\'}{PD1}{s}{s}% sacute
14860 \DeclareTextCompositeCommand{\'}{PD1}{z}{z}% zacute
14861 \DeclareTextCompositeCommand{\.}{PD1}{z}{z}% zdot
14862 \DeclareTextCompositeCommand{\k}{PD1}{A}{A}% Aogonek
14863 \DeclareTextCompositeCommand{\'}{PD1}{C}{C}% Cacute
14864 \DeclareTextCompositeCommand{\k}{PD1}{E}{E}% Eogonek
14865 \DeclareTextCompositeCommand{\'}{PD1}{N}{N}% Nacute
14866 \DeclareTextCompositeCommand{\'}{PD1}{S}{S}% Sacute
14867 \DeclareTextCompositeCommand{\'}{PD1}{Z}{Z}% Zacute
14868 \DeclareTextCompositeCommand{\.}{PD1}{Z}{Z}% Zdot

```

```

14869 </pd1enc>

```

50.2 PU encoding

```

14870 (*puenc)
14871 \DeclareFontEncoding{PU}{}{}

```

50.2.1 NFSS2 accents

```

14872 % U+0300 COMBINING GRAVE ACCENT; gravecmb, *gravecomb
14873 \DeclareTextCommand{\'}{PU}[1]{\#1\83\000}% U+0300
14874 % U+0301 COMBINING ACUTE ACCENT; acutecmb, *acutecomb
14875 \DeclareTextCommand{\'}{PU}[1]{\#1\83\001}% U+0301
14876 % U+0302 COMBINING CIRCUMFLEX ACCENT; circumflexcmb
14877 \DeclareTextCommand{\^}{PU}[1]{\#1\83\002}% U+0302
14878 % U+0303 COMBINING TILDE; tildecmb, *tildecmb
14879 \DeclareTextCommand{\~}{PU}[1]{\#1\83\003}% U+0303
14880 % U+0304 COMBINING MACRON; macroncmb
14881 \DeclareTextCommand{\=}{PU}[1]{\#1\83\004}% U+0304

```

14882 % U+0306 COMBINING BREVE; brevecmb
14883 \DeclareTextCommand{\u}{PU}[1]{#1\83\006}% U+0306
14884 \DeclareTextCommand{\U}{PU}[1]{#1\83\006}% U+0306
14885 % U+0307 COMBINING DOT ABOVE; dotaccentcmb
14886 \DeclareTextCommand{\.}{PU}[1]{#1\83\007}% U+0307
14887 % U+0308 COMBINING DIAERESIS; dieresiscmb
14888 \DeclareTextCommand{\"}{PU}[1]{#1\83\010}% U+0308
14889 % U+030A COMBINING RING ABOVE; ringcmb
14890 \DeclareTextCommand{\r}{PU}[1]{#1\83\012}% U+030A
14891 % U+030B COMBINING DOUBLE ACUTE ACCENT; hungarumlautcmb
14892 \DeclareTextCommand{\H}{PU}[1]{#1\83\013}% U+030B
14893 % U+030C COMBINING CARON; caroncmb
14894 \DeclareTextCommand{\v}{PU}[1]{#1\83\014}% U+030C
14895 % U+030F COMBINING DOUBLE GRAVE ACCENT; dblgravecmb
14896 \DeclareTextCommand{\G}{PU}[1]{#1\83\017}% U+030F
14897 \DeclareTextCommand{\C}{PU}[1]{#1\83\017}% U+030F
14898 % U+0311 COMBINING INVERTED BREVE; breveinvertedcmb
14899 \DeclareTextCommand{\newtie}{PU}[1]{#1\83\021}% U+0311
14900 % U+0323 COMBINING DOT BELOW; dotbelowcmb, *dotbelowcomb
14901 \DeclareTextCommand{\d}{PU}[1]{#1\83\043}% U+0323
14902 % U+0331 COMBINING MACRON BELOW; macronbelowcmb
14903 \DeclareTextCommand{\b}{PU}[1]{#1\83\061}% U+0331
14904 % U+0327 COMBINING CEDILLA; cedillacmb
14905 \DeclareTextCommand{\c}{PU}[1]{#1\83\047}% U+0327
14906 % U+0328 COMBINING OGONEK; ogonekcmb
14907 \DeclareTextCommand{\k}{PU}[1]{#1\83\050}% U+0328
14908 % U+0361 COMBINING DOUBLE INVERTED BREVE; breveinverteddou-
blecmb
14909 \DeclareTextCommand{\t}{PU}[1]{#1\83\141}% U+0361
14910 % U+20DD COMBINING ENCLOSING CIRCLE
14911 \DeclareTextCommand{\textcircled}{PU}[1]{#1\9040\335}% U+20DD

\@empty is an artefact of the NFSS2 machinery, it gets inserted for empty argu-
ments and spaces.

14912 \DeclareTextCompositeCommand{\'}{PU}{\@empty}{\textasciigrave}
14913 \DeclareTextCompositeCommand{\'}{PU}{\@empty}{\textacute}
14914 \DeclareTextCompositeCommand{\^}{PU}{\@empty}{\textasciicircum}
14915 \DeclareTextCompositeCommand{\~}{PU}{\@empty}{\texttilde}
14916 \DeclareTextCompositeCommand{\"}{PU}{\@empty}{\textasciidieresis}
14917 \DeclareTextCompositeCommand{\r}{PU}{\@empty}{\textring}
14918 \DeclareTextCompositeCommand{\v}{PU}{\@empty}{\textasciicaron}
14919 \DeclareTextCompositeCommand{\.}{PU}{\@empty}{\textdotaccent}
14920 \DeclareTextCompositeCommand{\c}{PU}{\@empty}{\textcedilla}
14921 \DeclareTextCompositeCommand{\u}{PU}{\@empty}{\textasciibreve}
14922 \DeclareTextCompositeCommand{\G}{PU}{\@empty}{\textdoublegrave}
14923 \DeclareTextCompositeCommand{\=}{PU}{\@empty}{\textasciimacron}
14924 \DeclareTextCompositeCommand{\H}{PU}{\@empty}{\texthungarumlaut}
14925 \DeclareTextCompositeCommand{\k}{PU}{\@empty}{\textogonek}
14926 \DeclareTextCompositeCommand{\b}{PU}{\@empty}{\textmacronbelow}
14927 \DeclareTextCompositeCommand{\d}{PU}{\@empty}{\textdotbelow}
14928 \DeclareTextCompositeCommand{\t}{PU}{\@empty}{\texttie}
14929 \DeclareTextCompositeCommand{\newtie}{PU}{\@empty}{\textnewtie}
14930 \DeclareTextCompositeCommand{\textcircled}{PU}{\@empty}{\textbigcircle}
14931 \DeclareTextCompositeCommand{\'}{PU}{\ }{\textasciigrave}
14932 \DeclareTextCompositeCommand{\'}{PU}{\ }{\textacute}
14933 \DeclareTextCompositeCommand{\^}{PU}{\ }{\textasciicircum}
14934 \DeclareTextCompositeCommand{\~}{PU}{\ }{\texttilde}
14935 \DeclareTextCompositeCommand{\"}{PU}{\ }{\textasciidieresis}

```

14936 \DeclareTextCompositeCommand{\r}{PU}{\ }{\textstring}
14937 \DeclareTextCompositeCommand{\v}{PU}{\ }{\textasciicaron}
14938 \DeclareTextCompositeCommand{\.}{PU}{\ }{\textdotaccent}
14939 \DeclareTextCompositeCommand{\c}{PU}{\ }{\textcedilla}
14940 \DeclareTextCompositeCommand{\u}{PU}{\ }{\textasciibreve}
14941 \DeclareTextCompositeCommand{\G}{PU}{\ }{\textdoublegrave}
14942 \DeclareTextCompositeCommand{\=}{PU}{\ }{\textasciimacron}
14943 \DeclareTextCompositeCommand{\H}{PU}{\ }{\texthungarumlaut}
14944 \DeclareTextCompositeCommand{\k}{PU}{\ }{\textogonek}
14945 \DeclareTextCompositeCommand{\b}{PU}{\ }{\textmacronbelow}
14946 \DeclareTextCompositeCommand{\d}{PU}{\ }{\textdotbelow}
14947 \DeclareTextCompositeCommand{\t}{PU}{\ }{\texttie}
14948 \DeclareTextCompositeCommand{\newtie}{PU}{\ }{\textnewtie}
14949 \DeclareTextCompositeCommand{\textcircled}{PU}{\ }{\textbigcircle}

```

Accents for capitals (see encoding TS1)

```

14950 \DeclareTextCommand{\capitalcedilla}{PU}[1]{\c{#1}}
14951 \DeclareTextCommand{\capitalogonek}{PU}[1]{\k{#1}}
14952 \DeclareTextCommand{\capitalgrave}{PU}[1]{\`{#1}}
14953 \DeclareTextCommand{\capitalacute}{PU}[1]{\'{#1}}
14954 \DeclareTextCommand{\capitalcircumflex}{PU}[1]{\^{#1}}
14955 \DeclareTextCommand{\capitaltilde}{PU}[1]{\~{#1}}
14956 \DeclareTextCommand{\capitaldieresis}{PU}[1]{\"{#1}}
14957 \DeclareTextCommand{\capitalhungarumlaut}{PU}[1]{\H{#1}}
14958 \DeclareTextCommand{\capitalring}{PU}[1]{\r{#1}}
14959 \DeclareTextCommand{\capitalcaron}{PU}[1]{\v{#1}}
14960 \DeclareTextCommand{\capitalbreve}{PU}[1]{\u{#1}}
14961 \DeclareTextCommand{\capitalmacron}{PU}[1]{\={#1}}
14962 \DeclareTextCommand{\capitaldotaccent}{PU}[1]{\.{#1}}
14963 \DeclareTextCommand{\capitaltie}{PU}[1]{\t{#1}}
14964 \DeclareTextCommand{\capitalnewtie}{PU}[1]{\newtie{#1}}

```

50.2.2 Basic Latin: U+0000 to U+007F

Special white space escape characters.

```

14965 % U+0009 (CHARACTER TABULATION)
14966 \DeclareTextCommand{\textHT}{PU}{\80\011}% U+0009
14967 % U+000A (LINE FEED)
14968 \DeclareTextCommand{\textLF}{PU}{\80\012}% U+000A
14969 % U+000D (CARRIAGE RETURN)
14970 \DeclareTextCommand{\textCR}{PU}{\80\015}% U+000D
\80\040: U+0020 SPACE; space, spacehackarabic
\80\041: U+0021 EXCLAMATION MARK; exclam
14971 % U+0022 QUOTATION MARK; quotedbl
14972 \DeclareTextCommand{\textquotedbl}{PU}{\string"}% \80\042 U+0022
14973 % U+0023 NUMBER SIGN; numbersign
14974 \DeclareTextCommand{\textnumbersign}{PU}{\80\043}% U+0023
14975 % U+0024 DOLLAR SIGN; dollar
14976 \DeclareTextCommand{\textdollar}{PU}{\80\044}% U+0024
14977 % U+0025 PERCENT SIGN; percent
14978 \DeclareTextCommand{\textpercent}{PU}{\80\045}% U+0025
14979 % U+0026 AMPERSAND; ampersand
14980 \DeclareTextCommand{\textampersand}{PU}{\80\046}% U+0026
14981 % U+0027 APOSTROPHE; quotesingle
14982 \DeclareTextCommand{\textquotesingle}{PU}{\80\047}% U+0027
14983 % U+0028 LEFT PARENTHESIS; parenleft
14984 \DeclareTextCommand{\textparenleft}{PU}{\80\050}% U+0028
14985 % U+0029 RIGHT PARENTHESIS; parenright

```

14986 \DeclareTextCommand{\textparenright}{PU}{\80\051}% U+0029
14987 % U+002A ASTERISK; asterisk
14988 \DeclareTextCommand{\textasteriskcentered}{PU}{\80\052}% U+002A (?)

\80\053: U+002B PLUS SIGN; plus
\80\054: U+002C COMMA; comma
\80\055: U+002D HYPHEN-MINUS; hyphen
\80\056: U+002E FULL STOP; period
\80\057: U+002F SOLIDUS; slash
\80\060: U+0030 DIGIT ZERO; zero

...
\80\071: U+0039 DIGIT NINE; nine
\80\072: U+003A COLON; colon
\80\073: U+003B SEMICOLON; semicolon

14989 % U+003C LESS-THAN SIGN; less
14990 \DeclareTextCommand{\textless}{PU}{<}% \80\074 U+003C

\80\075: U+003D EQUALS SIGN; equal

14991 % U+003E GREATER-THAN SIGN; greater
14992 \DeclareTextCommand{\textgreater}{PU}{>}% \80\076 U+003E

\80\077: U+003F QUESTION MARK; question
\80\100: U+0040 COMMERCIAL AT; at
\80\101: U+0041 LATIN CAPITAL LETTER A; A

...
\80\132: U+005A LATIN CAPITAL LETTER Z; Z
\80\133: U+005B LEFT SQUARE BRACKET; bracketleft

14993 % U+005C REVERSE SOLIDUS; backslash
14994 \DeclareTextCommand{\textbackslash}{PU}{\80\134}% U+005C

\80\135: U+005D RIGHT SQUARE BRACKET; bracketright

14995 % U+005E CIRCUMFLEX ACCENT; asciicircum
14996 \DeclareTextCommand{\textasciicircum}{PU}{\80\136}% U+005E
14997 % U+005F LOW LINE; underscore
14998 \DeclareTextCommand{\textunderscore}{PU}{\80\137}% U+005F
14999 % U+0060 GRAVE ACCENT; grave
15000 \DeclareTextCommand{\textasciigrave}{PU}{\80\140}% U+0060

\80\141: U+0061 LATIN SMALL LETTER A; a

...
\80\150: U+0068 LATIN SMALL LETTER H; h

15001 % U+0069 LATIN SMALL LETTER I; i
15002 \DeclareTextCompositeCommand{.}{PU}{i}% \80\151 U+0069
15003 \DeclareTextCompositeCommand{.}{PU}{i}% \80\151 U+0069

\80\152: U+006A LATIN SMALL LETTER J; j

...
\80\172: U+007A LATIN SMALL LETTER Z; z

15004 % U+007B LEFT CURLY BRACKET; braceleft
15005 \DeclareTextCommand{\textbraceleft}{PU}{\80\173}% U+007B
15006 % U+007C VERTICAL LINE; *bar, verticalbar
15007 \DeclareTextCommand{\textbar}{PU}{|}% \80\174 U+007C
15008 % U+007D RIGHT CURLY BRACKET; braceright
15009 \DeclareTextCommand{\textbraceright}{PU}{\80\175}% U+007D
15010 % U+007E TILDE; asciitilde
15011 \DeclareTextCommand{\textasciitilde}{PU}{\80\176}% U+007E

50.2.3 Latin-1 Supplement: U+0080 to U+00FF

\80\240: U+00A0 NO-BREAK SPACE; nbspace, nonbreakingspace

15012 % U+00A1 INVERTED EXCLAMATION MARK; exclamdown
15013 \DeclareTextCommand{\textexclamdown}{PU}{\80\241}% U+00A1

15014 % U+00A2 CENT SIGN; cent
15015 \DeclareTextCommand{\textcent}{PU}{\80\242}% U+00A2

15016 % U+00A3 POUND SIGN; sterling
15017 \DeclareTextCommand{\textsterling}{PU}{\80\243}% U+00A3

15018 % U+00A4 CURRENCY SIGN; currency
15019 \DeclareTextCommand{\textcurrency}{PU}{\80\244}% U+00A4

15020 % U+00A5 YEN SIGN; yen
15021 \DeclareTextCommand{\textyen}{PU}{\80\245}% U+00A5

15022 % U+00A6 BROKEN BAR; brokenbar
15023 \DeclareTextCommand{\textbrokenbar}{PU}{\80\246}% U+00A6

15024 % U+00A7 SECTION SIGN; section
15025 \DeclareTextCommand{\textsection}{PU}{\80\247}% U+00A7

15026 % U+00A8 DIAERESIS; dieresis
15027 \DeclareTextCommand{\textasciidieresis}{PU}{\80\250}% U+00A8

15028 % U+00A9 COPYRIGHT SIGN; copyright
15029 \DeclareTextCommand{\textcopyright}{PU}{\80\251}% U+00A9

15030 % U+00AA FEMININE ORDINAL INDICATOR; ordfeminine
15031 \DeclareTextCommand{\textordfeminine}{PU}{\80\252}% U+00AA

15032 % U+00AB LEFT-POINTING DOUBLE ANGLE QUOTATION MARK; guillemotleft
15033 \DeclareTextCommand{\guillemotleft}{PU}{\80\253}% U+00AB

15034 % U+00AC NOT SIGN; logicalnot
15035 \DeclareTextCommand{\textlogicalnot}{PU}{\80\254}% U+00AC

15036 \DeclareTextCommand{\textlnot}{PU}{\80\254}% U+00AC

\80\255: U+00AD SOFT HYPHEN; sftthyphen, softthyphen

15037 % U+00AE REGISTERED SIGN; registered
15038 \DeclareTextCommand{\textregistered}{PU}{\80\256}% U+00AE

15039 % U+00AF MACRON; *macron, overscore
15040 \DeclareTextCommand{\textasciimacron}{PU}{\80\257}% U+00AF

15041 % U+00B0 DEGREE SIGN; degree
15042 \DeclareTextCommand{\textdegree}{PU}{\80\260}% U+00B0

15043 % U+00B1 PLUS-MINUS SIGN; plusminus
15044 \DeclareTextCommand{\textplusminus}{PU}{\80\261}% U+00B1

15045 % U+00B2 SUPERSCRIFT TWO; twosuperior
15046 \DeclareTextCommand{\texttwosuperior}{PU}{\80\262}% U+00B2

15047 % U+00B3 SUPERSCRIFT THREE; threesuperior
15048 \DeclareTextCommand{\textthreesuperior}{PU}{\80\263}% U+00B3

15049 % U+00B4 ACUTE ACCENT; acute
15050 \DeclareTextCommand{\textacute}{PU}{\80\264}% U+00B4

15051 \DeclareTextCommand{\textasciiacute}{PU}{\80\264}% U+00B4

15052 % U+00B5 MICRO SIGN; mu, mu1
15053 \DeclareTextCommand{\textmu}{PU}{\80\265}% U+00B5

15054 % U+00B6 PILCROW SIGN; paragraph
15055 \DeclareTextCommand{\textparagraph}{PU}{\80\266}% U+00B6

15056 % U+00B7 MIDDLE DOT; middot, *periodcentered
15057 \DeclareTextCommand{\textperiodcentered}{PU}{\80\267}% U+00B7

15058 % U+00B8 CEDILLA; cedilla
15059 \DeclareTextCommand{\textcedilla}{PU}{\80\270}% U+00B8

15060 % U+00B9 SUPERSCRIFT ONE; onesuperior
15061 \DeclareTextCommand{\textonesuperior}{PU}{\80\271}% U+00B9

15062 % U+00BA MASCULINE ORDINAL INDICATOR; ordmasculine
15063 \DeclareTextCommand{\textordmasculine}{PU}{\80\272}% U+00BA

15064 % U+00BB RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK; guillemotright
15065 \DeclareTextCommand{\guillemotright}{PU}{\80\273}% U+00BB
15066 % U+00BC VULGAR FRACTION ONE QUARTER; onequarter
15067 \DeclareTextCommand{\textonequarter}{PU}{\80\274}% U+00BC
15068 % U+00BD VULGAR FRACTION ONE HALF; onehalf
15069 \DeclareTextCommand{\textonehalf}{PU}{\80\275}% U+00BD
15070 % U+00BE VULGAR FRACTION THREE QUARTERS; threequarters
15071 \DeclareTextCommand{\textthreequarters}{PU}{\80\276}% U+00BE
15072 % U+00BF INVERTED QUESTION MARK; questiondown
15073 \DeclareTextCommand{\textquestiondown}{PU}{\80\277}% U+00BF
15074 % U+00C0 LATIN CAPITAL LETTER A WITH GRAVE; Agrave
15075 \DeclareTextCompositeCommand{\`}{PU}{A}{\80\300}% U+00C0
15076 % U+00C1 LATIN CAPITAL LETTER A WITH ACUTE; Aacute
15077 \DeclareTextCompositeCommand{\'}{PU}{A}{\80\301}% U+00C1
15078 % U+00C2 LATIN CAPITAL LETTER A WITH CIRCUMFLEX; Acircumflex
15079 \DeclareTextCompositeCommand{\^}{PU}{A}{\80\302}% U+00C2
15080 % U+00C3 LATIN CAPITAL LETTER A WITH TILDE; Atilde
15081 \DeclareTextCompositeCommand{\~}{PU}{A}{\80\303}% U+00C3
15082 % U+00C4 LATIN CAPITAL LETTER A WITH DIAERESIS; Adieresis
15083 \DeclareTextCompositeCommand{\"}{PU}{A}{\80\304}% U+00C4
15084 % U+00C5 LATIN CAPITAL LETTER A WITH RING ABOVE; Aring
15085 \DeclareTextCompositeCommand{\r}{PU}{A}{\80\305}% U+00C5
15086 % U+00C6 LATIN CAPITAL LETTER AE; AE
15087 \DeclareTextCommand{\AE}{PU}{\80\306}% U+00C6
15088 % U+00C7 LATIN CAPITAL LETTER C WITH CEDILLA; Ccedilla
15089 \DeclareTextCompositeCommand{\c}{PU}{C}{\80\307}% U+00C7
15090 % U+00C8 LATIN CAPITAL LETTER E WITH GRAVE; Egrave
15091 \DeclareTextCompositeCommand{\`}{PU}{E}{\80\310}% U+00C8
15092 % U+00C9 LATIN CAPITAL LETTER E WITH ACUTE; Eacute
15093 \DeclareTextCompositeCommand{\'}{PU}{E}{\80\311}% U+00C9
15094 % U+00CA LATIN CAPITAL LETTER E WITH CIRCUMFLEX; Ecircumflex
15095 \DeclareTextCompositeCommand{\^}{PU}{E}{\80\312}% U+00CA
15096 % U+00CB LATIN CAPITAL LETTER E WITH DIAERESIS; Edieresis
15097 \DeclareTextCompositeCommand{\"}{PU}{E}{\80\313}% U+00CB
15098 % U+00CC LATIN CAPITAL LETTER I WITH GRAVE; Igrave
15099 \DeclareTextCompositeCommand{\`}{PU}{I}{\80\314}% U+00CC
15100 % U+00CD LATIN CAPITAL LETTER I WITH ACUTE; Iacute
15101 \DeclareTextCompositeCommand{\'}{PU}{I}{\80\315}% U+00CD
15102 % U+00CE LATIN CAPITAL LETTER I WITH CIRCUMFLEX; Icircumflex
15103 \DeclareTextCompositeCommand{\^}{PU}{I}{\80\316}% U+00CE
15104 % U+00CF LATIN CAPITAL LETTER I WITH DIAERESIS; Idieresis
15105 \DeclareTextCompositeCommand{\"}{PU}{I}{\80\317}% U+00CF
15106 % U+00D0 LATIN CAPITAL LETTER ETH; Eth
15107 \DeclareTextCommand{\DH}{PU}{\80\320}% U+00D0
15108 % U+00D1 LATIN CAPITAL LETTER N WITH TILDE; Ntilde
15109 \DeclareTextCompositeCommand{\~}{PU}{N}{\80\321}% U+00D1
15110 % U+00D2 LATIN CAPITAL LETTER O WITH GRAVE; Ograve
15111 \DeclareTextCompositeCommand{\`}{PU}{O}{\80\322}% U+00D2
15112 % U+00D3 LATIN CAPITAL LETTER O WITH ACUTE; Oacute
15113 \DeclareTextCompositeCommand{\'}{PU}{O}{\80\323}% U+00D3
15114 % U+00D4 LATIN CAPITAL LETTER O WITH CIRCUMFLEX; Ocircumflex
15115 \DeclareTextCompositeCommand{\^}{PU}{O}{\80\324}% U+00D4
15116 % U+00D5 LATIN CAPITAL LETTER O WITH TILDE; Otilde
15117 \DeclareTextCompositeCommand{\~}{PU}{O}{\80\325}% U+00D5
15118 % U+00D6 LATIN CAPITAL LETTER O WITH DIAERESIS; Odieresis
15119 \DeclareTextCompositeCommand{\"}{PU}{O}{\80\326}% U+00D6

15120 % U+00D7 MULTIPLICATION SIGN; multiply
15121 \DeclareTextCommand{\textmultiply}{PU}{\80\327}% U+00D7
15122 % U+00D8 LATIN CAPITAL LETTER O WITH STROKE; Oslash
15123 \DeclareTextCommand{\O}{PU}{\80\330}% U+00D8
15124 % U+00D9 LATIN CAPITAL LETTER U WITH GRAVE; Ugrave
15125 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\331}% U+00D9
15126 % U+00DA LATIN CAPITAL LETTER U WITH ACUTE; Uacute
15127 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\332}% U+00DA
15128 % U+00DB LATIN CAPITAL LETTER U WITH CIRCUMFLEX; Ucircumflex
15129 \DeclareTextCompositeCommand{\^}{PU}{U}{\80\333}% U+00DB
15130 % U+00DC LATIN CAPITAL LETTER U WITH DIAERESIS; Udieresis
15131 \DeclareTextCompositeCommand{\"}{PU}{U}{\80\334}% U+00DC
15132 % U+00DD LATIN CAPITAL LETTER Y WITH ACUTE; Yacute
15133 \DeclareTextCompositeCommand{\'}{PU}{Y}{\80\335}% U+00DD
15134 % U+00DE LATIN CAPITAL LETTER THORN; Thorn
15135 \DeclareTextCommand{\TH}{PU}{\80\336}% U+00DE
15136 % U+00DF LATIN SMALL LETTER SHARP S; germandbls
15137 \DeclareTextCommand{\ss}{PU}{\80\337}% U+00DF
15138 % U+00E0 LATIN SMALL LETTER A WITH GRAVE; agrave
15139 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\340}% U+00E0
15140 % U+00E1 LATIN SMALL LETTER A WITH ACUTE; aacute
15141 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\341}% U+00E1
15142 % U+00E2 LATIN SMALL LETTER A WITH CIRCUMFLEX; acircumflex
15143 \DeclareTextCompositeCommand{\^}{PU}{a}{\80\342}% U+00E2
15144 % U+00E3 LATIN SMALL LETTER A WITH TILDE; atilde
15145 \DeclareTextCompositeCommand{\~}{PU}{a}{\80\343}% U+00E3
15146 % U+00E4 LATIN SMALL LETTER A WITH DIAERESIS; adieresis
15147 \DeclareTextCompositeCommand{\"}{PU}{a}{\80\344}% U+00E4
15148 % U+00E5 LATIN SMALL LETTER A WITH RING ABOVE; aring
15149 \DeclareTextCompositeCommand{\r}{PU}{a}{\80\345}% U+00E5
15150 % U+00E6 LATIN SMALL LETTER AE; ae
15151 \DeclareTextCommand{\ae}{PU}{\80\346}% U+00E6
15152 % U+00E7 LATIN SMALL LETTER C WITH CEDILLA; ccedilla
15153 \DeclareTextCompositeCommand{\c}{PU}{c}{\80\347}% U+00E7
15154 % U+00E8 LATIN SMALL LETTER E WITH GRAVE; egrave
15155 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\350}% U+00E8
15156 % U+00E9 LATIN SMALL LETTER E WITH ACUTE; eacute
15157 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\351}% U+00E9
15158 % U+00EA LATIN SMALL LETTER E WITH CIRCUMFLEX; ecircumflex
15159 \DeclareTextCompositeCommand{\^}{PU}{e}{\80\352}% U+00EA
15160 % U+00EB LATIN SMALL LETTER E WITH DIAERESIS; edieresis
15161 \DeclareTextCompositeCommand{\"}{PU}{e}{\80\353}% U+00EB
15162 % U+00EC LATIN SMALL LETTER I WITH GRAVE; igrave
15163 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\354}% U+00EC
15164 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\354}% U+00EC
15165 % U+00ED LATIN SMALL LETTER I WITH ACUTE; iacute
15166 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\355}% U+00ED
15167 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\355}% U+00ED
15168 % U+00EE LATIN SMALL LETTER I WITH CIRCUMFLEX; icircumflex
15169 \DeclareTextCompositeCommand{\^}{PU}{i}{\80\356}% U+00EE
15170 \DeclareTextCompositeCommand{\^}{PU}{i}{\80\356}% U+00EE
15171 % U+00EF LATIN SMALL LETTER I WITH DIAERESIS; idieresis
15172 \DeclareTextCompositeCommand{\"}{PU}{i}{\80\357}% U+00EF
15173 \DeclareTextCompositeCommand{\"}{PU}{i}{\80\357}% U+00EF
15174 % U+00F0 LATIN SMALL LETTER ETH; eth
15175 \DeclareTextCommand{\dh}{PU}{\80\360}% U+00F0
15176 % U+00F1 LATIN SMALL LETTER N WITH TILDE; ntilde

15177 \DeclareTextCompositeCommand{\~}{PU}{n}{\80\361}% U+00F1
 15178 % U+00F2 LATIN SMALL LETTER O WITH GRAVE; ograve
 15179 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\362}% U+00F2
 15180 % U+00F3 LATIN SMALL LETTER O WITH ACUTE; oacute
 15181 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\363}% U+00F3
 15182 % U+00F4 LATIN SMALL LETTER O WITH CIRCUMFLEX; ocircumflex
 15183 \DeclareTextCompositeCommand{\^}{PU}{o}{\80\364}% U+00F4
 15184 % U+00F5 LATIN SMALL LETTER O WITH TILDE; otilde
 15185 \DeclareTextCompositeCommand{\~}{PU}{o}{\80\365}% U+00F5
 15186 % U+00F6 LATIN SMALL LETTER O WITH DIAERESIS; odieresis
 15187 \DeclareTextCompositeCommand{\"}{PU}{o}{\80\366}% U+00F6
 15188 % U+00F7 DIVISION SIGN; divide
 15189 \DeclareTextCommand{\textdivide}{PU}{\80\367}% U+00F7
 15190 % U+00F8 LATIN SMALL LETTER O WITH STROKE; oslash
 15191 \DeclareTextCommand{\o}{PU}{\80\370}% U+00F8
 15192 % U+00F9 LATIN SMALL LETTER U WITH GRAVE; ugrave
 15193 \DeclareTextCompositeCommand{\'}{PU}{u}{\80\371}% U+00F9
 15194 % U+00FA LATIN SMALL LETTER U WITH ACUTE; uacute
 15195 \DeclareTextCompositeCommand{\'}{PU}{u}{\80\372}% U+00FA
 15196 % U+00FB LATIN SMALL LETTER U WITH CIRCUMFLEX; ucircumflex
 15197 \DeclareTextCompositeCommand{\^}{PU}{u}{\80\373}% U+00FB
 15198 % U+00FC LATIN SMALL LETTER U WITH DIAERESIS; udieresis
 15199 \DeclareTextCompositeCommand{\"}{PU}{u}{\80\374}% U+00FC
 15200 % U+00FD LATIN SMALL LETTER Y WITH ACUTE; yacute
 15201 \DeclareTextCompositeCommand{\'}{PU}{y}{\80\375}% U+00FD
 15202 % U+00FE LATIN SMALL LETTER THORN; thorn
 15203 \DeclareTextCommand{\th}{PU}{\80\376}% U+00FE
 15204 % U+00FF LATIN SMALL LETTER Y WITH DIAERESIS; ydieresis
 15205 \DeclareTextCompositeCommand{\"}{PU}{y}{\80\377}% U+00FF

50.2.4 Latin Extended-A: U+0080 to U+017F

15206 % U+0100 LATIN CAPITAL LETTER A WITH MACRON; Amacron
 15207 \DeclareTextCompositeCommand{\=}{PU}{A}{\81\000}% U+0100
 15208 % U+0101 LATIN SMALL LETTER A WITH MACRON; amacron
 15209 \DeclareTextCompositeCommand{\=}{PU}{a}{\81\001}% U+0101
 15210 % U+0102 LATIN CAPITAL LETTER A WITH BREVE; Abreve
 15211 \DeclareTextCompositeCommand{\u}{PU}{A}{\81\002}% U+0102
 15212 % U+0103 LATIN SMALL LETTER A WITH BREVE; abreve
 15213 \DeclareTextCompositeCommand{\u}{PU}{a}{\81\003}% U+0103
 15214 % U+0104 LATIN CAPITAL LETTER A WITH OGONEK; Aogonek
 15215 \DeclareTextCompositeCommand{\k}{PU}{A}{\81\004}% U+0104
 15216 % U+0105 LATIN SMALL LETTER A WITH OGONEK; aogonek
 15217 \DeclareTextCompositeCommand{\k}{PU}{a}{\81\005}% U+0105
 15218 % U+0106 LATIN CAPITAL LETTER C WITH ACUTE; Cacute
 15219 \DeclareTextCompositeCommand{\'}{PU}{C}{\81\006}% U+0106
 15220 % U+0107 LATIN SMALL LETTER C WITH ACUTE; cacute
 15221 \DeclareTextCompositeCommand{\'}{PU}{c}{\81\007}% U+0107
 15222 % U+0108 LATIN CAPITAL LETTER C WITH CIRCUMFLEX; Ccircumflex
 15223 \DeclareTextCompositeCommand{\^}{PU}{C}{\81\010}% U+0108
 15224 % U+0109 LATIN SMALL LETTER C WITH CIRCUMFLEX; ccircumflex
 15225 \DeclareTextCompositeCommand{\^}{PU}{c}{\81\011}% U+0109
 15226 % U+010A LATIN CAPITAL LETTER C WITH DOT ABOVE; Cdot, Cdotac-
 cent
 15227 \DeclareTextCompositeCommand{\.}{PU}{C}{\81\012}% U+010A
 15228 % U+010B LATIN SMALL LETTER C WITH DOT ABOVE; cdot, cdotaccent
 15229 \DeclareTextCompositeCommand{\.}{PU}{c}{\81\013}% U+010B

15230 % U+010C LATIN CAPITAL LETTER C WITH CARON; Ccaron
15231 \DeclareTextCompositeCommand{\v}{PU}{C}{\81\014}% U+010C
15232 % U+010D LATIN SMALL LETTER C WITH CARON; ccaron
15233 \DeclareTextCompositeCommand{\v}{PU}{c}{\81\015}% U+010D
15234 % U+010E LATIN CAPITAL LETTER D WITH CARON; Dcaron
15235 \DeclareTextCompositeCommand{\v}{PU}{D}{\81\016}% U+010E
15236 % U+010F LATIN SMALL LETTER D WITH CARON; dcaron
15237 \DeclareTextCompositeCommand{\v}{PU}{d}{\81\017}% U+010F
15238 % U+0110 LATIN CAPITAL LETTER D WITH STROKE; Dcroat, Dslash
15239 \DeclareTextCommand{\DJ}{PU}{\81\020}% U+0110
15240 % U+0111 LATIN SMALL LETTER D WITH STROKE; dcroat, dmacron
15241 \DeclareTextCommand{\dj}{PU}{\81\021}% U+0111
15242 % U+0112 LATIN CAPITAL LETTER E WITH MACRON; Emacron
15243 \DeclareTextCompositeCommand{=} {PU}{E}{\81\022}% U+0112
15244 % U+0113 LATIN SMALL LETTER E WITH MACRON; emacron
15245 \DeclareTextCompositeCommand{=} {PU}{e}{\81\023}% U+0113
15246 % U+0114 LATIN CAPITAL LETTER E WITH BREVE; Ebreve
15247 \DeclareTextCompositeCommand{\u}{PU}{E}{\81\024}% U+0114
15248 % U+0115 LATIN SMALL LETTER E WITH BREVE; ebreve
15249 \DeclareTextCompositeCommand{\u}{PU}{e}{\81\025}% U+0115
15250 % U+0116 LATIN CAPITAL LETTER E WITH DOT ABOVE; Edot, Edotaccent
15251 \DeclareTextCompositeCommand{\.}{PU}{E}{\81\026}% U+0116
15252 % U+0117 LATIN SMALL LETTER E WITH DOT ABOVE; edot, edotaccent
15253 \DeclareTextCompositeCommand{\.}{PU}{e}{\81\027}% U+0117
15254 % U+0118 LATIN CAPITAL LETTER E WITH OGONEK; Eogonek
15255 \DeclareTextCompositeCommand{\k}{PU}{E}{\81\030}% U+0118
15256 % U+0119 LATIN SMALL LETTER E WITH OGONEK; eogonek
15257 \DeclareTextCompositeCommand{\k}{PU}{e}{\81\031}% U+0119
15258 % U+011A LATIN CAPITAL LETTER E WITH CARON; Ecaron
15259 \DeclareTextCompositeCommand{\v}{PU}{E}{\81\032}% U+011A
15260 % U+011B LATIN SMALL LETTER E WITH CARON; ecaron
15261 \DeclareTextCompositeCommand{\v}{PU}{e}{\81\033}% U+011B
15262 % U+011C LATIN CAPITAL LETTER G WITH CIRCUMFLEX; Gcircumflex
15263 \DeclareTextCompositeCommand{^}{PU}{G}{\81\034}% U+011C
15264 % U+011D LATIN SMALL LETTER G WITH CIRCUMFLEX; gcircumflex
15265 \DeclareTextCompositeCommand{^}{PU}{g}{\81\035}% U+011D
15266 % U+011E LATIN CAPITAL LETTER G WITH BREVE; Gbreve
15267 \DeclareTextCompositeCommand{\u}{PU}{G}{\81\036}% U+011E
15268 % U+011F LATIN SMALL LETTER G WITH BREVE; gbreve
15269 \DeclareTextCompositeCommand{\u}{PU}{g}{\81\037}% U+011F
15270 % U+0120 LATIN CAPITAL LETTER G WITH DOT ABOVE; Gdot, Gdotac-
cent
15271 \DeclareTextCompositeCommand{\.}{PU}{G}{\81\040}% U+0120
15272 % U+0121 LATIN SMALL LETTER G WITH DOT ABOVE; gdot, gdotaccent
15273 \DeclareTextCompositeCommand{\.}{PU}{g}{\81\041}% U+0121
15274 % U+0122 LATIN CAPITAL LETTER G WITH CEDILLA; Gcedilla, Gcom-
maaccent
15275 \DeclareTextCompositeCommand{\c}{PU}{G}{\81\042}% U+0122
15276 % U+0123 LATIN SMALL LETTER G WITH CEDILLA; gcedilla, gcommaaccent
15277 \DeclareTextCompositeCommand{\c}{PU}{g}{\81\043}% U+0123
15278 % U+0124 LATIN CAPITAL LETTER H WITH CIRCUMFLEX; Hcircumflex
15279 \DeclareTextCompositeCommand{^}{PU}{H}{\81\044}% U+0124
15280 % U+0125 LATIN SMALL LETTER H WITH CIRCUMFLEX; hcircumflex
15281 \DeclareTextCompositeCommand{^}{PU}{h}{\81\045}% U+0125
15282 % U+0126 LATIN CAPITAL LETTER H WITH STROKE; Hbar
15283 \DeclareTextCommand{\textHslash}{PU}{\81\046}% U+0126
15284 % U+0127 LATIN SMALL LETTER H WITH STROKE; hbar

```

15285 \DeclareTextCommand{\textslash}{PU}{\81\047}% U+0127
15286 % U+0128 LATIN CAPITAL LETTER I WITH TILDE; Itilde
15287 \DeclareTextCompositeCommand{\~}{PU}{I}{\81\050}% U+0128
15288 % U+0129 LATIN SMALL LETTER I WITH TILDE; itilde
15289 \DeclareTextCompositeCommand{\~}{PU}{i}{\81\051}% U+0129
15290 \DeclareTextCompositeCommand{\~}{PU}{i}{\81\051}% U+0129
15291 % U+012A LATIN CAPITAL LETTER I WITH MACRON; Imacron
15292 \DeclareTextCompositeCommand{\=}{PU}{I}{\81\052}% U+012A
15293 % U+012B LATIN SMALL LETTER I WITH MACRON; imacron
15294 \DeclareTextCompositeCommand{\=}{PU}{i}{\81\053}% U+012B
15295 \DeclareTextCompositeCommand{\=}{PU}{i}{\81\053}% U+012B
15296 % U+012C LATIN CAPITAL LETTER I WITH BREVE; Ibreve
15297 \DeclareTextCompositeCommand{\u}{PU}{I}{\81\054}% U+012C
15298 % U+012D LATIN SMALL LETTER I WITH BREVE; ibreve
15299 \DeclareTextCompositeCommand{\u}{PU}{i}{\81\055}% U+012D
15300 \DeclareTextCompositeCommand{\u}{PU}{i}{\81\055}% U+012D
15301 % U+012E LATIN CAPITAL LETTER I WITH OGONEK; Iogonek
15302 \DeclareTextCompositeCommand{\k}{PU}{I}{\81\056}% U+012E
15303 % U+012F LATIN SMALL LETTER I WITH OGONEK; iogonek
15304 \DeclareTextCompositeCommand{\k}{PU}{i}{\81\057}% U+012F
15305 \DeclareTextCompositeCommand{\k}{PU}{i}{\81\057}% U+012F
15306 % U+0130 LATIN CAPITAL LETTER I WITH DOT ABOVE; Idot, Idotaccent
15307 \DeclareTextCompositeCommand{\.}{PU}{I}{\81\060}% U+0130
15308 % U+0131 LATIN SMALL LETTER DOTLESS I; dotlessi
15309 \DeclareTextCommand{\i}{PU}{\81\061}% U+0131
15310 % U+0132 LATIN CAPITAL LIGATURE IJ; IJ
15311 \DeclareTextCommand{\IJ}{PU}{\81\062}% U+0132
15312 % U+0133 LATIN SMALL LIGATURE IJ; ij
15313 \DeclareTextCommand{\ij}{PU}{\81\063}% U+0133
15314 % U+0134 LATIN CAPITAL LETTER J WITH CIRCUMFLEX; Jcircumflex
15315 \DeclareTextCompositeCommand{\^}{PU}{J}{\81\064}% U+0134
15316 % U+0135 LATIN SMALL LETTER J WITH CIRCUMFLEX; jcircumflex
15317 \DeclareTextCompositeCommand{\^}{PU}{j}{\81\065}% U+0135
15318 \DeclareTextCompositeCommand{\^}{PU}{j}{\81\065}% U+0135
15319 % U+0136 LATIN CAPITAL LETTER K WITH CEDILLA; Kcedilla, Kcommaac-
cent
15320 \DeclareTextCompositeCommand{\c}{PU}{K}{\81\066}% U+0136
15321 % U+0137 LATIN SMALL LETTER K WITH CEDILLA; kcedilla, kcommaaccent
15322 \DeclareTextCompositeCommand{\c}{PU}{k}{\81\067}% U+0137

The canonical name of U+0138, small letter kra, would be \textkgreenlandic,
following the glyph naming convention. However latex/base/inputenc.dtx has
choosen \textkra.

15323 % U+0138 LATIN SMALL LETTER KRA; kgreenlandic
15324 \DeclareTextCommand{\textkra}{PU}{\81\070}% U+0138
15325 % U+0139 LATIN CAPITAL LETTER L WITH ACUTE; Lacute
15326 \DeclareTextCompositeCommand{\'}{PU}{L}{\81\071}% U+0139
15327 % U+013A LATIN SMALL LETTER L WITH ACUTE; lacute
15328 \DeclareTextCompositeCommand{\'}{PU}{l}{\81\072}% U+013A
15329 % U+013B LATIN CAPITAL LETTER L WITH CEDILLA; Lcedilla, Lcommaac-
cent
15330 \DeclareTextCompositeCommand{\c}{PU}{L}{\81\073}% U+013B
15331 % U+013C LATIN SMALL LETTER L WITH CEDILLA; lcedilla, lcommaaccent
15332 \DeclareTextCompositeCommand{\c}{PU}{l}{\81\074}% U+013C
15333 % U+013D LATIN CAPITAL LETTER L WITH CARON; Lcaron
15334 \DeclareTextCompositeCommand{\v}{PU}{L}{\81\075}% U+013D
15335 % U+013E LATIN SMALL LETTER L WITH CARON; lcaron
15336 \DeclareTextCompositeCommand{\v}{PU}{l}{\81\076}% U+013E

```

There seems to be no variants of letters ‘L’ and ‘l’ with a dot above (reasonable). Therefore the \. accent is reused instead of making a separate accent macro \textmiddledot.

```

15337 % U+013F LATIN CAPITAL LETTER L WITH MIDDLE DOT; Ldot, Ldotac-
cent
15338 \DeclareTextCompositeCommand{\.}{PU}{L}{\81\077}% U+013F
15339 % U+0140 LATIN SMALL LETTER L WITH MIDDLE DOT; ldot, ldotaccent
15340 \DeclareTextCompositeCommand{\.}{PU}{l}{\81\100}% U+0140
15341 % U+0141 LATIN CAPITAL LETTER L WITH STROKE; Lslash
15342 \DeclareTextCommand{\L}{PU}{\81\101}% U+0141
15343 % U+0142 LATIN SMALL LETTER L WITH STROKE; lslash
15344 \DeclareTextCommand{\l}{PU}{\81\102}% U+0142
15345 % U+0143 LATIN CAPITAL LETTER N WITH ACUTE; Nacute
15346 \DeclareTextCompositeCommand{\'}{PU}{N}{\81\103}% U+0143
15347 % U+0144 LATIN SMALL LETTER N WITH ACUTE; nacute
15348 \DeclareTextCompositeCommand{\'}{PU}{n}{\81\104}% U+0144
15349 % U+0145 LATIN CAPITAL LETTER N WITH CEDILLA; Ncedilla, Ncommaac-
cent
15350 \DeclareTextCompositeCommand{\c}{PU}{N}{\81\105}% U+0145
15351 % U+0146 LATIN SMALL LETTER N WITH CEDILLA; ncedilla, ncommaaccent
15352 \DeclareTextCompositeCommand{\c}{PU}{n}{\81\106}% U+0146
15353 % U+0147 LATIN CAPITAL LETTER N WITH CARON; Ncaron
15354 \DeclareTextCompositeCommand{\v}{PU}{N}{\81\107}% U+0147
15355 % U+0148 LATIN SMALL LETTER N WITH CARON; ncaron
15356 \DeclareTextCompositeCommand{\v}{PU}{n}{\81\110}% U+0148
15357 % U+0149 LATIN SMALL LETTER N PRECEDED BY APOSTROPHE; napos-
trophe, quoterightn
15358 \DeclareTextCommand{\textnapostrophe}{PU}{\81\111}% U+0149
15359 % U+014A LATIN CAPITAL LETTER ENG; Eng
15360 \DeclareTextCommand{\NG}{PU}{\81\112}% U+014A
15361 % U+014B LATIN SMALL LETTER ENG; eng
15362 \DeclareTextCommand{\ng}{PU}{\81\113}% U+014B
15363 % U+014C LATIN CAPITAL LETTER O WITH MACRON; Omacron
15364 \DeclareTextCompositeCommand{\=}{PU}{O}{\81\114}% U+014C
15365 % U+014D LATIN SMALL LETTER O WITH MACRON; omacron
15366 \DeclareTextCompositeCommand{\=}{PU}{o}{\81\115}% U+014D
15367 % U+014E LATIN CAPITAL LETTER O WITH BREVE; Obreve
15368 \DeclareTextCompositeCommand{\u}{PU}{O}{\81\116}% U+014E
15369 % U+014F LATIN SMALL LETTER O WITH BREVE; obreve
15370 \DeclareTextCompositeCommand{\u}{PU}{o}{\81\117}% U+014F
15371 % U+0150 LATIN CAPITAL LETTER O WITH DOUBLE ACUTE; Odbla-
cute, Ohungarumlaut
15372 \DeclareTextCompositeCommand{\H}{PU}{O}{\81\120}% U+0150
15373 % U+0151 LATIN SMALL LETTER O WITH DOUBLE ACUTE; odbla-
cute, ohungarumlaut
15374 \DeclareTextCompositeCommand{\H}{PU}{o}{\81\121}% U+0151
15375 % U+0152 LATIN CAPITAL LIGATURE OE; OE
15376 \DeclareTextCommand{\OE}{PU}{\81\122}% U+0152
15377 % U+0153 LATIN SMALL LIGATURE OE; oe
15378 \DeclareTextCommand{\oe}{PU}{\81\123}% U+0153
15379 % U+0154 LATIN CAPITAL LETTER R WITH ACUTE; Racute
15380 \DeclareTextCompositeCommand{\'}{PU}{R}{\81\124}% U+0154
15381 % U+0155 LATIN SMALL LETTER R WITH ACUTE; racute
15382 \DeclareTextCompositeCommand{\'}{PU}{r}{\81\125}% U+0155
15383 % U+0156 LATIN CAPITAL LETTER R WITH CEDILLA; Rcedilla, Rcommaac-
cent
15384 \DeclareTextCompositeCommand{\c}{PU}{R}{\81\126}% U+0156

```

15385 % U+0157 LATIN SMALL LETTER R WITH CEDILLA; rcedilla, rcommaaccent
15386 \DeclareTextCompositeCommand{\c}{PU}{r}{\81\127}% U+0157
15387 % U+0158 LATIN CAPITAL LETTER R WITH CARON; Rcaron
15388 \DeclareTextCompositeCommand{\v}{PU}{R}{\81\130}% U+0158
15389 % U+0159 LATIN SMALL LETTER R WITH CARON; rcaron
15390 \DeclareTextCompositeCommand{\v}{PU}{r}{\81\131}% U+0159
15391 % U+015A LATIN CAPITAL LETTER S WITH ACUTE; Sacute
15392 \DeclareTextCompositeCommand{\'}{PU}{S}{\81\132}% U+015A
15393 % U+015B LATIN SMALL LETTER S WITH ACUTE; sacute
15394 \DeclareTextCompositeCommand{\'}{PU}{s}{\81\133}% U+015B
15395 % U+015C LATIN CAPITAL LETTER S WITH CIRCUMFLEX; Scircumflex
15396 \DeclareTextCompositeCommand{\^}{PU}{S}{\81\134}% U+015C
15397 % U+015D LATIN SMALL LETTER S WITH CIRCUMFLEX; scircumflex
15398 \DeclareTextCompositeCommand{\^}{PU}{s}{\81\135}% U+015D
15399 % U+015E LATIN CAPITAL LETTER S WITH CEDILLA; Scedilla
15400 \DeclareTextCompositeCommand{\c}{PU}{S}{\81\136}% U+015E
15401 % U+015F LATIN SMALL LETTER S WITH CEDILLA; scedilla
15402 \DeclareTextCompositeCommand{\c}{PU}{s}{\81\137}% U+015F
15403 % U+0160 LATIN CAPITAL LETTER S WITH CARON; Scaron
15404 \DeclareTextCompositeCommand{\v}{PU}{S}{\81\140}% U+0160
15405 % U+0161 LATIN SMALL LETTER S WITH CARON; scaron
15406 \DeclareTextCompositeCommand{\v}{PU}{s}{\81\141}% U+0161
15407 % U+0162 LATIN CAPITAL LETTER T WITH CEDILLA; Tcedilla, Tcommaac-
cent
15408 \DeclareTextCompositeCommand{\c}{PU}{T}{\81\142}% U+0162
15409 % U+0163 LATIN SMALL LETTER T WITH CEDILLA; tcedilla, tcommaaccent
15410 \DeclareTextCompositeCommand{\c}{PU}{t}{\81\143}% U+0163
15411 % U+0164 LATIN CAPITAL LETTER T WITH CARON; Tcaron
15412 \DeclareTextCompositeCommand{\v}{PU}{T}{\81\144}% U+0164
15413 % U+0165 LATIN SMALL LETTER T WITH CARON; tcaron
15414 \DeclareTextCompositeCommand{\v}{PU}{t}{\81\145}% U+0165
15415 % U+0166 LATIN CAPITAL LETTER T WITH STROKE; Tbar
15416 \DeclareTextCommand{\textTslash}{PU}{\81\146}% U+0166
15417 % U+0167 LATIN SMALL LETTER T WITH STROKE; tbar
15418 \DeclareTextCommand{\texttslash}{PU}{\81\147}% U+0167
15419 % U+0168 LATIN CAPITAL LETTER U WITH TILDE; Utilde
15420 \DeclareTextCompositeCommand{\~}{PU}{U}{\81\150}% U+0168
15421 % U+0169 LATIN SMALL LETTER U WITH TILDE; utilde
15422 \DeclareTextCompositeCommand{\~}{PU}{u}{\81\151}% U+0169
15423 % U+016A LATIN CAPITAL LETTER U WITH MACRON; Umacron
15424 \DeclareTextCompositeCommand{\=}{PU}{U}{\81\152}% U+016A
15425 % U+016B LATIN SMALL LETTER U WITH MACRON; umacron
15426 \DeclareTextCompositeCommand{\=}{PU}{u}{\81\153}% U+016B
15427 % U+016C LATIN CAPITAL LETTER U WITH BREVE; Ubreve
15428 \DeclareTextCompositeCommand{\u}{PU}{U}{\81\154}% U+016C
15429 % U+016D LATIN SMALL LETTER U WITH BREVE; ubreve
15430 \DeclareTextCompositeCommand{\u}{PU}{u}{\81\155}% U+016D
15431 % U+016E LATIN CAPITAL LETTER U WITH RING ABOVE; Uring
15432 \DeclareTextCompositeCommand{\r}{PU}{U}{\81\156}% U+016E
15433 % U+016F LATIN SMALL LETTER U WITH RING ABOVE; uring
15434 \DeclareTextCompositeCommand{\r}{PU}{u}{\81\157}% U+016F
15435 % U+0170 LATIN CAPITAL LETTER U WITH DOUBLE ACUTE; Udbla-
cute, Uhungarumlaut
15436 \DeclareTextCompositeCommand{\H}{PU}{U}{\81\160}% U+0170
15437 % U+0171 LATIN SMALL LETTER U WITH DOUBLE ACUTE; udbla-
cute, uhungarumlaut
15438 \DeclareTextCompositeCommand{\H}{PU}{u}{\81\161}% U+0171

15439 % U+0172 LATIN CAPITAL LETTER U WITH OGONEK; Uogonek
 15440 \DeclareTextCompositeCommand{\k}{PU}{U}{\81\162}% U+0172
 15441 % U+0173 LATIN SMALL LETTER U WITH OGONEK; uogonek
 15442 \DeclareTextCompositeCommand{\k}{PU}{u}{\81\163}% U+0173
 15443 % U+0174 LATIN CAPITAL LETTER W WITH CIRCUMFLEX; Wcircumflex
 15444 \DeclareTextCompositeCommand{\^}{PU}{W}{\81\164}% U+0174
 15445 % U+0175 LATIN SMALL LETTER W WITH CIRCUMFLEX; wcircumflex
 15446 \DeclareTextCompositeCommand{\^}{PU}{w}{\81\165}% U+0175
 15447 % U+0176 LATIN CAPITAL LETTER Y WITH CIRCUMFLEX; Ycircumflex
 15448 \DeclareTextCompositeCommand{\^}{PU}{Y}{\81\166}% U+0176
 15449 % U+0177 LATIN SMALL LETTER Y WITH CIRCUMFLEX; ycircumflex
 15450 \DeclareTextCompositeCommand{\^}{PU}{y}{\81\167}% U+0177
 15451 % U+0178 LATIN CAPITAL LETTER Y WITH DIAERESIS; Ydieresis
 15452 \DeclareTextCompositeCommand{\"}{PU}{Y}{\81\170}% U+0178
 15453 % U+0179 LATIN CAPITAL LETTER Z WITH ACUTE; Zacute
 15454 \DeclareTextCompositeCommand{\'}{PU}{Z}{\81\171}% U+0179
 15455 % U+017A LATIN SMALL LETTER Z WITH ACUTE; zacute
 15456 \DeclareTextCompositeCommand{\'}{PU}{z}{\81\172}% U+017A
 15457 % U+017B LATIN CAPITAL LETTER Z WITH DOT ABOVE; Zdot, Zdotaccent
 15458 \DeclareTextCompositeCommand{\.}{PU}{Z}{\81\173}% U+017B
 15459 % U+017C LATIN SMALL LETTER Z WITH DOT ABOVE; zdot, zdotaccent
 15460 \DeclareTextCompositeCommand{\.}{PU}{z}{\81\174}% U+017C
 15461 % U+017D LATIN CAPITAL LETTER Z WITH CARON; Zcaron
 15462 \DeclareTextCompositeCommand{\v}{PU}{Z}{\81\175}% U+017D
 15463 % U+017E LATIN SMALL LETTER Z WITH CARON; zcaron
 15464 \DeclareTextCompositeCommand{\v}{PU}{z}{\81\176}% U+017E
 15465 % U+017F LATIN SMALL LETTER LONG S; longs, slong
 15466 \DeclareTextCommand{\textlongS}{PU}{\81\177}% U+017F

50.2.5 Latin Extended-B: U+0180 to U+024F

15467 % U+0192 LATIN SMALL LETTER F WITH HOOK; florin
 15468 \DeclareTextCommand{\textflorin}{PU}{\81\222}% U+0192
 15469 % U+01CD LATIN CAPITAL LETTER A WITH CARON; Acaron
 15470 \DeclareTextCompositeCommand{\v}{PU}{A}{\81\315}% U+01CD
 15471 % U+01CE LATIN SMALL LETTER A WITH CARON; acaron
 15472 \DeclareTextCompositeCommand{\v}{PU}{a}{\81\316}% U+01CE
 15473 % U+01CF LATIN CAPITAL LETTER I WITH CARON; Icaron
 15474 \DeclareTextCompositeCommand{\v}{PU}{I}{\81\317}% U+01CF
 15475 % U+01D0 LATIN SMALL LETTER I WITH CARON; icaron
 15476 \DeclareTextCompositeCommand{\v}{PU}{i}{\81\320}% U+01D0
 15477 \DeclareTextCompositeCommand{\v}{PU}{i}{\81\320}% U+01D0
 15478 % U+01D1 LATIN CAPITAL LETTER O WITH CARON; Ocaron
 15479 \DeclareTextCompositeCommand{\v}{PU}{O}{\81\321}% U+01D1
 15480 % U+01D2 LATIN SMALL LETTER O WITH CARON; ocaron
 15481 \DeclareTextCompositeCommand{\v}{PU}{o}{\81\322}% U+01D2
 15482 % U+01D3 LATIN CAPITAL LETTER U WITH CARON; Ucaron
 15483 \DeclareTextCompositeCommand{\v}{PU}{U}{\81\323}% U+01D3
 15484 % U+01D4 LATIN SMALL LETTER U WITH CARON; ucaron
 15485 \DeclareTextCompositeCommand{\v}{PU}{u}{\81\324}% U+01D4
 15486 % U+01E4 LATIN CAPITAL LETTER G WITH STROKE; Gstroke
 15487 \DeclareTextCommand{\textGslash}{PU}{\81\344}% U+01E4
 15488 % U+01E5 LATIN SMALL LETTER G WITH STROKE; gstroke
 15489 \DeclareTextCommand{\textgslash}{PU}{\81\345}% U+01E5
 15490 % U+01E6 LATIN CAPITAL LETTER G WITH CARON; Gcaron
 15491 \DeclareTextCompositeCommand{\v}{PU}{G}{\81\346}% U+01E6
 15492 % U+01E7 LATIN SMALL LETTER G WITH CARON; gcaron
 15493 \DeclareTextCompositeCommand{\v}{PU}{g}{\81\347}% U+01E7

15494 % U+01E8 LATIN CAPITAL LETTER K WITH CARON; Kcaron
15495 \DeclareTextCompositeCommand{\v}{PU}{K}{\81\350}% U+01E8
15496 % U+01E9 LATIN SMALL LETTER K WITH CARON; kcaron
15497 \DeclareTextCompositeCommand{\v}{PU}{k}{\81\351}% U+01E9
15498 % U+01EA LATIN CAPITAL LETTER O WITH OGONEK; Oogonek
15499 \DeclareTextCompositeCommand{\k}{PU}{O}{\81\352}% U+01EA
15500 % U+01EB LATIN SMALL LETTER O WITH OGONEK; oogonek
15501 \DeclareTextCompositeCommand{\k}{PU}{o}{\81\353}% U+01EB
15502 % U+01F0 LATIN SMALL LETTER J WITH CARON; jcaron
15503 \DeclareTextCompositeCommand{\v}{PU}{j}{\81\360}% U+01F0
15504 \DeclareTextCompositeCommand{\v}{PU}{j}{\81\360}% U+01F0
15505 % U+01F4 LATIN CAPITAL LETTER G WITH ACUTE; Gacute
15506 \DeclareTextCompositeCommand{\'}{PU}{G}{\81\364}% U+01F4
15507 % U+01F5 LATIN SMALL LETTER G WITH ACUTE; gacute
15508 \DeclareTextCompositeCommand{\'}{PU}{g}{\81\365}% U+01F5
15509 % U+01F8 LATIN CAPITAL LETTER N WITH GRAVE
15510 \DeclareTextCompositeCommand{\'}{PU}{N}{\81\370}% U+01F8
15511 % U+01F9 LATIN SMALL LETTER N WITH GRAVE
15512 \DeclareTextCompositeCommand{\'}{PU}{n}{\81\371}% U+01F9
15513 % U+01FC LATIN CAPITAL LETTER AE WITH ACUTE; AEacute
15514 \DeclareTextCompositeCommand{\'}{PU}{\AE}{\81\374}% U+01FC
15515 % U+01FD LATIN SMALL LETTER AE WITH ACUTE; aeacute
15516 \DeclareTextCompositeCommand{\'}{PU}{\ae}{\81\375}% U+01FD
15517 % U+01FE LATIN CAPITAL LETTER O WITH STROKE AND ACUTE; *Oslashacute, Ostrokeacute
15518 \DeclareTextCompositeCommand{\'}{PU}{\O}{\81\376}% U+01FE
15519 % U+01FF LATIN SMALL LETTER O WITH STROKE AND ACUTE; *oslashacute, ostrokeacute
15520 \DeclareTextCompositeCommand{\'}{PU}{\o}{\81\377}% U+01FF
15521 % U+0200 LATIN CAPITAL LETTER A WITH DOUBLE GRAVE; Adblgrave
15522 \DeclareTextCompositeCommand{\G}{PU}{A}{\82\000}% U+0200
15523 % U+0201 LATIN SMALL LETTER A WITH DOUBLE GRAVE; adblgrave
15524 \DeclareTextCompositeCommand{\G}{PU}{a}{\82\001}% U+0201
15525 % U+0204 LATIN CAPITAL LETTER E WITH DOUBLE GRAVE; Edblgrave
15526 \DeclareTextCompositeCommand{\G}{PU}{E}{\82\004}% U+0204
15527 % U+0205 LATIN SMALL LETTER E WITH DOUBLE GRAVE; edblgrave
15528 \DeclareTextCompositeCommand{\G}{PU}{e}{\82\005}% U+0205
15529 % U+0208 LATIN CAPITAL LETTER I WITH DOUBLE GRAVE; Idblgrave
15530 \DeclareTextCompositeCommand{\G}{PU}{I}{\82\010}% U+0208
15531 % U+0209 LATIN SMALL LETTER I WITH DOUBLE GRAVE; idblgrave
15532 \DeclareTextCompositeCommand{\G}{PU}{i}{\82\011}% U+0209
15533 \DeclareTextCompositeCommand{\G}{PU}{i}{\82\011}% U+0209
15534 % U+020C LATIN CAPITAL LETTER O WITH DOUBLE GRAVE; Odblgrave
15535 \DeclareTextCompositeCommand{\G}{PU}{O}{\82\014}% U+020C
15536 % U+020D LATIN SMALL LETTER O WITH DOUBLE GRAVE; odblgrave
15537 \DeclareTextCompositeCommand{\G}{PU}{o}{\82\015}% U+020D
15538 % U+0210 LATIN CAPITAL LETTER R WITH DOUBLE GRAVE; Rdblgrave
15539 \DeclareTextCompositeCommand{\G}{PU}{R}{\82\020}% U+0210
15540 % U+0211 LATIN SMALL LETTER R WITH DOUBLE GRAVE; rdblgrave
15541 \DeclareTextCompositeCommand{\G}{PU}{r}{\82\021}% U+0211
15542 % U+0214 LATIN CAPITAL LETTER U WITH DOUBLE GRAVE; Udblgrave
15543 \DeclareTextCompositeCommand{\G}{PU}{U}{\82\024}% U+0214
15544 % U+0215 LATIN SMALL LETTER U WITH DOUBLE GRAVE; udblgrave
15545 \DeclareTextCompositeCommand{\G}{PU}{u}{\82\025}% U+0215
15546 % U+021E LATIN CAPITAL LETTER H WITH CARON
15547 \DeclareTextCompositeCommand{\v}{PU}{H}{\82\036}% U+021E
15548 % U+021F LATIN SMALL LETTER H WITH CARON

15549 \DeclareTextCompositeCommand{\v}{PU}{h}{\82\037}% U+021F
 15550 % U+0226 LATIN CAPITAL LETTER A WITH DOT ABOVE
 15551 \DeclareTextCompositeCommand{\.}{PU}{A}{\82\046}% U+0226
 15552 % U+0227 LATIN SMALL LETTER A WITH DOT ABOVE
 15553 \DeclareTextCompositeCommand{\.}{PU}{a}{\82\047}% U+0227
 15554 % U+0228 LATIN CAPITAL LETTER E WITH CEDILLA
 15555 \DeclareTextCompositeCommand{\c}{PU}{E}{\82\050}% U+0228
 15556 % U+0229 LATIN SMALL LETTER E WITH CEDILLA
 15557 \DeclareTextCompositeCommand{\c}{PU}{e}{\82\051}% U+0229
 15558 % U+022E LATIN CAPITAL LETTER O WITH DOT ABOVE
 15559 \DeclareTextCompositeCommand{\.}{PU}{O}{\82\056}% U+022E
 15560 % U+022F LATIN SMALL LETTER O WITH DOT ABOVE
 15561 \DeclareTextCompositeCommand{\.}{PU}{o}{\82\057}% U+022F
 15562 % U+0232 LATIN CAPITAL LETTER Y WITH MACRON
 15563 \DeclareTextCompositeCommand{\=}{PU}{Y}{\82\062}% U+0232
 15564 % U+0233 LATIN SMALL LETTER Y WITH MACRON
 15565 \DeclareTextCompositeCommand{\=}{PU}{y}{\82\063}% U+0233
 15566 % U+0237 LATIN SMALL LETTER DOTLESS J
 15567 \DeclareTextCommand{\j}{PU}{\82\067}% U+0237

50.2.6 Spacing Modifier Letters: U+02B0 to U+02FF

15568 % U+02C7 CARON; caron
 15569 \DeclareTextCommand{\textasciicaron}{PU}{\82\307}% U+02C7
 15570 % U+02D8 BREVE; breve
 15571 \DeclareTextCommand{\textasciibreve}{PU}{\82\330}% U+02D8
 15572 % U+02D9 DOT ABOVE; dotaccent
 15573 \DeclareTextCommand{\textdotaccent}{PU}{\82\331}% U+02D9
 15574 % U+02DA RING ABOVE; ring
 15575 \DeclareTextCommand{\textring}{PU}{\82\332}% U+02DA
 15576 % U+02DB OGONEK; ogonek
 15577 \DeclareTextCommand{\textogonek}{PU}{\82\333}% U+02DB
 15578 % U+02DC SMALL TILDE; ilde, *tilde
 15579 \DeclareTextCommand{\texttilde}{PU}{\82\334}% U+02DC
 15580 % U+02DD DOUBLE ACUTE ACCENT; hungarumlaut
 15581 \DeclareTextCommand{\texthungarumlaut}{PU}{\82\335}% U+02DD
 15582 \DeclareTextCommand{\textacutedbl}{PU}{\texthungarumlaut}% U+02DD
 15583 % U+02F5 MODIFIER LETTER MIDDLE DOUBLE GRAVE ACCENT
 15584 \DeclareTextCommand{\textgravedbl}{PU}{\82\365}% U+02F5
 15585 % U+02F7 MODIFIER LETTER LOW TILDE
 15586 \DeclareTextCommand{\texttildelow}{PU}{\82\367}% U+02F7

50.2.7 Combining Diacritical Marks: U+0300 to U+036F

15587 % U+030F COMBINING DOUBLE GRAVE ACCENT; dblgravecmb
 15588 \DeclareTextCommand{\textdoublegrave}{PU}{\83\017}% U+030F
 15589 % U+0311 COMBINING INVERTED BREVE; breveinvertedcmb
 15590 \DeclareTextCommand{\textnewtie}{PU}{\83\021}% U+0311
 15591 % U+0323 COMBINING DOT BELOW; dotbelowcmb, *dotbelowcomb
 15592 \DeclareTextCommand{\textdotbelow}{PU}{\83\043}% U+0323
 15593 % U+0331 COMBINING MACRON BELOW; macronbelowcmb
 15594 \DeclareTextCommand{\textmacronbelow}{PU}{\83\061}% U+0331
 15595 % U+0361 COMBINING DOUBLE INVERTED BREVE; breveinverteddou-
 blecmb
 15596 \DeclareTextCommand{\texttie}{PU}{\83\141}% U+0361

50.2.8 Greek and Coptic: U+0370 to U+03FF

15597 % U+0374 GREEK NUMERAL SIGN; numeralsigngreek
 15598 \DeclareTextCommand{\textnumeralsigngreek}{PU}{\83\164}% U+0374

15599 % U+0375 GREEK LOWER NUMERAL SIGN; numeralsignlowergreek
 15600 \DeclareTextCommand{\textnumeralsignlowergreek}{PU}{\83\165}% U+0375
 15601 % U+0386 GREEK CAPITAL LETTER ALPHA WITH TONOS; Alphatonos
 15602 \DeclareTextCompositeCommand{\'}{PU}{\textAlpha}{\83\206}% U+0386
 15603 % U+0388 GREEK CAPITAL LETTER EPSILON WITH TONOS; Epsilontonos
 15604 \DeclareTextCompositeCommand{\'}{PU}{\textEpsilon}{\83\210}% U+0388
 15605 % U+0389 GREEK CAPITAL LETTER ETA WITH TONOS; Etatonos
 15606 \DeclareTextCompositeCommand{\'}{PU}{\textEta}{\83\211}% U+0389
 15607 % U+038A GREEK CAPITAL LETTER IOTA WITH TONOS; Iotatonos
 15608 \DeclareTextCompositeCommand{\'}{PU}{\textIota}{\83\212}% U+038A
 15609 % U+038C GREEK CAPITAL LETTER OMICRON WITH TONOS; Omicrontonos
 15610 \DeclareTextCompositeCommand{\'}{PU}{\textOmicron}{\83\214}% U+038C
 15611 % U+038E GREEK CAPITAL LETTER UPSILON WITH TONOS; Upsilontonos
 15612 \DeclareTextCompositeCommand{\'}{PU}{\textUpsilon}{\83\216}% U+038E
 15613 % U+038F GREEK CAPITAL LETTER OMEGA WITH TONOS; Omegatonos
 15614 \DeclareTextCompositeCommand{\'}{PU}{\textOmega}{\83\217}% U+038F
 15615 % U+0390 GREEK SMALL LETTER IOTA WITH DIALYTIKA AND TONOS; iotadieresis
 15616 \DeclareTextCompositeCommand{\'}{PU}{\textIotadieresis}{\83\220}% U+0390
 15617 % U+0391 GREEK CAPITAL LETTER ALPHA; Alpha
 15618 \DeclareTextCommand{\textAlpha}{PU}{\83\221}% U+0391
 15619 % U+0392 GREEK CAPITAL LETTER BETA; Beta
 15620 \DeclareTextCommand{\textBeta}{PU}{\83\222}% U+0392
 15621 % U+0393 GREEK CAPITAL LETTER GAMMA; Gamma
 15622 \DeclareTextCommand{\textGamma}{PU}{\83\223}% U+0393
 15623 % U+0394 GREEK CAPITAL LETTER DELTA; Deltagreek, *Delta
 15624 \DeclareTextCommand{\textDelta}{PU}{\83\224}% U+0394
 15625 % U+0395 GREEK CAPITAL LETTER EPSILON; Epsilon
 15626 \DeclareTextCommand{\textEpsilon}{PU}{\83\225}% U+0395
 15627 % U+0396 GREEK CAPITAL LETTER ZETA; Zeta
 15628 \DeclareTextCommand{\textZeta}{PU}{\83\226}% U+0396
 15629 % U+0397 GREEK CAPITAL LETTER ETA; Eta
 15630 \DeclareTextCommand{\textEta}{PU}{\83\227}% U+0397
 15631 % U+0398 GREEK CAPITAL LETTER THETA; Theta
 15632 \DeclareTextCommand{\textTheta}{PU}{\83\230}% U+0398
 15633 % U+0399 GREEK CAPITAL LETTER IOTA; Iota
 15634 \DeclareTextCommand{\textIota}{PU}{\83\231}% U+0399
 15635 % U+039A GREEK CAPITAL LETTER KAPPA; Kappa
 15636 \DeclareTextCommand{\textKappa}{PU}{\83\232}% U+039A
 15637 % U+039B GREEK CAPITAL LETTER LAMDA; Lambda
 15638 \DeclareTextCommand{\textLambda}{PU}{\83\233}% U+039B
 15639 % U+039C GREEK CAPITAL LETTER MU; Mu
 15640 \DeclareTextCommand{\textMu}{PU}{\83\234}% U+039C
 15641 % U+039D GREEK CAPITAL LETTER NU; Nu
 15642 \DeclareTextCommand{\textNu}{PU}{\83\235}% U+039D
 15643 % U+039E GREEK CAPITAL LETTER XI; Xi
 15644 \DeclareTextCommand{\textXi}{PU}{\83\236}% U+039E
 15645 % U+039F GREEK CAPITAL LETTER OMICRON; Omicron
 15646 \DeclareTextCommand{\textOmicron}{PU}{\83\237}% U+039F
 15647 % U+03A0 GREEK CAPITAL LETTER PI; Pi
 15648 \DeclareTextCommand{\textPi}{PU}{\83\240}% U+03A0
 15649 % U+03A1 GREEK CAPITAL LETTER RHO; Rho
 15650 \DeclareTextCommand{\textRho}{PU}{\83\241}% U+03A1
 15651 % U+03A3 GREEK CAPITAL LETTER SIGMA; Sigma
 15652 \DeclareTextCommand{\textSigma}{PU}{\83\243}% U+03A3
 15653 % U+03A4 GREEK CAPITAL LETTER TAU; Tau

15654 \DeclareTextCommand{\textTau}{PU}{\83\244}% U+03A4
15655 % U+03A5 GREEK CAPITAL LETTER UPSILON; Upsilon
15656 \DeclareTextCommand{\textUpsilon}{PU}{\83\245}% U+03A5
15657 % U+03A6 GREEK CAPITAL LETTER PHI; Phi
15658 \DeclareTextCommand{\textPhi}{PU}{\83\246}% U+03A6
15659 % U+03A7 GREEK CAPITAL LETTER CHI; Chi
15660 \DeclareTextCommand{\textChi}{PU}{\83\247}% U+03A7
15661 % U+03A8 GREEK CAPITAL LETTER PSI; Psi
15662 \DeclareTextCommand{\textPsi}{PU}{\83\250}% U+03A8
15663 % U+03A9 GREEK CAPITAL LETTER OMEGA; Omegagreek, *Omega
15664 \DeclareTextCommand{\textOmega}{PU}{\83\251}% U+03A9
15665 % U+03AA GREEK CAPITAL LETTER IOTA WITH DIALYTIKA; Iotadieresis
15666 \DeclareTextCommand{\textIotadieresis}{PU}{\83\252}% U+03AA
15667 \DeclareTextCompositeCommand{"}{PU}{\textIota}{\83\252}% U+03AA
15668 % U+03AB GREEK CAPITAL LETTER UPSILON WITH DIALYTIKA; Upsilonondieresis
15669 \DeclareTextCompositeCommand{"}{PU}{\textUpsilon}{\83\253}% U+03AB
15670 % U+03AC GREEK SMALL LETTER ALPHA WITH TONOS; alphanos
15671 \DeclareTextCompositeCommand{'}{PU}{\textalpha}{\83\254}% U+03AC
15672 % U+03AD GREEK SMALL LETTER EPSILON WITH TONOS; epsilononos
15673 \DeclareTextCompositeCommand{'}{PU}{\textepsilon}{\83\255}% U+03AD
15674 % U+03AE GREEK SMALL LETTER ETA WITH TONOS; etanos
15675 \DeclareTextCompositeCommand{'}{PU}{\texteta}{\83\256}% U+03AE
15676 % U+03AF GREEK SMALL LETTER IOTA WITH TONOS; iotonos
15677 \DeclareTextCompositeCommand{'}{PU}{\textiota}{\83\257}% U+03AF
15678 % U+03B0 GREEK SMALL LETTER UPSILON WITH DIALYTIKA AND TONOS; upsilonondieresis
15679 \DeclareTextCompositeCommand{"}{PU}{\textupsilonacute}{\83\260}% U+03B0
15680 % U+03B1 GREEK SMALL LETTER ALPHA; alpha
15681 \DeclareTextCommand{\textalpha}{PU}{\83\261}% U+03B1
15682 % U+03B2 GREEK SMALL LETTER BETA; beta
15683 \DeclareTextCommand{\textbeta}{PU}{\83\262}% U+03B2
15684 % U+03B3 GREEK SMALL LETTER GAMMA; gamma
15685 \DeclareTextCommand{\textgamma}{PU}{\83\263}% U+03B3
15686 % U+03B4 GREEK SMALL LETTER DELTA; delta
15687 \DeclareTextCommand{\textdelta}{PU}{\83\264}% U+03B4
15688 % U+03B5 GREEK SMALL LETTER EPSILON; epsilon
15689 \DeclareTextCommand{\textepsilon}{PU}{\83\265}% U+03B5
15690 % U+03B6 GREEK SMALL LETTER ZETA; zeta
15691 \DeclareTextCommand{\textzeta}{PU}{\83\266}% U+03B6
15692 % U+03B7 GREEK SMALL LETTER ETA; eta
15693 \DeclareTextCommand{\texteta}{PU}{\83\267}% U+03B7
15694 % U+03B8 GREEK SMALL LETTER THETA; theta
15695 \DeclareTextCommand{\texttheta}{PU}{\83\270}% U+03B8
15696 % U+03B9 GREEK SMALL LETTER IOTA; iota
15697 \DeclareTextCommand{\textiota}{PU}{\83\271}% U+03B9
15698 % U+03BA GREEK SMALL LETTER KAPPA; kappa
15699 \DeclareTextCommand{\textkappa}{PU}{\83\272}% U+03BA
15700 % U+03BB GREEK SMALL LETTER LAMDA; lambda
15701 \DeclareTextCommand{\textlambda}{PU}{\83\273}% U+03BB
15702 % U+03BC GREEK SMALL LETTER MU; mugreek, *mu
15703 \DeclareTextCommand{\textmugreek}{PU}{\83\274}% U+03BC
15704 % U+03BD GREEK SMALL LETTER NU; nu
15705 \DeclareTextCommand{\textnu}{PU}{\83\275}% U+03BD
15706 % U+03BE GREEK SMALL LETTER XI; xi
15707 \DeclareTextCommand{\textxi}{PU}{\83\276}% U+03BE
15708 % U+03BF GREEK SMALL LETTER OMICRON; omicron

```

15709 \DeclareTextCommand{\textomicron}{PU}{\83\277}% U+03BF
15710 % U+03C0 GREEK SMALL LETTER PI; pi
15711 \DeclareTextCommand{\textpi}{PU}{\83\300}% U+03C0
15712 % U+03C1 GREEK SMALL LETTER RHO; rho
15713 \DeclareTextCommand{\textrho}{PU}{\83\301}% U+03C1
15714 % U+03C2 GREEK SMALL LETTER FINAL SIGMA; *sigma1, sigmafinal
15715 \DeclareTextCommand{\textvarsigma}{PU}{\83\302}% U+03C2
15716 % U+03C3 GREEK SMALL LETTER SIGMA; sigma
15717 \DeclareTextCommand{\textsigma}{PU}{\83\303}% U+03C3
15718 % U+03C4 GREEK SMALL LETTER TAU; tau
15719 \DeclareTextCommand{\texttau}{PU}{\83\304}% U+03C4
15720 % U+03C5 GREEK SMALL LETTER UPSILON; upsilon
15721 \DeclareTextCommand{\textupsilon}{PU}{\83\305}% U+03C5
15722 % U+03C6 GREEK SMALL LETTER PHI; phi
15723 \DeclareTextCommand{\textphi}{PU}{\83\306}% U+03C6
15724 % U+03C7 GREEK SMALL LETTER CHI; chi
15725 \DeclareTextCommand{\textchi}{PU}{\83\307}% U+03C7
15726 % U+03C8 GREEK SMALL LETTER PSI; psi
15727 \DeclareTextCommand{\textpsi}{PU}{\83\310}% U+03C8
15728 % U+03C9 GREEK SMALL LETTER OMEGA; omega
15729 \DeclareTextCommand{\textomega}{PU}{\83\311}% U+03C9
15730 % U+03CA GREEK SMALL LETTER IOTA WITH DIALYTIKA; iotadieresis
15731 \DeclareTextCompositeCommand{"}{PU}{\textiota}{\83\312}% U+03CA
15732 % U+03CB GREEK SMALL LETTER UPSILON WITH DIALYTIKA; up-
    silondieresis
15733 \DeclareTextCompositeCommand{"}{PU}{\textupsilon}{\83\313}% U+03CB
15734 % U+03CC GREEK SMALL LETTER OMICRON WITH TONOS; omicrontonos
15735 \DeclareTextCompositeCommand{'}{PU}{\textomicron}{\83\314}% U+03CC
15736 % U+03CD GREEK SMALL LETTER UPSILON WITH TONOS; upsilontonos
15737 \DeclareTextCommand{\textupsilonacute}{PU}{\83\315}% U+03CD
15738 \DeclareTextCompositeCommand{'}{PU}{\textupsilon}{\83\315}% U+03CD
15739 % U+03CE GREEK SMALL LETTER OMEGA WITH TONOS; omegatonos
15740 \DeclareTextCompositeCommand{'}{PU}{\textomega}{\83\316}% U+03CE
15741 % U+03DA GREEK LETTER STIGMA; Stigmatgreek
15742 \DeclareTextCommand{\textStigmatgreek}{PU}{\83\332}% U+03DA
15743 % U+03DB GREEK SMALL LETTER STIGMA
15744 \DeclareTextCommand{\textstigmatgreek}{PU}{\83\333}% U+03DB
15745 % U+03DC GREEK LETTER DIGAMMA; Digammagreek
15746 \DeclareTextCommand{\textDigammagreek}{PU}{\83\334}% U+03DC
15747 % U+03DD GREEK SMALL LETTER DIGAMMA
15748 \DeclareTextCommand{\textdigammagreek}{PU}{\83\335}% U+03DD
15749 % U+03DE GREEK LETTER KOPPA; Koppagreek
15750 \DeclareTextCommand{\textKoppagreek}{PU}{\83\336}% U+03DE
15751 % U+03DF GREEK SMALL LETTER KOPPA
15752 \DeclareTextCommand{\textkoppagreek}{PU}{\83\337}% U+03DF
15753 % U+03E0 GREEK LETTER SAMPI; Sampigreek
15754 \DeclareTextCommand{\textSampigreek}{PU}{\83\340}% U+03E0
15755 % U+03E1 GREEK SMALL LETTER SAMPI
15756 \DeclareTextCommand{\textsampigreek}{PU}{\83\341}% U+03E1

```

50.2.9 Cyrillic: U+0400 to U+04FF

Thanks to Vladimir Volovich (vvv@vvv.vsu.ru) for the help with the Cyrillic glyph names.

```

15757 % U+0400 CYRILLIC CAPITAL LETTER IE WITH GRAVE
15758 \DeclareTextCompositeCommand{'}{PU}{\CYRE}{\84\000}% U+0400
15759 % U+0401 CYRILLIC CAPITAL LETTER IO; Iocyrillic, *afi10023
15760 \DeclareTextCommand{\CYRYO}{PU}{\84\001}% U+0401

```

15761 \DeclareTextCompositeCommand{\"}{PU}{\CYRE}{\84\001}% ???
15762 % U+0402 CYRILLIC CAPITAL LETTER DJE; Djecyrillic, *afii10051
15763 \DeclareTextCommand{\CYRDJE}{PU}{\84\002}% U+0402
15764 % U+0403 CYRILLIC CAPITAL LETTER GJE; Gjecyrillic, *afii10052
15765 \DeclareTextCompositeCommand{\'}{PU}{\CYRG}{\84\003}% U+0403
15766 % U+0404 CYRILLIC CAPITAL LETTER UKRAINIAN IE; Ecyrillic, *afii10053
15767 \DeclareTextCommand{\CYRIE}{PU}{\84\004}% U+0404
15768 % U+0405 CYRILLIC CAPITAL LETTER DZE; Dzecyrillic, *afii10054
15769 \DeclareTextCommand{\CYRDZE}{PU}{\84\005}% U+0405
15770 % U+0406 CYRILLIC CAPITAL LETTER BYELORUSSIAN-UKRAINIAN I; Icyril-
lic, *afii10055
15771 \DeclareTextCommand{\CYRII}{PU}{\84\006}% U+0406
15772 % U+0407 CYRILLIC CAPITAL LETTER YI; Yicyrillic, *afii10056
15773 \DeclareTextCommand{\CYRYI}{PU}{\84\007}% U+0407
15774 \DeclareTextCompositeCommand{\"}{PU}{\CYRII}{\84\007}% U+0407
15775 % U+0408 CYRILLIC CAPITAL LETTER JE; Jecyrillic, *afii10057
15776 \DeclareTextCommand{\CYRJE}{PU}{\84\010}% U+0408
15777 % U+0409 CYRILLIC CAPITAL LETTER LJE; Ljecyrillic, *afii10058
15778 \DeclareTextCommand{\CYRLJE}{PU}{\84\011}% U+0409
15779 % U+040A CYRILLIC CAPITAL LETTER NJE; Njecyrillic, *afii10059
15780 \DeclareTextCommand{\CYRNJE}{PU}{\84\012}% U+040A
15781 % U+040B CYRILLIC CAPITAL LETTER TSHE; Tshecyrillic, *afii10060
15782 \DeclareTextCommand{\CYRTSHE}{PU}{\84\013}% U+040B
15783 % U+040C CYRILLIC CAPITAL LETTER KJE; Kjecyrillic, *afii10061
15784 \DeclareTextCompositeCommand{\'}{PU}{\CYRK}{\84\014}% U+040C
15785 % U+040D CYRILLIC CAPITAL LETTER I WITH GRAVE
15786 \DeclareTextCompositeCommand{\`}{PU}{\CYRI}{\84\015}% U+040D
15787 % U+040E CYRILLIC CAPITAL LETTER SHORT U; Ushortcyrillic, *afii10062
15788 \DeclareTextCommand{\CYRUSHRT}{PU}{\84\016}% U+040E
15789 \DeclareTextCompositeCommand{\U}{PU}{\CYRU}{\84\016}% U+040E
15790 % U+040F CYRILLIC CAPITAL LETTER DZHE; Dzhecyrillic, *afii10145
15791 \DeclareTextCommand{\CYRDZHE}{PU}{\84\017}% U+040F
15792 % U+0410 CYRILLIC CAPITAL LETTER A; Acyrillic, *afii10017
15793 \DeclareTextCommand{\CYRA}{PU}{\84\020}% U+0410
15794 % U+0411 CYRILLIC CAPITAL LETTER BE; Becyrillic, *afii10018
15795 \DeclareTextCommand{\CYRB}{PU}{\84\021}% U+0411
15796 % U+0412 CYRILLIC CAPITAL LETTER VE; Vecyrillic, *afii10019
15797 \DeclareTextCommand{\CYRV}{PU}{\84\022}% U+0412
15798 % U+0413 CYRILLIC CAPITAL LETTER GHE; Gecyrillic, *afii10020
15799 \DeclareTextCommand{\CYRG}{PU}{\84\023}% U+0413
15800 % U+0414 CYRILLIC CAPITAL LETTER DE; Decyrillic, *afii10021
15801 \DeclareTextCommand{\CYRD}{PU}{\84\024}% U+0414
15802 % U+0415 CYRILLIC CAPITAL LETTER IE; Iecyrillic, *afii10022
15803 \DeclareTextCommand{\CYRE}{PU}{\84\025}% U+0415
15804 % U+0416 CYRILLIC CAPITAL LETTER ZHE; Zhecyrillic, *afii10024
15805 \DeclareTextCommand{\CYRZH}{PU}{\84\026}% U+0416
15806 % U+0417 CYRILLIC CAPITAL LETTER ZE; Zecyrillic, *afii10025
15807 \DeclareTextCommand{\CYRZ}{PU}{\84\027}% U+0417
15808 % U+0418 CYRILLIC CAPITAL LETTER I; Iicyrillic, *afii10026
15809 \DeclareTextCommand{\CYRI}{PU}{\84\030}% U+0418
15810 % U+0419 CYRILLIC CAPITAL LETTER SHORT I; Iishortcyrillic, *afii10027
15811 \DeclareTextCommand{\CYRISHRT}{PU}{\84\031}% U+0419
15812 \DeclareTextCompositeCommand{\U}{PU}{\CYRI}{\84\031}% U+0419
15813 % U+041A CYRILLIC CAPITAL LETTER KA; Kacyrillic, *afii10028
15814 \DeclareTextCommand{\CYRK}{PU}{\84\032}% U+041A
15815 % U+041B CYRILLIC CAPITAL LETTER EL; Elcyrillic, *afii10029
15816 \DeclareTextCommand{\CYRL}{PU}{\84\033}% U+041B

15817 % U+041C CYRILLIC CAPITAL LETTER EM; Emcyrillic, *afii10030
 15818 \DeclareTextCommand{\CYRM}{PU}{\84\034}% U+041C
 15819 % U+041D CYRILLIC CAPITAL LETTER EN; Encyrillic, *afii10031
 15820 \DeclareTextCommand{\CYRN}{PU}{\84\035}% U+041D
 15821 % U+041E CYRILLIC CAPITAL LETTER O; Ocyrillic, *afii10032
 15822 \DeclareTextCommand{\CYRO}{PU}{\84\036}% U+041E
 15823 % U+041F CYRILLIC CAPITAL LETTER PE; Pecyrillic, *afii10033
 15824 \DeclareTextCommand{\CYRP}{PU}{\84\037}% U+041F
 15825 % U+0420 CYRILLIC CAPITAL LETTER ER; Ercyrillic, *afii10034
 15826 \DeclareTextCommand{\CYRR}{PU}{\84\040}% U+0420
 15827 % U+0421 CYRILLIC CAPITAL LETTER ES; Escyrillic, *afii10035
 15828 \DeclareTextCommand{\CYRS}{PU}{\84\041}% U+0421
 15829 % U+0422 CYRILLIC CAPITAL LETTER TE; Tecyrillic, *afii10036
 15830 \DeclareTextCommand{\CYRT}{PU}{\84\042}% U+0422
 15831 % U+0423 CYRILLIC CAPITAL LETTER U; Ucyrillic, *afii10037
 15832 \DeclareTextCommand{\CYRU}{PU}{\84\043}% U+0423
 15833 % U+0424 CYRILLIC CAPITAL LETTER EF; Efcyrillic, *afii10038
 15834 \DeclareTextCommand{\CYRF}{PU}{\84\044}% U+0424
 15835 % U+0425 CYRILLIC CAPITAL LETTER HA; Khacyrillic, *afii10039
 15836 \DeclareTextCommand{\CYRH}{PU}{\84\045}% U+0425
 15837 % U+0426 CYRILLIC CAPITAL LETTER TSE; Tsecyrillic, *afii10040
 15838 \DeclareTextCommand{\CYRC}{PU}{\84\046}% U+0426
 15839 % U+0427 CYRILLIC CAPITAL LETTER CHE; Checyrillic, *afii10041
 15840 \DeclareTextCommand{\CYRCH}{PU}{\84\047}% U+0427
 15841 % U+0428 CYRILLIC CAPITAL LETTER SHA; Shacyrillic, *afii10042
 15842 \DeclareTextCommand{\CYRSH}{PU}{\84\050}% U+0428
 15843 % U+0429 CYRILLIC CAPITAL LETTER SHCHA; Shchacyrillic, *afii10043
 15844 \DeclareTextCommand{\CYRSHCH}{PU}{\84\051}% U+0429
 15845 % U+042A CYRILLIC CAPITAL LETTER HARD SIGN; Hardsigncyrillic, *afii10044
 15846 \DeclareTextCommand{\CYRHRDSN}{PU}{\84\052}% U+042A
 15847 % U+042B CYRILLIC CAPITAL LETTER YERU; Yericyrillic, *afii10045
 15848 \DeclareTextCommand{\CYRERY}{PU}{\84\053}% U+042B
 15849 % U+042C CYRILLIC CAPITAL LETTER SOFT SIGN; Softsigncyrillic, *afii10046
 15850 \DeclareTextCommand{\CYRSFTSN}{PU}{\84\054}% U+042C
 15851 % U+042D CYRILLIC CAPITAL LETTER E; Ereversedcyrillic, *afii10047
 15852 \DeclareTextCommand{\CYREREV}{PU}{\84\055}% U+042D
 15853 % U+042E CYRILLIC CAPITAL LETTER YU; IUcyrillic, *afii10048
 15854 \DeclareTextCommand{\CYRYU}{PU}{\84\056}% U+042E
 15855 % U+042F CYRILLIC CAPITAL LETTER YA; IAcyrillic, *afii10049
 15856 \DeclareTextCommand{\CYRYA}{PU}{\84\057}% U+042F
 15857 % U+0430 CYRILLIC SMALL LETTER A; acyrillic, *afii10065
 15858 \DeclareTextCommand{\cyra}{PU}{\84\060}% U+0430
 15859 % U+0431 CYRILLIC SMALL LETTER BE; *afii10066, becyrillic
 15860 \DeclareTextCommand{\cyrb}{PU}{\84\061}% U+0431
 15861 % U+0432 CYRILLIC SMALL LETTER VE; *afii10067, vecyrillic
 15862 \DeclareTextCommand{\cyrv}{PU}{\84\062}% U+0432
 15863 % U+0433 CYRILLIC SMALL LETTER GHE; *afii10068, gecyrillic
 15864 \DeclareTextCommand{\cyrg}{PU}{\84\063}% U+0433
 15865 % U+0434 CYRILLIC SMALL LETTER DE; *afii10069, decyrillic
 15866 \DeclareTextCommand{\cyrd}{PU}{\84\064}% U+0434
 15867 % U+0435 CYRILLIC SMALL LETTER IE; *afii10070, iecyrillic
 15868 \DeclareTextCommand{\cyre}{PU}{\84\065}% U+0435
 15869 % U+0436 CYRILLIC SMALL LETTER ZHE; *afii10072, zhecyrillic
 15870 \DeclareTextCommand{\cyrzh}{PU}{\84\066}% U+0436
 15871 % U+0437 CYRILLIC SMALL LETTER ZE; *afii10073, zecyrillic
 15872 \DeclareTextCommand{\cyrz}{PU}{\84\067}% U+0437
 15873 % U+0438 CYRILLIC SMALL LETTER I; *afii10074, iicyrillic

15874 \DeclareTextCommand{\cyri}{PU}{\84\070}% U+0438
15875 % U+0439 CYRILLIC SMALL LETTER SHORT I; *afii10075, iishortcyrillic
15876 \DeclareTextCommand{\cyrishrt}{PU}{\84\071}% U+0439
15877 \DeclareTextCompositeCommand{\U}{PU}{\cyri}{\84\071}% U+0439
15878 % U+043A CYRILLIC SMALL LETTER KA; *afii10076, kacyrillic
15879 \DeclareTextCommand{\cyrk}{PU}{\84\072}% U+043A
15880 % U+043B CYRILLIC SMALL LETTER EL; *afii10077, elcyrillic
15881 \DeclareTextCommand{\cyr}{PU}{\84\073}% U+043B
15882 % U+043C CYRILLIC SMALL LETTER EM; *afii10078, emcyrillic
15883 \DeclareTextCommand{\cyr}{PU}{\84\074}% U+043C
15884 % U+043D CYRILLIC SMALL LETTER EN; *afii10079, encyrillic
15885 \DeclareTextCommand{\cyrn}{PU}{\84\075}% U+043D
15886 % U+043E CYRILLIC SMALL LETTER O; *afii10080, ocyrillic
15887 \DeclareTextCommand{\cyro}{PU}{\84\076}% U+043E
15888 % U+043F CYRILLIC SMALL LETTER PE; *afii10081, pecyrillic
15889 \DeclareTextCommand{\cyrp}{PU}{\84\077}% U+043F
15890 % U+0440 CYRILLIC SMALL LETTER ER; *afii10082, ercyrillic
15891 \DeclareTextCommand{\cyr}{PU}{\84\100}% U+0440
15892 % U+0441 CYRILLIC SMALL LETTER ES; *afii10083, escyrillic
15893 \DeclareTextCommand{\cyr}{PU}{\84\101}% U+0441
15894 % U+0442 CYRILLIC SMALL LETTER TE; *afii10084, tecyrillic
15895 \DeclareTextCommand{\cyr}{PU}{\84\102}% U+0442
15896 % U+0443 CYRILLIC SMALL LETTER U; *afii10085, ucyrillic
15897 \DeclareTextCommand{\cyr}{PU}{\84\103}% U+0443
15898 % U+0444 CYRILLIC SMALL LETTER EF; *afii10086, efcyrillic
15899 \DeclareTextCommand{\cyr}{PU}{\84\104}% U+0444
15900 % U+0445 CYRILLIC SMALL LETTER HA; *afii10087, khacyrillic
15901 \DeclareTextCommand{\cyr}{PU}{\84\105}% U+0445
15902 % U+0446 CYRILLIC SMALL LETTER TSE; *afii10088, tsecyrillic
15903 \DeclareTextCommand{\cyr}{PU}{\84\106}% U+0446
15904 % U+0447 CYRILLIC SMALL LETTER CHE; *afii10089, checyrillic
15905 \DeclareTextCommand{\cyr}{PU}{\84\107}% U+0447
15906 % U+0448 CYRILLIC SMALL LETTER SHA; *afii10090, shacyrillic
15907 \DeclareTextCommand{\cyr}{PU}{\84\110}% U+0448
15908 % U+0449 CYRILLIC SMALL LETTER SHCHA; *afii10091, shchacyrillic
15909 \DeclareTextCommand{\cyr}{PU}{\84\111}% U+0449
15910 % U+044A CYRILLIC SMALL LETTER HARD SIGN; *afii10092, hardsigncyrillic
15911 \DeclareTextCommand{\cyr}{PU}{\84\112}% U+044A
15912 % U+044B CYRILLIC SMALL LETTER YERU; *afii10093, yericyrillic
15913 \DeclareTextCommand{\cyr}{PU}{\84\113}% U+044B
15914 % U+044C CYRILLIC SMALL LETTER SOFT SIGN; *afii10094, softsigncyrillic
15915 \DeclareTextCommand{\cyr}{PU}{\84\114}% U+044C
15916 % U+044D CYRILLIC SMALL LETTER E; *afii10095, ereversedcyrillic
15917 \DeclareTextCommand{\cyr}{PU}{\84\115}% U+044D
15918 % U+044E CYRILLIC SMALL LETTER YU; *afii10096, iucyrillic
15919 \DeclareTextCommand{\cyr}{PU}{\84\116}% U+044E
15920 % U+044F CYRILLIC SMALL LETTER YA; *afii10097, iacyrillic
15921 \DeclareTextCommand{\cyr}{PU}{\84\117}% U+044F
15922 % U+0450 CYRILLIC SMALL LETTER IE WITH GRAVE
15923 \DeclareTextCompositeCommand{\'}{PU}{\cyre}{\84\120}% U+0450
15924 % U+0451 CYRILLIC SMALL LETTER IO; *afii10071, iocyrillic
15925 \DeclareTextCommand{\cyr}{PU}{\84\121}% U+0451
15926 \DeclareTextCompositeCommand{\"}{PU}{\cyre}{\84\121}% U+0451
15927 % U+0452 CYRILLIC SMALL LETTER DJE; *afii10099, djecyrillic
15928 \DeclareTextCommand{\cyr}{PU}{\84\122}% U+0452
15929 % U+0453 CYRILLIC SMALL LETTER GJE; *afii10100, gjecyrillic

15930 \DeclareTextCompositeCommand{\'}{PU}{\cyrg}{\84\123}% U+0453
15931 % U+0454 CYRILLIC SMALL LETTER UKRAINIAN IE; *afii10101, ecyrillic
15932 \DeclareTextCommand{\cyrie}{PU}{\84\124}% U+0454
15933 % U+0455 CYRILLIC SMALL LETTER DZE; *afii10102, dzecyrillic
15934 \DeclareTextCommand{\cyrdze}{PU}{\84\125}% U+0455
15935 % U+0456 CYRILLIC SMALL LETTER BYELORUSSIAN-UKRAINIAN I; *afii10103, icyrillic
15936 \DeclareTextCommand{\cyrii}{PU}{\84\126}% U+0456
15937 % U+0457 CYRILLIC SMALL LETTER YI; *afii10104, yicyrillic
15938 \DeclareTextCommand{\cyryi}{PU}{\84\127}% U+0457
15939 \DeclareTextCompositeCommand{\"}{PU}{\cyrii}{\84\127}% U+0457
15940 % U+0458 CYRILLIC SMALL LETTER JE; *afii10105, jecyrillic
15941 \DeclareTextCommand{\cyrje}{PU}{\84\130}% U+0458
15942 % U+0459 CYRILLIC SMALL LETTER LJE; *afii10106, ljecyrillic
15943 \DeclareTextCommand{\cyrkje}{PU}{\84\131}% U+0459
15944 % U+045A CYRILLIC SMALL LETTER NJE; *afii10107, njecyrillic
15945 \DeclareTextCommand{\cyrnje}{PU}{\84\132}% U+045A
15946 % U+045B CYRILLIC SMALL LETTER TSHE; *afii10108, tshecyrillic
15947 \DeclareTextCommand{\cyrtshe}{PU}{\84\133}% U+045B
15948 % U+045C CYRILLIC SMALL LETTER KJE; *afii10109, kjecyrillic
15949 \DeclareTextCompositeCommand{\'}{PU}{\cyrk}{\84\134}% U+045C
15950 % U+045D CYRILLIC SMALL LETTER I WITH GRAVE
15951 \DeclareTextCompositeCommand{\'}{PU}{\cyri}{\84\135}% U+045D
15952 % U+045E CYRILLIC SMALL LETTER SHORT U; *afii10110, ushortcyrillic
15953 \DeclareTextCommand{\cyrushrt}{PU}{\84\136}% U+045E
15954 \DeclareTextCompositeCommand{\U}{PU}{\curu}{\84\136}% U+045E
15955 % U+045F CYRILLIC SMALL LETTER DZHE; *afii10193, dzhecyrillic
15956 \DeclareTextCommand{\cyrdzhe}{PU}{\84\137}% U+045F
15957 % U+0460 CYRILLIC CAPITAL LETTER OMEGA; Omegacyrillic
15958 \DeclareTextCommand{\CYROMEGA}{PU}{\84\140}% U+0460
15959 % U+0461 CYRILLIC SMALL LETTER OMEGA; omegacyrillic
15960 \DeclareTextCommand{\cyromega}{PU}{\84\141}% U+0461
15961 % U+0462 CYRILLIC CAPITAL LETTER YAT; Yatcyrillic, *afii10146
15962 \DeclareTextCommand{\CYRYAT}{PU}{\84\142}% U+0462
15963 % U+0463 CYRILLIC SMALL LETTER YAT; *afii10194, yatcyrillic
15964 \DeclareTextCommand{\cyryat}{PU}{\84\143}% U+0463
15965 % U+0464 CYRILLIC CAPITAL LETTER IOTIFIED E; Eiotifiedcyrillic
15966 \DeclareTextCommand{\CYRIOTE}{PU}{\84\144}% U+0464
15967 % U+0465 CYRILLIC SMALL LETTER IOTIFIED E; eiotifiedcyrillic
15968 \DeclareTextCommand{\cyriote}{PU}{\84\145}% U+0465
15969 % U+0466 CYRILLIC CAPITAL LETTER LITTLE YUS; Yuslitlecyrillic
15970 \DeclareTextCommand{\CYRLYUS}{PU}{\84\146}% U+0466
15971 % U+0467 CYRILLIC SMALL LETTER LITTLE YUS; yuslitlecyrillic
15972 \DeclareTextCommand{\cyrlyus}{PU}{\84\147}% U+0467
15973 % U+0468 CYRILLIC CAPITAL LETTER IOTIFIED LITTLE YUS; Yuslitlei-
otifiedcyrillic
15974 \DeclareTextCommand{\CYRIOTLYUS}{PU}{\84\150}% U+0468
15975 % U+0469 CYRILLIC SMALL LETTER IOTIFIED LITTLE YUS; yuslitlei-
otifiedcyrillic
15976 \DeclareTextCommand{\cyriotlyus}{PU}{\84\151}% U+0469
15977 % U+046A CYRILLIC CAPITAL LETTER BIG YUS; Yusbigcyrillic
15978 \DeclareTextCommand{\CYRBYUS}{PU}{\84\152}% U+046A
15979 % U+046B CYRILLIC SMALL LETTER BIG YUS; yusbigcyrillic
15980 \DeclareTextCommand{\cyrbyus}{PU}{\84\153}% U+046B
15981 % U+046C CYRILLIC CAPITAL LETTER IOTIFIED BIG YUS; Yusbigiotified-
cyrillic
15982 \DeclareTextCommand{\CYRIOTBYUS}{PU}{\84\154}% U+046C

15983 % U+046D CYRILLIC SMALL LETTER IOTIFIED BIG YUS; yusbigiotified-cyrillic
 15984 \DeclareTextCommand{\cyriotbyus}{PU}{\84\155}% U+046D
 15985 % U+046E CYRILLIC CAPITAL LETTER KSI; Ksicyrillic
 15986 \DeclareTextCommand{\CYRKSI}{PU}{\84\156}% U+046E
 15987 % U+046F CYRILLIC SMALL LETTER KSI; ksicyrillic
 15988 \DeclareTextCommand{\cyrksi}{PU}{\84\157}% U+046F
 15989 % U+0470 CYRILLIC CAPITAL LETTER PSI; Psicyrillic
 15990 \DeclareTextCommand{\CYRPSI}{PU}{\84\160}% U+0470
 15991 % U+0471 CYRILLIC SMALL LETTER PSI; psicyrillic
 15992 \DeclareTextCommand{\cyrpsi}{PU}{\84\161}% U+0471
 15993 % U+0472 CYRILLIC CAPITAL LETTER FITA; Fitacyrillic, *afii10147
 15994 \DeclareTextCommand{\CYRFITA}{PU}{\84\162}% U+0472
 15995 % U+0473 CYRILLIC SMALL LETTER FITA; *afii10195, fitacyrillic
 15996 \DeclareTextCommand{\cyrfita}{PU}{\84\163}% U+0473
 15997 % U+0474 CYRILLIC CAPITAL LETTER IZHITSA; Izhitsacyrillic, *afii10148
 15998 \DeclareTextCommand{\CYRIZH}{PU}{\84\164}% U+0474
 15999 % U+0475 CYRILLIC SMALL LETTER IZHITSA; *afii10196, izhitsacyrillic
 16000 \DeclareTextCommand{\cyrizh}{PU}{\84\165}% U+0475
 16001 % U+0476 CYRILLIC CAPITAL LETTER IZHITSA WITH DOUBLE GRAVE ACCENT; Izhitsadblgravecyrillic
 16002 \DeclareTextCompositeCommand{\C}{PU}{\CYRIZH}{\84\166}% U+0476
 16003 % U+0477 CYRILLIC SMALL LETTER IZHITSA WITH DOUBLE GRAVE ACCENT; izhitsadblgravecyrillic
 16004 \DeclareTextCompositeCommand{\C}{PU}{\cyrizh}{\84\167}% U+0477
 16005 % U+0478 CYRILLIC CAPITAL LETTER UK; Ukcyrillic
 16006 \DeclareTextCommand{\CYRUK}{PU}{\84\170}% U+0478
 16007 % U+0479 CYRILLIC SMALL LETTER UK; ukcyrillic
 16008 \DeclareTextCommand{\cyruk}{PU}{\84\171}% U+0479
 16009 % U+047A CYRILLIC CAPITAL LETTER ROUND OMEGA; Omegaroundcyrillic
 16010 \DeclareTextCommand{\CYROMEGARND}{PU}{\84\172}% U+047A
 16011 % U+047B CYRILLIC SMALL LETTER ROUND OMEGA; omegaroundcyrillic
 16012 \DeclareTextCommand{\cyromegarnd}{PU}{\84\173}% U+047B
 16013 % U+047C CYRILLIC CAPITAL LETTER OMEGA WITH TITLO; Omegatitlocyrillic
 16014 \DeclareTextCommand{\CYROMEGATITLO}{PU}{\84\174}% U+047C
 16015 % U+047D CYRILLIC SMALL LETTER OMEGA WITH TITLO; omegatitlocyrillic
 16016 \DeclareTextCommand{\cyromegatitlo}{PU}{\84\175}% U+047D
 16017 % U+047E CYRILLIC CAPITAL LETTER OT; Otcyrillic
 16018 \DeclareTextCommand{\CYROT}{PU}{\84\176}% U+047E
 16019 % U+047F CYRILLIC SMALL LETTER OT; otcyrillic
 16020 \DeclareTextCommand{\cyrot}{PU}{\84\177}% U+047F
 16021 % U+0480 CYRILLIC CAPITAL LETTER KOPPA; Koppacyrillic
 16022 \DeclareTextCommand{\CYRKOPPA}{PU}{\84\200}% U+0480
 16023 % U+0481 CYRILLIC SMALL LETTER KOPPA; koppacyrillic
 16024 \DeclareTextCommand{\cyrkoppa}{PU}{\84\201}% U+0481
 16025 % U+0482 CYRILLIC THOUSANDS SIGN; thousandcyrillic
 16026 \DeclareTextCommand{\cyrthousands}{PU}{\84\202}% U+0482
 \84\203: U+0483 COMBINING CYRILLIC TITLO; titlocyrilliccmb
 \84\204: U+0484 COMBINING CYRILLIC PALATALIZATION; palatalization-cyrilliccmb
 \84\205: U+0485 COMBINING CYRILLIC DASIA PNEUMATA; dasiapneumatacyrilliccmb
 \84\206: U+0486 COMBINING CYRILLIC PSILI PNEUMATA; psilipneumatacyrilliccmb

\84\207: U+0487 COMBINING CYRILLIC POKRYTIE
 \84\210: U+0488 COMBINING CYRILLIC HUNDRED THOUSANDS SIGN
 \84\211: U+0489 COMBINING CYRILLIC MILLIONS SIGN
 16027 % U+048A CYRILLIC CAPITAL LETTER SHORT I WITH TAIL
 16028 \DeclareTextCommand{\CYRISHRTDSC}{PU}{\84\212}% U+048A
 16029 % U+048B CYRILLIC SMALL LETTER SHORT I WITH TAIL
 16030 \DeclareTextCommand{\cyrishrtdsc}{PU}{\84\213}% U+048B
 16031 % U+048C CYRILLIC CAPITAL LETTER SEMISOFT SIGN
 16032 \DeclareTextCommand{\CYRSEMISFTSN}{PU}{\84\214}% U+048C
 16033 % U+048D CYRILLIC SMALL LETTER SEMISOFT SIGN
 16034 \DeclareTextCommand{\cyrsemisftsn}{PU}{\84\215}% U+048D
 16035 % U+048E CYRILLIC CAPITAL LETTER ER WITH TICK
 16036 \DeclareTextCommand{\CYRRTICK}{PU}{\84\216}% U+048E
 16037 % U+048F CYRILLIC SMALL LETTER ER WITH TICK
 16038 \DeclareTextCommand{\cyrrtick}{PU}{\84\217}% U+048F
 16039 % U+0490 CYRILLIC CAPITAL LETTER GHE WITH UPTURN; Gheupturn-cyrillic, *afii10050
 16040 \DeclareTextCommand{\CYRGUP}{PU}{\84\220}% U+0490
 16041 % U+0491 CYRILLIC SMALL LETTER GHE WITH UPTURN; *afii10098, gheupturncyrillic
 16042 \DeclareTextCommand{\cyrgup}{PU}{\84\221}% U+0491
 16043 % U+0492 CYRILLIC CAPITAL LETTER GHE WITH STROKE; Ghestroke-cyrillic
 16044 \DeclareTextCommand{\CYRGHCRS}{PU}{\84\222}% U+0492
 16045 % U+0493 CYRILLIC SMALL LETTER GHE WITH STROKE; ghestrokecyrillic
 16046 \DeclareTextCommand{\cyrghcrs}{PU}{\84\223}% U+0493
 16047 % U+0494 CYRILLIC CAPITAL LETTER GHE WITH MIDDLE HOOK; Ghemid-dlehookcyrillic
 16048 \DeclareTextCommand{\CYRGHK}{PU}{\84\224}% U+0494
 16049 % U+0495 CYRILLIC SMALL LETTER GHE WITH MIDDLE HOOK; ghemid-dlehookcyrillic
 16050 \DeclareTextCommand{\cyrghk}{PU}{\84\225}% U+0495
 16051 % U+0496 CYRILLIC CAPITAL LETTER ZHE WITH DESCENDER; Zhedescendercyrillic
 16052 \DeclareTextCommand{\CYRZHDSC}{PU}{\84\226}% U+0496
 16053 % U+0497 CYRILLIC SMALL LETTER ZHE WITH DESCENDER; zhedescendercyrillic
 16054 \DeclareTextCommand{\cyrzhdsc}{PU}{\84\227}% U+0497
 16055 % U+0498 CYRILLIC CAPITAL LETTER ZE WITH DESCENDER; Zedescendercyrillic
 16056 \DeclareTextCommand{\CYRZDSC}{PU}{\84\230}% U+0498
 16057 \DeclareTextCompositeCommand{\c}{PU}{\CYRZ}{\84\230}% U+0498
 16058 % U+0499 CYRILLIC SMALL LETTER ZE WITH DESCENDER; zedescendercyrillic
 16059 \DeclareTextCommand{\cyrzdsc}{PU}{\84\231}% U+0499
 16060 \DeclareTextCompositeCommand{\c}{PU}{\cyrz}{\84\231}% U+0499
 16061 % U+049A CYRILLIC CAPITAL LETTER KA WITH DESCENDER; Kadescendercyrillic
 16062 \DeclareTextCommand{\CYRKDSC}{PU}{\84\232}% U+049A
 16063 % U+049B CYRILLIC SMALL LETTER KA WITH DESCENDER; kadescendercyrillic
 16064 \DeclareTextCommand{\cyrkdsc}{PU}{\84\233}% U+049B
 16065 % U+049C CYRILLIC CAPITAL LETTER KA WITH VERTICAL STROKE; Kaver-ticalstrokecyrillic
 16066 \DeclareTextCommand{\CYRKVCRS}{PU}{\84\234}% U+049C
 16067 % U+049D CYRILLIC SMALL LETTER KA WITH VERTICAL STROKE; kaver-ticalstrokecyrillic

16068 \DeclareTextCommand{\cyrvcrs}{PU}{\84\235}% U+049D
16069 % U+049E CYRILLIC CAPITAL LETTER KA WITH STROKE; Kastrokecyrillic
16070 \DeclareTextCommand{\CYRKHCRS}{PU}{\84\236}% U+049E
16071 % U+049F CYRILLIC SMALL LETTER KA WITH STROKE; kastrokecyrillic
16072 \DeclareTextCommand{\cyrkhrs}{PU}{\84\237}% U+049F
16073 % U+04A0 CYRILLIC CAPITAL LETTER BASHKIR KA; Kabashkircyrillic
16074 \DeclareTextCommand{\CYRKBEAK}{PU}{\84\240}% U+04A0
16075 % U+04A1 CYRILLIC SMALL LETTER BASHKIR KA; kabashkircyrillic
16076 \DeclareTextCommand{\cyrkbeak}{PU}{\84\241}% U+04A1
16077 % U+04A2 CYRILLIC CAPITAL LETTER EN WITH DESCENDER; Endescen-
dercyrillic
16078 \DeclareTextCommand{\CYRNDSC}{PU}{\84\242}% U+04A2
16079 % U+04A3 CYRILLIC SMALL LETTER EN WITH DESCENDER; endescender-
cyrillic
16080 \DeclareTextCommand{\cyrndsc}{PU}{\84\243}% U+04A3
16081 % U+04A4 CYRILLIC CAPITAL LIGATURE EN GHE; Enghecyrillic
16082 \DeclareTextCommand{\CYRNG}{PU}{\84\244}% U+04A4
16083 % U+04A5 CYRILLIC SMALL LIGATURE EN GHE; enghecyrillic
16084 \DeclareTextCommand{\cyrng}{PU}{\84\245}% U+04A5
16085 % U+04A6 CYRILLIC CAPITAL LETTER PE WITH MIDDLE HOOK; Pemid-
dlehookcyrillic
16086 \DeclareTextCommand{\CYRPHK}{PU}{\84\246}% U+04A6
16087 % U+04A7 CYRILLIC SMALL LETTER PE WITH MIDDLE HOOK; pemiddle-
hookcyrillic
16088 \DeclareTextCommand{\cyrphk}{PU}{\84\247}% U+04A7
16089 % U+04A8 CYRILLIC CAPITAL LETTER ABKHASIAN HA; Haabkhasiancyril-
lic
16090 \DeclareTextCommand{\CYRABHHA}{PU}{\84\250}% U+04A8
16091 % U+04A9 CYRILLIC SMALL LETTER ABKHASIAN HA; haabkhasiancyrillic
16092 \DeclareTextCommand{\cyrabhha}{PU}{\84\251}% U+04A9
16093 % U+04AA CYRILLIC CAPITAL LETTER ES WITH DESCENDER; Esdescen-
dercyrillic
16094 \DeclareTextCommand{\CYRSDSC}{PU}{\84\252}% U+04AA
16095 \DeclareTextCompositeCommand{\CYRSDSC}{PU}{\CYRS}{\84\252}% U+04AA
16096 % U+04AB CYRILLIC SMALL LETTER ES WITH DESCENDER; esdescender-
cyrillic
16097 \DeclareTextCommand{\cyrsdsc}{PU}{\84\253}% U+04AB
16098 \DeclareTextCompositeCommand{\k}{PU}{\cyrs}{\84\253}% U+04AB
16099 % U+04AC CYRILLIC CAPITAL LETTER TE WITH DESCENDER; Tedescen-
dercyrillic
16100 \DeclareTextCommand{\CYRTDSC}{PU}{\84\254}% U+04AC
16101 % U+04AD CYRILLIC SMALL LETTER TE WITH DESCENDER; tedescen-
dercyrillic
16102 \DeclareTextCommand{\cyrtdsc}{PU}{\84\255}% U+04AD
16103 % U+04AE CYRILLIC CAPITAL LETTER STRAIGHT U; Ustraightcyrillic
16104 \DeclareTextCommand{\CYRY}{PU}{\84\256}% U+04AE
16105 % U+04AF CYRILLIC SMALL LETTER STRAIGHT U; ustraightcyrillic
16106 \DeclareTextCommand{\cyry}{PU}{\84\257}% U+04AF
16107 % U+04B0 CYRILLIC CAPITAL LETTER STRAIGHT U WITH STROKE; Us-
traightstrokecyrillic
16108 \DeclareTextCommand{\CYRYHCRS}{PU}{\84\260}% U+04B0
16109 % U+04B1 CYRILLIC SMALL LETTER STRAIGHT U WITH STROKE; us-
traightstrokecyrillic
16110 \DeclareTextCommand{\cyryhcrs}{PU}{\84\261}% U+04B1
16111 % U+04B2 CYRILLIC CAPITAL LETTER HA WITH DESCENDER; Hadescen-
dercyrillic
16112 \DeclareTextCommand{\CYRHDSC}{PU}{\84\262}% U+04B2

16113 % U+04B3 CYRILLIC SMALL LETTER HA WITH DESCENDER; hadescendercyrillic
 16114 \DeclareTextCommand{\cyrhdsc}{PU}{\84\263}% U+04B3
 16115 % U+04B4 CYRILLIC CAPITAL LIGATURE TE TSE; Tetsecyrillic
 16116 \DeclareTextCommand{\CYRTETSE}{PU}{\84\264}% U+04B4
 16117 % U+04B5 CYRILLIC SMALL LIGATURE TE TSE; tetsecyrillic
 16118 \DeclareTextCommand{\cyrtetse}{PU}{\84\265}% U+04B5
 16119 % U+04B6 CYRILLIC CAPITAL LETTER CHE WITH DESCENDER; Chedescendercyrillic
 16120 \DeclareTextCommand{\CYRCHRDSC}{PU}{\84\266}% U+04B6
 16121 % U+04B7 CYRILLIC SMALL LETTER CHE WITH DESCENDER; chedescendercyrillic
 16122 \DeclareTextCommand{\cyrchrdsc}{PU}{\84\267}% U+04B7
 16123 % U+04B8 CYRILLIC CAPITAL LETTER CHE WITH VERTICAL STROKE; Chev-
 erticalstrokecyrillic
 16124 \DeclareTextCommand{\CYRCHVCRS}{PU}{\84\270}% U+04B8
 16125 % U+04B9 CYRILLIC SMALL LETTER CHE WITH VERTICAL STROKE; chev-
 erticalstrokecyrillic
 16126 \DeclareTextCommand{\cyrchvcrs}{PU}{\84\271}% U+04B9
 16127 % U+04BA CYRILLIC CAPITAL LETTER SHHA; Shhacyrillic
 16128 \DeclareTextCommand{\CYRSHHA}{PU}{\84\272}% U+04BA
 16129 % U+04BB CYRILLIC SMALL LETTER SHHA; shhacyrillic
 16130 \DeclareTextCommand{\cyrshha}{PU}{\84\273}% U+04BB
 16131 % U+04BC CYRILLIC CAPITAL LETTER ABKHASIAN CHE; Cheabkhasian-
 cyrillic
 16132 \DeclareTextCommand{\CYRABHCH}{PU}{\84\274}% U+04BC
 16133 % U+04BD CYRILLIC SMALL LETTER ABKHASIAN CHE; cheabkhasiancyrillic
 16134 \DeclareTextCommand{\cyrabhch}{PU}{\84\275}% U+04BD
 16135 % U+04BE CYRILLIC CAPITAL LETTER ABKHASIAN CHE WITH DESCEN-
 DER; Chedescenderabkhasiancyrillic
 16136 \DeclareTextCommand{\CYRABHCHDSC}{PU}{\84\276}% U+04BE
 16137 \DeclareTextCompositeCommand{\k}{PU}{\CYRABHCH}{\84\276}% U+04BE
 16138 % U+04BF CYRILLIC SMALL LETTER ABKHASIAN CHE WITH DESCEN-
 DER; chedescenderabkhasiancyrillic
 16139 \DeclareTextCommand{\cyrabhchdsc}{PU}{\84\277}% U+04BF
 16140 \DeclareTextCompositeCommand{\k}{PU}{\cyrabhch}{\84\277}% U+04BF
 16141 % U+04C0 CYRILLIC LETTER PALOCHKA; palochkacyrillic
 16142 \DeclareTextCommand{\CYRpalochka}{PU}{\84\300}% U+04C0
 16143 % U+04C1 CYRILLIC CAPITAL LETTER ZHE WITH BREVE; Zhebrevecyrillic
 16144 \DeclareTextCompositeCommand{\U}{PU}{\CYRZH}{\84\301}% U+04C1
 16145 % U+04C2 CYRILLIC SMALL LETTER ZHE WITH BREVE; zhebrevecyrillic
 16146 \DeclareTextCompositeCommand{\U}{PU}{\cyrzh}{\84\302}% U+04C2
 16147 % U+04C3 CYRILLIC CAPITAL LETTER KA WITH HOOK; Kahookcyrillic
 16148 \DeclareTextCommand{\CYRKHK}{PU}{\84\303}% U+04C3
 16149 % U+04C4 CYRILLIC SMALL LETTER KA WITH HOOK; kahookcyrillic
 16150 \DeclareTextCommand{\cyrkhk}{PU}{\84\304}% U+04C4
 16151 % U+04C5 CYRILLIC CAPITAL LETTER EL WITH TAIL
 16152 \DeclareTextCommand{\CYRLDSC}{PU}{\84\305}% U+04C5
 16153 % U+04C6 CYRILLIC SMALL LETTER EL WITH TAIL
 16154 \DeclareTextCommand{\cyrldsc}{PU}{\84\306}% U+04C6
 16155 % U+04C7 CYRILLIC CAPITAL LETTER EN WITH HOOK; Enhookcyrillic
 16156 \DeclareTextCommand{\CYRNHK}{PU}{\84\307}% U+04C7
 16157 % U+04C8 CYRILLIC SMALL LETTER EN WITH HOOK; enhookcyrillic
 16158 \DeclareTextCommand{\cyrnhk}{PU}{\84\310}% U+04C8
 16159 % U+04CB CYRILLIC CAPITAL LETTER KHAKASSIAN CHE; Chekhakas-
 siancyrillic

16160 \DeclareTextCommand{\CYRCHLDSC}{PU}{\84\313}% U+04CB
16161 % U+04CC CYRILLIC SMALL LETTER KHAKASSIAN CHE; chekhakassian-cyrillic
16162 \DeclareTextCommand{\cyrchldsc}{PU}{\84\314}% U+04CC
16163 % U+04CD CYRILLIC CAPITAL LETTER EM WITH TAIL
16164 \DeclareTextCommand{\CYRMDSC}{PU}{\84\315}% U+04CD
16165 % U+04CE CYRILLIC SMALL LETTER EM WITH TAIL
16166 \DeclareTextCommand{\cyrmdsc}{PU}{\84\316}% U+04CE
\84\317: U+04CF CYRILLIC SMALL LETTER PALOCHKA
16167 % U+04D0 CYRILLIC CAPITAL LETTER A WITH BREVE; Abrevecyrillic
16168 \DeclareTextCompositeCommand{\U}{PU}{\CYRA}{\84\320}% U+04D0
16169 % U+04D1 CYRILLIC SMALL LETTER A WITH BREVE; abrevecyrillic
16170 \DeclareTextCompositeCommand{\U}{PU}{\cyra}{\84\321}% U+04D1
16171 % U+04D2 CYRILLIC CAPITAL LETTER A WITH DIAERESIS; Adieresiscyrillic
16172 \DeclareTextCompositeCommand{\U}{PU}{\CYRA}{\84\322}% U+04D2
16173 % U+04D3 CYRILLIC SMALL LETTER A WITH DIAERESIS; adieresiscyrillic
16174 \DeclareTextCompositeCommand{\U}{PU}{\cyra}{\84\323}% U+04D3
16175 % U+04D4 CYRILLIC CAPITAL LIGATURE A IE; Aiecyrillic
16176 \DeclareTextCommand{\CYRAE}{PU}{\84\324}% U+04D4
16177 % U+04D5 CYRILLIC SMALL LIGATURE A IE; aiecyrillic
16178 \DeclareTextCommand{\cyrae}{PU}{\84\325}% U+04D5
16179 % U+04D6 CYRILLIC CAPITAL LETTER IE WITH BREVE; Iebrevcyrillic
16180 \DeclareTextCompositeCommand{\U}{PU}{\CYRE}{\84\326}% U+04D6
16181 % U+04D7 CYRILLIC SMALL LETTER IE WITH BREVE; iebrevcyrillic
16182 \DeclareTextCompositeCommand{\U}{PU}{\cyre}{\84\327}% U+04D7
16183 % U+04D8 CYRILLIC CAPITAL LETTER SCHWA; Schwacyrillic
16184 \DeclareTextCommand{\CYRSCHWA}{PU}{\84\330}% U+04D8
16185 % U+04D9 CYRILLIC SMALL LETTER SCHWA; *afii10846, schwacyrillic
16186 \DeclareTextCommand{\cyrswa}{PU}{\84\331}% U+04D9
16187 % U+04DA CYRILLIC CAPITAL LETTER SCHWA WITH DIAERESIS; Schwadiere-siscyrillic
16188 \DeclareTextCompositeCommand{\U}{PU}{\CYRSCHWA}{\84\332}% U+04DA
16189 % U+04DB CYRILLIC SMALL LETTER SCHWA WITH DIAERESIS; schwadiere-siscyrillic
16190 \DeclareTextCompositeCommand{\U}{PU}{\cyrswa}{\84\333}% U+04DB
16191 % U+04DC CYRILLIC CAPITAL LETTER ZHE WITH DIAERESIS; Zhediere-siscyrillic
16192 \DeclareTextCompositeCommand{\U}{PU}{\CYRZH}{\84\334}% U+04DC
16193 % U+04DD CYRILLIC SMALL LETTER ZHE WITH DIAERESIS; zhedieresiscyrillic
16194 \DeclareTextCompositeCommand{\U}{PU}{\cyrzh}{\84\335}% U+04DD
16195 % U+04DE CYRILLIC CAPITAL LETTER ZE WITH DIAERESIS; Zedieresiscyrillic
16196 \DeclareTextCompositeCommand{\U}{PU}{\CYRZ}{\84\336}% U+04DE
16197 % U+04DF CYRILLIC SMALL LETTER ZE WITH DIAERESIS; zedieresiscyrillic
16198 \DeclareTextCompositeCommand{\U}{PU}{\cyrz}{\84\337}% U+04DF
16199 % U+04E0 CYRILLIC CAPITAL LETTER ABKHASIAN DZE; Dzeabkhasian-cyrillic
16200 \DeclareTextCommand{\CYRABHDZE}{PU}{\84\340}% U+04E0
16201 % U+04E1 CYRILLIC SMALL LETTER ABKHASIAN DZE; dzeabkhasiancyrillic
16202 \DeclareTextCommand{\cyrabhdze}{PU}{\84\341}% U+04E1
16203 % U+04E2 CYRILLIC CAPITAL LETTER I WITH MACRON; Imacroncyrillic
16204 \DeclareTextCompositeCommand{\U}{PU}{\CYRI}{\84\342}% U+04E2
16205 % U+04E3 CYRILLIC SMALL LETTER I WITH MACRON; imacroncyrillic

16206 \DeclareTextCompositeCommand{=} {PU}{\cyri}{\84\343}% U+04E3
16207 % U+04E4 CYRILLIC CAPITAL LETTER I WITH DIAERESIS; Idieresiscyrillic
16208 \DeclareTextCompositeCommand{"} {PU}{\CYRI}{\84\344}% U+04E4
16209 % U+04E5 CYRILLIC SMALL LETTER I WITH DIAERESIS; idieresiscyrillic
16210 \DeclareTextCompositeCommand{'} {PU}{\cyri}{\84\345}% U+04E5
16211 % U+04E6 CYRILLIC CAPITAL LETTER O WITH DIAERESIS; Odieresiscyrillic
16212 \DeclareTextCompositeCommand{"} {PU}{\CYRO}{\84\346}% U+04E6
16213 % U+04E7 CYRILLIC SMALL LETTER O WITH DIAERESIS; odieresiscyrillic
16214 \DeclareTextCompositeCommand{' } {PU}{\cyro}{\84\347}% U+04E7
16215 % U+04E8 CYRILLIC CAPITAL LETTER BARRED O; Obarredcyrillic
16216 \DeclareTextCommand{\CYROTLD} {PU}{\84\350}% U+04E8
16217 % U+04E9 CYRILLIC SMALL LETTER BARRED O; obarredcyrillic
16218 \DeclareTextCommand{\cyrotld} {PU}{\84\351}% U+04E9
16219 % U+04EA CYRILLIC CAPITAL LETTER BARRED O WITH DIAERESIS; Obarreddieresiscyrillic
16220 \DeclareTextCompositeCommand{"} {PU}{\CYROTLD}{\84\352}% U+04EA
16221 % U+04EB CYRILLIC SMALL LETTER BARRED O WITH DIAERESIS; obarreddieresiscyrillic
16222 \DeclareTextCompositeCommand{' } {PU}{\cyrotld}{\84\353}% U+04EB
16223 % U+04EC CYRILLIC CAPITAL LETTER E WITH DIAERESIS
16224 \DeclareTextCompositeCommand{"} {PU}{\CYREREV}{\84\354}% U+04EC
16225 % U+04ED CYRILLIC SMALL LETTER E WITH DIAERESIS
16226 \DeclareTextCompositeCommand{' } {PU}{\cyreref}{\84\355}% U+04ED
16227 % U+04EE CYRILLIC CAPITAL LETTER U WITH MACRON; Umacroncyrillic
16228 \DeclareTextCompositeCommand{=} {PU}{\CYRU}{\84\356}% U+04EE
16229 % U+04EF CYRILLIC SMALL LETTER U WITH MACRON; umacroncyrillic
16230 \DeclareTextCompositeCommand{=} {PU}{\cyru}{\84\357}% U+04EF
16231 % U+04F0 CYRILLIC CAPITAL LETTER U WITH DIAERESIS; Udieresiscyrillic
16232 \DeclareTextCompositeCommand{"} {PU}{\CYRU}{\84\360}% U+04F0
16233 % U+04F1 CYRILLIC SMALL LETTER U WITH DIAERESIS; udieresiscyrillic
16234 \DeclareTextCompositeCommand{' } {PU}{\cyru}{\84\361}% U+04F1
16235 % U+04F2 CYRILLIC CAPITAL LETTER U WITH DOUBLE ACUTE; Uhungarumlautcyrillic
16236 \DeclareTextCompositeCommand{\H} {PU}{\CYRU}{\84\362}% U+04F2
16237 % U+04F3 CYRILLIC SMALL LETTER U WITH DOUBLE ACUTE; uhungarumlautcyrillic
16238 \DeclareTextCompositeCommand{\H} {PU}{\cyru}{\84\363}% U+04F3
16239 % U+04F4 CYRILLIC CAPITAL LETTER CHE WITH DIAERESIS; Chedieresiscyrillic
16240 \DeclareTextCompositeCommand{"} {PU}{\CYRCH}{\84\364}% U+04F4
16241 % U+04F5 CYRILLIC SMALL LETTER CHE WITH DIAERESIS; chedieresiscyrillic
16242 \DeclareTextCompositeCommand{' } {PU}{\cyrch}{\84\365}% U+04F5
16243 % U+04F6 CYRILLIC CAPITAL LETTER GHE WITH DESCENDER
16244 \DeclareTextCommand{\CYRGDSC} {PU}{\84\366}% U+04F6
16245 % U+04F7 CYRILLIC SMALL LETTER GHE WITH DESCENDER
16246 \DeclareTextCommand{\cyrgdsc} {PU}{\84\367}% U+04F7
16247 % U+04F8 CYRILLIC CAPITAL LETTER YERU WITH DIAERESIS; Yerudieresiscyrillic
16248 \DeclareTextCompositeCommand{"} {PU}{\CYRERY}{\84\370}% U+04F8
16249 % U+04F9 CYRILLIC SMALL LETTER YERU WITH DIAERESIS; yerudieresiscyrillic
16250 \DeclareTextCompositeCommand{' } {PU}{\cyrery}{\84\371}% U+04F9
\84\372: U+04FA CYRILLIC CAPITAL LETTER GHE WITH STROKE AND HOOK

\84\373: U+04FB CYRILLIC SMALL LETTER GHE WITH STROKE AND HOOK

16251 % U+04FC CYRILLIC CAPITAL LETTER HA WITH HOOK
16252 \DeclareTextCommand{\CYRHHK}{PU}{\84\374}% U+04FC
16253 % U+04FD CYRILLIC SMALL LETTER HA WITH HOOK
16254 \DeclareTextCommand{\cyrhhk}{PU}{\84\375}% U+04FD

\84\376: U+04FE CYRILLIC CAPITAL LETTER HA WITH STROKE

\84\377: U+04FF CYRILLIC SMALL LETTER HA WITH STROKE

50.2.10 Thai: U+0E00 to U+0E7F

16255 % U+0E3F THAI CURRENCY SYMBOL BAHT; bahtthai
16256 \DeclareTextCommand{\textbaht}{PU}{\9016\077}% U+0E3F

50.2.11 Latin Extended Additional: U+1E00 to U+1EFF

16257 % U+1E02 LATIN CAPITAL LETTER B WITH DOT ABOVE; Bdotaccent
16258 \DeclareTextCompositeCommand{\.}{PU}{B}{\9036\002}% U+1E02
16259 % U+1E03 LATIN SMALL LETTER B WITH DOT ABOVE; bdotaccent
16260 \DeclareTextCompositeCommand{\.}{PU}{b}{\9036\003}% U+1E03
16261 % U+1E06 LATIN CAPITAL LETTER B WITH LINE BELOW; Blinebelow
16262 \DeclareTextCompositeCommand{\b}{PU}{B}{\9036\006}% U+1E06
16263 % U+1E07 LATIN SMALL LETTER B WITH LINE BELOW; blinebelow
16264 \DeclareTextCompositeCommand{\b}{PU}{b}{\9036\007}% U+1E07
16265 % U+1E0A LATIN CAPITAL LETTER D WITH DOT ABOVE; Ddotaccent
16266 \DeclareTextCompositeCommand{\.}{PU}{D}{\9036\012}% U+1E0A
16267 % U+1E0B LATIN SMALL LETTER D WITH DOT ABOVE; ddotaccent
16268 \DeclareTextCompositeCommand{\.}{PU}{d}{\9036\013}% U+1E0B
16269 % U+1E0E LATIN CAPITAL LETTER D WITH LINE BELOW; Dlinebelow
16270 \DeclareTextCompositeCommand{\b}{PU}{D}{\9036\016}% U+1E0E
16271 % U+1E0F LATIN SMALL LETTER D WITH LINE BELOW; dlinebelow
16272 \DeclareTextCompositeCommand{\b}{PU}{d}{\9036\017}% U+1E0F
16273 % U+1E10 LATIN CAPITAL LETTER D WITH CEDILLA; Dcedilla
16274 \DeclareTextCompositeCommand{\c}{PU}{D}{\9036\020}% U+1E10
16275 % U+1E11 LATIN SMALL LETTER D WITH CEDILLA; dcedilla
16276 \DeclareTextCompositeCommand{\c}{PU}{d}{\9036\021}% U+1E11
16277 % U+1E1E LATIN CAPITAL LETTER F WITH DOT ABOVE; Fdotaccent
16278 \DeclareTextCompositeCommand{\.}{PU}{F}{\9036\036}% U+1E1E
16279 % U+1E1F LATIN SMALL LETTER F WITH DOT ABOVE; fdotaccent
16280 \DeclareTextCompositeCommand{\.}{PU}{f}{\9036\037}% U+1E1F
16281 % U+1E20 LATIN CAPITAL LETTER G WITH MACRON; Gmacron
16282 \DeclareTextCompositeCommand{\=}{PU}{G}{\9036\040}% U+1E20
16283 % U+1E21 LATIN SMALL LETTER G WITH MACRON; gmacron
16284 \DeclareTextCompositeCommand{\=}{PU}{g}{\9036\041}% U+1E21
16285 % U+1E22 LATIN CAPITAL LETTER H WITH DOT ABOVE; Hdotaccent
16286 \DeclareTextCompositeCommand{\.}{PU}{H}{\9036\042}% U+1E22
16287 % U+1E23 LATIN SMALL LETTER H WITH DOT ABOVE; hdotaccent
16288 \DeclareTextCompositeCommand{\.}{PU}{h}{\9036\043}% U+1E23
16289 % U+1E26 LATIN CAPITAL LETTER H WITH DIAERESIS; Hdieresis
16290 \DeclareTextCompositeCommand{\"}{PU}{H}{\9036\046}% U+1E26
16291 % U+1E27 LATIN SMALL LETTER H WITH DIAERESIS; hdieresis
16292 \DeclareTextCompositeCommand{\"}{PU}{h}{\9036\047}% U+1E27
16293 % U+1E28 LATIN CAPITAL LETTER H WITH CEDILLA; Hcedilla
16294 \DeclareTextCompositeCommand{\c}{PU}{H}{\9036\050}% U+1E28
16295 % U+1E29 LATIN SMALL LETTER H WITH CEDILLA; hcedilla
16296 \DeclareTextCompositeCommand{\c}{PU}{h}{\9036\051}% U+1E29
16297 % U+1E30 LATIN CAPITAL LETTER K WITH ACUTE; Kacute
16298 \DeclareTextCompositeCommand{\'}{PU}{K}{\9036\060}% U+1E30

16299 % U+1E31 LATIN SMALL LETTER K WITH ACUTE; kacute
16300 \DeclareTextCompositeCommand{\'}{PU}{k}{\9036\061}% U+1E31
16301 % U+1E34 LATIN CAPITAL LETTER K WITH LINE BELOW; Klinebelow
16302 \DeclareTextCompositeCommand{\b}{PU}{K}{\9036\064}% U+1E34
16303 % U+1E35 LATIN SMALL LETTER K WITH LINE BELOW; klinebelow
16304 \DeclareTextCompositeCommand{\b}{PU}{k}{\9036\065}% U+1E35
16305 % U+1E3A LATIN CAPITAL LETTER L WITH LINE BELOW; Llinebelow
16306 \DeclareTextCompositeCommand{\b}{PU}{L}{\9036\072}% U+1E3A
16307 % U+1E3B LATIN SMALL LETTER L WITH LINE BELOW; llinebelow
16308 \DeclareTextCompositeCommand{\b}{PU}{l}{\9036\073}% U+1E3B
16309 % U+1E3E LATIN CAPITAL LETTER M WITH ACUTE; Macute
16310 \DeclareTextCompositeCommand{\'}{PU}{M}{\9036\076}% U+1E3E
16311 % U+1E3F LATIN SMALL LETTER M WITH ACUTE; macute
16312 \DeclareTextCompositeCommand{\'}{PU}{m}{\9036\077}% U+1E3F
16313 % U+1E40 LATIN CAPITAL LETTER M WITH DOT ABOVE; Mdotaccent
16314 \DeclareTextCompositeCommand{\.}{PU}{M}{\9036\100}% U+1E40
16315 % U+1E41 LATIN SMALL LETTER M WITH DOT ABOVE; mdotaccent
16316 \DeclareTextCompositeCommand{\.}{PU}{m}{\9036\101}% U+1E41
16317 % U+1E44 LATIN CAPITAL LETTER N WITH DOT ABOVE; Ndotaccent
16318 \DeclareTextCompositeCommand{\.}{PU}{N}{\9036\104}% U+1E44
16319 % U+1E45 LATIN SMALL LETTER N WITH DOT ABOVE; ndotaccent
16320 \DeclareTextCompositeCommand{\.}{PU}{n}{\9036\105}% U+1E45
16321 % U+1E48 LATIN CAPITAL LETTER N WITH LINE BELOW; Nlinebelow
16322 \DeclareTextCompositeCommand{\b}{PU}{N}{\9036\110}% U+1E48
16323 % U+1E49 LATIN SMALL LETTER N WITH LINE BELOW; nlinebelow
16324 \DeclareTextCompositeCommand{\b}{PU}{n}{\9036\111}% U+1E49
16325 % U+1E54 LATIN CAPITAL LETTER P WITH ACUTE; Pacute
16326 \DeclareTextCompositeCommand{\'}{PU}{P}{\9036\124}% U+1E54
16327 % U+1E55 LATIN SMALL LETTER P WITH ACUTE; pacute
16328 \DeclareTextCompositeCommand{\'}{PU}{p}{\9036\125}% U+1E55
16329 % U+1E56 LATIN CAPITAL LETTER P WITH DOT ABOVE; Pdotaccent
16330 \DeclareTextCompositeCommand{\.}{PU}{P}{\9036\126}% U+1E56
16331 % U+1E57 LATIN SMALL LETTER P WITH DOT ABOVE; pdotaccent
16332 \DeclareTextCompositeCommand{\.}{PU}{p}{\9036\127}% U+1E57
16333 % U+1E58 LATIN CAPITAL LETTER R WITH DOT ABOVE; Rdotaccent
16334 \DeclareTextCompositeCommand{\.}{PU}{R}{\9036\130}% U+1E58
16335 % U+1E59 LATIN SMALL LETTER R WITH DOT ABOVE; rdotaccent
16336 \DeclareTextCompositeCommand{\.}{PU}{r}{\9036\131}% U+1E59
16337 % U+1E5E LATIN CAPITAL LETTER R WITH LINE BELOW; Rlinebelow
16338 \DeclareTextCompositeCommand{\b}{PU}{R}{\9036\136}% U+1E5E
16339 % U+1E5F LATIN SMALL LETTER R WITH LINE BELOW; rlinebelow
16340 \DeclareTextCompositeCommand{\b}{PU}{r}{\9036\137}% U+1E5F
16341 % U+1E60 LATIN CAPITAL LETTER S WITH DOT ABOVE; Sdotaccent
16342 \DeclareTextCompositeCommand{\.}{PU}{S}{\9036\140}% U+1E60
16343 % U+1E61 LATIN SMALL LETTER S WITH DOT ABOVE; sdotaccent
16344 \DeclareTextCompositeCommand{\.}{PU}{s}{\9036\141}% U+1E61
16345 % U+1E6E LATIN CAPITAL LETTER T WITH LINE BELOW; Tlinebelow
16346 \DeclareTextCompositeCommand{\b}{PU}{T}{\9036\156}% U+1E6E
16347 % U+1E6F LATIN SMALL LETTER T WITH LINE BELOW; tlinebelow
16348 \DeclareTextCompositeCommand{\b}{PU}{t}{\9036\157}% U+1E6F
16349 % U+1E7C LATIN CAPITAL LETTER V WITH TILDE; Vtilde
16350 \DeclareTextCompositeCommand{\~}{PU}{V}{\9036\174}% U+1E7C
16351 % U+1E7D LATIN SMALL LETTER V WITH TILDE; vtilde
16352 \DeclareTextCompositeCommand{\~}{PU}{v}{\9036\175}% U+1E7D
16353 % U+1E80 LATIN CAPITAL LETTER W WITH GRAVE; Wgrave
16354 \DeclareTextCompositeCommand{\'}{PU}{W}{\9036\200}% U+1E80
16355 % U+1E81 LATIN SMALL LETTER W WITH GRAVE; wgrave

16356 \DeclareTextCompositeCommand{\'}{PU}{w}{\9036\201}% U+1E81
16357 % U+1E82 LATIN CAPITAL LETTER W WITH ACUTE; Wacute
16358 \DeclareTextCompositeCommand{\'}{PU}{W}{\9036\202}% U+1E82
16359 % U+1E83 LATIN SMALL LETTER W WITH ACUTE; wacute
16360 \DeclareTextCompositeCommand{\'}{PU}{w}{\9036\203}% U+1E83
16361 % U+1E84 LATIN CAPITAL LETTER W WITH DIAERESIS; Wdieresis
16362 \DeclareTextCompositeCommand{\"}{PU}{W}{\9036\204}% U+1E84
16363 % U+1E85 LATIN SMALL LETTER W WITH DIAERESIS; wdieresis
16364 \DeclareTextCompositeCommand{\"}{PU}{w}{\9036\205}% U+1E85
16365 % U+1E86 LATIN CAPITAL LETTER W WITH DOT ABOVE; Wdotaccent
16366 \DeclareTextCompositeCommand{\.}{PU}{W}{\9036\206}% U+1E86
16367 % U+1E87 LATIN SMALL LETTER W WITH DOT ABOVE; wdotaccent
16368 \DeclareTextCompositeCommand{\.}{PU}{w}{\9036\207}% U+1E87
16369 % U+1E8A LATIN CAPITAL LETTER X WITH DOT ABOVE; Xdotaccent
16370 \DeclareTextCompositeCommand{\.}{PU}{X}{\9036\212}% U+1E8A
16371 % U+1E8B LATIN SMALL LETTER X WITH DOT ABOVE; xdotaccent
16372 \DeclareTextCompositeCommand{\.}{PU}{x}{\9036\213}% U+1E8B
16373 % U+1E8C LATIN CAPITAL LETTER X WITH DIAERESIS; Xdieresis
16374 \DeclareTextCompositeCommand{\"}{PU}{X}{\9036\214}% U+1E8C
16375 % U+1E8D LATIN SMALL LETTER X WITH DIAERESIS; xdieresis
16376 \DeclareTextCompositeCommand{\"}{PU}{x}{\9036\215}% U+1E8D
16377 % U+1E8E LATIN CAPITAL LETTER Y WITH DOT ABOVE; Ydotaccent
16378 \DeclareTextCompositeCommand{\.}{PU}{Y}{\9036\216}% U+1E8E
16379 % U+1E8F LATIN SMALL LETTER Y WITH DOT ABOVE; ydotaccent
16380 \DeclareTextCompositeCommand{\.}{PU}{y}{\9036\217}% U+1E8F
16381 % U+1E90 LATIN CAPITAL LETTER Z WITH CIRCUMFLEX; Zcircumflex
16382 \DeclareTextCompositeCommand{\^}{PU}{Z}{\9036\220}% U+1E90
16383 % U+1E91 LATIN SMALL LETTER Z WITH CIRCUMFLEX; zcircumflex
16384 \DeclareTextCompositeCommand{\^}{PU}{z}{\9036\221}% U+1E91
16385 % U+1E94 LATIN CAPITAL LETTER Z WITH LINE BELOW; Zlinebelow
16386 \DeclareTextCompositeCommand{\b}{PU}{Z}{\9036\224}% U+1E94
16387 % U+1E95 LATIN SMALL LETTER Z WITH LINE BELOW; zlinebelow
16388 \DeclareTextCompositeCommand{\b}{PU}{z}{\9036\225}% U+1E95
16389 % U+1E96 LATIN SMALL LETTER H WITH LINE BELOW; hlinebelow
16390 \DeclareTextCompositeCommand{\b}{PU}{h}{\9036\226}% U+1E96
16391 % U+1E97 LATIN SMALL LETTER T WITH DIAERESIS; tdieresis
16392 \DeclareTextCompositeCommand{\"}{PU}{t}{\9036\227}% U+1E97
16393 % U+1E98 LATIN SMALL LETTER W WITH RING ABOVE; wring
16394 \DeclareTextCompositeCommand{\r}{PU}{w}{\9036\230}% U+1E98
16395 % U+1E99 LATIN SMALL LETTER Y WITH RING ABOVE; yring
16396 \DeclareTextCompositeCommand{\r}{PU}{y}{\9036\231}% U+1E99
16397 % U+1E9B LATIN SMALL LETTER LONG S WITH DOT ABOVE; slongdotaccent
16398 \DeclareTextCompositeCommand{\.}{PU}{\textlongs}{\9036\233}% U+1E9B
16399 % U+1EBC LATIN CAPITAL LETTER E WITH TILDE; Etilde
16400 \DeclareTextCompositeCommand{\~}{PU}{E}{\9036\274}% U+1EBC
16401 % U+1EBD LATIN SMALL LETTER E WITH TILDE; etilde
16402 \DeclareTextCompositeCommand{\~}{PU}{e}{\9036\275}% U+1EBD
16403 % U+1EF2 LATIN CAPITAL LETTER Y WITH GRAVE; Ygrave
16404 \DeclareTextCompositeCommand{\`}{PU}{Y}{\9036\362}% U+1EF2
16405 % U+1EF3 LATIN SMALL LETTER Y WITH GRAVE; ygrave
16406 \DeclareTextCompositeCommand{\`}{PU}{y}{\9036\363}% U+1EF3
16407 % U+1EF8 LATIN CAPITAL LETTER Y WITH TILDE; Ytilde
16408 \DeclareTextCompositeCommand{\~}{PU}{Y}{\9036\370}% U+1EF8
16409 % U+1EF9 LATIN SMALL LETTER Y WITH TILDE; ytilde
16410 \DeclareTextCompositeCommand{\~}{PU}{y}{\9036\371}% U+1EF9

50.2.12 General Punctuation: U+2000 to U+206F

16411 % U+200C ZERO WIDTH NON-JOINER; *afi61664, zerowidthnonjoiner
16412 \DeclareTextCommand{\textcompwordmark}{PU}{\9040\014}% U+200C
16413 % U+2013 EN DASH; endash
16414 \DeclareTextCommand{\textendash}{PU}{\9040\023}% U+2013
16415 % U+2014 EM DASH; emdash
16416 \DeclareTextCommand{\textemdash}{PU}{\9040\024}% U+2014
16417 % U+2016 DOUBLE VERTICAL LINE; dblverticalbar
16418 \DeclareTextCommand{\textbardbl}{PU}{\9040\026}% U+2016
16419 % U+2018 LEFT SINGLE QUOTATION MARK; quoteleft
16420 \DeclareTextCommand{\textquoteleft}{PU}{\9040\030}% U+2018
16421 % U+2019 RIGHT SINGLE QUOTATION MARK; quoteright
16422 \DeclareTextCommand{\textquoteright}{PU}{\9040\031}% U+2019
16423 % U+201A SINGLE LOW-9 QUOTATION MARK; quotesinglbase
16424 \DeclareTextCommand{\quotesinglbase}{PU}{\9040\032}% U+201A
16425 % U+201C LEFT DOUBLE QUOTATION MARK; quotedblleft
16426 \DeclareTextCommand{\textquotedblleft}{PU}{\9040\034}% U+201C
16427 % U+201D RIGHT DOUBLE QUOTATION MARK; quotedblright
16428 \DeclareTextCommand{\textquotedblright}{PU}{\9040\035}% U+201D
16429 % U+201E DOUBLE LOW-9 QUOTATION MARK; quotedblbase
16430 \DeclareTextCommand{\quotedblbase}{PU}{\9040\036}% U+201E
16431 % U+2020 DAGGER; dagger
16432 \DeclareTextCommand{\textdagger}{PU}{\9040\040}% U+2020
16433 % U+2021 DOUBLE DAGGER; daggerdbl
16434 \DeclareTextCommand{\textdaggerdbl}{PU}{\9040\041}% U+2021
16435 % U+2022 BULLET; bullet
16436 \DeclareTextCommand{\textbullet}{PU}{\9040\042}% U+2022
16437 % U+2026 HORIZONTAL ELLIPSIS; ellipsis
16438 \DeclareTextCommand{\textellipsis}{PU}{\9040\046}% U+2026
16439 % U+2030 PER MILLE SIGN; perthousand
16440 \DeclareTextCommand{\textperthousand}{PU}{\9040\060}% U+2030
16441 % U+2031 PER TEN THOUSAND SIGN
16442 \DeclareTextCommand{\textpertenthousand}{PU}{\9040\061}% U+2031
16443 % U+2039 SINGLE LEFT-POINTING ANGLE QUOTATION MARK; guil-
inglleft
16444 \DeclareTextCommand{\guilsinglleft}{PU}{\9040\071}% U+2039
16445 % U+203A SINGLE RIGHT-POINTING ANGLE QUOTATION MARK; guils-
inglright
16446 \DeclareTextCommand{\guilsinglright}{PU}{\9040\072}% U+203A
16447 % U+203B REFERENCE MARK; referencemark
16448 \DeclareTextCommand{\textreferencemark}{PU}{\9040\073}% U+203B
16449 % U+203D INTERROBANG
16450 \DeclareTextCommand{\textinterrobang}{PU}{\9040\075}% U+203D
16451 % U+2044 FRACTION SLASH; fraction
16452 \DeclareTextCommand{\textfractionsolidus}{PU}{\9040\104}% U+2044
16453 % U+2045 LEFT SQUARE BRACKET WITH QUILL
16454 \DeclareTextCommand{\textlquill}{PU}{\9040\105}% U+2045
16455 % U+2046 RIGHT SQUARE BRACKET WITH QUILL
16456 \DeclareTextCommand{\textrquill}{PU}{\9040\106}% U+2046
16457 % U+2052 COMMERCIAL MINUS SIGN
16458 \DeclareTextCommand{\textdiscount}{PU}{\9040\122}% U+2052

50.2.13 Superscripts and Subscripts: U+2070 to U+209F

16459 % U+2070 SUPERSCRIPT ZERO; zerosuperior
16460 \DeclareTextCommand{\textzerosuperior}{PU}{\9040\160}% U+2070
16461 % U+2074 SUPERSCRIPT FOUR; foursuperior
16462 \DeclareTextCommand{\textfoursuperior}{PU}{\9040\164}% U+2074

16463 % U+2075 SUPERSCRIPT FIVE; fivesuperior
 16464 \DeclareTextCommand{\textfivesuperior}{PU}{\9040\165}% U+2075
 16465 % U+2076 SUPERSCRIPT SIX; sixsuperior
 16466 \DeclareTextCommand{\textsixsuperior}{PU}{\9040\166}% U+2076
 16467 % U+2077 SUPERSCRIPT SEVEN; sevensuperior
 16468 \DeclareTextCommand{\textsevensuperior}{PU}{\9040\167}% U+2077
 16469 % U+2078 SUPERSCRIPT EIGHT; eightsuperior
 16470 \DeclareTextCommand{\texteightsuperior}{PU}{\9040\170}% U+2078
 16471 % U+2079 SUPERSCRIPT NINE; ninesuperior
 16472 \DeclareTextCommand{\textninesuperior}{PU}{\9040\171}% U+2079
 16473 % U+207A SUPERSCRIPT PLUS SIGN; plussuperior
 16474 \DeclareTextCommand{\textplussuperior}{PU}{\9040\172}% U+207A
 16475 % U+207B SUPERSCRIPT MINUS
 16476 \DeclareTextCommand{\textminussuperior}{PU}{\9040\173}
 16477 % U+207C SUPERSCRIPT EQUALS SIGN; equalsuperior
 16478 \DeclareTextCommand{\textequalsuperior}{PU}{\9040\174}
 16479 % U+207D SUPERSCRIPT LEFT PARENTHESIS; parenleftsuperior
 16480 \DeclareTextCommand{\textparenleftsuperior}{PU}{\9040\175}
 16481 % U+207E SUPERSCRIPT RIGHT PARENTHESIS; parenrightsuperior
 16482 \DeclareTextCommand{\textparenrightsuperior}{PU}{\9040\176}
 16483 % U+207F SUPERSCRIPT LATIN SMALL LETTER N; nsuperior
 16484 \DeclareTextCommand{\textnsuperior}{PU}{\9040\177}
 16485 % U+2080 SUBSCRIPT ZERO; zeroinferior
 16486 \DeclareTextCommand{\textzeroinferior}{PU}{\9040\200}% U+2080
 16487 % U+2081 SUBSCRIPT ONE; oneinferior
 16488 \DeclareTextCommand{\textoneinferior}{PU}{\9040\201}% U+2081
 16489 % U+2082 SUBSCRIPT TWO; twoinferior
 16490 \DeclareTextCommand{\texttwoinferior}{PU}{\9040\202}% U+2082
 16491 % U+2083 SUBSCRIPT THREE; threeinferior
 16492 \DeclareTextCommand{\textthreeinferior}{PU}{\9040\203}% U+2083
 16493 % U+2084 SUBSCRIPT FOUR; fourinferior
 16494 \DeclareTextCommand{\textfourinferior}{PU}{\9040\204}% U+2084
 16495 % U+2085 SUBSCRIPT FIVE; fiveinferior
 16496 \DeclareTextCommand{\textfiveinferior}{PU}{\9040\205}% U+2085
 16497 % U+2086 SUBSCRIPT SIX; sixinferior
 16498 \DeclareTextCommand{\textsixinferior}{PU}{\9040\206}% U+2086
 16499 % U+2087 SUBSCRIPT SEVEN; seveninferior
 16500 \DeclareTextCommand{\textseveninferior}{PU}{\9040\207}% U+2087
 16501 % U+2088 SUBSCRIPT EIGHT; eightinferior
 16502 \DeclareTextCommand{\texteightinferior}{PU}{\9040\210}% U+2088
 16503 % U+2089 SUBSCRIPT NINE; nineinferior
 16504 \DeclareTextCommand{\textnineinferior}{PU}{\9040\211}% U+2089
 16505 % U+208D SUBSCRIPT LEFT PARENTHESIS; parenleftinferior
 16506 \DeclareTextCommand{\textparenleftinferior}{PU}{\9040\215}% U+208D
 16507 % U+208E SUBSCRIPT RIGHT PARENTHESIS; parenrightinferior
 16508 \DeclareTextCommand{\textparenrightinferior}{PU}{\9040\216}% U+208E

50.2.14 Currency Symbols: U+20A0 to U+20CF

16509 % U+20A1 COLON SIGN; *colonmonetary, colonsign
 16510 \DeclareTextCommand{\textcolonmonetary}{PU}{\9040\241}% U+20A1
 16511 % U+20A4 LIRA SIGN; afi08941, *lira
 16512 \DeclareTextCommand{\textlira}{PU}{\9040\244}% U+20A4
 16513 % U+20A6 NAIRA SIGN
 16514 \DeclareTextCommand{\textnaira}{PU}{\9040\246}% U+20A6
 16515 % U+20A7 PESETA SIGN; peseta
 16516 \DeclareTextCommand{\textpeseta}{PU}{\9040\247}% U+20A7
 16517 % U+20A9 WON SIGN; won

16518 \DeclareTextCommand{\textwon}{PU}{\9040\251}% U+20A9
 16519 % U+20AB DONG SIGN; dong
 16520 \DeclareTextCommand{\textdong}{PU}{\9040\253}% U+20AB
 16521 % U+20AC EURO SIGN; *Euro, euro
 16522 \DeclareTextCommand{\texteuro}{PU}{\9040\254}% U+20AC
 16523 % U+20B1 PESO SIGN
 16524 \DeclareTextCommand{\textpeso}{PU}{\9040\261}% U+20B1
 16525 % U+20B2 GUARANI SIGN
 16526 \DeclareTextCommand{\textguarani}{PU}{\9040\262}% U+20B2

50.2.15 Letterlike Symbols: U+2100 to U+214F

16527 % U+2103 DEGREE CELSIUS; centigrade
 16528 \DeclareTextCommand{\textcelsius}{PU}{\9041\003}% U+2103
 16529 % U+2116 NUMERO SIGN; *afi61352, numero
 16530 \DeclareTextCommand{\textnumero}{PU}{\9041\026}% U+2116
 16531 % U+2117 SOUND RECORDING COPYRIGHT
 16532 \DeclareTextCommand{\textcircledP}{PU}{\9041\027}% U+2117
 16533 % U+211E PRESCRIPTION TAKE; prescription
 16534 \DeclareTextCommand{\textrecipe}{PU}{\9041\036}% U+211E
 16535 % U+2120 SERVICE MARK
 16536 \DeclareTextCommand{\textservicemark}{PU}{\9041\040}% U+2120
 16537 % U+2122 TRADE MARK SIGN; trademark
 16538 \DeclareTextCommand{\texttrademark}{PU}{\9041\042}% U+2122
 16539 % U+2126 OHM SIGN; Ohm, Omega
 16540 \DeclareTextCommand{\textohm}{PU}{\9041\046}% U+2126
 16541 % U+2127 INVERTED OHM SIGN
 16542 \DeclareTextCommand{\textmho}{PU}{\9041\047}% U+2127
 16543 % U+212B ANGSTROM SIGN; angstrom
 16544 \DeclareTextCommand{\textangstrom}{PU}{\9041\053}% U+212B
 16545 % U+212E ESTIMATED SYMBOL; estimated
 16546 \DeclareTextCommand{\textestimated}{PU}{\9041\056}% U+212E
 16547 % U+2135 ALEF SYMBOL; aleph
 16548 \DeclareTextCommand{\textaleph}{PU}{\9041\065}% U+2135

50.2.16 Arrows: U+2190 to U+21FF

16549 % U+2190 LEFTWARDS ARROW; arrowleft
 16550 \DeclareTextCommand{\textleftarrow}{PU}{\9041\220}% U+2190
 16551 % U+2191 UPWARDS ARROW; arrowup
 16552 \DeclareTextCommand{\textuparrow}{PU}{\9041\221}% U+2191
 16553 % U+2192 RIGHTWARDS ARROW; arrowright
 16554 \DeclareTextCommand{\textrightarrow}{PU}{\9041\222}% U+2192
 16555 % U+2193 DOWNWARDS ARROW; arrowdown
 16556 \DeclareTextCommand{\textdownarrow}{PU}{\9041\223}% U+2193

50.2.17 Mathematical Operators: U+2200 to U+22FF

16557 % U+2212 MINUS SIGN; minus
 16558 \DeclareTextCommand{\textminus}{PU}{\9042\022}% U+2212
 16559 % U+221A SQUARE ROOT; radical
 16560 \DeclareTextCommand{\textsurd}{PU}{\9042\032}% U+221A

50.2.18 Miscellaneous Technical: U+2300 to U+23FF

16561 % U+2329 LEFT-POINTING ANGLE BRACKET; angleleft
 16562 \DeclareTextCommand{\textlangle}{PU}{\9043\051}% U+2329
 16563 % U+232A RIGHT-POINTING ANGLE BRACKET; angleright
 16564 \DeclareTextCommand{\textrangle}{PU}{\9043\052}% U+232A

50.2.19 Control Pictures: U+2400 to U+243F

16565 % U+2422 BLANK SYMBOL
 16566 \DeclareTextCommand{\textblank}{PU}{\9044\042}% U+2422
 16567 % U+2423 OPEN BOX; blank
 16568 \DeclareTextCommand{\textvisiblespace}{PU}{\9044\043}% U+2423

50.2.20 Enclosed Alphanumerics: U+2460 to U+24FF

16569 % U+2460 CIRCLED DIGIT ONE; onecircle
 16570 \DeclareTextCompositeCommand{\textcircled}{PU}{1}{\9044\140}% U+2460
 16571 % U+2461 CIRCLED DIGIT TWO; twocircle
 16572 \DeclareTextCompositeCommand{\textcircled}{PU}{2}{\9044\141}% U+2461
 16573 % U+2462 CIRCLED DIGIT THREE; threecircle
 16574 \DeclareTextCompositeCommand{\textcircled}{PU}{3}{\9044\142}% U+2462
 16575 % U+2463 CIRCLED DIGIT FOUR; fourcircle
 16576 \DeclareTextCompositeCommand{\textcircled}{PU}{4}{\9044\143}% U+2463
 16577 % U+2464 CIRCLED DIGIT FIVE; fivecircle
 16578 \DeclareTextCompositeCommand{\textcircled}{PU}{5}{\9044\144}% U+2464
 16579 % U+2465 CIRCLED DIGIT SIX; sixcircle
 16580 \DeclareTextCompositeCommand{\textcircled}{PU}{6}{\9044\145}% U+2465
 16581 % U+2466 CIRCLED DIGIT SEVEN; sevenscircle
 16582 \DeclareTextCompositeCommand{\textcircled}{PU}{7}{\9044\146}% U+2466
 16583 % U+2467 CIRCLED DIGIT EIGHT; eightcircle
 16584 \DeclareTextCompositeCommand{\textcircled}{PU}{8}{\9044\147}% U+2467
 16585 % U+2468 CIRCLED DIGIT NINE; ninecircle
 16586 \DeclareTextCompositeCommand{\textcircled}{PU}{9}{\9044\150}% U+2468
 16587 % U+2469 CIRCLED NUMBER TEN; tencircle
 16588 \DeclareTextCompositeCommand{\textcircled}{PU}{10}{\9044\151}% U+2469
 16589 % U+246A CIRCLED NUMBER ELEVEN; elevencircle
 16590 \DeclareTextCompositeCommand{\textcircled}{PU}{11}{\9044\152}% U+246A
 16591 % U+246B CIRCLED NUMBER TWELVE; twelvecircle
 16592 \DeclareTextCompositeCommand{\textcircled}{PU}{12}{\9044\153}% U+246B
 16593 % U+246C CIRCLED NUMBER THIRTEEN; thirteencircle
 16594 \DeclareTextCompositeCommand{\textcircled}{PU}{13}{\9044\154}% U+246C
 16595 % U+246D CIRCLED NUMBER FOURTEEN; fourteencircle
 16596 \DeclareTextCompositeCommand{\textcircled}{PU}{14}{\9044\155}% U+246D
 16597 % U+246E CIRCLED NUMBER FIFTEEN; fifteencircle
 16598 \DeclareTextCompositeCommand{\textcircled}{PU}{15}{\9044\156}% U+246E
 16599 % U+246F CIRCLED NUMBER SIXTEEN; sixteencircle
 16600 \DeclareTextCompositeCommand{\textcircled}{PU}{16}{\9044\157}% U+246F
 16601 % U+2470 CIRCLED NUMBER SEVENTEEN; seventeencircle
 16602 \DeclareTextCompositeCommand{\textcircled}{PU}{17}{\9044\160}% U+2470
 16603 % U+2471 CIRCLED NUMBER EIGHTEEN; eighteencircle
 16604 \DeclareTextCompositeCommand{\textcircled}{PU}{18}{\9044\161}% U+2471
 16605 % U+2472 CIRCLED NUMBER NINETEEN; nineteencircle
 16606 \DeclareTextCompositeCommand{\textcircled}{PU}{19}{\9044\162}% U+2472
 16607 % U+2473 CIRCLED NUMBER TWENTY; twentycircle
 16608 \DeclareTextCompositeCommand{\textcircled}{PU}{20}{\9044\163}% U+2473
 16609 % U+24B6 CIRCLED LATIN CAPITAL LETTER A; Acircle
 16610 \DeclareTextCompositeCommand{\textcircled}{PU}{A}{\9044\266}% U+24B6
 16611 % U+24B7 CIRCLED LATIN CAPITAL LETTER B; Bcircle
 16612 \DeclareTextCompositeCommand{\textcircled}{PU}{B}{\9044\267}% U+24B7
 16613 % U+24B8 CIRCLED LATIN CAPITAL LETTER C; Ccircle
 16614 \DeclareTextCompositeCommand{\textcircled}{PU}{C}{\9044\270}% U+24B8
 16615 % U+24B9 CIRCLED LATIN CAPITAL LETTER D; Dcircle
 16616 \DeclareTextCompositeCommand{\textcircled}{PU}{D}{\9044\271}% U+24B9
 16617 % U+24BA CIRCLED LATIN CAPITAL LETTER E; Ecircle
 16618 \DeclareTextCompositeCommand{\textcircled}{PU}{E}{\9044\272}% U+24BA
 16619 % U+24BB CIRCLED LATIN CAPITAL LETTER F; Fcircle

16620 \DeclareTextCompositeCommand{\textcircled}{PU}{F}{\9044\273}% U+24BB
16621 % U+24BC CIRCLED LATIN CAPITAL LETTER G; Gcircle
16622 \DeclareTextCompositeCommand{\textcircled}{PU}{G}{\9044\274}% U+24BC
16623 % U+24BD CIRCLED LATIN CAPITAL LETTER H; Hcircle
16624 \DeclareTextCompositeCommand{\textcircled}{PU}{H}{\9044\275}% U+24BD
16625 % U+24BE CIRCLED LATIN CAPITAL LETTER I; Icircle
16626 \DeclareTextCompositeCommand{\textcircled}{PU}{I}{\9044\276}% U+24BE
16627 % U+24BF CIRCLED LATIN CAPITAL LETTER J; Jcircle
16628 \DeclareTextCompositeCommand{\textcircled}{PU}{J}{\9044\277}% U+24BF
16629 % U+24C0 CIRCLED LATIN CAPITAL LETTER K; Kcircle
16630 \DeclareTextCompositeCommand{\textcircled}{PU}{K}{\9044\300}% U+24C0
16631 % U+24C1 CIRCLED LATIN CAPITAL LETTER L; Lcircle
16632 \DeclareTextCompositeCommand{\textcircled}{PU}{L}{\9044\301}% U+24C1
16633 % U+24C2 CIRCLED LATIN CAPITAL LETTER M; Mcircle
16634 \DeclareTextCompositeCommand{\textcircled}{PU}{M}{\9044\302}% U+24C2
16635 % U+24C3 CIRCLED LATIN CAPITAL LETTER N; Ncircle
16636 \DeclareTextCompositeCommand{\textcircled}{PU}{N}{\9044\303}% U+24C3
16637 % U+24C4 CIRCLED LATIN CAPITAL LETTER O; Ocircle
16638 \DeclareTextCompositeCommand{\textcircled}{PU}{O}{\9044\304}% U+24C4
16639 % U+24C5 CIRCLED LATIN CAPITAL LETTER P; Pcircle
16640 \DeclareTextCompositeCommand{\textcircled}{PU}{P}{\9044\305}% U+24C5
16641 % U+24C6 CIRCLED LATIN CAPITAL LETTER Q; Qcircle
16642 \DeclareTextCompositeCommand{\textcircled}{PU}{Q}{\9044\306}% U+24C6
16643 % U+24C7 CIRCLED LATIN CAPITAL LETTER R; Rcircle
16644 \DeclareTextCompositeCommand{\textcircled}{PU}{R}{\9044\307}% U+24C7
16645 % U+24C8 CIRCLED LATIN CAPITAL LETTER S; Scircle
16646 \DeclareTextCompositeCommand{\textcircled}{PU}{S}{\9044\310}% U+24C8
16647 % U+24C9 CIRCLED LATIN CAPITAL LETTER T; Tcircle
16648 \DeclareTextCompositeCommand{\textcircled}{PU}{T}{\9044\311}% U+24C9
16649 % U+24CA CIRCLED LATIN CAPITAL LETTER U; Ucircle
16650 \DeclareTextCompositeCommand{\textcircled}{PU}{U}{\9044\312}% U+24CA
16651 % U+24CB CIRCLED LATIN CAPITAL LETTER V; Vcircle
16652 \DeclareTextCompositeCommand{\textcircled}{PU}{V}{\9044\313}% U+24CB
16653 % U+24CC CIRCLED LATIN CAPITAL LETTER W; Wcircle
16654 \DeclareTextCompositeCommand{\textcircled}{PU}{W}{\9044\314}% U+24CC
16655 % U+24CD CIRCLED LATIN CAPITAL LETTER X; Xcircle
16656 \DeclareTextCompositeCommand{\textcircled}{PU}{X}{\9044\315}% U+24CD
16657 % U+24CE CIRCLED LATIN CAPITAL LETTER Y; Ycircle
16658 \DeclareTextCompositeCommand{\textcircled}{PU}{Y}{\9044\316}% U+24CE
16659 % U+24CF CIRCLED LATIN CAPITAL LETTER Z; Zcircle
16660 \DeclareTextCompositeCommand{\textcircled}{PU}{Z}{\9044\317}% U+24CF
16661 % U+24D0 CIRCLED LATIN SMALL LETTER A; acircle
16662 \DeclareTextCompositeCommand{\textcircled}{PU}{a}{\9044\320}% U+24D0
16663 % U+24D1 CIRCLED LATIN SMALL LETTER B; bcircle
16664 \DeclareTextCompositeCommand{\textcircled}{PU}{b}{\9044\321}% U+24D1
16665 % U+24D2 CIRCLED LATIN SMALL LETTER C; ccircle
16666 \DeclareTextCompositeCommand{\textcircled}{PU}{c}{\9044\322}% U+24D2
16667 % U+24D3 CIRCLED LATIN SMALL LETTER D; dcircle
16668 \DeclareTextCompositeCommand{\textcircled}{PU}{d}{\9044\323}% U+24D3
16669 % U+24D4 CIRCLED LATIN SMALL LETTER E; ecircle
16670 \DeclareTextCompositeCommand{\textcircled}{PU}{e}{\9044\324}% U+24D4
16671 % U+24D5 CIRCLED LATIN SMALL LETTER F; fcircle
16672 \DeclareTextCompositeCommand{\textcircled}{PU}{f}{\9044\325}% U+24D5
16673 % U+24D6 CIRCLED LATIN SMALL LETTER G; gcircle
16674 \DeclareTextCompositeCommand{\textcircled}{PU}{g}{\9044\326}% U+24D6
16675 % U+24D7 CIRCLED LATIN SMALL LETTER H; hcircle
16676 \DeclareTextCompositeCommand{\textcircled}{PU}{h}{\9044\327}% U+24D7

16677 % U+24D8 CIRCLED LATIN SMALL LETTER I; icircle
 16678 \DeclareTextCompositeCommand{\textcircled}{PU}{i}{\9044\330}% U+24D8
 16679 % U+24D9 CIRCLED LATIN SMALL LETTER J; jcircle
 16680 \DeclareTextCompositeCommand{\textcircled}{PU}{j}{\9044\331}% U+24D9
 16681 % U+24DA CIRCLED LATIN SMALL LETTER K; kcircle
 16682 \DeclareTextCompositeCommand{\textcircled}{PU}{k}{\9044\332}% U+24DA
 16683 % U+24DB CIRCLED LATIN SMALL LETTER L; lcircle
 16684 \DeclareTextCompositeCommand{\textcircled}{PU}{l}{\9044\333}% U+24DB
 16685 % U+24DC CIRCLED LATIN SMALL LETTER M; mcircle
 16686 \DeclareTextCompositeCommand{\textcircled}{PU}{m}{\9044\334}% U+24DC
 16687 % U+24DD CIRCLED LATIN SMALL LETTER N; ncircle
 16688 \DeclareTextCompositeCommand{\textcircled}{PU}{n}{\9044\335}% U+24DD
 16689 % U+24DE CIRCLED LATIN SMALL LETTER O; ocircle
 16690 \DeclareTextCompositeCommand{\textcircled}{PU}{o}{\9044\336}% U+24DE
 16691 % U+24DF CIRCLED LATIN SMALL LETTER P; pcircle
 16692 \DeclareTextCompositeCommand{\textcircled}{PU}{p}{\9044\337}% U+24DF
 16693 % U+24E0 CIRCLED LATIN SMALL LETTER Q; qcircle
 16694 \DeclareTextCompositeCommand{\textcircled}{PU}{q}{\9044\340}% U+24E0
 16695 % U+24E1 CIRCLED LATIN SMALL LETTER R; rcircle
 16696 \DeclareTextCompositeCommand{\textcircled}{PU}{r}{\9044\341}% U+24E1
 16697 % U+24E2 CIRCLED LATIN SMALL LETTER S; scircle
 16698 \DeclareTextCompositeCommand{\textcircled}{PU}{s}{\9044\342}% U+24E2
 16699 % U+24E3 CIRCLED LATIN SMALL LETTER T; tcircle
 16700 \DeclareTextCompositeCommand{\textcircled}{PU}{t}{\9044\343}% U+24E3
 16701 % U+24E4 CIRCLED LATIN SMALL LETTER U; ucircle
 16702 \DeclareTextCompositeCommand{\textcircled}{PU}{u}{\9044\344}% U+24E4
 16703 % U+24E5 CIRCLED LATIN SMALL LETTER V; vcircle
 16704 \DeclareTextCompositeCommand{\textcircled}{PU}{v}{\9044\345}% U+24E5
 16705 % U+24E6 CIRCLED LATIN SMALL LETTER W; wcircle
 16706 \DeclareTextCompositeCommand{\textcircled}{PU}{w}{\9044\346}% U+24E6
 16707 % U+24E7 CIRCLED LATIN SMALL LETTER X; xcircle
 16708 \DeclareTextCompositeCommand{\textcircled}{PU}{x}{\9044\347}% U+24E7
 16709 % U+24E8 CIRCLED LATIN SMALL LETTER Y; ycircle
 16710 \DeclareTextCompositeCommand{\textcircled}{PU}{y}{\9044\350}% U+24E8
 16711 % U+24E9 CIRCLED LATIN SMALL LETTER Z; zcircle
 16712 \DeclareTextCompositeCommand{\textcircled}{PU}{z}{\9044\351}% U+24E9
 16713 % U+24EA CIRCLED DIGIT ZERO
 16714 \DeclareTextCompositeCommand{\textcircled}{PU}{0}{\9044\352}% U+24EA

50.2.21 Box Drawing: U+2500 to U+257F

16715 % U+25E6 WHITE BULLET; *openbullet, whitebullet
 16716 \DeclareTextCommand{\textopenbullet}{PU}{\9045\346}% U+25E6
 16717 % U+25EF LARGE CIRCLE; largecircle
 16718 \DeclareTextCommand{\textbigcircle}{PU}{\9045\357}% U+25EF

50.2.22 Miscellaneous Symbols: U+2600 to U+26FF

16719 % U+266A EIGHTH NOTE; musicalnote
 16720 \DeclareTextCommand{\textmusicalnote}{PU}{\9046\152}% U+266A
 16721 % U+26AD MARRIAGE SYMBOL
 16722 \DeclareTextCommand{\textmarried}{PU}{\9046\255}% U+26AD
 16723 % U+26AE DIVORCE SYMBOL
 16724 \DeclareTextCommand{\textdivorced}{PU}{\9046\256}% U+26AE

50.2.23 Miscellaneous Mathematical Symbols-A: U+27C0 to U+27EF

16725 % U+27E6 MATHEMATICAL LEFT WHITE SQUARE BRACKET
 16726 \DeclareTextCommand{\textlbrackdbl}{PU}{\9047\346}% U+27E6
 16727 % U+27E7 MATHEMATICAL RIGHT WHITE SQUARE BRACKET

16728 \DeclareTextCommand{\textrbrackdbl}{PU}{\9047\347}% U+27E7

50.2.24 Alphabetic Presentation Forms: U+FB00 to U+FB4F

16729 % U+FB01 LATIN SMALL LIGATURE FI; fi
 16730 \DeclareTextCommand{\textfi}{PU}{\9373\001}% U+FB01
 16731 % U+FB02 LATIN SMALL LIGATURE FL; fl
 16732 \DeclareTextCommand{\textfl}{PU}{\9373\002}% U+FB02

50.2.25 Miscellaneous

16733 \DeclareTextCommand{\SS}{PU}{SS}

50.2.26 Aliases

Aliases (german.sty)

16734 \DeclareTextCommand{\textglqq}{PU}{\quotedblbase}
 16735 \DeclareTextCommand{\textgrqq}{PU}{\textquotedblleft}
 16736 \DeclareTextCommand{\textglq}{PU}{\quotesinglbase}
 16737 \DeclareTextCommand{\textgrq}{PU}{\textquoteleft}
 16738 \DeclareTextCommand{\textflqq}{PU}{\guillemotleft}
 16739 \DeclareTextCommand{\textfrqq}{PU}{\guillemotright}
 16740 \DeclareTextCommand{\textflq}{PU}{\guilsinglleft}
 16741 \DeclareTextCommand{\textfrq}{PU}{\guilsinglright}

Aliases (math names)

16742 \DeclareTextCommand{\textneg}{PU}{\textlogicalnot}
 16743 \DeclareTextCommand{\texttimes}{PU}{\textmultiply}
 16744 \DeclareTextCommand{\textdiv}{PU}{\textdivide}
 16745 \DeclareTextCommand{\textpm}{PU}{\textplusminus}
 16746 \DeclareTextCommand{\textcdot}{PU}{\textperiodcentered}
 16747 </puenc>

50.3 PU encoding, additions for VnTeX

This file is provided by Han The Thanh.

16748 <*puvnenc>
 16749 \DeclareTextCommand{\abreve}{PU}{\81\003}
 16750 \DeclareTextCommand{\acircumflex}{PU}{\80\342}
 16751 \DeclareTextCommand{\dj}{PU}{\81\021}
 16752 \DeclareTextCommand{\ecircumflex}{PU}{\80\352}
 16753 \DeclareTextCommand{\ocircumflex}{PU}{\80\364}
 16754 \DeclareTextCommand{\ohorn}{PU}{\81\241}
 16755 \DeclareTextCommand{\uhorn}{PU}{\81\260}
 16756 \DeclareTextCommand{\ABREVE}{PU}{\81\002}
 16757 \DeclareTextCommand{\ACIRCUMFLEX}{PU}{\80\302}
 16758 \DeclareTextCommand{\DJ}{PU}{\81\020}
 16759 \DeclareTextCommand{\ECIRCUMFLEX}{PU}{\80\312}
 16760 \DeclareTextCommand{\OCIRCUMFLEX}{PU}{\80\324}
 16761 \DeclareTextCommand{\OHORN}{PU}{\81\240}
 16762 \DeclareTextCommand{\UHORN}{PU}{\81\257}
 16763 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\341}
 16764 \DeclareTextCompositeCommand{\d}{PU}{a}{\9036\241}
 16765 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\340}
 16766 \DeclareTextCompositeCommand{\h}{PU}{a}{\9036\243}
 16767 \DeclareTextCompositeCommand{\~}{PU}{a}{\80\343}
 16768 \DeclareTextCompositeCommand{\'}{PU}{\abreve}{\9036\257}
 16769 \DeclareTextCompositeCommand{\d}{PU}{\abreve}{\9036\267}

16770 \DeclareTextCompositeCommand{\'}{PU}{\abreve}{\9036\261}
16771 \DeclareTextCompositeCommand{\h}{PU}{\abreve}{\9036\263}
16772 \DeclareTextCompositeCommand{\~}{PU}{\abreve}{\9036\265}
16773 \DeclareTextCompositeCommand{\'}{PU}{\acircumflex}{\9036\245}
16774 \DeclareTextCompositeCommand{\d}{PU}{\acircumflex}{\9036\255}
16775 \DeclareTextCompositeCommand{\'}{PU}{\acircumflex}{\9036\247}
16776 \DeclareTextCompositeCommand{\h}{PU}{\acircumflex}{\9036\251}
16777 \DeclareTextCompositeCommand{\~}{PU}{\acircumflex}{\9036\253}
16778 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\351}
16779 \DeclareTextCompositeCommand{\d}{PU}{e}{\9036\271}
16780 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\350}
16781 \DeclareTextCompositeCommand{\h}{PU}{e}{\9036\273}
16782 \DeclareTextCompositeCommand{\~}{PU}{e}{\9036\275}
16783 \DeclareTextCompositeCommand{\'}{PU}{\ecircumflex}{\9036\277}
16784 \DeclareTextCompositeCommand{\d}{PU}{\ecircumflex}{\9036\307}
16785 \DeclareTextCompositeCommand{\'}{PU}{\ecircumflex}{\9036\301}
16786 \DeclareTextCompositeCommand{\h}{PU}{\ecircumflex}{\9036\303}
16787 \DeclareTextCompositeCommand{\~}{PU}{\ecircumflex}{\9036\305}
16788 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\355}
16789 \DeclareTextCompositeCommand{\d}{PU}{i}{\9036\313}
16790 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\354}
16791 \DeclareTextCompositeCommand{\h}{PU}{i}{\9036\311}
16792 \DeclareTextCompositeCommand{\~}{PU}{i}{\81\051}
16793 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\363}
16794 \DeclareTextCompositeCommand{\d}{PU}{o}{\9036\315}
16795 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\362}
16796 \DeclareTextCompositeCommand{\h}{PU}{o}{\9036\317}
16797 \DeclareTextCompositeCommand{\~}{PU}{o}{\80\365}
16798 \DeclareTextCompositeCommand{\'}{PU}{\ocircumflex}{\9036\321}
16799 \DeclareTextCompositeCommand{\d}{PU}{\ocircumflex}{\9036\331}
16800 \DeclareTextCompositeCommand{\'}{PU}{\ocircumflex}{\9036\323}
16801 \DeclareTextCompositeCommand{\h}{PU}{\ocircumflex}{\9036\325}
16802 \DeclareTextCompositeCommand{\~}{PU}{\ocircumflex}{\9036\327}
16803 \DeclareTextCompositeCommand{\'}{PU}{\ohorn}{\9036\333}
16804 \DeclareTextCompositeCommand{\d}{PU}{\ohorn}{\9036\343}
16805 \DeclareTextCompositeCommand{\'}{PU}{\ohorn}{\9036\335}
16806 \DeclareTextCompositeCommand{\h}{PU}{\ohorn}{\9036\337}
16807 \DeclareTextCompositeCommand{\~}{PU}{\ohorn}{\9036\341}
16808 \DeclareTextCompositeCommand{\'}{PU}{u}{\80\372}
16809 \DeclareTextCompositeCommand{\d}{PU}{u}{\9036\345}
16810 \DeclareTextCompositeCommand{\'}{PU}{u}{\80\371}
16811 \DeclareTextCompositeCommand{\h}{PU}{u}{\9036\347}
16812 \DeclareTextCompositeCommand{\~}{PU}{u}{\81\151}
16813 \DeclareTextCompositeCommand{\'}{PU}{\uhorn}{\9036\351}
16814 \DeclareTextCompositeCommand{\d}{PU}{\uhorn}{\9036\361}
16815 \DeclareTextCompositeCommand{\'}{PU}{\uhorn}{\9036\353}
16816 \DeclareTextCompositeCommand{\h}{PU}{\uhorn}{\9036\355}
16817 \DeclareTextCompositeCommand{\~}{PU}{\uhorn}{\9036\357}
16818 \DeclareTextCompositeCommand{\'}{PU}{y}{\80\375}
16819 \DeclareTextCompositeCommand{\d}{PU}{y}{\9036\365}
16820 \DeclareTextCompositeCommand{\'}{PU}{y}{\9036\363}
16821 \DeclareTextCompositeCommand{\h}{PU}{y}{\9036\367}
16822 \DeclareTextCompositeCommand{\~}{PU}{y}{\9036\371}
16823 \DeclareTextCompositeCommand{\'}{PU}{A}{\80\301}
16824 \DeclareTextCompositeCommand{\d}{PU}{A}{\9036\240}
16825 \DeclareTextCompositeCommand{\'}{PU}{A}{\80\300}
16826 \DeclareTextCompositeCommand{\h}{PU}{A}{\9036\242}

16827 \DeclareTextCompositeCommand{\~}{PU}{A}{\80\303}
16828 \DeclareTextCompositeCommand{\'}{PU}{\ABREVE}{\9036\256}
16829 \DeclareTextCompositeCommand{\d}{PU}{\ABREVE}{\9036\266}
16830 \DeclareTextCompositeCommand{\'}{PU}{\ABREVE}{\9036\260}
16831 \DeclareTextCompositeCommand{\h}{PU}{\ABREVE}{\9036\262}
16832 \DeclareTextCompositeCommand{\~}{PU}{\ABREVE}{\9036\264}
16833 \DeclareTextCompositeCommand{\'}{PU}{\ACIRCUMFLEX}{\9036\244}
16834 \DeclareTextCompositeCommand{\d}{PU}{\ACIRCUMFLEX}{\9036\254}
16835 \DeclareTextCompositeCommand{\'}{PU}{\ACIRCUMFLEX}{\9036\246}
16836 \DeclareTextCompositeCommand{\h}{PU}{\ACIRCUMFLEX}{\9036\250}
16837 \DeclareTextCompositeCommand{\~}{PU}{\ACIRCUMFLEX}{\9036\252}
16838 \DeclareTextCompositeCommand{\'}{PU}{E}{\80\311}
16839 \DeclareTextCompositeCommand{\d}{PU}{E}{\9036\270}
16840 \DeclareTextCompositeCommand{\'}{PU}{E}{\80\310}
16841 \DeclareTextCompositeCommand{\h}{PU}{E}{\9036\272}
16842 \DeclareTextCompositeCommand{\~}{PU}{E}{\9036\274}
16843 \DeclareTextCompositeCommand{\'}{PU}{\ECIRCUMFLEX}{\9036\276}
16844 \DeclareTextCompositeCommand{\d}{PU}{\ECIRCUMFLEX}{\9036\306}
16845 \DeclareTextCompositeCommand{\'}{PU}{\ECIRCUMFLEX}{\9036\300}
16846 \DeclareTextCompositeCommand{\h}{PU}{\ECIRCUMFLEX}{\9036\302}
16847 \DeclareTextCompositeCommand{\~}{PU}{\ECIRCUMFLEX}{\9036\304}
16848 \DeclareTextCompositeCommand{\'}{PU}{I}{\80\315}
16849 \DeclareTextCompositeCommand{\d}{PU}{I}{\9036\312}
16850 \DeclareTextCompositeCommand{\'}{PU}{I}{\80\314}
16851 \DeclareTextCompositeCommand{\h}{PU}{I}{\9036\310}
16852 \DeclareTextCompositeCommand{\~}{PU}{I}{\81\050}
16853 \DeclareTextCompositeCommand{\'}{PU}{O}{\80\323}
16854 \DeclareTextCompositeCommand{\d}{PU}{O}{\9036\314}
16855 \DeclareTextCompositeCommand{\'}{PU}{O}{\80\322}
16856 \DeclareTextCompositeCommand{\h}{PU}{O}{\9036\316}
16857 \DeclareTextCompositeCommand{\~}{PU}{O}{\80\325}
16858 \DeclareTextCompositeCommand{\'}{PU}{\OCIRCUMFLEX}{\9036\320}
16859 \DeclareTextCompositeCommand{\d}{PU}{\OCIRCUMFLEX}{\9036\330}
16860 \DeclareTextCompositeCommand{\'}{PU}{\OCIRCUMFLEX}{\9036\322}
16861 \DeclareTextCompositeCommand{\h}{PU}{\OCIRCUMFLEX}{\9036\324}
16862 \DeclareTextCompositeCommand{\~}{PU}{\OCIRCUMFLEX}{\9036\326}
16863 \DeclareTextCompositeCommand{\'}{PU}{\OHORN}{\9036\332}
16864 \DeclareTextCompositeCommand{\d}{PU}{\OHORN}{\9036\342}
16865 \DeclareTextCompositeCommand{\'}{PU}{\OHORN}{\9036\334}
16866 \DeclareTextCompositeCommand{\h}{PU}{\OHORN}{\9036\336}
16867 \DeclareTextCompositeCommand{\~}{PU}{\OHORN}{\9036\340}
16868 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\332}
16869 \DeclareTextCompositeCommand{\d}{PU}{U}{\9036\344}
16870 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\331}
16871 \DeclareTextCompositeCommand{\h}{PU}{U}{\9036\346}
16872 \DeclareTextCompositeCommand{\~}{PU}{U}{\81\150}
16873 \DeclareTextCompositeCommand{\'}{PU}{\UHORN}{\9036\350}
16874 \DeclareTextCompositeCommand{\d}{PU}{\UHORN}{\9036\360}
16875 \DeclareTextCompositeCommand{\'}{PU}{\UHORN}{\9036\352}
16876 \DeclareTextCompositeCommand{\h}{PU}{\UHORN}{\9036\354}
16877 \DeclareTextCompositeCommand{\~}{PU}{\UHORN}{\9036\356}
16878 \DeclareTextCompositeCommand{\'}{PU}{Y}{\80\335}
16879 \DeclareTextCompositeCommand{\d}{PU}{Y}{\9036\364}
16880 \DeclareTextCompositeCommand{\'}{PU}{Y}{\9036\362}
16881 \DeclareTextCompositeCommand{\h}{PU}{Y}{\9036\366}
16882 \DeclareTextCompositeCommand{\~}{PU}{Y}{\9036\370}
16883 (/puvnenc)

50.4 PU encoding, additions for Arabi

This file is provided and maintained by Youssef Jabri.

```
16884 \DeclareTextCommand{*puarenc}
16885 \DeclareTextCommand{\hamza}{PU}{\86\041}% 0621;afii57409;ARABIC LET-
    TER HAMZA
16886 \DeclareTextCommand{\alefmadda}{PU}{\86\042}% 0622;afii57410;ARABIC LET-
    TER ALEF WITH MADDA ABOVE
16887 \DeclareTextCommand{\alefhamza}{PU}{\86\043}% 0623;afii57411;ARABIC LET-
    TER ALEF WITH HAMZA ABOVE
16888 \DeclareTextCommand{\wawhamza}{PU}{\86\044}% 0624;afii57412;ARABIC LET-
    TER WAW WITH HAMZA ABOVE
16889 \DeclareTextCommand{\aleflowerhamza}{PU}{\86\045}% 0625;afii57413;ARA-
    BIC LETTER ALEF WITH HAMZA BELOW
16890 \DeclareTextCommand{\yahamza}{PU}{\86\046}% 0626;afii57414;ARABIC LET-
    TER YEH WITH HAMZA ABOVE
16891 \DeclareTextCommand{\alef}{PU}{\86\047}% 0627;afii57415;ARABIC LETTER ALEF
16892 \DeclareTextCommand{\baa}{PU}{\86\050}% 0628;afii57416;ARABIC LETTER BEH
16893 \DeclareTextCommand{\T}{PU}{\86\051}% 0629;afii57417;ARABIC LETTER TEH MARBUTA
16894 \DeclareTextCommand{\taa}{PU}{\86\052}% 062A;afii57418;ARABIC LETTER TEH
16895 \DeclareTextCommand{\thaa}{PU}{\86\053}% 062B;afii57419;ARABIC LET-
    TER THEH
16896 \DeclareTextCommand{\jeem}{PU}{\86\054}% 062C;afii57420;ARABIC LET-
    TER JEEM
16897 \DeclareTextCommand{\Haa}{PU}{\86\055}% 062D;afii57421;ARABIC LET-
    TER HAH
16898 \DeclareTextCommand{\kha}{PU}{\86\056}% 062E;afii57422;ARABIC LET-
    TER KHAH
16899 \DeclareTextCommand{\dal}{PU}{\86\057}% 062F;afii57423;ARABIC LETTER DAL
16900 \DeclareTextCommand{\dhal}{PU}{\86\060}% 0630;afii57424;ARABIC LET-
    TER THAL
16901 \DeclareTextCommand{\ra}{PU}{\86\061}% 0631;afii57425;ARABIC LETTER REH
16902 \DeclareTextCommand{\zay}{PU}{\86\062}% 0632;afii57426;ARABIC LETTER ZAIN
16903 \DeclareTextCommand{\seen}{PU}{\86\063}% 0633;afii57427;ARABIC LET-
    TER SEEN
16904 \DeclareTextCommand{\sheen}{PU}{\86\064}% 0634;afii57428;ARABIC LET-
    TER SHEEN
16905 \DeclareTextCommand{\sad}{PU}{\86\065}% 0635;afii57429;ARABIC LETTER SAD
16906 \DeclareTextCommand{\dad}{PU}{\86\066}% 0636;afii57430;ARABIC LETTER DAD
16907 \DeclareTextCommand{\Ta}{PU}{\86\067}% 0637;afii57431;ARABIC LETTER TAH
16908 \DeclareTextCommand{\za}{PU}{\86\070}% 0638;afii57432;ARABIC LETTER ZAH
16909 \DeclareTextCommand{\ayn}{PU}{\86\071}% 0639;afii57433;ARABIC LETTER AIN
16910 \DeclareTextCommand{\ghayn}{PU}{\86\072}% 063A;afii57434;ARABIC LET-
    TER GHAIN
16911 \DeclareTextCommand{\tatweel}{PU}{\86\100}% 0640;afii57440;ARABIC TATWEEL
16912 \DeclareTextCommand{\fa}{PU}{\86\101}% 0641;afii57441;ARABIC LETTER FEH
16913 \DeclareTextCommand{\qaf}{PU}{\86\102}% 0642;afii57442;ARABIC LETTER QAF
16914 \DeclareTextCommand{\kaf}{PU}{\86\103}% 0643;afii57443;ARABIC LETTER KAF
16915 \DeclareTextCommand{\lam}{PU}{\86\104}% 0644;afii57444;ARABIC LETTER LAM
16916 \DeclareTextCommand{\meem}{PU}{\86\105}% 0645;afii57445;ARABIC LET-
    TER MEEM
16917 \DeclareTextCommand{\nun}{PU}{\86\106}% 0646;afii57446;ARABIC LETTER NOON
16918 \DeclareTextCommand{\ha}{PU}{\86\107}% 0647;afii57470;ARABIC LETTER HEH
16919 \DeclareTextCommand{\waw}{PU}{\86\110}% 0648;afii57448;ARABIC LET-
    TER WAW
16920 \DeclareTextCommand{\alefmaqsura}{PU}{\86\111}% 0649;afii57449;ARABIC LET-
    TER ALEF MAKSURA
```

```

16921 \DeclareTextCommand{\ya}{PU}{\86\112}% 064A;afi57450;ARABIC LETTER YEH
16922 \DeclareTextCommand{\nasb}{PU}{\86\113}% 064B;afi57451;ARABIC FATHATAN
16923 \DeclareTextCommand{\raff}{PU}{\86\114}% 064C;afi57452;ARABIC DAMMATAN
16924 \DeclareTextCommand{\jarr}{PU}{\86\115}% 064D;afi57453;ARABIC KAS-
RATAN
16925 \DeclareTextCommand{\fatha}{PU}{\86\116}% 064E;afi57454;ARABIC FATHA
16926 \DeclareTextCommand{\damma}{PU}{\86\117}% 064F;afi57455;ARABIC DAMMA
16927 \DeclareTextCommand{\kasra}{PU}{\86\120}% 0650;afi57456;ARABIC KASRA
16928 \DeclareTextCommand{\shadda}{PU}{\86\121}% 0651;afi57457;ARABIC SHADDA
16929 \DeclareTextCommand{\sukun}{PU}{\86\122}% 0652;afi57458;ARABIC SUKUN

Farsi
16930 \DeclareTextCommand{\peh}{PU}{\86\176}% 067E;afi57506;ARABIC LET-
TER PEH
16931 \DeclareTextCommand{\tcheh}{PU}{\86\206}% 0686;afi57507;ARABIC LET-
TER TCHEH
16932 \DeclareTextCommand{\jeh}{PU}{\86\230}% 0698;afi57508;ARABIC LETTER JEH
16933 \DeclareTextCommand{\farsikaf}{PU}{\86\251}% 06A9???;afi????;FARSI LET-
TER KAF
16934 \DeclareTextCommand{\gaf}{PU}{\86\257}% 06AF;afi57509;ARABIC LETTER GAF
16935 \DeclareTextCommand{\farsiya}{PU}{\86\314}% 06CC;afi????;FARSI LET-
TER YEH

16936 \DeclareTextCommand{\ZWNJ}{PU}{\9040\014}% 200C;ZWNJ%
16937 \DeclareTextCommand{\noboundary}{PU}{\86\325}% 200D;ZWJ
16938 \puarenc)

```

51 End of file hyccheck.tex

```

16939 \*check)
16940 \typeout{}
16941 \begin{document}
16942 \end{document}
16943 \check)

```

52 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 | | |
|--------------------------------------|-------------------------------------|-----------------------------|
| \! | 195, 220, 2061 | 15394, 15454, 15456, 15506, |
| \” 202, 227, 3173, 14121, 14481, | | 15508, 15514, 15516, 15518, |
| 14493, 14505, 14628, 14714, | | 15520, 15602, 15604, 15606, |
| 14728, 14736, 14751, 14763, | | 15608, 15610, 15612, 15614, |
| 14779, 14793, 14804, 14805, | | 15616, 15671, 15673, 15675, |
| 14819, 14831, 14837, 14888, | | 15677, 15735, 15738, 15740, |
| 14916, 14935, 14956, 15083, | | 15765, 15784, 15930, 15949, |
| 15097, 15105, 15119, 15131, | | 16298, 16300, 16310, 16312, |
| 15147, 15161, 15172, 15173, | | 16326, 16328, 16358, 16360, |
| 15187, 15199, 15205, 15452, | | 16763, 16768, 16773, 16778, |
| 15667, 15669, 15679, 15731, | | 16783, 16788, 16793, 16798, |
| 15733, 15761, 15774, 15926, | | 16803, 16808, 16813, 16818, |
| 15939, 16172, 16174, 16188, | | 16823, 16828, 16833, 16838, |
| 16190, 16192, 16194, 16196, | | 16843, 16848, 16853, 16858, |
| 16198, 16208, 16210, 16212, | | 16863, 16868, 16873, 16878 |
| 16214, 16220, 16222, 16224, | \(. 190, 215, 322, 756, 759, 761, | |
| 16226, 16232, 16234, 16240, | 2063, 14187, 14551 | |
| 16242, 16248, 16250, 16290, | \) . 191, 216, 323, 728, 734, 737, | |
| 16292, 16362, 16364, 16374, | 2064, 14188, 14553 | |
| 16376, 16392 | * 325 | |
| \# . 547, 2146, 2147, 4602, 4613, | \+ 200, 225, 326 | |
| 4615, 4631, 4663, 4723, | \- 201, 226 | |
| 8641, 8643, 9423, 9432, | \. 198, 223, 319, 1222, 3515, 3926, | |
| 9467, 10307, 11896, 11907, | 14484, 14496, 14508, 14570, | |
| 11943, 12174, 12183, 12223, | 14861, 14868, 14886, 14919, | |
| 14041 | 14938, 14962, 15002, 15003, | |
| \\$ 184, 209, 321, 548, 4604, 4722 | 15227, 15229, 15251, 15253, | |
| \% . 549, 2061, 2121, 2122, 4601, | 15271, 15273, 15307, 15338, | |
| 4610, 4612, 4664, 8643 | 15340, 15458, 15460, 15551, | |
| \& . . . 185, 210, 550, 4605, 4616, | 15553, 15559, 15561, 16258, | |
| 4618, 11953 | 16260, 16266, 16268, 16278, | |
| \’ . . . 203, 228, 3113, 3127, 3168, | 16280, 16286, 16288, 16314, | |
| 3170, 3171, 3172, 3173, | 16316, 16318, 16320, 16330, | |
| 3178, 3179, 3181, 3186, | 16332, 16334, 16336, 16342, | |
| 3192, 3196, 3197, 3200, | 16344, 16366, 16368, 16370, | |
| 3243, 3244, 3249, 3250, | 16372, 16378, 16380, 16398 | |
| 3251, 3252, 3253, 3254, | \/. 194, 219, 670, 671, 672, 739, | |
| 3255, 3256, 3258, 3262, | 1846, 8039 | |
| 3275, 14119, 14478, 14490, | \: 189, 214 | |
| 14502, 14708, 14724, 14732, | \; 199, 224, 8335 | |
| 14745, 14759, 14765, 14773, | \< 196, 221 | |
| 14789, 14798, 14799, 14813, | \= . . . 167, 173, 180, 183, 14486, | |
| 14827, 14833, 14856, 14858, | 14498, 14510, 14881, 14923, | |
| 14859, 14860, 14863, 14865, | 14942, 14961, 15207, 15209, | |
| 14866, 14867, 14875, 14913, | 15243, 15245, 15292, 15294, | |
| 14932, 14953, 15077, 15093, | 15295, 15364, 15366, 15424, | |
| 15101, 15113, 15127, 15133, | 15426, 15563, 15565, 16204, | |
| 15141, 15157, 15166, 15167, | 16206, 16228, 16230, 16282, | |
| 15181, 15195, 15201, 15219, | 16284 | |
| 15221, 15326, 15328, 15346, | \> 197, 222 | |
| 15348, 15380, 15382, 15392, | \? 327 | |
| | \@ 3164 | |
| | \@@@ 2377 | |
| | \@@BOOKMARK 14102, 14105, | |
| | 14163, 14231, 14238 | |
| | \@@ListBox 12544, 12568, 13027, | |
| | 13060, 13368, 13411 | |
| | \@@Menu 12753, 12761 | |
| | \@@PasswordField . 12702, 12708 | |
| | \@@Radio . 12529, 12550, 12751, | |
| | 12775, 13012, 13033, 13353, | |
| | 13374 | |
| | \@@TextField 12704, 12719 | |
| | \@@commahyperpage 8146, 8147 | |
| | \@@hyper@creadexternallink . . . | |
| | 4914, 4916 | |
| | \@@hyperref 4825, 4826 | |
| | \@@latextohtmlX . . . 2992, 5062 | |
| | \@@wrindex 8074, 8075 | |
| | \@@writetorep 13962, 13968 | |
| | \@Alph 6694, 6696 | |
| | \@BIBLABEL . 7511, 7517, 7523 | |
| | \@BOOKMARK . . 14102, 14104 | |
| | \@CITE 7588, 7596 | |
| | \@CITEX 7590 | |
| | \@CheckBox 5859, 10372, 12642, | |
| | 12672, 12806, 13144, 13513 | |
| | \@ChoiceMenu 5856, 10375, | |
| | 12482, 12675, 12741, 12964, | |
| | 13305 | |
| | \@Form 5520, 10362, 12267, | |
| | 12664, 12685, 12884, 13227 | |
| | \@Gauge . . . 5865, 10366, 12451, | |
| | 12666, 12690, 12827, 13224 | |
| | \@Localurlfalse 10315 | |
| | \@Localurltrue 10312 | |
| | \@M . . . 1128, 2434, 4709, 7134 | |
| | \@MM 7274 | |
| | \@PackageError 263 | |
| | \@PackageInfo 266 | |
| | \@PackageInfoNoLine 267 | |
| | \@PackageWarning 264 | |
| | \@PackageWarningNoLine . . 265 | |
| | \@PushButton 5862, 10378, | |
| | 12575, 12678, 12787, 13069, | |
| | 13427 | |
| | \@Refstar 8450, 8457 | |
| | \@Reset 5871, 10381, 12619, | |
| | 12681, 12803, 13120, 13484 | |
| | \@Roman 632 | |
| | \@SCTR 8194, 8246 | |
| | \@SetMaxRnhefLabel 7585 | |
| | \@Submit . . 5868, 10384, 12602, | |
| | 12682, 12800, 13098, 13461 | |

| | | |
|--|--|---|
| <code>\@TextField</code> . 5853, 10369, 12454, 12669, 12693, 12935, <u>13268</u> | <code>\@clubpenalty</code> 7136 | <code>\@filebordercolor</code> |
| <code>\@addchap</code> 14438 | <code>\@commahyperpage</code> . 8141, 8146 | . . . 3558, 4015, 8975, 8977, 9997, 9999, 10515, 10517, 11566 |
| <code>\@addtoreset</code> . 7968, 7969, 7983, 8191 | <code>\@ctrerr</code> 6668, 6677 | <code>\@filecolor</code> 3484, 3496, 8996, 9606, 9623, 10015, 10521 |
| <code>\@afterheading</code> 14455 | <code>\@currDisplay</code> 5608, 12494, 12557, 12770, 12784, 12976, 13040, 13317, 13384 | <code>\@firstoffive</code> . . 4537, 4546, 8440, 8525 |
| <code>\@alph</code> 6690, 6692 | <code>\@currValue</code> . . 5610, 5612, 12555, 12562, 12770, 12781, 13038, 13047, 13382, 13399, 13839 | <code>\@firstofone</code> 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 621, 812, 964, 975, 1208, 1212, 1216, 1554, 3904, 4428, 5486, 5492, 5758, 6552, 6687, 6699, 6766, 7378, 7459, 7600, 7623, 7805, 8029, 9284, 12857, 13598, 13615, 13633 |
| <code>\@anchorcolor</code> 3494, 9392, 9487, 10429, 11864, 12144 | <code>\@currentHlabel</code> <u>6740</u> | <code>\@firstoftwo</code> 641, 922, 1090, 1762, 6049, 14404 |
| <code>\@arabic</code> 1098, 1103, 1107, 6689 | <code>\@currentHref</code> 2379, 5961, 6639, 6720, 6722, 6731, 6733, 6740, 6821, 6823, 6833, 6884, 6895, 6897, 6935, 6946, 6950, 6957, 6981, 7071, 7102, 7127, 7190, 7200, 7202, 7203, 7259, 7287, 7385, 7411, 7415, 7430, 7432, 7660, 7844, 7867, 7880, 7887, 7938, 7962, 7964, 13952, 14343, 14356, 14367, 14397, 14414, 14449 | <code>\@fnsymbol</code> 6688 |
| <code>\@auxout</code> 2371, 4872, 6079, 6081, 6779, 6807, 7531, 7546, 7562, 7572, 7602, 7625, 7651, 7657, 7681 | <code>\@currentlabel</code> 6863, 7277, 7653, 7660, 7943, 7950, 8200, 8252 | <code>\@footnotemark</code> 7143, 7196, 7214, 7296, 7308, 7310, 7322, 7323, 7353, 7355 |
| <code>\@backslashchar</code> 852, 855, 858, 1352, 2023, 2027, 2030, 2168, 2185, 2191, 2195, 2203, 4626, 8656, 8666 | <code>\@currentlabelname</code> . 2369, 7191, 7260, 7288, 7390 | <code>\@footnotetext</code> |
| <code>\@baseurl</code> 3501, 3503, 4972, 9108, 9111, 9377, 9379, 9665, 9667, 10184, 10194, 10280, 10282, 10817, 10819, 11197, 11211, 11849, 11851, 12050, 12064, 12130, 12132 | <code>\@currentlabstr</code> 2368, 2376 | . . . 7142, 7149, 7178, 7213, 7309, 7311, 7325, 7326, 7346 |
| <code>\@begintheorem</code> 7038, 7041, 7066, 7073, 7097, 7104 | <code>\@curropt</code> . 12491, 12492, 12553, 12554, 12759, 12766, 12767, 12769, 12776, 12777, 12779, 12973, 12974, 13036, 13037, 13314, 13315, 13380, 13381 | <code>\@for</code> . . . 3534, 5128, 7597, 7620, 12491, 12553, 12759, 12766, 12776, 12973, 13036, 13314, 13380 |
| <code>\@bibitem</code> 7538, 7569 | <code>\@dblarg</code> 7380, 7461 | <code>\@fourthoffive</code> 4540, 4860, 8515, 8522 |
| <code>\@biblabel</code> 7511, 7558 | <code>\@definecounter</code> 7923, 7924 | <code>\@gobble</code> 49, 56, 117, 571, 572, 573, 574, 611, 612, 613, 614, 644, 645, 646, 655, 657, 816, 929, 962, 973, 1114, 1118, 1121, 1491, 1552, 1571, 1584, 1588, 1651, 1714, 1715, 1722, 1727, 1741, 1746, 2349, 2406, 2679, 2691, 3892, 4099, 4153, 4592, 5471, 5748, 6014, 6018, 6035, 6037, 6053, 6054, 6057, 6058, 6060, 6526, 6546, 6550, 7027, 7053, 7086, 7367, 7456, 7843, 8580, 9286, 10697, 10700, 12885, 13228, 14009, 14010, 14011, 14012 |
| <code>\@bookmarkopenstatus</code> . . 4426, 4443, 14023 | <code>\@ehc</code> . . 2739, 2850, 2875, 2908, 2946, 2953, 2964, 2970, 4151, 4771, 4936, 5232, 5356, 5552, 5585, 5795, 5844, 12584, 12630, 13079, 13131, 13437, 13495 | <code>\@gobblefour</code> . . . 577, 680, 1248, 1249, 1250, 3711, 8315 |
| <code>\@bookmarksopenlevel</code> . . 3455, 3457, 4429 | <code>\@ehd</code> . . 63, 282, 288, 303, 7366, 7455 | <code>\@gobbleopt</code> 6060, 6062 |
| <code>\@bsphack</code> 2364, 4865, 7655 | <code>\@endForm</code> . 5521, 10365, 12450, 12665, 12689, 12934, <u>13254</u> | <code>\@gobbletwo</code> 575, 648, 673, 681, 682, 829, 1247, 1669, 1746, 1750, 2564, 3709, 3710, |
| <code>\@capstartfalse</code> 7405 | <code>\@endpary</code> . . 7036, 7062, 7093 | |
| <code>\@caption</code> 7370, 7382, 7425, 7461, 7463 | <code>\@eqnncr</code> 6965 | |
| <code>\@capytype</code> 2373, 7365, 7369, 7373, 7380, 7387, 7429, 7454, 7458, 7461 | <code>\@eqnstarfalse</code> 6941, 6968 | |
| <code>\@car</code> . . . 1634, 1650, 1668, 1688, 3434, 5138, 9060, 9071 | <code>\@eqnstartrue</code> 6965 | |
| <code>\@cdr</code> 9061, 9072 | <code>\@eqnswtrue</code> 6911, 6920 | |
| <code>\@chapter</code> 14362, 14363 | <code>\@esphack</code> 2385, 4876, 7665, 8086 | |
| <code>\@cite</code> . . 7588, 7619, 7716, 7722 | <code>\@extra@b@citeb</code> | |
| <code>\@cite@opt</code> 7717, 7723, 7727, 7737 | . . . 7496, 7499, 7516, 7521, 7541, 7589, 7611, 7627, 7634 | |
| <code>\@citea</code> . 7591, 7598, 7599, 7618, 7621, 7622 | <code>\@extra@b@info</code> . 7495, 7498, 7502 | |
| <code>\@citeb</code> . 7597, 7600, 7602, 7604, 7608, 7611, 7620, 7623, 7625, 7627, 7631, 7634 | <code>\@fifthoffive</code> . . 4111, 4541, 4859, 8401, 8520 | |
| <code>\@citebordercolor</code> . . 3557, 4017 | | |
| <code>\@citecolor</code> 3495 | | |
| <code>\@citedata@opt</code> 7718, 7724, <u>7726</u> | | |
| <code>\@citedatax</code> 7733, 7738 | | |
| <code>\@citedatax@opt</code> . . . 7730, <u>7736</u> | | |
| <code>\@citeseppen</code> 7715, 7721 | | |
| <code>\@citex</code> 7617 | | |

| | | |
|---|--|---|
| 4103, 5417, 6039, 6048, 6056, 6060, 8503, 14353 | \@inlabelfalse 7115 | \@one 1097, 2758, 2896, 4414, 4741, 9929, 9934, 10796, 11704, 13263 |
| \@harvarditem 7670, 7672 | \@inmathwarn 541, 542 | \@newctr 7928, 7929 |
| \@hyper@Canchor . . . 5022, 5023 | \@inpenCundefined@ 2223 | \@newl@bel 6126, 7498 |
| \@hyper@itemfalse . . . 6582, 6600, 6614 | \@labels 7131 | \@newlistfalse 7112 |
| \@hyper@itemtrue 6583 | \@latex@ 6163, 6164 | \@nil 293, 310, 486, 490, 495, 499, 514, 1546, 1549, 1557, 1634, 1652, 1670, 1686, 1688, 1691, 1694, 1697, 2232, 2234, 2250, 2252, 3434, 4648, 4652, 4657, 4989, 4997, 5003, 5005, 5138, 5739, 5742, 5761, 6151, 6154, 6161, 6163, 6164, 6269, 6317, 6318, 6320, 6343, 6360, 6414, 6416, 6879, 6888, 6890, 6902, 8125, 8127, 8134, 8157, 8160, 8170, 8380, 8383, 8539, 8570, 8652, 8658, 8662, 8668, 9060, 9061, 9071, 9072, 10662, 10664, 13605, 13618, 13624, 14051, 14054, 14057, 14066, 14069, 14078 |
| \@hyper@launch 4942, 4951, 9000, 10020, 10590, 11584 | \@latex@error 7366, 7455 | \@nobreakfalse 6123, 7134 |
| \@hyper@linkfile 4923, 4926, 4930, 4962 | \@latex@warning 4852, 7607, 7630, 8376, 8396, 8413, 8531 | \@nocnterr 7982, 7996 |
| \@hyper@readexternallink 4917, 4921 | \@lbibitem 7512, 7557 | \@nocounterr 7981, 7995 |
| \@hyperdef 4833, 4834 | \@linkbordercolor . . . 3559, 4012, 8924, 10419 | \@noparitemfalse 7113 |
| \@hyperpage 8138, 8139 | \@linkcolor 3493, 11244 | \@number 6687, 6766, 7805 |
| \@hyperref 4814, 4825 | \@linkdim 469, 9441, 9442, 9450, 9451, 9452, 9521, 9522, 9534, 9535, 9536, 9558, 9559, 9572, 9573, 9574, 9598, 9599, 9612, 9613, 9614, 11917, 11918, 11926, 11927, 11928, 12192, 12193, 12206, 12207, 12208 | \@nx 7985, 7999, 8002, 8004 |
| \@ifclasslater 14461, 14466 | \@listctr 7547, 7573 | \@onelevel@sanitize . . 2557, 2561, 2773, 3433, 4128, 4158, 4179, 4682, 4984, 4987, 5000, 5014, 5228, 5464, 5548, 6370, 6372, 6727, 7873, 8426, 9786, 14048 |
| \@ifclassloaded 2356, 4568, 6751, 6788, 7580, 8174, 8178, 9289, 14460, 14465 | \@m 1111, 7599, 7622, 10744 | \@oparg 7038, 7041, 7066, 7073, 7097, 7104 |
| \@ifnextchar 12, 88, 103, 123, 674, 4716, 4814, 4833, 4884, 5520, 5853, 5856, 5859, 5862, 5865, 5868, 5871, 6060, 6132, 6141, 7312, 7330, 7670, 7728, 11222, 11495, 11509, 14102, 14105 | \@mainaux 6077, 6078, 6509, 6517, 12853, 12877 | \@outlinefile 14021, 14110, 14205, 14207, 14209, 14287, 14289, 14291 |
| \@ifpackagelater 238, 984, 2387, 6742, 7993 | \@makecaption 7406, 7408, 7474 | \@pagerefstar 4566, 8442, 8473 |
| \@ifpackageloaded 500, 882, 983, 2359, 2791, 3411, 3415, 4073, 4256, 6623, 6741, 6754, 6816, 6849, 6853, 6873, 6907, 7021, 7210, 7226, 7266, 7426, 7640, 7713, 7935, 7992, 8034, 8035, 8036, 8184, 8449, 8593, 8597, 12122 | \@makefnmark 7205, 7358 | \@pagesetref 8392 |
| \@ifpackagewith 3293, 4074, 7958 | \@makefnstext 7278 | \@parboxrestore 7276, 7398, 7469 |
| \@ifstar 66, 4563, 4566, 4575, 4579, 5996, 6000, 6066, 6070, 8457, 8483, 8503 | \@makeoother 166, 167, 179, 180, 182, 183, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 4616, 8628, 14191, 14194, 14221, 14224 | \@parcount 14169, 14177 |
| \@ifundefined 34, 361, 901, 909, 925, 928, 2653, 2721, 2805, 3311, 3347, 3355, 3362, 3384, 3432, 4041, 5227, 5547, 6479, 6592, 6627, 6632, 6855, 6876, 6877, 6930, 6952, 6976, 7013, 7371, 7389, 7505, 7588, 7604, 7627, 7932, 7973, 7981, 7982, 7995, 7996, 8003, 8699, 10256, 10885, 10886, 11679, 12885, 13228, 13607, 14019 | \@makeschapterhead 14452, 14454 | \@part 14380, 14387 |
| \@indexfile 8078, 8093, 8101, 8105, 8110 | \@mem@titleref 4575 | \@pdfauthor 3727, 4020, 9168, 9647, 10131, 10858, 11123, 11981 |
| | \@mem@titleref@nolink 4575 | \@pdfborder 3376, 3572, 3573, 3574, 3581, 3585, 3608, 3610, 4509, 8854, 9804, 10417, 10989, 11084, 11487, 11499, |
| | \@menubordercolor . . 3560, 4014, 9345, 9347, 10095, 10097, 10627, 10629 | |
| | \@menucolor . . 3498, 9360, 10101, 10633 | |
| | \@minipagefalse 7111 | |
| | \@mkboth 648, 8297, 14353, 14441, 14443 | |
| | \@mpfn 7146, 7331, 7343 | |
| | \@mpfootnotetext . . . 7149, 7162, 7163, 7215 | |
| | \@mycount 14167, 14177 | |
| | \@namedef 1228, 2501, 2815, 2816, 2817, 2818, 2819, 2820, 2821, 2822, 3302, 3314, 5238, 5239, 5240, 5241, 5563, 5564, 6752, 6964, 6967, 7645, 7646, 7647, 7648 | |
| | \@namerefstar 4579, 8445 | |
| | \@nameuse 2373, 2812, 5244, 5555 | |

11514, 11535, 11563, 11594,
 11623, 11710, 11798, 11958
 \@pdfborderstyle . . . 3377, 3589,
 3590, 3591, 3600, 3604,
 3612, 3614, 4510, 5710,
 8855, 9805, 10418, 10990,
 11085, 11488, 11500, 11515,
 11536, 11564, 11595, 11624,
 11711, 11799, 11959
 \@pdfcreationdate
 . . 3744, 4023, 9172, 9174,
 9639, 9641, 10123, 10125,
 11098, 11100, 11973, 11975
 \@pdfcreator . 3739, 4022, 9171,
 9638, 10122, 10861, 11122,
 11972
 \@pdfdirection 9131, 9703, 10164,
 10829, 11177, 12030
 \@pdfduplex . 9137, 9709, 10170,
 10835, 11183, 12036
 \@pdfhighlight
 . . 3564, 4018, 8874, 8876,
 8935, 8971, 8973, 9008,
 9010, 9341, 9343, 10988,
 11083, 11486, 11534, 11562,
 11593
 \@pdfhighlight 8933
 \@pdfkeywords 3763, 4026, 9184,
 9636, 10136, 10866, 11124,
 11970
 \@pdflang 4004, 4033, 9157, 9159,
 9731, 9733, 10204, 10206,
 11207, 11209, 12060, 12062
 \@pdfm@dest . . 9748, 9807, 9811
 \@pdfm@mark 6497, 9747, 9799,
 9819, 9833, 9835, 9849,
 9851, 9856, 9857, 9887,
 9911, 9913, 9918, 9936,
 9959, 9991, 10025, 10056,
 10084, 10118, 10185, 10212,
 13231, 13232, 13233, 13252,
 13295, 13301, 13390, 13404,
 13419, 13425, 13450, 13457,
 13475, 13481, 13503, 13509,
 13532, 13538, 13543, 13575,
 13583, 14258
 \@pdfmoddate
 . . 3750, 4024, 9176, 9178,
 9643, 9645, 10127, 10129,
 11102, 11106, 11977, 11979
 \@pdfnonfullscreenpagemode . . .
 . 9130, 9702, 10163, 10828,
 11176, 12029
 \@pdfnumcopies 9146, 9148, 9718,
 9720, 10179, 10181, 10844,
 10846, 11192, 11194, 12045,
 12047
 \@pdfpageduration . 3511, 9228,
 9232, 9237, 10229, 10231,
 10234, 10753, 10755, 10758,
 11028, 11030, 11038
 \@pdfpagelayout . . . 9156, 9730,
 10203, 10849, 10851, 11206,
 12059
 \@pdfpagemode 4244, 4245, 4439,
 4440, 4449, 4450, 9110,
 9686, 10198, 10816, 11160,
 12013
 \@pdfpagescrop 3958, 4028, 9095,
 9099, 9669, 9670, 9691,
 9693, 10210, 10212, 10805,
 10807, 11165, 11167, 12018,
 12020
 \@pdfpagetransition . 3507, 9204,
 9208, 9213, 10218, 10220,
 10223, 10642, 10644, 10646,
 11011, 11013, 11021
 \@pdfpicktraybypdfsize
 . . 9138, 9140, 9710, 9712,
 10171, 10173, 10836, 10838,
 11184, 11186, 12037, 12039
 \@pdfprintarea 9134, 9706, 10167,
 10832, 11180, 12033
 \@pdfprintclip 9135, 9707, 10168,
 10833, 11181, 12034
 \@pdfprintpagerange
 . . 3679, 4032, 9142, 9144,
 9714, 9716, 10175, 10177,
 10840, 10842, 11188, 11190,
 12041, 12043
 \@pdfprintscaling . . 9136, 9708,
 10169, 10834, 11182, 12035
 \@pdfproducer 3733, 4021, 9036,
 9180, 9182, 9629, 9630,
 9648, 9650, 10107, 10108,
 10112, 10132, 10134, 10773,
 10774, 10778, 10781, 10782,
 10862, 10864, 11109, 11113,
 11620, 11621, 11703, 11705,
 11707, 11795, 11796, 11963,
 11964, 11982, 11984
 \@pdfremotestartview
 . . 3930, 3932, 3933, 3934,
 3945, 3949, 3951, 3952,
 3954, 4030, 8988, 10006,
 11574
 \@pdfstartpage
 . . 3913, 3915, 4031, 9116,
 9120, 9673, 9678, 10187,
 10191, 10809, 10813, 11147,
 11152, 12000, 12005
 \@pdfstartview
 . . 3920, 3922, 4029, 9118,
 9120, 9675, 9679, 10189,
 10191, 10811, 11149, 11153,
 12002, 12006
 \@pdfsubject . 3757, 4025, 9170,
 9652, 10121, 10860, 11121,
 11986
 \@pdftempa . . . 4928, 4929, 4932
 \@pdftempwordfile . 4919, 4929
 \@pdftempwordrun . 4920, 4932
 \@pdftitle 3721, 4019, 9169, 9637,
 10120, 10859, 11120, 11971
 \@pdftrapped 3768, 3771, 3774,
 3783, 3792, 4027, 9185,
 9187, 10137, 10139, 11125
 \@pdfview . . . 3894, 8836, 8844,
 9754, 9758, 9762, 9766,
 9770, 9774, 9775, 9778,
 9779, 9782, 9786, 9788,
 9803, 10416, 10426, 10438,
 10926, 10946, 11625, 11712,
 11800, 12072
 \@pdfviewarea 9132, 9704, 10165,
 10830, 11178, 12031
 \@pdfviewclip 9133, 9705, 10166,
 10831, 11179, 12032
 \@pdfviewparams . . 3896, 3898,
 10926, 10946, 11626, 11713,
 11801, 12073
 \@percentchar 4611, 4612, 4664,
 14025
 \@processme . 5596, 5597, 9210,
 9216, 9234, 9240, 9256,
 9262, 11225, 11226, 11337,
 11338, 11341, 11342
 \@protected@testopt 677
 \@protected@testopt@xargs . 678
 \@refstar 4563, 8439
 \@runbordercolor . . 3561, 4016,
 9012, 9014, 10031, 10033,
 10609, 10611, 11597
 \@runcolor . . . 3499, 9032, 10047,
 10615
 \@safe@activesfalse . . 630, 4543
 \@safe@activetrue . . . 629, 4542
 \@savsf 8839, 8847
 \@schapter 14350, 14351
 \@secondoffive 4112, 4538, 4551,
 8402, 8403, 8443
 \@secondoftwo 617, 620,
 920, 1093, 1620, 1760, 4111,
 4112, 14406
 \@sect 14401, 14402
 \@seqncr 6965
 \@serial@counter . 14117, 14165,
 14167, 14168
 \@seteqlabel 7959, 7960
 \@setminipage 7400, 7471

| | | |
|---|---|---|
| <code>\@setref</code> . 4546, 4551, 8371, 8372, 8409 | <code>\@topsep</code> 7035, 7061, 7092 | 14873, 14912, 14931, 14952, |
| <code>\@sharp</code> 6879, 6885 | <code>\@topsepadd</code> . . 7036, 7062, 7093 | 15075, 15091, 15099, 15111, |
| <code>\@skiphyperreffalse</code> . 6601, 7527, 7539 | <code>\@typeset@protect</code> 14322 | 15125, 15139, 15155, 15163, |
| <code>\@skiphyperreftrue</code> . 7513, 7539 | <code>\@undefined</code> 374, 377, 683, 3284, 6050, 6085, 6098, 6110, 6332, 6350, 6395, 7365, 7428, 7440, 7445, 7454, 8434, 8827, 9040, 9049, 10389, 10784, 10798 | 15164, 15179, 15193, 15510, 15512, 15758, 15786, 15923, 15951, 16354, 16356, 16404, 16406, 16765, 16770, 16775, 16780, 16785, 16790, 16795, 16800, 16805, 16810, 16815, 16820, 16825, 16830, 16835, 16840, 16845, 16850, 16855, 16860, 16865, 16870, 16875, 16880 |
| <code>\@spaces</code> 270 | <code>\@undottedtocline</code> 8361 | <code>\l</code> 188, 213, 324, 1969, 2062, 2103, 3073, 4056, 8038, 8627, 8637 |
| <code>\@spart</code> 14393, 14394 | <code>\@unprocessedoptions</code> 4389 | <code>\~</code> 551, 1266, 2211, 3185, 3193, 3194, 3195, 4172, 4624, 14480, 14492, 14504, 14712, 14741, 14749, 14777, 14809, 14817, 14879, 14915, 14934, 14955, 15081, 15109, 15117, 15145, 15177, 15185, 15287, 15289, 15290, 15420, 15422, 16350, 16352, 16400, 16402, 16408, 16410, 16767, 16772, 16777, 16782, 16787, 16792, 16797, 16802, 16807, 16812, 16817, 16822, 16827, 16832, 16837, 16842, 16847, 16852, 16857, 16862, 16867, 16872, 16877, 16882 |
| <code>\@ssect</code> 14336, 14337 | <code>\@urlbordercolor</code> 3562, 4013, 8937, 8939, 10062, 10064, 10541, 10543, 11537 | Numbers |
| <code>\@startlos</code> 8309, 8316, 8365 | <code>\@urlcolor</code> 3497, 8956, 9446, 9459, 9566, 9583, 10076, 10547, 11922, 11935, 12201, 12214 | <code>\3</code> . 528, 1310, 1311, 1312, 1313, 1314, 1315, 1316, 1317, 1426, 1427, 1428, 1429, 1430, 1431, 1432, 1433, 2325, 14186, 14706, 14708, 14710, 14712, 14714, 14716, 14718, 14720, 14722, 14724, 14726, 14728, 14730, 14732, 14734, 14736, 14738, 14739, 14741, 14743, 14745, 14747, 14749, 14751, 14753, 14755, 14757, 14759, 14761, 14763, 14765, 14767, 14769, 14771, 14773, 14775, 14777, 14779, 14781, 14783, 14785, 14787, 14789, 14791, 14793, 14795, 14796, 14798, 14799, 14801, 14802, 14804, 14805, 14807, 14809, 14811, 14813, 14815, 14817, 14819, 14821, 14823, 14825, 14827, 14829, 14831, 14833, 14835, 14837, 14838, 14911, 15075, 15077, 15079, 15081, 15083, 15085, 15087, |
| <code>\@starttoc</code> 6111 | <code>\@xsf</code> . . 7198, 7207, 7357, 7359 | |
| <code>\@tempa</code> 7037, 7038, 7041, 7043, 7065, 7072, 7076, 7096, 7103, 7107, 7228, 7232, 7235, 7247 | <code>\@xfootnote</code> 7330 | |
| <code>\@tempb</code> 6993, 6997 | <code>\@xfootnotemark</code> . . . 7155, 7348 | |
| <code>\@tempboxa</code> . 9439, 9441, 9450, 9519, 9521, 9524, 9525, 9534, 9540, 9541, 9556, 9558, 9561, 9562, 9572, 9578, 9579, 9596, 9598, 9601, 9602, 9612, 9618, 9619, 11915, 11917, 11926, 12190, 12192, 12206 | <code>\@xfootnotenext</code> . . . 7144, 7341 | |
| <code>\@tempcnta</code> 13974, 13975, 13976, 13977, 13978, 13980, 13983, 13984, 13985, 13991, 13993, 13995, 14086, 14087, 14088, 14091, 14092, 14093, 14094, 14095, 14309, 14310, 14311 | <code>\@xp</code> . . . 7949, 7984, 7985, 7998, 7999, 8001, 8002 | |
| <code>\@tempdim</code> 2437, 5893, 5894, 5895, 5896, 5897, 5898, 5899, 5900, 8829, 12490, 12495, 12497, 12533, 12534, 12535, 12539, 12540, 12541, 12542, 12972, 12977, 12979, 13016, 13017, 13018, 13022, 13023, 13024, 13025, 13313, 13318, 13320, 13357, 13358, 13359, 13363, 13364, 13365, 13366 | <code>\l</code> 192, 217, 320, 3578, 3596, 4783 | |
| <code>\@tempdimb</code> 12494, 12495, 12976, 12977, 13317, 13318 | <code>\{</code> . . 328, 350, 544, 2063, 10917, 14043 | |
| <code>\@tempswafalse</code> 7732 | <code>\}</code> . . 329, 355, 545, 2064, 10917, 14044 | |
| <code>\@tempswatrue</code> 7702, 7705, 7708, 7729 | <code>\]</code> 193, 218 | |
| <code>\@temptokena</code> 3280, 3285, 3288, 3290 | <code>\^</code> 186, 211, 318, 2161, 2162, 3191, 4599, 4600, 4608, 14479, 14491, 14503, 14710, 14726, 14734, 14747, 14761, 14775, 14791, 14801, 14802, 14815, 14829, 14877, 14914, 14933, 14954, 15079, 15095, 15103, 15115, 15129, 15143, 15159, 15169, 15170, 15183, 15197, 15223, 15225, 15263, 15265, 15279, 15281, 15315, 15317, 15318, 15396, 15398, 15444, 15446, 15448, 15450, 16382, 16384 | |
| <code>\@tfor</code> 6994 | <code>_</code> 187, 212, 552, 4603, 4620, 4621 | |
| <code>\@the@H@page</code> 7772, 7808, 7810, 7811 | <code>\'</code> 166, 172, 179, 182, 3127, 3261, 3264, 3266, 3274, 14042, 14477, 14489, 14501, 14706, 14722, 14730, 14743, 14757, 14771, 14787, 14795, 14796, 14811, 14825, | |
| <code>\@thefnmark</code> 7147, 7158, 7239, 7277, 7294, 7301, 7332, 7344, 7351 | | |
| <code>\@thirdoffive</code> 4539, 8446 | | |
| <code>\@thm</code> 7045, 7046, 7079 | | |
| <code>\@topnewpage</code> 14452 | | |

15089, 15091, 15093, 15095,
 15097, 15099, 15101, 15103,
 15105, 15107, 15109, 15111,
 15113, 15115, 15117, 15119,
 15121, 15123, 15125, 15127,
 15129, 15131, 15133, 15135,
 15137, 15139, 15141, 15143,
 15145, 15147, 15149, 15151,
 15153, 15155, 15157, 15159,
 15161, 15163, 15164, 15166,
 15167, 15169, 15170, 15172,
 15173, 15175, 15177, 15179,
 15181, 15183, 15185, 15187,
 15189, 15191, 15193, 15195,
 15197, 15199, 15201, 15203,
 15205, 15470, 15472, 15474,
 15476, 15477, 15479, 15481,
 15483, 15485, 15487, 15489,
 15491, 15493, 15495, 15497,
 15499, 15501, 15503, 15504,
 15506, 15508, 15510, 15512,
 15514, 15516, 15518, 15520,
 15569, 15571, 15573, 15575,
 15577, 15579, 15581, 15584,
 15586, 15711, 15713, 15715,
 15717, 15719, 15721, 15723,
 15725, 15727, 15729, 15731,
 15733, 15735, 15737, 15738,
 15740, 15742, 15744, 15746,
 15748, 15750, 15752, 15754,
 15756, 16142, 16144, 16146,
 16148, 16150, 16152, 16154,
 16156, 16158, 16160, 16162,
 16164, 16166, 16168, 16170,
 16172, 16174, 16176, 16178,
 16180, 16182, 16184, 16186,
 16188, 16190, 16192, 16194,
 16196, 16198, 16200, 16202,
 16204, 16206, 16208, 16210,
 16212, 16214, 16216, 16218,
 16220, 16222, 16224, 16226,
 16228, 16230, 16232, 16234,
 16236, 16238, 16240, 16242,
 16244, 16246, 16248, 16250,
 16252, 16254, 16404, 16406,
 16408, 16410, 16630, 16632,
 16634, 16636, 16638, 16640,
 16642, 16644, 16646, 16648,
 16650, 16652, 16654, 16656,
 16658, 16660, 16662, 16664,
 16666, 16668, 16670, 16672,
 16674, 16676, 16678, 16680,
 16682, 16684, 16686, 16688,
 16690, 16692, 16694, 16696,
 16698, 16700, 16702, 16704,
 16706, 16708, 16710, 16712,
 16714, 16716, 16718, 16726,

\9

16728, 16750, 16752, 16753,
 16757, 16759, 16760, 16763,
 16765, 16767, 16778, 16780,
 16784, 16785, 16786, 16787,
 16788, 16789, 16790, 16791,
 16793, 16794, 16795, 16796,
 16797, 16798, 16799, 16800,
 16801, 16802, 16803, 16804,
 16805, 16806, 16807, 16808,
 16809, 16810, 16811, 16813,
 16814, 16815, 16816, 16817,
 16818, 16819, 16820, 16821,
 16822, 16823, 16825, 16827,
 16838, 16840, 16844, 16845,
 16846, 16847, 16848, 16849,
 16850, 16851, 16853, 16854,
 16855, 16856, 16857, 16858,
 16859, 16860, 16861, 16862,
 16863, 16864, 16865, 16866,
 16867, 16868, 16869, 16870,
 16871, 16873, 16874, 16875,
 16876, 16877, 16878, 16879,
 16880, 16881, 16882, 16935,
 16937
 531, 1330, 1333, 1364,
 2253, 2268, 2277, 2305,
 2325, 14911, 16256, 16258,
 16260, 16262, 16264, 16266,
 16268, 16270, 16272, 16274,
 16276, 16278, 16280, 16282,
 16284, 16286, 16288, 16290,
 16292, 16294, 16296, 16298,
 16300, 16302, 16304, 16306,
 16308, 16310, 16312, 16314,
 16316, 16318, 16320, 16322,
 16324, 16326, 16328, 16330,
 16332, 16334, 16336, 16338,
 16340, 16342, 16344, 16346,
 16348, 16350, 16352, 16354,
 16356, 16358, 16360, 16362,
 16364, 16366, 16368, 16370,
 16372, 16374, 16376, 16378,
 16380, 16382, 16384, 16386,
 16388, 16390, 16392, 16394,
 16396, 16398, 16400, 16402,
 16404, 16406, 16408, 16410,
 16412, 16414, 16416, 16418,
 16420, 16422, 16424, 16426,
 16428, 16430, 16432, 16434,
 16436, 16438, 16440, 16442,
 16444, 16446, 16448, 16450,
 16452, 16454, 16456, 16458,
 16460, 16462, 16464, 16466,
 16468, 16470, 16472, 16474,
 16476, 16478, 16480, 16482,
 16484, 16486, 16488, 16490,
 16492, 16494, 16496, 16498,

\sq

16500, 16502, 16504, 16506,
 16508, 16510, 16512, 16514,
 16516, 16518, 16520, 16522,
 16524, 16526, 16528, 16530,
 16532, 16534, 16536, 16538,
 16540, 16542, 16544, 16546,
 16548, 16550, 16552, 16554,
 16556, 16558, 16560, 16562,
 16564, 16566, 16568, 16570,
 16572, 16574, 16576, 16578,
 16580, 16582, 16584, 16586,
 16588, 16590, 16592, 16594,
 16596, 16598, 16600, 16602,
 16604, 16606, 16608, 16610,
 16612, 16614, 16616, 16618,
 16620, 16622, 16624, 16626,
 16628, 16630, 16632, 16634,
 16636, 16638, 16640, 16642,
 16644, 16646, 16648, 16650,
 16652, 16654, 16656, 16658,
 16660, 16662, 16664, 16666,
 16668, 16670, 16672, 16674,
 16676, 16678, 16680, 16682,
 16684, 16686, 16688, 16690,
 16692, 16694, 16696, 16698,
 16700, 16702, 16704, 16706,
 16708, 16710, 16712, 16714,
 16716, 16718, 16720, 16722,
 16724, 16726, 16728, 16730,
 16732, 16764, 16766, 16768,
 16769, 16770, 16771, 16772,
 16773, 16774, 16775, 16776,
 16777, 16779, 16781, 16782,
 16783, 16784, 16785, 16786,
 16787, 16789, 16791, 16794,
 16796, 16798, 16799, 16800,
 16801, 16802, 16803, 16804,
 16805, 16806, 16807, 16809,
 16811, 16813, 16814, 16815,
 16816, 16817, 16819, 16820,
 16821, 16822, 16824, 16826,
 16828, 16829, 16830, 16831,
 16832, 16833, 16834, 16835,
 16836, 16837, 16839, 16841,
 16842, 16843, 16844, 16845,
 16846, 16847, 16849, 16851,
 16854, 16856, 16858, 16859,
 16860, 16861, 16862, 16863,
 16864, 16865, 16866, 16867,
 16869, 16871, 16873, 16874,
 16875, 16876, 16877, 16879,
 16880, 16881, 16882, 16936
 331,
 662, 3208, 3211, 3926, 7599,
 7622, 14501, 14502, 14503,
 14504, 14505, 14506, 14507,

14508, 14509, 14510, 14511,
14512, 14931, 14932, 14933,
14934, 14935, 14936, 14937,
14938, 14939, 14940, 14941,
14942, 14943, 14944, 14945,
14946, 14947, 14948, 14949

A

\ABREVE . 16756, 16828, 16829,
16830, 16831, 16832
\abreve ... 16749, 16768, 16769,
16770, 16771, 16772
\AccFancyVerbLineautorefname .
..... 3235
\Accfootnoteautorefname .. 3215
\Acctheoremautorefname .. 3239
\ACIRCUMFLEX 16757, 16833,
16834, 16835, 16836, 16837
\acircumflex 3266, 16750, 16773,
16774, 16775, 16776, 16777
\Acrobatmenu 2408, 4108, 6047,
9335, 10081, 10620, 11481
\active .. 1244, 1251, 4600, 4601,
4602, 4603, 4604, 4605,
4608, 4610, 4613, 4621,
14190, 14220
\add@accent 543
\addcontentsline ... 7394, 7465,
7841, 7846, 7917, 14457
\addtocontents 7886, 7918, 8192,
8244, 14445, 14446
\addtocounter 6763, 6786, 6795,
6806, 6810, 7015, 9938
\addvspace 14445, 14446
\adl@LT@array 6877
\advance 467,
468, 1265, 4749, 5088, 5416,
5462, 5894, 5895, 5898,
5899, 6242, 6250, 6287,
7744, 7754, 7757, 7771,
9085, 9451, 9535, 9573,
9613, 10780, 11927, 12207,
12497, 12540, 12541, 12979,
13023, 13024, 13263, 13320,
13364, 13365, 13975, 13977,
13978, 13984, 13993, 14094,
14310
\AE 14718, 15087, 15514
\ae 14783, 15151, 15516
\afterassignment ... 1858, 1864,
1870, 5671
\AfterBeginDocument . 361, 375
\aftergroup 7281
\alef 16891
\alefhamza 16887
\aleflowerhamza 16889
\alefmadda 16886
\alefmaqsurah 16920

\Alph 6336, 6656, 6657
\alph 6337, 6986, 7017
\AMSautorefname 8602
\anchor@spot . 5027, 5040, 5047,
5053, 5055, 8894, 9392,
9487, 10357, 10429, 10923,
11269, 11272, 11864, 12144
\appendix 6653, 6654
\appendixautorefname
.. 3083, 3101, 3119, 3137,
3155, 3173, 3191, 3223,
3224, 3249, 3267, 8612
\arabic . 6333, 6557, 6560, 6563,
6564, 6565, 6567, 6568,
6569, 6570, 6572, 6573,
6574, 6575, 6576, 6577,
6580, 6590, 6591, 6633,
6770, 7926, 7932, 7980,
7994, 8180, 8185, 8187
\AtBeginDocument .. 362, 6083,
6867, 12236
\AtBeginShipout 6195, 9371, 9884
\AtBeginShipoutBox 6199, 6202,
9366, 9367, 9885, 9886
\AtBeginShipoutFirst ... 6206,
10253, 11676, 11791
\AtEndDocument 6097
\AtEndOfPackage 372
\AtVeryEndDocument ... 6435,
12894
\author 6131, 6141
\autopageref 4243, 8482
\autoref . 652, 4242, 8501, 12231
\ayn 16909

B

\b . 883, 887, 893, 14487, 14499,
14511, 14903, 14926, 14945,
16262, 16264, 16270, 16272,
16302, 16304, 16306, 16308,
16322, 16324, 16338, 16340,
16346, 16348, 16386, 16388,
16390
\baa 16892
\back@none ... 3018, 3028, 3041
\back@page 3020, 3033
\back@section 3019, 3025, 3031,
3037
\back@slide 3021, 3030
\backcite 7659
\backref 7690, 12235
\baselineskip . 2411, 5907, 5908,
5909, 5910, 5911, 5912,
9506, 10942, 10974, 11659
\bbl@cite@choice 7506
\BeforeTeXIVht 2857
\begin 615, 12256, 16941

\belowpdfbookmark 14090
\bfseries . 593, 7605, 7628, 8375,
8395, 8412, 8530
\bgroup .. 671, 4716, 7268, 7280,
8801, 9902, 10357, 10963,
12697, 12789, 12810
\biblecite . 7497, 7503, 7507, 7532,
7547, 7563, 7573
\bitsetGetDec 5140, 5273, 5291,
5305, 5318, 5334, 5366, 5391
\bitsetGetHex 5141
\bitsetGetSetBitList 5129
\bitsetIsEmpty 5270, 5288, 5302,
5315, 5331, 5363, 5388
\bitsetReset .. 5243, 5277, 5296,
5310, 5323, 5339, 5371
\bitsetSetValue 5109, 5119
\BOOKMARK ... 14022, 14101
\booknumberline .. 14005, 14010
\box ... 5901, 6202, 8815, 9916,
11316, 11319
\bullet .. 8327, 8335, 8345, 8353

C

\C 14897, 16002, 16004
\c 884, 888,
894, 3185, 3193, 3194, 3195,
6154, 6161, 14485, 14497,
14509, 14720, 14785, 14905,
14920, 14939, 14950, 15089,
15153, 15275, 15277, 15320,
15322, 15330, 15332, 15350,
15352, 15384, 15386, 15400,
15402, 15408, 15410, 15555,
15557, 16057, 16060, 16274,
16276, 16294, 16296
\c@footnote .. 7157, 7230, 7238,
7350
\c@Hy@tempcnt ... 4734, 4735,
4741, 4749
\c@note 7747
\c@overlay 7747
\c@page . 6242, 6250, 6267, 6287,
6288, 6292, 6304, 6306,
6311, 6318, 6320, 6322,
6351, 7744, 7748, 7750,
7754, 7757, 7758, 7771, 7801
\c@secnumdepth . 14370, 14388,
14403
\c@slide 7747
\c@slidesection 8193, 8321, 8322
\c@slidesubsection 8245
\c@tocdepth 3425, 3430
\calc@bm@number . 14232, 14308
\calculate@pdfview . 3890, 3893
\capitalacute 14953
\capitalbreve 14960

| | | | | |
|--|-------------------------------|--|-----------------------------|--|
| <code>\capitalcaron</code> | 14959 | <code>\CJK@hundred</code> | 1513 | 3228, 3229, 3230, 3231, |
| <code>\capitalcedilla</code> | 14950 | <code>\CJK@hundredmillion</code> | 1476 | 3232, 3233, 3234, 3235, |
| <code>\capitalcircumflex</code> | 14954 | <code>\CJK@ignorespaces</code> | 1246 | 3236, 3237, 3238, 3239, 3240 |
| <code>\capitaldieresis</code> | 14956 | <code>\CJK@kern</code> | 1234 | <code>\CYRA</code> |
| <code>\capitaldotaccent</code> | 14962 | <code>\CJK@minus</code> | 1438 | 15793, 16168, 16172 |
| <code>\capitalgrave</code> | 14952 | <code>\CJK@nine</code> | 1447, 1451, 1564 | <code>\cyra</code> |
| <code>\capitalhungarumlaut</code> | 14957 | <code>\CJK@null</code> | 1540 | 3205, 3212, 3214, 3219, |
| <code>\capitalmacron</code> | 14961 | <code>\CJK@one</code> | 1446, 1448, 1563 | 3222, 3227, 3228, 3234, |
| <code>\capitalnewtie</code> | 14964 | <code>\CJK@punctchar</code> | 1249 | 3238, 15858, 16170, 16174 |
| <code>\capitalogonek</code> | 14951 | <code>\CJK@punctcharx</code> | 1250 | <code>\CYRABHCH</code> |
| <code>\capitalring</code> | 14958 | <code>\CJK@seven</code> | 1447, 1450, 1564 | 16132, 16137 |
| <code>\capitaltie</code> | 14963 | <code>\CJK@six</code> | 1447, 1450, 1564 | <code>\cyrabhch</code> |
| <code>\capitaltilde</code> | 14955 | <code>\CJK@ten</code> 1448, 1449, 1450, 1451, | 1528 | 16134, 16140 |
| <code>\caption</code> 7364, 7366, 7453, 7455 | | <code>\CJK@tentousand</code> | 1461, 1482 | <code>\CYRABHCHDSC</code> |
| <code>\catcode</code> | 172, 173, 184, | <code>\CJK@thousand</code> | 1498 | 16136 |
| | 185, 186, 187, 206, 809, 810, | <code>\CJK@three</code> | 1446, 1449, 1563 | <code>\cyrabhchdsc</code> |
| | 944, 1244, 1251, 1969, 1970, | <code>\CJK@two</code> | 1446, 1448, 1563 | 16139 |
| | 2103, 2104, 2160, 2161, | <code>\CJK@zero</code> | 1446, 1464, 1481, | <code>\CYRABHDZE</code> |
| | 2162, 4459, 4461, 4599, | | 1485, 1501, 1516, 1538 | 16200 |
| | 4600, 4601, 4602, 4603, | <code>\CJKdigits</code> | 1323 | <code>\cyrabhdze</code> |
| | 4604, 4605, 4608, 4610, | <code>\CJKkern</code> | 1235 | 16202 |
| | 4613, 4621, 4631, 4722, | <code>\CJKnumber</code> | 1322 | <code>\CYRABHHA</code> |
| | 4723, 8627, 11004, 11005, | <code>\close@pdfink</code> 8888, 8913, 8922, | | 16090 |
| | 14119, 14121, 14190, 14193, | | 8957, 8997, 9033, 9361 | <code>\cyrabhha</code> |
| | 14220, 14223 | <code>\closeout</code> | 6077, 14110 | 16092 |
| <code>\cf@encoding</code> | 1569 | <code>\clubpenalty</code> | 7134, 7136 | <code>\CYRAE</code> |
| <code>\chapterautorefname</code> 3084, 3102, | | <code>\codeof</code> | 7681 | 16176 |
| 3120, 3138, 3156, 3174, | | <code>\color@begingroup</code> | 8801, 9902 | <code>\cyrae</code> |
| 3192, 3221, 3250, 3268, 8613 | | <code>\color@endgroup</code> | 8808, 9909 | 16178 |
| <code>\chapternumberline</code> 14007, 14012 | | <code>\columnwidth</code> | 7275 | <code>\CYRB</code> |
| <code>\char</code> | 12924, 14123, 14160 | <code>\comma@entry</code> 5457, 5464, 5466 | | 15795 |
| <code>\chardef</code> | 275, | <code>\comma@parse</code> | 5456 | <code>\cyrb</code> |
| | 308, 2643, 2644, 2645, 2646, | <code>\contentsline</code> | 6086, 6087, 6099, | 3219, 15860 |
| | 2896, 2898, 4384, 4414, | | 7887, 7891, 7918, 7920 | <code>\CYRBYUS</code> |
| | 11264, 11267, 11273 | <code>\copy</code> | 8811, 9367, 9886, 9912 | 15978 |
| <code>\check@bm@number</code> | 14243, | <code>\count@</code> | 848, 850, 851, 854, 857, | <code>\cyrbyus</code> |
| 14251, 14301, 14309 | | | 860, 863, 1263, 1264, 1265, | 15980 |
| <code>\CheckBox</code> | 5858 | | 1266, 1859, 3441, 3442, | <code>\CYRC</code> |
| <code>\CheckCommand</code> | 7227 | | 3447, 3448, 5087, 5088, | 15838 |
| <code>\checkcommand</code> | | | 5103, 5399, 5414, 5416, | <code>\cycrc</code> |
| | 42, 6805, 7341, 7348, 7355, | | 5440, 5462, 5478, 9080, | 15903 |
| | 7453, 7463, 7557, 7569, | | 9081, 9082, 9083, 9084, | <code>\CYRCH</code> |
| | 7917, 7920, 7980, 8409 | | 9085, 9088, 10776, 10777, | 15840, 16240 |
| <code>\checklatex</code> | 4, 7340, 7452, 7556, | | 10778, 10779, 10780, 10783 | <code>\cyrch</code> |
| 7916, 8408 | | <code>\CurrentBorderColor</code> | | 3211, 3212, 3220, 15905, |
| <code>\checkpackage</code> | 9, 6804, 7979 | | 8878, 8880, 8907, 8909, | 16242 |
| <code>\ChoiceBox</code> | 5466 | | 8917, 8919, 8924, 10419, | <code>\CYRCHLDSC</code> |
| <code>\ChoiceMenu</code> | 5855 | | 10453, 10455, 10471, 10473, | 16160 |
| <code>\citation</code> | 7602, 7625, 7651 | | 10492, 10494, 10556, 10558, | <code>\cyrchldsc</code> |
| <code>\citeauthoryear</code> | 7717, 7723 | | 10575, 10577 | 16162 |
| <code>\citeN</code> | 7714 | <code>\currentpdfbookmark</code> | 14082 | <code>\CYRCHRDSC</code> |
| <code>\CJK@char</code> | 1247 | <code>\curu</code> | 15954 | 16120 |
| <code>\CJK@charx</code> | 1248 | <code>\cyr</code> 631, 3203, 3205, 3208, 3211, | | <code>\cyrchrdsc</code> |
| <code>\CJK@CJK</code> | 1236 | 3214, 3215, 3216, 3217, | | 16122 |
| <code>\CJK@eight</code> | 1447, 1450, 1564 | 3218, 3219, 3220, 3221, | | <code>\CYRCHVCRS</code> |
| <code>\CJK@five</code> | 1447, 1449, 1564 | 3222, 3223, 3225, 3227, | | 16124 |
| <code>\CJK@four</code> | 1446, 1449, 1563 | | | <code>\cyrchvcrs</code> |
| | | | | 16126 |
| | | | | <code>\CYRD</code> |
| | | | | 15801 |
| | | | | <code>\cyrd</code> |
| | | | | 3208, 3211, 3222, 3227, |
| | | | | 3228, 15866 |
| | | | | <code>\CYRDJE</code> |
| | | | | 15763 |
| | | | | <code>\cyrdje</code> |
| | | | | 15928 |
| | | | | <code>\CYRDZE</code> |
| | | | | 15769 |
| | | | | <code>\cyrdze</code> |
| | | | | 15934 |
| | | | | <code>\CYRDZHE</code> |
| | | | | 15791 |
| | | | | <code>\cyrdzhe</code> |
| | | | | 15956 |
| | | | | <code>\CYRE</code> |
| | | | | 15758, 15761, 15803, |
| | | | | 16180 |
| | | | | <code>\cyre</code> 3205, 3211, 3212, 3225, 3237, |
| | | | | 3238, 3239, 15868, 15923, |
| | | | | 15926, 16182 |
| | | | | <code>\cyreref</code> |
| | | | | 16226 |
| | | | | <code>\CYREREV</code> |
| | | | | 15852, 16224 |
| | | | | <code>\cyrerev</code> |
| | | | | 15917 |
| | | | | <code>\CYRERY</code> |
| | | | | 15848, 16248 |
| | | | | <code>\cyrery</code> 3203, 3205, 15913, 16250 |
| | | | | <code>\CYRF</code> |
| | | | | 15834 |
| | | | | <code>\cyrf</code> |
| | | | | 15899 |
| | | | | <code>\CYRFITA</code> |
| | | | | 15994 |
| | | | | <code>\cyrfita</code> |
| | | | | 15996 |
| | | | | <code>\CYRG</code> |
| | | | | 15765, 15799 |
| | | | | <code>\cyrg</code> |
| | | | | 3221, 15864, 15930 |

| | | | | | |
|--------------|---|----------------|---|---------------|--|
| \CYRGDSC | 16244 | \CYRL | 15816 | \CYRS | 15828, 16095 |
| \cyrgdsc | 16246 | \cyrldsc | 16152 | \cyrshwa | 16184, 16188 |
| \CYRGHCRS | 16044 | \CYRLJE | 15778 | \cyrshch | 15909 |
| \cyrghcrs | 16046 | \CYRLYUS | 15970 | \CYRSHHA | 16128 |
| \CYRGHK | 16048 | \cyrlyus | 15972 | \cyrshha | 16130 |
| \cyrghk | 16050 | \CYRM | 15818 | \CYRT | 15830 |
| \CYRGUP | 16040 | \cyrmdsc | 16164 | \cyrtdsc | 16102 |
| \cyrgup | 16042 | \CYRNDSC | 16078 | \CYRTETSE | 16116 |
| \CYRH | 15836 | \cyrndsc | 16080 | \cyrttetse | 16118 |
| \cyrh | 15901 | \CYRNG | 16082 | \cyrthousands | 16026 |
| \CYRHDSC | 16112 | \cyrng | 16084 | \CYRTSHE | 15782 |
| \cyrhdsc | 16114 | \CYRNHK | 16156 | \cyrtshe | 15947 |
| \CYRHHK | 16252 | \cyrnhk | 16158 | \CYRU | 15789, 15832, 16228, 16232, 16236 |
| \cyrhhk | 16254 | \CYRNJE | 15780 | \cyruc | 3215, 3217, 3231, 3232, 3235, 3239, 15897, 16230, 16234, 16238 |
| \CYRHRDSN | 15846 | \cyrnje | 15945 | \CYRUK | 16006 |
| \cyrhrdsn | 15911 | \CYRO | 15822, 16212 | \cyruk | 16008 |
| \CYRI | 15786, 15809, 15812, 16204, 16208 | \cyro | 3208, 3211, 3214, 3215, 3225, 3234, 3235, 3237, 3238, 3239, 15887, 16214 | \CYRUSHRT | 15788 |
| \cyri | 3205, 3208, 3212, 3218, 3223, 3225, 15874, 15877, 15951, 16206, 16210 | \CYROMEGA | 15958 | \cyrushrt | 15953 |
| \CYRIE | 15767 | \cyromega | 15960 | \CYRV | 15797 |
| \cyrrie | 15932 | \CYROMEGARND | 16010 | \cyrv | 3203, 3205, 15862 |
| \CYRII | 15771, 15774 | \cyromegarnd | 16012 | \CYRY | 16104 |
| \cyrri | 15936, 15939 | \CYROMEGATITLO | 16014 | \cyry | 16106 |
| \CYRIOTBYUS | 15982 | \cyromegatitlo | 16016 | \CYRYA | 15856 |
| \cyrriotbyus | 15984 | \CYROT | 16018 | \cyrya | 15921 |
| \CYRIOTE | 15966 | \cyrot | 16020 | \CYRYAT | 15962 |
| \cyrriote | 15968 | \CYROTLD | 16216, 16220 | \cyr yat | 15964 |
| \CYRIOTLYUS | 15974 | \cyrotld | 16218, 16222 | \CYRYHCRS | 16108 |
| \cyrriotlyus | 15976 | \CYRP | 15824 | \cyr yhcrs | 16110 |
| \CYRISHRT | 15811 | \cyrp | 3208, 3211, 3212, 3216, 3217, 3223, 3225, 3229, 3230, 3231, 3232, 15889 | \CYRYI | 15773 |
| \cyrishrt | 15876 | \CYRPALOCKHA | 16142 | \cyryi | 15938 |
| \CYRISHRTDSC | 16028 | \CYRPHK | 16086 | \CYRYO | 15760 |
| \cyrishrtdsc | 16030 | \cyrphk | 16088 | \cyryo | 15925 |
| \CYRIZH | 15998, 16002 | \CYRPSI | 15990 | \CYRYU | 15854 |
| \cyrizh | 16000, 16004 | \cyrpsi | 15992 | \cyryu | 15919 |
| \CYRJE | 15776 | \CYRR | 15826 | \CYRZ | 15807, 16057, 16196 |
| \cyrje | 15941 | \cyrr | 3203, 3205, 3208, 3211, 3212, 3218, 3222, 3223, 3225, 3227, 3228, 3233, 3234, 3235, 3236, 3237, 3238, 3239, 15891 | | |
| \CYRK | 15784, 15814 | \CYRRTICK | 16036 | | |
| \cyrk | 3214, 3215, 3217, 3231, 3232, 3234, 3235, 3236, 15879, 15949 | \cyr rtick | 16038 | | |
| \CYRKBEAK | 16074 | | | | |
| \cyrkbeak | 16076 | | | | |
| \CYRKDSC | 16062 | | | | |
| \cyrkdsc | 16064 | | | | |
| \CYRKHCRS | 16070 | | | | |
| \cyrkhcrs | 16072 | | | | |
| \CYRKHK | 16148 | | | | |
| \cyrkhk | 16150 | | | | |
| \CYRKOPPA | 16022 | | | | |
| \cyrkoppa | 16024 | | | | |
| \CYRKSI | 15986 | | | | |
| \cyrksi | 15988 | | | | |
| \CYRKVCRS | 16066 | | | | |
| \cyrkvcrs | 16068 | | | | |

| | | | | | |
|---|--|--|---|--|---|
| <code>\cyrz</code> | 3222, 3227, 3228, 15872, 16060, 16198 | <code>\DefaultHeightofCheckBox</code> | 5907, 12647, 13149, 13518 | 3911, 3918, 3928, 3958, 3959, 3962, 3965, 3968, 3971, 3974, 3977, 3980, 4003, 4006, 4009, 4730, 4759, 4765, 4777, 5081, 5169, 5225, 5527, 5532, 5545, 5573, 5615, 5618, 5621, 5625, 5628, 5632, 5635, 5639, 5643, 5647, 5650, 5654, 5657, 5660, 5663, 5666, 5703, 5719, 5722, 5725, 5728, 5731, 5734, 5764, 5767, 5770, 5773, 5792, 5798, 5813, 5819, 5836, 5841, 5847, 6448, 6459, 11348, 11350, 11353, 11355, 11357, 11366, 11374, 11381, 11383, 11385, 11387, 11389, 11391, 11400, 11410, 11412, 11414, 11415, 11421, 11430, 11432, 11434, 11436, 11438, 11440, 11442, 11444, 11446, 11448, 11450, 11452, 11454, 11456, 11458, 11460, 11461, 11462, 11463, 11464, 11465, 11466, 11467, 11468, 11469, 11470, 11471 | |
| <code>\CYRZDSC</code> | 16056 | <code>\DefaultHeightofChoiceMenu</code> | 5909, 12487, 12969, 13310 | <code>\df@tag</code> | 7941, 7947 |
| <code>\cyrzdsc</code> | 16059 | <code>\DefaultHeightofReset</code> | 5905, 12621, 13122, 13486 | <code>\DH</code> | 14738, 15107 |
| <code>\CYRZH</code> | 15805, 16144, 16192 | <code>\DefaultHeightofSubmit</code> | 5903, 12604, 13100, 13463 | <code>\dh</code> | 14807, 15175 |
| <code>\cyrzh</code> | 3205, 3225, 15870, 16146, 16194 | <code>\DefaultHeightofText</code> | 5911, 12463, 12944, 13277 | <code>\dhal</code> | 16900 |
| <code>\CYRZHDSC</code> | 16052 | <code>\DefaultHeightofTextMultiline</code> | 5912, 12461, 12942, 13275 | <code>\dimen@</code> | 506, 507, 511, 1865, 1933, 1934, 1937, 1939, 4042, 4043, 4045, 4052, 4053, 5672, 5681, 5684, 5697, 10743, 10744, 10746, 11306, 11321, 11324 |
| <code>\cyrzhdsc</code> | 16054 | <code>\DefaultOptionsofCheckBox</code> | 5917, 12649, 13151, 13520 | <code>\dimexpr</code> | 518, 2229, 2231, 2239, 2244, 2247, 2249, 2263, 2265, 2268, 2269, 2276, 2279, 2282, 2283, 2284, 2285, 2295, 2300, 2308, 2312, 2317, 2327, 2330, 2335, 2338, 2343, 2344, 5697 |
| D | | <code>\DefaultOptionsofComboBox</code> | 5920 | <code>\ding</code> | 5739, 5742 |
| <code>\d</code> | 885, 889, 895, 3263, 3267, 3269, 3270, 3271, 3272, 3273, 3275, 14488, 14500, 14512, 14901, 14927, 14946, 16764, 16769, 16774, 16779, 16784, 16789, 16794, 16799, 16804, 16809, 16814, 16819, 16824, 16829, 16834, 16839, 16844, 16849, 16854, 16859, 16864, 16869, 16874, 16879 | <code>\DefaultOptionsofListBox</code> | 5919 | <code>\DingObject</code> | 13047 |
| <code>\dad</code> | 16906 | <code>\DefaultOptionsofPopdownBox</code> | 5921 | <code>\discretionary</code> | 673 |
| <code>\dal</code> | 16899 | <code>\DefaultOptionsofPushButton</code> | 5916, 12579, 13073, 13431 | <code>\divide</code> | 9081, 10777 |
| <code>\damma</code> | 16926 | <code>\DefaultOptionsofRadio</code> | 5922 | <code>\DJ</code> | 3275, 14739, 15239, 16758 |
| <code>\declare@shorthand</code> | 998, 999, 1004, 1005, 1010, 1020, 1021, 1022, 1027, 1028, 1033, 1034, 1039, 1044, 1045, 1050, 1055, 1056, 1057, 1058, 1059, 1060, 1065, 1066, 1071, 1072, 1077, 1078 | <code>\DefaultOptionsofReset</code> | 5915, 12624, 13125, 13489 | <code>\dj</code> | 3272, 3273, 15241, 16751 |
| <code>\DeclareFontEncoding</code> | 14476, 14871 | <code>\DefaultOptionsofSubmit</code> | 5914, 12607, 13103, 13466 | <code>\do</code> | 1264, 2559, 2564, 2569, 3534, 3566, 3567, 3568, 3569, 3618, 3619, 3620, 3621, 3622, 3623, 3626, 3627, 3628, 3629, 3630, 3631, 3634, 3635, 3638, 3639, 3640, 3641, 3642, 3645, |
| <code>\DeclareFontFamily</code> | 905, 913, 2725 | <code>\DefaultOptionsofText</code> | 5918, 12468, 12949, 13282 | | |
| <code>\DeclareFontShape</code> | 906, 914, 2726 | <code>\DefaultWidthofCheckBox</code> | 5908, 12646, 13148, 13517 | | |
| <code>\DeclareFontSubstitution</code> | 907, 915, 2727 | <code>\DefaultWidthofChoiceMenu</code> | 5910, 12486, 12968, 13309 | | |
| <code>\DeclareLocalOptions</code> | 4070 | <code>\DefaultWidthofReset</code> | 5906, 12620, 13121, 13485 | | |
| <code>\DeclareRobustCommand</code> | 4562, 4565, 4574, 4578, 4713, 4800, 4802, 4804, 4813, 5852, 5855, 5858, 5861, 5864, 5867, 5870, 5995, 5999, 6065, 6069, 8456, 8482, 8501, 14326 | <code>\DefaultWidthofSubmit</code> | 5904, 12603, 13099, 13462 | | |
| <code>\DeclareTextAccent</code> | 14477, 14478, 14479, 14480, 14481, 14482, 14483, 14484, 14485, 14486, 14487, 14488 | <code>\DefaultWidthofText</code> | 5913, 12458, 12939, 13272 | | |
| <code>\DeclareVoidOption</code> | 2854, 2868, 2878, 2883, 2888, 2901, 2911, 2916, 2921, 2927, 2956, 2973, 2980, 2985, 2990, 2995, 3344, 3352, 3360, 3370 | <code>\define@key</code> | 2542, 2544, 2587, 2602, 2605, 2608, 2616, 2619, 2629, 2632, 2635, 2652, 2664, 2666, 2669, 2672, 2689, 2693, 2696, 2699, 2702, 2705, 2708, 2711, 2746, 2804, 2893, 3001, 3012, 3015, 3022, 3051, 3070, 3073, 3310, 3367, 3379, 3394, 3419, 3422, 3426, 3454, 3459, 3463, 3466, 3473, 3485, 3492, 3502, 3505, 3508, 3512, 3527, 3536, 3546, 3553, 3564, 3571, 3588, 3678, 3687, 3717, 3723, 3729, 3735, 3741, 3747, 3753, 3759, 3765, 3798, 3805, 3839, 3890, 3891, | | |

3646, 3647, 3648, 3649,
 3652, 3653, 3654, 3655,
 3656, 3659, 3660, 3661,
 3662, 3663, 3666, 3667,
 3670, 3671, 3672, 3675,
 3676, 3682, 3683, 3684,
 3685, 3996, 3997, 3998,
 3999, 4000, 4001, 5129,
 6997, 7597, 7620, 12491,
 12553, 12759, 12766, 12776,
 12973, 13036, 13314, 13380,
 14189, 14219
`\documentclass` 2
`\dospecials` 14198, 14228
`\dots` 555
`\dp` 5897, 5900, 7273, 9441, 9521,
 9558, 9598, 11307, 11310,
 11917, 12192, 13258
`\dth@counter` . 7063, 7064, 7094,
 7095, 7122
`\dth@everypar` 7110
`\dvipdfm@setdim` 13255, 13297,
 13396, 13421, 13452, 13477,
 13505, 13534

E

`\ECIRCUMFLEX` 16759, 16843,
 16844, 16845, 16846, 16847
`\ecircumflex` 16752, 16783, 16784,
 16785, 16786, 16787
`\EdefEscapeHex` 828
`\EdefEscapeName` . . 3829, 3873,
 12552, 12555, 13035, 13038,
 13376, 13382
`\EdefEscapeString` 782, 792
`\EdefUnescapeName` 3830
`\EdefUnescapeString` . 777, 7810
`\egroup` . 672, 8808, 9909, 10357,
 10999, 12706, 12798, 12823
`\em` 599
`\emph` 578
`\empty` 1246, 3429
`\enc@html` 5531, 5534
`\enc@update` 540
`\END` . . 1594, 1595, 1621, 1622,
 1637, 1638, 1655, 1656,
 1673, 1674, 2042, 2048,
 2053, 2155, 2157, 9207,
 9220, 9224, 9231, 9244,
 9248, 9254, 9266, 9270
`\end` 616, 16942
`\endeqnarray` . . 6943, 6961, 6968
`\endequation` 6906, 6938
`\endForm` 5521
`\endinput` . 64, 2865, 2940, 4239,
 4344, 8369, 10932, 12254,
 14316
`\endlinechar` 4598

`\endNoHyper` 6029
`\EndPreamble` 12257
`\endsubeqnarray` . . . 6972, 6983
`\eqnarray` 6942, 6944, 6965
`\equal` 7678
`\equation` 6905, 6914, 6918, 6927
`\equationautorefname`
 . . 3077, 3095, 3113, 3131,
 3149, 3167, 3185, 3203,
 3204, 3243, 3261, 8602, 8606
`\errmessage` 3307
`\es@roman` 632
`\es@save@dot` 1222
`\escapechar` 524, 833, 4186, 6990,
 14049, 14230, 14281
`\eTeX` 564, 12262
`\etex@unexpanded` . . 1797, 1804
`\eTeXversion` . . 9040, 9042, 9044
`\evensidemargin` 7828
`\everypar` 7136
`\ExecuteOptions` 4057, 4058, 4062
`\ext@figure` 8176
`\ext@table` 8175
`\extra@b@citeb` 7604
`\extrasvietnam` 3353
`\extrasvietnamese` 3345

F

`\fa` 16912
`\FancyVerbLineautorefname` . . .
 . . 3090, 3108, 3126, 3144,
 3162, 3180, 3198, 3233,
 3236, 3256, 3274, 8619
`\farsikaf` 16933
`\farsiya` 16935
`\fatha` 16925
`\fbox` 12928, 12931
`\Field@addtoks` 5595, 5626, 5629,
 5814, 5837
`\Field@boolkey` 5082, 5170, 5589,
 5619, 5622
`\Field@toks` . . 5593, 5594, 5596,
 12698, 12715, 12726, 12737,
 12747, 12764, 12782, 12790,
 12795, 12811, 12820
`\Field@Width` 5506, 5652
`\figureautorefname` . 3080, 3098,
 3116, 3134, 3152, 3170,
 3188, 3218, 3246, 3264, 8609
`\filename@area` 4968
`\filename@base` 4968
`\filename@ext` 4965, 4966, 4968,
 4969
`\filename@parse` 4964
`\find@pdfink` . . 8857, 8911, 8921
`\Fld@additionalactions` . 13661,
 13704, 13708

`\Fld@DingDef` 5739, 5742, 5761
`\Fld@additionalactions` . . 13661,
 13750, 13778, 13812, 13846,
 13880, 13914, 13945
`\Fld@align` . . 5510, 5726, 13729,
 13787, 13854
`\Fld@altname` 5642, 5644, 13640,
 13642, 13714, 13716
`\Fld@annotflags` . . . 5289, 5291,
 13725, 13756, 13783, 13816,
 13850, 13885, 13920
`\Fld@annotnames` 13712, 13726,
 13757, 13784, 13817, 13851,
 13886, 13921
`\Fld@bcolor` . . 5512, 5768, 13740,
 13742, 13803, 13805, 13831,
 13833, 13858, 13870, 13872
`\fid@bcolor` 13791
`\Fld@bordercolor` . . 5513, 5771,
 13736, 13738, 13763, 13771,
 13773, 13790, 13799, 13801,
 13827, 13829, 13857, 13866,
 13868, 13892, 13900, 13902,
 13927, 13935, 13937
`\Fld@bordersep` . . . 5514, 5720
`\Fld@borderstyle`
 . . 5516, 5704, 5705, 5706,
 5716, 13730, 13761, 13788,
 13821, 13855, 13890, 13943
`\Fld@borderwidth`
 . . 5515, 5667, 5891, 5894,
 5895, 5898, 5899, 12540,
 12541, 13023, 13024, 13364,
 13365, 13730, 13761, 13788,
 13821, 13855, 13890, 13943
`\Fld@calculate@code` 5779, 13674,
 13676
`\Fld@cbsymbol` 5517, 5732, 13744
`\Fld@charsize` 5507, 5508, 5664,
 12539, 13022, 13363, 13746,
 13809, 13837, 13876, 13925
`\Fld@checkedfalse` 5503
`\Fld@checkequals` . 5607, 12492,
 12554, 12767, 12777, 12974,
 13037, 13315, 13381
`\Fld@choices`
 . . 5396, 5404, 5406, 5410,
 5419, 5427, 5432, 5480,
 5482, 5490, 5491, 13811
`\Fld@color` . . 5511, 5774, 13747,
 13810, 13838, 13877
`\Fld@default` . 5421, 5424, 5426,
 5723, 12456, 12472, 12484,
 12524, 12552, 12644, 12696,
 12714, 12728, 12736, 12743,
 12769, 12779, 12809, 12819,
 12937, 12954, 12966, 13007,

13035, 13146, 13270, 13287,
 13307, 13348, 13376, 13515,
 13839, 13840, 13841, 13878
 \Fld@DingDef . 5732, 5735, 5737
 \Fld@disabledfalse 5504
 \Fld@export . 5234, 5237, 5244,
 5536
 \Fld@findlength . . . 12746, 12757
 \Fld@flags 5303, 5305, 5316, 5318,
 5332, 5334, 5364, 5366,
 5389, 5391, 13728, 13759,
 13786, 13819, 13853, 13888,
 13923
 \Fld@format@code . 5777, 13666,
 13668
 \Fld@getmethodfalse 5556
 \Fld@getmethodtrue 5558
 \Fld@height . 5661, 12459, 12476,
 12487, 12542, 12559, 12571,
 12604, 12621, 12647, 12656,
 12940, 12959, 12969, 13025,
 13052, 13065, 13100, 13122,
 13149, 13160, 13273, 13289,
 13310, 13366, 13378, 13414,
 13463, 13486, 13518, 13526
 \Fld@hiddenfalse 5192
 \Fld@hiddentrue 5193
 \Fld@invisiblefalse 5188
 \Fld@invisibletrue 5189
 \Fld@keystroke@code 5780,
 13662, 13664
 \Fld@listcount . . . 12551, 12556,
 12567, 13034, 13039, 13053,
 13059, 13375, 13383, 13387,
 13392, 13403, 13410
 \Fld@loc 5616
 \Fld@mappingname . 5646, 5648,
 13644, 13646, 13718, 13720
 \Fld@maxlen . 5509, 5655, 13881
 \Fld@menulength . . 5505, 5658,
 12489, 12493, 12539, 12758,
 12759, 12762, 12971, 12975,
 13022, 13312, 13316, 13363
 \Fld@name . 5640, 12455, 12483,
 12576, 12643, 12695, 12700,
 12711, 12712, 12723, 12724,
 12733, 12734, 12742, 12763,
 12780, 12788, 12793, 12808,
 12817, 12936, 12965, 13070,
 13145, 13269, 13306, 13428,
 13514, 13639, 13713
 \Fld@norotatefalse 5205
 \Fld@norotatetrue 5204
 \Fld@noviewfalse 5208
 \Fld@noviewtrue 5209
 \Fld@nozoomfalse 5201
 \Fld@nozoomtrue 5200
 \Fld@onblur@code . 5782, 13682,
 13684
 \Fld@onclick@code . 5776, 5848,
 13777
 \Fld@onenter@code 5785, 13694,
 13696
 \Fld@onexit@code . 5786, 13698,
 13700
 \Fld@onfocus@code 5781, 13678,
 13680
 \Fld@onmousedown@code 5783,
 13686, 13688
 \Fld@onmouseup@code . . 5784,
 13690, 13692
 \Fld@printfalse 5197
 \Fld@printtrue 5196
 \Fld@radiosymbol . . 5518, 5735,
 13835
 \Fld@rotation 5519, 5765, 13732,
 13734, 13762, 13767, 13769,
 13789, 13795, 13797, 13823,
 13825, 13856, 13862, 13864,
 13891, 13896, 13898, 13926,
 13931, 13933
 \Fld@submitflags . . . 5271, 5273,
 13912
 \Fld@temp . . 5738, 5740, 5743,
 5744, 5753, 5754
 \Fld@validate@code 5778, 13670,
 13672
 \Fld@value 5422, 5429, 5431, 5729,
 12457, 12472, 12485, 12523,
 12524, 12938, 12954, 12967,
 13006, 13007, 13271, 13287,
 13308, 13347, 13348, 13879
 \Fld@width . 5651, 12458, 12471,
 12476, 12486, 12522, 12533,
 12535, 12559, 12571, 12591,
 12603, 12611, 12620, 12634,
 12646, 12652, 12656, 12939,
 12953, 12959, 12968, 13005,
 13016, 13018, 13052, 13065,
 13086, 13099, 13107, 13121,
 13135, 13148, 13155, 13160,
 13272, 13286, 13289, 13309,
 13346, 13357, 13359, 13378,
 13414, 13445, 13462, 13470,
 13485, 13499, 13517, 13524,
 13526
 \float@caption 7374, 7434
 \float@makebox 7436, 7437
 \floatingpenalty 7274
 \flq 639
 \flqq 637
 \fmtname 7
 \fmtversion 7
 \fontencoding . . . 532, 536, 571,
 12920
 \fontfamily 572, 12919
 \fontseries 573, 7030, 7056, 7087,
 12921
 \fontshape 574, 4525, 12922
 \fontsize 575
 \footins 7268
 \footnote 5058
 \footnoteautorefname
 . . 3078, 3096, 3114, 3132,
 3150, 3168, 3186, 3207,
 3210, 3244, 3262, 8603, 8607
 \footnotesep 7272, 7279
 \footnotesize 604, 7270
 \footnotetext 7230
 \footref 7298, 7299
 \foreignlanguage 620
 \Form 5520
 \Form@action 5530, 12687, 13910
 \Form@boolkey 5524
 \Form@htmlfalse . . . 5523, 5542
 \Form@htmltrue 5535
 \Form@method 5554, 5562, 12687
 \frq 640
 \frqq 638
 \futurelet 692, 1588
 \FV@SetLineNo 6744
 \FV@StepLineNo . . . 6743, 6745,
 6746
 G
 \G . . 14896, 14922, 14941, 15522,
 15524, 15526, 15528, 15530,
 15532, 15533, 15535, 15537,
 15539, 15541, 15543, 15545
 \g@addto@macro . . . 6209, 6381,
 7506, 7783, 7786, 7789,
 7838, 9274, 10246, 10767,
 11055, 11628, 11714, 11776,
 12078, 12268
 \G@refundefinedtrue 4851, 7606,
 7629, 8374, 8394, 8411, 8529
 \gaf 16934
 \Gauge 5864
 \GenericError 680, 3711
 \GenericInfo 682, 3709
 \GenericWarning . 269, 681, 3710
 \getpagerefnumber 6858
 \getrefbykeydefault . 6814, 6815
 \gexmode . 10798, 10799, 10887
 \ghayn 16910
 \Gin@setfile 8018, 8019
 \glossary 646
 \glq 635
 \glqq 633
 \Greeksnumeral 1086

| | | | | | |
|--|--|---|--|---|--|
| <code>\greeknumeral</code> | 1085 | <code>\harvardcite</code> | 7644, 7681 | <code>\hvtex@par@dimension</code> . . | 10657, 10698 |
| <code>\grq</code> | 636 | <code>\harvarditem</code> | 7669 | <code>\hvtex@par@direction</code> . . . | 10658, 10701 |
| <code>\grqq</code> | 634 | <code>\hbox</code> | 1857, 1863, 1869, 2441, 3440, 3446, 5003, 5005, 5652, 5885, 5886, 5887, 5888, 7634, 7823, 8801, 9366, 9442, 9452, 9522, 9536, 9559, 9574, 9599, 9614, 9885, 9902, 10963, 11310, 11324, 11918, 11928, 12193, 12208, 12835, 13288, 13377, 13413, 13443, 13471, 13500, 13525, 14328 | <code>\hvtex@par@duration</code> | 10659, 10693 |
| <code>\guillemotleft</code> 1055, 14665, 14845, 15033, 16738 | | <code>\hc@currentHref</code> | 7385 | <code>\hvtex@par@motion</code> 10660, 10695 | |
| <code>\guillemotright</code> | 1056, 14696, 14846, 15065, 16739 | <code>\HCode</code> | 12687, 12689, 12700, 12709, 12721, 12729, 12731, 12762, 12768, 12773, 12778, 12792, 12797, 12801, 12804, 12813 | <code>\hvtex@param@dimension</code> 10670, 10699, 10717, 10720 | |
| <code>\guilsinglleft</code> 14596, 14847, 16444, 16740 | | <code>\headerps@out</code> | 6482, 11618, 11629, 11701, 11715, 11768, 11777, 11790, 11804, 11843, 11961, 12079, 12269 | <code>\hvtex@param@direction</code> . | 10671, 10702, 10728, 10736 |
| <code>\guilsinglright</code> | 14598, 14848, 16446, 16741 | <code>\hfill</code> | 5885, 5886, 5887, 5888, 7525, 7558 | <code>\hvtex@param@duration</code> . | 10672, 10694, 10741, 10743 |
| H | | | | | |
| <code>\H</code> | 14892, 14924, 14943, 14957, 15372, 15374, 15436, 15438, 16236, 16238 | <code>\Hfootnoteautorefname</code> . . . | 8603 | <code>\hvtex@param@motion</code> . . | 10673, 10696, 10717, 10724 |
| <code>\h</code> | 3265, 16766, 16771, 16776, 16781, 16786, 16791, 16796, 16801, 16806, 16811, 16816, 16821, 16826, 16831, 16836, 16841, 16846, 16851, 16856, 16861, 16866, 16871, 16876, 16881 | <code>\hhyperref</code> | 5063 | <code>\hvtex@parse@trans</code> 10646, 10668 | |
| <code>\H@@footnotemark</code> | 7143, 7160, 7214, 7303, 7310, 7322, 7333 | <code>\hoffset</code> | 7824 | <code>\hvtex@produce@trans</code> . . . | 10707, 10713 |
| <code>\H@@footnotetext</code> | 7142, 7152, 7179, 7213, 7252, 7311, 7325, 7333 | <code>\hphantom</code> | 614 | <code>\hvtex@token</code> | 10665, 10676, 10682, 10689, 10694, 10697, 10700, 10702 |
| <code>\H@@mpfootnotetext</code> 7150, 7162, 7164, 7215 | | <code>\href</code> 647, 4713, 5057, 5058, 6055 | | <code>\hvtex@trans@code</code> 10650, 10651, 10652, 10653, 10654, 10655, 10656, 10669, 10715, 10716, 10718, 10720, 10722, 10724, 10726, 10728, 10730, 10731, 10732, 10733, 10734, 10736 | |
| <code>\H@definecounter</code> | 7923, 7925 | <code>\href@</code> | 4716, 4719, 4724 | <code>\hvtex@trans@effect@Blinds</code> | 10650 |
| <code>\H@endeqnarray</code> | 6943, 6962 | <code>\href@split</code> | 4724, 4725 | <code>\hvtex@trans@effect@Box</code> 10651 | |
| <code>\H@endequation</code> | 6906, 6938 | <code>\hsize</code> | 7275 | <code>\hvtex@trans@effect@Dissolve</code> | 10652 |
| <code>\H@endsubeqnarray</code> | 6972, 6984 | <code>\hskip</code> | 1868, 1946, 2482, 2483, 4710, 5891, 12835 | <code>\hvtex@trans@effect@Glitter</code> | 10653 |
| <code>\H@eqnarray</code> | 6942, 6947 | <code>\hspace</code> | 643, 7684, 7685 | <code>\hvtex@trans@effect@R</code> | 10656 |
| <code>\H@equation</code> | 6905, 6929 | <code>\hss</code> | 7832, 14333 | <code>\hvtex@trans@effect@Split</code> 10654 | |
| <code>\H@item</code> 6578, 6584, 7514, 7539 | | <code>\ht</code> 5893, 5896, 9450, 9525, 9534, 9541, 9562, 9572, 9579, 9602, 9612, 9619, 11306, 11926, 12206, 13256 | | <code>\hvtex@trans@effect@Wipe</code> 10655 | |
| <code>\H@newctr</code> | 7928, 7930 | <code>\htmladdimg</code> | 5056 | <code>\hvtex@trans@par</code> 10689, 10693, 10695, 10698, 10701 | |
| <code>\H@old@part</code> | 14380, 14391 | <code>\htmladdnormallink</code> | 5057 | <code>\hvtex@trans@params</code> . . . | 10683, 10685, 10709 |
| <code>\H@old@schapter</code> | 14350, 14359 | <code>\htmladdnormallinkfoot</code> . . . | 5058 | <code>\Hy@@@CleanupFile</code> | 5003, 5005 |
| <code>\H@old@sect</code> 14401, 14412, 14421 | | <code>\htmlref</code> | 5059 | <code>\Hy@@@DefNameKey</code> | 2584, 2586 |
| <code>\H@old@spart</code> | 14393, 14399 | <code>\Huge</code> | 601 | <code>\Hy@@@escapeform</code> 13605, 13618, 13624 | |
| <code>\H@old@ssect</code> | 14336, 14341 | <code>\huge</code> | 605 | <code>\Hy@@@SectionAnchor</code> | 14323, 14326 |
| <code>\H@refstepcounter</code> | 6595, 6605, 6745, 6869, 6882, 6928, 7069, 7100, 7369, 8190, 8243 | <code>\Hurl</code> | 4799, 4801, 4803 | <code>\Hy@@@temp</code> | 3470, 3472, 5788, 5790 |
| <code>\H@seteqlabel</code> | 7959, 7961 | <code>\hv@pdf@char</code> | 14118, 14183, 14184, 14185, 14186 | <code>\Hy@@@VersionCheck</code> | 291, 310 |
| <code>\H@subeqnarray</code> | 6971, 6975 | <code>\hvtex@buffer</code> | 10662, 10666, 10674, 10677, 10686, 10690, 10706 | <code>\Hy@abspage</code> | 6229, 6315, 6431, 6508 |
| <code>\ha</code> | 16918 | <code>\hvtex@gettoken</code> | 10661, 10675, 10679, 10688, 10692 | <code>\Hy@Acrobatmenu</code> | 4124, 4165, 9336, 10082, 10621, 11482 |
| <code>\Haa</code> | 16897 | <code>\hvtex@gettoken@</code> | 10662, 10664 | <code>\Hy@activeanchorfalse</code> | 4596, 8902, 9394, 9409, 9488, 9498, 9814, 10342, |
| <code>\halign</code> | 655 | | | | |
| <code>\hamza</code> | 16885 | | | | |
| <code>\HAR@checkcitations</code> | 7694 | | | | |
| <code>\HAR@citetoaux</code> | 7650 | | | | |
| <code>\HAR@tempa</code> 7695, 7696, 7697, 7698, 7699, 7700 | | | | | |

| | | |
|---|---|---|
| 10359, 10430, 10443, 10949, 11866, 11881, 12146, 12160 | 3528, 3688, 3960, 3963, 3966, 3969, 3972, 3975, 3978, 3986, 4007, 4010, 6449 | 4121, 4228, 4254, 4391, 4392, 4393, 4394, 4395, 4396, 4397, 4398, 4399, 4400, 4401, 4402, 4403, 4404, 4405, 4406, 4407, 4408, 4453, 4506, 4534, 4535, 4594, 4595, 5967, 5968, 5969, 5970, 5971, 5972, 5973, 5974, 5975, 5976, 5977, 5978, 5979, 5980, 5981, 5982, 5983, 5984, 5985, 5986, 5987, 5988, 5989, 5990, 6167, 6383, 7337, 8023, 8121, 8122, 8721, 8824, 9192, 9193, 9194, 9195, 9196, 9197, 9198, 9199, 9200, 9201, 9331, 9653, 9654, 9655, 9656, 9657, 9658, 9659, 9660, 9661, 9662, 9925, 10144, 10145, 10146, 10147, 10148, 10149, 10150, 10151, 10152, 10153, 10271, 10413, 10867, 10868, 10869, 10870, 10871, 10872, 10873, 10874, 10875, 10876, 11134, 11135, 11136, 11137, 11138, 11139, 11140, 11141, 11142, 11143, 11694, 11987, 11988, 11989, 11990, 11991, 11992, 11993, 11994, 11995, 11996 |
| \Hy@activeanchortrue | \Hy@BorderArrayPatch . . 11361, 11364, 11627, 12077 | \Hy@DistillerDestFix 7797, 10880, 10882 |
| .. 8898, 9391, 9405, 9486, 9495, 9810, 10338, 10356, 10428, 10440, 10939, 11863, 11877, 12143, 12156 | \Hy@breaklinks@unsupported 2678, 10915 | \Hy@draftfalse 393 |
| \Hy@ActiveCarriageReturn 4632, 4635 | \Hy@breaklinksfalse 434 | \Hy@drafttrue 394 |
| \Hy@AllowHyphens 4706, 10937, 10969, 11293 | \Hy@breaklinksunhbox . . 11260, 11314 | \Hy@driver 470, 2683, 2858, 2870, 2880, 2885, 2890, 2903, 2913, 2918, 2923, 2930, 2933, 2959, 2975, 2982, 2987, 2997, 4257, 4260, 4264, 4267, 4271, 4274, 4276, 4280, 4286, 4290, 4293, 4297, 4302, 4306, 4309, 4313, 4316, 4318, 4322, 4327, 4331, 4334, 4337, 4348, 4351, 4354, 4363, 4364, 4375, 4377, 4383, 4385, 4387 |
| \Hy@AnchorName | \Hy@CatcodeWrapper . . . 4454, 4513, 4557, 4586 | \Hy@dth@currentHref 7071, 7102, 7127 |
| .. 4836, 4838, 4841, 4843, 4867, 4869, 4873, 4878, 4880 | \Hy@chapapp 6650, 6658, 6684, 14354, 14365, 14447 | \Hy@dviErrMsg . . . 2825, 2827, 2830, 2836, 2849 |
| \Hy@appendixstring 6649, 6658 | \Hy@chapterstring . . 6645, 6647, 6650, 6683 | \Hy@dviModetrue . . 2834, 2839 |
| \Hy@AtBeginDocument . . . 364, 994, 2730, 2790, 2861, 2936, 2992, 3382, 4039, 4082, 4097, 4235, 4241, 4340, 4493, 4583, 5963, 6074, 6515, 6750, 7641, 8448, 8596, 8796, 9282, 9897, 10411, 11803, 11841, 12850, 12851 | \Hy@CheckOptionValue . 2554, 2591 | \Hy@dviopdfmxOutlineOpentrue 4415, 4422 |
| \Hy@AtBeginDocumentHook 365, 370, 376, 377 | \Hy@CJKbookmarksfalse . . . 436 | \Hy@endAnnot . . . 9933, 9979, 10018, 10050, 10079, 10104 |
| \Hy@AtEndOfPackage . . . 367, 891, 2357, 3346, 3354, 3361, 4223, 4249, 4255, 4445 | \Hy@cjkpu 1257, 1259, 1280 | |
| \Hy@AtEndOfPackageHook 368, 371, 373, 374 | \Hy@CleanupFile . . . 5001, 8963, 9987, 10507, 11553 | |
| \Hy@author 6143, 6147 | \Hy@colorlink 3374, 4517, 4525, 4529, 8797, 8883, 8956, 8996, 9032, 9360, 9392, 9415, 9446, 9459, 9487, 9503, 9528, 9544, 9566, 9583, 9606, 9623, 9898, 9976, 10015, 10047, 10076, 10101, 10429, 10451, 10521, 10547, 10582, 10615, 10633, 10967, 11244, 11246, 11864, 11887, 11922, 11935, 12144, 12166, 12201, 12214 | |
| \Hy@babelnormalise 4814, 4816 | \Hy@colorlinksfalse 3371 | |
| \Hy@backout . 4592, 6014, 6018, 7480 | \Hy@ColorList 3533, 3534 | |
| \Hy@backreffalse 430, 3042, 3064, 4247 | \Hy@CounterExists . 6543, 6556, 6559 | |
| \Hy@backreftrue 3035, 3039, 3061 | \Hy@currentbookmarklevel 13966, 13976, 13977, 13983, 13990, 14083, 14086, 14091, 14095 | |
| \Hy@BeginAnnot . . . 9927, 9944, 9985, 10022, 10054, 10083 | \Hy@debugfalse 426 | |
| \Hy@bibcite 7503, 7507 | \Hy@debugtrue 425 | |
| \Hy@bookmarksdepth . . . 3425, 3430, 3442, 3448, 13960 | \Hy@defaultbp 5667, 5669 | |
| \Hy@bookmarksnumberedfalse 431 | \Hy@defaultbpAux . 5671, 5676, 5690 | |
| \Hy@bookmarksopenfalse . . 432 | \Hy@defaultdriver . . 4329, 4354, 4364, 4375 | |
| \Hy@bookmarkstrue 433 | \Hy@DefFormAction 5528, 5530 | |
| \Hy@bookmarkstype 3460, 3462, 7854, 13971 | \Hy@DefNameKey . . 2583, 3565, 3617, 3625, 3633, 3637, 3644, 3651, 3658, 3665, 3669, 3674, 3681, 3995 | |
| \Hy@boolkey | \Hy@DEST 11261, 11328 | |
| .. 2511, 2603, 2606, 2609, 2630, 2633, 2636, 2667, 2670, 2673, 2690, 2694, 2697, 2700, 2703, 2706, 2709, 2712, 3013, 3016, 3071, 3368, 3380, 3395, 3420, 3423, 3464, 3467, | \Hy@DestName 8844, 8851 | |

| | | |
|---|--|---|
| \Hy@endcolorlink .. 3375, 4521, 4526, 4530, 8806, 8889, 9392, 9429, 9453, 9461, 9487, 9511, 9532, 9546, 9570, 9585, 9610, 9625, 9907, 9935, 10429, 10502, 10523, 10549, 10584, 10617, 10635, 10994, 11253, 11864, 11903, 11929, 11937, 12144, 12180, 12205, 12216 | \Hy@footnote@currentHref 5962, 7167, 7172, 7182, 7187, 7190, 7202, 7204, 7243, 7284, 7287 | \Hy@LinkMath .. 10958, 10960, 10965, 10997, 11285, 11287, 11292, 11294, 11300, 11302 |
| \Hy@EndWrap 4455, 4457, 4458, 4491 | \Hy@FormObjects 12888, 13166, 13220, 13230, 13542, 13592 | \Hy@linktoc . 2638, 2640, 2648, 2650, 2660, 7895 |
| \Hy@Error 263, 279, 285, 299, 2734, 2847, 2872, 2905, 2943, 2950, 2961, 2967, 4149, 4767, 4934, 5229, 5353, 5549, 5581, 5793, 5842, 12582, 12628, 13077, 13129, 13435, 13493 | \Hy@frenchlinksfalse 3373 | \Hy@linktoc@all 2646 |
| \Hy@escapeform . 12475, 12558, 12570, 12594, 12612, 12635, 12655, 12957, 13042, 13063, 13089, 13109, 13136, 13158, 13294, 13386, 13417, 13449, 13473, 13501, 13531, 13599, 13629, 13636 | \Hy@Gin@setfile ... 8018, 8020 | \Hy@linktoc@none 2643 |
| \Hy@escapestring 13596, 13664, 13668, 13672, 13676, 13680, 13684, 13688, 13692, 13696, 13700, 13744, 13777, 13878, 13879, 13910 | \Hy@GlobalStepCount 468, 6315, 6714, 6737, 7814, 8232, 8283 | \Hy@linktoc@page .. 2638, 2645, 2648 |
| \Hy@EveryPageAnchor .. 7796, 7839 | \Hy@gtemp 806, 807, 4187, 4193, 4195, 5426, 5427, 5431, 5432, 5443, 5457, 7219, 7224, 8676, 8678, 13657, 13659 | \Hy@linktoc@section 2640, 2644, 2650 |
| \Hy@EveryPageBoxHook 6193, 6197, 6201, 7838, 10246, 10767, 11055 | \Hy@href 4716, 4718 | \Hy@linktocpagefalse 444 |
| \Hy@EveryPageHook 6192, 6196, 6381, 9274 | \Hy@href@nextactionraw 4753, 4776, 4778, 4779, 4781, 4786, 4790, 4792, 8952, 8992, 9028, 9356, 9972, 10011, 10043, 10072, 10092, 10466, 10536, 10604, 11578, 11607 | \Hy@localanchornamefalse .. 445 |
| \Hy@ExchangeLeftParenthesis .. 8652, 8658 | \Hy@href@page 4731, 4733, 4737, 4738, 4740, 4747, 4750, 8988, 10006, 11574 | \Hy@LT@currentHref 6884, 6895 |
| \Hy@ExchangeRightParenthesis . 8662, 8668 | \Hy@hyperfiguresfalse 438 | \Hy@LT@footnotetext 7242, 7251 |
| \Hy@false 2405, 2521, 3027, 3063, 5578 | \Hy@hyperfootnotetrue ... 440 | \Hy@make@anchor . 7936, 7942, 7948 |
| \Hy@finalfalse 394 | \Hy@hyperindextrue 441 | \Hy@make@df@tag@@ 7940, 7955 |
| \Hy@finaltrue 393 | \Hy@hypertexnamesfalse .. 2361 | \Hy@make@df@tag@@@ .. 7946, 7956 |
| \Hy@FirstPage 4135 | \Hy@hypertexnametrue ... 442 | \Hy@MakeCurrentHref .. 6725, 6738 |
| \Hy@FirstPageHook 6194, 6207, 6209, 6480, 6481, 11628, 11714, 11776, 12078, 12268 | \Hy@ifStringEndsWith .. 4969, 4981 | \Hy@MakeCurrentHrefAuto 6736, 6818, 7937, 13951, 14338, 14354, 14365, 14395, 14409, 14447 |
| \Hy@FixNotFirstPage 9364, 9365, 9371 | \Hy@imPLICITtrue 443 | \Hy@MakeRemoteAction . 4736, 8966, 9990, 11556 |
| \Hy@float@caption .. 7375, 7425, 7427 | \Hy@Info 266, 2529, 4198, 4200, 4203, 4205, 4208, 4210, 4213, 4215, 4218, 4220, 4438, 4444, 4522, 4527, 4531, 4675, 4702, 5136, 5924, 5926, 5929, 5931, 5934, 5936, 5939, 5941, 5944, 5946, 5949, 5951, 5954, 5956, 7581, 7642, 7859, 7876 | \Hy@maketitle@end . 7314, 7319, 7321 |
| \Hy@float@currentHref .. 7428, 7430, 7432, 7440, 7443, 7445 | \Hy@InfoNoLine 267, 4230, 4232, 12123 | \Hy@maketitle@optarg 7312, 7317 |
| | \Hy@LastPage 4138 | \Hy@Match 314, 316, 3004, 3514, 3574, 3591, 3934, 4781, 5706 |
| | \Hy@level . 13972, 13974, 13985, 13990, 13991, 13992, 14023 | \Hy@MaybeStopNow 2926, 4063, 4066 |
| | \Hy@levelcheck ... 13973, 13988 | \Hy@Message 268, 2860, 2935, 4234, 4339, 4383, 10363, 10367, 10370, 10373, 10376, 10379, 10382, 10385, 12452, 12664, 12667, 12670, 12673, 12676, 12679, 12681, 12682, 12691, 12828, 13225 |
| | \Hy@linkcounter 472, 474, 6714, 6715, 6737, 6738, 7962, 8232, 8233, 8237, 8283, 8284, 8288 | \Hy@naturalnamesfalse 447 |
| | \Hy@linkfileprefix .. 3504, 4953, 9432, 10307, 11907, 12183 | \Hy@nestingfalse 448 |
| | | \Hy@newline@author 6186 |
| | | \Hy@newline@title 6185 |
| | | \Hy@next ... 6331, 6341, 6346, 14364, 14373, 14376 |
| | | \Hy@nextfalse 4167, 8033 |
| | | \Hy@NextPage 4129 |
| | | \Hy@nexttrue 4168, 4169, 4170, 8034, 8035, 8036 |
| | | \Hy@number .. 3903, 3907, 3915 |
| | | \Hy@numberline . 13967, 14004, 14005, 14006, 14007 |

| | | | | | |
|-----------------------------|--|-----------------------------------|--|-----------------------------|---|
| \Hy@ObsoletePaperOption | 2612, 2620 | 11811, 11817, 11824, 11831, 11838 | \Hy@RestoreCatcodes | 205, 4059, 4390 | |
| \Hy@ocgcolor | 8800, 8814, 9901, 9915 | \Hy@pstringB | 9108, 9113, 10184, 10196, 11197, 11213, 12050, 12066 | \Hy@RestoreLastskip | 2450, 8845, 9395, 9410, 9489, 9499, 9801, 10343, 10360, 10431, 10444, 10930, 10950, 11867, 11882, 12147, 12161 |
| \Hy@ocgcolorlinksfalse | 3372, 4501 | \Hy@pstringD | 8965, 8990, 9989, 10008, 11555, 11576 | \Hy@RestoreSavedSpaceFactor | 2425, 9440, 9520, 9557, 9597, 11916, 12191 |
| \Hy@org@chapter | 14362, 14377 | \Hy@pstringdef | 8623, 8843, 8867, 8927, 8964, 8965, 9002, 9003, 9108, 9752, 9953, 9988, 9989, 10023, 10024, 10055, 10184, 10450, 10528, 10591, 10592, 11197, 11392, 11401, 11528, 11554, 11555, 11586, 11587, 12050, 13622, 14241, 14257 | \Hy@RestoreSpaceFactor | 2416, 2442, 2447, 9439, 9447, 9454, 9519, 9529, 9537, 9556, 9567, 9575, 9596, 9607, 9615, 10964, 11000, 11291, 11299, 11326, 11915, 11923, 11930, 12190, 12202, 12209, 12245, 12249 |
| \Hy@OrgMakeLabel | 12237, 12244 | \Hy@pstringDest | 8843, 8844, 9752, 9799, 11392, 11393, 11397, 11401, 11402, 11406 | \Hy@ReturnAfterElseFiFiEnd | 478, 1831 |
| \Hy@OutlineName | 14242, 14297 | \Hy@pstringF | 8962, 8963, 8964, 8984, 9002, 9021, 9026, 9986, 9987, 9988, 10003, 10023, 10036, 10041, 10506, 10507, 10511, 10591, 10598, 10602, 11552, 11553, 11554, 11571, 11586, 11602, 11605 | \Hy@ReturnAfterFiFiEnd | 477, 1823, 1837, 1915, 1922 |
| \Hy@OutlineRerunCheck | 14107, 14206, 14288 | \Hy@pstringName | 14241, 14242, 14257, 14271 | \Hy@ReturnEnd | 476, 477, 478, 1843, 1927 |
| \Hy@PageAnchorSlide | 7756, 7794, 7807 | \Hy@pstringP | 9003, 9026, 10024, 10041, 10592, 10602, 11587, 11605 | \Hy@safe@activesfalse | 479, 4547, 4552, 4897, 8518 |
| \Hy@PageAnchorSlidesPlain | 7743, 7793, 7802 | \Hy@pstringURI | 8927, 8948, 10055, 10068, 10450, 10462, 10528, 10532, 11528, 11540 | \Hy@safe@activetrue | 479, 4176, 4545, 4550, 4628, 4665, 4673, 4701, 4818, 4889, 8424, 8507, 14199, 14229 |
| \Hy@pageanchortrue | 451 | \Hy@PutCatalog | 6377, 6385, 6497 | \Hy@saved@currentHref | 7200, 7203 |
| \Hy@pagecounter | 473, 475, 6776, 7814, 7816 | \Hy@raisedlink | 2429, 6638, 6820, 6841, 6842, 6843, 6846, 6896, 6935, 6938, 7124, 7170, 7185, 7256, 7282, 7413, 7491, 7515, 7520, 7540, 7938, 7963, 11616, 11699, 11957, 12121, 13952, 14330, 14355, 14366, 14396, 14448 | \Hy@saved@footnotemark | 7308, 7323 |
| \Hy@pageheight | 4053, 11716, 11805 | \Hy@raiselinksfalse | 456, 7643 | \Hy@saved@footnotetext | 7309, 7326 |
| \Hy@param | 6682, 6683, 6684, 6711, 6715 | \Hy@RemoveDurPageAttr | 9231, 9244 | \Hy@saved@hook | 6171, 6181 |
| \Hy@pdfafalse | 466 | \Hy@RemoveHidPageAttr | 9254, 9266 | \Hy@saved@refstepcounter | 6622, 6870 |
| \Hy@pdfcenterwindowfalse | 435 | \Hy@RemovePercentCr | 4648, 4652, 4657 | \Hy@SavedSpaceFactor | 2412, 2414, 2419, 2420, 2426, 12242 |
| \Hy@pdfdisplaydoctitlefalse | 465 | \Hy@RemoveTransPageAttr | 9206, 9220 | \Hy@SaveLastskip | 2450, 8841, 9383, 9398, 9480, 9492, 9749, 10330, 10346, 10421, 10434, 10920, 10934, 11856, 11870, 12136, 12150 |
| \Hy@pdfencoding@pdfdoc | 2785 | \Hy@reserved@a | 4883, 6945, 6974, 12694, 12744, 12807 | \Hy@SaveSavedSpaceFactor | 2424, 9438, 9518, 9555, 9595, 11914, 12189 |
| \Hy@pdfescapeformfalse | 437 | | | \Hy@SaveSpaceFactor | 2413, 2433, 2444, 9437, 9449, 9517, 9531, 9554, 9569, 9594, 9609, 10962, |
| \Hy@pdffitwindowfalse | 439 | | | | |
| \Hy@pdfmarkerrorfalse | 11224 | | | | |
| \Hy@pdfmarkerrortrue | 11394, 11403 | | | | |
| \Hy@pdfmenubartrue | 446 | | | | |
| \Hy@pdfminorversion | 8688, 8694, 8697, 8705, 8710, 8712, 8715, 8719 | | | | |
| \Hy@pdfnewwindowfalse | 450 | | | | |
| \Hy@pdfnewwindowsetfalse | 449, 3983 | | | | |
| \Hy@pdfnewwindowsettrue | 3985, 4755 | | | | |
| \Hy@pdfnewwindowtrue | 4756 | | | | |
| \Hy@pdfpagehiddenfalse | 453 | | | | |
| \Hy@pdfpagelabelsfalse | 6216 | | | | |
| \Hy@pdfpagelabelstrue | 452 | | | | |
| \Hy@pdfstringdef | 805, 5401, 5409 | | | | |
| \Hy@pdfstringfalse | 454, 5992 | | | | |
| \Hy@pdfstringtrue | 659, 5964 | | | | |
| \Hy@pdftoolbartrue | 459 | | | | |
| \Hy@pdfusetitlefalse | 462 | | | | |
| \Hy@pdfversion | 2812, 2823, 5403, 8710, 8712, 8716, 8719, 13651 | | | | |
| \Hy@pdfwindowuitrue | 464 | | | | |
| \Hy@plainpagesfalse | 455 | | | | |
| \Hy@PrevPage | 4132 | | | | |
| \Hy@ps@CR | 11758, 11765, 11770, 11771, 11788, 11809, 11810, | | | | |

| | | |
|---|--|---|
| 10998, 11283, 11295, 11303, 11913, 11925, 12188, 12204, 12240, 12247 | 3766, 3767, 3770, 3773, 3776, 3801, 3809, 3810, 3811, 3812, 3813, 3814, 3815, 3816, 3817, 3981, 3982, 4156, 4160, 4161, 4162, 4163, 4262, 4264, 4269, 4271, 4274, 4288, 4290, 4295, 4297, 4304, 4306, 4311, 4313, 4316, 4376, 4377, 5126, 5130, 5131, 5142, 5226, 5227, 5228, 5230, 5234, 5546, 5547, 5548, 5550, 5554, 5555, 5704, 5716, 5787, 5803, 5804, 5805, 5806, 5807, 5808, 5809, 5810, 5812, 5818, 5824, 5825, 5826, 5827, 5828, 5829, 5830, 5831, 5832, 5833, 5834, 6272, 6275, 6284, 6286, 6290, 6294, 6338, 6340, 6770, 6773, 6776, 6782, 6908, 6914, 7022, 7045, 7292, 7298, 8130, 8131, 9123, 9152, 9154, 9672, 9677, 9683, 9687, 9690, 9695, 9726, 9728, 10156, 10199, 10201, 11097, 11100, 11104, 11105, 11111, 11112, 11118, 11146, 11151, 11157, 11161, 11164, 11169, 11202, 11204, 11265, 11266, 11270, 11358, 11359, 11367, 11368, 11472, 11473, 11999, 12004, 12010, 12014, 12017, 12022, 12055, 12057, 13604, 13605, 14239, 14245, 14253, 14268 | 6998, 6999, 7000, 7370, 7375, 7380, 7853, 7854, 7872, 7873, 7879, 8196, 8197, 8248, 8249, 9416, 9417, 10311, 10459, 10460, 11888, 11889, 12167, 12168, 13970, 13971, 13994, 13996, 14015, 14016, 14024, 14048, 14050, 14051, 14053, 14054, 14437, 14462, 14467, 14470, 14473 |
| \Hy@scanauthor . . . 6141, 6146 | \Hy@tempb . . 6322, 6323, 6362, 6363, 13995, 13996, 14024 | \Hy@tempb . . 6322, 6323, 6362, 6363, 13995, 13996, 14024 |
| \Hy@scanoptauthor . 6141, 6142 | \Hy@tempcolor . . 10976, 10978, 10991, 11067, 11069, 11081 | \Hy@tempcolor . . 10976, 10978, 10991, 11067, 11069, 11081 |
| \Hy@scanopttitle . . . 6132, 6133 | \Hy@TempPageAnchor . . 7745, 7801, 7811, 7815, 7831 | \Hy@TempPageAnchor . . 7745, 7801, 7811, 7815, 7831 |
| \Hy@scantitle 6132, 6137 | \Hy@Test@Alph 6671, 6694 | \Hy@Test@Alph 6671, 6694 |
| \Hy@secnum@part 14383, 14385, 14388 | \Hy@Test@alph 6662, 6690 | \Hy@Test@alph 6662, 6690 |
| \Hy@SectionAnchorHref . . 657, 14321, 14343, 14414 | \Hy@testname 8859, 8860, 8865, 8867, 8868, 8882, 9945, 9946, 9951, 9953, 9955, 9971, 10478, 10479, 10484, 10488, 10561, 10562, 10567, 10571, 11072, 11073, 11078, 11089 | \Hy@testname 8859, 8860, 8865, 8867, 8868, 8882, 9945, 9946, 9951, 9953, 9955, 9971, 10478, 10479, 10484, 10488, 10561, 10562, 10567, 10571, 11072, 11073, 11078, 11089 |
| \Hy@SectionHShift 14320, 14329, 14339, 14410 | \Hy@texhtfalse 458 | \Hy@texhtfalse 458 |
| \Hy@seminarslidesfalse . . . 8182 | \Hy@texhttrue 2855, 4258 | \Hy@texhttrue 2855, 4258 |
| \Hy@seminarslidetrue 8179 | \Hy@TheSlideOptionalPage 7760, 7764, 7769, 7778 | \Hy@TheSlideOptionalPage 7760, 7764, 7769, 7778 |
| \Hy@setbreaklinks . . 2675, 2679, 2691, 8684, 9742 | \Hy@title 6134, 6138 | \Hy@title 6134, 6138 |
| \Hy@SetCatcodes 181, 231, 4061 | \Hy@toclevel . . 7864, 7868, 7881 | \Hy@toclevel . . 7864, 7868, 7881 |
| \Hy@SetNewWindow 3989, 8986, 9023, 10010, 10038, 10599, 11570, 11601 | \Hy@true 2404, 2517, 2519, 3057, 3059, 5575 | \Hy@true 2404, 2517, 2519, 3057, 3059, 5575 |
| \Hy@setouterhbox . 11259, 11290 | \Hy@typexmlfalse 460 | \Hy@typexmlfalse 460 |
| \Hy@setpagesizetrue 457 | \Hy@undefinedname 8856, 8863, 8865, 9940, 9949, 9951, 10447, 10482, 10484, 10565, 10567, 11063, 11076, 11078 | \Hy@undefinedname 8856, 8863, 8865, 9940, 9949, 9951, 10447, 10482, 10484, 10565, 10567, 11063, 11076, 11078 |
| \Hy@setpdfborder . . 3607, 8873, 8932, 8970, 9007, 9340, 9964, 9996, 10030, 10061, 10094, 10470, 10491, 10514, 10540, 10574, 10608, 10626 | \Hy@unicodefalse 461, 785, 795, 2741, 2742, 2750, 3743, 3749, 6772, 7806, 13653 | \Hy@unicodefalse 461, 785, 795, 2741, 2742, 2750, 3743, 3749, 6772, 7806, 13653 |
| \Hy@setpdfversiontrue 2811 | \Hy@unicodetrue . . . 2742, 6442, 6456 | \Hy@unicodetrue . . . 2742, 6442, 6456 |
| \Hy@setref@link 8380, 8383 | \Hy@usehidkeyfalse 3526 | \Hy@usehidkeyfalse 3526 |
| \Hy@SlidesFormatOptionalPage . 6245, 7742, 7761, 7765 | \Hy@usehidkeytrue 3530 | \Hy@usehidkeytrue 3530 |
| \Hy@SlidesPage 6252, 7775, 7776, 7782, 7784, 7787, 7790 | \Hy@UseMaketitleInfos . . 6187, 9165, 9634, 10116, 10856, 11095, 11968 | \Hy@UseMaketitleInfos . . 6187, 9165, 9634, 10116, 10856, 11095, 11968 |
| \Hy@slidetitle 8209, 8211, 8218, 8226, 8236, 8260, 8262, 8269, 8277, 8287 | \Hy@UseMaketitleString . 6168, 6188, 6189 | \Hy@UseMaketitleString . 6168, 6188, 6189 |
| \Hy@StartlinkName . 8871, 8885 | \Hy@UseNameKey 2596, 9130, 9131, 9132, 9133, 9134, 9135, 9136, 9137, 9156, 9702, 9703, 9704, 9705, 9706, 9707, | \Hy@UseNameKey 2596, 9130, 9131, 9132, 9133, 9134, 9135, 9136, 9137, 9156, 9702, 9703, 9704, 9705, 9706, 9707, |
| \Hy@StepCount 467, 6292, 12493, 12556, 12759, 12975, 13039, 13316, 13383, 14087, 14092, 14168 | \Hy@temp@A 718, 719, 1815, 1817, 1828, 1830, 1835, 1836, 1839, 3802, 3804, 8052, 8053, 8054, 8061, 8089, 8090, 8091, 8100 | \Hy@temp@A 718, 719, 1815, 1817, 1828, 1830, 1835, 1836, 1839, 3802, 3804, 8052, 8053, 8054, 8061, 8089, 8090, 8091, 8100 |
| \Hy@Stoppedeasilyfalse 4068, 6542 | \Hy@temp@B 1816, 1817 | \Hy@temp@B 1816, 1817 |
| \Hy@Stoppedeasilytrue 4065, 6539 | \Hy@tempa . . 2512, 2514, 2516, 2517, 2519, 2521, 2523, 2526, 2529, 2530, 3023, 3024, 3025, 3027, 3028, 3030, 3031, 3033, 3037, 3041, 3052, 3054, 3056, 3057, 3059, 3063, 4634, 4635, 4646, 4650, 4819, 4823, 4888, 4891, 4900, 4902, 5533, 5534, 5574, 5575, 5578, 5582, 6321, 6323, 6361, 6363, 6508, 6510, 6992, 6994, 6995, | \Hy@tempa . . 2512, 2514, 2516, 2517, 2519, 2521, 2523, 2526, 2529, 2530, 3023, 3024, 3025, 3027, 3028, 3030, 3031, 3033, 3037, 3041, 3052, 3054, 3056, 3057, 3059, 3063, 4634, 4635, 4646, 4650, 4819, 4823, 4888, 4891, 4900, 4902, 5533, 5534, 5574, 5575, 5578, 5582, 6321, 6323, 6361, 6363, 6508, 6510, 6992, 6994, 6995, |
| \Hy@StringLocalhost 4999, 5000, 5015 | | |
| \Hy@tabularx@hook 7212, 7220 | | |
| \Hy@temp 687, 694, 809, 881, 982, 985, 993, 994, 2618, 2623, 2624, 2625, 2626, 2627, 2628, 3469, 3478, 3479, 3480, 3481, 3482, 3483, 3484, 3534, 3535, 3536, 3539, 3541, 3544, 3554, 3557, 3558, 3559, 3560, 3561, 3562, 3572, 3585, 3589, 3604, | | |

9708, 9709, 9730, 10163,
 10164, 10165, 10166, 10167,
 10168, 10169, 10170, 10203,
 10828, 10829, 10830, 10831,
 10832, 10833, 10834, 10835,
 11176, 11177, 11178, 11179,
 11180, 11181, 11182, 11183,
 11206, 12029, 12030, 12031,
 12032, 12033, 12034, 12035,
 12036, 12059
 \Hy@varioref@refstepcounter . . .
 6861, 6868
 \Hy@varioref@undefined . 6852,
 6856, 8513
 \Hy@VerboseAnchor
 . . 4698, 8842, 9384, 9399,
 9481, 9493, 9750, 10331,
 10347, 10422, 10435, 10921,
 10935, 11857, 11871, 12137,
 12151
 \Hy@verbosefalse 426, 463
 \Hy@VerboseGlobalTemp 4674,
 4675, 4676, 4677, 4681
 \Hy@VerboseLinkInfo 4681, 4682,
 4685, 4692
 \Hy@VerboseLinkStart
 4670, 8905, 8915,
 9414, 9466, 9502, 9514,
 9942, 10287, 10310, 10449,
 10554, 10953, 11065, 11886,
 11942, 12165, 12222
 \Hy@VerboseLinkStop 4686, 8890
 \Hy@verbosetrue 425
 \Hy@VersionCheck . . 276, 4387
 \Hy@VersionChecked . . 275, 308,
 4384, 4386
 \Hy@vt@PutCatalog 6414, 6416
 \Hy@VTeXversion . . 6394, 6406,
 10510, 10639, 10775, 14120
 \Hy@WarnHTMLFieldOption . .
 . 5600, 5633, 5636, 5820
 \Hy@Warning 264, 339,
 501, 1755, 2534, 2549, 2574,
 2654, 2769, 2774, 3386,
 3438, 3517, 3580, 3599,
 3778, 3825, 3833, 3944,
 4497, 4742, 4785, 4903,
 5025, 5183, 5538, 5601,
 5709, 6452, 6467, 7845,
 8493, 8543, 8861, 9783,
 9787, 9947, 10480, 10563,
 11074, 11395, 11404, 13979,
 13997
 \Hy@WarningNoLine
 . . . 265, 2613, 2681, 2795,
 3489, 3550, 3694, 3794,
 4046, 4115, 4266, 4275,
 4292, 4308, 4317, 6115,
 6217, 6408, 6522, 6757,
 7855, 8010, 11232
 \Hy@WarningPageBorderColor .
 . . . 3547, 3549, 3551
 \Hy@WarningPageColor . 3486,
 3488, 3490
 \Hy@WarnOptionDisabled 2546,
 2548
 \Hy@WarnOptionValue . . 2527,
 2533, 3044, 3066
 \Hy@wrapper@babel 4174, 4192
 \Hy@WrapperDef
 . . 4184, 8837, 9382, 9397,
 9479, 9491, 9748, 10329,
 10345, 10420, 10433, 10919,
 10933, 11855, 11869, 12135,
 12149
 \Hy@writebookmark 2409, 7865,
 8216, 8224, 8234, 8267,
 8275, 8285, 13956, 14098
 \Hy@xspace@end
 . . 4080, 4085, 4088, 4092,
 4095, 4100, 4101, 4102,
 4104, 4105, 4106, 4107,
 4108, 6003, 6004, 6006,
 6009, 6011, 6012, 6013,
 6017, 6020, 6023, 6025,
 6026, 6027, 8921, 8956,
 8996, 9032, 9459, 9530,
 9545, 9568, 9584, 9608,
 9624, 9981, 10017, 10049,
 10078, 10103, 10291, 10301,
 10522, 10548, 10583, 10616,
 10634, 11293, 11301, 11924,
 11935, 12203, 12215, 12246
 \HyC@cmd 87, 109, 122
 \HyC@check 68, 71, 74
 \HyC@checkcommand 50, 57, 59
 \HyC@checkFailed 146, 157
 \HyC@checkItem . 132, 133, 134,
 135, 138
 \HyC@checklong 45, 53
 \HyC@checkOk 144, 154
 \HyC@checkPackage . 12, 16, 18
 \HyC@cmd . 62, 75, 87, 95, 118,
 131
 \HyC@date . . . 11, 15, 23, 29, 31
 \HyC@DeclareRobustCommand
 114
 \HyC@def 125
 \HyC@defcmd 47, 54, 93
 \HyC@doCheck 99, 130
 \HyC@edef 125
 \HyC@getDate 12, 14
 \HyC@meaning 152, 160
 \HyC@nc@default 103, 105
 \HyC@nc@noopt 88, 91, 103, 112,
 123, 127
 \HyC@nc@opt 88, 101, 123
 \HyC@newcommand 86
 \HyC@next 48, 55, 60, 83
 \HyC@noValue 80, 81, 82, 85, 139
 \HyC@optcmd 107, 111
 \HyC@org@cmd 76
 \HyC@org@optcmd 80, 111
 \HyC@org@robustcmd . . 81, 120
 \HyC@org@robustoptcmd . . 82
 \HyC@package 10, 22, 28, 34, 37,
 38
 \HyC@param 78, 96, 102
 \HyC@robustcmd 115, 120, 121,
 122
 \HyC@star 67, 70, 94
 \HyC@string . 131, 152, 155, 158
 \HyC@Toks . 79, 90, 96, 106, 126
 \HyCal@do 495, 499
 \HyCal@scan 486, 490, 514
 \HyColor@FieldBColor . . 5768,
 5771
 \HyColor@FieldColor 5774
 \HyColor@HyperrefBorderColor
 3537, 3555
 \HyColor@HyperrefColor
 . . 3474, 3493, 3494, 3495,
 3496, 3497, 3498, 3499
 \HyColor@UseColor . 4519, 8803,
 8814, 9904, 9915
 \HyField@@AddToFields . 12870,
 12874
 \HyField@@PDFChoices . 5421,
 5422, 5437
 \HyField@@SetFlag . 5116, 5118
 \HyField@@UseFlag . 5106, 5108
 \HyField@AddToFields . . 12840,
 12869, 12960, 13054, 13067,
 13093, 13117, 13140, 13162
 \HyField@AdvanceAnnotCount .
 13262, 13291, 13388,
 13418, 13446, 13474, 13502,
 13528
 \HyField@afields . 12837, 12859,
 12860, 12862, 12897
 \HyField@AfterAuxOpen . 12850,
 12857, 12875
 \HyField@AnnotCount . . 13260,
 13263, 13266
 \HyField@AuxAddToFields
 12849, 12854, 12858, 12878
 \HyField@FlagsAnnot 5276, 5295,
 5309, 5322, 5338, 5370
 \HyField@FlagsCheckBox 5308,
 12651, 13154, 13523

| | | |
|---|--|---|
| \HyField@FlagsChoice ... 5369 , 12532, 13015, 13356 | 5259, 5262, 5263, 5264, 5267, 5278, 5279, 5280, 5281, 5282, 5283, 5284, 5285, 5286, 5297, 5298, 5299, 5311, 5312, 5313, 5324, 5325, 5326, 5327, 5329, 5340, 5341, 5342, 5343, 5344, 5345, 5346, 5347, 5358, 5361, 5372, 5373, 5374, 5375, 5377, 5379, 5380, 5383, 5386 | \HyLang@DeclareLang 3292, 3321, 3322, 3323, 3324, 3325, 3326, 3327, 3328, 3329, 3330, 3331, 3332, 3333, 3334, 3335, 3336, 3337, 3338, 3339, 3340, 3341, 3342, 3343 |
| \HyField@FlagsRadioButton ... 5321 , 12528, 13011, 13352 | \HyInd@@@wrindex . 8048, 8051, 8082, 8088 | \HyLang@english 3094 |
| \HyField@FlagsSubmit .. 5242 , 12610, 13106, 13469 | \HyInd@@hyperpage 8128, 8138 | \HyLang@french 3112 |
| \HyField@FlagsText 5337 , 12470, 12952, 13285 | \HyInd@@wrindex .. 8043, 8044 | \HyLang@german 3130 |
| \HyField@NeedAppearancesfalse 5566, 5579 | \HyInd@EncapChar . 3074, 4056, 8038 | \HyLang@italian 3148 |
| \HyField@NeedAppearancetrue ... 5569, 5572, 5576 | \HyInd@hyperpage . 8125, 8127, 8134 | \HyLang@magyar 3166 |
| \HyField@NewBitsetFlag . 5074, 5077 , 5085 | \HyInd@org@wrindex 8042, 8046, 8056, 8062, 8064, 8067 | \HyLang@portuges 3184 |
| \HyField@NewFlag . 5072 , 5148, 5149, 5150, 5151, 5152, 5153, 5154, 5155, 5156, 5157, 5158, 5159, 5160, 5161, 5162, 5163, 5164, 5165, 5166, 5167, 5172, 5173, 5174, 5175, 5176, 5177, 5178, 5179, 5180, 5213, 5215, 5216, 5218, 5219, 5221, 5222, 5223, 5224 | \HyInd@pagelink ... 8143, 8149, 8151, 8154 | \HyLang@russian 3202 |
| \HyField@NewFlagOnly . 5076 , 5214, 5217, 5220 | \HyInd@ParenLeft .. 8025, 8053, 8090 | \HyLang@spanish 3242 |
| \HyField@NewOption 5073 , 5079 | \HyInd@ParenRight . 8026, 8054, 8061, 8091, 8100 | \HyLang@vietnamese 3260, 3345, 3353 |
| \HyField@PDFAFlagWarning 5182, 5190, 5194, 5198, 5202, 5206, 5210 | \HyInd@removespaces 8157, 8160, 8170 | \HyLinguex@OrgB ... 883, 887 |
| \HyField@PDFChoices .. 5394 , 12569, 13061, 13412 | \HyInfo@AddonHandler .. 3820, 3823 | \HyLinguex@OrgC ... 884, 888 |
| \HyField@PrintFlags 5123 , 5269, 5287, 5301, 5314, 5330, 5362, 5387 | \HyInfo@AddonList . 3847, 3848, 3882, 3889 | \HyLinguex@OrgD ... 885, 889 |
| \HyField@SetFlag .. 5115 , 5255, 5261, 5266, 5300, 5328 | \HyInfo@Addons ... 3868, 3884, 9189, 10141, 11127, 11131 | \HyLinguex@Restore .. 886, 899, 903, 911, 2723 |
| \HyField@SetKeys . 5498 , 12467, 12499, 12502, 12521, 12578, 12606, 12623, 12648, 12948, 12981, 12984, 13003, 13072, 13102, 13124, 13150, 13281, 13322, 13325, 13344, 13430, 13465, 13488, 13519 | \HyInfo@AddonUnsupportedtrue ... 9632, 10854, 11966 | \HyOpt@CheckDvi 2843, 2879, 2884, 2889, 2912, 2917, 2922, 2974, 2981, 2986, 2991, 2996 |
| \HyField@TheAnnotCount 13265 , 13296, 13301, 13393, 13405, 13420, 13425, 13451, 13457, 13476, 13481, 13504, 13509, 13533, 13538 | \HyInfo@do ... 3822, 3849, 3872 | \HyOpt@DriverFallback .. 3000, 3003, 3004, 3008, 4353, 4358 |
| \HyField@UseFlag 5105 , 5246, 5247, 5248, 5249, 5250, 5251, 5252, 5253, 5256, 5257, 5258, | \HyInfo@GenerateAddons 3866, 9166, 10117, 11096 | \HyOpt@DriverType 4326, 4328, 4355, 4365, 4367, 4383 |
| | \HyInfo@Key 3830, 3831, 3839, 3844, 3849, 3852, 3859, 3873, 3877 | \HyOrg@addtoreset . 7968, 7970, 7997 |
| | \HyInfo@KeyEscaped 3829, 3830 | \HyOrg@appendix .. 6653, 6659 |
| | \HyInfo@trapped@false .. 3770, 3789 | \HyOrg@author 6131, 6144, 6148 |
| | \HyInfo@trapped@true 3767, 3788 | \HyOrg@float@makebox .. 7436, 7438 |
| | \HyInfo@trapped@unknown 3773, 3790 | \HyOrg@hyperpage . 8028, 8030, 8031 |
| | \HyInfo@TrappedUnsupported . .. 3791, 3795, 9635, 10857, 11969 | \HyOrg@languageshorthands 953, 967, 978, 988 |
| | \HyInfo@Value 3843, 3845 | \HyOrg@make@df@tag@@ . 7953 |
| | \HyLang@addto 3278, 3294, 3312, 3345, 3353 | \HyOrg@make@df@tag@@@ 7954 |
| | \HyLang@afrikaans 3076 | \HyOrg@maketitle .. 7306, 7313, 7318 |

| | | |
|-----------------------------------|------------------------------------|------------------------------------|
| 7166, 7171, 7181, 7186, | 9465, 9513, 9980, 10286, | 11948, 12141, 12154, 12169, |
| 7254, 7257, 7283, 7411, | 10553, 11064, 11941, 12221 | 12174, 12197, 12213, 12228 |
| 7414, 7442, 7746, 7801, | \hyper@link@ . 4107, 4884, 4886, | \hyper@readexternallink . 4894, |
| 7811, 7816, 8215, 8223, | 6003, 6017, 6043 | 4910 |
| 8233, 8266, 8274, 8284 | \hyper@linkend | \hyper@refstepcounter . . . 6613, |
| \hyper@@link . 4668, 4726, 4831, | . . 4088, 4095, 4104, 6011, | 6616, 6624 |
| 4859, 4883, 7499, 7645, | 6025, 6040, 7206, 7485, | \hyper@tilde . 4623, 4624, 4625, |
| 7646, 7647, 7695, 7697, | 7488, 7899, 7903, 7907, | 5959 |
| 7699, 8385, 8400, 8503 | 7909, 8913, 9427, 9510, | \hyperbaseurl . 3501, 3502, 6054 |
| \hyper@normalise . 4637, 4641, | 9979, 9981, 10322, 10500, | \hypercalcbp 481, 481 |
| 4645 | 10973, 11901, 12178 | \hypercalcbpdef . 483, 520, 3922, |
| \hyper@anchor 5049, 6007, 6021, | \hyper@linkfile 4106, 4970, 6013, | 3932 |
| 6085, 6098, 8893, 9382, | 6027, 6042, 8960, 9431, | \hyperdef 4833, 6056 |
| 9479, 9806, 10345, 10420, | 9589, 9983, 10306, 10504, | \HyperDestNameFilter |
| 10919, 11855, 12135 | 11550, 11905, 12182 | . . 4038, 4702, 8843, 8868, |
| \hyper@anchorend | \hyper@linkstart 4103, 6010, 6024, | 9389, 9403, 9423, 9467, |
| . . 4088, 4095, 4102, 5991, | 6039, 7204, 7481, 7488, | 9752, 9954, 10290, 10300, |
| 6009, 6023, 6038, 6639, | 7899, 7903, 7907, 7909, | 10318, 10336, 10354, 10426, |
| 6822, 6897, 6938, 6957, | 8904, 9413, 9501, 9941, | 10438, 10487, 10570, 11392, |
| 6981, 7128, 7493, 7518, | 9981, 10309, 10448, 10952, | 11401, 11861, 11875, 11896, |
| 7521, 7541, 7674, 7938, | 11885, 12164 | 11943, 12141, 12154, 12174, |
| 7964, 8900, 9407, 9497, | \hyper@linkurl | 12223, 14177, 14241, 14257 |
| 9813, 10340, 10442, 10941, | . . 4105, 4803, 4945, 4952, | \HyperFirstAtBeginDocument . . |
| 11879, 12158, 13952, 14099, | 4973, 4977, 6012, 6026, | . 6082, 6084, 6106, 6109 |
| 14331, 14356, 14367, 14397, | 6041, 8925, 9432, 9434, | \hypergetpageref 6815 |
| 14449 | 9467, 9549, 10052, 10294, | \hypergetref 6814 |
| \hyper@anchorstart | 10307, 10526, 10588, 11061, | \HyperGlobalCurrentHref 6700, |
| . . 4101, 5991, 6008, 6022, | 11526, 11906, 11910, 11943, | 6702, 6710, 6711, 6715, |
| 6037, 6639, 6821, 6897, | 12183, 12185, 12223 | 6718, 6722, 6728, 6729, 6733 |
| 6935, 6957, 6981, 7125, | \hyper@livelink 6005, 6030 | \hyperimage . . 4804, 5056, 8020 |
| 7491, 7516, 7521, 7541, | \hyper@makecurrent 6635, 6680, | \hyperindexformat 8027 |
| 7674, 7938, 7964, 8896, | 6883, 6934, 6956, 6980, | \hyperlink . . . 4667, 6057, 8166, |
| 9397, 9491, 9809, 10329, | 7070, 7101, 7201, 7387, 7429 | 8305, 8313, 8328, 8336, |
| 10433, 10933, 11869, 12149, | \hyper@normalise . . 4629, 4633 | 8346, 8354, 8361 |
| 13952, 14099, 14331, 14356, | \hyper@nat@current 7482 | \hyperlinkfileprefix . 3504, 3505, |
| 14367, 14397, 14449 | \hyper@nat@anchorend . . . 7493 | 3506, 12127 |
| \hyper@chars | \hyper@nat@anchorstart . . 7490 | \HyperLocalCurrentHref |
| . . 4662, 8928, 9387, 9401, | \hyper@nat@linkbreak 7487 | . . 6718, 6720, 6726, 6727, |
| 9421, 9443, 9457, 9471, | \hyper@nat@linkend 7484 | 6728, 6729, 6731 |
| 9551, 9591, 10296, 10317, | \hyper@nat@linkstart 7479 | \hyperpage . . 6063, 8028, 8029, |
| 10333, 10350, 10425, 10437, | \hyper@normalise . . 4057, 4062, | 8031, 8124 |
| 10529, 11529, 11873, 11893, | 4606, 4716, 4719, 4800, | \HyperRaiseLinkDefault . 2411, |
| 11919, 11933, 11947, 12153, | 4802, 4804, 4825, 5528 | 2438 |
| 12172, 12195, 12212, 12227 | \hyper@pageduration 9227, 9276, | \HyperRaiseLinkHook 2410, 2439 |
| \hyper@currentanchor . . 10938, | 10228, 10248, 10752, 10769, | \HyperRaiseLinkLength . . 2437, |
| 10947, 10970, 10987 | 11027, 11057 | 2438, 2441 |
| \hyper@currentlinktype . . 10971, | \hyper@pagehidden . 9251, 9277, | \hyperref 4813, 5063, 5064, 6059, |
| 10975, 10979 | 10239, 10249, 10762, 10770, | 8460, 8464, 8474, 8488 |
| \hyper@hash . 4614, 4615, 4663, | 11044, 11058 | \hypersetup . . 2762, 2802, 3330, |
| 4945, 4957, 4974, 4977, | \hyper@pagetransition 9203, 9275, | 3806, 4058, 6053 |
| 5958, 10290 | 10217, 10247, 10641, 10768, | \hypertarget 4806, 6058 |
| \hyper@image 4804, 4805, 9469, | 11010, 11056 | \HyPL@@@CheckThePage 6342, |
| 10587, 11060, 11945, 12225 | \hyper@quote 5960, 9389, 9403, | 6360 |
| \hyper@last 6105, 6110 | 9418, 9423, 9444, 9458, | \HyPL@@@CheckThePage . 6318, |
| \hyper@link | 9472, 10290, 10300, 10313, | 6320 |
| . . 4100, 4892, 6005, 6006, | 10336, 10354, 11861, 11875, | \HyPL@Alph 6237 |
| 6020, 6030, 6036, 8914, | 11890, 11896, 11920, 11934, | \HyPL@alph 6238 |

| | | | | | |
|--------------------------------|---|--------------------------------|---|--------------------------------|---|
| \HyPL@arabic | 6234 | \HyPsd@@CJKnumber | 1439, 1441, 1444, 1497, 1512, 1525, 1527, 1531 | \HyPsd@CatcodeWarning | 1874, 1891, 1894, 1897, 1900, 1956 |
| \HyPL@CheckThePage . . | 6269, 6317 | \HyPsd@@ConvertToUnicode . . | 2157 | \HyPsd@Char | 2159 |
| \HyPL@Entry 6510, 6518, 6526, | 6528 | \HyPsd@@GetNextTwoTokens . . | 2155 | \HyPsd@CharOctByte . . . | 2179, 2181, 2184, 2193, 2198 |
| \HyPL@EveryPage . | 6257, 6381 | \HyPsd@@GlyphProcessWarning | 2015, 2018 | \HyPsd@CharSurrogate . . | 2173, 2190 |
| \HyPL@Format 6333, 6334, 6335, | 6336, 6337, 6349 | \HyPsd@@GreekNum 1101, 1110, | 1209, 1213, 1217 | \HyPsd@CharTwoByte . . | 2171, 2178 |
| \HyPL@found 6332, 6339, 6343, | 6350, 6360, 6362 | \HyPsd@@hspace . . . | 1594, 1595 | \HyPsd@CheckCatcodes . . | 705, 1851 |
| \HyPL@Labels 6228, 6372, 6373, | 6375, 6377, 6428, 6429, 6521, 6529, 6530 | \HyPsd@@LetCommand . | 1718, 1739 | \HyPsd@CJK@Unicode . . | 1321, 1325 |
| \HyPL@LastNumber 6232, 6288, | 6311 | \HyPsd@@nameref . . | 1655, 1656 | \HyPsd@CJKActiveChars | 1261, 1276 |
| \HyPL@LastPrefix . . | 6233, 6282, 6313 | \HyPsd@@pageref . . | 1637, 1638 | \HyPsd@CJKdigit . . | 1550, 1560 |
| \HyPL@LastType . . | 6231, 6273, 6312 | \HyPsd@@ProtectSpacesFi | 1767, 1771, 1789, 1795, 1800 | \HyPsd@CJKdigits . | 1323, 1536 |
| \HyPL@page . | 6251, 6260, 6263, 6269, 6278 | \HyPsd@@ref | 1621, 1622 | \HyPsd@CJKhook . . . | 658, 1232, 1243 |
| \HyPL@Prefix | 6278, 6280, 6282, 6296, 6299, 6301, 6313, 6327, 6365 | \HyPsd@@RemoveBraces . . | 1813 | \HyPsd@CJKhook@bookmarks . | 1238, 1272 |
| \HyPL@Roman | 6235 | \HyPsd@@RemoveBracesFi | 1810, 1813 | \HyPsd@CJKhook@unicode | 1240, 1320 |
| \HyPL@roman | 6236 | \HyPsd@@RemoveCmdPrefix . . . | 1972, 1975 | \HyPsd@CJKnumber | 1322, 1436 |
| \HyPL@SetPageLabels . . . | 6371, 6436, 6524 | \HyPsd@@ReplaceFi | 2042, 2048, 2053 | \HyPsd@CJKnumberFour | 1454, 1458, 1462, 1475, 1479, 1483, 1489 |
| \HyPL@SlidesOptionalPage | 6244, 6248, 6253 | \HyPsd@@UTFviii@four . . | 2262, 2267 | \HyPsd@CJKnumberLarge | 1467, 1474 |
| \HyPL@SlidesSetPage | 6239, 6241, 6261, 6268 | \HyPsd@add@accent . | 543, 1583 | \HyPsd@CJKnumberThree | 1495, 1499, 1505 |
| \HyPL@storePageLabel . . | 6296, 6298, 6368, 6426, 6505 | \HyPsd@AfterCountRemove . . . | 1858, 1929 | \HyPsd@CJKnumberTwo | 1510, 1514, 1520 |
| \HyPL@thisLabel . . | 6225, 6227, 6259, 6263, 6264 | \HyPsd@AfterDimenRemove . . . | 1864, 1932 | \HyPsd@ConvertToUnicode | 773, 2105 |
| \HyPL@Type . | 6266, 6273, 6277, 6295, 6303, 6312, 6326, 6364 | \HyPsd@AfterSkipRemove | 1870, 1944 | \HyPsd@DecimalToOctal . | 1253, 1284 |
| \HyPL@Useless | 6369, 6375 | \HyPsd@AMScasflx . | 642, 1604, 1606 | \HyPsd@DecimalToOctalFirst . . | 1327, 1363 |
| \HyPsd@@@autoref . | 1676, 1678, 1681 | \HyPsd@AppendItalcorr . | 1829, 1836, 1845 | \HyPsd@DecimalToOctalSecond | 1328, 1337, 1400 |
| \HyPsd@@@CJKdigits . . . | 1546, 1549, 1557 | \HyPsd@autoref | 652, 1673 | \HyPsd@DefCommand | 688, 689, 690, 691, 1707 |
| \HyPsd@@@nameref | 1658, 1660, 1663 | \HyPsd@autorefname | 1685, 1691 | \HyPsd@DisableCommands | 934, 936 |
| \HyPsd@@@pageref . | 1640, 1642, 1645 | \HyPsd@babel@daniish | 997 | \HyPsd@DoConvert . | 2107, 2117 |
| \HyPsd@@@ref . | 1624, 1626, 1629 | \HyPsd@babel@dutch | 1003 | \HyPsd@DoEscape | 2131 |
| \HyPsd@@@UTFviii@four | 2278, 2281 | \HyPsd@babel@finnish | 1009 | \HyPsd@doxspace . . . | 745, 2078 |
| \HyPsd@@AppendItalcorr . | 1845 | \HyPsd@babel@frenchb . . . | 1014 | \HyPsd@empty . . | 730, 732, 736, 737, 739, 747, 754 |
| \HyPsd@@autoref . . | 1673, 1674 | \HyPsd@babel@german . . . | 1019 | \HyPsd@End | 705, 709, 1768, 1771, 1774, 1777, 1780, 1793, 1803, 1810, 1813, 1851, 1859, 1865, 1871, 1916, 1923, 1929, 1932, 1944 |
| \HyPsd@@autorefname . . | 1694, 1697 | \HyPsd@babel@macedonian | 1026 | \HyPsd@EndWithElse | 1573, 1582 |
| \HyPsd@@CJKdigits | 1538, 1540, 1543 | \HyPsd@babel@ngerman . . | 1032 | | |
| | | \HyPsd@babel@portuges . . | 1038 | | |
| | | \HyPsd@babel@russian . . . | 1043 | | |
| | | \HyPsd@babel@slovene . . . | 1049 | | |
| | | \HyPsd@babel@spanish . . . | 1054 | | |
| | | \HyPsd@babel@swedish . . . | 1064 | | |
| | | \HyPsd@babel@ukrainian . | 1070 | | |
| | | \HyPsd@babel@usorbian . . | 1076 | | |
| | | \HyPsd@BabelPatch . . | 628, 952, 987 | | |

| | | |
|---------------------------------------|----------------------------------|-----------------------------------|
| \HyPsd@EscapeTeX . . . 784, 794, 2060 | \HyPsd@nameref 651, 1655 | 760, 2041, 2058, 2073, 2074, 2075 |
| \HyPsd@ffi 1785, 1791, 1795, 1801 | \HyPsd@pageref 650, 1637 | |
| \HyPsd@GetNextTwoTokens 2155 | \HyPsd@pdfencoding | \HyPsd@temp 777, |
| \HyPsd@GetOneByte 2150 | 774, 2714, 2717, 2749, | 779, 780, 782, 783, 790, 792, |
| \HyPsd@GetTwoBytes 2146 | 2761, 2764, 2765, 2770, | 793, 2747, 2748, 2749, 2752, |
| \HyPsd@GLYPHERR 710, 1570, | 2785, 6443, 6445, 6462, 6465 | 2755, 2761, 2773, 2777, |
| 1584, 1591 | \HyPsd@pdfencoding@auto 774, | 6460, 6461, 6462, 6464, |
| \HyPsd@GlyphProcess 712, 2003, | 2755, 2765, 2782, 6445, 6464 | 6465, 6470 |
| 2016 | \HyPsd@pdfencoding@pdfdoc . . | \HyPsd@ToBigChar 834, 835, 844 |
| \HyPsd@GlyphProcessWarning . | 2748, 2770, 2783 | \HyPsd@ToBigChars . . 787, 826 |
| 2010, 2014 | \HyPsd@pdfencoding@unicode . . | \HyPsd@tocsection |
| \HyPsd@GobbleFiFi 1575, 1581 | . . 2752, 2784, 6443, 6461 | . . 1607, 1608, 1609, 1610, |
| \HyPsd@GreekNum . 1090, 1093, | \HyPsd@PrerenderUnicode | 1611, 1612, 1613, 1615 |
| 1095 | . . 3704, 3720, 3726, 3732, | \HyPsd@UnescapedString . 779, |
| \HyPsd@Greeknumeral . . 1086, | 3738, 3756, 3762, 3842 | 828, 829, 835 |
| 1092 | \HyPsd@protected@testopt 677, | \HyPsd@UnexpandableSpace . . . |
| \HyPsd@greeknumeral 1085, 1089 | 678, 1748 | . . 1590, 1776, 1800, 1935, |
| \HyPsd@GreekNumI 1113, 1139, | \HyPsd@ProtectSpaces 698, 1765, | 1947 |
| 1182, 1208 | 1786, 1835 | \HyPsd@unichar . . . 2220, 2287, |
| \HyPsd@GreekNumII 1117, 1161, | \HyPsd@ref 649, 1621 | 2293, 2298 |
| 1205, 1212 | \HyPsd@RemoveBraces . . . 700, | \HyPsd@unichar@first@byte 2306, |
| \HyPsd@GreekNumIII . . . 1120, | 1807, 1824, 1832, 1838 | 2326 |
| 1184, 1216 | \HyPsd@RemoveCmdPrefix 1965, | \HyPsd@unichar@octtwo . 2328, |
| \HyPsd@GreekNumIV 1129, 1207 | 1971 | 2336, 2342 |
| \HyPsd@GreekNumV 1132, 1211 | \HyPsd@RemoveMask 708, 1774, | \HyPsd@unichar@second@byte . . |
| \HyPsd@GreekNumVI 1134, 1215 | 1780, 1793, 1803 | 2314, 2334 |
| \HyPsd@GreekPatch . 625, 1082, | \HyPsd@RemoveSpaceWarning . | \HyPsd@UnicodeReplace- |
| 1084 | 1939, 1951, 1977 | mentCharacter 2290, |
| \HyPsd@HighA 1331, 1340 | \HyPsd@ReplaceSpaceWarning . | 2325 |
| \HyPsd@HighB 1341, 1346 | 1934, 1946, 1990 | \HyPsd@outf@viii@undeferr . 539, |
| \HyPsd@HighC 1347, 1350 | \HyPsd@Rest | 2348 |
| \HyPsd@HighD 1343, 1355 | . . 1852, 1912, 1920, 1923, | \HyPsd@UTFviii 533, 2208, 2213 |
| \HyPsd@href 647, 1620 | 1930, 1935, 1941, 1947, 1953 | \HyPsd@UTFviii@cthree . 2243, |
| \HyPsd@hspace 643, 1594 | \HyPsd@RussianPatch 627, 1225 | 2252 |
| \HyPsd@hspacetest . 1597, 1599, | \HyPsd@SanitizeForOutFile . . . | \HyPsd@UTFviii@ctwo . . 2228, |
| 1602 | 14016, 14047 | 2234 |
| \HyPsd@ifnextchar 674, 675, 676, | \HyPsd@SanitizeOut@BraceLeft | \HyPsd@UTFviii@ccxliv@def . . . |
| 1744 | . . 14051, 14057, 14066 | 2218, 2224 |
| \HyPsd@ignorespaces . 656, 943 | \HyPsd@SanitizeOut@BraceRight | \HyPsd@UTFviii@ccxliv@undef . |
| \HyPsd@InitUnicode 908 | . . 14054, 14069, 14078 | 2217, 2223 |
| \HyPsd@inmathwarn . 542, 1567 | \HyPsd@SPACEOPTI . 702, 717, | \HyPsd@UTFviii@four 2216, 2261 |
| \HyPsd@ITALCORR . . 666, 670, | 718, 720, 722, 724, 725, 764, | \HyPsd@UTFviii@three . . 2215, |
| 1591 | 766, 1887, 2089 | 2242 |
| \HyPsd@langshort@system 958, | \HyPsd@spaceopti . . . 766, 2034 | \HyPsd@UTFviii@two 2214, 2227 |
| 961 | \HyPsd@SpanishPatch 626, 1219 | \HyPsd@Warning . . 1752, 1957, |
| \HyPsd@LanguageShorthands . . | \HyPsd@String | 1978, 1991, 2020, 2026 |
| 954, 959, 971 | . . 699, 701, 704, 706, 711, | \HyPsd@XeTeXBigCharsfalse . . |
| \HyPsd@LetCommand 692, 693, | 713, 1818, 1819, 1829, 1881, | 801, 815, 820 |
| 1707 | 1882, 1886, 1887, 1902, | \HyPsd@XeTeXBigCharstrue 814, |
| \HyPsd@LetUnexpandableSpace | 1903, 1933, 1945, 2004, 2005 | 823, 3719, 3725, 3731, 3737, |
| . 661, 662, 663, 664, 1587, | \HyPsd@StringSubst . . 714, 716, | 3755, 3761, 3841, 13656, |
| 1590 | 722, 728, 731, 734, 737, 756, | 14014 |
| \HyPsd@LoadStringEnc . . 2766, | 759, 761, 2057 | \HyPsd@XSPACE 668, 744, 1591 |
| 2786, 2788, 2792, 2794, 6447 | \HyPsd@Subst 710, 719, | \HyPsd@xspace . . 742, 744, 745 |
| \HyPsd@LoadUnicode 2715, 2720, | 723, 729, 735, 739, 743, 748, | \HyRef@StarSetRef 8428, 8433 |
| 2728, 2731, 2733, 2740, 6441 | 749, 750, 751, 752, 753, 757, | \HyRef@autopageref 8485, 8487 |

| | | | | | |
|---|---|---------------------------------|---|--|--|
| <code>\HyRef@autopagerefname</code> | 8484, 8488, 8490 | <code>\if@skiphyperref</code> | 6599, 6609 | <code>\ifHy@activeanchor</code> | 383, 5046 |
| <code>\HyRef@autoref</code> | 8503, 8505 | <code>\if@twocolumn</code> | 14451 | <code>\ifHy@backref</code> | 384, 4217, 4589, 5938, 7652, 7688 |
| <code>\HyRef@autosetref</code> | 8508, 8511 | <code>\if@twoside</code> | 14440 | <code>\ifHy@bookmarks</code> | 385, 4437 |
| <code>\HyRef@CaseStar</code> | 8572, 8578 | <code>\ifcase</code> | 332, 1146, 1168, 1191, 1285, 1334, 1356, 1359, 1365, 1401, 1445, 1561, 2256, 2752, 3435, 4386, 5244, 5349, 5478, 5555, 6663, 6672, 7895, 8053, 8090, 8320, 8513, 10788, 11278, 13762, 13789, 13856, 13891, 13926, 14124 | <code>\ifHy@bookmarksnumbered</code> | 386, 8208, 8259, 14003 |
| <code>\HyRef@currentHtag</code> | 8524, 8542, 8545, 8551, 8558, 8564, 8579 | <code>\ifcat</code> | 1853, 1880, 1885, 1890, 1893, 1896, 1899, 5033, 5035 | <code>\ifHy@bookmarksopen</code> | 387, 4427 |
| <code>\HyRef@MakeUppercaseFirstOf-Five</code> | 8451, 8453 | <code>\ifdim</code> | 1602, 1933, 1937, 1945, 1949, 2453, 2472, 4043, 4412, 9295, 9299, 9304, 9308, 9315, 9318, 9322, 9325, 10257, 10258, 10263, 10264, 10396, 10399, 10403, 10406, 11307, 11321, 11680, 11681, 11686, 11687, 12495, 12533, 12534, 12977, 13016, 13017, 13318, 13357, 13358 | <code>\ifHy@breaklinks</code> | 388, 2680, 10954, 10995, 11289, 11312 |
| <code>\HyRef@name</code> | 8540, 8541, 8546, 8553, 8571, 8572, 8573, 8575 | <code>\ifetex@unexpanded</code> | 1759 | <code>\ifHy@CJKbookmarks</code> | 390, 1237 |
| <code>\HyRef@Ref</code> | 8457, 8459 | <code>\iffalse</code> | 821, 5567 | <code>\ifHy@colorlinks</code> | 391, 4508, 5943, 11842 |
| <code>\HyRef@ShowKeysInit</code> | 8581, 8594, 8598 | <code>\ifFileExists</code> | 232, 6114, 12254 | <code>\ifHy@draft</code> | 392, 4098 |
| <code>\HyRef@ShowKeysRef</code> | 8512, 8580 | <code>\ifFld@checked</code> | 5501, 12814, 13749 | <code>\ifHy@dviMode</code> | 2824, 2844, 3002 |
| <code>\HyRef@StarSetRef</code> | 8422, 8440, 8443, 8446, 8451 | <code>\ifFld@comb</code> | 5348 | <code>\ifHy@dvpdftmxOutlineOpen</code> | 4410, 14259 |
| <code>\HyRef@StripStar</code> | 8539, 8570 | <code>\ifFld@combo</code> | 5376, 5381, 12508, 12537, 12990, 13020, 13331, 13361 | <code>\ifHy@frenchlinks</code> | 398, 4524 |
| <code>\HyRef@testrestype</code> | 8517, 8536 | <code>\ifFld@disabled</code> | 5502, 12815 | <code>\ifHy@href@ismap</code> | 4764, 8949, 10069, 10463, 10533, 11541 |
| <code>\HyRef@thisref</code> | 8514, 8517 | <code>\ifFld@edit</code> | 5382 | <code>\ifHy@hyperfigures</code> | 396, 4197, 5923, 8017 |
| <code>\HyTmp@found</code> | 5448, 5458, 5461 | <code>\ifFld@fileselect</code> | 5351 | <code>\ifHy@hyperfootnotes</code> | 399, 7140 |
| <code>\HyTmp@key</code> | 5442, 5443 | <code>\ifFld@hidden</code> | 12471, 12522, 12591, 12611, 12634, 12652, 12713, 12725, 12735, 12818, 12953, 13005, 13086, 13107, 13135, 13155, 13286, 13346, 13445, 13470, 13499, 13524 | <code>\ifHy@hyperindex</code> | 400, 4207, 5933, 8024 |
| <code>\HyTmp@optitem</code> | 5398, 5414, 5441, 5446, 5452, 5473, 5484 | <code>\ifFld@multiline</code> | 5349, 12460, 12720, 12941, 13274 | <code>\ifHy@hypertexnames</code> | 401, 6686, 6768, 7799, 8213, 8264 |
| <code>\HyTmp@optlist</code> | 5397, 5412, 5413, 5444, 5445, 5450, 5451, 5459, 5460, 5480, 5482, 5489, 5492 | <code>\ifFld@multiselect</code> | 5420 | <code>\ifHy@implicit</code> | 402, 4229, 14314 |
| <code>\HyXeTeX@CheckUnicode</code> | 3690, 3701, 3718, 3724, 3730, 3736, 3754, 3760, 3840, 6475 | <code>\ifFld@password</code> | 5350, 12701 | <code>\ifHy@linktocpage</code> | 403, 2637, 2647 |
| I | | | | | |
| <code>\i</code> | 14633, 14796, 14799, 14802, 14805, 15002, 15164, 15167, 15170, 15173, 15290, 15295, 15300, 15305, 15309, 15476, 15532 | <code>\ifFld@popdown</code> | 5168, 12509, 12991, 13332 | <code>\ifHy@localanchorname</code> | 404, 6719, 6730 |
| <code>\if</code> | 1616, 2398, 6286, 6294, 6998, 6999, 10715, 10718, 10722, 10726, 10730, 10732, 10734, 13704 | <code>\ifFld@radio</code> | 12505, 12527, 12750, 12987, 13010, 13328, 13351 | <code>\ifHy@naturalnames</code> | 406, 6698, 8214, 8265 |
| <code>\if@eqnstar</code> | 6940, 6948 | <code>\ifFld@readonly</code> | 12722, 12732, 12816 | <code>\ifHy@nesting</code> | 407, 4202, 4807, 4840, 4877, 5031, 5928, 7165, 7180, 7253, 7410 |
| <code>\if@filesw</code> | 2366, 4871, 6075, 6119, 6506, 6516, 6764, 7528, 7543, 7559, 7571, 7601, 7624, 7651, 7656, 7675, 8076, 12852, 12876, 14017, 14204, 14286 | <code>\ifForm@html</code> | 5522 | <code>\ifHy@next</code> | 995, 4171, 8041 |
| <code>\if@hyper@item</code> | 6598, 6611 | <code>\ifhmode</code> | 2414, 2418, 2471, 2480, 4708, 7023, 7047, 7080, 7198, 7207, 7357, 7359, 8838, 8846, 11313, 12239 | <code>\ifHy@ocgcolorlinks</code> | 410, 3385, 4494, 4504, 5948, 8704, 8722, 8799, 8807, 9817, 9900, 9908 |
| <code>\if@inlabel</code> | 7114 | | | <code>\ifHy@pageanchor</code> | 411, 6755, 6767, 6782, 7798 |
| <code>\if@Localurl</code> | 10277, 10323 | | | <code>\ifHy@pdfta</code> | 429, 4122, 4496, 4933, 5181, 5791, 5840, 5953, 8872, 8944, 8982, 9019, 9352, 9963, 9995, 10029, 10060, 10088, 10469, 10490, 10513, 10539, 10573, 10607, 10625, 11416, 12429, 12581, 12627, 12905, 13076, 13128, 13244, 13434, 13492, 13706, 13752, 13916 |
| <code>\if@mid@expandable</code> | 641 | | | <code>\ifHy@pdfcenterwindow</code> | 389, 9128, 9700, 10161, 10826, 11174, 12027 |
| <code>\if@minipage</code> | 7399, 7470 | | | | |
| <code>\if@nmbrlist</code> | 6583 | | | | |
| <code>\if@nobreak</code> | 7133 | | | | |

| | | |
|---|---|--|
| <code>\ifHy@pdfdisplaydoctitle</code> . . | 428, 9129, 9701, 10162, 10827, 11175, 12028 | |
| <code>\ifHy@pdfescapeform</code> 395, | 13600, 13630 | |
| <code>\ifHy@pdffitwindow</code> . . | 397, 9127, 9699, 10160, 10825, 11173, 12026 | |
| <code>\ifHy@pdfmarkerror</code> 11221, | 11229 | |
| <code>\ifHy@pdfmenubar</code> . . . | 405, 9125, 9697, 10158, 10823, 11171, 12024 | |
| <code>\ifHy@pdfnewwindow</code> 409, | 3992, 10510 | |
| <code>\ifHy@pdfnewwindowset</code> . . | 408, 3990 | |
| <code>\ifHy@pdfpagehidden</code> . | 413, 3529, 9255, 10242, 10764, 11050 | |
| <code>\ifHy@pdfpagelabels</code> . | 412, 6213, 6426, 6504 | |
| <code>\ifHy@pdfstring</code> . . | 414, 919, 6603 | |
| <code>\ifHy@pdftoolbar</code> 421, | 9124, 9696, 10157, 10822, 11170, 12023 | |
| <code>\ifHy@pdfusetitle</code> . . . | 423, 6129 | |
| <code>\ifHy@pdfwindowui</code> . . | 427, 9126, 9698, 10159, 10824, 11172, 12025 | |
| <code>\ifHy@plainpages</code> 415, | 4212, 6769, 7800 | |
| <code>\ifHy@psize</code> | 416 | |
| <code>\ifHy@raiselinks</code> 417, | 9436, 9516, 9553, 9593, 11912, 12187 | |
| <code>\ifHy@seminarslides</code> | 418 | |
| <code>\ifHy@setpagesize</code> . . . | 419, 9283, 10254, 10393, 11677 | |
| <code>\ifHy@setpdfversion</code> . | 2803, 8709 | |
| <code>\ifHy@stoppedearly</code> | 381 | |
| <code>\ifHy@texht</code> | 420, 4284, 4536, 4584, 5592, 5624, 5811, 5835, 5991, 8368 | |
| <code>\ifHy@typexml</code> 382, | 4222, 4511, 4555, 6076, 14208, 14290 | |
| <code>\ifHy@unicode</code> | 422, 529, 562, 565, 715, 727, 755, 763, 772, 1096, 1256, 1959, 1980, 1993, 2022, 2028, 2288, 2713, 2763, 3692, 6450, 13652 | |
| <code>\ifHy@useHidKey</code> . . . | 3525, 9252, 10240, 10763, 11045 | |
| <code>\ifHy@verbose</code> . | 424, 4671, 4687, 4699, 5124, 7870 | |
| <code>\ifHyField@NeedAppearances</code> . . | 5565, 5567, 5570, 12431, 12907, 13246 | |
| <code>\ifHyInfo@AddonUnsupported</code> . . | 3818, 3832, 3867 | |
| <code>\IfHyperBoolean</code> | 2502 | |
| <code>\IfHyperBooleanExists</code> 2496, | 2503 | |
| <code>\ifHyPsd@XeTeXBigChars</code> . | 819, 821, 824, 827 | |
| <code>\ifmeasuring@</code> | 6623, 6636 | |
| <code>\ifmmode</code> | 10957, 11284 | |
| <code>\ifnum</code> | 244, 851, 854, 857, 860, 863, 972, 1097, 1100, 1111, 1112, 1116, 1124, 1128, 1131, 1141, 1163, 1186, 1326, 1437, 1453, 1457, 1477, 1490, 1493, 1506, 1508, 1521, 1523, 1529, 2167, 2170, 2246, 2289, 2292, 2304, 2419, 2929, 2932, 2958, 3436, 3437, 4421, 4428, 4741, 5403, 5474, 5485, 6243, 6267, 6288, 6304, 6406, 7748, 7758, 8322, 8360, 8705, 8710, 9044, 9051, 9057, 9065, 9929, 9934, 10510, 10639, 10775, 10783, 10785, 10786, 10796, 10799, 10885, 10887, 11007, 11704, 12889, 13053, 13387, 13392, 13403, 13651, 13732, 13762, 13767, 13789, 13795, 13823, 13856, 13862, 13881, 13891, 13896, 13926, 13931, 13960, 13976, 14120, 14190, 14193, 14220, 14223, 14261, 14370, 14388, 14403 | |
| <code>\ifodd</code> | 2270, 2275, 7825 | |
| <code>\ifpdf</code> 242, | 2826, 2869, 4263, 4330 | |
| <code>\ifpdfstringunicode</code> . . . | 534, 537 | |
| <code>\ifportrait</code> | 9294 | |
| <code>\ifthenelse</code> | 7678 | |
| <code>\iftrue</code> . . . | 824, 1766, 1788, 2052, 5570, 14372 | |
| <code>\ifvmode</code> | 2430, 2452, 2461 | |
| <code>\ifvoid</code> | 6890, 6894, 7118 | |
| <code>\ifvtex</code> | 2832, 2928, 2957 | |
| <code>\ifvtexdvi</code> | 2833 | |
| <code>\ifvtexhtml</code> | 4305, 4336 | |
| <code>\ifvtexpdf</code> | 4347 | |
| <code>\ifvtexps</code> | 4350 | |
| <code>\ifxetex</code> . . . | 778, 811, 2829, 2902, 3691, 4289, 4333, 4411 | |
| <code>\ignorespaces</code> . . | 656, 6850, 7018, 7289, 7395, 7406, 7409, 7466, 7474, 7536, 7551, 7567, 7576, 7686, 8193, 8245 | |
| <code>\IJ</code> | 14629, 15311 | |
| <code>\ij</code> | 14838, 15313 | |
| <code>\immediate</code> . . | 6077, 6078, 6079, 6081, 6121, 6419, 6509, 6517, 6779, 6807, 7531, 7546, 7562, 7572, 7602, 7625, 7651, 7681, 8724, 8739, 8754, 10890, 11701, 12831, 12853, 12895, 14110, 14176, 14207, 14209, 14289, 14291 | |
| <code>\incr@eqnum</code> | 6909, 6922 | |
| <code>\indent</code> | 7028, 7054 | |
| <code>\index</code> | 645 | |
| <code>\indexentry</code> . . | 8079, 8094, 8102, 8106, 8111 | |
| <code>\input</code> | 902, 910, 2722, 3348, 3356, 3363, 4385, 11619, 11702, 11793, 11962 | |
| <code>\InputIfFileExists</code> . | 4060, 14200, 14234, 14279, 14281 | |
| <code>\inputlineno</code> | 4678, 5038 | |
| <code>\insert</code> | 7268 | |
| <code>\IntCalcAdd</code> | 2196 | |
| <code>\IntCalcDec</code> | 1348 | |
| <code>\IntCalcDiv</code> . . | 1342, 1351, 1356, 1459, 1468, 1480, 1497, 1512, 1527, 2180, 2186, 2192 | |
| <code>\intcalcDiv</code> 1332, | 2187, 2194, 2197 | |
| <code>\IntCalcMod</code> . | 1344, 1353, 1359, 1463, 1469, 1484, 1500, 1515, 1529, 1531, 2182, 2187, 2188, 2194, 2197, 2199 | |
| <code>\intcalcMod</code> | 1334 | |
| <code>\intcalcSub</code> | 2174 | |
| <code>\interfootnotelinepenalty</code> . . | 7271 | |
| <code>\interlinepenalty</code> | 7271 | |
| <code>\item</code> . . . | 6578, 6581, 7558, 7570, 7673 | |
| <code>\Itemautorefname</code> | 8604 | |
| <code>\itemautorefname</code> . . | 3079, 3097, 3115, 3133, 3151, 3169, 3187, 3216, 3217, 3245, 3263, 8604, 8605, 8608 | |
| <code>\itemindent</code> | 7119 | |
| <code>\itshape</code> | 595 | |
| J | | |
| <code>\j</code> | 15318, 15503, 15567 | |
| <code>\jarr</code> | 16924 | |
| <code>\jeem</code> | 16896 | |
| <code>\jeh</code> | 16932 | |
| <code>\jobname</code> | 6078, 6114, 6121, 12254, 14109, 14200, 14207, 14234, 14279, 14281, 14289 | |
| K | | |
| <code>\k</code> . . | 14513, 14855, 14857, 14862, 14864, 14907, 14925, 14944, 14951, 15215, 15217, 15255, 15257, 15302, 15304, 15305, | |

| | | |
|--|---|---|
| 15440, 15442, 15499, 15501, 16098, 16137, 16140 | \LayoutCheckField 5879, 12653, 13156, 13529 | \LT@array 6875 |
| \kaf 16914 | \LayoutChoiceField 5876, 12526, 13009, 13350 | \LT@foot 6890, 6894 |
| \kasra 16927 | \LayoutPushButtonField . 5882, 12585, 12592, 13080, 13087, 13438, 13447 | \LT@p@ftn 7229, 7232, 7236, 7246 |
| \keepPDF@SetupDoc . . . 11846, 11853 | \LayoutTextField . 5873, 12473, 12955, 13292 | \LT@p@ftntext 7227, 7234 |
| \kern . . . 1862, 1934, 1939, 1951, 7119, 7820, 7821, 7822, 7824, 7825, 7830, 14329 | \lccode 350, 355, 850, 1266, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2211, 5751, 8038, 8039, 14034, 14035, 14036, 14037, 14038, 14039, 14040, 14041, 14042, 14043, 14044 | \LT@start 6892, 6902 |
| \kernel@ifnextchar 675 | \ldots 554 | \ltx@backslashchar 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 330 |
| \kha 16898 | \leavevmode 653, 2408, 4108, 4125, 4165, 4938, 6047, 7197, 7356, 7592, 8463, 8471, 8502, 8858, 8929, 8967, 9004, 9337, 9435, 9515, 9552, 9592, 9943, 9984, 10021, 10053, 10288, 10297, 10351, 10505, 10530, 10560, 10593, 10956, 11282, 11530, 11557, 11588, 11911, 12186, 12474, 12586, 12593, 12626, 12654, 12956, 13041, 13062, 13081, 13088, 13108, 13127, 13157, 13293, 13385, 13416, 13439, 13448, 13472, 13491, 13530, 14327 | \ltx@empty 370, 371, 470, 2825, 3000, 3008, 3377, 3522, 3889, 3913, 3920, 4019, 4020, 4023, 4024, 4025, 4026, 4027, 4028, 4032, 4033, 4353, 4363, 4455, 5055, 5271, 5289, 5303, 5316, 5332, 5364, 5389, 5396, 5397, 5738, 5776, 5777, 5778, 5779, 5780, 5781, 5782, 5783, 5784, 5785, 5786, 6192, 6193, 6194, 6197, 6211, 6228, 6233, 6239, 6248, 6268, 9375, 10278, 10365, 10960, 11266, 11287, 11616, 11699, 11957, 12121, 12128, 12450, 12456, 12665, 12696, 12743, 12837, 12934, 12937, 13254, 13270 |
| \KV@href@pdfnewwindow . 4762 | \LetLtxMacro 5994, 5998, 6064, 6068 | \ltx@firstofone 2845, 6109, 14062, 14074 |
| \KV@href@pdfnewwindow@de- fault 4763 | \limits 4654 | \ltx@firstoftwo . . . 245, 337, 345, 2498, 2505, 4570, 4994 |
| \KV@Hyp@draft 2611 | \listofslides 8294 | \ltx@GlobalAppendToMacro 937 |
| \KV@Hyp@nolinks 2611 | \listslidenam 8293, 8296, 8298, 8300 | \ltx@gobble 272, 2851, 4086, 4093, 4443, 6007, 6008, 6019, 6021, 6022, 6387, 12235, 12849, 14060, 14072 |
| \KV@Hyp@pdfnewwindow . 4762 | \literalps@out 2406, 10879, 10884, 10936, 10942, 10968, 10974, 11239, 11250, 11279, 11280, 11308, 11310, 11322, 11324, 11617, 11700, 11763, 11960 | \ltx@gobblefour 314 |
| \KV@Hyp@pdfnewwindow@de- fault 4763 | \lower . . 9442, 9522, 9559, 9599, 11310, 11918, 12193 | \ltx@gobblethree 7780 |
| \kv@key 3826, 3829, 3836, 5401, 5404, 5406, 5410, 5414 | \lowercase 351, 356, 870, 1267, 2071, 2212, 2513, 3023, 3053, 3766, 3802, 5073, 5074, 5077, 5082, 5106, 5116, 5170, 5226, 5546, 5619, 5622, 5752, 8040, 11006, 14045 | \ltx@gobbletwo 6010, 6024 |
| \kv@parse 5400 | \lslide@flag . . 8320, 8323, 8341, 8360, 8364 | \ltx@ifclassloaded . . 6240, 7741 |
| \kv@parse@normalized 3851, 3858 | | \ltx@ifpackagelater 348 |
| \kv@processor@default 3854, 3861 | | \ltx@ifpackageloaded 1233 |
| \kv@set@family@handler . . 3819 | | \ltx@ifUndefined 239, 278, 284, 313, 622, 665, 740, 775, 893, 894, 895, 996, 1002, 1008, 1013, 1018, 1025, 1031, 1037, 1042, 1048, 1053, 1063, 1069, 1075, 1081, 1220, 1226, 1603, 1698, 1699, 2360, 2393, 4081, 4083, 4168, 4169, 4170, 4569, 4570, 4766, 6169, 6562, 6651, 6655, 6970, 7494, 7759, 8491, 8492, 8537, 8538, |
| \kv@value 3824, 5402, 5409, 5410 | | |
| \kvsetkeys 2802, 2856, 2976, 3698, 3799, 4123, 4360, 4378, 4495, 5499, 8706, 11228, 12448, 12686, 12699, 12748, 12791, 12812, 12886, 13229 | | |
| L | | |
| \L 14622, 15342 | | |
| \l 14635, 15344 | | |
| \l@slide . 8193, 8303, 8308, 8312, 8319 | | |
| \l@subslide 8245, 8308, 8315, 8359 | | |
| \label 644, 7843 | | |
| \label@hyperref . . . 4847, 4849 | | |
| \label@hyperdef 4833, 4863 | | |
| \label@hyperref 4814, 4846, 5060 | | |
| \labelsep 7685 | | |
| \labelwidth 7684 | | |
| \lam 16915 | | |
| \language@group 623 | | |
| \languageshorthands . . 953, 954, 988 | | |
| \LARGE 602 | | |
| \Large 603 | | |
| \large 606, 8325, 8333, 8343, 8351 | | |
| \lastbox 7117 | | |
| \lastpage@putlabel 6750 | | |
| \lastskip 2453, 2457, 2464, 2472, 2476, 2483 | | |
| \LaTeX . 559, 561, 12260, 12261 | | |
| \LaTeXe 560, 12261 | | |

8540, 8541, 8906, 8916,
9314, 10395, 10452, 10555,
10932, 10975, 11066, 11243,
14361, 14371
\ltx@ifundefined ... 2497, 2498,
2541, 7126, 7775
\ltx@leftbracechar 328, 352
\ltx@LocalAppendToMacro 365,
368
\ltx@one
244, 6242, 6243, 6250, 7744,
7748, 7754, 7757, 7758, 7771
\ltx@ReturnAfterElseFi ... 4636
\ltx@ReturnAfterFi
494, 2009, 4640, 4656, 8133,
8169, 8657, 8667, 13623
\ltx@rightbracechar ... 329, 357
\ltx@secondoftwo . 240, 247, 251,
334, 2497, 2498, 2507, 2509,
4569, 4570, 4572, 4992
\ltx@space 331, 1754
\ltx@zero 2065, 2066, 2067, 2068,
2069, 2070
\luatexrevision 9088
\luatexversion 9080, 9085

M

\m@ne .. 4186, 4690, 4749, 5088,
6795, 6990, 9938, 14281,
14370, 14385
\make@df@tag@@ ... 7953, 7955
\make@df@tag@@@ . 7954, 7956
\make@stripped@name .. 6628,
6931, 6953, 6977, 6988
\makeatletter 3, 933, 6113
\MakeButtonField . 5889, 12587,
12595, 12613, 12631, 12636,
13082, 13091, 13115, 13132,
13138, 13440, 13443, 13471,
13496, 13500
\MakeCheckField . 5886, 12656,
13160, 13526
\MakeChoiceField . 5888, 12571,
13065, 13414
\MakeFieldObject 12830, 12917,
12927, 12930
\MakeLowercase 619
\MakeLowercaseUnsupportedIn-
PdfStrings 619
\MakeRadioField .. 5885, 12559,
13052, 13378
\makeslideheading 8203
\makeslidesubheading 8255
\maketag@@@ 7942
\MakeTextField ... 5887, 12476,
12959, 13289
\maketitle 7306, 7307

\MakeUppercase 618, 8298, 8300,
8454
\MakeUppercaseUnsupportedIn-
PdfStrings 618
\MathBSuppress .. 10298, 10302
\mathdisplay 6912, 6921
\mathdisplay@push . 6910, 6919
\mathversion 611
\maxdimen 3457, 12835
\MaybeStopEarly 471, 2859, 2934,
4233, 4338, 6537, 6540
\mbox 654, 7605, 7628, 8809, 9910
\mddefault ... 7030, 7056, 7087
\mdseries 594
\meaning 62, 153,
159, 2369, 6153, 6711, 6995,
14245, 14253, 14268
\measuring@false 6623
\mediaheight 10389, 10391,
10397, 10404
\mediawidth 10400, 10407
\meem 16916
\message 8321
\MessageBreak 280, 286, 300, 301,
340, 341, 502, 1965, 1986,
1999, 2022, 2027, 2029,
2535, 2536, 2550, 2572,
2575, 2577, 2655, 2656,
2682, 2683, 2735, 2736,
2737, 2775, 2776, 2796,
2807, 2848, 2873, 2906,
2944, 2951, 2962, 2968,
3045, 3387, 3518, 3519,
3581, 3582, 3600, 3601,
3695, 3779, 3834, 3835,
3945, 3946, 4048, 4267,
4268, 4276, 4277, 4293,
4294, 4309, 4310, 4318,
4319, 4498, 4743, 4744,
4768, 4769, 4785, 4786,
5127, 5132, 5141, 5184,
5230, 5354, 5467, 5539,
5550, 5582, 5583, 5602,
5710, 5711, 5712, 5713,
6218, 6453, 6468, 6469,
6758, 7847, 7877, 7878,
7879, 7880, 7881, 8012,
8862, 9948, 10481, 10564,
11075, 12843, 12845, 13981,
13999, 14112
\MF 569, 12263
\MP 570, 12264
\multiply ... 9084, 10744, 10779

N

\n 861
\name@Of@eq 6596, 6626
\name@Of@slide 6597, 6607

\nameref 651, 4574, 4578
\nasb 16922
\netscape 9478
\new@ifnextchar 676
\new@pdfink .. 8837, 8894, 8897
\new@refstepcounter 6904, 6936
\newblock 7689
\newcommand 4, 9,
42, 2407, 6051, 6055, 7980,
14082, 14085, 14090
\newcount 472,
473, 2412, 4734, 5505, 6229,
12567, 13059, 13260, 13410,
14117
\newcounter . 6579, 7141, 9816,
14032
\newdimen 469, 5506, 5507
\newif 381, 382, 383, 384,
385, 386, 387, 388, 389, 390,
391, 392, 395, 396, 397, 398,
399, 400, 401, 402, 403, 404,
405, 406, 407, 408, 409, 410,
411, 412, 413, 414, 415, 416,
417, 418, 419, 420, 421, 422,
423, 424, 427, 428, 429, 819,
995, 2803, 2824, 3525, 3818,
4410, 4764, 5080, 5168,
5501, 5502, 5522, 5565,
6598, 6599, 6623, 6940,
10277, 11221
\newlabel 2372, 4873, 6091, 6092,
6100, 6126, 6780, 6808
\newlabelxx 6093, 6094
\newlength 14320
\newline 557, 6174
\newname 6629, 6932, 6954, 6978,
6991, 7000
\newsavebox 9746, 11258
\newtie ... 14515, 14516, 14899,
14929, 14948, 14964
\newtoks 90, 5593, 11093, 11333,
11334
\newwrite .. 6120, 14205, 14287
\next .. 7679, 7680, 7681, 10707,
10709, 10711
\nfss@text 8375, 8395, 8412, 8530
\NG 15360
\ng 15362
\noboundary 16937
\nobreak 2454, 2462, 2473, 2481,
7198, 7357
\nobreakspace . 664, 8466, 8495,
8498
\noexpand . 22, 93, 95, 108, 116,
169, 171, 172, 173, 176, 206,
839, 941, 1280, 1713, 1730,
1853, 2225, 2460, 2461,

| | | |
|-------------------------------------|-----------------------------------|-------------------------------------|
| 2462, 2465, 2479, 2480, | 2329, 2330, 2335, 2337, | \openout 6078, 6121, 14207, |
| 2481, 2484, 3306, 3308, | 2338, 2343, 2344, 3904, | 14289 |
| 3310, 3311, 3312, 3314, | 4412, 4429, 5094, 6688, | \OpMode 2929, 2932, 2945, 2958, |
| 3330, 3536, 3537, 3539, | 6689, 6692, 6696, 8716, | 2963, 10796, 10887, 11704 |
| 3884, 4188, 4192, 4193, | 8719, 9506, 9524, 9525, | \or 335, 1148, 1149, 1150, 1151, |
| 4360, 4648, 4821, 4903, | 9540, 9541, 9561, 9562, | 1152, 1153, 1154, 1155, |
| 5033, 5035, 5136, 5683, | 9578, 9579, 9601, 9602, | 1156, 1170, 1171, 1172, |
| 5696, 6342, 6343, 6352, | 9618, 9619 | 1173, 1174, 1175, 1176, |
| 6354, 6357, 6482, 6792, | \numberline . 7395, 7466, 14004, | 1177, 1178, 1193, 1194, |
| 6793, 6795, 6820, 6821, | 14009 | 1195, 1196, 1197, 1198, |
| 6822, 6823, 6824, 6832, | \numberwithin 7977 | 1199, 1200, 1201, 1286, |
| 6833, 6834, 6994, 7220, | \numexpr 2236, 2237, 2238, 2240, | 1287, 1288, 1289, 1290, |
| 7230, 7238, 7239, 7240, | 2246, 2254, 2255, 2256, | 1291, 1292, 1293, 1294, |
| 7242, 7366, 7455, 7530, | 2257, 2258, 2259, 2263, | 1295, 1296, 1297, 1298, |
| 7545, 7561, 7746, 7972, | 2265, 2269, 2271, 2273, | 1299, 1300, 1301, 1302, |
| 7974, 8428, 8429, 8546, | 2275, 2279, 2282, 2283, | 1303, 1304, 1305, 1306, |
| 8547, 8552, 8554, 8559, | 2285, 2294, 2299, 2316, | 1307, 1308, 1309, 1310, |
| 8560, 8565, 8566, 9087, | 2330, 2338, 2344, 3908 | 1311, 1312, 1313, 1314, |
| 9684, 11158, 11225, 11760, | \nun 16917 | 1315, 1316, 1317, 1335, |
| 12011, 12501, 12502, 12503, | | 1357, 1360, 1366, 1367, |
| 12504, 12983, 12984, 12985, | O | 1368, 1369, 1370, 1371, |
| 12986, 13324, 13325, 13326, | \O 14755, 15123, 15518 | 1372, 1373, 1374, 1375, |
| 13327, 13602 | \o 14823, 15191, 15520 | 1376, 1377, 1378, 1379, |
| \nofrenchguillemets . . . 683, 685 | \obeylines 11759 | 1380, 1381, 1382, 1383, |
| \NoHy@OrgPageRef 5998, 6000, | \OBJ@acroform . . . 12913, 12914 | 1384, 1385, 1386, 1387, |
| 6068, 6070 | \OBJ@Helv 12892, 12901, 13219 | 1388, 1389, 1390, 1391, |
| \NoHy@OrgRef 5994, 5996, 6064, | \OBJ@OCG@print . . 8753, 8756, | 1392, 1393, 1394, 1395, |
| 6066 | 8764, 8790, 9834, 9836, | 1396, 1397, 1402, 1403, |
| \NoHyper 6002 | 9849, 9853, 9862, 9891 | 1404, 1405, 1406, 1407, |
| \nohyperpage 6046, 8123, 8125, | \OBJ@OCG@view | 1408, 1409, 1410, 1411, |
| 8127 | . . 8738, 8756, 8789, 9818, | 1412, 1413, 1414, 1415, |
| \nolinkurl 4800 | 9820, 9833, 9853, 9890 | 1416, 1417, 1418, 1419, |
| \nolinkurl@ 4800, 4801 | \OBJ@OCGs . 8759, 8762, 8768, | 1420, 1421, 1422, 1423, |
| \NomFancyVerbLineautorefname | 8773, 8778, 9850, 9852, | 1424, 1425, 1426, 1427, |
| 3234 | 9856, 9860, 9866, 9871, 9876 | 1428, 1429, 1430, 1431, |
| \Nomfootnoteautorefname . 3214 | \OBJ@pdfdocencoding . . . 12890, | 1432, 1433, 1446, 1447, |
| \Nomtheoremautorefname . 3238 | 13200, 13216 | 1448, 1449, 1450, 1562, |
| \nonumber 6965, 6968 | \OBJ@ZaDb 12891, 12900, 13209 | 1563, 1564, 5254, 5260, |
| \normalfont 589, 7024, 7050, 7083 | \OCIRCUMFLEX 16760, 16858, | 5265, 5479, 6663, 6664, |
| \normalsize 607, 7402, 7473 | 16859, 16860, 16861, 16862 | 6665, 6666, 6672, 6673, |
| \note 7789 | \ocircumflex 16753, 16798, 16799, | 6674, 6675, 7897, 7901, |
| \NR@getttitle 7392 | 16800, 16801, 16802 | 8340, 8349, 10789, 14125, |
| \null . . . 7670, 7678, 8417, 8526 | \oddsidemargin 7826 | 14126, 14127, 14128, 14129, |
| \number 1114, 1118, 1121, 1129, | \OE 14624, 15376 | 14130, 14131, 14132, 14133, |
| 1132, 1134, 1439, 1441, | \oe 14637, 15378 | 14134, 14135, 14136, 14137, |
| 1468, 1469, 2171, 2229, | \offinterlineskip 6200 | 14138, 14139, 14140, 14141, |
| 2230, 2231, 2232, 2236, | \OHORN . . 16761, 16863, 16864, | 14142, 14143, 14144, 14145, |
| 2237, 2238, 2239, 2240, | 16865, 16866, 16867 | 14146, 14147, 14148, 14149, |
| 2244, 2245, 2246, 2247, | \ohorn 3261, 3268, 16754, 16803, | 14150, 14151, 14152, 14153, |
| 2248, 2249, 2250, 2254, | 16804, 16805, 16806, 16807 | 14154, 14155, 14156 |
| 2255, 2256, 2257, 2258, | \oldb 893 | \overlay 7786 |
| 2259, 2262, 2264, 2268, | \oldc 894 | |
| 2269, 2271, 2273, 2275, | \oldcontentsline 6086, 6089, 6099 | P |
| 2278, 2282, 2283, 2284, | \olddd 895 | \P 553 |
| 2285, 2294, 2295, 2299, | \oldnewlabel . . 6091, 6096, 6100 | \p@ 2295, 2300, 5508, 5514, 7032, |
| 2300, 2307, 2308, 2312, | \OMEGA 12259 | 7058, 7089, 9451, 9535, |
| 2315, 2316, 2317, 2327, | \on@line 7874, 7875 | 9573, 9613, 10743, 11927, |

14445, 14446

\p@equation 7949

\PackageError 61

\PackageInfo . 8700, 8714, 12841

\PackageWarning . . 2806, 5465

\pageautorefname

.. 3092, 3110, 3128, 3146,
3164, 3182, 3200, 3240,
3258, 3276, 8498, 8621

\pagename 8495

\pageref

650, 4243, 4565, 5998, 5999,
6068, 6069, 6758, 8484, 8488

\paperheight

.. 4041, 9299, 9301, 9304,
9306, 9318, 9319, 10258,
10259, 10396, 10397, 10399,
11681, 11682

\paperwidth

.. 9295, 9297, 9308, 9310,
9315, 9316, 10257, 10259,
10400, 11680, 11682

\par 7023, 7048, 7081, 7394, 7422,
7464, 7474, 7672, 7692

\paragraphautorefname

.. 3088, 3106, 3124, 3142,
3160, 3178, 3196, 3229,
3231, 3254, 3272, 8617

\partautorefname . . 3082, 3100,
3118, 3136, 3154, 3172,
3190, 3220, 3248, 3266, 8611

\partnumberline . . 14006, 14011

\PassOptionsToPackage . . 2977,
3034, 3038, 3060, 4075, 4379

\pdf@addtoks . . . 11336, 11355,
11361, 11370, 11377, 11381,
11383, 11385, 11387, 11389,
11397, 11406, 11410, 11412,
11414, 11417, 11426, 11430,
11432, 11434, 11436, 11438,
11440, 11442, 11444, 11446,
11448, 11450, 11452, 11454,
11456, 11458, 11460, 11461,
11462, 11463, 11464, 11465,
11466, 11467, 11468, 11469,
11470, 11475

\pdf@addtoksx . . 11330, 11340,
11353

\pdf@box . . 11258, 11290, 11298,
11306, 11307, 11310, 11314,
11316, 11319

\pdf@defaulttoks . 11225, 11334,
11335, 11345

\pdf@docset 11093

\pdf@endanchor 8850, 8894, 8901

\pdf@escapestring 8676

\PDF@FinishDoc . . . 2862, 2863,
2937, 2938, 4035, 4110,
4236, 4237, 4341, 4342,
6045, 6210, 6211, 9163,
9375, 9633, 10115, 10278,
10855, 11094, 11967, 12128

\pdf@ifdraftmode 240, 243,
251, 6386, 8723, 9164, 9273,
12887, 14217

\pdf@linktype . . . 11243, 11247,
11350, 11351

\pdf@rect . 11235, 11249, 11262

\PDF@SetupDoc 4034, 4109, 5965,
5966, 6044, 9094, 9376,
9664, 10155, 10279, 10804,
11145, 11848, 11998, 12129

\PDF@SetupDox 9094

\pdf@strcmp 972

\pdf@toks . 11225, 11240, 11251,
11333, 11337, 11341

\pdf@type . 11227, 11231, 11240,
11251, 11328, 11348

\pdfannotlink 8828

\pdfbookmark 2407, 6050, 6051,
14083, 14088, 14093, 14097

\pdfcatalog . . 6389, 8760, 9109,
9151, 12914

\PDFdefaults 11344

\pdfdest 8852

\pdfdraftmode 244

\pdfendlink . 8891, 12959, 13052,
13066, 13092, 13116, 13139,
13161

\pdfescapestring 13631

\pdfform 8830

\PDFForm@@Name 13639, 13642,
13646, 13649

\PDFForm@Check 12655, 12657,
13158, 13159, 13531, 13535,
13723

\PDFForm@List . 12570, 12572,
13063, 13064, 13417, 13422,
13781

\PDFForm@Name 12951, 13004,
13075, 13153, 13284, 13345,
13433, 13522, 13638

\PDFForm@Push . 12594, 12596,
13089, 13090, 13449, 13453,
13752

\PDFForm@Radio 12558, 12562,
13042, 13044, 13386, 13398,
13814

\PDFForm@Reset 12635, 12637,
13136, 13137, 13501, 13506,
13916

\PDFForm@Submit 12612, 12615,
13109, 13111, 13473, 13478,
13883

\PDFForm@Text . 12475, 12477,
12957, 12958, 13294, 13297,
13848

\pdfhorigin 9291

\pdfinfo 9167

\pdflastform 8831

\pdflastlink 12871

\pdflastobj . . 8738, 8753, 8759,
12913, 13200, 13209, 13219

\pdflastxform 8831, 12833, 12835

\pdflinkmargin 8826, 8829, 8834

\pdfliteral 8810, 8812, 8817

\pdfm@box . 9746, 13256, 13257,
13258, 13288, 13300, 13377,
13402, 13413, 13424, 13443,
13456, 13471, 13480, 13500,
13508, 13525, 13537

\pdfmark 6500, 9684, 9693, 9723,
10923, 10943, 10982, 11017,
11034, 11046, 11080, 11117,
11129, 11158, 11167, 11198,
11222, 11483, 11497, 11512,
11524, 11531, 11558, 11589,
12011, 12020, 12051, 12476,
12559, 12571, 12595, 12613,
12636, 12656, 14249

\pdfmark@ 11222, 11223

\pdfmatch 332

\pdfminorversion 8697

\PDFNextPage 11495

\PDFNextPage@ . . 11495, 11496

\pdfobj 8724, 8739, 8754, 12895,
13167, 13201, 13210

\PDFOpen 11523

\pdfoptionpdfminorversion 8694

\pdfoutline 14298

\pdfpageattr . 9207, 9211, 9212,
9222, 9231, 9235, 9236,
9246, 9254, 9257, 9258, 9268

\pdfpageheight 9301, 9310, 9319,
9326

\pdfpageresources 8787

\pdfpagesattr . 9098, 9100, 9102

\pdfpagewidth 9297, 9306, 9316,
9323

\PDFPreviousPage 11508

\PDFPreviousPage@ 11509,
11511

\pdfrefform 8832

\pdfrefobj . 12890, 12891, 12892

\pdfrefxform 8832, 12835

\pdfstartlink

.. 8827, 8828, 8886, 8930,
8968, 9005, 9338, 12958,
13043, 13064, 13090, 13110,
13137, 13159

| | | | |
|---|--|---|--|
| <code>\pdfstringdef</code> | 522, 806, 3721, 3727, 3733, 3739, 3744, 3750, 3757, 3763, 3843, 5426, 5431, 5457, 6177, 6278, 6280, 6773, 7772, 7808, 13657, 14015 | 6986, 7495, 7496, 7511, 7589, 8175, 8176, 8180, 8185, 8186, 8293, 8602, 8603, 8604, 8605, 8606, 8607, 8608, 8609, 8610, 8611, 8612, 8613, 8614, 8615, 8616, 8617, 8618, 8619, 8620, 8621, 8683, 8836, 8854, 8855, 9374, 9477, 9478, 9741, 9803, 9804, 9805, 10275, 10394, 10416, 10417, 10418, 10880, 11259, 11260, 11615, 11623, 11624, 11625, 11626, 11698, 11710, 11711, 11712, 11713, 11757, 11798, 11799, 11800, 11801, 11956, 11958, 11959, 12072, 12073, 12120, 12854 | 380, 1231, 1758, 2357, 2787, 2857, 4224, 4225, 4514, 4558, 4590, 4797, 5071, 6034, 6191, 6434, 10276, 12125, 14107 |
| <code>\pdfstringdefDisableCommands</code> . .. | 892, 931, 6048, 6172 | | <code>\RerunFileCheck</code> 14109 |
| <code>\pdfstringdefPostHook</code> . | 802, 925 | | <code>\Reset</code> 5870 |
| <code>\pdfstringdefPreHook</code> . | 660, 925, 937, 6171, 6181 | | <code>\reset@font</code> . . 7605, 7628, 8375, 8395, 8412, 8530 |
| <code>\pdfstringdefWarn</code> | 556, 557, 655, 940, 1721, 1726, 1745, 1749 | | <code>\revtex@checking</code> 7582 |
| <code>\pdfTeXrevision</code> | 9054, 9062, 9073 | | <code>\Rightarrow</code> 8327 |
| <code>\pdfTeXversion</code> | 9049, 9051, 9054, 9057, 9060, 9061, 9065, 9071, 9072, 12889 | | <code>\rlap</code> 8811, 9912 |
| <code>\pdfvorigin</code> | 9292 | | <code>\rm</code> 600 |
| <code>\pdfxform</code> | 8830, 12831 | | <code>\rmfamily</code> 590 |
| <code>\peh</code> | 16930 | | <code>\Roman</code> 6334 |
| <code>\penalty</code> | 1856, 2434, 4709, 7599, 7622 | <code>\PushButton</code> 5861 | <code>\roman</code> 6335 |
| <code>\phantom</code> | 612 | <code>\put@me@back</code> 5028, 5041, 5051 | <code>\romannumeral</code> 947, 948 |
| <code>\phantomsection</code> . . . | 4036, 6052, 7849, 13950, 14001, 14389 | Q | |
| <code>\Preamble</code> | 12255 | <code>\qaf</code> 16913 | <code>\sad</code> 16905 |
| <code>\PrerenderUnicode</code> | 3712 | <code>\quotedblbase</code> . . . 14604, 14841, 16430, 16734 | <code>\sbox</code> 3708, 5890, 9439, 9519, 9556, 9596, 11259, 11298, 11915, 12190, 12830 |
| <code>\process@me</code> . | 6151, 6163, 6164, 9097, 9106 | <code>\quotesinglbase</code> . . 14614, 14843, 16424, 16736 | <code>\scr@LT@array</code> 6878 |
| <code>\ProcessKeyvalOptions</code> . . . | 4079 | R | |
| <code>\protect</code> . | 1854, 4851, 7395, 7466, 7530, 7545, 7561, 7677, 7684, 7685, 7887, 7918, 8193, 8245, 8374, 8394, 8400, 8411, 8529, 9386, 9483, 10349, 10424, 11859, 12139, 14022, 14322, 14445, 14446 | <code>\r</code> . . . 864, 14482, 14494, 14506, 14716, 14781, 14890, 14917, 14936, 14958, 15085, 15149, 15432, 15434, 16394, 16396 | <code>\scriptsize</code> 608 |
| <code>\protected@edef</code> | .. 4888, 6244, 6338, 6863, 6992, 7012, 7760, 7764, 8859, 9945, 10478, 10561, 11072 | <code>\ra</code> 16901 | <code>\scriptstyle</code> 7595 |
| <code>\protected@write</code> . . . | 2371, 4872, 7657, 8078, 8093, 8101, 8105, 8110, 14021 | <code>\raff</code> 16923 | <code>\scrollmode</code> . . 1773, 1798, 1808, 1821, 1913, 2045 |
| <code>\protected@xdef</code> . . . | 7239, 7332 | <code>\raise</code> . . . 2441, 9452, 9536, 9574, 9614, 11324, 11928, 12208 | <code>\scshape</code> 596, 7029, 7055 |
| <code>\providecommand</code> | .. 2388, 2389, 3412, 3413, 3416, 3417, 4329, 4542, 4543, 4662, 4805, 6082, 6368, 6393, 6518, 6557, 6560, 6563, 6564, 6565, 6567, 6568, 6569, 6570, 6572, 6573, 6574, 6575, 6576, 6577, 6586, 6587, 6588, 6589, 6590, 6591, | <code>\ReadBookmarks</code> 4078, 4113, 4250, 4446, 4586, 14181, 14216 | <code>\section</code> 8295 |
| | | <code>\real@setref</code> 8371, 8437 | <code>\sectionautorefname</code> 3085, 3103, 3121, 3139, 3157, 3175, 3193, 3222, 3251, 3269, 8614 |
| | | <code>\realfootnote</code> 7329 | <code>\seen</code> 16903 |
| | | <code>\Ref</code> 8456, 8460, 8465 | <code>\selectfont</code> 576, 4525, 12923 |
| | | <code>\ref</code> 649, 4242, 4562, 5068, 5994, 5995, 6064, 6065, 7294, 7301, 8475, 12231 | <code>\set@display@protect</code> 4177 |
| | | <code>\ref@one</code> 4827, 4828 | <code>\setbox</code> 1857, 1863, 1869, 3440, 3446, 5652, 6199, 7117, 8801, 9366, 9885, 9902, 13288, 13377, 13413, 13443, 13471, 13500, 13525 |
| | | <code>\rEfLiNK</code> 12232, 12233 | <code>\setcounter</code> 4740 |
| | | <code>\refstepcounter</code> 6595, 6602, 6622, 6845, 6868, 6869, 6870, 6879, 6904, 6928, 6936, 7040, 7458 | <code>\setkeys</code> 4715, 4760 |
| | | <code>\rem@ptetc</code> 11007, 11009 | <code>\setlength</code> 506, 507, 2438, 5664, 9291, 9292, 9297, 9301, 9306, 9310, 9316, 9319, 9323, 9326, 10397, 10400, 10404, 10407, 10743, 14339, 14410 |
| | | <code>\renewcommand</code> . . . 2363, 7437, 7994, 14097 | <code>\setpdfinkmargin</code> . . 3891, 3892, 8826 |
| | | <code>\RequirePackage</code> 22, 233, 235, 236, 237, 255, 256, 257, 258, 259, 260, 261, 262, | <code>\settowidth</code> 12494, 12976, 13317 |
| | | | <code>\SetupKeyvalOptions</code> 2492, 4069 |
| | | | <code>\sffamily</code> 591 |
| | | | <code>\shadda</code> 16928 |
| | | | <code>\sheen</code> 16904 |

| | | | | | |
|---|---|---|---|---|-------------------------------|
| <code>\textcolonmonetary</code> | 16510 | <code>\textfrq</code> | 640, 14848, 16741 | <code>\textmusicalnote</code> | 16720 |
| <code>\textcolor</code> | 617, 12885, 12928, 12931, 13228 | <code>\textfrqq</code> | 638, 14846, 16739 | <code>\textnaira</code> | 16514 |
| <code>\textcompwordmark</code> | 16412 | <code>\textGamma</code> | 1150, 15622 | <code>\textnapostrophe</code> | 15358 |
| <code>\textcopyright</code> | 14661, 15029 | <code>\textgamma</code> | 1150, 15685 | <code>\textneg</code> | 14849, 16742 |
| <code>\textCR</code> | 14523, 14970 | <code>\textglq</code> | 635, 14843, 16736 | <code>\textnewtie</code> | 14929, 14948, 15590 |
| <code>\textcurrency</code> | 14651, 15019 | <code>\textglqq</code> | 633, 14841, 16734 | <code>\textnineinferior</code> | 16504 |
| <code>\textdagger</code> | 14582, 16432 | <code>\textgravedbl</code> | 15584 | <code>\textninesuperior</code> | 16472 |
| <code>\textdaggerdbl</code> | 14584, 16434 | <code>\textgreater</code> | 14559, 14992 | <code>\textnormal</code> | 579 |
| <code>\textdegree</code> | 14674, 14840, 15042 | <code>\textgrq</code> | 636, 14844, 16737 | <code>\textnsuperior</code> | 16484 |
| <code>\textDelta</code> | 1151, 15624 | <code>\textgrqq</code> | 634, 14842, 16735 | <code>\textNu</code> | 1174, 15642 |
| <code>\textdelta</code> | 1151, 15687 | <code>\textGslash</code> | 15487 | <code>\textnu</code> | 1174, 15705 |
| <code>\textDigammagreek</code> | 15746 | <code>\textgslash</code> | 15489 | <code>\textnumbersign</code> | 547, 14543, 14974 |
| <code>\textdigammagreek</code> | 15748 | <code>\textguarani</code> | 16526 | <code>\textnumeralsigngreek</code> | 1125, 15598 |
| <code>\textdiscount</code> | 16458 | <code>\textHslash</code> | 15283 | <code>\textnumeralsignlowergreek</code> | 1142, 1164, 1187, 15600 |
| <code>\textdiv</code> | 14851, 16744 | <code>\texthslash</code> | 15285 | <code>\textnumero</code> | 16530 |
| <code>\textdivide</code> | 14821, 14851, 15189, 16744 | <code>\textHT</code> | 14519, 14966 | <code>\textogonek</code> | 14535, 14925, 14944, 15577 |
| <code>\textdivorced</code> | 16724 | <code>\texthungarumlaut</code> | 14533, 14924, 14943, 15581, 15582 | <code>\textohm</code> | 16540 |
| <code>\textdollar</code> | 548, 14545, 14976 | <code>\textinterrobang</code> | 16450 | <code>\textOmega</code> | 1200, 15614, 15664 |
| <code>\textdong</code> | 16520 | <code>\textIota</code> | 1170, 15608, 15634, 15667 | <code>\textomega</code> | 1200, 15729, 15740 |
| <code>\textdotaccent</code> | 14484, 14496, 14508, 14531, 14919, 14938, 15573 | <code>\textiota</code> | 1170, 15677, 15697, 15731 | <code>\textOmicron</code> | 1176, 15610, 15646 |
| <code>\textdotbelow</code> | 14488, 14500, 14512, 14555, 14927, 14946, 15592 | <code>\textIotadieresis</code> | 15616, 15666 | <code>\textomicron</code> | 1176, 15709, 15735 |
| <code>\textdoublegrave</code> | 14922, 14941, 15588 | <code>\textit</code> | 585 | <code>\textonehalf</code> | 14700, 15069 |
| <code>\textdownarrow</code> | 16556 | <code>\textKappa</code> | 1171, 15636 | <code>\textoneinferior</code> | 16488 |
| <code>\texteightinferior</code> | 16502 | <code>\textkappa</code> | 1171, 15699 | <code>\textonequarter</code> | 14698, 15067 |
| <code>\texteightsuperior</code> | 16470 | <code>\textKoppagreek</code> | 1178, 15750 | <code>\textonesuperior</code> | 14692, 15061 |
| <code>\textellipsis</code> | 554, 555, 14586, 16438 | <code>\textkoppagreek</code> | 1178, 15752 | <code>\textopenbullet</code> | 16716 |
| <code>\textemdash</code> | 748, 14588, 16416 | <code>\textkra</code> | 15324 | <code>\textordfeminine</code> | 14663, 15031 |
| <code>\textendash</code> | 749, 14590, 16414 | <code>\textLambda</code> | 1172, 15638 | <code>\textordmasculine</code> | 14694, 15063 |
| <code>\textEpsilon</code> | 1152, 15604, 15626 | <code>\textlambda</code> | 1172, 15701 | <code>\textparagraph</code> | 553, 14686, 15055 |
| <code>\textepsilon</code> | 562, 565, 1152, 15673, 15689 | <code>\textlangle</code> | 16562 | <code>\textparenleft</code> | 756, 757, 14551, 14984 |
| <code>\textequalssuperior</code> | 16478 | <code>\textlatin</code> | 621, 6699 | <code>\textparenleftinferior</code> | 16506 |
| <code>\textestimated</code> | 16546 | <code>\textlbrackdbl</code> | 16726 | <code>\textparenleftsuperior</code> | 16480 |
| <code>\textEta</code> | 1155, 15606, 15630 | <code>\textleftarrow</code> | 16550 | <code>\textparenright</code> | 14553, 14986 |
| <code>\texteta</code> | 1155, 15675, 15693 | <code>\textless</code> | 14557, 14990 | <code>\textparenrightinferior</code> | 16508 |
| <code>\texteuro</code> | 14643, 16522 | <code>\textLF</code> | 14521, 14968 | <code>\textparenrightsuperior</code> | 16482 |
| <code>\textexclamdown</code> | 752, 1059, 14645, 15013 | <code>\textlira</code> | 16512 | <code>\textpercent</code> | 549, 14547, 14978 |
| <code>\textfi</code> | 750, 14618, 16730 | <code>\textlnot</code> | 14668, 15036 | <code>\textperiodcentered</code> | 14688, 14853, 15057, 16746 |
| <code>\TextField</code> | 5852 | <code>\textlogicalnot</code> | 14667, 14849, 15035, 16742 | <code>\textpertenthousand</code> | 16442 |
| <code>\textfiveinferior</code> | 16496 | <code>\textlongs</code> | 15466, 16398 | <code>\textperthousand</code> | 14602, 16440 |
| <code>\textfivesuperior</code> | 16464 | <code>\textlquill</code> | 16454 | <code>\textpeseta</code> | 16516 |
| <code>\textfl</code> | 751, 14620, 16732 | <code>\textmacronbelow</code> | 14487, 14499, 14511, 14566, 14926, 14945, 15594 | <code>\textpeso</code> | 16524 |
| <code>\textflorin</code> | 14592, 15468 | <code>\textmarried</code> | 16722 | <code>\textPhi</code> | 1197, 15658 |
| <code>\textflq</code> | 639, 14847, 16740 | <code>\textmd</code> | 584 | <code>\textphi</code> | 1197, 15723 |
| <code>\textflqq</code> | 637, 14845, 16738 | <code>\textmho</code> | 16542 | <code>\textPi</code> | 1177, 15648 |
| <code>\textfourinferior</code> | 16494 | <code>\textminus</code> | 14600, 16558 | <code>\textpi</code> | 1177, 15711 |
| <code>\textfoursuperior</code> | 16462 | <code>\textminussuperior</code> | 16476 | <code>\textplusminus</code> | 14676, 14852, 15044, 16745 |
| <code>\textfractionsolidus</code> | 14594, 16452 | <code>\textMu</code> | 1173, 15640 | <code>\textplussuperior</code> | 16474 |
| | | <code>\textmu</code> | 1173, 14684, 15053 | <code>\textpm</code> | 14852, 16745 |
| | | <code>\textmugreek</code> | 15703 | <code>\textPsi</code> | 1199, 15662 |
| | | <code>\textmultiply</code> | 14753, 14850, 15121, 16743 | <code>\textpsi</code> | 1199, 15727 |

| | | | |
|---|----------------------------|--|--|
| <code>\textquestiondown</code> . . . | 753, 1060, 14704, 15073 | <code>\theHsubequation</code> | 6986 |
| <code>\textquotedbl</code> | 14541, 14972 | <code>\theHsubparagraph</code> | 6575 |
| <code>\textquotedblleft</code> . . | 14606, 14842, 16426, 16735 | <code>\theHsubsection</code> | 6572, 6573 |
| <code>\textquotedblright</code> . | 14608, 16428 | <code>\theHsubsubsection</code> . | 6573, 6574 |
| <code>\textquoteleft</code> . . . | 14610, 14844, 16420, 16737 | <code>\theHtable</code> | 6565, 6569 |
| <code>\textquoteright</code> . . . | 14612, 16422 | <code>\theHtheorem</code> | 6576 |
| <code>\textquotesingle</code> | 14982 | <code>\theHthm</code> | 6577 |
| <code>\texttriangle</code> | 16564 | <code>\theHy@tempcnt</code> 4735, 4743, 4750 | |
| <code>\texttrbrackdbl</code> | 16728 | <code>\thelisting</code> | 3416 |
| <code>\textrecipe</code> | 16534 | <code>\thelstlisting</code> | 3412 |
| <code>\textreferencemark</code> | 16448 | <code>\thempfn</code> 7147, 7240, 7332, 7344 | |
| <code>\textregistered</code> | 14670, 15038 | <code>\theoremautorefname</code> 3091, 3109, 3127, 3145, 3163, 3181, 3199, 3237, 3257, 3275, 8620 | |
| <code>\textRho</code> | 1193, 15650 | <code>\thepage</code> 2374, 4853, 6219, 6245, 6260, 6773, 6781, 6808, 7608, 7631, 7660, 7761, 7808, 7887, 7918, 8079, 8096, 8102, 8106, 8113, 8377, 8397, 8414, 8532 | |
| <code>\textrho</code> | 1193, 15713 | <code>\theslideheading</code> | 8206 |
| <code>\textrightarrow</code> | 16554 | <code>\theslidesection</code> 8194, 8201, 8209, 8215, 8217, 8219, 8225, 8235 | |
| <code>\textring</code> . . 14482, 14494, 14506, 14537, 14917, 14936, 15575 | | <code>\theslidesubheading</code> . | 8207, 8258 |
| <code>\textrm</code> | 580 | <code>\theslidesubsection</code> | 8246, 8253, 8260, 8266, 8268, 8270, 8276, 8286 |
| <code>\textrquill</code> | 16456 | <code>\ThisName</code> . 6606, 6607, 6625, 6626 | |
| <code>\textSampi</code> greek . . . | 1201, 15754 | <code>\thispdfpagelabel</code> | 6224 |
| <code>\textsampi</code> greek | 1201, 15756 | <code>\ThisShouldNotHappen</code> . . | 13609 |
| <code>\textsc</code> | 586 | <code>\thm@headfont</code> | 7029, 7055 |
| <code>\textsection</code> | 14657, 15025 | <code>\thm@headpunct</code> . . . | 7031, 7057, 7088 |
| <code>\textservicemark</code> | 16536 | <code>\thm@headsep</code> . 7032, 7058, 7089 | |
| <code>\textseveninferior</code> | 16500 | <code>\thm@indent</code> | 7028, 7054 |
| <code>\textsevensuperior</code> | 16468 | <code>\thm@notefont</code> 7030, 7056, 7087 | |
| <code>\textsf</code> | 581, 12928, 12931 | <code>\thm@postskip</code> 7036, 7062, 7093 | |
| <code>\textSigma</code> | 1194, 15652 | <code>\thm@preskip</code> . 7035, 7061, 7092 | |
| <code>\textsigma</code> | 1194, 15717 | <code>\thm@space@setup</code> . 7033, 7059, 7090 | |
| <code>\textsixinferior</code> | 16498 | <code>\thm@swap</code> . . . 7027, 7053, 7086 | |
| <code>\textsixsuperior</code> | 16466 | <code>\thmheadnl</code> . . . 7026, 7052, 7085 | |
| <code>\textsl</code> | 587 | <code>\tiny</code> | 610 |
| <code>\textsterling</code> | 14649, 15017 | <code>\title</code> | 6130, 6132 |
| <code>\textStigma</code> greek . . . | 1153, 15742 | <code>\TMP@EnsureCode</code> | 4456, 4463, 4464, 4465, 4466, 4467, 4468, 4469, 4470, 4471, 4472, 4473, 4474, 4475, 4476, 4477, 4478, 4479, 4480, 4481, 4482, 4483, 4484, 4485, 4486, 4487, 4488, 4489 |
| <code>\textstigma</code> greek . . . | 1153, 15744 | <code>\tocappendix</code> | 1609 |
| <code>\textsurd</code> | 16560 | <code>\tocchapter</code> | 1608 |
| <code>\TextSymbolUnavailable</code> . | 14513, 14514, 14516 | <code>\toclevel@chapter</code> | 3403 |
| <code>\textTau</code> | 1195, 15654 | <code>\toclevel@figure</code> | 3409 |
| <code>\texttau</code> | 1195, 15719 | | |
| <code>\textTheta</code> | 1156, 15632 | | |
| <code>\texttheta</code> | 1156, 15695 | | |
| <code>\textthreeinferior</code> | 16492 | | |
| <code>\textthreequarters</code> . | 14702, 15071 | | |
| <code>\textthreesuperior</code> . | 14680, 15048 | | |
| <code>\texttie</code> . . . 14928, 14947, 15596 | | | |
| <code>\texttilde</code> . . . 4172, 14480, 14492, 14504, 14539, 14915, 14934, 15579 | | | |
| <code>\texttildelow</code> | 15586 | | |
| <code>\texttimes</code> | 14850, 16743 | | |
| <code>\texttrademark</code> . . . | 14616, 16538 | | |
| <code>\textTslash</code> | 15416 | | |
| <code>\texttslash</code> | 15418 | | |
| <code>\texttt</code> | 582 | | |
| <code>\texttwoinferior</code> | 16490 | | |
| <code>\texttwosuperior</code> . . | 14678, 15046 | | |
| <code>\textunderscore</code> 552, 4619, 4620, 4622, 14565, 14998 | | | |
| <code>\textup</code> | 588 | | |
| <code>\textuparrow</code> | 16552 | | |
| <code>\textUpsilon</code> 1196, 15612, 15656, 15669 | | | |
| <code>\textupsilon</code> . 1196, 15721, 15733, 15738 | | | |
| <code>\textupsilon</code> acute . 15679, 15737 | | | |
| <code>\textvarsigma</code> | 15715 | | |
| <code>\textvisiblespace</code> | 16568 | | |
| <code>\textwon</code> | 16518 | | |
| <code>\textXi</code> | 1175, 15644 | | |
| <code>\textxi</code> | 1175, 15707 | | |
| <code>\textyen</code> | 14653, 15021 | | |
| <code>\textzeroinferior</code> | 16486 | | |
| <code>\textzerosuperior</code> | 16460 | | |
| <code>\textZeta</code> | 1154, 15628 | | |
| <code>\textzeta</code> | 1154, 15691 | | |
| <code>\TH</code> | 14767, 15135 | | |
| <code>\th</code> | 14835, 15203 | | |
| <code>\thaa</code> | 16895 | | |
| <code>\thebookmark@seq@number</code> | 14025 | | |
| <code>\theequation</code> . 6628, 6931, 6953, 6977, 7013 | | | |
| <code>\thefootnote</code> | 7158, 7351 | | |
| <code>\theHchapter</code> . 6567, 6568, 6569, 6570, 6657 | | | |
| <code>\theHenumi</code> | 6586 | | |
| <code>\theHenumii</code> | 6587 | | |
| <code>\theHenumiii</code> | 6588 | | |
| <code>\theHenumiv</code> | 6589 | | |
| <code>\theHequation</code> 6557, 6629, 6932, 6954, 6978, 6986, 7013, 7017 | | | |
| <code>\theHfigure</code> | 6564, 6568 | | |
| <code>\theHHfootnote</code> | 6590, 6593 | | |
| <code>\theHHmpfootnote</code> | 6593 | | |
| <code>\theHItem</code> . . . 6580, 6586, 6587, 6588, 6589 | | | |
| <code>\theHlisting</code> | 3416 | | |
| <code>\theHlstlisting</code> | 3412 | | |
| <code>\theHmpfootnote</code> | 6591 | | |
| <code>\theHpage</code> | 7765 | | |
| <code>\theHparagraph</code> | 6574, 6575 | | |
| <code>\theHparentequation</code> 7012, 7017 | | | |
| <code>\theHpart</code> | 6560 | | |
| <code>\theHsection</code> . 6557, 6563, 6570, 6572, 6576, 6577, 6656 | | | |
| <code>\theHslide</code> | 8180 | | |
| <code>\theHslidesection</code> . . . | 8185, 8187, 8223, 8227 | | |
| <code>\theHslidesubsection</code> 8186, 8274, 8278 | | | |

| | |
|----------------------------|---|
| \toclevel@listing | 3417 |
| \toclevel@lstlisting | 3413 |
| \toclevel@paragraph | 3407 |
| \toclevel@part | 3399, 3401 |
| \toclevel@section | 3404 |
| \toclevel@subsection | 2388 |
| \toclevel@subfigure | 2388 |
| \toclevel@subparagraph | 3408 |
| \toclevel@subsection | 3405 |
| \toclevel@subsubsection | 3406 |
| \toclevel@subtable | 2389 |
| \toclevel@table | 3410 |
| \tccapgraph | 1613 |
| \tcpart | 1607 |
| \tocsection | 1610 |
| \tocsubsection | 1611 |
| \tocsubsubsection | 1612 |
| \toks | 4892, 4894, 4896, 4900, 4905, 8385, 8386, 8388, 14342, 14347, 14413, 14418 |
| \toks@ | 171, 208, 485, 488, 491, 509, 510, 832, 839, 871, 872, 1245, 1268, 1271, 1273, 1781, 1782, 3287, 3288, 3290, 3871, 3875, 3876, 3884, 4180, 4181, 4358, 4360, 5007, 5012, 5016, 5020, 6340, 6342, 6428, 6430, 6480, 6492, 6790, 6794, 6830, 6835, 7218, 7221, 7949, 7950, 8156, 8161, 8163, 8166, 14341, 14347, 14412, 14418 |
| \topmargin | 7821 |
| \trivlist | 7025, 7051, 7084 |
| \tryhyper@link | 4828, 4830 |
| \ttfamily | 592 |
| \ttl@b | 6841, 6846 |
| \ttl@gobblecontents | 6850 |
| \ttl@Hy@PatchSaveWrite | 6824, 6828 |
| \ttl@Hy@refstepcounter | 6840 |
| \ttl@Hy@savanchor | 6819, 6843 |
| \ttl@Hy@SavedCurrentHref | 6823, 6834 |
| \ttl@Hy@steplink | 6817 |
| \ttl@savewrite | 6830, 6832 |
| \tw@ | 14342, 14347, 14413, 14418 |
| \TX@endtabularx | 7211, 7218, 7224 |
| \typeout | 5, 6, 7, 19, 26, 27, 36, 131, 155, 158, 159, 160, 5037, 14439, 16940 |
| U | |
| \U | 14884, 15789, 15812, 15877, 15954, 16144, 16146, 16168, 16170, 16180, 16182 |
| \u | 14883, 14921, 14940, 14960, 15211, 15213, 15247, 15249, 15267, 15269, 15297, 15299, 15300, 15368, 15370, 15428, 15430 |
| \UHORN | 16762, 16873, 16874, 16875, 16876, 16877 |
| \uhorn | 3261, 3268, 16755, 16813, 16814, 16815, 16816, 16817 |
| \UnDef | 12232 |
| \unhbox | 7131, 11260, 13300, 13424, 13456, 13480, 13508, 13537 |
| \ unhcopy | 13402 |
| \ unichar | 2220 |
| \ Unicode | 1321 |
| \unrestored@protected@xdef | 7147, 7158, 7294, 7301, 7344, 7351 |
| \unskip | 7023, 7048, 7081, 7593, 8463, 8467, 8471, 8476 |
| \ upshape | 598, 7030, 7056, 7087 |
| \ Url | 4799 |
| \ url | 4798, 4802 |
| \url@ | 4802, 4803 |
| \use@file | 4968, 4970, 4977 |
| \usefont | 577 |
| \utf@viii@undeferr | 539 |
| \UTFviii@four@octets | 2216, 2225 |
| \UTFviii@three@octets | 2215 |
| \UTFviii@two@octets | 2214 |
| V | |
| \v | 14483, 14495, 14507, 14626, 14631, 14639, 14641, 14894, 14918, 14937, 14959, 15231, 15233, 15235, 15237, 15259, 15261, 15334, 15336, 15354, 15356, 15388, 15390, 15404, 15406, 15412, 15414, 15462, 15464, 15470, 15472, 15474, 15476, 15477, 15479, 15481, 15483, 15485, 15491, 15493, 15495, 15497, 15503, 15504, 15547, 15549 |
| \V@@@footnotetext | 7281 |
| \V@@footnotetext | 7267 |
| \value | 6243, 7547, 7573, 7825, 7974, 9929, 9934 |
| \ vbox | 5885, 5886, 5887, 5888, 6199, 7819 |
| \ vfill | 5885, 5886, 5887, 5888 |
| \ voffset | 7820 |
| \vpageref | 8476 |
| \vphantom | 613 |
| \ Vr@f | 8462 |
| \ vr@f | 8470 |
| \vref@pagenum | 6854 |
| \vref@space | 8463, 8466, 8471 |
| \ vskip | 2463, 2464 |
| \vss | 7834 |
| \vtex@trans@special | 10714, 10716, 10719, 10723, 10727, 10731, 10733, 10735, 10739, 10745, 10746, 10749 |
| \VTeXInitMediaSize | 10394, 10411 |
| \ VTeXOS | 10784, 10785, 10786, 10788 |
| \VTeXversion | 6395, 6398, 6401, 10776, 10780 |
| W | |
| \waw | 16919 |
| \ wawhamza | 16888 |
| \ wd | 9524, 9540, 9561, 9578, 9601, 9618, 13257 |
| \ write | 4690, 6079, 6081, 6509, 6517, 6779, 6807, 7531, 7546, 7562, 7572, 7602, 7625, 7651, 7681, 12853, 12877, 14209, 14291 |
| \ WriteBookmarks | 4114, 4251, 4425, 4447, 13958, 14202, 14235, 14236, 14278, 14284 |
| \ wwwbrowser | 9478, |

| | | |
|------------------------------------|-------------------------------------|----------------------|
| 8429, 8431, 8786, 8794, | \xspace 666, 668 | 1521, 1529, 1602, |
| 9082, 9083, 9086, 9088, | \xspaceaddexceptions 4088, 4095 | 1863, 1869, 1933, |
| 9091, 9753, 9754, 9755, | | 1945, 1949, 2414, |
| 9757, 9758, 9759, 9761, | Y | 2453, 2472, 2753, |
| 9762, 9763, 9765, 9766, | \y 295, 297, 301, | 2898, 3440, 3446, |
| 9767, 9769, 9770, 9771, | 849, 852, 855, 858, 861, 864, | 4421, 6396, 6399, |
| 9773, 9774, 9775, 9777, | 873, 2558, 2563, 2568, 3434, | 7118, 7279, 9295, |
| 9778, 9779, 9781, 9782, | 3435, 3436, 3437, 4130, | 9304, 9308, 9315, |
| 9784, 9790, 9799, 10884, | 4133, 4136, 4139, 4141, | 9322, 9325, 10257, |
| 10889, 10893, 11264, 11267, | 4147, 4986, 4987, 4988, | 10263, 10264, 10775, |
| 11273, 11278, 11423, 11424, | 4989, 4997, 6153, 6161, | 11007, 11307, 11321, |
| 12500, 12520, 12982, 13002, | 6875, 6877, 6878, 6881, | 11681, 11686, 11687, |
| 13323, 13343, 14346, 14348, | 6888, 11269, 11270, 11271, | 12972, 13261, 13313, |
| 14417, 14419 | 11272 | 13762, 13767, 13789, |
| \XeTeXrevision 4412, 10112 | \ya 16921 | 13823, 13856, 13862, |
| \XeTeXversion 4412, 10112 | \yahamza 16890 | 13891, 13896, 13926, |
| \XR@dURL 2395, 2396 | | 14036, 14037, 14038, |
| \XR@addURL 2395 | Z | 14040, 14041, 14042, |
| \XR@ext 2664, 2665, 4966, 4969, | \z 296, 297, 302, 2560, 2561, 2562, | 14044, 14261, 14383 |
| 6393, 8683, 9374, 9477, | 4989, 4997 | \z@skip |
| 9741, 10275, 11615, 11698, | \z@ 810, 850, | \za |
| 11757, 11956, 12120 | 972, 1124, 1141, 1163, 1186, | \zay |
| \XR@URL 2400 | 1437, 1477, 1490, 1506, | \ZWNJ |