

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 (maintainer)

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

2012/11/06 v6.83m

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 hyccheck.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	16
5	Common help macros	17
5.1	Macros for recursions	17
5.2	Babel's protection of shorthand characters	18
5.3	Coordinate transformations	18
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	26
6.2.3	Postprocessing	27
6.3	Encodings	31
6.3.1	XeTeX	31
6.3.2	Workaround for package linguex	33
6.3.3	Catcodes saving and restoring for <code>.def</code> files	33
6.3.4	PD1 encoding	34
6.3.5	PU encoding	34
6.4	Additional user commands	35
6.4.1	<code>\texorpdfstring</code>	35
6.4.2	Hooks for <code>\pdfstringdef</code>	35
6.5	Help macros for expansion	36
6.5.1	<code>\ignorespaces</code>	36
6.5.2	Babel languages	37
6.5.3	CJK patch	42
6.5.4	CJK bookmarks	42
6.5.5	CJK unicode	44
6.5.6	<code>\@inmathwarn-Patch</code>	48
6.5.7	Unexpandable spaces	49
6.5.8	Marker for commands	50
6.5.9	<code>\hspace fix</code>	50
6.5.10	Fix for AMS classes	50
6.5.11	Reference commands	51
6.5.12	Redefining the defining commands	53
6.5.13	<code>\ifnextchar</code>	54
6.5.14	<code>\@protected@testoptifnextchar</code>	54
6.6	Help macros for postprocessing	55
6.6.1	Generic warning.	55
6.6.2	Protecting spaces	55
6.6.3	Remove grouping braces	56

6.6.4	Catcode check	57
6.6.5	Check for wrong glyphs	61
6.6.6	Replacing tokens	62
6.6.7	Support for package <code>xspace</code>	63
6.6.8	Converting to Unicode	63
6.6.9	Support for UTF-8 input encoding	65
6.6.10	Support for die faces (ifsym et. al.)	69
6.6.11	Support for moon phases of package <code>china2e</code>	70
6.6.12	Support for package <code>pifont</code>	70
7	Support of other packages	72
7.1	Class memoir	72
7.2	Package subfigure	72
7.3	Package xr and xr-hyper	72
8	Help macros for links	73
9	Options	75
9.1	Help macros	75
9.2	Defining the options	77
10	Options for different drivers	81
11	Options to add extra features	85
12	Language options	86
13	Options to change appearance of links	93
14	Bookmarking	93
15	PDF-specific options	96
15.1	Package <code>xspace</code> support	109
15.2	Option <code>draft</code>	110
15.3	PDF/A	110
15.4	Patch for babel's <code>\texttilde</code>	111
15.4.1	Driver loading	113
15.4.2	Bookmarks	116
16	User hypertext macros	119
16.1	Link box support for XeTeX	125
17	Underlying basic hypertext macros	126
18	Option ‘<code>destlabel</code>’	130
19	Compatibility with the <i>L^AT_EX</i>2html package	132
20	Forms creation	132
20.1	Field flags	132
20.1.1	Declarations of field flags	134
20.1.2	Set submit flags	136
20.1.3	Set annot flags in fields	137
20.1.4	Pushbutton field	137
20.1.5	Check box field	138

20.1.6 Radio button field	138
20.1.7 Text fields	138
20.1.8 Choice fields	139
20.2 Choice field	139
20.3 Forms	141
21 Setup	149
22 Low-level utility macros	150
23 Localized nullifying of package	151
24 Package nohyperref	151
25 The Mangling Of Aux and Toc Files	152
26 Title strings	154
27 Page numbers	155
28 Every page	155
28.1 PDF /PageLabels	156
28.1.1 pdfTeX and VTeX	160
28.1.2 xetex	161
28.1.3 pdftmarkbase, dvipdfm, xetex	162
29 Automated L^AT_EX hypertext cross-references	163
30 Package lastpage support	169
31 Package ifthen support	170
32 Package titlesec and titletoc support	170
33 Package varioref support	171
34 Package longtable support	172
35 Equations	172
36 Footnotes	177
37 Float captions	182
38 Bibliographic references	184
38.1 Package harvard	188
38.2 Package chicago	189
39 Page numbers	190
40 Table of contents	192
41 New counters	194
42 AMSL^AT_EX compatibility	194
42.1 \@addtoreset and \numberwithin patches	195

43	Included figures	196
44	hyperindex entries	196
45	Compatibility with foiltex	200
46	Compatibility with seminar slide package	200
47	Configuration files	208
47.1	PS/PDF strings	208
47.2	pdftex	209
47.2.1	Fix for problem with different nesting levels	224
47.3	hypertex	224
47.4	dviwindo	227
47.5	dvipdfm/xetex dvi to PDF converter	232
47.6	VTeX typesetting system	242
47.7	Fix for Adobe bug number 466320	254
47.8	Direct pdfmark support	255
47.9	Rokicki's dvips	269
47.10	VTeX's vtexpdfmark driver	271
47.11	Textures	272
47.12	dvipsone	277
47.13	TeX4ht	280
48	Driver-specific form support	283
48.1	pdfmarks	283
48.2	HyperTeX	291
48.3	TeX4ht	291
48.4	pdfTeX	294
48.5	dvipdfm, xetex	303
48.6	Common forms part	310
49	Bookmarks in the PDF file	317
49.1	Bookmarks	317
49.1.1	Rerun warning	320
49.1.2	Driver stuff	321
50	Compatibility with koma-script classes	327
51	Encoding definition files for encodings of PDF strings	328
51.1	PD1 encoding	328
51.2	PU encoding	336
51.2.1	NFSS2 accents	336
51.2.2	Basic Latin: U+0000 to U+007F	338
51.2.3	Latin-1 Supplement: U+0080 to U+00FF	340
51.2.4	Latin Extended-A: U+0080 to U+017F	344
51.2.5	Latin Extended-B: U+0180 to U+024F	349
51.2.6	IPA Extensions: U+0250 to U+02AF	353
51.2.7	Spacing Modifier Letters: U+02B0 to U+02FF	359
51.2.8	Combining Diacritical Marks: U+0300 to U+036F	360
51.2.9	Greek and Coptic: U+0370 to U+03FF	360
51.2.10	Cyrillic: U+0400 to U+04FF	363
51.2.11	Hebrew: U+0590 to U+05FF	373
51.2.12	Thai: U+0E00 to U+0E7F	374

51.2.13	Phonetic Extensions: U+1D00 to U+1D7F	374
51.2.14	Phonetic Extensions Supplement: U+1D80 to U+1DBF	375
51.2.15	Latin Extended Additional: U+1E00 to U+1EFF	376
51.2.16	General Punctuation: U+2000 to U+206F	381
51.2.17	Superscripts and Subscripts: U+2070 to U+209F	383
51.2.18	Currency Symbols: U+20A0 to U+20CF	384
51.2.19	Letterlike Symbols: U+2100 to U+214F	385
51.2.20	Number Forms: U+2150 to U+218F	386
51.2.21	Arrows: U+2190 to U+21FF	386
51.2.22	Mathematical Operators: U+2200 to U+22FF	390
51.2.23	Miscellaneous Technical: U+2300 to U+23FF	400
51.2.24	Control Pictures: U+2400 to U+243F	402
51.2.25	Optical Character Recognition: U+2440 to U+245F	402
51.2.26	Enclosed Alphanumerics: U+2460 to U+24FF	402
51.2.27	Box Drawing: U+2500 to 257F	405
51.2.28	Geometric Shapes: U+25A0 to U+25FF	405
51.2.29	Miscellaneous Symbols: U+2600 to U+26FF	406
51.2.30	Dingbats: U+2700 to U+27BF	410
51.2.31	Miscellaneous Mathematical Symbols-A: U+27C0 to U+27EF	413
51.2.32	Supplemental Arrows-A: U+27F0 to U+27FF	413
51.2.33	Supplemental Arrows-B: U+2900 to U+297F	414
51.2.34	Miscellaneous Mathematical Symbols-B: U+2980 to U+29FF	415
51.2.35	Supplemental Mathematical Operators: U+2A00 to U+2AFF	416
51.2.36	Miscellaneous Symbols and Arrows: U+2B00 to U+2BFF	419
51.2.37	Latin Extended-C: U+2C60 to U+2C7F	419
51.2.38	Supplemental Punctuation: U+2E00 to U+2E7F	419
51.2.39	Modifier Tone Letters: U+A700 to U+A71F	419
51.2.40	Latin Extended-D: U+A720 to U+A7FF	420
51.2.41	Alphabetic Presentation Forms: U+FB00 to U+FB4F	420
51.2.42	Musical Symbols: U+1D100 to U+1D1FF	420
51.2.43	Miscellaneous Symbols and Pictographs: U+1F300 to U+1F5FF	420
51.2.44	Transport and Map Symbols: U+1F680 to U+1F6FF	421
51.2.45	Miscellaneous	421
51.2.46	Aliases	421
51.3	PU encoding, additions for VnTeX	422
51.4	PU encoding, additions for Arabi	424
52	End of file hycheck.tex	447
53	Index	448

3 File hyccheck.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 <*check>
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    \curname ver@\HyC@package.sty\endcurname
39  }%
```

```
40 }%
41 }
```

`\checkcommand` The macro `\checkcommand` parses the next tokens as a L^AT_EX 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 L^AT_EX'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 \LaTeX 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#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}[2010/11/12]
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{kvdefinekeys}[2011/04/07]
259 \RequirePackage{pdfescape}[2007/11/11]
260 \RequirePackage{ifvtex}

```

```

261 \RequirePackage{ifxetex}[2006/08/21]
262 \RequirePackage{hycolor}
263 \RequirePackage{letltxmacro}[2008/06/13]
264 \RequirePackage{auxhook}[2009/12/14]
265 \def\Hy@Error{\@PackageError{hyperref}}
266 \def\Hy@Warning{\@PackageWarning{hyperref}}
267 \def\Hy@WarningNoLine{\@PackageWarningNoLine{hyperref}}
268 \def\Hy@Info{\@PackageInfo{hyperref}}
269 \def\Hy@InfoNoLine{\@PackageInfoNoLine{hyperref}}
270 \def\Hy@Message#1{%
271   \GenericWarning{%
272     (hyperref)\@spaces\@spaces\@spaces\@spaces
273   }{%
274     Package hyperref Message: #1\ltx@gobble
275   }%
276 }

```

4.2 Version check

\Hy@VersionChecked

```
277 \chardef\Hy@VersionChecked=0 %
```

\Hy@VersionCheck

```

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

```

```

312     * \y: hyperref.sty\MessageBreak
313     * \z: \a
314     }\@ehd
315     \fi
316     \fi
317     }%
318     }%
319 \endgroup
320 \chardef\Hy@VersionChecked=1 %
321 }

```

\Hy@@VersionCheck

```

322 \def\Hy@@VersionCheck #1#2 #3 #4\@nil{%
323 \def#1{#2 #3}%
324 }

```

4.3 Checks with regular expressions

```

325 \ltx@ifundefined{pdfmatch}{%
326 \def\Hy@Match#1#2#3#4#5{%
327 }{%
328 \def\Hy@Match#1#2#3{%
329 \begingroup
330 \edef\~{\ltx@backslashchar\string^}%
331 \edef\.\{\ltx@backslashchar.}%
332 \edef\{\{\ltx@backslashchar[]}%
333 \edef\$\{\ltx@backslashchar$}%
334 \edef\(\{\ltx@backslashchar(}%
335 \edef\)\{\ltx@backslashchar)}%
336 \edef\|\{\ltx@backslashchar|}%
337 \edef\*\{\ltx@backslashchar*}%
338 \edef\+\{\ltx@backslashchar+}%
339 \edef\?\{\ltx@backslashchar?}%
340 \edef\{\{\ltx@backslashchar\ltx@leftbracechar}%
341 \edef\}\{\ltx@rightbracechar}%
342 \edef\{\{\ltx@backslashchar\ltx@backslashchar}%
343 \let\ \ltx@space
344 \ifcase\pdfmatch#2{#3}{#1} %
345 \endgroup
346 \expandafter\ltx@secondoftwo
347 \or
348 \endgroup
349 \expandafter\ltx@firstoftwo
350 \else
351 \Hy@Warning{%
352 Internal error: Wrong pattern!\MessageBreak
353 --> #3 <--\MessageBreak
354 Pattern check ignored%
355 }%
356 \endgroup
357 \expandafter\ltx@firstoftwo
358 \fi
359 }%
360 \ltx@ifpackagelater{ltxcmds}{2010/09/11}{-}{-}{%
361 \begingroup
362 \lccode'0='\{\relax
363 \lowercase{\endgroup

```

```

364   \def\ltx@leftbracechar{0}%
365   }%
366   \begingroup
367   \lccode'0='}\relax
368   \lowercase{\endgroup
369   \def\ltx@rightbracechar{0}%
370   }%
371 }%
372 }

```

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`.

```

373 \@ifundefined{AfterBeginDocument}{%
374   \def\AfterBeginDocument{\AtBeginDocument}%
375 }{}%

```

`\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.

```

376 \def\Hy@AtBeginDocument{%
377   \ltx@LocalAppendToMacro\Hy@AtBeginDocumentHook
378 }

```

`\Hy@AtEndOfPackage`

```

379 \def\Hy@AtEndOfPackage{%
380   \ltx@LocalAppendToMacro\Hy@AtEndOfPackageHook
381 }

```

`\Hy@AtBeginDocumentHook`

```

382 \let\Hy@AtBeginDocumentHook\ltx@empty

```

`\Hy@AtEndOfPackageHook`

```

383 \let\Hy@AtEndOfPackageHook\ltx@empty

```

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

```

384 \AtEndOfPackage{%
385   \Hy@AtEndOfPackageHook
386   \let\Hy@AtEndOfPackageHook\@undefined
387   \AfterBeginDocument{%
388     \Hy@AtBeginDocumentHook{}%
389     \let\Hy@AtBeginDocumentHook\@undefined
390   }%
391 }

```

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

```

392 \RequirePackage{kvoptions}[2009/07/21]

```

4.5 Switches

```
393 \newif\ifHy@stoppedearly
394 \newif\ifHy@typexml
395 \newif\ifHy@activeanchor
396 \newif\ifHy@backref
397 \newif\ifHy@bookmarks
398 \newif\ifHy@bookmarksnumbered
399 \newif\ifHy@bookmarksopen
400 \newif\ifHy@breaklinks
401 \newif\ifHy@pdfcenterwindow
402 \newif\ifHy@CJKbookmarks
403 \newif\ifHy@colorlinks
404 \newif\ifHy@destlabel
405 \newif\ifHy@draft
406 \let\Hy@finaltrue\Hy@draftfalse
407 \let\Hy@finalfalse\Hy@drafttrue
408 \newif\ifHy@pdfescapeform
409 \newif\ifHy@hyperfigures
410 \newif\ifHy@pdfitwindow
411 \newif\ifHy@frenchlinks
412 \newif\ifHy@hyperfootnotes
413 \newif\ifHy@hyperindex
414 \newif\ifHy@hypertextnames
415 \newif\ifHy@implicit
416 \newif\ifHy@linktopage
417 \newif\ifHy@localanchorname
418 \newif\ifHy@pdfmenubar
419 \newif\ifHy@naturalnames
420 \newif\ifHy@nesting
421 \newif\ifHy@pdfnewwindowset
422 \newif\ifHy@pdfnewwindow
423 \newif\ifHy@ocgcolorlinks
424 \newif\ifHy@pageanchor
425 \newif\ifHy@pdfpagelabels
426 \newif\ifHy@pdfpagehidden
427 \newif\ifHy@pdfstring
428 \newif\ifHy@plainpages
429 \newif\ifHy@psize
430 \newif\ifHy@raiselinks
431 \newif\ifHy@seminarslides
432 \newif\ifHy@setpagesize
433 \newif\ifHy@texht
434 \newif\ifHy@psdextra
435 \newif\ifHy@pdftoolbar
436 \newif\ifHy@unicode
437 \newif\ifHy@pdfusetitle
438 \newif\ifHy@verbose
439 \let\Hy@debugtrue\Hy@verbosetrue
440 \let\Hy@debugfalse\Hy@verbosefalse
441 \newif\ifHy@pdfwindowui
442 \newif\ifHy@pdfdisplaydoctitle
443 \newif\ifHy@pdfa
```

Defaults for the switches are now set.

```
444 \Hy@backreffalse
445 \Hy@bookmarksnumberedfalse
446 \Hy@bookmarksopenfalse
```



```

447 \Hy@bookmarkstrue
448 \Hy@breaklinksfalse
449 \Hy@pdfcenterwindowfalse
450 \Hy@CJKbookmarksfalse
451 \Hy@destlabelfalse
452 \Hy@pdfescapeformfalse
453 \Hy@hyperfiguresfalse
454 \Hy@pdffitwindowfalse
455 \Hy@hyperfootnotesttrue
456 \Hy@hyperindextrue
457 \Hy@hypertextnamestrue
458 \Hy@implicittrue
459 \Hy@linktocpagefalse
460 \Hy@localanchornamefalse
461 \Hy@pdfmenubartrue
462 \Hy@naturalnamesfalse
463 \Hy@nestingfalse
464 \Hy@pdfnewwindowsetfalse
465 \Hy@pdfnewwindowfalse
466 \Hy@pageanchortrue
467 \Hy@pdfpagelabelstrue
468 \Hy@pdfpagehiddenfalse
469 \Hy@pdfstringfalse
470 \Hy@plainpagesfalse
471 \Hy@raiselinksfalse
472 \Hy@setpagesizetrue
473 \Hy@texhtfalse
474 \Hy@psdextrafalse
475 \Hy@pdftoolbartrue
476 \Hy@typexmlfalse
477 \Hy@unicodefalse
478 \Hy@pdfusetitlefalse
479 \Hy@verbosefalse
480 \Hy@pdfwindowuitrue
481 \Hy@pdfdisplaydoctitlefalse
482 \Hy@pdfafalse

```

5 Common help macros

\Hy@StepCount

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

\Hy@GlobalStepCount

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

```

485 \newdimen\@linkdim
486 \let\Hy@driver\ltx@empty
487 \let\MaybeStopEarly\relax
488 \newcount\Hy@linkcounter
489 \newcount\Hy@pagecounter
490 \Hy@linkcounter0
491 \Hy@pagecounter0

```

5.1 Macros for recursions

```

492 \let\Hy@ReturnEnd\@empty
493 \long\def\Hy@ReturnAfterFiFiEnd#1\fi#2\Hy@ReturnEnd{\fi\fi#1}

```

```
494 \long\def\Hy@ReturnAfterElseFiFiEnd#1\else#2\Hy@ReturnEnd{\fi\fi#1}
```

5.2 Babel's protection of shorthand characters

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

```
495 \def\Hy@safe@activestru{\csname @safe@activestru\endcsname}
496 \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).

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

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

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

Example (TeX):

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

`\hypercalsbp`

```
497 \begingroup\expandafter\expandafter\expandafter\endgroup
498 \expandafter\ifx\csname dimexpr\endcsname\relax
499 \def\hypercalsbpdef#1#2{%
500   \begingroup
501     \toks@{}%
502     \HyCal@scan#2\hypercalsbp\@nil
503   \expandafter\endgroup
504   \expandafter\def\expandafter#1\expandafter{\the\toks@}%
505 }%
506 \def\HyCal@scan#1\hypercalsbp#2\@nil{%
507   \toks@\expandafter{\the\toks@ #1}%
508   \ifx\#2\%
509     \else
510     \ltx@ReturnAfterFi{%
511       \HyCal@do#2\@nil
512     }%
```

```

513 \fi
514 }%
515 \def\HyCal@do#1#2\@nil{%
516 \@ifpackageloaded{calc}{}{%
517 \Hy@Warning{%
518 For calculations \string\hypercalcbp\space needs\MessageBreak
519 package calc or e-TeX%
520 }%
521 }%
522 \setlength{\dimen@}{#1}%
523 \setlength{\dimen@}{0.99626401\dimen@}%
524 \edef\x{%
525 \toks@{%
526 \the\toks@
527 \strip@pt\dimen@
528 }%
529 }\x
530 \HyCal@scan#2\@nil
531 }%
532 \else
533 \def\hypercalcbp#1{%
534 \strip@pt\dimexpr 0.99626401\dimexpr(#1)\relax\relax
535 }%
536 \def\hypercalcbpdef{\def}%
537 \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 processed by \TeX , because the tokens have only cat-codes 10 until 12.

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

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

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

```
539 \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.

```
540 \escapechar'\%
```

From the view of \TeX a 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.

```
541 \edef\0{\string\0}%
```

```
542 \edef\1{\string\1}%
```

```
543 \edef\2{\string\2}%
```

```
544 \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.

```

545 \ifHy@unicode
546 \edef\8{\string\8}%
547 \edef\9{\string\9}%
548 \fontencoding{PU}%
549 \HyPsd@UTFviii
550 \def\ifpdfstringunicode###1##2{##1}%
551 \else
552 \fontencoding{PD1}%
553 \def\ifpdfstringunicode###1##2{##2}%
554 \fi
555 \let\utf@viii@undeferr\HyPsd@utf@viii@undeferr
556 \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).

```

557 \@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).

```

558 \let\@inmathwarn\HyPsd@inmathwarn

```

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

```

559 \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.

```

560 \let\{\textbraceleft
561 \let\}\textbraceright
562 \let\\\textbackslash
563 \let#\textnumbersign
564 \let$\textdollar
565 \let%\textpercent
566 \let&\textampersand
567 % \let~\textasciitilde
568 \let_\textunderscore
569 \let\P\textparagraph
570 \let\ldots\textellipsis
571 \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.

```
572 \def\{\pdfstringdefWarn\}%
573 \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.

```
574 \def\TeX{\TeX}%
575 \def\LaTeX{\LaTeX}%
576 \def\LaTeXe{%
577   \LaTeX2%
578   \ifHy@unicode\textepsilon\else e\fi
579 }%
580 \def\eTeX{%
581   \ifHy@unicode\textepsilon\else e\fi
582   -\TeX%
583 }%
584 \def\SliTeX{\SliTeX}%
585 \def\MF{Metafont}%
586 \def\MP{Metapost}%
```

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

```
587 \let\fontencoding@gobble
588 \let\fontfamily@gobble
589 \let\fontseries@gobble
590 \let\fontshape@gobble
591 \let\fontsize@gobbletwo
592 \let\selectfont@empty
593 \let\usefont@gobblefour
594 \let\emph@firstofone
595 \let\textnormal@firstofone
596 \let\textrm@firstofone
597 \let\textsf@firstofone
598 \let\texttt@firstofone
599 \let\textbf@firstofone
600 \let\textmd@firstofone
601 \let\textit@firstofone
602 \let\textsc@firstofone
603 \let\textsl@firstofone
604 \let\textup@firstofone
605 \let\normalfont@empty
606 \let\rmfamily@empty
607 \let\sfamily@empty
608 \let\ttfamily@empty
```

```

609 \let\bfseries\@empty
610 \let\mdseries\@empty
611 \let\itshape\@empty
612 \let\scshape\@empty
613 \let\slshape\@empty
614 \let\upshape\@empty
615 \let\em\@empty
616 \let\rm\@empty
617 \let\Huge\@empty
618 \let\LARGE\@empty
619 \let\Large\@empty
620 \let\footnotesize\@empty
621 \let\huge\@empty
622 \let\large\@empty
623 \let\normalsize\@empty
624 \let\scriptsize\@empty
625 \let\small\@empty
626 \let\tiny\@empty
627 \let\mathversion\@gobble
628 \let\phantom\@gobble
629 \let\vphantom\@gobble
630 \let\hphantom\@gobble

```

Package pifont.

```

631 \let\ding\HyPsd@ding
632 \let\Cube\HyPsd@DieFace
633 %* \HyPsd@DieFace -> \epsdice (epsdice)
634 %* \HyPsd@DieFace -> \fcdice (hhcount)

```

Environments.

```

635 \def\begin#1{\csname#1\endcsname}%
636 \def\end#1{\csname end#1\endcsname}%

```

Package color.

```

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

```

Upper- and lowercase.

```

638 \def\MakeUppercase{\MakeUppercaseUnsupportedInPdfStrings}%
639 \def\MakeLowercase{\MakeLowercaseUnsupportedInPdfStrings}%

```

Support of math commands without prefix `text`. This is controlled by option “psdextra” and only activated with Unicode PDF strings.

```

640 \ifHy@psdextra
641 \ifHy@unicode
642 \csname psdmapshortnames\endcsname
643 \csname psdaliasnames\endcsname
644 \fi
645 \fi

```

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

```

646 \let\foreignlanguage\@secondoftwo
647 \let\textlatin\@firstofone
648 \ltx@ifundefined{language@group}{\@group}{\@group}%

```

```

649   \csname HyPsd@babel@\language@group\endcsname
650   }%
651   \HyPsd@GreekPatch
652   \HyPsd@SpanishPatch
653   \HyPsd@RussianPatch
654   \HyPsd@BabelPatch
655   \let\@safe@activetrue\relax
656   \let\@safe@activesfalse\relax
    Disable \cyr, used in russianb.ldf.
657   \let\cyr\relax
    Redefine \es@roman, used in spanish.ldf.
658   \let\es@roman\@Roman

```

Package german.

```

659   \let\glqq\textglqq
660   \let\grqq\textgrqq
661   \let\glq\textglq
662   \let\grq\textgrq
663   \let\flqq\textflqq
664   \let\frqq\textfrqq
665   \let\flq\textflq
666   \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}
667   \let\if@mid@expandable\@firstoftwo

```

AMS classes.

```

668   \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.

```

669   \let\hspace\HyPsd@hspace

```

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

```

670   \let\label\@gobble
671   \let\index\@gobble
672   \let\glossary\@gobble
673   \let\href\HyPsd@href
674   \let\@mkboth\@gobbletwo
    The \ref and \pageref is much more complicate because of their star form.
675   \let\ref\HyPsd@ref
676   \let\pageref\HyPsd@pageref
677   \let\nameref\HyPsd@nameref
678   \let\autoref\HyPsd@autoref

```


Miscellaneous commands.

```
679 \let\leavevmode\@empty
680 \let\mbox\@empty
```

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

```
681 \def\halign{\pdfstringdefWarn\halign@gobble}%
682 \let\ignorespaces\HyPsd@ignorespaces
683 \let\Hy@SectionAnchorHref\@gobble
684 \let\ensuremath\@firstofone
```

Patch for cjk bookmarks.

```
685 \HyPsd@CJHook
```

User hook. The switch `\Hy@pdfstring` is turned on. So user commands can detect that they are processed not to be typesetted within \TeX '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@tostopt`, and `\@ifnextchar` for `\renewcommand`).

```
686 \Hy@pdfstringtrue
687 \pdfstringdefPreHook
```

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

```
688 \HyPsd@LetUnexpandableSpace\space
689 \HyPsd@LetUnexpandableSpace\%
690 \HyPsd@LetUnexpandableSpace~%
691 \HyPsd@LetUnexpandableSpace\nobreakspace
```

Package `xspace`.

```
692 \ltx@ifundefined{@xspace}{%
693 \let\xspace\HyPsd@ITALCORR
694 }{%
695 \let\xspace\HyPsd@XSPACE
696 }%
697 \let\@HyPsd@ITALCORR
698 \let\bgroup\%
699 \let\egroup\%
```

Redefinitions of miscellaneous commands. Hyphenation does not make sense.

```
700 \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:

```

701 \def\@ifnextchar{\HyPsd@ifnextchar\@ifnextchar}%
702 \def\kernel@ifnextchar{\HyPsd@ifnextchar\kernel@ifnextchar}%
703 \def\new@ifnextchar{\HyPsd@ifnextchar\new@ifnextchar}%
704 \let\@protected@testopt\HyPsd@protected@testopt

```

Support for package ‘xargs’:

```

705 \let\@protected@testopt@xargs\HyPsd@protected@testopt

```

6.2.2 Expansion

There are several possibilities to expand tokens within \LaTeX :

`\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 \TeX 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. \TeX 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).

```

706 \begingroup
707 \let\GenericError\@gobblefour
708 \let\GenericWarning\@gobbletwo
709 \let\GenericInfo\@gobbletwo

```

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

```
710 \ifx\nofrenchguillemets\@undefined
711 \else
712 \nofrenchguillemets
713 \fi
```

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

```
714 \let\Hy@temp\xdef
715 \let\def\HyPsd@DefCommand
716 \let\gdef\HyPsd@DefCommand
717 \let\edef\HyPsd@DefCommand
718 \let\xdef\HyPsd@DefCommand
719 \let\futurelet\HyPsd@LetCommand
720 \let\let\HyPsd@LetCommand
721 \Hy@temp#1{#2}%
722 \endgroup
```

6.2.3 Postprocessing

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

```
723 \ifx#1\@empty
724 \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 little 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.

```
725 \HyPsd@ProtectSpaces#1%
726 \let\HyPsd@String\@empty
727 \expandafter\HyPsd@RemoveBraces\expandafter{#1|}%
728 \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.

```

729 \let\HyPsd@SPACEOPTI\relax
730 {%
731 \let\HyPsd@String\@empty
732 \expandafter\HyPsd@CheckCatcodes#1\HyPsd@End
733 \global\let#1\HyPsd@String
734 }%
735 \expandafter\HyPsd@RemoveMask\expandafter
736 |\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.

```

737 \expandafter
738 \HyPsd@Subst\expandafter{\HyPsd@GLYPHERR}{\relax}#1%
739 \let\HyPsd@String\@empty
740 \expandafter\HyPsd@GlyphProcess#1\relax\@empty
741 \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.

```
742 \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.

```

743 \ifHy@unicode
744 \expandafter\HyPsd@StringSubst\csname 80\040\endcsname
745 \HyPsd@SPACEOPTI#1%
746 \edef\Hy@temp@A{\HyPsd@SPACEOPTI\HyPsd@SPACEOPTI\80\273}%
747 \expandafter\HyPsd@Subst\expandafter{\Hy@temp@A}%
748 {\HyPsd@SPACEOPTI\80\273}#1%
749 \else
750 \HyPsd@StringSubst{\040}\HyPsd@SPACEOPTI#1%
751 \expandafter\HyPsd@Subst\expandafter{%
752 \expandafter\HyPsd@SPACEOPTI\expandafter\HyPsd@SPACEOPTI
753 \string\273}\HyPsd@SPACEOPTI\273}#1%
754 \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 be removed later.

```

755 \ifHy@unicode
756 \HyPsd@StringSubst{\}){\80\051}#1%
757 \HyPsd@Subst){\80\051}#1%
758 \let\HyPsd@empty\relax
759 \expandafter\HyPsd@StringSubst\csname 80\051\endcsname
760 {\HyPsd@empty\80\051}#1%
761 \else
762 \HyPsd@StringSubst{\}){\051}#1%
763 \HyPsd@Subst){\051}#1%
764 \let\HyPsd@empty\relax
765 \HyPsd@StringSubst{\051}{\HyPsd@empty\string\})}#1%
766 \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`.

```

767 \expandafter\HyPsd@Subst\expandafter{\}/\HyPsd@empty#1%
768 \ltx@ifundefined{@xspace}{%
769 }{%
770 \let\HyPsd@xspace\relax
771 \expandafter\HyPsd@Subst\expandafter
772 {\HyPsd@XSPACE}\HyPsd@xspace#1%
773 \let\HyPsd@xspace\HyPsd@doxspace
774 }%
775 \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.

```

776 \HyPsd@Subst{---}\textemdash#1%
777 \HyPsd@Subst{--}\textendash#1%
778 % \HyPsd@Subst{fi}\textfi#1%
779 % \HyPsd@Subst{fl}\textfl#1%
780 \HyPsd@Subst{!}\textexclamdown#1%
781 \HyPsd@Subst{?}\textquestiondown#1%

```

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

```

782 \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.

```

783 \ifHy@unicode
784 \HyPsd@StringSubst\(\textparenleft#1%
785 \HyPsd@Subst(\textparenleft#1%
786 \else
787 \HyPsd@StringSubst\({\050}#1%
788 \HyPsd@Subst({\050}#1%
789 \HyPsd@StringSubst{\050}{\string\{ }#1%
790 \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.

```

791 \ifHy@unicode
792 \edef\HyPsd@SPACEOPTI{\80\040}%
793 \else
794 \let\HyPsd@SPACEOPTI\HyPsd@spaceopti
795 \fi
796 \xdef#1{#1\@empty}%
797 \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.

```

798 \endgroup
799 \begingroup
800 \ifHy@unicode
801 \HyPsd@ConvertToUnicode#1%

```

Try conversion back to PDFDocEncoding.

```
802 \ifx\HyPsd@pdfencoding\HyPsd@pdfencoding@auto
803 \ltx@ifundefined{StringEncodingConvertTest}{%
804 }{%
805 \EdefUnescapeString\HyPsd@temp#1%
806 \ifxetex
807 \let\HyPsd@UnescapedString\HyPsd@temp
808 \StringEncodingConvertTest\HyPsd@temp\HyPsd@temp
809 {utf16be}{ascii-print}{%
810 \EdefEscapeString\HyPsd@temp\HyPsd@temp
811 \global\let#1\HyPsd@temp
812 \HyPsd@EscapeTeX#1%
813 \Hy@unicodedefalse
814 }{%
815 \HyPsd@ToBigChars#1%
816 }%
817 \else
818 \StringEncodingConvertTest\HyPsd@temp\HyPsd@temp
819 {utf16be}{pdfdoc}{%
820 \EdefEscapeString\HyPsd@temp\HyPsd@temp
821 \global\let#1\HyPsd@temp
822 \HyPsd@EscapeTeX#1%
823 \Hy@unicodedefalse
824 }{%}
825 \fi
826 }%
827 \fi
828 \fi
829 \HyPsd@XeTeXBigCharsfalse
```

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

```
830 \pdfstringdefPostHook#1%
831 \endgroup
832 }
```

`\Hy@pdfstringdef`

```
833 \def\Hy@pdfstringdef#1#2{%
834 \pdfstringdef\Hy@gtemp{#2}%
835 \let#1\Hy@gtemp
836 }
```

6.3 Encodings

6.3.1 XeTeX

```
837 \edef\Hy@temp{\catcode0=\the\catcode0\relax}
838 \catcode\z@=12 %
839 \ifxetex
840 \expandafter\@firstofone
841 \else
842 \let\HyPsd@XeTeXBigCharstrue\@empty
843 \let\HyPsd@XeTeXBigCharsfalse\@empty
844 \expandafter\@gobble
845 \fi
846 {%
847 \newif\ifHyPsd@XeTeXBigChars
```

```

848 \def\HyPsd@XeTeXBigCharsfalse{%
849   \global\let\ifHyPsd@XeTeXBigChars\iffalse
850 }%
851 \def\HyPsd@XeTeXBigCharstrue{%
852   \global\let\ifHyPsd@XeTeXBigChars\iftrue
853 }%
854 \def\HyPsd@ToBigChars#1{%
855   \ifHyPsd@XeTeXBigChars
856     \EdefEscapeHex\HyPsd@UnescapedString{%
857       \expandafter\@gobbletwo\HyPsd@UnescapedString
858     }%
859     \begingroup
860     \toks@{%}%
861     \escapechar=92\relax
862     \let\x\HyPsd@ToBigChar
863     \expandafter\HyPsd@ToBigChar\HyPsd@UnescapedString
864     \relax\relax\relax\relax\relax\relax\relax
865     \edef\x{%
866       \endgroup
867       \gdef\noexpand#1{\the\toks@}%
868     }%
869     \x
870   \fi
871 }%
872 \def\HyPsd@ToBigChar#1#2#3#4{%
873   \ifx\relax#1\relax
874     \let\x\relax
875   \else
876     \count@=#1#2#3#4\relax
877     \let\y\@empty
878     \lccode\z@=\count@
879     \ifnum\count@=40 % (
880       \let\y\@backslashchar
881     \else
882       \ifnum\count@=41 % )
883         \let\y\@backslashchar
884       \else
885         \ifnum\count@=92 % backslash
886           \let\y\@backslashchar
887         \else
888           \ifnum\count@=10 % newline
889             \edef\y##1{\string\n}%
890           \else
891             \ifnum\count@=13 % carriage return
892               \edef\y##1{\string\r}%
893             \fi
894           \fi
895         \fi
896       \fi
897     \fi
898   \lowercase{%
899     \toks@\expandafter{%
900       \the\expandafter\toks@
901     \y
902     ~~~@%
903   }%
904 }%

```



```

905 \fi
906 \x
907 }%
908 }
909 \Hy@temp

```

6.3.2 Workaround for package linguex

```

910 \@ifpackageloaded{linguex}{%
911 \let\HyLinguex@OrgB\b
912 \let\HyLinguex@OrgC\c
913 \let\HyLinguex@OrgD\d
914 \def\HyLinguex@Restore{%
915 \let\b\HyLinguex@OrgB
916 \let\c\HyLinguex@OrgC
917 \let\d\HyLinguex@OrgD
918 }%
919 \Hy@AtEndOfPackage{%
920 \pdfstringdefDisableCommands{%
921 \ltx@ifundefined{oldb}{\let\b\oldb}%
922 \ltx@ifundefined{oldc}{\let\c\oldc}%
923 \ltx@ifundefined{oldd}{\let\d\oldd}%
924 }%
925 }%
926 }{%
927 \let\HyLinguex@Restore\relax
928 }%

```

6.3.3 Catcodes saving and restoring for .def files

\Hy@SaveCatcodeSettings

```

929 \def\Hy@SaveCatcodeSettings#1{%
930 \expandafter\edef\csname Hy@cat@#1\endcsname{%
931 \endlinechar=\the\endlinechar\relax
932 \catcode32 \the\catcode32\relax % (space)
933 \catcode34 \the\catcode34\relax % "
934 \catcode35 \the\catcode35\relax % #
935 \catcode37 \the\catcode37\relax % (percent)
936 \catcode40 \the\catcode40\relax % (
937 \catcode41 \the\catcode41\relax % )
938 \catcode42 \the\catcode42\relax % *
939 \catcode46 \the\catcode46\relax % .
940 \catcode58 \the\catcode58\relax % :
941 \catcode60 \the\catcode60\relax % <
942 \catcode61 \the\catcode61\relax % =
943 \catcode62 \the\catcode62\relax % >
944 \catcode64 \the\catcode64\relax % @
945 \catcode91 \the\catcode91\relax % [
946 \catcode92 \the\catcode92\relax % \
947 \catcode93 \the\catcode93\relax % ]
948 \catcode123 \the\catcode123\relax % {
949 \catcode124 \the\catcode124\relax % |
950 \catcode125 \the\catcode125\relax % }
951 }%
952 \endlinechar=-1 %
953 \catcode32 10 % (space)
954 \catcode34 12 % "
955 \catcode35 6 % #
956 \catcode37 14 % (percent)

```

```

957 \catcode40 12 % (
958 \catcode41 12 % )
959 \catcode42 12 % *
960 \catcode46 12 % .
961 \catcode58 12 % :
962 \catcode60 12 % <
963 \catcode61 12 % =
964 \catcode62 12 % >
965 \catcode91 12 % [
966 \catcode92 0 % \
967 \catcode93 12 % ]
968 \catcode123 1 % {
969 \catcode124 12 % |
970 \catcode125 2 % }
971 \makeatletter
972 }

```

`\Hy@RestoreCatcodeSettings`

```

973 \def\Hy@RestoreCatcodeSettings#1{%
974 \csname Hy@cat@#1\endcsname
975 \expandafter\let\csname Hy@cat@#1\endcsname\relax
976 }

```

6.3.4 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.

```

977 \@ifundefined{T@PD1}{%
978 \Hy@SaveCatcodeSettings{pd1}%
979 \input{pd1enc.def}%
980 \Hy@RestoreCatcodeSettings{pd1}%
981 \HyLinguex@Restore
982 }{}
983 \DeclareFontFamily{PD1}{pdf}{}
984 \DeclareFontShape{PD1}{pdf}{m}{n}{<-> cmr10 }{}
985 \DeclareFontSubstitution{PD1}{pdf}{m}{n}

```

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

```

986 \def\HyPsd@LoadUnicode{%
987 \@ifundefined{T@PU}{%
988 \Hy@SaveCatcodeSettings{pu}%
989 \input{puenc.def}%
990 \Hy@RestoreCatcodeSettings{pu}%
991 \HyLinguex@Restore

```

```

992 }{}%
993 \DeclareFontFamily{PU}{pdf}{}%
994 \DeclareFontShape{PU}{pdf}{m}{n}{ <-> cmr10 }{}%
995 \DeclareFontSubstitution{PU}{pdf}{m}{n}%
996 \HyPsd@LoadExtra
997 \let\HyPsd@LoadUnicode\relax
998 }

```

`\HyPsd@LoadExtra`

```

999 \def\HyPsd@LoadExtra{%
1000 \ifHy@psdextra
1001 \ltx@iffileloaded{puenc.def}{}%
1002 \Hy@SaveCatcodeSettings{psdextra}%
1003 \input{psdextra.def}%
1004 \Hy@RestoreCatcodeSettings{psdextra}%
1005 \let\HyPsd@LoadExtra\relax
1006 }{}%
1007 \fi
1008 }

```

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 \TeX 's stomach, the second contains the replacement for PDF strings.

```

1009 \def\texorpdfstring{%
1010 \ifHy@pdfstring
1011 \expandafter\@secondoftwo
1012 \else
1013 \expandafter\@firstoftwo
1014 \fi
1015 }

```

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`.

```

1016 \@ifundefined{pdfstringdefPreHook}{}%
1017 \let\pdfstringdefPreHook\@empty
1018 }{}
1019 \@ifundefined{pdfstringdefPostHook}{}%
1020 \let\pdfstringdefPostHook\@gobble
1021 }{}

```

`\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`.

```

1022 \def\pdfstringdefDisableCommands{%
1023   \begingroup
1024   \makeatletter
1025   \HyPsd@DisableCommands
1026 }

```

`\HyPsd@DisableCommands`

```

1027 \long\def\HyPsd@DisableCommands#1{%
1028   \ltx@GlobalAppendToMacro\pdfstringdefPreHook{#1}%
1029   \endgroup
1030 }

```

(Partial) fix for bug in `frenchb.ldf` 2010/08/21 v2.5a that destroys `\pdfstringdefDisableCommands` after usage in `\AtBeginDocument`.

```

1031 \let\HyPsd@pdfstringdefDisableCommands\pdfstringdefDisableCommands
1032 \AtBeginDocument{%
1033   \@ifundefined{pdfstringdefDisableCommands}{%
1034     \let\pdfstringdefDisableCommands\HyPsd@pdfstringdefDisableCommands
1035   }{}%
1036 }

```

`\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`.

```

1037 \def\pdfstringdefWarn#1{%
1038   \expandafter\noexpand\csname<>\string#1\endcsname
1039 }

```

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.

```

1040 \begingroup
1041   \catcode0=12 %
1042   \def\x{\endgroup
1043     \def\HyPsd@ignorespaces{%
1044       \romannumeral\expandafter'\expandafter^^@%

```

```

1045   \romannumeral'^~@%
1046   }%
1047 }%
1048 \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`.

```

1049 \def\HyPsd@BabelPatch{%
1050   \let\HyOrg@languageshorthands\languageshorthands
1051   \let\languageshorthands\HyPsd@LanguageShorthands
1052 }
1053 \begingroup\expandafter\expandafter\expandafter\endgroup
1054 \expandafter\ifx\csname pdf@strcmp\endcsname\relax
1055   \let\HyPsd@langshort@system\@empty
1056   \def\HyPsd@LanguageShorthands#1{%
1057     \expandafter\ifx\csname HyPsd@langshort@#1\endcsname
1058       \HyPsd@langshort@system
1059     \expandafter\@gobble
1060   \else
1061     \expandafter\@firstofone
1062   \fi
1063   {%
1064     \HyOrg@languageshorthands{#1}%
1065   }%
1066 }%
1067 \else
1068   \def\HyPsd@LanguageShorthands#1{%
1069     \ifnum\pdf@strcmp{#1}{system}=\z@
1070       \expandafter\@gobble
1071     \else
1072       \expandafter\@firstofone
1073     \fi
1074     {%
1075       \HyOrg@languageshorthands{#1}%
1076     }%
1077   }%
1078 \fi
1079 \def\Hy@temp{%
1080   \@ifpackageloaded{babel}{%
1081     \@ifpackagelater{babel}{2008/03/16}{%
1082       \let\Hy@temp\@empty
1083     }{%
1084       \def\HyPsd@BabelPatch{%
1085         \let\HyOrg@languageshorthands\languageshorthands
1086       }%
1087     }%
1088   }-}%
1089 }

```

```

1090 \Hy@temp
1091 \expandafter\Hy@AtBeginDocument\expandafter{\Hy@temp}
1092 \newif\ifHy@next

    Nothing to do for english.
1093 \ltx@ifundefined{danish@sh@}{}{}%
1094 \def\HyPsd@babel@danish{%
1095   \declare@shorthand{danish}{"}|}{}%
1096   \declare@shorthand{danish}{"}~}{-}%
1097 }%
1098 }
1099 \ltx@ifundefined{dutch@sh@}{}{}%
1100 \def\HyPsd@babel@dutch{%
1101   \declare@shorthand{dutch}{"}|}{}%
1102   \declare@shorthand{dutch}{"}~}{-}%
1103 }%
1104 }
1105 \ltx@ifundefined{finnish@sh@}{}{}%
1106 \def\HyPsd@babel@finnish{%
1107   \declare@shorthand{finnish}{"}|}{}%
1108 }%
1109 }
1110 \ltx@ifundefined{french@sh@}{}{}%
1111 \def\HyPsd@babel@frenchb{%
1112   \def\guill@spacing{ }%
1113 }%
1114 }
1115 \ltx@ifundefined{german@sh@}{}{}%
1116 \def\HyPsd@babel@german{%
1117   \declare@shorthand{german}{"}f}{f}%
1118   \declare@shorthand{german}{"}|}{}%
1119   \declare@shorthand{german}{"}~}{-}%
1120 }%
1121 }
1122 \ltx@ifundefined{macedonian@sh@}{}{}%
1123 \def\HyPsd@babel@macedonian{%
1124   \declare@shorthand{macedonian}{"}|}{}%
1125   \declare@shorthand{macedonian}{"}~}{-}%
1126 }%
1127 }{}
1128 \ltx@ifundefined{ngerman@sh@}{}{}%
1129 \def\HyPsd@babel@ngerman{%
1130   \declare@shorthand{ngerman}{"}|}{}%
1131   \declare@shorthand{ngerman}{"}~}{-}%
1132 }%
1133 }
1134 \ltx@ifundefined{portuges@sh@}{}{}%
1135 \def\HyPsd@babel@portuges{%
1136   \declare@shorthand{portuges}{"}|}{}%
1137 }%
1138 }
1139 \ltx@ifundefined{russian@sh@}{}{}%
1140 \def\HyPsd@babel@russian{%
1141   \declare@shorthand{russian}{"}|}{}%
1142   \declare@shorthand{russian}{"}~}{-}%
1143 }%
1144 }

```

```

1145 \ltx@ifundefined{slovene@sh@}{}{}%
1146 \def\HyPsd@babel@slovene{%
1147   \declare@shorthand{slovene}{"}|}{}%
1148 }%
1149 }

```

Nested quoting environments are not supported (<<, >>).

```

1150 \ltx@ifundefined{spanish@sh@>}{}{}%
1151 \def\HyPsd@babel@spanish{%
1152   \declare@shorthand{spanish}{<<}{\guillemotleft}%
1153   \declare@shorthand{spanish}{>>}{\guillemotright}%
1154   \declare@shorthand{spanish}{"}=}{-}%
1155   \declare@shorthand{spanish}{"}~}{-}%
1156   \declare@shorthand{spanish}{"}!}{\textexclamdown}%
1157   \declare@shorthand{spanish}{"}?}{\textquestiondown}%
1158 }%
1159 }
1160 \ltx@ifundefined{swedish@sh@}{}{}%
1161 \def\HyPsd@babel@swedish{%
1162   \declare@shorthand{swedish}{"}|}{}%
1163   \declare@shorthand{swedish}{"}~}{-}%
1164 }%
1165 }
1166 \ltx@ifundefined{ukrainian@sh@}{}{}%
1167 \def\HyPsd@babel@ukrainian{%
1168   \declare@shorthand{ukrainian}{"}|}{}%
1169   \declare@shorthand{ukrainian}{"}~}{-}%
1170 }%
1171 }
1172 \ltx@ifundefined{usorbian@sh@}{}{}%
1173 \def\HyPsd@babel@usorbian{%
1174   \declare@shorthand{usorbian}{"}f}{f}%
1175   \declare@shorthand{usorbian}{"}|}{}%
1176 }%
1177 }
1178 \ltx@ifundefined{greek@sh@\string~}{}{}%
1179 \let\HyPsd@GreekPatch\@empty
1180 }{}%
1181 \def\HyPsd@GreekPatch{%
1182   \let\greeknumeral\HyPsd@greeknumeral
1183   \let\Greeknatural\HyPsd@Greeknatural
1184 }%
1185 }
1186 \def\HyPsd@greeknumeral#1{%
1187   \HyPsd@GreekNum\@firstoftwo{#1}%
1188 }
1189 \def\HyPsd@Greeknumeral#1{%
1190   \HyPsd@GreekNum\@secondoftwo{#1}%
1191 }
1192 \def\HyPsd@GreekNum#1#2{%
1193   \ifHy@unicode
1194     \ifnum#2<\@ne
1195       \@arabic{#2}%
1196     \else
1197       \ifnum#2<1000000 %
1198         \HyPsd@@GreekNum#1{#2}%
1199       \else
1200         \@arabic{#2}%

```

```

1201 \fi
1202 \fi
1203 \else
1204 \@arabic{#2}%
1205 \fi
1206 }
1207 \def\HyPsd@@GreekNum#1#2{%
1208 \ifnum#2<\@m
1209 \ifnum#2<10 %
1210 \expandafter\HyPsd@GreekNumI
1211 \expandafter\@gobble\expandafter#1\number#2%
1212 \else
1213 \ifnum#2<100 %
1214 \expandafter\HyPsd@GreekNumII
1215 \expandafter\@gobble\expandafter#1\number#2%
1216 \else
1217 \expandafter\HyPsd@GreekNumIII
1218 \expandafter\@gobble\expandafter#1\number#2%
1219 \fi
1220 \fi
1221 \ifnum#2>\z@
1222 \textnumeralsigngreek
1223 \fi
1224 \else
1225 \ifnum#2<\@M
1226 \expandafter\HyPsd@GreekNumIV\expandafter#1\number#2%
1227 \else
1228 \ifnum#2<100000 %
1229 \expandafter\HyPsd@GreekNumV\expandafter#1\number#2%
1230 \else
1231 \expandafter\HyPsd@GreekNumVI\expandafter#1\number#2%
1232 \fi
1233 \fi
1234 \fi
1235 }
1236 \def\HyPsd@GreekNumI#1#2#3{%
1237 #1{%
1238 \ifnum#3>\z@
1239 \textnumeralsignlowergreek
1240 \fi
1241 }%
1242 \expandafter#2%
1243 \ifcase#3 %
1244 {}{}%
1245 \or\textalpha\textAlpha
1246 \or\textbeta\textBeta
1247 \or\textgamma\textGamma
1248 \or\textdelta\textDelta
1249 \or\textepsilon\textEpsilon
1250 \or\textstigmagreek\textStigmagreek
1251 \or\textzeta\textZeta
1252 \or\texteta\textEta
1253 \or\texttheta\textTheta
1254 \else
1255 {}{}%
1256 \fi
1257 }

```



```

1258 \def\HyPsd@GreekNumII#1#2#3#4{%
1259   #1{%
1260     \ifnum#3>\z@
1261       \textnumeralsignlowergreek
1262     \fi
1263   }%
1264 \expandafter#2%
1265 \ifcase#3 %
1266   {}-{}%
1267 \or\textiota\textIota
1268 \or\textkappa\textKappa
1269 \or\textlambda\textLambda
1270 \or\textmu\textMu
1271 \or\textnu\textNu
1272 \or\textxi\textXi
1273 \or\textomicron\textOmicron
1274 \or\textpi\textPi
1275 \or\textkoppagreek\textKoppagreek
1276 \else
1277   {}-{}%
1278 \fi
1279 \HyPsd@GreekNumI#1#2#4%
1280 }
1281 \def\HyPsd@GreekNumIII#1#2#3#4#5{%
1282   #1{%
1283     \ifnum#3>\z@
1284       \textnumeralsignlowergreek
1285     \fi
1286   }%
1287 \expandafter#2%
1288 \ifcase#3 %
1289   {}-{}%
1290 \or\textrho\textRho
1291 \or\textsigma\textSigma
1292 \or\texttau\textTau
1293 \or\textupsilon\textUpsilon
1294 \or\textphi\textPhi
1295 \or\textchi\textChi
1296 \or\textpsi\textPsi
1297 \or\textomega\textOmega
1298 \or\textsampigreek\textSampigreek
1299 \else
1300   {}-{}%
1301 \fi
1302 \HyPsd@GreekNumII#1#2#4#5%
1303 }
1304 \def\HyPsd@GreekNumIV#1#2#3#4#5{%
1305   \HyPsd@GreekNumI\@firstofone#1#2%
1306   \HyPsd@@@GreekNum#1{#3#4#5}%
1307 }
1308 \def\HyPsd@GreekNumV#1#2#3#4#5#6{%
1309   \HyPsd@GreekNumII\@firstofone#1#2#3%
1310   \HyPsd@@@GreekNum#1{#4#5#6}%
1311 }
1312 \def\HyPsd@GreekNumVI#1#2#3#4#5#6#7{%
1313   \HyPsd@GreekNumIII\@firstofone#1#2#3#4%
1314   \HyPsd@@@GreekNum#1{#5#6#7}%

```

```

1315 }
1316 \def\HyPsd@SpanishPatch{%
1317 \ltx@ifundefined{es@save@dot}{%
1318 }{%
1319 \let\.\es@save@dot
1320 }%
1321 }

```

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

```

1322 \def\HyPsd@RussianPatch{%
1323 \ltx@ifundefined{russian@sh@"@-@}{%
1324 }{%
1325 \@namedef{russian@sh@"@-@}{-}%
1326 }%
1327 }

```

6.5.3 CJK patch

```

1328 \RequirePackage{intcalc}[2007/09/27]

\HyPsd@CJKhook

1329 \def\HyPsd@CJKhook{%
1330 \ltx@ifpackageloaded{CJK}{%
1331 \let\CJK@kern\relax
1332 \let\CJKkern\relax
1333 \let\CJK@CJK\relax
1334 \ifHy@CJKbookmarks
1335 \HyPsd@CJKhook@bookmarks
1336 \fi
1337 \HyPsd@CJKhook@unicode
1338 }{%
1339 }

```

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 ($\geq 0x40$).

```

1340 \begingroup
1341 \catcode"7F=\active
1342 \toks@{%
1343 \let\CJK@ignorespaces\empty
1344 \def\CJK@char#1{\@gobbletwo}%
1345 \let\CJK@charx\@gobblefour
1346 \let\CJK@punctchar\@gobblefour
1347 \def\CJK@punctcharx#1{\@gobblefour}%
1348 \catcode"7F=\active
1349 \def^^7f#1^^7f#2^^7f{%
1350 \string #1\HyPsd@DecimalToOctal{#2}%

```

```

1351 }%
1352 % ... ?
1353 \ifHy@unicode
1354 \def\Hy@cjkpu{\80}%
1355 \else
1356 \let\Hy@cjkpu\@empty
1357 \fi
1358 \HyPsd@CJKActiveChars
1359 }%
1360 \count@=127 %
1361 \@whilenum\count@<255 \do{%
1362 \advance\count@ by 1 %
1363 \lccode'\~=\count@
1364 \lowercase{%
1365 \toks@\expandafter{\the\toks@ ~}%
1366 }%
1367 }%
1368 \toks@\expandafter{\the\toks@ !}%
1369 \xdef\HyPsd@CJKhook@bookmarks{%
1370 \the\toks@
1371 }%
1372 \endgroup

```

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

```

1373 \def\HyPsd@CJKActiveChars#1{%
1374 \ifx#1!%
1375 \let\HyPsd@CJKActiveChars\relax
1376 \else
1377 \edef#1{\noexpand\Hy@cjkpu\string#1}%
1378 \fi
1379 \HyPsd@CJKActiveChars
1380 }

```

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

```

1381 \def\HyPsd@DecimalToOctal#1{%
1382 \ifcase #1 %
1383 \or 000\or 001\or 002\or 003\or 004\or 005\or 006\or 007%
1384 \or 010\or 011\or 012\or 013\or 014\or 015\or 016\or 017%
1385 \or 020\or 021\or 022\or 023\or 024\or 025\or 026\or 027%
1386 \or 030\or 031\or 032\or 033\or 034\or 035\or 036\or 037%
1387 \or 040\or 041\or 042\or 043\or 044\or 045\or 046\or 047%
1388 \or 050\or 051\or 052\or 053\or 054\or 055\or 056\or 057%
1389 \or 0\or 1\or 2\or 3\or 4\or 5\or 6\or 7%
1390 \or 8\or 9\or 072\or 073\or 074\or 075\or 076\or 077%
1391 \or @\or A\or B\or C\or D\or E\or F\or G%
1392 \or H\or I\or J\or K\or L\or M\or N\or O%
1393 \or P\or Q\or R\or S\or T\or U\or V\or W%
1394 \or X\or Y\or Z\or 133\or 134\or 135\or 136\or 137%
1395 \or 140\or a\or b\or c\or d\or e\or f\or g%
1396 \or h\or i\or j\or k\or l\or m\or n\or o%
1397 \or p\or q\or r\or s\or t\or u\or v\or w%
1398 \or x\or y\or z\or 173\or 174\or 175\or 176\or 177%
1399 \or 200\or 201\or 202\or 203\or 204\or 205\or 206\or 207%
1400 \or 210\or 211\or 212\or 213\or 214\or 215\or 216\or 217%
1401 \or 220\or 221\or 222\or 223\or 224\or 225\or 226\or 227%
1402 \or 230\or 231\or 232\or 233\or 234\or 235\or 236\or 237%

```

```

1403 \or \240\or \241\or \242\or \243\or \244\or \245\or \246\or \247%
1404 \or \250\or \251\or \252\or \253\or \254\or \255\or \256\or \257%
1405 \or \260\or \261\or \262\or \263\or \264\or \265\or \266\or \267%
1406 \or \270\or \271\or \272\or \273\or \274\or \275\or \276\or \277%
1407 \or \300\or \301\or \302\or \303\or \304\or \305\or \306\or \307%
1408 \or \310\or \311\or \312\or \313\or \314\or \315\or \316\or \317%
1409 \or \320\or \321\or \322\or \323\or \324\or \325\or \326\or \327%
1410 \or \330\or \331\or \332\or \333\or \334\or \335\or \336\or \337%
1411 \or \340\or \341\or \342\or \343\or \344\or \345\or \346\or \347%
1412 \or \350\or \351\or \352\or \353\or \354\or \355\or \356\or \357%
1413 \or \360\or \361\or \362\or \363\or \364\or \365\or \366\or \367%
1414 \or \370\or \371\or \372\or \373\or \374\or \375\or \376\or \377%
1415 \fi
1416 }

```

6.5.5 CJK unicode

\HyPsd@CJKhook@unicode

```

1417 \def\HyPsd@CJKhook@unicode{%
1418 \let\Unicode\HyPsd@CJK@Unicode
1419 \let\CJKnumber\HyPsd@CJKnumber
1420 \let\CJKdigits\HyPsd@CJKdigits
1421 }

```

\HyPsd@CJK@Unicode

```

1422 \def\HyPsd@CJK@Unicode#1#2{%
1423 \ifnum#1<256 %
1424 \HyPsd@DecimalToOctalFirst{#1}%
1425 \HyPsd@DecimalToOctalSecond{#2}%
1426 \else
1427 \933%
1428 \expandafter\expandafter\expandafter\HyPsd@HighA
1429 \intcalcDiv{#1}{4}!%
1430 \933%
1431 \ifcase\intcalcMod{#1}{4} %
1432 4\or 5\or 6\or 7%
1433 \fi
1434 \HyPsd@DecimalToOctalSecond{#2}%
1435 \fi
1436 }

1437 \def\HyPsd@HighA#1{%
1438 \expandafter\expandafter\expandafter\HyPsd@HighB
1439 \IntCalcDiv#1!64!!%
1440 \expandafter\expandafter\expandafter\HyPsd@HighD
1441 \IntCalcMod#1!64!!%
1442 }
1443 \def\HyPsd@HighB#1{%
1444 \expandafter\expandafter\expandafter\HyPsd@HighC
1445 \IntCalcDec#1!!%
1446 }
1447 \def\HyPsd@HighC#1{%
1448 \IntCalcDiv#1!4!%
1449 \@backslashchar
1450 \IntCalcMod#1!4!%
1451 }
1452 \def\HyPsd@HighD#1{%

```

```

1453 \ifcase\IntCalcDiv#1!8! %
1454 0\or 1\or 2\or 3\or 4\or 5\or 6\or 7%
1455 \fi
1456 \ifcase\IntCalcMod#1!8! %
1457 0\or 1\or 2\or 3\or 4\or 5\or 6\or 7%
1458 \fi
1459 }
1460 \def\HyPsd@DecimalToOctalFirst#1{%
1461 \9%
1462 \ifcase#1 %
1463 000\or 001\or 002\or 003\or 004\or 005\or 006\or 007%
1464 \or 010\or 011\or 012\or 013\or 014\or 015\or 016\or 017%
1465 \or 020\or 021\or 022\or 023\or 024\or 025\or 026\or 027%
1466 \or 030\or 031\or 032\or 033\or 034\or 035\or 036\or 037%
1467 \or 040\or 041\or 042\or 043\or 044\or 045\or 046\or 047%
1468 \or 050\or 051\or 052\or 053\or 054\or 055\or 056\or 057%
1469 \or 060\or 061\or 062\or 063\or 064\or 065\or 066\or 067%
1470 \or 070\or 071\or 072\or 073\or 074\or 075\or 076\or 077%
1471 \or 100\or 101\or 102\or 103\or 104\or 105\or 106\or 107%
1472 \or 120\or 111\or 112\or 113\or 114\or 115\or 116\or 117%
1473 \or 120\or 121\or 122\or 123\or 124\or 125\or 126\or 127%
1474 \or 130\or 131\or 132\or 133\or 134\or 135\or 136\or 137%
1475 \or 140\or 141\or 142\or 143\or 144\or 145\or 146\or 147%
1476 \or 150\or 151\or 152\or 153\or 154\or 155\or 156\or 157%
1477 \or 160\or 161\or 162\or 163\or 164\or 165\or 166\or 167%
1478 \or 170\or 171\or 172\or 173\or 174\or 175\or 176\or 177%
1479 \or 200\or 201\or 202\or 203\or 204\or 205\or 206\or 207%
1480 \or 210\or 211\or 212\or 213\or 214\or 215\or 216\or 217%
1481 \or 220\or 221\or 222\or 223\or 224\or 225\or 226\or 227%
1482 \or 230\or 231\or 232\or 233\or 234\or 235\or 236\or 237%
1483 \or 240\or 241\or 242\or 243\or 244\or 245\or 246\or 247%
1484 \or 250\or 251\or 252\or 253\or 254\or 255\or 256\or 257%
1485 \or 260\or 261\or 262\or 263\or 264\or 265\or 266\or 267%
1486 \or 270\or 271\or 272\or 273\or 274\or 275\or 276\or 277%
1487 \or 300\or 301\or 302\or 303\or 304\or 305\or 306\or 307%
1488 \or 310\or 311\or 312\or 313\or 314\or 315\or 316\or 317%
1489 \or 320\or 321\or 322\or 323\or 324\or 325\or 326\or 327%
1490 \or 330\or 331\or 332\or 333\or 334\or 335\or 336\or 337%
1491 \or 340\or 341\or 342\or 343\or 344\or 345\or 346\or 347%
1492 \or 350\or 351\or 352\or 353\or 354\or 355\or 356\or 357%
1493 \or 360\or 361\or 362\or 363\or 364\or 365\or 366\or 367%
1494 \or 370\or 371\or 372\or 373\or 374\or 375\or 376\or 377%
1495 \fi
1496 }
1497 \def\HyPsd@DecimalToOctalSecond#1{%
1498 \ifcase #1 %
1499 \000\or \001\or \002\or \003\or \004\or \005\or \006\or \007%
1500 \or \010\or \011\or \012\or \013\or \014\or \015\or \016\or \017%
1501 \or \020\or \021\or \022\or \023\or \024\or \025\or \026\or \027%
1502 \or \030\or \031\or \032\or \033\or \034\or \035\or \036\or \037%
1503 \or \040\or \041\or \042\or \043\or \044\or \045\or \046\or \047%
1504 \or \050\or \051\or \052\or \053\or \054\or \055\or \056\or \057%
1505 \or \060\or \061\or \062\or \063\or \064\or \065\or \066\or \067%
1506 \or \070\or \071\or \072\or \073\or \074\or \075\or \076\or \077%
1507 \or \100\or \101\or \102\or \103\or \104\or \105\or \106\or \107%
1508 \or \110\or \111\or \112\or \113\or \114\or \115\or \116\or \117%
1509 \or \120\or \121\or \122\or \123\or \124\or \125\or \126\or \127%

```

```

1510 \or \130\or \131\or \132\or \133\or \134\or \135\or \136\or \137%
1511 \or \140\or \141\or \142\or \143\or \144\or \145\or \146\or \147%
1512 \or \150\or \151\or \152\or \153\or \154\or \155\or \156\or \157%
1513 \or \160\or \161\or \162\or \163\or \164\or \165\or \166\or \167%
1514 \or \170\or \171\or \172\or \173\or \174\or \175\or \176\or \177%
1515 \or \200\or \201\or \202\or \203\or \204\or \205\or \206\or \207%
1516 \or \210\or \211\or \212\or \213\or \214\or \215\or \216\or \217%
1517 \or \220\or \221\or \222\or \223\or \224\or \225\or \226\or \227%
1518 \or \230\or \231\or \232\or \233\or \234\or \235\or \236\or \237%
1519 \or \240\or \241\or \242\or \243\or \244\or \245\or \246\or \247%
1520 \or \250\or \251\or \252\or \253\or \254\or \255\or \256\or \257%
1521 \or \260\or \261\or \262\or \263\or \264\or \265\or \266\or \267%
1522 \or \270\or \271\or \272\or \273\or \274\or \275\or \276\or \277%
1523 \or \300\or \301\or \302\or \303\or \304\or \305\or \306\or \307%
1524 \or \310\or \311\or \312\or \313\or \314\or \315\or \316\or \317%
1525 \or \320\or \321\or \322\or \323\or \324\or \325\or \326\or \327%
1526 \or \330\or \331\or \332\or \333\or \334\or \335\or \336\or \337%
1527 \or \340\or \341\or \342\or \343\or \344\or \345\or \346\or \347%
1528 \or \350\or \351\or \352\or \353\or \354\or \355\or \356\or \357%
1529 \or \360\or \361\or \362\or \363\or \364\or \365\or \366\or \367%
1530 \or \370\or \371\or \372\or \373\or \374\or \375\or \376\or \377%
1531 \fi
1532 }

1533 \def\HyPsd@CJKnumber#1{%
1534 \ifnum#1<\z@
1535 \CJK@minus
1536 \expandafter\HyPsd@@CJKnumber\expandafter{\number-\number#1}%
1537 \else
1538 \expandafter\HyPsd@@CJKnumber\expandafter{\number#1}%
1539 \fi
1540 }

1541 \def\HyPsd@@CJKnumber#1{%
1542 \ifcase#1 %
1543 \CJK@zero\or\CJK@one\or\CJK@two\or\CJK@three\or\CJK@four\or
1544 \CJK@five\or\CJK@six\or\CJK@seven\or\CJK@eight\or\CJK@nine\or
1545 \CJK@ten\or\CJK@ten\CJK@one\or\CJK@ten\CJK@two\or
1546 \CJK@ten\CJK@three\or\CJK@ten\CJK@four\or\CJK@ten\CJK@five\or
1547 \CJK@ten\CJK@six\or\CJK@ten\CJK@seven\or\CJK@ten\CJK@eight\or
1548 \CJK@ten\CJK@nine
1549 \else
1550 \ifnum#1<10000 %
1551 \HyPsd@CJKnumberFour#1!\@empty{20}%
1552 \@empty
1553 \else
1554 \ifnum#1<100000000 %
1555 \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1556 \IntCalcDiv#1!10000!%
1557 !}{20}%
1558 \CJK@tenthousand
1559 \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1560 \IntCalcMod#1!10000!%
1561 !\CJK@zero{10}%
1562 \@empty
1563 \else
1564 \expandafter\HyPsd@CJKnumberLarge
1565 \number\IntCalcDiv#1!100000000!\expandafter!%
1566 \number\IntCalcMod#1!100000000!!%

```

```

1567 \fi
1568 \fi
1569 \fi
1570 }
1571 \def\HyPsd@CJKnumberLarge#1!#2!{%
1572 \HyPsd@CJKnumberFour#1!{}{20}%
1573 \CJK@hundredmillion
1574 \ifnum#2=\z@
1575 \else
1576 \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1577 \IntCalcDiv#2!10000!%
1578 !\CJK@zero{10}%
1579 \CJK@tenthousand
1580 \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1581 \IntCalcMod#2!10000!%
1582 !\CJK@zero{10}%
1583 \@empty
1584 \fi
1585 }
1586 \def\HyPsd@CJKnumberFour#1!#2#3{%
1587 \ifnum#1=\z@
1588 \expandafter\@gobble
1589 \else
1590 \ifnum#1<1000 %
1591 #2%
1592 \HyPsd@CJKnumberThree#1!{}{#3}%
1593 \else
1594 \HyPsd@@CJKnumber{\IntCalcDiv#1!1000!}%
1595 \CJK@thousand
1596 \expandafter\expandafter\expandafter\HyPsd@CJKnumberThree
1597 \IntCalcMod#1!1000!%
1598 !\CJK@zero{10}%
1599 \fi
1600 \fi
1601 }
1602 \def\HyPsd@CJKnumberThree#1!#2#3{%
1603 \ifnum#1=\z@
1604 \else
1605 \ifnum#1<100 %
1606 #2%
1607 \HyPsd@CJKnumberTwo#1!{}{#3}%
1608 \else
1609 \HyPsd@@CJKnumber{\IntCalcDiv#1!100!}%
1610 \CJK@hundred
1611 \expandafter\expandafter\expandafter\HyPsd@CJKnumberTwo
1612 \IntCalcMod#1!100!%
1613 !\CJK@zero{10}%
1614 \fi
1615 \fi
1616 }
1617 \def\HyPsd@CJKnumberTwo#1!#2#3{%
1618 \ifnum#1=\z@
1619 \else
1620 \ifnum#1<#3 %
1621 #2%
1622 \HyPsd@@CJKnumber{#1}%
1623 \else

```

```

1624 \HyPsd@@CJKnumber{\IntCalcDiv#1!10!}%
1625 \CJK@ten
1626 \ifnum\IntCalcMod#1!10!=\z@
1627 \else
1628 \HyPsd@@CJKnumber{\IntCalcMod#1!10!}%
1629 \fi
1630 \fi
1631 \fi
1632 }

1633 \def\HyPsd@CJKdigits#1{%
1634 \ifx*#1\relax
1635 \expandafter\HyPsd@@CJKdigits\expandafter\CJK@zero
1636 \else
1637 \HyPsd@@CJKdigits\CJK@null{#1}%
1638 \fi
1639 }

1640 \def\HyPsd@@CJKdigits#1#2{%
1641 \ifx\#2\%
1642 \else
1643 \HyPsd@@@CJKdigits#1#2\@nil
1644 \fi
1645 }%
1646 \def\HyPsd@@@CJKdigits#1#2#3\@nil{%
1647 \HyPsd@CJKdigit#1{#2}%
1648 \ifx\#3\%
1649 \expandafter\@gobble
1650 \else
1651 \expandafter\@firstofone
1652 \fi
1653 }%
1654 \HyPsd@@@CJKdigits#1#3\@nil
1655 }%
1656 }

1657 \def\HyPsd@CJKdigit#1#2{%
1658 \ifcase#2 %
1659 #1\or
1660 \CJK@one\or\CJK@two\or\CJK@three\or\CJK@four\or
1661 \CJK@five\or\CJK@six\or\CJK@seven\or\CJK@eight\or\CJK@nine
1662 \fi
1663 }

```

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 ($\text{\LaTeX} 2_{\epsilon}$ release [1998/12/01]). In the normal case `\pdfstringdef` is executed in a context where `\protect` has the meaning of `\@typesetprotect (= \relax)`.

```

\def\@current@cmd#1{%
  \ifx\protect\@typesetprotect
    \@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\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}

1664 \def\HyPsd@inmathwarn#1#2{%
1665 \ifx#2\expandafter
1666 \expandafter\ifx\csname\cf@encoding\string#1\endcsname\relax
1667 \HyPsd@GLYPHERR
1668 \expandafter\@gobble\string#1%
1669 >%
1670 \expandafter\expandafter\expandafter\HyPsd@EndWithElse
1671 \else
1672 \expandafter\expandafter\expandafter\HyPsd@GobbleFiFi
1673 \fi
1674 \else
1675 \expandafter#2%
1676 \fi
1677 }
1678 \def\HyPsd@GobbleFiFi#1\fi#2\fi{}
1679 \def\HyPsd@EndWithElse#1\else\else}

```

\HyPsd@add@accent

```

1680 \def\HyPsd@add@accent#1#2{%
1681 \HyPsd@GLYPHERR\expandafter\@gobble\string#1+\string#2>%
1682 #2%
1683 }%

```

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 be caught by undelimited arguments.

- And they work in number, dimen, and skip assignments.

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

```
1684 \def\HyPsd@LetUnexpandableSpace#1{%
1685   \expandafter\futurelet\expandafter#1\expandafter\@gobble\space\relax
1686 }
```

`\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.

```
1687 \HyPsd@LetUnexpandableSpace\HyPsd@UnexpandableSpace
```

6.5.8 Marker for commands

`\HyPsd@XSPACE` 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.

```
1688 \edef\HyPsd@XSPACE{\string#\string X}
1689 \edef\HyPsd@ITALCORR{\string#\string I}
1690 \edef\HyPsd@GLYPHERR{\string#\string G}
```

6.5.9 `\hspace` fix

`\HyPsd@hspace`

```
1691 \def\HyPsd@hspace#1{\HyPsd@@hspace#1*END}
```

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

```
1692 \def\HyPsd@@hspace#1*#2\END{%
1693   \ifx\#2\%
1694     \HyPsd@hspacetest{#1}%
1695   \else
1696     \expandafter\HyPsd@hspacetest
1697   \fi
1698 }
```

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

```
1699 \def\HyPsd@hspacetest#1{\ifdim#1>\z@\space\fi}
```

6.5.10 Fix for AMS classes

```
1700 \ltx@ifundefined{tocsection}{%
1701   \let\HyPsd@AMSclassfix\relax
1702 }{%
1703   \def\HyPsd@AMSclassfix{%
1704     \let\tocpart\HyPsd@tocsection
1705     \let\tocchapter\HyPsd@tocsection
1706     \let\tocappendix\HyPsd@tocsection
1707     \let\tocsection\HyPsd@tocsection
1708     \let\tocsubsection\HyPsd@tocsection
1709     \let\tocsubsubsection\HyPsd@tocsection
1710     \let\tocparagraph\HyPsd@tocsection
1711   }%
1712   \def\HyPsd@tocsection#1#2#3{%
1713     \if @#2@\else\if @#1@\else#1 \fi#2. \fi
```

```

1714 #3%
1715 }%
1716 }

```

6.5.11 Reference commands

`\HyPsd@href`

```
1717 \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.

```
1718 \def\HyPsd@ref#1{\HyPsd@@ref#1*\END}%
```

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

```

1719 \def\HyPsd@@ref#1*#2\END{%
1720 \ifx\#2\%
1721 \HyPsd@@@ref{#1}%
1722 \else
1723 \expandafter\HyPsd@@@ref
1724 \fi
1725 }%

```

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

```

1726 \def\HyPsd@@@ref#1{%
1727 \expandafter\ifx\csname r@#1\endcsname\relax
1728 ??%
1729 \else
1730 \expandafter\expandafter\expandafter
1731 \@car\csname r@#1\endcsname\@nil
1732 \fi
1733 }

```

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

```
1734 \def\HyPsd@pageref#1{\HyPsd@@pageref#1*\END}
```

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

```

1735 \def\HyPsd@@pageref#1*#2\END{%
1736 \ifx\#2\%
1737 \HyPsd@@@pageref{#1}%
1738 \else
1739 \expandafter\HyPsd@@@pageref
1740 \fi
1741 }

```

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

```

1742 \def\HyPsd@@@pageref#1{%
1743 \expandafter\ifx\csname r@#1\endcsname\relax
1744 ??%
1745 \else
1746 \expandafter\expandafter\expandafter\expandafter
1747 \expandafter\expandafter\expandafter\@car
1748 \expandafter\expandafter\expandafter\@gobble
1749 \csname r@#1\endcsname{\}\@nil
1750 \fi
1751 }

```

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

```

1752 \def\HyPsd@nameref#1{\HyPsd@@nameref#1*\END}

```

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

```

1753 \def\HyPsd@@nameref#1*#2\END{%
1754   \ifx\#2\%
1755     \HyPsd@@@nameref{#1}%
1756   \else
1757     \expandafter\HyPsd@@@nameref
1758   \fi
1759 }

```

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

```

1760 \def\HyPsd@@@nameref#1{%
1761   \expandafter\ifx\csname r@#1\endcsname\relax
1762     ??%
1763   \else
1764     \expandafter\expandafter\expandafter\expandafter
1765     \expandafter\expandafter\expandafter\@car
1766     \expandafter\expandafter\expandafter\@gobbletwo
1767     \csname r@#1\endcsname{}}\@nil
1768   \fi
1769 }

```

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

```

1770 \def\HyPsd@autoref#1{\HyPsd@@autoref#1*\END}

```

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

```

1771 \def\HyPsd@@autoref#1*#2\END{%
1772   \ifx\#2\%
1773     \HyPsd@@@autoref{#1}%
1774   \else
1775     \expandafter\HyPsd@@@autoref
1776   \fi
1777 }

```

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

```

1778 \def\HyPsd@@@autoref#1{%
1779   \expandafter\ifx\csname r@#1\endcsname\relax
1780     ??%
1781   \else
1782     \expandafter\expandafter\expandafter\HyPsd@autorefname
1783     \csname r@#1\endcsname{}}\@nil
1784   \expandafter\expandafter\expandafter
1785   \@car\csname r@#1\endcsname\@nil
1786   \fi
1787 }

```

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

```

1788 \def\HyPsd@autorefname#1#2#3#4#5\@nil{%
1789   \ifx\#4\%
1790   \else
1791     \HyPsd@@@autorefname#4.\@nil
1792   \fi
1793 }

```

`\HyPsd@@autorefname`

```
1794 \def\HyPsd@@autorefname#1.#2\@nil{%
1795 \ltx@ifundefined{#1autorefname}{%
1796 \ltx@ifundefined{#1name}{%
1797 }{%
1798 \csname#1name\endcsname\space
1799 }%
1800 }{%
1801 \csname#1autorefname\endcsname\space
1802 }%
1803 }
```

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 cause 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 unmathed `\if...` tokens, the cases `\let\if...\iftrue` and `\let\if...\iffalse` are checked and ignored.

`\HyPsd@DefCommand`
`\HyPsd@LetCommand`

```
1804 \begingroup
1805 \def\x#1#2{%
1806 \endgroup
1807 \let#1\def
1808 \def\HyPsd@DefCommand##1##2###{%
1809 #1%
1810 \expandafter\noexpand
1811 \csname\expandafter\@gobble\string##1\@empty\endcsname
1812 \@gobble
1813 }%
1814 \let#2\let
1815 \def\HyPsd@@LetCommand##1{%
```

```

1816 \expandafter\ifx\csname##1\expandafter\endcsname
1817     \csname iftrue\endcsname
1818     \pdfstringdefWarn\let
1819     \expandafter\@gobble
1820 \else
1821     \expandafter\ifx\csname##1\expandafter\endcsname
1822     \csname iffalse\endcsname
1823     \pdfstringdefWarn\let
1824     \expandafter\expandafter\expandafter\@gobble
1825     \else
1826     #2%
1827     \expandafter\noexpand
1828     \csname##1\expandafter\expandafter\expandafter\endcsname
1829     \fi
1830 \fi
1831 }%
1832 }%
1833 \expandafter\x\csname <def>-command\expandafter\endcsname
1834     \csname <let>-command\endcsname
1835 \def\HyPsd@LetCommand#1{%
1836     \expandafter\expandafter\expandafter\HyPsd@@LetCommand
1837     \expandafter\expandafter\expandafter{%
1838     \expandafter\@gobble\string#1\@empty
1839     }%
1840 }

```

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).

```

1841 \def\HyPsd@ifnextchar#1{%
1842     \pdfstringdefWarn#1%
1843     \expandafter\@gobbletwo\@gobble
1844 }

```

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`.

```

1845 \def\HyPsd@protected@testopt#1{%
1846     \pdfstringdefWarn#1%
1847     \@gobbletwo
1848 }

```

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:

```
1849 \def\HyPsd@Warning#1{%
1850   \begingroup
1851   \let\space\ltx@space
1852   \Hy@Warning{#1}%
1853   \endgroup
1854 }
```

6.6.2 Protecting spaces

```
1855 \RequirePackage{etexcmds}[2007/09/09]
1856 \ifetex@unexpanded
1857   \expandafter\@secondoftwo
1858 \else
1859   \expandafter\@firstoftwo
1860 \fi
1861 {%
```

`\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`.

```
1862 \def\HyPsd@ProtectSpaces#1{%
1863   \iftrue
1864     \expandafter\HyPsd@@ProtectSpacesFi
1865     \expandafter|\expandafter\@empty#1| \HyPsd@End#1%
1866   \fi
1867 }%
```

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

```
1868 \def\HyPsd@@ProtectSpacesFi#1 #2\HyPsd@End#3\fi{%
1869   \fi
1870   \ifx\scrollmode#2\scrollmode
1871     \HyPsd@RemoveMask#1\HyPsd@End#3%
1872   \else
1873     \gdef#3{#1\HyPsd@UnexpandableSpace#2}%
1874     \expandafter\HyPsd@@ProtectSpacesFi#3\HyPsd@End#3%
1875   \fi
1876 }%
```

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.

```
1877 \def\HyPsd@RemoveMask|#1|\HyPsd@End#2{%
1878   \toks@\expandafter{#1}%
1879   \xdef#2{\the\toks@}%
1880 }%
```

```

1881 }{%
1882 \let\HyPsd@fi\fi
1883 \def\HyPsd@ProtectSpaces#1{%
1884 \xdef#1{%
1885 \iftrue
1886 \expandafter\HyPsd@@ProtectSpacesFi
1887 \expandafter|\expandafter\@empty#1| %
1888 \HyPsd@fi
1889 }%
1890 \expandafter\HyPsd@RemoveMask#1\HyPsd@End#1%
1891 }%
1892 \def\HyPsd@@ProtectSpacesFi#1 #2\HyPsd@fi{%
1893 \fi
1894 \etex@unexpanded{#1}%
1895 \ifx\scrollmode#2\scrollmode
1896 \else
1897 \HyPsd@@ProtectSpacesFi\HyPsd@UnexpandableSpace#2%
1898 \HyPsd@fi
1899 }%
1900 \def\HyPsd@RemoveMask|#1|\HyPsd@End#2{%
1901 \xdef#2{\etex@unexpanded\expandafter{#1}}%
1902 }%
1903 }

```

6.6.3 Remove grouping braces

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

```

1904 \def\HyPsd@RemoveBraces#1{%
1905 \ifx\scrollmode#1\scrollmode
1906 \else
1907 \HyPsd@@RemoveBracesFi#1\HyPsd@End{#1}%
1908 \fi
1909 }

```

`\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`.

```

1910 \def\HyPsd@@RemoveBracesFi#1#2\HyPsd@End#3\fi{%
1911 \fi
1912 \def\Hy@temp@A{#1#2}%
1913 \def\Hy@temp@B{#3}%
1914 \ifx\Hy@temp@A\Hy@temp@B
1915 \expandafter\def\expandafter\HyPsd@String\expandafter{%
1916 \HyPsd@String#1%
1917 }%
1918 \ifx\scrollmode#2\scrollmode
1919 \else
1920 \Hy@ReturnAfterFiFiEnd{%

```



```

1921     \HyPsd@RemoveBraces{#2}%
1922   }%
1923 \fi
1924 \else
1925   \def\Hy@temp@A{#1}%
1926   \HyPsd@AppendItalcorr\HyPsd@String
1927   \ifx\Hy@temp@A\@empty
1928     \Hy@ReturnAfterElseFiFiEnd{%
1929       \HyPsd@RemoveBraces{#2}%
1930     }%
1931   \else
1932     \HyPsd@ProtectSpaces\Hy@temp@A
1933     \HyPsd@AppendItalcorr\Hy@temp@A
1934     \Hy@ReturnAfterFiFiEnd{%
1935       \expandafter\HyPsd@RemoveBraces\expandafter
1936         {\Hy@temp@A#2}%
1937     }%
1938   \fi
1939 \fi
1940 \Hy@ReturnEnd
1941 }

```

`\HyPsd@AppendItalcorr` 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`.

```

1942 \def\HyPsd@AppendItalcorr#1{%
1943   \expandafter\HyPsd@@AppendItalcorr\expandafter{\/#1%
1944 }
1945 \def\HyPsd@@AppendItalcorr#1#2{%
1946   \expandafter\def\expandafter#2\expandafter{#2#1}%
1947 }

```

6.6.4 Catcode check

Workaround for LuaTeX. `\HyPsd@CheckCatcodes` might trigger a bug of LuaTeX (0.60.2, 0.70.1, 0.70.2, ...) in the comparison with `\ifcat`, see <http://tracker.luatex.org/view.php?id=773>.

```

1948 \ltx@ifundefined{directlua}{%
1949 }{%
1950   \expandafter\ifx\curname\endcurname\relax\fi
1951 }

```

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`).

For the comparison with active characters, `~` cannot be used because it has the meaning of a blank space here. And active characters need to be checked, if they have been defined using `\protected`.

```

1952 \begingroup
1953 \catcode'\Q=\active
1954 \let Q\ltx@empty
1955 \gdef\HyPsd@CheckCatcodes#1#2\HyPsd@End{%
1956 \global\let\HyPsd@Rest\relax
1957 \ifcat\relax\noexpand#1\relax
1958 \ifx#1\protect
1959 \else
1960 \ifx#1\penalty
1961 \setbox\z@=\hbox{%
1962 \afterassignment\HyPsd@AfterCountRemove
1963 \count@=#2\HyPsd@End
1964 }%
1965 \else
1966 \ifx#1\kern
1967 \setbox\z@=\hbox{%
1968 \afterassignment\HyPsd@AfterDimenRemove
1969 \dimen@=#2\HyPsd@End
1970 }%
1971 \else
1972 \ifx#1\hskip
1973 \setbox\z@=\hbox{%
1974 \afterassignment\HyPsd@AfterSkipRemove
1975 \skip@=#2\HyPsd@End
1976 }%
1977 \else
1978 \HyPsd@CatcodeWarning{#1}%
1979 \fi
1980 \fi
1981 \fi
1982 \fi
1983 \else
1984 \ifcat\noexpand#1\noexpandQ% active character
1985 \expandafter\expandafter\expandafter\def
1986 \expandafter\expandafter\expandafter\HyPsd@String
1987 \expandafter\expandafter\expandafter{%
1988 \expandafter\HyPsd@String\string#1%
1989 }%
1990 \else
1991 \ifcat#1A% letter
1992 \expandafter\def\expandafter\HyPsd@String\expandafter{%
1993 \HyPsd@String#1%
1994 }%
1995 \else
1996 \ifcat#1 % SPACE
1997 \expandafter\def\expandafter\HyPsd@String\expandafter{%
1998 \HyPsd@String\HyPsd@SPACEOPTI
1999 }%
2000 \else
2001 \ifcat$#1%
2002 \HyPsd@CatcodeWarning{math shift}%
2003 \else
2004 \ifcat&#1%
2005 \HyPsd@CatcodeWarning{alignment tab}%
2006 \else
2007 \ifcat^#1%
2008 \HyPsd@CatcodeWarning{superscript}%

```

```

2009         \else
2010         \ifcat_#1%
2011             \HyPsd@CatcodeWarning{subscript}%
2012         \else
2013             \expandafter\def\expandafter\HyPsd@String\expandafter{%
2014                 \HyPsd@String#1%
2015             }%
2016         \fi
2017     \fi
2018 \fi
2019 \fi
2020 \fi
2021 \fi
2022 \fi
2023 \fi
2024 \ifx\HyPsd@Rest\relax
2025     \ifx\scrollmode#2\scrollmode
2026     \else
2027         \Hy@ReturnAfterFiFiEnd{%
2028             \HyPsd@CheckCatcodes#2\HyPsd@End
2029         }%
2030     \fi
2031 \else
2032     \ifx\HyPsd@Rest\@empty
2033     \else
2034         \Hy@ReturnAfterFiFiEnd{%
2035             \expandafter\HyPsd@CheckCatcodes\HyPsd@Rest\HyPsd@End
2036         }%
2037     \fi
2038 \fi
2039 \Hy@ReturnEnd
2040 }%
2041 \endgroup

```

Remove counts, dimens, skips.

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

```

2042 \def\HyPsd@AfterCountRemove#1\HyPsd@End{%
2043     \gdef\HyPsd@Rest{#1}%
2044 }

```

`\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.

```

2045 \def\HyPsd@AfterDimenRemove#1\HyPsd@End{%
2046     \ifdim\ifx\HyPsd@String\@empty\z@\else\dimen@>1ex %
2047         \HyPsd@ReplaceSpaceWarning{\string\kern\space\the\dimen@}%
2048         \gdef\HyPsd@Rest{\HyPsd@UnexpandableSpace #1}%
2049     \else
2050         \ifdim\dimen@=\z@
2051         \else
2052             \HyPsd@RemoveSpaceWarning{\string\kern\space\the\dimen@}%
2053         \fi
2054         \gdef\HyPsd@Rest{#1}%
2055     \fi
2056 }

```

`\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).

```

2057 \def\HyPsd@AfterSkipRemove#1\HyPsd@end{%
2058   \ifdim\ifx\HyPsd@String\@empty\z@\else\skip@>\fi>lex %
2059   \HyPsd@ReplaceSpaceWarning{\string\hskip\space\the\skip@}%
2060   \gdef\HyPsd@Rest{\HyPsd@UnexpandableSpace #1}%
2061   \else
2062     \ifdim\skip@=\z@
2063     \else
2064       \HyPsd@RemoveSpaceWarning{\string\kern\space\the\skip@}%
2065     \fi
2066     \gdef\HyPsd@Rest{#1}%
2067   \fi
2068 }

```

Catcode warnings.

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

```

2069 \def\HyPsd@CatcodeWarning#1{%
2070   \HyPsd@Warning{%
2071     Token not allowed in a PDF string (%
2072     \ifHy@unicode
2073       Unicode%
2074     \else
2075       PDFDocEncoding%
2076     \fi
2077     ):%
2078     \MessageBreak removing '\HyPsd@RemoveCmdPrefix#1'%
2079   }%
2080 }
2081 \begingroup
2082 \catcode'\|=0 %
2083 \catcode'\|=12 %
2084 |gdef|HyPsd@RemoveCmdPrefix#1{%
2085   |expandafter|HyPsd@@RemoveCmdPrefix
2086   |string#1|@empty\<-|@empty|@empty
2087 }%
2088 |gdef|HyPsd@@RemoveCmdPrefix#1\<-#2|@empty#3|@empty{#1#2}%
2089 |endgroup

```

`\HyPsd@RemoveSpaceWarning`

```

2090 \def\HyPsd@RemoveSpaceWarning#1{%
2091   \HyPsd@Warning{%
2092     Token not allowed in a PDF string (%
2093     \ifHy@unicode
2094       Unicode%
2095     \else
2096       PDFDocEncoding%
2097     \fi
2098     ):%
2099     \MessageBreak #1\MessageBreak
2100     removed%
2101   }%
2102 }

```

`\HyPsd@ReplaceSpaceWarning`

```

2103 \def\HyPsd@ReplaceSpaceWarning#1{%
2104   \HyPsd@Warning{%
2105     Token not allowed in a PDF string (%
2106     \ifHy@unicode
2107       Unicode%
2108     \else
2109       PDFDocEncoding%
2110     \fi
2111   ):%
2112   \MessageBreak #1\MessageBreak
2113   replaced by space%
2114 }%
2115 }

```

6.6.5 Check for wrong glyphs

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

```

2116 \def\HyPsd@GlyphProcess#1\relax#2\@empty{%
2117   \expandafter\def\expandafter\HyPsd@String\expandafter{%
2118     \HyPsd@String#1%
2119   }%
2120   \ifx\#2\%
2121   \else
2122     \ltx@ReturnAfterFi{%
2123       \HyPsd@GlyphProcessWarning#2\@empty
2124     }%
2125   \fi
2126 }
2127 \def\HyPsd@GlyphProcessWarning#1>#2\@empty{%
2128   \HyPsd@@@GlyphProcessWarning#1++>%
2129   \HyPsd@GlyphProcess#2\@empty
2130 }
2131 \def\HyPsd@@@GlyphProcessWarning#1+#2+#3>{%
2132   \ifx\#2\%
2133     \HyPsd@Warning{%
2134       Glyph not defined in %
2135       P\ifHy@unicode U\else D1\fi\space encoding,\MessageBreak
2136       removing ‘\@backslashchar#1’%
2137     }%
2138   \else
2139     \HyPsd@Warning{%
2140       Composite letter ‘\@backslashchar#1+#2’\MessageBreak
2141       not defined in P\ifHy@unicode U\else D1\fi\space encoding,%
2142       \MessageBreak
2143       removing ‘\@backslashchar#1’%
2144     }%
2145   \fi
2146 }

```

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`.

```

2147 \def\HyPsd@spaceopti#1{ % first space
2148   \ifx\HyPsd@spaceopti#1%
2149     \040%
2150   \else
2151     #1%
2152   \fi
2153 }%

```

6.6.6 Replacing tokens

`\HyPsd@Subst` To save tokens `\HyPsd@StringSubst` is an 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.

```

2154 \def\HyPsd@Subst#1#2#3{%
2155   \def\HyPsd@@ReplaceFi##1#1##2\END\fi{%
2156     \fi
2157     ##1%
2158     \ifx\scrollmode##2\scrollmode
2159     \else
2160       #2%
2161     \HyPsd@@ReplaceFi##2\END
2162   \fi
2163 }%
2164 \xdef#3{%
2165   \iftrue
2166     \expandafter\HyPsd@@ReplaceFi#3#1\END
2167   \fi
2168 }%
2169 }

```

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

```

2170 \def\HyPsd@StringSubst#1{%
2171   \expandafter\HyPsd@Subst\expandafter{\string#1}%
2172 }

```

`\HyPsd@EscapeTeX`

```

2173 \begingroup
2174   \lccode'\!='\%%
2175   \lccode'\|='\%%
2176   \lccode'\(='\{%
2177   \lccode'\)='\}%
2178   \lccode'0=\ltx@zero
2179   \lccode'1=\ltx@zero
2180   \lccode'3=\ltx@zero
2181   \lccode'4=\ltx@zero
2182   \lccode'5=\ltx@zero
2183   \lccode'7=\ltx@zero
2184 \lowercase{\endgroup}
2185 \def\HyPsd@EscapeTeX#1{%
2186   \HyPsd@Subst!{|045}#1%
2187   \HyPsd@Subst({|173}#1%
2188   \HyPsd@Subst){|175}#1%
2189 }%

```

```
2190 }
```

6.6.7 Support for package `xspace`

`\HyPsd@doboxspace` `\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.

```
2191 \def\HyPsd@doboxspace#1{%
2192   \ifx#1\relax\else
2193   \ifx#1.\else
2194   \ifx#1:\else
2195   \ifx#1,\else
2196   \ifx#1;\else
2197   \ifx#1!\else
2198   \ifx#1?\else
2199   \ifx#1/\else
2200   \ifx#1-\else
2201   \ifx#1'\else
2202     \HyPsd@SPACEOPTI
2203     \fi
2204     \fi
2205     \fi
2206     \fi
2207     \fi
2208     \fi
2209     \fi
2210     \fi
2211     \fi
2212     \fi
2213     #1%
2214 }%
```

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.

```
2215 \begingroup
2216 \catcode'\|=0 %
2217 \catcode'\|=12 %
```

`\HyPsd@ConvertToUnicode`

```
2218 |gdef|HyPsd@ConvertToUnicode#1{%
2219   |xdef#1{%
2220     |expandafter|HyPsd@DoConvert#1|@empty|@empty|@empty
2221   }%
2222   |ifx#1|@empty
2223   |else
2224     |xdef#1{%
2225       \376\377%
2226       #1%
2227     }%
2228   |fi
2229 }%
```

`\HyPsd@DoConvert`

```
2230 |gdef|HyPsd@DoConvert#1{%  
2231 |ifx#1|@empty  
2232 |else  
2233 |ltx@ReturnAfterFi{%  
2234 |ifx#1\%%  
2235 \%%  
2236 |expandafter|HyPsd@DoEscape  
2237 |else  
2238 |HyPsd@Char{#1}%  
2239 |expandafter|HyPsd@DoConvert  
2240 |fi  
2241 }%  
2242 |fi  
2243 }%
```

`\HyPsd@DoEscape`

```
2244 |gdef|HyPsd@DoEscape#1{%  
2245 |ifx#19%  
2246 |expandafter|HyPsd@GetTwoBytes  
2247 |else  
2248 |ltx@ReturnAfterFi{%  
2249 |ifx#18%  
2250 00%  
2251 |expandafter|HyPsd@GetTwoBytes  
2252 |else  
2253 #1%  
2254 |expandafter|HyPsd@GetOneByte  
2255 |fi  
2256 }%  
2257 |fi  
2258 }%
```

`\HyPsd@GetTwoBytes`

```
2259 |gdef|HyPsd@GetTwoBytes#1\#2#3#4{%  
2260 #1\#2#3#4%  
2261 |HyPsd@DoConvert  
2262 }%
```

`\HyPsd@GetOneByte`

```
2263 |gdef|HyPsd@GetOneByte#1#2{%  
2264 #1#2%  
2265 |HyPsd@DoConvert  
2266 }%  
2267 |endgroup
```

`\HyPsd@@GetNextTwoTokens`

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

```
2268 \def\HyPsd@GetNextTwoTokens#1#2#3\END#4{%  
2269 \xdef#4{#4#1#2}%  
2270 \HyPsd@@ConvertToUnicode#3\END#4%  
2271 }
```

`\HyPsd@Char`

```
2272 \begingroup  
2273 \catcode0=9 %  
2274 \catcode'\^=7 %
```



```

2275 \catcode'\^^^=12 %
2276 \def\x{^^^0000}%
2277 \expandafter\endgroup
2278 \ifx\x\@empty
2279 \def\HyPsd@Char#1{%
2280 \ifnum'#1<128 %
2281 \@backslashchar 000#1%
2282 \else
2283 \ifnum'#1<65536 %
2284 \expandafter\HyPsd@CharTwoByte\number'#1!%
2285 \else
2286 \expandafter\expandafter\expandafter\HyPsd@CharSurrogate
2287 \intcalcSub{'#1}{65536}!%
2288 \fi
2289 \fi
2290 }%
2291 \def\HyPsd@CharTwoByte#1!{%
2292 \expandafter\expandafter\expandafter\HyPsd@CharOctByte
2293 \IntCalcDiv#1!256!!%
2294 \expandafter\expandafter\expandafter\HyPsd@CharOctByte
2295 \IntCalcMod#1!256!!%
2296 }%
2297 \def\HyPsd@CharOctByte#1!{%
2298 \@backslashchar
2299 \IntCalcDiv#1!64!%
2300 \intcalcDiv{\IntCalcMod#1!64!}{8}%
2301 \IntCalcMod#1!8!%
2302 }%
2303 \def\HyPsd@CharSurrogate#1!{%
2304 \@backslashchar 33%
2305 \IntCalcDiv#1!262144!%
2306 \expandafter\expandafter\expandafter\HyPsd@CharOctByte
2307 \intcalcDiv{\IntCalcMod#1!262144!}{1024}!%
2308 \@backslashchar 33%
2309 \expandafter\expandafter\expandafter\IntCalcAdd
2310 \intcalcDiv{\IntCalcMod#1!1024!}{256}!4!%
2311 \expandafter\expandafter\expandafter\HyPsd@CharOctByte
2312 \IntCalcMod#1!256!!%
2313 }%
2314 \else
2315 \def\HyPsd@Char#1{%
2316 \@backslashchar 000#1%
2317 }%
2318 \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

```

```

2319 \begingroup\expandafter\expandafter\expandafter\endgroup
2320 \expandafter\ifx\csname numexpr\endcsname\relax
2321   \let\HyPsd@UTFviii\relax
2322 \else
2323   \begingroup
2324     \lccode'\~='^^f4\relax
2325   \lowercase\endgroup
2326   \def\HyPsd@UTFviii{%
2327     \let\UTFviii@two@octets\HyPsd@UTFviii@two
2328     \let\UTFviii@three@octets\HyPsd@UTFviii@three
2329     \let\UTFviii@four@octets\HyPsd@UTFviii@four
2330     \ifx~\HyPsd@UTFviii@ccxliv@undef
2331       \let~\HyPsd@UTFviii@ccxliv@def
2332     \fi
2333     \let\unichar\HyPsd@unichar
2334   }%
2335 }%
2336 \def\HyPsd@UTFviii@ccxliv@undef{\@inpencl@undefined@{utf8}}%
2337 \edef\HyPsd@UTFviii@ccxliv@def{%
2338   \noexpand\UTFviii@four@octets\string ^^f4%
2339 }%

```

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.

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

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

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

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

$$(5)$$

```

2340 \def\HyPsd@UTFviii@two#1#2{%
2341   \expandafter\HyPsd@UTFviii@two
2342   \number\dimexpr.25\dimexpr'#1sp\expandafter\relax\expandafter|%
2343   \number'#1\expandafter|%
2344   \number\dimexpr.125\dimexpr'#2sp\expandafter\relax\expandafter|%
2345   \number'#2 \@nil
2346 }%
2347 \def\HyPsd@UTFviii@two#1|#2|#3|#4\@nil{%
2348   \expandafter\8%
2349   \number\dimexpr #1-48\expandafter\relax
2350   \csname\number\dimexpr #2-4*#1\relax\expandafter\endcsname
2351   \number\dimexpr #3-8*%
2352   \number\dimexpr.125\dimexpr#3sp\relax\relax\expandafter\relax
2353   \number\dimexpr #4-8*#3\relax
2354 }%

```

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

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

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

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

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

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

$$f := C - 8 * (C/8) \tag{11}$$

$$\tag{12}$$

```

2355 \def\HyPsd@UTFviii@three#1#2#3{%
2356 \expandafter\HyPsd@UTFviii@three
2357 \number\dimexpr.25\dimexpr'#1sp\expandafter\relax\expandafter|{%
2358 \number'#1\expandafter|{%
2359 \number\ifnum\numexpr'#2-128\relax <32 0\else 1\fi\expandafter|{%
2360 \number\dimexpr.25\dimexpr'#2sp\expandafter\relax\expandafter|{%
2361 \number'#2\expandafter|{%
2362 \number\dimexpr.125\dimexpr'#3sp\expandafter\relax\expandafter|{%
2363 \number'#3 \@nil
2364 }%
2365 \def\HyPsd@UTFviii@@three#1|#2|#3|#4|#5|#6|#7\@nil{%
2366 \expandafter\9%
2367 \number\numexpr #1-56\expandafter\relax
2368 \number\numexpr 2*(#2-4*#1)+#3\expandafter\relax
2369 \number\numexpr #4 - 32 -\ifcase#3 0\else 8\fi\expandafter\relax
2370 \csname\number\numexpr #5-4*#4\relax\expandafter\endcsname
2371 \number\numexpr #6-16\expandafter\relax
2372 \number\numexpr #7-8*#6\relax
2373 }%

```

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

```

```

2374 \def\HyPsd@UTFviii@four#1#2{%
2375 \expandafter\HyPsd@@UTFviii@four\number
2376 \numexpr-1+(#1-240)*4+\dimexpr.0625\dimexpr'#2sp-128sp%
2377 \expandafter|\number
2378 \numexpr'#2-16*\dimexpr.0625\dimexpr'#2sp|{%
2379 }%
2380 \def\HyPsd@@UTFviii@four#1|#2|#3{%
2381 \933\number\dimexpr.25\dimexpr#1sp\relax\relax
2382 \csname\number\numexpr#1-4*\dimexpr.25\dimexpr#1sp\endcsname
2383 \ifodd#2 %
2384 \number\numexpr(#2-1)/2\relax
2385 \else
2386 \number\numexpr#2/2\relax
2387 \fi
2388 \number\numexpr\ifodd#2 4+\fi
2389 \dimexpr.0625\dimexpr'#3sp-128sp\relax\relax\relax
2390 \933%
2391 \expandafter\HyPsd@@@UTFviii@four\number
2392 \numexpr'#3-16*\dimexpr.0625\dimexpr'#3sp|{%
2393 }%
2394 \def\HyPsd@@@UTFviii@four#1|#2{%
2395 \number\numexpr4+\dimexpr.25\dimexpr#1sp\relax\relax\relax
2396 \csname\number\numexpr#1-4*\dimexpr.25\dimexpr#1sp\endcsname
2397 \number\dimexpr.125\dimexpr'#2sp-128sp\relax\relax
2398 \number\numexpr'#2-8*\dimexpr.125\dimexpr'#2sp\relax\relax\relax
2399 }%

```

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

```

2400 \def\HyPsd@unicar#1{%
2401 \ifHy@unicode
2402 \ifnum#1>"10FFFF %
2403 \HyPsd@UnicodeReplacementCharacter % illegal
2404 \else
2405 \ifnum#1>"FFFF %

```

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

```

2406 \expandafter\HyPsd@unicar\expandafter{%
2407 \number\numexpr 55296+%
2408 \dimexpr.0009765625\dimexpr\number#1sp-\p@
2409 \relax\relax\relax
2410 }%

```

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

```

2411 \expandafter\HyPsd@unicar\expandafter{%
2412 \number\numexpr#1-9216%
2413 -1024*\dimexpr.0009765625\dimexpr\number#1sp-\p@
2414 \relax\relax\relax
2415 }%
2416 \else
2417 \ifnum#1>"7FF %
2418 \9%
2419 \expandafter\HyPsd@unicar@first@byte\expandafter{%
2420 \number
2421 \dimexpr.00390625\dimexpr\number#1sp\relax\relax
2422 }%
2423 \else
2424 \8%
2425 \number\dimexpr.00390625\dimexpr\number#1sp\relax\relax
2426 \fi
2427 \expandafter\HyPsd@unicar@second@byte\expandafter{%
2428 \number
2429 \numexpr#1-256*\number
2430 \dimexpr.00390625\dimexpr\number#1sp\relax\relax\relax
2431 }%
2432 \fi
2433 \fi
2434 \else
2435 .% unsupported (Unicode -> PDF Doc Encoding)
2436 \fi
2437 }%
2438 \def\HyPsd@UnicodeReplacementCharacter{\9377\375}%
2439 \def\HyPsd@unicar@first@byte#1{%
2440 \number\dimexpr.015625\dimexpr#1sp\relax\relax
2441 \expandafter\HyPsd@unicar@octtwo\expandafter{%
2442 \number
2443 \numexpr#1-64*\number\dimexpr.015625\dimexpr#1sp%
2444 \relax\relax\relax
2445 }%
2446 }%
2447 \def\HyPsd@unicar@second@byte#1{%
2448 \csname\number\dimexpr.015625\dimexpr#1sp\relax\relax\endcsname
2449 \expandafter\HyPsd@unicar@octtwo\expandafter{%
2450 \number
2451 \numexpr#1-64*\number\dimexpr.015625\dimexpr#1sp%

```

```

2452   \relax\relax\relax
2453   }%
2454 }%
2455 \def\HyPsd@unichar@octtwo#1{%
2456   \number\dimexpr.125\dimexpr#1sp\relax\relax
2457   \number\dimexpr#1-8*\number\dimexpr.125\dimexpr#1sp%
2458   \relax\relax\relax
2459   }%
2460 \fi

```

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

```

2461 \def\HyPsd@utf@viii@undeferr#1#2#3#4#5#6{%
2462   \ifx@gobble#1%
2463   \else
2464   [Please insert \textbackslash PrerenderUnicode%
2465   \textbraceleft#1\textbraceright\space
2466   into preamble]%
2467   \fi
2468 }%

```

6.6.10 Support for die faces (ifsym et. al.)

\HyPsd@DieFace Die faces are provided by

Package	Macro
ifsym	\Cube
epsdice	\epsdice
hhcount	\fcdice

\Cube and \epsdice restrict the range to the numbers one to six. \fcdice generates for larger numbers several dice faces with the sum matching the number. The implementation for the PDF strings follows \fcdice.

```

2469 \def\HyPsd@DieFace#1{%
2470   \ifHy@unicode
2471   \ifnum#1<1 %
2472   \HyPsd@UnicodeReplacementCharacter
2473   \else
2474   \ifnum#1>6 %
2475   \9046\205%
2476   \expandafter\expandafter\expandafter
2477   \HyPsd@DieFaceLarge\intcalcSub{#1}{6}!%
2478   \else
2479   \9046\20\intcalcDec{#1}%
2480   \fi
2481   \fi
2482   \else
2483   .% Die faces are not part of PDFDocEncoding
2484   \fi
2485 }

```

\HyPsd@DieFaceLarge

```

2486 \def\HyPsd@DieFaceLarge#1!{%
2487   \ifnum#1>6 %
2488   \expandafter\ltx@firstoftwo
2489   \else
2490   \expandafter\ltx@secondoftwo

```

```

2491 \fi
2492 {%
2493   \9046\205%
2494   \expandafter\expandafter\expandafter
2495   \HyPsd@DieFaceLarge\IntCalcSub#1!6!!%
2496 }{%
2497   \9046\20\IntCalcDec#1!%
2498 }%
2499 }

```

6.6.11 Support for moon phases of package china2e

```

2500 \def\HyPsd@MoonPha#1{%
2501   \ifcase\intcalcNum{#1} %
2502     \HyPsd@UnicodeReplacementCharacter
2503   \or % 1
2504   % U+1F31A NEW MOON WITH FACE; \MoonPha{1} (china2e)
2505   \9330\074\9337\032%
2506   \or % 2
2507   \HyPsd@UnicodeReplacementCharacter
2508   \or % 3
2509   % U+1F31D FULL MOON WITH FACE; \MoonPha{3} (china2e)
2510   \9330\074\9337\035%
2511   \or % 4
2512   % U+1F31C LAST QUARTER MOON WITH FACE; \MoonPha{4} (china2e)
2513   \9330\074\9337\034%
2514   \else
2515     \HyPsd@UnicodeReplacementCharacter
2516   \fi
2517 }
2518 %* \HyPsd@MoonPha -> \MoonPha

```

6.6.12 Support for package pifont

\HyPsd@ding

```

2519 \def\HyPsd@ding#1{%
2520   \ifHy@unicode
2521     \ifnum#1<32 %
2522       \HyPsd@UnicodeReplacementCharacter
2523     \else
2524       \ifnum#1>254 %
2525         \HyPsd@UnicodeReplacementCharacter
2526       \else
2527         \ifnum#1<127 %
2528           \expandafter\expandafter\expandafter
2529           \HyPsd@@ding\intcalcNum{#1}!%
2530         \else
2531           \ifnum#1>160 %
2532             \expandafter\expandafter\expandafter
2533             \HyPsd@@ding\intcalcNum{#1}!%
2534           \else
2535             \HyPsd@UnicodeReplacementCharacter
2536           \fi
2537         \fi
2538       \fi
2539     \fi
2540   \else
2541     .% Dingbats are not part of PDFDocEncoding

```

2542 \fi
2543 }

\HyPsd@@ding

```
2544 \def\HyPsd@@ding#1!{%  
2545 \ltx@ifundefined{HyPsd@ding@#1}{%  
2546 \ifnum#1<127 %  
2547 \9047%  
2548 \HyPsd@DecimalToOctalSecond{\IntCalcSub#1!32!}%  
2549 \else  
2550 \ifnum#1<168 %  
2551 \9047\14\IntCalcSub#1!160!%  
2552 \else  
2553 \ifnum#1>181 %  
2554 \9047\HyPsd@DecimalToOctalSecond{\IntCalcSub#1!64!}%  
2555 \else  
2556 % 172..181 -> U+2460..U+2469  
2557 \9044\HyPsd@DecimalToOctalSecond{\IntCalcSub#1!76!}%  
2558 \fi  
2559 \fi  
2560 \fi  
2561 }{%  
2562 \csname HyPsd@ding@#1\endcsname  
2563 }%  
2564 }  
  
2565 \@namedef{HyPsd@ding@32}{\space}  
2566 % U+260E BLACK TELEPHONE  
2567 \@namedef{HyPsd@ding@37}{\9046\016}% U+260E  
2568 % U+261B BLACK RIGHT POINTING INDEX  
2569 \@namedef{HyPsd@ding@42}{\9046\033}% U+261B  
2570 % U+261E WHITE RIGHT POINTING INDEX  
2571 \@namedef{HyPsd@ding@43}{\9046\036}% U+261E  
2572 % U+2605 BLACK STAR  
2573 \@namedef{HyPsd@ding@72}{\9046\005}% U+2605  
2574 % U+25CF BLACK CIRCLE  
2575 \@namedef{HyPsd@ding@108}{\9045\317}% U+25CF  
2576 % U+25A0 BLACK SQUARE  
2577 \@namedef{HyPsd@ding@110}{\9045\240}% U+25A0  
2578 % U+25B2 BLACK UP-POINTING TRIANGLE  
2579 \@namedef{HyPsd@ding@115}{\9045\262}% U+25B2  
2580 % U+25BC BLACK DOWN-POINTING TRIANGLE  
2581 \@namedef{HyPsd@ding@116}{\9045\274}% U+25BC  
2582 % U+25C6 BLACK DIAMOND  
2583 \@namedef{HyPsd@ding@117}{\9045\306}% U+25C6  
2584 % U+25D7 RIGHT HALF BLACK CIRCLE  
2585 \@namedef{HyPsd@ding@119}{\9045\327}% U+25D7  
2586 \@namedef{HyPsd@ding@168}{\textclubsuitblack}%  
2587 \@namedef{HyPsd@ding@169}{\textdiamondsuitblack}%  
2588 \@namedef{HyPsd@ding@170}{\textheartsuitblack}%  
2589 \@namedef{HyPsd@ding@171}{\textspadesuitblack}%  
2590 \@namedef{HyPsd@ding@213}{\textrightarrow}%  
2591 \@namedef{HyPsd@ding@214}{\textleftarrow}%  
2592 \@namedef{HyPsd@ding@215}{\textupdownarrow}%  
2593 \@namedef{HyPsd@ding@240}{\HyPsd@UnicodeReplacementCharacter}
```

7 Support of other packages

7.1 Class memoir

```
2594 \@ifclassloaded{memoir}{%
2595   \Hy@AtEndOfPackage{\RequirePackage{memhfixc}}%
2596 }{}
```

7.2 Package subfigure

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

```
2597 \@ifpackageloaded{subfigure}{%
2598   \ltx@ifundefined{sub@label}{%
2599     \Hy@hypertexnamesfalse
2600   }{%
2601     \renewcommand*{\sub@label}[1]{%
2602       \@bsphack
2603       \subfig@oldlabel{#1}%
2604       \if@filesw
2605         \begingroup
2606           \edef\@currentlabstr{%
2607             \expandafter\strip@prefix\meaning\@currentlabelname
2608           }%
2609           \protected@write\@auxout{}{%
2610             \string\newlabel{sub@#1}{%
2611               {\@nameuse{\@thesub\@capytype}}%
2612               {\thepage}%
2613               {%
2614                 \expandafter\strip@period\@currentlabstr
2615                 \relax.\relax\@@@%
2616               }%
2617               {\@currentHref}%
2618               {}%
2619             }%
2620           }%
2621         \endgroup
2622       \fi
2623       \@esphack
2624     }%
2625     \@ifpackagelater{subfigure}{2002/03/26}{%
2626       \providecommand*{\toclevel@subfigure}{1}%
2627       \providecommand*{\toclevel@subtable}{1}%
2628     }%
2629   }%
2630 }{}
```

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:

```
2631 \ltx@ifundefined{XR@addURL}{%
2632 }{}
```

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.

```
2633 \def\XR@addURL#1{\XR@dURL#1}{-}{-}\%
2634 \def\XR@dURL#1#2#3#4#5\%
2635   {#1}{#2}%
```



```

2636 \if!#4!%
2637 \else
2638   {#3}{#4}{\XR@URL}%
2639 \fi
2640 }%
2641 }

2642 \def\Hy@true{true}
2643 \def\Hy@false{false}

```

Providing dummy definitions.

```

2644 \let\literalps@out\@gobble
2645 \newcommand\pdfbookmark[3]{}
2646 \def\Acrobatmenu#1#2{\leavevmode#2}
2647 \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

```

2648 \let\HyperRaiseLinkHook\@empty
2649 \def\HyperRaiseLinkDefault{\baselineskip}

```

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

```

2650 \newcount\Hy@SavedSpaceFactor
2651 \def\Hy@SaveSpaceFactor{%
2652   \global\Hy@SavedSpaceFactor=\ifhmode\spacefactor\else\z@
2653 }
2654 \def\Hy@RestoreSpaceFactor{%
2655   \relax
2656   \ifhmode
2657     \ifnum\Hy@SavedSpaceFactor>\z@
2658       \spacefactor=\Hy@SavedSpaceFactor
2659     \fi
2660   \fi
2661 }
2662 \def\Hy@SaveSavedSpaceFactor{%
2663   \edef\Hy@RestoreSavedSpaceFactor{%
2664     \global\Hy@SavedSpaceFactor=\the\Hy@SavedSpaceFactor\relax
2665   }%
2666 }
2667 \def\Hy@raisedlink#1{%
2668   \ifvmode
2669     #1%
2670   \else
2671     \Hy@SaveSpaceFactor
2672     \penalty\@M

```

```

2673 \smash{%
2674 \begingroup
2675 \let\HyperRaiseLinkLength\@tempdima
2676 \setlength\HyperRaiseLinkLength\HyperRaiseLinkDefault
2677 \HyperRaiseLinkHook
2678 \expandafter\endgroup
2679 \expandafter\raise\the\HyperRaiseLinkLength\hbox{%
2680 \Hy@RestoreSpaceFactor
2681 #1%
2682 \Hy@SaveSpaceFactor
2683 }%
2684 }%
2685 \Hy@RestoreSpaceFactor
2686 \fi
2687 }

```

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

```

2688 \def\Hy@SaveLastskip{%
2689 \let\Hy@RestoreLastskip\relax
2690 \ifvmode
2691 \ifdim\lastskip=\z@
2692 \let\Hy@RestoreLastskip\nobreak
2693 \else
2694 \begingroup
2695 \skip@=-\lastskip
2696 \edef\x{%
2697 \endgroup
2698 \def\noexpand\Hy@RestoreLastskip{%
2699 \noexpand\ifvmode
2700 \noexpand\nobreak
2701 \vskip\the\skip@
2702 \vskip\the\lastskip\relax
2703 \noexpand\fi
2704 }%
2705 }%
2706 \x
2707 \fi
2708 \else
2709 \ifhmode
2710 \ifdim\lastskip=\z@
2711 \let\Hy@RestoreLastskip\nobreak
2712 \else
2713 \begingroup
2714 \skip@=-\lastskip
2715 \edef\x{%
2716 \endgroup
2717 \def\noexpand\Hy@RestoreLastskip{%
2718 \noexpand\ifhmode
2719 \noexpand\nobreak
2720 \hskip\the\skip@
2721 \hskip\the\lastskip\relax
2722 \noexpand\fi
2723 }%
2724 }%
2725 \x
2726 \fi
2727 \fi

```

```

2728 \fi
2729 }%

```

9 Options

```

2730 \SetupKeyvalOptions{%
2731 family=Hyp,%
2732 prefix=HyOpt%
2733 }

```

9.1 Help macros

`\IfHyperBooleanExists`

```

2734 \def\IfHyperBooleanExists#1{%
2735 \ltx@ifundefined{Hy@#1false}\ltx@secondoftwo{%
2736 \ltx@ifundefined{KV@Hyp@#1@default}\ltx@secondoftwo\ltx@firstoftwo
2737 }%
2738 }

2739 \@namedef{KV@Hyp@stoppedearly@default}{ }

```

`\IfHyperBoolean`

```

2740 \def\IfHyperBoolean#1{%
2741 \IfHyperBooleanExists{#1}{%
2742 \csname ifHy@#1\endcsname
2743 \expandafter\ltx@firstoftwo
2744 \else
2745 \expandafter\ltx@secondoftwo
2746 \fi
2747 }\ltx@secondoftwo
2748 }

```

`\Hy@boolkey`

```

2749 \def\Hy@boolkey#1#2{%
2750 \edef\Hy@tempa{#2}%
2751 \lowercase\expandafter{%
2752 \expandafter\def\expandafter\Hy@tempa\expandafter{\Hy@tempa}%
2753 }%
2754 \ifx\Hy@tempa\@empty
2755 \let\Hy@tempa\Hy@true
2756 \fi
2757 \ifx\Hy@tempa\Hy@true
2758 \else
2759 \ifx\Hy@tempa\Hy@false
2760 \else
2761 \let\Hy@tempa\relax
2762 \fi
2763 \fi
2764 \ifx\Hy@tempa\relax
2765 \Hy@WarnOptionValue{#2}{#1}{‘true’ or ‘false’}%
2766 \else
2767 \Hy@Info{Option ‘#1’ set ‘\Hy@tempa’}%
2768 \csname Hy@#1\Hy@tempa\endcsname
2769 \fi
2770 }

```

`\Hy@WarnOptionValue`

```
2771 \def\Hy@WarnOptionValue#1#2#3{%
2772   \Hy@Warning{%
2773     Unexpected value '#1'\MessageBreak
2774     of option '#2' instead of\MessageBreak
2775     #3%
2776   }%
2777 }
```

`\Hy@DisableOption`

```
2778 \def\Hy@DisableOption#1{%
2779   \ltx@ifundefined{KV@Hyp@#1@default}{%
2780     \define@key{Hyp}{#1}%
2781   }{%
2782     \define@key{Hyp}{#1}[]%
2783   }%
2784   {\Hy@WarnOptionDisabled{#1}}%
2785 }
```

`\Hy@WarnOptionDisabled`

```
2786 \def\Hy@WarnOptionDisabled#1{%
2787   \Hy@Warning{%
2788     Option '#1' has already been used,\MessageBreak
2789     setting the option has no effect%
2790   }%
2791 }
```

`\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`.

```
2792 \def\Hy@CheckOptionValue#1#2#3{%
2793   \begingroup
2794   \edef\x{#1}%
2795   \@onelevel@sanitize\x
2796   \let\y=y%
2797   \def\do##1##2{%
2798     \def\z{##1}%
2799     \@onelevel@sanitize\z
2800     \ifx\x\z
2801       \let\y=n%
2802     \let\do\@gobbletwo
2803   \fi
2804   }%
2805   #3%
2806   \ifx\y y%
2807     \def\do##1##2{%
2808       * ##1'%
2809       \ifx\##2\ \else\space(##2)\fi
2810     \MessageBreak
2811   }%
2812   \Hy@Warning{%
2813     Values of option '#2':\MessageBreak
2814     #3%
2815     * An empty value disables the option.\MessageBreak
2816     Unknown value '\x'%
2817   }%
2818   \fi
```

```
2819 \endgroup
2820 }
```

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

```
2821 \def\Hy@DefNameKey#1{%
2822 \expandafter\Hy@@DefNameKey\csname @#1\endcsname{#1}%
2823 }
```

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

```
2824 \def\Hy@@DefNameKey#1#2#3{%
2825 \define@key{Hyp}{#2}{%
2826 \edef#1{##1}%
2827 \ifx#1\@empty
2828 \else
2829 \Hy@CheckOptionValue{##1}{#2}{#3}%
2830 \fi
2831 }%
2832 \let#1\@empty
2833 }
```

`\Hy@UseNameKey`

```
2834 \def\Hy@UseNameKey#1#2{%
2835 \ifx#2\@empty
2836 \else
2837 /#1/#2%
2838 \fi
2839 }
```

9.2 Defining the options

```
2840 \define@key{Hyp}{implicit}[true]{%
2841 \Hy@boolkey{implicit}{#1}%
2842 }
2843 \define@key{Hyp}{draft}[true]{%
2844 \Hy@boolkey{draft}{#1}%
2845 }
2846 \define@key{Hyp}{final}[true]{%
2847 \Hy@boolkey{final}{#1}%
2848 }
2849 \let\KV@Hyp@nolinks\KV@Hyp@draft

2850 \def\Hy@ObsoletePaperOption#1{%
2851 \Hy@WarningNoLine{%
2852 Option ‘#1’ is no longer used%
2853 }%
2854 \define@key{Hyp}{#1}[true]{}%
2855 }
2856 \def\Hy@temp#1{%
2857 \define@key{Hyp}{#1}[true]{%
2858 \Hy@ObsoletePaperOption{#1}%
2859 }%
2860 }
2861 \Hy@temp{a4paper}
```

```

2862 \Hy@temp{a5paper}
2863 \Hy@temp{b5paper}
2864 \Hy@temp{letterpaper}
2865 \Hy@temp{legalpaper}
2866 \Hy@temp{executivepaper}

2867 \define@key{Hyp}{setpagesize}[true]{%
2868   \Hy@boolkey{setpagesize}{#1}%
2869 }
2870 \define@key{Hyp}{debug}[true]{%
2871   \Hy@boolkey{debug}{#1}%
2872 }
2873 \define@key{Hyp}{linktocpage}[true]{%
2874   \Hy@boolkey{linktocpage}{#1}%
2875   \ifHy@linktocpage
2876     \let\Hy@linktoc\Hy@linktoc@page
2877   \else
2878     \let\Hy@linktoc\Hy@linktoc@section
2879   \fi
2880 }
2881 \chardef\Hy@linktoc@none=0 %
2882 \chardef\Hy@linktoc@section=1 %
2883 \chardef\Hy@linktoc@page=2 %
2884 \chardef\Hy@linktoc@all=3 %
2885 \ifHy@linktocpage
2886   \let\Hy@linktoc\Hy@linktoc@page
2887 \else
2888   \let\Hy@linktoc\Hy@linktoc@section
2889 \fi
2890 \define@key{Hyp}{linktoc}{%
2891   \@ifundefined{Hy@linktoc@#1}{%
2892     \Hy@Warning{%
2893       Unexpected value '#1' of\MessageBreak
2894       option 'linktoc' instead of 'none',\MessageBreak
2895       'section', 'page' or 'all'%
2896     }%
2897   }{%
2898     \expandafter\let\expandafter\Hy@linktoc
2899     \csname Hy@linktoc@#1\endcsname
2900   }%
2901 }
2902 \define@key{Hyp}{extension}{\def\XR@ext{#1}}
2903 \let\XR@ext\relax
2904 \define@key{Hyp}{verbose}[true]{%
2905   \Hy@boolkey{verbose}{#1}%
2906 }
2907 \define@key{Hyp}{typexml}[true]{%
2908   \Hy@boolkey{typexml}{#1}%
2909 }

```

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.

```

2910 \define@key{Hyp}{raiselinks}[true]{%
2911   \Hy@boolkey{raiselinks}{#1}%
2912 }

```

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

```

2913 \def\Hy@setbreaklinks#1{%
2914   \csname breaklinks#1\endcsname
2915 }

2916 \def\Hy@breaklinks@unsupported{%
2917   \ifx\Hy@setbreaklinks\@gobble
2918     \ifHy@breaklinks
2919       \Hy@WarningNoLine{%
2920         You have enabled option 'breaklinks'.\MessageBreak
2921         But driver '\Hy@driver.def' does not support this.\MessageBreak
2922         Expect trouble with the link areas of broken links%
2923       }%
2924     \fi
2925   \fi
2926 }

2927 \define@key{Hyp}{breaklinks}[true]{%
2928   \Hy@boolkey{breaklinks}{#1}%
2929   \let\Hy@setbreaklinks\@gobble
2930 }

2931 \define@key{Hyp}{localanchorname}[true]{%
2932   \Hy@boolkey{localanchorname}{#1}%
2933 }

Determines whether an automatic anchor is put on each page
2934 \define@key{Hyp}{pageanchor}[true]{%
2935   \Hy@boolkey{pageanchor}{#1}%
2936 }

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.
2937 \define@key{Hyp}{plainpages}[true]{%
2938   \Hy@boolkey{plainpages}{#1}%
2939 }

Are the names for anchors made as per the HyperTeX system, or do they simply
use what LATEX provides?
2940 \define@key{Hyp}{naturalnames}[true]{%
2941   \Hy@boolkey{naturalnames}{#1}%
2942 }

Completely ignore the names as per the HyperTeX system, and use unique coun-
ters.
2943 \define@key{Hyp}{hypertexnames}[true]{%
2944   \Hy@boolkey{hypertexnames}{#1}%
2945 }

Currently, dvips doesn't allow anchors nested within targets, so this option tries
to stop that happening. Other processors may be able to cope.
2946 \define@key{Hyp}{nesting}[true]{%
2947   \Hy@boolkey{nesting}{#1}%
2948 }

2949 \define@key{Hyp}{destlabel}[true]{%
2950   \Hy@boolkey{destlabel}{#1}%
2951 }

2952 \define@key{Hyp}{unicode}[true]{%
2953   \Hy@boolkey{unicode}{#1}%
2954   \ifHy@unicode
2955     \def\HyPsd@pdfencoding{unicode}%
2956     \HyPsd@LoadUnicode

```

```

2957 \else
2958 \def\HyPsd@pdfencoding{pdfdoc}%
2959 \fi
2960 }
2961 \Hy@AtBeginDocument{%
2962 \ifx\HyPsd@LoadUnicode\relax
2963 \else
2964 \def\HyPsd@LoadUnicode{%
2965 \Hy@Error{%
2966 Unicode support for bookmarks is not available.\MessageBreak
2967 Activate unicode support by using one of the options\MessageBreak
2968 'unicode', 'pdfencoding=unicode', 'pdfencoding=auto'\MessageBreak
2969 in the preamble%
2970 }\@ehc
2971 \global\let\HyPsd@LoadUnicode\relax
2972 \global\Hy@unicodedefalse
2973 \global\let\Hy@unicodetrue\Hy@unicodedefalse
2974 }%
2975 \fi
2976 }

2977 \define@key{Hyp}{pdfencoding}{%
2978 \edef\HyPsd@temp{#1}%
2979 \ifx\HyPsd@temp\HyPsd@pdfencoding@pdfdoc
2980 \let\HyPsd@pdfencoding\HyPsd@temp
2981 \Hy@unicodedefalse
2982 \else
2983 \ifcase\ifx\HyPsd@temp\HyPsd@pdfencoding@unicode
2984 \z@
2985 \else
2986 \ifx\HyPsd@temp\HyPsd@pdfencoding@auto
2987 \z@
2988 \else
2989 \@ne
2990 \fi
2991 \fi
2992 \let\HyPsd@pdfencoding\HyPsd@temp
2993 \hypersetup{unicode}%
2994 \ifHy@unicode
2995 \def\HyPsd@pdfencoding{#1}%
2996 \ifx\HyPsd@pdfencoding\HyPsd@pdfencoding@auto
2997 \HyPsd@LoadStringEncoding
2998 \fi
2999 \else
3000 \Hy@Warning{Cannot switch to unicode bookmarks}%
3001 \let\HyPsd@pdfencoding\HyPsd@pdfencoding@pdfdoc
3002 \fi
3003 \else
3004 \@onelevel@sanitize\HyPsd@temp
3005 \Hy@Warning{%
3006 Values of option 'pdfencoding':\MessageBreak
3007 'pdfdoc', 'unicode', 'auto'.\MessageBreak
3008 Ignoring unknown value '\HyPsd@temp'%
3009 }%
3010 \fi
3011 \fi
3012 }
3013 \def\HyPsd@pdfencoding@auto{auto}

```



```

3014 \def\HyPsd@pdfencoding@pdfdoc{pdfdoc}
3015 \def\HyPsd@pdfencoding@unicode{unicode}
3016 \let\HyPsd@pdfencoding\Hy@pdfencoding@pdfdoc
3017 \def\HyPsd@LoadStringEnc{%
3018   \RequirePackage{stringenc}[2009/12/15]%
3019   \let\HyPsd@LoadStringEnc\relax
3020 }
3021 \Hy@AtBeginDocument{%
3022   \ifpackageloaded{stringenc}{%
3023     \let\HyPsd@LoadStringEnc\relax
3024   }{%
3025     \def\HyPsd@LoadStringEnc{%
3026       \Hy@WarningNoLine{%
3027         Missing package 'stringenc'. Use 'pdfencoding=auto'\MessageBreak
3028         in the preamble or load the package there%
3029       }%
3030     }%
3031   }%
3032 }

3033 \define@key{Hyp}{psdextra}[true]{%
3034   \Hy@boolkey{psdextra}{#1}%
3035   \HyPsd@LoadExtra
3036 }

3037 \def\hypersetup{\kvsetkeys{Hyp}}

3038 \newif\ifHy@setpdfversion
3039 \define@key{Hyp}{pdfversion}{%
3040   \ifundefined{Hy@pdfversion@#1}{%
3041     \PackageWarning{hyperref}{%
3042       Unsupported PDF version '#1'.\MessageBreak
3043       Valid values: 1.2 until 1.9%
3044     }%
3045   }{%
3046     \Hy@setpdfversiontrue
3047     \edef\Hy@pdfversion{\@nameuse{Hy@pdfversion@#1}}%
3048   }%
3049 }
3050 \@namedef{Hy@pdfversion@1.2}{2}%
3051 \@namedef{Hy@pdfversion@1.3}{3}%
3052 \@namedef{Hy@pdfversion@1.4}{4}%
3053 \@namedef{Hy@pdfversion@1.5}{5}%
3054 \@namedef{Hy@pdfversion@1.6}{6}%
3055 \@namedef{Hy@pdfversion@1.7}{7}%
3056 \@namedef{Hy@pdfversion@1.8}{8}%
3057 \@namedef{Hy@pdfversion@1.9}{9}%
3058 \def\Hy@pdfversion{2}

```

10 Options for different drivers

```

3059 \newif\ifHy@DviMode
3060 \let\Hy@DviErrMsg\ltx@empty
3061 \ifpdf
3062   \def\Hy@DviErrMsg{pdfTeX or LuaTeX is running in PDF mode}%
3063 \else
3064   \ifxetex
3065     \def\Hy@DviErrMsg{XeTeX is running}%
3066   \else

```

```

3067 \ifvtex
3068 \ifvtexdvi
3069 \Hy@DviModetrue
3070 \else
3071 \def\Hy@DviErrMsg{VTeX is running, but not in DVI mode}%
3072 \fi
3073 \else
3074 \Hy@DviModetrue
3075 \fi
3076 \fi
3077 \fi
3078 \def\HyOpt@CheckDvi#1{%
3079 \ifHy@DviMode
3080 \expandafter\ltx@firstofone
3081 \else
3082 \Hy@Error{%
3083 Wrong DVI mode driver option '#1',\MessageBreak
3084 because \Hy@DviErrMsg
3085 }\@ehc
3086 \expandafter\ltx@gobble
3087 \fi
3088 }

3089 \DeclareVoidOption{tex4ht}{%
3090 \Hy@texhttrue
3091 \kvsetkeys{Hyp}{colorlinks=true}%
3092 \def\BeforeTeXIVht{\RequirePackage{color}}%
3093 \def\Hy@driver{htex4ht}%
3094 \def\MaybeStopEarly{%
3095 \Hy@Message{Stopped early}%
3096 \Hy@AtBeginDocument{%
3097 \PDF@FinishDoc
3098 \gdef\PDF@FinishDoc{}}%
3099 }%
3100 \endinput
3101 }%
3102 }

3103 \DeclareVoidOption{pdftex}{%
3104 \ifpdf
3105 \def\Hy@driver{hpdftex}%
3106 \else
3107 \Hy@Error{%
3108 Wrong driver option 'pdftex',\MessageBreak
3109 because pdfTeX in PDF mode is not detected%
3110 }\@ehc
3111 \fi
3112 }

3113 \DeclareVoidOption{nativepdf}{%
3114 \HyOpt@CheckDvi{nativepdf}{%
3115 \def\Hy@driver{hdvips}%
3116 }%
3117 }

3118 \DeclareVoidOption{dvipdfm}{%
3119 \HyOpt@CheckDvi{dvipdfm}{%
3120 \def\Hy@driver{hdvipdfm}%
3121 }%
3122 }

3123 \DeclareVoidOption{dvipdfmx}{%

```

```

3124 \HyOpt@CheckDvi{dvipdfmx}{%
3125   \def\Hy@driver{hdvipdfm}%
3126 }%
3127 }
3128 \define@key{Hyp}{dvipdfmx-outline-open}[true]{%
3129   \expandafter\ifx\csname if#1\expandafter\endcsname
3130     \csname iftrue\endcsname
3131   \chardef\SpecialDvipdfmxOutlineOpen\@ne
3132   \else
3133     \chardef\SpecialDvipdfmxOutlineOpen\z@
3134   \fi
3135 }
3136 \DeclareVoidOption{xetex}{%
3137   \ifxetex
3138     \def\Hy@driver{hxetex}%
3139   \else
3140     \Hy@Error{%
3141       Wrong driver option 'xetex',\MessageBreak
3142       because XeTeX is not detected%
3143     }\@ehc
3144   \fi
3145 }
3146 \DeclareVoidOption{pdfmark}{%
3147   \HyOpt@CheckDvi{pdfmark}{%
3148     \def\Hy@driver{hdvips}%
3149   }%
3150 }
3151 \DeclareVoidOption{dvips}{%
3152   \HyOpt@CheckDvi{dvips}{%
3153     \def\Hy@driver{hdvips}%
3154   }%
3155 }
3156 \DeclareVoidOption{hypertex}{%
3157   \HyOpt@CheckDvi{hypertex}{%
3158     \def\Hy@driver{hypertex}%
3159   }%
3160 }
3161 \let\Hy@MaybeStopNow\relax
3162 \DeclareVoidOption{vtex}{%
3163   \ifvtex
3164     \ifnum 0\ifnum\OpMode<1 1\fi \ifnum\OpMode>3 1\fi =0 %
3165     \def\Hy@driver{hvtex}%
3166   \else
3167     \ifnum\OpMode=10\relax
3168       \def\Hy@driver{hvtexhtm}%
3169       \def\MaybeStopEarly{%
3170         \Hy@Message{Stopped early}%
3171         \Hy@AtBeginDocument{%
3172           \PDF@FinishDoc
3173           \gdef\PDF@FinishDoc{}}%
3174       }%
3175       \endinput
3176     }%
3177   \else
3178     \Hy@Error{%
3179       Wrong driver option 'vtex',\MessageBreak
3180       because of wrong OpMode (\the\OpMode)%

```

```

3181     }\@ehc
3182     \fi
3183     \fi
3184   \else
3185     \Hy@Error{%
3186       Wrong driver option 'vtex',\MessageBreak
3187       because VTeX is not running%
3188     }\@ehc
3189     \fi
3190 }
3191 \DeclareVoidOption{vtexpdfmark}{%
3192   \ifvtex
3193     \ifnum 0\ifnum\OpMode<1 1\fi \ifnum\OpMode>3 1\fi =0 %
3194     \def\Hy@driver{hvtexmrk}%
3195   \else
3196     \Hy@Error{%
3197       Wrong driver option 'vtexpdfmark',\MessageBreak
3198       because of wrong OpMode (\the\OpMode)%
3199     }\@ehc
3200   \fi
3201 \else
3202   \Hy@Error{%
3203     Wrong driver option 'vtexpdfmark',\MessageBreak
3204     because VTeX is not running%
3205   }\@ehc
3206 \fi
3207 }
3208 \DeclareVoidOption{dviwindo}{%
3209   \HyOpt@CheckDvi{dviwindo}{%
3210     \def\Hy@driver{hdviwind}%
3211     \kvsetkeys{Hyp}{colorlinks}%
3212     \PassOptionsToPackage{dviwindo}{color}%
3213   }%
3214 }
3215 \DeclareVoidOption{dvipsone}{%
3216   \HyOpt@CheckDvi{dvipsone}{%
3217     \def\Hy@driver{hdvipson}%
3218   }%
3219 }
3220 \DeclareVoidOption{textures}{%
3221   \HyOpt@CheckDvi{textures}{%
3222     \def\Hy@driver{htexture}%
3223   }%
3224 }
3225 \DeclareVoidOption{latex2html}{%
3226   \HyOpt@CheckDvi{latex2html}{%
3227     \Hy@AtBeginDocument{\@@@latextohtmlX}%
3228   }%
3229 }

```

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

```

3230 \DeclareVoidOption{ps2pdf}{%
3231   \HyOpt@CheckDvi{ps2pdf}{%
3232     \def\Hy@driver{hdvips}%
3233   }%
3234 }
3235 \let\HyOpt@DriverFallback\ltx@empty
3236 \define@key{Hyp}{driverfallback}{%

```

```

3237 \ifHy@DviMode
3238   \def\HyOpt@DriverFallback{#1}%
3239   \Hy@Match\HyOpt@DriverFallback}{%
3240     ~(|dvipdfm|dvipdfmx|dvips|dvipsone|dviwindo|hypertex|ps2pdf|
3241     latex2html|tex4ht)$%
3242   }{-%
3243     \Hy@Warning{%
3244       Invalid driver '#1' for option\MessageBreak
3245       'driverfallback'%
3246     }%
3247     \let\HyOpt@DriverFallback\ltx@empty
3248   }%
3249 \fi
3250 }

3251 \let\HyOpt@CustomDriver\ltx@empty
3252 \define@key{Hyp}{customdriver}{%
3253   \IfFileExists{#1.def}{%
3254     \def\HyOpt@CustomDriver{#1}%
3255   }{-%
3256     \Hy@Warning{%
3257       Missing driver file '#1.def',\MessageBreak
3258       ignoring custom driver%
3259     }%
3260   }%
3261 }

```

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.

```

3262 \define@key{Hyp}{hyperfigures}[true]{%
3263   \Hy@boolkey{hyperfigures}{#1}%
3264 }

```

The automatic footnote linking can be disabled by option hyperfootnotes.

```

3265 \define@key{Hyp}{hyperfootnotes}[true]{%
3266   \Hy@boolkey{hyperfootnotes}{#1}%
3267 }

```

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

```

3268 \def\back@none{none}
3269 \def\back@section{section}
3270 \def\back@page{page}
3271 \def\back@slide{slide}
3272 \define@key{Hyp}{backref}[section]{%
3273   \lowercase{\def\Hy@tempa{#1}}%
3274   \ifx\Hy@tempa@empty
3275     \let\Hy@tempa\back@section
3276   \fi
3277   \ifx\Hy@tempa\Hy@false
3278     \let\Hy@tempa\back@none
3279   \fi
3280   \ifx\Hy@tempa\back@slide
3281     \let\Hy@tempa\back@section
3282   \fi
3283   \ifx\Hy@tempa\back@page
3284     \PassOptionsToPackage{hyperpageref}{backref}%

```

```

3285 \Hy@backreftrue
3286 \else
3287 \ifx\Hy@tempa\back@section
3288 \PassOptionsToPackage{hyperref}{backref}%
3289 \Hy@backreftrue
3290 \else
3291 \ifx\Hy@tempa\back@none
3292 \Hy@backreffalse
3293 \else
3294 \Hy@WarnOptionValue{#1}{backref}{%
3295 'section', 'slide', 'page', 'none',\MessageBreak
3296 or 'false'}%
3297 \fi
3298 \fi
3299 \fi
3300 }
3301 \define@key{Hyp}{pagebackref}[true]{%
3302 \edef\Hy@tempa{#1}%
3303 \lowercase\expandafter{%
3304 \expandafter\def\expandafter\Hy@tempa\expandafter{\Hy@tempa}%
3305 }%
3306 \ifx\Hy@tempa\@empty
3307 \let\Hy@tempa\Hy@true
3308 \fi
3309 \ifx\Hy@tempa\Hy@true
3310 \PassOptionsToPackage{hyperpageref}{backref}%
3311 \Hy@backreftrue
3312 \else
3313 \ifx\Hy@tempa\Hy@false
3314 \Hy@backreffalse
3315 \else
3316 \Hy@WarnOptionValue{#1}{pagebackref}{'true' or 'false'}%
3317 \fi
3318 \fi
3319 }

```

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

```

3320 \define@key{Hyp}{hyperindex}[true]{%
3321 \Hy@boolkey{hyperindex}{#1}%
3322 }

```

Configuration of encap char.

```

3323 \define@key{Hyp}{encap}{\|}{%
3324 \def\HyInd@EncapChar{#1}%
3325 }

```

12 Language options

The \autoref feature depends on the language.

```

3326 \def\HyLang@afrikaans{%
3327 \def\equationautorefname{Vergelyking}%
3328 \def\footnoteautorefname{Voetnota}%
3329 \def\itemautorefname{Item}%
3330 \def\figureautorefname{Figuur}%
3331 \def\tableautorefname{Tabel}%
3332 \def\partautorefname{Deel}%

```

```

3333 \def\appendixautorefname{Bylae}%
3334 \def\chapterautorefname{Hoofstuk}%
3335 \def\sectionautorefname{Afdeling}%
3336 \def\subsectionautorefname{Subafdeling}%
3337 \def\subsubsectionautorefname{Subsubafdeling}%
3338 \def\paragraphautorefname{Paragraaf}%
3339 \def\subparagraphautorefname{Subparagraaf}%
3340 \def\FancyVerbLineautorefname{Lyn}%
3341 \def\theoremautorefname{Teorema}%
3342 \def\pageautorefname{Bladsy}%
3343 }
3344 \def\HyLang@english{%
3345 \def\equationautorefname{Equation}%
3346 \def\footnoteautorefname{footnote}%
3347 \def\itemautorefname{item}%
3348 \def\figureautorefname{Figure}%
3349 \def\tableautorefname{Table}%
3350 \def\partautorefname{Part}%
3351 \def\appendixautorefname{Appendix}%
3352 \def\chapterautorefname{chapter}%
3353 \def\sectionautorefname{section}%
3354 \def\subsectionautorefname{subsection}%
3355 \def\subsubsectionautorefname{subsubsection}%
3356 \def\paragraphautorefname{paragraph}%
3357 \def\subparagraphautorefname{subparagraph}%
3358 \def\FancyVerbLineautorefname{line}%
3359 \def\theoremautorefname{Theorem}%
3360 \def\pageautorefname{page}%
3361 }
3362 \def\HyLang@french{%
3363 \def\equationautorefname{'Equation}%
3364 \def\footnoteautorefname{note}%
3365 \def\itemautorefname{item}%
3366 \def\figureautorefname{Figure}%
3367 \def\tableautorefname{Tableau}%
3368 \def\partautorefname{Partie}%
3369 \def\appendixautorefname{Appendice}%
3370 \def\chapterautorefname{chapitre}%
3371 \def\sectionautorefname{section}%
3372 \def\subsectionautorefname{sous-section}%
3373 \def\subsubsectionautorefname{sous-sous-section}%
3374 \def\paragraphautorefname{paragraphe}%
3375 \def\subparagraphautorefname{sous-paragraphe}%
3376 \def\FancyVerbLineautorefname{ligne}%
3377 \def\theoremautorefname{Th'eor'eme}%
3378 \def\pageautorefname{page}%
3379 }
3380 \def\HyLang@german{%
3381 \def\equationautorefname{Gleichung}%
3382 \def\footnoteautorefname{Fu\ss note}%
3383 \def\itemautorefname{Punkt}%
3384 \def\figureautorefname{Abbildung}%
3385 \def\tableautorefname{Tabelle}%
3386 \def\partautorefname{Teil}%
3387 \def\appendixautorefname{Anhang}%
3388 \def\chapterautorefname{Kapitel}%
3389 \def\sectionautorefname{Abschnitt}%

```

```

3390 \def\subsectionautorefname{Unterabschnitt}%
3391 \def\subsubsectionautorefname{Unterunterabschnitt}%
3392 \def\paragraphautorefname{Absatz}%
3393 \def\subparagraphautorefname{Unterabsatz}%
3394 \def\FancyVerbLineautorefname{Zeile}%
3395 \def\theoremautorefname{Theorem}%
3396 \def\pageautorefname{Seite}%
3397 }
3398 \def\HyLang@italian{%
3399 \def\equationautorefname{Equazione}%
3400 \def\footnoteautorefname{nota}%
3401 \def\itemautorefname{punto}%
3402 \def\figureautorefname{Figura}%
3403 \def\tableautorefname{Tabella}%
3404 \def\partautorefname{Parte}%
3405 \def\appendixautorefname{Appendice}%
3406 \def\chapterautorefname{Capitolo}%
3407 \def\sectionautorefname{sezione}%
3408 \def\subsectionautorefname{sottosezione}%
3409 \def\subsubsectionautorefname{sottosottosezione}%
3410 \def\paragraphautorefname{paragrafo}%
3411 \def\subparagraphautorefname{sottoparagrafo}%
3412 \def\FancyVerbLineautorefname{linea}%
3413 \def\theoremautorefname{Teorema}%
3414 \def\pageautorefname{Pag.\@}%
3415 }
3416 \def\HyLang@magyar{%
3417 \def\equationautorefname{Egyenlet}%
3418 \def\footnoteautorefname{1\`abjegyzet}%
3419 \def\itemautorefname{Elem}%
3420 \def\figureautorefname{\`Abra}%
3421 \def\tableautorefname{T\`abl\`azat}%
3422 \def\partautorefname{R\`esz}%
3423 \def\appendixautorefname{F\`uggel\`ek}%
3424 \def\chapterautorefname{fejezet}%
3425 \def\sectionautorefname{szakasz}%
3426 \def\subsectionautorefname{alszakasz}%
3427 \def\subsubsectionautorefname{alalszakasz}%
3428 \def\paragraphautorefname{bekezd\`es}%
3429 \def\subparagraphautorefname{albekezd\`es}%
3430 \def\FancyVerbLineautorefname{sor}%
3431 \def\theoremautorefname{T\`etel}%
3432 \def\pageautorefname{oldal}%
3433 }
3434 \def\HyLang@portuges{%
3435 \def\equationautorefname{Equa\c c\~ao}%
3436 \def\footnoteautorefname{Nota de rodap\`e}%
3437 \def\itemautorefname{Item}%
3438 \def\figureautorefname{Figura}%
3439 \def\tableautorefname{Tabela}%
3440 \def\partautorefname{Parte}%
3441 \def\appendixautorefname{Ap\`endice}%
3442 \def\chapterautorefname{Cap\`itulo}%
3443 \def\sectionautorefname{Se\c c\~ao}%
3444 \def\subsectionautorefname{Subse\c c\~ao}%
3445 \def\subsubsectionautorefname{Subsubse\c c\~ao}%
3446 \def\paragraphautorefname{par\`agrafo}%

```



```

3447 \def\ subparagraphautorefname{subpar\`'agrafo}%
3448 \def\FancyVerbLineautorefname{linha}%
3449 \def\theoremautorefname{Teorema}%
3450 \def\pageautorefname{P\`'agina}%
3451 }

```

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`.

```

3452 \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`?

```

3453 \def\equationautorefname{\cyr\cyrv\cyrery\cyrr.}%

```

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

```

3454 % \def\equationautorefname{%
3455 %   \cyr\cyrv\cyrery\cyrr\cyra\cyrzh\cyre\cyrn\cyri\cyre
3456 % }%

```

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

```

3457 \def\footnoteautorefname{%
3458   \cyr\cyrp\cyro\cyrd\cyrs\cyrt\cyrr.\ \cyrp\cyrr\cyri\cyrm.%
3459 }%

```

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

```

3460 % \def\footnoteautorefname{%
3461 %   \cyr\cyrp\cyro\cyrd\cyrs\cyrt\cyrr\cyro\cyrch\cyrn\cyro\cyre\ %
3462 %   \cyrp\cyrr\cyri\cyrm\cyre\cyrch\cyra\cyrn\cyri\cyre
3463 % }%

```

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

```

3464 % \def\Nomfootnoteautorefname{\cyr\cyrs\cyrn\cyro\cyrs\cyrk\cyra}%
3465 % \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 `\auto\ref{auto}`” etc.

```

3466 \def\itemautorefname{\cyr\cyrp.}%
3467 % \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.

```

3468 \def\figureautorefname{\cyr\cyrr\cyri\cyrs.}%
3469 \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.

```
3470 \def\partautorefname{\cyr\cyrch.}%
3471 \def\chapterautorefname{\cyr\cyr\cyrg\cyrl.}%
3472 \def\sectionautorefname{\cyr\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.

```
3473 \def\appendixautorefname{\cyr\cyrp\cyrr\cyri\cyrl.}%
3474 % \def\appendixautorefname{%
3475 %   \cyr\cyrp\cyrr\cyri\cyrl\cyro\cyrz\cyre\cyrn\cyri\cyre
3476 % }%
```

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.

```
3477 \def\subsectionautorefname{\cyr\cyr\cyrr\cyra\cyrz\cyrd.}%
3478 \def\subsubsectionautorefname{\cyr\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.

```
3479 \def\paragraphautorefname{\cyr\cyrp.}%
3480 \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.

```
3481 % \def\paragraphautorefname{\cyr\cyrp\cyru\cyrn\cyrk\cyrt}%
3482 % \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.

```
3483 \def\FancyVerbLineautorefname{\cyr\cyrs\cyrt\cyrr.}%
```

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

```
3484 % \def\NomFancyVerbLineautorefname{\cyr\cyrs\cyrt\cyrr\cyro\cyrk\cyra}%
3485 % \def\AccFancyVerbLineautorefname{\cyr\cyrs\cyrt\cyrr\cyro\cyrk\cyru}%
```

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

```
3486 % \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 ...

```
3487 \def\theoremautorefname{\cyr\cyrt\cyre\cyro\cyrr.}%
```

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

```
3488 % \def\Nomtheoremautorefname{\cyr\cyrt\cyre\cyro\cyrr\cyre\cyrm\cyra}%
3489 % \def\Acctheoremautorefname{\cyr\cyrt\cyre\cyro\cyrr\cyre\cyrm\cyru}%
```

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

```
3490 \def\pageautorefname{\cyr\cyrs.}%
3491 }
```

```

3492 \def\HyLang@spanish{%
3493   \def\equationautorefname{Ecuaci'on}%
3494   \def\footnoteautorefname{Nota a pie de p'agina}%
3495   \def\itemautorefname{Elemento}%
3496   \def\figureautorefname{Figura}%
3497   \def\tableautorefname{Tabla}%
3498   \def\partautorefname{Parte}%
3499   \def\appendixautorefname{Ap'endice}%
3500   \def\chapterautorefname{Cap'itulo}%
3501   \def\sectionautorefname{Secci'on}%
3502   \def\subsectionautorefname{Subsecci'on}%
3503   \def\subsubsectionautorefname{Subsubsecci'on}%
3504   \def\paragraphautorefname{P'arrafo}%
3505   \def\subparagraphautorefname{Subp'arrafo}%
3506   \def\FancyVerbLineautorefname{L'inea}%
3507   \def\theoremautorefname{Teorema}%
3508   \def\pageautorefname{P'agina}%
3509 }
3510 \def\HyLang@vietnamese{%
3511   \def\equationautorefname{Ph\uhorn{}}\ohorn{}ng tr'inh}%
3512   \def\footnoteautorefname{Ch'u th'ich}%
3513   \def\itemautorefname{m\d{u}c}%
3514   \def\figureautorefname{H'inh}%
3515   \def\tableautorefname{B'h{a}ng}%
3516   \def\partautorefname{Ph'\acircumflex{n}}%
3517   \def\appendixautorefname{Ph\d{u}l\d{u}c}%
3518   \def\chapterautorefname{ch\uhorn{}}\ohorn{}ng}%
3519   \def\sectionautorefname{m\d{u}c}%
3520   \def\subsectionautorefname{m\d{u}c}%
3521   \def\subsubsectionautorefname{m\d{u}c}%
3522   \def\paragraphautorefname{\dj{o}d{a}n}%
3523   \def\subparagraphautorefname{\dj{o}d{a}n}%
3524   \def\FancyVerbLineautorefname{d'ong}%
3525   \def\theoremautorefname{\DJ{}}\d{i}nh l'y}%
3526   \def\pageautorefname{Trang}%
3527 }

```

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

```

3528 \def\HyLang@addto#1#2{%
3529   #2%
3530   \@temptokena{#2}%
3531   \ifx#1\relax
3532     \let#1\@empty
3533   \fi
3534   \ifx#1\@undefined
3535     \edef#1{\the\@temptokena}%
3536   \else
3537     \toks@\expandafter{#1}%
3538     \edef#1{\the\toks@\the\@temptokena}%
3539   \fi
3540   \@temptokena{\toks@\@temptokena}
3541 }
3542 \def\HyLang@DeclareLang#1#2#3{%
3543   \ifpackagewith{babel}{#1}{%
3544     \expandafter\HyLang@addto
3545     \csname extras#1\expandafter\endcsname

```

```

3546     \csname HyLang@#2\endcsname
3547 \begingroup
3548   \edef\x{\endgroup
3549     #3%
3550   }%
3551   \x
3552   \@namedef{HyLang@#1@done}{}%
3553 }{%
3554 \begingroup
3555   \edef\x##1##2{%
3556     \noexpand\ifx##2\relax
3557       \errmessage{No definitions for language #2' found!}%
3558     \noexpand\fi
3559   \endgroup
3560   \noexpand\define@key{Hyp}{#1}[]{}%
3561   \noexpand\@ifundefined{HyLang@#1@done}{%
3562     \noexpand\HyLang@addto{\noexpand##1}{\noexpand##2}%
3563     #3%
3564     \noexpand\@namedef{HyLang@#1@done}{}%
3565   }{}%
3566   }%
3567 }%
3568 \expandafter\x\csname extras#1\expandafter\endcsname
3569     \csname HyLang@#2\endcsname
3570 }
3571 \HyLang@DeclareLang{english}{english}{}
3572 \HyLang@DeclareLang{UKenglish}{english}{}
3573 \HyLang@DeclareLang{british}{english}{}
3574 \HyLang@DeclareLang{USenglish}{english}{}
3575 \HyLang@DeclareLang{american}{english}{}
3576 \HyLang@DeclareLang{german}{german}{}
3577 \HyLang@DeclareLang{austrian}{german}{}
3578 \HyLang@DeclareLang{ngerman}{german}{}
3579 \HyLang@DeclareLang{naustrian}{german}{}
3580 \HyLang@DeclareLang{russian}{russian}{\noexpand\hypersetup{unicode}}
3581 \HyLang@DeclareLang{brazil}{portuges}{}
3582 \HyLang@DeclareLang{brazilian}{portuges}{}
3583 \HyLang@DeclareLang{portuguese}{portuges}{}
3584 \HyLang@DeclareLang{spanish}{spanish}{}
3585 \HyLang@DeclareLang{afrikaans}{afrikaans}{}
3586 \HyLang@DeclareLang{french}{french}{}
3587 \HyLang@DeclareLang{frenchb}{french}{}
3588 \HyLang@DeclareLang{français}{french}{}
3589 \HyLang@DeclareLang{acadian}{french}{}
3590 \HyLang@DeclareLang{canadien}{french}{}
3591 \HyLang@DeclareLang{italian}{italian}{}
3592 \HyLang@DeclareLang{magyar}{magyar}{}
3593 \HyLang@DeclareLang{hungarian}{magyar}{}

```

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

```

3594 \DeclareVoidOption{vietnamese}{}%
3595 \HyLang@addto\extrasvietnamese\HyLang@vietnamese
3596 \Hy@AtEndOfPackage{%
3597   \@ifundefined{T@PU}{}{}%
3598   \input{puvnenc.def}%
3599   }%
3600 }%
3601 }

```

```

3602 \DeclareVoidOption{vietnam}{%
3603   \HyLang@addto\extrasvietnam\HyLang@vietnamese
3604   \Hy@AtEndOfPackage{%
3605     \@ifundefined{T@PU}{}%
3606     \input{puvnenc.def}%
3607   }%
3608 }%
3609 }

```

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

```

3610 \DeclareVoidOption{arabic}{%
3611   \Hy@AtEndOfPackage{%
3612     \@ifundefined{T@PU}{}%
3613     \input{puarenc.def}%
3614   }%
3615 }%
3616 }

```

13 Options to change appearance of links

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

```

3617 \define@key{Hyp}{colorlinks}[true]{%
3618   \Hy@boolkey{colorlinks}{#1}%
3619 }
3620 \DeclareVoidOption{hidelinks}{%
3621   \Hy@colorlinksfalse
3622   \Hy@ocgcolorlinksfalse
3623   \Hy@frenchlinksfalse
3624   \def\Hy@colorlink##1{\begingroup}%
3625   \def\Hy@endcolorlink{\endgroup}%
3626   \def\@pdfborder{0 0 0}%
3627   \let\@pdfborderstyle\tx@empty
3628 }
3629 \define@key{Hyp}{ocgcolorlinks}[true]{%
3630   \Hy@boolkey{ocgcolorlinks}{#1}%
3631 }
3632 \Hy@AtBeginDocument{%
3633   \begingroup
3634   \@ifundefined{OBJ@OCG@view}{%
3635     \ifHy@ocgcolorlinks
3636     \Hy@Warning{%
3637       Driver does not support ‘ocgcolorlinks’,\MessageBreak
3638       using ‘colorlinks’ instead%
3639     }%
3640     \fi
3641   }{}%
3642   \endgroup
3643 }
3644 \define@key{Hyp}{frenchlinks}[true]{%
3645   \Hy@boolkey{frenchlinks}{#1}%
3646 }

```

14 Bookmarking

```

3647 \begingroup\expandafter\expandafter\expandafter\endgroup
3648 \expandafter\ifx\csname chapter\endcsname\relax

```

```

3649 \def\toclevel@part{0}%
3650 \else
3651 \def\toclevel@part{-1}%
3652 \fi
3653 \def\toclevel@chapter{0}
3654 \def\toclevel@section{1}
3655 \def\toclevel@subsection{2}
3656 \def\toclevel@subsubsection{3}
3657 \def\toclevel@paragraph{4}
3658 \def\toclevel@subparagraph{5}
3659 \def\toclevel@figure{0}
3660 \def\toclevel@table{0}
3661 \@ifpackageloaded{listings}{%
3662 \providecommand*\theHlstlisting{\thelstlisting}%
3663 \providecommand*\toclevel@lstlisting{0}%
3664 }{}
3665 \@ifpackageloaded{listing}{%
3666 \providecommand*\theHlisting{\thelisting}%
3667 \providecommand*\toclevel@listing{0}%
3668 }{}

3669 \define@key{Hyp}{bookmarks}[true]{%
3670 \Hy@boolkey{bookmarks}{#1}%
3671 }

3672 \define@key{Hyp}{bookmarksopen}[true]{%
3673 \Hy@boolkey{bookmarksopen}{#1}%
3674 }

```

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.

```

3675 \let\Hy@bookmarksdepth\c@tocdepth
3676 \define@key{Hyp}{bookmarksdepth}[]{%
3677 \begingroup
3678 \edef\x{#1}%
3679 \ifx\x\empty
3680 \global\let\Hy@bookmarksdepth\c@tocdepth
3681 \else
3682 \@ifundefined{toclevel@\x}{%
3683 \@onelevel@sanitize\x
3684 \edef\y{\expandafter\@car\x\@nil}%
3685 \ifcase 0\expandafter\ifx\y-1\fi
3686 \expandafter\ifnum\expandafter'\y>47 %
3687 \expandafter\ifnum\expandafter'\y<58 1\fi\fi\relax
3688 \Hy@Warning{Unknown document division name (\x)}%
3689 \else
3690 \setbox\z@=\hbox{%
3691 \count@=\x
3692 \xdef\Hy@bookmarksdepth{\the\count@}%
3693 }%

```

```

3694     \fi
3695   }{%
3696     \setbox\z@=\hbox{%
3697       \count@=\csname toplevel@\x\endcsname
3698       \xdef\Hy@bookmarksdepth{\the\count@}%
3699     }%
3700   }%
3701   \fi
3702 \endgroup
3703 }

```

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

```

3704 \define@key{Hyp}{bookmarksopenlevel}{%
3705   \def\@bookmarksopenlevel{#1}%
3706 }
3707 \def\@bookmarksopenlevel{\maxdimen}
3708 % ‘bookmarkstype’ to specify which ‘toc’ file to mimic
3709 \define@key{Hyp}{bookmarkstype}{%
3710   \def\Hy@bookmarkstype{#1}%
3711 }
3712 \def\Hy@bookmarkstype{toc}

```

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

```

3713 \define@key{Hyp}{bookmarksnumbered}[true]{%
3714   \Hy@boolkey{bookmarksnumbered}{#1}%
3715 }

```

Option CJKbookmarks enables the patch for CJK bookmarks.

```

3716 \define@key{Hyp}{CJKbookmarks}[true]{%
3717   \Hy@boolkey{CJKbookmarks}{#1}%
3718 }

3719 \def\Hy@temp#1{%
3720   \expandafter\Hy@temp\csname @#1color\endcsname{#1}%
3721 }
3722 \def\Hy@@temp#1#2#3{%
3723   \define@key{Hyp}{#2color}{%
3724     \HyColor@HyperrefColor{##1}#1%
3725   }%
3726   \def#1{#3}%
3727 }
3728 \Hy@temp{link}{red}
3729 \Hy@temp{anchor}{black}
3730 \Hy@temp{cite}{green}
3731 \Hy@temp{file}{cyan}
3732 \Hy@temp{url}{magenta}
3733 \Hy@temp{menu}{red}
3734 \Hy@temp{run}{\@filecolor}
3735 \define@key{Hyp}{pagecolor}{%
3736   \Hy@WarningPageColor
3737 }
3738 \def\Hy@WarningPageColor{%
3739   \Hy@WarningNoLine{Option ‘pagecolor’ is not available anymore}%
3740   \global\let\Hy@WarningPageColor\relax
3741 }
3742 \define@key{Hyp}{allcolors}{%
3743   \HyColor@HyperrefColor{#1}\@linkcolor
3744   \HyColor@HyperrefColor{#1}\@anchorcolor

```

```

3745 \HyColor@HyperrefColor{#1}\@citecolor
3746 \HyColor@HyperrefColor{#1}\@filecolor
3747 \HyColor@HyperrefColor{#1}\@urlcolor
3748 \HyColor@HyperrefColor{#1}\@menucolor
3749 \HyColor@HyperrefColor{#1}\@runcolor
3750 }

3751 \def\hyperbaseurl#1{\def\@baseurl{#1}}
3752 \define@key{Hyp}{baseurl}{\hyperbaseurl{#1}}
3753 \let\@baseurl\@empty
3754 \def\hyperlinkfileprefix#1{\def\Hy@linkfileprefix{#1}}
3755 \define@key{Hyp}{linkfileprefix}{\hyperlinkfileprefix{#1}}
3756 \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.

```

3757 \let\@pdfpagetransition\relax
3758 \define@key{Hyp}{pdfpagetransition}{%
3759 \def\@pdfpagetransition{#1}%
3760 }

```

`\@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.

```

3761 \let\@pdfpageduration\relax
3762 \define@key{Hyp}{pdfpageduration}{%
3763 \def\@pdfpageduration{#1}%
3764 \Hy@Match\@pdfpageduration}{%
3765 ~(|[0-9]+\.\?[0-9]*|[0-9]*\.\?[0-9]+)$%
3766 }{;%
3767 \Hy@Warning{%
3768 Invalid value '@pdfpageduration'\MessageBreak
3769 of option 'pdfpageduration'\MessageBreak
3770 is replaced by an empty value%
3771 };%
3772 \let\@pdfpageduration\ltx@empty
3773 };%
3774 }

```

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.

```

3775 \newif\ifHy@useHidKey
3776 \Hy@useHidKeyfalse
3777 \define@key{Hyp}{pdfpagehidden}[true]{%
3778 \Hy@boolkey{pdfpagehidden}{#1}%
3779 \ifHy@pdfpagehidden
3780 \global\Hy@useHidKeytrue
3781 \fi
3782 }

```

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).

```

3783 \def\Hy@ColorList{cite,file,link,menu,run,url}
3784 \@for\Hy@temp:=\Hy@ColorList\do{%
3785   \edef\Hy@temp{%
3786     \noexpand\define@key{Hyp}{\Hy@temp bordercolor}{%
3787       \noexpand\HyColor@HyperrefBorderColor
3788         {##1}}%
3789     \expandafter\noexpand\csname @\Hy@temp bordercolor\endcsname
3790     {hyperref}%
3791     {\Hy@temp bordercolor}}%
3792   }%
3793 }%
3794 \Hy@temp
3795 }
3796 \define@key{Hyp}{pagebordercolor}{%
3797   \Hy@WarningPageBorderColor
3798 }
3799 \def\Hy@WarningPageBorderColor{%
3800   \Hy@WarningNoLine{Option 'pagebordercolor' is not available anymore}%
3801   \global\let\Hy@WarningPageBorderColor\relax
3802 }
3803 \define@key{Hyp}{allbordercolors}{%
3804   \def\Hy@temp##1##2{%
3805     \HyColor@HyperrefBorderColor{##1}##1{hyperref}{##2bordercolor}}%
3806   }%
3807   \Hy@temp\@citebordercolor{cite}%
3808   \Hy@temp\@filebordercolor{file}%
3809   \Hy@temp\@linkbordercolor{link}%
3810   \Hy@temp\@menubordercolor{menu}%
3811   \Hy@temp\@runbordercolor{run}%
3812   \Hy@temp\@urlbordercolor{url}}%
3813 }
3814 \define@key{Hyp}{pdfhighlight}{\def\@pdfhighlight{##1}}
3815 \Hy@DefNameKey{pdfhighlight}{%
3816   \do{/I}{Invert}%
3817   \do{/N}{None}%
3818   \do{/O}{Outline}%
3819   \do{/P}{Push}}%
3820 }
3821 \define@key{Hyp}{pdfborder}{%
3822   \let\Hy@temp\@pdfborder
3823   \def\@pdfborder{##1}%
3824   \Hy@Match\@pdfborder{-}{%
3825     ~\HyPat@NonNegativeReal/ %
3826     \HyPat@NonNegativeReal/ %
3827     \HyPat@NonNegativeReal/%
3828     (?\[~\HyPat@NonNegativeReal/(~\HyPat@NonNegativeReal/)*])?}%
3829   }-}{%
3830   \Hy@Warning{%
3831     Invalid value '\@pdfborder'\MessageBreak
3832     for option 'pdfborder'.\MessageBreak
3833     Option setting is ignored%
3834   }%

```

```

3835 \let\@pdfborder\Hy@temp
3836 }%
3837 }
3838 \define@key{Hyp}{pdfborderstyle}{%
3839 \let\Hy@temp\@pdfborderstyle
3840 \def\@pdfborderstyle{#1}%
3841 \Hy@Match\@pdfborderstyle}{-%
3842 ~%
3843 ( */Type */Border%
3844 | */W +\HyPat@NonNegativeReal/%
3845 | */S */[SDBIU]%
3846 | */D *\[ *(\HyPat@NonNegativeReal/( \HyPat@NonNegativeReal/)?)?%
3847 )* *$%
3848 }{ }-%
3849 \Hy@Warning{%
3850 Invalid value '\@pdfborderstyle'\MessageBreak
3851 for option 'pdfborderstyle'\MessageBreak
3852 Option setting is ignored%
3853 }%
3854 \let\@pdfborderstyle\Hy@temp
3855 }%
3856 }
3857 \def\Hy@setpdfborder{%
3858 \ifx\@pdfborder\@empty
3859 \else
3860 /Border[\@pdfborder]%
3861 \fi
3862 \ifx\@pdfborderstyle\@empty
3863 \else
3864 /BS<<\@pdfborderstyle>>%
3865 \fi
3866 }
3867 \Hy@DefNameKey{pdfpagemode}{-%
3868 \do{UseNone}{ }-%
3869 \do{UseOutlines}{ }-%
3870 \do{UseThumbs}{ }-%
3871 \do{FullScreen}{ }-%
3872 \do{UseOC}{PDF 1.5}%
3873 \do{UseAttachments}{PDF 1.6}%
3874 }
3875 \Hy@DefNameKey{pdfnonfullscreenpagemode}{-%
3876 \do{UseNone}{ }-%
3877 \do{UseOutlines}{ }-%
3878 \do{UseThumbs}{ }-%
3879 \do{FullScreen}{ }-%
3880 \do{UseOC}{PDF 1.5}%
3881 \do{UseAttachments}{PDF 1.6}%
3882 }
3883 \Hy@DefNameKey{pdfdirection}{-%
3884 \do{L2R}{Left to right}%
3885 \do{R2L}{Right to left}%
3886 }
3887 \Hy@DefNameKey{pdfviewarea}{-%
3888 \do{MediaBox}{ }-%
3889 \do{CropBox}{ }-%
3890 \do{BleedBox}{ }-%
3891 \do{TrimBox}{ }-%

```

```

3892 \do{ArtBox}{}%
3893 }
3894 \Hy@DefNameKey{pdfviewclip}{%
3895 \do{MediaBox}{}%
3896 \do{CropBox}{}%
3897 \do{BleedBox}{}%
3898 \do{TrimBox}{}%
3899 \do{ArtBox}{}%
3900 }
3901 \Hy@DefNameKey{pdfprintarea}{%
3902 \do{MediaBox}{}%
3903 \do{CropBox}{}%
3904 \do{BleedBox}{}%
3905 \do{TrimBox}{}%
3906 \do{ArtBox}{}%
3907 }
3908 \Hy@DefNameKey{pdfprintclip}{%
3909 \do{MediaBox}{}%
3910 \do{CropBox}{}%
3911 \do{BleedBox}{}%
3912 \do{TrimBox}{}%
3913 \do{ArtBox}{}%
3914 }
3915 \Hy@DefNameKey{pdfprintscaling}{%
3916 \do{AppDefault}{}%
3917 \do{None}{}%
3918 }
3919 \Hy@DefNameKey{pdfduplex}{%
3920 \do{Simplex}{}%
3921 \do{DuplexFlipShortEdge}{}%
3922 \do{DuplexFlipLongEdge}{}%
3923 }
3924 \Hy@DefNameKey{pdfpicktraybypdfsize}{%
3925 \do{true}{}%
3926 \do{false}{}%
3927 }
3928 \define@key{Hyp}{pdfprintpagerange}{%
3929 \def\@pdfprintpagerange{#1}%
3930 }
3931 \Hy@DefNameKey{pdfnumcopies}{%
3932 \do{2}{two copies}%
3933 \do{3}{three copies}%
3934 \do{4}{four copies}%
3935 \do{5}{five copies}%
3936 }
3937 \define@key{Hyp}{pdfusetitle}[true]{%
3938 \Hy@boolkey{pdfusetitle}{#1}%
3939 }
3940 \def\HyXeTeX@CheckUnicode{%
3941 \ifxetex
3942 \ifHy@unicode
3943 \else
3944 \Hy@WarningNoLine{%
3945 XeTeX driver only supports unicode.\MessageBreak
3946 Enabling option 'unicode'%
3947 }%
3948 \kvsetkeys{Hyp}{unicode}%

```

```

3949 \fi
3950 \else
3951 \let\HyXeTeX@CheckUnicode\relax
3952 \fi
3953 }
3954 \def\HyPsd@PrerenderUnicode#1{%
3955 \begingroup
3956 \expandafter\ifx\csname PrerenderUnicode\endcsname\relax
3957 \else
3958 \sbox0{%
3959 \let\GenericInfo@gobbletwo
3960 \let\GenericWarning@gobbletwo
3961 \let\GenericError@gobblefour
3962 \PrerenderUnicode{#1}%
3963 }%
3964 \fi
3965 \endgroup
3966 }
3967 \define@key{Hyp}{pdftitle}{%
3968 \HyXeTeX@CheckUnicode
3969 \HyPsd@XeTeXBigCharstrue
3970 \HyPsd@PrerenderUnicode{#1}%
3971 \pdfstringdef\@pdftitle{#1}%
3972 }
3973 \define@key{Hyp}{pdfauthor}{%
3974 \HyXeTeX@CheckUnicode
3975 \HyPsd@XeTeXBigCharstrue
3976 \HyPsd@PrerenderUnicode{#1}%
3977 \pdfstringdef\@pdfauthor{#1}%
3978 }
3979 \define@key{Hyp}{pdfproducer}{%
3980 \HyXeTeX@CheckUnicode
3981 \HyPsd@XeTeXBigCharstrue
3982 \HyPsd@PrerenderUnicode{#1}%
3983 \pdfstringdef\@pdfproducer{#1}%
3984 \ifxetex
3985 \Hy@Warning{%
3986 pdfproducer: %
3987 xdvipdfmx will use its own setting\MessageBreak
3988 instead of the value given%
3989 }%
3990 \else
3991 \def\Hy@temp{hdvipdfm}%
3992 \ifx\Hy@driver\Hy@temp
3993 \Hy@Warning{%
3994 pdfproducer: %
3995 dvipdfm(x) will use its own setting\MessageBreak
3996 instead of the value given%
3997 }%
3998 \fi
3999 \fi
4000 }
4001 \define@key{Hyp}{pdfcreator}{%
4002 \HyXeTeX@CheckUnicode
4003 \HyPsd@XeTeXBigCharstrue
4004 \HyPsd@PrerenderUnicode{#1}%
4005 \pdfstringdef\@pdfcreator{#1}%

```

```

4006 }
4007 \define@key{Hyp}{pdfcreationdate}{%
4008   \begingroup
4009   \Hy@unicodedefalse
4010   \pdfstringdef\@pdfcreationdate{#1}%
4011   \endgroup
4012 }
4013 \define@key{Hyp}{pdfmoddate}{%
4014   \begingroup
4015   \Hy@unicodedefalse
4016   \pdfstringdef\@pdfmoddate{#1}%
4017   \endgroup
4018 }
4019 \define@key{Hyp}{pdfsubject}{%
4020   \HyXeTeX@CheckUnicode
4021   \HyPsd@XeTeXBigCharstrue
4022   \HyPsd@PrerenderUnicode{#1}%
4023   \pdfstringdef\@pdfsubject{#1}%
4024 }
4025 \define@key{Hyp}{pdfkeywords}{%
4026   \HyXeTeX@CheckUnicode
4027   \HyPsd@XeTeXBigCharstrue
4028   \HyPsd@PrerenderUnicode{#1}%
4029   \pdfstringdef\@pdfkeywords{#1}%
4030 }
4031 \define@key{Hyp}{pdftrapped}{%
4032   \lowercase{\edef\Hy@temp{#1}}%
4033   \ifx\Hy@temp\HyInfo@trapped@true
4034     \def\@pdftrapped{True}%
4035   \else
4036     \ifx\Hy@temp\HyInfo@trapped@false
4037       \def\@pdftrapped{False}%
4038     \else
4039       \ifx\Hy@temp\HyInfo@trapped@unknown
4040         \def\@pdftrapped{Unknown}%
4041       \else
4042         \ifx\Hy@temp\@empty
4043           \else
4044             \Hy@Warning{%
4045               Unsupported value '#1'\MessageBreak
4046               for option 'pdftrapped'%
4047             }%
4048           \fi
4049         \def\@pdftrapped{}%
4050       \fi
4051     \fi
4052   \fi
4053 }
4054 \def\HyInfo@trapped@true{true}
4055 \def\HyInfo@trapped@false{false}
4056 \def\HyInfo@trapped@unknown{unknown}
4057 \def\HyInfo@TrappedUnsupported{%
4058   \ifx\@pdftrapped\@empty
4059     \else
4060     \Hy@WarningNoLine{'pdftrapped' is not supported by this driver}%
4061     \gdef\HyInfo@TrappedUnsupported{}%
4062   \fi

```

```

4063 }
4064 \define@key{Hyp}{pdffinfo}{%
4065   \kvsetkeys{pdffinfo}{#1}%
4066 }
4067 \def\Hy@temp#1{%
4068   \lowercase{\Hy@temp@A{#1}}{#1}%
4069 }
4070 \def\Hy@temp@A#1#2{%
4071   \define@key{pdffinfo}{#2}{%
4072     \hypersetup{pdf#1={##1}}%
4073   }%
4074 }
4075 \Hy@temp{Title}
4076 \Hy@temp{Author}
4077 \Hy@temp{Keywords}
4078 \Hy@temp{Subject}
4079 \Hy@temp{Creator}
4080 \Hy@temp{Producer}
4081 \Hy@temp{CreationDate}
4082 \Hy@temp{ModDate}
4083 \Hy@temp{Trapped}
4084 \newif\ifHyInfo@AddonUnsupported
4085 \kv@set@family@handler{pdffinfo}{%
4086   \HyInfo@AddonHandler{#1}{#2}%
4087 }
4088 \let\HyInfo@do\relax
4089 \def\HyInfo@AddonHandler#1#2{%
4090   \ifx\kv@value\relax
4091     \Hy@Warning{%
4092       Option 'pdffinfo': ignoring key '\kv@key' without value%
4093     }%
4094   \else
4095     \EdefEscapeName\HyInfo@KeyEscaped{\kv@key}%
4096     \EdefUnescapeName\HyInfo@Key{\HyInfo@KeyEscaped}%
4097     \expandafter\ifx\csname KV@pdffinfo@\HyInfo@Key\endcsname\relax
4098       \ifHyInfo@AddonUnsupported
4099         \Hy@Warning{%
4100           This driver does not support additional\MessageBreak
4101           information entries, therefore\MessageBreak
4102           '\kv@key' is ignored%
4103         }%
4104       \else
4105         \def\HyInfo@tmp###1{%
4106           \kv@define@key{pdffinfo}{##1}{%
4107             \HyXeTeX@CheckUnicode
4108             \HyPsd@XeTeXBigCharstrue
4109             \HyPsd@PrerenderUnicode{####1}%
4110             \pdfstringdef\HyInfo@Value{####1}%
4111             \global\expandafter
4112             \let\csname HyInfo@Value@##1\endcsname
4113               \HyInfo@Value
4114           }%
4115         }%
4116         \expandafter\HyInfo@tmp\expandafter{\HyInfo@Key}%
4117         \global\expandafter
4118         \let\csname KV@pdffinfo@\HyInfo@Key\expandafter\endcsname
4119           \csname KV@pdffinfo@\HyInfo@Key\endcsname

```

```

4120     \xdef\HyInfo@AddonList{%
4121     \HyInfo@AddonList
4122     \HyInfo@do{\HyInfo@Key}%
4123     }%
4124     \kv@parse@normalized{%
4125     \HyInfo@Key={#2}%
4126     }{%
4127     \kv@processor@default{pdfinfo}%
4128     }%
4129     \fi
4130     \else
4131     \kv@parse@normalized{%
4132     \HyInfo@Key={#2}%
4133     }{%
4134     \kv@processor@default{pdfinfo}%
4135     }%
4136     \fi
4137     \fi
4138 }
4139 \def\HyInfo@GenerateAddons{%
4140 \ifHyInfo@AddonUnsupported
4141 \def\HyInfo@Addons{}%
4142 \else
4143 \begingroup
4144 \toks@{}%
4145 \def\HyInfo@do###1{%
4146 \EdefEscapeName\HyInfo@Key{##1}%
4147 \edef\x{%
4148 \toks@{%
4149 \the\toks@
4150 /\HyInfo@Key(\csname HyInfo@Value@##1\endcsname)%
4151 }%
4152 }%
4153 \x
4154 }%
4155 \HyInfo@AddonList
4156 \edef\x{\endgroup
4157 \def\noexpand\HyInfo@Addons{\the\toks@}%
4158 }%
4159 \x
4160 \fi
4161 }
4162 \global\let\HyInfo@AddonList\ltx@empty

4163 \define@key{Hyp}{pdfview}{\calculate@pdfview#1 \}
4164 \define@key{Hyp}{pdfinkmargin}{\setpdfinkmargin{#1}}
4165 \let\setpdfinkmargin@gobble
4166 \def\calculate@pdfview#1 #2\{%
4167 \def\@pdfview{#1}%
4168 \ifx\@pdfview#2\%
4169 \def\@pdfviewparams{ -32768}%
4170 \else
4171 \def\@pdfviewparams{ #2}%
4172 \fi
4173 }
4174 \begingroup\expandafter\expandafter\expandafter\endgroup
4175 \expandafter\ifx\csname numexpr\endcsname\relax
4176 \def\Hy@number#1{%

```

```

4177 \expandafter\@firstofone\expandafter{\number#1}%
4178 }%
4179 \else
4180 \def\Hy@number#1{%
4181 \the\numexpr#1\relax
4182 }%
4183 \fi
4184 \define@key{Hyp}{pdfstartpage}{%
4185 \ifx\#1\%
4186 \let\@pdfstartpage\ltx@empty
4187 \else
4188 \edef\@pdfstartpage{\Hy@number{#1}}%
4189 \fi
4190 }%
4191 \define@key{Hyp}{pdfstartview}{%
4192 \ifx\#1\%
4193 \let\@pdfstartview\ltx@empty
4194 \else
4195 \hypercalcbpdef\@pdfstartview{/#1}%
4196 \fi
4197 }
4198 \def\HyPat@NonNegativeReal/{%
4199 \ *([0-9]+\.[0-9]*|[0-9]*\.[0-9]+) *%
4200 }
4201 \define@key{Hyp}{pdfremotestartview}{%
4202 \ifx\#1\%
4203 \def\@pdfremotestartview{/Fit}%
4204 \else
4205 \hypercalcbpdef\@pdfremotestartview{#1}%
4206 \edef\@pdfremotestartview{\@pdfremotestartview}%
4207 \Hy@Match\@pdfremotestartview}{%
4208 ^{XYZ -?(null|\HyPat@NonNegativeReal/) %
4209 -?(null|\HyPat@NonNegativeReal/) %
4210 (null|\HyPat@NonNegativeReal/)|%
4211 Fit(|B| %
4212 (H|V|BH|BV) (null|\HyPat@NonNegativeReal/)|%
4213 R \HyPat@NonNegativeReal/ \HyPat@NonNegativeReal/ %
4214 \HyPat@NonNegativeReal/ \HyPat@NonNegativeReal/%
4215 )}$%
4216 }{ }{%
4217 \Hy@Warning{%
4218 Invalid value '\@pdfremotestartview'\MessageBreak
4219 of 'pdfremotestartview'\MessageBreak
4220 is replaced by 'Fit'%
4221 }%
4222 \let\@pdfremotestartview\@empty
4223 }%
4224 \ifx\@pdfremotestartview\@empty
4225 \def\@pdfremotestartview{/Fit}%
4226 \else
4227 \edef\@pdfremotestartview{/ \@pdfremotestartview}%
4228 \fi
4229 \fi
4230 }
4231 \define@key{Hyp}{pdfpagescrop}{\edef\@pdfpagescrop{#1}}
4232 \define@key{Hyp}{pdftoolbar}[true]{%
4233 \Hy@boolkey{pdftoolbar}{#1}%

```



```

4234 }
4235 \define@key{Hyp}{pdfmenubar}[true]{%
4236 \Hy@boolkey{pdfmenubar}{#1}%
4237 }
4238 \define@key{Hyp}{pdfwindowui}[true]{%
4239 \Hy@boolkey{pdfwindowui}{#1}%
4240 }
4241 \define@key{Hyp}{pdffitwindow}[true]{%
4242 \Hy@boolkey{pdffitwindow}{#1}%
4243 }
4244 \define@key{Hyp}{pdfcenterwindow}[true]{%
4245 \Hy@boolkey{pdfcenterwindow}{#1}%
4246 }
4247 \define@key{Hyp}{pdfdisplaydoctitle}[true]{%
4248 \Hy@boolkey{pdfdisplaydoctitle}{#1}%
4249 }
4250 \define@key{Hyp}{pdfa}[true]{%
4251 \Hy@boolkey{pdfa}{#1}%
4252 }
4253 \define@key{Hyp}{pdfnewwindow}[true]{%
4254 \def\Hy@temp{#1}%
4255 \ifx\Hy@temp\@empty
4256 \Hy@pdfnewwindowsetfalse
4257 \else
4258 \Hy@pdfnewwindowsettrue
4259 \Hy@boolkey{pdfnewwindow}{#1}%
4260 \fi
4261 }
4262 \def\Hy@SetNewWindow{%
4263 \ifHy@pdfnewwindowset
4264 /NewWindow %
4265 \ifHy@pdfnewwindow true\else false\fi
4266 \fi
4267 }
4268 \Hy@DefNameKey{pdfpagelayout}{%
4269 \do{SinglePage}{}%
4270 \do{OneColumn}{}%
4271 \do{TwoColumnLeft}{}%
4272 \do{TwoColumnRight}{}%
4273 \do{TwoPageLeft}{PDF 1.5}%
4274 \do{TwoPageRight}{PDF 1.5}%
4275 }
4276 \define@key{Hyp}{pdflang}{%
4277 \edef\@pdflang{#1}%
4278 \def\Hy@temp{\relax}%
4279 \ifx\@pdflang\Hy@temp
4280 \let\@pdflang\relax
4281 \fi
4282 \ifx\@pdflang\relax
4283 \else
4284 \ifx\@pdflang\ltx@empty
4285 \else

```

Test according to ABNF of RFC 3066.

```

4286 \Hy@Match\@pdflang{icase}{%
4287 ~%
4288 [a-z]{1,8}%
4289 (-[a-z0-9]{1,8})*%

```

4290 \$%
4291 }%

Test according to ABNF of RFC 5646.

```
4292     \Hy@Match\@pdflang{icase}{%  
4293     ~%  
4294     (%  
4295     % langtag  
4296     (% language  
4297     [a-z]{2,3}%  
4298     ([a-z]{3}(-[a-z]{3}){0,2})?% extlang  
4299     |[a-z]{4}% reserved for future use  
4300     |[a-z]{5,8}% registered language subtag  
4301     )%  
4302     (-[a-z]{4})?% script  
4303     (-([a-z]{2}|[0-9]{3}))?% region  
4304     (-([a-z]{5,8}|[0-9][a-z0-9]{3}))% variant  
4305     (-[0-9a-wyz](-[a-z0-9]{2,8})+)% extension  
4306     (-x(-[a-z0-9]{1,8})+)% privateuse  
4307     % privateuse  
4308     |x-([a-z0-9]{1,8})+  
4309     % grandfathered/irregular  
4310     |en-GB-oed%  
4311     |i-(ami|bnn|default|enochian|hak|klingon|lux|%  
4312     mingo|navajo|pwn|tao|tay|tsu)%  
4313     |sgn-(BE-FR|BE-NL|CH-DE)%  
4314     % grandfathered/regular  
4315     |art-lojban%  
4316     |cel-gaulish%  
4317     |no-(bok|nyn)%  
4318     |zh-(guoyu|hakka|min|min-nan|xiang)%  
4319     )%  
4320     $%  
4321     }%
```

Test for unique extensions.

```
4322     \Hy@Match{-\@pdflang}{icase}{-[a-wyz0-9]-}{%  
4323     \Hy@Match\@pdflang{icase}{~x-}{}%  
4324     % remove privateuse  
4325     \edef\Hy@temp{-\@pdflang}%  
4326     \Hy@Match\Hy@temp{icase}{-%  
4327     ~%  
4328     (%  
4329     (-[a-wyz0-9]|-[a-z0-9]{2,8})%  
4330     )%  
4331     -x-%  
4332     }%  
4333     \edef\Hy@temp{%  
4334     \expandafter\strip@prefix\pdfastmatch1%  
4335     }%  
4336     }{}%  
4337     \Hy@Match\Hy@temp{icase}{-%  
4338     (-[a-wyz0-9]-).*\ltx@backslashchar1%  
4339     }%  
4340     \Hy@Warning{%  
4341     Invalid language identifier '#1'\MessageBreak  
4342     for option 'pdflang', because it violates\MessageBreak  
4343     well-formedness defined in RFC 4646\MessageBreak
```

```

4344         by duplicate singleton subtags%
4345     }%
4346     \let\@pdflang\relax
4347 }{}%
4348 }%
4349 }{}%

```

User-assigned country codes are forbidden in language tags (RFC 3066).

```

4350 \ifx\@pdflang\relax
4351 \else
4352   \Hy@Match\@pdflang{icase}{%
4353     ~%
4354     [a-zA-Z]{2}-%
4355     (%
4356       aa|AA|%
4357       [qQ][m-zA-Z]|%
4358       [xX][a-zA-Z]|%
4359       zz|ZZ%
4360     )%
4361     (-|$)%
4362   }{%
4363     \Hy@Warning{%
4364       Invalid language identifier '#1'\MessageBreak
4365       for option 'pdflang' because of invalid country code%
4366       \MessageBreak
4367       in second subtag (RFC 3066)%
4368     }%
4369     \let\@pdflang\relax
4370   }{}%
4371 \fi
4372 }{%
4373   \Hy@Warning{%
4374     Invalid language identifier '#1'\MessageBreak
4375     for option 'pdflang', because it violates\MessageBreak
4376     well-formedness defined in RFC 5646%
4377   }%
4378   \let\@pdflang\relax
4379 }%
4380 }{%
4381   \Hy@Warning{%
4382     Invalid language identifier '#1'\MessageBreak
4383     for option 'pdflang' (RFC 3066)%
4384   }%
4385   \let\@pdflang\relax
4386 }%
4387 \fi
4388 \fi
4389 }
4390 \define@key{Hyp}{pdfpagelabels}[true]{%
4391   \Hy@boolkey{pdfpagelabels}{#1}%
4392 }
4393 \define@key{Hyp}{pdfescapeform}[true]{%
4394   \Hy@boolkey{pdfescapeform}{#1}%
4395 }

```

Default values:

```

4396 \def\@linkbordercolor{1 0 0}
4397 \def\@urlbordercolor{0 1 1}

```

```

4398 \def\@menubordercolor{1 0 0}
4399 \def\@filebordercolor{0 .5 .5}
4400 \def\@runbordercolor{0 .7 .7}
4401 \def\@citebordercolor{0 1 0}
4402 \def\@pdfhighlight{/I}
4403 \let\@pdftitle\ltx@empty
4404 \let\@pdfauthor\ltx@empty
4405 \let\@pdfproducer\relax
4406 \def\@pdfcreator{LaTeX with hyperref package}
4407 \let\@pdfcreationdate\ltx@empty
4408 \let\@pdfmoddate\ltx@empty
4409 \let\@pdfsubject\ltx@empty
4410 \let\@pdfkeywords\ltx@empty
4411 \let\@pdftrapped\ltx@empty
4412 \let\@pdfpagescrop\ltx@empty
4413 \def\@pdfstartview{/Fit}
4414 \def\@pdfremotestartview{/Fit}
4415 \def\@pdfstartpage{1}
4416 \let\@pdfprintpagerange\ltx@empty
4417 \let\@pdflang\relax
4418 \let\PDF@SetupDoc\@empty
4419 \let\PDF@FinishDoc\@empty
4420 \let\phantomsection\@empty
4421 \let\special@paper\@empty
4422 \def\HyperDestNameFilter#1{#1}
4423 \Hy@AtBeginDocument{%
4424   \begingroup
4425     \edef\x{\@ifundefined{stockheight}\paperheight\stockheight}%
4426     \dimen@=\x\relax
4427     \ifdim\dimen@>\z@
4428       \else
4429         \dimen@=11in\relax
4430         \Hy@WarningNoLine{%
4431           Height of page (\expandafter\string\x) %
4432           is invalid (\the\x),\MessageBreak
4433           using 11in%
4434         }%
4435       \fi
4436       \dimen@=0.99626401\dimen@
4437       \xdef\Hy@pageheight{\strip@pt\dimen@}%
4438     \endgroup
4439 }
4440 \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.

```

4441 \let\hyper@normalise\ExecuteOptions
4442 \let\ExecuteOptions\hypersetup
4443 \Hy@RestoreCatcodes
4444 \InputIfFileExists{hyperref.cfg}{-}{-}
4445 \Hy@SetCatcodes
4446 \let\ExecuteOptions\hyper@normalise
4447 \ifx\Hy@MaybeStopNow\relax
4448 \else
4449   \Hy@stoppeardearlytrue
4450   \expandafter\Hy@MaybeStopNow
4451 \fi

```

```
4452 \Hy@stoppeearlyfalse
```

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.

```
4453 \SetupKeyvalOptions{family=Hyp}  
4454 \DeclareLocalOptions{%  
4455   a4paper,a5paper,b5paper,letterpaper,legalpaper,executivepaper%  
4456 }
```

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

```
4457 \@ifpackagewith{hyperref}{tex4ht}{%  
4458 }{%  
4459   \@ifpackageloaded{tex4ht}{%  
4460     \PassOptionsToPackage{tex4ht}{hyperref}%  
4461   }{%  
4462     \ltx@ifundefined{HCode}{%  
4463     }{%  
4464       \begingroup  
4465         \def\Hy@pkg{tex4ht}%  
4466         \def\Hy@temp@A#1\RequirePackage[#2]#3#4\Hy@NIL{%  
4467           \def\Hy@param{#2#3}%  
4468           \ifx\Hy@param\ltx@empty  
4469             \expandafter\ltx@gobble  
4470           \else  
4471             \def\Hy@param{#3}%  
4472             \ifx\Hy@param\Hy@pkg  
4473               \PassOptionsToPackage{#2}{tex4ht}%  
4474               \expandafter\expandafter\expandafter\@gobble  
4475             \else  
4476               \expandafter\expandafter\expandafter\ltx@firstofone  
4477             \fi  
4478           \fi  
4479           {\Hy@temp@A#4\Hy@NIL}%  
4480         }%  
4481         \expandafter  
4482         \Hy@temp@A\@documentclasshook\RequirePackage[]{}\Hy@NIL  
4483       \endgroup  
4484       \PassOptionsToPackage{tex4ht}{hyperref}%  
4485     }%  
4486   }%  
4487 }
```

```
4488 \let\ReadBookmarks\relax  
4489 \ProcessKeyvalOptions{Hyp}
```

After processing options.

15.1 Package `xspace` support

```
4490 \def\Hy@xspace@end{}  
4491 \ltx@ifundefined{xspaceaddexceptions}{%  
4492   \Hy@AtBeginDocument{%  
4493     \ltx@ifundefined{xspaceaddexceptions}{%  
4494     }{%  
4495       \def\Hy@xspace@end{%  
4496         \ltx@gobble{end for xspace}%  
4497       }%  
4498       \xspaceaddexceptions{%  
4499         \Hy@xspace@end,\hyper@linkend,\hyper@anchorend
```

```

4500 }%
4501 }%
4502 }%
4503 }{%
4504 \def\Hy@xspace@end{%
4505 \ltx@gobble{end for xspace}%
4506 }%
4507 \xspaceaddeceptions{\Hy@xspace@end,\hyper@linkend,\hyper@anchorend}%
4508 }

```

15.2 Option draft

```

4509 \Hy@AtBeginDocument{%
4510 \ifHy@draft
4511 \let\hyper@@anchor\@gobble
4512 \gdef\hyper@link#1#2#3{#3\Hy@xspace@end}%
4513 \def\hyper@anchorstart#1#2{#2\Hy@xspace@end}%
4514 \def\hyper@anchorend{\Hy@xspace@end}%
4515 \let\hyper@linkstart\@gobbletwo
4516 \def\hyper@linkend{\Hy@xspace@end}%
4517 \def\hyper@linkurl#1#2{#1\Hy@xspace@end}%
4518 \def\hyper@linkfile#1#2#3{#1\Hy@xspace@end}%
4519 \def\hyper@link@{#1}#2#3#4{#4\Hy@xspace@end}%
4520 \def\Acrobatmenu#1#2{\leavevmode#2\Hy@xspace@end}%
4521 \let\PDF@SetupDoc\@empty
4522 \let\PDF@FinishDoc\@empty
4523 \let\@fifthoffive\@secondoftwo
4524 \let\@secondoffive\@secondoftwo
4525 \let\ReadBookmarks\relax
4526 \let\WriteBookmarks\relax
4527 \Hy@WarningNoLine{Draft mode on}%
4528 \fi
4529 \Hy@DisableOption{draft}%
4530 \Hy@DisableOption{nolinks}%
4531 \Hy@DisableOption{final}%
4532 }

```

15.3 PDF/A

```

4533 \Hy@DisableOption{pdfa}
4534 \ifHy@pdfa
4535 \kvsetkeys{Hyp}{pdfversion=1.4}%
4536 \Hy@DisableOption{pdfversion}%
4537 \def\Hy@Acrobatmenu#1#2{%
4538 \leavevmode
4539 \begingroup
4540 \edef\x{#1}%
4541 \@onelevel@sanitize\x
4542 \ifx\x\Hy@NextPage
4543 \let\y=Y%
4544 \else
4545 \ifx\x\Hy@PrevPage
4546 \let\y=Y%
4547 \else
4548 \ifx\x\Hy@FirstPage
4549 \let\y=Y%
4550 \else
4551 \ifx\x\Hy@LastPage
4552 \let\y=Y%

```

```

4553         \else
4554         \let\y=N%
4555         \fi
4556     \fi
4557 \fi
4558 \fi
4559 \expandafter\endgroup
4560 \ifx\y Y%
4561 \else
4562 \Hy@Error{%
4563     PDF/A: Named action ‘#1’ is not permitted%
4564 } \@ehc
4565 {#2}%
4566 \expandafter\@gobble
4567 \fi
4568 }%
4569 \def\Hy@temp#1{%
4570 \expandafter\def\csname Hy@#1\endcsname{#1}%
4571 \expandafter\@onelevel@sanitize\csname Hy@#1\endcsname
4572 }%
4573 \Hy@temp{NextPage}%
4574 \Hy@temp{PrevPage}%
4575 \Hy@temp{FirstPage}%
4576 \Hy@temp{LastPage}%
4577 \else
4578 \def\Hy@Acrobatmenu#1#2{\leavevmode}%
4579 \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.

```

4580 \Hy@nextfalse
4581 \ltx@ifundefined{spanish@sh@}{}{\Hy@nexttrue}
4582 \ltx@ifundefined{galician@sh@}{}{\Hy@nexttrue}
4583 \ltx@ifundefined{estonian@sh@}{}{\Hy@nexttrue}
4584 \ifHy@next
4585 \let\texttilde\~%
4586 \fi

4587 \def\Hy@wrapper@babel#1#2{%
4588 \begingroup
4589 \Hy@safe@activetrue
4590 \set@display@protect
4591 \edef\x{#2}%
4592 \@onelevel@sanitize\x
4593 \toks@{#1}%
4594 \edef\x{\endgroup\the\toks@{\x}}%
4595 \x
4596 }
4597 \def\Hy@WrapperDef#1{%
4598 \begingroup
4599 \escapechar=\m@ne
4600 \xdef\Hy@gtemp{%
4601 \expandafter\noexpand\csname HyWrap@string#1\endcsname
4602 }%
4603 \endgroup

```

```

4604 \edef#1{%
4605   \noexpand\Hy@wrapper@babel
4606   \expandafter\noexpand\Hy@gtemp
4607 }%
4608 \expandafter\def\Hy@gtemp
4609 }

4610 \ifHy@hyperfigures
4611 \Hy@Info{Hyper figures ON}%
4612 \else
4613 \Hy@Info{Hyper figures OFF}%
4614 \fi
4615 \ifHy@nesting
4616 \Hy@Info{Link nesting ON}%
4617 \else
4618 \Hy@Info{Link nesting OFF}%
4619 \fi
4620 \ifHy@hyperindex
4621 \Hy@Info{Hyper index ON}%
4622 \else
4623 \Hy@Info{Hyper index OFF}%
4624 \fi
4625 \ifHy@plainpages
4626 \Hy@Info{Plain pages ON}%
4627 \else
4628 \Hy@Info{Plain pages OFF}%
4629 \fi
4630 \ifHy@backref
4631 \Hy@Info{Backreferencing ON}%
4632 \else
4633 \Hy@Info{Backreferencing OFF}%
4634 \fi
4635 \ifHy@typexml
4636 \Hy@AtEndOfPackage{%
4637   \RequirePackage{color}%
4638   \RequirePackage{nameref}[2012/07/28]%
4639 }%
4640 \fi
4641 \Hy@DisableOption{typexml}
4642 \ifHy@implicit
4643 \Hy@InfoNoLine{Implicit mode ON; LaTeX internals redefined}%
4644 \else
4645 \Hy@InfoNoLine{Implicit mode OFF; no redefinition of LaTeX internals}%
4646 \def\MaybeStopEarly{%
4647   \Hy@Message{Stopped early}%
4648   \Hy@AtBeginDocument{%
4649     \PDF@FinishDoc
4650     \gdef\PDF@FinishDoc{}}%
4651   }%
4652 \endinput
4653 }%
4654 \Hy@AtBeginDocument{%
4655   \let\autoref\ref
4656   \let\autopageref\pageref
4657   \ifx\@pdfpagemode\@empty
4658     \gdef\@pdfpagemode{UseNone}%
4659   \fi
4660   \global\Hy@backreffalse

```



```

4661 }%
4662 \Hy@AtEndOfPackage{%
4663   \global\let\ReadBookmarks\relax
4664   \global\let\WriteBookmarks\relax
4665 }%
4666 \fi
4667 \Hy@DisableOption{implicit}

```

15.4.1 Driver loading

```

4668 \Hy@AtEndOfPackage{%
4669   \ifpackageloaded{tex4ht}{%
4670     \def\Hy@driver{htex4ht}%
4671     \Hy@texhttrue
4672   }-%

```

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.

```

4673   \ifx\Hy@driver\@empty
4674   \else
4675     \def\Hy@temp{hpdtex}%
4676     \ifpdf
4677       \ifx\Hy@driver\Hy@temp
4678       \else
4679         \Hy@WarningNoLine{%
4680           Wrong driver ‘\Hy@driver.def’;\MessageBreak
4681           pdfTeX is running in PDF mode.\MessageBreak
4682           Forcing driver ‘\Hy@temp.def’%
4683         }%
4684         \let\Hy@driver\Hy@temp
4685       \fi
4686     \else
4687       \ifx\Hy@driver\Hy@temp
4688       \Hy@WarningNoLine{%
4689         Wrong driver ‘\Hy@driver.def’;\MessageBreak
4690         pdfTeX is not running in PDF mode.\MessageBreak
4691         Using default driver%
4692       }%
4693       \let\Hy@driver\@empty
4694     \fi
4695   \fi
4696 \fi
4697 \ifHy@texht
4698 \else
4699   \ifx\Hy@driver\@empty
4700   \else
4701     \def\Hy@temp{hxetex}%
4702     \ifxetex
4703       \ifx\Hy@driver\Hy@temp
4704       \else
4705         \Hy@WarningNoLine{%
4706           Wrong driver ‘\Hy@driver.def’;\MessageBreak
4707           XeTeX is running.\MessageBreak
4708           Forcing driver ‘\Hy@temp.def’ for XeTeX%
4709         }%
4710         \let\Hy@driver\Hy@temp
4711       \fi
4712     \fi

```

```

4713 \fi
4714 \fi
4715 \ifx\Hy@driver\@empty
4716 \else
4717 \def\Hy@temp{hvtexhtm}%
4718 \ifvtexhtml
4719 \ifx\Hy@driver\Hy@temp
4720 \else
4721 \Hy@WarningNoLine{%
4722   Wrong driver '\Hy@driver.def';\MessageBreak
4723   VTeX is running in HTML mode.\MessageBreak
4724   Forcing driver '\Hy@temp.def'%
4725 }%
4726 \let\Hy@driver\Hy@temp
4727 \fi
4728 \else
4729 \ifx\Hy@driver\Hy@temp
4730 \Hy@WarningNoLine{%
4731   Wrong driver '\Hy@driver.def';\MessageBreak
4732   VTeX is not running in HTML mode.\MessageBreak
4733   Using default driver%
4734 }%
4735 \let\Hy@driver\@empty
4736 \fi
4737 \fi
4738 \fi

```

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

```

4739 \let\HyOpt@DriverType\ltx@empty
4740 \ifx\HyOpt@CustomDriver\ltx@empty
4741 \ifx\Hy@driver\@empty
4742 \def\HyOpt@DriverType{ (autodetected)}%
4743 \providecommand*{\Hy@defaultdriver}{hypertex}%
4744 \ifpdf
4745 \def\Hy@driver{hpdfTeX}%
4746 \else
4747 \ifxetex
4748 \def\Hy@driver{hxetex}%
4749 \else
4750 \ifvtexhtml
4751 \def\Hy@driver{hvtexhtm}%
4752 \def\MaybeStopEarly{%
4753 \Hy@Message{Stopped early}%
4754 \Hy@AtBeginDocument{%
4755 \PDF@FinishDoc
4756 \gdef\PDF@FinishDoc{}}%
4757 }%
4758 \endinput
4759 }%
4760 \else
4761 \ifvtexpdf
4762 \def\Hy@driver{hvtex}%
4763 \else
4764 \ifvtexps
4765 \def\Hy@driver{hvtex}%
4766 \else
4767 \ifx\HyOpt@DriverFallback\ltx@empty
4768 \let\Hy@driver\Hy@defaultdriver

```

```

4769         \def\HyOpt@DriverType{ (default)}%
4770     \else
4771     \begingroup
4772         \toks@\expandafter{\HyOpt@DriverFallback}%
4773         \edef\x{\endgroup
4774             \noexpand\kvsetkeys{Hyp}{\the\toks@}}%
4775         }%
4776     \x
4777     \ifx\Hy@driver\ltx@empty
4778         \let\Hy@driver\Hy@defaultdriver
4779         \def\HyOpt@DriverType{ (default)}%
4780     \else
4781         \def\HyOpt@DriverType{ (fallback)}%
4782     \fi
4783 \fi
4784 \fi
4785 \fi
4786 \fi
4787 \fi
4788 \fi
4789 \ifx\Hy@driver\Hy@defaultdriver
4790     \def\Hy@temp{hdviwind}%
4791     \ifx\Hy@temp\Hy@driver
4792         \kvsetkeys{Hyp}{colorlinks}%
4793         \PassOptionsToPackage{dviwindo}{color}%
4794     \fi
4795 \fi
4796 \fi
4797 \else
4798     \def\HyOpt@DriverType{ (custom)}%
4799     \let\Hy@driver\HyOpt@CustomDriver
4800 \fi
4801 \Hy@Message{Driver\HyOpt@DriverType: \Hy@driver}%
4802 \chardef\Hy@VersionChecked=0 %
4803 \input{\Hy@driver.def}%
4804 \ifcase\Hy@VersionChecked
4805     \Hy@VersionCheck{\Hy@driver.def}%
4806 \fi
4807 \let\@unprocessedoptions\relax
4808 \Hy@RestoreCatcodes
4809 \Hy@DisableOption{tex4ht}%
4810 \Hy@DisableOption{pdftex}%
4811 \Hy@DisableOption{nativepdf}%
4812 \Hy@DisableOption{dvipdfm}%
4813 \Hy@DisableOption{dvipdfmx}%
4814 \Hy@DisableOption{dvipdfmx-outline-open}%
4815 \Hy@DisableOption{pdfmark}%
4816 \Hy@DisableOption{dvips}%
4817 \Hy@DisableOption{hypertex}%
4818 \Hy@DisableOption{vtex}%
4819 \Hy@DisableOption{vtexpdfmark}%
4820 \Hy@DisableOption{dviwindo}%
4821 \Hy@DisableOption{dvipsone}%
4822 \Hy@DisableOption{textures}%
4823 \Hy@DisableOption{latex2html}%
4824 \Hy@DisableOption{ps2pdf}%
4825 \Hy@DisableOption{xetex}%

```

```

4826 \Hy@DisableOption{driverfallback}%
4827 \Hy@DisableOption{customdriver}%
4828 \Hy@DisableOption{pdfversion}%
4829 }

```

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.

```

4830 \newif\ifHy@DvipdfmxOutlineOpen
4831 \ifxetex
4832 \ifdim\number\XeTeXversion\XeTeXrevision in<0.9995in %
4833 \else
4834 \chardef\SpecialDvipdfmxOutlineOpen\@ne
4835 \Hy@DvipdfmxOutlineOpenttrue
4836 \fi
4837 \fi
4838 \begingroup\expandafter\expandafter\expandafter\endgroup
4839 \expandafter\ifx\csname SpecialDvipdfmxOutlineOpen\endcsname\relax
4840 \else
4841 \ifnum\SpecialDvipdfmxOutlineOpen>\z@
4842 \Hy@DvipdfmxOutlineOpenttrue
4843 \fi
4844 \fi

```

15.4.2 Bookmarks

```

4845 \def\WriteBookmarks{0}
4846 \def\@bookmarkopenstatus#1{%
4847 \ifHy@bookmarksopen

```

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

```

4848 \ifnum#1<\expandafter\@firstofone\expandafter
4849 \{\number\@bookmarkopenlevel} % explicit space
4850 \else
4851 -%
4852 \fi
4853 \else
4854 -%
4855 \fi
4856 }
4857 \ifHy@bookmarks
4858 \Hy@Info{Bookmarks ON}%
4859 \ifx\@pdfpagemode\@empty
4860 \def\@pdfpagemode{UseOutlines}%
4861 \fi
4862 \else
4863 \let\@bookmarkopenstatus\ltx@gobble
4864 \Hy@Info{Bookmarks OFF}%
4865 \Hy@AtEndOfPackage{%
4866 \global\let\ReadBookmarks\relax
4867 \global\let\WriteBookmarks\relax
4868 }%
4869 \ifx\@pdfpagemode\@empty
4870 \def\@pdfpagemode{UseNone}%
4871 \fi
4872 \fi
4873 \Hy@DisableOption{bookmarks}

```

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

```

4874 \def\Hy@CatcodeWrapper#1{%
4875   \let\Hy@endWrap\ltx@empty
4876   \def\TMP@EnsureCode###1##2{%
4877     \edef\Hy@endWrap{%
4878       \Hy@endWrap
4879       \catcode###1 \the\catcode###1\relax
4880     }%
4881     \catcode###1 ##2\relax
4882   }%
4883   \TMP@EnsureCode{10}{12}% ^^J
4884   \TMP@EnsureCode{33}{12}% !
4885   \TMP@EnsureCode{34}{12}% "
4886   \TMP@EnsureCode{36}{3}% $(math)
4887   \TMP@EnsureCode{38}{4}% & (alignment)
4888   \TMP@EnsureCode{39}{12}% '
4889   \TMP@EnsureCode{40}{12}% (
4890   \TMP@EnsureCode{41}{12}% )
4891   \TMP@EnsureCode{42}{12}% *
4892   \TMP@EnsureCode{43}{12}% +
4893   \TMP@EnsureCode{44}{12}% ,
4894   \TMP@EnsureCode{45}{12}% -
4895   \TMP@EnsureCode{46}{12}% .
4896   \TMP@EnsureCode{47}{12}% /
4897   \TMP@EnsureCode{58}{12}% :
4898   \TMP@EnsureCode{59}{12}% ;
4899   \TMP@EnsureCode{60}{12}% <
4900   \TMP@EnsureCode{61}{12}% =
4901   \TMP@EnsureCode{62}{12}% >
4902   \TMP@EnsureCode{63}{12}% ?
4903   \TMP@EnsureCode{91}{12}% [
4904   \TMP@EnsureCode{93}{12}% ]
4905   \TMP@EnsureCode{94}{7}% ^ (superscript)
4906   \TMP@EnsureCode{95}{8}% _ (subscript)
4907   \TMP@EnsureCode{96}{12}% `
4908   \TMP@EnsureCode{124}{12}% |
4909   \TMP@EnsureCode{126}{13}% ~ (active)
4910   ##1\relax
4911   \Hy@endWrap
4912 }

```

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

```

4913 \Hy@AtBeginDocument{%
4914   \ifHy@ocgcolorlinks
4915     \kvsetkeys{Hyp}{colorlinks}%
4916     \ifHy@pdfa
4917       \Hy@Warning{%
4918         PDF/A: Optional Content Groups are prohibited,\MessageBreak
4919         using 'colorlinks' instead of 'ocgcolorlinks'%
4920       }%
4921     \Hy@ocgcolorlinksfalse
4922   \fi
4923 \fi
4924 \ifHy@ocgcolorlinks
4925 \else
4926   \Hy@DisableOption{ocgcolorlinks}%
4927 \fi
4928 \ifHy@colorlinks

```

```

4929 \def\@pdfborder{0 0 0}%
4930 \let\@pdfborderstyle\@empty
4931 \ifHy@typexml
4932 \else
4933 \Hy@CatcodeWrapper{%
4934 \RequirePackage{color}%
4935 }%
4936 \fi
4937 \def\Hy@colorlink#1{%
4938 \begingroup
4939 \HyColor@UseColor#1%
4940 }%
4941 \def\Hy@endcolorlink{\endgroup}%
4942 \Hy@Info{Link coloring ON}%
4943 \else
4944 \ifHy@frenchlinks
4945 \def\Hy@colorlink#1{\begingroup\fontshape{sc}\selectfont}%
4946 \def\Hy@endcolorlink{\endgroup}%
4947 \Hy@Info{French linking ON}%
4948 \else
for grouping consistency:
4949 \def\Hy@colorlink#1{\begingroup}%
4950 \def\Hy@endcolorlink{\endgroup}%
4951 \Hy@Info{Link coloring OFF}%
4952 \fi
4953 \fi
4954 \Hy@DisableOption{colorlinks}%
4955 \Hy@DisableOption{frenchlinks}%
4956 \ifHy@texht
4957 \long\def\@firstoffive#1#2#3#4#5{#1}%
4958 \long\def\@secondoffive#1#2#3#4#5{#2}%
4959 \long\def\@thirdoffive#1#2#3#4#5{#3}%
4960 \long\def\@fourthoffive#1#2#3#4#5{#4}%
4961 \long\def\@fifthoffive#1#2#3#4#5{#5}%
4962 \providecommand*\@safe@activetrue{}%
4963 \providecommand*\@safe@activesfalse{}%
4964 \def\T@ref#1{%
4965 \Hy@safe@activetrue
4966 \expandafter\@setref\csname r@#1\endcsname\@firstoffive{#1}%
4967 \Hy@safe@activesfalse
4968 }%
4969 \def\T@pageref#1{%
4970 \Hy@safe@activetrue
4971 \expandafter\@setref\csname r@#1\endcsname\@secondoffive{#1}%
4972 \Hy@safe@activesfalse
4973 }%
4974 \else
4975 \ifHy@typexml
4976 \else
4977 \Hy@CatcodeWrapper{%
4978 \RequirePackage{nameref}[2012/07/28]%
4979 }%
4980 \fi
4981 \fi
4982 \DeclareRobustCommand\ref{%
4983 \@ifstar\@refstar\T@ref
4984 }%

```

```

4985 \DeclareRobustCommand\pageref{%
4986   \ifstar\@pagerefstar\T@pageref
4987 }%
4988 % \ifclassloaded{memoir}{%
4989 %   \ltx@ifundefined{@mem@titlerefnoLink}\ltx@secondoftwo{%
4990 %     \ltx@ifundefined{@mem@titleref}\ltx@secondoftwo\ltx@firstoftwo
4991 %   }%
4992 % } \ltx@secondoftwo
4993 % {%
4994 %   \DeclareRobustCommand*{\nameref}{%
4995 %     \ifstar\@mem@titlerefnoLink\@mem@titleref
4996 %   }%
4997 % }{%
4998 \DeclareRobustCommand*{\nameref}{%
4999   \ifstar\@namerefstar\T@nameref
5000 }%
5001 % }%
5002 }
5003 \Hy@AtBeginDocument{%
5004   \ifHy@texht
5005   \else
5006     \Hy@CatcodeWrapper\ReadBookmarks
5007   \fi
5008 }
5009 \ifHy@backref
5010 \RequirePackage{backref}%
5011 \else
5012 \let\Hy@backout\@gobble
5013 \fi
5014 \Hy@DisableOption{backref}
5015 \Hy@DisableOption{pagebackref}
5016 \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`.

```

5017 \begingroup
5018 \endlinechar=-1 %
5019 \catcode'\^^A=14 %
5020 \catcode'\^^M\active
5021 \catcode'\%\active
5022 \catcode'\#\active
5023 \catcode'\_\active
5024 \catcode'\$\active
5025 \catcode'\&\active
5026 \gdef\hyper@normalise{^^A
5027 \begingroup
5028 \catcode'\^^M\active
5029 \def^^M{ }^^A
5030 \catcode'\%\active

```

```

5031 \let%\@percentchar
5032 \let%\%\@percentchar
5033 \catcode'\#\active
5034 \def#{\hyper@hash}^^A
5035 \def#\{\hyper@hash}^^A
5036 \@makeother\&^^A
5037 \edef&{\string&}^^A
5038 \edef\&{\string&}^^A
5039 \edef\textunderscore{\string_}^^A
5040 \let\_ \textunderscore
5041 \catcode'\_ \active
5042 \let\_ \textunderscore
5043 \let~\hyper@tilde
5044 \let\~\hyper@tilde
5045 \let\textasciitilde\hyper@tilde
5046 \let\\\@backslashchar
5047 \edef$\string$}^^A
5048 \Hy@safe@activestrue
5049 \hyper@n@rmalise
5050 }^^A
5051 \catcode'\#=6 ^^A
5052 \gdef\Hy@ActiveCarriageReturn{^^M}^^A
5053 \gdef\hyper@n@rmalise#1#2{^^A
5054 \def\Hy@tempa{#2}^^A
5055 \ifx\Hy@tempa\Hy@ActiveCarriageReturn
5056 \ltx@ReturnAfterElseFi{^^A
5057 \hyper@@normalise{#1}^^A
5058 }^^A
5059 \else
5060 \ltx@ReturnAfterFi{^^A
5061 \hyper@@normalise{#1}{#2}^^A
5062 }^^A
5063 \fi
5064 }^^A
5065 \gdef\hyper@@normalise#1#2{^^A
5066 \edef\Hy@tempa{^^A
5067 \endgroup
5068 \noexpand#1{\Hy@RemovePercentCr#2%^^M\@nil}^^A
5069 }^^A
5070 \Hy@tempa
5071 }^^A
5072 \gdef\Hy@RemovePercentCr#1%^^M#2\@nil{^^A
5073 #1^^A
5074 \ifx\limits#2\limits
5075 \else
5076 \ltx@ReturnAfterFi{^^A
5077 \Hy@RemovePercentCr #2\@nil
5078 }^^A
5079 \fi
5080 }^^A
5081 \endgroup
5082 \providecommand*\hyper@chars{%
5083 \let\#\hyper@hash
5084 \let%\%\@percentchar
5085 \Hy@safe@activestrue
5086 }
5087 \def\hyperlink#1#2{%

```



```

5088 \hyper@@link@{#1}{#2}%
5089 }

5090 \def\Hy@VerboseLinkStart#1#2{%
5091 \ifHy@verbose
5092 \begingroup
5093 \Hy@safe@activestruel
5094 \xdef\Hy@VerboseGlobalTemp{(#1) '#2'}%
5095 \Hy@Info{Reference \Hy@VerboseGlobalTemp}%
5096 \xdef\Hy@VerboseGlobalTemp{%
5097 \Hy@VerboseGlobalTemp, %
5098 line \the\inputlineno
5099 }%
5100 \endgroup
5101 \let\Hy@VerboseLinkInfo\Hy@VerboseGlobalTemp
5102 \@onelevel@sanitize\Hy@VerboseLinkInfo
5103 \fi
5104 }

5105 \def\Hy@VerboseLinkInfo{<VerboseLinkInfo>}
5106 \def\Hy@VerboseLinkStop{%
5107 \ifHy@verbose
5108 \begingroup
5109 \edef\x{\endgroup
5110 \write\m@ne{%
5111 Package 'hyperref' Info: %
5112 End of reference \Hy@VerboseLinkInfo.%
5113 }%
5114 }%
5115 \x
5116 \fi
5117 }

5118 \def\Hy@VerboseAnchor#1{%
5119 \ifHy@verbose
5120 \begingroup
5121 \Hy@safe@activestruel
5122 \Hy@Info{Anchor '\HyperDestNameFilter{#1}'}%
5123 \endgroup
5124 \fi
5125 }

5126 \def\Hy@AllowHyphens{%
5127 \relax
5128 \ifhmode
5129 \penalty\@M
5130 \hskip\z@skip
5131 \fi
5132 }

5133 \DeclareRobustCommand*\href[1][]{%
5134 \begingroup
5135 \setkeys{href}{#1}%
5136 \@ifnextchar\bgroup\Hy@href{\hyper@normalise\href@}%
5137 }
5138 \def\Hy@href#1{%
5139 \hyper@normalise\href@
5140 }
5141 \begingroup
5142 \catcode'\$=6 %
5143 \catcode'\#=12 %

```

```

5144 \gdef\href@\$1{\expandafter\href@split$1###\}%
5145 \gdef\href@split$1##$2##$3\\$4{%
5146 \hyper@link{$1}{$2}{$4}%
5147 \endgroup
5148 }%
5149 \endgroup

```

Option ‘page’.

```

5150 \define@key{href}{page}{%
5151 \def\Hy@href@page{#1}%
5152 }
5153 \let\Hy@href@page\@empty
5154 \newcount\c@Hy@tempcnt
5155 \def\theHy@tempcnt{\the\c@Hy@tempcnt}
5156 \def\Hy@MakeRemoteAction{%
5157 \ifx\Hy@href@page\@empty
5158 \def\Hy@href@page{0}%
5159 \else
5160 \setcounter{Hy@tempcnt}{\Hy@href@page}%
5161 \ifnum\c@Hy@tempcnt<\@ne
5162 \Hy@Warning{%
5163 Invalid page number (\theHy@tempcnt)\MessageBreak
5164 for remote PDF file.\MessageBreak
5165 Using page 1%
5166 }%
5167 \def\Hy@href@page{0}%
5168 \else
5169 \global\advance\c@Hy@tempcnt\m@ne
5170 \edef\Hy@href@page{\theHy@tempcnt}%
5171 \fi
5172 \fi

```

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.

```

5173 \ifx\Hy@href@nextactionraw\@empty
5174 \else
5175 \Hy@pdfnewwindowsettrue
5176 \Hy@pdfnewwindowtrue
5177 \fi
5178 }

```

Option ‘pdfremotestartview’.

```

5179 \define@key{href}{pdfremotestartview}{%
5180 \setkeys{Hyp}{pdfremotestartview={#1}}%
5181 }

```

Option ‘pdfnewwindow’.

```

5182 \let\KV@href@pdfnewwindow\KV@Hyp@pdfnewwindow
5183 \let\KV@href@pdfnewwindow@default\KV@Hyp@pdfnewwindow@default

```

Option ‘ismap’.

```

5184 \newif\ifHy@href@ismap
5185 \define@key{href}{ismap}[true]{%
5186 \ltx@ifundefined{Hy@href@ismap#1}{%
5187 \Hy@Error{%
5188 Invalid value (#1) for key ‘ismap’.\MessageBreak
5189 Permitted values are ‘true’ or ‘false’.\MessageBreak
5190 Ignoring ‘ismap’%
5191 }\@ehc

```

```

5192 }{%
5193   \csname Hy@href@ismap#1\endcsname
5194 }%
5195 }

```

Option ‘nextactionraw’.

```

5196 \let\Hy@href@nextactionraw\@empty
5197 \define@key{href}{nextactionraw}{%
5198   \edef\Hy@href@nextactionraw{#1}%
5199   \ifx\Hy@href@nextactionraw\@empty
5200     \else
5201       \Hy@Match\Hy@href@nextactionraw}{%
5202         ~(\HyPat@ObjRef/|<<.*[/S[ /.+>>|)%
5203         \[( ?\HyPat@ObjRef/|<<.*[/S[ /.+>>)+ ?)]$%
5204       }{-%
5205         \Hy@Warning{Invalid value for ‘nextactionraw’:\MessageBreak
5206           \Hy@href@nextactionraw\MessageBreak
5207           The action is discarded%
5208         }%
5209       }%
5210     \ifx\Hy@href@nextactionraw\@empty
5211       \else
5212         \edef\Hy@href@nextactionraw{/Next \Hy@href@nextactionraw}%
5213       \fi
5214     \fi
5215 }
5216 \def\HyPat@ObjRef/{.+}

```

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

```

5217 \RequirePackage{url}
5218 \let\HyOrg@url\url
5219 \def\Hurl{\begingroup \Url}
5220 \DeclareRobustCommand*\nolinkurl{\hyper@normalise\nolinkurl@}
5221 \def\nolinkurl@#1{\Hurl{#1}}
5222 \DeclareRobustCommand*\url{\hyper@normalise\url@}
5223 \def\url@#1{\hyper@linkurl{\Hurl{#1}}{#1}}
5224 \DeclareRobustCommand*\hyperimage{\hyper@normalise\hyper@image}
5225 \providecommand\hyper@image[2]{#2}
5226 \def\hypertarget#1#2{%
5227   \ifHy@nesting
5228     \hyper@@anchor{#1}{#2}%
5229   \else
5230     \hyper@@anchor{#1}{\relax}#2%
5231   \fi
5232 }

```

`\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.

```

5233 \DeclareRobustCommand*\hyperref{%
5234   \@ifnextchar{\Hy@babelnormalise\label@hyperref}\@hyperref
5235 }
5236 \def\Hy@babelnormalise#1[#2]{%

```

```

5237 \begingroup
5238 \Hy@safe@activestru
5239 \edef\Hy@tempa{%
5240   \endgroup
5241   \noexpand#1{#2}%
5242 }%
5243 \Hy@tempa
5244 }
5245 \def\@hyperref{\hyper@normalise\@hyperref}
5246 \def\@hyperref#1#2#3{%
5247   \edef\ref@one{\ifx\#2\else#2.\fi#3}%
5248   \expandafter\tryhyper@link\ref@one\{#1}%
5249 }
5250 \def\tryhyper@link#1\#2{%
5251   \hyper@@link{#2}{#1}%
5252 }

5253 \def\hyperdef{\@ifnextchar{\label@hyperdef}{\@hyperdef}}
5254 \def\@hyperdef#1#2#3{%, category, name, text
5255   \ifx\#1\%
5256     \def\Hy@AnchorName{#2}%
5257   \else
5258     \def\Hy@AnchorName{#1.#2}%
5259   \fi
5260   \ifHy@nesting
5261     \expandafter\hyper@@anchor\expandafter{\Hy@AnchorName}{#3}%
5262   \else
5263     \expandafter\hyper@@anchor\expandafter{\Hy@AnchorName}{\relax}#3%
5264   \fi
5265 }

```

We also have a need to give a $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ *label* to a hyper reference, to ease the pain of referring to it later.

```

5266 \def\label@hyperref[#1]{%
5267   \expandafter\label@@hyperref\csname r@#1\endcsname{#1}%
5268 }%
5269 \def\label@@hyperref#1#2#3{%
5270   \ifx#1\relax
5271     \protect\G@refundefinedtrue
5272     \@latex@warning{%
5273       Hyper reference ‘#2’ on page \thepage \space undefined%
5274     }%
5275     \begingroup
5276     #3%
5277     \endgroup
5278   \else
5279     \hyper@@link{\expandafter\@fifthoffive#1}%
5280     {\expandafter\@fourthoffive#1\@empty\@empty}{#3}%
5281   \fi
5282 }
5283 \def\label@hyperdef[#1]#2#3#4{% label name, category, name,
5284   % anchor text
5285   \@bsphack
5286   \ifx\#2\%
5287     \def\Hy@AnchorName{#3}%
5288   \else
5289     \def\Hy@AnchorName{#2.#3}%
5290   \fi

```

```

5291 \if@filesw
5292   \protected@write\@auxout{}{%
5293     \string\newlabel{#1}{-}{-}{\Hy@AnchorName}{-}}%
5294   }%
5295 \fi
5296 \@esphack
5297 \ifHy@nesting
5298   \expandafter\hyper@@anchor\expandafter{\Hy@AnchorName}{#4}%
5299 \else
5300   \expandafter\hyper@@anchor\expandafter{\Hy@AnchorName}{\relax}#4%
5301 \fi
5302 }

```

16.1 Link box support for XeTeX

```

5303 \newdimen\XeTeXLinkMargin
5304 \setlength{\XeTeXLinkMargin}{2pt}
5305 \ifxetex
5306   \font\XeTeXLink@font=pzdr at 1sp\relax
5307   \newcommand*\XeTeXLink@space{%
5308     \begingroup
5309       \XeTeXLink@font
5310       \@xxxii
5311     \endgroup
5312   }%
5313   \newcommand{\XeTeXLinkBox}[1]{%
5314     \begingroup
5315       \leavevmode
5316       \sbox\z@{#1}%
5317       \begingroup
5318         \dimen@=\dp\z@
5319         \advance\dimen@\XeTeXLinkMargin
5320         \setbox\tw@=\llap{%
5321           \hb@xt@\XeTeXLinkMargin{%
5322             \lower\dimen@\hbox{\XeTeXLink@space}%
5323             \hss
5324           }%
5325         }%
5326         \dp\tw@=\dp\z@
5327         \ht\tw@=\ht\z@
5328         \copy\tw@
5329       \endgroup
5330     \copy\z@
5331     \dimen@=\ht\z@
5332     \advance\dimen@\XeTeXLinkMargin
5333     \setbox\tw@=\rlap{%
5334       \hb@xt@\XeTeXLinkMargin{%
5335         \hss
5336         \raise\dimen@\hbox{\XeTeXLink@space}%
5337       }%
5338     }%
5339     \dp\tw@=\dp\z@
5340     \ht\tw@=\ht\z@
5341     \copy\tw@
5342   \endgroup
5343 }%
5344 \else

```

```

5345 \newcommand*{\XeTeXLinkBox}[1]{%
5346   \begingroup
5347   \leavevmode
5348   \sbox\z@{#1}%
5349   \copy\z@
5350   \endgroup
5351 }%
5352 \fi

```

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.

```

5353 \def\hyper@@link{\let\Hy@reserved@a\relax
5354   \@ifnextchar{\hyper@link@}{\hyper@link@[link]}%
5355 }
5356 % #1: type
5357 % #2: URL
5358 % #3: destination name
5359 % #4: text
5360 \def\hyper@link@[#1]#2#3#4{%
5361   \ltx@ifempty{#4}{% link text
5362     \Hy@Warning{Suppressing empty link}%
5363   }{%
5364     \begingroup
5365     \protected@edef\Hy@tempa{#2}%
5366     \edef\Hy@tempb{#3}%
5367     \ifx\Hy@tempa\ltx@empty
5368       \ifx\Hy@tempb\ltx@empty
5369         \Hy@Warning{Suppressing link with empty target}%
5370         \toks@{%
5371           \endgroup
5372           \ltx@secondoftwo
5373         }%
5374       \else
5375         \toks@{%
5376           \endgroup
5377           \hyper@link{#1}%
5378         }%
5379       \fi
5380     \else
5381       \toks@{%
5382         \endgroup
5383         \expandafter\hyper@readexternallink#2\{\#1}%
5384       }%
5385     \fi
5386     \Hy@safe@activesfalse
5387     \toks@\expandafter{%
5388       \the\expandafter\toks@
5389       \expandafter{\Hy@tempb}{#4}%
5390     }%
5391     \the\toks@
5392   }%
5393 }

```

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.

```

5394 \def\hyper@readexternallink#1\|#2#3#4{%
5395   \begingroup
5396     \let\\\relax
5397   \expandafter\endgroup
5398   \expandafter\@hyper@\@readexternallink#1\|#2}{#3}{#4}%
5399 }
5400 \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.

```

5401   \@hyper@readexternallink{#2}{#3}{#4}#1::\#{#1}%
5402 }

```

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

```

5403 \def\@pdftempwordfile{file}%
5404 \def\@pdftempwordrun{run}%
5405 \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:

```

5406   \ifx\|#6\|%
5407     \@hyper@linkfile file:#7\|#3}{#2}{#7}%
5408   \else
5409     \ifx\|#4\|%
5410       \@hyper@linkfile file:#7\|#3}{#2}{#7}%
5411     \else

```

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

```

5412     \def\@pdftempa{#4}%
5413     \ifx\@pdftempa\@pdftempwordfile
5414       \@hyper@linkfile#7\|#3}{#2}{#7}%
5415     \else

```

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

```

5416     \ifx\@pdftempa\@pdftempwordrun
5417       \ifHy@pdfa
5418         \Hy@Error{%
5419           PDF/A: Launch action is prohibited%
5420         }\@ehc
5421     \begingroup

```

```

5422         \leavevmode
5423         #2%
5424     \endgroup
5425     \else
5426         \@hyper@launch#7\{\#3}\#2}%
5427     \fi
5428     \else

```

otherwise its a URL

```

5429         \hyper@linkurl{\#3}\#7\ifx\#2\else\hyper@hash#2\fi}%
5430     \fi
5431     \fi
5432     \fi
5433     \fi
5434 }

```

By default, turn run: into file:

```

5435 \def\@hyper@launch run:#1\#2#3{% filename, anchor text, linkname
5436     \hyper@linkurl{\#2}\#3}%
5437     \Hy@linkfileprefix
5438     #1%
5439     \ifx\#3\%
5440     \else
5441         \hyper@hash
5442         #3%
5443     \fi
5444 }%
5445 }

```

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

```

5446 \def\@hyper@linkfile file:#1\#2#3#4{%
5447     %file url,link string, name, original uri
5448     \filename@parse{\#1}\#2}%
5449     \ifx\filename@ext\relax
5450     \edef\filename@ext{\XR@ext}%
5451     \fi
5452     \def\use@file{\filename@area\filename@base.\filename@ext}%
5453     \Hy@ifStringEndsWith\filename@ext\XR@ext{%
5454         \hyper@linkfile{\#2}\use@file{\#3}\#4}%
5455     }%
5456     \ifx\@baseurl\@empty
5457         \hyper@linkurl{\#2}\#3}%
5458     #4\ifx\#3\else\hyper@hash#3\fi
5459     }%
5460     \else
5461         \hyper@linkurl{\#2}\use@file\ifx\#3\else\hyper@hash#3\fi}%
5462     \fi
5463 }%
5464 }

```

```

5465 \def\Hy@ifStringEndsWith#1#2{%
5466     \begingroup
5467     \edef\x{\#1}\#2}%
5468     \@onelevel@sanitize\x
5469     \edef\y{\.x}\.y}%
5470     \edef\y{\#2}\#1}%
5471     \@onelevel@sanitize\y
5472     \edef\y{\.y}\.x}%

```



```

5473 \expandafter\def\expandafter\z\expandafter##\expandafter1\y##2\@nil{%
5474 \endgroup
5475 \ifx\relax##2\relax
5476 \expandafter\ltx@secondoftwo
5477 \else
5478 \expandafter\ltx@firstoftwo
5479 \fi
5480 }%
5481 \expandafter\expandafter\expandafter\z\expandafter\x\y\@nil
5482 }

5483 \def\Hy@StringLocalhost{localhost}
5484 \@onelevel@sanitize\Hy@StringLocalhost
5485 \def\Hy@CleanupFile#1{%
5486 \edef#1{#1}%
5487 \expandafter\Hy@@CleanupFile#1\hbox{//\hbox\@nil{#1}%
5488 }
5489 \def\Hy@@CleanupFile#1//#2/#3\hbox#4\@nil#5{%
5490 \begingroup
5491 \toks@{\endgroup}%
5492 \def\x{#1}%
5493 \ifx\x\@empty
5494 \def\x{#2}%
5495 \ifx\x\@empty
5496 \toks@{\endgroup\def#5{/#3}}%
5497 \else
5498 \@onelevel@sanitize\x
5499 \ifx\x\Hy@StringLocalhost
5500 \toks@{\endgroup\def#5{/#3}}%
5501 \fi
5502 \fi
5503 \fi
5504 \the\toks@
5505 }

```

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.

```

5506 \long\def\hyper@@anchor#1#2{\@hyper@@anchor#1\relax#2\relax}
5507 \long\def\@hyper@@anchor#1\relax#2#3\relax{%
5508 \ifx\#1\%
5509 #2\Hy@Warning{Ignoring empty anchor}%
5510 \else
5511 \def\anchor@spot{#2#3}%
5512 \let\put@me@back\@empty
5513 \ifx\relax#2\relax
5514 \else
5515 \ifHy@nesting
5516 \else
5517 \ifcat a\noexpand#2\relax
5518 \else
5519 \ifcat 0\noexpand#2 \relax
5520 \else
5521 % \typeout{Anchor start is not alphanumeric %

```

```

5522 %           on input line\the\inputlineno%
5523 %           }%
5524     \let\anchor@spot\@empty
5525     \def\put@me@back{#2#3}%
5526     \fi
5527   \fi
5528   \fi
5529 \fi
5530 \ifHy@activeanchor
5531   \anchor@spot
5532 \else
5533   \hyper@anchor{#1}%
5534 \fi
5535 \expandafter\put@me@back
5536 \fi
5537 \let\anchor@spot\@empty
5538 }
5539 \let\anchor@spot\ltx@empty

```

18 Option ‘destlabel’

```

5540 \ifHy@destlabel

```

```

\hyper@newdestlabel

```

```

5541 \def\hyper@newdestlabel#1#2{%
5542   \begingroup
5543   \Hy@safe@activestru
5544   \edef\x{\endgroup
5545     \noexpand\@newl@bel{HyDL}{#1}{#2}%
5546   }%
5547   \x
5548 }%

```

```

\hyper@destlabel@hook

```

```

5549 \providecommand*\hyper@destlabel@hook{}%

```

```

\Hy@DestRename

```

```

5550 \newcommand*\Hy@DestRename[2]{%
5551   \ltx@ifundefined{HyDL!#1}{%
5552     \begingroup
5553     \Hy@safe@activestru
5554     \edef\dest@name{#1}%
5555     \edef\label@name{#2}%
5556     \hyper@destlabel@hook
5557     \Hy@IsNotEmpty{dest@name}{%
5558       \Hy@IsNotEmpty{label@name}{%
5559         \global\expandafter
5560         \let\csname HyDL!#1\endcsname\ltx@empty
5561         \if@filew
5562           \protected@write\@auxout{}{%
5563             \string\hyper@newdestlabel
5564             {#1}%
5565             {\label@name}%
5566           }%
5567         \fi
5568       }%
5569     }%

```

```

5570 \endgroup
5571 }{}%
5572 }%

```

`\HyperDestRename`

```

5573 \newcommand*{\HyperDestRename}[2]{%
5574 \AtBeginDocument{%
5575 \Hy@DestRename{#1}{#2}%
5576 }%
5577 }%
5578 \AtBeginDocument{%
5579 \let\HyperDestRename\Hy@DestRename
5580 }%

```

`\Hy@IsNotEmpty`

```

5581 \def\Hy@IsNotEmpty#1{%
5582 \ltx@ifundefined{#1}\ltx@gobble{%
5583 \expandafter\ifx\csname#1\endcsname\ltx@empty
5584 \expandafter\ltx@gobble
5585 \else
5586 \expandafter\ltx@firstofone
5587 \fi
5588 }%
5589 }%

5590 \ltx@GlobalAppendToMacro\label@hook{%
5591 \HyperDestRename\@currentHref\label@name
5592 }%

```

`\HyperDestLabelReplace`

```

5593 \def\HyperDestLabelReplace#1{%
5594 \ltx@ifundefined{HyDL@#1}{%
5595 #1%
5596 }{%
5597 \csname HyDL@#1\endcsname
5598 }%
5599 }%

```

`\HyperDestNameFilter`

```

5600 \let\HyperDestNameFilter\HyperDestLabelReplace
5601 \else

```

`\hyper@newdestlabel`

```

5602 \let\hyper@newdestlabel\ltx@gobbletwo

```

`\HyperDestLabelReplace`

```

5603 \let\HyperDestLabelReplace\ltx@firstofone

```

`\HyperDestRename`

```

@gobbletwo
5604 \fi
5605 \Hy@DisableOption{destlabel}

```

Provide a dummy default definition of `\hyper@newdestlabel` inside the `.aux` files.

```

5606 \AddLineBeginAux{%
5607 \string\providecommand\string\hyper@newdestlabel[2]{}%
5608 }

```

19 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.

```
5609 \let\htmladding\hyperimage
5610 \def\htmladdnormallink#1#2{\href{#2}{#1}}
5611 \def\htmladdnormallinkfoot#1#2{\href{#2}{#1}\footnote{#2}}
5612 \def\htmlref#1#2{% anchor text, label
5613   \label@hyperref[#{#2}]{#1}%
5614 }
```

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.

```
5615 \def\@@latextohtmlX{%
5616   \let\hhyperref\hyperref
5617   \def\hyperref##1##2###3###4{% anchor text for HTML
5618     % text to print before label in print
5619     % label
5620     % post-label text in print
5621     ##2\ref{###4}##3%
5622   }%
5623 }
```

20 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.

20.1 Field flags

The field flags are organized in a bit set.

```
5624 \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
5625 \def\HyField@NewFlag#1#2{%
5626   \lowercase{\HyField@NewOption{#2}}%
5627   \lowercase{\HyField@NewBitsetFlag{#2}}{#2}{#1}%
5628 }
```

```

\HyField@NewFlagOnly
5629 \def\HyField@NewFlagOnly#1#2{%
5630 \lowercase{\HyField@NewBitsetFlag{#2}}{#2}{#1}%
5631 }

\HyField@NewOption #1: option name
5632 \def\HyField@NewOption#1{%
5633 \expandafter\newif\csname ifFld@#1\endcsname
5634 \define@key{Field}{#1}[true]{%
5635 \lowercase{\Field@boolkey{##1}}{#1}%
5636 }%
5637 }

\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
5638 \def\HyField@NewBitsetFlag#1#2#3#4{%
5639 \begingroup
5640 \count@=#4\relax
5641 \advance\count@\m@ne
5642 \def\x##1{%
5643 \endgroup
5644 \expandafter\def\csname HyField@#3@##1\endcsname{##1}%
5645 \expandafter\ifx\csname HyField@#3@##1\endcsname\relax
5646 \expandafter\edef\csname HyField@#3@##1\endcsname{%
5647 (\number#4) #2%
5648 }%
5649 \else
5650 \expandafter\edef\csname HyField@#3@##1\endcsname{%
5651 \csname HyField@#3@##1\endcsname
5652 /#2%
5653 }%
5654 \fi
5655 }%
5656 \expandafter\x\expandafter{\the\count@}%
5657 }

\HyField@UseFlag The bit set is HyField@#1
5658 \def\HyField@UseFlag#1#2{%
5659 \lowercase{\HyField@@UseFlag{#2}}{#1}%
5660 }

\HyField@@UseFlag
5661 \def\HyField@@UseFlag#1#2{%
5662 \bitsetSetValue{HyField@#2}{%
5663 \csname HyField@#2@#1\endcsname
5664 }{%
5665 \csname ifFld@#1\endcsname 1\else 0\fi
5666 }%
5667 }

\HyField@SetFlag The bit set is HyField@#1
5668 \def\HyField@SetFlag#1#2{%
5669 \lowercase{\HyField@@SetFlag{#2}}{#1}%
5670 }

```

```

\HyField@@SetFlag
5671 \def\HyField@@SetFlag#1#2{%
5672 \bitsetSetValue{HyField@#2}{%
5673 \csname HyField@#2@#1\endcsname
5674 }{1}%
5675 }

\HyField@PrintFlags
5676 \def\HyField@PrintFlags#1#2{%
5677 \ifHy@verbose
5678 \begingroup
5679 \let\Hy@temp\@empty
5680 \let\MessageBreak\relax
5681 \expandafter\@for\expandafter\x\expandafter:\expandafter=%
5682 \bitsetGetSetBitList{HyField@#1}\do{%
5683 \edef\Hy@temp{%
5684 \Hy@temp
5685 \csname HyField@#1@\x\endcsname\MessageBreak
5686 }%
5687 }%
5688 \edef\x{\endgroup
5689 \noexpand\Hy@Info{%
5690 Field flags: %
5691 \expandafter\ifx\@car#1\@nil S\else/\fi
5692 #1 %
5693 \bitsetGetDec{HyField@#1} %
5694 (0x\bitsetGetHex{HyField@#1}{32})\MessageBreak
5695 \Hy@temp
5696 for #2%
5697 }%
5698 }\x
5699 \fi
5700 }

```

20.1.1 Declarations of field flags

“Table 8.70 Field flags common to all field types”

```

5701 \HyField@NewFlag{Ff}{ReadOnly}{1}
5702 \HyField@NewFlag{Ff}{Required}{2}
5703 \HyField@NewFlag{Ff}{NoExport}{3}

```

“Table 8.75 Field flags specific to button fields”

```

5704 \HyField@NewFlag{Ff}{NoToggleToOff}{15}
5705 \HyField@NewFlag{Ff}{Radio}{16}
5706 \HyField@NewFlag{Ff}{Pushbutton}{17}
5707 \HyField@NewFlag{Ff}{RadiosInUnison}{26}

```

“Table 8.77 Field flags specific to text fields”

```

5708 \HyField@NewFlag{Ff}{Multiline}{13}
5709 \HyField@NewFlag{Ff}{Password}{14}
5710 \HyField@NewFlag{Ff}{FileSelect}{21}% PDF 1.4
5711 \HyField@NewFlag{Ff}{DoNotSpellCheck}{23}% PDF 1.4
5712 \HyField@NewFlag{Ff}{DoNotScroll}{24}% PDF 1.4
5713 \HyField@NewFlag{Ff}{Comb}{25}% PDF 1.4
5714 \HyField@NewFlag{Ff}{RichText}{26}% PDF 1.5

```

“Table 8.79 field flags specific to choice fields”

```

5715 \HyField@NewFlag{Ff}{Combo}{18}

```

```

5716 \HyField@NewFlag{Ff}{Edit}{19}
5717 \HyField@NewFlag{Ff}{Sort}{20}
5718 \HyField@NewFlag{Ff}{MultiSelect}{22}% PDF 1.4
5719 % \HyField@NewFlag{Ff}{DoNotSpellCheck}{23}% PDF 1.4
5720 \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.

```

5721 \newif\ifFld@popdown
5722 \define@key{Field}{popdown}{true}{%
5723 \lowercase{\Field@boolkey{#1}}{popdown}%
5724 }

```

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.

```

5725 \HyField@NewFlag{F}{Invisible}{1}
5726 \HyField@NewFlag{F}{Hidden}{2}% PDF 1.2
5727 \HyField@NewFlag{F}{Print}{3}% PDF 1.2
5728 \HyField@NewFlag{F}{NoZoom}{4}% PDF 1.2
5729 \HyField@NewFlag{F}{NoRotate}{5}% PDF 1.3
5730 \HyField@NewFlag{F}{NoView}{6}% PDF 1.3
5731 \HyField@NewFlag{F}{Locked}{8}% PDF 1.4
5732 \HyField@NewFlag{F}{ToggleNoView}{9}% PDF 1.5
5733 \HyField@NewFlag{F}{LockedContents}{10}% PDF 1.7

5734 \ifHy@pdfa
5735 \def\HyField@PDFAFflagWarning#1#2{%
5736 \Hy@Warning{%
5737 PDF/A: Annotation flag ‘#1’ must\MessageBreak
5738 be set to ‘#2’%
5739 }%
5740 }%
5741 \Fld@invisiblefalse
5742 \def\Fld@invisibletrue{%
5743 \HyField@PDFAFflagWarning{invisible}{false}%
5744 }%
5745 \Fld@hiddenfalse
5746 \def\Fld@hiddentrue{%
5747 \HyField@PDFAFflagWarning{hidden}{false}%
5748 }%
5749 \Fld@printtrue
5750 \def\Fld@printfalse{%
5751 \HyField@PDFAFflagWarning{print}{true}%
5752 }%
5753 \Fld@nozoomtrue
5754 \def\Fld@nozoomfalse{%
5755 \HyField@PDFAFflagWarning{nozoom}{true}%
5756 }%
5757 \Fld@norotatetrue
5758 \def\Fld@norotatefalse{%
5759 \HyField@PDFAFflagWarning{norotate}{true}%
5760 }%
5761 \Fld@noviewfalse
5762 \def\Fld@noviewtrue{%

```

```

5763 \HyField@PDFAFIWarning{noview}{false}%
5764 }%
5765 \fi

```

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

```

5766 \HyField@NewFlag{Submit}{IncludeNoValueFields}{2}
5767 \HyField@NewFlagOnly{Submit}{ExportFormat}{3}
5768 \HyField@NewFlag{Submit}{GetMethod}{4}
5769 \HyField@NewFlag{Submit}{SubmitCoordinates}{5}
5770 \HyField@NewFlagOnly{Submit}{XFDF}{6}
5771 \HyField@NewFlag{Submit}{IncludeAppendSaves}{7}
5772 \HyField@NewFlag{Submit}{IncludeAnnotations}{8}
5773 \HyField@NewFlagOnly{Submit}{SubmitPDF}{9}
5774 \HyField@NewFlag{Submit}{CanonicalFormat}{10}
5775 \HyField@NewFlag{Submit}{ExclNonUserAnnots}{11}
5776 \HyField@NewFlag{Submit}{ExclFKey}{12}
5777 \HyField@NewFlag{Submit}{EmbedForm}{14}

5778 \define@key{Field}{export}{%
5779 \lowercase{\def\Hy@temp{#1}}%
5780 \@ifundefined{Fld@export@\Hy@temp}{%
5781 \@onelevel@sanitize\Hy@temp
5782 \Hy@Error{%
5783 Unknown export format '\Hy@temp'.\MessageBreak
5784 Known formats are 'FDF', 'HTML', 'XFDF', and 'PDF'%
5785 }\@ehc
5786 }%
5787 \let\Fld@export\Hy@temp
5788 }%
5789 }

5790 \def\Fld@export{fdf}
5791 \@namedef{Fld@export@fdf}{0}%
5792 \@namedef{Fld@export@html}{1}%
5793 \@namedef{Fld@export@xfdf}{2}%
5794 \@namedef{Fld@export@pdf}{3}%

```

20.1.2 Set submit flags

\HyField@FlagsSubmit

```

5795 \def\HyField@FlagsSubmit{%
5796 \bitsetReset{HyField@Submit}%
5797 \ifcase\@nameuse{Fld@export@\Fld@export} %
5798 % FDF
5799 \HyField@UseFlag{Submit}{IncludeNoValueFields}%
5800 \HyField@UseFlag{Submit}{SubmitCoordinates}%
5801 \HyField@UseFlag{Submit}{IncludeAppendSaves}%
5802 \HyField@UseFlag{Submit}{IncludeAnnotations}%
5803 \HyField@UseFlag{Submit}{CanonicalFormat}%
5804 \HyField@UseFlag{Submit}{ExclNonUserAnnots}%
5805 \HyField@UseFlag{Submit}{ExclFKey}%
5806 \HyField@UseFlag{Submit}{EmbedForm}%
5807 \or % HTML
5808 \HyField@SetFlag{Submit}{ExportFormat}%
5809 \HyField@UseFlag{Submit}{IncludeNoValueFields}%
5810 \HyField@UseFlag{Submit}{GetMethod}%
5811 \HyField@UseFlag{Submit}{SubmitCoordinates}%
5812 \HyField@UseFlag{Submit}{CanonicalFormat}%

```



```

5813 \or % XFDF
5814   \HyField@SetFlag{Submit}{XFDF}%
5815   \HyField@UseFlag{Submit}{IncludeNoValueFields}%
5816   \HyField@UseFlag{Submit}{SubmitCoordinates}%
5817   \HyField@UseFlag{Submit}{CanonicalFormat}%
5818 \or % PDF
5819   \HyField@SetFlag{Submit}{SubmitPDF}%
5820   \HyField@UseFlag{Submit}{GetMethod}%
5821 \fi
5822 \HyField@PrintFlags{Submit}{submit button field}%
5823 \bitsetIsEmpty{HyField@Submit}{%
5824   \let\Fld@submitflags\tx@empty
5825 }{%
5826   \edef\Fld@submitflags{/Flags \bitsetGetDec{HyField@Submit}}%
5827 }%
5828 }

```

20.1.3 Set annot flags in fields

\HyField@FlagsAnnot

```

5829 \def\HyField@FlagsAnnot#1{%
5830   \bitsetReset{HyField@F}%
5831   \HyField@UseFlag{F}{Invisible}%
5832   \HyField@UseFlag{F}{Hidden}%
5833   \HyField@UseFlag{F}{Print}%
5834   \HyField@UseFlag{F}{NoZoom}%
5835   \HyField@UseFlag{F}{NoRotate}%
5836   \HyField@UseFlag{F}{NoView}%
5837   \HyField@UseFlag{F}{Locked}%
5838   \HyField@UseFlag{F}{ToggleNoView}%
5839   \HyField@UseFlag{F}{LockedContents}%
5840   \HyField@PrintFlags{F}{#1}%
5841   \bitsetIsEmpty{HyField@F}{%
5842     \let\Fld@annotflags\tx@empty
5843   }{%
5844     \edef\Fld@annotflags{/F \bitsetGetDec{HyField@F}}%
5845   }%
5846 }

```

20.1.4 Pushbutton field

\HyField@FlagsPushButton

```

5847 \def\HyField@FlagsPushButton{%
5848   \HyField@FlagsAnnot{push button field}%
5849   \bitsetReset{HyField@Ff}%
5850   \HyField@UseFlag{Ff}{ReadOnly}%
5851   \HyField@UseFlag{Ff}{Required}%
5852   \HyField@UseFlag{Ff}{NoExport}%
5853   \HyField@SetFlag{Ff}{PushButton}%
5854   \HyField@PrintFlags{Ff}{push button field}%
5855   \bitsetIsEmpty{HyField@Ff}{%
5856     \let\Fld@flags\tx@empty
5857   }{%
5858     \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5859   }%
5860 }

```

20.1.5 Check box field

`\HyField@FlagsCheckBox`

```
5861 \def\HyField@FlagsCheckBox{%
5862 \HyField@FlagsAnnot{check box field}%
5863 \bitsetReset{HyField@Ff}%
5864 \HyField@UseFlag{Ff}{ReadOnly}%
5865 \HyField@UseFlag{Ff}{Required}%
5866 \HyField@UseFlag{Ff}{NoExport}%
5867 \HyField@PrintFlags{Ff}{check box field}%
5868 \bitsetIsEmpty{HyField@Ff}{%
5869 \let\Fld@flags\ltx@empty
5870 }{%
5871 \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5872 }%
5873 }
```

20.1.6 Radio button field

`\HyField@FlagsRadioButton`

```
5874 \def\HyField@FlagsRadioButton{%
5875 \HyField@FlagsAnnot{radio button field}%
5876 \bitsetReset{HyField@Ff}%
5877 \HyField@UseFlag{Ff}{ReadOnly}%
5878 \HyField@UseFlag{Ff}{Required}%
5879 \HyField@UseFlag{Ff}{NoExport}%
5880 \HyField@UseFlag{Ff}{NoToggleToOff}%
5881 \HyField@SetFlag{Ff}{Radio}%
5882 \HyField@UseFlag{Ff}{RadiosInUnison}%
5883 \HyField@PrintFlags{Ff}{radio button field}%
5884 \bitsetIsEmpty{HyField@Ff}{%
5885 \let\Fld@flags\ltx@empty
5886 }{%
5887 \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5888 }%
5889 }
```

20.1.7 Text fields

`\HyField@FlagsText`

```
5890 \def\HyField@FlagsText{%
5891 \HyField@FlagsAnnot{text field}%
5892 \bitsetReset{HyField@Ff}%
5893 \HyField@UseFlag{Ff}{ReadOnly}%
5894 \HyField@UseFlag{Ff}{Required}%
5895 \HyField@UseFlag{Ff}{NoExport}%
5896 \HyField@UseFlag{Ff}{Multiline}%
5897 \HyField@UseFlag{Ff}{Password}%
5898 \HyField@UseFlag{Ff}{FileSelect}%
5899 \HyField@UseFlag{Ff}{DoNotSpellCheck}%
5900 \HyField@UseFlag{Ff}{DoNotScroll}%
5901 \ifFld@comb
5902 \ifcase0\ifFld@multiline
5903 \else\ifFld@password
5904 \else\ifFld@fileselect
5905 \else 1\fi\fi\fi\relax
5906 \Hy@Error{%
```

```

5907     Field option 'comb' cannot used together with\MessageBreak
5908     'multiline', 'password', or 'fileselect'%
5909   }\@ehc
5910   \else
5911     \HyField@UseFlag{Ff}{Comb}%
5912   \fi
5913 \fi
5914 \HyField@UseFlag{Ff}{RichText}%
5915 \HyField@PrintFlags{Ff}{text field}%
5916 \bitsetIsEmpty{HyField@Ff}{%
5917   \let\Fld@flags\ltx@empty
5918 }{%
5919   \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5920 }%
5921 }

```

20.1.8 Choice fields

\HyField@FlagsChoice

```

5922 \def\HyField@FlagsChoice{%
5923   \HyField@FlagsAnnot{choice field}%
5924   \bitsetReset{HyField@Ff}%
5925   \HyField@UseFlag{Ff}{ReadOnly}%
5926   \HyField@UseFlag{Ff}{Required}%
5927   \HyField@UseFlag{Ff}{NoExport}%
5928   \HyField@UseFlag{Ff}{Combo}%
5929   \ifFld@combo
5930     \HyField@UseFlag{Ff}{Edit}%
5931   \fi
5932   \HyField@UseFlag{Ff}{Sort}%
5933   \HyField@UseFlag{Ff}{MultiSelect}%
5934   \ifFld@combo
5935     \ifFld@edit
5936       \HyField@UseFlag{Ff}{DoNotSpellCheck}%
5937     \fi
5938   \fi
5939   \HyField@UseFlag{Ff}{CommitOnSelChange}%
5940   \HyField@PrintFlags{Ff}{choice field}%
5941   \bitsetIsEmpty{HyField@Ff}{%
5942     \let\Fld@flags\ltx@empty
5943   }{%
5944     \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5945   }%
5946 }

```

20.2 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.

```

5947 \def\HyField@PDFChoices#1{%
5948   \begingroup
5949   \global\let\Fld@choices\ltx@empty
5950   \let\HyTmp@optlist\ltx@empty
5951   \let\HyTmp@optitem\relax

```

```

5952 \count@=0 %
5953 \kv@parse{#1}{%
5954 \Hy@pdfstringdef\kv@key\kv@key
5955 \ifx\kv@value\relax
5956 \ifnum\Hy@pdfversion<3 % implementation note 122, PDF spec 1.7
5957 \xdef\Fld@choices{\Fld@choices(\kv@key)(\kv@key)}%
5958 \else
5959 \xdef\Fld@choices{\Fld@choices(\kv@key)}%
5960 \fi
5961 \else
5962 \Hy@pdfstringdef\kv@value\kv@value
5963 \xdef\Fld@choices{\Fld@choices(\kv@value)(\kv@key)}%
5964 \fi
5965 \edef\HyTmp@optlist{%
5966 \HyTmp@optlist
5967 \HyTmp@optitem{\the\count@}{\kv@key}0%
5968 }%
5969 \advance\count@ by 1 %
5970 \@gobbletwo
5971 }%
5972 \xdef\Fld@choices{/Opt[\Fld@choices]}%
5973 \ifFld@multiselect
5974 \HyField@@PDFChoices{DV}\Fld@default
5975 \HyField@@PDFChoices{V}\Fld@value
5976 \else
5977 \ifx\Fld@default\relax
5978 \else
5979 \pdfstringdef\Hy@gtemp\Fld@default
5980 \xdef\Fld@choices{\Fld@choices/DV(\Hy@gtemp)}%
5981 \fi
5982 \ifx\Fld@value\relax
5983 \else
5984 \pdfstringdef\Hy@gtemp\Fld@value
5985 \xdef\Fld@choices{\Fld@choices/V(\Hy@gtemp)}%
5986 \fi
5987 \fi
5988 \endgroup
5989 }

```

\HyField@@PDFChoices

```

5990 \def\HyField@@PDFChoices#1#2{%
5991 \ifx#2\relax
5992 \else
5993 \count@=0 %
5994 \def\HyTmp@optitem##1##2##3{%
5995 \def\HyTmp@key{##2}%
5996 \ifx\HyTmp@key\Hy@gtemp
5997 \expandafter\def\expandafter\HyTmp@optlist\expandafter{%
5998 \HyTmp@optlist
5999 \HyTmp@optitem{##1}{##2}1%
6000 }%
6001 \let\HyTmp@found=Y%
6002 \else
6003 \expandafter\def\expandafter\HyTmp@optlist\expandafter{%
6004 \HyTmp@optlist
6005 \HyTmp@optitem{##1}{##2}##3%
6006 }%
6007 \fi

```

```

6008 }%
6009 \expandafter\comma@parse\expandafter{#2}{%
6010 \pdfstringdef\Hy@gtemp\comma@entry
6011 \let\HyTmp@found=N %
6012 \expandafter\let\expandafter\HyTmp@optlist\expandafter\@empty
6013 \HyTmp@optlist
6014 \ifx\HyTmp@found Y%
6015 \advance\count@ by 1 %
6016 \else
6017 \@onelevel@sanitize\comma@entry
6018 \PackageWarning{hyperref}{%
6019 \string\ChoiceBox: Ignoring value ‘\comma@entry’,%
6020 \MessageBreak
6021 it cannot be found in the choices%
6022 }%
6023 \fi
6024 \@gobble
6025 }%
6026 \def\HyTmp@optitem##1##2##3{%
6027 \ifnum##3=1 %
6028 (##2)%
6029 \fi
6030 }%
6031 \ifcase\count@
6032 \or
6033 \xdef\Fld@choices{\Fld@choices/#1\HyTmp@optlist}%
6034 \else
6035 \xdef\Fld@choices{\Fld@choices/#1[\HyTmp@optlist]}%
6036 \ifx#1V%
6037 \def\HyTmp@optitem##1##2##3{%
6038 \ifnum##3=1 %
6039 \@firstofone{ ##1}%
6040 \fi
6041 }%
6042 \edef\HyTmp@optlist{\HyTmp@optlist}%
6043 \xdef\Fld@choices{%
6044 \Fld@choices
6045 /I[\expandafter\@firstofone\HyTmp@optlist]}%
6046 }%
6047 \fi
6048 \fi
6049 \fi
6050 }

```

20.3 Forms

\HyField@SetKeys

```

6051 \def\HyField@SetKeys{%
6052 \kvsetkeys{Field}%
6053 }

6054 \newif\ifFld@checked
6055 \newif\ifFld@disabled
6056 \Fld@checkedfalse
6057 \Fld@disabledfalse
6058 \newcount\Fld@menulength
6059 \newdimen\Field@Width

```

```

6060 \newdimen\Fld@charsize
6061 \Fld@charsize=10\p@
6062 \def\Fld@maxlen{0}
6063 \def\Fld@align{0}
6064 \def\Fld@color{0 0 0 rg}
6065 \def\Fld@bcolor{1 1 1}
6066 \def\Fld@bordercolor{1 0 0}
6067 \def\Fld@bordersep{1\p@}
6068 \def\Fld@borderwidth{1}
6069 \def\Fld@borderstyle{S}
6070 \def\Fld@cbsymbol{4}
6071 \def\Fld@radiosymbol{H}
6072 \def\Fld@rotation{0}
6073 \def\Form{\@ifnextchar{\@Form}{\@Form[]}}
6074 \def\endForm{\@endForm}
6075 \newif\ifForm@html
6076 \Form@htmlfalse
6077 \def\Form@boolkey#1#2{%
6078   \csname Form@#2\ifx\relax#1\relax true\else#1\fi\endcsname
6079 }
6080 \define@key{Form}{action}{%
6081   \hyper@normalise\Hy@DefFormAction{#1}%
6082 }
6083 \def\Hy@DefFormAction{\def\Form@action}
6084 \def\enc@@html{html}
6085 \define@key{Form}{encoding}{%
6086   \def\Hy@tempa{#1}%
6087   \ifx\Hy@tempa\enc@@html
6088     \Form@htmltrue
6089     \def\Fld@export{html}%
6090   \else
6091     \Hy@Warning{%
6092       Form 'encoding' key with \MessageBreak
6093       unknown value '#1'%
6094     }%
6095     \Form@htmlfalse
6096   \fi
6097 }
6098 \define@key{Form}{method}{%
6099   \lowercase{\def\Hy@temp{#1}}%
6100   \@ifundefined{Form@method@\Hy@temp}{%
6101     \@onelevel@sanitize\Hy@temp
6102     \Hy@Error{%
6103       Unknown method '\Hy@temp'.\MessageBreak
6104       Known values are 'post' and 'get'%
6105     }}\@ehc
6106   }{%
6107     \let\Form@method\Hy@temp
6108     \ifcase\@nameuse{Form@method@\Hy@temp} %
6109       \Fld@getmethodfalse
6110     \else
6111       \Fld@getmethodtrue
6112     \fi
6113   }%
6114 }
6115 \def\Form@method{}
6116 \@namedef{Form@method@post}{0}

```

```

6117 \@namedef{Form@method@get}{1}
6118 \newif\ifHyField@NeedAppearances
6119 \def\HyField@NeedAppearancesfalse{%
6120 \global\let\ifHyField@NeedAppearances\iffalse
6121 }
6122 \def\HyField@NeedAppearancetrue{%
6123 \global\let\ifHyField@NeedAppearances\iftrue
6124 }
6125 \HyField@NeedAppearancetrue
6126 \define@key{Form}{NeedAppearances}[true]{%
6127 \edef\Hy@tempa{#1}%
6128 \ifx\Hy@tempa\Hy@true
6129 \HyField@NeedAppearancetrue
6130 \else
6131 \ifx\Hy@tempa\Hy@false
6132 \HyField@NeedAppearancesfalse
6133 \else
6134 \Hy@Error{%
6135 Unexpected value '\Hy@tempa'\MessageBreak
6136 of option 'NeedAppearances' instead of\MessageBreak
6137 'true' or 'false'%
6138 } \@ehc
6139 \fi
6140 \fi
6141 }
6142 \def\Field@boolkey#1#2{%
6143 \csname Fld@#2\ifx\relax#1\relax true\else#1\fi\endcsname
6144 }
6145 \ifHy@texht
6146 \newtoks\Field@toks
6147 \Field@toks={ }%
6148 \def\Field@addtoks#1#2{%
6149 \edef\@processme{\Field@toks{\the\Field@toks\space #1="#2"}}%
6150 \@processme
6151 }%
6152 \else
6153 \def\Hy@WarnHTMLFieldOption#1{%
6154 \Hy@Warning{%
6155 HTML field option '#1'\MessageBreak
6156 is ignored%
6157 }%
6158 }%
6159 \fi
6160 \def\Fld@checkequals#1=#2=#3\{\%
6161 \def\@currDisplay{#1}%
6162 \ifx\#2\%
6163 \def\@currValue{#1}%
6164 \else
6165 \def\@currValue{#2}%
6166 \fi
6167 }
6168 \define@key{Field}{loc}{%
6169 \def\Fld@loc{#1}%
6170 }
6171 \define@key{Field}{checked}[true]{%
6172 \lowercase{\Field@boolkey{#1}}{checked}%
6173 }

```

```

6174 \define@key{Field}{disabled}[true]{%
6175   \lowercase{\Field@boolkey{#1}}{disabled}%
6176 }
6177 \ifHy@texht
6178   \define@key{Field}{accesskey}{%
6179     \Field@addtoks{accesskey}{#1}%
6180   }%
6181   \define@key{Field}{tabkey}{%
6182     \Field@addtoks{tabkey}{#1}%
6183   }%
6184 \else
6185   \define@key{Field}{accesskey}{%
6186     \Hy@WarnHTMLFieldOption{accesskey}%
6187   }%
6188   \define@key{Field}{tabkey}{%
6189     \Hy@WarnHTMLFieldOption{tabkey}%
6190   }%
6191 \fi
6192 \define@key{Field}{name}{%
6193   \def\Fld@name{#1}%
6194 }
6195 \let\Fld@altname\relax
6196 \define@key{Field}{altname}{%
6197   \def\Fld@altname{#1}%
6198 }
6199 \let\Fld@mappingname\relax
6200 \define@key{Field}{mappingname}{%
6201   \def\Fld@mappingname{#1}%
6202 }
6203 \define@key{Field}{width}{%
6204   \def\Fld@width{#1}%
6205   \Field@Width#1\setbox0=\hbox{m}%
6206 }
6207 \define@key{Field}{maxlen}{%
6208   \def\Fld@maxlen{#1}%
6209 }
6210 \define@key{Field}{menulength}{%
6211   \Fld@menulength=#1\relax
6212 }
6213 \define@key{Field}{height}{%
6214   \def\Fld@height{#1}%
6215 }
6216 \define@key{Field}{charsize}{%
6217   \setlength{\Fld@charsize}{#1}%
6218 }
6219 \define@key{Field}{borderwidth}{%
6220   \Hy@defaultbp\Fld@borderwidth{#1}%
6221 }
6222 \def\Hy@defaultbp#1#2{%
6223   \begingroup
6224   \afterassignment\Hy@defaultbpAux
6225   \dimen@=#2bp\relax{#1}{#2}%
6226 }
6227 \begingroup\expandafter\expandafter\expandafter\endgroup
6228 \expandafter\ifx\csname dimexpr\endcsname\relax
6229   \def\Hy@defaultbpAux#1\relax#2#3{%
6230     \ifx!#1!%

```



```

6231 \endgroup
6232 \def#2{#3}%
6233 \else
6234 \dimen@=.99626\dimen@
6235 \edef\x{\endgroup
6236 \def\noexpand#2{%
6237 \strip@pt\dimen@
6238 }%
6239 }\x
6240 \fi
6241 }%
6242 \else
6243 \def\Hy@defaultbpAux#1\relax#2#3{%
6244 \ifx!#1!%
6245 \endgroup
6246 \def#2{#3}%
6247 \else
6248 \edef\x{\endgroup
6249 \def\noexpand#2{%
6250 \strip@pt\dimexpr\dimen@*800/803\relax
6251 }%
6252 }\x
6253 \fi
6254 }%
6255 \fi
6256 \define@key{Field}{borderstyle}{%
6257 \let\Hy@temp\Fld@borderstyle
6258 \def\Fld@borderstyle{#1}%
6259 \Hy@Match\Fld@borderstyle}{}%
6260 ~[SDBIU]$%
6261 }-}{%
6262 \Hy@Warning{%
6263 Invalid value '@pdfborderstyle'\MessageBreak
6264 for option 'pdfborderstyle'. Valid values:\MessageBreak
6265 \space\space S (Solid), D (Dashed), B (Beveled),\MessageBreak
6266 \space\space I (Inset), U (Underline)\MessageBreak
6267 Option setting is ignored%
6268 }%
6269 \let\Fld@borderstyle\Hy@temp
6270 }%
6271 }
6272 \define@key{Field}{bordersep}{%
6273 \def\Fld@bordersep{#1}%
6274 }
6275 \define@key{Field}{default}{%
6276 \def\Fld@default{#1}%
6277 }
6278 \define@key{Field}{align}{%
6279 \def\Fld@align{#1}%
6280 }
6281 \define@key{Field}{value}{%
6282 \def\Fld@value{#1}%
6283 }
6284 \define@key{Field}{checkboxsymbol}{%
6285 \Fld@DingDef\Fld@cbsymbol{#1}%
6286 }
6287 \define@key{Field}{radiosymbol}{%

```

```

6288 \Fld@DingDef\Fld@radiosymbol{#1}%
6289 }
6290 \def\Fld@DingDef#1#2{%
6291 \let\Fld@temp\ltx@empty
6292 \Fld@@@DingDef#2\ding{}}\@nil
6293 \let#1\Fld@temp
6294 }
6295 \def\Fld@@@DingDef#1\ding#2#3\@nil{%
6296 \expandafter\def\expandafter\Fld@temp\expandafter{%
6297 \Fld@temp
6298 #1%
6299 }%
6300 \ifx\#3\%
6301 \expandafter\@gobble
6302 \else
6303 \begingroup
6304 \lccode'0=#2\relax
6305 \lowercase{\endgroup
6306 \expandafter\def\expandafter\Fld@temp\expandafter{%
6307 \Fld@temp
6308 0%
6309 }%
6310 }%
6311 \expandafter\@firstofone
6312 \fi
6313 {%
6314 \Fld@@@DingDef#3\@nil
6315 }%
6316 }

6317 \define@key{Field}{rotation}{%
6318 \def\Fld@rotation{#1}%
6319 }

6320 \define@key{Field}{backgroundcolor}{%
6321 \HyColor@FieldBColor{#1}\Fld@bcolor{hyperref}{backgroundcolor}%
6322 }
6323 \define@key{Field}{bordercolor}{%
6324 \HyColor@FieldBColor{#1}\Fld@bordercolor{hyperref}{bordercolor}%
6325 }
6326 \define@key{Field}{color}{%
6327 \HyColor@FieldColor{#1}\Fld@color{hyperref}{color}%
6328 }

6329 \let\Fld@onclick@code\ltx@empty
6330 \let\Fld@format@code\ltx@empty
6331 \let\Fld@validate@code\ltx@empty
6332 \let\Fld@calculate@code\ltx@empty
6333 \let\Fld@keystroke@code\ltx@empty
6334 \let\Fld@onfocus@code\ltx@empty
6335 \let\Fld@onblur@code\ltx@empty
6336 \let\Fld@onmousedown@code\ltx@empty
6337 \let\Fld@onmouseup@code\ltx@empty
6338 \let\Fld@onenter@code\ltx@empty
6339 \let\Fld@onexit@code\ltx@empty
6340 \def\Hy@temp#1{%
6341 \expandafter\Hy@@@temp\csname Fld@#1@code\endcsname{#1}%
6342 }
6343 \def\Hy@@@temp#1#2{%

```

```

6344 \ifHy@pdfa
6345   \define@key{Field}{#2}{%
6346     \Hy@Error{%
6347       PDF/A: Additional action '#2' is prohibited%
6348     }\@ehc
6349   }%
6350 \else
6351   \define@key{Field}{#2}{%
6352     \def#1{##1}%
6353   }%
6354 \fi
6355 }
6356 \Hy@temp{keystroke}
6357 \Hy@temp{format}
6358 \Hy@temp{validate}
6359 \Hy@temp{calculate}
6360 \Hy@temp{onfocus}
6361 \Hy@temp{onblur}
6362 \Hy@temp{onenter}
6363 \Hy@temp{onexit}

6364 \let\Fld@calculate@sortkey\ltx@empty
6365 \define@key{Field}{calculatesortkey}[1]{%
6366   \def\Fld@calculate@sortkey{#1}%
6367 }

6368 \ifHy@texht
6369   \def\Hy@temp#1{%
6370     \define@key{Field}{#1}{%
6371       \Field@addtoks{#1}{##1}%
6372     }%
6373   }%
6374 \else
6375   \def\Hy@temp#1{%
6376     \define@key{Field}{#1}{%
6377       \Hy@WarnHTMLFieldOption{#1}%
6378     }%
6379   }%
6380 \fi
6381 \Hy@temp{ondblclick}
6382 \Hy@temp{onmousedown}
6383 \Hy@temp{onmouseup}
6384 \Hy@temp{onmouseover}
6385 \Hy@temp{onmousemove}
6386 \Hy@temp{onmouseout}
6387 \Hy@temp{onkeydown}
6388 \Hy@temp{onkeyup}
6389 \Hy@temp{onselect}
6390 \Hy@temp{onchange}
6391 \Hy@temp{onkeypress}
6392 \ifHy@texht
6393   \define@key{Field}{onclick}{%
6394     \Field@addtoks{onclick}{#1}%
6395   }%
6396 \else
6397   \ifHy@pdfa
6398     \define@key{Field}{onclick}{%
6399       \Hy@Error{%
6400         PDF/A: Action 'onclick' is prohibited%

```

```

6401     }\@ehc
6402   }%
6403 \else
6404   \define@key{Field}{onclick}{%
6405     \def\Fld@onclick@code{#1}%
6406   }%
6407 \fi
6408 \fi

6409 \DeclareRobustCommand\TextField{%
6410   \@ifnextchar[{\@TextField}{\@TextField[]}%
6411 }
6412 \DeclareRobustCommand\ChoiceMenu{%
6413   \@ifnextchar[{\@ChoiceMenu}{\@ChoiceMenu[]}%
6414 }
6415 \DeclareRobustCommand\CheckBox{%
6416   \@ifnextchar[{\@CheckBox}{\@CheckBox[]}%
6417 }
6418 \DeclareRobustCommand\PushButton{%
6419   \@ifnextchar[{\@PushButton}{\@PushButton[]}%
6420 }
6421 \DeclareRobustCommand\Gauge{%
6422   \@ifnextchar[{\@Gauge}{\@Gauge[]}%
6423 }
6424 \DeclareRobustCommand\Submit{%
6425   \@ifnextchar[{\@Submit}{\@Submit[]}%
6426 }
6427 \DeclareRobustCommand\Reset{%
6428   \@ifnextchar[{\@Reset}{\@Reset[]}%
6429 }
6430 \def\LayoutTextField#1#2{% label, field
6431   #1 #2%
6432 }
6433 \def\LayoutChoiceField#1#2{% label, field
6434   #1 #2%
6435 }
6436 \def\LayoutCheckField#1#2{% label, field
6437   #1 #2%
6438 }
6439 \def\LayoutPushButtonField#1{% button
6440   #1%
6441 }
6442 \def\MakeRadioField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
6443 \def\MakeCheckField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
6444 \def\MakeTextField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
6445 \def\MakeChoiceField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
6446 \def\MakeButtonField#1{%
6447   \sbox0{%
6448     \hskip\Fld@borderwidth bp#1\hskip\Fld@borderwidth bp%
6449   }%
6450   \@tempdima\ht0 %
6451   \advance\@tempdima by \Fld@borderwidth bp %
6452   \advance\@tempdima by \Fld@borderwidth bp %
6453   \ht0\@tempdima
6454   \@tempdima\dp0 %
6455   \advance\@tempdima by \Fld@borderwidth bp %
6456   \advance\@tempdima by \Fld@borderwidth bp %
6457   \dp0\@tempdima

```

```

6458 \box0\relax
6459 }
6460 \def\DefaultHeightofSubmit{14pt}
6461 \def\DefaultWidthofSubmit{2cm}
6462 \def\DefaultHeightofReset{14pt}
6463 \def\DefaultWidthofReset{2cm}
6464 \def\DefaultHeightofCheckBox{\baselineskip}
6465 \def\DefaultWidthofCheckBox{\baselineskip}
6466 \def\DefaultHeightofChoiceMenu{\baselineskip}
6467 \def\DefaultWidthofChoiceMenu{\baselineskip}
6468 \def\DefaultHeightofText{\baselineskip}
6469 \def\DefaultHeightofTextMultiline{4\baselineskip}
6470 \def\DefaultWidthofText{3cm}
6471 \def\DefaultOptionsofSubmit{print,name=Submit,noexport}
6472 \def\DefaultOptionsofReset{print,name=Reset,noexport}
6473 \def\DefaultOptionsofPushButton{print}
6474 \def\DefaultOptionsofCheckBox{print}
6475 \def\DefaultOptionsofText{print}

```

Default options for the types of `\ChoiceMenu`.

```

6476 \def\DefaultOptionsofListBox{print}
6477 \def\DefaultOptionsofComboBox{print,edit,sort}
6478 \def\DefaultOptionsofPopdownBox{print}
6479 \def\DefaultOptionsofRadio{print,notoggetooff}

```

21 Setup

```

6480 \ifHy@hyperfigures
6481 \Hy@Info{Hyper figures ON}%
6482 \else
6483 \Hy@Info{Hyper figures OFF}%
6484 \fi
6485 \ifHy@nesting
6486 \Hy@Info{Link nesting ON}%
6487 \else
6488 \Hy@Info{Link nesting OFF}%
6489 \fi
6490 \ifHy@hyperindex
6491 \Hy@Info{Hyper index ON}%
6492 \else
6493 \Hy@Info{Hyper index OFF}%
6494 \fi
6495 \ifHy@backref
6496 \Hy@Info{backreferencing ON}%
6497 \else
6498 \Hy@Info{backreferencing OFF}%
6499 \fi
6500 \ifHy@colorlinks
6501 \Hy@Info{Link coloring ON}%
6502 \else
6503 \Hy@Info{Link coloring OFF}%
6504 \fi
6505 \ifHy@ocgcolorlinks
6506 \Hy@Info{Link coloring with OCG ON}%
6507 \else
6508 \Hy@Info{Link coloring with OCG OFF}%
6509 \fi

```

```

6510 \ifHy@pdfa
6511 \Hy@Info{PDF/A mode ON}%
6512 \else
6513 \Hy@Info{PDF/A mode OFF}%
6514 \fi

```

22 Low-level utility macros

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

```

6515 \edef\hyper@hash{\string#}
6516 \edef\hyper@tilde{\string~}
6517 \edef\hyper@quote{\string"}

```

Support \label before \begin{document}.

```

6518 \def\@currentHref{Doc-Start}
6519 \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.

```

6520 \Hy@AtBeginDocument{%
6521 \Hy@pdfstringtrue
6522 \PDF@SetupDoc
6523 \let\PDF@SetupDoc\@empty
6524 \Hy@DisableOption{pdfpagescrop}%
6525 \Hy@DisableOption{pdfpagemode}%
6526 \Hy@DisableOption{pdfnonfullscreenpagemode}%
6527 \Hy@DisableOption{pdfdirection}%
6528 \Hy@DisableOption{pdfviewarea}%
6529 \Hy@DisableOption{pdfviewclip}%
6530 \Hy@DisableOption{pdfprintarea}%
6531 \Hy@DisableOption{pdfprintclip}%
6532 \Hy@DisableOption{pdfprintscaling}%
6533 \Hy@DisableOption{pdfduplex}%
6534 \Hy@DisableOption{pdfpicktraybypdfsize}%
6535 \Hy@DisableOption{pdfprintpagerange}%
6536 \Hy@DisableOption{pdfnumcopies}%
6537 \Hy@DisableOption{pdfstartview}%
6538 \Hy@DisableOption{pdfstartpage}%
6539 \Hy@DisableOption{pdftoolbar}%
6540 \Hy@DisableOption{pdfmenubar}%
6541 \Hy@DisableOption{pdfwindowui}%
6542 \Hy@DisableOption{pdfwindow}%
6543 \Hy@DisableOption{pdfcenterwindow}%
6544 \Hy@DisableOption{pdfdisplaydoctitle}%
6545 \Hy@DisableOption{pdfpagelayout}%
6546 \Hy@DisableOption{pdflang}%
6547 \Hy@DisableOption{baseurl}%
6548 \ifHy@texht\else\hyper@anchorstart{Doc-Start}\hyper@anchorend\fi
6549 \Hy@pdfstringfalse
6550 }

```

Ignore star from referencing macros:

```

6551 \LetLtxMacro\NoHy@OrgRef\ref
6552 \DeclareRobustCommand*{\ref}{%
6553 \@ifstar\NoHy@OrgRef\NoHy@OrgRef
6554 }
6555 \LetLtxMacro\NoHy@OrgPageRef\pageref

```

```

6556 \DeclareRobustCommand*\pageref}{%
6557 \ifstar\NoHy@OrgPageRef\NoHy@OrgPageRef
6558 }

```

23 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.

```

6559 \def\NoHyper{%
6560 \def\hyper@link@[##1]##2##3##4{##4\Hy@xspace@end}%
6561 \def\hyper@@anchor##1##2{##2\Hy@xspace@end}%
6562 \global\let\hyper@livelink\hyper@link
6563 \gdef\hyper@link##1##2##3{##3\Hy@xspace@end}%
6564 \let\hyper@anchor\ltx@gobble
6565 \let\hyper@anchorstart\ltx@gobble
6566 \def\hyper@anchorend{\Hy@xspace@end}%
6567 \let\hyper@linkstart\ltx@gobbletwo
6568 \def\hyper@linkend{\Hy@xspace@end}%
6569 \def\hyper@linkurl##1##2{##1\Hy@xspace@end}%
6570 \def\hyper@linkfile##1##2##3{##1\Hy@xspace@end}%
6571 \let\Hy@backout\@gobble
6572 }
6573 \def\stop@hyper{%
6574 \def\hyper@link@[##1]##2##3##4{##4\Hy@xspace@end}%
6575 \let\Hy@backout\@gobble
6576 \let\hyper@@anchor\ltx@gobble
6577 \def\hyper@link##1##2##3{##3\Hy@xspace@end}%
6578 \let\hyper@anchor\ltx@gobble
6579 \let\hyper@anchorstart\ltx@gobble
6580 \def\hyper@anchorend{\Hy@xspace@end}%
6581 \let\hyper@linkstart\ltx@gobbletwo
6582 \def\hyper@linkend{\Hy@xspace@end}%
6583 \def\hyper@linkurl##1##2{##1\Hy@xspace@end}%
6584 \def\hyper@linkfile##1##2##3{##1\Hy@xspace@end}%
6585 }
6586 \def\endNoHyper{%
6587 \global\let\hyper@link\hyper@livelink
6588 }
6589 \</package>

```

24 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:

```

6590 \*nohyperref
6591 \RequirePackage{letltxmacro}[2008/06/13]
6592 \let\hyper@@anchor\@gobble
6593 \def\hyper@link##1##2##3{##3}%

```

```

6594 \let\hyper@anchorstart\@gobble
6595 \let\hyper@anchorend\@empty
6596 \let\hyper@linkstart\@gobbletwo
6597 \let\hyper@linkend\@empty
6598 \def\hyper@linkurl#1#2{#1}%
6599 \def\hyper@linkfile#1#2#3{#1}%
6600 \def\hyper@link@[#1]#2#3{#1}%
6601 \let\PDF@SetupDoc\@empty
6602 \let\PDF@FinishDoc\@empty
6603 \def\nohyperpage#1{#1}

```

Some top-level commands:

```

6604 \def\Acrobatmenu#1#2{\leavevmode#2}
6605 \let\pdfstringdefDisableCommands\@gobbletwo
6606 \let\texorpdfstring\@firstoftwo
6607 \let\pdfbookmark\@undefined
6608 \newcommand\pdfbookmark[3]{}
6609 \let\phantomsection\@empty
6610 \let\hypersetup\@gobble
6611 \let\hyperbaseurl\@gobble
6612 \newcommand*\href[3]{}
6613 \let\hyperdef\@gobbletwo
6614 \let\hyperlink\@gobble
6615 \let\hypertarget\@gobble
6616 \def\hyperref{%
6617   \@ifnextchar[\@gobbleopt{\expandafter\@gobbletwo\@gobble}%
6618 }
6619 \long\def\@gobbleopt[#1]{}
6620 \let\hyperpage\@empty

```

Ignore star from referencing macros:

```

6621 \LetLtxMacro\NoHy@OrgRef\ref
6622 \DeclareRobustCommand*\ref{%
6623   \@ifstar\NoHy@OrgRef\NoHy@OrgRef
6624 }
6625 \LetLtxMacro\NoHy@OrgPageRef\pageref
6626 \DeclareRobustCommand*\pageref{%
6627   \@ifstar\NoHy@OrgPageRef\NoHy@OrgPageRef
6628 }
6629 \</nohyperref>

```

25 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}`

```

6630 \<{*package}>
6631 \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.

```

6632 \if@filesw
6633   \ifHy@typexml
6634     \immediate\closeout\@mainaux
6635     \immediate\openout\@mainaux\jobname.aux\relax
6636     \immediate\write\@auxout{<relaxxml>\relax}%

```



```

6637 \fi
6638 \immediate\write\@auxout{%
6639 \string\providecommand\string\HyperFirstAtBeginDocument{%
6640 \string\AtBeginDocument}^^J%
6641 \string\HyperFirstAtBeginDocument{%
6642 \string\ifx\string\hyper@anchor\string\@undefined^^J%
6643 \string\global\string\let\string\oldcontentsline\string\contentsline^^J%
6644 \string\gdef\string\contentsline%
6645 \string#1\string#2\string#3\string#4{%
6646 \string\oldcontentsline%
6647 {\string#1}{\string#2}{\string#3}}^^J%
6648 \string\global\string\let\string\oldnewlabel\string\newlabel^^J%
6649 \string\gdef\string\newlabel\string#1\string#2{%
6650 \string\newlabelxx{\string#1}\string#2}^^J%
6651 \string\gdef\string\newlabelxx%
6652 \string#1\string#2\string#3\string#4\string#5\string#6{%
6653 \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.

```

6654 \string\AtEndDocument{%
6655 \string\ifx\string\hyper@anchor\string\@undefined^^J%
6656 \string\let\string\contentsline\string\oldcontentsline^^J%
6657 \string\let\string\newlabel\string\oldnewlabel^^J%
6658 \string\fi%
6659 }^^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.

```

6660 \string\fi%
6661 }^^J%
6662 \string\global\string\let\string\hyper@last\relax^^J%
6663 \string\gdef\string\HyperFirstAtBeginDocument\string#1{\string#1}%
6664 }%
6665 \fi
6666 \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.

```

6667 \ifx\hyper@last\@undefined
6668 \def\@starttoc#1{%
6669 \begingroup
6670 \makeatletter
6671 \ltx@ifpackageloaded{parskip}{\parskip\z@}{}%
6672 \IfFileExists{\jobname.#1}{%
6673 \Hy@WarningNoLine{%
6674 old #1 file detected, not used; run LaTeX again%
6675 }%
6676 }{}%
6677 \if@filesw
6678 \expandafter\newwrite\csname tf@#1\endcsname
6679 \immediate\openout\csname tf@#1\endcsname \jobname.#1\relax
6680 \fi
6681 \@nobreakfalse
6682 \endgroup

```

```

6683 }%
6684 \def\newlabel#1#2{\@newlabel{#1}{#2}{-}{-}}%
6685 \fi
6686 }

```

26 Title strings

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

```

6687 \ifHy@pdfusetitle
6688 \let\HyOrg@title\title
6689 \let\HyOrg@author\author
6690 \def\title{\@ifnextchar{\Hy@scanopttitle}{\Hy@scantitle}}%
6691 \def\Hy@scanopttitle[#1]{%
6692 \gdef\Hy@title{#1}%
6693 \HyOrg@title{#1}%
6694 }%
6695 \def\Hy@scantitle#1{%
6696 \gdef\Hy@title{#1}%
6697 \HyOrg@title{#1}%
6698 }%
6699 \def\author{\@ifnextchar{\Hy@scanoptauthor}{\Hy@scanauthor}}%
6700 \def\Hy@scanoptauthor[#1]{%
6701 \gdef\Hy@author{#1}%
6702 \HyOrg@author{#1}%
6703 }%
6704 \def\Hy@scanauthor#1{%
6705 \gdef\Hy@author{#1}%
6706 \HyOrg@author{#1}%
6707 }%

```

The case, that `or` 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.

```

6708 \begingroup
6709 \def\process@me#1\@nil#2{%
6710 \expandafter\let\expandafter\x\csname @#2\endcsname
6711 \edef\y{\expandafter\strip@prefix\meaning\x}%
6712 \def\c##1##2\@nil{%
6713 \ifx\\##1\\%
6714 \else
6715 \expandafter\gdef\csname Hy@#2\expandafter\endcsname
6716 \expandafter{\x}%
6717 \fi
6718 }%
6719 \expandafter\c\y\relax#1\@nil
6720 }%
6721 \expandafter\process@me\string\@latex@\@nil{title}%
6722 \expandafter\process@me\string\@latex@\@nil{author}%
6723 \endgroup
6724 \fi
6725 \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.

```

6726 \def\Hy@UseMaketitleString#1{%
6727   \ltx@ifundefined{Hy@#1}{-}{%
6728     \begingroup
6729     \let\Hy@saved@hook\pdfstringdefPreHook
6730     \pdfstringdefDisableCommands{%
6731       \expandafter\let\expandafter\csname Hy@newline@#1\endcsname
6732       \let\newline\}%
6733     }%
6734     \expandafter\ifx\csname @pdf#1\endcsname\@empty
6735       \expandafter\pdfstringdef\csname @pdf#1\endcsname{%
6736         \csname Hy@#1\endcsname\@empty
6737       }%
6738     \fi
6739     \global\let\pdfstringdefPreHook\Hy@saved@hook
6740   \endgroup
6741 }%
6742 }
6743 \def\Hy@newline@title#1{ #1}
6744 \def\Hy@newline@author#1{, #1}
6745 \def\Hy@UseMaketitleInfos{%
6746   \Hy@UseMaketitleString{title}%
6747   \Hy@UseMaketitleString{author}%
6748 }

```

27 Page numbers

This stuff is done by Heiko Oberdiek.

28 Every page

```

6749 \RequirePackage{atbegshi}[2007/09/09]
6750 \let\Hy@EveryPageHook\ltx@empty
6751 \let\Hy@EveryPageBoxHook\ltx@empty
6752 \let\Hy@FirstPageHook\ltx@empty
6753 \AtBeginShipout{%
6754   \Hy@EveryPageHook
6755   \ifx\Hy@EveryPageBoxHook\ltx@empty
6756     \else
6757     \setbox\AtBeginShipoutBox=\vbox{%
6758       \offinterlineskip
6759       \Hy@EveryPageBoxHook
6760       \box\AtBeginShipoutBox
6761     }%
6762   \fi
6763 }
6764 \ltx@iffileloaded{hpdfTEX.def}{%
6765   \AtBeginShipout{%
6766     \Hy@FirstPageHook
6767     \global\let\Hy@FirstPageHook\ltx@empty
6768   }%

```

```

6769 }{%
6770 \AtBeginShipoutFirst{%
6771   \Hy@FirstPageHook
6772 }%
6773 }
6774 \g@addto@macro\Hy@FirstPageHook{%
6775   \PDF@FinishDoc
6776   \global\let\PDF@FinishDoc\ltx@empty
6777 }

```

28.1 PDF /PageLabels

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

```

6778 \ifHy@pdfpagelabels
6779 \begingroup\expandafter\expandafter\expandafter\endgroup
6780 \expandafter\ifx\csname thepage\endcsname\relax
6781   \Hy@pdfpagelabelsfalse
6782   \Hy@WarningNoLine{%
6783     Option 'pdfpagelabels' is turned off\MessageBreak
6784     because \string\thepage\space is undefined%
6785   }%
6786   \csname fi\endcsname
6787   \csname iffalse\expandafter\endcsname
6788   \fi

```

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

```

6789 \def\thispdfpagelabel#1{%
6790   \gdef\HyPL@thisLabel{#1}%
6791 }%
6792 \global\let\HyPL@thisLabel\relax

```

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

```

6793 \let\HyPL@Labels\ltx@empty

```

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

```

6794 \newcount\Hy@abspage
6795 \Hy@abspage=0 %

```

For comparisons with the values of the previous page, some variables are needed:

```

6796 \def\HyPL@LastType{init}%
6797 \def\HyPL@LastNumber{0}%
6798 \let\HyPL@LastPrefix\ltx@empty

```

Definitions for the PDF names of the \LaTeX pendants.

```

6799 \def\HyPL@arabic{D}%
6800 \def\HyPL@Roman{R}%
6801 \def\HyPL@roman{r}%
6802 \def\HyPL@Alph{A}%
6803 \def\HyPL@alph{a}%
6804 \let\HyPL@SlidesSetPage\ltx@empty
6805 \ltx@ifclassloaded{slides}{%
6806   \def\HyPL@SlidesSetPage{%
6807     \advance\c@page\ltx@one
6808     \ifnum\value{page}>\ltx@one
6809       \protected@edef\HyPL@SlidesOptionalPage{%

```

```

6810     \Hy@SlidesFormatOptionalPage{\thepage}%
6811   }%
6812 \else
6813   \let\HyPL@SlidesOptionalPage\ltx@empty
6814 \fi
6815 \advance\c@page-\ltx@one
6816 \def\HyPL@page{%
6817   \csname the\Hy@SlidesPage\endcsname
6818   \HyPL@SlidesOptionalPage
6819 }%
6820 }%
6821 }{}%

```

`\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.

```

6822 \def\HyPL@EveryPage{%
6823   \begingroup
6824   \ifx\HyPL@thisLabel\relax
6825     \let\HyPL@page\thepage
6826     \HyPL@SlidesSetPage
6827   \else
6828     \let\HyPL@page\HyPL@thisLabel
6829     \global\let\HyPL@thisLabel\relax
6830   \fi
6831   \let\HyPL@Type\relax
6832   \ifnum\c@page>0 %
6833     \ifx\HyPL@SlidesSetPage\ltx@empty
6834       \expandafter\HyPL@CheckThePage\HyPL@page\@nil
6835     \fi
6836   \fi
6837   \let\Hy@temp Y%
6838   \ifx\HyPL@Type\HyPL@LastType
6839   \else
6840     \let\Hy@temp N%
6841   \fi
6842   \ifx\HyPL@Type\relax
6843     \pdfstringdef\HyPL@Prefix{\HyPL@page}%
6844   \else
6845     \pdfstringdef\HyPL@Prefix\HyPL@Prefix
6846   \fi
6847   \ifx\HyPL@Prefix\HyPL@LastPrefix
6848   \else
6849     \let\Hy@temp N%
6850   \fi
6851   \if Y\Hy@temp
6852     \advance\c@page by -1 %
6853     \ifnum\HyPL@LastNumber=\the\c@page\relax
6854     \else
6855       \let\Hy@temp N%
6856     \fi
6857     \Hy@StepCount\c@page
6858   \fi
6859   \if N\Hy@temp
6860     \ifx\HyPL@Type\relax
6861       \HyPL@StorePageLabel{/P(\HyPL@Prefix)}%
6862     \else
6863       \HyPL@StorePageLabel{%

```

```

6864     \ifx\HyPL@Prefix\@empty
6865     \else
6866       /P(\HyPL@Prefix)%
6867     \fi
6868     /S/\csname HyPL\HyPL@Type\endcsname
6869     \ifnum\the\c@page=1 %
6870     \else
6871       \space/St \the\c@page
6872     \fi
6873   }%
6874 \fi
6875 \fi
6876 \xdef\HyPL@LastNumber{\the\c@page}%
6877 \global\let\HyPL@LastType\HyPL@Type
6878 \global\let\HyPL@LastPrefix\HyPL@Prefix
6879 \endgroup
6880 \Hy@GlobalStepCount\Hy@abspage
6881 }%

```

`\HyPL@CheckThePage` Macro `\HyPL@CheckThePage` calls `\HyPL@@CheckThePage` that does the job.

```

6882 \def\HyPL@CheckThePage#1\@nil{%
6883   \HyPL@@CheckThePage{#1}#1\csname\endcsname\c@page\@nil
6884 }%

```

`\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 implementation 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`.

```

6885 \def\HyPL@@CheckThePage#1#2\csname#3\endcsname\c@page#4\@nil{%
6886   \def\Hy@tempa{#4}%
6887   \def\Hy@tempb{\csname\endcsname\c@page}%
6888   \ifx\Hy@tempa\Hy@tempb
6889     \expandafter\ifx\csname HyPL#3\endcsname\relax
6890     \else
6891       \def\HyPL@Type{#3}%
6892       \def\HyPL@Prefix{#2}%
6893     \fi
6894   \else
6895     \begingroup
6896     \let\Hy@next\endgroup
6897     \let\HyPL@found\@undefined
6898     \def\arabic{\HyPL@Format{arabic}}%
6899     \def\Roman{\HyPL@Format{Roman}}%
6900     \def\roman{\HyPL@Format{roman}}%
6901     \def\Alph{\HyPL@Format{Alph}}%
6902     \def\alph{\HyPL@Format{alph}}%
6903     \protected@edef\Hy@temp{#1}%
6904     \ifx\HyPL@found\relax
6905       \toks@\expandafter{\Hy@temp}%
6906     \edef\Hy@next{\endgroup
6907       \noexpand\HyPL@@@CheckThePage\the\toks@
6908       \noexpand\HyPL@found\relax\noexpand\@nil
6909     }%
6910     \fi
6911     \Hy@next
6912 \fi

```

6913 }%

`\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`.

```
6914 \def\HyPL@Format#1#2{%
6915   \ifx\HyPL@found\@undefined
6916     \expandafter\ifx\csname c#2\endcsname\c@page
6917       \expandafter\noexpand\csname HyPL@found\endcsname{#1}%
6918     \else
6919       \expandafter\noexpand\csname#1\endcsname{#2}%
6920     \fi
6921   \else
6922     \expandafter\noexpand\csname#1\endcsname{#2}%
6923   \fi
6924 }%
```

`\HyPL@@@CheckThePage` If the second check method is successful, `\HyPL@@@CheckThePage` scans the result of `\HyPL@Format` and stores the found values.

```
6925 \def\HyPL@@@CheckThePage#1\HyPL@found#2#3\@nil{%
6926   \def\Hy@tempa{#3}%
6927   \def\Hy@tempb{\HyPL@found\relax}%
6928   \ifx\Hy@tempa\Hy@tempb
6929     \def\HyPL@Type{#2}%
6930     \def\HyPL@Prefix{#1}%
6931   \fi
6932 }%
```

`\HyPL@StorePageLabel` Dummy for drivers that does not support `/PageLabel`.

```
6933 \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`.

```
6934 \def\HyPL@Useless{0<</S/D>>}%
6935 \@onelevel@sanitize\HyPL@Useless
```

`\HyPL@SetPageLabels` The page labels are written to the PDF catalogue. The command `\Hy@PutCatalog` is defined in the driver files.

```
6936 \def\HyPL@SetPageLabels{%
6937   \@onelevel@sanitize\HyPL@Labels
6938   \ifx\HyPL@Labels\@empty
6939     \else
6940       \ifx\HyPL@Labels\HyPL@Useless
6941         \else
6942           \Hy@PutCatalog{/PageLabels<</Nums{\HyPL@Labels}>>}%
6943         \fi
6944       \fi
6945 }%
```

```
6946 \g@addto@macro\Hy@EveryPageHook{\HyPL@EveryPage}%
6947 \fi
```

Option ‘pdfpagelabels’ has been used and is now disabled.

```
6948 \Hy@DisableOption{pdfpagelabels}
```

```
6949 \endpackage
```

28.1.1 pdfTeX and VTeX

Because of pdfTeX's `\pdfcatalog` command the `/PageLabels` entry can set at end of document in the first run.

`\Hy@PutCatalog`

```
6950 <*pdftex>
6951 \pdf@ifdraftmode{%
6952   \let\Hy@PutCatalog\ltx@gobble
6953 }{%
6954   \let\Hy@PutCatalog\pdfcatalog
6955 }
6956 </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.

```
6957 <*vtex>
6958 \providecommand*\XR@ext}{pdf}
6959 \edef\Hy@VTeXversion{%
6960   \ifx\VTeXversion\@undefined
6961     \z@
6962   \else
6963     \ifx\VTeXversion\relax
6964       \z@
6965     \else
6966       \VTeXversion
6967     \fi
6968   \fi
6969 }
6970 \begingroup
6971   \ifnum\Hy@VTeXversion<660 %
6972     \gdef\Hy@PutCatalog#1{%
6973       \Hy@WarningNoLine{%
6974         VTeX 6.59g or above required for pdfpagelabels%
6975       }%
6976     }%
6977   \else
6978     \gdef\Hy@PutCatalog#1{%
6979       \Hy@vt@PutCatalog#1/PageLabels<<>>\@nil
6980     }%
6981     \gdef\Hy@vt@PutCatalog#1/PageLabels<<#2>>#3\@nil{%
6982       \ifx\#2\%
6983         \else
6984           \immediate\special{!pdfpagelabels #2}%
6985         \fi
6986       }%
6987     \fi
6988 \endgroup
6989 </vtex>

6990 <*pdftex | vtex>
```

`\HyPL@StorePageLabel` This macro adds the entry `#1` to `\HyPL@Labels`.

```
6991 \ifHy@pdfpagelabels
6992   \def\HyPL@StorePageLabel#1{%
```



```

6993 \toks@\expandafter{\HyPL@Labels}%
6994 \xdef\HyPL@Labels{%
6995 \the\toks@
6996 \the\Hy@abspage<<#1>>%
6997 }%
6998 }%

```

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.

```

6999 \RequirePackage{atveryend}[2009/12/07]%
7000 \AtVeryEndDocument{%
7001 \HyPL@SetPageLabels
7002 }%

7003 \fi
7004 </pdfTeX | vtex>

```

28.1.2 xetex

```

7005 <*xetex>
7006 \HyPsd@LoadUnicode
7007 \Hy@unicodetrue
7008 \ifx\HyPsd@pdfencoding\HyPsd@pdfencoding@unicode
7009 \else
7010 \let\HyPsd@pdfencoding\HyPsd@pdfencoding@auto
7011 \fi
7012 \HyPsd@LoadStringEnc
7013 \define@key{Hyp}{unicode}[true]{%
7014 \Hy@boolkey{unicode}{#1}%
7015 \ifHy@unicode
7016 \else
7017 \Hy@Warning{%
7018 XeTeX driver only supports 'unicode=true'. Ignoring\MessageBreak
7019 option setting 'unicode=false'%
7020 }%
7021 \Hy@unicodetrue
7022 \fi
7023 }
7024 \define@key{Hyp}{pdfencoding}{%
7025 \edef\HyPsd@temp{#1}%
7026 \ifx\HyPsd@temp\HyPsd@pdfencoding@unicode
7027 \let\HyPsd@pdfencoding\HyPsd@temp
7028 \else
7029 \ifx\HyPsd@temp\HyPsd@pdfencoding@auto
7030 \let\HyPsd@pdfencoding\HyPsd@temp
7031 \else
7032 \Hy@Warning{%
7033 XeTeX driver only supports\MessageBreak
7034 'pdfencoding=unicode|auto'. Ignoring option\MessageBreak
7035 setting 'pdfencoding=\HyPsd@temp'%
7036 }%
7037 \fi
7038 \fi
7039 }
7040 \let\HyXeTeX@CheckUnicode\relax
7041 </xetex>

```

28.1.3 pdfmarkbase, dvipdfm, xetex

```

7042 (*pdfmarkbase)
7043 \begingroup
7044 \@ifundefined{headerps@out}{}{}%
7045 \toks@\expandafter{\Hy@FirstPageHook}%
7046 \xdef\Hy@FirstPageHook{%
7047 \noexpand\headerps@out{%
7048 systemdict /pdfmark known%
7049 {%
7050 userdict /?pdfmark systemdict /exec get put%
7051 }{%
7052 userdict /?pdfmark systemdict /pop get put %
7053 userdict /pdfmark systemdict /cleartomark get put%
7054 }%
7055 ifelse%
7056 }%
7057 \the\toks@
7058 }%
7059 }%
7060 \endgroup
7061 \pdfmarkbase)

```

\Hy@PutCatalog

```

7062 (dvipdfm | xetex)\def\Hy@PutCatalog#1{\@pdfmark{docview <<#1>>}}
7063 (*pdfmarkbase)
7064 \def\Hy@PutCatalog#1{%
7065 \pdfmark{pdfmark=/PUT,Raw={\string{Catalog\string} <<#1>>}}%
7066 }
7067 \pdfmarkbase)

7068 (*pdfmarkbase | dvipdfm | xetex)
7069 \ifHy@pdfpagelabels

```

\HyPL@StorePageLabel This macro writes a string to the .aux file.

```

7070 \def\HyPL@StorePageLabel#1{%
7071 \if@filesw
7072 \begingroup
7073 \edef\Hy@tempa{\the\Hy@abspage<<#1>>}%
7074 \immediate\write\@mainaux{%
7075 \string\HyPL@Entry{\Hy@tempa}%
7076 }%
7077 \endgroup
7078 \fi
7079 }%

```

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.

```

7080 \Hy@AtBeginDocument{%
7081 \if@filesw
7082 \immediate\write\@mainaux{%
7083 \string\providecommand\string*\string\HyPL@Entry[1]{}%
7084 }%
7085 \fi
7086 \ifx\HyPL@Labels\@empty
7087 \Hy@WarningNoLine{Rerun to get /PageLabels entry}%
7088 \else

```

```

7089   \HyPL@SetPageLabels
7090   \fi
7091   \let\HyPL@Entry\@gobble
7092 }%

```

\HyPL@Entry

```

7093 \def\HyPL@Entry#1{%
7094   \expandafter\gdef\expandafter\HyPL@Labels\expandafter{%
7095     \HyPL@Labels
7096     #1%
7097   }%
7098 }%

7099 \fi
7100 </pdfmarkbase | dvipdfm | xetex>

7101 <*package>

7102 \ifx\MaybeStopEarly\relax
7103 \else
7104   \Hy@stoppedearlytrue
7105   \expandafter\MaybeStopEarly
7106 \fi
7107 \Hy@stoppedearlyfalse

```

29 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

```

7108 \def\Hy@CounterExists#1{%
7109   \begingroup\expandafter\expandafter\expandafter\endgroup
7110   \expandafter\ifx\csname c@#1\endcsname\relax
7111     \expandafter\@gobble
7112   \else
7113     \begingroup\expandafter\expandafter\expandafter\endgroup
7114     \expandafter\ifx\csname the#1\endcsname\relax
7115       \expandafter\expandafter\expandafter\@gobble
7116     \else
7117       \expandafter\expandafter\expandafter\@firstofone
7118     \fi

```

```

7119 \fi
7120 }
7121 \Hy@CounterExists{section}{%
7122 \providecommand\theHequation{\theHsection.\arabic{equation}}}%
7123 }
7124 \Hy@CounterExists{part}{%
7125 \providecommand\theHpart{\arabic{part}}}%
7126 }
7127 \ltx@ifundefined{thechapter}{%
7128 \providecommand\theHsection {\arabic{section}}}%
7129 \providecommand\theHfigure {\arabic{figure}}}%
7130 \providecommand\theHtable {\arabic{table}}}%
7131 }{%
7132 \providecommand\theHchapter {\arabic{chapter}}}%
7133 \providecommand\theHfigure {\theHchapter.\arabic{figure}}}%
7134 \providecommand\theHtable {\theHchapter.\arabic{table}}}%
7135 \providecommand\theHsection {\theHchapter.\arabic{section}}}%
7136 }
7137 \providecommand\theHsubsection {\theHsection.\arabic{subsection}}
7138 \providecommand\theHsubsubsection{\theHsubsection.\arabic{subsubsection}}
7139 \providecommand\theHparagraph {\theHsubsubsection.\arabic{paragraph}}
7140 \providecommand\theHsubparagraph {\theHparagraph.\arabic{subparagraph}}
7141 \providecommand\theHtheorem {\theHsection.\arabic{theorem}}
7142 \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.

```

7143 \let\H@item\item
7144 \newcounter{Item}
7145 \def\theHItem{\arabic{Item}}
7146 \def\item{%
7147 \@hyper@itemfalse
7148 \if@nmbrrlist\@hyper@itemtrue\fi
7149 \H@item
7150 }
7151 \providecommand\theHenumi {\theHItem}
7152 \providecommand\theHenumii {\theHItem}
7153 \providecommand\theHenumiii {\theHItem}
7154 \providecommand\theHenumiv {\theHItem}
7155 \providecommand\theHHfootnote {\arabic{Hfootnote}}
7156 \providecommand\theHmpfootnote{\arabic{mpfootnote}}
7157 \@ifundefined{theHHmpfootnote}{%
7158 \let\theHHmpfootnote\theHHfootnote
7159 }{}

```

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.

```

7160 \let\H@refstepcounter\refstepcounter
7161 \edef\name@of@eq{equation}%
7162 \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.

```

7163 \newif\if@hyper@item
7164 \newif\if@skiphyperref

```

```

7165 \@hyper@itemfalse
7166 \@skiphyperreffalse
7167 \def\refstepcounter#1{%
7168   \ifHy@pdfstring
7169   \else
7170     \H@refstepcounter{#1}%
7171     \edef\This@name{#1}%
7172     \ifx\This@name\name@of@slide
7173     \else
7174       \if@skiphyperref
7175       \else
7176         \if@hyper@item
7177           \stepcounter{Item}%
7178           \hyper@refstepcounter{Item}%
7179           \@hyper@itemfalse
7180         \else
7181           \hyper@refstepcounter{#1}%
7182         \fi
7183       \fi
7184     \fi
7185   \fi
7186 }
7187 \let\Hy@saved@refstepcounter\refstepcounter

```

AMS \LaTeX 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.

```

7188 \@ifpackageloaded{amsmath}{\newif\ifmeasuring@\measuring@false}

```

`\hyper@refstepcounter`

```

7189 \def\hyper@refstepcounter#1{%
7190   \edef\This@name{#1}%
7191   \ifx\This@name\name@of@eq
7192     \@ifundefined{theHequation}{%
7193       \make@stripped@name{\theequation}%
7194       \let\theHequation\newname
7195     }{%
7196     \fi
7197     \HyCnt@ProvideTheHCounter{#1}%
7198     \hyper@makecurrent{#1}%
7199     \ifmeasuring@
7200     \else
7201       \Hy@raisedlink{%
7202         \hyper@anchorstart{\@currentHref}\hyper@anchorend
7203       }%
7204     \fi
7205 }

```

`\Hy@ProvideTheHCounter` `\theH<counter>` is not set for counters that are defined before ‘hyperref’ is loaded. In `\cl@ckpt`, the clear counter list of the artificial counter `@ckpt`, \LaTeX remembers the defined counters (needed for `\include`). We check the clear counter lists, whether our counter is present. If we found it, then we add the parent counter value to `\theH<counter>`. The `\@elt` list is used in sanitized form for the comparison, because the list might contain other stuff than `\@elts`. Also it simplifies the implementation, because \LaTeX , substring search `\in@` can be used.

```

7206 \def\HyCnt@ProvideTheHCounter#1{%
7207   \@ifundefined{theH#1}{%

```

```

7208 \expandafter\def\csname theH#1\endcsname{ }%
7209 \def\Hy@temp{\@elt{#1}}%
7210 \ltx@onelevel@sanitize\Hy@temp
7211 \let\HyOrg@elt\@elt
7212 \edef\@elt{%
7213   \noexpand\HyCnt@LookForParentCounter
7214   \expandafter\noexpand\csname theH#1\endcsname
7215 }%
7216 \cl@@ckpt
7217 \let\@elt\HyOrg@elt
7218 \expandafter
7219 \ltx@LocalAppendToMacro\csname theH#1\endcsname\expandafter\endcsname
7220 \expandafter{%
7221   \expandafter\@arabic\csname c@#1\endcsname
7222 }%
7223 }{}%
7224 }

```

\Hy@LookForParentCounter

```

7225 \def\HyCnt@LookForParentCounter#1#2{%
7226   \expandafter\let\expandafter\Hy@temp@A\csname cl@#2\endcsname
7227   \ltx@ifundefined{cl@#2}{%
7228     }{%
7229     \ltx@onelevel@sanitize\Hy@temp@A
7230     \edef\Hy@temp@A{%
7231       \noexpand\in@{\Hy@temp}{\Hy@temp@A}%
7232     }\Hy@temp@A
7233     \ifin@
7234     \ltx@ifundefined{theH#2}{%
7235       \expandafter\ltx@LocalAppendToMacro\expandafter#1%
7236       \expandafter{%
7237         \expandafter\@arabic\csname c@#2\endcsname.%
7238       }%
7239     }{%
7240       \expandafter\ltx@LocalAppendToMacro\expandafter#1%
7241       \expandafter{%
7242         \csname theH#2\endcsname.%
7243       }%
7244     }%
7245     \fi
7246   }%
7247 }

```

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`.

```

7248 \begingroup\expandafter\expandafter\expandafter\endgroup
7249 \expandafter\ifx\csname chapter\endcsname\relax
7250 \def\Hy@chapterstring{section}%
7251 \else
7252 \def\Hy@chapterstring{chapter}%
7253 \fi
7254 \def\Hy@appendixstring{appendix}
7255 \def\Hy@chapapp{\Hy@chapterstring}

```

```

7256 \ltx@ifundefined{appendix}{%
7257 }{%
7258 \let\HyOrg@appendix\appendix
7259 \def\Hy@AlphNoErr#1{%
7260 \ifnum\value{#1}>26 %
7261   Alph\number\value{#1}%
7262 \else
7263 \ifnum\value{#1}<1 %
7264   Alph\number\value{#1}%
7265 \else
7266 \Alph{#1}%
7267 \fi
7268 \fi
7269 }%
7270 \def\appendix{%
7271 \ltx@ifundefined{chapter}{%
7272 \gdef\theHsection{\Hy@AlphNoErr{section}}%
7273 }{%
7274 \gdef\theHchapter{\Hy@AlphNoErr{chapter}}%
7275 }%
7276 \xdef\Hy@chapapp{\Hy@appendixstring}%
7277 \HyOrg@appendix
7278 }%
7279 }

```

\Hy@Test@alph

```

7280 \def\Hy@Test@alph#1{%
7281 \ifcase#1\or
7282 a\or b\or c\or d\or e\or f\or g\or h\or i\or j\or
7283 k\or l\or m\or n\or o\or p\or q\or r\or s\or t\or
7284 u\or v\or w\or x\or y\or z%
7285 \else
7286 \@ctrerr
7287 \fi
7288 }

```

\Hy@Test@Alph

```

7289 \def\Hy@Test@Alph#1{%
7290 \ifcase#1\or
7291 A\or B\or C\or D\or E\or F\or G\or H\or I\or J\or
7292 K\or L\or M\or N\or O\or P\or Q\or R\or S\or T\or
7293 U\or V\or W\or X\or Y\or Z%
7294 \else
7295 \@ctrerr
7296 \fi
7297 }

```

\hyper@makecurrent Because of Babel mucking around, nullify \textlatin when making names. And \@number because of babel's lrbabel.def.

```

7298 \def\hyper@makecurrent#1{%
7299 \begingroup
7300 \Hy@safe@activestruer
7301 \edef\Hy@param{#1}%
7302 \ifx\Hy@param\Hy@chapterstring
7303 \let\Hy@param\Hy@chapapp
7304 \fi
7305 \ifHy@hypertextnames

```

```

7306 \let\@number\@firstofone
7307 \def\@fnsymbol##1{fnsymbol\number##1}%
7308 \def\@arabic##1{\number##1}%
7309 \ifx\@alph\Hy@Test@alph
7310 \else
7311 \def\@alph{alph\number}%
7312 \fi
7313 \ifx\@Alph\Hy@Test@Alph
7314 \else
7315 \def\@Alph{Alph\number}%
7316 \fi
7317 \ifHy@naturalnames
7318 \let\textlatin\@firstofone
7319 \xdef\HyperGlobalCurrentHref{\csname the#1\endcsname}%
7320 \else
7321 \xdef\HyperGlobalCurrentHref{%
7322 \csname
7323 the%
7324 \expandafter\ifx\csname theH#1\endcsname\relax\else H\fi
7325 #1%
7326 \endcsname
7327 }%
7328 \fi
7329 \xdef\HyperGlobalCurrentHref{%
7330 \Hy@param.\expandafter\strip@prefix\meaning\HyperGlobalCurrentHref
7331 }%
7332 \else
7333 \Hy@GlobalStepCount\Hy@linkcounter
7334 \xdef\HyperGlobalCurrentHref{\Hy@param.\the\Hy@linkcounter}%
7335 \fi
7336 \endgroup
7337 \let\HyperLocalCurrentHref\HyperGlobalCurrentHref
7338 \ifHy@localanchorname
7339 \let\@currentHref\HyperLocalCurrentHref
7340 \else
7341 \global\let\@currentHref\HyperGlobalCurrentHref
7342 \fi
7343 }

```

\Hy@MakeCurrentHref

```

7344 \def\Hy@MakeCurrentHref#1{%
7345 \edef\HyperLocalCurrentHref{#1}%
7346 \@onelevel@sanitize\HyperLocalCurrentHref
7347 \global\let\HyperGlobalCurrentHref\HyperLocalCurrentHref
7348 \let\HyperLocalCurrentHref\HyperGlobalCurrentHref
7349 \ifHy@localanchorname
7350 \let\@currentHref\HyperLocalCurrentHref
7351 \else
7352 \global\let\@currentHref\HyperGlobalCurrentHref
7353 \fi
7354 }

```

\Hy@MakeCurrentHrefAuto

```

7355 \def\Hy@MakeCurrentHrefAuto#1{%
7356 \Hy@GlobalStepCount\Hy@linkcounter
7357 \Hy@MakeCurrentHref{#1.\the\Hy@linkcounter}%
7358 }

```



```

\@currentHlabel \@currentHlabel is only defined for compatibility with package ‘hypdvips’.
7359 \def\@currentHlabel{\@currentHref}

7360 \@ifpackageloaded{fancyvrb}{%
7361   \@ifpackagelater{fancyvrb}{1998/05/20}{-}{-%
7362     \def\FV@StepLineNo{%
7363       \FV@SetLineNo
7364       \def\FV@StepLineNo{\H@refstepcounter{FancyVerbLine}}}%
7365     \FV@StepLineNo
7366   }%
7367 }%
7368 }{}

```

30 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 `hypertexnames` and `plainpages`) is used to get the page anchor name as in `\Hy@EveryPageAnchor` (see sec. 39). The link will not work if option `pageanchor` is set to `false`.

```

\lastpage@putlabel
7369 \Hy@AtBeginDocument{%
7370   \@ifclassloaded{revtex4}{%
7371     \@namedef{ver@lastpage.sty}{1994/06/25}%
7372   }{}%
7373   \@ifpackageloaded{lastpage}{%
7374     \ifHy@pageanchor
7375     \else
7376       \Hy@WarningNoLine{%
7377         The \string\pageref{LastPage} link doesn't work\MessageBreak
7378         with disabled option ‘pageanchor’%
7379       }%
7380     \fi
7381     \def\lastpage@putlabel{%
7382       \addtocounter{page}{-1}%
7383       \iffilesw
7384         \begingroup
7385         \let\@number\@firstofone
7386         \ifHy@pageanchor
7387           \ifHy@hypertexnames
7388             \ifHy@plainpages
7389               \def\Hy@temp{\arabic{page}}%
7390             \else
7391               \Hy@unicodedefalse
7392               \pdfstringdef\Hy@temp{\thepage}%
7393             \fi
7394           \else
7395             \def\Hy@temp{\the\Hy@pagecounter}%
7396           \fi
7397         \fi
7398         \immediate\write\@auxout{%
7399           \string\newlabel
7400           {LastPage}{}{\thepage}{}{}%

```

```

7401         \ifHy@pageanchor page.\Hy@temp\fi}{}}%
7402     }%
7403     \endgroup
7404     \fi
7405     \addtocounter{page}{1}%
7406 }%
7407 \@ifclassloaded{revtex4}{%
7408     \begingroup
7409     \toks@\expandafter{\lastpage@putlabel}%
7410     \edef\x{\endgroup
7411         \def\noexpand\lastpage@putlabel{%
7412             \noexpand\stepcounter{page}%
7413             \the\toks@
7414             \noexpand\addtocounter{page}\noexpand\m@ne
7415         }%
7416     }%
7417     \x
7418 }{}%
7419 }{}%
7420 }
7421 \</package>
7422 \< *check>
7423 \checkpackage{lastpage}[1994/06/25]
7424 \checkcommand\def\lastpage@putlabel{%
7425     \addtocounter{page}{-1}%
7426     \immediate\write\@auxout{%
7427         \string\newlabel{LastPage}{{}\{thepage}}}%
7428 }%
7429 \addtocounter{page}{1}%
7430 }
7431 \</check>
7432 \< *package>

```

31 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.

```

7433 \def\hypergetref#1{\getrefbykeydefault{#1}{}{??}}
7434 \def\hypergetpageref#1{\getrefbykeydefault{#1}{page}{0}}

```

32 Package titlesec and titletoc support

This code is contributed by Javier Bezos (Email: jbezos@arrakis.es).

Package titlesec support:

```

7435 \@ifpackageloaded{titlesec}{%
7436     \def\ttl@Hy@steplink#1{%
7437         \Hy@MakeCurrentHrefAuto{#1*}%
7438         \edef\ttl@Hy@saveanchor{%
7439             \noexpand\Hy@raisedlink{%
7440                 \noexpand\hyper@anchorstart{\@currentHref}%
7441                 \noexpand\hyper@anchorend
7442                 \def\noexpand\ttl@Hy@SavedCurrentHref{\@currentHref}%
7443                 \noexpand\ttl@Hy@PatchSaveWrite
7444             }%

```

```

7445 }%
7446 }%
7447 \def\ttl@Hy@PatchSaveWrite{%
7448   \begingroup
7449   \toks@\expandafter{\ttl@savewrite}%
7450   \edef\x{\endgroup
7451     \def\noexpand\ttl@savewrite{%
7452       \let\noexpand\@currentHref
7453       \noexpand\ttl@Hy@SavedCurrentHref
7454       \the\toks@
7455     }%
7456   }%
7457   \x
7458 }%
7459 \def\ttl@Hy@refstepcounter#1{%
7460   \let\ttl@b\Hy@raisedlink
7461   \def\Hy@raisedlink##1{%
7462     \def\ttl@Hy@saveanchor{\Hy@raisedlink{##1}}%
7463   }%
7464   \refstepcounter{#1}%
7465   \let\Hy@raisedlink\ttl@b
7466 }%
7467 }{}

Package titletoc support:
7468 \@ifpackageloaded{titletoc}{%
7469   \def\ttl@gobblecontents#1#2#3#4{\ignorespaces}%
7470 }{}

```

33 Package varioref support

Package nameref uses five arguments for the ref system. Fix provided by Felix Neubauer (felix.neubauer@gmx.net).

```

7471 \def\Hy@varioref@undefined{{?}{?}{-}{-}}
7472 \@ifpackageloaded{varioref}{%
7473   \def\vref@pagenum#1#2{%
7474     \@ifundefined{r@#2}{%
7475       \expandafter\let\csname r@#2\endcsname\Hy@varioref@undefined
7476     }{}%
7477     \edef#1{\getpagerefnumber{#2}}%
7478   }%
7479 }{}

```

Package varioref redefines `\refstepcounter`, thus it needs fixing, if the package is loaded *after* `hyperref`.

```

7480 \def\Hy@varioref@refstepcounter#1{%
7481   \stepcounter{#1}%
7482   \protected@edef\@currentlabel{%
7483     \csname p@#1\expandafter\endcsname\csname the#1\endcsname
7484   }%
7485 }
7486 \AtBeginDocument{%
7487   \ifx\refstepcounter\Hy@varioref@refstepcounter
7488     \let\H@refstepcounter\refstepcounter
7489     \let\refstepcounter\Hy@saved@refstepcounter
7490   \fi
7491 }

```

34 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

```
7492 \@ifpackageloaded{longtable}{%
7493   \begingroup
7494   \def\y{\LT@array}%
7495   \@ifundefined{scr@LT@array}{%
7496     \@ifundefined{adl@LT@array}{\def\y{\adl@LT@array}}{%
7497     }\def\y{\scr@LT@array}}%
7498   \long\def\x\refstepcounter#1#2\@sharp#3#4\@nil{%
7499     \expandafter\endgroup
7500     \expandafter\def\y[##1]##2{%
7501       \H@refstepcounter{#1}%
7502       \hyper@makecurrent{table}%
7503       \let\Hy@LT@currentHref\@currentHref
7504       #2\@sharp###3#4%
7505     }%
7506   }%
7507   \expandafter\expandafter\expandafter\x\y[#{1}]{#2}\@nil
```

Patch of `\LT@start`: add anchor before first line after `\vskip\LTpre`

```
7508   \begingroup
7509   \def\x#1\ifvoid\LT@foot#2\fi#3\@nil{%
7510     \endgroup
7511     \def\LT@start{%
7512       #1%
7513       \ifvoid\LT@foot#2\fi
7514       \let\@currentHref\Hy@LT@currentHref
7515       \Hy@raisedlink{%
7516         \hyper@anchorstart{\@currentHref}\hyper@anchorend
7517       }%
7518       #3%
7519     }%
7520   }%
7521   \expandafter\x\LT@start\@nil
7522 }{}
```

35 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 42). 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.

```
7523 \let\new@refstepcounter\refstepcounter
7524 \let\H@equation\equation
7525 \let\H@endequation\endequation
7526 \@ifpackageloaded{amsmath}{%
7527   \long\def\Hy@temp{%
7528     \incr@eqnum
7529     \mathdisplay@push
```

```

7530 \st@rredfalse \global\@eqnswtrue
7531 \mathdisplay{equation}%
7532 }%
7533 \ifx\Hy@temp\equation
7534 \expandafter\ifx\csname if@fleqn\expandafter\endcsname
7535 \csname iftrue\endcsname
7536 \else
7537 \long\def\equation{%
7538 \mathdisplay@push
7539 \st@rredfalse \global\@eqnswtrue
7540 \mathdisplay{equation}%
7541 \incr@eqnum
7542 }%
7543 \fi
7544 \fi
7545 }{%
7546 \def\equation{%
7547 \let\refstepcounter\H@refstepcounter
7548 \H@equation
7549 \@ifundefined{theHequation}{%
7550 \make@stripped@name{\theequation}%
7551 \let\theHequation\newname
7552 }{}%
7553 \hyper@makecurrent{equation}%

```

`\mathopen` is needed in case the equation starts with an unary minus, for example.

```

7554 \mathopen{%
7555 \Hy@raisedlink{\hyper@anchorstart{\@currentHref}}}%
7556 }%
7557 \let\refstepcounter\new@refstepcounter
7558 }%
7559 \def\endequation{%
7560 \ifx\Hy@raisedlink\ltx@empty
7561 \hyper@anchorend
7562 \else
7563 \mathclose{\Hy@raisedlink{\hyper@anchorend}}}%
7564 \fi
7565 \H@endequation
7566 }%
7567 }

```

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.

```

7568 \newif\if@eqnstar
7569 \@eqnstarfalse
7570 \let\H@eqnarray\eqnarray
7571 \let\H@endeqnarray\endeqnarray
7572 \def\eqnarray{%
7573 \let\Hy@reserved@a\relax
7574 \def\@currentHref{}%
7575 \H@eqnarray
7576 \if@eqnstar
7577 \else
7578 \ifx\\\@currentHref\\%
7579 \else

```

```

7580 \@ifundefined{theHequation}{%
7581 \make@stripped@name{\theequation}%
7582 \let\theHequation\newname
7583 }{%
7584 \hyper@makecurrent{equation}%
7585 \mathopen{%
7586 \Hy@raisedlink{%
7587 \hyper@anchorstart{\@currentHref}\hyper@anchorend
7588 }%
7589 }%
7590 \fi
7591 \fi
7592 }
7593 \def\endeqnarray{%
7594 \H@endeqnarray
7595 }

```

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.

```

7596 \@namedef{eqnarray*}{%
7597 \def\@eqnocr{\nonumber\@seqnocr}\@eqnstartrue\eqnarray
7598 }
7599 \@namedef{endeqnarray*}{%
7600 \nonumber\endeqnarray\@eqnstarfalse
7601 }

```

Then again, we have the `subeqnarray` package. Tanmoy provided some code for this:

```

7602 \ltx@ifundefined{subeqnarray}{}{%
7603 \let\H@subeqnarray\subeqnarray
7604 \let\H@endsubeqnarray\endsubeqnarray
7605 \def\subeqnarray{%
7606 \let\Hy@reserved@a\relax
7607 \H@subeqnarray
7608 \@ifundefined{theHequation}{%
7609 \make@stripped@name{\theequation}%
7610 \let\theHequation\newname
7611 }{%
7612 \hyper@makecurrent{equation}%
7613 \hyper@anchorstart{\@currentHref}{}\hyper@anchorend
7614 }%
7615 \def\endsubeqnarray{%
7616 \H@endsubeqnarray
7617 }%
7618 \providecommand\theHsubequation{\theHequation\alph{subequation}}%
7619 }

```

The aim of this macro is to produce a sanitized version of its argument, to make it a safe label.

```

7620 \def\make@stripped@name#1{%
7621 \begingroup
7622 \escapechar\m@ne
7623 \global\let\newname\@empty
7624 \protected@edef\Hy@tempa{#1}%
7625 \edef\@tempb{%
7626 \noexpand\@tfor\noexpand\Hy@tempa:=%
7627 \expandafter\strip@prefix\meaning\Hy@tempa

```

```

7628 }%
7629 \@tempb\do{%
7630   \if{\Hy@tempa\else
7631     \if}\Hy@tempa\else
7632     \xdef\newname{\newname\Hy@tempa}%
7633   \fi
7634   \fi
7635 }%
7636 \endgroup
7637 }

```

Support for amsmath's subequations:

```

7638 \begingroup\expandafter\expandafter\expandafter\endgroup
7639 \expandafter\ifx\csname subequations\endcsname\relax
7640 \else
7641   \let\HyOrg@subequations\subequations
7642   \def\subequations{%
7643     \stepcounter{equation}%
7644     \protected@edef\theHparentequation{%
7645       \@ifundefined{theHequation}\theequation\theHequation
7646     }%
7647     \addtocounter{equation}{-1}%
7648     \HyOrg@subequations
7649     \def\theHequation{\theHparentequation\alph{equation}}%
7650     \ignorespaces
7651   }%
7652 \fi

```

Support for package amsthm (Daniel Müllner):

```

7653 \@ifpackageloaded{amsthm}{%

```

Class ansbook 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
7654 \def\Hy@temp#1#2#3{%
7655   \ifhmode\unskip\unskip\par\fi
7656   \normalfont
7657   \trivlist
7658   \let\thmheadnl\relax
7659   \let\thm@swap\@gobble
7660   \let\thm@indent\indent % indent
7661   \thm@headfont{\scshape}% heading font small caps
7662   \thm@notefont{\fontseries\mddefault\upshape}%
7663   \thm@headpunct{.}% add period after heading
7664   \thm@headsep 5\p@ plus\p@ minus\p@\relax
7665   \thm@space@setup
7666   #1% style overrides
7667   \@topsep \thm@preskip % used by thm head
7668   \@topsepadd \thm@postskip % used by \@endparenv
7669   \def\@tempa{#2}\ifx\@empty\@tempa
7670     \def\@tempa{\@oparg{\@begintheorem{#3}{}}{}}%
7671   \else
7672     \refstepcounter{#2}%
7673     \def\@tempa{%
7674       \@oparg{\@begintheorem{#3}{\csname the#2\endcsname}}{}}%
7675     }%
7676   \fi

```

```

7677 \@tempa
7678 }%
7679 \ifx\Hy@temp\@thm
7680 \def\@thm#1#2#3{%
7681 \ifhmode
7682 \unskip\unskip\par
7683 \fi
7684 \normalfont
7685 \trivlist
7686 \let\thmheadnl\relax
7687 \let\thm@swap\@gobble
7688 \let\thm@indent\indent % indent
7689 \thm@headfont{\scshape}% heading font small caps
7690 \thm@notefont{\fontseries\mddefault\upshape}%
7691 \thm@headpunct{.}% add period after heading
7692 \thm@headsep 5\p@ plus\p@ minus\p@\relax
7693 \thm@space@setup
7694 #1% style overrides
7695 \@topsep \thm@preskip % used by thm head
7696 \@topsepadd \thm@postskip % used by \@endparenv
7697 \def\dth@counter{#2}%
7698 \ifx\@empty\dth@counter
7699 \def\@tempa{%
7700 \@oparg{\@begintheorem{#3}-{}}[]%
7701 }%
7702 \else
7703 \H@refstepcounter{#2}%
7704 \hyper@makecurrent{#2}%
7705 \let\Hy@dth@currentHref\@currentHref
7706 \def\@tempa{%
7707 \@oparg{\@begintheorem{#3}-{\csname the#2\endcsname}}[]%
7708 }%
7709 \fi
7710 \@tempa
7711 }%
7712 \else
7713 \def\@thm#1#2#3{%
7714 \ifhmode
7715 \unskip\unskip\par
7716 \fi
7717 \normalfont
7718 \trivlist
7719 \let\thmheadnl\relax
7720 \let\thm@swap\@gobble
7721 \thm@notefont{\fontseries\mddefault\upshape}%
7722 \thm@headpunct{.}% add period after heading
7723 \thm@headsep 5\p@ plus\p@ minus\p@\relax
7724 \thm@space@setup
7725 #1% style overrides
7726 \@topsep \thm@preskip % used by thm head
7727 \@topsepadd \thm@postskip % used by \@endparenv
7728 \def\dth@counter{#2}%
7729 \ifx\@empty\dth@counter
7730 \def\@tempa{%
7731 \@oparg{\@begintheorem{#3}-{}}[]%
7732 }%
7733 \else

```



```

7734 \H@refstepcounter{#2}%
7735 \hyper@makecurrent{#2}%
7736 \let\Hy@dth@currentHref\@currentHref
7737 \def\@tempa{%
7738 \@oparg{\@begintheorem{#3}{\csname the#2\endcsname}}{}%
7739 }%
7740 \fi
7741 \@tempa
7742 }%
7743 \fi
7744 \dth@everypar={%
7745 \@minipagefalse
7746 \global\@newlistfalse
7747 \@noparitemfalse
7748 \if@inlabel
7749 \global\@inlabelfalse
7750 \begingroup
7751 \setbox\z@\lastbox
7752 \ifvoid\z@
7753 \kern-\itemindent
7754 \fi
7755 \endgroup
7756 \ifx\@empty\dth@counter
7757 \else
7758 \Hy@raisedlink{%
7759 \hyper@anchorstart{%
7760 \ltx@ifundefined{Hy@dth@currentHref}%
7761 \@currentHref\Hy@dth@currentHref
7762 }\hyper@anchorend
7763 }%
7764 \fi
7765 \unhbox\@labels
7766 \fi
7767 \if@nobreak
7768 \@nobreakfalse \clubpenalty\@M
7769 \else
7770 \clubpenalty\@clubpenalty \everypar{}%
7771 \fi
7772 }%
7773 }{}

```

36 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.

```

7774 \ifHy@hyperfootnotes
7775 \newcounter{Hfootnote}%
7776 \let\H@@@footnotetext\footnotetext
7777 \let\H@@@footnotemark\@footnotemark
7778 \def\@xfootnotenext[#1]{%
7779 \begingroup
7780 \csname c@\@mpfn\endcsname #1\relax
7781 \unrestored@protected@xdef\@thefnmark{\thempfn}%

```

```

7782 \endgroup
7783 \ifx\@footnotetext\@mpfootnotetext
7784 \expandafter\H@\@mpfootnotetext
7785 \else
7786 \expandafter\H@\@footnotetext
7787 \fi
7788 }%
7789 \def\@xfootnotemark[#1]{%
7790 \begingroup
7791 \c@footnote #1\relax
7792 \unrestored@protected@xdef\@thefnmark{\thefootnote}%
7793 \endgroup
7794 \H@\@footnotemark
7795 }%
7796 \let\H@\@mpfootnotetext\@mpfootnotetext
7797 \long\def\@mpfootnotetext#1{%
7798 \H@\@mpfootnotetext{%
7799 \ifHy@nesting
7800 \expandafter\ltx@firstoftwo
7801 \else
7802 \expandafter\ltx@secondoftwo
7803 \fi
7804 }%
7805 \expandafter\hyper@@anchor\expandafter{%
7806 \Hy@footnote@currentHref
7807 }{#1}%
7808 }{%
7809 \Hy@raisedlink{%
7810 \expandafter\hyper@@anchor\expandafter{%
7811 \Hy@footnote@currentHref
7812 }{\relax}%
7813 }#1%
7814 }%
7815 }%
7816 }%
7817 \long\def\@footnotetext#1{%
7818 \H@\@footnotetext{%
7819 \ifHy@nesting
7820 \expandafter\ltx@firstoftwo
7821 \else
7822 \expandafter\ltx@secondoftwo
7823 \fi
7824 }%
7825 \expandafter\hyper@@anchor\expandafter{%
7826 \Hy@footnote@currentHref
7827 }{#1}%
7828 }{%
7829 \Hy@raisedlink{%
7830 \expandafter\hyper@@anchor\expandafter{%
7831 \Hy@footnote@currentHref
7832 }{\relax}%
7833 }%
7834 \let\@currentHref\Hy@footnote@currentHref
7835 \let\@currentlabelname\@empty
7836 #1%
7837 }%
7838 }%

```

7839 }%

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.

```
7840 \def\@footnotemark{%
7841   \leavevmode
7842   \ifhmode\edef\x@sf{\the\spacefactor}\nobreak\fi
7843   \stepcounter{Hfootnote}%
7844   \global\let\Hy@saved@currentHref\@currentHref
7845   \hyper@makecurrent{Hfootnote}%
7846   \global\let\Hy@footnote@currentHref\@currentHref
7847   \global\let\@currentHref\Hy@saved@currentHref
7848   \hyper@linkstart{link}{\Hy@footnote@currentHref}%
7849   \@makefnmark
7850   \hyper@linkend
7851   \ifhmode\spacefactor\x@sf\fi
7852   \relax
7853 }%
```

Tabularx causes footnote problems, disable the linking if that is loaded. Since v6.82i footnotes are only disabled inside the environment ‘`tabularx`’.

```
7854 \@ifpackageloaded{tabularx}{%
7855   \let\HyOrg@TX@endtabularx\TX@endtabularx
7856   \def\Hy@tabularx@hook{%
7857     \let\@footnotetext\H@@footnotetext
7858     \let\@footnotemark\H@@footnotemark
7859     \let\@mpfootnotetext\H@@mpfootnotetext
7860   }%
7861   \begingroup
7862     \toks@\expandafter{\TX@endtabularx}%
7863     \xdef\Hy@gtemp{%
7864       \noexpand\Hy@tabularx@hook
7865       \the\toks@
7866     }%
7867   \endgroup
7868   \let\TX@endtabularx\Hy@gtemp
7869 }{ }%
```

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

```
7870 \@ifpackageloaded{longtable}{%
7871   \CheckCommand*\LT@p@ftntext[1]{%
7872     \edef\@tempa{%
7873       \the\LT@p@ftn
7874       \noexpand\footnotetext[\the\c@footnote]%
7875     }%
7876     \global\LT@p@ftn\expandafter{\@tempa{#1}}%
7877   }%
7878   \long\def\LT@p@ftntext#1{%
7879     \edef\@tempa{%
7880       \the\LT@p@ftn
7881     }%
7882     \begingroup
7883     \noexpand\c@footnote=\the\c@footnote\relax
```

```

7883     \noexpand\protected@xdef\noexpand\@thefnmark{%
7884     \noexpand\thempfn
7885     }%
7886     \noexpand\Hy@LT@footnotetext{%
7887     \Hy@footnote@currentHref
7888     }%
7889     }%
7890     \global\LT@p@ftn\expandafter{%
7891     \@tempa{#1}%
7892     \endgroup
7893     }%
7894     }%
7895     \long\def\Hy@LT@footnotetext#1#2{%
7896     \H@footnotetext{%
7897     \ifHy@nesting
7898     \hyper@@anchor{#1}{#2}%
7899     \else
7900     \Hy@raisedlink{%
7901     \hyper@@anchor{#1}{\relax}%
7902     }%
7903     \def\@currentHref{#1}%
7904     \let\@currentlabelname\@empty
7905     #2%
7906     \fi
7907     }%
7908     }%
7909     }-}%

```

Footnotes for fancyvrb (Fix by Manuel Pégourié-Gonnard).

```

7910     \ifpackageloaded{fancyvrb}{%
7911     \def\V@footnotetext{%
7912     \insert\footins\bgroup
7913     \csname reset@font\endcsname
7914     \footnotesize
7915     \interlinepenalty\interfootnotelinepenalty
7916     \splittopskip\footnotesep
7917     \splitmaxdepth\dp\strutbox
7918     \floatingpenalty \@MM
7919     \hsize\columnwidth
7920     \@parboxrestore
7921     \edef\@currentlabel{\csname p@footnote\endcsname\@thefnmark}%
7922     \@makefntext{}}%
7923     \rule{\z@}{\footnotesep}%
7924     \bgroup
7925     \aftergroup\V@@@footnotetext
7926     \Hy@raisedlink{%
7927     \expandafter\hyper@@anchor\expandafter{%
7928     \Hy@footnote@currentHref
7929     }{\relax}%
7930     }%
7931     \let\@currentHref\Hy@footnote@currentHref
7932     \let\@currentlabelname\@empty
7933     \ignorespaces
7934     }%
7935     }-}%

```

KOMA-Script defines `\footref` that uses both `\ref` and `\@footnotemark` resulting in two links, one of them wrong.

```

7936 \def\Hy@temp#1{%
7937   \begingroup
7938     \unrestored@protected@xdef\@thefnmark{\ref{#1}}%
7939   \endgroup
7940   \@footnotemark
7941 }%
7942 \ifx\Hy@temp\footref
7943   \def\footref#1{%
7944     \begingroup
7945       \unrestored@protected@xdef\@thefnmark{\ref{#1}}%
7946     \endgroup
7947     \H@@@footnotemark
7948   }%
7949 \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.

```

7950 \let\HyOrg@maketitle\maketitle
7951 \def\maketitle{%
7952   \let\Hy@saved@footnotemark\@footnotemark
7953   \let\Hy@saved@footnotetext\@footnotetext
7954   \let\@footnotemark\H@@@footnotemark
7955   \let\@footnotetext\H@@@footnotetext
7956   \@ifnextchar[\Hy@maketitle@optarg{% ]
7957     \HyOrg@maketitle
7958     \Hy@maketitle@end
7959   }%
7960 }%
7961 \def\Hy@maketitle@optarg[#1]{%
7962   \HyOrg@maketitle[#1]}%
7963   \Hy@maketitle@end
7964 }%
7965 \def\Hy@maketitle@end{%
7966   \ifx\@footnotemark\H@@@footnotemark
7967     \let\@footnotemark\Hy@saved@footnotemark
7968   \fi
7969   \ifx\@footnotetext\H@@@footnotetext
7970     \let\@footnotetext\Hy@saved@footnotetext
7971   \fi
7972 }%

```

`\realfootnote` Does anyone remember the function and purpose of `\realfootnote`?

```

7973 \def\realfootnote{%
7974   \@ifnextchar[\@xfootnote{%
7975     \stepcounter{\@mpfn}%
7976     \protected@xdef\@thefnmark{\thempfn}%
7977     \H@@@footnotemark\H@@@footnotetext
7978   }%
7979 }%
7980 \fi
7981 \Hy@DisableOption{hyperfootnotes}
7982 </package>
7983 <*check>
7984 \checklatex
7985 \checkcommand\def\@xfootnotenext[#1]{%

```

```

7986 \begingroup
7987   \csname c@\@mpfn\endcsname #1\relax
7988   \unrestored@protected@xdef\@thefnmark{\thempfn}%
7989 \endgroup
7990 \@footnotetext
7991 }
7992 \checkcommand\def\@xfootnotemark[#1]{%
7993   \begingroup
7994     \c@footnote #1\relax
7995     \unrestored@protected@xdef\@thefnmark{\thefootnote}%
7996   \endgroup
7997   \@footnotemark
7998 }
7999 \checkcommand\def\@footnotemark{%
8000   \leavevmode
8001   \ifhmode\edef\@x@sf{\the\spacefactor}\nobreak\fi
8002   \@makefnmark
8003   \ifhmode\spacefactor\@x@sf\fi
8004   \relax
8005 }
8006 </check>
8007 <*package>

```

37 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.

```

8008 \def\caption{%
8009   \ifx\@captive\@undefined
8010     \@latex@error{\noexpand\caption outside float}\@ehd
8011     \expandafter\@gobble
8012   \else
8013     \H@refstepcounter\@captive
8014     \let\Hy@tempa\@caption
8015     \@ifundefined{float@caption}{%
8016       }{%
8017       \expandafter\ifx\csname @float@c@\@captive\endcsname
8018         \float@caption
8019       \let\Hy@tempa\Hy@float@caption
8020       \fi
8021     }%
8022     \expandafter\@firstofone
8023     \fi
8024     {\@dblarg{\Hy@tempa\@captive}}%
8025   }
8026 \long\def\@caption#1[#2]#3{%
8027   \expandafter\ifx\csname if@capstart\expandafter\endcsname
8028     \csname iftrue\endcsname
8029     \global\let\@currentHref\hc@currentHref
8030   \else
8031     \hyper@makecurrent{\@captive}%
8032   \fi
8033   \@ifundefined{NR@getttitle}{%
8034     \def\@currentlabelname{#2}%
8035   }{%
8036     \NR@getttitle{#2}%

```

```

8037 }%
8038 \par\addcontentsline{\csname ext@#1\endcsname}{#1}{%
8039   \protect\numberline{\csname the#1\endcsname}{\ignorespaces #2}%
8040 }%
8041 \begingroup
8042   \@parboxrestore
8043   \if@minipage
8044     \@setminipage
8045   \fi
8046   \normalsize
8047   \expandafter\ifx\csname if@capstart\expandafter\endcsname
8048     \csname iftrue\endcsname
8049   \global\@capstartfalse
8050   \@makecaption{\csname fnum@#1\endcsname}{\ignorespaces#3}%
8051   \else
8052     \@makecaption{\csname fnum@#1\endcsname}{%
8053     \ignorespaces

```

If we cannot have nesting, the anchor is empty.

```

8054   \ifHy@nesting
8055     \expandafter\hyper@@anchor\expandafter{\@currentHref}{#3}%
8056   \else
8057     \Hy@raisedlink{%
8058       \expandafter\hyper@@anchor\expandafter{%
8059         \@currentHref
8060       }{\relax}%
8061     }%
8062     #3%
8063   \fi
8064 }%
8065 \fi
8066 \par
8067 \endgroup
8068 }

```

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.

`\HyNew@float@makebox` is introduced as feature request of Axel Sommerfeldt to make the life easier for his package ‘caption’.

```

8069 \let\Hy@float@caption\@caption
8070 \newcommand{\HyNew@float@makebox}[1]{%
8071   \HyOrg@float@makebox{%
8072     #1\relax
8073     \ifx\Hy@float@currentHref\@undefined
8074     \else
8075       \expandafter\hyper@@anchor\expandafter{%
8076         \Hy@float@currentHref
8077       }{\relax}%
8078     \global\let\Hy@float@currentHref\@undefined
8079   \fi
8080 }%
8081 }%
8082 \@ifpackageloaded{float}{%
8083   \def\Hy@float@caption{%
8084     \ifx\Hy@float@currentHref\@undefined
8085     \hyper@makecurrent{\@capttype}%
8086     \global\let\Hy@float@currentHref\@currentHref

```

```

8087 \else
8088 \let\@currentHref\Hy@float@currentHref
8089 \fi
8090 \float@caption
8091 }%
8092 \let\HyOrg@float@makebox\float@makebox
8093 \let\float@makebox\HyNew@float@makebox
8094 }-}

8095 </package>
8096 <*check>
8097 \checklatex[1999/06/01 - 2000/06/01]
8098 \checkcommand\def\caption{%
8099 \ifx\@capttype\@undefined
8100 \@latex@error{\noexpand\caption outside float}\@ehd
8101 \expandafter\@gobble
8102 \else
8103 \refstepcounter\@capttype
8104 \expandafter\@firstofone
8105 \fi
8106 {\@dblarg{\@caption\@capttype}}%
8107 }
8108 \checkcommand\long\def\@caption#1[#2]#3{%
8109 \par
8110 \addcontentsline{\csname ext@#1\endcsname}{#1}{%
8111 \protect\numberline{\csname the#1\endcsname}{\ignorespaces #2}%
8112 }%
8113 \begingroup
8114 \@parboxrestore
8115 \if@minipage
8116 \@setminipage
8117 \fi
8118 \normalsize
8119 \@makecaption{\csname fnum@#1\endcsname}{\ignorespaces #3}\par
8120 \endgroup
8121 }
8122 </check>
8123 <*package>

```

38 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.

```

8124 \def\hyper@natlinkstart#1{%
8125 \Hy@backout{#1}%
8126 \hyper@linkstart{cite}{cite.#1}%
8127 \def\hyper@nat@current{#1}%
8128 }
8129 \def\hyper@natlinkend{%
8130 \hyper@linkend

```



```

8131 }
8132 \def\hyper@natlinkbreak#1#2{%
8133 \hyper@linkend#1\hyper@linkstart{cite}{cite.#2}%
8134 }
8135 \def\hyper@natanchorstart#1{%
8136 \Hy@raisedlink{\hyper@anchorstart{cite.#1}}%
8137 }
8138 \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.

```

8139 \ltx@ifundefined{NAT@parse}{%
8140 \providecommand*\@extra@binfo{}%
8141 \providecommand*\@extra@b@citeb{}%
8142 \def\bibcite#1#2{%
8143 \@newlabel{b}{#1\@extra@binfo}{%
8144 \hyper@link{cite}{cite.#1\@extra@b@citeb}{#2}%
8145 }%
8146 }%
8147 \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.”.

```

8148 \let\Hy@bibcite\bibcite
8149 \begingroup
8150 \@ifundefined{bbl@cite@choice}{}{%
8151 \g@addto@macro\bbl@cite@choice{%
8152 \let\bibcite\Hy@bibcite
8153 }%
8154 }%
8155 \endgroup

```

\@BIBLABEL is working around a ‘feature’ of RevTeX.

```

8156 \providecommand*\@BIBLABEL{\@biblabel}%
8157 \def\@bibitem[#1]#2{%
8158 \@skiphyperreftrue
8159 \H@item[%
8160 \ifx\Hy@raisedlink\@empty
8161 \hyper@anchorstart{cite.#2\@extra@b@citeb}%
8162 \@BIBLABEL{#1}%
8163 \hyper@anchorend
8164 \else
8165 \Hy@raisedlink{%
8166 \hyper@anchorstart{cite.#2\@extra@b@citeb}\hyper@anchorend
8167 }%
8168 \@BIBLABEL{#1}%
8169 \fi
8170 \hfill
8171 ]%
8172 \@skiphyperreffalse
8173 \if@filesw
8174 \begingroup
8175 \let\protect\noexpand
8176 \immediate\write\@auxout{%
8177 \string\bibcite{#2}{#1}%
8178 }%

```

```

8179 \endgroup
8180 \fi
8181 \ignorespaces
8182 }%

```

Since `\bibitem` is doing its own labelling, call the raw version of `\item`, to avoid extra spurious labels

```

8183 \def\@bibitem#1{%
8184 \@skiphyperreftrue\H@item\@skiphyperreffalse
8185 \Hy@raisedlink{%
8186 \hyper@anchorstart{cite.#1\@extra@b@citeb}\relax\hyper@anchorend
8187 }%
8188 \if@filesw
8189 \begingroup
8190 \let\protect\noexpand
8191 \immediate\write\@auxout{%
8192 \string\bibcite{#1}{\the\value{\@listctr}}%
8193 }%
8194 \endgroup
8195 \fi
8196 \ignorespaces
8197 }%
8198 }{}

```

```

8199 \end{package}
8200 \check
8201 \checklatex
8202 \checkcommand\def\@bibitem[#1]#2{%
8203 \item[\@biblabel{#1}\hfill]%
8204 \if@filesw
8205 {%
8206 \let\protect\noexpand
8207 \immediate\write\@auxout{%
8208 \string\bibcite{#2}{#1}%
8209 }%
8210 }%
8211 \fi
8212 \ignorespaces
8213 }
8214 \checkcommand\def\@bibitem#1{%
8215 \item
8216 \if@filesw
8217 \immediate\write\@auxout{%
8218 \string\bibcite{#1}{\the\value{\@listctr}}%
8219 }%
8220 \fi
8221 \ignorespaces
8222 }
8223 \end{check}
8224 \end{package}

```

RevTeX (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.

```

8225 \@ifclassloaded{revtex}{%
8226 \Hy@Info{*** compatibility with revtex **** }%
8227 \def\revtex@checking#1#2{%
8228 \expandafter\let\expandafter\T@temp\csname b@#1\endcsname

```

```

8229 \expandafter\def\csname b@#1\endcsname{#2}%
8230 \@SetMaxRnhefLabel{#1}%
8231 \expandafter\let\csname b@#1\endcsname\T@temp
8232 }%

```

Tanmoy provided this replacement for CITE_X. Lord knows what it does. For chapterbib added: extra@b@citeb

```

8233 \@ifundefined{CITE}{\def\CITE{\@cite}}{}%
8234 \providecommand*\@extra@b@citeb{}%
8235 \def\CITEX[#1]#2{%
8236 \let\@citea\@empty
8237 \leavevmode
8238 \unskip
8239 $~{%
8240 \scriptstyle
8241 \@CITE{%
8242 \@for\@citeb:=#2\do{%
8243 \@citea
8244 \def\@citea{,\penalty\@m\ }%
8245 \edef\@citeb{\expandafter\@firstofone\@citeb}%
8246 \if@filesw
8247 \immediate\write\@auxout{\string\citation{\@citeb}}%
8248 \fi
8249 \@ifundefined{b@\@citeb\@extra@b@citeb}{%
8250 \mbox{\reset@font\bfseries ?}%
8251 \G@refundefinedtrue
8252 \@latex@warning{%
8253 Citation '\@citeb' on page \thepage \space undefined%
8254 }%
8255 }{%
8256 {\csname b@\@citeb\@extra@b@citeb\endcsname}%
8257 }%
8258 }%
8259 }{#1}%
8260 }$%
8261 }%

```

No, life is too short. I am not going to understand the RevTeX `\@collapse` macro, I shall just restore the original behaviour of `\@citex`; sigh. This is SO vile.

```

8262 \def\@citex[#1]#2{%
8263 \let\@citea\@empty
8264 \@cite{%
8265 \@for\@citeb:=#2\do{%
8266 \@citea
8267 \def\@citea{,\penalty\@m\ }%
8268 \edef\@citeb{\expandafter\@firstofone\@citeb}%
8269 \if@filesw
8270 \immediate\write\@auxout{\string\citation{\@citeb}}%
8271 \fi
8272 \@ifundefined{b@\@citeb\@extra@b@citeb}{%
8273 \mbox{\reset@font\bfseries ?}%
8274 \G@refundefinedtrue
8275 \@latex@warning{%
8276 Citation '\@citeb' on page \thepage \space undefined%
8277 }%
8278 }{%
8279 \hbox{\csname b@\@citeb\@extra@b@citeb\endcsname}%
8280 }%

```

```

8281 }%
8282 }{#1}%
8283 }%
8284 }{}

```

38.1 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 `pdfTeX`, then `hyperref` is already loaded at the begin of `harvard.sty`, and the `\newcommand` macros causes error messages.

```

8285 \@ifpackageloaded{harvard}{%
8286   \Hy@AtBeginDocument{%
8287     \Hy@Info{*** compatibility with harvard **** }%
8288     \Hy@raiselinksfalse
8289     \def\harvardcite#1#2#3#4{%
8290       \global\@namedef{HAR@fn@#1}{\hyper@@link[cite]{}{cite.#1}{#2}}%
8291       \global\@namedef{HAR@an@#1}{\hyper@@link[cite]{}{cite.#1}{#3}}%
8292       \global\@namedef{HAR@yr@#1}{\hyper@@link[cite]{}{cite.#1}{#4}}%
8293       \global\@namedef{HAR@df@#1}{\csname HAR@fn@#1\endcsname}%
8294     }%
8295     \def\HAR@citetoaux#1{%
8296       \if@filesw\immediate\write\@auxout{\string\citation{#1}}\fi%
8297       \ifHy@backref
8298         \ifx\@empty\@currentlabel
8299         \else
8300           \@bsphack
8301           \if@filesw
8302             \protected@write\@auxout{}{%
8303               \string\writefile{brf}{%
8304                 \string\backcite{#1}{%
8305                   {thepage}{\@currentlabel}{\@currentHref}%
8306                 }%
8307               }%
8308             }%
8309           \fi
8310           \@esphack
8311         \fi
8312       \fi
8313     }%
8314     \def\harvarditem{%
8315       \@ifnextchar[{\@harvarditem}{\@harvarditem[\null]}%
8316     }%
8317     \def\@harvarditem[#1]#2#3#4#5\par{%
8318       \item[]%
8319       \hyper@anchorstart{cite.#4}\relax\hyper@anchorend
8320     \if@filesw
8321       \begingroup
8322       \def\protect##1{\string ##1\space}%
8323       \ifthenelse{\equal{#1}{\null}}%
8324         {\def\next{{#4}{#2}{#2}{#3}}}%
8325         {\def\next{{#4}{#2}{#1}{#3}}}%
8326       \immediate\write\@auxout{\string\harvardcite\codeof\next}%

```

```

8327 \endgroup
8328 \fi
8329 \protect\hspace*{-\labelwidth}%
8330 \protect\hspace*{-\labelsep}%
8331 \ignorespaces
8332 #5%
8333 \ifHy@backref
8334 \newblock
8335 \backref{\csname br@#4\endcsname}%
8336 \fi
8337 \par
8338 }%

```

\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:

```

8339 \long\def\HAR@checkcitations#1#2#3#4{%
8340 \def\HAR@tempa{\hyper@@link[cite]{}{cite.#1}{#2}}%
8341 \expandafter\ifx\csname HAR@fn@#1\endcsname\HAR@tempa
8342 \def\HAR@tempa{\hyper@@link[cite]{}{cite.#1}{#3}}%
8343 \expandafter\ifx\csname HAR@an@#1\endcsname\HAR@tempa
8344 \def\HAR@tempa{\hyper@@link[cite]{}{cite.#1}{#4}}%
8345 \expandafter\ifx\csname HAR@yr@#1\endcsname\HAR@tempa
8346 \else
8347 \@tempwatruel
8348 \fi
8349 \else
8350 \@tempwatruel
8351 \fi
8352 \else
8353 \@tempwatruel
8354 \fi
8355 }%
8356 }%

8357 }{}

```

38.2 Package chicago

The links by \citeN and \shortciteN should include the closing parentheses.

```
8358 \@ifpackageloaded{chicago}{%
```

\citeN

```

8359 \def\citeN{%
8360 \def\@citesep{-1000}%
8361 \def\@cite##1##2{##1}%
8362 \def\citeauthoryear##1##2##3{##1 (##3\@cite@opt)}%
8363 \@citedata@opt
8364 }%

```

\shortciteN

```

8365 \def\shortciteN{%
8366 \def\@citesep{-1000}%
8367 \def\@cite##1##2{##1}%
8368 \def\citeauthoryear##1##2##3{##2 (##3\@cite@opt)}%
8369 \@citedata@opt
8370 }%

```

`\@citedata@opt`

```
8371 \def\@citedata@opt{%
8372 \let\@cite@opt\@empty
8373 \@ifnextchar [{%
8374 \@tempswatrue
8375 \@citedatax@opt
8376 }{%
8377 \@tempswafalse
8378 \@citedatax[]%
8379 }%
8380 }%
```

`\@citedatax@opt`

```
8381 \def\@citedatax@opt[#1]{%
8382 \def\@cite@opt{, #1}%
8383 \@citedatax[{#1}]%
8384 }%
8385 }{}
```

39 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.

```
8386 \ltx@ifclassloaded{slides}{%
8387 \def\Hy@SlidesFormatOptionalPage#1{(#1)}%
8388 \def\Hy@PageAnchorSlidesPlain{%
8389 \advance\c@page\ltx@one
8390 \edef\Hy@TempPageAnchor{%
8391 \noexpand\hyper@@anchor{%
8392 page.\the\c@slide.\the\c@overlay.\the\c@note%
8393 \ifnum\c@page=\ltx@one
8394 \else
8395 .\the\c@page
8396 \fi
8397 }%
8398 }%
8399 \advance\c@page-\ltx@one
8400 }%
8401 \def\Hy@PageAnchorSlide{%
8402 \advance\c@page\ltx@one
8403 \ifnum\c@page>\ltx@one
8404 \ltx@ifundefined{theHpage}{%
8405 \protected@edef\Hy@TheSlideOptionalPage{%
8406 \Hy@SlidesFormatOptionalPage{theHpage}%
8407 }%
8408 }{%
8409 \protected@edef\Hy@TheSlideOptionalPage{%
8410 \Hy@SlidesFormatOptionalPage{theHpage}%
8411 }%
8412 }%
8413 \else
```

```

8414 \def\Hy@TheSlideOptionalPage{}%
8415 \fi
8416 \advance\c@page-\ltx@one
8417 \pdfstringdef\@the@H@page{%
8418 \csname
8419 the%
8420 \ltx@ifundefined{theH\Hy@SlidesPage}{H}%
8421 \Hy@SlidesPage
8422 \endcsname
8423 \Hy@TheSlideOptionalPage
8424 }%
8425 \ltx@gobblethree
8426 }%
8427 \def\Hy@SlidesPage{slide}%
8428 \g@addto@macro\slide{%
8429 \def\Hy@SlidesPage{slide}%
8430 }%
8431 \g@addto@macro\overlay{%
8432 \def\Hy@SlidesPage{overlay}%
8433 }%
8434 \g@addto@macro\note{%
8435 \def\Hy@SlidesPage{note}%
8436 }%
8437 }%
8438 \def\Hy@PageAnchorSlidesPlain{}%
8439 \def\Hy@PageAnchorSlide{}%
8440 }
8441 \def\Hy@EveryPageAnchor{%
8442 \Hy@DistillerDestFix
8443 \ifHy@pageanchor
8444 \ifHy@hypertexnames
8445 \ifHy@plainpages
8446 \def\Hy@TempPageAnchor{\hyper@@anchor{page.\the\c@page}}%
8447 \Hy@PageAnchorSlidesPlain
8448 \else
8449 \begingroup
8450 \let\@number\@firstofone
8451 \Hy@unicodefalse
8452 \Hy@PageAnchorSlide
8453 \pdfstringdef\@the@H@page{\thepage}%
8454 \endgroup
8455 \EdefUnescapeString\@the@H@page{\@the@H@page}%
8456 \def\Hy@TempPageAnchor{\hyper@@anchor{page.\@the@H@page}}%
8457 \fi
8458 \else
8459 \Hy@GlobalStepCount\Hy@pagecounter
8460 \def\Hy@TempPageAnchor{%
8461 \hyper@@anchor{page.\the\Hy@pagecounter}%
8462 }%
8463 \fi
8464 \vbox to 0pt{%
8465 \kern\voffset
8466 \kern\topmargin
8467 \kern-1bp\relax
8468 \hbox to 0pt{%
8469 \kern\hoffset
8470 \kern\ifodd\value{page}%

```

```

8471         \oddsidemargin
8472         \else
8473         \evensidemargin
8474     \fi
8475     \kern-1bp\relax
8476     \Hy@TempPageAnchor\relax
8477     \hss
8478 }%
8479 \vss
8480 }%
8481 \fi
8482 }
8483 \g@addto@macro\Hy@EveryPageBoxHook{%
8484 \Hy@EveryPageAnchor
8485 }

```

40 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.

```

8486 \def\addcontentsline#1#2#3{% toc extension, type, tag
8487 \begingroup
8488 \let\label\@gobble
8489 \ifx\@currentHref\@empty
8490 \Hy@Warning{%
8491 No destination for bookmark of \string\addcontentsline,%
8492 \MessageBreak destination is added%
8493 }%
8494 \phantomsection
8495 \fi
8496 \expandafter\ifx\csname toplevel@#2\endcsname\relax
8497 \begingroup
8498 \def\Hy@tempa{#1}%
8499 \ifx\Hy@tempa\Hy@bookmarkstype
8500 \Hy@WarningNoLine{%
8501 bookmark level for unknown #2 defaults to 0%
8502 }%
8503 \else
8504 \Hy@Info{bookmark level for unknown #2 defaults to 0}%
8505 \fi
8506 \endgroup
8507 \expandafter\gdef\csname toplevel@#2\endcsname{0}%
8508 \fi
8509 \edef\Hy@toclevel{\csname toplevel@#2\endcsname}%
8510 \Hy@writebookmark{\csname the#2\endcsname}%
8511 {#3}%
8512 {\@currentHref}%
8513 {\Hy@toclevel}%
8514 {#1}%
8515 \ifHy@verbose
8516 \begingroup
8517 \def\Hy@tempa{#3}%
8518 \@onelevel@sanitize\Hy@tempa
8519 \let\temp@online\on@line
8520 \let\on@line\@empty

```



```

8521     \Hy@Info{%
8522         bookmark\temp@online:\MessageBreak
8523         thecounter {\csname the#2\endcsname}\MessageBreak
8524         text {\Hy@tempa}\MessageBreak
8525         reference {\@currentHref}\MessageBreak
8526         toplevel {\Hy@toclevel}\MessageBreak
8527         type {#1}%
8528     }%
8529 \endgroup
8530 \fi
8531 \addtocontents{#1}{%
8532     \protect\contentsline{#2}{#3}{\thepage}{\@currentHref}%
8533 }%
8534 \endgroup
8535 }

```

`\contentsline` The page number might be empty. In this case the link for the page number is suppressed to avoid little link boxes.

```

8536 \def\contentsline#1#2#3#4{%
8537     \begingroup
8538     \Hy@safe@activetrue
8539     \edef\x{\endgroup
8540         \def\noexpand\Hy@tocdestname{#4}%
8541     }\x
8542     \ifx\Hy@tocdestname\ltx@empty
8543         \csname l@#1\endcsname{#2}{#3}%
8544     \else
8545         \ifcase\Hy@linktoc % none
8546             \csname l@#1\endcsname{#2}{#3}%
8547         \or % section
8548             \csname l@#1\endcsname{%
8549                 \hyper@linkstart{link}{\Hy@tocdestname}{#2}\hyper@linkend
8550             }{#3}%
8551         \or % page
8552             \def\Hy@temp{#3}%
8553             \ifx\Hy@temp\ltx@empty
8554                 \csname l@#1\endcsname{#2}{#3}%
8555             \else
8556                 \csname l@#1\endcsname{#2}{#3}%
8557                 \hyper@linkstart{link}{\Hy@tocdestname}{#3}\hyper@linkend
8558             }%
8559             \fi
8560         \else % all
8561             \def\Hy@temp{#3}%
8562             \ifx\Hy@temp\ltx@empty
8563                 \csname l@#1\endcsname{%
8564                     \hyper@linkstart{link}{\Hy@tocdestname}{#2}\hyper@linkend
8565                 }{#3}%
8566             \else
8567                 \csname l@#1\endcsname{%
8568                     \hyper@linkstart{link}{\Hy@tocdestname}{#2}\hyper@linkend
8569                 }{#3}%
8570                 \hyper@linkstart{link}{\Hy@tocdestname}{#3}\hyper@linkend
8571             }%
8572             \fi
8573         \fi
8574     \fi

```

```

8575 }

8576 \end{package}
8577 \end{check}
8578 \end{checklatex}
8579 \checkcommand\def\addcontentsline#1#2#3{%
8580   \addtocontents{#1}{\protect\contentsline{#2}{#3}{\thepage}}%
8581 }
8582 \checkcommand\def\contentsline#1{\csname l@#1\endcsname}
8583 \end{check}
8584 \end{package}

```

41 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.

```

8585 \let\H@definecounter\@definecounter
8586 \def\@definecounter#1{%
8587   \H@definecounter{#1}%
8588   \expandafter\gdef\csname theH#1\endcsname{\arabic{#1}}%
8589 }

```

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.

```

8590 \let\H@newctr\@newctr
8591 \def\@newctr#1[#2]{%
8592   \H@newctr#1[#2]}%
8593 \expandafter\gdef\csname theH#1\endcsname{%
8594   \csname the\@ifundefined{theH#2}{-}{H}#2\endcsname.\arabic{#1}}%
8595 }%
8596 }

```

42 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.

```

8597 \@ifpackageloaded{amsmath}{%
8598   \def\Hy@make@anchor{%
8599     \Hy@MakeCurrentHrefAuto{AMS}%
8600     \Hy@raisedlink{\hyper@anchorstart{\@currentHref}\hyper@anchorend}%
8601   }%
8602   \def\Hy@make@df@tag@@#1{%
8603     \gdef\df@tag{%
8604       \maketag@@@{\Hy@make@anchor#1}%
8605       \def\@currentlabel{#1}%
8606     }%
8607   }%
8608   \def\Hy@make@df@tag@@@#1{%
8609     \gdef\df@tag{%
8610       \tagform@{\Hy@make@anchor#1}%
8611       \toks@\@xp{\p@equation{#1}}%

```

```

8612 \edef\@currentlabel{\the\toks@}%
8613 }%
8614 }%
8615 \let\HyOrg@make@df@tag@@\make@df@tag@@
8616 \let\HyOrg@make@df@tag@@@\make@df@tag@@@
8617 \let\make@df@tag@@\Hy@make@df@tag@@
8618 \let\make@df@tag@@@\Hy@make@df@tag@@@
8619 }-{}

```

Only play with `\seteqlebal` if we are using pdf_{tex}. Other drivers cause problems; requested by Michael Downes (AMS).

```

8620 \@ifpackagewith{hyperref}{pdftex}{%
8621 \let\H@seteqlabel\seteqlabel
8622 \def\@seteqlabel#1{%
8623 \H@seteqlabel{#1}%
8624 \xdef\@currentHref{AMS.\the\Hy@linkcounter}%
8625 \Hy@raisedlink{%
8626 \hyper@anchorstart{\@currentHref}\hyper@anchorend
8627 }%
8628 }%
8629 }-{}

```

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}}}

```

42.1 `\@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.

```

8630 \let\HyOrg@addtoreset\@addtoreset
8631 \def\@addtoreset#1#2{%
8632 \HyOrg@addtoreset{#1}{#2}%
8633 \expandafter\xdef\csname theH#1\endcsname{%
8634 \expandafter\noexpand
8635 \csname the\@ifundefined{theH#2}{}H#2\endcsname
8636 .\noexpand\the\noexpand\value{#1}%
8637 }%
8638 }

```

`\numberwithin` A appropriate definition of `hyperref`'s companion counter (`\theH...`) is added for correct link names.

```

8639 </package>
8640 (*check)
8641 \checkpackage{amsmath}[1999/12/14 - 2000/06/06]
8642 \checkcommand\newcommand{\numberwithin}[3][\arabic]{%
8643 \@ifundefined{c@#2}{\@nocounterr{#2}}{%
8644 \@ifundefined{c@#3}{\@nocnterr{#3}}{%
8645 \@addtoreset{#2}{#3}%
8646 \@xp\xdef\csname the#2\endcsname{%

```

```

8647     \@xp\@nx\csname the#3\endcsname .\@nx#1{#2}%
8648     }%
8649     }%
8650 }%
8651 }%
8652 </check>
8653 <*package>
8654 \ifpackageloaded{amsmath}{%
8655   \ifpackagelater{amsmath}{1999/12/14}{%
8656     \renewcommand*\numberwithin{3}{\arabic}{%
8657       \@ifundefined{c@#2}{\@nocounterr{#2}}{%
8658         \@ifundefined{c@#3}{\@nocnterr{#3}}{%
8659           \HyOrg@addtoreset{#2}{#3}%
8660           \@xp\xdef\csname the#2\endcsname{%
8661             \@xp\@nx\csname the#3\endcsname .\@nx#1{#2}%
8662             }%
8663           \@xp\xdef\csname theH#2\endcsname{%
8664             \@xp\@nx
8665             \csname the\@ifundefined{theH#3}{H#3}\endcsname
8666             .\@nx#1{#2}%
8667             }%
8668           }%
8669         }%
8670       }%
8671     }%
8672     \Hy@WarningNoLine{%
8673       \string\numberwithin\space of package 'amsmath' %
8674       only fixed\MessageBreak
8675       for version 2000/06/06 v2.12 or newer%
8676     }%
8677   }%
8678 }-}

```

43 Included figures

Simply intercept the low level graphics package macro.

```

8679 \ifHy@hyperfigures
8680 \let\Hy@Gin@setfile\Gin@setfile
8681 \def\Gin@setfile#1#2#3{%
8682   \hyperimage{#3}{\Hy@Gin@setfile{#1}{#2}{#3}}%
8683 }%
8684 \fi
8685 \Hy@DisableOption{hyperfigures}

```

44 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 boldfening 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.

```

8686 \ifHy@hyperindex
8687 \def\HyInd@ParenLeft{()}%
8688 \def\HyInd@ParenRight{)}%
8689 \def\hyperindexformat#1#2{%
8690 \let\HyOrg@hyperpage\hyperpage
8691 \let\hyperpage\@firstofone
8692 #1{\HyOrg@hyperpage{#2}}%
8693 \let\hyperpage\HyOrg@hyperpage
8694 }%
8695 \Hy@nextfalse
8696 \@ifpackageloaded{multind}{\Hy@nexttrue}{}%
8697 \@ifpackageloaded{index}{\Hy@nexttrue}{}%
8698 \@ifpackageloaded{amsmidx}{\Hy@nexttrue}{}%
8699 \begingroup
8700 \lccode'\|=\expandafter'\HyInd@EncapChar\relax
8701 \lccode'\/= '\relax
8702 \lowercase{\endgroup
8703 \ifHy@next
8704 \let\HyInd@org@wrindex\@wrindex
8705 \def\@wrindex#1#2{\HyInd@\@wrindex{#1}#2||\}%
8706 \def\HyInd@\@wrindex#1#2|#3|#4\{\%
8707 \ifx\|#3\%
8708 \HyInd@org@wrindex{#1}{#2|hyperpage}%
8709 \else
8710 \HyInd@\@wrindex{#1}{#2}#3\%
8711 \fi
8712 }%
8713 \def\HyInd@\@wrindex#1#2#3#4\{\%
8714 \def\Hy@temp@A{#3}%
8715 \ifcase0\ifx\Hy@temp@A\HyInd@ParenLeft 1\fi
8716 \ifx\Hy@temp@A\HyInd@ParenRight 1\fi
8717 \relax
8718 \HyInd@org@wrindex{#1}{%
8719 #2|hyperindexformat{/#3#4}%
8720 }%
8721 \else
8722 \ifx\|#4\%
8723 \ifx\Hy@temp@A\HyInd@ParenRight
8724 \HyInd@org@wrindex{#1}{#2|#3}%
8725 \else
8726 \HyInd@org@wrindex{#1}{#2|#3hyperpage}%
8727 \fi
8728 \else
8729 \HyInd@org@wrindex{#1}{%
8730 #2|#3hyperindexformat{/#4}%
8731 }%
8732 \fi
8733 \fi
8734 }%
8735 \else
8736 \def\@wrindex#1{\@wrindex#1||\}%
8737 \def\@wrindex#1|#2|#3\{\%
8738 \if@filesw
8739 \ifx\|#2\%
8740 \protected@write\@indexfile{}{%

```

```

8741         \string\indexentry{#1|hyperpage}{\thepage}%
8742     }%
8743     \else
8744         \HyInd@@@wrindex{#1}#2\%
8745     \fi
8746 \fi
8747 \endgroup
8748 \@esphack
8749 }%
8750 \def\HyInd@@@wrindex#1#2#3\{\%
8751 \def\Hy@temp@A{#2}%
8752 \ifcase0\ifx\Hy@temp@A\HyInd@ParenLeft 1\fi
8753         \ifx\Hy@temp@A\HyInd@ParenRight 1\fi
8754     \relax
8755     \protected@write\@indexfile{\%
8756         \string\indexentry{\%
8757             #1|hyperindexformat{/#2#3}%
8758         }{\thepage}%
8759     }%
8760 \else
8761     \ifx\#3\%
8762         \ifx\Hy@temp@A\HyInd@ParenRight
8763             \HyInd@DefKey{#1}%
8764             \ltx@ifundefined{HyInd@(\HyInd@key)}{\%
8765                 \let\Hy@temp\ltx@empty
8766             }{\%
8767                 \expandafter\let\expandafter\Hy@temp
8768                 \csname HyInd@(\HyInd@key)\endcsname
8769             }%
8770             \protected@write\@indexfile{\%
8771                 \string\indexentry{#1|#2\Hy@temp}{\thepage}%
8772             }%
8773         \else
8774             \protected@write\@indexfile{\%
8775                 \string\indexentry{#1|#2hyperpage}{\thepage}%
8776             }%
8777             \HyInd@DefKey{#1}%
8778             \expandafter
8779             \gdef\csname HyInd@(\HyInd@key)\endcsname{\%
8780                 hyperpage%
8781             }%
8782         \fi
8783     \else
8784         \protected@write\@indexfile{\%
8785             \string\indexentry{\%
8786                 #1|#2hyperindexformat{/#3}%
8787             }{\thepage}%
8788         }%
8789         \ifx\Hy@temp@A\HyInd@ParenLeft
8790             \HyInd@DefKey{#1}%
8791             \expandafter
8792             \gdef\csname HyInd@(\HyInd@key)\endcsname{\%
8793                 hyperindexformat{/#3}%
8794             }%
8795         \fi
8796     \fi
8797 \fi

```

```

8798 }%
8799 \def\HyInd@DefKey#1{%
8800 \begingroup
8801 \let\protect\@unexpandable@protect
8802 \edef\Hy@temp{#1}%
8803 \ltx@onelevel@sanitize\Hy@temp
8804 \global\let\HyInd@key\Hy@temp
8805 \endgroup
8806 }%
8807 \fi
8808 }%
8809 \fi
8810 \Hy@DisableOption{hyperindex}
8811 \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.

```
8812 \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.

```

8813 \def\hyperpage#1{%
8814 \HyInd@hyperpage#1\nohyperpage{ }\@nil
8815 }
8816 \def\HyInd@hyperpage#1\nohyperpage#2#3\@nil{%
8817 \HyInd@@hyperpage{#1}%
8818 #2%
8819 \def\Hy@temp{#3}%
8820 \ifx\Hy@temp\@empty
8821 \else
8822 \ltx@ReturnAfterFi{%
8823 \HyInd@hyperpage#3\@nil
8824 }%
8825 \fi
8826 }
8827 \def\HyInd@@hyperpage#1{\@hyperpage#1----\}
8828 \def\@hyperpage#1--#2--#3\{\%
8829 \ifx\#2\%
8830 \@commahyperpage{#1}%
8831 \else
8832 \HyInd@pagelink{#1}--\HyInd@pagelink{#2}%
8833 \fi
8834 }
8835 \def\@commahyperpage#1{\@commahyperpage#1, \}
8836 \def\@commahyperpage#1, #2,#3\{\%
8837 \ifx\#2\%
8838 \HyInd@pagelink{#1}%
8839 \else
8840 \HyInd@pagelink{#1}, \HyInd@pagelink{#2}%
8841 \fi
8842 }

```

The argument of `\hyperpage` can be empty. And the line breaking algorithm of `Makeindex` can introduce spaces. So we have to remove them.

```

8843 \def\HyInd@pagelink#1{%
8844 \begingroup
8845 \toks@={}%

```

```

8846 \HyInd@removespaces#1 \@nil
8847 \endgroup
8848 }
8849 \def\HyInd@removespaces#1 #2\@nil{%
8850 \toks@=\expandafter{\the\toks@#1}%
8851 \ifx\#2\%
8852 \edef\x{\the\toks@}%
8853 \ifx\x\@empty
8854 \else
8855 \hyperlink{page.\the\toks@}{\the\toks@}%
8856 \fi
8857 \else
8858 \ltx@ReturnAfterFi{%
8859 \HyInd@removespaces#2\@nil
8860 }%
8861 \fi
8862 }

```

45 Compatibility with foiltex

```

8863 \@ifclassloaded{foils}{%
8864 \providecommand*\ext@table{lot}%
8865 \providecommand*\ext@figure{lof}%
8866 }{}

```

46 Compatibility with seminar slide package

This requires `seminar.bg2`, version 1.6 or later. Contributions by Denis Girou (denis.girou@idris.fr).

```

8867 \@ifclassloaded{seminar}{%
8868 \Hy@seminarslidestrue
8869 \providecommand\theHslide{\arabic{slide}}%
8870 }{%
8871 \Hy@seminarslidesfalse
8872 }
8873 \@ifpackageloaded{slidesec}{%
8874 \providecommand\theHslidesection {\arabic{slidesection}}%
8875 \providecommand\theHslidesubsection{%
8876 \theHslidesection.\arabic{slidesubsection}}%
8877 }%
8878 \def\slide@heading[#1]#2{%
8879 \H@refstepcounter{slidesection}%
8880 \@addtoreset{slidesubsection}{slidesection}%
8881 \addtocontents{los}{%
8882 \protect\l@slide{\the\c@slidesection}{\ignorespaces#1}%
8883 {\@SCTR}{slideheading.\theslidesection}}%
8884 }%
8885 \def\Hy@tempa{#2}%
8886 \ifx\Hy@tempa\@empty
8887 \else
8888 {%
8889 \edef\@currentlabel{%
8890 \csname p@slidesection\endcsname\theslidesection
8891 }%
8892 \makeslideheading{#2}%
8893 }%

```



```

8894 \fi
8895 \gdef\theslideheading{#1}%
8896 \gdef\theslidesubheading{}%
8897 \ifHy@bookmarksnumbered
8898 \def\Hy@slidetitle{\theslidesection\space #1}%
8899 \else
8900 \def\Hy@slidetitle{#1}%
8901 \fi
8902 \ifHy@hypertextnames
8903 \ifHy@naturalnames
8904 \hyper@@anchor{slideheading.\theslidesection}{\relax}%
8905 \Hy@writebookmark
8906 {\theslidesection}%
8907 {\Hy@slidetitle}%
8908 {slideheading.\theslidesection}%
8909 {1}%
8910 {toc}%
8911 \else
8912 \hyper@@anchor{slideheading.\theHslidesection}{\relax}%
8913 \Hy@writebookmark
8914 {\theslidesection}%
8915 {\Hy@slidetitle}%
8916 {slideheading.\theHslidesection}%
8917 {1}%
8918 {toc}%
8919 \fi
8920 \else
8921 \Hy@GlobalStepCount\Hy@linkcounter
8922 \hyper@@anchor{slideheading.\the\Hy@linkcounter}{\relax}%
8923 \Hy@writebookmark
8924 {\theslidesection}%
8925 {\Hy@slidetitle}%
8926 {slideheading.\the\Hy@linkcounter}%
8927 {1}%
8928 {toc}%
8929 \fi
8930 }%
8931 \def\slide@subheading[#1]#2{%
8932 \H@refstepcounter{slidesubsection}%
8933 \addtocontents{los}{%
8934 \protect\l@subslide{\the\c@slidesubsection}{\ignorespaces#1}%
8935 {\@SCTR}{slideheading.\theslidesubsection}%
8936 }%
8937 \def\Hy@tempa{#2}%
8938 \ifx\Hy@tempa\@empty
8939 \else
8940 {%
8941 \edef\@currentlabel{%
8942 \csname p@slidesubsection\endcsname\theslidesubsection
8943 }%
8944 \makeslidesubheading{#2}%
8945 }%
8946 \fi
8947 \gdef\theslidesubheading{#1}%
8948 \ifHy@bookmarksnumbered
8949 \def\Hy@slidetitle{\theslidesubsection\space #1}%
8950 \else

```

```

8951 \def\Hy@slidetitle{#1}%
8952 \fi
8953 \ifHy@hypertextnames
8954 \ifHy@naturalnames
8955 \hyper@@anchor{slideheading.\theslidesubsection}{\relax}%
8956 \Hy@writebookmark
8957 {\theslidesubsection}%
8958 {\Hy@slidetitle}%
8959 {slideheading.\theslidesubsection}%
8960 {2}%
8961 {toc}%
8962 \else
8963 \hyper@@anchor{slideheading.\theHslidesubsection}{\relax}%
8964 \Hy@writebookmark
8965 {\theslidesubsection}%
8966 {\Hy@slidetitle}%
8967 {slideheading.\theHslidesubsection}%
8968 {2}%
8969 {toc}%
8970 \fi
8971 \else
8972 \Hy@GlobalStepCount\Hy@linkcounter
8973 \hyper@@anchor{slideheading.\the\Hy@linkcounter}{\relax}%
8974 \Hy@writebookmark
8975 {\theslidesubsection}%
8976 {\Hy@slidetitle}%
8977 {slideheading.\the\Hy@linkcounter}%
8978 {1}%
8979 {toc}%
8980 \fi
8981 }%
8982 \providecommand*\listslidename{List of Slides}%
8983 \def\listofslides{%
8984 \section*{%
8985 \listslidename
8986 \@mkboth{%
8987 \expandafter\MakeUppercase\listslidename
8988 }{%
8989 \expandafter\MakeUppercase\listslidename
8990 }%
8991 }%
8992 \def\l@slide##1##2##3##4{%
8993 \slide@undottedcline{%
8994 \slidenumberline{##3}{\hyperlink{##4}{##2}}%
8995 }{}%
8996 }%
8997 \let\l@subslide\l@slide
8998 \@startlos
8999 }%
9000 \def\slide@contents{%
9001 \def\l@slide##1##2##3##4{%
9002 \slide@cline{\slidenumberline{##3}{\hyperlink{##4}{##2}}}{##3}%
9003 }%
9004 \let\l@subslide\@gobblefour
9005 \@startlos
9006 }%
9007 \def\Slide@contents{%

```

```

9008 \def\l@slide###1##2##3##4{%
9009 \ifcase\lslide@flag
9010 \message{##1 ** \the\c@slidesection}%
9011 \ifnum##1>\c@slidesection
9012 \def\lslide@flag{1}%
9013 {%
9014 \large
9015 \slide@cline{%
9016 \slidenumberline{\$\Rightarrow\bullet$}%
9017 {\hyperlink{##4}{##2}}%
9018 }{##3}%
9019 }%
9020 \else
9021 {%
9022 \large
9023 \slide@cline{%
9024 \slidenumberline{\$\surd\;\bullet$}%
9025 {\hyperlink{##4}{##2}}%
9026 }{##3}%
9027 }%
9028 \fi
9029 \or
9030 \def\lslide@flag{2}%
9031 {%
9032 \large
9033 \slide@cline{%
9034 \slidenumberline{\$\bullet$}%
9035 {\hyperlink{##4}{##2}}%
9036 }{##3}%
9037 }%
9038 \or
9039 {%
9040 \large
9041 \slide@cline{%
9042 \slidenumberline{\$\bullet$}%
9043 {\hyperlink{##4}{##2}}%
9044 }{##3}%
9045 }%
9046 \fi
9047 }%
9048 \def\l@subslide###1##2##3##4{%
9049 \ifnum\lslide@flag=1 %
9050 \@undottedtocline{2}{3.8em}{3.2em}{\hyperlink{##4}{##2}}{ }%
9051 \fi
9052 }%
9053 \def\lslide@flag{0}%
9054 \@startlos
9055 }%
9056 }-}

```

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.)

```

9057 \ifHy@texht
9058 \expandafter\endinput
9059 \fi
9060 \let\real@setref\@setref
9061 \def\@setref#1#2#3{% csname, extract group, refname

```

```

9062 \ifx#1\relax
9063 \protect\G@refundefinedtrue
9064 \nfss@text{\reset@font\bfseries ??}%
9065 \@latex@warning{%
9066   Reference '#3' on page \thepage \space undefined%
9067 }%
9068 \else
9069 \expandafter\Hy@setref@link#1\@empty\@empty\@nil{#2}%
9070 \fi
9071 }

```

\Hy@setref@link extracts the reference information entries, because \hyper@link does not expand arguments for the automatic link type detection.

```

9072 \def\Hy@setref@link#1#2#3#4#5#6\@nil#7{%
9073 \begingroup
9074 \toks0={\hyper@link{#5}{#4}}%
9075 \toks1=\expandafter{#7{#1}{#2}{#3}{#4}{#5}}%
9076 \edef\x{\endgroup
9077   \the\toks0 {\the\toks1 }%
9078 }%
9079 \x
9080 }
9081 \def\@pagesetref#1#2#3{% csname, extract macro, ref
9082 \ifx#1\relax
9083 \protect\G@refundefinedtrue
9084 \nfss@text{\reset@font\bfseries ??}%
9085 \@latex@warning{%
9086   Reference '#3' on page \thepage \space undefined%
9087 }%
9088 \else
9089 \protect\hyper@link
9090   {\expandafter\@fifthoffive#1}%
9091   {page.\expandafter\@secondoffive#1}%
9092   {\expandafter\@secondoffive#1}%
9093 \fi
9094 }
9095 </package>
9096 <*check>
9097 \checklatex
9098 \checkcommand\def\@setref#1#2#3{%
9099 \ifx#1\relax
9100 \protect\G@refundefinedtrue
9101 \nfss@text{\reset@font\bfseries ??}%
9102 \@latex@warning{%
9103   Reference '#3' on page \thepage\space undefined%
9104 }%
9105 \else
9106 \expandafter#2#1\null
9107 \fi
9108 }
9109 </check>
9110 <*package>

```

Now some extended referencing. \ref* and \pageref* are not linked, and \autoref prefixes with a tag based on the type.

```

9111 \def\HyRef@StarSetRef#1{%
9112 \begingroup
9113 \Hy@safe@activestru

```

```

9114 \edef\x{#1}%
9115 \@onelevel@sanitize\x
9116 \edef\x{\endgroup
9117 \noexpand\HyRef@@StarSetRef
9118 \expandafter\noexpand\csname r@\x\endcsname{\x}%
9119 }%
9120 \x
9121 }
9122 \def\HyRef@@StarSetRef#1#2#3{%
9123 \ifx#1\@undefined
9124 \let#1\relax
9125 \fi
9126 \real@setref#1#3{#2}%
9127 }
9128 \def\@refstar#1{%
9129 \HyRef@StarSetRef{#1}\@firstoffive
9130 }
9131 \def\@pagerefstar#1{%
9132 \HyRef@StarSetRef{#1}\@secondoffive
9133 }
9134 \def\@namerefstar#1{%
9135 \HyRef@StarSetRef{#1}\@thirdoffive
9136 }
9137 \Hy@AtBeginDocument{%
9138 \ifpackageloaded{varioref}{%
9139 \def\@Refstar#1{%
9140 \HyRef@StarSetRef{#1}\HyRef@MakeUppercaseFirstOfFive
9141 }%
9142 \def\HyRef@MakeUppercaseFirstOfFive#1#2#3#4#5{%
9143 \MakeUppercase#1%
9144 }%
9145 \DeclareRobustCommand*\Ref}{%
9146 \@ifstar\@Refstar\HyRef@Ref
9147 }%
9148 \def\HyRef@Ref#1{%
9149 \hyperref[{#1}]{\Ref*{#1}}%
9150 }%
9151 \def\Vr@f#1{%
9152 \leavevmode\unskip\vref@space
9153 \hyperref[{#1}]{%
9154 \Ref*{#1}%
9155 \let\vref@space\nobreakspace
9156 \@vpageref[\unskip]{#1}%
9157 }%
9158 }%
9159 \def\vr@f#1{%
9160 \leavevmode\unskip\vref@space
9161 \begingroup
9162 \let\T@pageref\@pagerefstar
9163 \hyperref[{#1}]{%
9164 \ref*{#1}%
9165 \vpageref[\unskip]{#1}%
9166 }%
9167 \endgroup
9168 }%
9169 }{}}%
9170 }

```

```

9171 \DeclareRobustCommand*\autopageref}{%
9172 \ifstar{%
9173   \HyRef@autopagerefname\pageref*%
9174 }\HyRef@autopageref
9175 }
9176 \def\HyRef@autopageref#1{%
9177 \hyperref[#{1}]{\HyRef@autopagerefname\pageref*{#{1}}}%
9178 }
9179 \def\HyRef@autopagerefname{%
9180 \ltx@ifundefined{pageautorefname}{%
9181 \ltx@ifundefined{pagename}{%
9182 \Hy@Warning{No autoref name for 'page'}%
9183 }{%
9184 \pagename\nobreakspace
9185 }%
9186 }{%
9187 \pageautorefname\nobreakspace
9188 }%
9189 }

```

\leavevmode is added to make package wrapfigure happy, if \autoref starts a paragraph.

```

9190 \DeclareRobustCommand*\autoref}{%
9191 \leavevmode
9192 \ifstar{\HyRef@autoref@gobbletwo}{\HyRef@autoref\hyper@@link}%
9193 }
9194 \def\HyRef@autoref#1#2{%
9195 \begingroup
9196 \Hy@safe@activetrue
9197 \expandafter\HyRef@autosetref\csname r@#2\endcsname{#{2}}{#{1}}%
9198 \endgroup
9199 }
9200 \def\HyRef@autosetref#1#2#3{% link command, csname, refname
9201 \HyRef@ShowKeysRef{#2}%
9202 \ifcase 0\ifx#1\relax 1\fi\ifx#1\Hy@varioref@undefined 1\fi\relax
9203 \edef\HyRef@thisref{%
9204 \expandafter\@fourthoffive#1\@empty\@empty\@empty
9205 }%
9206 \expandafter\HyRef@testreftype\HyRef@thisref.\.%
9207 \Hy@safe@activesfalse
9208 #3{%
9209 \expandafter\@fifthoffive#1\@empty\@empty\@empty
9210 }{%
9211 \expandafter\@fourthoffive#1\@empty\@empty\@empty
9212 }{%
9213 \HyRef@currentHtag
9214 \expandafter\@firstoffive#1\@empty\@empty\@empty
9215 \null
9216 }%
9217 \else
9218 \protect\G@refundefinedtrue
9219 \nfss@text{\reset@font\bfseries ??}%
9220 \@latex@warning{%
9221 Reference '#2' on page \thepage\space undefined%
9222 }%
9223 \fi
9224 }
9225 \def\HyRef@testreftype#1.#2\{\%

```

```

9226 \ltx@ifundefined{#1autorefname}{%
9227 \ltx@ifundefined{#1name}{%
9228 \HyRef@StripStar#1\*\*\@nil{#1}%
9229 \ltx@ifundefined{\HyRef@name autorefname}{%
9230 \ltx@ifundefined{\HyRef@name name}{%
9231 \def\HyRef@currentHtag{%
9232 \Hy@Warning{No autoref name for '#1'}%
9233 }%
9234 \edef\HyRef@currentHtag{%
9235 \expandafter\noexpand\csname\HyRef@name name\endcsname
9236 \noexpand-%
9237 }%
9238 }%
9239 }%
9240 \edef\HyRef@currentHtag{%
9241 \expandafter\noexpand
9242 \csname\HyRef@name autorefname\endcsname
9243 \noexpand-%
9244 }%
9245 }%
9246 }%
9247 \edef\HyRef@currentHtag{%
9248 \expandafter\noexpand\csname#1name\endcsname
9249 \noexpand-%
9250 }%
9251 }%
9252 }%
9253 \edef\HyRef@currentHtag{%
9254 \expandafter\noexpand\csname#1autorefname\endcsname
9255 \noexpand-%
9256 }%
9257 }%
9258 }
9259 \def\HyRef@StripStar#1*\#\@nil#3{%
9260 \def\HyRef@name{#2}%
9261 \ifx\HyRef@name\HyRef@CaseStar
9262 \def\HyRef@name{#1}%
9263 \else
9264 \def\HyRef@name{#3}%
9265 \fi
9266 }
9267 \def\HyRef@CaseStar{*}
9268 \def\HyRef@currentHtag{}

```

Support for package showkeys.

\HyRef@ShowKeysRef

```

9269 \let\HyRef@ShowKeysRef@gobble
9270 \def\HyRef@ShowKeysInit{%
9271 \begingroup\expandafter\expandafter\expandafter\endgroup
9272 \expandafter\ifx\csname SK@@label\endcsname\relax
9273 \else
9274 \ifx\SK@ref\@empty
9275 \else
9276 \def\HyRef@ShowKeysRef{%
9277 \SK@\SK@\ref
9278 }%
9279 \fi

```

```

9280 \fi
9281 }
9282 \@ifpackageloaded{showkeys}{%
9283 \HyRef@ShowKeysInit
9284 }{%
9285 \Hy@AtBeginDocument{%
9286 \ifpackageloaded{showkeys}{%
9287 \HyRef@ShowKeysInit
9288 }{%
9289 }%
9290 }

```

Defaults for the names that `\autoref` uses.

```

9291 \providecommand*\AMSautorefname{\equationautorefname}
9292 \providecommand*\Hfootnoteautorefname{\footnoteautorefname}
9293 \providecommand*\Itemautorefname{\itemautorefname}
9294 \providecommand*\itemautorefname{item}
9295 \providecommand*\equationautorefname{Equation}
9296 \providecommand*\footnoteautorefname{footnote}
9297 \providecommand*\itemautorefname{item}
9298 \providecommand*\figureautorefname{Figure}
9299 \providecommand*\tableautorefname{Table}
9300 \providecommand*\partautorefname{Part}
9301 \providecommand*\appendixautorefname{Appendix}
9302 \providecommand*\chapterautorefname{chapter}
9303 \providecommand*\sectionautorefname{section}
9304 \providecommand*\subsectionautorefname{subsection}
9305 \providecommand*\subsubsectionautorefname{subsubsection}
9306 \providecommand*\paragraphautorefname{paragraph}
9307 \providecommand*\subparagraphautorefname{subparagraph}
9308 \providecommand*\FancyVerbLineautorefname{line}
9309 \providecommand*\theoremautorefname{Theorem}
9310 \providecommand*\pageautorefname{page}
9311 </package>

```

47 Configuration files

47.1 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 \TeX offers `\pdfescapestring`.

```

9312 <*pdf $\TeX$  | dvipdfm | xetex | vtex | pdfmarkbase | dviwindo>
9313 \begingroup\expandafter\expandafter\expandafter\endgroup
9314 \expandafter\ifx\csname pdf@escapestring\endcsname\relax
9315 \begingroup
9316 \catcode'\|=0 %
9317 \@makeother\|%
9318 |@firstofone{|endgroup
9319 |def|Hy@pstringdef#1#2{%
9320 |begingroup
9321 |edef~{|string~}%

```



```

9322     |xdef|Hy@gtemp{#2}%
9323 |endgroup
9324 |let#1|Hy@gtemp
9325 |@onelevel@sanitize#1%
9326 |edef#1{|expandafter|Hy@ExchangeBackslash#1\|@nil}%
9327 |edef#1{|expandafter|Hy@ExchangeLeftParenthesis#1(|@nil}%
9328 |edef#1{|expandafter|Hy@ExchangeRightParenthesis#1)|@nil}%
9329 }%
9330 |def|Hy@ExchangeBackslash#1\#2|@nil{%
9331 #1%
9332 |ifx|\#2|\%%
9333 |else
9334 \\\%
9335 |ltx@ReturnAfterFi{%
9336 |Hy@ExchangeBackslash#2|@nil
9337 }%
9338 |fi
9339 }%
9340 }%
9341 \def\Hy@ExchangeLeftParenthesis#1(#2\@nil{%
9342 #1%
9343 \ifx\#2\%%
9344 \else
9345 \@backslashchar(%
9346 \ltx@ReturnAfterFi{%
9347 \Hy@ExchangeLeftParenthesis#2\@nil
9348 }%
9349 \fi
9350 }%
9351 \def\Hy@ExchangeRightParenthesis#1)#2\@nil{%
9352 #1%
9353 \ifx\#2\%%
9354 \else
9355 \@backslashchar)%
9356 \ltx@ReturnAfterFi{%
9357 \Hy@ExchangeRightParenthesis#2\@nil
9358 }%
9359 \fi
9360 }%
9361 \else
9362 \def\Hy@pstringdef#1#2{%
9363 \begingroup
9364 \edef~{\string~}%
9365 \xdef\Hy@gtemp{\pdf@escapestring{#2}}%
9366 \endgroup
9367 \let#1\Hy@gtemp
9368 }%
9369 \fi
9370 </pdfTeX | dvipdfm | xetex | vtex | pdfmarkbase | dviwindo>

```

47.2 pdftex

```

9371 (*pdftex)
9372 \providecommand*\XR@ext}{pdf}
9373 \Hy@setbreaklinks{true}
9374 \def\HyPat@ObjRef{%
9375 [0-9]*[1-9][0-9]* 0 R%

```

9376 }

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

```
9377 \let\Hy@pdfminorversion\relax
9378 \begingroup\expandafter\expandafter\expandafter\endgroup
9379 \expandafter\ifx\csname pdfminorversion\endcsname\relax
9380 \begingroup\expandafter\expandafter\expandafter\endgroup
9381 \expandafter\ifx\csname pdfoptionpdfminorversion\endcsname\relax
9382 \else
9383 \def\Hy@pdfminorversion{\pdfoptionpdfminorversion}%
9384 \fi
9385 \else
9386 \def\Hy@pdfminorversion{\pdfminorversion}%
9387 \fi
9388 \@ifundefined{Hy@pdfminorversion}{%
9389 \PackageInfo{hyperref}{%
9390 PDF version is not set, because pdfTeX is too old (<1.10a)%
9391 }%
9392 }{%
9393 \ifHy@ocgcolorlinks
9394 \ifnum\Hy@pdfminorversion<5 %
9395 \kvsetkeys{Hyp}{pdfversion=1.5}%
9396 \fi
9397 \fi
9398 \ifHy@setpdfversion
9399 \ifnum\Hy@pdfversion<5 %
9400 \ltx@ifundefined{pdfobjcompresslevel}{%
9401 }{%
9402 \ifHy@verbose
9403 \Hy@InfoNoLine{%
9404 PDF object streams are disabled, because they are%
9405 \MessageBreak
9406 not supported in requested PDF version %
9407 1.\Hy@pdfversion
9408 }%
9409 \fi
9410 \pdfobjcompresslevel=\ltx@zero
9411 }%
9412 \fi
9413 \ifnum\Hy@pdfminorversion=\Hy@pdfversion\relax
9414 \else
9415 \let\Hy@temp\ltx@empty
9416 \def\Hy@temp@A#1#2{%
9417 \ifnum#1>\ltx@zero
9418 \edef\Hy@temp{%
9419 \Hy@temp
9420 \space\space
9421 \the#1\space #2%
9422 \ifnum#1=\ltx@one\else s\fi
9423 \MessageBreak
9424 }%
```

```

9425     \fi
9426   }%
9427   \Hy@temp@A\pdflastobj{PDF object}%
9428   \Hy@temp@A\pdflastxform{form XObject}%
9429   \Hy@temp@A\pdflastximage{image XObject}%
9430   \Hy@temp@A\pdflastannot{annotation}%
9431   \ltx@ifundefined{pdflastlink}{%
9432     }{%
9433     \Hy@temp@A\pdflastlink{link}%
9434   }%
9435   \ifx\Hy@temp\ltx@empty
9436     \Hy@pdfminorversion=\Hy@pdfversion\relax
9437   \else
9438     \let\Hy@temp@A\ltx@empty
9439     \ifnum\Hy@pdfversion=4 %
9440       \IfFileExists{pdf14.sty}{%
9441         \def\Hy@temp@A{%
9442           \MessageBreak
9443           Or \string\RequirePackage{pdf14} can be used%
9444           \MessageBreak
9445           before \string\documentclass\space as shortcut%
9446         }%
9447       }{}%
9448     \fi
9449     \Hy@WarningNoLine{%
9450       The PDF version number could not be set,\MessageBreak
9451       because some PDF objects are already written:%
9452       \MessageBreak
9453       \Hy@temp
9454       The version should be set as early as possible:%
9455       \MessageBreak
9456       \space\space
9457       \expandafter\string\Hy@pdfminorversion=\Hy@pdfversion
9458       \string\relax
9459       \ifnum\Hy@pdfversion<5 %
9460         \ltx@ifundefined{pdfobjcompresslevel}{%
9461           }{%
9462             \MessageBreak
9463             \space\space
9464             \string\pdfobjcompresslevel=0\string\relax
9465           }%
9466         \fi
9467         \Hy@temp@A
9468       }%
9469     \fi
9470   \fi
9471   \PackageInfo{hyperref}{%
9472     \expandafter\string\Hy@pdfminorversion
9473     :=\number\Hy@pdfversion\space
9474   }%
9475   \fi
9476   \edef\Hy@pdfversion{\number\Hy@pdfminorversion}%
9477 }
9478 \Hy@DisableOption{pdfversion}%
9479 \ifHy@ocgcolorlinks
9480   \pdf@ifdraftmode{}{%
9481     \immediate\pdfobj{%

```

```

9482 <<%
9483 /Type/OCG%
9484 /Name(View)%
9485 /Usage<<%
9486 /Print<<%
9487 /PrintState/OFF%
9488 >>%
9489 /View<<%
9490 /ViewState/ON%
9491 >>%
9492 >>%
9493 >>%
9494 }%
9495 \edef\OBJ@OCG@view{\the\pdfastobj\space 0 R}%
9496 \immediate\pdfobj{%
9497 <<%
9498 /Type/OCG%
9499 /Name(Print)%
9500 /Usage<<%
9501 /Print<<%
9502 /PrintState/ON%
9503 >>%
9504 /View<<%
9505 /ViewState/OFF%
9506 >>%
9507 >>%
9508 >>%
9509 }%
9510 \edef\OBJ@OCG@print{\the\pdfastobj\space 0 R}%
9511 \immediate\pdfobj{%
9512 [%
9513 \OBJ@OCG@view\space\OBJ@OCG@print
9514 ]%
9515 }%
9516 \edef\OBJ@OCGs{\the\pdfastobj\space 0 R}%
9517 \pdfcatalog{%
9518 /OCProperties<<%
9519 /OCGs \OBJ@OCGs
9520 /D<<%
9521 /OFF[\OBJ@OCG@print]%
9522 /AS[%
9523 <<%
9524 /Event/View%
9525 /OCGs \OBJ@OCGs
9526 /Category[/View]%
9527 >>%
9528 <<%
9529 /Event/Print%
9530 /OCGs \OBJ@OCGs
9531 /Category[/Print]%
9532 >>%
9533 <<%
9534 /Event/Export%
9535 /OCGs \OBJ@OCGs
9536 /Category[/Print]%
9537 >>%
9538 ]%

```

```

9539     >>%
9540     >>%
9541     }%
9542     \begingroup
9543     \edef\x{\endgroup
9544     \pdfpageresources{%
9545     \the\pdfpageresources
9546     /Properties<<%
9547     /OCView \OBJ@OCG@view
9548     /OCPrint \OBJ@OCG@print
9549     >>%
9550     }%
9551     }%
9552     \x
9553     }%
9554     \Hy@AtBeginDocument{%
9555     \def\Hy@colorlink#1{%
9556     \begingroup
9557     \ifHy@ocgcolorlinks
9558     \def\Hy@ocgcolor{#1}%
9559     \setbox0=\hbox\bgroup\color@begingroup
9560     \else
9561     \HyColor@UseColor#1%
9562     \fi
9563     }%
9564     \def\Hy@endcolorlink{%
9565     \ifHy@ocgcolorlinks
9566     \color@endgroup\egroup
9567     \mbox{%
9568     \pdfliteral page{/OC/OCPrint BDC}%
9569     \rlap{\copy0}%
9570     \pdfliteral page{EMC/OC/OCView BDC}%
9571     \begingroup
9572     \expandafter\HyColor@UseColor\Hy@ocgcolor
9573     \box0 %
9574     \endgroup
9575     \pdfliteral page{EMC}%
9576     }%
9577     \fi
9578     \endgroup
9579     }%
9580     }%
9581     \else
9582     \Hy@DisableOption{ocgcolorlinks}%
9583     \fi

```

First, allow for some changes and additions to pdftex syntax:

```

9584 \def\setpdfinkmargin#1{%
9585 \begingroup
9586 \setlength{\dimen@}{#1}%
9587 \expandafter\endgroup
9588 \expandafter\pdfinkmargin\the\dimen@\relax
9589 }
9590 \ifx\pdfstartlink\@undefined% less than version 14
9591 \let\pdfstartlink\pdfannotlink
9592 \let\pdfinkmargin\@tempdima
9593 \let\pdfxform\pdfform
9594 \let\pdflastxform\pdflastform

```

```

9595 \let\pdfrefxform\pdfrefform
9596 \else
9597 \pdfinkmargin1pt %
9598 \fi

```

First set up the default linking

```
9599 \providecommand*\@pdfview{XYZ}
```

First define the anchors:

```

9600 \Hy@WrapperDef\new@pdfink#1{%
9601 \ifhmode
9602 \@savsf\spacefactor
9603 \fi
9604 \Hy@SaveLastskip
9605 \Hy@VerboseAnchor{#1}%
9606 \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
9607 \Hy@DestName\Hy@pstringDest\@pdfview
9608 \Hy@RestoreLastskip
9609 \ifhmode
9610 \spacefactor\@savsf
9611 \fi
9612 }
9613 \let\pdf@endanchor\@empty

```

`\Hy@DestName` Wrap the call of `\pdfdest` name in `\Hy@DestName`. Then it can easier be caught by package `hypdestopt`.

```

9614 \def\Hy@DestName#1#2{%
9615 \pdfdest name{#1}#2\relax
9616 }

```

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.

```

9617 \providecommand*\@pdfborder{0 0 1}
9618 \providecommand*\@pdfborderstyle{}
9619 \def\Hy@undefinedname{UNDEFINED}
9620 \def\find@pdfink#1#2{%
9621 \leavevmode
9622 \protected@edef\Hy@testname{#2}%
9623 \ifx\Hy@testname\@empty
9624 \Hy@Warning{%
9625 Empty destination name,\MessageBreak
9626 using '\Hy@undefinedname'%
9627 }%
9628 \let\Hy@testname\Hy@undefinedname
9629 \else
9630 \Hy@pstringdef\Hy@testname{%
9631 \expandafter\HyperDestNameFilter\expandafter{\Hy@testname}%
9632 }%
9633 \fi
9634 \Hy@StartlinkName{%
9635 \ifHy@pdfa /F 4\fi
9636 \Hy@setpdfborder
9637 \ifx\@pdfhighlight\@empty
9638 \else
9639 /H\@pdfhighlight
9640 \fi

```

```

9641 \ifx\CurrentBorderColor\relax
9642 \else
9643 /C[\CurrentBorderColor]%
9644 \fi
9645 }\Hy@testname
9646 \expandafter\Hy@colorlink\csname @#1color\endcsname
9647 }
9648 \def\Hy@StartlinkName#1#2{%
9649 \pdfstartlink attr{#1}goto name{#2}\relax
9650 }
9651 \def\close@pdfink{%
9652 \Hy@endcolorlink
9653 \Hy@VerboseLinkStop
9654 \pdfendlink
9655 }
9656 \def\hyper@anchor#1{%
9657 \new@pdfink{#1}\anchor@spot\pdf@endanchor
9658 }
9659 \def\hyper@anchorstart#1{%
9660 \new@pdfink{#1}%
9661 \Hy@activeanchortrue
9662 }
9663 \def\hyper@anchorend{%
9664 \pdf@endanchor
9665 \Hy@activeanchorfalse
9666 }
9667 \def\hyper@linkstart#1#2{%
9668 \Hy@VerboseLinkStart{#1}{#2}%
9669 \ltx@ifundefined{@#1bordercolor}{%
9670 \let\CurrentBorderColor\relax
9671 }{%
9672 \edef\CurrentBorderColor{\csname @#1bordercolor\endcsname}%
9673 }%
9674 \find@pdfink{#1}{#2}%
9675 }
9676 \def\hyper@linkend{\close@pdfink}
9677 \def\hyper@link#1#2#3{%
9678 \Hy@VerboseLinkStart{#1}{#2}%
9679 \ltx@ifundefined{@#1bordercolor}{%
9680 \let\CurrentBorderColor\relax
9681 }{%
9682 \edef\CurrentBorderColor{\csname @#1bordercolor\endcsname}%
9683 }%
9684 \find@pdfink{#1}{#2}#3\Hy@xspace@end
9685 \close@pdfink
9686 }
9687 \let\CurrentBorderColor\@linkbordercolor
9688 \def\hyper@linkurl#1#2{%
9689 \begingroup
9690 \Hy@pstringdef\Hy@pstringURI{#2}%
9691 \hyper@chars
9692 \leavevmode
9693 \pdfstartlink
9694 attr{%
9695 \Hy@setpdfborder
9696 \ifx\@pdfhighlight\@empty
9697 \else

```

```

9698      /H\@pdfhighlight
9699      \fi
9700      \ifx\@urlbordercolor\relax
9701      \else
9702      /C[\@urlbordercolor]%
9703      \fi
9704      }%
9705      user{%
9706      /Subtype/Link%
9707      \ifHy@pdfa /F 4\fi
9708      /A<<%
9709      /Type/Action%
9710      /S/URI%
9711      /URI(\Hy@pstringURI)%
9712      \ifHy@href@ismap
9713      /IsMap true%
9714      \fi
9715      \Hy@href@nextactionraw
9716      >>%
9717      }%
9718      \relax
9719      \Hy@colorlink\@urlcolor#1\Hy@xspace@end
9720      \close@pdfink
9721      \endgroup
9722      }
9723      \def\hyper@linkfile#1#2#3{% anchor text, filename, linkname
9724      \begingroup
9725      \def\Hy@pstringF{#2}%
9726      \Hy@CleanupFile\Hy@pstringF
9727      \Hy@pstringdef\Hy@pstringF\Hy@pstringF
9728      \Hy@pstringdef\Hy@pstringD{#3}%
9729      \Hy@MakeRemoteAction
9730      \leavevmode
9731      \pdfstartlink
9732      attr{%
9733      \Hy@setpdfborder
9734      \ifx\@pdfhighlight\@empty
9735      \else
9736      /H\@pdfhighlight
9737      \fi
9738      \ifx\@filebordercolor\relax
9739      \else
9740      /C[\@filebordercolor]%
9741      \fi
9742      }%
9743      user {%
9744      /Subtype/Link%
9745      \ifHy@pdfa /F 4\fi
9746      /A<<%
9747      /F(\Hy@pstringF)%
9748      /S/GoToR%
9749      \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}

9750      \ifx\#3\%
9751      /D[\Hy@href@page\@pdfremotestartview]%
9752      \else
9753      /D(\Hy@pstringD)%
9754      \fi
9755      \Hy@href@nextactionraw
9756      >>%
9757      }%
9758      \relax
9759      \Hy@colorlink\@filecolor#1\Hy@xspace@end
9760      \close@pdfink
9761      \endgroup
9762 }
9763 \def\@hyper@launch run:#1\#2#3{% filename, anchor text linkname
9764 \begingroup
9765 \Hy@pstringdef\Hy@pstringF{#1}%
9766 \Hy@pstringdef\Hy@pstringP{#3}%
9767 \leavevmode
9768 \pdfstartlink
9769 attr{%
9770 \Hy@setpdfborder
9771 \ifx\@pdfhighlight\@empty
9772 \else
9773 /H\@pdfhighlight
9774 \fi
9775 \ifx\@runbordercolor\relax
9776 \else
9777 /C[\@runbordercolor]%
9778 \fi
9779 }%
9780 user {%
9781 /Subtype/Link%
9782 \ifHy@pdfa /F 4\fi
9783 /A<<%
9784 /F(\Hy@pstringF)%
9785 /S/Launch%
9786 \Hy@SetNewWindow
9787 \ifx\#3\%
9788 \else
9789 /Win<</P(\Hy@pstringP)/F(\Hy@pstringF)>>%
9790 \fi
9791 \Hy@href@nextactionraw
9792 >>%
9793 }%
9794 \relax
9795 \Hy@colorlink\@runcolor#2\Hy@xspace@end
9796 \close@pdfink
9797 \endgroup
9798 }

```

\@pdfproducer

```

9799 \ifx\@pdfproducer\relax
9800 \begingroup\expandafter\expandafter\expandafter\endgroup
9801 \expandafter\ifx\csname luatexversion\endcsname\relax
9802   \def\@pdfproducer{pdfTeX}%
9803   \ifx\eTeXversion\@undefined
9804     \else
9805       \ifx\eTeXversion\relax
9806         \else
9807           \ifnum\eTeXversion>0 %
9808             \def\@pdfproducer{pdfTeX}%
9809           \fi
9810         \fi
9811       \fi
9812     \ifx\pdfTeXversion\@undefined
9813     \else
9814       \ifnum\pdfTeXversion<100 %
9815         \edef\@pdfproducer{%
9816           \@pdfproducer
9817           \the\pdfTeXversion.\pdfTeXrevision
9818         }%
9819       \else
9820         \ifnum\pdfTeXversion<130 %
9821           \edef\@pdfproducer{%
9822             \@pdfproducer-%
9823             \expandafter\@car\the\pdfTeXversion\@empty\@nil.%
9824             \expandafter\@cdr\the\pdfTeXversion\@empty\@nil.%
9825             \pdfTeXrevision
9826           }%
9827         \else
9828           \ifnum\pdfTeXversion<140 %
9829             \else
9830               \def\@pdfproducer{pdfTeX}%
9831             \fi
9832           \edef\@pdfproducer{%
9833             \@pdfproducer-%
9834             \expandafter\@car\the\pdfTeXversion\@empty\@nil.%
9835             \expandafter\@cdr\the\pdfTeXversion\@empty\@nil.%
9836             \pdfTeXrevision
9837           }%
9838         \fi
9839       \fi
9840     \fi
9841   \else
9842     \begingroup
9843     \count@=\luatexversion
9844     \divide\count@ by 100 %
9845     \edef\x{\the\count@}%
9846     \count@=-\x\relax
9847     \multiply\count@ by 100 %
9848     \advance\count@ by \luatexversion
9849     \edef\x{\endgroup
9850       \def\noexpand\@pdfproducer{%
9851         LuaTeX-\x.\the\count@.\luatexrevision
9852       }%
9853     }%
9854   \x
9855 \fi

```

```

9856 \fi

\PDF@SetupDox
9857 \def\PDF@SetupDoc{%
9858 \ifx\@pdfpagescrop\@empty
9859 \else
9860 \edef\process@me{%
9861 \pdfpagesattr={%
9862 /CropBox[\@pdfpagescrop]%
9863 \expandafter\ifx\expandafter\\\the\pdfpagesattr\\%
9864 \else
9865 ^^J\the\pdfpagesattr
9866 \fi
9867 }%
9868 }%
9869 \process@me
9870 \fi
9871 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
9872 \pdfcatalog{%
9873 /PageMode/\@pdfpagemode
9874 \ifx\@baseurl\@empty
9875 \else
9876 /URI<</Base(\Hy@pstringB)>>%
9877 \fi
9878 }%
9879 \ifx\@pdfstartpage\@empty
9880 \else
9881 \ifx\@pdfstartview\@empty
9882 \else
9883 openaction goto page\@pdfstartpage{\@pdfstartview}%
9884 \fi
9885 \fi
9886 \edef\Hy@temp{%
9887 \ifHy@pdftoolbar\else /HideToolbar true\fi
9888 \ifHy@pdfmenubar\else /HideMenubar true\fi
9889 \ifHy@pdfwindowui\else /HideWindowUI true\fi
9890 \ifHy@pdfwindow /FitWindow true\fi
9891 \ifHy@pdfcenterwindow /CenterWindow true\fi
9892 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
9893 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
9894 \Hy@UseNameKey{Direction}\@pdfdirection
9895 \Hy@UseNameKey{ViewArea}\@pdfviewarea
9896 \Hy@UseNameKey{ViewClip}\@pdfviewclip
9897 \Hy@UseNameKey{PrintArea}\@pdfprintarea
9898 \Hy@UseNameKey{PrintClip}\@pdfprintclip
9899 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
9900 \Hy@UseNameKey{Duplex}\@pdfduplex
9901 \ifx\@pdfpicktraybypdfsize\@empty
9902 \else
9903 /PickTrayByPDFSize \@pdfpicktraybypdfsize
9904 \fi
9905 \ifx\@pdfprintpagerange\@empty
9906 \else
9907 /PrintPageRange[\@pdfprintpagerange]%
9908 \fi
9909 \ifx\@pdfnumcopies\@empty
9910 \else
9911 /NumCopies \@pdfnumcopies

```

```

9912 \fi
9913 }%
9914 \pdfcatalog{%
9915 \ifx\Hy@temp\@empty
9916 \else
9917 /ViewerPreferences<<\Hy@temp>>%
9918 \fi
9919 \Hy@UseNameKey{PageLayout}\@pdfpagelayout
9920 \ifx\@pdflang\relax
9921 \else
9922 /Lang(\@pdflang)%
9923 \fi
9924 }%
9925 }

```

\PDF@FinishDoc

```

9926 \def\PDF@FinishDoc{%
9927 \pdf@ifdraftmode{}{%
9928 \Hy@UseMaketitleInfos
9929 \HyInfo@GenerateAddons
9930 \pdfinfo{%
9931 /Author(\@pdfauthor)%
9932 /Title(\@pdftitle)%
9933 /Subject(\@pdfsubject)%
9934 /Creator(\@pdfcreator)%
9935 \ifx\@pdfcreationdate\@empty
9936 \else
9937 /CreationDate(\@pdfcreationdate)%
9938 \fi
9939 \ifx\@pdfmoddate\@empty
9940 \else
9941 /ModDate(\@pdfmoddate)%
9942 \fi
9943 \ifx\@pdfproducer\relax
9944 \else
9945 /Producer(\@pdfproducer)%
9946 \fi
9947 /Keywords(\@pdfkeywords)%
9948 \ifx\@pdftrapped\@empty
9949 \else
9950 /Trapped/\@pdftrapped
9951 \fi
9952 \HyInfo@Addons
9953 }%
9954 }%
9955 \Hy@DisableOption{pdfauthor}%
9956 \Hy@DisableOption{pdftitle}%
9957 \Hy@DisableOption{pdfsubject}%
9958 \Hy@DisableOption{pdfcreator}%
9959 \Hy@DisableOption{pdfcreationdate}%
9960 \Hy@DisableOption{pdfmoddate}%
9961 \Hy@DisableOption{pdfproducer}%
9962 \Hy@DisableOption{pdfkeywords}%
9963 \Hy@DisableOption{pdftrapped}%
9964 \Hy@DisableOption{pdfinfo}%
9965 }

```

\hyper@pagetransition \@pdfpagetransition is initialized with \relax. So it indicates, if option pdfpage-

transition is used. First previous /Trans entries are removed. If a new /Trans key exists, it is appended to \pdfpageattr.

```

9966 \def\hyper@pagetransition{%
9967 \ifx\@pdfpagetransition\relax
9968 \else
9969 \expandafter\Hy@RemoveTransPageAttr
9970 \the\pdfpageattr^^J/Trans{}}>>\END
9971 \ifx\@pdfpagetransition\@empty
9972 \else
9973 \edef\@processme{%
9974 \global\pdfpageattr{%
9975 \the\pdfpageattr
9976 ^^J/Trans << /S /\@pdfpagetransition\space >>%
9977 }%
9978 }%
9979 \@processme
9980 \fi
9981 \fi
9982 }

```

\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.

```

9983 \gdef\Hy@RemoveTransPageAttr#1^^J/Trans#2#3>>#4\END{%
9984 \ifx\#2\%
9985 \global\pdfpageattr{#1}%
9986 \else
9987 \Hy@RemoveTransPageAttr#1#4\END
9988 \fi
9989 }

```

\hyper@pageduration \@pdfpageduration is initialized with \relax. So it indicates, if option pdfpage-duration is used. First previous /Dur entries are removed. If a new /Dur key exists, it is appended to \pdfpageattr.

```

9990 \def\hyper@pageduration{%
9991 \ifx\@pdfpageduration\relax
9992 \else
9993 \expandafter
9994 \Hy@RemoveDurPageAttr\the\pdfpageattr^^J/Dur{}} \END
9995 \ifx\@pdfpageduration\@empty
9996 \else
9997 \edef\@processme{%
9998 \global\pdfpageattr{%
9999 \the\pdfpageattr
10000 ^^J/Dur \@pdfpageduration\space
10001 }%
10002 }%
10003 \@processme
10004 \fi
10005 \fi
10006 }

```

\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.

```
10007 \gdef\Hy@RemoveDurPageAttr#1^^J/Dur#2#3 #4\END{%
10008   \ifx\|#2\|
10009     \global\pdfpageattr{#1}%
10010   \else
10011     \Hy@RemoveDurPageAttr#1#4\END
10012   \fi
10013 }
```

`\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).

```
10014 \def\hyper@pagehidden{%
10015   \ifHy@useHidKey
10016     \expandafter
10017     \Hy@RemoveHidPageAttr\the\pdfpageattr^^J/Hid{} \END
10018   \ifHy@pdfpagehidden
10019     \edef\@processme{%
10020       \global\pdfpageattr%
10021       \the\pdfpageattr
10022       ^^J/Hid true % SPACE
10023     }%
10024   }%
10025   \@processme
10026   \fi
10027 \fi
10028 }
```

`\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.

```
10029 \gdef\Hy@RemoveHidPageAttr#1^^J/Hid#2#3 #4\END{%
10030   \ifx\|#2\|
10031     \global\pdfpageattr{#1}%
10032   \else
10033     \Hy@RemoveHidPageAttr#1#4\END
10034   \fi
10035 }
```

```
10036 \pdf@ifdraftmode{}{%
10037   \g@addto@macro\Hy@EveryPageHook{%
10038     \hyper@pagetransition
10039     \hyper@pageduration
10040     \hyper@pagehidden
10041   }%
10042 }
```

Also XeTeX support `\pdfpagewidth` and `\pdfpageheight`, but it does not provide `\pdfhorigin` and `\pdfvorigin`.

```
10043 </pdfTeX>
10044 < *pdfTeX | xetex >
10045 \Hy@AtBeginDocument{%
10046   \ifHy@setpagesize
10047     \expandafter\@firstofone
10048   \else
```

```

10049 \expandafter\@gobble
10050 \fi
10051 {%
10052   \@ifclassloaded{seminar}{%
10053 (*pdfTeX)
10054   \setlength{\pdfhorigin}{1truein}%
10055   \setlength{\pdfvorigin}{1truein}%
10056 \}

```

```

10106     \else
10107       /H\@pdfhighlight
10108     \fi
10109     \ifx\@menubordercolor\relax
10110     \else
10111       /C[\@menubordercolor]%
10112     \fi
10113   }%
10114   user{%
10115     /Subtype/Link%
10116     \ifHy@pdfa /F 4\fi
10117     /A<<%
10118     /S/Named%
10119     /N\Hy@temp@menu
10120     \Hy@href@nextactionraw
10121     >>%
10122   }%
10123   \relax
10124   \Hy@colorlink\@menucolor#2%
10125   \close@pdfink
10126 }%
10127 }

```

47.2.1 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.

Since version 2011/10/05 v1.16 of package ‘atbegshi’ \AtBeginShipoutFirst does not add a additional box layer.

```

10128 \def\Hy@FixNotFirstPage{%
10129   \gdef\Hy@FixNotFirstPage{%
10130     \setbox\AtBeginShipoutBox=\hbox{%
10131       \copy\AtBeginShipoutBox
10132     }%
10133   }%
10134 }
10135 \ltx@ifpackagelater{atbegshi}{2011/10/05}{%
10136 }{%
10137   \AtBeginShipout{\Hy@FixNotFirstPage}%
10138 }
10139 </pdfTeX>

```

47.3 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 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.

```
10140 (*hypertext)
10141 \providecommand*\XR@ext}{dvi}
10142 \let\PDF@FinishDoc\ltx@empty
10143 \def\PDF@SetupDoc{%
10144   \ifx\@baseurl\@empty
10145     \else
10146       \special{html:<base href="\@baseurl">}%
10147     \fi
10148 }
10149 \Hy@WrapperDef\hyper@anchor#1{%
10150   \Hy@SaveLastskip
10151   \Hy@VerboseAnchor{#1}%
10152   \begingroup
10153     \let\protect=\string
10154     \hyper@chars
10155     \special{html:<a name=%
10156       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
10157   \endgroup
10158   \Hy@activeanchortrue
10159   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
10160   \special{html:</a>}%
10161   \Hy@activeanchorfalse
10162   \Hy@RestoreLastskip
10163 }
10164 \Hy@WrapperDef\hyper@anchorstart#1{%
10165   \Hy@SaveLastskip
10166   \Hy@VerboseAnchor{#1}%
10167   \begingroup
10168     \hyper@chars
10169     \special{html:<a name=%
10170       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
10171   \endgroup
```

```

10172 \Hy@activeanchortrue
10173 }
10174 \def\hyper@anchorend{%
10175 \special{html:</a>}%
10176 \Hy@activeanchorfalse
10177 \Hy@RestoreLastskip
10178 }
10179 \def\@urltype{url}
10180 \def\hyper@linkstart#1#2{%
10181 \Hy@VerboseLinkStart{#1}{#2}%
10182 \expandafter\Hy@colorlink\csname @#1color\endcsname
10183 \def\Hy@tempa{#1}%
10184 \ifx\Hy@tempa\@urltype
10185 \special{html:<a href=\hyper@quote#2\hyper@quote>}%
10186 \else
10187 \begingroup
10188 \hyper@chars
10189 \special{html:<a href=%
10190 \hyper@quote\#\HyperDestNameFilter{#2}\hyper@quote>}%
10191 \endgroup
10192 \fi
10193 }
10194 \def\hyper@linkend{%
10195 \special{html:</a>}%
10196 \Hy@endcolorlink
10197 }
10198 \def\hyper@linkfile#1#2#3{%
10199 \hyper@linkurl{#1}{\Hy@linkfileprefix#2\ifx\#3\\\else\#3\fi}%
10200 }
10201 \def\hyper@linkurl#1#2{%

```

If we want to raise up the final link `\special`, we need to get its height; ask me why L^AT_EX constructs make this totally foul up, and make us revert to basic T_EX. I do not know.

```

10202 \leavevmode
10203 \ifHy@raiselinks
10204 \Hy@SaveSpaceFactor
10205 \Hy@SaveSavedSpaceFactor
10206 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
10207 \Hy@RestoreSavedSpaceFactor
10208 \@linkdim\dp\@tempboxa
10209 \lower\@linkdim\hbox{%
10210 \hyper@chars
10211 \special{html:<a href=\hyper@quote#2\hyper@quote>}%
10212 }%
10213 \Hy@colorlink\@urlcolor
10214 \Hy@RestoreSpaceFactor
10215 #1%
10216 \Hy@SaveSpaceFactor
10217 \@linkdim\ht\@tempboxa

```

Because of the interaction with the dvihps 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).

```

10218 \advance\@linkdim by -6.5\p@
10219 \raise\@linkdim\hbox{\special{html:</a>}}%
10220 \Hy@endcolorlink
10221 \Hy@RestoreSpaceFactor

```

```

10222 \else
10223   \begingroup
10224     \hyper@chars
10225     \special{html:<a href=\hyper@quote#2\hyper@quote>}%
10226     \Hy@colorlink\@urlcolor#1\Hy@xspace@end
10227     \special{html:</a>}%
10228     \Hy@endcolorlink
10229   \endgroup
10230 \fi
10231 }

```

Very poor implementation of `\hyper@link` without considering #1.

```

10232 \def\hyper@link#1#2#3{%
10233   \Hy@VerboseLinkStart{#1}{#2}%
10234   \hyper@linkurl{#3}{\#\Hy@HyperDestNameFilter{#2}}%
10235 }

10236 \def\hyper@image#1#2{%
10237   \begingroup
10238     \hyper@chars
10239     \special{html:<img src=\hyper@quote#1\hyper@quote>}%
10240   \endgroup
10241 }
10242 </hypertex>
10243 < *dviwindo >

```

47.4 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.

```

10244 \providecommand*\XR@ext}{dvi}
10245 \providecommand*\wwwbrowser{c:\string\netscape\string\netscape}
10246 \Hy@WrapperDef\hyper@anchor#1{%
10247   \Hy@SaveLastskip
10248   \Hy@VerboseAnchor{#1}%
10249   \begingroup
10250     \let\protect=\string
10251     \special{mark: #1}%
10252   \endgroup
10253   \Hy@activeanchortrue
10254   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
10255   \Hy@activeanchorfalse
10256   \Hy@RestoreLastskip
10257 }
10258 \Hy@WrapperDef\hyper@anchorstart#1{%
10259   \Hy@SaveLastskip
10260   \Hy@VerboseAnchor{#1}%
10261   \special{mark: #1}%

```

```

10262 \Hy@activeanchortrue
10263 }
10264 \def\hyper@anchorend{%
10265 \Hy@activeanchorfalse
10266 \Hy@RestoreLastskip
10267 }
10268 \def\hyper@linkstart#1#2{%
10269 \Hy@VerboseLinkStart{#1}{#2}%
10270 \expandafter\Hy@colorlink\csname @#1color\endcsname
10271 \special{button: %
10272 10000000 %
10273 \number\baselineskip\space
10274 #2%
10275 }%
10276 }
10277 \def\hyper@linkend{%
10278 \Hy@endcolorlink
10279 }
10280 \def\hyper@link#1#2#3{%
10281 \Hy@VerboseLinkStart{#1}{#2}%
10282 \leavevmode
10283 \ifHy@raiselinks
10284 \Hy@SaveSpaceFactor
10285 \Hy@SaveSavedSpaceFactor
10286 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#3}%
10287 \Hy@RestoreSavedSpaceFactor
10288 \@linkdim\dp\@tempboxa
10289 \lower\@linkdim\hbox{%
10290 \special{button: %
10291 \number\wd\@tempboxa\space
10292 \number\ht\@tempboxa\space
10293 #2%
10294 }%
10295 \expandafter\Hy@colorlink\csname @#1color\endcsname
10296 \Hy@RestoreSpaceFactor
10297 #3\Hy@xspace@end
10298 \Hy@SaveSpaceFactor
10299 \Hy@endcolorlink
10300 }%
10301 \@linkdim\ht\@tempboxa
10302 \advance\@linkdim by -6.5\p@
10303 \raise\@linkdim\hbox{}}%
10304 \Hy@RestoreSpaceFactor
10305 \else
10306 \special{button: %
10307 \number\wd\@tempboxa\space
10308 \number\ht\@tempboxa\space
10309 #2%
10310 }%
10311 \expandafter\Hy@colorlink\csname @#1color\endcsname
10312 #3\Hy@xspace@end
10313 \Hy@endcolorlink
10314 \fi
10315 }
10316 \def\hyper@linkurl#1#2{%
10317 \begingroup
10318 \hyper@chars

```

```

10319 \leavevmode
10320 \ifHy@raiselinks
10321 \Hy@SaveSpaceFactor
10322 \Hy@SaveSavedSpaceFactor
10323 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
10324 \Hy@RestoreSavedSpaceFactor
10325 \@linkdim\dp\@tempboxa
10326 \lower\@linkdim\hbox{%
10327 \special{button: %
10328 \number\wd\@tempboxa\space
10329 \number\ht\@tempboxa\space
10330 launch: \wwwbrowser\space
10331 #2%
10332 }%
10333 \Hy@colorlink\@urlcolor
10334 \Hy@RestoreSpaceFactor
10335 #1\Hy@xspace@end
10336 \Hy@SaveSpaceFactor
10337 \Hy@endcolorlink
10338 }%
10339 \@linkdim\ht\@tempboxa
10340 \advance\@linkdim by -6.5\p@
10341 \raise\@linkdim\hbox{}%
10342 \Hy@RestoreSpaceFactor
10343 \else
10344 \special{button: %
10345 \number\wd\@tempboxa\space
10346 \number\ht\@tempboxa\space
10347 launch: \wwwbrowser\space
10348 #2%
10349 }%
10350 \Hy@colorlink\@urlcolor
10351 #1\Hy@xspace@end
10352 \Hy@endcolorlink
10353 \fi
10354 \endgroup
10355 }
10356 \def\hyper@linkfile#1#2#3{%
10357 \begingroup
10358 \hyper@chars
10359 \leavevmode
10360 \ifHy@raiselinks
10361 \Hy@SaveSpaceFactor
10362 \Hy@SaveSavedSpaceFactor
10363 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
10364 \Hy@RestoreSavedSpaceFactor
10365 \@linkdim\dp\@tempboxa
10366 \lower\@linkdim\hbox{%
10367 \special{button: %
10368 \number\wd\@tempboxa\space
10369 \number\ht\@tempboxa\space
10370 #3,%
10371 file: #2%
10372 }%
10373 \Hy@colorlink\@filecolor
10374 \Hy@RestoreSpaceFactor
10375 #1\Hy@xspace@end

```

```

10376     \Hy@SaveSpaceFactor
10377     \Hy@endcolorlink
10378   }%
10379   \@linkdim\ht\@tempboxa
10380   \advance\@linkdim by -6.5\p@
10381   \raise\@linkdim\hbox{}%
10382   \Hy@RestoreSpaceFactor
10383 \else
10384   \special{button: %
10385     \number\wd\@tempboxa\space
10386     \number\ht\@tempboxa\space
10387     #3,%
10388     file: #2%
10389   }%
10390   \Hy@colorlink\@filecolor
10391   #1\Hy@xspace@end
10392   \Hy@endcolorlink
10393 \fi
10394 \endgroup
10395 }
10396 \ifx\@pdfproducer\relax
10397   \def\@pdfproducer{dviwindo + Distiller}%
10398 \fi
10399 \HyInfo@AddonUnsupportedtrue
10400 \def\PDF@FinishDoc{%
10401   \Hy@UseMaketitleInfos
10402   \HyInfo@TrappedUnsupported
10403   \special{PDF: Keywords \@pdfkeywords}%
10404   \special{PDF: Title \@pdftitle}%
10405   \special{PDF: Creator \@pdfcreator}%
10406   \ifx\@pdfcreationdate\@empty
10407   \else
10408     \special{PDF: CreationDate \@pdfcreationdate}%
10409   \fi
10410   \ifx\@pdfmoddate\@empty
10411   \else
10412     \special{PDF: ModDate \@pdfmoddate}%
10413   \fi
10414   \special{PDF: Author \@pdfauthor}%
10415   \ifx\@pdfproducer\relax
10416   \else
10417     \special{PDF: Producer \@pdfproducer}%
10418   \fi
10419   \special{PDF: Subject \@pdfsubject}%
10420   \Hy@DisableOption{pdfauthor}%
10421   \Hy@DisableOption{pdftitle}%
10422   \Hy@DisableOption{pdfsubject}%
10423   \Hy@DisableOption{pdfcreator}%
10424   \Hy@DisableOption{pdfcreationdate}%
10425   \Hy@DisableOption{pdfmoddate}%
10426   \Hy@DisableOption{pdfproducer}%
10427   \Hy@DisableOption{pdfkeywords}%
10428   \Hy@DisableOption{pdftrapped}%
10429   \Hy@DisableOption{pdfinfo}%
10430 }
10431 \def\PDF@SetupDoc{%
10432   \ifx\@baseurl\@empty

```

```

10433 \else
10434   \special{PDF: Base \@baseurl}%
10435 \fi
10436 \ifx\@pdfpagescrop\@empty\else
10437   \special{PDF: BBox \@pdfpagescrop}%
10438 \fi
10439 \def\Hy@temp{}%
10440 \ifx\@pdfstartpage\@empty
10441 \else
10442   \ifx\@pdfstartview\@empty
10443   \else
10444     \edef\Hy@temp{%
10445       ,Page=\@pdfstartpage
10446       ,View=\@pdfstartview
10447     }%
10448   \fi
10449 \fi
10450 \edef\Hy@temp{%
10451   \noexpand\pdfmark{%
10452     pdfmark=/DOCVIEW,%
10453     PageMode=/\@pdfpagemode
10454   }\Hy@temp
10455 }%
10456 }%
10457 \Hy@temp
10458 \ifx\@pdfpagescrop\@empty
10459 \else
10460   \pdfmark{pdfmark=/PAGES,CropBox=\@pdfpagescrop}%
10461 \fi
10462 \edef\Hy@temp{%
10463   \ifHy@pdftoolbar\else /HideToolbar true\fi
10464   \ifHy@pdfmenubar\else /HideMenubar true\fi
10465   \ifHy@pdfwindowui\else /HideWindowUI true\fi
10466   \ifHy@pdffitwindow /FitWindow true\fi
10467   \ifHy@pdfcenterwindow /CenterWindow true\fi
10468   \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
10469   \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
10470   \Hy@UseNameKey{Direction}\@pdfdirection
10471   \Hy@UseNameKey{ViewArea}\@pdfviewarea
10472   \Hy@UseNameKey{ViewClip}\@pdfviewclip
10473   \Hy@UseNameKey{PrintArea}\@pdfprintarea
10474   \Hy@UseNameKey{PrintClip}\@pdfprintclip
10475   \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
10476   \Hy@UseNameKey{Duplex}\@pdfduplex
10477   \ifx\@pdfpicktraybypdfsize\@empty
10478   \else
10479     /PickTrayByPDFSize \@pdfpicktraybypdfsize
10480   \fi
10481   \ifx\@pdfprintpagerange\@empty
10482   \else
10483     /PrintPageRange[\@pdfprintpagerange]%
10484   \fi
10485   \ifx\@pdfnumcopies\@empty
10486   \else
10487     /NumCopies \@pdfnumcopies
10488   \fi
10489 }%

```

```

10490 \pdfmark{pdfmark=/PUT,%
10491   Raw={%
10492     \string{Catalog\string}<<%
10493     \ifx\Hy@temp\@empty
10494     \else
10495       /ViewerPreferences<<\Hy@temp>>%
10496     \fi
10497     \Hy@UseNameKey{PageLayout}\@pdfpagelayout
10498     \ifx\@pdflang\relax
10499     \else
10500       /Lang(\@pdflang)%
10501     \fi
10502   >>%
10503 }%
10504 }%
10505 }
10506 </dviwindo>
10507 <*\dvi pdfm | xetex>

```

47.5 dvipdfm/xetex dvi to PDF converter

Provided by Mark Wicks (mwicks@kettering.edu)

```

10508 \providecommand*\XR@ext}{pdf}
10509 \Hy@setbreaklinks{true}
10510 \def\HyPat@ObjRef{%
10511   @[^ ]+%
10512 }
10513 \newsavebox{\pdfm@box}
10514 \def\@pdfm@mark#1{\special{pdf:#1}}
10515 \Hy@WrapperDef\@pdfm@dest#1{%
10516   \Hy@SaveLastskip
10517   \Hy@VerboseAnchor{#1}%
10518   \begingroup
10519     \Hy@pstringdef\Hy@pstringDest{HyperDestNameFilter{#1}}%
10520     \def\x{XYZ}%
10521     \ifx\x\@pdfview
10522       \def\x{XYZ @xpos @ypos null}%
10523     \else
10524       \def\x{FitH}%
10525       \ifx\x\@pdfview
10526         \def\x{FitH @ypos}%
10527       \else
10528         \def\x{FitBH}%
10529         \ifx\x\@pdfview
10530           \def\x{FitBH @ypos}%
10531         \else
10532           \def\x{FitV}%
10533           \ifx\x\@pdfview
10534             \def\x{FitV @xpos}%
10535           \else
10536             \def\x{FitBV}%
10537             \ifx\x\@pdfview
10538               \def\x{FitBV @xpos}%
10539             \else
10540               \def\x{Fit}%
10541             \ifx\x\@pdfview
10542               \let\x\@pdfview

```



```

10543     \else
10544         \def\x{FitB}%
10545         \ifx\x\@pdfview
10546             \let\x\@pdfview
10547         \else
10548             \def\x{FitR}%
10549             \ifx\x\@pdfview
10550                 \Hy@Warning{'pdfview=FitR' is not supported}%
10551                 \def\x{XYZ @xpos @ypos null}%
10552             \else
10553                 \@onelevel@sanitize\@pdfview
10554                 \Hy@Warning{%
10555                     Unknown value '\@pdfview' for pdfview%
10556                 }%
10557                 \def\x{XYZ @xpos @ypos null}%
10558             \fi
10559         \fi
10560     \fi
10561 \fi
10562 \fi
10563 \fi
10564 \fi
10565 \fi
10566 \@pdfm@mark{dest (\Hy@pstringDest) [@thispage /\x]}%
10567 \endgroup
10568 \Hy@RestoreLastskip
10569 }
10570 \providecommand*\@pdfview{XYZ}
10571 \providecommand*\@pdfborder{0 0 1}
10572 \providecommand*\@pdfborderstyle{}
10573 \def\hyper@anchor#1{%
10574     \@pdfm@dest{#1}%
10575 }
10576 \def\hyper@anchorstart#1{%
10577     \Hy@activeanchortrue
10578     \@pdfm@dest{#1}%
10579 }
10580 \def\hyper@anchorend{%
10581     \Hy@activeanchorfalse
10582 }
10583 \newcounter{Hy@AnnotLevel}
10584 \ifHy@ocgcolorlinks
10585     \def\OBJ@OCG@view{@OCG@view}%
10586     \@pdfm@mark{%
10587         obj \OBJ@OCG@view <<%
10588             /Type/OCG%
10589             /Name(View)%
10590             /Usage<<%
10591             /Print<<%
10592             /PrintState/OFF%
10593         >>%
10594         /View<<%
10595         /ViewState/ON%
10596         >>%
10597     >>%
10598     >>%
10599 }%

```

```

10600 \@pdfm@mark{close \OBJ@OCG@view}%
10601 \def\OBJ@OCG@print{@OCG@print}%
10602 \@pdfm@mark{%
10603   obj \OBJ@OCG@print <<%
10604     /Type/OCG%
10605     /Name(Print)%
10606     /Usage<<%
10607     /Print<<%
10608     /PrintState/ON%
10609     >>%
10610     /View<<%
10611     /ViewState/OFF%
10612     >>%
10613     >>%
10614     >>%
10615   }%
10616 \@pdfm@mark{close \OBJ@OCG@print}%
10617 \def\OBJ@OCGs{@OCGs}%
10618 \@pdfm@mark{%
10619   obj \OBJ@OCGs [%
10620     \OBJ@OCG@view\space\OBJ@OCG@print
10621   ]%
10622 }%
10623 \@pdfm@mark{close \OBJ@OCGs}%
10624 \@pdfm@mark{%
10625   put @catalog <<%
10626     /OCProperties<<%
10627     /OCGs \OBJ@OCGs
10628     /D<<%
10629     /OFF[\OBJ@OCG@print]%
10630     /AS[%
10631       <<%
10632         /Event/View%
10633         /OCGs \OBJ@OCGs
10634         /Category[/View]%
10635       >>%
10636       <<%
10637         /Event/Print%
10638         /OCGs \OBJ@OCGs
10639         /Category[/Print]%
10640       >>%
10641       <<%
10642         /Event/Export%
10643         /OCGs \OBJ@OCGs
10644         /Category[/Print]%
10645       >>%
10646     ]%
10647     >>%
10648     >>%
10649     >>%
10650   }%
10651 \AtBeginShipout{%
10652   \setbox\AtBeginShipoutBox=\hbox{%
10653     \copy\AtBeginShipoutBox
10654   \@pdfm@mark{%
10655     put @resources <<%
10656     /Properties<<%

```

```

10657         /OCView \OBJ@OCG@view
10658         /OCPrint \OBJ@OCG@print
10659     >>%
10660     >>%
10661     }%
10662     }%
10663     }%
10664     \Hy@AtBeginDocument{%
10665     \def\Hy@colorlink#1{%
10666     \begingroup
10667     \ifHy@ocgcolorlinks
10668     \def\Hy@ocgcolor{#1}%
10669     \setbox0=\hbox\bgroup\color@begingroup
10670     \else
10671     \HyColor@UseColor#1%
10672     \fi
10673     }%
10674     \def\Hy@endcolorlink{%
10675     \ifHy@ocgcolorlinks
10676     \color@endgroup\egroup
10677     \mbox{%
10678     \@pdfm@mark{content /OC/OCPrint BDC}%
10679     \rlap{\copy0}%
10680     \@pdfm@mark{content EMC/OC/OCView BDC}%
10681     \begingroup
10682     \expandafter\HyColor@UseColor\Hy@ocgcolor
10683     \box0 %
10684     \endgroup
10685     \@pdfm@mark{content EMC}%
10686     }%
10687     \fi
10688     \endgroup
10689     }%
10690     }%
10691     \else
10692     \Hy@DisableOption{ocgcolorlinks}%
10693     \fi
10694     \def\Hy@BeginAnnot#1{%
10695     \stepcounter{Hy@AnnotLevel}%
10696     \ifnum\value{Hy@AnnotLevel}=\@ne
10697     #1%
10698     \fi
10699     }
10700     \def\Hy@endAnnot{%
10701     \ifnum\value{Hy@AnnotLevel}=\@ne
10702     \Hy@endcolorlink
10703     \@pdfm@mark{eann}%
10704     \fi
10705     \addtocounter{Hy@AnnotLevel}\m@ne
10706     }
10707     \def\Hy@undefinedname{UNDEFINED}
10708     \def\hyper@linkstart#1#2{%
10709     \Hy@VerboseLinkStart{#1}{#2}%
10710     \leavevmode
10711     \Hy@BeginAnnot{%
10712     \protected@edef\Hy@testname{#2}%
10713     \ifx\Hy@testname\@empty

```

```

10714 \Hy@Warning{%
10715   Empty destination name,\MessageBreak
10716   using '\Hy@undefinedname'%
10717 }%
10718 \let\Hy@testname\Hy@undefinedname
10719 \else
10720 \Hy@pstringdef\Hy@testname{%
10721   \expandafter\HyperDestNameFilter\expandafter{%
10722     \Hy@testname
10723   }%
10724 }%
10725 \fi
10726 \@pdfm@mark{%
10727   bann<<%
10728   /Type/Annot%
10729   /Subtype/Link%
10730   \ifHy@pdfa /F 4\fi
10731   \Hy@setpdfborder
10732   \expandafter\ifx\csname @#1bordercolor\endcsname\relax
10733   \else
10734     /C[\csname @#1bordercolor\endcsname]%
10735   \fi
10736   /A<<%
10737   /S/GoTo%
10738   /D(\Hy@testname)%
10739   \Hy@href@nextactionraw
10740   >>%
10741   >>%
10742 }%
10743 \expandafter\Hy@colorlink\csname @#1color\endcsname
10744 }%
10745 }
10746 \def\hyper@linkend{\Hy@EndAnnot}%
10747 \def\hyper@link#1#2#3{%
10748   \hyper@linkstart{#1}{#2}#3\Hy@xspace@end\hyper@linkend
10749 }
10750 \def\hyper@linkfile#1#2#3{%
10751   \leavevmode
10752   \Hy@BeginAnnot{%
10753     \def\Hy@pstringF{#2}%
10754     \Hy@CleanupFile\Hy@pstringF
10755     \Hy@pstringdef\Hy@pstringF\Hy@pstringF
10756     \Hy@pstringdef\Hy@pstringD{#3}%
10757     \Hy@MakeRemoteAction
10758     \@pdfm@mark{%
10759       bann<<%
10760       /Type/Annot%
10761       /Subtype/Link%
10762       \ifHy@pdfa /F 4\fi
10763       \Hy@setpdfborder
10764       \ifx\@filebordercolor\relax
10765       \else
10766         /C[\@filebordercolor]%
10767       \fi
10768       /A<<%
10769       /S/GoToR%
10770       /F(\Hy@pstringF)%

```

```

10771      /D%
10772      \ifx\|#3\|%
10773      [\Hy@href@page\@pdfremotestartview]%
10774      \else
10775      (\Hy@pstringD)%
10776      \fi
10777      \Hy@SetNewWindow
10778      \Hy@href@nextactionraw
10779      >>%
10780      >>%
10781      }%
10782      \Hy@colorlink\@filecolor
10783      }%
10784      #1\Hy@xspace@end
10785      \Hy@EndAnnot
10786      }
10787      \def\@hyper@launch run:#1\|#2#3{% filename, anchor text linkname
10788      \leavevmode
10789      \Hy@BeginAnnot{%
10790      \Hy@pstringdef\Hy@pstringF{#1}%
10791      \Hy@pstringdef\Hy@pstringP{#3}%
10792      \@pdfm@mark{%
10793      bann<<%
10794      /Type/Annot%
10795      /Subtype/Link%
10796      \ifHy@pdfa /F 4\fi
10797      \Hy@setpdfborder
10798      \ifx\@runbordercolor\relax
10799      \else
10800      /C[\@runbordercolor]%
10801      \fi
10802      /A<<%
10803      /F(\Hy@pstringF)%
10804      /S/Launch%
10805      \Hy@SetNewWindow
10806      \ifx\|#3\|%
10807      \else
10808      /Win<</P(\Hy@pstringP)/F(\Hy@pstringF)>>%
10809      \fi
10810      \Hy@href@nextactionraw
10811      >>%
10812      >>%
10813      }%
10814      \Hy@colorlink\@runcolor
10815      }%
10816      #2\Hy@xspace@end
10817      \Hy@EndAnnot
10818      }
10819      \def\hyper@linkurl#1#2{%
10820      \leavevmode
10821      \Hy@BeginAnnot{%
10822      \Hy@pstringdef\Hy@pstringURI{#2}%
10823      \@pdfm@mark{%
10824      bann<<%
10825      /Type/Annot%
10826      /Subtype/Link%
10827      \ifHy@pdfa /F 4\fi

```

```

10828 \Hy@setpdfborder
10829 \ifx\@urlbordercolor\relax
10830 \else
10831 /C[\@urlbordercolor]%
10832 \fi
10833 /A<<%
10834 /S/URI%
10835 /URI(\Hy@pstringURI)%
10836 \ifHy@href@ismap
10837 /IsMap true%
10838 \fi
10839 \Hy@href@nextactionraw
10840 >>%
10841 >>%
10842 }%
10843 \Hy@colorlink\@urlcolor
10844 }%
10845 #1\Hy@xspace@end
10846 \Hy@EndAnnot
10847 }
10848 \def\Acrobatmenu#1#2{%
10849 \Hy@Acrobatmenu{#1}{#2}{%
10850 \Hy@BeginAnnot{%
10851 \EdefEscapeName\Hy@temp@menu{#1}%
10852 \@pdfm@mark{%
10853 bann<<%
10854 /Type/Annot%
10855 /Subtype/Link%
10856 \ifHy@pdfa /F 4\fi
10857 \Hy@setpdfborder
10858 \ifx\@menubordercolor\relax
10859 \else
10860 /C[\@menubordercolor]%
10861 \fi
10862 /A<<%
10863 /S/Named%
10864 /N/\Hy@temp@menu
10865 \Hy@href@nextactionraw
10866 >>%
10867 >>%
10868 }%
10869 \Hy@colorlink\@menucolor
10870 }%
10871 #2\Hy@xspace@end
10872 \Hy@EndAnnot
10873 }%
10874 }
10875 \ifx\@pdfproducer\relax
10876 \def\@pdfproducer{dvipdfm}%

```

Detect XeTeX. However, but xdvipdfmx will overwrite it in the final PDF file.

```

10877 \begingroup\expandafter\expandafter\expandafter\endgroup
10878 \expandafter\ifx\cname XeTeXversion\endcname\relax
10879 \else
10880 \edef\@pdfproducer{XeTeX \the\XeTeXversion\XeTeXrevision}%
10881 \fi
10882 \fi
10883 \def\PDF@FinishDoc{%

```

```

10884 \Hy@UseMaketitleInfos
10885 \HyInfo@GenerateAddons
10886 \@pdfm@mark{%
10887   docinfo<<%
10888     /Title(\@pdftitle)%
10889     /Subject(\@pdfsubject)%
10890     /Creator(\@pdfcreator)%
10891     \ifx\@pdfcreationdate\@empty
10892     \else
10893       /CreationDate(\@pdfcreationdate)%
10894     \fi
10895     \ifx\@pdfmoddate\@empty
10896     \else
10897       /ModDate(\@pdfmoddate)%
10898     \fi
10899     /Author(\@pdfauthor)%
10900     \ifx\@pdfproducer\relax
10901     \else
10902       /Producer(\@pdfproducer)%
10903     \fi
10904     /Keywords(\@pdfkeywords)%
10905     \ifx\@pdftrapped\@empty
10906     \else
10907       /Trapped/\@pdftrapped
10908     \fi
10909     \HyInfo@Addons
10910   >>%
10911 }%
10912 \Hy@DisableOption{pdfauthor}%
10913 \Hy@DisableOption{pdftitle}%
10914 \Hy@DisableOption{pdfsubject}%
10915 \Hy@DisableOption{pdfcreator}%
10916 \Hy@DisableOption{pdfcreationdate}%
10917 \Hy@DisableOption{pdfmoddate}%
10918 \Hy@DisableOption{pdfproducer}%
10919 \Hy@DisableOption{pdfkeywords}%
10920 \Hy@DisableOption{pdftrapped}%
10921 \Hy@DisableOption{pdfinfo}%
10922 }

10923 \def\PDF@SetupDoc{%
10924   \edef\Hy@temp{%
10925     \ifHy@pdftoolbar\else /HideToolbar true\fi
10926     \ifHy@pdfmenubar\else /HideMenubar true\fi
10927     \ifHy@pdfwindowui\else /HideWindowUI true\fi
10928     \ifHy@pdffitwindow /FitWindow true\fi
10929     \ifHy@pdfcenterwindow /CenterWindow true\fi
10930     \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
10931     \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
10932     \Hy@UseNameKey{Direction}\@pdfdirection
10933     \Hy@UseNameKey{ViewArea}\@pdfviewarea
10934     \Hy@UseNameKey{ViewClip}\@pdfviewclip
10935     \Hy@UseNameKey{PrintArea}\@pdfprintarea
10936     \Hy@UseNameKey{PrintClip}\@pdfprintclip
10937     \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
10938     \Hy@UseNameKey{Duplex}\@pdfduplex
10939     \ifx\@pdfpicktraybypdfsize\@empty
10940     \else

```

```

10941 /PickTrayByPDFSize \@pdfpicktraybypdfsize
10942 \fi
10943 \ifx\@pdfprintpagerange\@empty
10944 \else
10945 /PrintPageRange[\@pdfprintpagerange]%
10946 \fi
10947 \ifx\@pdfnumcopies\@empty
10948 \else
10949 /NumCopies \@pdfnumcopies
10950 \fi
10951 }%
10952 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
10953 \@pdfm@mark{%
10954 docview<<%
10955 \ifx\@pdfstartpage\@empty
10956 \else
10957 \ifx\@pdfstartview\@empty
10958 \else
10959 /OpenAction[@page\@pdfstartpage\@pdfstartview]%
10960 \fi
10961 \fi
10962 \ifx\@baseurl\@empty
10963 \else
10964 /URI<</Base(\Hy@pstringB)>>%
10965 \fi
10966 /PageMode/\@pdfpagemode
10967 \ifx\Hy@temp\@empty
10968 \else
10969 /ViewerPreferences<<\Hy@temp>>%
10970 \fi
10971 \Hy@UseNameKey{PageLayout}\@pdfpagelayout
10972 \ifx\@pdflang\relax
10973 \else
10974 /Lang(\@pdflang)%
10975 \fi
10976 >>%
10977 }%
10978 \ifx\@pdfpagescrop\@empty
10979 \else
10980 \@pdfm@mark{put @pages <</CropBox[\@pdfpagescrop]>>}%
10981 \fi
10982 }
10983 </dvi/pdfm | xetex>
10984 <*/dvi/pdfm | xetex>

```

\hyper@pagetransition

```

10985 \def\hyper@pagetransition{%
10986 \ifx\@pdfpagetransition\relax
10987 \else
10988 \ifx\@pdfpagetransition\@empty
10989 \else
10990 \special{pdf:put @thispage %
10991 <</Trans<</S/\@pdfpagetransition>>>>%
10992 }%
10993 \fi
10994 \fi
10995 }

```


`\hyper@pageduration`

```
10996 \def\hyper@pageduration{%
10997 \ifx\@pdfpageduration\relax
10998 \else
10999 \ifx\@pdfpageduration\@empty
11000 \else
11001 \special{pdf:put @thispage %
11002 <</Dur \@pdfpageduration>>%
11003 }%
11004 \fi
11005 \fi
11006 }
```

`\hyper@pagehidden`

```
11007 \def\hyper@pagehidden{%
11008 \ifHy@useHidKey
11009 \special{pdf:put @thispage %
11010 <</Hid \ifHy@pdfpagehidden true\else false\fi>>%
11011 }%
11012 \fi
11013 }

11014 \g@addto@macro\Hy@EveryPageBoxHook{%
11015 \hyper@pagetransition
11016 \hyper@pageduration
11017 \hyper@pagehidden
11018 }

11019 </dvi pdfm | xetex>
```

XeTeX uses pdfTeX's method `\pdfpagewidth` and `\pdfpageheight` for setting the paper size.

```
11020 <(*dvi pdfm)
11021 \AtBeginShipoutFirst{%
11022 \ifHy@setpagesize
11023 \begingroup
11024 \@ifundefined{stockwidth}{%
11025 \ifdim\paperwidth>\z@
11026 \ifdim\paperheight>\z@
11027 \special{papersize=\the\paperwidth,\the\paperheight}%
11028 \fi
11029 \fi
11030 }{%
11031 \ifdim\stockwidth>\z@
11032 \ifdim\stockheight>\z@
11033 \special{papersize=\the\stockwidth,\the\stockheight}%
11034 \fi
11035 \fi
11036 }%
11037 \endgroup
11038 \fi
11039 \Hy@DisableOption{setpagesize}%
11040 }
11041 </dvi pdfm>
```

47.6 VTeX typesetting system

Provided by MicroPress, May 1998. They require VTeX version 6.02 or newer; see <http://www.micropress-inc.com/> for details.

```
11042 (*vtexhtml)
11043 \providecommand*\XR@ext}{htm}
11044 \RequirePackage{vtexhtml}
11045 \newif\if@Localurl
11046 \let\PDF@FinishDoc\ltx@empty
11047 \def\PDF@SetupDoc{%
11048   \ifx\@baseurl\@empty
11049   \else
11050     \special{!direct <base href="\@baseurl">}%
11051   \fi
11052 }
11053 \def\@urltype{url}
11054 \def\hyper@link#1#2#3{%
11055   \Hy@VerboseLinkStart{#1}{#2}%
11056   \leavevmode
11057   \special{!direct <a href=%
11058     \hyper@quote\hyper@hash\HyperDestNameFilter{#2}\hyper@quote>}%
11059   #3\Hy@xspace@end
11060   \special{!direct </a>}%
11061 }
11062 \def\hyper@linkurl#1#2{%
11063   \begingroup
11064   \hyper@chars
11065   \leavevmode
11066   \MathBSuppress=1\relax
11067   \special{!direct <a href=%
11068     \hyper@quote\HyperDestNameFilter{#2}\hyper@quote>}%
11069   #1\Hy@xspace@end
11070   \MathBSuppress=0\relax
11071   \special{!direct </a>}%
11072   \endgroup
11073 }
11074 \def\hyper@linkfile#1#2#3{%
11075   \hyper@linkurl{#1}{\Hy@linkfileprefix#2\ifx\\#3\\\else\##3\fi}%
11076 }
11077 \def\hyper@linkstart#1#2{%
11078   \Hy@VerboseLinkStart{#1}{#2}%
11079   \def\Hy@tempa{#1}\ifx\Hy@tempa\@urltype
11080     \@Localurltrue
11081     \special{!direct <a href=\hyper@quote#2\hyper@quote>}%
11082   \else
11083     \@Localurlfalse
11084     \begingroup
11085     \hyper@chars
11086     \special{!aref \HyperDestNameFilter{#2}}%
11087     \endgroup
11088   \fi
11089 }
11090 \def\hyper@linkend{%
11091   \if@Localurl
11092     \special{!endaref}%
11093   \else
11094     \special{!direct </a>}%
```

```

11095 \fi
11096 }
11097 \Hy@WrapperDef\hyper@anchorstart#1{%
11098 \Hy@SaveLastskip
11099 \Hy@VerboseAnchor{#1}%
11100 \begingroup
11101 \hyper@chars
11102 \special{!aname #1}%
11103 \special{!direct <a name=%
11104 \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
11105 \endgroup
11106 \Hy@activeanchortrue
11107 }
11108 \def\hyper@anchorend{%
11109 \special{!direct </a>}%
11110 \Hy@activeanchorfalse
11111 \Hy@RestoreLastskip
11112 }
11113 \Hy@WrapperDef\hyper@anchor#1{%
11114 \Hy@SaveLastskip
11115 \Hy@VerboseAnchor{#1}%
11116 \begingroup
11117 \let\protect=\string
11118 \hyper@chars
11119 \leavevmode
11120 \special{!aname #1}%
11121 \special{!direct <a name=%
11122 \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
11123 \endgroup
11124 \Hy@activeanchortrue
11125 \bgroup\anchor@spot\egroup
11126 \special{!direct </a>}%
11127 \Hy@activeanchorfalse
11128 \Hy@RestoreLastskip
11129 }
11130 \def\@Form[#1]{%
11131 \Hy@Message{Sorry, TeXpider does not yet support FORMs}%
11132 }
11133 \let\@endForm\ltx@empty
11134 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
11135 \Hy@Message{Sorry, TeXpider does not yet support FORM gauges}%
11136 }
11137 \def\@TextField[#1]#2{% parameters, label
11138 \Hy@Message{Sorry, TeXpider does not yet support FORM text fields}%
11139 }
11140 \def\@CheckBox[#1]#2{% parameters, label
11141 \Hy@Message{Sorry, TeXpider does not yet support FORM checkboxes}%
11142 }
11143 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
11144 \Hy@Message{Sorry, TeXpider does not yet support FORM choice menus}%
11145 }
11146 \def\@PushButton[#1]#2{% parameters, label
11147 \Hy@Message{Sorry, TeXpider does not yet support FORM pushbuttons}%
11148 }
11149 \def\@Reset[#1]#2{%
11150 \Hy@Message{Sorry, TeXpider does not yet support FORMs}%
11151 }

```

```

11152 \def\@Submit[#1]#2{%
11153 \Hy@Message{Sorry, TeXpider does not yet support FORMs}%
11154 }
11155 </vtexhtml>
11156 <*\vtex>

```

VTeX 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.

```

11157 \ifx\mediaheight\@undefined
11158 \else
11159 \ifx\mediaheight\relax
11160 \else
11161 \ifHy@setpagesize
11162 \providecommand*\VTeXInitMediaSize}{%
11163 \ltx@ifundefined{stockwidth}{%
11164 \ifdim\paperheight>0pt %
11165 \setlength\mediaheight\paperheight
11166 \fi
11167 \ifdim\paperheight>0pt %
11168 \setlength\mediawidth\paperwidth
11169 \fi
11170 }{%
11171 \ifdim\stockheight>0pt %
11172 \setlength\mediaheight\stockheight
11173 \fi
11174 \ifdim\stockwidth>0pt %
11175 \setlength\mediawidth\stockwidth
11176 \fi
11177 }%
11178 }%
11179 \Hy@AtBeginDocument{\VTeXInitMediaSize}%
11180 \fi
11181 \Hy@DisableOption{setpagesize}%
11182 \fi
11183 \fi

```

Older versions of VTeX require `xyz` in lower case.

```

11184 \providecommand*\@pdfview{xyz}
11185 \providecommand*\@pdfborder{0 0 1}
11186 \providecommand*\@pdfborderstyle{}
11187 \let\CurrentBorderColor\@linkbordercolor
11188 \Hy@WrapperDef\hyper@anchor#1{%
11189 \Hy@SaveLastskip
11190 \Hy@VerboseAnchor{#1}%
11191 \begingroup
11192 \let\protect=\string
11193 \hyper@chars
11194 \special{!aname \HyperDestNameFilter{#1};\@pdfview}%
11195 \endgroup
11196 \Hy@activeanchortrue
11197 \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
11198 \Hy@activeanchorfalse
11199 \Hy@RestoreLastskip
11200 }
11201 \Hy@WrapperDef\hyper@anchorstart#1{%
11202 \Hy@SaveLastskip
11203 \Hy@VerboseAnchor{#1}%

```

```

11204 \begingroup
11205   \hyper@chars
11206   \special{!aname \HyperDestNameFilter{#1};\@pdfview}%
11207 \endgroup
11208 \Hy@activeanchortrue
11209 }
11210 \def\hyper@anchorend{%
11211   \Hy@activeanchorfalse
11212   \Hy@RestoreLastskip
11213 }
11214 \def\@urltype{url}
11215 \def\Hy@undefinedname{UNDEFINED}
11216 \def\hyper@linkstart#1#2{%
11217   \Hy@VerboseLinkStart{#1}{#2}%
11218   \Hy@pstringdef\Hy@pstringURI{#2}%
11219   \expandafter\Hy@colorlink\csname @#1color\endcsname
11220   \ltx@ifundefined{@#1bordercolor}{%
11221     \let\CurrentBorderColor\relax
11222   }{%
11223     \edef\CurrentBorderColor{%
11224       \csname @#1bordercolor\endcsname
11225     }%
11226   }%
11227   \def\Hy@tempa{#1}%
11228   \ifx\Hy@tempa\@urltype
11229     \special{!%
11230       aref <u=/Type/Action/S/URI/URI(\Hy@pstringURI)%
11231         \ifHy@href@ismap
11232           /IsMap true%
11233         \fi
11234         \Hy@href@nextactionraw
11235       >,%
11236       a=<%
11237         \ifHy@pdfa /F 4\fi
11238         \Hy@setpdfborder
11239         \ifx\CurrentBorderColor\relax
11240           \else
11241             /C [\CurrentBorderColor]%
11242           \fi
11243       >%
11244     }%
11245   \else
11246     \protected@edef\Hy@testname{#2}%
11247     \ifx\Hy@testname\@empty
11248       \Hy@Warning{%
11249         Empty destination name,\MessageBreak
11250         using '\Hy@undefinedname'%
11251       }%
11252     \let\Hy@testname\Hy@undefinedname
11253   \fi
11254   \special{!%
11255     aref \expandafter\HyperDestNameFilter
11256       \expandafter{\Hy@testname};%
11257     a=<%
11258     \ifHy@pdfa /F 4\fi
11259     \Hy@setpdfborder
11260     \ifx\CurrentBorderColor\relax

```

```

11261     \else
11262     /C [\CurrentBorderColor]%
11263     \fi
11264     >%
11265     }%
11266     \fi
11267 }
11268 \def\hyper@linkend{%
11269 \special{!endaref}%
11270 \Hy@endcolorlink
11271 }
11272 \def\hyper@linkfile#1#2#3{%
11273 \leavevmode
11274 \def\Hy@pstringF{#2}%
11275 \Hy@CleanupFile\Hy@pstringF
11276 \special{!%
11277   aref <%
11278   \ifnum\Hy@VTeXversion>753 \ifHy@pdfnewwindow n\fi\fi
11279   f=\Hy@pstringF>#3;%
11280   a=<%
11281   \ifHy@pdfa /F 4\fi
11282   \Hy@setpdfborder
11283   \ifx\@filebordercolor\relax
11284   \else
11285   /C [\@filebordercolor]%
11286   \fi
11287   >%
11288   }%
11289   \Hy@colorlink\@filecolor
11290   #1\Hy@xspace@end
11291   \Hy@endcolorlink
11292   \special{!endaref}%
11293 }
11294 \def\hyper@linkurl#1#2{%
11295 \begingroup
11296 \Hy@pstringdef\Hy@pstringURI{#2}%
11297 \hyper@chars
11298 \leavevmode
11299 \special{!%
11300   aref <u=/Type/Action/S/URI/URI(\Hy@pstringURI)%
11301   \ifHy@href@ismap
11302   /IsMap true%
11303   \fi
11304   \Hy@href@nextactionraw
11305   >,%
11306   a=<%
11307   \ifHy@pdfa /F 4\fi
11308   \Hy@setpdfborder
11309   \ifx\@urlbordercolor\relax
11310   \else
11311   /C [\@urlbordercolor]%
11312   \fi
11313   >%
11314   }%
11315   \Hy@colorlink\@urlcolor
11316   #1\Hy@xspace@end
11317   \Hy@endcolorlink

```

```

11318 \special{!endaref}%
11319 \endgroup
11320 }
11321 \def\hyper@link#1#2#3{%
11322 \Hy@VerboseLinkStart{#1}{#2}%
11323 \ltx@ifundefined{#@#1bordercolor}{%
11324 \let\CurrentBorderColor\relax
11325 }{%
11326 \edef\CurrentBorderColor{\csname @#1bordercolor\endcsname}%
11327 }%
11328 \leavevmode
11329 \protected@edef\Hy@testname{#2}%
11330 \ifx\Hy@testname\@empty
11331 \Hy@Warning{%
11332 Empty destination name,\MessageBreak
11333 using '\Hy@undefinedname'%
11334 }%
11335 \let\Hy@testname\Hy@undefinedname
11336 \fi
11337 \special{!%
11338 aref \expandafter\HyperDestNameFilter
11339 \expandafter{\Hy@testname};%
11340 a=<%
11341 \ifHy@pdfa /F 4\fi
11342 \Hy@setpdfborder
11343 \ifx\CurrentBorderColor\relax
11344 \else
11345 /C [\CurrentBorderColor]%
11346 \fi
11347 >%
11348 }%
11349 \expandafter
11350 \Hy@colorlink\csname @#1color\endcsname
11351 #3\Hy@xspace@end
11352 \Hy@endcolorlink
11353 \special{!endaref}%
11354 }
11355 \def\hyper@image#1#2{%
11356 \hyper@linkurl{#2}{#1}%
11357 }
11358 \def\@hyper@launch run:#1\#2#3{%
11359 \Hy@pstringdef\Hy@pstringF{#1}%
11360 \Hy@pstringdef\Hy@pstringP{#3}%
11361 \leavevmode
11362 \special{!aref %
11363 <u=%
11364 /Type/Action%
11365 /S/Launch%
11366 /F(\Hy@pstringF)%
11367 \Hy@SetNewWindow
11368 \ifx\#3\%
11369 \else
11370 /Win<</F(\Hy@pstringF)/P(\Hy@pstringP)>>%
11371 \fi
11372 \Hy@href@nextactionraw
11373 >,%
11374 a=<%

```

```

11375 \ifHy@pdfa /F 4\fi
11376 \Hy@setpdfborder
11377 \ifx\@runbordercolor\relax
11378 \else
11379 /C[\@runbordercolor]%
11380 \fi
11381 >%
11382 }%
11383 \Hy@colorlink\@runcolor
11384 #2\Hy@xspace@end
11385 \Hy@endcolorlink
11386 \special{!endaref}%
11387 }
11388 \def\Acrobatmenu#1#2{%
11389 \EdefEscapeName\Hy@temp@menu{#1}%
11390 \Hy@Acrobatmenu{#1}{#2}{%
11391 \special{!%
11392 aref <u=/S /Named /N /\Hy@temp@menu>;%
11393 a=<%
11394 \ifHy@pdfa /F 4\fi
11395 \Hy@setpdfborder
11396 \ifx\@menubordercolor\relax
11397 \else
11398 /C[\@menubordercolor]%
11399 \fi
11400 >%
11401 }%
11402 \Hy@colorlink\@menucolor
11403 #2\Hy@xspace@end
11404 \Hy@endcolorlink
11405 \special{!endaref}%
11406 }%
11407 }

```

The following code (transition effects) is made by Alex Kostin.

The code below makes sense for V_TE_X 7.02 or later.

Please never use `\@ifundefined{VTeXversion}{..}{..}` *globally*.

```

11408 \ifnum\Hy@VTeXversion<702 %
11409 \else
11410 \def\hyper@pagetransition{%
11411 \ifx\@pdfpagetransition\relax
11412 \else
11413 \ifx\@pdfpagetransition\@empty

```

Standard incantation.

1. Does an old entry have to be deleted? 2. If 1=yes, how to delete?

```

11414 \else
11415 \hvtex@parse@trans\@pdfpagetransition
11416 \fi
11417 \fi
11418 }%

```

I have to write an “honest” parser to convert raw PDF code into V_TE_X \special. (AVK)

Syntax of V_TE_X \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:

```

11419 \def\hvtex@trans@effect@Blinds{\def\hvtex@trans@code{B}}%
11420 \def\hvtex@trans@effect@Box{\def\hvtex@trans@code{X}}%
11421 \def\hvtex@trans@effect@Dissolve{\def\hvtex@trans@code{D}}%
11422 \def\hvtex@trans@effect@Glitter{\def\hvtex@trans@code{G}}%
11423 \def\hvtex@trans@effect@Split{\def\hvtex@trans@code{S}}%
11424 \def\hvtex@trans@effect@Wipe{\def\hvtex@trans@code{W}}%
11425 \def\hvtex@trans@effect@R{\def\hvtex@trans@code{R}}%

```

Optional parameters:

```

11426 \def\hvtex@par@dimension{/Dm}%
11427 \def\hvtex@par@direction{/Di}%
11428 \def\hvtex@par@duration{/D}%
11429 \def\hvtex@par@motion{/M}%

```

Tokenizer:

```

11430 \def\hvtex@gettoken{%
11431   \expandafter\hvtex@gettoken@\hvtex@buffer\@nil
11432 }%

```

Notice that tokens in the input buffer must be space delimited.

```

11433 \def\hvtex@gettoken@#1 #2\@nil{%
11434   \edef\hvtex@token{#1}%
11435   \edef\hvtex@buffer{#2}%
11436 }%
11437 \def\hvtex@parse@trans#1{%

```

Initializing code:

```

11438 \let\hvtex@trans@code\@empty
11439 \let\hvtex@param@dimension\@empty
11440 \let\hvtex@param@direction\@empty
11441 \let\hvtex@param@duration\@empty
11442 \let\hvtex@param@motion\@empty
11443 \edef\hvtex@buffer{#1\space}%

```

First token is the PDF transition name without escape.

```

11444 \hvtex@gettoken
11445 \ifx\hvtex@token\@empty

```

Leading space(s)?

```

11446 \ifx\hvtex@buffer\@empty

```

The buffer is empty, nothing to do.

```

11447   \else
11448     \hvtex@gettoken
11449   \fi
11450 \fi
11451 \csname hvtex@trans@effect@\hvtex@token\endcsname

```

Now is time to parse optional parameters.

```
11452 \hvtex@trans@params
11453 }%
```

Reentrant macro to parse optional parameters.

```
11454 \def\hvtex@trans@params{%
11455 \ifx\hvtex@buffer\@empty
11456 \else
11457 \hvtex@gettoken
11458 \let\hvtex@trans@par\hvtex@token
11459 \ifx\hvtex@buffer\@empty
11460 \else
11461 \hvtex@gettoken
11462 \ifx\hvtex@trans@par\hvtex@par@duration
```

/D is the effect duration in seconds. V_TE_X special takes it in milliseconds.

```
11463 \let\hvtex@param@duration\hvtex@token
11464 \else \ifx\hvtex@trans@par\hvtex@par@motion
```

/M can be either /I or /O

```
11465 \expandafter\edef\expandafter\hvtex@param@motion
11466 \expandafter{\expandafter\@gobble\hvtex@token}%
11467 \else \ifx\hvtex@trans@par\hvtex@par@dimension
```

/Dm can be either /H or /V

```
11468 \expandafter\edef\expandafter\hvtex@param@dimension
11469 \expandafter{\expandafter\@gobble\hvtex@token}%
11470 \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).

```
11471 \let\hvtex@param@direction\hvtex@token
11472 \fi\fi\fi\fi
11473 \fi
11474 \fi
11475 \ifx\hvtex@buffer\@empty
11476 \let\next\hvtex@produce@trans
11477 \else
11478 \let\next\hvtex@trans@params
11479 \fi
11480 \next
11481 }%
```

Merge <transition_effect> and issue the special when possible. Too lazy to validate optional parameters.

```
11482 \def\hvtex@produce@trans{%
11483 \let\vtex@trans@special\@empty
11484 \if S\hvtex@trans@code
11485 \edef\vtex@trans@special{\hvtex@trans@code
11486 \hvtex@param@dimension\hvtex@param@motion}%
11487 \else\if B\hvtex@trans@code
11488 \edef\vtex@trans@special{%
11489 \hvtex@trans@code\hvtex@param@dimension
11490 }%
11491 \else\if X\hvtex@trans@code
11492 \edef\vtex@trans@special{%
11493 \hvtex@trans@code\hvtex@param@motion
11494 }%
11495 \else\if W\hvtex@trans@code
```

```

11496 \edef\vtex@trans@special{%
11497   \hvtex@trans@code\hvtex@param@direction
11498 }%
11499 \else\if D\hvtex@trans@code
11500   \let\vtex@trans@special\hvtex@trans@code
11501 \else\if R\hvtex@trans@code
11502   \let\vtex@trans@special\hvtex@trans@code
11503 \else\if G\hvtex@trans@code
11504   \edef\vtex@trans@special{%
11505     \hvtex@trans@code\hvtex@param@direction
11506   }%
11507   \fi\fi\fi\fi\fi\fi
11508 \ifx\vtex@trans@special\@empty
11509 \else
11510   \ifx\hvtex@param@duration\@empty
11511   \else
11512     \setlength{\dimen@}{\hvtex@param@duration\p@}%

```

I'm not guilty of possible overflow.

```

11513   \multiply\dimen@\@m
11514   \edef\vtex@trans@special{%
11515     \vtex@trans@special,\strip@pt\dimen@
11516   }%
11517   \fi

```

And all the mess is just for this.

```

11518   \special{!trans \vtex@trans@special}%
11519   \fi
11520 }%
11521 \def\hyper@pageduration{%
11522   \ifx\@pdfpageduration\relax
11523   \else
11524     \ifx\@pdfpageduration\@empty
11525       \special{!duration-}%
11526     \else
11527       \special{!duration \@pdfpageduration}%
11528     \fi
11529   \fi
11530 }%
11531 \def\hyper@pagehidden{%
11532   \ifHy@useHidKey
11533     \special{!hidden\ifHy@pdfpagehidden +\else -\fi}%
11534   \fi
11535 }%
11536 \g@addto@macro\Hy@EveryPageBoxHook{%
11537   \hyper@pagetransition
11538   \hyper@pageduration
11539   \hyper@pagehidden
11540 }%
11541 \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
11542 \ifx\@pdfproducer\relax
11543 \def\@pdfproducer{VTeX}%
11544 \ifnum\Hy@VTeXversion>\z@
11545 \count@\VTeXversion
11546 \divide\count@ 100 %
11547 \edef\@pdfproducer{\@pdfproducer\space v\the\count@}%
11548 \multiply\count@ -100 %
11549 \advance\count@\VTeXversion
11550 \edef\@pdfproducer{%
11551 \@pdfproducer
11552 .\ifnum\count@<10 0\fi\the\count@
11553 \ifx\VTeXOS\@undefined\else
11554 \ifnum\VTeXOS>0 %
11555 \ifnum\VTeXOS<6 %
11556 \space%
11557 \ifcase\VTeXOS
11558 \or Windows\or Linux\or OS/2\or MacOS\or MacOS/X%
11559 \fi
11560 )%
11561 \fi
11562 \fi
11563 \fi
11564 ,\space
11565 \ifnum\OpMode=\@one PDF\else PS\fi
11566 \space backend%
11567 \ifx\gexmode\@undefined\else
11568 \ifnum\gexmode>\z@\space with GeX\fi
11569 \fi
11570 }%
11571 \fi
11572 \fi

```

Current `!pdfinfo` key syntax:

Key	Field	Type
a	Author	String
b	CropBox	String
c	Creator	String
k	Keywords	String
l	PageLayout	PS
p	PageMode	PS
r	Producer	String
s	Subject	String
t	Title	String
u	URI	PS
v	ViewPreferences	PS

Note: PS objects that are dicts are in <<.>> (yuck; no choice).

```

11573 \def\PDF@SetupDoc{%
11574 \ifx\@pdfpagescrop\@empty
11575 \else
11576 \special{!pdfinfo b=<\@pdfpagescrop>}%
11577 \fi

```

```

11578 \ifx\@pdfstartpage\@empty
11579 \else
11580 \ifx\@pdfstartview\@empty
11581 \else
11582 \special{!onopen Page\@pdfstartpage}%
11583 \fi
11584 \fi
11585 \special{!pdfinfo p=</\@pdfpagemode>}%
11586 \ifx\@baseurl\@empty
11587 \else
11588 \special{!pdfinfo u=<<</Base (\@baseurl)>>>}%
11589 \fi
11590 \special{!pdfinfo v=<<<%
11591 \ifHy@pdftoolbar\else /HideToolbar true\fi
11592 \ifHy@pdfmenubar\else /HideMenubar true\fi
11593 \ifHy@pdfwindowui\else /HideWindowUI true\fi
11594 \ifHy@pdfwindow /FitWindow true\fi
11595 \ifHy@pdfcenterwindow /CenterWindow true\fi
11596 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
11597 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
11598 \Hy@UseNameKey{Direction}\@pdfdirection
11599 \Hy@UseNameKey{ViewArea}\@pdfviewarea
11600 \Hy@UseNameKey{ViewClip}\@pdfviewclip
11601 \Hy@UseNameKey{PrintArea}\@pdfprintarea
11602 \Hy@UseNameKey{PrintClip}\@pdfprintclip
11603 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
11604 \Hy@UseNameKey{Duplex}\@pdfduplex
11605 \ifx\@pdfpicktraybypdfsize\@empty
11606 \else
11607 /PickTrayByPDFSize \@pdfpicktraybypdfsize
11608 \fi
11609 \ifx\@pdfprintpagerange\@empty
11610 \else
11611 /PrintPageRange[\@pdfprintpagerange]%
11612 \fi
11613 \ifx\@pdfnumcopies\@empty
11614 \else
11615 /NumCopies \@pdfnumcopies
11616 \fi
11617 >>>}%
11618 \ifx\@pdfpagelayout\@empty
11619 \else
11620 \special{!pdfinfo l=</\@pdfpagelayout\space>}%
11621 \fi
11622 }%
11623 \HyInfo@AddonUnsupportedtrue
11624 \define@key{Hyp}{pdfcreationdate}{%
11625 \Hy@Warning{%
11626 VTeX does not support pdfcreationdate.\MessageBreak
11627 Therefore its setting is ignored%
11628 }%
11629 }
11630 \define@key{Hyp}{pdfmoddate}{%
11631 \Hy@Warning{%
11632 VTeX does not support pdfmoddate.\MessageBreak
11633 Therefore its setting is ignored%
11634 }%

```

```

11635 }
11636 \def\PDF@FinishDoc{%
11637   \Hy@UseMaketitleInfos
11638   \HyInfo@TrappedUnsupported
11639   \special{!pdfinfo a=<\@pdfauthor>}%
11640   \special{!pdfinfo t=<\@pdftitle>}%
11641   \special{!pdfinfo s=<\@pdfsubject>}%
11642   \special{!pdfinfo c=<\@pdfcreator>}%
11643   \ifx\@pdfproducer\relax
11644   \else
11645     \special{!pdfinfo r=<\@pdfproducer>}%
11646   \fi
11647   \special{!pdfinfo k=<\@pdfkeywords>}%
11648   \Hy@DisableOption{pdfauthor}%
11649   \Hy@DisableOption{pdftitle}%
11650   \Hy@DisableOption{pdfsubject}%
11651   \Hy@DisableOption{pdfcreator}%
11652   \Hy@DisableOption{pdfcreationdate}%
11653   \Hy@DisableOption{pdfmoddate}%
11654   \Hy@DisableOption{pdfproducer}%
11655   \Hy@DisableOption{pdfkeywords}%
11656   \Hy@DisableOption{pdftrapped}%
11657   \Hy@DisableOption{pdfinfo}%
11658 }
11659 </vtx>

```

47.7 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.

```

11660 <dviwindo>\def\literalps@out#1{\special{ps:#1}}%
11661 <package>\providecommand*{\Hy@DistillerDestFix}{}
11662 <*pdfmark | dviwindo>
11663 \def\Hy@DistillerDestFix{%
11664   \begingroup
11665     \let\x\literalps@out

```

The fix has to be passed unchanged through GeX, if VTeX in PostScript mode with GeX is used.

```

11666   \ifnum \@ifundefined{OpMode}{0}{%
11667     \@ifundefined{gexmode}{0}{%
11668       \ifnum\gexmode>0 \OpMode\else 0\fi
11669     }>1 %
11670   \def\x##1{%
11671     \immediate\special{!##1}%
11672   }%
11673   \fi
11674   \x{%
11675     /product where{%
11676       pop %

```

```

11677     product(Distiller)search{%
11678     pop pop pop %
11679     version(.)search{%
11680     exch pop exch pop%
11681     (3011)eq{%
11682     gsave %
11683     newpath 0 0 moveto closepath clip%
11684     /Courier findfont 10 scalefont setfont %
11685     72 72 moveto(.).show %
11686     grestore%
11687     }if%
11688     }{pop}ifelse%
11689     }{pop}ifelse%
11690     }if%
11691     }%
11692 \endgroup
11693 }
11694 </pdfmark | dviwindo>

```

47.8 Direct pdfmark support

Drivers that load pdfmark.def have to provide the correct macro definitions of

```

\@pdfproducer   for document information
\literalps@out  PostScript output
\headerps@out   PostScript output that goes in the header area

```

and the correct definitions of the following PostScript procedures:

```

H.S           start of anchor, link or rect
#1 H.A       end of anchor, argument=baselineskip in pt
#1 H.L       end of link, argument=baselineskip in pt
H.R           end of rect
H.B           raw rect code

```

```

11695 (*pdfmark)
11696 \Hy@breaklinks@unsupported
11697 \def\HyPat@ObjRef{%
11698   \[~{}]+\}%
11699 }
11700 \Hy@WrapperDef\hyper@anchor#1{%
11701   \Hy@SaveLastskip
11702   \Hy@VerboseAnchor{#1}%
11703   \begingroup
11704   \pdfmark[\anchor@spot]{%
11705     pdfmark=/DEST,%
11706     linktype=anchor,%
11707     View=/\@pdfview \@pdfviewparams,%
11708     DestAnchor={#1}%
11709   }%
11710   \endgroup
11711   \Hy@RestoreLastskip
11712 }
11713 \ltx@ifundefined{hyper@anchorstart}{}{\endinput}
11714 \Hy@WrapperDef\hyper@anchorstart#1{%
11715   \Hy@SaveLastskip
11716   \Hy@VerboseAnchor{#1}%
11717   \literalps@out{H.S}%

```

```

11718 \Hy@AllowHyphens
11719 \xdef\hyper@currentanchor{#1}%
11720 \Hy@activeanchortrue
11721 }
11722 \def\hyper@anchorend{%
11723 \literalps@out{\strip@pt@and@otherjunk\baselineskip\space H.A}%
11724 \pdfmark{%
11725 pdfmark=/DEST,%
11726 linktype=anchor,%
11727 View=/\@pdfview \@pdfviewparams,%
11728 DestAnchor=\hyper@currentanchor,%
11729 }%
11730 \Hy@activeanchorfalse
11731 \Hy@RestoreLastskip
11732 }
11733 \def\hyper@linkstart#1#2{%
11734 \Hy@VerboseLinkStart{#1}{#2}%
11735 \ifHy@breaklinks
11736 \else
11737 \leavevmode
11738 \ifmmode
11739 \def\Hy@LinkMath{$}%
11740 \else
11741 \let\Hy@LinkMath\ltx@empty
11742 \fi
11743 \Hy@SaveSpaceFactor
11744 \hbox\bgroup
11745 \Hy@RestoreSpaceFactor
11746 \Hy@LinkMath
11747 \fi
11748 \expandafter\Hy@colorlink\csname @#1color\endcsname
11749 \literalps@out{H.S}%
11750 \Hy@AllowHyphens
11751 \xdef\hyper@currentanchor{#2}%
11752 \gdef\hyper@currentlinktype{#1}%
11753 }
11754 \def\hyper@linkend{%
11755 \literalps@out{\strip@pt@and@otherjunk\baselineskip\space H.L}%
11756 \ltx@ifundefined{@\hyper@currentlinktype bordercolor}{%
11757 \let\Hy@tempcolor\relax
11758 }{%
11759 \edef\Hy@tempcolor{%
11760 \csname @\hyper@currentlinktype bordercolor\endcsname
11761 }%
11762 }%
11763 \pdfmark{%
11764 pdfmark=/ANN,%
11765 linktype=link,%
11766 Subtype=/Link,%
11767 PDFAFflags=4,%
11768 Dest=\hyper@currentanchor,%
11769 AcroHighlight=\@pdfhighlight,%
11770 Border=\@pdfborder,%
11771 BorderStyle=\@pdfborderstyle,%
11772 Color=\Hy@tempcolor,%
11773 Raw=H.B%
11774 }%

```



```

11775 \Hy@endcolorlink
11776 \ifHy@breaklinks
11777 \else
11778 \Hy@LinkMath
11779 \Hy@SaveSpaceFactor
11780 \egroup
11781 \Hy@RestoreSpaceFactor
11782 \fi
11783 }

```

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.

```

11784 \begingroup
11785 \catcode'P=12 %
11786 \catcode'T=12 %
11787 \lowercase{\endgroup
11788 \gdef\rem@ptetc#1.#2PT#3!{#1\ifnum#2>\z@.#2\fi}%
11789 }
11790 \def\strip@pt@and@otherjunk#1{\expandafter\rem@ptetc\the#1!}

```

`\hyper@pagetransition`

```

11791 \def\hyper@pagetransition{%
11792 \ifx\@pdfpagetransition\relax
11793 \else
11794 \ifx\@pdfpagetransition\@empty
11795 % 1. Does an old entry have to be deleted?
11796 % 2. If 1=yes, how to delete?
11797 \else
11798 \pdfmark{%
11799 pdfmark=/PUT,%
11800 Raw={%
11801 \string{ThisPage\string}%
11802 <</Trans << /S /\@pdfpagetransition\space >> >>%
11803 }%
11804 }%
11805 \fi
11806 \fi
11807 }

```

`\hyper@pageduration`

```

11808 \def\hyper@pageduration{%
11809 \ifx\@pdfpageduration\relax
11810 \else
11811 \ifx\@pdfpageduration\@empty
11812 % 1. Does an old entry have to be deleted?
11813 % 2. If 1=yes, how to delete?
11814 \else
11815 \pdfmark{%
11816 pdfmark=/PUT,%
11817 Raw={%
11818 \string{ThisPage\string}%
11819 <</Dur \@pdfpageduration>>%
11820 }%
11821 }%
11822 \fi
11823 \fi
11824 }

```

\hyper@pagehidden

```
11825 \def\hyper@pagehidden{%
11826   \ifHy@useHidKey
11827   \pdfmark{%
11828     pdfmark=/PUT,%
11829     Raw={%
11830       \string{ThisPage\string}%
11831       <</Hid \ifHy@pdfpagehidden true\else false\fi>>%
11832     }%
11833   }%
11834 \fi
11835 }

11836 \g@addto@macro\Hy@EveryPageBoxHook{%
11837   \hyper@pagetransition
11838   \hyper@pageduration
11839   \hyper@pagehidden
11840 }

11841 \def\hyper@image#1#2{%
11842   \hyper@linkurl{#2}{#1}%
11843 }
11844 \def\Hy@undefinedname{UNDEFINED}
11845 \def\hyper@link#1#2#3{%
11846   \Hy@VerboseLinkStart{#1}{#2}%
11847   \ltx@ifundefined{#1bordercolor}{%
11848     \let\Hy@tempcolor\relax
11849   }{%
11850     \edef\Hy@tempcolor{\csname @#1bordercolor\endcsname}%
11851   }%
11852   \begingroup
11853   \protected@edef\Hy@testname{#2}%
11854   \ifx\Hy@testname\@empty
11855     \Hy@Warning{%
11856       Empty destination name,\MessageBreak
11857       using '\Hy@undefinedname'%
11858     }%
11859     \let\Hy@testname\Hy@undefinedname
11860   \fi
11861   \pdfmark[#{3}]{%
11862     Color=\Hy@tempcolor,%
11863     linktype={#1},%
11864     AcroHighlight=\@pdfhighlight,%
11865     Border=\@pdfborder,%
11866     BorderStyle=\@pdfborderstyle,%
11867     pdfmark=/ANN,%
11868     Subtype=/Link,%
11869     PDFAMark=4,%
11870     Dest=\Hy@testname
11871   }%
11872 \endgroup
11873 }
11874 \newtoks\pdf@docset
11875 \def\PDF@FinishDoc{%
11876   \Hy@UseMaketitleInfos
11877   \Hy@Info@GenerateAddons
11878   \let\Hy@temp\@empty
11879   \ifx\@pdfcreationdate\@empty
```

```

11880 \else
11881   \def\Hy@temp{CreationDate=\@pdfcreationdate,}%
11882 \fi
11883 \ifx\@pdfmoddate\@empty
11884 \else
11885   \expandafter\def\expandafter\Hy@temp\expandafter{%
11886     \Hy@temp
11887     ModDate=\@pdfmoddate,%
11888   }%
11889 \fi
11890 \ifx\@pdfproducer\relax
11891 \else
11892   \expandafter\def\expandafter\Hy@temp\expandafter{%
11893     \Hy@temp
11894     Producer=\@pdfproducer,%
11895   }%
11896 \fi
11897 \expandafter
11898 \pdfmark\expandafter{%
11899   \Hy@temp
11900   pdfmark=/DOCINFO,%
11901   Title=\@pdftitle,%
11902   Subject=\@pdfsubject,%
11903   Creator=\@pdfcreator,%
11904   Author=\@pdfauthor,%
11905   Keywords=\@pdfkeywords,%
11906   Trapped=\@pdftrapped
11907 }%
11908 \ifx\HyInfo@Addons\@empty
11909 \else
11910   \pdfmark{%
11911     pdfmark=/DOCINFO,%
11912     Raw={\HyInfo@Addons}%
11913   }%
11914 \fi
11915 \Hy@DisableOption{pdfauthor}%
11916 \Hy@DisableOption{pdftitle}%
11917 \Hy@DisableOption{pdfsubject}%
11918 \Hy@DisableOption{pdfcreator}%
11919 \Hy@DisableOption{pdfcreationdate}%
11920 \Hy@DisableOption{pdfmoddate}%
11921 \Hy@DisableOption{pdfproducer}%
11922 \Hy@DisableOption{pdfkeywords}%
11923 \Hy@DisableOption{pdftrapped}%
11924 \Hy@DisableOption{pdfinfo}%
11925 }
11926 \def\PDF@SetupDoc{%
11927   \def\Hy@temp{}%
11928   \ifx\@pdfstartpage\@empty
11929   \else
11930     \ifx\@pdfstartview\@empty
11931     \else
11932       \edef\Hy@temp{%
11933         ,Page=\@pdfstartpage
11934         ,View=\@pdfstartview
11935       }%
11936     \fi

```

```

11937 \fi
11938 \edef\Hy@temp{%
11939   \noexpand\pdfmark{%
11940     pdfmark=/DOCVIEW,%
11941     PageMode=/\@pdfpagemode
11942     \Hy@temp
11943   }%
11944 }%
11945 \Hy@temp
11946 \ifx\@pdfpagescrop\@empty
11947 \else
11948   \pdfmark{pdfmark=/PAGES,CropBox=\@pdfpagescrop}%
11949 \fi
11950 \edef\Hy@temp{%
11951   \ifHy@pdftoolbar\else /HideToolbar true\fi
11952   \ifHy@pdfmenubar\else /HideMenubar true\fi
11953   \ifHy@pdfwindowui\else /HideWindowUI true\fi
11954   \ifHy@pdffitwindow /FitWindow true\fi
11955   \ifHy@pdfcenterwindow /CenterWindow true\fi
11956   \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
11957   \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
11958   \Hy@UseNameKey{Direction}\@pdfdirection
11959   \Hy@UseNameKey{ViewArea}\@pdfviewarea
11960   \Hy@UseNameKey{ViewClip}\@pdfviewclip
11961   \Hy@UseNameKey{PrintArea}\@pdfprintarea
11962   \Hy@UseNameKey{PrintClip}\@pdfprintclip
11963   \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
11964   \Hy@UseNameKey{Duplex}\@pdfduplex
11965   \ifx\@pdfpicktraybypdfsize\@empty
11966   \else
11967     /PickTrayByPDFSize \@pdfpicktraybypdfsize
11968   \fi
11969   \ifx\@pdfprintpagerange\@empty
11970   \else
11971     /PrintPageRange[\@pdfprintpagerange]%
11972   \fi
11973   \ifx\@pdfnumcopies\@empty
11974   \else
11975     /NumCopies \@pdfnumcopies
11976   \fi
11977 }%
11978 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
11979 \pdfmark{%
11980   pdfmark=/PUT,%
11981   Raw={%
11982     \string{Catalog\string}<<%
11983     \ifx\Hy@temp\@empty
11984     \else
11985       /ViewerPreferences<<\Hy@temp>>%
11986     \fi
11987     \Hy@UseNameKey{PageLayout}\@pdfpagelayout
11988     \ifx\@pdflang\relax
11989     \else
11990       /Lang(\@pdflang)%
11991     \fi
11992     \ifx\@baseurl\@empty
11993     \else

```

```

11994      /URI<</Base(\Hy@pstringB)>>%
11995      \fi
11996      >>%
11997    }%
11998  }%
11999 }
12000 </pdfmark>
12001 <*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.

```

12002 \newif\ifHy@pdfmarkerror
12003 \def\pdfmark{\@ifnextchar[{\pdfmark@}{\pdfmark@[]}}
12004 \def\pdfmark@[#1]#2{%
12005   \Hy@pdfmarkerrorfalse
12006   \edef\@processme{\noexpand\pdf@toks={\the\pdf@defaulttoks}}%
12007   \@processme
12008   \let\pdf@type\relax
12009   \let\pdf@objdef\ltx@empty
12010   \kvsetkeys{PDF}{#2}%
12011   \ifHy@pdfmarkerror
12012   \else
12013     \ifx\pdf@type\relax
12014       \Hy@WarningNoLine{no pdfmark type specified in #2!!}%
12015       \ifx\#1\%
12016         \else
12017           \pdf@rect{#1}%
12018           \fi
12019         \else
12020           \ifx\#1\%
12021             \literalps@out{%
12022               [%
12023               \ifx\pdf@objdef\ltx@empty
12024               \else
12025                 /_objdef\string{\pdf@objdef\string}%
12026               \fi
12027               \the\pdf@toks\space\pdf@type\space pdfmark%
12028             ]%
12029           \else
12030             \ltx@ifundefined{@\pdf@linktype color}{%
12031               \Hy@colorlink\@linkcolor
12032             }{%
12033               \expandafter\Hy@colorlink
12034                 \csname @\pdf@linktype color\endcsname
12035             }%
12036           \pdf@rect{#1}%
12037           \literalps@out{%
12038             [%
12039             \ifx\pdf@objdef\ltx@empty
12040             \else
12041               /_objdef\string{\pdf@objdef\string}%
12042             \fi
12043             \the\pdf@toks\space\pdf@type\space pdfmark%

```

```

12044     }%
12045     \Hy@endcolorlink
12046     \fi
12047     \fi
12048     \fi
12049 }

```

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 (tobyth@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}

```

```

12050 \newsavebox{\pdf@box}
12051 \providecommand*\Hy@setouterhbox}{\sbox}
12052 \providecommand*\Hy@breaklinksunhbox}{\unhbox}
12053 \def\Hy@DEST{/DEST}
12054 \def\pdf@rect#1{%
12055   \begingroup
12056   \chardef\x=1 %
12057   \def\Hy@temp{#1}%
12058   \ifx\Hy@temp\ltx@empty
12059     \chardef\x=0 %
12060   \else
12061     \def\y{\anchor@spot}%
12062     \ifx\Hy@temp\y
12063       \def\y{\relax}%
12064     \ifx\anchor@spot\y
12065       \chardef\x=0 %
12066     \fi
12067   \fi
12068   \fi
12069   \expandafter\endgroup
12070   \ifcase\x
12071     \literalps@out{H.S}%
12072     \literalps@out{H.R}%
12073   \else
12074     \leavevmode
12075     \Hy@SaveSpaceFactor
12076     \ifmmode
12077       \def\Hy@LinkMath{${}}%
12078     \else
12079       \let\Hy@LinkMath\ltx@empty
12080     \fi
12081     \ifHy@breaklinks
12082       \Hy@setouterhbox\pdf@box{%
12083         \Hy@RestoreSpaceFactor
12084         \Hy@LinkMath
12085         \Hy@AllowHyphens#1\Hy@xspace@end
12086         \Hy@LinkMath
12087         \Hy@SaveSpaceFactor

```

```

12088 }%
12089 \else
12090 \sbox\pdf@box{%
12091 \Hy@RestoreSpaceFactor
12092 \Hy@LinkMath
12093 #1\Hy@xspace@end
12094 \Hy@LinkMath
12095 \Hy@SaveSpaceFactor
12096 }%
12097 \fi
12098 \dimen@ht\pdf@box
12099 \ifdim\dp\pdf@box=\z@
12100 \literalps@out{H.S}%
12101 \else
12102 \lower\dp\pdf@box\hbox{\literalps@out{H.S}}%
12103 \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...).

```

12104 \ifHy@breaklinks
12105 \ifhmode
12106 \Hy@breaklinksunhbox\pdf@box
12107 \else
12108 \box\pdf@box
12109 \fi
12110 \else
12111 \expandafter\box\pdf@box
12112 \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

12113 \ifdim\dimen@=\z@
12114 \literalps@out{H.R}%
12115 \else
12116 \raise\dimen@\hbox{\literalps@out{H.R}}%
12117 \fi
12118 \Hy@RestoreSpaceFactor
12119 \fi
12120 \ifx\pdf@type\Hy@DEST
12121 \else
12122 \pdf@addtoksx{H.B}%
12123 \fi
12124 }

```

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.

```

12125 \newtoks\pdf@toks
12126 \newtoks\pdf@defaulttoks
12127 \pdf@defaulttoks={}%
12128 \def\pdf@addtoks#1#2{%
12129 \edef\@processme{\pdf@toks{\the\pdf@toks/#2 #1}}%
12130 \@processme
12131 }
12132 \def\pdf@addtoksx#1{%

```

```

12133 \edef\@processme{\pdf@toks{\the\pdf@toks\space #1}}%
12134 \@processme
12135 }
12136 \def\PDFdefaults#1{%
12137 \pdf@defaulttoks=#1}%
12138 }

```

This is the list of allowed keys. See the Acrobat manual for an explanation.

```

12139 % what is the type of pdfmark?
12140 \define@key{PDF}{pdfmark}{\def\pdf@type{#1}}
12141 % what is the link type?
12142 \define@key{PDF}{linktype}{\def\pdf@linktype{#1}}
12143 \def\pdf@linktype{link}
12144 % named object?
12145 \define@key{PDF}{objdef}{\edef\pdf@objdef{#1}}
12146 \let\pdf@objdef\ltx@empty
12147 % parameter is a stream of PDF
12148 \define@key{PDF}{Raw}{\pdf@addtoksx{#1}}
12149 % parameter is a name
12150 \define@key{PDF}{Action}{\pdf@addtoks{#1}{Action}}
12151 % parameter is a array
12152 \define@key{PDF}{Border}{%
12153 \edef\Hy@temp{#1}%
12154 \ifx\Hy@temp\@empty
12155 \else
12156 \pdf@addtoks{[#1]\Hy@BorderArrayPatch}{Border}% hash-ok
12157 \fi
12158 }
12159 \let\Hy@BorderArrayPatch\@empty
12160 % parameter is a dictionary
12161 \define@key{PDF}{BorderStyle}{%
12162 \edef\Hy@temp{#1}%
12163 \ifx\Hy@temp\@empty
12164 \else
12165 \pdf@addtoks{<<#1>>}{BS}%
12166 \fi
12167 }
12168 % parameter is a array
12169 \define@key{PDF}{Color}{%
12170 \ifx\relax#1\relax
12171 \else
12172 \pdf@addtoks{[#1]}{Color}% hash-ok
12173 \fi
12174 }
12175 % parameter is a string
12176 \define@key{PDF}{Contents}{\pdf@addtoks{(#1)}{Contents}}
12177 % parameter is a integer
12178 \define@key{PDF}{Count}{\pdf@addtoks{#1}{Count}}
12179 % parameter is a array
12180 \define@key{PDF}{CropBox}{\pdf@addtoks{[#1]}{CropBox}}% hash-ok
12181 % parameter is a string
12182 \define@key{PDF}{DOSFile}{\pdf@addtoks{(#1)}{DOSFile}}
12183 % parameter is a string or file
12184 \define@key{PDF}{DataSource}{\pdf@addtoks{(#1)}{DataSource}}
12185 % parameter is a destination
12186 \define@key{PDF}{Dest}{%
12187 \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
12188 \ifx\Hy@pstringDest\@empty

```



```

12189 \Hy@pdfmarkerrortrue
12190 \Hy@Warning{Destination with empty name ignored}%
12191 \else
12192 \pdf@addtoks{(\Hy@pstringDest) cvn}{Dest}%
12193 \fi
12194 }
12195 \define@key{PDF}{DestAnchor}{%
12196 \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
12197 \ifx\Hy@pstringDest\@empty
12198 \Hy@pdfmarkerrortrue
12199 \Hy@Warning{Destination with empty name ignored}%
12200 \else
12201 \pdf@addtoks{(\Hy@pstringDest) cvn}{Dest}%
12202 \fi
12203 }
12204 % parameter is a string
12205 \define@key{PDF}{Dir}{\pdf@addtoks{(#1)}{Dir}}
12206 % parameter is a string
12207 \define@key{PDF}{File}{\pdf@addtoks{(#1)}{File}}
12208 % parameter is a int
12209 \define@key{PDF}{Flags}{\pdf@addtoks{#1}{Flags}}
12210 \define@key{PDF}{PDFAFlags}{%
12211 \ifHy@pdfa
12212 \pdf@addtoks{#1}{F}%
12213 \fi
12214 }
12215 % parameter is a name
12216 \define@key{PDF}{AcroHighlight}{%
12217 \begingroup
12218 \edef\x{#1}%
12219 \expandafter\endgroup\ifx\x\@empty
12220 \else
12221 \pdf@addtoks{#1}{H}%
12222 \fi
12223 }
12224 % parameter is a string
12225 \define@key{PDF}{ID}{\pdf@addtoks{[#1]}{ID}}% hash-ok
12226 % parameter is a string
12227 \define@key{PDF}{MacFile}{\pdf@addtoks{(#1)}{MacFile}}
12228 % parameter is a string
12229 \define@key{PDF}{ModDate}{\pdf@addtoks{(#1)}{ModDate}}
12230 % parameter is a string
12231 \define@key{PDF}{Op}{\pdf@addtoks{(#1)}{Op}}
12232 % parameter is a Boolean
12233 \define@key{PDF}{Open}{\pdf@addtoks{#1}{Open}}
12234 % parameter is a integer or name
12235 \define@key{PDF}{Page}{\pdf@addtoks{#1}{Page}}
12236 % parameter is a name
12237 \define@key{PDF}{PageMode}{\pdf@addtoks{#1}{PageMode}}
12238 % parameter is a string
12239 \define@key{PDF}{Params}{\pdf@addtoks{(#1)}{Params}}
12240 % parameter is a array
12241 \define@key{PDF}{Rect}{\pdf@addtoks{[#1]}{Rect}}% hash-ok
12242 % parameter is a integer
12243 \define@key{PDF}{SrcPg}{\pdf@addtoks{#1}{SrcPg}}
12244 % parameter is a name
12245 \define@key{PDF}{Subtype}{\pdf@addtoks{#1}{Subtype}}

```

```

12246 % parameter is a string
12247 \define@key{PDF}{Title}{\pdf@addtoks{(#1)}{Title}}
12248 % parameter is a string
12249 \define@key{PDF}{Unix}{\pdf@addtoks{(#1)}{Unix}}
12250 % parameter is a string
12251 \define@key{PDF}{UnixFile}{\pdf@addtoks{(#1)}{UnixFile}}
12252 % parameter is an array
12253 \define@key{PDF}{View}{\pdf@addtoks{(#1)}{View}}% hash-ok
12254 % parameter is a string
12255 \define@key{PDF}{WinFile}{\pdf@addtoks{(#1)}{WinFile}}

```

These are the keys used in the DOCINFO section.

```

12256 \define@key{PDF}{Author}{\pdf@addtoks{(#1)}{Author}}
12257 \define@key{PDF}{Creator}{\pdf@addtoks{(#1)}{Creator}}
12258 \define@key{PDF}{CreationDate}{\pdf@addtoks{(#1)}{CreationDate}}
12259 \define@key{PDF}{ModDate}{\pdf@addtoks{(#1)}{ModDate}}
12260 \define@key{PDF}{Producer}{\pdf@addtoks{(#1)}{Producer}}
12261 \define@key{PDF}{Subject}{\pdf@addtoks{(#1)}{Subject}}
12262 \define@key{PDF}{Keywords}{\pdf@addtoks{(#1)}{Keywords}}
12263 \define@key{PDF}{ModDate}{\pdf@addtoks{(#1)}{ModDate}}
12264 \define@key{PDF}{Base}{\pdf@addtoks{(#1)}{Base}}
12265 \define@key{PDF}{URI}{\pdf@addtoks{(#1)}{URI}}
12266 \define@key{PDF}{Trapped}{%
12267   \edef\Hy@temp{#1}%
12268   \ifx\Hy@temp\@empty
12269   \else
12270     \pdf@addtoks{/#1}{Trapped}%
12271   \fi
12272 }
12273
12274 (/pdfmarkbase)
12275 (*pdfmark)
12276 \def\Acrobatmenu#1#2{%
12277   \EdefEscapeName\Hy@temp@menu{#1}%
12278   \Hy@Acrobatmenu{#1}{#2}{%
12279     \pdfmark[#{#2}]{%
12280       linktype=menu,%
12281       pdfmark=/ANN,%
12282       AcroHighlight=\@pdfhighlight,%
12283       Border=\@pdfborder,%
12284       BorderStyle=\@pdfborderstyle,%
12285       Color=\@menubordercolor,%
12286       Action={<</Subtype/Named/N/\Hy@temp@menu>>},%
12287       Subtype=/Link,%
12288       PDFAFlags=4%
12289     }%
12290   }%
12291 }

```

And now for some useful examples:

```

12292 \def\PDFNextPage{\@ifnextchar{\PDFNextPage@}{\PDFNextPage@[]}}
12293 \def\PDFNextPage@[#1]#2{%
12294   \pdfmark[#{#2}]{%
12295     #1,%
12296     Border=\@pdfborder,%
12297     BorderStyle=\@pdfborderstyle,%
12298     Color=.2 .1 .5,%
12299     pdfmark=/ANN,%

```

```

12300 Subtype=/Link,%
12301 PDFAFlags=4,%
12302 Page=/Next%
12303 }%
12304 }
12305 \def\PDFPreviousPage{%
12306 \@ifnextchar[{\PDFPreviousPage@}{\PDFPreviousPage@[]}%
12307 }
12308 \def\PDFPreviousPage@[#1]#2{%
12309 \pdfmark[#2]{%
12310 #1,%
12311 Border=\@pdfborder,%
12312 BorderStyle=\@pdfborderstyle,%
12313 Color=.4 .4 .1,%
12314 pdfmark=/ANN,%
12315 Subtype=/Link,%
12316 PDFAFlags=4,%
12317 Page=/Prev%
12318 }%
12319 }
12320 \def\PDFOpen#1{%
12321 \pdfmark{#1,pdfmark=/DOCVIEW}%
12322 }

```

This will only work if you use Distiller 2.1 or higher.

```

12323 \def\hyper@linkurl#1#2{%
12324 \begingroup
12325 \Hy@pstringdef\Hy@pstringURI{#2}%
12326 \hyper@chars
12327 \leavevmode
12328 \pdfmark[#1]{%
12329 pdfmark=/ANN,%
12330 linktype=url,%
12331 AcroHighlight=\@pdfhighlight,%
12332 Border=\@pdfborder,%
12333 BorderStyle=\@pdfborderstyle,%
12334 Color=\@urlbordercolor,%
12335 Action={<<%
12336 /Subtype/URI%
12337 /URI(\Hy@pstringURI)%
12338 \ifHy@href@ismap
12339 /IsMap true%
12340 \fi
12341 >>},%
12342 Subtype=/Link,%
12343 PDFAFlags=4%
12344 }%
12345 \endgroup
12346 }
12347 \def\hyper@linkfile#1#2#3{%
12348 \begingroup
12349 \def\Hy@pstringF{#2}%
12350 \Hy@CleanupFile\Hy@pstringF
12351 \Hy@pstringdef\Hy@pstringF\Hy@pstringF
12352 \Hy@pstringdef\Hy@pstringD{#3}%
12353 \Hy@MakeRemoteAction
12354 \leavevmode
12355 \pdfmark[#1]{%

```

```

12356 pdfmark=/ANN,%
12357 Subtype=/Link,%
12358 PDFAFlags=4,%
12359 AcroHighlight=\@pdfhighlight,%
12360 Border=\@pdfborder,%
12361 BorderStyle=\@pdfborderstyle,%
12362 linktype=file,%
12363 Color=\@filebordercolor,%
12364 Action={%
12365 <<%
12366 /S/GoToR%
12367 \Hy@SetNewWindow
12368 /F(\Hy@pstringF)%
12369 /D%
12370 \ifx\#3\%
12371 [\Hy@href@page\@pdfremotestartview]%
12372 \else
12373 (\Hy@pstringD)cvn%
12374 \fi
12375 \Hy@href@nextactionraw
12376 >>%
12377 }%
12378 }%
12379 \endgroup
12380 }
12381 \def\@hyper@launch run:#1\#2#3{%
12382 \begingroup
12383 \Hy@pstringdef\Hy@pstringF{#1}%
12384 \Hy@pstringdef\Hy@pstringP{#3}%
12385 \leavevmode
12386 \pdfmark[#{#2}]{%
12387 pdfmark=/ANN,%
12388 Subtype=/Link,%
12389 PDFAFlags=4,%
12390 AcroHighlight=\@pdfhighlight,%
12391 Border=\@pdfborder,%
12392 BorderStyle=\@pdfborderstyle,%
12393 linktype=run,%
12394 Color=\@runbordercolor,%
12395 Action={%
12396 <<%
12397 /S/Launch%
12398 \Hy@SetNewWindow
12399 /F(\Hy@pstringF)%
12400 \ifx\#3\%
12401 \else
12402 /Win<</P(\Hy@pstringP)/F(\Hy@pstringF)>>%
12403 \fi
12404 \Hy@href@nextactionraw
12405 >>%
12406 }%
12407 }%
12408 \endgroup
12409 }
12410 </pdfmark>

```

Unfortunately, some parts of the pdfmark PostScript code depend on vagaries of the dvi driver. We isolate here all the problems.

47.9 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.

```
12411 (*dvips)
12412 \providecommand*\XR@ext}{pdf}
12413 \let\Hy@raisedlink\ltx@empty
12414 \def\literalps@out#1{\special{ps:SDict begin #1 end}}%
12415 \def\headerps@out#1{\special{! #1}}%
12416 \input{pdfmark.def}%
12417 \ifx\@pdfproducer\relax
12418 \def\@pdfproducer{dvips + Distiller}%
12419 \fi
12420 \providecommand*\@pdfborder{0 0 1}
12421 \providecommand*\@pdfborderstyle{}
12422 \providecommand*\@pdfview{XYZ}
12423 \providecommand*\@pdfviewparams{ H.V}
12424 \def\Hy@BorderArrayPatch{BorderArrayPatch}
12425 \g@addto@macro\Hy@FirstPageHook{%
12426 \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.

```
12427 /DvipsToPDF{72.27 mul Resolution div} def%
12428 /PDFToDvips{72.27 div Resolution mul} def%
12429 /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.

```
12430 /BorderArrayPatch{%
12431 [exch{%
12432 dup dup type/integertype eq exch type/realtype eq or%
12433 {BPToDvips}if%
12434 }forall]%
12435 }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.

```
12436 /HyperBorder {1 PDFToDvips} def%
12437 /H.V {pdf@hoff pdf@voff null} def%
12438 /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

```

12439 /H.S {%
12440   currentpoint %
12441   HyperBorder add /pdf@lly exch def %
12442   dup DvipsToPDF 72 add /pdf@hoff exch def %
12443   HyperBorder sub /pdf@llx exch def%
12444 } def%

```

The calculation of upper left y is done without raising the point in \TeX , by simply adding on the current \backslash 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

```

12445 /H.L {%
12446   2 sub dup%
12447   /HyperBasePt exch def %
12448   PDFToDvips /HyperBaseDvips exch def %
12449   currentpoint %
12450   HyperBaseDvips sub /pdf@ury exch def%
12451   /pdf@urx exch def%
12452 } def%
12453 /H.A {%
12454   H.L %
12455 % | /pdf@voff| = the distance from the top of the page to a point
12456 % | \baselineskip| above the current point in PDF coordinates
12457   currentpoint exch pop %
12458   vsize 72 sub exch DvipsToPDF %
12459   HyperBasePt sub % baseline skip
12460   sub /pdf@voff exch def%
12461 } def%
12462 /H.R {%
12463   currentpoint %
12464   HyperBorder sub /pdf@ury exch def %
12465   HyperBorder add /pdf@urx exch def %
12466 % | /pdf@voff| = the distance from the top of the page to the current point, in
12467 % PDF coordinates
12468   currentpoint exch pop vsize 72 sub %
12469   exch DvipsToPDF sub /pdf@voff exch def%
12470 } def%
12471 }%
12472 }
12473 \AtBeginShipoutFirst{%
12474   \ifHy@setpagesize
12475     \begingroup
12476       \@ifundefined{stockwidth}{%
12477         \ifdim \paperwidth > \z@
12478           \ifdim \paperheight > \z@
12479             \special{papersize=\the\paperwidth,\the\paperheight}%
12480           \fi
12481         \fi
12482       }{%
12483         \ifdim \stockwidth > \z@
12484           \ifdim \stockheight > \z@
12485             \special{papersize=\the\stockwidth,\the\stockheight}%
12486           \fi
12487         \fi

```

```

12488 }%
12489 \endgroup
12490 \fi
12491 \Hy@DisableOption{setpagesize}%
12492 }
12493 \def\setpdfinkmargin#1{%
12494 \begingroup
12495 \setlength{\dimen@}{#1}%
12496 \literalps@out{%
12497 /HyperBorder{\strip@pt\dimen@\space PDFToDvips}def%
12498 }%
12499 \endgroup
12500 }
12501 </dvips>

```

47.10 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.

```

12502 (*vtexpdfmark)
12503 \providecommand*\XR@ext}{pdf}
12504 \let\Hy@raisedlink\ltx@empty
12505 \def\literalps@out#1{\special{pS:#1}}%
12506 \def\headerps@out#1{\immediate\special{pS:#1}}%
12507 \input{pdfmark.def}%
12508 \ifx\@pdfproducer\relax
12509 \ifnum\OpMode=\@ne
12510 \def\@pdfproducer{VTeX}%
12511 \else
12512 \def\@pdfproducer{VTeX + Distiller}%
12513 \fi
12514 \fi
12515 \providecommand*\@pdfborder{0 0 1}
12516 \providecommand*\@pdfborderstyle{}
12517 \providecommand*\@pdfview{XYZ}
12518 \providecommand*\@pdfviewparams{ H.V}
12519 \g@addto@macro\Hy@FirstPageHook{%
12520 \headerps@out{%
12521 /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.

```

12522 /HyperBorder {1} def%
12523 /H.V {pdf@hoff pdf@voff null} def%
12524 /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: $\text{pdf@lly} = Y_c - \text{HyperBorder}$, $\text{pdf@hoff} = X_c + 72$, $\text{pdf@llx} = X_c - \text{HyperBorder}$

```

12525 /H.S {%
12526 currentpoint %
12527 HyperBorder sub%
12528 /pdf@lly exch def %
12529 dup 72 add /pdf@hoff exch def %

```

```

12530   HyperBorder sub%
12531   /pdf@llx exch def%
12532   } def%

```

The x and y coordinates of the current point, minus the `\baselineskip`: $\text{pdf@ury} = Y_c + \text{HyperBasePt} + \text{HyperBorder}$, $\text{pdf@urx} = X_c + \text{HyperBorder}$

```

12533   /H.L {%
12534     2 sub%
12535     /HyperBasePt exch def %
12536     currentpoint %
12537     HyperBasePt add HyperBorder add%
12538     /pdf@ury exch def %
12539     HyperBorder add%
12540     /pdf@urx exch def%
12541   } def%
12542   /H.A {%
12543     H.L %
12544     currentpoint exch pop %
12545     vsize 72 sub exch %
12546     HyperBasePt add add%
12547     /pdf@voff exch def%
12548   } def%

```

$\text{pdf@ury} = Y_c + \text{HyperBorder}$, $\text{pdf@urx} = X_c + \text{HyperBorder}$

```

12549   /H.R {%
12550     currentpoint %
12551     HyperBorder add%
12552     /pdf@ury exch def %
12553     HyperBorder add%
12554     /pdf@urx exch def %
12555     currentpoint exch pop vsize 72 sub add%
12556     /pdf@voff exch def%
12557   } def%
12558 }%
12559 }

```

```

12560 \def\setpdfinkmargin#1{%
12561   \begingroup
12562     \setlength{\dimen@}{#1}%
12563     \literalps@out{%
12564       /HyperBorder{\strip@pt\dimen@}def%
12565     }%
12566   \endgroup
12567 }

```

```

12568 </vtxpdfmark>

```

47.11 Textures

```

12569 <*textures>
12570 \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.

```
12571 \begingroup
12572 \obeylines %
12573 \gdef\Hy@ps@CR{\noexpand
12574 }%
12575 \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`.

```
12576 \def\literalps@out#1{%
12577 \special{postscript 0 0 transform}%
12578 \special{rawpostscript itransform moveto\Hy@ps@CR #1}%
12579 }%
12580 %
```

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.

```
12581 \def\headerps@out#1{%
12582 \special{%
12583 prepostscript TeXdict begin\Hy@ps@CR
12584 #1\Hy@ps@CR
12585 end%
12586 }%
12587 }%
12588 %
```

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.

```
12589 \g@addto@macro\Hy@FirstPageHook{%
12590 \headerps@out{%
12591 /betterpdfmark {%
12592 systemdict begin %
12593 dup /BP eq%
12594 {cleartomark gsave nulldevice []%
12595 {dup /EP eq%
12596 {cleartomark cleartomark grestore}%
12597 {cleartomark}%
12598 ifelse%
12599 }ifelse %
12600 end%
12601 }def\Hy@ps@CR
12602 ___pdfmark___ not{/pdfmark /betterpdfmark load def}if%
12603 }% end of \headerps@out
12604 }% end of \AtBeginShipoutFirst
12605 %
12606 \input{pdfmark.def}%
```

```

12607 %
12608 \ifx\@pdfproducer\relax
12609 \def\@pdfproducer{Textures + Distiller}%
12610 \fi
12611 \providecommand*\@pdfborder{0 0 1}
12612 \providecommand*\@pdfborderstyle{}
12613 \providecommand*\@pdfview{XYZ}
12614 \providecommand*\@pdfviewparams{ H.V}
12615 %

```

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 T_EX.

```

12616 \Hy@AtBeginDocument{%
12617 \headerps@out{%

```

Textures lives in normal points, I think. So conversion from one coordinate system to another involves doing nothing.

```

12618 /vsize {\Hy@pageheight} def%
12619 /DvipsToPDF {} def%
12620 /PDFToDvips {} def%
12621 /BPToDvips {} def%
12622 /HyperBorder { 1 PDFToDvips } def\Hy@ps@CR
12623 /H.V {pdf@hoff pdf@voff null} def\Hy@ps@CR
12624 /H.B {/Rect[pdf@llx pdf@lly pdf@urx pdf@ury]} def\Hy@ps@CR
12625 /H.S {%
12626 currentpoint %
12627 HyperBorder add /pdf@lly exch def %
12628 dup DvipsToPDF 72 add /pdf@hoff exch def %
12629 HyperBorder sub /pdf@llx exch def%
12630 } def\Hy@ps@CR
12631 /H.L {%
12632 2 sub %
12633 PDFToDvips /HyperBase exch def %
12634 currentpoint %
12635 HyperBase sub /pdf@ury exch def%
12636 /pdf@urx exch def%
12637 } def\Hy@ps@CR
12638 /H.A {%
12639 H.L %
12640 currentpoint exch pop %
12641 vsize 72 sub exch DvipsToPDF %
12642 HyperBase sub % baseline skip
12643 sub /pdf@voff exch def%
12644 } def\Hy@ps@CR
12645 /H.R {%
12646 currentpoint %
12647 HyperBorder sub /pdf@ury exch def %
12648 HyperBorder add /pdf@urx exch def %
12649 currentpoint exch pop vsize 72 sub %
12650 exch DvipsToPDF sub /pdf@voff exch def%
12651 } def\Hy@ps@CR
12652 }%
12653 }
12654 \def\setpdfinkmargin#1{%

```

```

12655 \begingroup
12656   \setlength{\dimen@}{#1}%
12657   \literalps@out{%
12658     /HyperBorder{\strip@pt\dimen@\space PDFToDvips}def%
12659   }%
12660 \endgroup
12661 }

12662 \Hy@AtBeginDocument{%
12663   \ifHy@colorlinks
12664     \headerps@out{/PDFBorder{/Border [0 0 0]}def}%
12665   \fi
12666 }

```

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.

```

12667 \expandafter\let\expandafter\keepPDF@SetupDoc
12668   \csname PDF@SetupDoc\endcsname
12669 \def\PDF@SetupDoc{%
12670   \ifx\@baseurl\@empty
12671     \else
12672       \special{html:<base href="\@baseurl">}%
12673     \fi
12674   \keepPDF@SetupDoc
12675 }

12676 \Hy@WrapperDef\hyper@anchor#1{%
12677   \Hy@SaveLastskip
12678   \Hy@VerboseAnchor{#1}%
12679   \begingroup
12680     \let\protect=\string
12681     \special{html:<a name=%
12682       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
12683   \endgroup
12684   \Hy@activeanchortrue
12685   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
12686   \special{html:</a>}%
12687   \Hy@activeanchorfalse
12688   \Hy@RestoreLastskip
12689 }

12690 \Hy@WrapperDef\hyper@anchorstart#1{%
12691   \Hy@SaveLastskip
12692   \Hy@VerboseAnchor{#1}%
12693   \begingroup
12694     \hyper@chars
12695     \special{html:<a name=%
12696       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
12697   \endgroup
12698   \Hy@activeanchortrue
12699 }

12700 \def\hyper@anchorend{%
12701   \special{html:</a>}%
12702   \Hy@activeanchorfalse
12703   \Hy@RestoreLastskip
12704 }

12705 \def\@urltype{url}
12706 \def\hyper@linkstart#1#2{%
12707   \Hy@VerboseLinkStart{#1}{#2}%

```

```

12708 \expandafter\Hy@colorlink\csname @#1color\endcsname
12709 \def\Hy@tempa{#1}%
12710 \ifx\Hy@tempa\@urlltype
12711   \special{html:<a href=\hyper@quote#2\hyper@quote>}%
12712 \else
12713   \begingroup
12714   \hyper@chars
12715   \special{%
12716     html:<a href=%
12717       \hyper@quote#\Hy@HyperDestNameFilter{#2}\hyper@quote>%
12718   }%
12719   \endgroup
12720 \fi
12721 }
12722 \def\hyper@linkend{%
12723   \special{html:</a>}%
12724   \Hy@endcolorlink
12725 }
12726 \def\hyper@linkfile#1#2#3{%
12727   \hyper@linkurl{#1}{%
12728     \Hy@linkfileprefix#2\ifx\\#3\\\else\##3\fi
12729   }%
12730 }
12731 \def\hyper@linkurl#1#2{%
12732   \leavevmode
12733   \ifHy@raiselinks
12734     \Hy@SaveSpaceFactor
12735     \Hy@SaveSavedSpaceFactor
12736     \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
12737     \Hy@RestoreSavedSpaceFactor
12738     \@linkdim\dp\@tempboxa
12739     \lower\@linkdim\hbox{%
12740       \hyper@chars
12741       \special{html:<a href=\hyper@quote#2\hyper@quote>}%
12742     }%
12743     \Hy@colorlink\@urlcolor
12744     \Hy@RestoreSpaceFactor
12745     #1\Hy@xspace@end
12746     \Hy@SaveSpaceFactor
12747     \@linkdim\ht\@tempboxa
12748     \advance\@linkdim by -6.5\p@
12749     \raise\@linkdim\hbox{\special{html:</a>}}%
12750   \Hy@endcolorlink
12751   \Hy@RestoreSpaceFactor
12752 \else
12753   \begingroup
12754   \hyper@chars
12755   \special{html:<a href=\hyper@quote#2\hyper@quote>}%
12756   \Hy@colorlink\@urlcolor#1\Hy@xspace@end
12757   \special{html:</a>}%
12758   \Hy@endcolorlink
12759 \endgroup
12760 \fi
12761 }

```

Very poor implementation of \hyper@link without considering #1.

```

12762 \def\hyper@link#1#2#3{%
12763   \Hy@VerboseLinkStart{#1}{#2}%

```

```

12764 \hyper@linkurl{#3}{\#\HyperDestNameFilter{#2}}%
12765 }
12766 \def\hyper@image#1#2{%
12767 \begingroup
12768 \hyper@chars
12769 \special{html:<img src=\hyper@quote#1\hyper@quote>}%
12770 \endgroup
12771 }
12772 </textures>

```

47.12 dvipsone

```

12773 % \subsection{dvipsone driver}
12774 % Over-ride the default setup macro in pdfmark driver to use Y\&Y
12775 % | \special| commands.
12776 (*dvipsone)
12777 \providecommand*\XR@ext}{pdf}
12778 \let\Hy@raisedlink\ltx@empty
12779 \providecommand*\@pdfborder{0 0 1}
12780 \providecommand*\@pdfborderstyle{}
12781 \def\literalps@out#1{\special{ps:#1}}%
12782 \def\headerps@out#1{\special{headertext=#1}}%
12783 \input{pdfmark.def}%
12784 \ifx\@pdfproducer\relax
12785 \def\@pdfproducer{dvipsone + Distiller}%
12786 \fi
12787 \HyInfo@AddonUnsupportedtrue
12788 \def\PDF@FinishDoc{%
12789 \Hy@UseMaketitleInfos
12790 \HyInfo@TrappedUnsupported
12791 \special{PDF: Keywords \@pdfkeywords}%
12792 \special{PDF: Title \@pdftitle}%
12793 \special{PDF: Creator \@pdfcreator}%
12794 \ifx\@pdfcreationdate\@empty
12795 \else
12796 \special{PDF: CreationDate \@pdfcreationdate}%
12797 \fi
12798 \ifx\@pdfmoddate\@empty
12799 \else
12800 \special{PDF: ModDate \@pdfmoddate}%
12801 \fi
12802 \special{PDF: Author \@pdfauthor}%
12803 \ifx\@pdfproducer\relax
12804 \else
12805 \special{PDF: Producer \@pdfproducer}%
12806 \fi
12807 \special{PDF: Subject \@pdfsubject}%
12808 \Hy@DisableOption{pdfauthor}%
12809 \Hy@DisableOption{pdftitle}%
12810 \Hy@DisableOption{pdfsubject}%
12811 \Hy@DisableOption{pdfcreator}%
12812 \Hy@DisableOption{pdfcreationdate}%
12813 \Hy@DisableOption{pdfmoddate}%
12814 \Hy@DisableOption{pdfproducer}%
12815 \Hy@DisableOption{pdfkeywords}%
12816 \Hy@DisableOption{pdftrapped}%
12817 \Hy@DisableOption{pdfinfo}%

```

```

12818 }
12819 \def\PDF@SetupDoc{%
12820 \def\Hy@temp{}%
12821 \ifx\@pdfstartpage\@empty
12822 \else
12823 \ifx\@pdfstartview\@empty
12824 \else
12825 \edef\Hy@temp{%
12826 ,Page=\@pdfstartpage
12827 ,View=\@pdfstartview
12828 }%
12829 \fi
12830 \fi
12831 \edef\Hy@temp{%
12832 \noexpand\pdfmark{%
12833 pdfmark=/DOCVIEW,%
12834 PageMode=/\@pdfpagemode
12835 \Hy@temp
12836 }%
12837 }%
12838 \Hy@temp
12839 \ifx\@pdfpagescrop\@empty
12840 \else
12841 \pdfmark{pdfmark=/PAGES,CropBox=\@pdfpagescrop}%
12842 \fi
12843 \edef\Hy@temp{%
12844 \ifHy@pdftoolbar\else /HideToolbar true\fi
12845 \ifHy@pdfmenubar\else /HideMenubar true\fi
12846 \ifHy@pdfwindowui\else /HideWindowUI true\fi
12847 \ifHy@pdffitwindow /FitWindow true\fi
12848 \ifHy@pdfcenterwindow /CenterWindow true\fi
12849 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
12850 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
12851 \Hy@UseNameKey{Direction}\@pdfdirection
12852 \Hy@UseNameKey{ViewArea}\@pdfviewarea
12853 \Hy@UseNameKey{ViewClip}\@pdfviewclip
12854 \Hy@UseNameKey{PrintArea}\@pdfprintarea
12855 \Hy@UseNameKey{PrintClip}\@pdfprintclip
12856 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
12857 \Hy@UseNameKey{Duplex}\@pdfduplex
12858 \ifx\@pdfpicktraybypdfsize\@empty
12859 \else
12860 /PickTrayByPDFSize \@pdfpicktraybypdfsize
12861 \fi
12862 \ifx\@pdfprintpagerange\@empty
12863 \else
12864 /PrintPageRange[\@pdfprintpagerange]%
12865 \fi
12866 \ifx\@pdfnumcopies\@empty
12867 \else
12868 /NumCopies \@pdfnumcopies
12869 \fi
12870 }%
12871 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
12872 \pdfmark{%
12873 pdfmark=/PUT,%
12874 Raw={%

```

```

12875 \string{Catalog\string}<<%
12876 \ifx\Hy@temp\@empty
12877 \else
12878 /ViewerPreferences<<\Hy@temp>>%
12879 \fi
12880 \Hy@UseNameKey{PageLayout}\@pdfpagelayout
12881 \ifx\@pdflang\relax
12882 \else
12883 /Lang(\@pdflang)%
12884 \fi
12885 \ifx\@baseurl\@empty
12886 \else
12887 /URI<</Base(\Hy@pstringB)>>%
12888 \fi
12889 >>%
12890 }%
12891 }%
12892 }
12893 \providecommand*\@pdfview{XYZ}
12894 \providecommand*\@pdfviewparams{ %
12895 gsave revscl currentpoint grestore %
12896 72 add exch pop null exch null%
12897 }
12898 \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 T_EX.

```

12899 \g@addto@macro\Hy@FirstPageHook{%
12900 \headerps@out{%

```

dvipsone lives in scaled points; does this mean 65536 or 65781?

```

12901 /DvipsToPDF { 65781 div } def%
12902 /PDFToDvips { 65781 mul } def%
12903 /BPToDvips{65781 mul}def%
12904 /HyperBorder { 1 PDFToDvips } def%
12905 /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.

```

12906 /BorderArrayPatch{%
12907 [exch{%
12908 dup dup type/integertype eq exch type/realtype eq or%
12909 {BPToDvips}if%
12910 }forall]%
12911 }def%
12912 /H.S {%
12913 currentpoint %
12914 HyperBorder add /pdf@lly exch def %
12915 dup DvipsToPDF 72 add /pdf@hoff exch def %
12916 HyperBorder sub /pdf@llx exch def%
12917 } def%
12918 /H.L {%
12919 2 sub %
12920 PDFToDvips /HyperBase exch def %
12921 currentpoint %

```

```

12922   HyperBase sub /pdf@ury exch def%
12923   /pdf@urx exch def%
12924   } def%
12925   /H.A {%
12926     H.L %
12927     currentpoint exch pop %
12928     HyperBase sub % baseline skip
12929     DvipsToPDF /pdf@voff exch def%
12930   } def%
12931   /H.R {%
12932     currentpoint %
12933     HyperBorder sub /pdf@ury exch def %
12934     HyperBorder add /pdf@urx exch def %
12935     currentpoint exch pop DvipsToPDF /pdf@voff exch def%
12936   } def%
12937 }%
12938 }

12939 \def\setpdfinkmargin#1{%
12940   \begingroup
12941     \setlength{\dimen@}{#1}%
12942     \literalps@out{%
12943       /HyperBorder{\strip@pt\dimen@\space PDFToDvips}def%
12944     }%
12945   \endgroup
12946 }

12947 </dvipsone>

```

47.13 TeX4ht

```

12948 (*tex4ht)
12949 \providecommand*\XR@ext}{html}
12950 \let\Hy@raisedlink\ltx@empty
12951 \@ifpackageloaded{tex4ht}{%
12952   \Hy@InfoNoLine{tex4ht is already loaded}%
12953 }{%
12954   \RequirePackage[hTeX4ht]{tex4ht}%
12955 }
12956 \hyperlinkfileprefix{}
12957 \let\PDF@FinishDoc\ltx@empty
12958 \def\PDF@SetupDoc{%
12959   \ifx\@baseurl\@empty
12960   \else
12961     \special{t4ht=<base href="\@baseurl">}%
12962   \fi
12963 }
12964 \Hy@WrapperDef\hyper@anchor#1{%
12965   \Hy@SaveLastskip
12966   \Hy@VerboseAnchor{#1}%
12967   \begingroup
12968     \let\protect=\string
12969     \special{t4ht=<a name=%
12970       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
12971   \endgroup
12972   \Hy@activeanchortrue
12973   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
12974   \special{t4ht=</a>}%
12975   \Hy@activeanchorfalsh
12976   \Hy@RestoreLastskip

```



```

12977 }
12978 \Hy@WrapperDef\hyper@anchorstart#1{%
12979 \Hy@SaveLastskip
12980 \Hy@VerboseAnchor{#1}%
12981 \begingroup
12982 \hyper@chars\special{t4ht=<a name=%
12983 \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
12984 \endgroup
12985 \Hy@activeanchortrue
12986 }
12987 \def\hyper@anchorend{%
12988 \special{t4ht=</a>}%
12989 \Hy@activeanchorfalse
12990 \Hy@RestoreLastskip
12991 }
12992 \def\@urltype{url}
12993 \def\hyper@linkstart#1#2{%
12994 \Hy@VerboseLinkStart{#1}{#2}%
12995 \expandafter\Hy@colorlink\csname @#1color\endcsname
12996 \def\Hy@tempa{#1}%
12997 \ifx\Hy@tempa\@urltype
12998 \special{t4ht=<a href=\hyper@quote#2\hyper@quote>}%
12999 \else
13000 \begingroup
13001 \hyper@chars
13002 \special{t4ht=<a href=%
13003 \hyper@quote\#\HyperDestNameFilter{#2}\hyper@quote>}%
13004 \endgroup
13005 \fi
13006 }
13007 \def\hyper@linkend{%
13008 \special{t4ht=</a>}%
13009 \Hy@endcolorlink
13010 }
13011 \def\hyper@linkfile#1#2#3{%
13012 \hyper@linkurl{#1}{\Hy@linkfileprefix#2\ifx\\#3\\\else\##3\fi}%
13013 }
13014 \def\hyper@linkurl#1#2{%
13015 \leavevmode
13016 \ifHy@raiselinks
13017 \Hy@SaveSpaceFactor
13018 \Hy@SaveSavedSpaceFactor
13019 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
13020 \Hy@RestoreSavedSpaceFactor
13021 \@linkdim\dp\@tempboxa
13022 \lower\@linkdim\hbox{%
13023 \begingroup
13024 \hyper@chars
13025 \special{%
13026 t4ht=<a href=\hyper@quote#2\hyper@quote>%
13027 }%
13028 \endgroup
13029 }%
13030 \Hy@colorlink\@urlcolor
13031 \Hy@RestoreSpaceFactor
13032 #1\Hy@xspace@end
13033 \Hy@SaveSpaceFactor

```

```

13034 \Hy@endcolorlink
13035 \@linkdim\ht\@tempboxa
13036 \advance\@linkdim by -6.5\p@
13037 \raise\@linkdim\hbox{\special{t4ht=</a>}}%
13038 \Hy@RestoreSpaceFactor
13039 \else
13040 \begingroup
13041 \hyper@chars
13042 \special{t4ht=<a href=\hyper@quote#2\hyper@quote>}%
13043 \Hy@colorlink\@urlcolor
13044 #1\Hy@xspace@end
13045 \Hy@endcolorlink
13046 \special{t4ht=</a>}%
13047 \endgroup
13048 \fi
13049 }

```

Poor implementation of \hyper@link without considering #1.

```

13050 \def\hyper@link#1#2#3{%
13051 \Hy@VerboseLinkStart{#1}{#2}%
13052 \hyper@linkurl{#3}{#\Hy@HyperDestNameFilter{#2}}%
13053 }
13054 \def\hyper@image#1#2{%
13055 \begingroup
13056 \hyper@chars
13057 \special{t4ht=<img src=\hyper@quote#1\hyper@quote>}%
13058 \endgroup
13059 }
13060 \let\autoref\ref
13061 \ifx \rEFLiNK \UnDef
13062 \def\rEFLiNK #1#2{#2}%
13063 \fi
13064 \let\backref\ltx@gobble

```

Fix for tex4ht.

```

13065 \AtBeginDocument{%
13066 \expandafter
13067 \let\expandafter\Hy@OrgMakeLabel\csname Make:Label\endcsname
13068 \expandafter\def\csname Make:Label\endcsname#1#2{%
13069 \ifhmode
13070 \Hy@SaveSpaceFactor
13071 \else
13072 \global\Hy@SavedSpaceFactor=1000 %
13073 \fi
13074 \Hy@OrgMakeLabel{#1}{%
13075 \Hy@RestoreSpaceFactor
13076 #2\Hy@xspace@end%
13077 \Hy@SaveSpaceFactor
13078 }%
13079 \Hy@RestoreSpaceFactor
13080 }%
13081 }
13082 </tex4ht>
13083 < *tex4htcfg>
13084 \IfFileExists{\jobname.cfg}{\endinput}{ }
13085 \Preamble{html}
13086 \begin{document}%
13087 \EndPreamble
13088 \def\TeX{TeX}

```

```

13089 \def\OMEGA{\Omega}
13090 \def\LaTeX{La\TeX}
13091 \def\LaTeXe{\LaTeX2e}
13092 \def\eTeX{e-\TeX}
13093 \def\MF{Metafont}
13094 \def\MP{MetaPost}
13095 </tex4htcfg>

```

48 Driver-specific form support

48.1 pdfmarks

```

13096 <*pdfmark>
13097 \long\def\@Form[#1]{%
13098 \g@addto@macro\Hy@FirstPageHook{%
13099 \headerps@out{%
13100 [%
13101 /_objdef{pdfDocEncoding}%
13102 /type/dict%
13103 /OBJ pdfmark%
13104 [%
13105 {pdfDocEncoding}%
13106 <<%
13107 /Type/Encoding%
13108 /Differences[%
13109 24/breve/caron/circumflex/dotaccent/hungarumlaut/ogonek/ring%
13110 /tilde %
13111 39/quotesingle %
13112 96/grave %
13113 128/bullet/dagger/daggerdbl/ellipsis/emdash/endash/florin%
13114 /fraction/guilsinglleft/guilsinglright/minus/perthousand%
13115 /quotedblbase/quotedblleft/quotedblright/quoteleft%
13116 /quoteright/quotesinglbase/trademark/fi/fl/Lslash/OE/Scaron%
13117 /Ydieresis/Zcaron/dotlessi/lslash/oe/scaron/zcaron %
13118 164/currency %
13119 166/brokenbar %
13120 168/dieresis/copyright/ordfeminine %
13121 172/logicalnot/.notdef/registered/macron/degree/plusminus%
13122 /twosuperior/threesuperior/acute/mu %
13123 183/periodcentered/cedilla/onesuperior/ordmasculine %
13124 188/onequarter/onehalf/threequarters %
13125 192/Agrave/Aacute/Acircumflex/Atilde/Adieresis/Aring/AE%
13126 /Ccedilla/Egrave/Eacute/Ecircumflex/Edieresis/Igrave%
13127 /Iacute/Icircumflex/Idieresis/Eth/Ntilde/Ograve/Oacute%
13128 /Ocircumflex/Otilde/Odieresis/multiply/Oslash/Ugrave%
13129 /Uacute/Ucircumflex/Udieresis/Yacute/Thorn/germandbls%
13130 /agrave/aacute/acircumflex/atilde/adieresis/aring/ae%
13131 /ccedilla/egrave/eacute/ecircumflex/edieresis/igrave%
13132 /iacute/icircumflex/idieresis/eth/ntilde/ograve/oacute%
13133 /ocircumflex/otilde/odieresis/divide/oslash/ugrave/uacute%
13134 /ucircumflex/udieresis/yacute/thorn/ydieresis%
13135 ]%
13136 >>%
13137 /PUT pdfmark%
13138 [%
13139 /_objdef{ZaDb}%
13140 /type/dict%
13141 /OBJ pdfmark%

```

```

13142 [%
13143 {ZaDb}%
13144 <<%
13145 /Type/Font%
13146 /Subtype/Type1%
13147 /Name/ZaDb%
13148 /BaseFont/ZapfDingbats%
13149 >>%
13150 /PUT pdfmark%
13151 [%
13152 /_objdef{Helv}%
13153 /type/dict%
13154 /OBJ pdfmark%
13155 [%
13156 {Helv}%
13157 <<%
13158 /Type/Font%
13159 /Subtype/Type1%
13160 /Name/Helv%
13161 /BaseFont/Helvetica%
13162 /Encoding{pdfDocEncoding}%
13163 >>%
13164 /PUT pdfmark%
13165 [%
13166 /_objdef{aform}%
13167 /type/dict%
13168 /OBJ pdfmark%
13169 [%
13170 /_objdef{afields}%
13171 /type/array%
13172 /OBJ pdfmark%
13173 [%
13174 /_objdef{corder}%
13175 /type/array%
13176 /OBJ pdfmark%
13177 {%
13178 [%
13179 /BBox[0 0 100 100]%
13180 /_objdef{Check}%
13181 /BP pdfmark %
13182 1 0 0 setrgbcolor%
13183 /ZapfDingbats 80 selectfont %
13184 20 20 moveto%
13185 (4)show%
13186 [/EP pdfmark%
13187 [%
13188 /BBox[0 0 100 100]%
13189 /_objdef{Cross}%
13190 /BP pdfmark %
13191 1 0 0 setrgbcolor%
13192 /ZapfDingbats 80 selectfont %
13193 20 20 moveto%
13194 (8)show%
13195 [/EP pdfmark%
13196 [%
13197 /BBox[0 0 250 100]%
13198 /_objdef{Submit}%

```

13199 /BP pdfmark %
13200 0.6 setgray %
13201 0 0 250 100 rectfill %
13202 1 setgray %
13203 2 2 moveto %
13204 2 98 lineto %
13205 248 98 lineto %
13206 246 96 lineto %
13207 4 96 lineto %
13208 4 4 lineto %
13209 fill %
13210 0.34 setgray %
13211 248 98 moveto %
13212 248 2 lineto %
13213 2 2 lineto %
13214 4 4 lineto %
13215 246 4 lineto %
13216 246 96 lineto %
13217 fill%
13218 /Helvetica 76 selectfont %
13219 0 setgray %
13220 8 22.5 moveto%
13221 (Submit)show%
13222 [/EP pdfmark%
13223 [%
13224 /BBox[0 0 250 100]%
13225 /_objdef{SubmitP}%
13226 /BP pdfmark %
13227 0.6 setgray %
13228 0 0 250 100 rectfill %
13229 0.34 setgray %
13230 2 2 moveto %
13231 2 98 lineto %
13232 248 98 lineto %
13233 246 96 lineto %
13234 4 96 lineto %
13235 4 4 lineto %
13236 fill %
13237 1 setgray %
13238 248 98 moveto %
13239 248 2 lineto %
13240 2 2 lineto %
13241 4 4 lineto %
13242 246 4 lineto %
13243 246 96 lineto %
13244 fill%
13245 /Helvetica 76 selectfont %
13246 0 setgray %
13247 10 20.5 moveto%
13248 (Submit)show%
13249 [/EP pdfmark%
13250 } ?pdfmark%
13251 [%
13252 {aform}%
13253 <<%
13254 /Fields{afields}%
13255 /DR<<%

```

13256 /Font<<%
13257 /ZaDb{ZaDb}%
13258 /Helv{Helv}%
13259 >>%
13260 >>%
13261 /DA(/Helv 10 Tf 0 g)%
13262 /CO{corder}%
13263 \ifHy@pdfa
13264 \else
13265 \ifHyField@NeedAppearances
13266 /NeedAppearances true%
13267 \fi
13268 \fi
13269 >>%
13270 /PUT pdfmark%
13271 [%
13272 {Catalog}%
13273 <<%
13274 /AcroForm{aform}%
13275 >>%
13276 /PUT pdfmark%
13277 }]%
13278 \kvsetkeys{Form}{#1}%
13279 }
13280 \let\@endForm\tx@empty
13281 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
13282 \Hy@Message{Sorry, pdfmark drivers do not support FORM gauges}%
13283 }

13284 \newcount\HyField@AnnotCount
13285 \HyField@AnnotCount=\z@
13286 \def\HyField@AdvanceAnnotCount{%
13287 \global\advance\HyField@AnnotCount\@ne
13288 }
13289 \def\HyField@TheAnnotCount{%
13290 \the\HyField@AnnotCount
13291 }

13292 \edef\Fld@pageobjref{/P\string{ThisPage\string}}

13293 \def\HyField@AddToFields#1{%
13294 \pdfmark{%
13295 pdfmark=/APPEND,%
13296 Raw={%
13297 \string{afields\string}%
13298 \string{#1\HyField@TheAnnotCount\string}%
13299 }%
13300 }%
13301 \if\Fld@calculate@code\tx@empty
13302 \else
13303 \pdfmark{%
13304 pdfmark=/APPEND,%
13305 Raw={%
13306 \string{corder\string}%
13307 \string{#1\HyField@TheAnnotCount\string}%
13308 }%
13309 }%
13310 \fi
13311 }

```

```

13312 \def\@TextField[#1]#2{% parameters, label
13313 \def\Fld@name{#2}%
13314 \let\Fld@default\ltx@empty
13315 \let\Fld@value\@empty
13316 \def\Fld@width{\DefaultWidthofText}%
13317 \def\Fld@height{%
13318 \ifFld@multiline
13319 \DefaultHeightofTextMultiline
13320 \else
13321 \DefaultHeightofText
13322 \fi
13323 }%
13324 \begingroup
13325 \expandafter\HyField@SetKeys\expandafter{%
13326 \DefaultOptionsofText,#1%
13327 }%
13328 \HyField@FlagsText
13329 \ifFld@hidden\def\Fld@width{1sp}\fi
13330 \ifx\Fld@value\@empty\def\Fld@value{\Fld@default}\fi
13331 \HyField@AdvanceAnnotCount
13332 \LayoutTextField{#2}{%
13333 \leavevmode
13334 \Hy@escapeform\PDFForm@Text
13335 \pdfmark[\MakeTextField{\Fld@width}{\Fld@height}]{%
13336 pdfmark=/ANN,%
13337 objdef=text\HyField@TheAnnotCount,%
13338 Raw={\PDFForm@Text}%
13339 }%
13340 }%
13341 \HyField@AddToFields{text}%
13342 \endgroup
13343 }
13344 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13345 \def\Fld@name{#2}%
13346 \let\Fld@default\relax
13347 \let\Fld@value\relax
13348 \def\Fld@width{\DefaultWidthofChoiceMenu}%
13349 \def\Fld@height{\DefaultHeightofChoiceMenu}%
13350 \begingroup
13351 \Fld@menulength=0 %
13352 \@tempdima\z@
13353 \@for\@curropt:=#3\do{%
13354 \expandafter\Fld@checkequals\@curropt==\%
13355 \Hy@StepCount\Fld@menulength
13356 \settowidth{\@tempdimb}{\@currDisplay}%
13357 \ifdim\@tempdimb>\@tempdima\@tempdima\@tempdimb\fi
13358 }%
13359 \advance\@tempdima by 15\p@
13360 \begingroup
13361 \HyField@SetKeys{#1}%
13362 \edef\x{\endgroup
13363 \noexpand\expandafter
13364 \noexpand\HyField@SetKeys
13365 \noexpand\expandafter{%
13366 \expandafter\noexpand\cname DefaultOptionsof%
13367 \ifFld@radio
13368 Radio%

```

```

13369     \else
13370     \ifFld@combo
13371     \ifFld@popdown
13372         PopdownBox%
13373     \else
13374         ComboBox%
13375     \fi
13376     \else
13377         ListBox%
13378     \fi
13379     \fi
13380     \endcsname
13381     }%
13382 } \x
13383 \HyField@SetKeys{#1}%
13384 \ifFld@hidden\def\Fld@width{1sp}\fi
13385 \ifx\Fld@value\relax
13386     \let\Fld@value\Fld@default
13387 \fi
13388 \LayoutChoiceField{#2}{%
13389     \ifFld@radio
13390     \HyField@FlagsRadioButton
13391     \@@Radio{#3}%
13392     \else
13393     \begingroup
13394     \HyField@FlagsChoice
13395     \ifdim\Fld@width<\@tempdima
13396     \ifdim\@tempdima<1cm\@tempdima1cm\fi
13397     \edef\Fld@width{\the\@tempdima}%
13398     \fi
13399     \ifFld@combo
13400     \else
13401     \@tempdima=\the\Fld@menulength\Fld@charsize
13402     \advance\@tempdima by \Fld@borderwidth bp %
13403     \advance\@tempdima by \Fld@borderwidth bp %
13404     \edef\Fld@height{\the\@tempdima}%
13405     \fi
13406     \@@ListBox{#3}%
13407     \endgroup
13408     \fi
13409     }%
13410 \endgroup
13411 }
13412 \def\@@Radio#1{%
13413     \Fld@listcount=0 %
13414     \EdefEscapeName\Fld@default{\Fld@default}%
13415     \@for\@curropt:=#1\do{%
13416         \expandafter\Fld@checkequals\@curropt==\%
13417         \EdefEscapeName\@currValue{\@currValue}%
13418         \Hy@StepCount\Fld@listcount
13419         \@currDisplay\space
13420         \Hy@escapeform\PDFForm@Radio
13421         \ifnum\Fld@listcount=1 %
13422         \HyField@AdvanceAnnotCount
13423         \fi
13424         \pdfmark[\MakeRadioField{\Fld@width}{\Fld@height}]{%
13425         pdfmark=/ANN,%

```



```

13426   objdef=\ifnum\Fld@listcount=1 radio\HyField@TheAnnotCount\fi,%
13427   Raw={%
13428     \PDFForm@Radio /AP <</N <</\@currValue\space {Check}>> >>%
13429   }%
13430   } % deliberate space between radio buttons
13431   \ifnum\Fld@listcount=1 %
13432     \HyField@AddToFields{radio}%
13433   \fi
13434 }%
13435 }
13436 \newcount\Fld@listcount
13437 \def\@@ListBox#1{%
13438   \HyField@PDFChoices{#1}%
13439   \Hy@escapeform\PDFForm@List
13440   \HyField@AdvanceAnnotCount
13441   \pdfmark[\MakeChoiceField{\Fld@width}{\Fld@height}]{%
13442     pdfmark=/ANN,%
13443     objdef=list\HyField@TheAnnotCount,%
13444     Raw={\PDFForm@List}%
13445   }%
13446   \HyField@AddToFields{list}%
13447 }
13448 \def\@PushButton[#1]#2{% parameters, label
13449   \def\Fld@name{#2}%
13450   \begingroup
13451     \expandafter\HyField@SetKeys\expandafter{%
13452       \DefaultOptionsofPushButton,#1%
13453     }%
13454     \ifHy@pdfa
13455       \Hy@Error{%
13456         PDF/A: Push button with JavaScript is prohibited%
13457       }\@ehc
13458       \LayoutPushButtonField{%
13459         \leavevmode
13460         \MakeButtonField{#2}%
13461       }%
13462     \else
13463       \HyField@FlagsPushButton
13464       \ifFld@hidden\def\Fld@width{1sp}\fi
13465       \HyField@AdvanceAnnotCount
13466       \LayoutPushButtonField{%
13467         \leavevmode
13468         \Hy@escapeform\PDFForm@Push
13469         \pdfmark[\MakeButtonField{#2}]{%
13470           pdfmark=/ANN,%
13471           objdef=push\HyField@TheAnnotCount,%
13472           Raw={\PDFForm@Push}%
13473         }%
13474       }%
13475       \HyField@AddToFields{push}%
13476     \fi
13477   \endgroup
13478 }
13479 \def\@Submit[#1]#2{%
13480   \def\Fld@width{\DefaultWidthofSubmit}%
13481   \def\Fld@height{\DefaultHeightofSubmit}%
13482   \begingroup

```

```

13483 \expandafter\HyField@SetKeys\expandafter{%
13484 \DefaultOptionsofSubmit,#1%
13485 }%
13486 \HyField@FlagsPushButton
13487 \HyField@FlagsSubmit
13488 \ifFld@hidden\def\Fld@width{1sp}\fi
13489 \Hy@escapeform\PDFForm@Submit
13490 \HyField@AdvanceAnnotCount
13491 \pdfmark[\MakeButtonField{#2}]{%
13492 pdfmark=/ANN,%
13493 objdef=submit\HyField@TheAnnotCount,%
13494 Raw={\PDFForm@Submit /AP<</N{Submit}/D{SubmitP}>>}}%
13495 }%
13496 \HyField@AddToFields{submit}%
13497 \endgroup
13498 }
13499 \def\@Reset[#1]#2{%
13500 \def\Fld@width{\DefaultWidthofReset}%
13501 \def\Fld@height{\DefaultHeightofReset}%
13502 \begingroup
13503 \expandafter\HyField@SetKeys\expandafter{%
13504 \DefaultOptionsofReset,#1%
13505 }%
13506 \leavevmode
13507 \ifHy@pdfa
13508 \Hy@Error{%
13509 PDF/A: Reset action is prohibited%
13510 } \@ehc
13511 \MakeButtonField{#2}%
13512 \else
13513 \HyField@FlagsPushButton
13514 \ifFld@hidden\def\Fld@width{1sp}\fi
13515 \Hy@escapeform\PDFForm@Reset
13516 \HyField@AdvanceAnnotCount
13517 \pdfmark[\MakeButtonField{#2}]{%
13518 pdfmark=/ANN,%
13519 objdef=reset\HyField@TheAnnotCount,%
13520 Raw={\PDFForm@Reset}%
13521 }%
13522 \HyField@AddToFields{reset}%
13523 \fi
13524 \endgroup
13525 }%
13526 \def\@CheckBox[#1]#2{% parameters, label
13527 \def\Fld@name{#2}%
13528 \def\Fld@default{0}%
13529 \begingroup
13530 \def\Fld@width{\DefaultWidthofCheckBox}%
13531 \def\Fld@height{\DefaultHeightofCheckBox}%
13532 \expandafter\HyField@SetKeys\expandafter{%
13533 \DefaultOptionsofCheckBox,#1%
13534 }%
13535 \HyField@FlagsCheckBox
13536 \ifFld@hidden\def\Fld@width{1sp}\fi
13537 \HyField@AdvanceAnnotCount
13538 \LayoutCheckField{#2}{%
13539 \leavevmode

```

```

13540 \Hy@escapeform\PDFForm@Check
13541 \pdfmark[\MakeCheckField{\Fld@width}{\Fld@height}]{%
13542 pdfmark=/ANN,%
13543 objdef=check\HyField@TheAnnotCount,%
13544 Raw={\PDFForm@Check}%
13545 }%
13546 }%
13547 \HyField@AddToFields{check}%
13548 \endgroup
13549 }
13550 </pdfmark>

```

48.2 HyperTeX

```

13551 <*hypertex>
13552 \def\@Form[#1]{%
13553 \Hy@Message{Sorry, HyperTeX does not support FORMs}%
13554 }
13555 \let\@endForm\tx@empty
13556 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
13557 \Hy@Message{Sorry, HyperTeX does not support FORM gauges}%
13558 }
13559 \def\@TextField[#1]#2{% parameters, label
13560 \Hy@Message{Sorry, HyperTeX does not support FORM text fields}%
13561 }
13562 \def\@CheckBox[#1]#2{% parameters, label
13563 \Hy@Message{Sorry, HyperTeX does not support FORM checkboxes}%
13564 }
13565 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13566 \Hy@Message{Sorry, HyperTeX does not support FORM choice menus}%
13567 }
13568 \def\@PushButton[#1]#2{% parameters, label
13569 \Hy@Message{Sorry, HyperTeX does not support FORM pushbuttons}%
13570 }
13571 \def\@Reset[#1]#2{%
13572 \Hy@Message{Sorry, HyperTeX does not support FORMs}%
13573 }
13574 \def\@Submit[#1]#2{%
13575 \Hy@Message{Sorry, HyperTeX does not support FORMs}%
13576 }
13577 </hypertex>

```

48.3 TeX4ht

```

13578 <*tex4ht>
13579 \def\@Form[#1]{%
13580 \kvsetkeys{Form}{#1}%
13581 \HCode{<form action="\Form@action" method="\Form@method">}%
13582 }
13583 \def\@endForm{\HCode{</form>}}
13584 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
13585 \Hy@Message{Sorry, TeX4ht does not support gauges}%
13586 }
13587 \def\@TextField[#1]#2{% parameters, label
13588 \let\Hy@reserved@a\@empty
13589 \def\Fld@name{#2}%
13590 \let\Fld@default\tx@empty
13591 \bgroup
13592 \Field@toks={ }%

```

```

13593 \kvsetkeys{Field}{#1}%
13594 \HCode{<label for="\Fld@name">#2</label>}%
13595 \ifFld@password
13596 \@@PasswordField
13597 \else
13598 \@@TextField
13599 \fi
13600 \egroup
13601 }
13602 \def\@@PasswordField{%
13603 \HCode{%
13604 <input type="password" %
13605 id="\Fld@name" %
13606 name="\Fld@name" %
13607 \ifFld@hidden type="hidden" \fi
13608 value="\Fld@default" %
13609 \the\Field@toks
13610 >%
13611 }%
13612 }
13613 \def\@@TextField{%
13614 \ifFld@multiline
13615 \HCode{<textarea %
13616 \ifFld@readonly readonly \fi
13617 id="\Fld@name" %
13618 name="\Fld@name" %
13619 \ifFld@hidden type="hidden" \fi
13620 \the\Field@toks>%
13621 }%
13622 \Fld@default
13623 \HCode{</textarea>}%
13624 \else
13625 \HCode{<input type="textbox" %
13626 \ifFld@readonly readonly \fi
13627 id="\Fld@name" %
13628 name="\Fld@name" %
13629 \ifFld@hidden type="hidden" \fi
13630 value="\Fld@default" %
13631 \the\Field@toks>%
13632 }%
13633 \fi
13634 }
13635 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13636 \def\Fld@name{#2}%
13637 \let\Fld@default\ltx@empty
13638 \let\Hy@reserved@a\relax
13639 \begingroup
13640 \expandafter\Fld@findlength#3\\%
13641 \Field@toks={ }%
13642 \kvsetkeys{Field}{#1}%
13643 #2%
13644 \ifFld@radio
13645 \expandafter\@@Radio#3\\%
13646 \else
13647 \expandafter\@@Menu#3\\%
13648 \fi
13649 \endgroup

```

```

13650 }
13651 \def\Fld@findlength#1\{%
13652 \Fld@menulength=0 %
13653 \@for\@curropt:=#1\do{\Hy@StepCount\Fld@menulength}%
13654 }
13655 \def\@@Menu#1\{%
13656 \HCode{<select size="\the\Fld@menulength" %
13657 name="\Fld@name" %
13658 \the\Field@toks>%
13659 }%
13660 \@for\@curropt:=#1\do{%
13661 \expandafter\Fld@checkequals\@curropt==\%
13662 \HCode{<option %
13663 \ifx\@curropt\Fld@default selected \fi
13664 value="\@currValue">\@currDisplay</option>%
13665 }%
13666 }%
13667 \HCode{</select>}%
13668 }
13669 \def\@@Radio#1\{%
13670 \@for\@curropt:=#1\do{%
13671 \expandafter\Fld@checkequals\@curropt==\%
13672 \HCode{<input type="radio" %
13673 \ifx\@curropt\Fld@default checked \fi
13674 name="\Fld@name" %
13675 value="\@currValue" %
13676 \the\Field@toks>%
13677 }%
13678 \@currDisplay
13679 }%
13680 }
13681 \def\@PushButton[#1]#2{% parameters, label
13682 \def\Fld@name{#2}%
13683 \bgroup
13684 \Field@toks={ }%
13685 \kvsetkeys{Field}{#1}%
13686 \HCode{<input type="button" %
13687 name="\Fld@name" %
13688 value="#2" %
13689 \the\Field@toks>%
13690 }%
13691 \HCode{</button>}%
13692 \egroup
13693 }
13694 \def\@Submit[#1]#2{%
13695 \HCode{<button type="submit">#2</button>}%
13696 }
13697 \def\@Reset[#1]#2{%
13698 \HCode{<button type="reset">#2</button>}%
13699 }
13700 \def\@CheckBox[#1]#2{% parameters, label
13701 \let\Hy@reserved@a\@empty
13702 \def\Fld@name{#2}%
13703 \def\Fld@default{0}%
13704 \bgroup
13705 \Field@toks={ }%
13706 \kvsetkeys{Field}{#1}%

```

```

13707 \HCode{<input type="checkbox" %
13708 \ifFld@checked checked \fi
13709 \ifFld@disabled disabled \fi
13710 \ifFld@readonly readonly \fi
13711 name="\Fld@name" %
13712 \ifFld@hidden type="hidden" \fi
13713 value="\Fld@default" %
13714 \the\Field@toks>%
13715 #2%
13716 }%
13717 \egroup
13718 }
13719 </tex4ht>

```

48.4 pdfTeX

```

13720 (*pdfTeX)
13721 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
13722 \Hy@Message{Sorry, pdfTeX does not support FORM gauges}%
13723 }
13724 \def\MakeFieldObject#1#2{\sbox0{#1}%
13725 \immediate\pdfxform0 %
13726 \expandafter\edef\csname #2Object\endcsname{%
13727 \the\pdfastxform\space 0 R%
13728 }%
13729 % \hbox to 0pt{\hskip-\maxdimen{\pdfrefxform \the\pdfastxform}}%
13730 }%
13731 \let\HyField@afields\ltx@empty
13732 \let\HyField@cofields\ltx@empty
13733 \begingroup\expandafter\expandafter\expandafter\endgroup
13734 \expandafter\ifx\csname pdfastlink\endcsname\relax
13735 \let\HyField@AddToFields\relax
13736 \PackageInfo{hyperref}{%
13737 You need pdfTeX 1.40.0 for setting the /Fields entry.%
13738 \MessageBreak
13739 Adobe Reader/Acrobat accepts an empty /Field array,%
13740 \MessageBreak
13741 but other PDF viewers might complain%
13742 }%
13743 \else
13744 \let\HyField@AuxAddToFields\ltx@gobble
13745 \let\HyField@AuxAddToCoFields\ltx@gobbletwo
13746 \def\HyField@AfterAuxOpen{\Hy@AtBeginDocument}%

```

Insertion sort for calculation field list. In case of equal sort keys (for example, if ‘calculatesortkey’ is not used at all) the keys keep document calling order.

```

13747 \def\HyField@ABD@AuxAddToCoFields#1#2{%
13748 \begingroup
13749 \Hy@safe@activetrue
13750 \let\ltx@secondoftwo\relax
13751 \ifx\HyField@cofields\ltx@empty
13752 \xdef\HyField@cofields{%
13753 \ltx@secondoftwo{#1}{ #2 0 R}%
13754 }%
13755 \else
13756 \let\ltx@secondoftwo\relax
13757 \def\HyField@AddCoField##1##2##3{%
13758 \ifx##1\ltx@empty
13759 \ltx@secondoftwo{#1}{ #2 0 R}%

```

```

13760     \expandafter\ltx@gobble
13761     \else
13762     \ifnum\pdfstrcmp{##2}{#1}>\ltx@zero
13763     \ltx@secondoftwo{#1}{ #2 0 R}%
13764     \ltx@secondoftwo{##2}{##3}%
13765     \expandafter\expandafter\expandafter\ltx@gobble
13766     \else
13767     \ltx@secondoftwo{##2}{##3}%
13768     \fi
13769     \fi
13770     \HyField@AddCoField
13771     }%
13772     \xdef\HyField@cofields{%
13773     \expandafter\HyField@AddCoField
13774     \HyField@cofields\ltx@empty\ltx@empty\ltx@empty
13775     }%
13776     \fi
13777     \endgroup
13778 }%
13779 \Hy@AtBeginDocument{%
13780 \if@filesw
13781 \immediate\write\@mainaux{%
13782 \string\providecommand\string\HyField@AuxAddToFields[1]{}%
13783 }%
13784 \immediate\write\@mainaux{%
13785 \string\providecommand\string\HyField@AuxAddToCoFields[2]{}%
13786 }%
13787 \fi
13788 \let\HyField@AfterAuxOpen\@firstofone
13789 \def\HyField@AuxAddToFields#1{%
13790 \xdef\HyField@afields{%
13791 \ifx\HyField@afields\@empty
13792 \else
13793 \HyField@afields
13794 \space
13795 \fi
13796 #1 0 R.%
13797 }%
13798 }%
13799 \let\HyField@AuxAddToCoFields\HyField@ABD@AuxAddToCoFields
13800 }%
13801 \def\HyField@AddToFields{%
13802 \expandafter\HyField@@AddToFields\expandafter{%
13803 \the\pdfastlink
13804 }%
13805 \ifx\Fld@calculate@code\ltx@empty
13806 \else
13807 \begingroup
13808 \Hy@safe@activestru
13809 \edef\Hy@temp{%
13810 \endgroup
13811 \if@filesw
13812 \write\@mainaux{%
13813 \string\HyField@AuxAddToCoFields{%
13814 \Fld@calculate@sortkey
13815 }{%
13816 \the\pdfastlink

```

```

13817     }%
13818     }%
13819     \fi
13820     }%
13821     \Hy@temp
13822     \fi
13823     }%
13824     \def\HyField@@AddToFields#1{%
13825     \HyField@AfterAuxOpen{%
13826     \if@filesw
13827     \write\@mainaux{%
13828     \string\HyField@AuxAddToFields{#1}%
13829     }%
13830     \fi
13831     }%
13832     }%
13833     \fi
13834     \def\@Form[#1]{%
13835     \@ifundefined{textcolor}{\let\textcolor\@gobble}{}%
13836     \kvsetkeys{Form}{#1}%
13837     \pdf@ifdraftmode{}-%
13838     \Hy@FormObjects
13839     \ifnum\pdfTeXversion>13 %
13840     \pdfrefobj\OBJ@pdfdocencoding
13841     \pdfrefobj\OBJ@ZaDb
13842     \pdfrefobj\OBJ@Helv
13843     \fi
13844     \AtVeryEndDocument{%
13845     \immediate\pdfobj{%
13846     <<%
13847     /Fields[\HyField@afields]%
13848     \ifx\HyField@cofields\ltx@empty
13849     \else
13850     /CO[\romannumeral-`Q\HyField@cofields]%
13851     \fi
13852     /DR<<%
13853     /Font<<%
13854     /ZaDb \OBJ@ZaDb\space 0 R%
13855     /Helv \OBJ@Helv\space 0 R%
13856     >>%
13857     >>%
13858     /DA(/Helv 10 Tf 0 g)%
13859     \ifHy@pdfa
13860     \else
13861     \ifHyField@NeedAppearances
13862     /NeedAppearances true%
13863     \fi
13864     \fi
13865     >>%
13866     }%
13867     \edef\OBJ@acroform{\the\pdfastobj}%
13868     \pdfcatalog{/AcroForm \OBJ@acroform\space 0 R}%
13869     }%
13870     }%
13871     \MakeFieldObject{%
Same as \ding{123} of package pifont.
13872     \begingroup

```



```

13873 \fontfamily{pzd}%
13874 \fontencoding{U}%
13875 \fontseries{m}%
13876 \fontshape{n}%
13877 \selectfont
13878 \char123 %
13879 \endgroup
13880 }{Ding}%
13881 \MakeFieldObject{%
13882 \fbox{\textcolor{yellow}{\textsf{Submit}}}%
13883 }{Submit}%
13884 \MakeFieldObject{%
13885 \fbox{\textcolor{yellow}{\textsf{SubmitP}}}%
13886 }{SubmitP}%
13887 }
13888 \let\@endForm\ltx@empty
13889 \let\HyAnn@AbsPageLabel\ltx@empty
13890 \let\Fld@pageobjref\ltx@empty
13891 \ltx@ifUndefined{pdfpageref}{%
13892 }{%
13893 \ltx@ifpackageloaded{zref-abspage}{%
13894 \newcount\HyAnn@Count
13895 \HyAnn@Count=\ltx@zero
13896 \def\HyAnn@AbsPageLabel{%
13897 \global\advance\HyAnn@Count by\ltx@one
13898 \zref@labelbyprops{HyAnn@\the\HyAnn@Count}{abspage}%
13899 \zref@refused{HyAnn@\the\HyAnn@Count}%
13900 }%
13901 \def\Fld@pageobjref{%
13902 \zref@ifrefundefined{HyAnn@\the\HyAnn@Count}{%
13903 }{%
13904 \zref@ifrefcontainsprop{HyAnn@\the\HyAnn@Count}{abspage}{%
13905 /P \pdfpageref
13906 \zref@extractdefault{HyAnn@\the\HyAnn@Count}{abspage}{1} %
13907 \space 0 R%
13908 }{%
13909 }%
13910 }%
13911 }%
13912 }{%
13913 }%
13914 }
13915 \def\@TextField[#1]#2{% parameters, label
13916 \def\Fld@name{#2}%
13917 \let\Fld@default\ltx@empty
13918 \let\Fld@value\@empty
13919 \def\Fld@width{\DefaultWidthofText}%
13920 \def\Fld@height{%
13921 \ifFld@multiline
13922 \DefaultHeightofTextMultiline
13923 \else
13924 \DefaultHeightofText
13925 \fi
13926 }%
13927 \begingroup
13928 \expandafter\HyField@SetKeys\expandafter{%
13929 \DefaultOptionsofText,#1%

```

```

13930 }%
13931 \PDFForm@Name
13932 \HyField@FlagsText
13933 \ifFld@hidden\def\Fld@width{1sp}\fi
13934 \ifx\Fld@value\@empty\def\Fld@value{\Fld@default}\fi
13935 \LayoutTextField{#2}{%
13936 \leavevmode
13937 \HyAnn@AbsPageLabel
13938 \Hy@escapeform\PDFForm@Text
13939 \pdfstartlink user {\PDFForm@Text}\relax
13940 \MakeTextField{\Fld@width}{\Fld@height}\pdfendlink
13941 \HyField@AddToFields
13942 }%
13943 \endgroup
13944 }
13945 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13946 \def\Fld@name{#2}%
13947 \let\Fld@default\relax
13948 \let\Fld@value\relax
13949 \def\Fld@width{\DefaultWidthofChoiceMenu}%
13950 \def\Fld@height{\DefaultHeightofChoiceMenu}%
13951 \begingroup
13952 \Fld@menulength=0 %
13953 \@tempdima\z@
13954 \@for\@curropt:=#3\do{%
13955 \expandafter\Fld@checkequals\@curropt==\%
13956 \Hy@StepCount\Fld@menulength
13957 \settowidth{\@tempdimb}{\@currDisplay}%
13958 \ifdim\@tempdimb>\@tempdima\@tempdima\@tempdimb\fi
13959 }%
13960 \advance\@tempdima by 15\p@
13961 \begingroup
13962 \HyField@SetKeys{#1}%
13963 \edef\x{\endgroup
13964 \noexpand\expandafter
13965 \noexpand\HyField@SetKeys
13966 \noexpand\expandafter{%
13967 \expandafter\noexpand\cname DefaultOptionsof%
13968 \ifFld@radio
13969 Radio%
13970 \else
13971 \ifFld@combo
13972 \ifFld@popdown
13973 PopdownBox%
13974 \else
13975 ComboBox%
13976 \fi
13977 \else
13978 ListBox%
13979 \fi
13980 \fi
13981 \endcname
13982 }%
13983 }\x
13984 \HyField@SetKeys{#1}%
13985 \PDFForm@Name
13986 \ifFld@hidden\def\Fld@width{1sp}\fi

```

```

13987 \ifx\Fld@value\relax
13988 \let\Fld@value\Fld@default
13989 \fi
13990 \LayoutChoiceField{#2}{%
13991 \ifFld@radio
13992 \HyField@FlagsRadioButton
13993 \@@Radio{#3}%
13994 \else
13995 \begingroup
13996 \HyField@FlagsChoice
13997 \ifdim\Fld@width<\@tempdima
13998 \ifdim\@tempdima<1cm\@tempdima1cm\fi
13999 \edef\Fld@width{\the\@tempdima}%
14000 \fi
14001 \ifFld@combo
14002 \else
14003 \@tempdima=\the\Fld@menulength\Fld@charsize
14004 \advance\@tempdima by \Fld@borderwidth bp %
14005 \advance\@tempdima by \Fld@borderwidth bp %
14006 \edef\Fld@height{\the\@tempdima}%
14007 \fi
14008 \@@ListBox{#3}%
14009 \endgroup
14010 \fi
14011 }%
14012 \endgroup
14013 }
14014 \def\@@Radio#1{%
14015 \Fld@listcount=0 %
14016 \EdefEscapeName\Fld@default{\Fld@default}%
14017 \@for\@curropt:=#1\do{%
14018 \expandafter\Fld@checkequals\@curropt==\%
14019 \EdefEscapeName\@currValue{\@currValue}%
14020 \Hy@StepCount\Fld@listcount
14021 \@currDisplay\space
14022 \leavevmode
14023 \HyAnn@AbsPageLabel
14024 \Hy@escapeform\PDFForm@Radio
14025 \pdfstartlink user {%
14026 \PDFForm@Radio
14027 /AP<<%
14028 /N<<%
14029 /\@currValue\space \DingObject
14030 >>%
14031 >>%
14032 }%
14033 \relax
14034 \MakeRadioField{\Fld@width}{\Fld@height}\pdfendlink
14035 \ifnum\Fld@listcount=1 %
14036 \HyField@AddToFields
14037 \fi
14038 \space % deliberate space between radio buttons
14039 }%
14040 }

```

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.

```

14041 \newcount\Fld@listcount
14042 \def\@@ListBox#1{%
14043   \HyField@PDFChoices{#1}%
14044   \leavevmode
14045   \HyAnn@AbsPageLabel
14046   \Hy@escapeform\PDFForm@List
14047   \pdfstartlink user {\PDFForm@List}\relax
14048   \MakeChoiceField{\Fld@width}{\Fld@height}%
14049   \pdfendlink
14050   \HyField@AddToFields
14051 }
14052 \def\@PushButton[#1]#2{% parameters, label
14053   \def\Fld@name{#2}%
14054   \begingroup
14055     \expandafter\HyField@SetKeys\expandafter{%
14056       \DefaultOptionsofPushButton,#1%
14057     }%
14058     \PDFForm@Name
14059     \ifHy@pdfa
14060       \Hy@Error{%
14061         PDF/A: Push button with JavaScript is prohibited%
14062       } \@ehc
14063       \LayoutPushButtonField{%
14064         \leavevmode
14065         \MakeButtonField{#2}%
14066       }%
14067     \else
14068       \HyField@FlagsPushButton
14069       \ifFld@hidden\def\Fld@width{1sp}\fi
14070       \LayoutPushButtonField{%
14071         \leavevmode
14072         \HyAnn@AbsPageLabel
14073         \Hy@escapeform\PDFForm@Push
14074         \pdfstartlink user {\PDFForm@Push}\relax
14075         \MakeButtonField{#2}%
14076         \pdfendlink
14077         \HyField@AddToFields
14078       }%
14079     \fi
14080   \endgroup
14081 }
14082 \def\@Submit[#1]#2{%
14083   \def\Fld@width{\DefaultWidthofSubmit}%
14084   \def\Fld@height{\DefaultHeightofSubmit}%
14085   \begingroup
14086     \expandafter\HyField@SetKeys\expandafter{%
14087       \DefaultOptionsofSubmit,#1%
14088     }%
14089     \HyField@FlagsPushButton
14090     \HyField@FlagsSubmit
14091     \ifFld@hidden\def\Fld@width{1sp}\fi
14092     \leavevmode
14093     \HyAnn@AbsPageLabel
14094     \Hy@escapeform\PDFForm@Submit
14095     \pdfstartlink user {%
14096       \PDFForm@Submit
14097     } /AP<</N \SubmitObject/D \SubmitPObject>>%

```

```

14098 }%
14099 \relax
14100 \MakeButtonField{#2}%
14101 \pdfendlink
14102 \HyField@AddToFields
14103 \endgroup
14104 }
14105 \def\@Reset[#1]#2{%
14106 \def\Fld@width{\DefaultWidthofReset}%
14107 \def\Fld@height{\DefaultHeightofReset}%
14108 \begingroup
14109 \expandafter\HyField@SetKeys\expandafter{%
14110 \DefaultOptionsofReset,#1%
14111 }%
14112 \leavevmode
14113 \ifHy@pdfa
14114 \Hy@Error{%
14115 PDF/A: Reset action is prohibited%
14116 }\@ehc
14117 \MakeButtonField{#2}%
14118 \else
14119 \HyField@FlagsPushButton
14120 \ifFld@hidden\def\Fld@width{1sp}\fi
14121 \HyAnn@AbsPageLabel
14122 \Hy@escapeform\PDFForm@Reset
14123 \pdfstartlink user {\PDFForm@Reset}\relax
14124 \MakeButtonField{#2}%
14125 \pdfendlink
14126 \HyField@AddToFields
14127 \fi
14128 \endgroup
14129 }
14130 \def\@CheckBox[#1]#2{% parameters, label
14131 \def\Fld@name{#2}%
14132 \def\Fld@default{0}%
14133 \begingroup
14134 \def\Fld@width{\DefaultWidthofCheckBox}%
14135 \def\Fld@height{\DefaultHeightofCheckBox}%
14136 \expandafter\HyField@SetKeys\expandafter{%
14137 \DefaultOptionsofCheckBox,#1%
14138 }%
14139 \PDFForm@Name
14140 \HyField@FlagsCheckBox
14141 \ifFld@hidden\def\Fld@width{1sp}\fi
14142 \LayoutCheckField{#2}{%
14143 \leavevmode
14144 \HyAnn@AbsPageLabel
14145 \Hy@escapeform\PDFForm@Check
14146 \pdfstartlink user {\PDFForm@Check}\relax
14147 \MakeCheckField{\Fld@width}{\Fld@height}%
14148 \pdfendlink
14149 \HyField@AddToFields
14150 }%
14151 \endgroup
14152 }
14153 \def\Hy@FormObjects{%
14154 \pdfobj {%

```

```

14155 <<%
14156 /Type/Encoding%
14157 /Differences[%
14158 24/breve/caron/circumflex/dotaccent/hungarumlaut/ogonek%
14159 /ring/tilde %
14160 39/quotesingle %
14161 96/grave %
14162 128/bullet/dagger/daggerdbl/ellipsis/emdash/endash/florin%
14163 /fraction/guilsingleft/guilsingright/minus/perthousand%
14164 /quotedblbase/quotedblleft/quotedblright/quoteleft%
14165 /quoteright/quotesinglbase/trademark/fi/fl/Lslash/OE%
14166 /Scaron/Ydieresis/Zcaron/dotlessi/lslash/oe/scaron/zcaron %
14167 164/currency %
14168 166/brokenbar %
14169 168/dieresis/copyright/ordfeminine %
14170 172/logicalnot/.notdef/registered/macron/degree/plusminus%
14171 /twosuperior/threesuperior/acute/mu %
14172 183/periodcentered/cedilla/onesuperior/ordmasculine %
14173 188/onequarter/onehalf/threequarters %
14174 192/Agrave/Aacute/Acircumflex/Atilde/Adieresis/Aring/AE%
14175 /Ccedilla/Egrave/Eacute/Ecircumflex/Edieresis/Igrave%
14176 /Iacute/Icircumflex/Idieresis/Eth/Ntilde/Ograve/Oacute%
14177 /Ocircumflex/Otilde/Odieresis/multiply/Oslash/Ugrave%
14178 /Uacute/Ucircumflex/Udieresis/Yacute/Thorn/germandbls%
14179 /agrave/aacute/acircumflex/atilde/adieresis/aring/ae%
14180 /ccedilla/egrave/eacute/ecircumflex/edieresis/igrave%
14181 /iacute/icircumflex/idieresis/eth/ntilde/ograde/oacute%
14182 /ocircumflex/otilde/odieresis/divide/oslash/ugrave%
14183 /uacute/ucircumflex/udieresis/yacute/thorn/ydieresis%
14184 ]%
14185 >>%
14186 }%
14187 \xdef\OBJ@pdfdocencoding{\the\pdfastobj}%
14188 \pdfobj{%
14189 <<%
14190 /Type/Font%
14191 /Subtype/Type1%
14192 /Name/ZaDb%
14193 /BaseFont/ZapfDingbats%
14194 >>%
14195 }%
14196 \xdef\OBJ@ZaDb{\the\pdfastobj}%
14197 \pdfobj{%
14198 <<%
14199 /Type/Font%
14200 /Subtype/Type1%
14201 /Name/Helv%
14202 /BaseFont/Helvetica%
14203 /Encoding \OBJ@pdfdocencoding\space 0 R%
14204 >>%
14205 }%
14206 \xdef\OBJ@Helv{\the\pdfastobj}%
14207 \global\let\Hy@FormObjects\relax
14208 }
14209 </pdfTeX>

```

48.5 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.

```
14210 <*dvipdfm | xetex>
```

```
\@Gauge
```

```
14211 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
14212 \Hy@Message{Sorry, dvipdfm/XeTeX does not support FORM gauges}%
14213 }
```

```
\@Form
```

```
14214 \def\@Form[#1]{%
14215 \@ifundefined{textcolor}{\let\textcolor\@gobble}{}%
14216 \kvsetkeys{Form}{#1}%
14217 \Hy@FormObjects
14218 \@pdfm@mark{obj @afields []}%
14219 \@pdfm@mark{obj @corder []}%
14220 \@pdfm@mark{%
14221   obj @aform <<%
14222   /Fields @afields%
14223   /DR<<%
14224   /Font<<%
14225   /ZaDb @OBJZaDb%
14226   /Helv @OBJHelv%
14227   >>%
14228   >>%
14229   /DA(/Helv 10 Tf 0 g)%
14230   /CO @corder%
14231   \ifHy@pdfa
14232   \else
14233     \ifHyField@NeedAppearances
14234     /NeedAppearances true%
14235     \fi
14236   \fi
14237   >>%
14238 }%
14239 \@pdfm@mark{put @catalog <</AcroForm @aform>>}%
14240 }
```

```
\@endForm
```

```
14241 \let\@endForm\ltx@empty
```

```
\dvipdfm@setdim \dvipdfm@setdim sets dimensions for ann using \pdfm@box.
```

```
14242 \def\dvipdfm@setdim{%
14243   height \the\ht\pdfm@box\space
14244   width \the\wd\pdfm@box\space
14245   depth \the\dp\pdfm@box\space
14246 }
```

```
\HyField@AnnotCount
```

```
14247 \newcount\HyField@AnnotCount
14248 \HyField@AnnotCount=\z@
```

```
\HyField@AdvanceAnnotCount
```

```
14249 \def\HyField@AdvanceAnnotCount{%
14250 \global\advance\HyField@AnnotCount\@ne
14251 }
```

\HyField@TheAnnotCount

```
14252 \def\HyField@TheAnnotCount{%
14253   \the\HyField@AnnotCount
14254 }
```

\Fld@pageobjref

```
14255 \def\Fld@pageobjref{/P @thispage}%
```

\HyField@AddToFields

```
14256 \def\HyField@AddToFields#1{%
14257   \@pdfm@mark{put @afields @#1\HyField@TheAnnotCount}%
14258   \ifx\Fld@calculate@code\ltx@empty
14259   \else
14260     \@pdfm@mark{put @corder @#1\HyField@TheAnnotCount}%
14261   \fi
14262 }
```

\@TextField

```
14263 \def\@TextField[#1]#2{% parameters, label
14264   \def\Fld@name{#2}%
14265   \let\Fld@default\ltx@empty
14266   \let\Fld@value\@empty
14267   \def\Fld@width{\DefaultWidthofText}%
14268   \def\Fld@height{%
14269     \ifFld@multiline
14270       \DefaultHeightofTextMultiline
14271     \else
14272       \DefaultHeightofText
14273     \fi
14274   }%
14275   \begingroup
14276     \expandafter\HyField@SetKeys\expandafter{%
14277       \DefaultOptionsofText,#1%
14278     }%
14279     \PDFForm@Name
14280     \HyField@FlagsText
14281     \ifFld@hidden\def\Fld@width{1sp}\fi
14282     \ifx\Fld@value\@empty\def\Fld@value{\Fld@default}\fi
14283     \setbox\pdfm@box=\hbox{%
14284       \MakeTextField{\Fld@width}{\Fld@height}%
14285     }%
14286     \HyField@AdvanceAnnotCount
14287     \LayoutTextField{#2}{%
14288       \leavevmode
14289       \Hy@escapeform\PDFForm@Text
14290     \@pdfm@mark{%
14291       ann @text\HyField@TheAnnotCount\space
14292       \dvi pdfm@setdim << \PDFForm@Text >>%
14293     }%
14294   }%
14295   \unhbox\pdfm@box
14296   \HyField@AddToFields{text}%
14297   % record in @afields array
14298 \endgroup
14299 }
```

\@ChoiceMenu


```

14300 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
14301 \def\Fld@name{#2}%
14302 \let\Fld@default\relax
14303 \let\Fld@value\relax
14304 \def\Fld@width{\DefaultWidthofChoiceMenu}%
14305 \def\Fld@height{\DefaultHeightofChoiceMenu}%
14306 \begingroup
14307 \Fld@menulength=0 %
14308 \@tempdima\z@
14309 \@for\@curropt:=#3\do{%
14310 \expandafter\Fld@checkequals\@curropt==\%
14311 \Hy@StepCount\Fld@menulength
14312 \settowidth{\@tempdimb}{\@currDisplay}%
14313 \ifdim\@tempdimb>\@tempdima\@tempdima\@tempdimb\fi
14314 }%
14315 \advance\@tempdima by 15\p@
14316 \begingroup
14317 \HyField@SetKeys{#1}%
14318 \edef\x{\endgroup
14319 \noexpand\expandafter
14320 \noexpand\HyField@SetKeys
14321 \noexpand\expandafter{%
14322 \expandafter\noexpand\csname DefaultOptionsof%
14323 \ifFld@radio
14324 Radio%
14325 \else
14326 \ifFld@combo
14327 \ifFld@popdown
14328 PopdownBox%
14329 \else
14330 ComboBox%
14331 \fi
14332 \else
14333 ListBox%
14334 \fi
14335 \fi
14336 \endcsname
14337 }%
14338 }\x
14339 \HyField@SetKeys{#1}%
14340 \PDFForm@Name
14341 \ifFld@hidden\def\Fld@width{1sp}\fi
14342 \ifx\Fld@value\relax
14343 \let\Fld@value\Fld@default
14344 \fi
14345 \LayoutChoiceField{#2}{%
14346 \ifFld@radio
14347 \HyField@FlagsRadioButton
14348 \@@Radio{#3}%
14349 \else
14350 \begingroup
14351 \HyField@FlagsChoice
14352 \ifdim\Fld@width<\@tempdima
14353 \ifdim\@tempdima<1cm\@tempdima1cm\fi
14354 \edef\Fld@width{\the\@tempdima}%
14355 \fi
14356 \ifFld@combo

```

```

14357     \else
14358         \@tempdima=\the\Fld@menulength\Fld@charsize
14359         \advance\@tempdima by \Fld@borderwidth bp %
14360         \advance\@tempdima by \Fld@borderwidth bp %
14361         \edef\Fld@height{\the\@tempdima}%
14362     \fi
14363     \@@ListBox{#3}%
14364 \endgroup
14365 \fi
14366 }%
14367 \endgroup
14368 }

```

\@@Radio

```

14369 \def\@@Radio#1{%
14370   \Fld@listcount=0 %
14371   \EdefEscapeName\Fld@default{\Fld@default}%
14372   \setbox\pdfm@box=\hbox{%
14373     \MakeRadioField{\Fld@width}{\Fld@height}%
14374   }%
14375   \@for\@curropt:=#1\do{%
14376     \expandafter\Fld@checkequals\@curropt==\%
14377     \EdefEscapeName\@currValue{\@currValue}%
14378     \Hy@StepCount\Fld@listcount
14379     \@currDisplay\space
14380     \leavevmode
14381     \Hy@escapeform\PDFForm@Radio
14382     \ifnum\Fld@listcount=1 %
14383       \HyField@AdvanceAnnotCount
14384     \fi
14385     \@pdfm@mark{%
14386       ann %
14387       \ifnum\Fld@listcount=1 %
14388         @radio\HyField@TheAnnotCount%
14389       \space
14390     \fi
14391     \dvipdfm@setdim
14392     <<%
14393     \PDFForm@Radio
14394     /AP<</N<</\@currValue /null>>>>%
14395     >>%
14396   }%
14397   \unhcopy\pdfm@box\space% deliberate space between radio buttons
14398   \ifnum\Fld@listcount=1 %
14399     \HyField@AddToFields{radio}%
14400   \fi
14401 }%
14402 }

```

\Fld@listcount

```

14403 \newcount\Fld@listcount

```

\@@ListBox

```

14404 \def\@@ListBox#1{%
14405   \HyField@PDFChoices{#1}%
14406   \setbox\pdfm@box=\hbox{%
14407     \MakeChoiceField{\Fld@width}{\Fld@height}%

```

```

14408 }%
14409 \leavevmode
14410 \Hy@escapeform\PDFForm@List
14411 \HyField@AdvanceAnnotCount
14412 \@pdfm@mark{%
14413   ann @list\HyField@TheAnnotCount\space
14414   \dvipdfm@setdim
14415   <<\PDFForm@List>>%
14416 }%
14417 \unhbox\pdfm@box
14418 \HyField@AddToFields{list}%
14419 }

```

\@PushButton

```

14420 \def\@PushButton[#1]#2{% parameters, label
14421   \def\Fld@name{#2}%
14422   \begingroup
14423     \expandafter\HyField@SetKeys\expandafter{%
14424       \DefaultOptionsofPushButton,#1%
14425     }%
14426     \PDFForm@Name
14427     \ifHy@pdfa
14428       \Hy@Error{%
14429         PDF/A: Push button with JavaScript is prohibited%
14430       } \@ehc
14431     \LayoutPushButtonField{%
14432       \leavevmode
14433       \MakeButtonField{#2}%
14434     }%
14435     \else
14436       \setbox\pdfm@box=\hbox{\MakeButtonField{#2}}%
14437       \HyField@FlagsPushButton
14438       \ifFld@hidden\def\Fld@width{1sp}\fi
14439       \HyField@AdvanceAnnotCount
14440       \LayoutPushButtonField{%
14441         \leavevmode
14442         \Hy@escapeform\PDFForm@Push
14443         \@pdfm@mark{%
14444           ann @push\HyField@TheAnnotCount\space
14445           \dvipdfm@setdim
14446           <<\PDFForm@Push>>%
14447         }%
14448       }%
14449       \unhbox\pdfm@box
14450       \HyField@AddToFields{push}%
14451     \fi
14452   \endgroup
14453 }

```

\@Submit

```

14454 \def\@Submit[#1]#2{%
14455   \def\Fld@width{\DefaultWidthofSubmit}%
14456   \def\Fld@height{\DefaultHeightofSubmit}%
14457   \begingroup
14458     \expandafter\HyField@SetKeys\expandafter{%
14459       \DefaultOptionsofSubmit,#1%
14460     }%

```

```

14461 \HyField@FlagsPushButton
14462 \HyField@FlagsSubmit
14463 \ifFld@hidden\def\Fld@width{1sp}\fi
14464 \setbox\pdfm@box=\hbox{\MakeButtonField{#2}}%
14465 \leavevmode
14466 \Hy@escapeform\PDFForm@Submit
14467 \HyField@AdvanceAnnotCount
14468 \@pdfm@mark{%
14469   ann @submit\HyField@TheAnnotCount\space
14470   \dviPDFForm@setdim
14471   <<\PDFForm@Submit>>%
14472 }%
14473 \unhbox\pdfm@box%
14474 \HyField@AddToFields{submit}%
14475 \endgroup
14476 }

```

\@Reset

```

14477 \def\@Reset[#1]#2{%
14478   \def\Fld@width{\DefaultWidthofReset}%
14479   \def\Fld@height{\DefaultHeightofReset}%
14480   \begingroup
14481     \expandafter\HyField@SetKeys\expandafter{%
14482       \DefaultOptionsofReset,#1%
14483     }%
14484     \leavevmode
14485     \ifHy@pdfa
14486       \Hy@Error{%
14487         PDF/A: Reset action is prohibited%
14488       } \@ehc
14489       \MakeButtonField{#2}%
14490     \else
14491       \HyField@FlagsPushButton
14492       \ifFld@hidden\def\Fld@width{1sp}\fi
14493       \setbox\pdfm@box=\hbox{\MakeButtonField{#2}}%
14494       \Hy@escapeform\PDFForm@Reset
14495       \HyField@AdvanceAnnotCount
14496       \@pdfm@mark{%
14497         ann @reset\HyField@TheAnnotCount\space
14498         \dviPDFForm@setdim
14499         <<\PDFForm@Reset>>%
14500       }%
14501       \unhbox\pdfm@box
14502       \HyField@AddToFields{reset}%
14503     \fi
14504   \endgroup
14505 }

```

\@CheckBox

```

14506 \def\@CheckBox[#1]#2{% parameters, label
14507   \def\Fld@name{#2}%
14508   \def\Fld@default{0}%
14509   \begingroup
14510     \def\Fld@width{\DefaultWidthofCheckBox}%
14511     \def\Fld@height{\DefaultHeightofCheckBox}%
14512     \expandafter\HyField@SetKeys\expandafter{%
14513       \DefaultOptionsofCheckBox,#1%

```

```

14514 }%
14515 \PDFForm@Name
14516 \HyField@FlagsCheckBox
14517 \ifFld@hidden\def\Fld@width{1sp}\fi
14518 \setbox\pdfm@box=\hbox{%
14519   \MakeCheckField{\Fld@width}{\Fld@height}%
14520 }%
14521 \HyField@AdvanceAnnotCount
14522 \LayoutCheckField{#2}{%
14523   \leavevmode
14524   \Hy@escapeform\PDFForm@Check
14525   \@pdfm@mark{%
14526     ann @check\HyField@TheAnnotCount\space
14527     \dvipdfm@setdim
14528     <<\PDFForm@Check>>%
14529   }%
14530   \unhbox\pdfm@box
14531   \HyField@AddToFields{check}%
14532 }%
14533 \endgroup
14534 }

14535 \def\Hy@FormObjects{%
14536   \@pdfm@mark{obj @OBJpdfdocencoding%
14537     <<%
14538       /Type/Encoding%
14539       /Differences[%
14540         24/breve/caron/circumflex/dotaccent/hungarumlaut/ogonek/ring/tilde %
14541         39/quotesingle %
14542         96/grave %
14543         128/bullet/dagger/daggerdbl/ellipsis/emdash/endash/florin%
14544         /fraction/guilsinglleft/guilsinglright/minus/perthousand%
14545         /quotedblbase/quotedblleft/quotedblright/quoteleft/quoteright%
14546         /quotesinglbase/trademark/fi/fl/Lslash/OE/Scaron/Ydieresis%
14547         /Zcaron/dotlessi/lslash/oe/scaron/zcaron %
14548         164/currency %
14549         166/brokenbar %
14550         168/dieresis/copyright/ordfeminine %
14551         172/logicalnot/.notdef/registered/macron/degree/plusminus%
14552         /twosuperior/threesuperior/acute/mu %
14553         183/periodcentered/cedilla/onesuperior/ordmasculine %
14554         188/onequarter/onehalf/threequarters %
14555         192/Agrave/Aacute/Acircumflex/Atilde/Adieresis/Aring/AE%
14556         /Ccedilla/Egrave/Eacute/Ecircumflex/Edieresis/Igrave/Iacute%
14557         /Icircumflex/Idieresis/Eth/Ntilde/Ograve/Oacute/Ocircumflex%
14558         /Otilde/Odieresis/multiply/Oslash/Ugrave/Uacute/Ucircumflex%
14559         /Udieresis/Yacute/Thorn/germandbls/agrave/aacute/acircumflex%
14560         /atilde/adieresis/aring/ae/ccedilla/egrave/eacute%
14561         /ecircumflex/edieresis/igrave/iacute/icircumflex/idieresis%
14562         /eth/ntilde/ograve/oacute/ocircumflex/otilde/odieresis%
14563         /divide/oslash/ugrave/uacute/ucircumflex/udieresis/yacute%
14564         /thorn/ydieresis%
14565       ]%
14566     >>%
14567   }%
14568   \@pdfm@mark{obj @OBJZaDb%
14569     <<%
14570       /Type/Font%

```

```

14571 /Subtype/Type1%
14572 /Name/ZaDb%
14573 /BaseFont/ZapfDingbats%
14574 >>%
14575 }%
14576 \@pdfm@mark{obj @OBJHelv%
14577 <<%
14578 /Type/Font%
14579 /Subtype/Type1%
14580 /Name/Helv%
14581 /BaseFont/Helvetica%
14582 /Encoding @OBJpdfdocencoding%
14583 >>%
14584 }%
14585 \global\let\Hy@FormObjects\relax
14586 }
14587 </dvi/pdfm | xetex>

```

48.6 Common forms part

```
14588 (*pdfform)
```

\Fld@pageobjref

```
14589 \providecommand*\Fld@pageobjref{}
```

\Hy@escapestring

```

14590 \begingroup\expandafter\expandafter\expandafter\endgroup
14591 \expandafter\ifx\csname pdf@escapestring\endcsname\relax
14592 \let\Hy@escapestring\@firstofone
14593 \def\Hy@escapeform#1{%
14594 \ifHy@pdfescapeform
14595 \def\Hy@escapestring##1{%
14596 \noexpand\Hy@escapestring{\noexpand##1}%
14597 }%
14598 \edef\Hy@temp{##1}%
14599 \expandafter\Hy@@@escapeform\Hy@temp\Hy@escapestring{} \@nil
14600 \def\Hy@escapestring##1{%
14601 \@ifundefined{Hy@esc@\string##1}{%
14602 ##1%
14603 \ThisShouldNotHappen
14604 }{%
14605 \csname Hy@esc@\string##1\endcsname
14606 }%
14607 }%
14608 \else
14609 \let\Hy@escapestring\@firstofone
14610 \fi
14611 }%
14612 \def\Hy@@@escapeform#1\Hy@escapestring#2#3\@nil{%
14613 \ifx\#3\%
14614 \else
14615 \expandafter
14616 \Hy@pstringdef\csname Hy@esc@\string#2\endcsname{#2}%
14617 \ltx@ReturnAfterFi{%
14618 \Hy@@@escapeform#3\@nil
14619 }%
14620 \fi

```

```

14621 }%
14622 \else
14623 \def\Hy@escapeform#1{%
14624 \ifHy@pdfescapeform
14625 \let\Hy@escapestring\pdfescapestring
14626 \else
14627 \let\Hy@escapestring\@firstofone
14628 \fi
14629 }%
14630 \Hy@escapeform{}%
14631 \fi

```

\PDFForm@Name

```

14632 \def\PDFForm@Name{%
14633 \PDFForm@@Name\Fld@name
14634 \ifx\Fld@altname\relax
14635 \else
14636 \PDFForm@@Name\Fld@altname
14637 \fi
14638 \ifx\Fld@mappingname\relax
14639 \else
14640 \PDFForm@@Name\Fld@mappingname
14641 \fi
14642 }

```

\PDFForm@@Name

```

14643 \def\PDFForm@@Name#1{%
14644 \begingroup
14645 \ifnum\Hy@pdfversion<5 % implementation note 117, PDF spec 1.7
14646 \ifHy@unicode
14647 \Hy@unicodedefalse
14648 \fi
14649 \fi
14650 \HyPsd@XeTeXBigCharstrue
14651 \pdfstringdef\Hy@gtemp#1%
14652 \endgroup
14653 \let#1\Hy@gtemp
14654 }

```

\Fld@additionalactions

```

14655 \def\Fld@@additionalactions{%
K input (keystroke) format
14656 \ifx\Fld@keystroke@code\@empty
14657 \else
14658 /K<</S/JavaScript/JS(\Hy@escapestring{\Fld@keystroke@code})>>%
14659 \fi
F display format
14660 \ifx\Fld@format@code\@empty
14661 \else
14662 /F<</S/JavaScript/JS(\Hy@escapestring{\Fld@format@code})>>%
14663 \fi
V validation
14664 \ifx\Fld@validate@code\@empty
14665 \else
14666 /V<</S/JavaScript/JS(\Hy@escapestring{\Fld@validate@code})>>%
14667 \fi

```

C calculation

```
14668 \ifx\Fld@calculate@code\@empty
14669 \else
14670 /C<</S/JavaScript/JS(\Hy@escapestring{\Fld@calculate@code})>>%
14671 \fi
```

Fo receiving the input focus

```
14672 \ifx\Fld@onfocus@code\@empty
14673 \else
14674 /Fo<</S/JavaScript/JS(\Hy@escapestring{\Fld@onfocus@code})>>%
14675 \fi
```

Bl loosing the input focus (blurred)

```
14676 \ifx\Fld@onblur@code\@empty
14677 \else
14678 /Bl<</S/JavaScript/JS(\Hy@escapestring{\Fld@onblur@code})>>%
14679 \fi
```

D pressing the mouse button (down)

```
14680 \ifx\Fld@onmousedown@code\@empty
14681 \else
14682 /D<</S/JavaScript/JS(\Hy@escapestring{\Fld@onmousedown@code})>>%
14683 \fi
```

U releasing the mouse button (up)

```
14684 \ifx\Fld@onmouseup@code\@empty
14685 \else
14686 /U<</S/JavaScript/JS(\Hy@escapestring{\Fld@onmouseup@code})>>%
14687 \fi
```

E cursor enters the annotation's active area.

```
14688 \ifx\Fld@onenter@code\@empty
14689 \else
14690 /E<</S/JavaScript/JS(\Hy@escapestring{\Fld@onenter@code})>>%
14691 \fi
```

X cursor exits the annotation's active area.

```
14692 \ifx\Fld@onexit@code\@empty
14693 \else
14694 /X<</S/JavaScript/JS(\Hy@escapestring{\Fld@onexit@code})>>%
14695 \fi
```

```
14696 }
14697 \def\Fld@additionalactions{%
14698 \if-\Fld@@additionalactions-%
14699 \else
14700 \ifHy@pdfa
14701 \else
14702 /AA<<\Fld@@additionalactions>>%
14703 \fi
14704 \fi
14705 }
```

\Fld@annotnames

```
14706 \def\Fld@annotnames{%
14707 /T(\Fld@name)%
14708 \ifx\Fld@altname\relax
14709 \else
14710 /TU(\Fld@altname)%
14711 \fi
```



```

14712 \ifx\Fld@mappingname\relax
14713 \else
14714 /TM(\Fld@mappingname)%
14715 \fi
14716 }

```

\PDFForm@Check

```

14717 \def\PDFForm@Check{%
14718 /Subtype/Widget%
14719 \Fld@annotflags
14720 \Fld@pageobjref
14721 \Fld@annotnames
14722 /FT/Btn%
14723 \Fld@flags
14724 /Q \Fld@align
14725 /BS<</W \Fld@borderwidth /S/\Fld@borderstyle>>%
14726 /MK<<%
14727 \ifnum\Fld@rotation=\z@
14728 \else
14729 /R \Fld@rotation
14730 \fi
14731 \ifx\Fld@bordercolor\relax
14732 \else
14733 /BC[\Fld@bordercolor]%
14734 \fi
14735 \ifx\Fld@bcolor\relax
14736 \else
14737 /BG[\Fld@bcolor]%
14738 \fi
14739 /CA(\Hy@escapestring{\Fld@cbsymbol})%
14740 >>%
14741 /DA(/ZaDb \strip@pt\Fld@charsize\space Tf%
14742 \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
14743 /H/P%
14744 \ifFld@checked /V/Yes/AS/Yes\else /V/Off/AS/Off\fi
14745 \Fld@additionalactions
14746 }

```

\PDFForm@Push

```

14747 \ifHy@pdfa
14748 \else
14749 \def\PDFForm@Push{%
14750 /Subtype/Widget%
14751 \Fld@annotflags
14752 \Fld@pageobjref
14753 \Fld@annotnames
14754 /FT/Btn%
14755 \Fld@flags
14756 /H/P%
14757 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14758 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14759 \ifx\Fld@bordercolor\relax\else 1\fi
14760 \space
14761 \else
14762 /MK<<%
14763 \ifnum\Fld@rotation=\z@
14764 \else

```

```

14765     /R \Fld@rotation
14766     \fi
14767     \ifx\Fld@bordercolor\relax
14768     \else
14769     /BC[\Fld@bordercolor]%
14770     \fi
14771     >>%
14772     \fi
14773     /A<</S/JavaScript/JS(\Hy@escapestring{\Fld@onclick@code})>>%
14774     \Fld@additionalactions
14775     }%
14776     \fi

```

\PDFForm@List

```

14777 \def\PDFForm@List{%
14778 /Subtype/Widget%
14779 \Fld@annotflags
14780 \Fld@pageobjref
14781 \Fld@annotnames
14782 /FT/Ch%
14783 \Fld@flags
14784 /Q \Fld@align
14785 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14786 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14787     \ifx\Fld@bordercolor\relax\else 1\fi
14788     \ifx\Fld@bcolor\relax \else 1\fi
14789     \space
14790 \else
14791 /MK<<%
14792     \ifnum\Fld@rotation=\z@
14793     \else
14794     /R \Fld@rotation
14795     \fi
14796     \ifx\Fld@bordercolor\relax
14797     \else
14798     /BC[\Fld@bordercolor]%
14799     \fi
14800     \ifx\Fld@bcolor\relax
14801     \else
14802     /BG[\Fld@bcolor]%
14803     \fi
14804     >>%
14805     \fi
14806 /DA(/Helv \strip@pt\Fld@charsize\space Tf%
14807     \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
14808 \Fld@choices
14809 \Fld@additionalactions
14810 }

```

\PDFForm@Radio

```

14811 \def\PDFForm@Radio{%
14812 /Subtype/Widget%
14813 \Fld@annotflags
14814 \Fld@pageobjref
14815 \Fld@annotnames
14816 /FT/Btn%
14817 \Fld@flags

```

```

14818 /H/P%
14819 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14820 /MK<<%
14821 \ifnum\Fld@rotation=\z@
14822 \else
14823 /R \Fld@rotation
14824 \fi
14825 \ifx\Fld@bordercolor\relax
14826 \else
14827 /BC[\Fld@bordercolor]%
14828 \fi
14829 \ifx\Fld@bcolor\relax
14830 \else
14831 /BG[\Fld@bcolor]%
14832 \fi
14833 /CA(\Hy@escapestring{\Fld@radiosymbol})%
14834 >>%
14835 /DA(/ZaDb \strip@pt\Fld@charsize\space Tf%
14836 \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
14837 \ifx\@currValue\Fld@default
14838 /V/\Fld@default
14839 /DV/\Fld@default
14840 \else
14841 /V/Off%
14842 /DV/Off%
14843 \fi
14844 \Fld@additionalactions
14845 }

```

\PDFForm@Text

```

14846 \def\PDFForm@Text{%
14847 /Subtype/Widget%
14848 \Fld@annotflags
14849 \Fld@pageobjref
14850 \Fld@annotnames
14851 /FT/Tx%
14852 \Fld@flags
14853 /Q \Fld@align
14854 /BS<</W \Fld@borderwidth\space /S /\Fld@borderstyle>>%
14855 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14856 \ifx\Fld@bordercolor\relax\else 1\fi
14857 \ifx\Fld@bcolor\relax \else 1\fi
14858 \space
14859 \else
14860 /MK<<%
14861 \ifnum\Fld@rotation=\z@
14862 \else
14863 /R \Fld@rotation
14864 \fi
14865 \ifx\Fld@bordercolor\relax
14866 \else
14867 /BC[\Fld@bordercolor]%
14868 \fi
14869 \ifx\Fld@bcolor\relax
14870 \else
14871 /BG[\Fld@bcolor]%
14872 \fi
14873 >>%

```

```

14874 \fi
14875 /DA(/Helv \strip@pt\Fld@charsize\space Tf%
14876 \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
14877 /DV(\Hy@escapestring{\Fld@default})%
14878 /V(\Hy@escapestring{\Fld@value})%
14879 \Fld@additionalactions
14880 \ifnum\Fld@maxlen>\z@/MaxLen \Fld@maxlen \fi
14881 }

```

\PDFForm@Submit

```

14882 \def\PDFForm@Submit{%
14883 /Subtype/Widget%
14884 \Fld@annotflags
14885 \Fld@pageobjref
14886 \Fld@annotnames
14887 /FT/Btn%
14888 \Fld@flags
14889 /H/P%
14890 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14891 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14892 \ifx\Fld@bordercolor\relax\else 1\fi
14893 \space
14894 \else
14895 /MK<<%
14896 \ifnum\Fld@rotation=\z@
14897 \else
14898 /R \Fld@rotation
14899 \fi
14900 \ifx\Fld@bordercolor\relax
14901 \else
14902 /BC[\Fld@bordercolor]%
14903 \fi
14904 >>%
14905 \fi
14906 /A<<%
14907 /S/SubmitForm%
14908 /F<<%
14909 /FS/URL%
14910 /F(\Hy@escapestring{\Form@action})%
14911 >>%
14912 \Fld@submitflags
14913 >>%
14914 \Fld@additionalactions
14915 }

```

\PDFForm@Reset

```

14916 \ifHy@pdfa
14917 \else
14918 \def\PDFForm@Reset{%
14919 /Subtype/Widget%
14920 \Fld@annotflags
14921 \Fld@pageobjref
14922 \Fld@annotnames
14923 /FT/Btn%
14924 \Fld@flags
14925 /H/P%
14926 /DA(/Helv \strip@pt\Fld@charsize\space Tf 0 0 1 rg)%

```

```

14927 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14928 \ifx\Fld@bordercolor\relax\else 1\fi
14929 \space
14930 \else
14931 /MK<<%
14932 \ifnum\Fld@rotation=\z@
14933 \else
14934 /R \Fld@rotation
14935 \fi
14936 \ifx\Fld@bordercolor\relax
14937 \else
14938 /BC[\Fld@bordercolor]%
14939 \fi
14940 % /CA (Clear)
14941 % /AC (Done)
14942 >>%
14943 \fi
14944 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14945 /A<</S/ResetForm>>%
14946 \Fld@additionalactions
14947 }%
14948 \fi

14949 </pdfform>
14950 <*package>

```

49 Bookmarks in the PDF file

This was originally developed by Yannis Haralambous (it was the separate `reper.sty`); it needed the `reper` 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`

```

14951 \def\phantomsection{%
14952 \Hy@MakeCurrentHrefAuto{section*}%
14953 \Hy@raisedlink{\hyper@anchorstart{\@currentHref}\hyper@anchorend}%
14954 }
14955 </package>

```

49.1 Bookmarks

```
14956 <*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.

```

14957 \def\Hy@writebookmark#1#2#3#4#5{%
14958   % section number, text, label, level, file
14959   \ifx\WriteBookmarks\relax%
14960   \else
14961     \ifnum#4>\Hy@bookmarksdepth\relax
14962     \else
14963       \@@writetorep{#1}{#2}{#3}{#4}{#5}%
14964     \fi
14965   \fi
14966 }
14967 \def\Hy@currentbookmarklevel{0}
14968 \def\Hy@numberline#1{#1 }
14969 \def\@@writetorep#1#2#3#4#5{%
14970   \begingroup
14971   \edef\Hy@tempa{#5}%
14972   \ifx\Hy@tempa\Hy@bookmarkstype
14973     \edef\Hy@level{#4}%
14974     \ifx\Hy@levelcheck Y%
14975       \@tempcnta\Hy@level\relax
14976       \advance\@tempcnta by -1 %
14977       \ifnum\Hy@currentbookmarklevel<\@tempcnta
14978         \advance\@tempcnta by -\Hy@currentbookmarklevel\relax
14979       \advance\@tempcnta by 1 %
14980       \Hy@Warning{%
14981         Difference (\the\@tempcnta) between bookmark levels is %
14982         greater \MessageBreak than one, level fixed%
14983       }%
14984       \@tempcnta\Hy@currentbookmarklevel
14985       \advance\@tempcnta by 1 %
14986       \edef\Hy@level{\the\@tempcnta}%
14987     \fi
14988   \else
14989     \global\let\Hy@levelcheck Y%
14990   \fi
14991   \global\let\Hy@currentbookmarklevel\Hy@level
14992   \@tempcnta\Hy@level\relax
14993   \expandafter\xdef\csname Parent\Hy@level\endcsname{#3}%
14994   \advance\@tempcnta by -1 %
14995   \edef\Hy@tempa{#3}%
14996   \edef\Hy@tempb{\csname Parent\the\@tempcnta\endcsname}%
14997   \ifx\Hy@tempa\Hy@tempb
14998     \Hy@Warning{%
14999       The anchor of a bookmark and its parent's must not%
15000       \MessageBreak be the same. Added a new anchor%
15001     }%
15002     \phantomsection
15003   \fi
15004   \ifHy@bookmarksnumbered
15005     \let\numberline\Hy@numberline
15006     \let\booknumberline\Hy@numberline

```

```

15007 \let\partnumberline\Hy@numberline
15008 \let\chapternumberline\Hy@numberline
15009 \else
15010 \let\numberline\@gobble
15011 \let\booknumberline\@gobble
15012 \let\partnumberline\@gobble
15013 \let\chapternumberline\@gobble
15014 \fi
15015 \HyPsd@XeTeXBigCharstrue
15016 \pdfstringdef\Hy@tempa{#2}%
15017 \HyPsd@SanitizeForOutFile\Hy@tempa
15018 \if@filesw
15019 \stepcounter{bookmark@seq@number}%
15020 \@ifundefined{@outlinefile}{%
15021 }{%
15022 \protected@write\@outlinefile{ }{%
15023 \protect\BOOKMARK
15024 [\Hy@level][\@bookmarkopenstatus{\Hy@level}]{#3}%
15025 {\Hy@tempa}{\Hy@tempb}%
15026 \@percentchar\space\thebookmark@seq@number
15027 }%
15028 }%
15029 \fi
15030 \fi
15031 \endgroup
15032 }
15033 \newcounter{bookmark@seq@number}

15034 \begingroup
15035 \lccode'('= '{%
15036 \lccode')=' }%
15037 \lccode'1=\z@
15038 \lccode'2=\z@
15039 \lccode'3=\z@
15040 \lccode'5=\z@
15041 \lccode'7=\z@
15042 \lccode'\#=\z@
15043 \lccode'\='=\z@
15044 \lccode'\{=\z@
15045 \lccode'\}=\z@
15046 \lowercase{%
15047 \endgroup
15048 \def\HyPsd@SanitizeForOutFile#1{%
15049 \@onelevel@sanitize\Hy@tempa
15050 \escapechar'\%
15051 \edef\Hy@tempa{%
15052 \expandafter\HyPsd@SanitizeOut@BraceLeft\Hy@tempa(\@nil
15053 }%
15054 \edef\Hy@tempa{%
15055 \expandafter\HyPsd@SanitizeOut@BraceRight\Hy@tempa)\@nil
15056 }%
15057 }%
15058 \def\HyPsd@SanitizeOut@BraceLeft#1(#2\@nil{%
15059 #1%
15060 \ifx\#2\%
15061 \expandafter\ltx@gobble
15062 \else
15063 \expandafter\ltx@firstofone

```

```

15064 \fi
15065 {%
15066 \string\173%
15067 \HyPsd@SanitizeOut@BraceLeft#2\@nil
15068 }%
15069 }%
15070 \def\HyPsd@SanitizeOut@BraceRight#1)#2\@nil{%
15071 #1%
15072 \ifx\#2\%
15073 \expandafter\ltx@gobble
15074 \else
15075 \expandafter\ltx@firstofone
15076 \fi
15077 {%
15078 \string\175%
15079 \HyPsd@SanitizeOut@BraceRight#2\@nil
15080 }%
15081 }%
15082 }

```

In the call of `\BOOKMARK` the braces around `#4` are omitted, because it is not likely, that the level number contains `]`.

```

15083 \newcommand{\currentpdfbookmark}{%
15084 \pdfbookmark[\Hy@currentbookmarklevel]%
15085 }
15086 \newcommand{\subpdfbookmark}{%
15087 \@tempcnta\Hy@currentbookmarklevel
15088 \Hy@StepCount\@tempcnta
15089 \expandafter\pdfbookmark\expandafter[\the\@tempcnta]%
15090 }
15091 \newcommand{\belowpdfbookmark}[2]{%
15092 \@tempcnta\Hy@currentbookmarklevel
15093 \Hy@StepCount\@tempcnta
15094 \expandafter\pdfbookmark\expandafter[\the\@tempcnta]{#1}{#2}%
15095 \advance\@tempcnta by -1 %
15096 \xdef\Hy@currentbookmarklevel{\the\@tempcnta}%
15097 }

```

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.

```

15098 \renewcommand\pdfbookmark[3][0]{%
15099 \Hy@writebookmark}{#2}{#3.#1}{#1}{toc}%
15100 \hyper@anchorstart{#3.#1}\hyper@anchorend
15101 }
15102 \def\BOOKMARK{%
15103 \@ifnextchar{\@BOOKMARK}{\@BOOKMARK[1][-]}%
15104 }
15105 \def\@BOOKMARK[#1]{%
15106 \@ifnextchar{\@BOOKMARK[#1]}{\@BOOKMARK[#1][-]}%
15107 }

```

The macros for calculating structure of outlines are derived from those by Petr Olsak used in the `texinfo` macros.

49.1.1 Rerun warning

```
\Hy@OutlineRerunCheck
```

```
15108 \RequirePackage{rerunfilecheck}[2009/12/10]
```



```

15109 \def\Hy@OutlineRerunCheck{%
15110 \RerunFileCheck{\jobname.out}{%
15111 \immediate\closeout\@outlinefile
15112 }{%
15113 Rerun to get outlines right\MessageBreak
15114 or use package 'bookmark'%
15115 }%
15116 }

```

49.1.2 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.

```

15117 (*vtex)
15118 \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.

```

15119 \begingroup
15120 \catcode'\'=12 %
15121 \ifnum\Hy@VTeXversion<650 %
15122 \catcode'\'=12 %
15123 \gdef\hv@pdf@char#1#2#3{%
15124 \char
15125 \ifcase'#1#2#3 %
15126 "00\or"01\or"02\or"03\or"04\or"05\or"06\or"07%
15127 \or"08\or"09\or"0A\or"0B\or"0C\or"0D\or"0E\or"0F%
15128 \or"10\or"11\or"12\or"13\or"14\or"15\or"16\or"17%
15129 \or"18\or"19\or"1A\or"1B\or"1C\or"1D\or"1E\or"1F%
15130 \or"20\or"21\or"22\or"23\or"24\or"25\or"26\or"27%
15131 \or"28\or"29\or"2A\or"2B\or"2C\or"2D\or"2E\or"2F%
15132 \or"30\or"31\or"32\or"33\or"34\or"35\or"36\or"37%
15133 \or"38\or"39\or"3A\or"3B\or"3C\or"3D\or"3E\or"3F%
15134 \or"40\or"41\or"42\or"43\or"44\or"45\or"46\or"47%
15135 \or"48\or"49\or"4A\or"4B\or"4C\or"4D\or"4E\or"4F%
15136 \or"50\or"51\or"52\or"53\or"54\or"55\or"56\or"57%
15137 \or"58\or"59\or"5A\or"5B\or"5C\or"5D\or"5E\or"5F%
15138 \or"60\or"61\or"62\or"63\or"64\or"65\or"66\or"67%
15139 \or"68\or"69\or"6A\or"6B\or"6C\or"6D\or"6E\or"6F%
15140 \or"70\or"71\or"72\or"73\or"74\or"75\or"76\or"77%
15141 \or"78\or"79\or"7A\or"7B\or"7C\or"7D\or"7E\or"7F%
15142 \or"80\or"81\or"82\or"83\or"84\or"85\or"86\or"87%
15143 \or"88\or"89\or"8A\or"8B\or"8C\or"8D\or"8E\or"8F%
15144 \or"90\or"91\or"92\or"93\or"94\or"95\or"96\or"97%
15145 \or"98\or"99\or"9A\or"9B\or"9C\or"9D\or"9E\or"9F%
15146 \or"A0\or"A1\or"A2\or"A3\or"A4\or"A5\or"A6\or"A7%
15147 \or"A8\or"A9\or"AA\or"AB\or"AC\or"AD\or"AE\or"AF%
15148 \or"B0\or"B1\or"B2\or"B3\or"B4\or"B5\or"B6\or"B7%
15149 \or"B8\or"B9\or"BA\or"BB\or"BC\or"BD\or"BE\or"BF%
15150 \or"C0\or"C1\or"C2\or"C3\or"C4\or"C5\or"C6\or"C7%
15151 \or"C8\or"C9\or"CA\or"CB\or"CC\or"CD\or"CE\or"CF%
15152 \or"D0\or"D1\or"D2\or"D3\or"D4\or"D5\or"D6\or"D7%
15153 \or"D8\or"D9\or"DA\or"DB\or"DC\or"DD\or"DE\or"DF%

```

```

15154 \or"E0\or"E1\or"E2\or"E3\or"E4\or"E5\or"E6\or"E7%
15155 \or"E8\or"E9\or"EA\or"EB\or"EC\or"ED\or"EE\or"EF%
15156 \or"F0\or"F1\or"F2\or"F3\or"F4\or"F5\or"F6\or"F7%
15157 \or"F8\or"F9\or"FA\or"FB\or"FC\or"FD\or"FE\or"FF%
15158 \fi
15159 }%
15160 \else
15161 \gdef\hv@pdf@char{\char'}%
15162 \fi
15163 \endgroup

```

\@@BOOKMARK

```

15164 \def\@@BOOKMARK[#1][#2]#3#4#5{%
15165 \expandafter\edef\csname @count@#3\endcsname{%
15166 \the\@serial@counter
15167 }%
15168 \edef\@mycount{\the\@serial@counter}%
15169 \Hy@StepCount\@serial@counter
15170 \edef\@parcount{%
15171 \expandafter\ifx\csname @count@#5\endcsname\relax
15172 0%
15173 \else
15174 \csname @count@#5\endcsname
15175 \fi
15176 }%
15177 \immediate\special{%
15178 !outline \HyperDestNameFilter{#3};p=\@parcount,i=\@mycount,%
15179 s=\ifx#2-c\else o\fi,t=#4%
15180 }%
15181 }%

```

\ReadBookmarks

```

15182 \def\ReadBookmarks{%
15183 \begingroup
15184 \def\0{\hv@pdf@char 0}%
15185 \def\1{\hv@pdf@char 1}%
15186 \def\2{\hv@pdf@char 2}%
15187 \def\3{\hv@pdf@char 3}%
15188 \def\({}%
15189 \def\)}%
15190 \def\do##1{%
15191 \ifnum\catcode'##1=\active
15192 \@makeother##1%
15193 \else
15194 \ifnum\catcode'##1=6 %
15195 \@makeother##1%
15196 \fi
15197 \fi
15198 }%
15199 \dospecials
15200 \Hy@safe@activestrue
15201 \InputIfFileExists{\jobname.out}{-}{-}%
15202 \endgroup
15203 \ifx\WriteBookmarks\relax
15204 \else
15205 \if@filesw
15206 \newwrite\@outlinefile

```

```

15207 \Hy@OutlineRerunCheck
15208 \immediate\openout\@outlinefile=\jobname.out\relax
15209 \ifHy@typexml
15210 \immediate\write\@outlinefile{<relaxxml>\relax}%
15211 \fi
15212 \fi
15213 \fi
15214 }

15215 </vtex>
15216 <*\vtex>
15217 \def\ReadBookmarks{%
15218 \pdf@ifdraftmode{}{%
15219 \begingroup
15220 \def\do##1{%
15221 \ifnum\catcode'##1=\active
15222 \@makeother##1%
15223 \else
15224 \ifnum\catcode'##1=6 %
15225 \@makeother##1%
15226 \fi
15227 \fi
15228 }%
15229 \dospecials
15230 \Hy@safe@activetrue
15231 \escapechar='\%
15232 \def\@@BOOKMARK[##1][##2]##3##4##5{%
15233 \calc@bm@number{##5}%
15234 }%
15235 \InputIfFileExists{\jobname.out}{\}{}%
15236 \ifx\WriteBookmarks\relax
15237 \global\let\WriteBookmarks\relax
15238 \fi
15239 \def\@@BOOKMARK[##1][##2]##3##4##5{%
15240 \def\Hy@temp{##4}%
15241 (*pdfTeX)
15242 \Hy@pstringdef\Hy@pstringName{\HyperDestNameFilter{##3}}%
15243 \Hy@OutlineName{}\Hy@pstringName{%
15244 ##2\check@bm@number{##3}}%
15245 }{%
15246 \expandafter\strip@prefix\meaning\Hy@temp
15247 }%
15248 </pdfTeX)
15249 (*pdfmark)
15250 \pdfmark{%
15251 pdfmark=/OUT,%
15252 Count={##2\check@bm@number{##3}},%
15253 Dest={##3},%
15254 Title=\expandafter\strip@prefix\meaning\Hy@temp
15255 }%
15256 </pdfmark)
15257 (*dviPDFM|xetex)
15258 \Hy@pstringdef\Hy@pstringName{\HyperDestNameFilter{##3}}%
15259 \@pdfm@mark{%
15260 outline \ifHy@DvipdfmxOutlineOpen
15261 [%
15262 \ifnum##21>\z@
15263 \else

```

```

15264         -%
15265         \fi
15266         l %
15267         \fi
15268         ##1<<%
15269         /Title(\expandafter\strip@prefix\meaning\Hy@temp)%
15270         /A<<%
15271         /S/GoTo%
15272         /D(\Hy@pstringName)%
15273         >>%
15274         >>%
15275         }%
15276 </dvi/pdfm | xetex>
15277 }%
15278 \begingroup
15279 \def\WriteBookmarks{0}%
15280 \InputIfFileExists{\jobname.out}{-}{-}%
15281 \endgroup
15282 %{\escapechar\m@ne\InputIfFileExists{\jobname.out}{-}{-}}%
15283 \endgroup
15284 }%
15285 \ifx\WriteBookmarks\relax
15286 \else
15287 \if@filesw
15288 \newwrite\@outlinefile
15289 \Hy@OutlineRerunCheck
15290 \immediate\openout\@outlinefile=\jobname.out\relax
15291 \ifHy@typexml
15292 \immediate\write\@outlinefile{<relaxxml>\relax}%
15293 \fi
15294 \fi
15295 \fi
15296 }
15297 <*pdfTeX>
15298 \def\Hy@OutlineName#1#2#3#4{%
15299 \pdfoutline goto name{#2}count#3{#4}%
15300 }
15301 </pdfTeX>
15302 \def\check@bm@number#1{%
15303 \expandafter\ifx\csname B_#1\endcsname\relax
15304 0%
15305 \else
15306 \csname B_#1\endcsname
15307 \fi
15308 }
15309 \def\calc@bm@number#1{%
15310 \@tempcnta=\check@bm@number{#1}\relax
15311 \advance\@tempcnta by 1 %
15312 \expandafter\xdef\csname B_#1\endcsname{\the\@tempcnta}%
15313 }
15314 </!vtex>
15315 \ifHy@implicit
15316 \else
15317 \expandafter\endinput
15318 \fi
15319 </outlines>
15320 <*outlines | hypertex>

```

```

15321 \newlength\Hy@SectionHShift
15322 \def\Hy@SectionAnchorHref#1{%
15323   \ifx\protect\@typeset@protect
15324     \Hy@@@SectionAnchor{#1}%
15325   \fi
15326 }
15327 \DeclareRobustCommand*{\Hy@@@SectionAnchor}[1]{%
15328   \leavevmode
15329   \hbox to 0pt{%
15330     \kern-\Hy@SectionHShift
15331     \Hy@raisedlink{%
15332       \hyper@anchorstart{#1}\hyper@anchorend
15333     }%
15334     \hss
15335   }%
15336 }
15337 \let\H@old@ssect\@ssect
15338 \def\@ssect#1#2#3#4#5{%
15339   \Hy@MakeCurrentHrefAuto{section*}%
15340   \setlength{\Hy@SectionHShift}{#1}%
15341   \begingroup
15342     \toks@{\H@old@ssect{#1}{#2}{#3}{#4}}%
15343     \toks\tw@\expandafter{%
15344       \expandafter\Hy@SectionAnchorHref\expandafter{\@currentHref}%
15345       #5%
15346     }%
15347   \edef\x{\endgroup
15348     \the\toks@\the\toks\tw@}%
15349   }\x
15350 }
15351 \let\H@old@schapter\@schapter
15352 \def\@schapter#1{%
15353   \begingroup
15354     \let\@mkboth\@gobbletwo
15355     \Hy@MakeCurrentHrefAuto{\Hy@chapapp*}%
15356     \Hy@raisedlink{%
15357       \hyper@anchorstart{\@currentHref}\hyper@anchorend
15358     }%
15359   \endgroup
15360   \H@old@schapter{#1}%
15361 }

```

If there is no chapter number (`\frontmatter` or `\backmatter`) then the counting by `\refstepcounter{chapter}` is not executed, so there will be no destination for `\ddcontentsline`. So `\@chapter` is overloaded to avoid this:

```

15362 \ltx@ifundefined{@chapter}{-}{%
15363   \let\Hy@org@chapter\@chapter
15364   \def\@chapter{%
15365     \def\Hy@next{%
15366       \Hy@MakeCurrentHrefAuto{\Hy@chapapp*}%
15367       \Hy@raisedlink{%
15368         \hyper@anchorstart{\@currentHref}\hyper@anchorend
15369       }%
15370     }%
15371     \ifnum\c@secnumdepth>\m@ne
15372     \ltx@ifundefined{if@mainmatter}%
15373     \iftrue{\csname if@mainmatter\endcsname}%
15374     \let\Hy@next\relax

```

```

15375 \fi
15376 \fi
15377 \Hy@next
15378 \Hy@org@chapter
15379 }%
15380 }

15381 \let\H@old@part\@part
15382 \begingroup\expandafter\expandafter\expandafter\endgroup
15383 \expandafter\ifx\csname chapter\endcsname\relax
15384 \let\Hy@secnum@part\z@
15385 \else
15386 \let\Hy@secnum@part\m@ne
15387 \fi
15388 \def\@part{%
15389 \ifnum\Hy@secnum@part>\c@secnumdepth
15390 \phantomsection
15391 \fi
15392 \H@old@part
15393 }

15394 \let\H@old@spart\@spart
15395 \def\@spart#1{%
15396 \Hy@MakeCurrentHrefAuto{part*}%
15397 \Hy@raisedlink{%
15398 \hyper@anchorstart{\@currentHref}\hyper@anchorend
15399 }%
15400 \H@old@spart{#1}%
15401 }

15402 \let\H@old@sect\@sect
15403 \def\@sect#1#2#3#4#5#6[#7]#8{%
15404 \ifnum #2>\c@secnumdepth
15405 \expandafter\@firstoftwo
15406 \else
15407 \expandafter\@secondoftwo
15408 \fi
15409 {%
15410 \Hy@MakeCurrentHrefAuto{section*}%
15411 \setlength{\Hy@SectionHShift}{#3}%
15412 \begingroup
15413 \toks@{\H@old@sect{#1}{#2}{#3}{#4}{#5}{#6}{#7}}%
15414 \toks\tw@\expandafter{%
15415 \expandafter\Hy@SectionAnchorHref\expandafter{\@currentHref}%
15416 #8%
15417 }%
15418 \edef\x{\endgroup
15419 \the\toks@\the\toks\tw@}%
15420 }\x
15421 }{%
15422 \H@old@sect{#1}{#2}{#3}{#4}{#5}{#6}{#7}{#8}%
15423 }%
15424 }

15425 </outlines | hypertex>
15426 <*outlines>

15427 \expandafter\def\csname Parent-4\endcsname{}
15428 \expandafter\def\csname Parent-3\endcsname{}
15429 \expandafter\def\csname Parent-2\endcsname{}
15430 \expandafter\def\csname Parent-1\endcsname{}

```

```

15431 \expandafter\def\csname Parent0\endcsname{}
15432 \expandafter\def\csname Parent1\endcsname{}
15433 \expandafter\def\csname Parent2\endcsname{}
15434 \expandafter\def\csname Parent3\endcsname{}
15435 \expandafter\def\csname Parent4\endcsname{}
15436 </outlines>

```

50 Compatibility with koma-script classes

```
15437 <*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.

```

15438 \def\Hy@tempa{%
15439   \def\@addchap{##1}##2{%
15440     \typeout{##2}%
15441     \if@twoside
15442       \@mkboth{##1}{}%
15443     \else
15444       \@mkboth{}{##1}%
15445     \fi
15446     \addtocontents{lof}{\protect\addvspace{10\p@}}%
15447     \addtocontents{lot}{\protect\addvspace{10\p@}}%
15448     \Hy@MakeCurrentHrefAuto{\Hy@chapapp*}%
15449     \Hy@raisedlink{%
15450       \hyper@anchorstart{\@currentHref}\hyper@anchorend
15451     }%
15452     \if@twocolumn
15453       \@topnewpage[\@makeschapterhead{##2}]%
15454     \else
15455       \@makeschapterhead{##2}%
15456       \@afterheading
15457     \fi
15458     \addcontentsline{toc}{chapter}{##1}%
15459   }%
15460 }
15461 \@ifclassloaded{scrbook}{%
15462   \@ifclasslater{scrbook}{2001/01/01}{%
15463     \let\Hy@tempa\@empty
15464   }{ }%
15465 }{%
15466   \@ifclassloaded{scrreprt}{%
15467     \@ifclasslater{scrreprt}{2001/01/01}{%
15468       \let\Hy@tempa\@empty
15469     }{ }%
15470   }{%
15471     \let\Hy@tempa\@empty
15472   }%
15473 }%
15474 \Hy@tempa
15475 </outlines | hypertex>

```

51 Encoding definition files for encodings of PDF strings

This was contributed by Heiko Oberdiek.

51.1 PD1 encoding

```
15476 (*pd1enc)
15477 \DeclareFontEncoding{PD1}{-}{-}

Accents
15478 \DeclareTextAccent{\`}{PD1}{\textasciigrave}
15479 \DeclareTextAccent{\^}{PD1}{\textacute}
15480 \DeclareTextAccent{\~}{PD1}{\textasciicircum}
15481 \DeclareTextAccent{\~}{PD1}{\texttilde}
15482 \DeclareTextAccent{\"}{PD1}{\textasciidieresis}
15483 \DeclareTextAccent{\r}{PD1}{\textring}
15484 \DeclareTextAccent{\v}{PD1}{\textasciicaron}
15485 \DeclareTextAccent{\.}{PD1}{\textdotaccent}
15486 \DeclareTextAccent{\c}{PD1}{\textcedilla}
15487 \DeclareTextAccent{\=}{PD1}{\textasciimacron}
15488 \DeclareTextAccent{\b}{PD1}{\textmacronbelow}
15489 \DeclareTextAccent{\d}{PD1}{\textdotbelow}
15490 \DeclareTextCompositeCommand{\`}{PD1}{\@empty}{\textasciigrave}
15491 \DeclareTextCompositeCommand{\^}{PD1}{\@empty}{\textacute}
15492 \DeclareTextCompositeCommand{\~}{PD1}{\@empty}{\textasciicircum}
15493 \DeclareTextCompositeCommand{\~}{PD1}{\@empty}{\texttilde}
15494 \DeclareTextCompositeCommand{\"}{PD1}{\@empty}{\textasciidieresis}
15495 \DeclareTextCompositeCommand{\r}{PD1}{\@empty}{\textring}
15496 \DeclareTextCompositeCommand{\v}{PD1}{\@empty}{\textasciicaron}
15497 \DeclareTextCompositeCommand{\.}{PD1}{\@empty}{\textdotaccent}
15498 \DeclareTextCompositeCommand{\c}{PD1}{\@empty}{\textcedilla}
15499 \DeclareTextCompositeCommand{\=}{PD1}{\@empty}{\textasciimacron}
15500 \DeclareTextCompositeCommand{\b}{PD1}{\@empty}{\textmacronbelow}
15501 \DeclareTextCompositeCommand{\d}{PD1}{\@empty}{\textdotbelow}
15502 \DeclareTextCompositeCommand{\`}{PD1}{\ }{\textasciigrave}
15503 \DeclareTextCompositeCommand{\^}{PD1}{\ }{\textacute}
15504 \DeclareTextCompositeCommand{\~}{PD1}{\ }{\textasciicircum}
15505 \DeclareTextCompositeCommand{\~}{PD1}{\ }{\texttilde}
15506 \DeclareTextCompositeCommand{\"}{PD1}{\ }{\textasciidieresis}
15507 \DeclareTextCompositeCommand{\r}{PD1}{\ }{\textring}
15508 \DeclareTextCompositeCommand{\v}{PD1}{\ }{\textasciicaron}
15509 \DeclareTextCompositeCommand{\.}{PD1}{\ }{\textdotaccent}
15510 \DeclareTextCompositeCommand{\c}{PD1}{\ }{\textcedilla}
15511 \DeclareTextCompositeCommand{\=}{PD1}{\ }{\textasciimacron}
15512 \DeclareTextCompositeCommand{\b}{PD1}{\ }{\textmacronbelow}
15513 \DeclareTextCompositeCommand{\d}{PD1}{\ }{\textdotbelow}
15514 \DeclareTextCommand{\k}{PD1}[1]{\TextSymbolUnavailable{\k{#1}}#1}
15515 \DeclareTextCommand{\t}{PD1}[1]{\TextSymbolUnavailable{\t{#1}}#1}
15516 \DeclareTextCommand{\newtie}{PD1}[1]{%
15517 \TextSymbolUnavailable{\newtie{#1}}#1%
15518 }

Special white space escape characters not for use in bookmarks but for other PDF
strings.
15519 % U+0009 (CHARACTER TABULATION)
15520 \DeclareTextCommand{\textHT}{PD1}{\011}% U+0009
15521 % U+000A (LINE FEED)
```


15522 \DeclareTextCommand{\textLF}{PD1}{\012}% U+000A
15523 % U+000D (CARRIAGE RETURN)
15524 \DeclareTextCommand{\textCR}{PD1}{\015}% U+000D
Accent glyph names
15525 % U+02D8 BREVE; breve
15526 \DeclareTextCommand{\textasciibreve}{PD1}{\030}% U+02D8
15527 % U+02C7 CARON; caron
15528 \DeclareTextCommand{\textasciicaron}{PD1}{\031}% U+02C7
15529 % U+02C6 MODIFIER LETTER CIRCUMFLEX ACCENT; circumflex
15530 \DeclareTextCommand{\textcircumflex}{PD1}{\032}% U+02C6
15531 % U+02D9 DOT ABOVE; dotaccent
15532 \DeclareTextCommand{\textdotaccent}{PD1}{\033}% U+02D9
15533 % U+02DD DOUBLE ACUTE ACCENT; hungarumlaut
15534 \DeclareTextCommand{\texthungarumlaut}{PD1}{\034}% U+02DD
15535 % U+02DB OGONEK; ogonek
15536 \DeclareTextCommand{\textogonek}{PD1}{\035}% U+02DB
15537 % U+02DA RING ABOVE; ring
15538 \DeclareTextCommand{\textring}{PD1}{\036}% U+02DA
15539 % U+02DC SMALL TILDE; ilde, *tilde
15540 \DeclareTextCommand{\texttilde}{PD1}{\037}% U+02DC
\040: U+0020 SPACE; *space, spacehackarabic
\041: U+0021 EXCLAMATION MARK; exclam
15541 % U+0022 QUOTATION MARK; quotedbl
15542 \DeclareTextCommand{\textquotedbl}{PD1}{"}% \042 U+0022
15543 % U+0023 NUMBER SIGN; numbersign
15544 \DeclareTextCommand{\textnumbersign}{PD1}{\043}% U+0023
15545 % U+0024 DOLLAR SIGN; dollar
15546 \DeclareTextCommand{\textdollar}{PD1}{\044}% U+0024
15547 % U+0025 PERCENT SIGN; percent
15548 \DeclareTextCommand{\textpercent}{PD1}{\045}% U+0025
15549 % U+0026 AMPERSAND; ampersand
15550 \DeclareTextCommand{\textampersand}{PD1}{\046}% U+0026
\047: U+0027 APOSTROPHE; quotesingle

15551 % U+0028 LEFT PARENTHESIS; parenleft
15552 \DeclareTextCommand{\textparenleft}{PD1}{\string\{}% \050 U+0028
15553 % U+0029 RIGHT PARENTHESIS; parenright
15554 \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
15555 % U+002E FULL STOP; period
15556 \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
15557 % U+003C LESS-THAN SIGN; less
15558 \DeclareTextCommand{\textless}{PD1}{<}% \074 U+003C
\075: U+003D EQUALS SIGN; equal

15559 % U+003E GREATER-THAN SIGN; greater
15560 \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
15561 % U+005C REVERSE SOLIDUS; backslash
15562 \DeclareTextCommand{\textbackslash}{PD1}{\134}% U+005C
15563 % "U+2216 SET MINUS" simulated by "U+005C REVERSE SOLIDUS"
15564 \DeclareTextCommand{\textsetminus}{PD1}{\textbackslash}
\135: U+005D RIGHT SQUARE BRACKET; bracketright
15565 % U+005E CIRCUMFLEX ACCENT; asciicircum
15566 \DeclareTextCommand{\textasciicircum}{PD1}{\136}% U+005E
15567 % U+005F LOW LINE; underscore
15568 \DeclareTextCommand{\textunderscore}{PD1}{\137}% U+005F
15569 \DeclareTextCommand{\textmacronbelow}{PD1}{\137}% U+005F
15570 % U+0060 GRAVE ACCENT; grave
15571 \DeclareTextCommand{\textasciigrave}{PD1}{\140}% U+0060
\141: U+0061 LATIN SMALL LETTER A; a
...
\150: U+0068 LATIN SMALL LETTER H; h
15572 % U+0069 LATIN SMALL LETTER I; i
15573 \DeclareTextCompositeCommand{\.}{PD1}{i}{i}% \151 U+0069
\152: U+006A LATIN SMALL LETTER J; j
...
\172: U+007A LATIN SMALL LETTER Z; z
15574 % U+007B LEFT CURLY BRACKET; braceleft
15575 \DeclareTextCommand{\textbraceleft}{PD1}{\173}% U+007B
15576 % U+007C VERTICAL LINE; *bar, verticalbar
15577 \DeclareTextCommand{\textbar}{PD1}{|}% U+007C
15578 % U+007D RIGHT CURLY BRACKET; braceright
15579 \DeclareTextCommand{\textbraceright}{PD1}{\175}% U+007D
15580 % U+007E TILDE; asciitilde
15581 \DeclareTextCommand{\textasciitilde}{PD1}{\176}% U+007E
Slot \177 (0x7F) is undefined in PDFDocEncoding.
15582 % U+2022 BULLET; bullet
15583 \DeclareTextCommand{\textbullet}{PD1}{\200}% U+2022
15584 % U+2020 DAGGER; dagger
15585 \DeclareTextCommand{\textdagger}{PD1}{\201}% U+2020
15586 % U+2021 DOUBLE DAGGER; daggerdbl; \ddagger (LaTeX)
15587 \DeclareTextCommand{\textdaggerdbl}{PD1}{\202}% U+2021
15588 \DeclareTextCommand{\textddagger}{PD1}{\textddagger}
15589 % U+2026 HORIZONTAL ELLIPSIS; ellipsis
15590 \DeclareTextCommand{\textellipsis}{PD1}{\203}% U+2026
15591 % U+2014 EM DASH; emdash
15592 \DeclareTextCommand{\textemdash}{PD1}{\204}% U+2014
15593 % U+2013 EN DASH; endash
15594 \DeclareTextCommand{\textendash}{PD1}{\205}% U+2013
15595 % U+0192 LATIN SMALL LETTER F WITH HOOK; florin
15596 \DeclareTextCommand{\textflorin}{PD1}{\206}% U+0192
15597 % U+2044 FRACTION SLASH; fraction
15598 \DeclareTextCommand{\textfractionsolidus}{PD1}{\207}% U+2044

15599 % U+2039 SINGLE LEFT-POINTING ANGLE QUOTATION MARK; guil-
ingleft
15600 \DeclareTextCommand{\guilingleft}{PD1}{\210}% U+2039
15601 % U+203A SINGLE RIGHT-POINTING ANGLE QUOTATION MARK; guil-
ingright
15602 \DeclareTextCommand{\guilsingright}{PD1}{\211}% U+203A
15603 % U+2212 MINUS SIGN; minus
15604 \DeclareTextCommand{\textminus}{PD1}{\212}% U+2212
15605 % U+2030 PER MILLE SIGN; perthousand
15606 \DeclareTextCommand{\textperthousand}{PD1}{\213}% U+2030
15607 % U+201E DOUBLE LOW-9 QUOTATION MARK; quotedblbase
15608 \DeclareTextCommand{\quotedblbase}{PD1}{\214}% U+201E
15609 % U+201C LEFT DOUBLE QUOTATION MARK; quotedblleft
15610 \DeclareTextCommand{\textquotedblleft}{PD1}{\215}% U+201C
15611 % U+201D RIGHT DOUBLE QUOTATION MARK; quotedblright
15612 \DeclareTextCommand{\textquotedblright}{PD1}{\216}% U+201D
15613 % U+2018 LEFT SINGLE QUOTATION MARK; quoteleft
15614 \DeclareTextCommand{\textquoteleft}{PD1}{\217}% U+2018
15615 % U+2019 RIGHT SINGLE QUOTATION MARK; quoteright
15616 \DeclareTextCommand{\textquoteright}{PD1}{\220}% U+2019
15617 % U+201A SINGLE LOW-9 QUOTATION MARK; quotesinglbase
15618 \DeclareTextCommand{\quotesinglbase}{PD1}{\221}% U+201A
15619 % U+2122 TRADE MARK SIGN; trademark
15620 \DeclareTextCommand{\texttrademark}{PD1}{\222}% U+2122
15621 % U+FB01 LATIN SMALL LIGATURE FI; fi
15622 \DeclareTextCommand{\textfi}{PD1}{\223}% U+FB01
15623 % U+FB02 LATIN SMALL LIGATURE FL; fl
15624 \DeclareTextCommand{\textfl}{PD1}{\224}% U+FB02
15625 % U+0141 LATIN CAPITAL LETTER L WITH STROKE; Lslash
15626 \DeclareTextCommand{\L}{PD1}{\225}% U+0141
15627 % U+0152 LATIN CAPITAL LIGATURE OE; OE
15628 \DeclareTextCommand{\OE}{PD1}{\226}% U+0152
15629 % U+0160 LATIN CAPITAL LETTER S WITH CARON; Scaron
15630 \DeclareTextCompositeCommand{\v}{PD1}{S}{\227}% U+0160
15631 % U+0178 LATIN CAPITAL LETTER Y WITH DIAERESIS; Ydieresis
15632 \DeclareTextCompositeCommand{\"}{PD1}{Y}{\230}% U+0178
15633 \DeclareTextCommand{\IJ}{PD1}{IJ}% ligature U+0049 U+004A
15634 % U+017D LATIN CAPITAL LETTER Z WITH CARON; Zcaron
15635 \DeclareTextCompositeCommand{\v}{PD1}{Z}{\231}% U+017D
15636 % U+0131 LATIN SMALL LETTER DOTLESS I; dotlessi
15637 \DeclareTextCommand{\i}{PD1}{\232}% U+0131
15638 % U+0142 LATIN SMALL LETTER L WITH STROKE; lslash
15639 \DeclareTextCommand{\l}{PD1}{\233}% U+0142
15640 % U+0153 LATIN SMALL LIGATURE OE; oe
15641 \DeclareTextCommand{\oe}{PD1}{\234}% U+0153
15642 % U+0161 LATIN SMALL LETTER S WITH CARON; scaron
15643 \DeclareTextCompositeCommand{\v}{PD1}{s}{\235}% U+0161
15644 % U+017E LATIN SMALL LETTER Z WITH CARON; zcaron
15645 \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.

15646 % U+20AC EURO SIGN; *Euro, euro
15647 \DeclareTextCommand{\texteuro}{PD1}{\240}% U+20AC
15648 % U+00A1 INVERTED EXCLAMATION MARK; exclamdown
15649 \DeclareTextCommand{\textexclamdown}{PD1}{\241}% U+00A1
15650 % U+00A2 CENT SIGN; cent
15651 \DeclareTextCommand{\textcent}{PD1}{\242}% U+00A2

15652 % U+00A3 POUND SIGN; sterling
15653 \DeclareTextCommand{\textsterling}{PD1}{\243}% U+00A3
15654 % U+00A4 CURRENCY SIGN; currency
15655 \DeclareTextCommand{\textcurrency}{PD1}{\244}% U+00A4
15656 % U+00A5 YEN SIGN; yen
15657 \DeclareTextCommand{\textyen}{PD1}{\245}% U+00A5
15658 % U+00A6 BROKEN BAR; brokenbar
15659 \DeclareTextCommand{\textbrokenbar}{PD1}{\246}% U+00A6
15660 % U+00A7 SECTION SIGN; section
15661 \DeclareTextCommand{\textsection}{PD1}{\247}% U+00A7
15662 % U+00A8 DIAERESIS; dieresis
15663 \DeclareTextCommand{\textasciidieresis}{PD1}{\250}% U+00A8
15664 % U+00A9 COPYRIGHT SIGN; copyright
15665 \DeclareTextCommand{\textcopyright}{PD1}{\251}% U+00A9
15666 % U+00AA FEMININE ORDINAL INDICATOR; ordfeminine
15667 \DeclareTextCommand{\textordfeminine}{PD1}{\252}% U+00AA
15668 % U+00AB LEFT-POINTING DOUBLE ANGLE QUOTATION MARK; guillemotleft
15669 \DeclareTextCommand{\guillemotleft}{PD1}{\253}% U+00AB
15670 % U+00AC NOT SIGN; logicalnot
15671 \DeclareTextCommand{\textlogicalnot}{PD1}{\254}% U+00AC
15672 \DeclareTextCommand{\textlnot}{PD1}{\254}% logical not
No glyph \255 in PDFDocEncoding.
15673 % U+00AE REGISTERED SIGN; registered
15674 \DeclareTextCommand{\textregistered}{PD1}{\256}% U+00AE
15675 % U+00AF MACRON; *macron, overscore
15676 \DeclareTextCommand{\textasciimacron}{PD1}{\257}% U+00AF
15677 % U+00B0 DEGREE SIGN; degree
15678 \DeclareTextCommand{\textdegree}{PD1}{\260}% U+00B0
15679 % U+00B1 PLUS-MINUS SIGN; plusminus
15680 \DeclareTextCommand{\textplusminus}{PD1}{\261}% U+00B1
15681 % U+00B2 SUPERSCRIPT TWO; twosuperior
15682 \DeclareTextCommand{\texttwosuperior}{PD1}{\262}%* U+00B2
15683 % U+00B3 SUPERSCRIPT THREE; threesuperior
15684 \DeclareTextCommand{\textthreesuperior}{PD1}{\263}%* U+00B3
15685 % U+00B4 ACUTE ACCENT; acute
15686 \DeclareTextCommand{\textacute}{PD1}{\264}% U+00B4
15687 % U+00B5 MICRO SIGN; mu, mul
15688 \DeclareTextCommand{\textmu}{PD1}{\265}% U+00B5
15689 % U+00B6 PILCROW SIGN; paragraph
15690 \DeclareTextCommand{\textparagraph}{PD1}{\266}% U+00B6
15691 % U+00B7 MIDDLE DOT; middot, *periodcentered
15692 \DeclareTextCommand{\textperiodcentered}{PD1}{\267}% U+00B7
15693 % U+00B8 CEDILLA; cedilla
15694 \DeclareTextCommand{\textcedilla}{PD1}{\270}% U+00B8
15695 % U+00B9 SUPERSCRIPT ONE; onesuperior
15696 \DeclareTextCommand{\textonesuperior}{PD1}{\271}%* U+00B9
15697 % U+00BA MASCULINE ORDINAL INDICATOR; ordmasculine
15698 \DeclareTextCommand{\textordmasculine}{PD1}{\272}% U+00BA
15699 % U+00BB RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK; guillemotright
15700 \DeclareTextCommand{\guillemotright}{PD1}{\273}% U+00BB
15701 % U+00BC VULGAR FRACTION ONE QUARTER; onequarter
15702 \DeclareTextCommand{\textonequarter}{PD1}{\274}% U+00BC
15703 % U+00BD VULGAR FRACTION ONE HALF; onehalf
15704 \DeclareTextCommand{\textonehalf}{PD1}{\275}% U+00BD
15705 % U+00BE VULGAR FRACTION THREE QUARTERS; threequarters

15706 \DeclareTextCommand{\textthreequarters}{PD1}{\276}% U+00BE
15707 % U+00BF INVERTED QUESTION MARK; questiondown
15708 \DeclareTextCommand{\textquestiondown}{PD1}{\277}% U+00BF
15709 % U+00C0 LATIN CAPITAL LETTER A WITH GRAVE; Agrave
15710 \DeclareTextCompositeCommand{\`}{PD1}{A}{\300}% U+00C0
15711 % U+00C1 LATIN CAPITAL LETTER A WITH ACUTE; Aacute
15712 \DeclareTextCompositeCommand{\'}{PD1}{A}{\301}% U+00C1
15713 % U+00C2 LATIN CAPITAL LETTER A WITH CIRCUMFLEX; Acircumflex
15714 \DeclareTextCompositeCommand{\^}{PD1}{A}{\302}% U+00C2
15715 % U+00C3 LATIN CAPITAL LETTER A WITH TILDE; Atilde
15716 \DeclareTextCompositeCommand{\~}{PD1}{A}{\303}% U+00C3
15717 % U+00C4 LATIN CAPITAL LETTER A WITH DIAERESIS; Adieresis
15718 \DeclareTextCompositeCommand{\\"}{PD1}{A}{\304}% U+00C4
15719 % U+00C5 LATIN CAPITAL LETTER A WITH RING ABOVE; Aring
15720 \DeclareTextCompositeCommand{\r}{PD1}{A}{\305}% U+00C5
15721 % U+00C6 LATIN CAPITAL LETTER AE; AE
15722 \DeclareTextCommand{\AE}{PD1}{\306}% U+00C6
15723 % U+00C7 LATIN CAPITAL LETTER C WITH CEDILLA; Ccedilla
15724 \DeclareTextCompositeCommand{\c}{PD1}{C}{\307}% U+00C7
15725 % U+00C8 LATIN CAPITAL LETTER E WITH GRAVE; Egrave
15726 \DeclareTextCompositeCommand{\`}{PD1}{E}{\310}% U+00C8
15727 % U+00C9 LATIN CAPITAL LETTER E WITH ACUTE; Eacute
15728 \DeclareTextCompositeCommand{\'}{PD1}{E}{\311}% U+00C9
15729 % U+00CA LATIN CAPITAL LETTER E WITH CIRCUMFLEX; Ecircumflex
15730 \DeclareTextCompositeCommand{\^}{PD1}{E}{\312}% U+00CA
15731 % U+00CB LATIN CAPITAL LETTER E WITH DIAERESIS; Edieresis
15732 \DeclareTextCompositeCommand{\\"}{PD1}{E}{\313}% U+00CB
15733 % U+00CC LATIN CAPITAL LETTER I WITH GRAVE; Igrave
15734 \DeclareTextCompositeCommand{\`}{PD1}{I}{\314}% U+00CC
15735 % U+00CD LATIN CAPITAL LETTER I WITH ACUTE; Iacute
15736 \DeclareTextCompositeCommand{\'}{PD1}{I}{\315}% U+00CD
15737 % U+00CE LATIN CAPITAL LETTER I WITH CIRCUMFLEX; Icircumflex
15738 \DeclareTextCompositeCommand{\^}{PD1}{I}{\316}% U+00CE
15739 % U+00CF LATIN CAPITAL LETTER I WITH DIAERESIS; Idieresis
15740 \DeclareTextCompositeCommand{\\"}{PD1}{I}{\317}% U+00CF
15741 % U+00D0 LATIN CAPITAL LETTER ETH; Eth
15742 \DeclareTextCommand{\DH}{PD1}{\320}% U+00D0
15743 \DeclareTextCommand{\DJ}{PD1}{\320}% U+00D0
15744 % U+00D1 LATIN CAPITAL LETTER N WITH TILDE; Ntilde
15745 \DeclareTextCompositeCommand{\~}{PD1}{N}{\321}% U+00D1
15746 % U+00D2 LATIN CAPITAL LETTER O WITH GRAVE; Ograve
15747 \DeclareTextCompositeCommand{\`}{PD1}{O}{\322}% U+00D2
15748 % U+00D3 LATIN CAPITAL LETTER O WITH ACUTE; Oacute
15749 \DeclareTextCompositeCommand{\'}{PD1}{O}{\323}% U+00D3
15750 % U+00D4 LATIN CAPITAL LETTER O WITH CIRCUMFLEX; Ocircumflex
15751 \DeclareTextCompositeCommand{\^}{PD1}{O}{\324}% U+00D4
15752 % U+00D5 LATIN CAPITAL LETTER O WITH TILDE; Otilde
15753 \DeclareTextCompositeCommand{\~}{PD1}{O}{\325}% U+00D5
15754 % U+00D6 LATIN CAPITAL LETTER O WITH DIAERESIS; Odieresis
15755 \DeclareTextCompositeCommand{\\"}{PD1}{O}{\326}% U+00D6
15756 % U+00D7 MULTIPLICATION SIGN; multiply
15757 \DeclareTextCommand{\textmultiply}{PD1}{\327}% U+00D7
15758 % U+00D8 LATIN CAPITAL LETTER O WITH STROKE; Oslash
15759 \DeclareTextCommand{\O}{PD1}{\330}% U+00D8
15760 % U+00D9 LATIN CAPITAL LETTER U WITH GRAVE; Ugrave
15761 \DeclareTextCompositeCommand{\`}{PD1}{U}{\331}% U+00D9
15762 % U+00DA LATIN CAPITAL LETTER U WITH ACUTE; Uacute

15763 \DeclareTextCompositeCommand{\'}{PD1}{U}{\332}% U+00DA
15764 % U+00DB LATIN CAPITAL LETTER U WITH CIRCUMFLEX; Ucircumflex
15765 \DeclareTextCompositeCommand{\^}{PD1}{U}{\333}% U+00DB
15766 % U+00DC LATIN CAPITAL LETTER U WITH DIAERESIS; Udieresis
15767 \DeclareTextCompositeCommand{\"}{PD1}{U}{\334}% U+00DC
15768 % U+00DD LATIN CAPITAL LETTER Y WITH ACUTE; Yacute
15769 \DeclareTextCompositeCommand{\'}{PD1}{Y}{\335}% U+00DD
15770 % U+00DE LATIN CAPITAL LETTER THORN; Thorn; \TH, \Thorn (wasysym)
15771 \DeclareTextCommand{\TH}{PD1}{\336}% U+00DE
15772 \DeclareTextCommand{\textThorn}{PD1}{\336}%* U+00DE
15773 % U+00DF LATIN SMALL LETTER SHARP S; germandbls
15774 \DeclareTextCommand{\ss}{PD1}{\337}% U+00DF
15775 % U+00E0 LATIN SMALL LETTER A WITH GRAVE; agrave
15776 \DeclareTextCompositeCommand{\'}{PD1}{a}{\340}% U+00E0
15777 % U+00E1 LATIN SMALL LETTER A WITH ACUTE; aacute
15778 \DeclareTextCompositeCommand{\'}{PD1}{a}{\341}% U+00E1
15779 % U+00E2 LATIN SMALL LETTER A WITH CIRCUMFLEX; acircumflex
15780 \DeclareTextCompositeCommand{\^}{PD1}{a}{\342}% U+00E2
15781 % U+00E3 LATIN SMALL LETTER A WITH TILDE; atilde
15782 \DeclareTextCompositeCommand{\~}{PD1}{a}{\343}% U+00E3
15783 % U+00E4 LATIN SMALL LETTER A WITH DIAERESIS; adieresis
15784 \DeclareTextCompositeCommand{\"}{PD1}{a}{\344}% U+00E4
15785 % U+00E5 LATIN SMALL LETTER A WITH RING ABOVE; aring
15786 \DeclareTextCompositeCommand{\r}{PD1}{a}{\345}% U+00E5
15787 % U+00E6 LATIN SMALL LETTER AE; ae
15788 \DeclareTextCommand{\ae}{PD1}{\346}% U+00E6
15789 % U+00E7 LATIN SMALL LETTER C WITH CEDILLA; ccedilla
15790 \DeclareTextCompositeCommand{\c}{PD1}{c}{\347}% U+00E7
15791 % U+00E8 LATIN SMALL LETTER E WITH GRAVE; egrave
15792 \DeclareTextCompositeCommand{\'}{PD1}{e}{\350}% U+00E8
15793 % U+00E9 LATIN SMALL LETTER E WITH ACUTE; eacute
15794 \DeclareTextCompositeCommand{\'}{PD1}{e}{\351}% U+00E9
15795 % U+00EA LATIN SMALL LETTER E WITH CIRCUMFLEX; ecircumflex
15796 \DeclareTextCompositeCommand{\^}{PD1}{e}{\352}% U+00EA
15797 % U+00EB LATIN SMALL LETTER E WITH DIAERESIS; edieresis
15798 \DeclareTextCompositeCommand{\"}{PD1}{e}{\353}% U+00EB
15799 % U+00EC LATIN SMALL LETTER I WITH GRAVE; igrave
15800 \DeclareTextCompositeCommand{\'}{PD1}{i}{\354}% U+00EC
15801 \DeclareTextCompositeCommand{\'}{PD1}{i}{\354}% U+00EC
15802 % U+00ED LATIN SMALL LETTER I WITH ACUTE; iacute
15803 \DeclareTextCompositeCommand{\'}{PD1}{i}{\355}% U+00ED
15804 \DeclareTextCompositeCommand{\'}{PD1}{i}{\355}% U+00ED
15805 % U+00EE LATIN SMALL LETTER I WITH CIRCUMFLEX; icircumflex
15806 \DeclareTextCompositeCommand{\^}{PD1}{i}{\356}% U+00EE
15807 \DeclareTextCompositeCommand{\^}{PD1}{i}{\356}% U+00EE
15808 % U+00EF LATIN SMALL LETTER I WITH DIAERESIS; idieresis
15809 \DeclareTextCompositeCommand{\"}{PD1}{i}{\357}% U+00EF
15810 \DeclareTextCompositeCommand{\"}{PD1}{i}{\357}% U+00EF
15811 % U+00F0 LATIN SMALL LETTER ETH; eth
15812 \DeclareTextCommand{\dh}{PD1}{\360}% U+00F0
15813 % U+00F1 LATIN SMALL LETTER N WITH TILDE; ntilde
15814 \DeclareTextCompositeCommand{\~}{PD1}{n}{\361}% U+00F1
15815 % U+00F2 LATIN SMALL LETTER O WITH GRAVE; ograve
15816 \DeclareTextCompositeCommand{\'}{PD1}{o}{\362}% U+00F2
15817 % U+00F3 LATIN SMALL LETTER O WITH ACUTE; oacute
15818 \DeclareTextCompositeCommand{\'}{PD1}{o}{\363}% U+00F3
15819 % U+00F4 LATIN SMALL LETTER O WITH CIRCUMFLEX; ocircumflex

15820 `\DeclareTextCompositeCommand{\~}{PD1}{o}{\364}% U+00F4`
15821 `% U+00F5 LATIN SMALL LETTER O WITH TILDE; otilde`
15822 `\DeclareTextCompositeCommand{\~}{PD1}{o}{\365}% U+00F5`
15823 `% U+00F6 LATIN SMALL LETTER O WITH DIAERESIS; odieresis`
15824 `\DeclareTextCompositeCommand{\"}{PD1}{o}{\366}% U+00F6`
15825 `% U+00F7 DIVISION SIGN; divide`
15826 `\DeclareTextCommand{\textdivide}{PD1}{\367}% U+00F7`
15827 `% U+00F8 LATIN SMALL LETTER O WITH STROKE; oslash`
15828 `\DeclareTextCommand{\o}{PD1}{\370}% U+00F8`
15829 `% U+00F9 LATIN SMALL LETTER U WITH GRAVE; ugrave`
15830 `\DeclareTextCompositeCommand{\'}{PD1}{u}{\371}% U+00F9`
15831 `% U+00FA LATIN SMALL LETTER U WITH ACUTE; uacute`
15832 `\DeclareTextCompositeCommand{\'}{PD1}{u}{\372}% U+00FA`
15833 `% U+00FB LATIN SMALL LETTER U WITH CIRCUMFLEX; ucircumflex`
15834 `\DeclareTextCompositeCommand{\^}{PD1}{u}{\373}% U+00FB`
15835 `% U+00FC LATIN SMALL LETTER U WITH DIAERESIS; udieresis`
15836 `\DeclareTextCompositeCommand{\"}{PD1}{u}{\374}% U+00FC`
15837 `% U+00FD LATIN SMALL LETTER Y WITH ACUTE; yacute`
15838 `\DeclareTextCompositeCommand{\'}{PD1}{y}{\375}% U+00FD`
15839 `% U+00FE LATIN SMALL LETTER THORN; thorn; \th, \thorn (wasysym)`
15840 `\DeclareTextCommand{\th}{PD1}{\376}% U+00FE`
15841 `\DeclareTextCommand{\textthorn}{PD1}{\376}%* U+00FE`
15842 `% U+00FF LATIN SMALL LETTER Y WITH DIAERESIS; ydieresis`
15843 `\DeclareTextCompositeCommand{\"}{PD1}{y}{\377}% U+00FF`
15844 `\DeclareTextCommand{\ij}{PD1}{ij}% ligature U+0069 U+006A`

Glyphs that consist of several characters.

15845 `\DeclareTextCommand{\SS}{PD1}{SS}%`
15846 `\DeclareTextCommand{\textcelsius}{PD1}{\textdegree C}%`

Aliases (german.sty)

15847 `\DeclareTextCommand{\textglqq}{PD1}{\quotedblbase}%`
15848 `\DeclareTextCommand{\textgrqq}{PD1}{\textquotedblleft}%`
15849 `\DeclareTextCommand{\textglq}{PD1}{\quotesinglbase}%`
15850 `\DeclareTextCommand{\textgrq}{PD1}{\textquoteleft}%`
15851 `\DeclareTextCommand{\textflqq}{PD1}{\guillemotleft}%`
15852 `\DeclareTextCommand{\textfrqq}{PD1}{\guillemotright}%`
15853 `\DeclareTextCommand{\textflq}{PD1}{\guilsinglleft}%`
15854 `\DeclareTextCommand{\textfrq}{PD1}{\guilsinglright}%`

Aliases (math names)

15855 `\DeclareTextCommand{\textneg}{PD1}{\textlogicalnot}%`
15856 `\DeclareTextCommand{\texttimes}{PD1}{\textmultiply}%`
15857 `\DeclareTextCommand{\textdiv}{PD1}{\textdivide}%`
15858 `\DeclareTextCommand{\textpm}{PD1}{\textplusminus}%`
15859 `\DeclareTextCommand{\textcdot}{PD1}{\textperiodcentered}%`
15860 `\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).

15861 `\DeclareTextCompositeCommand{\k}{PD1}{a}{a}% aogonek`
15862 `\DeclareTextCompositeCommand{\'}{PD1}{c}{c}% cacute`
15863 `\DeclareTextCompositeCommand{\k}{PD1}{e}{e}% eogonek`
15864 `\DeclareTextCompositeCommand{\'}{PD1}{n}{n}% nacute`
15865 `\DeclareTextCompositeCommand{\'}{PD1}{s}{s}% sacute`
15866 `\DeclareTextCompositeCommand{\'}{PD1}{z}{z}% zacute`
15867 `\DeclareTextCompositeCommand{\.}{PD1}{z}{z}% zdot`
15868 `\DeclareTextCompositeCommand{\k}{PD1}{A}{A}% Aogonek`
15869 `\DeclareTextCompositeCommand{\'}{PD1}{C}{C}% Cacute`

15870 \DeclareTextCompositeCommand{\k}{PD1}{E}{E}% Eogonek
 15871 \DeclareTextCompositeCommand{\'}{PD1}{N}{N}% Nacute
 15872 \DeclareTextCompositeCommand{\'}{PD1}{S}{S}% Sacute
 15873 \DeclareTextCompositeCommand{\'}{PD1}{Z}{Z}% Zacute
 15874 \DeclareTextCompositeCommand{\.}{PD1}{Z}{Z}% Zdot
 15875 (/pd1enc)

51.2 PU encoding

15876 (*puenc)
 15877 \DeclareFontEncoding{PU}{-}{-}

51.2.1 NFSS2 accents

15878 % U+0300 COMBINING GRAVE ACCENT; gravecmb, *gravecomb
 15879 \DeclareTextCommand{\'}{PU}[1]{#1\83\000}% U+0300
 15880 % U+0301 COMBINING ACUTE ACCENT; acutecmb, *acutecomb
 15881 \DeclareTextCommand{\'}{PU}[1]{#1\83\001}% U+0301
 15882 % U+0302 COMBINING CIRCUMFLEX ACCENT; circumflexcmb
 15883 \DeclareTextCommand{\^}{PU}[1]{#1\83\002}% U+0302
 15884 % U+0303 COMBINING TILDE; tildecmb, *tildecmb
 15885 \DeclareTextCommand{\~}{PU}[1]{#1\83\003}% U+0303
 15886 % U+0304 COMBINING MACRON; macroncmb
 15887 \DeclareTextCommand{\=}{PU}[1]{#1\83\004}% U+0304
 15888 % U+0306 COMBINING BREVE; brevecmb
 15889 \DeclareTextCommand{\u}{PU}[1]{#1\83\006}% U+0306
 15890 \DeclareTextCommand{\U}{PU}[1]{#1\83\006}% U+0306
 15891 % U+0307 COMBINING DOT ABOVE; dotaccentcmb
 15892 \DeclareTextCommand{\.}{PU}[1]{#1\83\007}% U+0307
 15893 % U+0308 COMBINING DIAERESIS; dieresiscmb
 15894 \DeclareTextCommand{\"}{PU}[1]{#1\83\010}% U+0308
 15895 % U+030A COMBINING RING ABOVE; ringcmb
 15896 \DeclareTextCommand{\r}{PU}[1]{#1\83\012}% U+030A
 15897 % U+030B COMBINING DOUBLE ACUTE ACCENT; hungarumlautcmb
 15898 \DeclareTextCommand{\H}{PU}[1]{#1\83\013}% U+030B
 15899 % U+030C COMBINING CARON; caroncmb
 15900 \DeclareTextCommand{\v}{PU}[1]{#1\83\014}% U+030C
 15901 % U+030F COMBINING DOUBLE GRAVE ACCENT; dblgravecmb
 15902 \DeclareTextCommand{\G}{PU}[1]{#1\83\017}% U+030F
 15903 \DeclareTextCommand{\C}{PU}[1]{#1\83\017}% U+030F
 15904 % U+0311 COMBINING INVERTED BREVE; breveinvertedcmb
 15905 \DeclareTextCommand{\textinvbreve}{PU}[1]{#1\83\021}% U+0311
 15906 % U+0323 COMBINING DOT BELOW; dotbelowcmb, *dotbelowcmb
 15907 \DeclareTextCommand{\d}{PU}[1]{#1\83\043}% U+0323
 15908 % U+0324 COMBINING DIAERESIS BELOW; dieresisbelowcmb; \textsubum-
 laut (tipa)
 15909 \DeclareTextCommand{\textsubumlaut}{PU}[1]{#1\83\044}% U+0324
 15910 % U+0325 COMBINING RING BELOW; ringbelowcmb; \textsubring (tipa)
 15911 \DeclareTextCommand{\textsubring}{PU}[1]{#1\83\045}% U+0325
 15912 % U+0327 COMBINING CEDILLA; cedillacmb
 15913 \DeclareTextCommand{\c}{PU}[1]{#1\83\047}% U+0327
 15914 % U+0328 COMBINING OGONEK; ogonekcmb
 15915 \DeclareTextCommand{\k}{PU}[1]{#1\83\050}% U+0328
 15916 % U+032D COMBINING CIRCUMFLEX ACCENT BELOW;
 15917 % \textsubcircum (tipa)
 15918 \DeclareTextCommand{\textsubcircum}{PU}[1]{#1\83\055}% U+032D
 15919 % U+032E COMBINING BREVE BELOW; brevebelowcmb
 15920 \DeclareTextCommand{\textsubbreve}{PU}[1]{#1\83\056}% U+032E
 15921 % U+0330 COMBINING TILDE BELOW; tildebelowcmb; \textsubtilde (tipa)

15922 \DeclareTextCommand{\textsubtilde}{PU}[1]{#1\83\060}% U+0330
15923 % U+0331 COMBINING MACRON BELOW; macronbelowcmb
15924 \DeclareTextCommand{\b}{PU}[1]{#1\83\061}% U+0331
15925 % U+0361 COMBINING DOUBLE INVERTED BREVE; breveinverteddoublecmb
15926 \DeclareTextCommand{\t}{PU}[1]{#1\83\141}% U+0361
15927 % U+20DD COMBINING ENCLOSING CIRCLE
15928 \DeclareTextCommand{\textcircled}{PU}[1]{#1\9040\335}% U+20DD

Double accents.

15929 \DeclareTextCommand{\textacutemacron}{PU}[1]{#1\83\001\83\004}% U+0301 U+0304
15930 \DeclareTextCommand{\textgravemacron}{PU}[1]{#1\83\000\83\004}% U+0300 U+0304

\@empty is an artefact of the NFSS2 machinery, it gets inserted for empty arguments and spaces.

15931 \DeclareTextCompositeCommand{\'}{PU}{\@empty}{\textasciigrave}%
15932 \DeclareTextCompositeCommand{\`}{PU}{\@empty}{\textacute}%
15933 \DeclareTextCompositeCommand{\^}{PU}{\@empty}{\textasciicircum}%
15934 \DeclareTextCompositeCommand{\~}{PU}{\@empty}{\texttilde}%
15935 \DeclareTextCompositeCommand{\"}{PU}{\@empty}{\textasciidieresis}%
15936 \DeclareTextCompositeCommand{\r}{PU}{\@empty}{\textring}%
15937 \DeclareTextCompositeCommand{\v}{PU}{\@empty}{\textasciicaron}%
15938 \DeclareTextCompositeCommand{\.}{PU}{\@empty}{\textdotaccent}%
15939 \DeclareTextCompositeCommand{\c}{PU}{\@empty}{\textcedilla}%
15940 \DeclareTextCompositeCommand{\u}{PU}{\@empty}{\textasciibreve}%
15941 \DeclareTextCompositeCommand{\G}{PU}{\@empty}{\textdoublegrave}%
15942 \DeclareTextCompositeCommand{\=}{PU}{\@empty}{\textasciimacron}%
15943 \DeclareTextCompositeCommand{\H}{PU}{\@empty}{\texthungarumlaut}%
15944 \DeclareTextCompositeCommand{\k}{PU}{\@empty}{\textogonek}%
15945 \DeclareTextCompositeCommand{\textinvbreve}{PU}{\@empty}{\83\021}}% U+0311
15946 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{\@empty}{\83\044}}% U+0324
15947 \DeclareTextCompositeCommand{\textsubring}{PU}{\@empty}{\textringlow}%
15948 \DeclareTextCompositeCommand{\textsubcircum}{PU}{\@empty}{\textcircumlow}}%
15949 \DeclareTextCompositeCommand{\textsubbreve}{PU}{\@empty}{\83\056}}% U+032E
15950 \DeclareTextCompositeCommand{\textsubtilde}{PU}{\@empty}{\texttildelow}}%
15951 \DeclareTextCompositeCommand{\b}{PU}{\@empty}{\textmacronbelow}}%
15952 \DeclareTextCompositeCommand{\d}{PU}{\@empty}{\textdotbelow}}%
15953 \DeclareTextCompositeCommand{\t}{PU}{\@empty}{\texttie}}%
15954 \DeclareTextCompositeCommand{\newtie}{PU}{\@empty}{\textnewtie}}%
15955 \DeclareTextCompositeCommand{\textcircled}{PU}{\@empty}{\textbigcircle}}%
15956 \DeclareTextCompositeCommand{\textacutemacron}{PU}{\@empty}{\83\001\83\004}}% U+0301 U+0304
15957 \DeclareTextCompositeCommand{\textgravemacron}{PU}{\@empty}{\83\000\83\004}}% U+0300 U+0304
15958 \DeclareTextCompositeCommand{\'}{PU}{\ }{\textasciigrave}}%
15959 \DeclareTextCompositeCommand{\`}{PU}{\ }{\textacute}}%
15960 \DeclareTextCompositeCommand{\^}{PU}{\ }{\textasciicircum}}%
15961 \DeclareTextCompositeCommand{\~}{PU}{\ }{\texttilde}}%
15962 \DeclareTextCompositeCommand{\"}{PU}{\ }{\textasciidieresis}}%
15963 \DeclareTextCompositeCommand{\r}{PU}{\ }{\textring}}%
15964 \DeclareTextCompositeCommand{\v}{PU}{\ }{\textasciicaron}}%
15965 \DeclareTextCompositeCommand{\.}{PU}{\ }{\textdotaccent}}%
15966 \DeclareTextCompositeCommand{\c}{PU}{\ }{\textcedilla}}%
15967 \DeclareTextCompositeCommand{\u}{PU}{\ }{\textasciibreve}}%
15968 \DeclareTextCompositeCommand{\G}{PU}{\ }{\textdoublegrave}}%
15969 \DeclareTextCompositeCommand{\=}{PU}{\ }{\textasciimacron}}%
15970 \DeclareTextCompositeCommand{\H}{PU}{\ }{\texthungarumlaut}}%
15971 \DeclareTextCompositeCommand{\k}{PU}{\ }{\textogonek}}%
15972 \DeclareTextCompositeCommand{\textinvbreve}{PU}{\ }{\83\021}}% U+0311

15973 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{\ }{\ \83\044}}% U+0324
15974 \DeclareTextCompositeCommand{\textsubring}{PU}{\ }{\textcirc{low}}%
15975 \DeclareTextCompositeCommand{\textsubcircum}{PU}{\ }{\textcirc{low}}%
15976 \DeclareTextCompositeCommand{\textsubbreve}{PU}{\ }{\ \83\056}}% U+032E
15977 \DeclareTextCompositeCommand{\textsubtilde}{PU}{\ }{\texttilde{low}}%
15978 \DeclareTextCompositeCommand{\b}{PU}{\ }{\textmacron{below}}%
15979 \DeclareTextCompositeCommand{\d}{PU}{\ }{\textdot{below}}%
15980 \DeclareTextCompositeCommand{\t}{PU}{\ }{\texttie}}%
15981 \DeclareTextCompositeCommand{\newtie}{PU}{\ }{\textnewtie}}%
15982 \DeclareTextCompositeCommand{\textcircled}{PU}{\ }{\textbigcircle}}%
15983 \DeclareTextCompositeCommand{\textacutemacron}{PU}{\ }{\ \83\001\83\004}}% U+0301 U+0304
15984 \DeclareTextCompositeCommand{\textgravemacron}{PU}{\ }{\ \83\000\83\004}}% U+0300 U+0304

Accents for capitals (see encoding TS1)

15985 \DeclareTextCommand{\capitalcedilla}{PU}[1]{\c{#1}}%
15986 \DeclareTextCommand{\capitalogonek}{PU}[1]{\k{#1}}%
15987 \DeclareTextCommand{\capitalgrave}{PU}[1]{\`{#1}}%
15988 \DeclareTextCommand{\capitalacute}{PU}[1]{\^{#1}}%
15989 \DeclareTextCommand{\capitalcircumflex}{PU}[1]{\^~{#1}}%
15990 \DeclareTextCommand{\capitaltilde}{PU}[1]{\~{#1}}%
15991 \DeclareTextCommand{\capitaldieresis}{PU}[1]{\\"{#1}}%
15992 \DeclareTextCommand{\capitalhungarumlaut}{PU}[1]{\H{#1}}%
15993 \DeclareTextCommand{\capitalring}{PU}[1]{\r{#1}}%
15994 \DeclareTextCommand{\capitalcaron}{PU}[1]{\v{#1}}%
15995 \DeclareTextCommand{\capitalbreve}{PU}[1]{\u{#1}}%
15996 \DeclareTextCommand{\capitalmacron}{PU}[1]{\={#1}}%
15997 \DeclareTextCommand{\capitaldotaccent}{PU}[1]{\.{#1}}%
15998 \DeclareTextCommand{\capitaltie}{PU}[1]{\t{#1}}%
15999 \DeclareTextCommand{\capitalnewtie}{PU}[1]{\newtie{#1}}%

51.2.2 Basic Latin: U+0000 to U+007F

Special white space escape characters.

16000 % U+0009 (CHARACTER TABULATION)
16001 \DeclareTextCommand{\textHT}{PU}{\80\011}% U+0009
16002 % U+000A (LINE FEED)
16003 \DeclareTextCommand{\textLF}{PU}{\80\012}% U+000A
16004 % U+000D (CARRIAGE RETURN)
16005 \DeclareTextCommand{\textCR}{PU}{\80\015}% U+000D
\80\040: U+0020 SPACE; space, spacehackarabic
\80\041: U+0021 EXCLAMATION MARK; exclam
16006 % U+0022 QUOTATION MARK; quotedbl
16007 \DeclareTextCommand{\textquotedbl}{PU}{"}% \80\042 U+0022
16008 % U+0023 NUMBER SIGN; numbersign
16009 \DeclareTextCommand{\textnumbersign}{PU}{\80\043}% U+0023
16010 % U+0024 DOLLAR SIGN; dollar
16011 \DeclareTextCommand{\textdollar}{PU}{\80\044}% U+0024
16012 %* \textdollar -> \mathdollar
16013 %* \textdollar -> \EyesDollar (marvosym)
16014 % U+0025 PERCENT SIGN; percent
16015 \DeclareTextCommand{\textpercent}{PU}{\80\045}% U+0025
16016 % U+0026 AMPERSAND; ampersand
16017 \DeclareTextCommand{\textampersand}{PU}{\80\046}% U+0026
16018 %* \textampersand -> \binampersand (stmaryrd)
16019 %* \textampersand -> \with (cmll)
16020 % U+0027 APOSTROPHE; quotesingle
16021 \DeclareTextCommand{\textquotesingle}{PU}{\80\047}% U+0027
16022 % U+0028 LEFT PARENTHESIS; parenleft

16023 \DeclareTextCommand{\textparenleft}{PU}{\80\050}% U+0028
16024 % U+0029 RIGHT PARENTHESIS; parenright
16025 \DeclareTextCommand{\textparenright}{PU}{\80\051}% U+0029
16026 % U+002A ASTERISK; asterisk; (?)
16027 \DeclareTextCommand{\textasteriskcentered}{PU}{\80\052}% U+002A
16028 % U+002B PLUS SIGN; plus; \MVPlus (marvosym)
16029 \DeclareTextCommand{\textMVPlus}{PU}{\80\053}%* U+002B
16030 % U+002C COMMA; comma; \MVComma (marvosym)
16031 \DeclareTextCommand{\textMVComma}{PU}{\80\054}%* U+002C
16032 % U+002D HYPHEN-MINUS; hyphen; \MVMinus (marvosym)
16033 \DeclareTextCommand{\textMVMinus}{PU}{\80\055}%* U+002D
16034 % U+002E FULL STOP; period; \MVPeriod (marvosym)
16035 \DeclareTextCommand{\textMVPeriod}{PU}{\80\056}%* U+002E
16036 % U+002F SOLIDUS; slash; \MVDivision (marvosym)
16037 \DeclareTextCommand{\textMVDivision}{PU}{\80\057}%* U+002F
16038 % U+0030 DIGIT ZERO; zero; \MVZero (marvosym)
16039 \DeclareTextCommand{\textMVZero}{PU}{\80\060}%* U+0030
16040 % U+0031 DIGIT ONE; one; \MVOne (marvosym)
16041 \DeclareTextCommand{\textMVOne}{PU}{\80\061}%* U+0031
16042 % U+0032 DIGIT TWO; two; \MVTwo (marvosym)
16043 \DeclareTextCommand{\textMVTwo}{PU}{\80\062}%* U+0032
16044 % U+0033 DIGIT THREE; three; \MVThree (marvosym)
16045 \DeclareTextCommand{\textMVThree}{PU}{\80\063}%* U+0033
16046 % U+0034 DIGIT FOUR; four; \MVFour (marvosym)
16047 \DeclareTextCommand{\textMVFour}{PU}{\80\064}%* U+0034
16048 % U+0035 DIGIT FIVE; five; \MVFive (marvosym)
16049 \DeclareTextCommand{\textMVFive}{PU}{\80\065}%* U+0035
16050 % U+0036 DIGIT SIX; six; \MVSix (marvosym)
16051 \DeclareTextCommand{\textMVSix}{PU}{\80\066}%* U+0036
16052 % U+0037 DIGIT SEVEN; seven; \MVSeven (marvosym)
16053 \DeclareTextCommand{\textMVSeven}{PU}{\80\067}%* U+0037
16054 % U+0038 DIGIT EIGHT; eight; \MVEight (marvosym)
16055 \DeclareTextCommand{\textMVEight}{PU}{\80\070}%* U+0038
16056 % U+0039 DIGIT NINE; nine; \MVNine (marvosym)
16057 \DeclareTextCommand{\textMVNine}{PU}{\80\071}%* U+0039

\80\072: U+003A COLON; colon
\80\073: U+003B SEMICOLON; semicolon

16058 % U+003C LESS-THAN SIGN; less
16059 \DeclareTextCommand{\textless}{PU}{<}% \80\074 U+003C

\80\075: U+003D EQUALS SIGN; equal

16060 % U+003E GREATER-THAN SIGN; greater
16061 \DeclareTextCommand{\textgreater}{PU}{>}% \80\076 U+003E

\80\077: U+003F QUESTION MARK; question

16062 % U+0040 COMMERCIAL AT; at; \MVAt (marvosym)
16063 \DeclareTextCommand{\textMVAt}{PU}{\80\100}%* U+0040

\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

16064 % U+005C REVERSE SOLIDUS; backslash
16065 \DeclareTextCommand{\textbackslash}{PU}{\80\134}% U+005C

\80\135: U+005D RIGHT SQUARE BRACKET; bracketright

16066 % U+005E CIRCUMFLEX ACCENT; asciicircum
16067 \DeclareTextCommand{\textasciicircum}{PU}{\80\136}% U+005E

16068 % U+005F LOW LINE; underscore
 16069 \DeclareTextCommand{\textunderscore}{PU}{\80\137}% U+005F
 16070 %* \textunderscore -> \mathunderscore (LaTeX)
 16071 % U+0060 GRAVE ACCENT; grave
 16072 \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
 16073 % U+0069 LATIN SMALL LETTER I; i
 16074 \DeclareTextCompositeCommand{\.}{PU}{i}{i}% \80\151 U+0069
 16075 \DeclareTextCompositeCommand{\.}{PU}{i}{i}% \80\151 U+0069
 \80\152: U+006A LATIN SMALL LETTER J; j
 ...
 \80\172: U+007A LATIN SMALL LETTER Z; z
 16076 % U+007B LEFT CURLY BRACKET; braceleft
 16077 \DeclareTextCommand{\textbraceleft}{PU}{\80\173}% U+007B
 16078 % U+007C VERTICAL LINE; *bar, verticalbar
 16079 \DeclareTextCommand{\textbar}{PU}{|}% \80\174 U+007C
 16080 %* \textbar -> \textverline (tipa)
 16081 % U+007D RIGHT CURLY BRACKET; braceright
 16082 \DeclareTextCommand{\textbraceright}{PU}{\80\175}% U+007D
 16083 % U+007E TILDE; asciitilde
 16084 \DeclareTextCommand{\textasciitilde}{PU}{\80\176}% U+007E

51.2.3 Latin-1 Supplement: U+0080 to U+00FF

\80\240: U+00A0 NO-BREAK SPACE; nbspace, nonbreakingspace
 16085 % U+00A1 INVERTED EXCLAMATION MARK; exclamdown
 16086 \DeclareTextCommand{\textexclamdown}{PU}{\80\241}% U+00A1
 16087 % U+00A2 CENT SIGN; cent
 16088 \DeclareTextCommand{\textcent}{PU}{\80\242}% U+00A2
 16089 % U+00A3 POUND SIGN; sterling
 16090 \DeclareTextCommand{\textsterling}{PU}{\80\243}% U+00A3
 16091 %* \textsterling -> \mathsterling (LaTeX)
 16092 %* \textsterling -> \pounds (LaTeX)
 16093 % U+00A4 CURRENCY SIGN; currency
 16094 \DeclareTextCommand{\textcurrency}{PU}{\80\244}% U+00A4
 16095 % U+00A5 YEN SIGN; yen
 16096 \DeclareTextCommand{\textyen}{PU}{\80\245}% U+00A5
 16097 % U+00A6 BROKEN BAR; brokenbar
 16098 \DeclareTextCommand{\textbrokenbar}{PU}{\80\246}% U+00A6
 16099 %* \textbrokenbar -> \brokenvert (wasysym)
 16100 % U+00A7 SECTION SIGN; section
 16101 \DeclareTextCommand{\textsection}{PU}{\80\247}% U+00A7
 16102 %* \textsection -> \mathsection (LaTeX)
 16103 %* \textsection -> \S (LaTeX)
 16104 % U+00A8 DIAERESIS; diaeresis
 16105 \DeclareTextCommand{\textasciidieresis}{PU}{\80\250}% U+00A8
 16106 % U+00A9 COPYRIGHT SIGN; copyright
 16107 \DeclareTextCommand{\textcopyright}{PU}{\80\251}%* U+00A9
 16108 % U+00AA FEMININE ORDINAL INDICATOR; ordfeminine
 16109 \DeclareTextCommand{\textordfeminine}{PU}{\80\252}% U+00AA
 16110 % U+00AB LEFT-POINTING DOUBLE ANGLE QUOTATION MARK; guillemotleft
 16111 \DeclareTextCommand{\guillemotleft}{PU}{\80\253}% U+00AB
 16112 % U+00AC NOT SIGN; logicalnot

16113 \DeclareTextCommand{\textlogicalnot}{PU}{\80\254}% U+00AC
16114 \DeclareTextCommand{\textlnot}{PU}{\80\254}% U+00AC
\80\255: U+00AD SOFT HYPHEN; sftthyphen, softthyphen
16115 % U+00AE REGISTERED SIGN; registered
16116 \DeclareTextCommand{\textregistered}{PU}{\80\256}% U+00AE
16117 % U+00AF MACRON; *macron, overscore
16118 \DeclareTextCommand{\textasciimacron}{PU}{\80\257}% U+00AF
16119 % U+00B0 DEGREE SIGN; degree
16120 \DeclareTextCommand{\textdegree}{PU}{\80\260}% U+00B0
16121 % U+00B1 PLUS-MINUS SIGN; plusminus
16122 \DeclareTextCommand{\textplusminus}{PU}{\80\261}% U+00B1
16123 % U+00B2 SUPERSCRIPT TWO; twosuperior
16124 \DeclareTextCommand{\texttwosuperior}{PU}{\80\262}%* U+00B2
16125 % U+00B3 SUPERSCRIPT THREE; threesuperior
16126 \DeclareTextCommand{\textthreesuperior}{PU}{\80\263}%* U+00B3
16127 % U+00B4 ACUTE ACCENT; acute
16128 \DeclareTextCommand{\textacute}{PU}{\80\264}% U+00B4
16129 \DeclareTextCommand{\textasciacute}{PU}{\80\264}% U+00B4
16130 % U+00B5 MICRO SIGN; mu, mu1
16131 \DeclareTextCommand{\textmu}{PU}{\80\265}% U+00B5
16132 % U+00B6 PILCROW SIGN; paragraph
16133 \DeclareTextCommand{\textparagraph}{PU}{\80\266}% U+00B6
16134 %* \textparagraph -> \mathparagraph (LaTeX)
16135 % U+00B7 MIDDLE DOT; middot, *periodcentered
16136 \DeclareTextCommand{\textperiodcentered}{PU}{\80\267}% U+00B7
16137 %* \textperiodcentered -> \MultiplicationDot (marvosym)
16138 %* \textperiodcentered -> \Squaredot (marvosym)
16139 % U+00B8 CEDILLA; cedilla
16140 \DeclareTextCommand{\textcedilla}{PU}{\80\270}% U+00B8
16141 % U+00B9 SUPERSCRIPT ONE; onesuperior
16142 \DeclareTextCommand{\textonesuperior}{PU}{\80\271}%* U+00B9
16143 % U+00BA MASCULINE ORDINAL INDICATOR; ordmasculine
16144 \DeclareTextCommand{\textordmasculine}{PU}{\80\272}% U+00BA
16145 % U+00BB RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK; guille-
motright
16146 \DeclareTextCommand{\guillemotright}{PU}{\80\273}% U+00BB
16147 % U+00BC VULGAR FRACTION ONE QUARTER; onequarter
16148 \DeclareTextCommand{\textonequarter}{PU}{\80\274}% U+00BC
16149 % U+00BD VULGAR FRACTION ONE HALF; onehalf
16150 \DeclareTextCommand{\textonehalf}{PU}{\80\275}% U+00BD
16151 % U+00BE VULGAR FRACTION THREE QUARTERS; threequarters
16152 \DeclareTextCommand{\textthreequarters}{PU}{\80\276}% U+00BE
16153 % U+00BF INVERTED QUESTION MARK; questiondown
16154 \DeclareTextCommand{\textquestiondown}{PU}{\80\277}% U+00BF
16155 % U+00C0 LATIN CAPITAL LETTER A WITH GRAVE; Agrave
16156 \DeclareTextCompositeCommand{\`}{PU}{A}{\80\300}% U+00C0
16157 % U+00C1 LATIN CAPITAL LETTER A WITH ACUTE; Aacute
16158 \DeclareTextCompositeCommand{\'}{PU}{A}{\80\301}% U+00C1
16159 % U+00C2 LATIN CAPITAL LETTER A WITH CIRCUMFLEX; Acircumflex
16160 \DeclareTextCompositeCommand{\^}{PU}{A}{\80\302}% U+00C2
16161 % U+00C3 LATIN CAPITAL LETTER A WITH TILDE; Atilde
16162 \DeclareTextCompositeCommand{\~}{PU}{A}{\80\303}% U+00C3
16163 % U+00C4 LATIN CAPITAL LETTER A WITH DIAERESIS; Adieresis
16164 \DeclareTextCompositeCommand{\"}{PU}{A}{\80\304}% U+00C4
16165 % U+00C5 LATIN CAPITAL LETTER A WITH RING ABOVE; Aring
16166 \DeclareTextCompositeCommand{\r}{PU}{A}{\80\305}% U+00C5
16167 % U+00C6 LATIN CAPITAL LETTER AE; AE

16168 \DeclareTextCommand{\AE}{PU}{\80\306}% U+00C6
16169 % U+00C7 LATIN CAPITAL LETTER C WITH CEDILLA; Ccedilla
16170 \DeclareTextCompositeCommand{\c}{PU}{C}{\80\307}% U+00C7
16171 % U+00C8 LATIN CAPITAL LETTER E WITH GRAVE; Egrave
16172 \DeclareTextCompositeCommand{\' }{PU}{E}{\80\310}% U+00C8
16173 % U+00C9 LATIN CAPITAL LETTER E WITH ACUTE; Eacute
16174 \DeclareTextCompositeCommand{\` }{PU}{E}{\80\311}% U+00C9
16175 % U+00CA LATIN CAPITAL LETTER E WITH CIRCUMFLEX; Ecircumflex
16176 \DeclareTextCompositeCommand{\^ }{PU}{E}{\80\312}% U+00CA
16177 % U+00CB LATIN CAPITAL LETTER E WITH DIAERESIS; Edieresis
16178 \DeclareTextCompositeCommand{\"}{PU}{E}{\80\313}% U+00CB
16179 % U+00CC LATIN CAPITAL LETTER I WITH GRAVE; Igrave
16180 \DeclareTextCompositeCommand{\' }{PU}{I}{\80\314}% U+00CC
16181 % U+00CD LATIN CAPITAL LETTER I WITH ACUTE; Iacute
16182 \DeclareTextCompositeCommand{\` }{PU}{I}{\80\315}% U+00CD
16183 % U+00CE LATIN CAPITAL LETTER I WITH CIRCUMFLEX; Icircumflex
16184 \DeclareTextCompositeCommand{\^ }{PU}{I}{\80\316}% U+00CE
16185 % U+00CF LATIN CAPITAL LETTER I WITH DIAERESIS; Idieresis
16186 \DeclareTextCompositeCommand{\"}{PU}{I}{\80\317}% U+00CF
16187 % U+00D0 LATIN CAPITAL LETTER ETH; Eth
16188 \DeclareTextCommand{\DH}{PU}{\80\320}% U+00D0
16189 % U+00D1 LATIN CAPITAL LETTER N WITH TILDE; Ntilde
16190 \DeclareTextCompositeCommand{\~ }{PU}{N}{\80\321}% U+00D1
16191 % U+00D2 LATIN CAPITAL LETTER O WITH GRAVE; Ograve
16192 \DeclareTextCompositeCommand{\' }{PU}{O}{\80\322}% U+00D2
16193 % U+00D3 LATIN CAPITAL LETTER O WITH ACUTE; Oacute
16194 \DeclareTextCompositeCommand{\` }{PU}{O}{\80\323}% U+00D3
16195 % U+00D4 LATIN CAPITAL LETTER O WITH CIRCUMFLEX; Ocircumflex
16196 \DeclareTextCompositeCommand{\^ }{PU}{O}{\80\324}% U+00D4
16197 % U+00D5 LATIN CAPITAL LETTER O WITH TILDE; Otilde
16198 \DeclareTextCompositeCommand{\~ }{PU}{O}{\80\325}% U+00D5
16199 % U+00D6 LATIN CAPITAL LETTER O WITH DIAERESIS; Odieresis
16200 \DeclareTextCompositeCommand{\"}{PU}{O}{\80\326}% U+00D6
16201 % U+00D7 MULTIPLICATION SIGN; multiply
16202 \DeclareTextCommand{\textmultiply}{PU}{\80\327}% U+00D7
16203 %* \textmultiply -> \vartimes (stmaryrd)
16204 %* \textmultiply -> \MVMultiplication (marvosym)
16205 % U+00D8 LATIN CAPITAL LETTER O WITH STROKE; Oslash
16206 \DeclareTextCommand{\O}{PU}{\80\330}% U+00D8
16207 % U+00D9 LATIN CAPITAL LETTER U WITH GRAVE; Ugrave
16208 \DeclareTextCompositeCommand{\' }{PU}{U}{\80\331}% U+00D9
16209 % U+00DA LATIN CAPITAL LETTER U WITH ACUTE; Uacute
16210 \DeclareTextCompositeCommand{\` }{PU}{U}{\80\332}% U+00DA
16211 % U+00DB LATIN CAPITAL LETTER U WITH CIRCUMFLEX; Ucircumflex
16212 \DeclareTextCompositeCommand{\^ }{PU}{U}{\80\333}% U+00DB
16213 % U+00DC LATIN CAPITAL LETTER U WITH DIAERESIS; Udieresis
16214 \DeclareTextCompositeCommand{\"}{PU}{U}{\80\334}% U+00DC
16215 % U+00DD LATIN CAPITAL LETTER Y WITH ACUTE; Yacute
16216 \DeclareTextCompositeCommand{\' }{PU}{Y}{\80\335}% U+00DD
16217 % U+00DE LATIN CAPITAL LETTER THORN; Thorn; \TH, \Thorn (wasysym)
16218 \DeclareTextCommand{\TH}{PU}{\80\336}% U+00DE
16219 \DeclareTextCommand{\textThorn}{PU}{\80\336}%* U+00DE
16220 % U+00DF LATIN SMALL LETTER SHARP S; germandbls
16221 \DeclareTextCommand{\ss}{PU}{\80\337}% U+00DF
16222 % U+00E0 LATIN SMALL LETTER A WITH GRAVE; agrave
16223 \DeclareTextCompositeCommand{\' }{PU}{a}{\80\340}% U+00E0
16224 % U+00E1 LATIN SMALL LETTER A WITH ACUTE; aacute

16225 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\341}% U+00E1
16226 % U+00E2 LATIN SMALL LETTER A WITH CIRCUMFLEX; acircumflex
16227 \DeclareTextCompositeCommand{\^}{PU}{a}{\80\342}% U+00E2
16228 % U+00E3 LATIN SMALL LETTER A WITH TILDE; atilde
16229 \DeclareTextCompositeCommand{\~}{PU}{a}{\80\343}% U+00E3
16230 % U+00E4 LATIN SMALL LETTER A WITH DIAERESIS; adieresis
16231 \DeclareTextCompositeCommand{\"}{PU}{a}{\80\344}% U+00E4
16232 % U+00E5 LATIN SMALL LETTER A WITH RING ABOVE; aring
16233 \DeclareTextCompositeCommand{\r}{PU}{a}{\80\345}% U+00E5
16234 % U+00E6 LATIN SMALL LETTER AE; ae
16235 \DeclareTextCommand{\ae}{PU}{\80\346}% U+00E6
16236 % U+00E7 LATIN SMALL LETTER C WITH CEDILLA; ccedilla
16237 \DeclareTextCompositeCommand{\c}{PU}{c}{\80\347}% U+00E7
16238 % U+00E8 LATIN SMALL LETTER E WITH GRAVE; egrave
16239 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\350}% U+00E8
16240 % U+00E9 LATIN SMALL LETTER E WITH ACUTE; eacute
16241 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\351}% U+00E9
16242 % U+00EA LATIN SMALL LETTER E WITH CIRCUMFLEX; ecircumflex
16243 \DeclareTextCompositeCommand{\^}{PU}{e}{\80\352}% U+00EA
16244 % U+00EB LATIN SMALL LETTER E WITH DIAERESIS; edieresis
16245 \DeclareTextCompositeCommand{\"}{PU}{e}{\80\353}% U+00EB
16246 % U+00EC LATIN SMALL LETTER I WITH GRAVE; igrave
16247 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\354}% U+00EC
16248 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\354}% U+00EC
16249 % U+00ED LATIN SMALL LETTER I WITH ACUTE; iacute
16250 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\355}% U+00ED
16251 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\355}% U+00ED
16252 % U+00EE LATIN SMALL LETTER I WITH CIRCUMFLEX; icircumflex
16253 \DeclareTextCompositeCommand{\^}{PU}{i}{\80\356}% U+00EE
16254 \DeclareTextCompositeCommand{\^}{PU}{i}{\80\356}% U+00EE
16255 % U+00EF LATIN SMALL LETTER I WITH DIAERESIS; idieresis
16256 \DeclareTextCompositeCommand{\"}{PU}{i}{\80\357}% U+00EF
16257 \DeclareTextCompositeCommand{\"}{PU}{i}{\80\357}% U+00EF
16258 % U+00F0 LATIN SMALL LETTER ETH; eth
16259 \DeclareTextCommand{\dh}{PU}{\80\360}% U+00F0
16260 %* \dh -> \eth (wsuipa, phonetic)
16261 % U+00F1 LATIN SMALL LETTER N WITH TILDE; ntilde
16262 \DeclareTextCompositeCommand{\~}{PU}{n}{\80\361}% U+00F1
16263 % U+00F2 LATIN SMALL LETTER O WITH GRAVE; ograve
16264 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\362}% U+00F2
16265 % U+00F3 LATIN SMALL LETTER O WITH ACUTE; oacute
16266 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\363}% U+00F3
16267 % U+00F4 LATIN SMALL LETTER O WITH CIRCUMFLEX; ocircumflex
16268 \DeclareTextCompositeCommand{\^}{PU}{o}{\80\364}% U+00F4
16269 % U+00F5 LATIN SMALL LETTER O WITH TILDE; otilde
16270 \DeclareTextCompositeCommand{\~}{PU}{o}{\80\365}% U+00F5
16271 % U+00F6 LATIN SMALL LETTER O WITH DIAERESIS; odieresis
16272 \DeclareTextCompositeCommand{\"}{PU}{o}{\80\366}% U+00F6
16273 % U+00F7 DIVISION SIGN; divide
16274 \DeclareTextCommand{\textdivide}{PU}{\80\367}% U+00F7
16275 % U+00F8 LATIN SMALL LETTER O WITH STROKE; oslash
16276 \DeclareTextCommand{\o}{PU}{\80\370}% U+00F8
16277 % U+00F9 LATIN SMALL LETTER U WITH GRAVE; ugrave
16278 \DeclareTextCompositeCommand{\'}{PU}{u}{\80\371}% U+00F9
16279 % U+00FA LATIN SMALL LETTER U WITH ACUTE; uacute
16280 \DeclareTextCompositeCommand{\'}{PU}{u}{\80\372}% U+00FA
16281 % U+00FB LATIN SMALL LETTER U WITH CIRCUMFLEX; ucircumflex

16282 \DeclareTextCompositeCommand{\~}{PU}{u}{\80\373}% U+00FB
16283 % U+00FC LATIN SMALL LETTER U WITH DIAERESIS; udieresis
16284 \DeclareTextCompositeCommand{\"}{PU}{u}{\80\374}% U+00FC
16285 % U+00FD LATIN SMALL LETTER Y WITH ACUTE; yacute
16286 \DeclareTextCompositeCommand{\' }{PU}{y}{\80\375}% U+00FD
16287 % U+00FE LATIN SMALL LETTER THORN; thorn;
16288 % \th, \thorn (wasysym), \textthorn (tipa)
16289 \DeclareTextCommand{\th}{PU}{\80\376}% U+00FE
16290 \DeclareTextCommand{\textthorn}{PU}{\80\376}%* U+00FE
16291 % U+00FF LATIN SMALL LETTER Y WITH DIAERESIS; ydieresis
16292 \DeclareTextCompositeCommand{\"}{PU}{y}{\80\377}% U+00FF

51.2.4 Latin Extended-A: U+0080 to U+017F

16293 % U+0100 LATIN CAPITAL LETTER A WITH MACRON; Amacron
16294 \DeclareTextCompositeCommand{\=} {PU}{A}{\81\000}% U+0100
16295 % U+0101 LATIN SMALL LETTER A WITH MACRON; amacron
16296 \DeclareTextCompositeCommand{\= }{PU}{a}{\81\001}% U+0101
16297 % U+0102 LATIN CAPITAL LETTER A WITH BREVE; Abreve
16298 \DeclareTextCompositeCommand{\u }{PU}{A}{\81\002}% U+0102
16299 % U+0103 LATIN SMALL LETTER A WITH BREVE; abreve
16300 \DeclareTextCompositeCommand{\u }{PU}{a}{\81\003}% U+0103
16301 % U+0104 LATIN CAPITAL LETTER A WITH OGONEK; Aogonek
16302 \DeclareTextCompositeCommand{\k }{PU}{A}{\81\004}% U+0104
16303 % U+0105 LATIN SMALL LETTER A WITH OGONEK; aogonek
16304 \DeclareTextCompositeCommand{\k }{PU}{a}{\81\005}% U+0105
16305 % U+0106 LATIN CAPITAL LETTER C WITH ACUTE; Cacute
16306 \DeclareTextCompositeCommand{\' }{PU}{C}{\81\006}% U+0106
16307 % U+0107 LATIN SMALL LETTER C WITH ACUTE; cacute
16308 \DeclareTextCompositeCommand{\' }{PU}{c}{\81\007}% U+0107
16309 % U+0108 LATIN CAPITAL LETTER C WITH CIRCUMFLEX; Ccircumflex
16310 \DeclareTextCompositeCommand{\^ }{PU}{C}{\81\010}% U+0108
16311 % U+0109 LATIN SMALL LETTER C WITH CIRCUMFLEX; ccircumflex
16312 \DeclareTextCompositeCommand{\^ }{PU}{c}{\81\011}% U+0109
16313 % U+010A LATIN CAPITAL LETTER C WITH DOT ABOVE; Cdot, Cdotac-
cent
16314 \DeclareTextCompositeCommand{\. }{PU}{C}{\81\012}% U+010A
16315 % U+010B LATIN SMALL LETTER C WITH DOT ABOVE; cdot, cdotaccent
16316 \DeclareTextCompositeCommand{\. }{PU}{c}{\81\013}% U+010B
16317 % U+010C LATIN CAPITAL LETTER C WITH CARON; Ccaron
16318 \DeclareTextCompositeCommand{\v }{PU}{C}{\81\014}% U+010C
16319 % U+010D LATIN SMALL LETTER C WITH CARON; ccaron
16320 \DeclareTextCompositeCommand{\v }{PU}{c}{\81\015}% U+010D
16321 % U+010E LATIN CAPITAL LETTER D WITH CARON; Dcaron
16322 \DeclareTextCompositeCommand{\v }{PU}{D}{\81\016}% U+010E
16323 % U+010F LATIN SMALL LETTER D WITH CARON; dcaron
16324 \DeclareTextCompositeCommand{\v }{PU}{d}{\81\017}% U+010F
16325 % U+0110 LATIN CAPITAL LETTER D WITH STROKE; Dcroat, Dslash
16326 \DeclareTextCommand{\DJ}{PU}{\81\020}% U+0110
16327 % U+0111 LATIN SMALL LETTER D WITH STROKE; dcroat, dmacron;
16328 % \textcrd (tipa)
16329 \DeclareTextCommand{\dj}{PU}{\81\021}% U+0111
16330 \DeclareTextCommand{\textcrd}{PU}{\81\021}% U+0111
16331 %* \textcrd -> \crossd (wsuipa)
16332 % An alternate glyph with the stroke through the bowl:
16333 %* \textcrd -> \textbard (tipa)
16334 %* \textcrd -> \bard (wsuipa)

16335 % U+0112 LATIN CAPITAL LETTER E WITH MACRON; Emacron
16336 \DeclareTextCompositeCommand{\=}{PU}{E}{\81\022}% U+0112
16337 % U+0113 LATIN SMALL LETTER E WITH MACRON; emacron
16338 \DeclareTextCompositeCommand{\=}{PU}{e}{\81\023}% U+0113
16339 % U+0114 LATIN CAPITAL LETTER E WITH BREVE; Ebreve
16340 \DeclareTextCompositeCommand{\u}{PU}{E}{\81\024}% U+0114
16341 % U+0115 LATIN SMALL LETTER E WITH BREVE; ebreve
16342 \DeclareTextCompositeCommand{\u}{PU}{e}{\81\025}% U+0115
16343 % U+0116 LATIN CAPITAL LETTER E WITH DOT ABOVE; Edot, Edotaccent
16344 \DeclareTextCompositeCommand{\.}{PU}{E}{\81\026}% U+0116
16345 % U+0117 LATIN SMALL LETTER E WITH DOT ABOVE; edot, edotaccent
16346 \DeclareTextCompositeCommand{\.}{PU}{e}{\81\027}% U+0117
16347 % U+0118 LATIN CAPITAL LETTER E WITH OGONEK; Eogonek
16348 \DeclareTextCompositeCommand{\k}{PU}{E}{\81\030}% U+0118
16349 % U+0119 LATIN SMALL LETTER E WITH OGONEK; eogonek
16350 \DeclareTextCompositeCommand{\k}{PU}{e}{\81\031}% U+0119
16351 % U+011A LATIN CAPITAL LETTER E WITH CARON; Ecaron
16352 \DeclareTextCompositeCommand{\v}{PU}{E}{\81\032}% U+011A
16353 % U+011B LATIN SMALL LETTER E WITH CARON; ecaron
16354 \DeclareTextCompositeCommand{\v}{PU}{e}{\81\033}% U+011B
16355 % U+011C LATIN CAPITAL LETTER G WITH CIRCUMFLEX; Gcircumflex
16356 \DeclareTextCompositeCommand{\^}{PU}{G}{\81\034}% U+011C
16357 % U+011D LATIN SMALL LETTER G WITH CIRCUMFLEX; gcircumflex
16358 \DeclareTextCompositeCommand{\^}{PU}{g}{\81\035}% U+011D
16359 % U+011E LATIN CAPITAL LETTER G WITH BREVE; Gbreve
16360 \DeclareTextCompositeCommand{\u}{PU}{G}{\81\036}% U+011E
16361 % U+011F LATIN SMALL LETTER G WITH BREVE; gbreve
16362 \DeclareTextCompositeCommand{\u}{PU}{g}{\81\037}% U+011F
16363 % U+0120 LATIN CAPITAL LETTER G WITH DOT ABOVE; Gdot, Gdotac-
cent
16364 \DeclareTextCompositeCommand{\.}{PU}{G}{\81\040}% U+0120
16365 % U+0121 LATIN SMALL LETTER G WITH DOT ABOVE; gdot, gdotaccent
16366 \DeclareTextCompositeCommand{\.}{PU}{g}{\81\041}% U+0121
16367 % U+0122 LATIN CAPITAL LETTER G WITH CEDILLA; Gcedilla, Gcom-
maaccent
16368 \DeclareTextCompositeCommand{\c}{PU}{G}{\81\042}% U+0122
16369 % U+0123 LATIN SMALL LETTER G WITH CEDILLA; gcedilla, gcommaaccent
16370 \DeclareTextCompositeCommand{\c}{PU}{g}{\81\043}% U+0123
16371 % U+0124 LATIN CAPITAL LETTER H WITH CIRCUMFLEX; Hcircumflex
16372 \DeclareTextCompositeCommand{\^}{PU}{H}{\81\044}% U+0124
16373 % U+0125 LATIN SMALL LETTER H WITH CIRCUMFLEX; hcircumflex
16374 \DeclareTextCompositeCommand{\^}{PU}{h}{\81\045}% U+0125
16375 % U+0126 LATIN CAPITAL LETTER H WITH STROKE; Hbar
16376 \DeclareTextCommand{\textHslash}{PU}{\81\046}% U+0126
16377 % U+0127 LATIN SMALL LETTER H WITH STROKE; hbar; \hbar (AmS)
16378 \DeclareTextCommand{\texthbar}{PU}{\81\047}%* U+0127
16379 %* \texthbar -> \textcrh (tipa)
16380 %* \texthbar -> \crossh (wsuipa)
16381 %* \texthbar -> \planck (phonetic)
16382 % U+0128 LATIN CAPITAL LETTER I WITH TILDE; Itilde
16383 \DeclareTextCompositeCommand{\~}{PU}{I}{\81\050}% U+0128
16384 % U+0129 LATIN SMALL LETTER I WITH TILDE; itilde
16385 \DeclareTextCompositeCommand{\~}{PU}{i}{\81\051}% U+0129
16386 \DeclareTextCompositeCommand{\~}{PU}{i}{\81\051}% U+0129
16387 % U+012A LATIN CAPITAL LETTER I WITH MACRON; Imacron
16388 \DeclareTextCompositeCommand{\=}{PU}{I}{\81\052}% U+012A
16389 % U+012B LATIN SMALL LETTER I WITH MACRON; imacron

16390 \DeclareTextCompositeCommand{=} {PU}{i}{\81\053}% U+012B
16391 \DeclareTextCompositeCommand{=} {PU}{i}{\81\053}% U+012B
16392 % U+012C LATIN CAPITAL LETTER I WITH BREVE; Ibreve
16393 \DeclareTextCompositeCommand{\u} {PU}{I}{\81\054}% U+012C
16394 % U+012D LATIN SMALL LETTER I WITH BREVE; ibreve
16395 \DeclareTextCompositeCommand{\u} {PU}{i}{\81\055}% U+012D
16396 \DeclareTextCompositeCommand{\u} {PU}{i}{\81\055}% U+012D
16397 % U+012E LATIN CAPITAL LETTER I WITH OGONEK; Iogonek
16398 \DeclareTextCompositeCommand{\k} {PU}{I}{\81\056}% U+012E
16399 % U+012F LATIN SMALL LETTER I WITH OGONEK; iogonek
16400 \DeclareTextCompositeCommand{\k} {PU}{i}{\81\057}% U+012F
16401 \DeclareTextCompositeCommand{\k} {PU}{i}{\81\057}% U+012F
16402 % U+0130 LATIN CAPITAL LETTER I WITH DOT ABOVE; Idot, Idotaccent
16403 \DeclareTextCompositeCommand{\.} {PU}{I}{\81\060}% U+0130
16404 % U+0131 LATIN SMALL LETTER DOTLESS I; dotlessi
16405 \DeclareTextCommand{\i} {PU}{\81\061}% U+0131
16406 % U+0132 LATIN CAPITAL LIGATURE IJ; IJ
16407 \DeclareTextCommand{\IJ} {PU}{\81\062}% U+0132
16408 % U+0133 LATIN SMALL LIGATURE IJ; ij
16409 \DeclareTextCommand{\ij} {PU}{\81\063}% U+0133
16410 % U+0134 LATIN CAPITAL LETTER J WITH CIRCUMFLEX; Jcircumflex
16411 \DeclareTextCompositeCommand{\^} {PU}{J}{\81\064}% U+0134
16412 % U+0135 LATIN SMALL LETTER J WITH CIRCUMFLEX; jcircumflex
16413 \DeclareTextCompositeCommand{\^} {PU}{j}{\81\065}% U+0135
16414 \DeclareTextCompositeCommand{\^} {PU}{j}{\81\065}% U+0135
16415 % U+0136 LATIN CAPITAL LETTER K WITH CEDILLA; Kcedilla, Kcommaac-
cent
16416 \DeclareTextCompositeCommand{\c} {PU}{K}{\81\066}% U+0136
16417 % U+0137 LATIN SMALL LETTER K WITH CEDILLA; kcedilla, kcommaaccent
16418 \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 chosen `\textkra`.

16419 % U+0138 LATIN SMALL LETTER KRA; kgreenlandic
16420 \DeclareTextCommand{\textkra} {PU}{\81\070}% U+0138
16421 % U+0139 LATIN CAPITAL LETTER L WITH ACUTE; Lacute
16422 \DeclareTextCompositeCommand{\'} {PU}{L}{\81\071}% U+0139
16423 % U+013A LATIN SMALL LETTER L WITH ACUTE; lacute
16424 \DeclareTextCompositeCommand{\'} {PU}{l}{\81\072}% U+013A
16425 % U+013B LATIN CAPITAL LETTER L WITH CEDILLA; Lcedilla, Lcommaac-
cent
16426 \DeclareTextCompositeCommand{\c} {PU}{L}{\81\073}% U+013B
16427 % U+013C LATIN SMALL LETTER L WITH CEDILLA; lcedilla, lcommaaccent
16428 \DeclareTextCompositeCommand{\c} {PU}{l}{\81\074}% U+013C
16429 % U+013D LATIN CAPITAL LETTER L WITH CARON; Lcaron
16430 \DeclareTextCompositeCommand{\v} {PU}{L}{\81\075}% U+013D
16431 % U+013E LATIN SMALL LETTER L WITH CARON; lcaron
16432 \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`.

16433 % U+013F LATIN CAPITAL LETTER L WITH MIDDLE DOT; Ldot, Ldotac-
cent
16434 \DeclareTextCompositeCommand{\.} {PU}{L}{\81\077}% U+013F
16435 % U+0140 LATIN SMALL LETTER L WITH MIDDLE DOT; ldot, ldotaccent
16436 \DeclareTextCompositeCommand{\.} {PU}{l}{\81\100}% U+0140

16437 % U+0141 LATIN CAPITAL LETTER L WITH STROKE; Lslash
16438 \DeclareTextCommand{\L}{PU}{\81\101}% U+0141
16439 % U+0142 LATIN SMALL LETTER L WITH STROKE; lslash
16440 \DeclareTextCommand{\l}{PU}{\81\102}% U+0142
16441 % U+0143 LATIN CAPITAL LETTER N WITH ACUTE; Nacute
16442 \DeclareTextCompositeCommand{\'}{PU}{N}{\81\103}% U+0143
16443 % U+0144 LATIN SMALL LETTER N WITH ACUTE; nacute
16444 \DeclareTextCompositeCommand{\'}{PU}{n}{\81\104}% U+0144
16445 % U+0145 LATIN CAPITAL LETTER N WITH CEDILLA; Ncedilla, Ncommaaccent
16446 \DeclareTextCompositeCommand{\c}{PU}{N}{\81\105}% U+0145
16447 % U+0146 LATIN SMALL LETTER N WITH CEDILLA; ncedilla, ncommaaccent
16448 \DeclareTextCompositeCommand{\c}{PU}{n}{\81\106}% U+0146
16449 % U+0147 LATIN CAPITAL LETTER N WITH CARON; Ncaron
16450 \DeclareTextCompositeCommand{\v}{PU}{N}{\81\107}% U+0147
16451 % U+0148 LATIN SMALL LETTER N WITH CARON; ncaron
16452 \DeclareTextCompositeCommand{\v}{PU}{n}{\81\110}% U+0148
16453 % U+0149 LATIN SMALL LETTER N PRECEDED BY APOSTROPHE; napostrophe, quoterightn
16454 \DeclareTextCommand{\textnapostrophe}{PU}{\81\111}% U+0149
16455 % U+014A LATIN CAPITAL LETTER ENG; Eng
16456 \DeclareTextCommand{\NG}{PU}{\81\112}% U+014A
16457 % U+014B LATIN SMALL LETTER ENG; eng
16458 \DeclareTextCommand{\ng}{PU}{\81\113}% U+014B
16459 %* \ng -> \eng (wsuipa)
16460 %* \ng -> \engma (phonetic)
16461 % U+014C LATIN CAPITAL LETTER O WITH MACRON; Omacron
16462 \DeclareTextCompositeCommand{=} {PU}{O}{\81\114}% U+014C
16463 % U+014D LATIN SMALL LETTER O WITH MACRON; omacron
16464 \DeclareTextCompositeCommand{=} {PU}{o}{\81\115}% U+014D
16465 % U+014E LATIN CAPITAL LETTER O WITH BREVE; Obreve
16466 \DeclareTextCompositeCommand{\u}{PU}{O}{\81\116}% U+014E
16467 % U+014F LATIN SMALL LETTER O WITH BREVE; obreve
16468 \DeclareTextCompositeCommand{\u}{PU}{o}{\81\117}% U+014F
16469 % U+0150 LATIN CAPITAL LETTER O WITH DOUBLE ACUTE; Odblacute, Ohungarumlaut
16470 \DeclareTextCompositeCommand{\H}{PU}{O}{\81\120}% U+0150
16471 % U+0151 LATIN SMALL LETTER O WITH DOUBLE ACUTE; odblacute, ohungarumlaut
16472 \DeclareTextCompositeCommand{\H}{PU}{o}{\81\121}% U+0151
16473 % U+0152 LATIN CAPITAL LIGATURE OE; OE
16474 \DeclareTextCommand{\OE}{PU}{\81\122}% U+0152
16475 % U+0153 LATIN SMALL LIGATURE OE; oe
16476 \DeclareTextCommand{\oe}{PU}{\81\123}% U+0153
16477 % U+0154 LATIN CAPITAL LETTER R WITH ACUTE; Racute
16478 \DeclareTextCompositeCommand{\'}{PU}{R}{\81\124}% U+0154
16479 % U+0155 LATIN SMALL LETTER R WITH ACUTE; racute
16480 \DeclareTextCompositeCommand{\'}{PU}{r}{\81\125}% U+0155
16481 % U+0156 LATIN CAPITAL LETTER R WITH CEDILLA; Rcedilla, Rcommaaccent
16482 \DeclareTextCompositeCommand{\c}{PU}{R}{\81\126}% U+0156
16483 % U+0157 LATIN SMALL LETTER R WITH CEDILLA; rcedilla, rcommaaccent
16484 \DeclareTextCompositeCommand{\c}{PU}{r}{\81\127}% U+0157
16485 % U+0158 LATIN CAPITAL LETTER R WITH CARON; Rcaron
16486 \DeclareTextCompositeCommand{\v}{PU}{R}{\81\130}% U+0158
16487 % U+0159 LATIN SMALL LETTER R WITH CARON; rcaron
16488 \DeclareTextCompositeCommand{\v}{PU}{r}{\81\131}% U+0159

16489 % U+015A LATIN CAPITAL LETTER S WITH ACUTE; Sacute
16490 \DeclareTextCompositeCommand{\'}{PU}{S}{\81\132}% U+015A
16491 % U+015B LATIN SMALL LETTER S WITH ACUTE; sacute
16492 \DeclareTextCompositeCommand{\'}{PU}{s}{\81\133}% U+015B
16493 % U+015C LATIN CAPITAL LETTER S WITH CIRCUMFLEX; Scircumflex
16494 \DeclareTextCompositeCommand{\^}{PU}{S}{\81\134}% U+015C
16495 % U+015D LATIN SMALL LETTER S WITH CIRCUMFLEX; scircumflex
16496 \DeclareTextCompositeCommand{\^}{PU}{s}{\81\135}% U+015D
16497 % U+015E LATIN CAPITAL LETTER S WITH CEDILLA; Scedilla
16498 \DeclareTextCompositeCommand{\c}{PU}{S}{\81\136}% U+015E
16499 % U+015F LATIN SMALL LETTER S WITH CEDILLA; scedilla
16500 \DeclareTextCompositeCommand{\c}{PU}{s}{\81\137}% U+015F
16501 % U+0160 LATIN CAPITAL LETTER S WITH CARON; Scaron
16502 \DeclareTextCompositeCommand{\v}{PU}{S}{\81\140}% U+0160
16503 % U+0161 LATIN SMALL LETTER S WITH CARON; scaron
16504 \DeclareTextCompositeCommand{\v}{PU}{s}{\81\141}% U+0161
16505 % U+0162 LATIN CAPITAL LETTER T WITH CEDILLA; Tcedilla, Tcommaac-
cent
16506 \DeclareTextCompositeCommand{\c}{PU}{T}{\81\142}% U+0162
16507 % U+0163 LATIN SMALL LETTER T WITH CEDILLA; tcedilla, tcommaaccent
16508 \DeclareTextCompositeCommand{\c}{PU}{t}{\81\143}% U+0163
16509 % U+0164 LATIN CAPITAL LETTER T WITH CARON; Tcaron
16510 \DeclareTextCompositeCommand{\v}{PU}{T}{\81\144}% U+0164
16511 % U+0165 LATIN SMALL LETTER T WITH CARON; tcaron
16512 \DeclareTextCompositeCommand{\v}{PU}{t}{\81\145}% U+0165
16513 % U+0166 LATIN CAPITAL LETTER T WITH STROKE; Tbar
16514 \DeclareTextCommand{\textTslash}{PU}{\81\146}% U+0166
16515 % U+0167 LATIN SMALL LETTER T WITH STROKE; tbar
16516 \DeclareTextCommand{\texttslash}{PU}{\81\147}% U+0167
16517 % U+0168 LATIN CAPITAL LETTER U WITH TILDE; Utilde
16518 \DeclareTextCompositeCommand{\~}{PU}{U}{\81\150}% U+0168
16519 % U+0169 LATIN SMALL LETTER U WITH TILDE; utilde
16520 \DeclareTextCompositeCommand{\~}{PU}{u}{\81\151}% U+0169
16521 % U+016A LATIN CAPITAL LETTER U WITH MACRON; Umacron
16522 \DeclareTextCompositeCommand{\=}{PU}{U}{\81\152}% U+016A
16523 % U+016B LATIN SMALL LETTER U WITH MACRON; umacron
16524 \DeclareTextCompositeCommand{\=}{PU}{u}{\81\153}% U+016B
16525 % U+016C LATIN CAPITAL LETTER U WITH BREVE; Ubreve
16526 \DeclareTextCompositeCommand{\u}{PU}{U}{\81\154}% U+016C
16527 % U+016D LATIN SMALL LETTER U WITH BREVE; ubreve
16528 \DeclareTextCompositeCommand{\u}{PU}{u}{\81\155}% U+016D
16529 % U+016E LATIN CAPITAL LETTER U WITH RING ABOVE; Uring
16530 \DeclareTextCompositeCommand{\r}{PU}{U}{\81\156}% U+016E
16531 % U+016F LATIN SMALL LETTER U WITH RING ABOVE; uring
16532 \DeclareTextCompositeCommand{\r}{PU}{u}{\81\157}% U+016F
16533 % U+0170 LATIN CAPITAL LETTER U WITH DOUBLE ACUTE; Udbla-
cute, Uhungarumlaut
16534 \DeclareTextCompositeCommand{\H}{PU}{U}{\81\160}% U+0170
16535 % U+0171 LATIN SMALL LETTER U WITH DOUBLE ACUTE; udbla-
cute, uhungarumlaut
16536 \DeclareTextCompositeCommand{\H}{PU}{u}{\81\161}% U+0171
16537 % U+0172 LATIN CAPITAL LETTER U WITH OGONEK; Uogonek
16538 \DeclareTextCompositeCommand{\k}{PU}{U}{\81\162}% U+0172
16539 % U+0173 LATIN SMALL LETTER U WITH OGONEK; uogonek
16540 \DeclareTextCompositeCommand{\k}{PU}{u}{\81\163}% U+0173
16541 % U+0174 LATIN CAPITAL LETTER W WITH CIRCUMFLEX; Wcircumflex
16542 \DeclareTextCompositeCommand{\^}{PU}{W}{\81\164}% U+0174

16543 % U+0175 LATIN SMALL LETTER W WITH CIRCUMFLEX; wcircumflex
16544 \DeclareTextCompositeCommand{\~}{PU}{w}{\81\165}% U+0175
16545 % U+0176 LATIN CAPITAL LETTER Y WITH CIRCUMFLEX; Ycircumflex
16546 \DeclareTextCompositeCommand{\^}{PU}{Y}{\81\166}% U+0176
16547 % U+0177 LATIN SMALL LETTER Y WITH CIRCUMFLEX; ycircumflex
16548 \DeclareTextCompositeCommand{\`}{PU}{y}{\81\167}% U+0177
16549 % U+0178 LATIN CAPITAL LETTER Y WITH DIAERESIS; Ydieresis
16550 \DeclareTextCompositeCommand{\"}{PU}{Y}{\81\170}% U+0178
16551 % U+0179 LATIN CAPITAL LETTER Z WITH ACUTE; Zacute
16552 \DeclareTextCompositeCommand{\'}{PU}{Z}{\81\171}% U+0179
16553 % U+017A LATIN SMALL LETTER Z WITH ACUTE; zacute
16554 \DeclareTextCompositeCommand{\`}{PU}{z}{\81\172}% U+017A
16555 % U+017B LATIN CAPITAL LETTER Z WITH DOT ABOVE; Zdot, Zdotaccent
16556 \DeclareTextCompositeCommand{\.}{PU}{Z}{\81\173}% U+017B
16557 % U+017C LATIN SMALL LETTER Z WITH DOT ABOVE; zdot, zdotaccent
16558 \DeclareTextCompositeCommand{\.}{PU}{z}{\81\174}% U+017C
16559 % U+017D LATIN CAPITAL LETTER Z WITH CARON; Zcaron
16560 \DeclareTextCompositeCommand{\v}{PU}{Z}{\81\175}% U+017D
16561 % U+017E LATIN SMALL LETTER Z WITH CARON; zcaron
16562 \DeclareTextCompositeCommand{\v}{PU}{z}{\81\176}% U+017E
16563 % U+017F LATIN SMALL LETTER LONG S; longs, slong
16564 \DeclareTextCommand{\textlongS}{PU}{\81\177}% U+017F

51.2.5 Latin Extended-B: U+0180 to U+024F

16565 % U+0180 LATIN SMALL LETTER B WITH STROKE; bstroke; \textcrb (tipa)
16566 \DeclareTextCommand{\textcrb}{PU}{\81\200}% U+0180
16567 %* \textcrb -> \crossb (wsuipa)
16568 % An alternate glyph with the stroke through the bowl:
16569 %* \textcrb -> \textbarb (tipa)
16570 %* \textcrb -> \barb (wsuipa)
16571 % U+0181 LATIN CAPITAL LETTER B WITH HOOK; Bhook; \hausab (pho-
netic)
16572 \DeclareTextCommand{\texthausab}{PU}{\81\201}%* U+0181
16573 % U+0188 LATIN SMALL LETTER C WITH HOOK; chook; \texthtc (tipa)
16574 \DeclareTextCommand{\texthtc}{PU}{\81\210}% U+0188
16575 % U+018A LATIN CAPITAL LETTER D WITH HOOK; Dhook; \hausad (pho-
netic)
16576 \DeclareTextCommand{\texthausad}{PU}{\81\212}%* U+018A
16577 % U+018E LATIN CAPITAL LETTER REVERSED E; Ereversed
16578 \DeclareTextCommand{\textEreversed}{PU}{\81\216}% U+018E
16579 \DeclareTextCommand{\textrevE}{PU}{\81\216}% U+018E
16580 % U+0192 LATIN SMALL LETTER F WITH HOOK; florin
16581 \DeclareTextCommand{\textflorin}{PU}{\81\222}% U+0192
16582 %* \textflorin -> \Florin (marvosym)
16583 % U+0195 LATIN SMALL LETTER HV; hv; \texthvlig (tipa)
16584 \DeclareTextCommand{\texthvlig}{PU}{\81\225}% U+0195
16585 %* \texthvlig -> \hv (wsuipa)
16586 % U+0198 LATIN CAPITAL LETTER K WITH HOOK; Khook; \hausak (pho-
netic)
16587 \DeclareTextCommand{\texthausak}{PU}{\81\230}%* U+0198
16588 % U+0199 LATIN SMALL LETTER K WITH HOOK; khook; \texthtk (tipa)
16589 \DeclareTextCommand{\texthtk}{PU}{\81\231}% U+0199
16590 %* \texthtk -> \hausak (phonetic)
16591 % U+019A LATIN SMALL LETTER L WITH BAR; lbar;
16592 % \textbarl (tipa), \barl (wsuipa)
16593 \DeclareTextCommand{\textbarl}{PU}{\81\232}%* U+019A
16594 % U+019B LATIN SMALL LETTER LAMBDA WITH STROKE/

16595 % LATIN SMALL LETTER BARRED LAMBDA; lambdastroke;
16596 % \textcrlambda (tipa)
16597 \DeclareTextCommand{\textcrlambda}{PU}{\81\233}% U+019B
16598 %* \textcrlambda -> \crossnilambda (wsuipa)
16599 %* \textcrlambda -> \barlambda (phonetic)
16600 %* \textcrlambda -> \lambdabar (txfonts/pxfonts)
16601 %* \textcrlambda -> \lambdaslash (txfonts/pxfonts)
16602 % U+019E LATIN SMALL LETTER N WITH LONG RIGHT LEG; nlegright-
long;
16603 % \textnrleg (tipx)
16604 \DeclareTextCommand{\textPUnrleg}{PU}{\81\236}% U+019E
16605 %* \textPUnrleg -> \textnrleg (tipx)
16606 % U+01A5 LATIN SMALL LETTER P WITH HOOK; phook; \texthtp (tipa)
16607 \DeclareTextCommand{\texthtp}{PU}{\81\245}% U+01A5
16608 % U+01AB LATIN SMALL LETTER T WITH PALATAL HOOK; tpalatalhook;
16609 % \textlhookt (tipa)
16610 \DeclareTextCommand{\textlhookt}{PU}{\81\253}% U+01AB
16611 % U+01AD LATIN SMALL LETTER T WITH HOOK; thook; \texthtt (tipa)
16612 \DeclareTextCommand{\texthtt}{PU}{\81\255}% U+01AD
16613 % U+01B9 LATIN SMALL LETTER EZH REVERSED/
16614 % LATIN SMALL LETTER REVERSED YOGH; \textrevyogh (tipa)
16615 \DeclareTextCommand{\textrevyogh}{PU}{\81\271}% U+01B9
16616 % U+01BB LATIN LETTER TWO WITH STROKE; twostroke; \textcrtwo (tipa)
16617 \DeclareTextCommand{\textcrtwo}{PU}{\81\273}% U+01BB
16618 % U+01BE LATIN LETTER INVERTED GLOTTAL STOP WITH STROKE;
16619 % glottalinvertedstroke; \textcrinvglotstop (tipa)
16620 \DeclareTextCommand{\textcrinvglotstop}{PU}{\81\276}% U+01BE
16621 % U+01BF LATIN LETTER WYNN; wynn; \textwynn (tipa)
16622 \DeclareTextCommand{\textwynn}{PU}{\81\277}% U+01BF
16623 % U+01C0 LATIN LETTER DENTAL CLICK/LATIN LETTER PIPE; clickden-
tal;
16624 % \textpipe (tipa)
16625 \DeclareTextCommand{\textpipe}{PU}{\81\300}% U+01C0
16626 %* \textpipe -> \textpipevar (tipx)
16627 % U+01C1 LATIN LETTER LATERAL CLICK/LATIN LETTER
DOUBLE PIPE; clicklateral; \textdoublepipe (tipa)
16629 \DeclareTextCommand{\textdoublepipe}{PU}{\81\301}% U+01C1
16630 %* \textdoublepipe -> \textdoublepipevar (tipx)
16631 % U+01C2 LATIN LETTER ALVEOLAR CLICK/LATIN LETTER PIPE DOU-
BLE BAR;
16632 % clickalveolar; \textdoublebarpipe (tipa)
16633 \DeclareTextCommand{\textdoublebarpipe}{PU}{\81\302}% U+01C2
16634 %* \textdoublebarpipe -> \textdoublebarpipevar (tipx)
16635 % U+01CD LATIN CAPITAL LETTER A WITH CARON; Acaron
16636 \DeclareTextCompositeCommand{\v}{PU}{A}{\81\315}% U+01CD
16637 % U+01CE LATIN SMALL LETTER A WITH CARON; acaron
16638 \DeclareTextCompositeCommand{\v}{PU}{a}{\81\316}% U+01CE
16639 % U+01CF LATIN CAPITAL LETTER I WITH CARON; Icaron
16640 \DeclareTextCompositeCommand{\v}{PU}{I}{\81\317}% U+01CF
16641 % U+01D0 LATIN SMALL LETTER I WITH CARON; icaron
16642 \DeclareTextCompositeCommand{\v}{PU}{i}{\81\320}% U+01D0
16643 \DeclareTextCompositeCommand{\v}{PU}{i}{\81\320}% U+01D0
16644 % U+01D1 LATIN CAPITAL LETTER O WITH CARON; Ocaron
16645 \DeclareTextCompositeCommand{\v}{PU}{O}{\81\321}% U+01D1
16646 % U+01D2 LATIN SMALL LETTER O WITH CARON; ocaron
16647 \DeclareTextCompositeCommand{\v}{PU}{o}{\81\322}% U+01D2
16648 % U+01D3 LATIN CAPITAL LETTER U WITH CARON; Ucaron

16649 \DeclareTextCompositeCommand{\v}{PU}{U}{\81\323}% U+01D3
16650 % U+01D4 LATIN SMALL LETTER U WITH CARON; ucaron
16651 \DeclareTextCompositeCommand{\v}{PU}{u}{\81\324}% U+01D4
16652 % U+01DD LATIN SMALL LETTER TURNED E; eturned; \inve (wasysym)
16653 \DeclareTextCommand{\textinve}{PU}{\81\335}%* U+01DD
16654 % U+01E4 LATIN CAPITAL LETTER G WITH STROKE; Gstroke
16655 \DeclareTextCommand{\textGslash}{PU}{\81\344}% U+01E4
16656 % U+01E5 LATIN SMALL LETTER G WITH STROKE; gstroke
16657 \DeclareTextCommand{\textgslash}{PU}{\81\345}% U+01E5
16658 %* \textgslash -> \textcrg (tipa)
16659 % U+01E6 LATIN CAPITAL LETTER G WITH CARON; Gcaron
16660 \DeclareTextCompositeCommand{\v}{PU}{G}{\81\346}% U+01E6
16661 % U+01E7 LATIN SMALL LETTER G WITH CARON; gcaron
16662 \DeclareTextCompositeCommand{\v}{PU}{g}{\81\347}% U+01E7
16663 % U+01E8 LATIN CAPITAL LETTER K WITH CARON; Kcaron
16664 \DeclareTextCompositeCommand{\v}{PU}{K}{\81\350}% U+01E8
16665 % U+01E9 LATIN SMALL LETTER K WITH CARON; kcaron
16666 \DeclareTextCompositeCommand{\v}{PU}{k}{\81\351}% U+01E9
16667 % U+01EA LATIN CAPITAL LETTER O WITH OGONEK; Oogonek
16668 \DeclareTextCompositeCommand{\k}{PU}{O}{\81\352}% U+01EA
16669 % U+01EB LATIN SMALL LETTER O WITH OGONEK; oogonek
16670 \DeclareTextCompositeCommand{\k}{PU}{o}{\81\353}% U+01EB
16671 % U+01F0 LATIN SMALL LETTER J WITH CARON; jcaron
16672 \DeclareTextCompositeCommand{\v}{PU}{j}{\81\360}% U+01F0
16673 \DeclareTextCompositeCommand{\v}{PU}{j}{\81\360}% U+01F0
16674 % U+01F4 LATIN CAPITAL LETTER G WITH ACUTE; Gacute
16675 \DeclareTextCompositeCommand{\'}{PU}{G}{\81\364}% U+01F4
16676 % U+01F5 LATIN SMALL LETTER G WITH ACUTE; gacute
16677 \DeclareTextCompositeCommand{\'}{PU}{g}{\81\365}% U+01F5
16678 % U+01F8 LATIN CAPITAL LETTER N WITH GRAVE
16679 \DeclareTextCompositeCommand{\'}{PU}{N}{\81\370}% U+01F8
16680 % U+01F9 LATIN SMALL LETTER N WITH GRAVE
16681 \DeclareTextCompositeCommand{\'}{PU}{n}{\81\371}% U+01F9
16682 % U+01FC LATIN CAPITAL LETTER AE WITH ACUTE; AEacute
16683 \DeclareTextCompositeCommand{\'}{PU}{\AE}{\81\374}% U+01FC
16684 % U+01FD LATIN SMALL LETTER AE WITH ACUTE; aeacute
16685 \DeclareTextCompositeCommand{\'}{PU}{\ae}{\81\375}% U+01FD
16686 % U+01FE LATIN CAPITAL LETTER O WITH STROKE AND ACUTE;
16687 % *Oslashacute, Ostrokeacute
16688 \DeclareTextCompositeCommand{\'}{PU}{\O}{\81\376}% U+01FE
16689 % U+01FF LATIN SMALL LETTER O WITH STROKE AND ACUTE;
16690 % *oslashacute, ostrokeacute
16691 \DeclareTextCompositeCommand{\'}{PU}{\o}{\81\377}% U+01FF
16692 % U+0200 LATIN CAPITAL LETTER A WITH DOUBLE GRAVE; Adblgrave
16693 \DeclareTextCompositeCommand{\G}{PU}{A}{\82\000}% U+0200
16694 % U+0201 LATIN SMALL LETTER A WITH DOUBLE GRAVE; adblgrave
16695 \DeclareTextCompositeCommand{\G}{PU}{a}{\82\001}% U+0201
16696 % U+0204 LATIN CAPITAL LETTER E WITH DOUBLE GRAVE; Edblgrave
16697 \DeclareTextCompositeCommand{\G}{PU}{E}{\82\004}% U+0204
16698 % U+0205 LATIN SMALL LETTER E WITH DOUBLE GRAVE; edblgrave
16699 \DeclareTextCompositeCommand{\G}{PU}{e}{\82\005}% U+0205
16700 % U+0206 LATIN CAPITAL LETTER E WITH INVERTED BREVE; Einvert-
edbreve
16701 \DeclareTextCompositeCommand{\textinvbreve}{PU}{E}{\82\006}% U+0206
16702 % U+0207 LATIN SMALL LETTER E WITH INVERTED BREVE; einvert-
breve
16703 \DeclareTextCompositeCommand{\textinvbreve}{PU}{e}{\82\007}% U+0207

16704 % U+0208 LATIN CAPITAL LETTER I WITH DOUBLE GRAVE; Idblgrave
16705 \DeclareTextCompositeCommand{\G}{PU}{I}{\82\010}% U+0208
16706 % U+0209 LATIN SMALL LETTER I WITH DOUBLE GRAVE; idblgrave
16707 \DeclareTextCompositeCommand{\G}{PU}{i}{\82\011}% U+0209
16708 \DeclareTextCompositeCommand{\G}{PU}{i}{\82\011}% U+0209
16709 % U+020A LATIN CAPITAL LETTER I WITH INVERTED BREVE; Iinverted-
breve
16710 \DeclareTextCompositeCommand{\textinvbreve}{PU}{I}{\82\012}% U+020A
16711 % U+020B LATIN SMALL LETTER I WITH INVERTED BREVE; iinverted-
breve
16712 \DeclareTextCompositeCommand{\textinvbreve}{PU}{i}{\82\013}% U+020B
16713 \DeclareTextCompositeCommand{\textinvbreve}{PU}{i}{\82\013}% U+020B
16714 % U+020C LATIN CAPITAL LETTER O WITH DOUBLE GRAVE; Odblgrave
16715 \DeclareTextCompositeCommand{\G}{PU}{O}{\82\014}% U+020C
16716 % U+020D LATIN SMALL LETTER O WITH DOUBLE GRAVE; odblgrave
16717 \DeclareTextCompositeCommand{\G}{PU}{o}{\82\015}% U+020D
16718 % U+020E LATIN CAPITAL LETTER O WITH INVERTED BREVE; Oinvert-
edbreve
16719 \DeclareTextCompositeCommand{\textinvbreve}{PU}{O}{\82\016}% U+020E
16720 % U+020F LATIN SMALL LETTER O WITH INVERTED BREVE; oinverted-
breve
16721 \DeclareTextCompositeCommand{\textinvbreve}{PU}{o}{\82\017}% U+020F
16722 % U+0210 LATIN CAPITAL LETTER R WITH DOUBLE GRAVE; Rdblgrave
16723 \DeclareTextCompositeCommand{\G}{PU}{R}{\82\020}% U+0210
16724 % U+0211 LATIN SMALL LETTER R WITH DOUBLE GRAVE; rdblgrave
16725 \DeclareTextCompositeCommand{\G}{PU}{r}{\82\021}% U+0211
16726 % U+0214 LATIN CAPITAL LETTER U WITH DOUBLE GRAVE; Udblgrave
16727 \DeclareTextCompositeCommand{\G}{PU}{U}{\82\024}% U+0214
16728 % U+0215 LATIN SMALL LETTER U WITH DOUBLE GRAVE; udblgrave
16729 \DeclareTextCompositeCommand{\G}{PU}{u}{\82\025}% U+0215
16730 % U+0216 LATIN CAPITAL LETTER U WITH INVERTED BREVE; Uinvert-
edbreve
16731 \DeclareTextCompositeCommand{\textinvbreve}{PU}{U}{\82\026}% U+0216
16732 % U+0217 LATIN SMALL LETTER U WITH INVERTED BREVE; uinverted-
breve
16733 \DeclareTextCompositeCommand{\textinvbreve}{PU}{u}{\82\027}% U+0217
16734 % U+021E LATIN CAPITAL LETTER H WITH CARON
16735 \DeclareTextCompositeCommand{\v}{PU}{H}{\82\036}% U+021E
16736 % U+021F LATIN SMALL LETTER H WITH CARON
16737 \DeclareTextCompositeCommand{\v}{PU}{h}{\82\037}% U+021F
16738 % U+0221 LATIN SMALL LETTER D WITH CURL; \textctd (tipa)
16739 \DeclareTextCommand{\textctd}{PU}{\82\041}% U+0221
16740 % U+0225 LATIN SMALL LETTER Z WITH HOOK; \textcommatailz (tipa)
16741 \DeclareTextCommand{\textcommatailz}{PU}{\82\045}% U+0225
16742 % U+0226 LATIN CAPITAL LETTER A WITH DOT ABOVE
16743 \DeclareTextCompositeCommand{\.}{PU}{A}{\82\046}% U+0226
16744 % U+0227 LATIN SMALL LETTER A WITH DOT ABOVE
16745 \DeclareTextCompositeCommand{\.}{PU}{a}{\82\047}% U+0227
16746 % U+0228 LATIN CAPITAL LETTER E WITH CEDILLA
16747 \DeclareTextCompositeCommand{\c}{PU}{E}{\82\050}% U+0228
16748 % U+0229 LATIN SMALL LETTER E WITH CEDILLA
16749 \DeclareTextCompositeCommand{\c}{PU}{e}{\82\051}% U+0229
16750 % U+022E LATIN CAPITAL LETTER O WITH DOT ABOVE
16751 \DeclareTextCompositeCommand{\.}{PU}{O}{\82\056}% U+022E
16752 % U+022F LATIN SMALL LETTER O WITH DOT ABOVE
16753 \DeclareTextCompositeCommand{\.}{PU}{o}{\82\057}% U+022F
16754 % U+0232 LATIN CAPITAL LETTER Y WITH MACRON

16755 \DeclareTextCompositeCommand{\=}{PU}{Y}{\82\062}% U+0232
 16756 % U+0233 LATIN SMALL LETTER Y WITH MACRON
 16757 \DeclareTextCompositeCommand{\=}{PU}{y}{\82\063}% U+0233
 16758 % U+0235 LATIN SMALL LETTER N WITH CURL; \textctn (tipa)
 16759 \DeclareTextCommand{\textctn}{PU}{\82\065}% U+0235
 16760 % U+0236 LATIN SMALL LETTER T WITH CURL; \textctt (tipa)
 16761 \DeclareTextCommand{\textctt}{PU}{\82\066}% U+0236
 16762 % U+0237 LATIN SMALL LETTER DOTLESS J
 16763 \DeclareTextCommand{\j}{PU}{\82\067}% U+0237
 16764 % U+0238 LATIN SMALL LETTER DB DIGRAPH; \textdblig (tipx)
 16765 \DeclareTextCommand{\textPUdblig}{PU}{\82\070}% U+0238
 16766 %* \textPUdblig -> \textdblig (tipx)
 16767 % U+0239 LATIN SMALL LETTER QP DIGRAPH; \textqplig (tipx)
 16768 \DeclareTextCommand{\textPUqplig}{PU}{\82\071}% U+0239
 16769 %* \textPUqplig -> \textqplig (tipx)
 16770 % U+023C LATIN SMALL LETTER C WITH STROKE; \slashc (wsuipa)
 16771 \DeclareTextCommand{\textslashc}{PU}{\82\074}%* U+023C
 16772 %* \textslashc -> \textcentoldstyle (textcomp)
 16773 % With bar instead of stroke:
 16774 %* \textslashc -> \textbarc (tipa)

51.2.6 IPA Extensions: U+0250 to U+02AF

16775 % U+0250 LATIN SMALL LETTER TURNED A; aturned; \textturna (tipa)
 16776 \DeclareTextCommand{\textturna}{PU}{\82\120}% U+0250
 16777 %* \textturna -> \inva (wasysym)
 16778 % U+0251 LATIN SMALL LETTER ALPHA/LATIN SMALL LETTER
 16779 % SCRIPT A; ascript; \textscripta (tipa), \scripta (wsuipa)
 16780 \DeclareTextCommand{\textscripta}{PU}{\82\121}%* U+0251
 16781 %* \textscripta -> \vara (phonetic)
 16782 % U+0252 LATIN SMALL LETTER TURNED ALPHA; ascriptturned;
 16783 % \textturnscripta (tipa)
 16784 \DeclareTextCommand{\textturnscripta}{PU}{\82\122}% U+0252
 16785 %* \textturnscripta -> \invscripta (wsuipa)
 16786 %* \textturnscripta -> \rotvara (phonetic)
 16787 % U+0253 LATIN CAPITAL LETTER B WITH HOOK; bhook; \texthtb (tipa)
 16788 \DeclareTextCommand{\texthtb}{PU}{\82\123}% U+0253
 16789 %* \texthtb -> \hookb (wsuipa)
 16790 %* \texthtb -> \hausab (phonetic)
 16791 % U+0254 LATIN SMALL LETTER OPEN O; oopen;
 16792 % \textopeno (tipa), \openo (wasysym)
 16793 \DeclareTextCommand{\textopeno}{PU}{\82\124}%* U+0254
 16794 %* \textopeno -> \varopeno (phonetic)
 16795 % U+0255 LATIN SMALL LETTER C WITH CURL; ccurl; \textctc (tipa)
 16796 \DeclareTextCommand{\textctc}{PU}{\82\125}% U+0255
 16797 %* \textctc -> \curlyc (wsuipa)
 16798 % U+0256 LATIN SMALL LETTER D WITH TAIL; dtail; \textrtaild (tipa)
 16799 \DeclareTextCommand{\textrtaild}{PU}{\82\126}%* U+0256
 16800 %* \textrtaild -> \taild (wsuipa)
 16801 % U+0257 LATIN SMALL LETTER D WITH HOOK; dhook; \texthtd (tipa)
 16802 \DeclareTextCommand{\texthtd}{PU}{\82\127}% U+0257
 16803 %* \texthtd -> \hookd (wsuipa)
 16804 %* \texthtd -> \hausad (phonetic)
 16805 % U+0258 LATIN SMALL LETTER REVERSED E; ereversed;
 16806 % \textreve (tipa), \reve (wsuipa)
 16807 \DeclareTextCommand{\textreve}{PU}{\82\130}%* U+0258
 16808 % U+0259 LATIN SMALL LETTER SCHWA; schwa;
 16809 % \textschwa (tipa), \schwa (wsuipa, phonetic)

16810 \DeclareTextCommand{\textschwa}{PU}{\82\131}%* U+0259
16811 % U+025A LATIN SMALL LETTER SCHWA WITH HOOK; schwahook;
16812 % \textrhookschwa (tipa)
16813 \DeclareTextCommand{\textrhookschwa}{PU}{\82\132}% U+025A
16814 %* \textrhookschwa -> \er (wsuipa)
16815 % U+025B LATIN SMALL LETTER OPEN E/LATIN SMALL LETTER EP-
SILON; eopen;
16816 % \niepsilon (wsuipa)
16817 \DeclareTextCommand{\textniepsilon}{PU}{\82\133}%* U+025B
16818 %* \textniepsilon -> \epsi (phonetic)
16819 % U+025C LATIN SMALL LETTER REVERSED OPEN E; eopenreversed;
16820 % \textrepsilon (tipa), \repsilon (wsuipa)
16821 \DeclareTextCommand{\textrepsilon}{PU}{\82\134}%* U+025C
16822 % U+025D LATIN SMALL LETTER REVERSED OPEN E WITH HOOK; eopen-
reversedhook;
16823 % \textrhookrepsilon (tipa)
16824 \DeclareTextCommand{\textrhookrepsilon}{PU}{\82\135}%* U+025D
16825 %* \textrhookrepsilon -> \hookrepsilon (wsuipa)
16826 % U+025E LATIN SMALL LETTER CLOSED REVERSED OPEN E; eopenre-
versedclosed;
16827 % \textcloserepsilon (tipa)
16828 \DeclareTextCommand{\textcloserepsilon}{PU}{\82\136}% U+025E
16829 %* \textcloserepsilon -> \closedrepsilon (wsuipa)
16830 % U+025F LATIN SMALL LETTER DOTLESS J WITH STROKE; jdot-
lessstroke;
16831 % \textbardotlessj (tipa)
16832 \DeclareTextCommand{\textbardotlessj}{PU}{\82\137}% U+025F
16833 %* \textbardotlessj -> \barj (phonetic)
16834 % U+0260 LATIN SMALL LETTER G WITH HOOK; ghook; \texthtg (tipa)
16835 \DeclareTextCommand{\texthtg}{PU}{\82\140}% U+0260
16836 %* \texthtg -> \hookg (wsuipa)
16837 % U+0261 LATIN SMALL LETTER SCRIPT G; gscript;
16838 % \textscriptg (tipa), \scriptg (wsuipa)
16839 \DeclareTextCommand{\textscriptg}{PU}{\82\141}%* U+0261
16840 %* \textscriptg -> \varg (phonetic)
16841 % U+0262 LATIN LETTER SMALL CAPITAL G; \textscg (tipa), \scg (wsuipa)
16842 \DeclareTextCommand{\textscg}{PU}{\82\142}%* U+0262
16843 % U+0263 LATIN SMALL LETTER GAMMA; gammalatinssmall;
16844 % \ipagamma (wsuipa), \vod (phonetic)
16845 \DeclareTextCommand{\textipagamma}{PU}{\82\143}%* U+0263
16846 %* \textipagamma -> \vod (pnonetic)
16847 % U+0264 LATIN SMALL LETTER RAMS HORN; ramshorn;
16848 % \babygamma (wsuipa)
16849 \DeclareTextCommand{\textbabygamma}{PU}{\82\144}%* U+0264
16850 % U+0265 LATIN SMALL LETTER TURNED H; hturned; \textturnh (tipa)
16851 \DeclareTextCommand{\textturnh}{PU}{\82\145}% U+0265
16852 %* \textturnh -> \invh (wsuipa)
16853 %* \textturnh -> \udesc (phonetic)
16854 % U+0266 LATIN SMALL LETTER H WITH HOOK; hhook; \texthth (tipa)
16855 \DeclareTextCommand{\texthth}{PU}{\82\146}% U+0266
16856 %* \texthth -> \hookh (wsuipa)
16857 %* \texthth -> \voicedh (phonetic)
16858 % U+0267 LATIN SMALL LETTER HENG WITH HOOK; henghook; \tex-
ththeng (tipa)
16859 \DeclareTextCommand{\texththeng}{PU}{\82\147}% U+0267
16860 %* \texththeng -> \hookheng (wsuipa)
16861 % U+0268 LATIN SMALL LETTER I WITH STROKE;

16862 % \textbari (tipa), \bari (wsuipa)
16863 \DeclareTextCommand{\textbari}{PU}{\82\150}%* U+0268
16864 %* \textbari -> \ibar (phonetic)
16865 % U+0269 LATIN SMALL LETTER IOTA; iotalatin; \niota (wsuipa)
16866 \DeclareTextCommand{\textniota}{PU}{\82\151}%* U+0269
16867 %* \textniota -> \vari (phonetic)
16868 % U+026A LATIN LETTER SMALL CAPITAL I; \textsci (tipa), \sci (wsuipa)
16869 \DeclareTextCommand{\textsci}{PU}{\82\152}%* U+026A
16870 % U+026B LATIN SMALL LETTER L WITH MIDDLE TILDE; lmiddletilde;
16871 % \textltilde (tipa)
16872 \DeclareTextCommand{\textltilde}{PU}{\82\153}% U+026B
16873 %* \textltilde -> \tildel (wsuipa)
16874 % U+026C LATIN SMALL LETTER L WITH BELT; lbelt; \textbeltl (tipa)
16875 \DeclareTextCommand{\textbeltl}{PU}{\82\154}% U+026C
16876 %* \textbeltl -> \latfric (wsuipa)
16877 % U+026D LATIN SMALL LETTER L WITH RETROFLEX HOOK;
16878 % lhookretroflex; \textrtaill (tipa)
16879 \DeclareTextCommand{\textrtaill}{PU}{\82\155}% U+026D
16880 %* \textrtaill -> \taill (wsuipa)
16881 % U+026E LATIN SMALL LETTER LEZH; lezh; \textlyoghlig (tipa)
16882 \DeclareTextCommand{\textlyoghlig}{PU}{\82\156}% U+026E
16883 %* \textlyoghlig -> \lz (wsuipa)
16884 % U+026F LATIN SMALL LETTER TURNED M; mturned; \textturnm (tipa)
16885 \DeclareTextCommand{\textturnm}{PU}{\82\157}% U+026F
16886 %* \textturnm -> \invm (wsuipa)
16887 %* \textturnm -> \rotm (phonetic)
16888 % U+0270 LATIN SMALL LETTER TURNED M WITH LONG LEG; mlongleg-
turned;
16889 % \textturnmreg (tipa)
16890 \DeclareTextCommand{\textturnmreg}{PU}{\82\160}% U+0270
16891 %* \textturnmreg -> \legm (wsuipa)
16892 % U+0271 LATIN SMALL LETTER M WITH HOOK; mhook; \textltailm (tipa)
16893 \DeclareTextCommand{\textltailm}{PU}{\82\161}% U+0271
16894 %* \textltailm -> \labdentainas (wsuipa)
16895 %* \textltailm -> \emgma (phonetic)
16896 % U+0272 LATIN SMALL LETTER N WITH LEFT HOOK; nhookleft; \textl-
tailn (tipa)
16897 \DeclareTextCommand{\textltailn}{PU}{\82\162}% U+0272
16898 %* \textltailn -> \nj (wsuipa)
16899 %* \textltailn -> \nya (phonetic)
16900 % U+0273 LATIN SMALL LETTER N WITH RETROFLEX HOOK;
16901 % nhookretroflex; \textrtailn (tipa)
16902 \DeclareTextCommand{\textrtailn}{PU}{\82\163}% U+0273
16903 %* \textrtailn -> \tailn (wsuipa)
16904 % U+0274 LATIN LETTER SMALL CAPITAL N; \textscn (tipa), \scn (wsuipa)
16905 \DeclareTextCommand{\textscn}{PU}{\82\164}%* U+0274
16906 % U+0275 LATIN CAPITAL LETTER O WITH MIDDLE TILDE/
16907 % LATIN CAPITAL LETTER BARRED O; obarred;
16908 % \textbaro (tipa), \baro (wsuipa)
16909 % But \baro from stmaryrd is different!
16910 \DeclareTextCommand{\textbaro}{PU}{\82\165}% U+0275
16911 % U+0276 LATIN LETTER SMALL CAPITAL OE; \textscœlig (tipa)
16912 \DeclareTextCommand{\textscœlig}{PU}{\82\166}% U+0276
16913 % U+0277 LATIN SMALL LETTER CLOSED OMEGA; omegalatinclosed;
16914 % \textcloseomega (tipa)
16915 \DeclareTextCommand{\textcloseomega}{PU}{\82\167}% U+0277
16916 %* \textcloseomega -> \closedniomega (wsuipa)

16917 %* \textcloseomega -> \varomega (phonetic)
16918 % U+0278 LATIN SMALL LETTER PHI; philatin; \niphi (wsuipa)
16919 \DeclareTextCommand{\textniphi}{PU}{\82\170}%* U+0278
16920 % U+0279 LATIN SMALL LETTER TURNED R; rturned; \textturnr (tipa)
16921 \DeclareTextCommand{\textturnr}{PU}{\82\171}% U+0279
16922 %* \textturnr -> \invr (wsuipa)
16923 %* \textturnr -> \rotr (phonetic)
16924 % U+027A LATIN SMALL LETTER TURNED R WITH LONG LEG;
16925 % rlonglegturned; \textturnlonglegr (tipa)
16926 \DeclareTextCommand{\textturnlonglegr}{PU}{\82\172}% U+027A
16927 %* \textturnlonglegr -> \invlegr (wsuipa)
16928 % U+027B LATIN SMALL LETTER TURNED R WITH HOOK; rhookturned;
16929 % \textturnrrtail (tipa)
16930 \DeclareTextCommand{\textturnrrtail}{PU}{\82\173}% U+027B
16931 %* \textturnrrtail -> \tailinvr (wsuipa)
16932 % U+027C LATIN SMALL LETTER R WITH LONG LEG; rlongleg; \textlonglegr (tipa)
16933 \DeclareTextCommand{\textlonglegr}{PU}{\82\174}%* U+027C
16934 %* \textlonglegr -> \legr (wsuipa)
16935 % U+027D LATIN SMALL LETTER R WITH TAIL; rhook; \textrtailr (tipa)
16936 \DeclareTextCommand{\textrtailr}{PU}{\82\175}% U+027D
16937 %* \textrtailr -> \tailr (wsuipa)
16938 % U+027E LATIN SMALL LETTER R WITH FISHHOOK; rfishhook;
16939 % \textfishhookr (tipa)
16940 \DeclareTextCommand{\textfishhookr}{PU}{\82\176}% U+027E
16941 %* \textfishhookr -> \flapr (wsuipa)
16942 %* \textfishhookr -> \flap (phonetic)
16943 % U+027F LATIN SMALL LETTER REVERSED R WITH FISHHOOK; rfishhookreversed;
16944 % \textlhtlongi (tipa)
16945 \DeclareTextCommand{\textlhtlongi}{PU}{\82\177}% U+027F
16946 % U+0280 LATIN LETTER SMALL CAPITAL R; \textscr (tipa), \scr (wsuipa)
16947 \DeclareTextCommand{\textscr}{PU}{\82\200}%* U+0280
16948 % U+0281 LATIN LETTER SMALL CAPITAL INVERTED R; Rsmallinverted;
16949 % \textinvscr (tipa), \invscr (wsuipa)
16950 \DeclareTextCommand{\textinvscr}{PU}{\82\201}%* U+0281
16951 % U+0282 LATIN SMALL LETTER S WITH HOOK; shook; \textrtails (tipa)
16952 \DeclareTextCommand{\textrtails}{PU}{\82\202}% U+0282
16953 %* \textrtails -> \tails (wsuipa)
16954 % U+0283 LATIN SMALL LETTER ESH; esh; \textesh (tipa), \esh (wsuipa)
16955 \DeclareTextCommand{\textesh}{PU}{\82\203}%* U+0283
16956 % U+0284 LATIN SMALL LETTER DOTLESS J WITH STROKE AND HOOK;
16957 % dotlessjstrokehook; \texthtbardotlessj (tipa)
16958 \DeclareTextCommand{\texthtbardotlessj}{PU}{\82\204}% U+0284
16959 % U+0285 LATIN SMALL LETTER SQUAT REVERSED ESH; eshsquatereversed;
16960 % \textvibyi (tipa)
16961 \DeclareTextCommand{\textvibyi}{PU}{\82\205}% U+0285
16962 % U+0286 LATIN SMALL LETTER ESH WITH CURL; eshcurl; \textctesh (tipa)
16963 \DeclareTextCommand{\textctesh}{PU}{\82\206}% U+0286
16964 %* \textctesh -> \curlyesh (wsuipa)
16965 % U+0287 LATIN SMALL LETTER TURNED T; tturned; \textturnt (tipa)
16966 \DeclareTextCommand{\textturnt}{PU}{\82\207}% U+0287
16967 %* \textturnt -> \clickt (wsuipa)
16968 % U+0288 LATIN SMALL LETTER T WITH RETROFLEX HOOK; retroflexhook;
16969 % \textrtailt (tipa)

16970 \DeclareTextCommand{\texttrtail}{PU}{\82\210}% U+0288
16971 %* \texttrtail -> \tail (wsuipa)
16972 % U+0289 LATIN SMALL LETTER U BAR; ubar;
16973 % \textbaru (tipa), \baru (wsuipa)
16974 \DeclareTextCommand{\textbaru}{PU}{\82\211}%* U+0289
16975 %* \textbaru -> \ubar (phonetic)
16976 % U+028A LATIN SMALL LETTER UPSILON; \niupsilon (wsuipa)
16977 \DeclareTextCommand{\textniupsilon}{PU}{\82\212}%* U+028A
16978 %* \textniupsilon -> \rotOmega (phonetic)
16979 % U+028B LATIN SMALL LETTER V WITH HOOK/LATIN SMALL LETTER SCRIPT V;
16980 % vhook; \textscriptv (tipa), \scriptv (wsuipa)
16981 \DeclareTextCommand{\textscriptv}{PU}{\82\213}%* U+028B
16982 % U+028C LATIN SMALL LETTER TURNED V; vturnd; \textturnv (tipa)
16983 \DeclareTextCommand{\textturnv}{PU}{\82\214}%* U+028C
16984 %* \textturnv -> \invv (wsuipa)
16985 %* \textturnv -> \pwedge (phonetic)
16986 % U+028D LATIN SMALL LETTER TURNED W; wturnd; \textturnw (tipa)
16987 \DeclareTextCommand{\textturnw}{PU}{\82\215}%* U+028D
16988 %* \textturnw -> \invw (wsuipa)
16989 %* \textturnw -> \rotw (phonetic)
16990 % U+028E LATIN SMALL LETTER TURNED Y; yturnd; \textturny (tipa)
16991 \DeclareTextCommand{\textturny}{PU}{\82\216}%* U+028E
16992 %* \textturny -> \invy (wsuipa)
16993 %* \textturny -> \roty (phonetic)
16994 % U+028F LATIN LETTER SMALL CAPITAL Y; \textscy (tipa), \scy (wsuipa)
16995 \DeclareTextCommand{\textscy}{PU}{\82\217}%* U+028F
16996 % U+0290 LATIN SMALL LETTER Z WITH RETROFLEX HOOK; zretroflex-hook;
16997 % \textrtailz (tipa)
16998 \DeclareTextCommand{\textrtailz}{PU}{\82\220}% U+0290
16999 %* \textrtailz -> \tailz (wsuipa)
17000 % U+0291 LATIN SMALL LETTER Z WITH CURL; zcurl; \textctz (tipa)
17001 \DeclareTextCommand{\textctz}{PU}{\82\221}% U+0291
17002 %* \textctz -> \curlyz (wsuipa)
17003 % U+0292 LATIN SMALL LETTER EZH/LATIN SMALL LETTER YOGH; ezh;
17004 % \textyogh (tipa), \yogh (wsuipa)
17005 \DeclareTextCommand{\textyogh}{PU}{\82\222}%* U+0292
17006 % U+0293 LATIN SMALL LETTER EZH WITH CURL/LATIN SMALL LETTER YOGH CURL;
17007 % ezhcurl; \textctyogh (tipa)
17008 \DeclareTextCommand{\textctyogh}{PU}{\82\223}% U+0293
17009 %* \textctyogh -> \curlyyogh (wsuipa)
17010 % U+0294 LATIN LETTER GLOTTAL STOP; glottalstop;
17011 % \textglotstop (tipa), \glotstop (wsuipa)
17012 \DeclareTextCommand{\textglotstop}{PU}{\82\224}%* U+0294
17013 %* \textglotstop -> \ejective (wsuipa)
17014 %* \textglotstop -> \glottal (phonetic)
17015 % U+0295 LATIN LETTER PHARYNGEAL VOICED FRICATIVE/
17016 % LATIN LETTER REVERSED GLOTTAL STOP; glottalstopreversed;
17017 % \textrevglotstop (tipa), \revglotstop (wsuipa)
17018 \DeclareTextCommand{\textrevglotstop}{PU}{\82\225}%* U+0295
17019 %* \textrevglotstop -> \reveject (wsuipa)
17020 % U+0296 LATIN LETTER INVERTED GLOTTAL STOP; glottalstopinverted;
17021 % \textinvglotstop (tipa), \invglotstop (wsuipa)
17022 \DeclareTextCommand{\textinvglotstop}{PU}{\82\226}%* U+0296
17023 % U+0297 LATIN LETTER STRETCHED C; cstretched; \textstretchc (tipa)

17024 \DeclareTextCommand{\textstretchc}{PU}{\82\227}% U+0297
17025 %* \textstretchc -> \clickc (wsuipa)
17026 %* \textstretchc -> \textstretchcvar (tipx)
17027 % U+0298 LATIN LETTER BILABIAL CLICK; bilabialclick;
17028 % \textbullseye (tipa)
17029 \DeclareTextCommand{\textbullseye}{PU}{\82\230}% U+0298
17030 %* \textbullseye -> \clickb (wsuipa)
17031 %* \textbullseye -> \textObullseye (tipx)
17032 % U+0299 LATIN LETTER SMALL CAPITAL B; \textscb (tipa)
17033 \DeclareTextCommand{\textscb}{PU}{\82\231}% U+0299
17034 % U+029A LATIN SMALL LETTER CLOSED OPEN E; eopenclosed;
17035 % \textcloseepsilon (tipa)
17036 \DeclareTextCommand{\textcloseepsilon}{PU}{\82\232}% U+029A
17037 % U+029B LATIN LETTER SMALL CAPITAL G WITH HOOK; Gsmallhook;
17038 % \texthtscg (tipa)
17039 \DeclareTextCommand{\texthtscg}{PU}{\82\233}% U+029B
17040 % U+029C LATIN LETTER SMALL CAPITAL H; \textsch (tipa)
17041 \DeclareTextCommand{\textsch}{PU}{\82\234}% U+029C
17042 % U+029D LATIN SMALL LETTER J WITH CROSSED-TAIL; jcrossed-
tail; \textcdj (tipa)
17043 \DeclareTextCommand{\textctj}{PU}{\82\235}% U+029D
17044 %* \textctj -> \textctjvar (tipx)
17045 % U+029E LATIN SMALL LETTER TURNED K; kturned; \textturnk (tipa)
17046 \DeclareTextCommand{\textturnk}{PU}{\82\236}% U+029E
17047 %* \textturnk -> \textturnsck (tipx)
17048 % U+029F LATIN LETTER SMALL CAPITAL L; \textscL (tipa)
17049 \DeclareTextCommand{\textscL}{PU}{\82\237}% U+029F
17050 % U+02A0 LATIN SMALL LETTER Q WITH HOOK; qhook; \texthtq (tipa)
17051 \DeclareTextCommand{\texthtq}{PU}{\82\240}% U+02A0
17052 % U+02A1 LATIN LETTER GLOTTAL STOP WITH STROKE; glottalstop-
stroke;
17053 % \textbarglotstop (tipa)
17054 \DeclareTextCommand{\textbarglotstop}{PU}{\82\241}% U+02A1
17055 % U+02A2 LATIN LETTER REVERSED GLOTTAL STOP WITH STROKE/
17056 % LATIN LETTER REVERSED GLOTTAL STOP BAR; glottalstopstrokere-
versed;
17057 % \textbarrevglotstop (tipa)
17058 \DeclareTextCommand{\textbarrevglotstop}{PU}{\82\242}% U+02A2
17059 % U+02A3 LATIN SMALL LETTER DZ DIGRAPH; dzaltone; \textdzlig (tipa)
17060 \DeclareTextCommand{\textdzlig}{PU}{\82\243}% U+02A3
17061 %* \textdzlig -> \dz (wsuipa)
17062 % U+02A4 LATIN SMALL LETTER DEZH DIGRAPH; dezh; \textdyogh-
lig (tipa)
17063 \DeclareTextCommand{\textdyoghlig}{PU}{\82\244}% U+02A4
17064 % U+02A5 LATIN SMALL LETTER DZ DIGRAPH WITH CURL; dzcurl;
17065 % \textdctzlig (tipa)
17066 \DeclareTextCommand{\textdctzlig}{PU}{\82\245}% U+02A5
17067 % U+02A6 LATIN SMALL LETTER TS DIGRAPH; ts; \texttslig (tipa)
17068 \DeclareTextCommand{\texttslig}{PU}{\82\246}% U+02A6
17069 % U+02A7 LATIN SMALL LETTER TESH DIGRAPH; tesh; \texttshlig (tipa)
17070 \DeclareTextCommand{\texttshlig}{PU}{\82\247}% U+02A7
17071 %* \texttshlig -> \tesh (wsuipa)
17072 % U+02A8 LATIN SMALL LETTER TC DIGRAPH WITH CURL; tccurl;
17073 % \texttctclig (tipa)
17074 \DeclareTextCommand{\texttctclig}{PU}{\82\250}% U+02A8
17075 % U+02AE LATIN SMALL LETTER TURNED H WITH FISHHOOK;
17076 % \textlhtlongy (tipa)

17077 \DeclareTextCommand{\textlhtlongy}{PU}{\82\256}% U+02AE
 17078 % U+02AF LATIN SMALL LETTER TURNED H WITH FISHHOOK AND TAIL;
 17079 % \textvibyy (tipa)
 17080 \DeclareTextCommand{\textvibyy}{PU}{\82\257}% U+02AF

51.2.7 Spacing Modifier Letters: U+02B0 to U+02FF

17081 % U+02BD MODIFIER LETTER REVERSED COMMA;
 17082 % commareversedmod, afi64937; \textrevapostrophe (tipa)
 17083 \DeclareTextCommand{\textrevapostrophe}{PU}{\82\275}% U+02BD
 17084 % U+02C0 MODIFIER LETTER GLOTTAL STOP; glottalstopmod;
 17085 % \textraiseglotstop (tipa)
 17086 \DeclareTextCommand{\textraiseglotstop}{PU}{\82\300}% U+02C0
 17087 % U+02C2 MODIFIER LETTER LEFT ARROWHEAD; arrowheadleftmod;
 17088 % \textlptr (tipa)
 17089 \DeclareTextCommand{\textlptr}{PU}{\82\302}% U+02C2
 17090 % U+02C3 MODIFIER LETTER RIGHT ARROWHEAD; arrowheadrightmod;
 17091 % \textrptr (tipa)
 17092 \DeclareTextCommand{\textrptr}{PU}{\82\303}% U+02C3
 17093 % U+02C7 CARON; caron
 17094 \DeclareTextCommand{\textasciicaron}{PU}{\82\307}% U+02C7
 17095 % U+02C8 MODIFIER LETTER VERTICAL LINE; verticallinemod;
 17096 % \textprimstress (tipa)
 17097 \DeclareTextCommand{\textprimstress}{PU}{\82\310}% U+02C8
 17098 % U+02CC MODIFIER LETTER LOW VERTICAL LINE; verticallinelowmod;
 17099 % \textsecstress (tipa)
 17100 \DeclareTextCommand{\textsecstress}{PU}{\82\314}% U+02CC
 17101 % U+02D0 MODIFIER LETTER TRIANGULAR COLON; colontriangularmod;
 17102 % \textlengthmark (tipa)
 17103 \DeclareTextCommand{\textlengthmark}{PU}{\82\320}% U+02D0
 17104 % U+02D1 MODIFIER LETTER HALF TRIANGULAR COLON; colontriangularhalfmod;
 17105 % \texthalflength (tipa)
 17106 \DeclareTextCommand{\texthalflength}{PU}{\82\321}% U+02D1
 17107 % U+02D8 BREVE; breve
 17108 \DeclareTextCommand{\textasciibreve}{PU}{\82\330}% U+02D8
 17109 % U+02D9 DOT ABOVE; dotaccent
 17110 \DeclareTextCommand{\textdotaccent}{PU}{\82\331}% U+02D9
 17111 % U+02DA RING ABOVE; ring
 17112 \DeclareTextCommand{\textring}{PU}{\82\332}% U+02DA
 17113 % U+02DB OGONEK; ogonek
 17114 \DeclareTextCommand{\textogonek}{PU}{\82\333}% U+02DB
 17115 % U+02DC SMALL TILDE; ilde, *tilde
 17116 \DeclareTextCommand{\texttilde}{PU}{\82\334}% U+02DC
 17117 % U+02DD DOUBLE ACUTE ACCENT; hungarumlaut
 17118 \DeclareTextCommand{\texthungarumlaut}{PU}{\82\335}% U+02DD
 17119 \DeclareTextCommand{\textacutedbl}{PU}{\82\335}% U+02DD
 17120 % U+02F3 MODIFIER LETTER LOW RING
 17121 \DeclareTextCommand{\textringlow}{PU}{\82\363}% U+02F3
 17122 % U+02F5 MODIFIER LETTER MIDDLE DOUBLE GRAVE ACCENT
 17123 \DeclareTextCommand{\textgravedbl}{PU}{\82\365}% U+02F5
 17124 % U+02F7 MODIFIER LETTER LOW TILDE
 17125 \DeclareTextCommand{\texttildelow}{PU}{\82\367}% U+02F7
 17126 % U+02F9 MODIFIER LETTER BEGIN HIGH TONE; \textopencorner (tipa)
 17127 \DeclareTextCommand{\textopencorner}{PU}{\82\371}% U+02F9
 17128 % U+02FA MODIFIER LETTER END HIGH TONE; \textcorner (tipa)
 17129 \DeclareTextCommand{\textcorner}{PU}{\82\372}% U+02FA

51.2.8 Combining Diacritical Marks: U+0300 to U+036F

17130 % U+030F COMBINING DOUBLE GRAVE ACCENT; dblgravemcmb
17131 \DeclareTextCommand{\textdoublegrave}{PU}{\83\017}% U+030F
17132 % U+0311 COMBINING INVERTED BREVE; breveinvertedcmb
17133 \DeclareTextCommand{\textnewtie}{PU}{\83\021}% U+0311
17134 % U+0323 COMBINING DOT BELOW; dotbelowcmb, *dotbelowcomb
17135 \DeclareTextCommand{\textdotbelow}{PU}{\83\043}% U+0323
17136 % U+0331 COMBINING MACRON BELOW; macronbelowcmb
17137 \DeclareTextCommand{\textmacronbelow}{PU}{\83\061}% U+0331
17138 % U+0361 COMBINING DOUBLE INVERTED BREVE; breveinverteddoublecmb
17139 \DeclareTextCommand{\texttie}{PU}{\83\141}% U+0361

51.2.9 Greek and Coptic: U+0370 to U+03FF

17140 % U+0374 GREEK NUMERAL SIGN; numeralsigngreek
17141 \DeclareTextCommand{\textnumeralsigngreek}{PU}{\83\164}% U+0374
17142 % U+0375 GREEK LOWER NUMERAL SIGN; numeralsignlowergreek
17143 \DeclareTextCommand{\textnumeralsignlowergreek}{PU}{\83\165}% U+0375
17144 % U+0386 GREEK CAPITAL LETTER ALPHA WITH TONOS; Alphanos
17145 \DeclareTextCompositeCommand{\'}{PU}{\textAlpha}{\83\206}% U+0386
17146 % U+0388 GREEK CAPITAL LETTER EPSILON WITH TONOS; Epsilontonos
17147 \DeclareTextCompositeCommand{\'}{PU}{\textEpsilon}{\83\210}% U+0388
17148 % U+0389 GREEK CAPITAL LETTER ETA WITH TONOS; Etanos
17149 \DeclareTextCompositeCommand{\'}{PU}{\textEta}{\83\211}% U+0389
17150 % U+038A GREEK CAPITAL LETTER IOTA WITH TONOS; Iotanos
17151 \DeclareTextCompositeCommand{\'}{PU}{\textIota}{\83\212}% U+038A
17152 % U+038C GREEK CAPITAL LETTER OMICRON WITH TONOS; Omicrontonos
17153 \DeclareTextCompositeCommand{\'}{PU}{\textOmicron}{\83\214}% U+038C
17154 % U+038E GREEK CAPITAL LETTER UPSILON WITH TONOS; Upsilontonos
17155 \DeclareTextCompositeCommand{\'}{PU}{\textUpsilon}{\83\216}% U+038E
17156 % U+038F GREEK CAPITAL LETTER OMEGA WITH TONOS; Omegatonos
17157 \DeclareTextCompositeCommand{\'}{PU}{\textOmega}{\83\217}% U+038F
17158 % U+0390 GREEK SMALL LETTER IOTA WITH DIALYTIKA AND TONOS;
17159 % iodadiesistonos
17160 \DeclareTextCompositeCommand{\'}{PU}{\textIotadiesis}{\83\220}% U+0390
17161 % U+0391 GREEK CAPITAL LETTER ALPHA; Alpha
17162 \DeclareTextCommand{\textAlpha}{PU}{\83\221}% U+0391
17163 % U+0392 GREEK CAPITAL LETTER BETA; Beta
17164 \DeclareTextCommand{\textBeta}{PU}{\83\222}% U+0392
17165 % U+0393 GREEK CAPITAL LETTER GAMMA; Gamma; \Gamma (LaTeX)
17166 \DeclareTextCommand{\textGamma}{PU}{\83\223}%* U+0393
17167 % U+0394 GREEK CAPITAL LETTER DELTA; Deltagreek, *Delta; \Delta (LaTeX)
17168 \DeclareTextCommand{\textDelta}{PU}{\83\224}%* U+0394
17169 % U+0395 GREEK CAPITAL LETTER EPSILON; Epsilon
17170 \DeclareTextCommand{\textEpsilon}{PU}{\83\225}% U+0395
17171 % U+0396 GREEK CAPITAL LETTER ZETA; Zeta
17172 \DeclareTextCommand{\textZeta}{PU}{\83\226}% U+0396
17173 % U+0397 GREEK CAPITAL LETTER ETA; Eta
17174 \DeclareTextCommand{\textEta}{PU}{\83\227}% U+0397
17175 % U+0398 GREEK CAPITAL LETTER THETA; Theta; \Theta (LaTeX)
17176 \DeclareTextCommand{\textTheta}{PU}{\83\230}%* U+0398
17177 % U+0399 GREEK CAPITAL LETTER IOTA; Iota
17178 \DeclareTextCommand{\textIota}{PU}{\83\231}% U+0399
17179 % U+039A GREEK CAPITAL LETTER KAPPA; Kappa
17180 \DeclareTextCommand{\textKappa}{PU}{\83\232}% U+039A

17181 % U+039B GREEK CAPITAL LETTER LAMDA; Lambda; Λ (LaTeX)
17182 \DeclareTextCommand{\textLambda}{PU}{\83\233}%* U+039B
17183 % U+039C GREEK CAPITAL LETTER MU; Mu
17184 \DeclareTextCommand{\textMu}{PU}{\83\234}% U+039C
17185 % U+039D GREEK CAPITAL LETTER NU; Nu
17186 \DeclareTextCommand{\textNu}{PU}{\83\235}% U+039D
17187 % U+039E GREEK CAPITAL LETTER XI; Xi; Ξ (LaTeX)
17188 \DeclareTextCommand{\textXi}{PU}{\83\236}%* U+039E
17189 % U+039F GREEK CAPITAL LETTER OMICRON; Omicron
17190 \DeclareTextCommand{\textOmicron}{PU}{\83\237}% U+039F
17191 % U+03A0 GREEK CAPITAL LETTER PI; Pi
17192 \DeclareTextCommand{\textPi}{PU}{\83\240}%* U+03A0
17193 % U+03A1 GREEK CAPITAL LETTER RHO; Rho
17194 \DeclareTextCommand{\textRho}{PU}{\83\241}% U+03A1
17195 % U+03A3 GREEK CAPITAL LETTER SIGMA; Sigma; Σ (LaTeX)
17196 \DeclareTextCommand{\textSigma}{PU}{\83\243}%* U+03A3
17197 % U+03A4 GREEK CAPITAL LETTER TAU; Tau
17198 \DeclareTextCommand{\textTau}{PU}{\83\244}% U+03A4
17199 % U+03A5 GREEK CAPITAL LETTER UPSILON; Upsilon; Υ (LaTeX)
17200 \DeclareTextCommand{\textUpsilon}{PU}{\83\245}%* U+03A5
17201 % U+03A6 GREEK CAPITAL LETTER PHI; Phi; Φ (LaTeX)
17202 \DeclareTextCommand{\textPhi}{PU}{\83\246}%* U+03A6
17203 % U+03A7 GREEK CAPITAL LETTER CHI; Chi
17204 \DeclareTextCommand{\textChi}{PU}{\83\247}% U+03A7
17205 % U+03A8 GREEK CAPITAL LETTER PSI; Psi; Ψ (LaTeX)
17206 \DeclareTextCommand{\textPsi}{PU}{\83\250}%* U+03A8
17207 % U+03A9 GREEK CAPITAL LETTER OMEGA; Omegagreek, *Omega;
17208 % Ω (LaTeX)
17209 \DeclareTextCommand{\textOmega}{PU}{\83\251}%* U+03A9
17210 % U+03AA GREEK CAPITAL LETTER IOTA WITH DIALYTIKA; Iotadieresis
17211 \DeclareTextCommand{\textIotadieresis}{PU}{\83\252}% U+03AA
17212 \DeclareTextCompositeCommand{\'}{PU}{\textIota}{\83\252}% U+03AA
17213 % U+03AB GREEK CAPITAL LETTER UPSILON WITH DIALYTIKA; Upsilondieresis
17214 \DeclareTextCompositeCommand{\'}{PU}{\textUpsilon}{\83\253}% U+03AB
17215 % U+03AC GREEK SMALL LETTER ALPHA WITH TONOS; alphanos
17216 \DeclareTextCompositeCommand{\'}{PU}{\textalpha}{\83\254}%* U+03AC
17217 % U+03AD GREEK SMALL LETTER EPSILON WITH TONOS; epsilononos
17218 \DeclareTextCompositeCommand{\'}{PU}{\textepsilon}{\83\255}% U+03AD
17219 % U+03AE GREEK SMALL LETTER ETA WITH TONOS; etanos
17220 \DeclareTextCompositeCommand{\'}{PU}{\texteta}{\83\256}% U+03AE
17221 % U+03AF GREEK SMALL LETTER IOTA WITH TONOS; iotanos
17222 \DeclareTextCompositeCommand{\'}{PU}{\textiota}{\83\257}% U+03AF
17223 % U+03B0 GREEK SMALL LETTER UPSILON WITH DIALYTIKA
17224 % AND TONOS; upsilondieresis
17225 \DeclareTextCompositeCommand{\'}{PU}{\textupsilonacute}{\83\260}% U+03B0
17226 % U+03B1 GREEK SMALL LETTER ALPHA; alpha; α (LaTeX)
17227 \DeclareTextCommand{\textalpha}{PU}{\83\261}%* U+03B1
17228 % U+03B2 GREEK SMALL LETTER BETA; beta; β (LaTeX)
17229 \DeclareTextCommand{\textbeta}{PU}{\83\262}%* U+03B2
17230 % U+03B3 GREEK SMALL LETTER GAMMA; gamma; γ (LaTeX)
17231 \DeclareTextCommand{\textgamma}{PU}{\83\263}%* U+03B3
17232 % U+03B4 GREEK SMALL LETTER DELTA; delta; δ (LaTeX)
17233 \DeclareTextCommand{\textdelta}{PU}{\83\264}%* U+03B4
17234 % U+03B5 GREEK SMALL LETTER EPSILON; epsilon; ϵ (LaTeX)
17235 \DeclareTextCommand{\textepsilon}{PU}{\83\265}%* U+03B5
17236 % U+03B6 GREEK SMALL LETTER ZETA; zeta; ζ (LaTeX)

17237 \DeclareTextCommand{\textzeta}{PU}{\83\266}%* U+03B6
17238 % U+03B7 GREEK SMALL LETTER ETA; eta; \eta (LaTeX)
17239 \DeclareTextCommand{\texteta}{PU}{\83\267}%* U+03B7
17240 % U+03B8 GREEK SMALL LETTER THETA; theta; \theta (LaTeX)
17241 \DeclareTextCommand{\texttheta}{PU}{\83\270}%* U+03B8
17242 % U+03B9 GREEK SMALL LETTER IOTA; iota; \iota (LaTeX)
17243 \DeclareTextCommand{\textiota}{PU}{\83\271}%* U+03B9
17244 % U+03BA GREEK SMALL LETTER KAPPA; kappa; \kappa (LaTeX)
17245 \DeclareTextCommand{\textkappa}{PU}{\83\272}%* U+03BA
17246 % U+03BB GREEK SMALL LETTER LAMDA; lambda; \lambda (LaTeX)
17247 \DeclareTextCommand{\textlambda}{PU}{\83\273}%* U+03BB
17248 % U+03BC GREEK SMALL LETTER MU; mugreek, *mu; \mu (LaTeX)
17249 \DeclareTextCommand{\textmugreek}{PU}{\83\274}%* U+03BC
17250 % U+03BD GREEK SMALL LETTER NU; nu; \nu (LaTeX)
17251 \DeclareTextCommand{\textnu}{PU}{\83\275}%* U+03BD
17252 % U+03BE GREEK SMALL LETTER XI; xi; \xi (LaTeX)
17253 \DeclareTextCommand{\textxi}{PU}{\83\276}%* U+03BE
17254 % U+03BF GREEK SMALL LETTEROMICRON; omicron
17255 \DeclareTextCommand{\textomicron}{PU}{\83\277}% U+03BF
17256 % U+03C0 GREEK SMALL LETTER PI; pi; \pi (LaTeX)
17257 \DeclareTextCommand{\textpi}{PU}{\83\300}%* U+03C0
17258 % U+03C1 GREEK SMALL LETTER RHO; rho; \rho (LaTeX)
17259 \DeclareTextCommand{\textrho}{PU}{\83\301}%* U+03C1
17260 % U+03C2 GREEK SMALL LETTER FINAL SIGMA; *sigma1, sigmafinal
17261 \DeclareTextCommand{\textvarsigma}{PU}{\83\302}%* U+03C2
17262 % U+03C3 GREEK SMALL LETTER SIGMA; sigma; \sigma (LaTeX)
17263 \DeclareTextCommand{\textsigma}{PU}{\83\303}%* U+03C3
17264 % U+03C4 GREEK SMALL LETTER TAU; tau; \tau (LaTeX)
17265 \DeclareTextCommand{\texttau}{PU}{\83\304}%* U+03C4
17266 % U+03C5 GREEK SMALL LETTER UPSILON; upsilon; \upsilon (LaTeX)
17267 \DeclareTextCommand{\textupsilon}{PU}{\83\305}%* U+03C5
17268 % U+03C6 GREEK SMALL LETTER PHI; phi; \phi (LaTeX)
17269 \DeclareTextCommand{\textphi}{PU}{\83\306}%* U+03C6
17270 % U+03C7 GREEK SMALL LETTER CHI; chi; \chi (LaTeX)
17271 \DeclareTextCommand{\textchi}{PU}{\83\307}%* U+03C7
17272 % U+03C8 GREEK SMALL LETTER PSI; psi; \psi (LaTeX)
17273 \DeclareTextCommand{\textpsi}{PU}{\83\310}%* U+03C8
17274 % U+03C9 GREEK SMALL LETTER OMEGA; omega; \omega (LaTeX)
17275 \DeclareTextCommand{\textomega}{PU}{\83\311}%* U+03C9
17276 % U+03CA GREEK SMALL LETTER IOTA WITH DIALYTIKA; iotadieresis
17277 \DeclareTextCompositeCommand{\'}{PU}{\textiota}{\83\312}% U+03CA
17278 % U+03CB GREEK SMALL LETTER UPSILON WITH DIALYTIKA; up-
silondieresis
17279 \DeclareTextCompositeCommand{\'}{PU}{\textupsilon}{\83\313}% U+03CB
17280 % U+03CC GREEK SMALL LETTEROMICRON WITH TONOS; omicrontonos
17281 \DeclareTextCompositeCommand{\'}{PU}{\textomicron}{\83\314}% U+03CC
17282 % U+03CD GREEK SMALL LETTER UPSILON WITH TONOS; upsilontonos
17283 \DeclareTextCommand{\textupsilonacute}{PU}{\83\315}% U+03CD
17284 \DeclareTextCompositeCommand{\'}{PU}{\textupsilon}{\83\315}% U+03CD
17285 % U+03CE GREEK SMALL LETTER OMEGA WITH TONOS; omegatonos
17286 \DeclareTextCompositeCommand{\'}{PU}{\textomega}{\83\316}% U+03CE
17287 % U+03DA GREEK LETTER STIGMA; Stigmagreek
17288 \DeclareTextCommand{\textStigmagreek}{PU}{\83\332}% U+03DA
17289 % U+03DB GREEK SMALL LETTER STIGMA
17290 \DeclareTextCommand{\textstigmagreek}{PU}{\83\333}% U+03DB
17291 % U+03DC GREEK LETTER DIGAMMA; Digammagreek
17292 \DeclareTextCommand{\textDigammagreek}{PU}{\83\334}% U+03DC

17293 % U+03DD GREEK SMALL LETTER DIGAMMA
17294 \DeclareTextCommand{\textdigammagreek}{PU}{\83\335}% U+03DD
17295 %* \textdigammagreek -> \digamma (AmS)
17296 % U+03DE GREEK LETTER KOPPA; Koppagreek
17297 \DeclareTextCommand{\textKoppagreek}{PU}{\83\336}% U+03DE
17298 % U+03DF GREEK SMALL LETTER KOPPA
17299 \DeclareTextCommand{\textkoppagreek}{PU}{\83\337}% U+03DF
17300 % U+03E0 GREEK LETTER SAMPI; Sampigreek
17301 \DeclareTextCommand{\textSampigreek}{PU}{\83\340}% U+03E0
17302 % U+03E1 GREEK SMALL LETTER SAMPI
17303 \DeclareTextCommand{\textsampigreek}{PU}{\83\341}% U+03E1
17304 % U+03F6 GREEK REVERSED LUNATE EPSILON SYMBOL;
17305 % \backepsilon (AmS)
17306 \DeclareTextCommand{\textbackepsilon}{PU}{\83\366}% U+03F6

51.2.10 Cyrillic: U+0400 to U+04FF

Thanks to Vladimir Volovich (vvv@vvv.vsu.ru) for the help with the Cyrillic glyph names.

17307 % U+0400 CYRILLIC CAPITAL LETTER IE WITH GRAVE
17308 \DeclareTextCompositeCommand{\'}{PU}{\CYRE}{\84\000}% U+0400
17309 % U+0401 CYRILLIC CAPITAL LETTER IO; Iocyrillic, *afii10023
17310 \DeclareTextCommand{\CYRYO}{PU}{\84\001}% U+0401
17311 \DeclareTextCompositeCommand{\"}{PU}{\CYRE}{\84\001}% U+0401
17312 % U+0402 CYRILLIC CAPITAL LETTER DJE; Djecyrillic, *afii10051
17313 \DeclareTextCommand{\CYRDJE}{PU}{\84\002}% U+0402
17314 % U+0403 CYRILLIC CAPITAL LETTER GJE; Gjecyrillic, *afii10052
17315 \DeclareTextCompositeCommand{\'}{PU}{\CYRG}{\84\003}% U+0403
17316 % U+0404 CYRILLIC CAPITAL LETTER UKRAINIAN IE; Ecyrillic, *afii10053
17317 \DeclareTextCommand{\CYRIE}{PU}{\84\004}% U+0404
17318 % U+0405 CYRILLIC CAPITAL LETTER DZE; Dzecyrillic, *afii10054
17319 \DeclareTextCommand{\CYRDZE}{PU}{\84\005}% U+0405
17320 % U+0406 CYRILLIC CAPITAL LETTER BYELORUSSIAN-UKRAINIAN I;
17321 % Icyrillic, *afii10055
17322 \DeclareTextCommand{\CYRII}{PU}{\84\006}% U+0406
17323 % U+0407 CYRILLIC CAPITAL LETTER YI; Yicyrillic, *afii10056
17324 \DeclareTextCommand{\CYRYI}{PU}{\84\007}% U+0407
17325 \DeclareTextCompositeCommand{\"}{PU}{\CYRII}{\84\007}% U+0407
17326 % U+0408 CYRILLIC CAPITAL LETTER JE; Jecyrillic, *afii10057
17327 \DeclareTextCommand{\CYRJE}{PU}{\84\010}% U+0408
17328 % U+0409 CYRILLIC CAPITAL LETTER LJE; Ljecyrillic, *afii10058
17329 \DeclareTextCommand{\CYRLJE}{PU}{\84\011}% U+0409
17330 % U+040A CYRILLIC CAPITAL LETTER NJE; Njecyrillic, *afii10059
17331 \DeclareTextCommand{\CYRNJE}{PU}{\84\012}% U+040A
17332 % U+040B CYRILLIC CAPITAL LETTER TSHE; Tshecyrillic, *afii10060
17333 \DeclareTextCommand{\CYRTSHE}{PU}{\84\013}% U+040B
17334 % U+040C CYRILLIC CAPITAL LETTER KJE; Kjecyrillic, *afii10061
17335 \DeclareTextCompositeCommand{\'}{PU}{\CYRK}{\84\014}% U+040C
17336 % U+040D CYRILLIC CAPITAL LETTER I WITH GRAVE
17337 \DeclareTextCompositeCommand{\'}{PU}{\CYRI}{\84\015}% U+040D
17338 % U+040E CYRILLIC CAPITAL LETTER SHORT U; Ushortcyrillic, *afii10062
17339 \DeclareTextCommand{\CYRUSHRT}{PU}{\84\016}% U+040E
17340 \DeclareTextCompositeCommand{\U}{PU}{\CYRU}{\84\016}% U+040E
17341 % U+040F CYRILLIC CAPITAL LETTER DZHE; Dzhecyrillic, *afii10145
17342 \DeclareTextCommand{\CYRDZHE}{PU}{\84\017}% U+040F
17343 % U+0410 CYRILLIC CAPITAL LETTER A; Acyrillic, *afii10017
17344 \DeclareTextCommand{\CYRA}{PU}{\84\020}% U+0410
17345 % U+0411 CYRILLIC CAPITAL LETTER BE; Becyrillic, *afii10018

17346 \DeclareTextCommand{\CYRB}{PU}{\84\021}% U+0411
17347 % U+0412 CYRILLIC CAPITAL LETTER VE; Vecyrillic, *afii10019
17348 \DeclareTextCommand{\CYRV}{PU}{\84\022}% U+0412
17349 % U+0413 CYRILLIC CAPITAL LETTER GHE; Gecyrillic, *afii10020
17350 \DeclareTextCommand{\CYRG}{PU}{\84\023}% U+0413
17351 % U+0414 CYRILLIC CAPITAL LETTER DE; Decyrillic, *afii10021
17352 \DeclareTextCommand{\CYRD}{PU}{\84\024}% U+0414
17353 % U+0415 CYRILLIC CAPITAL LETTER IE; Iecyrillic, *afii10022
17354 \DeclareTextCommand{\CYRE}{PU}{\84\025}% U+0415
17355 % U+0416 CYRILLIC CAPITAL LETTER ZHE; Zhecyrillic, *afii10024
17356 \DeclareTextCommand{\CYRZH}{PU}{\84\026}% U+0416
17357 % U+0417 CYRILLIC CAPITAL LETTER ZE; Zecyrillic, *afii10025
17358 \DeclareTextCommand{\CYRZ}{PU}{\84\027}% U+0417
17359 % U+0418 CYRILLIC CAPITAL LETTER I; Iicyrillic, *afii10026
17360 \DeclareTextCommand{\CYRI}{PU}{\84\030}% U+0418
17361 % U+0419 CYRILLIC CAPITAL LETTER SHORT I; Iishortcyrillic, *afii10027
17362 \DeclareTextCommand{\CYRISHRT}{PU}{\84\031}% U+0419
17363 \DeclareTextCompositeCommand{\U}{PU}{\CYRI}{\84\031}% U+0419
17364 % U+041A CYRILLIC CAPITAL LETTER KA; Kacyrillic, *afii10028
17365 \DeclareTextCommand{\CYRK}{PU}{\84\032}% U+041A
17366 % U+041B CYRILLIC CAPITAL LETTER EL; Elcyrillic, *afii10029
17367 \DeclareTextCommand{\CYRL}{PU}{\84\033}% U+041B
17368 % U+041C CYRILLIC CAPITAL LETTER EM; Emcyrillic, *afii10030
17369 \DeclareTextCommand{\CYRM}{PU}{\84\034}% U+041C
17370 % U+041D CYRILLIC CAPITAL LETTER EN; Encyrillic, *afii10031
17371 \DeclareTextCommand{\CYRN}{PU}{\84\035}% U+041D
17372 % U+041E CYRILLIC CAPITAL LETTER O; Ocyrillic, *afii10032
17373 \DeclareTextCommand{\CYRO}{PU}{\84\036}% U+041E
17374 % U+041F CYRILLIC CAPITAL LETTER PE; Pecyrillic, *afii10033
17375 \DeclareTextCommand{\CYRP}{PU}{\84\037}% U+041F
17376 % U+0420 CYRILLIC CAPITAL LETTER ER; Ercyrillic, *afii10034
17377 \DeclareTextCommand{\CYRR}{PU}{\84\040}% U+0420
17378 % U+0421 CYRILLIC CAPITAL LETTER ES; Escyrillic, *afii10035
17379 \DeclareTextCommand{\CYRS}{PU}{\84\041}% U+0421
17380 % U+0422 CYRILLIC CAPITAL LETTER TE; Tecyrillic, *afii10036
17381 \DeclareTextCommand{\CYRT}{PU}{\84\042}% U+0422
17382 % U+0423 CYRILLIC CAPITAL LETTER U; Ucyrillic, *afii10037
17383 \DeclareTextCommand{\CYRU}{PU}{\84\043}% U+0423
17384 % U+0424 CYRILLIC CAPITAL LETTER EF; Efcyrillic, *afii10038
17385 \DeclareTextCommand{\CYRF}{PU}{\84\044}% U+0424
17386 % U+0425 CYRILLIC CAPITAL LETTER HA; Khacyrillic, *afii10039
17387 \DeclareTextCommand{\CYRH}{PU}{\84\045}% U+0425
17388 % U+0426 CYRILLIC CAPITAL LETTER TSE; Tsecyrillic, *afii10040
17389 \DeclareTextCommand{\CYRC}{PU}{\84\046}% U+0426
17390 % U+0427 CYRILLIC CAPITAL LETTER CHE; Checyrillic, *afii10041
17391 \DeclareTextCommand{\CYRCH}{PU}{\84\047}% U+0427
17392 % U+0428 CYRILLIC CAPITAL LETTER SHA; Shacyrillic, *afii10042
17393 \DeclareTextCommand{\CYRSH}{PU}{\84\050}% U+0428
17394 % U+0429 CYRILLIC CAPITAL LETTER SHCHA; Shchacyrillic, *afii10043
17395 \DeclareTextCommand{\CYRSHCH}{PU}{\84\051}% U+0429
17396 % U+042A CYRILLIC CAPITAL LETTER HARD SIGN;
17397 % Hardsigncyrillic, *afii10044
17398 \DeclareTextCommand{\CYRHRDSN}{PU}{\84\052}% U+042A
17399 % U+042B CYRILLIC CAPITAL LETTER YERU; Yericyrillic, *afii10045
17400 \DeclareTextCommand{\CYRERY}{PU}{\84\053}% U+042B
17401 % U+042C CYRILLIC CAPITAL LETTER SOFT SIGN;
17402 % Softsigncyrillic, *afii10046

17403 \DeclareTextCommand{\CYRSFTSN}{PU}{\84\054}% U+042C
17404 % U+042D CYRILLIC CAPITAL LETTER E; Ereversedcyrillic, *afii10047
17405 \DeclareTextCommand{\CYREREV}{PU}{\84\055}% U+042D
17406 % U+042E CYRILLIC CAPITAL LETTER YU; IUcyrillic, *afii10048
17407 \DeclareTextCommand{\CYRYU}{PU}{\84\056}% U+042E
17408 % U+042F CYRILLIC CAPITAL LETTER YA; IAcyrillic, *afii10049
17409 \DeclareTextCommand{\CYRYA}{PU}{\84\057}% U+042F
17410 % U+0430 CYRILLIC SMALL LETTER A; acyrillic, *afii10065
17411 \DeclareTextCommand{\cyra}{PU}{\84\060}% U+0430
17412 % U+0431 CYRILLIC SMALL LETTER BE; *afii10066, becyrillic
17413 \DeclareTextCommand{\cyrb}{PU}{\84\061}% U+0431
17414 % U+0432 CYRILLIC SMALL LETTER VE; *afii10067, vecyrillic
17415 \DeclareTextCommand{\cyrv}{PU}{\84\062}% U+0432
17416 % U+0433 CYRILLIC SMALL LETTER GHE; *afii10068, gecyrillic
17417 \DeclareTextCommand{\cyrg}{PU}{\84\063}% U+0433
17418 % U+0434 CYRILLIC SMALL LETTER DE; *afii10069, decyrillic
17419 \DeclareTextCommand{\cyrd}{PU}{\84\064}% U+0434
17420 % U+0435 CYRILLIC SMALL LETTER IE; *afii10070, iecyrillic
17421 \DeclareTextCommand{\cyre}{PU}{\84\065}% U+0435
17422 % U+0436 CYRILLIC SMALL LETTER ZHE; *afii10072, zhecyrillic
17423 \DeclareTextCommand{\cyrzh}{PU}{\84\066}% U+0436
17424 % U+0437 CYRILLIC SMALL LETTER ZE; *afii10073, zecyrillic
17425 \DeclareTextCommand{\cyrz}{PU}{\84\067}% U+0437
17426 % U+0438 CYRILLIC SMALL LETTER I; *afii10074, iicyrillic
17427 \DeclareTextCommand{\cyri}{PU}{\84\070}% U+0438
17428 % U+0439 CYRILLIC SMALL LETTER SHORT I; *afii10075, iishortcyrillic
17429 \DeclareTextCommand{\cyrishrt}{PU}{\84\071}% U+0439
17430 \DeclareTextCompositeCommand{\U}{PU}{\cyri}{\84\071}% U+0439
17431 % U+043A CYRILLIC SMALL LETTER KA; *afii10076, kacyrillic
17432 \DeclareTextCommand{\cyrk}{PU}{\84\072}% U+043A
17433 % U+043B CYRILLIC SMALL LETTER EL; *afii10077, elcyrillic
17434 \DeclareTextCommand{\cyrl}{PU}{\84\073}% U+043B
17435 % U+043C CYRILLIC SMALL LETTER EM; *afii10078, emcyrillic
17436 \DeclareTextCommand{\cyrm}{PU}{\84\074}% U+043C
17437 % U+043D CYRILLIC SMALL LETTER EN; *afii10079, encyrillic
17438 \DeclareTextCommand{\cyrn}{PU}{\84\075}% U+043D
17439 % U+043E CYRILLIC SMALL LETTER O; *afii10080, ocyrillic
17440 \DeclareTextCommand{\cyro}{PU}{\84\076}% U+043E
17441 % U+043F CYRILLIC SMALL LETTER PE; *afii10081, pecyrillic
17442 \DeclareTextCommand{\cyrp}{PU}{\84\077}% U+043F
17443 % U+0440 CYRILLIC SMALL LETTER ER; *afii10082, ercyrillic
17444 \DeclareTextCommand{\cyrr}{PU}{\84\100}% U+0440
17445 % U+0441 CYRILLIC SMALL LETTER ES; *afii10083, escyrillic
17446 \DeclareTextCommand{\cyrs}{PU}{\84\101}% U+0441
17447 % U+0442 CYRILLIC SMALL LETTER TE; *afii10084, tecyrillic
17448 \DeclareTextCommand{\cyrt}{PU}{\84\102}% U+0442
17449 % U+0443 CYRILLIC SMALL LETTER U; *afii10085, ucyrillic
17450 \DeclareTextCommand{\cyru}{PU}{\84\103}% U+0443
17451 % U+0444 CYRILLIC SMALL LETTER EF; *afii10086, efcyrillic
17452 \DeclareTextCommand{\cyrf}{PU}{\84\104}% U+0444
17453 % U+0445 CYRILLIC SMALL LETTER HA; *afii10087, khacyrillic
17454 \DeclareTextCommand{\cyrh}{PU}{\84\105}% U+0445
17455 % U+0446 CYRILLIC SMALL LETTER TSE; *afii10088, tsecyrillic
17456 \DeclareTextCommand{\cyrc}{PU}{\84\106}% U+0446
17457 % U+0447 CYRILLIC SMALL LETTER CHE; *afii10089, checyrillic
17458 \DeclareTextCommand{\cyrch}{PU}{\84\107}% U+0447
17459 % U+0448 CYRILLIC SMALL LETTER SHA; *afii10090, shacyrillic

17460 \DeclareTextCommand{\cyrsh}{PU}{\84\110}% U+0448
17461 % U+0449 CYRILLIC SMALL LETTER SHCHA; *afii10091, shchacyrillic
17462 \DeclareTextCommand{\cyrshch}{PU}{\84\111}% U+0449
17463 % U+044A CYRILLIC SMALL LETTER HARD SIGN; *afii10092, hardsigncyrillic
17464 \DeclareTextCommand{\cyrhrdsn}{PU}{\84\112}% U+044A
17465 %* \cyrhrdsn -> \hardsign (tipa)
17466 % U+044B CYRILLIC SMALL LETTER YERU; *afii10093, yericyrillic
17467 \DeclareTextCommand{\cyrery}{PU}{\84\113}% U+044B
17468 % U+044C CYRILLIC SMALL LETTER SOFT SIGN; *afii10094, softsigncyrillic
17469 \DeclareTextCommand{\cyrstsn}{PU}{\84\114}% U+044C
17470 %* \cyrstsn -> \softsign (tipa)
17471 % U+044D CYRILLIC SMALL LETTER E; *afii10095, ereversedcyrillic
17472 \DeclareTextCommand{\cyrerev}{PU}{\84\115}% U+044D
17473 % U+044E CYRILLIC SMALL LETTER YU; *afii10096, iucyrillic
17474 \DeclareTextCommand{\cyreru}{PU}{\84\116}% U+044E
17475 % U+044F CYRILLIC SMALL LETTER YA; *afii10097, iacyrillic
17476 \DeclareTextCommand{\cyrerya}{PU}{\84\117}% U+044F
17477 % U+0450 CYRILLIC SMALL LETTER IE WITH GRAVE
17478 \DeclareTextCompositeCommand{\'}{PU}{\cyre}{\84\120}% U+0450
17479 % U+0451 CYRILLIC SMALL LETTER IO; *afii10071, iocyrillic
17480 \DeclareTextCommand{\cyrero}{PU}{\84\121}% U+0451
17481 \DeclareTextCompositeCommand{\"}{PU}{\cyre}{\84\121}% U+0451
17482 % U+0452 CYRILLIC SMALL LETTER DJE; *afii10099, djecyrillic
17483 \DeclareTextCommand{\cyrdje}{PU}{\84\122}% U+0452
17484 % U+0453 CYRILLIC SMALL LETTER GJE; *afii10100, gjecyrillic
17485 \DeclareTextCompositeCommand{\'}{PU}{\cyrge}{\84\123}% U+0453
17486 % U+0454 CYRILLIC SMALL LETTER UKRAINIAN IE; *afii10101, ecyrillic
17487 \DeclareTextCommand{\cyrrie}{PU}{\84\124}% U+0454
17488 % U+0455 CYRILLIC SMALL LETTER DZE; *afii10102, dzecyrillic
17489 \DeclareTextCommand{\cyrdze}{PU}{\84\125}% U+0455
17490 % U+0456 CYRILLIC SMALL LETTER BYELORUSSIAN-UKRAINIAN I;
17491 % *afii10103, icyrillic
17492 \DeclareTextCommand{\cyrri}{PU}{\84\126}% U+0456
17493 % U+0457 CYRILLIC SMALL LETTER YI; *afii10104, yicyrillic
17494 \DeclareTextCommand{\cyrri}{PU}{\84\127}% U+0457
17495 \DeclareTextCompositeCommand{\"}{PU}{\cyrri}{\84\127}% U+0457
17496 % U+0458 CYRILLIC SMALL LETTER JE; *afii10105, jecyrillic
17497 \DeclareTextCommand{\cyrje}{PU}{\84\130}% U+0458
17498 % U+0459 CYRILLIC SMALL LETTER LJE; *afii10106, ljecyrillic
17499 \DeclareTextCommand{\cyrlje}{PU}{\84\131}% U+0459
17500 % U+045A CYRILLIC SMALL LETTER NJE; *afii10107, njecyrillic
17501 \DeclareTextCommand{\cyrnje}{PU}{\84\132}% U+045A
17502 % U+045B CYRILLIC SMALL LETTER TSHE; *afii10108, tshecyrillic
17503 \DeclareTextCommand{\cyrtshe}{PU}{\84\133}% U+045B
17504 % U+045C CYRILLIC SMALL LETTER KJE; *afii10109, kjecyrillic
17505 \DeclareTextCompositeCommand{\'}{PU}{\cyrk}{\84\134}% U+045C
17506 % U+045D CYRILLIC SMALL LETTER I WITH GRAVE
17507 \DeclareTextCompositeCommand{\'}{PU}{\cyrri}{\84\135}% U+045D
17508 % U+045E CYRILLIC SMALL LETTER SHORT U; *afii10110, ushortcyrillic
17509 \DeclareTextCommand{\cyrushrt}{PU}{\84\136}% U+045E
17510 \DeclareTextCompositeCommand{\U}{PU}{\cyruru}{\84\136}% U+045E
17511 % U+045F CYRILLIC SMALL LETTER DZHE; *afii10193, dzhecyrillic
17512 \DeclareTextCommand{\cyrdze}{PU}{\84\137}% U+045F
17513 % U+0460 CYRILLIC CAPITAL LETTER OMEGA; Omegacyrillic
17514 \DeclareTextCommand{\CYROMEGA}{PU}{\84\140}% U+0460
17515 % U+0461 CYRILLIC SMALL LETTER OMEGA; omegacyrillic

17516 \DeclareTextCommand{\cyromega}{PU}{\84\141}% U+0461
17517 % U+0462 CYRILLIC CAPITAL LETTER YAT; Yatcyrillic, *afii10146
17518 \DeclareTextCommand{\CYRYAT}{PU}{\84\142}% U+0462
17519 % U+0463 CYRILLIC SMALL LETTER YAT; *afii10194, yatcyrillic
17520 \DeclareTextCommand{\cyryat}{PU}{\84\143}% U+0463
17521 % U+0464 CYRILLIC CAPITAL LETTER IOTIFIED E; Eiotifiedcyrillic
17522 \DeclareTextCommand{\CYRIOTE}{PU}{\84\144}% U+0464
17523 % U+0465 CYRILLIC SMALL LETTER IOTIFIED E; eiotifiedcyrillic
17524 \DeclareTextCommand{\cyriote}{PU}{\84\145}% U+0465
17525 % U+0466 CYRILLIC CAPITAL LETTER LITTLE YUS; Yuslittlecyrillic
17526 \DeclareTextCommand{\CYRLYUS}{PU}{\84\146}% U+0466
17527 % U+0467 CYRILLIC SMALL LETTER LITTLE YUS; yuslittlecyrillic
17528 \DeclareTextCommand{\cyrlyus}{PU}{\84\147}% U+0467
17529 % U+0468 CYRILLIC CAPITAL LETTER IOTIFIED LITTLE YUS; Yuslittlei-
otifiedcyrillic
17530 \DeclareTextCommand{\CYRIOTLYUS}{PU}{\84\150}% U+0468
17531 % U+0469 CYRILLIC SMALL LETTER IOTIFIED LITTLE YUS; yuslittlei-
otifiedcyrillic
17532 \DeclareTextCommand{\cyriotlyus}{PU}{\84\151}% U+0469
17533 % U+046A CYRILLIC CAPITAL LETTER BIG YUS; Yusbigcyrillic
17534 \DeclareTextCommand{\CYRBYUS}{PU}{\84\152}% U+046A
17535 % U+046B CYRILLIC SMALL LETTER BIG YUS; yusbigcyrillic
17536 \DeclareTextCommand{\cyrbyus}{PU}{\84\153}% U+046B
17537 % U+046C CYRILLIC CAPITAL LETTER IOTIFIED BIG YUS; Yusbigiotified-
cyrillic
17538 \DeclareTextCommand{\CYRIOTBYUS}{PU}{\84\154}% U+046C
17539 % U+046D CYRILLIC SMALL LETTER IOTIFIED BIG YUS; yusbigiotified-
cyrillic
17540 \DeclareTextCommand{\cyriotbyus}{PU}{\84\155}% U+046D
17541 % U+046E CYRILLIC CAPITAL LETTER KSI; Ksicyrillic
17542 \DeclareTextCommand{\CYRKSI}{PU}{\84\156}% U+046E
17543 % U+046F CYRILLIC SMALL LETTER KSI; ksicyrillic
17544 \DeclareTextCommand{\cyrksi}{PU}{\84\157}% U+046F
17545 % U+0470 CYRILLIC CAPITAL LETTER PSI; Psicyrillic
17546 \DeclareTextCommand{\CYRPSI}{PU}{\84\160}% U+0470
17547 % U+0471 CYRILLIC SMALL LETTER PSI; psicyrillic
17548 \DeclareTextCommand{\cyrpsi}{PU}{\84\161}% U+0471
17549 % U+0472 CYRILLIC CAPITAL LETTER FITA; Fitacyrillic, *afii10147
17550 \DeclareTextCommand{\CYRFITA}{PU}{\84\162}% U+0472
17551 % U+0473 CYRILLIC SMALL LETTER FITA; *afii10195, fitacyrillic
17552 \DeclareTextCommand{\cyrfita}{PU}{\84\163}% U+0473
17553 % U+0474 CYRILLIC CAPITAL LETTER IZHITSA; Izhitsacyrillic, *afii10148
17554 \DeclareTextCommand{\CYRIZH}{PU}{\84\164}% U+0474
17555 % U+0475 CYRILLIC SMALL LETTER IZHITSA; *afii10196, izhitsacyrillic
17556 \DeclareTextCommand{\cyrizh}{PU}{\84\165}% U+0475
17557 % U+0476 CYRILLIC CAPITAL LETTER IZHITSA WITH DOUBLE
GRAVE ACCENT; Izhitsadblgravecyrillic
17558 % GRAVE ACCENT; Izhitsadblgravecyrillic
17559 \DeclareTextCompositeCommand{\C}{PU}{\CYRIZH}{\84\166}% U+0476
17560 % U+0477 CYRILLIC SMALL LETTER IZHITSA WITH DOUBLE
GRAVE ACCENT; izhitsadblgravecyrillic
17561 % GRAVE ACCENT; izhitsadblgravecyrillic
17562 \DeclareTextCompositeCommand{\C}{PU}{\cyrizh}{\84\167}% U+0477
17563 % U+0478 CYRILLIC CAPITAL LETTER UK; Ukcyrillic
17564 \DeclareTextCommand{\CYRUK}{PU}{\84\170}% U+0478
17565 % U+0479 CYRILLIC SMALL LETTER UK; ukcyrillic
17566 \DeclareTextCommand{\cyruk}{PU}{\84\171}% U+0479
17567 % U+047A CYRILLIC CAPITAL LETTER ROUND OMEGA; Omegaroundcyril-
lic

17568 \DeclareTextCommand{\CYROMEGARND}{PU}{\84\172}% U+047A
17569 % U+047B CYRILLIC SMALL LETTER ROUND OMEGA; omegaroundcyrillic
17570 \DeclareTextCommand{\cyromegarnd}{PU}{\84\173}% U+047B
17571 % U+047C CYRILLIC CAPITAL LETTER OMEGA WITH TITLO; Omegatitlocyrillic
17572 \DeclareTextCommand{\CYROMEGATITLO}{PU}{\84\174}% U+047C
17573 % U+047D CYRILLIC SMALL LETTER OMEGA WITH TITLO; omegatitlocyrillic
17574 \DeclareTextCommand{\cyromegatitlo}{PU}{\84\175}% U+047D
17575 % U+047E CYRILLIC CAPITAL LETTER OT; Otcyrillic
17576 \DeclareTextCommand{\CYROT}{PU}{\84\176}% U+047E
17577 % U+047F CYRILLIC SMALL LETTER OT; otcyrillic
17578 \DeclareTextCommand{\cyrot}{PU}{\84\177}% U+047F
17579 % U+0480 CYRILLIC CAPITAL LETTER KOPPA; Koppacyrillic
17580 \DeclareTextCommand{\CYRKOPPA}{PU}{\84\200}% U+0480
17581 % U+0481 CYRILLIC SMALL LETTER KOPPA; koppacyrillic
17582 \DeclareTextCommand{\cyrkoppa}{PU}{\84\201}% U+0481
17583 % U+0482 CYRILLIC THOUSANDS SIGN; thousandcyrillic
17584 \DeclareTextCommand{\cyrthousands}{PU}{\84\202}% U+0482
\84\203: U+0483 COMBINING CYRILLIC TITLO; titlocyrilliccmb
\84\204: U+0484 COMBINING CYRILLIC PALATALIZATION; palatalizationcyrilliccmb
\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
17585 % U+048A CYRILLIC CAPITAL LETTER SHORT I WITH TAIL
17586 \DeclareTextCommand{\CYRISHRTDSC}{PU}{\84\212}% U+048A
17587 % U+048B CYRILLIC SMALL LETTER SHORT I WITH TAIL
17588 \DeclareTextCommand{\cyrishrtdsc}{PU}{\84\213}% U+048B
17589 % U+048C CYRILLIC CAPITAL LETTER SEMISOFT SIGN
17590 \DeclareTextCommand{\CYRSEMISFTSN}{PU}{\84\214}% U+048C
17591 % U+048D CYRILLIC SMALL LETTER SEMISOFT SIGN
17592 \DeclareTextCommand{\cyrsemisftsn}{PU}{\84\215}% U+048D
17593 % U+048E CYRILLIC CAPITAL LETTER ER WITH TICK
17594 \DeclareTextCommand{\CYRRTICK}{PU}{\84\216}% U+048E
17595 % U+048F CYRILLIC SMALL LETTER ER WITH TICK
17596 \DeclareTextCommand{\cyrrtick}{PU}{\84\217}% U+048F
17597 % U+0490 CYRILLIC CAPITAL LETTER GHE WITH UPTURN; Gheupturncyrillic, *afii10050
17598 \DeclareTextCommand{\CYRGUP}{PU}{\84\220}% U+0490
17599 % U+0491 CYRILLIC SMALL LETTER GHE WITH UPTURN; *afii10098, gheupturncyrillic
17600 \DeclareTextCommand{\cyrgup}{PU}{\84\221}% U+0491
17601 % U+0492 CYRILLIC CAPITAL LETTER GHE WITH STROKE; Ghestrokecyrillic
17602 \DeclareTextCommand{\CYRGHCRS}{PU}{\84\222}% U+0492
17603 % U+0493 CYRILLIC SMALL LETTER GHE WITH STROKE; ghestrokecyrillic
17604 \DeclareTextCommand{\cyrghcrs}{PU}{\84\223}% U+0493
17605 % U+0494 CYRILLIC CAPITAL LETTER GHE WITH MIDDLE HOOK;
17606 % Ghemiddlehookcyrillic
17607 \DeclareTextCommand{\CYRGHK}{PU}{\84\224}% U+0494
17608 % U+0495 CYRILLIC SMALL LETTER GHE WITH MIDDLE HOOK;

17609 % ghemiddlehookcyrillic
17610 \DeclareTextCommand{\cyrghk}{PU}{\84\225}% U+0495
17611 % U+0496 CYRILLIC CAPITAL LETTER ZHE WITH DESCENDER;
17612 % Zhedescendercyrillic
17613 \DeclareTextCommand{\CYRZHDSC}{PU}{\84\226}% U+0496
17614 % U+0497 CYRILLIC SMALL LETTER ZHE WITH DESCENDER;
17615 % zhedescendercyrillic
17616 \DeclareTextCommand{\cyrzhdsc}{PU}{\84\227}% U+0497
17617 % U+0498 CYRILLIC CAPITAL LETTER ZE WITH DESCENDER; Zedescendercyrillic
17618 \DeclareTextCommand{\CYRZDSC}{PU}{\84\230}% U+0498
17619 \DeclareTextCompositeCommand{\c}{PU}{\CYRZ}{\84\230}% U+0498
17620 % U+0499 CYRILLIC SMALL LETTER ZE WITH DESCENDER; zedescendercyrillic
17621 \DeclareTextCommand{\cyrzdsc}{PU}{\84\231}% U+0499
17622 \DeclareTextCompositeCommand{\c}{PU}{\cyrz}{\84\231}% U+0499
17623 % U+049A CYRILLIC CAPITAL LETTER KA WITH DESCENDER; Kadescendercyrillic
17624 \DeclareTextCommand{\CYRKDSC}{PU}{\84\232}% U+049A
17625 % U+049B CYRILLIC SMALL LETTER KA WITH DESCENDER; kadescendercyrillic
17626 \DeclareTextCommand{\cyrkdsc}{PU}{\84\233}% U+049B
17627 % U+049C CYRILLIC CAPITAL LETTER KA WITH VERTICAL STROKE;
17628 % Kavertikalstrokecyrillic
17629 \DeclareTextCommand{\CYRKVCRS}{PU}{\84\234}% U+049C
17630 % U+049D CYRILLIC SMALL LETTER KA WITH VERTICAL STROKE;
17631 % kavertikalstrokecyrillic
17632 \DeclareTextCommand{\cyrkvcrs}{PU}{\84\235}% U+049D
17633 % U+049E CYRILLIC CAPITAL LETTER KA WITH STROKE; Kastrokecyrillic
17634 \DeclareTextCommand{\CYRKHCRS}{PU}{\84\236}% U+049E
17635 % U+049F CYRILLIC SMALL LETTER KA WITH STROKE; kastrokecyrillic
17636 \DeclareTextCommand{\cyrkhcrs}{PU}{\84\237}% U+049F
17637 % U+04A0 CYRILLIC CAPITAL LETTER BASHKIR KA; Kabashkircyrillic
17638 \DeclareTextCommand{\CYRKBEAK}{PU}{\84\240}% U+04A0
17639 % U+04A1 CYRILLIC SMALL LETTER BASHKIR KA; kabashkircyrillic
17640 \DeclareTextCommand{\cyrkbeak}{PU}{\84\241}% U+04A1
17641 % U+04A2 CYRILLIC CAPITAL LETTER EN WITH DESCENDER; Endescendercyrillic
17642 \DeclareTextCommand{\CYRNDSC}{PU}{\84\242}% U+04A2
17643 % U+04A3 CYRILLIC SMALL LETTER EN WITH DESCENDER; endescendercyrillic
17644 \DeclareTextCommand{\cyrndsc}{PU}{\84\243}% U+04A3
17645 % U+04A4 CYRILLIC CAPITAL LIGATURE EN GHE; Enghecyrillic
17646 \DeclareTextCommand{\CYRNG}{PU}{\84\244}% U+04A4
17647 % U+04A5 CYRILLIC SMALL LIGATURE EN GHE; enghecyrillic
17648 \DeclareTextCommand{\cyrng}{PU}{\84\245}% U+04A5
17649 % U+04A6 CYRILLIC CAPITAL LETTER PE WITH MIDDLE HOOK; Pemiddlehookcyrillic
17650 \DeclareTextCommand{\CYRPHK}{PU}{\84\246}% U+04A6
17651 % U+04A7 CYRILLIC SMALL LETTER PE WITH MIDDLE HOOK; pemiddlehookcyrillic
17652 \DeclareTextCommand{\cyrphk}{PU}{\84\247}% U+04A7
17653 % U+04A8 CYRILLIC CAPITAL LETTER ABKHASIAN HA; Haabkhasiancyrillic
17654 \DeclareTextCommand{\CYRABHHA}{PU}{\84\250}% U+04A8
17655 % U+04A9 CYRILLIC SMALL LETTER ABKHASIAN HA; haabkhasiancyrillic
17656 \DeclareTextCommand{\cyrabhha}{PU}{\84\251}% U+04A9

17657 % U+04AA CYRILLIC CAPITAL LETTER ES WITH DESCENDER; Esdescendercyrillic
17658 \DeclareTextCommand{\CYRSDSC}{PU}{\84\252}% U+04AA
17659 \DeclareTextCompositeCommand{\CYRSDSC}{PU}{\CYRS}{\84\252}% U+04AA
17660 % U+04AB CYRILLIC SMALL LETTER ES WITH DESCENDER; esdescendercyrillic
17661 \DeclareTextCommand{\cyrstdsc}{PU}{\84\253}% U+04AB
17662 \DeclareTextCompositeCommand{\k}{PU}{\cyr}{\84\253}% U+04AB
17663 % U+04AC CYRILLIC CAPITAL LETTER TE WITH DESCENDER; Tedescendercyrillic
17664 \DeclareTextCommand{\CYRTDSC}{PU}{\84\254}% U+04AC
17665 % U+04AD CYRILLIC SMALL LETTER TE WITH DESCENDER; tedescendercyrillic
17666 \DeclareTextCommand{\cyrtdsc}{PU}{\84\255}% U+04AD
17667 % U+04AE CYRILLIC CAPITAL LETTER STRAIGHT U; Ustraightcyrillic
17668 \DeclareTextCommand{\CYRY}{PU}{\84\256}% U+04AE
17669 % U+04AF CYRILLIC SMALL LETTER STRAIGHT U; ustraightcyrillic
17670 \DeclareTextCommand{\cyr}{PU}{\84\257}% U+04AF
17671 % U+04B0 CYRILLIC CAPITAL LETTER STRAIGHT U WITH STROKE; Ustraightstrokecyrillic
17672 \DeclareTextCommand{\CYRYHCRS}{PU}{\84\260}% U+04B0
17673 % U+04B1 CYRILLIC SMALL LETTER STRAIGHT U WITH STROKE; usstraightstrokecyrillic
17674 \DeclareTextCommand{\cyr yhcrs}{PU}{\84\261}% U+04B1
17675 % U+04B2 CYRILLIC CAPITAL LETTER HA WITH DESCENDER; Hadescendercyrillic
17676 \DeclareTextCommand{\CYRHDSC}{PU}{\84\262}% U+04B2
17677 % U+04B3 CYRILLIC SMALL LETTER HA WITH DESCENDER; hadescendercyrillic
17678 \DeclareTextCommand{\cyrhdsc}{PU}{\84\263}% U+04B3
17679 % U+04B4 CYRILLIC CAPITAL LIGATURE TE TSE; Tetsecyrillic
17680 \DeclareTextCommand{\CYRTETSE}{PU}{\84\264}% U+04B4
17681 % U+04B5 CYRILLIC SMALL LIGATURE TE TSE; tetsecyrillic
17682 \DeclareTextCommand{\cyr tetse}{PU}{\84\265}% U+04B5
17683 % U+04B6 CYRILLIC CAPITAL LETTER CHE WITH DESCENDER;
17684 % Chedescendercyrillic
17685 \DeclareTextCommand{\CYRCHRDSC}{PU}{\84\266}% U+04B6
17686 % U+04B7 CYRILLIC SMALL LETTER CHE WITH DESCENDER; chedescendercyrillic
17687 \DeclareTextCommand{\cyr chrdsc}{PU}{\84\267}% U+04B7
17688 % U+04B8 CYRILLIC CAPITAL LETTER CHE WITH VERTICAL STROKE;
17689 % Cheverticalstrokecyrillic
17690 \DeclareTextCommand{\CYRCHVCRS}{PU}{\84\270}% U+04B8
17691 % U+04B9 CYRILLIC SMALL LETTER CHE WITH VERTICAL STROKE;
17692 % cheverticalstrokecyrillic
17693 \DeclareTextCommand{\cyr chvcrs}{PU}{\84\271}% U+04B9
17694 % U+04BA CYRILLIC CAPITAL LETTER SHHA; Shhacyrillic
17695 \DeclareTextCommand{\CYRSHHA}{PU}{\84\272}% U+04BA
17696 % U+04BB CYRILLIC SMALL LETTER SHHA; shhacyrillic
17697 \DeclareTextCommand{\cyrshha}{PU}{\84\273}% U+04BB
17698 % U+04BC CYRILLIC CAPITAL LETTER ABKHASIAN CHE; Cheabkhasiancyrillic
17699 \DeclareTextCommand{\CYRABHCH}{PU}{\84\274}% U+04BC
17700 % U+04BD CYRILLIC SMALL LETTER ABKHASIAN CHE; cheabkhasiancyrillic
17701 \DeclareTextCommand{\cyr abhch}{PU}{\84\275}% U+04BD

17702 % U+04BE CYRILLIC CAPITAL LETTER ABKHASIAN CHE WITH DESCENDER; Chedescenderabkhasiancyrillic
17703 \DeclareTextCommand{\CYRABHCHDSC}{PU}{\84\276}% U+04BE
17704 \DeclareTextCompositeCommand{\k}{PU}{\CYRABHCH}{\84\276}% U+04BE
17705 % U+04BF CYRILLIC SMALL LETTER ABKHASIAN CHE WITH DESCENDER; chedescenderabkhasiancyrillic
17706 \DeclareTextCommand{\cyrabhchdsc}{PU}{\84\277}% U+04BF
17707 \DeclareTextCompositeCommand{\k}{PU}{\cyrabhch}{\84\277}% U+04BF
17708 % U+04C0 CYRILLIC LETTER PALOCHKA; palochkacyrillic
17709 \DeclareTextCommand{\CYRpalochka}{PU}{\84\300}% U+04C0
17710 % U+04C1 CYRILLIC CAPITAL LETTER ZHE WITH BREVE; Zhebrevecyrillic
17711 \DeclareTextCompositeCommand{\U}{PU}{\CYRZH}{\84\301}% U+04C1
17712 % U+04C2 CYRILLIC SMALL LETTER ZHE WITH BREVE; zhebrevecyrillic
17713 \DeclareTextCompositeCommand{\U}{PU}{\cyrzh}{\84\302}% U+04C2
17714 % U+04C3 CYRILLIC CAPITAL LETTER KA WITH HOOK; Kahookcyrillic
17715 \DeclareTextCommand{\CYRKHK}{PU}{\84\303}% U+04C3
17716 % U+04C4 CYRILLIC SMALL LETTER KA WITH HOOK; kahookcyrillic
17717 \DeclareTextCommand{\cyrkhk}{PU}{\84\304}% U+04C4
17718 % U+04C5 CYRILLIC CAPITAL LETTER EL WITH TAIL
17719 \DeclareTextCommand{\CYRLDSC}{PU}{\84\305}% U+04C5
17720 % U+04C6 CYRILLIC SMALL LETTER EL WITH TAIL
17721 \DeclareTextCommand{\cyrlldsc}{PU}{\84\306}% U+04C6
17722 % U+04C7 CYRILLIC CAPITAL LETTER EN WITH HOOK; Enhookcyrillic
17723 \DeclareTextCommand{\CYRNHK}{PU}{\84\307}% U+04C7
17724 % U+04C8 CYRILLIC SMALL LETTER EN WITH HOOK; enhookcyrillic
17725 \DeclareTextCommand{\cyrnhk}{PU}{\84\310}% U+04C8
17726 % U+04CB CYRILLIC CAPITAL LETTER KHAKASSIAN CHE; Chekhakassiancyrillic
17727 \DeclareTextCommand{\CYRCHLDSC}{PU}{\84\313}% U+04CB
17728 % U+04CC CYRILLIC SMALL LETTER KHAKASSIAN CHE; chekhakassiancyrillic
17729 \DeclareTextCommand{\cyrchldsc}{PU}{\84\314}% U+04CC
17730 % U+04CD CYRILLIC CAPITAL LETTER EM WITH TAIL
17731 \DeclareTextCommand{\CYRMDSC}{PU}{\84\315}% U+04CD
17732 % U+04CE CYRILLIC SMALL LETTER EM WITH TAIL
17733 \DeclareTextCommand{\cyrmdsc}{PU}{\84\316}% U+04CE
\84\317: U+04CF CYRILLIC SMALL LETTER PALOCHKA
17734 % U+04D0 CYRILLIC CAPITAL LETTER A WITH BREVE; Abrevecyrillic
17735 \DeclareTextCompositeCommand{\U}{PU}{\CYRA}{\84\320}% U+04D0
17736 % U+04D1 CYRILLIC SMALL LETTER A WITH BREVE; abrevecyrillic
17737 \DeclareTextCompositeCommand{\U}{PU}{\cyra}{\84\321}% U+04D1
17738 % U+04D2 CYRILLIC CAPITAL LETTER A WITH DIAERESIS; Adieresiscyrlilic
17739 \DeclareTextCompositeCommand{\"}{PU}{\CYRA}{\84\322}% U+04D2
17740 % U+04D3 CYRILLIC SMALL LETTER A WITH DIAERESIS; adieresiscyrlilic
17741 \DeclareTextCompositeCommand{\"}{PU}{\cyra}{\84\323}% U+04D3
17742 % U+04D4 CYRILLIC CAPITAL LIGATURE A IE; Aiecyrillic
17743 \DeclareTextCommand{\CYRAE}{PU}{\84\324}% U+04D4
17744 % U+04D5 CYRILLIC SMALL LIGATURE A IE; aiecyrillic
17745 \DeclareTextCommand{\cyrae}{PU}{\84\325}% U+04D5
17746 % U+04D6 CYRILLIC CAPITAL LETTER IE WITH BREVE; Iebrevecyrillic
17747 \DeclareTextCompositeCommand{\U}{PU}{\CYRE}{\84\326}% U+04D6
17748 % U+04D7 CYRILLIC SMALL LETTER IE WITH BREVE; iebrevecyrillic
17749 \DeclareTextCompositeCommand{\U}{PU}{\cyre}{\84\327}% U+04D7
17750 % U+04D8 CYRILLIC CAPITAL LETTER SCHWA; Schwacyrillic
17751 \DeclareTextCommand{\CYRSCHWA}{PU}{\84\330}% U+04D8
17752 % U+04D9 CYRILLIC SMALL LETTER SCHWA; *afii10846, schwacyrillic

17753 \DeclareTextCommand{\cyrswa}{PU}{\84\331}% U+04D9
17754 % U+04DA CYRILLIC CAPITAL LETTER SCHWA WITH DIAERESIS;
17755 % Schwadieresiscyrillic
17756 \DeclareTextCompositeCommand{\"}{PU}{\CYRSCHWA}{\84\332}% U+04DA
17757 % U+04DB CYRILLIC SMALL LETTER SCHWA WITH DIAERESIS;
17758 % schwadieresiscyrillic
17759 \DeclareTextCompositeCommand{\"}{PU}{\cyrswa}{\84\333}% U+04DB
17760 % U+04DC CYRILLIC CAPITAL LETTER ZHE WITH DIAERESIS; Zhediere-
siscyrillic
17761 \DeclareTextCompositeCommand{\"}{PU}{\CYRZH}{\84\334}% U+04DC
17762 % U+04DD CYRILLIC SMALL LETTER ZHE WITH DIAERESIS; zhedieresis-
cyrillic
17763 \DeclareTextCompositeCommand{\"}{PU}{\cyrzh}{\84\335}% U+04DD
17764 % U+04DE CYRILLIC CAPITAL LETTER ZE WITH DIAERESIS; Zedieresis-
cyrillic
17765 \DeclareTextCompositeCommand{\"}{PU}{\CYRZ}{\84\336}% U+04DE
17766 % U+04DF CYRILLIC SMALL LETTER ZE WITH DIAERESIS; zedieresiscyril-
lic
17767 \DeclareTextCompositeCommand{\"}{PU}{\cyrz}{\84\337}% U+04DF
17768 % U+04E0 CYRILLIC CAPITAL LETTER ABKHASIAN DZE; Dzeabkhasian-
cyrillic
17769 \DeclareTextCommand{\CYRABHDZE}{PU}{\84\340}% U+04E0
17770 % U+04E1 CYRILLIC SMALL LETTER ABKHASIAN DZE; dzeabkhasiancyril-
lic
17771 \DeclareTextCommand{\cyrabhdze}{PU}{\84\341}% U+04E1
17772 % U+04E2 CYRILLIC CAPITAL LETTER I WITH MACRON; Imacroncyrillic
17773 \DeclareTextCompositeCommand{\=} {PU}{\CYRI}{\84\342}% U+04E2
17774 % U+04E3 CYRILLIC SMALL LETTER I WITH MACRON; imacroncyrillic
17775 \DeclareTextCompositeCommand{\=} {PU}{\cyri}{\84\343}% U+04E3
17776 % U+04E4 CYRILLIC CAPITAL LETTER I WITH DIAERESIS; Idieresiscyrillic
17777 \DeclareTextCompositeCommand{\"}{PU}{\CYRI}{\84\344}% U+04E4
17778 % U+04E5 CYRILLIC SMALL LETTER I WITH DIAERESIS; idieresiscyrillic
17779 \DeclareTextCompositeCommand{\"}{PU}{\cyri}{\84\345}% U+04E5
17780 % U+04E6 CYRILLIC CAPITAL LETTER O WITH DIAERESIS; Odieresiscyril-
lic
17781 \DeclareTextCompositeCommand{\"}{PU}{\CYRO}{\84\346}% U+04E6
17782 % U+04E7 CYRILLIC SMALL LETTER O WITH DIAERESIS; odieresiscyrillic
17783 \DeclareTextCompositeCommand{\"}{PU}{\cyro}{\84\347}% U+04E7
17784 % U+04E8 CYRILLIC CAPITAL LETTER BARRED O; Obarredcyrillic
17785 \DeclareTextCommand{\CYROTLD}{PU}{\84\350}% U+04E8
17786 % U+04E9 CYRILLIC SMALL LETTER BARRED O; obarredcyrillic
17787 \DeclareTextCommand{\cyrotld}{PU}{\84\351}% U+04E9
17788 % U+04EA CYRILLIC CAPITAL LETTER BARRED O WITH DIAERESIS;
17789 % Obarreddieresiscyrillic
17790 \DeclareTextCompositeCommand{\"}{PU}{\CYROTLD}{\84\352}% U+04EA
17791 % U+04EB CYRILLIC SMALL LETTER BARRED O WITH DIAERESIS;
17792 % obarreddieresiscyrillic
17793 \DeclareTextCompositeCommand{\"}{PU}{\cyrotld}{\84\353}% U+04EB
17794 % U+04EC CYRILLIC CAPITAL LETTER E WITH DIAERESIS
17795 \DeclareTextCompositeCommand{\"}{PU}{\CYREREV}{\84\354}% U+04EC
17796 % U+04ED CYRILLIC SMALL LETTER E WITH DIAERESIS
17797 \DeclareTextCompositeCommand{\"}{PU}{\cyreref}{\84\355}% U+04ED
17798 % U+04EE CYRILLIC CAPITAL LETTER U WITH MACRON; Umacroncyrillic
17799 \DeclareTextCompositeCommand{\=} {PU}{\CYRU}{\84\356}% U+04EE
17800 % U+04EF CYRILLIC SMALL LETTER U WITH MACRON; umacroncyrillic
17801 \DeclareTextCompositeCommand{\=} {PU}{\cyru}{\84\357}% U+04EF

17802 % U+04F0 CYRILLIC CAPITAL LETTER U WITH DIAERESIS; Udieresiscyrillic
 17803 \DeclareTextCompositeCommand{\"}{PU}{\CYRU}{\84\360}% U+04F0
 17804 % U+04F1 CYRILLIC SMALL LETTER U WITH DIAERESIS; udieresiscyrillic
 17805 \DeclareTextCompositeCommand{\"}{PU}{\cyru}{\84\361}% U+04F1
 17806 % U+04F2 CYRILLIC CAPITAL LETTER U WITH DOUBLE ACUTE; Uhungarumlautcyrillic
 17807 \DeclareTextCompositeCommand{\H}{PU}{\CYRU}{\84\362}% U+04F2
 17808 % U+04F3 CYRILLIC SMALL LETTER U WITH DOUBLE ACUTE; uhungarumlautcyrillic
 17809 \DeclareTextCompositeCommand{\H}{PU}{\cyru}{\84\363}% U+04F3
 17810 % U+04F4 CYRILLIC CAPITAL LETTER CHE WITH DIAERESIS; Chedieresiscyrillic
 17811 \DeclareTextCompositeCommand{\"}{PU}{\CYRCH}{\84\364}% U+04F4
 17812 % U+04F5 CYRILLIC SMALL LETTER CHE WITH DIAERESIS; chedieresiscyrillic
 17813 \DeclareTextCompositeCommand{\"}{PU}{\cyrch}{\84\365}% U+04F5
 17814 % U+04F6 CYRILLIC CAPITAL LETTER GHE WITH DESCENDER
 17815 \DeclareTextCommand{\CYRGDSC}{PU}{\84\366}% U+04F6
 17816 % U+04F7 CYRILLIC SMALL LETTER GHE WITH DESCENDER
 17817 \DeclareTextCommand{\cyrigdsc}{PU}{\84\367}% U+04F7
 17818 % U+04F8 CYRILLIC CAPITAL LETTER YERU WITH DIAERESIS; Yerudieresiscyrillic
 17819 \DeclareTextCompositeCommand{\"}{PU}{\CYRERY}{\84\370}% U+04F8
 17820 % U+04F9 CYRILLIC SMALL LETTER YERU WITH DIAERESIS; yerudieresiscyrillic
 17821 \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
 17822 % U+04FC CYRILLIC CAPITAL LETTER HA WITH HOOK
 17823 \DeclareTextCommand{\CYRHHK}{PU}{\84\374}% U+04FC
 17824 % U+04FD CYRILLIC SMALL LETTER HA WITH HOOK
 17825 \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

51.2.11 Hebrew: U+0590 to U+05FF

Macro names are taken from `he8enc.def`.

17826 % U+05C3 HEBREW PUNCTUATION SOF PASUQ
 17827 \DeclareTextCommand{\sofpasuq}{PU}{\85\303}% U+05C3
 17828 % U+05D0 HEBREW LETTER ALEF
 17829 \DeclareTextCommand{\hebaalef}{PU}{\85\320}% U+05D0
 17830 % U+05D1 HEBREW LETTER BET
 17831 \DeclareTextCommand{\hebbet}{PU}{\85\321}% U+05D1
 17832 % U+05D2 HEBREW LETTER GIMEL
 17833 \DeclareTextCommand{\hebgimel}{PU}{\85\322}% U+05D2
 17834 % U+05D3 HEBREW LETTER DALET
 17835 \DeclareTextCommand{\hebdalet}{PU}{\85\323}% U+05D3
 17836 % U+05D4 HEBREW LETTER HE
 17837 \DeclareTextCommand{\hebhe}{PU}{\85\324}% U+05D4
 17838 % U+05D5 HEBREW LETTER VAV
 17839 \DeclareTextCommand{\hebvav}{PU}{\85\325}% U+05D5
 17840 % U+05D6 HEBREW LETTER ZAYIN

17841 \DeclareTextCommand{\hebzayin}{PU}{\85\326}% U+05D6
17842 % U+05D7 HEBREW LETTER HET
17843 \DeclareTextCommand{\hebhet}{PU}{\85\327}% U+05D7
17844 % U+05D8 HEBREW LETTER TET
17845 \DeclareTextCommand{\hebtet}{PU}{\85\330}% U+05D8
17846 % U+05D9 HEBREW LETTER YOD
17847 \DeclareTextCommand{\hebyod}{PU}{\85\331}% U+05D9
17848 % U+05DA HEBREW LETTER FINAL KAF
17849 \DeclareTextCommand{\hebfinalkaf}{PU}{\85\332}% U+05DA
17850 % U+05DB HEBREW LETTER KAF
17851 \DeclareTextCommand{\hebkafe}{PU}{\85\333}% U+05DB
17852 % U+05DC HEBREW LETTER LAMED
17853 \DeclareTextCommand{\heblamed}{PU}{\85\334}% U+05DC
17854 % U+05DD HEBREW LETTER FINAL MEM
17855 \DeclareTextCommand{\hebfinalmem}{PU}{\85\335}% U+05DD
17856 % U+05DE HEBREW LETTER MEM
17857 \DeclareTextCommand{\hebmeme}{PU}{\85\336}% U+05DE
17858 % U+05DF HEBREW LETTER FINAL NUN
17859 \DeclareTextCommand{\hebfinalnun}{PU}{\85\337}% U+05DF
17860 % U+05E0 HEBREW LETTER NUN
17861 \DeclareTextCommand{\hebnun}{PU}{\85\340}% U+05E0
17862 % U+05E1 HEBREW LETTER SAMEKH
17863 \DeclareTextCommand{\hebsamekh}{PU}{\85\341}% U+05E1
17864 % U+05E2 HEBREW LETTER AYIN
17865 \DeclareTextCommand{\hebayin}{PU}{\85\342}% U+05E2
17866 % U+05E3 HEBREW LETTER FINAL PE
17867 \DeclareTextCommand{\hebfinalpe}{PU}{\85\343}% U+05E3
17868 % U+05E4 HEBREW LETTER PE
17869 \DeclareTextCommand{\hebpe}{PU}{\85\344}% U+05E4
17870 % U+05E5 HEBREW LETTER FINAL TSADI
17871 \DeclareTextCommand{\hebfinaltsadi}{PU}{\85\345}% U+05E5
17872 % U+05E6 HEBREW LETTER TSADI
17873 \DeclareTextCommand{\hebtsadi}{PU}{\85\346}% U+05E6
17874 % U+05E7 HEBREW LETTER QOF
17875 \DeclareTextCommand{\hebqof}{PU}{\85\347}% U+05E7
17876 % U+05E8 HEBREW LETTER RESH
17877 \DeclareTextCommand{\hebresh}{PU}{\85\350}% U+05E8
17878 % U+05E9 HEBREW LETTER SHIN
17879 \DeclareTextCommand{\hebshin}{PU}{\85\351}% U+05E9
17880 %* \hebshin -> \hebsin (he8)
17881 % U+05EA HEBREW LETTER TAV
17882 \DeclareTextCommand{\hebtav}{PU}{\85\352}% U+05EA
17883 % U+05F0 HEBREW LIGATURE YIDDISH DOUBLE VAV
17884 \DeclareTextCommand{\doublevav}{PU}{\85\360}% U+05F0
17885 % U+05F1 HEBREW LIGATURE YIDDISH VAV YOD
17886 \DeclareTextCommand{\vavyod}{PU}{\85\361}% U+05F1
17887 % U+05F2 HEBREW LIGATURE YIDDISH DOUBLE YOD
17888 \DeclareTextCommand{\doubleyod}{PU}{\85\362}% U+05F2

51.2.12 Thai: U+0E00 to U+0E7F

17889 % U+0E3F THAI CURRENCY SYMBOL BAHT; bahtthai
17890 \DeclareTextCommand{\textbaht}{PU}{\9016\077}% U+0E3F

51.2.13 Phonetic Extensions: U+1D00 to U+1D7F

17891 % U+1D00 LATIN LETTER SMALL CAPITAL A; \texttsca (tipa)
17892 \DeclareTextCommand{\texttsca}{PU}{\9035\000}% U+1D00

17893 % U+1D05 LATIN LETTER SMALL CAPITAL D; \scd (wsuipa)
17894 \DeclareTextCommand{\textscd}{PU}{\9035\005}%* U+1D05
17895 % U+1D07 LATIN LETTER SMALL CAPITAL E; \textsce (tipa)
17896 \DeclareTextCommand{\textsce}{PU}{\9035\007}% U+1D07
17897 % U+1D0A LATIN LETTER SMALL CAPITAL J; \textscj (tipa)
17898 \DeclareTextCommand{\textscj}{PU}{\9035\012}% U+1D0A
17899 % U+1D0B LATIN LETTER SMALL CAPITAL K; \textscK (tipx)
17900 \DeclareTextCommand{\textPUsck}{PU}{\9035\013}% U+1D0B
17901 %* \textPUsck -> \textscK (tipx)
17902 % U+1D0D LATIN LETTER SMALL CAPITAL M; \textscm (tipx)
17903 \DeclareTextCommand{\textPUscm}{PU}{\9035\015}% U+1D0D
17904 %* \textPUscm -> \textscm (tipx)
17905 % U+1D18 LATIN LETTER SMALL CAPITAL P; \textscP (tipx)
17906 \DeclareTextCommand{\textPUscp}{PU}{\9035\030}% U+1D18
17907 %* \textPUscp -> \textscP (tipx)
17908 % U+1D19 LATIN LETTER SMALL CAPITAL REVERSED R; \textrevscr (tipx)
17909 \DeclareTextCommand{\textPUrevscr}{PU}{\9035\031}% U+1D19
17910 %* \textPUrevscr -> \textrevscr (tipx)
17911 % U+1D1C LATIN LETTER SMALL CAPITAL U; \textscU (tipa), \scu (wsuipa)
17912 \DeclareTextCommand{\textscU}{PU}{\9035\034}%* U+1D1C
17913 % U+1D62 LATIN SUBSCRIPT SMALL LETTER I
17914 \DeclareTextCommand{\textiinferior}{PU}{\9035\142}%* U+1D62
17915 % U+1D63 LATIN SUBSCRIPT SMALL LETTER R
17916 \DeclareTextCommand{\textrinferior}{PU}{\9035\143}%* U+1D63
17917 % U+1D64 LATIN SUBSCRIPT SMALL LETTER U
17918 \DeclareTextCommand{\textuinferior}{PU}{\9035\144}%* U+1D64
17919 % U+1D65 LATIN SUBSCRIPT SMALL LETTER V
17920 \DeclareTextCommand{\textvinferior}{PU}{\9035\145}%* U+1D65
17921 % U+1D66 GREEK SUBSCRIPT SMALL LETTER BETA
17922 \DeclareTextCommand{\textbetainferior}{PU}{\9035\146}%* U+1D66
17923 % U+1D67 GREEK SUBSCRIPT SMALL LETTER GAMMA
17924 \DeclareTextCommand{\textgammainferior}{PU}{\9035\147}%* U+1D67
17925 % U+1D68 GREEK SUBSCRIPT SMALL LETTER RHO
17926 \DeclareTextCommand{\textrhoinferior}{PU}{\9035\150}%* U+1D68
17927 % U+1D69 GREEK SUBSCRIPT SMALL LETTER PHI
17928 \DeclareTextCommand{\textphiinferior}{PU}{\9035\151}%* U+1D69
17929 % U+1D6A GREEK SUBSCRIPT SMALL LETTER CHI
17930 \DeclareTextCommand{\textchiinferior}{PU}{\9035\152}%* U+1D6A
17931 % U+1D7B LATIN SMALL CAPITAL LETTER I WITH STROKE;
17932 % \barsci (wsuipa)
17933 \DeclareTextCommand{\textbarsci}{PU}{\9035\173}%* U+1D7B
17934 % U+1D7D LATIN SMALL LETTER P WITH STROKE; \barP (wsuipa)
17935 \DeclareTextCommand{\textbarP}{PU}{\9035\175}%* U+1D7D
17936 % U+1D7E LATIN SMALL CAPITAL LETTER U WITH STROKE;
17937 % \barscu (wsuipa)
17938 \DeclareTextCommand{\textbarscu}{PU}{\9035\176}%* U+1D7E

51.2.14 Phonetic Extensions Supplement: U+1D80 to U+1DBF

17939 % U+1D8F LATIN SMALL LETTER A WITH RETROFLEX HOOK; \text-
trhooka (tipx)
17940 \DeclareTextCommand{\textPURhooka}{PU}{\9035\217}% U+1D8F
17941 %* \textPURhooka -> \texttrhooka (tipx)
17942 % U+1D91 LATIN SMALL LETTER D WITH HOOK AND TAIL; \texthtr-
taild (tipa)
17943 \DeclareTextCommand{\texthtrtaild}{PU}{\9035\221}%* U+1D91
17944 % U+1D92 LATIN SMALL LETTER E WITH RETROFLEX HOOK; \text-
trhooke (tipx)

17945 \DeclareTextCommand{\textPUrhook}{PU}{\9035\222}% U+1D92
17946 %* \textPUrhook -> \textrhook (tipx)
17947 % U+1D93 LATIN SMALL LETTER OPEN E WITH RETROFLEX HOOK;
17948 % \textrhookepsilon (tipx)
17949 \DeclareTextCommand{\textPUrhookepsilon}{PU}{\9035\223}% U+1D93
17950 %* \textPUrhookepsilon -> \textrhookepsilon (tipx)
17951 % U+1D97 LATIN SMALL LETTER OPEN O WITH RETROFLEX HOOK;
17952 % \textrhookopeno (tipx)
17953 \DeclareTextCommand{\textPUrhookopeno}{PU}{\9035\227}% U+1D97
17954 %* \textPUrhookopeno -> \textrhookopeno (tipx)

51.2.15 Latin Extended Additional: U+1E00 to U+1EFF

17955 % U+1E00 LATIN CAPITAL LETTER A WITH RING BELOW; Aringbelow
17956 \DeclareTextCompositeCommand{\textsubring}{PU}{A}{\9036\000}% U+1E00
17957 % U+1E01 LATIN SMALL LETTER A WITH RING BELOW; aringbelow
17958 \DeclareTextCompositeCommand{\textsubring}{PU}{a}{\9036\001}% U+1E01
17959 % U+1E02 LATIN CAPITAL LETTER B WITH DOT ABOVE; Bdotaccent
17960 \DeclareTextCompositeCommand{\.}{PU}{B}{\9036\002}% U+1E02
17961 % U+1E03 LATIN SMALL LETTER B WITH DOT ABOVE; bdotaccent
17962 \DeclareTextCompositeCommand{\.}{PU}{b}{\9036\003}% U+1E03
17963 % U+1E04 LATIN CAPITAL LETTER B WITH DOT BELOW; Bdotbelow
17964 \DeclareTextCompositeCommand{\d}{PU}{B}{\9036\004}% U+1E04
17965 % U+1E05 LATIN SMALL LETTER B WITH DOT BELOW; bdotbelow
17966 \DeclareTextCompositeCommand{\d}{PU}{b}{\9036\005}% U+1E05
17967 % U+1E06 LATIN CAPITAL LETTER B WITH LINE BELOW; Blinebelow
17968 \DeclareTextCompositeCommand{\b}{PU}{B}{\9036\006}% U+1E06
17969 % U+1E07 LATIN SMALL LETTER B WITH LINE BELOW; blinebelow
17970 \DeclareTextCompositeCommand{\b}{PU}{b}{\9036\007}% U+1E07
17971 % U+1E0A LATIN CAPITAL LETTER D WITH DOT ABOVE; Ddotaccent
17972 \DeclareTextCompositeCommand{\.}{PU}{D}{\9036\012}% U+1E0A
17973 % U+1E0B LATIN SMALL LETTER D WITH DOT ABOVE; ddotaccent
17974 \DeclareTextCompositeCommand{\.}{PU}{d}{\9036\013}% U+1E0B
17975 % U+1E0C LATIN CAPITAL LETTER D WITH DOT BELOW; Ddotbelow
17976 \DeclareTextCompositeCommand{\d}{PU}{D}{\9036\014}% U+1E0C
17977 % U+1E0D LATIN SMALL LETTER D WITH DOT BELOW; ddotbelow
17978 \DeclareTextCompositeCommand{\d}{PU}{d}{\9036\015}% U+1E0D
17979 % U+1E0E LATIN CAPITAL LETTER D WITH LINE BELOW; Dlinebelow
17980 \DeclareTextCompositeCommand{\b}{PU}{D}{\9036\016}% U+1E0E
17981 % U+1E0F LATIN SMALL LETTER D WITH LINE BELOW; dlinebelow
17982 \DeclareTextCompositeCommand{\b}{PU}{d}{\9036\017}% U+1E0F
17983 % U+1E10 LATIN CAPITAL LETTER D WITH CEDILLA; Dcedilla
17984 \DeclareTextCompositeCommand{\c}{PU}{D}{\9036\020}% U+1E10
17985 % U+1E11 LATIN SMALL LETTER D WITH CEDILLA; dcedilla
17986 \DeclareTextCompositeCommand{\c}{PU}{d}{\9036\021}% U+1E11
17987 % U+1E12 LATIN CAPITAL LETTER D WITH CIRCUMFLEX BELOW; Dcircumflexbelow
17988 \DeclareTextCompositeCommand{\textsubcircum}{PU}{D}{\9036\022}% U+1E12
17989 % U+1E13 LATIN SMALL LETTER D WITH CIRCUMFLEX BELOW; dcircumflexbelow
17990 \DeclareTextCompositeCommand{\textsubcircum}{PU}{d}{\9036\023}% U+1E13
17991 % U+1E14 LATIN CAPITAL LETTER E WITH MACRON AND GRAVE;
17992 % Emacrongrave
17993 \DeclareTextCompositeCommand{\textgravemacron}{PU}{E}{\9036\024}% U+1E14
17994 % U+1E15 LATIN SMALL LETTER E WITH MACRON AND GRAVE;
17995 % emacrongrave
17996 \DeclareTextCompositeCommand{\textgravemacron}{PU}{e}{\9036\025}% U+1E15
17997 % U+1E16 LATIN CAPITAL LETTER E WITH MACRON AND ACUTE;

17998 % Emacronacute
17999 \DeclareTextCompositeCommand{\textacutemacron}{PU}{E}{\9036\026}% U+1E16
18000 % U+1E17 LATIN SMALL LETTER E WITH MACRON AND ACUTE;
18001 % emacronacute
18002 \DeclareTextCompositeCommand{\textacutemacron}{PU}{e}{\9036\027}% U+1E17
18003 % U+1E18 LATIN CAPITAL LETTER E WITH CIRCUMFLEX BELOW; Ecir-
cumflexbelow
18004 \DeclareTextCompositeCommand{\textsubcircum}{PU}{E}{\9036\030}% U+1E18
18005 % U+1E19 LATIN SMALL LETTER E WITH CIRCUMFLEX BELOW; ecir-
cumflexbelow
18006 \DeclareTextCompositeCommand{\textsubcircum}{PU}{e}{\9036\031}% U+1E19
18007 % U+1E1A LATIN CAPITAL LETTER E WITH TILDE BELOW; Etildebelow
18008 \DeclareTextCompositeCommand{\textsubtilde}{PU}{E}{\9036\032}% U+1E1A
18009 % U+1E1B LATIN SMALL LETTER E WITH TILDE BELOW; etildebelow
18010 \DeclareTextCompositeCommand{\textsubtilde}{PU}{e}{\9036\033}% U+1E1B
18011 % U+1E1E LATIN CAPITAL LETTER F WITH DOT ABOVE; Fdotaccent
18012 \DeclareTextCompositeCommand{\.}{PU}{F}{\9036\036}% U+1E1E
18013 % U+1E1F LATIN SMALL LETTER F WITH DOT ABOVE; fdotaccent
18014 \DeclareTextCompositeCommand{\.}{PU}{f}{\9036\037}% U+1E1F
18015 % U+1E20 LATIN CAPITAL LETTER G WITH MACRON; Gmacron
18016 \DeclareTextCompositeCommand{\=}{PU}{G}{\9036\040}% U+1E20
18017 % U+1E21 LATIN SMALL LETTER G WITH MACRON; gmacron
18018 \DeclareTextCompositeCommand{\=}{PU}{g}{\9036\041}% U+1E21
18019 % U+1E22 LATIN CAPITAL LETTER H WITH DOT ABOVE; Hdotaccent
18020 \DeclareTextCompositeCommand{\.}{PU}{H}{\9036\042}% U+1E22
18021 % U+1E23 LATIN SMALL LETTER H WITH DOT ABOVE; hdotaccent
18022 \DeclareTextCompositeCommand{\.}{PU}{h}{\9036\043}% U+1E23
18023 % U+1E24 LATIN CAPITAL LETTER H WITH DOT BELOW; Hdotbelow
18024 \DeclareTextCompositeCommand{\d}{PU}{H}{\9036\044}% U+1E24
18025 % U+1E25 LATIN SMALL LETTER H WITH DOT BELOW; hdotbelow
18026 \DeclareTextCompositeCommand{\d}{PU}{h}{\9036\045}% U+1E25
18027 % U+1E26 LATIN CAPITAL LETTER H WITH DIAERESIS; Hdieresis
18028 \DeclareTextCompositeCommand{\"}{PU}{H}{\9036\046}% U+1E26
18029 % U+1E27 LATIN SMALL LETTER H WITH DIAERESIS; hdieresis
18030 \DeclareTextCompositeCommand{\"}{PU}{h}{\9036\047}% U+1E27
18031 % U+1E28 LATIN CAPITAL LETTER H WITH CEDILLA; Hcedilla
18032 \DeclareTextCompositeCommand{\c}{PU}{H}{\9036\050}% U+1E28
18033 % U+1E29 LATIN SMALL LETTER H WITH CEDILLA; hcedilla
18034 \DeclareTextCompositeCommand{\c}{PU}{h}{\9036\051}% U+1E29
18035 % U+1E2A LATIN CAPITAL LETTER H WITH BREVE BELOW; Hbrevebelow
18036 \DeclareTextCompositeCommand{\textsubbreve}{PU}{H}{\9036\052}% U+1E2A
18037 % U+1E2B LATIN SMALL LETTER H WITH BREVE BELOW; hbrevebelow
18038 \DeclareTextCompositeCommand{\textsubbreve}{PU}{h}{\9036\053}% U+1E2B
18039 % U+1E2C LATIN CAPITAL LETTER I WITH TILDE BELOW; Itildebelow
18040 \DeclareTextCompositeCommand{\textsubtilde}{PU}{I}{\9036\054}% U+1E2C
18041 % U+1E2D LATIN SMALL LETTER I WITH TILDE BELOW; itildebelow
18042 \DeclareTextCompositeCommand{\textsubtilde}{PU}{i}{\9036\055}% U+1E2D
18043 % U+1E30 LATIN CAPITAL LETTER K WITH ACUTE; Kacute
18044 \DeclareTextCompositeCommand{\'}{PU}{K}{\9036\060}% U+1E30
18045 % U+1E31 LATIN SMALL LETTER K WITH ACUTE; kacute
18046 \DeclareTextCompositeCommand{\'}{PU}{k}{\9036\061}% U+1E31
18047 % U+1E32 LATIN CAPITAL LETTER K WITH DOT BELOW; Kdotbelow
18048 \DeclareTextCompositeCommand{\d}{PU}{K}{\9036\062}% U+1E32
18049 % U+1E33 LATIN SMALL LETTER K WITH DOT BELOW; kdotbelow
18050 \DeclareTextCompositeCommand{\d}{PU}{k}{\9036\063}% U+1E33
18051 % U+1E34 LATIN CAPITAL LETTER K WITH LINE BELOW; Klinebelow
18052 \DeclareTextCompositeCommand{\b}{PU}{K}{\9036\064}% U+1E34

18053 % U+1E35 LATIN SMALL LETTER K WITH LINE BELOW; klinebelow
18054 \DeclareTextCompositeCommand{\b}{PU}{k}{\9036\065}% U+1E35
18055 % U+1E36 LATIN CAPITAL LETTER L WITH DOT BELOW; Ldotbelow
18056 \DeclareTextCompositeCommand{\d}{PU}{L}{\9036\066}% U+1E36
18057 % U+1E37 LATIN SMALL LETTER L WITH DOT BELOW; ldotbelow
18058 \DeclareTextCompositeCommand{\d}{PU}{l}{\9036\067}% U+1E37
18059 % U+1E3A LATIN CAPITAL LETTER L WITH LINE BELOW; Llinebelow
18060 \DeclareTextCompositeCommand{\b}{PU}{L}{\9036\072}% U+1E3A
18061 % U+1E3B LATIN SMALL LETTER L WITH LINE BELOW; llinebelow
18062 \DeclareTextCompositeCommand{\b}{PU}{l}{\9036\073}% U+1E3B
18063 % U+1E3C LATIN CAPITAL LETTER L WITH CIRCUMFLEX BELOW; Lcircumflexbelow
18064 \DeclareTextCompositeCommand{\textsubcircum}{PU}{L}{\9036\074}% U+1E3C
18065 % U+1E3D LATIN SMALL LETTER L WITH CIRCUMFLEX BELOW; lcircumflexbelow
18066 \DeclareTextCompositeCommand{\textsubcircum}{PU}{l}{\9036\075}% U+1E3D
18067 % U+1E3E LATIN CAPITAL LETTER M WITH ACUTE; Macute
18068 \DeclareTextCompositeCommand{'}{PU}{M}{\9036\076}% U+1E3E
18069 % U+1E3F LATIN SMALL LETTER M WITH ACUTE; macute
18070 \DeclareTextCompositeCommand{'}{PU}{m}{\9036\077}% U+1E3F
18071 % U+1E40 LATIN CAPITAL LETTER M WITH DOT ABOVE; Mdotaccent
18072 \DeclareTextCompositeCommand{\.}{PU}{M}{\9036\100}% U+1E40
18073 % U+1E41 LATIN SMALL LETTER M WITH DOT ABOVE; mdotaccent
18074 \DeclareTextCompositeCommand{\.}{PU}{m}{\9036\101}% U+1E41
18075 % U+1E42 LATIN CAPITAL LETTER M WITH DOT BELOW; Mdotbelow
18076 \DeclareTextCompositeCommand{\d}{PU}{M}{\9036\102}% U+1E42
18077 % U+1E43 LATIN SMALL LETTER M WITH DOT BELOW; mdotbelow
18078 \DeclareTextCompositeCommand{\d}{PU}{m}{\9036\103}% U+1E43
18079 % U+1E44 LATIN CAPITAL LETTER N WITH DOT ABOVE; Ndotaccent
18080 \DeclareTextCompositeCommand{\.}{PU}{N}{\9036\104}% U+1E44
18081 % U+1E45 LATIN SMALL LETTER N WITH DOT ABOVE; ndotaccent
18082 \DeclareTextCompositeCommand{\.}{PU}{n}{\9036\105}% U+1E45
18083 % U+1E46 LATIN CAPITAL LETTER N WITH DOT BELOW; Ndotbelow
18084 \DeclareTextCompositeCommand{\d}{PU}{N}{\9036\106}% U+1E46
18085 % U+1E47 LATIN SMALL LETTER N WITH DOT BELOW; ndotbelow
18086 \DeclareTextCompositeCommand{\d}{PU}{n}{\9036\107}% U+1E47
18087 % U+1E48 LATIN CAPITAL LETTER N WITH LINE BELOW; Nlinebelow
18088 \DeclareTextCompositeCommand{\b}{PU}{N}{\9036\110}% U+1E48
18089 % U+1E49 LATIN SMALL LETTER N WITH LINE BELOW; nlinebelow
18090 \DeclareTextCompositeCommand{\b}{PU}{n}{\9036\111}% U+1E49
18091 % U+1E4A LATIN CAPITAL LETTER N WITH CIRCUMFLEX BELOW; Ncircumflexbelow
18092 \DeclareTextCompositeCommand{\textsubcircum}{PU}{N}{\9036\112}% U+1E4A
18093 % U+1E4B LATIN SMALL LETTER N WITH CIRCUMFLEX BELOW; ncircumflexbelow
18094 \DeclareTextCompositeCommand{\textsubcircum}{PU}{n}{\9036\113}% U+1E4B
18095 % U+1E50 LATIN CAPITAL LETTER O WITH MACRON AND GRAVE; Omacrongrave
18096 % Omacrongrave
18097 \DeclareTextCompositeCommand{\textgravemacron}{PU}{O}{\9036\120}% U+1E50
18098 % U+1E51 LATIN SMALL LETTER O WITH MACRON AND GRAVE; omacrongrave
18099 % omacrongrave
18100 \DeclareTextCompositeCommand{\textgravemacron}{PU}{o}{\9036\121}% U+1E51
18101 % U+1E52 LATIN CAPITAL LETTER O WITH MACRON AND ACUTE; Omacronacute
18102 % Omacronacute
18103 \DeclareTextCompositeCommand{\textacutemacron}{PU}{O}{\9036\122}% U+1E52
18104 % U+1E53 LATIN SMALL LETTER O WITH MACRON AND ACUTE; omacronacute
18105 % omacronacute

18106 \DeclareTextCompositeCommand{\textacutemacron}{PU}{o}{\9036\123}% U+1E53
18107 % U+1E54 LATIN CAPITAL LETTER P WITH ACUTE; Pacute
18108 \DeclareTextCompositeCommand{\'}{PU}{P}{\9036\124}% U+1E54
18109 % U+1E55 LATIN SMALL LETTER P WITH ACUTE; pacute
18110 \DeclareTextCompositeCommand{\'}{PU}{p}{\9036\125}% U+1E55
18111 % U+1E56 LATIN CAPITAL LETTER P WITH DOT ABOVE; Pdotaccent
18112 \DeclareTextCompositeCommand{\.}{PU}{P}{\9036\126}% U+1E56
18113 % U+1E57 LATIN SMALL LETTER P WITH DOT ABOVE; pdotaccent
18114 \DeclareTextCompositeCommand{\.}{PU}{p}{\9036\127}% U+1E57
18115 % U+1E58 LATIN CAPITAL LETTER R WITH DOT ABOVE; Rdotaccent
18116 \DeclareTextCompositeCommand{\.}{PU}{R}{\9036\130}% U+1E58
18117 % U+1E59 LATIN SMALL LETTER R WITH DOT ABOVE; rdotaccent
18118 \DeclareTextCompositeCommand{\.}{PU}{r}{\9036\131}% U+1E59
18119 % U+1E5A LATIN CAPITAL LETTER R WITH DOT BELOW; Rdotbelow
18120 \DeclareTextCompositeCommand{\d}{PU}{R}{\9036\132}% U+1E5A
18121 % U+1E5B LATIN SMALL LETTER R WITH DOT BELOW; rdotbelow
18122 \DeclareTextCompositeCommand{\d}{PU}{r}{\9036\133}% U+1E5B
18123 % U+1E5E LATIN CAPITAL LETTER R WITH LINE BELOW; Rlinebelow
18124 \DeclareTextCompositeCommand{\b}{PU}{R}{\9036\136}% U+1E5E
18125 % U+1E5F LATIN SMALL LETTER R WITH LINE BELOW; rlinebelow
18126 \DeclareTextCompositeCommand{\b}{PU}{r}{\9036\137}% U+1E5F
18127 % U+1E60 LATIN CAPITAL LETTER S WITH DOT ABOVE; Sdotaccent
18128 \DeclareTextCompositeCommand{\.}{PU}{S}{\9036\140}% U+1E60
18129 % U+1E61 LATIN SMALL LETTER S WITH DOT ABOVE; sdotaccent
18130 \DeclareTextCompositeCommand{\.}{PU}{s}{\9036\141}% U+1E61
18131 % U+1E62 LATIN CAPITAL LETTER S WITH DOT BELOW; Sdotbelow
18132 \DeclareTextCompositeCommand{\d}{PU}{S}{\9036\142}% U+1E62
18133 % U+1E63 LATIN SMALL LETTER S WITH DOT BELOW; sdotbelow
18134 \DeclareTextCompositeCommand{\d}{PU}{s}{\9036\143}% U+1E63
18135 % U+1E6A LATIN CAPITAL LETTER T WITH DOT ABOVE; Tdotaccent
18136 \DeclareTextCompositeCommand{\.}{PU}{T}{\9036\152}% U+1E6A
18137 % U+1E6B LATIN SMALL LETTER T WITH DOT ABOVE; tdotaccent
18138 \DeclareTextCompositeCommand{\.}{PU}{t}{\9036\153}% U+1E6B
18139 % U+1E6C LATIN CAPITAL LETTER T WITH DOT BELOW; Tdotbelow
18140 \DeclareTextCompositeCommand{\d}{PU}{T}{\9036\154}% U+1E6C
18141 % U+1E6D LATIN SMALL LETTER T WITH DOT BELOW; tdotbelow
18142 \DeclareTextCompositeCommand{\d}{PU}{t}{\9036\155}% U+1E6D
18143 % U+1E6E LATIN CAPITAL LETTER T WITH LINE BELOW; Tlinebelow
18144 \DeclareTextCompositeCommand{\b}{PU}{T}{\9036\156}% U+1E6E
18145 % U+1E6F LATIN SMALL LETTER T WITH LINE BELOW; tlinebelow
18146 \DeclareTextCompositeCommand{\b}{PU}{t}{\9036\157}% U+1E6F
18147 % U+1E70 LATIN CAPITAL LETTER T WITH CIRCUMFLEX BELOW; Tcir-
cumflexbelow
18148 \DeclareTextCompositeCommand{\textsubcircum}{PU}{T}{\9036\160}% U+1E70
18149 % U+1E71 LATIN SMALL LETTER T WITH CIRCUMFLEX BELOW; tcir-
cumflexbelow
18150 \DeclareTextCompositeCommand{\textsubcircum}{PU}{t}{\9036\161}% U+1E71
18151 % U+1E72 LATIN CAPITAL LETTER U WITH DIAERESIS BELOW; Udiere-
sisbelow
18152 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{U}{\9036\162}% U+1E72
18153 % U+1E73 LATIN SMALL LETTER U WITH DIAERESIS BELOW; udiere-
sisbelow
18154 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{u}{\9036\163}% U+1E73
18155 % U+1E74 LATIN CAPITAL LETTER U WITH TILDE BELOW; Utildebelow
18156 \DeclareTextCompositeCommand{\textsubtilde}{PU}{U}{\9036\164}% U+1E74
18157 % U+1E75 LATIN SMALL LETTER U WITH TILDE BELOW; utildebelow
18158 \DeclareTextCompositeCommand{\textsubtilde}{PU}{u}{\9036\165}% U+1E75

18159 % U+1E76 LATIN CAPITAL LETTER U WITH CIRCUMFLEX BELOW; Ucircumflexbelow
18160 \DeclareTextCompositeCommand{\textsubcircum}{PU}{U}{\9036\166}% U+1E76
18161 % U+1E77 LATIN SMALL LETTER U WITH CIRCUMFLEX BELOW; ucircumflexbelow
18162 \DeclareTextCompositeCommand{\textsubcircum}{PU}{u}{\9036\167}% U+1E77
18163 % U+1E7C LATIN CAPITAL LETTER V WITH TILDE; Vtilde
18164 \DeclareTextCompositeCommand{\~}{PU}{V}{\9036\174}% U+1E7C
18165 % U+1E7D LATIN SMALL LETTER V WITH TILDE; vtilde
18166 \DeclareTextCompositeCommand{\~}{PU}{v}{\9036\175}% U+1E7D
18167 % U+1E7E LATIN CAPITAL LETTER V WITH DOT BELOW; Vdotbelow
18168 \DeclareTextCompositeCommand{\d}{PU}{V}{\9036\176}% U+1E7E
18169 % U+1E7F LATIN SMALL LETTER V WITH DOT BELOW; vdotbelow
18170 \DeclareTextCompositeCommand{\d}{PU}{v}{\9036\177}% U+1E7F
18171 % U+1E80 LATIN CAPITAL LETTER W WITH GRAVE; Wgrave
18172 \DeclareTextCompositeCommand{\`}{PU}{W}{\9036\200}% U+1E80
18173 % U+1E81 LATIN SMALL LETTER W WITH GRAVE; wgrave
18174 \DeclareTextCompositeCommand{\`}{PU}{w}{\9036\201}% U+1E81
18175 % U+1E82 LATIN CAPITAL LETTER W WITH ACUTE; Wacute
18176 \DeclareTextCompositeCommand{\'}{PU}{W}{\9036\202}% U+1E82
18177 % U+1E83 LATIN SMALL LETTER W WITH ACUTE; wacute
18178 \DeclareTextCompositeCommand{\'}{PU}{w}{\9036\203}% U+1E83
18179 % U+1E84 LATIN CAPITAL LETTER W WITH DIAERESIS; Wdieresis
18180 \DeclareTextCompositeCommand{\"}{PU}{W}{\9036\204}% U+1E84
18181 % U+1E85 LATIN SMALL LETTER W WITH DIAERESIS; wdieresis
18182 \DeclareTextCompositeCommand{\"}{PU}{w}{\9036\205}% U+1E85
18183 % U+1E86 LATIN CAPITAL LETTER W WITH DOT ABOVE; Wdotaccent
18184 \DeclareTextCompositeCommand{\.}{PU}{W}{\9036\206}% U+1E86
18185 % U+1E87 LATIN SMALL LETTER W WITH DOT ABOVE; wdotaccent
18186 \DeclareTextCompositeCommand{\.}{PU}{w}{\9036\207}% U+1E87
18187 % U+1E88 LATIN CAPITAL LETTER W WITH DOT BELOW; wdotbelow
18188 \DeclareTextCompositeCommand{\d}{PU}{W}{\9036\210}% U+1E88
18189 % U+1E89 LATIN SMALL LETTER W WITH DOT BELOW; wdotbelow
18190 \DeclareTextCompositeCommand{\d}{PU}{w}{\9036\211}% U+1E89
18191 % U+1E8A LATIN CAPITAL LETTER X WITH DOT ABOVE; Xdotaccent
18192 \DeclareTextCompositeCommand{\.}{PU}{X}{\9036\212}% U+1E8A
18193 % U+1E8B LATIN SMALL LETTER X WITH DOT ABOVE; xdotaccent
18194 \DeclareTextCompositeCommand{\.}{PU}{x}{\9036\213}% U+1E8B
18195 % U+1E8C LATIN CAPITAL LETTER X WITH DIAERESIS; Xdieresis
18196 \DeclareTextCompositeCommand{\"}{PU}{X}{\9036\214}% U+1E8C
18197 % U+1E8D LATIN SMALL LETTER X WITH DIAERESIS; xdieresis
18198 \DeclareTextCompositeCommand{\"}{PU}{x}{\9036\215}% U+1E8D
18199 % U+1E8E LATIN CAPITAL LETTER Y WITH DOT ABOVE; Ydotaccent
18200 \DeclareTextCompositeCommand{\.}{PU}{Y}{\9036\216}% U+1E8E
18201 % U+1E8F LATIN SMALL LETTER Y WITH DOT ABOVE; ydotaccent
18202 \DeclareTextCompositeCommand{\.}{PU}{y}{\9036\217}% U+1E8F
18203 % U+1E90 LATIN CAPITAL LETTER Z WITH CIRCUMFLEX; Zcircumflex
18204 \DeclareTextCompositeCommand{\^}{PU}{Z}{\9036\220}% U+1E90
18205 % U+1E91 LATIN SMALL LETTER Z WITH CIRCUMFLEX; zcircumflex
18206 \DeclareTextCompositeCommand{\^}{PU}{z}{\9036\221}% U+1E91
18207 % U+1E92 LATIN CAPITAL LETTER Z WITH DOT BELOW; Zdotbelow
18208 \DeclareTextCompositeCommand{\d}{PU}{Z}{\9036\222}% U+1E92
18209 % U+1E93 LATIN SMALL LETTER Z WITH DOT BELOW; zdotbelow
18210 \DeclareTextCompositeCommand{\d}{PU}{z}{\9036\223}% U+1E93
18211 % U+1E94 LATIN CAPITAL LETTER Z WITH LINE BELOW; Zlinebelow
18212 \DeclareTextCompositeCommand{\b}{PU}{Z}{\9036\224}% U+1E94
18213 % U+1E95 LATIN SMALL LETTER Z WITH LINE BELOW; zlinebelow

18214 \DeclareTextCompositeCommand{\b}{PU}{z}{\9036\225}% U+1E95
18215 % U+1E96 LATIN SMALL LETTER H WITH LINE BELOW; hlinebelow
18216 \DeclareTextCompositeCommand{\b}{PU}{h}{\9036\226}% U+1E96
18217 % U+1E97 LATIN SMALL LETTER T WITH DIAERESIS; tdieresis
18218 \DeclareTextCompositeCommand{\"}{PU}{t}{\9036\227}% U+1E97
18219 % U+1E98 LATIN SMALL LETTER W WITH RING ABOVE; wring
18220 \DeclareTextCompositeCommand{\r}{PU}{w}{\9036\230}% U+1E98
18221 % U+1E99 LATIN SMALL LETTER Y WITH RING ABOVE; yring
18222 \DeclareTextCompositeCommand{\r}{PU}{y}{\9036\231}% U+1E99
18223 % U+1E9B LATIN SMALL LETTER LONG S WITH DOT ABOVE; slongdo-
taccent
18224 \DeclareTextCompositeCommand{\.}{PU}{\textlongs}{\9036\233}% U+1E9B
18225 % U+1EA0 LATIN CAPITAL LETTER A WITH DOT BELOW; Adotbelow
18226 \DeclareTextCompositeCommand{\d}{PU}{A}{\9036\240}% U+1EA0
18227 % U+1EA1 LATIN SMALL LETTER A WITH DOT BELOW; adotbelow
18228 \DeclareTextCompositeCommand{\d}{PU}{a}{\9036\241}% U+1EA1
18229 % U+1EB8 LATIN CAPITAL LETTER E WITH DOT BELOW; Edotbelow
18230 \DeclareTextCompositeCommand{\d}{PU}{E}{\9036\270}% U+1EB8
18231 % U+1EB9 LATIN SMALL LETTER E WITH DOT BELOW; edotbelow
18232 \DeclareTextCompositeCommand{\d}{PU}{e}{\9036\271}% U+1EB9
18233 % U+1EBC LATIN CAPITAL LETTER E WITH TILDE; Etilde
18234 \DeclareTextCompositeCommand{\~}{PU}{E}{\9036\274}% U+1EBC
18235 % U+1EBD LATIN SMALL LETTER E WITH TILDE; etilde
18236 \DeclareTextCompositeCommand{\~}{PU}{e}{\9036\275}% U+1EBD
18237 % U+1ECA LATIN CAPITAL LETTER I WITH DOT BELOW; Idotbelow
18238 \DeclareTextCompositeCommand{\d}{PU}{I}{\9036\312}% U+1ECA
18239 % U+1ECB LATIN SMALL LETTER I WITH DOT BELOW; idotbelow
18240 \DeclareTextCompositeCommand{\d}{PU}{i}{\9036\313}% U+1ECB
18241 % U+1ECC LATIN CAPITAL LETTER O WITH DOT BELOW; Odotbelow
18242 \DeclareTextCompositeCommand{\d}{PU}{O}{\9036\314}% U+1ECC
18243 % U+1ECD LATIN SMALL LETTER O WITH DOT BELOW; odotbelow
18244 \DeclareTextCompositeCommand{\d}{PU}{o}{\9036\315}% U+1ECD
18245 % U+1EE4 LATIN CAPITAL LETTER U WITH DOT BELOW; Udotbelow
18246 \DeclareTextCompositeCommand{\d}{PU}{U}{\9036\344}% U+1EE4
18247 % U+1EE5 LATIN SMALL LETTER U WITH DOT BELOW; udotbelow
18248 \DeclareTextCompositeCommand{\d}{PU}{u}{\9036\345}% U+1EE5
18249 % U+1EF2 LATIN CAPITAL LETTER Y WITH GRAVE; Ygrave
18250 \DeclareTextCompositeCommand{\`}{PU}{Y}{\9036\362}% U+1EF2
18251 % U+1EF3 LATIN SMALL LETTER Y WITH GRAVE; ygrave
18252 \DeclareTextCompositeCommand{\`}{PU}{y}{\9036\363}% U+1EF3
18253 % U+1EF4 LATIN CAPITAL LETTER Y WITH DOT BELOW; Ydotbelow
18254 \DeclareTextCompositeCommand{\d}{PU}{Y}{\9036\364}% U+1EF4
18255 % U+1EF5 LATIN SMALL LETTER Y WITH DOT BELOW; ydotbelow
18256 \DeclareTextCompositeCommand{\d}{PU}{y}{\9036\365}% U+1EF5
18257 % U+1EF8 LATIN CAPITAL LETTER Y WITH TILDE; Ytilde
18258 \DeclareTextCompositeCommand{\~}{PU}{Y}{\9036\370}% U+1EF8
18259 % U+1EF9 LATIN SMALL LETTER Y WITH TILDE; ytilde
18260 \DeclareTextCompositeCommand{\~}{PU}{y}{\9036\371}% U+1EF9

51.2.16 General Punctuation: U+2000 to U+206F

18261 % U+200C ZERO WIDTH NON-JOINER; *afii61664, zerowidthnonjoiner
18262 \DeclareTextCommand{\textcompwordmark}{PU}{\9040\014}% U+200C
18263 % U+2013 EN DASH; endash
18264 \DeclareTextCommand{\textendash}{PU}{\9040\023}% U+2013
18265 % U+2014 EM DASH; emdash
18266 \DeclareTextCommand{\textemdash}{PU}{\9040\024}% U+2014
18267 % U+2016 DOUBLE VERTICAL LINE; dblverticalbar

18268 `\DeclareTextCommand{\textbardbl}{PU}{\9040\026}% U+2016`
18269 `%* \textbardbl -> \textdoublevertline (tipa)`
18270 `% U+2018 LEFT SINGLE QUOTATION MARK; quoteleft`
18271 `\DeclareTextCommand{\textquoteleft}{PU}{\9040\030}% U+2018`
18272 `% U+2019 RIGHT SINGLE QUOTATION MARK; quoteright`
18273 `\DeclareTextCommand{\textquoteright}{PU}{\9040\031}% U+2019`
18274 `% U+201A SINGLE LOW-9 QUOTATION MARK; quotesinglbase`
18275 `\DeclareTextCommand{\quotesinglbase}{PU}{\9040\032}% U+201A`
18276 `% U+201C LEFT DOUBLE QUOTATION MARK; quotedblleft`
18277 `\DeclareTextCommand{\textquotedblleft}{PU}{\9040\034}% U+201C`
18278 `% U+201D RIGHT DOUBLE QUOTATION MARK; quotedblright`
18279 `\DeclareTextCommand{\textquotedblright}{PU}{\9040\035}% U+201D`
18280 `% U+201E DOUBLE LOW-9 QUOTATION MARK; quotedblbase`
18281 `\DeclareTextCommand{\quotedblbase}{PU}{\9040\036}% U+201E`
18282 `% U+2020 DAGGER; dagger`
18283 `\DeclareTextCommand{\textdagger}{PU}{\9040\040}%* U+2020`
18284 `%* \textdagger -> \dag (LaTeX)`
18285 `% U+2021 DOUBLE DAGGER; daggerdbl; \ddagger (LaTeX)`
18286 `\DeclareTextCommand{\textdaggerdbl}{PU}{\9040\041}% U+2021`
18287 `%* \textdaggerdbl -> \ddagger (LaTeX)`
18288 `%* \textdaggerdbl -> \ddag (LaTeX)`
18289 `% U+2022 BULLET; bullet`
18290 `\DeclareTextCommand{\textbullet}{PU}{\9040\042}%* U+2022`
18291 `% U+2025 TWO DOT LEADER; \hdotfor (MnSymbol)`
18292 `\DeclareTextCommand{\texthdotfor}{PU}{\9040\045}%* U+2025`
18293 `% U+2026 HORIZONTAL ELLIPSIS; ellipsis`
18294 `\DeclareTextCommand{\textellipsis}{PU}{\9040\046}% U+2026`
18295 `%* \textellipsis -> \mathellipsis`
18296 `% U+2030 PER MILLE SIGN; perthousand`
18297 `\DeclareTextCommand{\textperthousand}{PU}{\9040\060}% U+2030`
18298 `% U+2031 PER TEN THOUSAND SIGN`
18299 `\DeclareTextCommand{\textpertenthousand}{PU}{\9040\061}% U+2031`
18300 `% U+2032 PRIME; minute; \prime (MnSymbol)`
18301 `\DeclareTextCommand{\textprime}{PU}{\9040\062}%* U+2032`
18302 `% U+2033 DOUBLE PRIME; \second (mathabx)`
18303 `\DeclareTextCommand{\textsecond}{PU}{\9040\063}%* U+2033`
18304 `% U+2034 TRIPLE PRIME; \third (mathabx)`
18305 `\DeclareTextCommand{\textthird}{PU}{\9040\064}%* U+2034`
18306 `% U+2035 REVERSED PRIME; \backprime (Ams)`
18307 `\DeclareTextCommand{\textbackprime}{PU}{\9040\065}%* U+2035`
18308 `% U+2039 SINGLE LEFT-POINTING ANGLE QUOTATION MARK; guil-`
`inglleft`
18309 `\DeclareTextCommand{\guilsinglleft}{PU}{\9040\071}% U+2039`
18310 `% U+203A SINGLE RIGHT-POINTING ANGLE QUOTATION MARK; guil-`
`inglright`
18311 `\DeclareTextCommand{\guilsinglright}{PU}{\9040\072}% U+203A`
18312 `% U+203B REFERENCE MARK; referencemark`
18313 `\DeclareTextCommand{\textreferencemark}{PU}{\9040\073}% U+203B`
18314 `% U+203D INTERROBANG`
18315 `\DeclareTextCommand{\textinterrobang}{PU}{\9040\075}% U+203D`
18316 `% U+2044 FRACTION SLASH; fraction`
18317 `\DeclareTextCommand{\textfractionsolidus}{PU}{\9040\104}% U+2044`
18318 `% U+2045 LEFT SQUARE BRACKET WITH QUILL`
18319 `\DeclareTextCommand{\textlquill}{PU}{\9040\105}% U+2045`
18320 `% U+2046 RIGHT SQUARE BRACKET WITH QUILL`
18321 `\DeclareTextCommand{\textrquill}{PU}{\9040\106}% U+2046`
18322 `% U+2052 COMMERCIAL MINUS SIGN`

18323 \DeclareTextCommand{\textdiscount}{PU}{\9040\122}% U+2052
18324 % U+2056 THREE DOT PUNCTUATION; \lefttherefore (MnSymbol)
18325 \DeclareTextCommand{\textlefttherefore}{PU}{\9040\126}%* U+2056
18326 % U+2057 QUADRUPLE PRIME; \fourth (mathabx)
18327 \DeclareTextCommand{\textfourth}{PU}{\9040\127}%* U+2057
18328 % U+2058 FOUR DOT PUNCTUATION; \diamonddots (MnSymbol)
18329 \DeclareTextCommand{\textdiamonddots}{PU}{\9040\130}%* U+2058

51.2.17 Superscripts and Subscripts: U+2070 to U+209F

18330 % U+2070 SUPERSCRIPT ZERO; zerosuperior
18331 \DeclareTextCommand{\textzerosuperior}{PU}{\9040\160}%* U+2070
18332 % U+2071 SUPERSCRIPT LATIN SMALL LETTER I
18333 \DeclareTextCommand{\textisuperior}{PU}{\9040\161}%* U+2071
18334 % U+2074 SUPERSCRIPT FOUR; foursuperior
18335 \DeclareTextCommand{\textfoursuperior}{PU}{\9040\164}%* U+2074
18336 % U+2075 SUPERSCRIPT FIVE; fivesuperior
18337 \DeclareTextCommand{\textfivesuperior}{PU}{\9040\165}%* U+2075
18338 % U+2076 SUPERSCRIPT SIX; sixsuperior
18339 \DeclareTextCommand{\textsixsuperior}{PU}{\9040\166}%* U+2076
18340 % U+2077 SUPERSCRIPT SEVEN; sevensuperior
18341 \DeclareTextCommand{\textsevensuperior}{PU}{\9040\167}%* U+2077
18342 % U+2078 SUPERSCRIPT EIGHT; eightsuperior
18343 \DeclareTextCommand{\texteightsuperior}{PU}{\9040\170}%* U+2078
18344 % U+2079 SUPERSCRIPT NINE; ninesuperior
18345 \DeclareTextCommand{\textninesuperior}{PU}{\9040\171}%* U+2079
18346 % U+207A SUPERSCRIPT PLUS SIGN; plussuperior
18347 \DeclareTextCommand{\textplussuperior}{PU}{\9040\172}%* U+207A
18348 % U+207B SUPERSCRIPT MINUS
18349 \DeclareTextCommand{\textminussuperior}{PU}{\9040\173}%* U+207B
18350 % U+207C SUPERSCRIPT EQUALS SIGN; equalsuperior
18351 \DeclareTextCommand{\textequalsuperior}{PU}{\9040\174}%* U+207C
18352 % U+207D SUPERSCRIPT LEFT PARENTHESIS; parenleftsuperior
18353 \DeclareTextCommand{\textparenleftsuperior}{PU}{\9040\175}%* U+207D
18354 % U+207E SUPERSCRIPT RIGHT PARENTHESIS; parenrightsuperior
18355 \DeclareTextCommand{\textparenrightsuperior}{PU}{\9040\176}%* U+207E
18356 % U+207F SUPERSCRIPT LATIN SMALL LETTER N; nsuperior
18357 \DeclareTextCommand{\textnsuperior}{PU}{\9040\177}%* U+207F
18358 % U+2080 SUBSCRIPT ZERO; zeroinferior
18359 \DeclareTextCommand{\textzeroinferior}{PU}{\9040\200}%* U+2080
18360 % U+2081 SUBSCRIPT ONE; oneinferior
18361 \DeclareTextCommand{\textoneinferior}{PU}{\9040\201}%* U+2081
18362 % U+2082 SUBSCRIPT TWO; twoinferior
18363 \DeclareTextCommand{\texttwoinferior}{PU}{\9040\202}%* U+2082
18364 % U+2083 SUBSCRIPT THREE; threeminferior
18365 \DeclareTextCommand{\textthreeminferior}{PU}{\9040\203}%* U+2083
18366 % U+2084 SUBSCRIPT FOUR; fourinferior
18367 \DeclareTextCommand{\textfourinferior}{PU}{\9040\204}%* U+2084
18368 % U+2085 SUBSCRIPT FIVE; fiveinferior
18369 \DeclareTextCommand{\textfiveinferior}{PU}{\9040\205}%* U+2085
18370 % U+2086 SUBSCRIPT SIX; sixinferior
18371 \DeclareTextCommand{\textsixinferior}{PU}{\9040\206}%* U+2086
18372 % U+2087 SUBSCRIPT SEVEN; seveninferior
18373 \DeclareTextCommand{\textseveninferior}{PU}{\9040\207}%* U+2087
18374 % U+2088 SUBSCRIPT EIGHT; eightinferior
18375 \DeclareTextCommand{\texteightinferior}{PU}{\9040\210}%* U+2088
18376 % U+2089 SUBSCRIPT NINE; nineinferior
18377 \DeclareTextCommand{\textnineinferior}{PU}{\9040\211}%* U+2089

18378 % U+208A SUBSCRIPT PLUS SIGN
18379 \DeclareTextCommand{\textplusinferior}{PU}{\9040\212}%* U+208A
18380 % U+208B SUBSCRIPT MINUS
18381 \DeclareTextCommand{\textminusinferior}{PU}{\9040\213}%* U+208B
18382 % U+208C SUBSCRIPT EQUALS SIGN
18383 \DeclareTextCommand{\textequalsinferior}{PU}{\9040\214}%* U+208C
18384 % U+208D SUBSCRIPT LEFT PARENTHESIS; parenleftinferior
18385 \DeclareTextCommand{\textparenleftinferior}{PU}{\9040\215}%* U+208D
18386 % U+208E SUBSCRIPT RIGHT PARENTHESIS; parenrightinferior
18387 \DeclareTextCommand{\textparenrightinferior}{PU}{\9040\216}%* U+208E
18388 % U+2090 LATIN SUBSCRIPT SMALL LETTER A
18389 \DeclareTextCommand{\textainferior}{PU}{\9040\220}%* U+2090
18390 % U+2091 LATIN SUBSCRIPT SMALL LETTER E
18391 \DeclareTextCommand{\texteinferior}{PU}{\9040\221}%* U+2091
18392 % U+2092 LATIN SUBSCRIPT SMALL LETTER O
18393 \DeclareTextCommand{\textoinferior}{PU}{\9040\222}%* U+2092
18394 % U+2093 LATIN SUBSCRIPT SMALL LETTER X
18395 \DeclareTextCommand{\textxinferior}{PU}{\9040\223}%* U+2093
18396 % U+2094 LATIN SUBSCRIPT SMALL LETTER SCHWA
18397 \DeclareTextCommand{\textschwainferior}{PU}{\9040\224}%* U+2094
18398 % U+2095 LATIN SUBSCRIPT SMALL LETTER H
18399 \DeclareTextCommand{\texthinferior}{PU}{\9040\225}%* U+2095
18400 % U+2096 LATIN SUBSCRIPT SMALL LETTER K
18401 \DeclareTextCommand{\textkinferior}{PU}{\9040\226}%* U+2096
18402 % U+2097 LATIN SUBSCRIPT SMALL LETTER L
18403 \DeclareTextCommand{\textlinferior}{PU}{\9040\227}%* U+2097
18404 % U+2098 LATIN SUBSCRIPT SMALL LETTER M
18405 \DeclareTextCommand{\textminferior}{PU}{\9040\230}%* U+2098
18406 % U+2099 LATIN SUBSCRIPT SMALL LETTER N
18407 \DeclareTextCommand{\textninferior}{PU}{\9040\231}%* U+2099
18408 % U+209A LATIN SUBSCRIPT SMALL LETTER P
18409 \DeclareTextCommand{\textpinferior}{PU}{\9040\232}%* U+209A
18410 % U+209B LATIN SUBSCRIPT SMALL LETTER S
18411 \DeclareTextCommand{\textsinferior}{PU}{\9040\233}%* U+209B
18412 % U+209C LATIN SUBSCRIPT SMALL LETTER T
18413 \DeclareTextCommand{\texttinferior}{PU}{\9040\234}%* U+209C

51.2.18 Currency Symbols: U+20A0 to U+20CF

18414 % U+20A1 COLON SIGN; *colonmonetary, colonsign
18415 \DeclareTextCommand{\textcolonmonetary}{PU}{\9040\241}% U+20A1
18416 % U+20A4 LIRA SIGN; afi08941, *lira
18417 \DeclareTextCommand{\textlira}{PU}{\9040\244}% U+20A4
18418 % U+20A6 NAIRA SIGN
18419 \DeclareTextCommand{\textnaira}{PU}{\9040\246}% U+20A6
18420 % U+20A7 PESETA SIGN; peseta
18421 \DeclareTextCommand{\textpeseta}{PU}{\9040\247}% U+20A7
18422 % U+20A9 WON SIGN; won
18423 \DeclareTextCommand{\textwon}{PU}{\9040\251}% U+20A9
18424 % U+20AB DONG SIGN; dong
18425 \DeclareTextCommand{\textdong}{PU}{\9040\253}% U+20AB
18426 % U+20AC EURO SIGN; *Euro, euro
18427 \DeclareTextCommand{\texteuro}{PU}{\9040\254}% U+20AC
18428 %* \texteuro -> \EurDig (marvosym)
18429 %* \texteuro -> \EURdig (marvosym)
18430 %* \texteuro -> \EurHv (marvosym)
18431 %* \texteuro -> \EURhv (marvosym)
18432 %* \texteuro -> \EurCr (marvosym)

18433 %* \texteuro -> \EURcr (marvosym)
 18434 %* \texteuro -> \EurTm (marvosym)
 18435 %* \texteuro -> \EURtm (marvosym)
 18436 %* \texteuro -> \Eur (marvosym)
 18437 % U+20B0 GERMAN PENNY SIGN; \Deleatur (marvosym)
 18438 \DeclareTextCommand{\textDeleatur}{PU}{\9040\260}%* U+20B0
 18439 %* \textDeleatur -> \Denarius (marvosym)
 18440 % U+20B1 PESO SIGN
 18441 \DeclareTextCommand{\textpeso}{PU}{\9040\261}% U+20B1
 18442 % U+20B2 GUARANI SIGN
 18443 \DeclareTextCommand{\textguarani}{PU}{\9040\262}% U+20B2

51.2.19 Letterlike Symbols: U+2100 to U+214F

18444 % U+2103 DEGREE CELSIUS; centigrade
 18445 \DeclareTextCommand{\textcelsius}{PU}{\9041\003}% U+2103
 18446 % U+210F PLANCK CONSTANT OVER TWO PI; \hslash (AmS)
 18447 \DeclareTextCommand{\texthslash}{PU}{\9041\017}%* U+210F
 18448 % U+2111 BLACK-LETTER CAPITAL I (=imaginary part); Ifraktur; \Im (LaTeX)
 18449 \DeclareTextCommand{\textIm}{PU}{\9041\021}%* U+2111
 18450 % U+2113 SCRIPT SMALL L (=ell, liter); afii61289, lsquare; \ell (LaTeX)
 18451 \DeclareTextCommand{\textell}{PU}{\9041\023}%* U+2113
 18452 % U+2116 NUMERO SIGN; *afii61352, numero
 18453 \DeclareTextCommand{\textnumero}{PU}{\9041\026}% U+2116
 18454 % U+2117 SOUND RECORDING COPYRIGHT
 18455 \DeclareTextCommand{\textcircledP}{PU}{\9041\027}% U+2117
 18456 % U+2118 SCRIPT CAPITAL P (=Weierstrass elliptic function);
 18457 % weierstrass; \wp (LaTeX)
 18458 \DeclareTextCommand{\textwp}{PU}{\9041\030}%* U+2118
 18459 % U+211C BLACK-LETTER CAPITAL R (=real part); Rfraktur; \Re (LaTeX)
 18460 \DeclareTextCommand{\textRe}{PU}{\9041\034}%* U+211C
 18461 % U+211E PRESCRIPTION TAKE; prescription
 18462 \DeclareTextCommand{\textrecipe}{PU}{\9041\036}% U+211E
 18463 % U+2120 SERVICE MARK
 18464 \DeclareTextCommand{\textservicemark}{PU}{\9041\040}% U+2120
 18465 % U+2122 TRADE MARK SIGN; trademark
 18466 \DeclareTextCommand{\texttrademark}{PU}{\9041\042}% U+2122
 18467 % U+2126 OHM SIGN; Ohm, Omega
 18468 \DeclareTextCommand{\textohm}{PU}{\9041\046}% U+2126
 18469 % U+2127 INVERTED OHM SIGN
 18470 \DeclareTextCommand{\textmho}{PU}{\9041\047}%* U+2127
 18471 %* \textmho -> \agemO (wasysym)
 18472 % U+2129 TURNED GREEK SMALL LETTER IOTA; \riota (phonetic)
 18473 \DeclareTextCommand{\textriota}{PU}{\9041\051}%* U+2129
 18474 % U+212B ANGSTROM SIGN; angstrom
 18475 \DeclareTextCommand{\textangstrom}{PU}{\9041\053}% U+212B
 18476 % U+212E ESTIMATED SYMBOL; estimated
 18477 \DeclareTextCommand{\textestimated}{PU}{\9041\056}% U+212E
 18478 %* \textestimated -> \EstimatedSign (marvosym)
 18479 %* \textestimated -> \Ecommerce (marvosym)
 18480 % U+2132 TURNED CAPITAL F; \Finv (AmS)
 18481 \DeclareTextCommand{\textFinv}{PU}{\9041\062}%* U+2132
 18482 % U+2135 ALEF SYMBOL; aleph; \aleph (LaTeX)
 18483 \DeclareTextCommand{\textaleph}{PU}{\9041\065}%* U+2135
 18484 % U+2136 BET SYMBOL; \beth (AmS, MnSymbol)
 18485 \DeclareTextCommand{\textbeth}{PU}{\9041\066}%* U+2136
 18486 % U+2137 GIMEL SYMBOL; \gimel (AmS, MnSymbol)

18487 \DeclareTextCommand{\textgimel}{PU}{\9041\067}%* U+2137
 18488 % U+2138 DALET SYMBOL; \daleth (AmS, MnSymbol)
 18489 \DeclareTextCommand{\textdaleth}{PU}{\9041\070}%* U+2138
 18490 % U+213B FACSIMILE SIGN; \fax (marvosym)
 18491 \DeclareTextCommand{\textfax}{PU}{\9041\073}%* U+213B
 18492 % U+2141 TURNED SANS-SERIF CAPITAL G (=game); \Game
 18493 \DeclareTextCommand{\textGame}{PU}{\9041\101}%* U+2141
 18494 % U+214B TURNED AMPERSAND; \invamp (txfonts/pxfonts)
 18495 \DeclareTextCommand{\textinvamp}{PU}{\9041\113}% U+214B
 18496 %* \textinvamp -> \bindnasrepma (stmaryrd)
 18497 %* \textinvamp -> \parr (cml)

51.2.20 Number Forms: U+2150 to U+218F

18498 % U+2150 VULGAR FRACTION ONE SEVENTH
 18499 \DeclareTextCommand{\textoneseventh}{PU}{\9041\120}% U+2150
 18500 % U+2151 VULGAR FRACTION ONE NINTH
 18501 \DeclareTextCommand{\textoneninth}{PU}{\9041\121}% U+2151
 18502 % U+2152 VULGAR FRACTION ONE TENTH
 18503 \DeclareTextCommand{\textonetenth}{PU}{\9041\122}% U+2152
 18504 % U+2153 VULGAR FRACTION ONE THIRD; onethird
 18505 \DeclareTextCommand{\textonethird}{PU}{\9041\123}% U+2153
 18506 % U+2154 VULGAR FRACTION TWO THIRDS; twothirds
 18507 \DeclareTextCommand{\texttwothirds}{PU}{\9041\124}% U+2154
 18508 % U+2155 VULGAR FRACTION ONE FIFTH
 18509 \DeclareTextCommand{\textonefifth}{PU}{\9041\125}% U+2155
 18510 % U+2156 VULGAR FRACTION TWO FIFTHS
 18511 \DeclareTextCommand{\texttwofifths}{PU}{\9041\126}% U+2156
 18512 % U+2157 VULGAR FRACTION THREE FIFTHS
 18513 \DeclareTextCommand{\textthreefifths}{PU}{\9041\127}% U+2157
 18514 % U+2158 VULGAR FRACTION FOUR FIFTHS
 18515 \DeclareTextCommand{\textfourfifths}{PU}{\9041\130}% U+2158
 18516 % U+2159 VULGAR FRACTION ONE SIXTH
 18517 \DeclareTextCommand{\textonesixth}{PU}{\9041\131}% U+2159
 18518 % U+215A VULGAR FRACTION FIVE SIXTHS
 18519 \DeclareTextCommand{\textfivesixths}{PU}{\9041\132}% U+215A
 18520 % U+215B VULGAR FRACTION ONE EIGHTH; oneeighth
 18521 \DeclareTextCommand{\textoneeighth}{PU}{\9041\133}% U+215B
 18522 % U+215C VULGAR FRACTION THREE EIGHTHS; threeeighths
 18523 \DeclareTextCommand{\textthreeeighths}{PU}{\9041\134}% U+215C
 18524 % U+215D VULGAR FRACTION FIVE EIGHTHS; fiveeighths
 18525 \DeclareTextCommand{\textfiveeighths}{PU}{\9041\135}% U+215D
 18526 % U+215E VULGAR FRACTION SEVEN EIGHTHS; seveneighths
 18527 \DeclareTextCommand{\textseveneighths}{PU}{\9041\136}% U+215E
 18528 % U+2184 LATIN SMALL LETTER REVERSED C
 18529 \DeclareTextCommand{\textrevc}{PU}{\9041\204}% U+2184
 18530 % U+2189 VULGAR FRACTION ZERO THIRDS
 18531 \DeclareTextCommand{\textzerthirds}{PU}{\9041\211}% U+2189

51.2.21 Arrows: U+2190 to U+21FF

18532 % U+2190 LEFTWARDS ARROW; arrowleft
 18533 \DeclareTextCommand{\textleftarrow}{PU}{\9041\220}%* U+2190
 18534 % U+2191 UPWARDS ARROW; arrowup
 18535 \DeclareTextCommand{\textuparrow}{PU}{\9041\221}%* U+2191
 18536 % U+2192 RIGHTWARDS ARROW; arrowright
 18537 \DeclareTextCommand{\textrightarrow}{PU}{\9041\222}%* U+2192
 18538 %* \textrightarrow -> \MVRightArrow (marvosym)
 18539 %* \textrightarrow -> \MVRightarrow (marvosym)

18540 % U+2193 DOWNWARDS ARROW; arrowdown
18541 \DeclareTextCommand{\textdownarrow}{PU}{\9041\223}%* U+2193
18542 %* \textdownarrow -> \MVArrowDown (marvosym)
18543 %* \textdownarrow -> \Force (marvosym)
18544 % U+2194 LEFT RIGHT ARROW; arrowboth; \leftrightharrow (LaTeX)
18545 \DeclareTextCommand{\textleftrightharrow}{PU}{\9041\224}%* U+2194
18546 % U+2195 UP DOWN ARROW; arrowupdn; \updownarrow (LaTeX)
18547 \DeclareTextCommand{\textupdownarrow}{PU}{\9041\225}%* U+2195
18548 % U+2196 NORTH WEST ARROW; arrowupleft; \nwarrow (LaTeX)
18549 \DeclareTextCommand{\textnwarrow}{PU}{\9041\226}%* U+2196
18550 % U+2197 NORTH EAST ARROW; arrowupright; \nearrow (LaTeX)
18551 \DeclareTextCommand{\textnearrow}{PU}{\9041\227}%* U+2197
18552 %* \textnearrow -> \textglobrise (tipa)
18553 % U+2198 SOUTH EAST ARROW; arrowdownright; \searrow (LaTeX)
18554 \DeclareTextCommand{\textsearrow}{PU}{\9041\230}%* U+2198
18555 %* \textsearrow -> \textglobfall (tipa)
18556 % U+2199 SOUTH WEST ARROW; arrowdownleft; \swarrow (LaTeX)
18557 \DeclareTextCommand{\textswarrow}{PU}{\9041\231}%* U+2199
18558 % U+219A LEFTWARDS ARROW WITH STROKE; \leftarrow (AmS)
18559 \DeclareTextCommand{\textleftarrow}{PU}{\9041\232}%* U+219A
18560 % U+219B RIGHTWARDS ARROW WITH STROKE; \rightarrow (AmS)
18561 \DeclareTextCommand{\textrightarrow}{PU}{\9041\233}%* U+219B
18562 % U+219E LEFTWARDS TWO HEADED ARROW; \twoheadleftarrow (AmS)
18563 \DeclareTextCommand{\texttwoheadleftarrow}{PU}{\9041\236}%* U+219E
18564 % \ntwoheadleftarrow (txfonts/pxfonts)
18565 \DeclareTextCommand{\textntwoheadleftarrow}{PU}{\9041\236\83\070}%* U+219E U+0338
18566 % U+219F UPWARDS TWO HEADED ARROW; \twoheaduparrow (MnSymbol)
18567 \DeclareTextCommand{\texttwoheaduparrow}{PU}{\9041\237}%* U+219F
18568 % U+21A0 RIGHTWARDS TWO HEADED ARROW;
18569 % \twoheadrightarrow (AmS)
18570 \DeclareTextCommand{\texttwoheadrightarrow}{PU}{\9041\240}%* U+21A0
18571 % \ntwoheadrightarrow (txfonts/pxfonts)
18572 \DeclareTextCommand{\textntwoheadrightarrow}{PU}{\9041\240\83\070}%* U+21A0 U+0338
18573 % U+21A1 DOWNWARDS TWO HEADED ARROW; \twoheaddownarrow (Mn-
Symbol)
18574 \DeclareTextCommand{\texttwoheaddownarrow}{PU}{\9041\241}%* U+21A1
18575 % U+21A2 LEFTWARDS ARROW WITH TAIL; \leftarrowtail (AmS)
18576 \DeclareTextCommand{\textleftarrowtail}{PU}{\9041\242}%* U+21A2
18577 % U+21A3 RIGHTWARDS ARROW WITH TAIL; \rightarrowtail (AmS)
18578 \DeclareTextCommand{\textrightarrowtail}{PU}{\9041\243}%* U+21A3
18579 % U+21A6 RIGHTWARDS ARROW FROM BAR; \mapsto (LaTeX)
18580 \DeclareTextCommand{\textmapsto}{PU}{\9041\246}%* U+21A6
18581 % U+21A9 LEFTWARDS ARROW WITH HOOK; \hookleftarrow (LaTeX)
18582 \DeclareTextCommand{\texthookleftarrow}{PU}{\9041\251}%* U+21A9
18583 % U+21AA RIGHTWARDS ARROW WITH HOOK; \hookrightarrow (LaTeX)
18584 \DeclareTextCommand{\texthookrightarrow}{PU}{\9041\252}%* U+21AA
18585 % U+21AB LEFTWARDS ARROW WITH LOOP; \looparrowleft (AmS)
18586 \DeclareTextCommand{\textlooparrowleft}{PU}{\9041\253}%* U+21AB
18587 % U+21AC RIGHTWARDS ARROW WITH LOOP; \looparrowright (AmS)
18588 \DeclareTextCommand{\textlooparrowright}{PU}{\9041\254}%* U+21AC
18589 % U+21AE LEFT RIGHT ARROW WITH STROKE; \leftrightharrow (AmS)
18590 \DeclareTextCommand{\textleftrightharrow}{PU}{\9041\256}%* U+21AE
18591 % U+21AF DOWNWARDS ZIGZAG ARROW; \lightning (stmaryrd)
18592 \DeclareTextCommand{\textlightning}{PU}{\9041\257}%* U+21AF
18593 %* \textlightning -> \Lightning (marvosym)
18594 % U+21B5 DOWNWARDS ARROW WITH CORNER LEFTWARDS;
18595 % \dls (mathabx)

```

18596 \DeclareTextCommand{\textdsh}{PU}{\9041\265}%* U+21B5
18597 % U+21B6 ANTICLOCKWISE TOP SEMICIRCLE ARROW;
18598 % \curvearrowleft (AmS)
18599 \DeclareTextCommand{\textcurvearrowleft}{PU}{\9041\266}%* U+21B6
18600 % U+21B7 CLOCKWISE TOP SEMICIRCLE ARROW; \curvearrowright (AmS)
18601 \DeclareTextCommand{\textcurvearrowright}{PU}{\9041\267}%* U+21B7
18602 % U+21BC LEFTWARDS HARPOON WITH BARB UPWARDS; harpoonleft-
barbup;
18603 % \leftharpoonup (LaTeX)
18604 \DeclareTextCommand{\textleftharpoonup}{PU}{\9041\274}%* U+21BC
18605 % U+21BD LEFTWARDS HARPOON WITH BARB DOWNWARDS;
18606 % \leftharpoondown (LaTeX)
18607 \DeclareTextCommand{\textleftharpoondown}{PU}{\9041\275}%* U+21BD
18608 % U+21BE UPWARDS HARPOON WITH BARB RIGHTWARDS;
18609 % \upharpoonright (AmS)
18610 \DeclareTextCommand{\textupharpoonright}{PU}{\9041\276}%* U+21BE
18611 % U+21BF UPWARDS HARPOON WITH BARB LEFTWARDS;
18612 % \upharpoonleft (AmS)
18613 \DeclareTextCommand{\textupharpoonleft}{PU}{\9041\277}%* U+21BF
18614 % U+21C0 RIGHTWARDS HARPOON WITH BARB UPWARDS; harpoonright-
barbup
18615 % \rightharpoonup (LaTeX)
18616 \DeclareTextCommand{\textrightharpoonup}{PU}{\9041\300}%* U+21C0
18617 % U+21C1 RIGHTWARDS HARPOON WITH BARB DOWNWARDS;
18618 % \rightharpoondown (LaTeX)
18619 \DeclareTextCommand{\textrightharpoondown}{PU}{\9041\301}%* U+21C1
18620 % U+21C2 DOWNWARDS HARPOON WITH BARB RIGHTWARDS;
18621 % \downharpoonright (AmS)
18622 \DeclareTextCommand{\textdownharpoonright}{PU}{\9041\302}%* U+21C2
18623 % U+21C3 DOWNWARDS HARPOON WITH BARB LEFTWARDS;
18624 % \downharpoonleft (AmS)
18625 \DeclareTextCommand{\textdownharpoonleft}{PU}{\9041\303}%* U+21C3
18626 % U+21C4 RIGHTWARDS ARROW OVER LEFTWARDS ARROW;
18627 % arrowrightoverleft; \rightleftarrows (MnSymbol)
18628 \DeclareTextCommand{\textrightarrows}{PU}{\9041\304}%* U+21C4
18629 % U+21C5 UPWARDS ARROW LEFTWARDS OF DOWNWARDS ARROW; ar-
rowupleftofdown;
18630 % \updownarrows (MnSymbol)
18631 \DeclareTextCommand{\textupdownarrows}{PU}{\9041\305}%* U+21C5
18632 % U+21C6 LEFTWARDS ARROW OVER RIGHTWARDS ARROW; arrowleft-
overright;
18633 % \leftrightarrows (AmS)
18634 \DeclareTextCommand{\textleftrightarrows}{PU}{\9041\306}%* U+21C6
18635 % U+21C7 LEFTWARDS PAIRED ARROWS; \leftleftarrows (AmS)
18636 \DeclareTextCommand{\textleftleftarrows}{PU}{\9041\307}%* U+21C7
18637 % U+21C8 UPWARDS PAIRED ARROWS; \upuparrows (AmS)
18638 \DeclareTextCommand{\textupuparrows}{PU}{\9041\310}%* U+21C8
18639 % U+21C9 RIGHTWARDS PAIRED ARROWS; \rightrightarrows (AmS)
18640 \DeclareTextCommand{\textrightarrows}{PU}{\9041\311}%* U+21C9
18641 % U+21CA DOWNWARDS PAIRED ARROWS; \downdownarrows (AmS)
18642 \DeclareTextCommand{\textdowndownarrows}{PU}{\9041\312}%* U+21CA
18643 % U+21CB LEFTWARDS HARPOON OVER RIGHTWARDS HARPOON;
18644 % \leftrightharpoons (AmS);
18645 \DeclareTextCommand{\textleftrightharpoons}{PU}{\9041\313}%* U+21CB
18646 % U+21CC RIGHTWARDS HARPOON OVER LEFTWARDS HARPOON;
18647 % \rightleftharpoons (LaTeX, AmS)
18648 \DeclareTextCommand{\textrightleftharpoons}{PU}{\9041\314}%* U+21CC

```

```

18649 % U+21CD LEFTWARDS DOUBLE ARROW WITH STROKE; arrowleftd-
      blstroke;
18650 % \nLeftarrow (AmS)
18651 \DeclareTextCommand{\textnLeftarrow}{PU}{\9041\315}%* U+21CD
18652 % U+21CE LEFT RIGHT DOUBLE ARROW WITH STROKE; \nLeftrightarrow
      (AmS)
18653 \DeclareTextCommand{\textnLeftrightarrow}{PU}{\9041\316}%* U+21CE
18654 % U+21CF RIGHTWARDS DOUBLE ARROW WITH STROKE; arrowrightd-
      blstroke;
18655 % \rightarrow (AmS)
18656 \DeclareTextCommand{\textnrightarrow}{PU}{\9041\317}%* U+21CF
18657 % U+21D0 LEFTWARDS DOUBLE ARROW; arrowdblleft, arrowleftdbl;
18658 % \Leftarrow (LaTeX)
18659 \DeclareTextCommand{\textLeftarrow}{PU}{\9041\320}%* U+21D0
18660 % U+21D1 UPWARDS DOUBLE ARROW; arrowdblup; \Uparrow (LaTeX)
18661 \DeclareTextCommand{\textUparrow}{PU}{\9041\321}%* U+21D1
18662 % U+21D2 RIGHTWARDS DOUBLE ARROW; arrowdblright, dblarrowright;
18663 % \rightarrow (LaTeX)
18664 \DeclareTextCommand{\textrightarrow}{PU}{\9041\322}%* U+21D2
18665 %* \textrightarrow -> \Conclusion (marvosym)
18666 % U+21D3 DOWNWARDS DOUBLE ARROW; arrowdblDOWN; \Downarrow (La-
      TeX)
18667 \DeclareTextCommand{\textDownarrow}{PU}{\9041\323}%* U+21D3
18668 % U+21D4 LEFT RIGHT DOUBLE ARROW; arrowdblboth;
18669 % \Leftrightarrow (LaTeX)
18670 \DeclareTextCommand{\textLeftrightarrow}{PU}{\9041\324}%* U+21D4
18671 %* \textLeftrightarrow -> \Equivalence (marvosym)
18672 % U+21D5 UP DOWN DOUBLE ARROW; \Updownarrow (LaTeX)
18673 \DeclareTextCommand{\textUpdownarrow}{PU}{\9041\325}%* U+21D5
18674 % U+21D6 NORTH WEST DOUBLE ARROW; \Nwarrow (MnSymbol)
18675 \DeclareTextCommand{\textNwarrow}{PU}{\9041\326}%* U+21D6
18676 % U+21D7 NORTH EAST DOUBLE ARROW; \Nearrow (MnSymbol)
18677 \DeclareTextCommand{\textNearrow}{PU}{\9041\327}%* U+21D7
18678 % U+21D8 SOUTH EAST DOUBLE ARROW; \Searrow (MnSymbol)
18679 \DeclareTextCommand{\textSearrow}{PU}{\9041\330}%* U+21D8
18680 % U+21D9 SOUTH WEST DOUBLE ARROW; \Swarrow (MnSymbol)
18681 \DeclareTextCommand{\textSwarrow}{PU}{\9041\331}%* U+21D9
18682 % U+21DA LEFTWARDS TRIPLE ARROW; \Lleftarrow (AmS)
18683 \DeclareTextCommand{\textLleftarrow}{PU}{\9041\332}%* U+21DA
18684 % U+21DB RIGHTWARDS TRIPLE ARROW; \Rrightarrow (MnSymbol)
18685 \DeclareTextCommand{\textRrightarrow}{PU}{\9041\333}%* U+21DB
18686 % U+21DC LEFTWARDS SQUIGGLE ARROW; \leftsquigarrow (mathabx)
18687 \DeclareTextCommand{\textleftsquigarrow}{PU}{\9041\334}%* U+21DC
18688 % U+21DD RIGHTWARDS SQUIGGLE ARROW; \rightsquigarrow (mathabx)
18689 \DeclareTextCommand{\textright squigarrow}{PU}{\9041\335}%* U+21DD
18690 % U+21E0 LEFTWARDS DASHED ARROW; arrowdashleft;
18691 % \dashleftarrow (AmS)
18692 \DeclareTextCommand{\textdashleftarrow}{PU}{\9041\340}%* U+21E0
18693 %* \textdashleftarrow -> \dashedleftarrow (MnSymbol)
18694 % U+21E1 UPWARDS DASHED ARROW; arrowdashup; \dasheduparrow (Mn-
      Symbol)
18695 \DeclareTextCommand{\textdasheduparrow}{PU}{\9041\341}%* U+21E1
18696 % U+21E2 RIGHTWARDS DASHED ARROW; arrowdashright; \dashrightarrow
      (AmS)
18697 \DeclareTextCommand{\textdashrightarrow}{PU}{\9041\342}%* U+21E2
18698 %* \textdashrightarrow -> \dashedrightarrow (MnSymbol)

```

18699 % U+21E3 DOWNWARDS DASHED ARROW; `arrowdashdown`; `\dasheddownarrow` (MnSymbol)
18700 `\DeclareTextCommand{\textdasheddownarrow}{PU}{\9041\343}%*` U+21E3
18701 % U+21E8 RIGHTWARDS WHITE ARROW; `\pointer` (wasysym)
18702 `\DeclareTextCommand{\textpointer}{PU}{\9041\350}%*` U+21E8
18703 % U+21F5 DOWNWARDS ARROW LEFTWARDS OF UPWARDS ARROW;
18704 % `\downuparrows` (MnSymbol)
18705 `\DeclareTextCommand{\textdownuparrows}{PU}{\9041\365}%*` U+21F5
18706 % U+21FD LEFTWARDS OPEN-HEADED ARROW; `\leftarrowtriangle` (stmaryrd)
18707 `\DeclareTextCommand{\textleftarrowtriangle}{PU}{\9041\375}%*` U+21FD
18708 % U+21FE RIGHTWARDS OPEN-HEADED ARROW; `\rightarrowtriangle` (stmaryrd)
18709 `\DeclareTextCommand{\textrightarrowtriangle}{PU}{\9041\376}%*` U+21FE
18710 % U+21FF LEFT RIGHT OPEN-HEADED ARROW; `\leftrightarrowtriangle` (stmaryrd)
18711 `\DeclareTextCommand{\textleftrightarrowtriangle}{PU}{\9041\377}%*` U+21FF

51.2.22 Mathematical Operators: U+2200 to U+22FF

18712 % U+2200 FOR ALL; `forall`; `\forall` (LaTeX)
18713 `\DeclareTextCommand{\textforall}{PU}{\9042\000}%*` U+2200
18714 % U+2201 COMPLEMENT; `\complement` (AmS)
18715 `\DeclareTextCommand{\textcomplement}{PU}{\9042\001}%*` U+2201
18716 % U+2202 PARTIAL DIFFERENTIAL; `partialdiff`; `\partial` (LaTeX)
18717 `\DeclareTextCommand{\textpartial}{PU}{\9042\002}%*` U+2202
18718 % U+2203 THERE EXISTS; `existential`; `\exists` (LaTeX)
18719 `\DeclareTextCommand{\textexists}{PU}{\9042\003}%*` U+2203
18720 % U+2204 THERE DOES NOT EXIST; `\nexists` (AmS)
18721 `\DeclareTextCommand{\textnexists}{PU}{\9042\004}%*` U+2204
18722 % U+2205 EMPTY SET; `emptyset`; `\emptyset` (LaTeX), `\varnothing` (AmS)
18723 `\DeclareTextCommand{\textemptyset}{PU}{\9042\005}%*` U+2205
18724 %* `\textemptyset` -> `\varnothing` (AmS)
18725 % U+2206 INCREMENT; `increment`, `Deta`; `\triangle` (LaTeX)
18726 `\DeclareTextCommand{\texttriangle}{PU}{\9042\006}%*` U+2206
18727 % U+2207 NABLA; `nabla`, `gradient`; `\nabla` (LaTeX)
18728 `\DeclareTextCommand{\textnabla}{PU}{\9042\007}%*` U+2207
18729 % U+2208 ELEMENT OF; `element`; `\in` (LaTeX)
18730 `\DeclareTextCommand{\textin}{PU}{\9042\010}%*` U+2208
18731 % U+2209 NOT AN ELEMENT OF; `notelement`, `notelementof`; `\notin` (LaTeX)
18732 `\DeclareTextCommand{\textnotin}{PU}{\9042\011}%*` U+2209
18733 % U+220A SMALL ELEMENT OF; `\smallin` (mathdesign)
18734 `\DeclareTextCommand{\textsmallin}{PU}{\9042\012}%*` U+220A
18735 % U+220B CONTAINS AS MEMBER; `suchthat`; `\ni` (LaTeX)
18736 `\DeclareTextCommand{\textni}{PU}{\9042\013}%*` U+220B
18737 %* `\textni` -> `\owns` (mathabx)
18738 % U+220C DOES NOT CONTAIN AS MEMBER; `\notowner` (mathabx)
18739 `\DeclareTextCommand{\textnotowner}{PU}{\9042\014}%*` U+220C
18740 %* `\textnotowner` -> `\notni` (txfonts/pxfonts)
18741 % U+220D SMALL CONTAINS AS MEMBER; `\smallowns` (mathdesign)
18742 `\DeclareTextCommand{\textsmallowns}{PU}{\9042\015}%*` U+220D
18743 % U+220F N-ARY PRODUCT; `\prod` (LaTeX)
18744 `\DeclareTextCommand{\textprod}{PU}{\9042\017}%*` U+220F
18745 % U+2210 N-ARY COPRODUCT; `\amalg` (LaTeX)
18746 `\DeclareTextCommand{\textamalg}{PU}{\9042\020}%*` U+2210
18747 % U+2211 N-ARY SUMMATION; `summation`; `\sum` (LaTeX)
18748 `\DeclareTextCommand{\textsum}{PU}{\9042\021}%*` U+2211
18749 % U+2212 MINUS SIGN; `minus`
18750 `\DeclareTextCommand{\textminus}{PU}{\9042\022}%*` U+2212
18751 % U+2213 MINUS-OR-PLUS SIGN; `minusplus`; `\mp` (LaTeX)

18752 \DeclareTextCommand{\textmp}{PU}{\9042\023}%* U+2213
18753 % U+2214 DOT PLUS; \dotplus (AmS)
18754 \DeclareTextCommand{\textdotplus}{PU}{\9042\024}%* U+2214
18755 % U+2215 DIVISION SLASH; divisionslash; \Divides (marvosym)
18756 \DeclareTextCommand{\textDivides}{PU}{\9042\025}%* U+2215
18757 % \DividesNot (marvosym)
18758 \DeclareTextCommand{\textDividesNot}{PU}{\9042\025\9040\322}%* U+2215 U+20D2
18759 % U+2216 SET MINUS; \setminus (LaTeX)
18760 \DeclareTextCommand{\textsetminus}{PU}{\9042\026}%* U+2216
18761 % U+2217 ASTERISK OPERATOR; asteriskmath; \ast (LaTeX)
18762 \DeclareTextCommand{\textast}{PU}{\9042\027}%* U+2217
18763 % U+2218 RING OPERATOR; \circ (LaTeX)
18764 \DeclareTextCommand{\textcirc}{PU}{\9042\030}%* U+2218
18765 % U+2219 BULLET OPERATOR; bulletoperator; \bullet (LaTeX)
18766 \DeclareTextCommand{\textbulletoperator}{PU}{\9042\031}% U+2219
18767 % U+221A SQUARE ROOT; radical
18768 \DeclareTextCommand{\textsqrt}{PU}{\9042\032}%* U+221A
18769 % U+221D PROPORTIONAL TO; proportional; \propto (LaTeX)
18770 \DeclareTextCommand{\textpropto}{PU}{\9042\035}%* U+221D
18771 %* \textpropto -> \varprop (wasysym)
18772 % U+221E INFINITY; infinity; \infty (LaTeX)
18773 \DeclareTextCommand{\textinfty}{PU}{\9042\036}%* U+221E
18774 % U+2220 ANGLE; angle; \angle (LaTeX)
18775 \DeclareTextCommand{\textangle}{PU}{\9042\040}%* U+2220
18776 % U+2221 MEASURED ANGLE; \measuredangle (mathabx, MnSymbol)
18777 \DeclareTextCommand{\textmeasuredangle}{PU}{\9042\041}%* U+2221
18778 % U+2222 SPHERICAL ANGLE; \sphericalangle (AmS)
18779 \DeclareTextCommand{\textsphericalangle}{PU}{\9042\042}%* U+2222
18780 %* \textsphericalangle -> \varangle (wasysym)
18781 %* \textsphericalangle -> \Anglesign (marvosym)
18782 %* \textsphericalangle -> \AngleSign (marvosym)
18783 % U+2223 DIVIDES; divides; \mid (LaTeX)
18784 \DeclareTextCommand{\textmid}{PU}{\9042\043}%* U+2223
18785 % U+2224 DOES NOT DIVIDE; \nmid (AmS)
18786 \DeclareTextCommand{\textnmid}{PU}{\9042\044}%* U+2224
18787 %* \textnmid -> \notdivides (mathabx)
18788 % U+2225 PARALLEL TO; parallel; \parallel (LaTeX)
18789 \DeclareTextCommand{\textparallel}{PU}{\9042\045}%* U+2225
18790 % U+2226 NOT PARALLEL TO; notparallel; \nparallel (AmS)
18791 \DeclareTextCommand{\textnparallel}{PU}{\9042\046}%* U+2226
18792 %* \textnparallel -> nUpdownline (MnSymbol)
18793 % U+2227 LOGICAL AND; logicaland; \wedge (LaTeX)
18794 \DeclareTextCommand{\textwedge}{PU}{\9042\047}%* U+2227
18795 % \wedge (stmaryrd)
18796 \DeclareTextCommand{\textowedge}{PU}{\9042\047\9040\335}%* U+2227 U+20DD
18797 %* \textowedge -> \varowedge (stmaryrd)
18798 % U+2228 LOGICAL OR; logicalor; \vee (LaTeX)
18799 \DeclareTextCommand{\textvee}{PU}{\9042\050}%* U+2228
18800 % \vee (stmaryrd)
18801 \DeclareTextCommand{\textovee}{PU}{\9042\050\9040\335}%* U+2228 U+20DD
18802 %* \textovee -> \varovee (stmaryrd)
18803 % U+2229 INTERSECTION; intersection; \cap (LaTeX)
18804 \DeclareTextCommand{\textcap}{PU}{\9042\051}%* U+2229
18805 % U+222A UNION; union; \cup (LaTeX)
18806 \DeclareTextCommand{\textcup}{PU}{\9042\052}%* U+222A
18807 % U+222B INTEGRAL; integral; \int (LaTeX)
18808 \DeclareTextCommand{\textint}{PU}{\9042\053}%* U+222B

18809 %* \textint -> \varint (wasysym)
18810 % U+222C DOUBLE INTEGRAL; dblintegral; \iint (AmS)
18811 \DeclareTextCommand{\textiint}{PU}{\9042\054}%* U+222C
18812 % U+222D TRIPLE INTEGRAL; \iiint (AmS)
18813 \DeclareTextCommand{\textiiiint}{PU}{\9042\055}%* U+222D
18814 % U+222E CONTOUR INTEGRAL; contourintegral; \oint (LaTeX)
18815 \DeclareTextCommand{\textoint}{PU}{\9042\056}%* U+222E
18816 %* \textoint -> \varoint (wasysym)
18817 % U+222F SURFACE INTEGRAL; \oiint (wasysym)
18818 \DeclareTextCommand{\textoiint}{PU}{\9042\057}%* U+222F
18819 % U+2232 CLOCKWISE CONTOUR INTEGRAL;
18820 % \ointclockwise (txfonts/pxfonts)
18821 \DeclareTextCommand{\textointclockwise}{PU}{\9042\062}%* U+2232
18822 % U+2233 ANTICLOCKWISE CONTOUR INTEGRAL; \ointctrlockwise (tx-
font/pxfont)
18823 \DeclareTextCommand{\textointctrlockwise}{PU}{\9042\063}%* U+2233
18824 % U+2234 THEREFORE; therefore; \therefore (AmS)
18825 \DeclareTextCommand{\texttherefore}{PU}{\9042\064}%* U+2234
18826 %* \texttherefore -> uptherefore (MnSymbol)
18827 % U+2235 BECAUSE; because; \because (AmS)
18828 \DeclareTextCommand{\textbecause}{PU}{\9042\065}%* U+2235
18829 %* \textbecause -> \downtherefore (MnSymbol)
18830 % U+2236 RATIO; \vdotdot (MnSymbol)
18831 \DeclareTextCommand{\textvdotdot}{PU}{\9042\066}%* U+2236
18832 % U+2237 PROPORTION; \squaredots (MnSymbol)
18833 \DeclareTextCommand{\textssquaredots}{PU}{\9042\067}%* U+2237
18834 % U+2238 DOT MINUS; \dotminus (MnSymbol)
18835 \DeclareTextCommand{\textdotminus}{PU}{\9042\070}%* U+2238
18836 %* \textdotminus -> \textdotdiv (mathabx)
18837 % U+2239 EXCESS; \eqcolon (txfonts/pxfonts)
18838 \DeclareTextCommand{\texteqcolon}{PU}{\9042\071}%* U+2239
18839 % U+223C TILDE OPERATOR; similar; \sim (LaTeX)
18840 \DeclareTextCommand{\textsim}{PU}{\9042\074}%* U+223C
18841 %* \textsim -> \AC (wasysym)
18842 % U+223D REVERSED TILDE; reversedtilde; \backsim (AmS)
18843 \DeclareTextCommand{\textbacksim}{PU}{\9042\075}%* U+223D
18844 % \backsim (txfonts/pxfonts)
18845 \DeclareTextCommand{\textnbacksim}{PU}{\9042\075\83\070}%* U+223D U+0338
18846 % U+2240 WREATH PRODUCT; \wr (LaTeX)
18847 \DeclareTextCommand{\textwr}{PU}{\9042\100}%* U+2240
18848 %* \textwr -> \wreath (MnSymbol)
18849 % U+2241 NOT TILDE; \nsim (AmS)
18850 \DeclareTextCommand{\textnsim}{PU}{\9042\101}%* U+2241
18851 % U+2242 MINUS TILDE; \eqsim (MnSymbol)
18852 \DeclareTextCommand{\texteqsim}{PU}{\9042\102}%* U+2242
18853 % \neqsim (MnSymbol)
18854 \DeclareTextCommand{\textneqsim}{PU}{\9042\102\83\070}%* U+2242 U+0338
18855 % U+2243 ASYMPTOTICALLY EQUAL TO; asymptoticallyequal; \simeq (La-
TeX)
18856 \DeclareTextCommand{\textsimeq}{PU}{\9042\103}%* U+2243
18857 % U+2244 NOT ASYMPTOTICALLY EQUAL TO; \nsimeq (txfonts/pxfont)
18858 \DeclareTextCommand{\textnsimeq}{PU}{\9042\104}%* U+2244
18859 % U+2245 APPROXIMATELY EQUAL TO; approximatelyequal; \cong (LaTeX)
18860 \DeclareTextCommand{\textcong}{PU}{\9042\105}%* U+2245
18861 % U+2247 NEITHER APPROXIMATELY NOR ACTUALLY EQUAL TO;
18862 % \ncong (AmS)
18863 \DeclareTextCommand{\textncong}{PU}{\9042\107}%* U+2247

18864 % U+2248 ALMOST EQUAL TO; approxequal; \approx (LaTeX)
18865 \DeclareTextCommand{\textapprox}{PU}{\9042\110}%* U+2248
18866 % U+2249 NOT ALMOST EQUAL TO; \napprox (txfonts/pxfonts0
18867 \DeclareTextCommand{\textnapprox}{PU}{\9042\111}%* U+2249
18868 %* \textnapprox -> \nthickapprox (txfonts/pxfonts)
18869 % U+224A ALMOST EQUAL OR EQUAL TO; \approxeq (AmS)
18870 \DeclareTextCommand{\textapproxeq}{PU}{\9042\112}%* U+224A
18871 % \napproxeq (txfonts/pxfonts)
18872 \DeclareTextCommand{\textnapproxeq}{PU}{\9042\112\83\070}%* U+224A U+0338
18873 % U+224B TRIPLE TILDE; \triplesim (MnSymbol)
18874 \DeclareTextCommand{\texttriplesim}{PU}{\9042\113}%* U+224B
18875 %* \texttriplesim -> \VHF (wasysym)
18876 % \ntriplesim (MnSymbol)
18877 \DeclareTextCommand{\textntriplesim}{PU}{\9042\113\83\070}%* U+224B U+0338
18878 % U+224C ALL EQUAL TO; allequal; \backcong (MnSymbol)
18879 \DeclareTextCommand{\textbackcong}{PU}{\9042\114}%* U+224C
18880 % \nbackcong (MnSymbol)
18881 \DeclareTextCommand{\textnbackcong}{PU}{\9042\114\83\070}%* U+224C U+0338
18882 % U+224D EQUIVALENT TO; \asymp (LaTeX)
18883 \DeclareTextCommand{\textasymp}{PU}{\9042\115}%* U+224D
18884 % \nasymp (txfonts/pxfonts)
18885 \DeclareTextCommand{\textnasymp}{PU}{\9042\115\83\070}%* U+224D U+0338
18886 %* \textnasymp -> \notasymp (mathabx)
18887 % U+224E GEOMETRICALLY EQUIVALENT TO; \Bumpeq (AmS)
18888 \DeclareTextCommand{\textBumpeq}{PU}{\9042\116}%* U+224E
18889 % \nBumpeq (txfonts/pxfonts)
18890 \DeclareTextCommand{\textnBumpeq}{PU}{\9042\116\83\070}%* U+224E U+0338
18891 % U+224F DIFFERENCE BETWEEN; \bumpeq (AmS)
18892 \DeclareTextCommand{\textbumpeq}{PU}{\9042\117}%* U+224F
18893 % \nbumpeq (txfonts/pxfonts)
18894 \DeclareTextCommand{\textnbumpeq}{PU}{\9042\117\83\070}%* U+224F U+0338
18895 % U+2250 APPROACHES THE LIMIT; approaches; \doteq (LaTeX)
18896 \DeclareTextCommand{\textdoteq}{PU}{\9042\120}%* U+2250
18897 % \ndoteq (MnSymbol)
18898 \DeclareTextCommand{\textndoteq}{PU}{\9042\120\83\070}%* U+2250 U+0338
18899 % U+2251 GEOMETRICALLY EQUAL TO; geometricallyequal;
18900 % \doteqdot (AmS)
18901 \DeclareTextCommand{\textdoteqdot}{PU}{\9042\121}%* U+2251
18902 %* \textdoteqdot -> \Doteq (MnSymbol)
18903 % \nDoteq (MnSymbol)
18904 \DeclareTextCommand{\textnDoteq}{PU}{\9042\121\83\070}%* U+2251 U+0338
18905 % U+2252 APPROXIMATELY EQUAL TO OR THE IMAGE OF; approx-
equalorimage;
18906 % \fallingdotseq (AmS)
18907 \DeclareTextCommand{\textfallingdotseq}{PU}{\9042\122}%* U+2252
18908 % \nfallingdotseq (MnSymbol)
18909 \DeclareTextCommand{\textnfallingdotseq}{PU}{\9042\122\83\070}%* U+2252 U+0338
18910 % U+2253 IMAGE OF OR APPROXIMATELY EQUAL TO; imageorapproxi-
matelyequal;
18911 % \risingdotseq (AmS)
18912 \DeclareTextCommand{\textrisingdotseq}{PU}{\9042\123}%* U+2253
18913 % \nrisingdotseq (MnSymbol)
18914 \DeclareTextCommand{\textnrisingdotseq}{PU}{\9042\123\83\070}%* U+2253 U+0338
18915 % U+2254 COLON EQUALS; \colonequals (colonequals)
18916 \DeclareTextCommand{\textcolonequals}{PU}{\9042\124}%* U+2254
18917 % U+2255 EQUALS COLON; \equalscolon (colonequals)
18918 \DeclareTextCommand{\textequalscolon}{PU}{\9042\125}%* U+2255

18919 % U+2256 RING EQUAL TO; \eqcirc (AmS)
18920 \DeclareTextCommand{\texteqcirc}{PU}{\9042\126}%* U+2256
18921 % \neqcirc (MnSymbol)
18922 \DeclareTextCommand{\textneqcirc}{PU}{\9042\126\83\070}%* U+2256 U+0338
18923 % U+2257 RING EQUAL TO; \circeq (AmS)
18924 \DeclareTextCommand{\textcirceq}{PU}{\9042\127}%* U+2257
18925 % \ncirceq (MnSymbol)
18926 \DeclareTextCommand{\textncirceq}{PU}{\9042\127\83\070}%* U+2257 U+0338
18927 % U+2259 ESTIMATES; \hateq (MnSymbol)
18928 \DeclareTextCommand{\texthateq}{PU}{\9042\131}%* U+2259
18929 %* \texthateq -> \corresponds (mathabx)
18930 %* \texthateq -> \Corresponds (marvosym)
18931 % \nhateq (MnSymbol)
18932 \DeclareTextCommand{\textnhateq}{PU}{\9042\131\83\070}%* U+2259 U+0338
18933 % U+225C DELTA EQUAL TO; \triangleeq (AmS)
18934 \DeclareTextCommand{\texttriangleeq}{PU}{\9042\134}%* U+225C
18935 % U+2260 NOT EQUAL TO; \notequal ; \ne (LaTeX), \neq (LaTeX)
18936 \DeclareTextCommand{\textneq}{PU}{\9042\140}%* U+2260
18937 \DeclareTextCommand{\textne}{PU}{\9042\140}%* U+2260
18938 %* \textneq -> \nequal (MnSymbol)
18939 % U+2261 IDENTICAL TO; equivalence; \equiv (LaTeX)
18940 \DeclareTextCommand{\textequiv}{PU}{\9042\141}%* U+2261
18941 %* \textequiv -> \Congruent (marvosym)
18942 % U+2262 NOT IDENTICAL TO; notidentical; \notequiv (txfonts/pxfonts)
18943 \DeclareTextCommand{\textnequiv}{PU}{\9042\142}%* U+2262
18944 %* \textnequiv -> \NotCongruent (marvosym)
18945 %* \textnequiv -> \notequiv (mathabx)
18946 % U+2264 LESS-THAN OR EQUAL TO; \lesseq ; \le (LaTeX), \leq (LaTeX)
18947 \DeclareTextCommand{\textleq}{PU}{\9042\144}%* U+2264
18948 \DeclareTextCommand{\textle}{PU}{\9042\144}%* U+2264
18949 %* \textleq -> \LessOrEqual (marvosym)
18950 % U+2265 GREATER-THAN OR EQUAL TO; \gtrereq ;
18951 % \ge (LaTeX), \geq (LaTeX)
18952 \DeclareTextCommand{\textgeq}{PU}{\9042\145}%* U+2265
18953 \DeclareTextCommand{\textge}{PU}{\9042\145}%* U+2265
18954 %* \textgeq -> \LargerOrEqual (marvosym)
18955 % U+2266 LESS-THAN OVER EQUAL TO; \lessoverequal ; \leqq (AmS)
18956 \DeclareTextCommand{\textleqq}{PU}{\9042\146}%* U+2266
18957 % \nleqq (txfonts/pxfonts)
18958 \DeclareTextCommand{\textnleqq}{PU}{\9042\146\83\070}%* U+2266 U+0338
18959 % U+2267 GREATER-THAN OVER EQUAL TO; \gtreroverequal ; \geqq (AmS)
18960 \DeclareTextCommand{\textgeqq}{PU}{\9042\147}%* U+2267
18961 % \ngeqq (txfonts/pxfonts)
18962 \DeclareTextCommand{\textngeqq}{PU}{\9042\147\83\070}%* U+2267 U+0338
18963 % U+2268 LESS-THAN BUT NOT EQUAL TO; \lneqq (AmS)
18964 \DeclareTextCommand{\textlneqq}{PU}{\9042\150}%* U+2268
18965 % U+2269 GREATER-THAN BUT NOT EQUAL TO; \gneqq (AmS)
18966 \DeclareTextCommand{\textgneqq}{PU}{\9042\151}%* U+2269
18967 % U+226A MUCH LESS-THAN; \muchless ; \ll (LaTeX)
18968 \DeclareTextCommand{\textll}{PU}{\9042\152}%* U+226A
18969 % \nll (txfonts/pxfonts)
18970 \DeclareTextCommand{\textnll}{PU}{\9042\152\83\070}%* U+226A U+0338
18971 % U+226B MUCH GREATER-THAN; \muchgreater ; \gg (LaTeX)
18972 \DeclareTextCommand{\textgg}{PU}{\9042\153}%* U+226B
18973 % \ngg (txfonts/pxfonts)
18974 \DeclareTextCommand{\textngg}{PU}{\9042\153\83\070}%* U+226B U+0338
18975 % U+226C BETWEEN; \between (AmS)

18976 \DeclareTextCommand{\textbetween}{PU}{\9042\154}%* U+226C
18977 % U+226E NOT LESS-THAN; notless; \nless (AmS)
18978 \DeclareTextCommand{\textnless}{PU}{\9042\156}%* U+226E
18979 % U+226F NOT GREATER-THAN; notgreater; \ngtr (AmS)
18980 \DeclareTextCommand{\textngtr}{PU}{\9042\157}%* U+226F
18981 % U+2270 NEITHER LESS-THAN NOR EQUAL TO; notlessnorequal;
18982 % \nleq (AmS)
18983 \DeclareTextCommand{\textnleq}{PU}{\9042\160}%* U+2270
18984 % U+2271 NEITHER GREATER-THAN NOR EQUAL TO; notgreaternorequal;
18985 % \ngeq (AmS)
18985 \DeclareTextCommand{\textngeq}{PU}{\9042\161}%* U+2271
18986 % U+2272 LESS-THAN OR EQUIVALENT TO; lessorequivalent; \lessim (AmS)
18987 \DeclareTextCommand{\textlessim}{PU}{\9042\162}%* U+2272
18988 %* \textlessim -> \apprle (wasysym)
18989 % U+2273 GREATER-THAN OR EQUIVALENT TO; greaterorequivalent; \gtrsim
18990 % (AmS)
18990 \DeclareTextCommand{\textgtrsim}{PU}{\9042\163}%* U+2273
18991 %* \textgtrsim -> \apprge (wasysym)
18992 % U+2274 NEITHER LESS-THAN NOR EQUIVALENT TO; \lessgtr (tx-
18993 % fonts/pxfonts)
18993 \DeclareTextCommand{\textnlessgtr}{PU}{\9042\164}%* U+2274
18994 % U+2275 NEITHER GREATER-THAN NOR EQUIVALENT TO; \ngtrsim (tx-
18995 % fonts/pxfonts)
18995 \DeclareTextCommand{\textngtrsim}{PU}{\9042\165}%* U+2275
18996 % U+2276 LESS-THAN OR GREATER-THAN; lessorgreater; \lessgtr (AmS)
18997 \DeclareTextCommand{\textlessgtr}{PU}{\9042\166}%* U+2276
18998 % U+2277 GREATER-THAN OR LESS-THAN; greaterorless; \gtrless (AmS)
18999 \DeclareTextCommand{\textgtrless}{PU}{\9042\167}%* U+2277
19000 % U+2278 NEITHER LESS-THAN NOR GREATER-THAN; \ngtrless (tx-
19001 % fonts/pxfonts)
19001 \DeclareTextCommand{\textngtrless}{PU}{\9042\170}%* U+2278
19002 % U+2279 NEITHER GREATER-THAN NOR LESS-THAN; \nlessgtr (tx-
19003 % fonts/pxfonts)
19003 \DeclareTextCommand{\textnlessgtr}{PU}{\9042\171}%* U+2279
19004 % U+227A PRECEDES; precedes; \prec (LaTeX)
19005 \DeclareTextCommand{\textprec}{PU}{\9042\172}%* U+227A
19006 % U+227B SUCCEEDS; succeeds; \succ (LaTeX)
19007 \DeclareTextCommand{\textsucc}{PU}{\9042\173}%* U+227B
19008 % U+227C PRECEDES OR EQUAL TO; \preccurlyeq (AmS)
19009 \DeclareTextCommand{\textpreccurlyeq}{PU}{\9042\174}%* U+227C
19010 % U+227D SUCCEEDS OR EQUAL TO; \succcurlyeq (AmS)
19011 \DeclareTextCommand{\textsuccurlyeq}{PU}{\9042\175}%* U+227D
19012 % U+227E PRECEDES OR EQUIVALENT TO; \precsim (AmS)
19013 \DeclareTextCommand{\textprecsim}{PU}{\9042\176}%* U+227E
19014 % \nprecsim (txfonts/pxfonts)
19015 \DeclareTextCommand{\textnprecsim}{PU}{\9042\176\83\070}%* U+227E U+0338
19016 % U+227F SUCCEEDS OR EQUIVALENT TO; \succsim (AmS)
19017 \DeclareTextCommand{\textsuccsim}{PU}{\9042\177}%* U+227F
19018 % \nsuccsim (txfonts/pxfonts)
19019 \DeclareTextCommand{\textnsuccsim}{PU}{\9042\177\83\070}%* U+227F U+0338
19020 % U+2280 DOES NOT PRECEDE; notprecedes; \nprec (AmS)
19021 \DeclareTextCommand{\textnprec}{PU}{\9042\200}%* U+2280
19022 % U+2281 DOES NOT SUCCEED; notsuccceeds; \nsucc (AmS)
19023 \DeclareTextCommand{\textnsucc}{PU}{\9042\201}%* U+2281
19024 % U+2282 SUBSET OF; propersubset; \subset (LaTeX)
19025 \DeclareTextCommand{\textsubset}{PU}{\9042\202}%* U+2282
19026 % U+2283 SUPERSET OF; propersuperset; \supset (LaTeX)

```

19027 \DeclareTextCommand{\textsupset}{PU}{\9042\203}%* U+2283
19028 % U+2284 NOT A SUBSET OF; notsubset; \nsubset (mathabx)
19029 \DeclareTextCommand{\textnsubset}{PU}{\9042\204}%* U+2284
19030 % U+2285 NOT A SUPERSET OF; notsuperset; \nsupset (mathabx)
19031 \DeclareTextCommand{\textnsupset}{PU}{\9042\205}%* U+2285
19032 % U+2286 SUBSET OF OR EQUAL TO; reflexsubset; \subseteq (LaTeX)
19033 \DeclareTextCommand{\textsubseteq}{PU}{\9042\206}%* U+2286
19034 % U+2287 SUPERSET OF OR EQUAL TO; reflexsuperset; \supseteq (LaTeX)
19035 \DeclareTextCommand{\textsupseteq}{PU}{\9042\207}%* U+2287
19036 % U+2288 NEITHER A SUBSET OF NOR EQUAL TO; \nsubseq (AmS)
19037 \DeclareTextCommand{\textnsubseq}{PU}{\9042\210}%* U+2288
19038 % U+2289 NEITHER A SUPERSET OF NOR EQUAL TO; \nsupseq (AmS)
19039 \DeclareTextCommand{\textnsupseq}{PU}{\9042\211}%* U+2289
19040 % U+228A SUBSET OF WITH NOT EQUAL TO; subsetnotequal; \subset-
    neq (AmS)
19041 \DeclareTextCommand{\textsubseq}{PU}{\9042\212}%* U+228A
19042 % U+228B SUPERSET OF WITH NOT EQUAL TO; supersetnotequal; \supset-
    neq (AmS)
19043 \DeclareTextCommand{\textsupseteq}{PU}{\9042\213}%* U+228B
19044 % U+228D MULTISSET MULTIPLICATION; \cupdot (MnSymbol)
19045 \DeclareTextCommand{\textcupdot}{PU}{\9042\215}%* U+228D
19046 % U+228E MULTISSET UNION; \cupplus (MnSymbol)
19047 \DeclareTextCommand{\textcupplus}{PU}{\9042\216}%* U+228E
19048 % U+228F SQUARE IMAGE OF; \sqsubset (latexsym, ...)
19049 \DeclareTextCommand{\textsqsubset}{PU}{\9042\217}%* U+228F
19050 % \nsqsubset (txfonts/pxfonts)
19051 \DeclareTextCommand{\textnqssubset}{PU}{\9042\217\83\070}%* U+228F U+0338
19052 % U+2290 SQUARE ORIGINAL OF; \sqsupset (latexsym, ...)
19053 \DeclareTextCommand{\textsqsupset}{PU}{\9042\220}%* U+2290
19054 % \nsqsupset (txfonts/pxfonts)
19055 \DeclareTextCommand{\textnqsqsupset}{PU}{\9042\220\83\070}%* U+2290 U+0338
19056 % U+2291 SQUARE IMAGE OF OR EQUAL TO; \sqsubseq (LaTeX)
19057 \DeclareTextCommand{\textsqsubseq}{PU}{\9042\221}%* U+2291
19058 % \nsqsubseq (txfonts/pxfonts)
19059 \DeclareTextCommand{\textnqsqsubseq}{PU}{\9042\221\83\070}%* U+2291 U+0338
19060 % U+2292 SQUARE ORIGINAL OF OR EQUAL TO; \sqsupseteq (LaTeX)
19061 \DeclareTextCommand{\textsqsupseteq}{PU}{\9042\222}%* U+2292
19062 % \nsqsupseteq (txfonts/pxfonts)
19063 \DeclareTextCommand{\textnqsqsupseteq}{PU}{\9042\222\83\070}%* U+2292 U+0338
19064 % U+2293 SQUARE CAP; \sqcap (LaTeX)
19065 \DeclareTextCommand{\textsqcap}{PU}{\9042\223}%* U+2293
19066 % U+2294 SQUARE CUP; \sqcup (LaTeX)
19067 \DeclareTextCommand{\textsqcup}{PU}{\9042\224}%* U+2294
19068 % U+2295 CIRCLED PLUS; circleplus; \oplus (LaTeX)
19069 \DeclareTextCommand{\textoplus}{PU}{\9042\225}%* U+2295
19070 %* \textoplus -> \varoplus (stmaryrd)
19071 % U+2296 CIRCLED MINUS; minuscircle; \ominus (LaTeX)
19072 \DeclareTextCommand{\textominus}{PU}{\9042\226}%* U+2296
19073 %* \textominus -> \varominus (stmaryrd)
19074 % U+2297 CIRCLED TIMES; circlemultiply; \otimes (LaTeX)
19075 \DeclareTextCommand{\textotimes}{PU}{\9042\227}%* U+2297
19076 %* \textotimes -> \varotimes (stmaryrd)
19077 % U+2298 CIRCLED DIVISION SLASH; \oslash (LaTeX)
19078 \DeclareTextCommand{\textoslash}{PU}{\9042\230}%* U+2298
19079 %* \textoslash -> \varoslash (stmaryrd)
19080 % U+2299 CIRCLED DOT OPERATOR; circle(d?)ot; \odot (LaTeX)
19081 \DeclareTextCommand{\textodot}{PU}{\9042\231}%* U+2299

```

```

19082 %* \textodot -> \varodot (stmaryrd)
19083 % U+229A CIRCLED RING OPERATOR; \circledcirc (AmS)
19084 \DeclareTextCommand{\textcircledcirc}{PU}{\9042\232}%* U+229A
19085 %* \textcircledcirc -> \ocirc (mathabx)
19086 %* \textcircledcirc -> \varocircle (stmaryrd)
19087 % U+229B CIRCLED ASTERISK OPERATOR; \circledast (AmS)
19088 \DeclareTextCommand{\textcircledast}{PU}{\9042\233}%* U+229B
19089 %* \textcircledast -> \varoast (stmaryrd)
19090 %* \textcircledast -> \oasterisk (mathabx)
19091 % U+229D CIRCLED DASH; \circleddash (AmS)
19092 \DeclareTextCommand{\textcircleddash}{PU}{\9042\235}%* U+229D
19093 % U+229E SQUARED PLUS; \boxplus (AmS)
19094 \DeclareTextCommand{\textboxplus}{PU}{\9042\236}%* U+229E
19095 % U+229F SQUARED MINUS; \boxminus (AmS)
19096 \DeclareTextCommand{\textboxminus}{PU}{\9042\237}%* U+229F
19097 % U+22A0 SQUARED TIMES; \boxtimes (AmS)
19098 \DeclareTextCommand{\textboxtimes}{PU}{\9042\240}%* U+22A0
19099 % U+22A1 SQUARED DOT OPERATOR; \boxdot (AmS)
19100 \DeclareTextCommand{\textboxdot}{PU}{\9042\241}%* U+22A1
19101 % U+22A2 RIGHT TACK; \vdash (LaTeX)
19102 \DeclareTextCommand{\textvdash}{PU}{\9042\242}%* U+22A2
19103 %* \textvdash -> \rightvdash (MnSymbol)
19104 % U+22A3 LEFT TACK; \dashv (LaTeX)
19105 \DeclareTextCommand{\textdashv}{PU}{\9042\243}%* U+22A3
19106 %* \textdashv -> \leftvdash (MnSymbol)
19107 % \ndashv (mathabx)
19108 \DeclareTextCommand{\textndashv}{PU}{\9042\243\83\070}%* U+22A3 U+0338
19109 %* \textndashv -> \nleftvdash (MnSymbol)
19110 % U+22A4 DOWN TACK (=top); \tackdown; \top (LaTeX)
19111 \DeclareTextCommand{\texttop}{PU}{\9042\244}%* U+22A4
19112 %* \texttop -> \downvdash (MnSymbol)
19113 % \ndownvdash (MnSymbol)
19114 \DeclareTextCommand{\textndownvdash}{PU}{\9042\244\83\070}%* U+22A4 U+0338
19115 % U+22A5 UP TACK (=base, bottom); \bot (LaTeX)
19116 \DeclareTextCommand{\textbot}{PU}{\9042\245}%* U+22A5
19117 %* \textbot -> \upvdash (MnSymbol)
19118 % \nupvdash (MnSymbol)
19119 \DeclareTextCommand{\textnupvdash}{PU}{\9042\245\83\070}%* U+22A5 U+0338
19120 %* \textnupvdash -> \nperp (MnSymbol)
19121 % U+22A8 TRUE; \vDash (AmS)
19122 \DeclareTextCommand{\textvDash}{PU}{\9042\250}%* U+22A8
19123 %* \textvDash -> \models (LaTeX)
19124 %* \textvDash -> \rightmodels (MnSymbol)
19125 % U+22A9 FORCES; \Vdash (AmS)
19126 \DeclareTextCommand{\textVdash}{PU}{\9042\251}%* U+22A9
19127 %* \textVdash -> \rightVdash (MnSymbol)
19128 % U+22AA TRIPLE VERTICAL BAR RIGHT TURNSTILE; \Vvdash (AmS)
19129 \DeclareTextCommand{\textVvdash}{PU}{\9042\252}%* U+22AA
19130 % \nVdash (mathabx)
19131 \DeclareTextCommand{\textnVdash}{PU}{\9042\252\83\070}%* U+22AA U+0338
19132 % U+22AB DOUBLE VERTICAL BAR DOUBLE RIGHT TURNSTILE;
19133 % \VDash (mathabx)
19134 \DeclareTextCommand{\textVDash}{PU}{\9042\253}%* U+22AB
19135 %* \textVDash -> \rightModels (MnSymbol)
19136 % U+22AC DOES NOT PROVE; \nvdash (AmS)
19137 \DeclareTextCommand{\textnvdash}{PU}{\9042\254}%* U+22AC
19138 %* \textnvdash -> \nrightvdash (MnSymbol)

```

19139 % U+22AD NOT TRUE; \nvDash (AmS)
19140 \DeclareTextCommand{\textnvDash}{PU}{\9042\255}%* U+22AD
19141 %* \textnvDash -> \nrighthtmodels (MnSymbol)
19142 %* \textnvDash -> \nmodels (MnSymbol)
19143 % U+22AE DOES NOT FORCE; \nVdash (txfonts/pxfonts)
19144 \DeclareTextCommand{\textnVdash}{PU}{\9042\256}%* U+22AE
19145 %* \textnVdash -> \nrighVdash (MnSymbol)
19146 % U+22AF NEGATED DOUBLE VERTICAL BAR DOUBLE RIGHT TURN-
STILE; \nVDash (AmS)
19147 \DeclareTextCommand{\textnVDash}{PU}{\9042\257}%* U+22AF
19148 %* \textnVDash -> \nrighModels (MnSymbol)
19149 % U+22B2 NORMAL SUBGROUP OF; \lhd (latexsym, ...)
19150 \DeclareTextCommand{\textlhd}{PU}{\9042\262}%* U+22B2
19151 %* \textlhd -> \lessclosed (MnSymbol)
19152 % U+22B3 CONTAINS AS NORMAL SUBGROUP; \rhd (latexsym, ...)
19153 \DeclareTextCommand{\textrhd}{PU}{\9042\263}%* U+22B3
19154 %* \textrhd -> \gtrclosed (MnSymbol)
19155 % U+22B4 NORMAL SUBGROUP OF OR EQUAL TO; \unlhd (latexsym, ...)
19156 \DeclareTextCommand{\textunlhd}{PU}{\9042\264}%* U+22B4
19157 %* \textunlhd -> \leqclosed (MnSymbol)
19158 %* \textunlhd -> \trianglelefteq (MnSymbol)
19159 % U+22B5 CONTAINS AS NORMAL SUBGROUP OR EQUAL TO; \unrhd (la-
texsym, ...)
19160 \DeclareTextCommand{\textunrhd}{PU}{\9042\265}%* U+22B5
19161 %* \textunrhd -> \geqclosed (MnSymbol)
19162 %* \textunrhd -> \trianglerighteq (MnSymbol)
19163 % U+22B6 ORIGINAL OF; \multimapdotbothA (txfonts/pxfonts)
19164 \DeclareTextCommand{\textmultimapdotbothA}{PU}{\9042\266}%* U+22B6
19165 % U+22B7 IMAGE OF; \multimapdotbothB (txfonts/pxfonts)
19166 \DeclareTextCommand{\textmultimapdotbothB}{PU}{\9042\267}%* U+22B7
19167 % U+22B8 MULTIMAP; \multimap (AmS, txfonts/pxfonts)
19168 \DeclareTextCommand{\textmultimap}{PU}{\9042\270}%* U+22B8
19169 % U+22BB XOR; \veebar (AmS)
19170 \DeclareTextCommand{\textveebar}{PU}{\9042\273}%* U+22BB
19171 % U+22BC NAND; \barwedge (mathabx)
19172 \DeclareTextCommand{\textbarwedge}{PU}{\9042\274}%* U+22BC
19173 % U+22C6 STAR OPERATOR; \star (LaTeX)
19174 \DeclareTextCommand{\textstar}{PU}{\9042\306}%* U+22C6
19175 % U+22C7 DIVISION TIMES; \divideontimes (AmS)
19176 \DeclareTextCommand{\textdivideontimes}{PU}{\9042\307}%* U+22C7
19177 % U+22C8 BOWTIE; \bowtie (LaTeX)
19178 \DeclareTextCommand{\textbowtie}{PU}{\9042\310}%* U+22C8
19179 %* \textbowtie -> \Bowtie (wasysym)
19180 % U+22C9 LEFT NORMAL FACTOR SEMIDIRECT PRODUCT; \ltimes (AmS)
19181 \DeclareTextCommand{\textltimes}{PU}{\9042\311}%* U+22C9
19182 % U+22CA RIGHT NORMAL FACTOR SEMIDIRECT PRODUCT;
19183 % \rtimes (AmS)
19184 \DeclareTextCommand{\textrtimes}{PU}{\9042\312}%* U+22CA
19185 % U+22CB LEFT SEMIDIRECT PRODUCT; \leftthreetimes (AmS)
19186 \DeclareTextCommand{\textleftthreetimes}{PU}{\9042\313}%* U+22CB
19187 % U+22CC RIGHT SEMIDIRECT PRODUCT; \rightthreetimes (AmS)
19188 \DeclareTextCommand{\textrightthreetimes}{PU}{\9042\314}%* U+22CC
19189 % U+22CD REVERSED TILDE EQUALS; \backsimeq (AmS)
19190 \DeclareTextCommand{\textbacksimeq}{PU}{\9042\315}%* U+22CD
19191 % \nbacksimeq (txfonts/pxfonts)
19192 \DeclareTextCommand{\textnbacksimeq}{PU}{\9042\315\83\070}%* U+22CD U+0338
19193 % U+22CE CURLY LOGICAL OR; curlyor; \curlyvee (AmS)

19194 \DeclareTextCommand{\textcurlyvee}{PU}{\9042\316}%* U+22CE
19195 %* \textcurlyvee -> \varcurlyvee (stmaryrd)
19196 % U+22CF CURLY LOGICAL AND; curlyand; \curlywedge (AmS)
19197 \DeclareTextCommand{\textcurlywedge}{PU}{\9042\317}%* U+22CF
19198 %* \textcurlywedge -> \varcurlywedge (stmaryrd)
19199 % U+22D0 DOUBLE SUBSET; \Subset (AmS)
19200 \DeclareTextCommand{\textSubset}{PU}{\9042\320}%* U+22D0
19201 % \nSubset (txfonts/pxfonts)
19202 \DeclareTextCommand{\textnSubset}{PU}{\9042\320\83\070}%* U+22D0 U+0338
19203 % U+22D1 DOUBLE SUPERSET; \Supset (AmS)
19204 \DeclareTextCommand{\textSupset}{PU}{\9042\321}%* U+22D1
19205 % \nSupset (txfonts/pxfonts)
19206 \DeclareTextCommand{\textnSupset}{PU}{\9042\321\83\070}%* U+22D1 U+0338
19207 % U+22D2 DOUBLE INTERSECTION; \Cap (AmS)
19208 \DeclareTextCommand{\textCap}{PU}{\9042\322}%* U+22D2
19209 %* \textCap -> \doublecap (mathabx)
19210 % U+22D3 DOUBLE UNION; \Cup (AmS)
19211 \DeclareTextCommand{\textCup}{PU}{\9042\323}%* U+22D3
19212 %* \textCup -> \doublecup (mathabx)
19213 % U+22D4 PITCHFORK; \pitchfork (mathabx)
19214 \DeclareTextCommand{\textpitchfork}{PU}{\9042\324}%* U+22D4
19215 % U+22D6 LESS-THAN WITH DOT; \lessdot (AmS)
19216 \DeclareTextCommand{\textlessdot}{PU}{\9042\326}%* U+22D6
19217 % U+22D7 GREATER-THAN WITH DOT; \gtrdot (AmS)
19218 \DeclareTextCommand{\textgtrdot}{PU}{\9042\327}%* U+22D7
19219 % U+22D8 VERY MUCH LESS-THAN; \lll (AmS)
19220 \DeclareTextCommand{\textlll}{PU}{\9042\330}%* U+22D8
19221 % U+22D9 VERY MUCH GREATER-THAN; \ggg (AmS)
19222 \DeclareTextCommand{\textggg}{PU}{\9042\331}%* U+22D9
19223 % U+22DA LESS-THAN EQUAL TO OR GREATER-THAN; lessequalorgreater;
19224 % \lesseqgtr (AmS)
19225 \DeclareTextCommand{\textlesseqgtr}{PU}{\9042\332}%* U+22DA
19226 % U+22DB GREATER-THAN EQUAL TO OR LESS-THAN; greaterequalorless;
19227 % \gtreqless (AmS)
19228 \DeclareTextCommand{\textgtreqless}{PU}{\9042\333}%* U+22DB
19229 % U+22DE EQUAL TO OR PRECEDES; \curlyeqprec (MnSymbol)
19230 \DeclareTextCommand{\textcurlyeqprec}{PU}{\9042\336}%* U+22DE
19231 % \ncurlyeqprec (mathabx)
19232 \DeclareTextCommand{\textncurlyeqprec}{PU}{\9042\336\83\070}%* U+22DE U+0338
19233 % U+22DF EQUAL TO OR SUCCEEDS; \curlyeqsucc (MnSymbol)
19234 \DeclareTextCommand{\textcurlyeqsucc}{PU}{\9042\337}%* U+22DF
19235 % \ncurlyeqsucc (mathabx)
19236 \DeclareTextCommand{\textncurlyeqsucc}{PU}{\9042\337\83\070}%* U+22DF U+0338
19237 % U+22E0 DOES NOT PRECEDE OR EQUAL; \npreccurlyeq (txfonts/pxfonts)
19238 \DeclareTextCommand{\textnpreccurlyeq}{PU}{\9042\340}%* U+22E0
19239 % U+22E1 DOES NOT SUCCEED OR EQUAL; \nsucccurlyeq (txfonts/pxfonts)
19240 \DeclareTextCommand{\textnsucccurlyeq}{PU}{\9042\341}%* U+22E1
19241 % U+22E2 NOT SQUARE IMAGE OF OR EQUAL TO; \nsqsubsetq (tx-
fonts/pxfonts)
19242 \DeclareTextCommand{\textnqsubsetq}{PU}{\9042\342}%* U+22E2
19243 % U+22E3 NOT SQUARE ORIGINAL OF OR EQUAL TO; \nsqsupsetq (tx-
fonts/pxfonts)
19244 \DeclareTextCommand{\textnqsupsetq}{PU}{\9042\343}%* U+22E3
19245 % U+22E4 SQUARE IMAGE OF OR NOT EQUAL TO; \sqsubsetq (mathabx)
19246 \DeclareTextCommand{\textsqsubsetq}{PU}{\9042\344}%* U+22E4
19247 %* \textsqsubsetq -> \varsqsubsetq (mathabx)

19248 % U+22E5 SQUARE ORIGINAL OF OR NOT EQUAL TO; \sqsupsetneq (mathabx)

19249 \DeclareTextCommand{\textsqsupsetneq}{PU}{\9042\345}%* U+22E5

19250 %* \textsqsupsetneq -> \varsqsupsetneq (mathabx)

19251 % U+22E6 LESS-THAN BUT NOT EQUIVALENT TO; \lnsim (AmS)

19252 \DeclareTextCommand{\textlnsim}{PU}{\9042\346}%* U+22E6

19253 % U+22E7 GREATER-THAN BUT NOT EQUIVALENT TO; \gnsim (AmS)

19254 \DeclareTextCommand{\textgnsim}{PU}{\9042\347}%* U+22E7

19255 % U+22E8 PRECEDES BUT NOT EQUIVALENT TO; \precsim (AmS)

19256 \DeclareTextCommand{\textprecsim}{PU}{\9042\350}%* U+22E8

19257 % U+22E9 SUCCEEDS BUT NOT EQUIVALENT TO; \succsim (AmS)

19258 \DeclareTextCommand{\textsuccsim}{PU}{\9042\351}%* U+22E9

19259 % U+22EA NOT NORMAL SUBGROUP OF; \ntriangleleft (AmS)

19260 \DeclareTextCommand{\textntriangleleft}{PU}{\9042\352}%* U+22EA

19261 %* \textntriangleleft -> \nlessclosed (MnSymbol)

19262 % U+22EB DOES NOT CONTAIN AS NORMAL SUBGROUP; \ntriangleright (AmS)

19263 \DeclareTextCommand{\textntriangleright}{PU}{\9042\353}%* U+22EB

19264 %* \textntriangleright -> \ngtrclosed (MnSymbol)

19265 % U+22EC NOT NORMAL SUBGROUP OF OR EQUAL TO;

19266 % \ntrianglelefteq (AmS)

19267 \DeclareTextCommand{\textntrianglelefteq}{PU}{\9042\354}%* U+22EC

19268 % U+22ED DOES NOT CONTAIN AS NORMAL SUBGROUP OR EQUAL;

19269 % \ntrianglerighteq (AmS)

19270 \DeclareTextCommand{\textntrianglerighteq}{PU}{\9042\355}%* U+22ED

19271 %* \textntrianglerighteq -> \textngeqclosed

19272 % U+22EE VERTICAL ELLIPSIS; ellipsisvertical; \vdots (LaTeX)

19273 \DeclareTextCommand{\textvdots}{PU}{\9042\356}%* U+22EE

19274 % U+22EF MIDLINE HORIZONTAL ELLIPSIS; \cdots (LaTeX)

19275 \DeclareTextCommand{\textcdots}{PU}{\9042\357}%* U+22EF

19276 % U+22F0 UP RIGHT DIAGONAL ELLIPSIS; \udots (MnSymbol)

19277 \DeclareTextCommand{\textudots}{PU}{\9042\360}%* U+22F0

19278 % U+22F1 DOWN RIGHT DIAGONAL ELLIPSIS; \ddots (LaTeX)

19279 \DeclareTextCommand{\textddots}{PU}{\9042\361}%* U+22F1

19280 % U+22F6 ELEMENT OF WITH OVERBAR; \barin (mathabx)

19281 \DeclareTextCommand{\textbarin}{PU}{\9042\366}%* U+22F6

51.2.23 Miscellaneous Technical: U+2300 to U+23FF

19282 % U+2300 DIAMETER SIGN; \diameter (mathabx,wasysym)

19283 \DeclareTextCommand{\textdiameter}{PU}{\9043\000}%* U+2300

19284 % U+2310 REVERSED NOT SIGN; \backneg (MnSymbol)

19285 \DeclareTextCommand{\textbackneg}{PU}{\9043\020}%* U+2310

19286 % U+2311 SQUARE LOZENGE; \wasylozenge (wasysym)

19287 \DeclareTextCommand{\textwasylozenge}{PU}{\9043\021}%* U+2311

19288 % U+2319 TURNED NOT SIGN; \invbackneg (MnSymbol)

19289 \DeclareTextCommand{\textinvbackneg}{PU}{\9043\031}%* U+2319

19290 % U+231A WATCH; \clock (wasysym)

19291 \DeclareTextCommand{\textclock}{PU}{\9043\032}%* U+231A

19292 %* \textclock -> \ClockLogo (marvosym)

19293 %* \textclock -> \ClockLogo (marvosym)

19294 % U+231C TOP LEFT CORNER; \ulcorner (AmS)

19295 \DeclareTextCommand{\textulcorner}{PU}{\9043\034}%* U+231C

19296 % U+231D TOP RIGHT CORNER; \urcorner (AmS)

19297 \DeclareTextCommand{\texturcorner}{PU}{\9043\035}%* U+231D

19298 % U+231E BOTTOM LEFT CORNER; \llcorner (AmS)

19299 \DeclareTextCommand{\textllcorner}{PU}{\9043\036}%* U+231E

19300 % U+231F BOTTOM RIGHT CORNER; \lrcorner (AmS)

19301 \DeclareTextCommand{\textlrcorner}{PU}{\9043\037}%* U+231F
19302 % U+2322 FROWN; \frown (LaTeX)
19303 \DeclareTextCommand{\textfrown}{PU}{\9043\042}%* U+2322
19304 % U+2323 SMILE; \smile (LaTeX)
19305 \DeclareTextCommand{\textsmile}{PU}{\9043\043}%* U+2323
19306 % U+2328 KEYBOARD; \Keyboard (marvosym)
19307 \DeclareTextCommand{\textKeyboard}{PU}{\9043\050}%* U+2328
19308 % U+2329 LEFT-POINTING ANGLE BRACKET; angleleft; \langle (LaTeX)
19309 \DeclareTextCommand{\textlangle}{PU}{\9043\051}%* U+2329
19310 % U+232A RIGHT-POINTING ANGLE BRACKET; angleright; \rangle (LaTeX)
19311 \DeclareTextCommand{\textrightangle}{PU}{\9043\052}%* U+232A
19312 % U+2339 APL FUNCTIONAL SYMBOL QUAD DIVIDE; \APLinv (wasysym)
19313 \DeclareTextCommand{\textAPLinv}{PU}{\9043\071}%* U+2339
19314 % U+233C APL FUNCTIONAL SYMBOL QUAD CIRCLE; \Tumbler (marvosym)
19315 \DeclareTextCommand{\textTumbler}{PU}{\9043\074}%* U+233C
19316 % U+233D APL FUNCTIONAL SYMBOL CIRCLE STILE; \baro (stmaryrd)
19317 \DeclareTextCommand{\textstmaryrdbaro}{PU}{\9043\075}% U+233D
19318 %* \textstmaryrdbaro -> \baro (stmaryrd)
19319 % U+233F APL FUNCTIONAL SYMBOL SLASH BAR; \notslash (wasysym)
19320 \DeclareTextCommand{\textnotslash}{PU}{\9043\077}%* U+233F
19321 % U+2340 APL FUNCTIONAL SYMBOL BACKSLASH BAR;
19322 % \notbackslash (wasysym)
19323 \DeclareTextCommand{\textnotbackslash}{PU}{\9043\100}%* U+2340
19324 % U+2342 APL FUNCTIONAL SYMBOL QUAD BACKSLASH; \boxbackslash (mathabx)
19325 \DeclareTextCommand{\textboxbackslash}{PU}{\9043\102}%* U+2342
19326 % U+2347 APL FUNCTIONAL SYMBOL QUAD LEFTWARDS ARROW;
19327 % \APLleftarrowbox (wasysym)
19328 \DeclareTextCommand{\textAPLleftarrowbox}{PU}{\9043\107}%* U+2347
19329 % U+2348 APL FUNCTIONAL SYMBOL QUAD RIGHTWARDS ARROW;
19330 % \APLrightarrowbox (wasysym)
19331 \DeclareTextCommand{\textAPLrightarrowbox}{PU}{\9043\110}%* U+2348
19332 % U+2350 APL FUNCTIONAL SYMBOL QUAD UPWARDS ARROW; \APLuparrowbox (wasysym)
19333 \DeclareTextCommand{\textAPLuparrowbox}{PU}{\9043\120}%* U+2350
19334 % U+2357 APL FUNCTIONAL SYMBOL QUAD DOWNWARDS ARROW;
19335 % \APLdownarrowbox (wasysym)
19336 \DeclareTextCommand{\textAPLdownarrowbox}{PU}{\9043\127}%* U+2357
19337 % U+235E APL FUNCTIONAL SYMBOL QUOTE QUAD;
19338 % \APLinput (wasysym)
19339 \DeclareTextCommand{\textAPLinput}{PU}{\9043\136}%* U+235E
19340 % U+2370 APL FUNCTIONAL SYMBOL QUAD QUESTION; \Request (china2e)
19341 \DeclareTextCommand{\textRequest}{PU}{\9043\160}%* U+2370
19342 % U+2393 DIRECT CURRENT SYMBOL FORM TWO; \Beam (marvosym)
19343 \DeclareTextCommand{\textBeam}{PU}{\9043\223}%* U+2393
19344 % U+2394 SOFTWARE-FUNCTION SYMBOL; \hexagon (wasysym)
19345 \DeclareTextCommand{\texthexagon}{PU}{\9043\224}%* U+2394
19346 % U+2395 APL FUNCTIONAL SYMBOL QUAD; \APLbox (wasysym)
19347 \DeclareTextCommand{\textAPLbox}{PU}{\9043\225}%* U+2395
19348 % U+23ED BLACK RIGHT-POINTING DOUBLE TRIANGLE WITH VERTICAL BAR;
19349 % \ForwardToIndex (marvosym)
19350 \DeclareTextCommand{\textForwardToIndex}{PU}{\9043\355}%* U+23ED
19351 % U+23EE BLACK LEFT-POINTING DOUBLE TRIANGLE WITH VERTICAL BAR;
19352 % \RewindToIndex (marvosym)

19353 \DeclareTextCommand{\textRewindToIndex}{PU}{\9043\356}%* U+23EE

51.2.24 Control Pictures: U+2400 to U+243F

19354 % U+2422 BLANK SYMBOL

19355 \DeclareTextCommand{\textblank}{PU}{\9044\042}% U+2422

19356 % U+2423 OPEN BOX; blank

19357 \DeclareTextCommand{\textvisiblespace}{PU}{\9044\043}% U+2423

51.2.25 Optical Character Recognition: U+2440 to U+245F

19358 % U+244A OCR DOUBLE BACKSLASH; \bbslash (stmaryrd)

19359 \DeclareTextCommand{\textbbslash}{PU}{\9044\112}%* U+244A

19360 %* \textbbslash -> \varparallelinv (txfonts/pxfonts)

51.2.26 Enclosed Alphanumerics: U+2460 to U+24FF

19361 % U+2460 CIRCLED DIGIT ONE; onecircle

19362 \DeclareTextCompositeCommand{\textcircled}{PU}{1}{\9044\140}% U+2460

19363 % U+2461 CIRCLED DIGIT TWO; twocircle

19364 \DeclareTextCompositeCommand{\textcircled}{PU}{2}{\9044\141}% U+2461

19365 % U+2462 CIRCLED DIGIT THREE; threecircle

19366 \DeclareTextCompositeCommand{\textcircled}{PU}{3}{\9044\142}% U+2462

19367 % U+2463 CIRCLED DIGIT FOUR; fourcircle

19368 \DeclareTextCompositeCommand{\textcircled}{PU}{4}{\9044\143}% U+2463

19369 % U+2464 CIRCLED DIGIT FIVE; fivecircle

19370 \DeclareTextCompositeCommand{\textcircled}{PU}{5}{\9044\144}% U+2464

19371 % U+2465 CIRCLED DIGIT SIX; sixcircle

19372 \DeclareTextCompositeCommand{\textcircled}{PU}{6}{\9044\145}% U+2465

19373 % U+2466 CIRCLED DIGIT SEVEN; sevencircle

19374 \DeclareTextCompositeCommand{\textcircled}{PU}{7}{\9044\146}% U+2466

19375 % U+2467 CIRCLED DIGIT EIGHT; eightcircle

19376 \DeclareTextCompositeCommand{\textcircled}{PU}{8}{\9044\147}% U+2467

19377 % U+2468 CIRCLED DIGIT NINE; ninecircle

19378 \DeclareTextCompositeCommand{\textcircled}{PU}{9}{\9044\150}% U+2468

19379 % U+2469 CIRCLED NUMBER TEN; tencircle

19380 \DeclareTextCompositeCommand{\textcircled}{PU}{10}{\9044\151}% U+2469

19381 % U+246A CIRCLED NUMBER ELEVEN; elevencircle

19382 \DeclareTextCompositeCommand{\textcircled}{PU}{11}{\9044\152}% U+246A

19383 % U+246B CIRCLED NUMBER TWELVE; twelvecircle

19384 \DeclareTextCompositeCommand{\textcircled}{PU}{12}{\9044\153}% U+246B

19385 % U+246C CIRCLED NUMBER THIRTEEN; thirteencircle

19386 \DeclareTextCompositeCommand{\textcircled}{PU}{13}{\9044\154}% U+246C

19387 % U+246D CIRCLED NUMBER FOURTEEN; fourteencircle

19388 \DeclareTextCompositeCommand{\textcircled}{PU}{14}{\9044\155}% U+246D

19389 % U+246E CIRCLED NUMBER FIFTEEN; fifteencircle

19390 \DeclareTextCompositeCommand{\textcircled}{PU}{15}{\9044\156}% U+246E

19391 % U+246F CIRCLED NUMBER SIXTEEN; sixteencircle

19392 \DeclareTextCompositeCommand{\textcircled}{PU}{16}{\9044\157}% U+246F

19393 % U+2470 CIRCLED NUMBER SEVENTEEN; seventeencircle

19394 \DeclareTextCompositeCommand{\textcircled}{PU}{17}{\9044\160}% U+2470

19395 % U+2471 CIRCLED NUMBER EIGHTEEN; eighteencircle

19396 \DeclareTextCompositeCommand{\textcircled}{PU}{18}{\9044\161}% U+2471

19397 % U+2472 CIRCLED NUMBER NINETEEN; nineteencircle

19398 \DeclareTextCompositeCommand{\textcircled}{PU}{19}{\9044\162}% U+2472

19399 % U+2473 CIRCLED NUMBER TWENTY; twentycircle

19400 \DeclareTextCompositeCommand{\textcircled}{PU}{20}{\9044\163}% U+2473

19401 % U+24B6 CIRCLED LATIN CAPITAL LETTER A; Acircle

19402 \DeclareTextCompositeCommand{\textcircled}{PU}{A}{\9044\266}% U+24B6

19403 % \CircledA (marvosym)

19404 \DeclareTextCommand{\textCircledA}{PU}{\9044\266}%* U+24B6
19405 %* \textCircledA -> \CleaningA
19406 % U+24B7 CIRCLED LATIN CAPITAL LETTER B; Bcircle
19407 \DeclareTextCompositeCommand{\textcircled}{PU}{B}{\9044\267}% U+24B7
19408 % U+24B8 CIRCLED LATIN CAPITAL LETTER C; Ccircle
19409 \DeclareTextCompositeCommand{\textcircled}{PU}{C}{\9044\270}% U+24B8
19410 % U+24B9 CIRCLED LATIN CAPITAL LETTER D; Dcircle
19411 \DeclareTextCompositeCommand{\textcircled}{PU}{D}{\9044\271}% U+24B9
19412 % U+24BA CIRCLED LATIN CAPITAL LETTER E; Ecircle
19413 \DeclareTextCompositeCommand{\textcircled}{PU}{E}{\9044\272}% U+24BA
19414 % U+24BB CIRCLED LATIN CAPITAL LETTER F; Fcircle
19415 \DeclareTextCompositeCommand{\textcircled}{PU}{F}{\9044\273}% U+24BB
19416 % \CleaningF (marvosym)
19417 \DeclareTextCommand{\textCleaningF}{PU}{\9044\273}%* U+24BB
19418 % \CleaningFF (marvosym)
19419 \DeclareTextCommand{\textCleaningFF}{PU}{\9044\273\83\062}%* U+24BB U+0332
19420 % U+24BC CIRCLED LATIN CAPITAL LETTER G; Gcircle
19421 \DeclareTextCompositeCommand{\textcircled}{PU}{G}{\9044\274}% U+24BC
19422 % U+24BD CIRCLED LATIN CAPITAL LETTER H; Hcircle
19423 \DeclareTextCompositeCommand{\textcircled}{PU}{H}{\9044\275}% U+24BD
19424 % U+24BE CIRCLED LATIN CAPITAL LETTER I; Icircle
19425 \DeclareTextCompositeCommand{\textcircled}{PU}{I}{\9044\276}% U+24BE
19426 % U+24BF CIRCLED LATIN CAPITAL LETTER J; Jcircle
19427 \DeclareTextCompositeCommand{\textcircled}{PU}{J}{\9044\277}% U+24BF
19428 % U+24C0 CIRCLED LATIN CAPITAL LETTER K; Kcircle
19429 \DeclareTextCompositeCommand{\textcircled}{PU}{K}{\9044\300}% U+24C0
19430 % U+24C1 CIRCLED LATIN CAPITAL LETTER L; Lcircle
19431 \DeclareTextCompositeCommand{\textcircled}{PU}{L}{\9044\301}% U+24C1
19432 % U+24C2 CIRCLED LATIN CAPITAL LETTER M; Mcircle
19433 \DeclareTextCompositeCommand{\textcircled}{PU}{M}{\9044\302}% U+24C2
19434 % U+24C3 CIRCLED LATIN CAPITAL LETTER N; Ncircle
19435 \DeclareTextCompositeCommand{\textcircled}{PU}{N}{\9044\303}% U+24C3
19436 % U+24C4 CIRCLED LATIN CAPITAL LETTER O; Ocircle
19437 \DeclareTextCompositeCommand{\textcircled}{PU}{O}{\9044\304}% U+24C4
19438 % U+24C5 CIRCLED LATIN CAPITAL LETTER P; Pcircle
19439 \DeclareTextCompositeCommand{\textcircled}{PU}{P}{\9044\305}% U+24C5
19440 % \CleaningP (marvosym)
19441 \DeclareTextCommand{\textCleaningP}{PU}{\9044\305}%* U+24C5
19442 % \CleaningPP (marvosym)
19443 \DeclareTextCommand{\textCleaningPP}{PU}{\9044\305\83\062}%* U+24C5 U+0332
19444 % U+24C6 CIRCLED LATIN CAPITAL LETTER Q; Qcircle
19445 \DeclareTextCompositeCommand{\textcircled}{PU}{Q}{\9044\306}% U+24C6
19446 % U+24C7 CIRCLED LATIN CAPITAL LETTER R; Rcircle
19447 \DeclareTextCompositeCommand{\textcircled}{PU}{R}{\9044\307}% U+24C7
19448 % U+24C8 CIRCLED LATIN CAPITAL LETTER S; Scircle
19449 \DeclareTextCompositeCommand{\textcircled}{PU}{S}{\9044\310}% U+24C8
19450 % U+24C9 CIRCLED LATIN CAPITAL LETTER T; Tcircle
19451 \DeclareTextCompositeCommand{\textcircled}{PU}{T}{\9044\311}% U+24C9
19452 % U+24CA CIRCLED LATIN CAPITAL LETTER U; Ucircle
19453 \DeclareTextCompositeCommand{\textcircled}{PU}{U}{\9044\312}% U+24CA
19454 % U+24CB CIRCLED LATIN CAPITAL LETTER V; Vcircle
19455 \DeclareTextCompositeCommand{\textcircled}{PU}{V}{\9044\313}% U+24CB
19456 % U+24CC CIRCLED LATIN CAPITAL LETTER W; Wcircle
19457 \DeclareTextCompositeCommand{\textcircled}{PU}{W}{\9044\314}% U+24CC
19458 % U+24CD CIRCLED LATIN CAPITAL LETTER X; Xcircle
19459 \DeclareTextCompositeCommand{\textcircled}{PU}{X}{\9044\315}% U+24CD
19460 % U+24CE CIRCLED LATIN CAPITAL LETTER Y; Ycircle

19461 \DeclareTextCompositeCommand{\textcircled}{PU}{Y}{\9044\316}% U+24CE
19462 % U+24CF CIRCLED LATIN CAPITAL LETTER Z; Zcircle
19463 \DeclareTextCompositeCommand{\textcircled}{PU}{Z}{\9044\317}% U+24CF
19464 % U+24D0 CIRCLED LATIN SMALL LETTER A; acircle
19465 \DeclareTextCompositeCommand{\textcircled}{PU}{a}{\9044\320}% U+24D0
19466 % U+24D1 CIRCLED LATIN SMALL LETTER B; bcircle
19467 \DeclareTextCompositeCommand{\textcircled}{PU}{b}{\9044\321}% U+24D1
19468 % U+24D2 CIRCLED LATIN SMALL LETTER C; ccircle
19469 \DeclareTextCompositeCommand{\textcircled}{PU}{c}{\9044\322}% U+24D2
19470 % U+24D3 CIRCLED LATIN SMALL LETTER D; dcircle
19471 \DeclareTextCompositeCommand{\textcircled}{PU}{d}{\9044\323}% U+24D3
19472 % U+24D4 CIRCLED LATIN SMALL LETTER E; ecircle
19473 \DeclareTextCompositeCommand{\textcircled}{PU}{e}{\9044\324}% U+24D4
19474 % U+24D5 CIRCLED LATIN SMALL LETTER F; fcircle
19475 \DeclareTextCompositeCommand{\textcircled}{PU}{f}{\9044\325}% U+24D5
19476 % U+24D6 CIRCLED LATIN SMALL LETTER G; gcircle
19477 \DeclareTextCompositeCommand{\textcircled}{PU}{g}{\9044\326}% U+24D6
19478 % U+24D7 CIRCLED LATIN SMALL LETTER H; hcircle
19479 \DeclareTextCompositeCommand{\textcircled}{PU}{h}{\9044\327}% U+24D7
19480 % U+24D8 CIRCLED LATIN SMALL LETTER I; icircle
19481 \DeclareTextCompositeCommand{\textcircled}{PU}{i}{\9044\330}% U+24D8
19482 % U+24D9 CIRCLED LATIN SMALL LETTER J; jcircle
19483 \DeclareTextCompositeCommand{\textcircled}{PU}{j}{\9044\331}% U+24D9
19484 % U+24DA CIRCLED LATIN SMALL LETTER K; kcircle
19485 \DeclareTextCompositeCommand{\textcircled}{PU}{k}{\9044\332}% U+24DA
19486 % U+24DB CIRCLED LATIN SMALL LETTER L; lcircle
19487 \DeclareTextCompositeCommand{\textcircled}{PU}{l}{\9044\333}% U+24DB
19488 % U+24DC CIRCLED LATIN SMALL LETTER M; mcircle
19489 \DeclareTextCompositeCommand{\textcircled}{PU}{m}{\9044\334}% U+24DC
19490 % U+24DD CIRCLED LATIN SMALL LETTER N; ncircle
19491 \DeclareTextCompositeCommand{\textcircled}{PU}{n}{\9044\335}% U+24DD
19492 % U+24DE CIRCLED LATIN SMALL LETTER O; ocircle
19493 \DeclareTextCompositeCommand{\textcircled}{PU}{o}{\9044\336}% U+24DE
19494 % U+24DF CIRCLED LATIN SMALL LETTER P; pcircle
19495 \DeclareTextCompositeCommand{\textcircled}{PU}{p}{\9044\337}% U+24DF
19496 % U+24E0 CIRCLED LATIN SMALL LETTER Q; qcircle
19497 \DeclareTextCompositeCommand{\textcircled}{PU}{q}{\9044\340}% U+24E0
19498 % U+24E1 CIRCLED LATIN SMALL LETTER R; rcircle
19499 \DeclareTextCompositeCommand{\textcircled}{PU}{r}{\9044\341}% U+24E1
19500 % U+24E2 CIRCLED LATIN SMALL LETTER S; scircle
19501 \DeclareTextCompositeCommand{\textcircled}{PU}{s}{\9044\342}% U+24E2
19502 % U+24E3 CIRCLED LATIN SMALL LETTER T; tcircle
19503 \DeclareTextCompositeCommand{\textcircled}{PU}{t}{\9044\343}% U+24E3
19504 % U+24E4 CIRCLED LATIN SMALL LETTER U; ucircle
19505 \DeclareTextCompositeCommand{\textcircled}{PU}{u}{\9044\344}% U+24E4
19506 % U+24E5 CIRCLED LATIN SMALL LETTER V; vcircle
19507 \DeclareTextCompositeCommand{\textcircled}{PU}{v}{\9044\345}% U+24E5
19508 % U+24E6 CIRCLED LATIN SMALL LETTER W; wcircle
19509 \DeclareTextCompositeCommand{\textcircled}{PU}{w}{\9044\346}% U+24E6
19510 % U+24E7 CIRCLED LATIN SMALL LETTER X; xcircle
19511 \DeclareTextCompositeCommand{\textcircled}{PU}{x}{\9044\347}% U+24E7
19512 % U+24E8 CIRCLED LATIN SMALL LETTER Y; ycircle
19513 \DeclareTextCompositeCommand{\textcircled}{PU}{y}{\9044\350}% U+24E8
19514 % U+24E9 CIRCLED LATIN SMALL LETTER Z; zcircle
19515 \DeclareTextCompositeCommand{\textcircled}{PU}{z}{\9044\351}% U+24E9
19516 % U+24EA CIRCLED DIGIT ZERO
19517 \DeclareTextCompositeCommand{\textcircled}{PU}{0}{\9044\352}% U+24EA

51.2.27 Box Drawing: U+2500 to 257F

```
19518 % U+2504 BOX DRAWINGS LIGHT TRIPLE DASH HORIZONTAL; \Cutting-
      Line (marvosym)
19519 \DeclareTextCommand{\textCuttingLine}{PU}{\9045\004}%* U+2504
19520 %* \textCuttingLine -> \Kutline (marvosym)
19521 %* \textCuttingLine -> \CutLine (marvosym)
19522 %* \textCuttingLine -> \Cutline (marvosym)
```

51.2.28 Geometric Shapes: U+25A0 to U+25FF

```
19523 % U+25B2 BLACK UP-POINTING TRIANGLE; \UParrow (wasysym)
19524 \DeclareTextCommand{\textUParrow}{PU}{\9045\262}%* U+25B2
19525 %* \textUParrow -> \MoveUp (marvosym)
19526 % U+25B3 WHITE UP-POINTING TRIANGLE; whiteuppointingtriangle;
19527 % \bigtriangleup (LaTeX)
19528 \DeclareTextCommand{\textbigtriangleup}{PU}{\9045\263}%* U+25B3
19529 %* \textbigtriangleup -> \APLup (wasysym)
19530 %* \textbigtriangleup -> \Bleech (marvosym)
19531 % U+25B6 BLACK RIGHT-POINTING TRIANGLE; \Forward (marvosym)
19532 \DeclareTextCommand{\textForward}{PU}{\9045\266}%* U+25B6
19533 % U+25B7 WHITE RIGHT-POINTING TRIANGLE (= z notation range restric-
      tion);
19534 % whiterightpointingtriangle; \triangleright (LaTeX)
19535 \DeclareTextCommand{\texttriangleright}{PU}{\9045\267}%* U+25B7
19536 % U+25BA BLACK RIGHT-POINTING POINTER; \RHD (wasysym)
19537 \DeclareTextCommand{\textRHD}{PU}{\9045\272}%* U+25BA
19538 % U+25BC BLACK DOWN-POINTING TRIANGLE; \DOWNarrow (wasysym)
19539 \DeclareTextCommand{\textDOWNarrow}{PU}{\9045\274}%* U+25BC
19540 %* \textDOWNarrow -> \MoveDown (marvosym)
19541 % U+25BD WHITE DOWN-POINTING TRIANGLE; whitedownpointingtri-
      angle;
19542 % \bigtriangledown (LaTeX)
19543 \DeclareTextCommand{\textbigtriangledown}{PU}{\9045\275}%* U+25BD
19544 %* \textbigtriangledown -> \APLdown (wasysym)
19545 % U+25C0 BLACK LEFT-POINTING TRIANGLE; \Rewind (marvosym)
19546 \DeclareTextCommand{\textRewind}{PU}{\9045\300}%* U+25C0
19547 % U+25C1 WHITE RIGHT-POINTING TRIANGLE (= z notation domain re-
      striction);
19548 % whiteleftpointingtriangle; \triangleleft (LaTeX)
19549 \DeclareTextCommand{\texttriangleleft}{PU}{\9045\301}%* U+25C1
19550 % U+25C4 BLACK LEFT-POINTING POINTER; \LHD (wasysym)
19551 \DeclareTextCommand{\textLHD}{PU}{\9045\304}%* U+25C4
19552 % U+25C7 WHITE DIAMOND; whitediamond; \diamond (LaTeX)
19553 \DeclareTextCommand{\textdiamond}{PU}{\9045\307}%* U+25C7
19554 %* \textdiamond -> \Diamond (wasysym)
19555 % U+25CA LOZENGE; lozenge; \lozenge (AmS)
19556 \DeclareTextCommand{\textlozenge}{PU}{\9045\312}%* U+25CA
19557 % U+25D6 LEFT HALF BLACK CIRCLE; \LEFTCIRCLE (wasysym)
19558 \DeclareTextCommand{\textLEFTCIRCLE}{PU}{\9045\326}%* U+25D6
19559 % U+25D7 RIGHT HALF BLACK CIRCLE; \RIGHTCIRCLE (wasysym)
19560 \DeclareTextCommand{\textRIGHTCIRCLE}{PU}{\9045\327}%* U+25D7
19561 % U+25E6 WHITE BULLET; *openbullet, whitebullet
19562 \DeclareTextCommand{\textopenbullet}{PU}{\9045\346}%* U+25E6
19563 % U+25EB WHITE SQUARE WITH VERTICAL BISECTING LINE;
19564 % \boxbar (stmaryrd)
19565 \DeclareTextCommand{\textboxbar}{PU}{\9045\353}%* U+25EB
19566 % U+25EF LARGE CIRCLE; largecircle
19567 \DeclareTextCommand{\textbigcircle}{PU}{\9045\357}%* U+25EF
```

19568 %* \textbigcircle -> \varbigcirc (stmaryrd)
19569 %

51.2.29 Miscellaneous Symbols: U+2600 to U+26FF

19570 % U+2601 CLOUD; \Cloud (ifsym)
19571 \DeclareTextCommand{\textCloud}{PU}{\9046\001}%* U+2601
19572 % U+2605 BLACK STAR; \FiveStar (bbding)
19573 \DeclareTextCommand{\textFiveStar}{PU}{\9046\005}%* U+2605
19574 % U+2606 WHITE STAR; \FiveStarOpen (bbding)
19575 \DeclareTextCommand{\textFiveStarOpen}{PU}{\9046\006}%* U+2606
19576 % U+260E BLACK TELEPHONE; telephoneblack; \Phone (bbding)
19577 \DeclareTextCommand{\textPhone}{PU}{\9046\016}%* U+260E
19578 %* \textPhone -> \Telefon (marvosym)
19579 % U+2610 BALLOT BOX; \boxempty (stmaryrd)
19580 \DeclareTextCommand{\textboxempty}{PU}{\9046\020}%* U+2610
19581 %* \textboxempty -> \Box (wasysym)
19582 % U+2611 BALLOT BOX WITH CHECK; \Checkedbox (marvosym)
19583 \DeclareTextCommand{\textCheckedbox}{PU}{\9046\021}%* U+2611
19584 %* \textCheckedbox -> \CheckedBox (marvosym)
19585 % U+2612 BALLOT BOX WITH X; \Crossedbox (marvosym)
19586 \DeclareTextCommand{\textCrossedbox}{PU}{\9046\022}%* U+2612
19587 %* \textCrossedbox -> \XBox (wasysym)
19588 %* \textCrossedbox -> \CrossedBox (marvosym)
19589 % U+2615 HOT BEVERAGE; \Coffeecup (marvosym)
19590 \DeclareTextCommand{\textCoffeecup}{PU}{\9046\025}%* U+2615
19591 % U+261A BLACK LEFT POINTING INDEX; \HandCuffLeft (bbding)
19592 \DeclareTextCommand{\textHandCuffLeft}{PU}{\9046\032}%* U+261A
19593 % U+261B BLACK RIGHT POINTING INDEX; \HandCuffRight (bbding)
19594 \DeclareTextCommand{\textHandCuffRight}{PU}{\9046\033}%* U+261B
19595 % U+261C WHITE LEFT POINTING INDEX; \HandLeft (bbding)
19596 \DeclareTextCommand{\textHandLeft}{PU}{\9046\034}%* U+261C
19597 %* \textHandLeft -> \rightpointleft (fourier)
19598 % U+261E WHITE RIGHT POINTING INDEX; \HandRight (bbding)
19599 \DeclareTextCommand{\textHandRight}{PU}{\9046\036}%* U+261E
19600 %* \textHandRight -> \leftpointright (fourier)
19601 %* \textHandRight -> \PointingHand (marvosym)
19602 %* \textHandRight -> \Pointinghand (marvosym)
19603 % U+2622 RADIOACTIVE SIGN; \Radioactivity (marvosym)
19604 \DeclareTextCommand{\textRadioactivity}{PU}{\9046\042}%* U+2622
19605 %* \textRadioactivity -> \Radiation (ifsym)
19606 % U+2623 BIOHAZARD SIGN; \Biohazard (marvosym)
19607 \DeclareTextCommand{\textBiohazard}{PU}{\9046\043}%* U+2623
19608 % U+2625 ANKH; \Ankh (marvosym)
19609 \DeclareTextCommand{\textAnkh}{PU}{\9046\045}%* U+2625
19610 % U+262F YIN YANG; \YinYang (marvosym)
19611 \DeclareTextCommand{\textYinYang}{PU}{\9046\057}%* U+262F
19612 %* \textYinYang -> \Yinyang (marvosym)
19613 %* \textYinYang -> \YingYang (marvosym)
19614 %* \textYinYang -> \Yingyang (marvosym)
19615 % U+2639 WHITE FROWNING FACE; \frownie (wasysym)
19616 \DeclareTextCommand{\textfrownie}{PU}{\9046\071}%* U+2639
19617 %* \textfrownie -> \Frowny (marvosym)
19618 % U+263A WHITE SMILING FACE; \smiley (wasysym)
19619 \DeclareTextCommand{\textsmiley}{PU}{\9046\072}%* U+263A
19620 %* \textsmiley -> \Smiley (marvosym)
19621 % U+263B BLACK SMILING FACE; \blacksmiley (wasysym)
19622 \DeclareTextCommand{\textblacksmiley}{PU}{\9046\073}%* U+263B

```

19623 % U+263C WHITE SUN WITH RAYS; \sun (wasysym)
19624 \DeclareTextCommand{\textsun}{PU}{\9046\074}%* U+263C
19625 %* \textsun -> \Sun (marvosym)
19626 % U+263D FIRST QUARTER MOON; \leftmoon (wasysym, mathabx)
19627 \DeclareTextCommand{\textleftmoon}{PU}{\9046\075}%* U+263D
19628 % U+263E LAST QUARTER MOON; \rightmoon (wasysym, mathabx)
19629 \DeclareTextCommand{\textrightmoon}{PU}{\9046\076}%* U+263E
19630 % U+263F MERCURY; \mercury (wasysym)
19631 \DeclareTextCommand{\textmercury}{PU}{\9046\077}%* U+263F
19632 %* \textmercury -> \Mercury (marvosym)
19633 % U+2640 FEMALE SIGN; female; \female (wasysym)
19634 \DeclareTextCommand{\textPUfemale}{PU}{\9046\100}% U+2640
19635 %* \textPUfemale -> \textfemale (tipx)
19636 %* \textPUfemale -> \female (wasysym)
19637 %* \textPUfemale -> \venus (wasysym)
19638 %* \textPUfemale -> \Venus (marvosym)
19639 %* \textPUfemale -> \Female (marvosym)
19640 % U+2641 EARTH; \earth (wasysym)
19641 \DeclareTextCommand{\textearth}{PU}{\9046\101}%* U+2641
19642 %* \textearth -> \Earth (marvosym)
19643 % U+2642 MALE SIGN; male, mars; \male (wasysym)
19644 \DeclareTextCommand{\textmale}{PU}{\9046\102}%* U+2642
19645 %* \textmale -> \mars (wasysym)
19646 %* \textmale -> \Mars (marvosym)
19647 %* \textmale -> \Male (marvosym)
19648 % U+2643 JUPITER; \jupiter (wasysym)
19649 \DeclareTextCommand{\textjupiter}{PU}{\9046\103}%* U+2643
19650 %* \textjupiter -> \Jupiter (marvosym)
19651 % U+2644 SATURN; \saturn (wasysym)
19652 \DeclareTextCommand{\textsaturn}{PU}{\9046\104}%* U+2644
19653 %* \textsaturn -> \Saturn (marvosym)
19654 % U+2645 URANUS; \uranus (wasysym)
19655 \DeclareTextCommand{\texturanus}{PU}{\9046\105}%* U+2645
19656 %* \texturanus -> \Uranus (marvosym)
19657 % U+2646 NEPTUNE; \neptune (wasysym)
19658 \DeclareTextCommand{\textneptune}{PU}{\9046\106}%* U+2646
19659 %* \textneptune -> \Neptune (marvosym)
19660 % U+2647 PLUTO; \pluto (wasysym)
19661 \DeclareTextCommand{\textpluto}{PU}{\9046\107}%* U+2647
19662 %* \textpluto -> \Pluto (marvosym)
19663 % U+2648 ARIES; \aries (wasysym)
19664 \DeclareTextCommand{\textaries}{PU}{\9046\110}%* U+2648
19665 %* \textaries -> \Aries (marvosym)
19666 % U+2649 TAURUS; \taurus (wasysym)
19667 \DeclareTextCommand{\texttaurus}{PU}{\9046\111}%* U+2649
19668 %* \texttaurus -> \Taurus (marvosym)
19669 % U+264A GEMINI; \gemini (wasysym)
19670 \DeclareTextCommand{\textgemini}{PU}{\9046\112}%* U+264A
19671 %* \textgemini -> \Gemini (marvosym)
19672 % U+264B CANCER; \cancer (wasysym)
19673 \DeclareTextCommand{\textcancer}{PU}{\9046\113}%* U+264B
19674 %* \textcancer -> \Cancer (marvosym)
19675 % U+264C LEO; \leo (wasysym)
19676 \DeclareTextCommand{\textleo}{PU}{\9046\114}%* U+264C
19677 %* \textleo -> \Leo (marvosym)
19678 % U+264D VIRGO; \virgo (wasysym)
19679 \DeclareTextCommand{\textvirgo}{PU}{\9046\115}%* U+264D

```

19680 %* \textvirgo -> \Virgo (marvosym)
19681 % U+264E LIBRA; \libra (wasysym)
19682 \DeclareTextCommand{\textlibra}{PU}{\9046\116}%* U+264E
19683 %* \textlibra -> \Libra (marvosym)
19684 % U+264F SCORPIO; \scorpio (wasysym)
19685 \DeclareTextCommand{\textscorpio}{PU}{\9046\117}%* U+264F
19686 %* \textscorpio -> \Scorpio (marvosym)
19687 % U+2650 SAGITTARIUS; \sagittarius (wasysym)
19688 \DeclareTextCommand{\textsagittarius}{PU}{\9046\120}%* U+2650
19689 %* \textsagittarius -> \Sagittarius (marvosym)
19690 % U+2651 CAPRICORN; \capricornus (wasysym)
19691 \DeclareTextCommand{\textcapricornus}{PU}{\9046\121}%* U+2651
19692 %* \textcapricornus -> \Capricorn (marvosym)
19693 % U+2652 AQUARIUS; \aquarius (wasysym)
19694 \DeclareTextCommand{\textaquarius}{PU}{\9046\122}%* U+2652
19695 %* \textaquarius -> \Aquarius (marvosym)
19696 % U+2653 PISCES; \pisces (wasysym)
19697 \DeclareTextCommand{\textpisces}{PU}{\9046\123}%* U+2653
19698 %* \textpisces -> \Pisces (marvosym)
19699 % U+2660 BLACK SPADE SUIT; spade, spadesuitblack; \spadesuit (LaTeX)
19700 \DeclareTextCommand{\textspadesuitblack}{PU}{\9046\140}% U+2660
19701 %* \textspadesuitblack -> \spadesuit (MnSymbol)
19702 % U+2661 WHITE HEART SUIT; heartsuitwhite; \heartsuit (LaTeX)
19703 \DeclareTextCommand{\textheartsuitwhite}{PU}{\9046\141}% U+2661
19704 %* \textheartsuitwhite -> \Heart (marvosym)
19705 %* \textheartsuitwhite -> \heartsuit (MnSymbol)
19706 % U+2662 WHITE DIAMOND SUIT; diamondsuitwhite; \diamondsuit (LaTeX)
19707 \DeclareTextCommand{\textdiamondsuitwhite}{PU}{\9046\142}% U+2662
19708 %* \textdiamondsuitwhite -> \diamondsuit (MnSymbol)
19709 % U+2663 BLACK CLUB SUIT; club, clubsuitblack; \clubsuit (LaTeX)
19710 \DeclareTextCommand{\textclubsuitblack}{PU}{\9046\143}% U+2663
19711 %* \textclubsuitblack -> \clubsuit (MnSymbol)
19712 % U+2664 WHITE SPADE SUIT; spadesuitwhite
19713 \DeclareTextCommand{\textspadesuitwhite}{PU}{\9046\144}% U+2664
19714 % U+2665 BLACK HEART SUIT; heartsuitblack, heart
19715 \DeclareTextCommand{\textheartsuitblack}{PU}{\9046\145}% U+2665
19716 % U+2666 BLACK DIAMOND SUIT; diamond
19717 \DeclareTextCommand{\textdiamondsuitblack}{PU}{\9046\146}% U+2666
19718 % U+2667 WHITE CLUB SUIT; clubsuitwhite
19719 \DeclareTextCommand{\textclubsuitwhite}{PU}{\9046\147}% U+2667
19720 % U+2669 QUARTER NOTE; quarternote; \quarternote (wasysym, arev)
19721 \DeclareTextCommand{\textquarternote}{PU}{\9046\151}%* U+2669
19722 % U+266A EIGHTH NOTE; musicalnote; \textmusicalnote (textcomp)
19723 \DeclareTextCommand{\textmusicalnote}{PU}{\9046\152}% U+266A
19724 %* \textmusicalnote -> \eighthnote (wasysym, arev)
19725 % U+266B BEAMED EIGHTH NOTES; eighthnotebeamed; \twonotes (wasysym)
19726 \DeclareTextCommand{\texttwonotes}{PU}{\9046\153}%* U+266B
19727 % U+266C BEAMED SIXTEENTH NOTES; beamedsixteenthnotes; \sixteenth-
note (arev)
19728 \DeclareTextCommand{\textsixteenthnote}{PU}{\9046\154}%* U+266C
19729 % U+266D MUSIC FLAT SIGN; musicflatsign; \flat (LaTeX)
19730 \DeclareTextCommand{\textflat}{PU}{\9046\155}%* U+266D
19731 % U+266E MUSIC NATURAL SIGN; \natural (LaTeX)
19732 \DeclareTextCommand{\textnatural}{PU}{\9046\156}%* U+266E
19733 % U+266F MUSIC SHARP SIGN; musicsharpsign; \sharp (LaTeX)
19734 \DeclareTextCommand{\textsharp}{PU}{\9046\157}%* U+266F
19735 % U+2672 UNIVERSAL RECYCLING SYMBOL; \recycle (recycle)

19736 \DeclareTextCommand{\textrecycle}{PU}{\9046\162}%* U+2672
19737 %* \textrecycle -> \Recycling (marvosym)
19738 % U+267F WHEELCHAIR SYMBOL; \Wheelchair (marvosym)
19739 \DeclareTextCommand{\textWheelchair}{PU}{\9046\177}%* U+267F
19740 % U+2691 BLACK FLAG; \Flag (ifsym)
19741 \DeclareTextCommand{\textFlag}{PU}{\9046\221}%* U+2691
19742 %* \textFlag -> \VarFlag (ifsym)
19743 % U+2692 HAMMER AND PICK; \MineSign (marvosym)
19744 \DeclareTextCommand{\textMineSign}{PU}{\9046\222}%* U+2692
19745 % U+2694 CROSSED SWORDS; \dsmilitary (dictsym)
19746 \DeclareTextCommand{\textdsmilitary}{PU}{\9046\224}%* U+2694
19747 %* \textdsmilitary -> \textxswup (fourier)
19748 % U+2695 STAFF OF AESCULAPIUS; \dsmedical (dictsym)
19749 \DeclareTextCommand{\textdsmedical}{PU}{\9046\225}%* U+2695
19750 % U+2696 SCALES; \dsjuridical (dictsym)
19751 \DeclareTextCommand{\textdsjuridical}{PU}{\9046\226}%* U+2696
19752 % U+2697 ALEMBIC; \dschemical (dictsym)
19753 \DeclareTextCommand{\textdschemical}{PU}{\9046\227}%* U+2697
19754 % U+2698 FLOWER; \dsbiological (dictsym)
19755 \DeclareTextCommand{\textdsbiological}{PU}{\9046\230}%* U+2698
19756 % U+269A STAFF OF HERMES; \dscommercial (dictsym)
19757 \DeclareTextCommand{\textdscommercial}{PU}{\9046\232}%* U+269A
19758 % U+269D OUTLINED WHITE STAR; \manstar (manfnt)
19759 \DeclareTextCommand{\textmanstar}{PU}{\9046\235}%* U+269D
19760 % U+26A0 WARNING SIGN; \danger (fourier)
19761 \DeclareTextCommand{\textdanger}{PU}{\9046\240}%* U+26A0
19762 % U+26A2 DOUBLED FEMALE SIGN; \FemaleFemale (marvosym)
19763 \DeclareTextCommand{\textFemaleFemale}{PU}{\9046\242}%* U+26A2
19764 % U+26A3 DOUBLED MALE SIGN; \MaleMale (marvosym)
19765 \DeclareTextCommand{\textMaleMale}{PU}{\9046\243}%* U+26A3
19766 % U+26A4 INTERLOCKED FEMALE AND MALE SIGN; \FemaleMale (marvosym)
19767 \DeclareTextCommand{\textFemaleMale}{PU}{\9046\244}%* U+26A4
19768 % U+26A5 MALE AND FEMALE SIGN; \Hermaphrodite (marvosym)
19769 \DeclareTextCommand{\textHermaphrodite}{PU}{\9046\245}%* U+26A5
19770 % U+26AA MEDIUM WHITE CIRCLE; \Neural (marvosym)
19771 \DeclareTextCommand{\textNeutral}{PU}{\9046\252}%* U+26AA
19772 % U+26AD MARRIAGE SYMBOL
19773 \DeclareTextCommand{\textmarried}{PU}{\9046\255}% U+26AD
19774 % U+26AE DIVORCE SYMBOL
19775 \DeclareTextCommand{\textdivorced}{PU}{\9046\256}% U+26AE
19776 % U+26B2 NEUTER; \textunconfemale (tipx)
19777 \DeclareTextCommand{\textPUunconfemale}{PU}{\9046\262}% U+26B2
19778 %* \textPUunconfemale -> \textunconfemale (tipx)
19779 % U+26B9 SEXTILE; \hexstar (wasysym)
19780 \DeclareTextCommand{\texthexstar}{PU}{\9046\271}%* U+26B9
19781 % U+26BD SOCCER BALL; \Football (marvosym)
19782 \DeclareTextCommand{\textSoccerBall}{PU}{\9046\275}% U+26BD
19783 %* \textSoccerBall -> \Football (marvosym)
19784 % U+26C5 SUN BEHIND CLOUD; \SunCloud (ifsym)
19785 \DeclareTextCommand{\textSunCloud}{PU}{\9046\305}%* U+26C5
19786 % U+26C6 RAIN; \Rain (ifsym)
19787 \DeclareTextCommand{\textRain}{PU}{\9046\306}%* U+26C6
19788 % U+26D4 NO ENTRY; \noway (fourier)
19789 \DeclareTextCommand{\textnoway}{PU}{\9046\324}%* U+26D4
19790 % U+26F0 MOUNTAIN; \Mountain (ifsym)
19791 \DeclareTextCommand{\textMountain}{PU}{\9046\360}%* U+26F0

19792 % U+26FA TENT; \Tent (ifsym)
 19793 \DeclareTextCommand{\textTent}{PU}{\9046\372}%* U+26FA

51.2.30 Dingbats: U+2700 to U+27BF

19794 % U+2701 UPPER BLADE SCISSORS; \ScissorRightBrokenBottom (bding)
 19795 \DeclareTextCommand{\textScissorRightBrokenBottom}{PU}{\9047\001}% U+2701
 19796 %* \textScissorRightBrokenBottom -> \CutLeft (marvosym)
 19797 %* \textScissorRightBrokenBottom -> \Cutright (marvosym)
 19798 % U+2702 BLACK SCISSORS; \ScissorRight (bding)
 19799 \DeclareTextCommand{\textScissorRight}{PU}{\9047\002}%* U+2702
 19800 %* \textScissorRight -> \RightScissors (marvosym)
 19801 %* \textScissorRight -> \Leftscissors (marvosym)
 19802 % U+2703 LOWER BLADE SCISSORS; \ScissorRightBrokenTop (bding)
 19803 \DeclareTextCommand{\textScissorRightBrokenTop}{PU}{\9047\003}%* U+2703
 19804 % U+2704 WHITE SCISSORS; \ScissorHollowRight (bding)
 19805 \DeclareTextCommand{\textScissorHollowRight}{PU}{\9047\004}%* U+2704
 19806 % U+2706 TELEPHONE LOCATION SIGN; \PhoneHandset (bding)
 19807 \DeclareTextCommand{\textPhoneHandset}{PU}{\9047\006}%* U+2706
 19808 % U+2707 TAPE DRIVE; \Tape (bding)
 19809 \DeclareTextCommand{\textTape}{PU}{\9047\007}%* U+2707
 19810 % U+2708 AIRPLANE; \Plane (bding)
 19811 \DeclareTextCommand{\textPlane}{PU}{\9047\010}%* U+2708
 19812 % U+2709 ENVELOPE; \Envelope (bding),
 19813 \DeclareTextCommand{\textEnvelope}{PU}{\9047\011}%* U+2709
 19814 %* \textEnvelope -> \Letter (marvosym)
 19815 % U+270C VICTORY HAND; \Peace (bding)
 19816 \DeclareTextCommand{\textPeace}{PU}{\9047\014}%* U+270C
 19817 % U+270D WRITING HAND; \WritingHand (marvosym)
 19818 \DeclareTextCommand{\textWritingHand}{PU}{\9047\015}%* U+270D
 19819 %* \textWritingHand -> \Writinghand (marvosym)
 19820 % U+270E LOWER RIGHT PENCIL; \PencilRightDown (bding)
 19821 \DeclareTextCommand{\textPencilRightDown}{PU}{\9047\016}%* U+270E
 19822 % U+270F PENCIL; \PencilRight (bding)
 19823 \DeclareTextCommand{\textPencilRight}{PU}{\9047\017}%* U+270F
 19824 % U+2710 UPPER RIGHT PENCIL; \PencilRightUp (bding)
 19825 \DeclareTextCommand{\textPencilRightUp}{PU}{\9047\020}%* U+2710
 19826 % U+2711 WHITE NIB; \NibRight (bding)
 19827 \DeclareTextCommand{\textNibRight}{PU}{\9047\021}%* U+2711
 19828 % U+2712 BLACK NIB; \NibSolidRight (bding)
 19829 \DeclareTextCommand{\textNibSolidRight}{PU}{\9047\022}%* U+2712
 19830 % U+2713 CHECK MARK; checkmark; \Checkmark (bding)
 19831 \DeclareTextCommand{\textCheckmark}{PU}{\9047\023}%* U+2713
 19832 %* \textCheckmark -> \checkmark (MnSymbol)
 19833 % U+2714 HEAVY CHECK MARK; \CheckmarkBold (bding)
 19834 \DeclareTextCommand{\textCheckmarkBold}{PU}{\9047\024}%* U+2714
 19835 % U+2715 MULTIPLICATION X; \XSolid (bding)
 19836 \DeclareTextCommand{\textXSolid}{PU}{\9047\025}%* U+2715
 19837 % U+2716 HEAVY MULTIPLICATION X; \XSolidBold (bding)
 19838 \DeclareTextCommand{\textXSolidBold}{PU}{\9047\026}%* U+2716
 19839 % U+2717 BALLOT X; \XSolidBrush (bding)
 19840 \DeclareTextCommand{\textXSolidBrush}{PU}{\9047\027}%* U+2717
 19841 % U+2719 OUTLINED GREEK CROSS; \PlusOutline (bding)
 19842 \DeclareTextCommand{\textPlusOutline}{PU}{\9047\031}%* U+2719
 19843 % U+271A HEAVY GREEK CROSS; \Plus (bding)
 19844 \DeclareTextCommand{\textPlus}{PU}{\9047\032}%* U+271A
 19845 % U+271B OPEN CENTRE CROSS; \PlusThinCenterOpen (bding)
 19846 \DeclareTextCommand{\textPlusThinCenterOpen}{PU}{\9047\033}%* U+271B

19847 % U+271C HEAVY OPEN CENTRE CROSS; \PlusCenterOpen (bding)
19848 \DeclareTextCommand{\textPlusCenterOpen}{PU}{\9047\034}%* U+271C
19849 % U+271D LATIN CROSS; \Cross (bding)
19850 \DeclareTextCommand{\textCross}{PU}{\9047\035}%* U+271D
19851 % U+271E SHADOWED WHITE LATIN CROSS; \CrossOpenShadow (bding)
19852 \DeclareTextCommand{\textCrossOpenShadow}{PU}{\9047\036}%* U+271E
19853 % U+271F OUTLINED LATIN CROSS; \CrossOutline (bding)
19854 \DeclareTextCommand{\textCrossOutline}{PU}{\9047\037}%* U+271F
19855 % U+2720 MALTESE CROSS; \CrossMaltese (bding)
19856 \DeclareTextCommand{\textCrossMaltese}{PU}{\9047\040}%* U+2720
19857 % U+2721 STAR OF DAVID; \DavidStar (bding)
19858 \DeclareTextCommand{\textDavidStar}{PU}{\9047\041}%* U+2721
19859 %* \textDavidStar -> \davidstar (wasysym)
19860 % U+2722 FOUR TEARDROP-SPOKED ASTERISK; \FourAsterisk (bding)
19861 \DeclareTextCommand{\textFourAsterisk}{PU}{\9047\042}%* U+2722
19862 % U+2723 FOUR BALLOON-SPOKED ASTERISK; \JackStar (bding)
19863 \DeclareTextCommand{\textJackStar}{PU}{\9047\043}%* U+2723
19864 % U+2724 HEAVY FOUR BALLOON-SPOKED ASTERISK; \JackStarBold (bding)
19865 \DeclareTextCommand{\textJackStarBold}{PU}{\9047\044}%* U+2724
19866 % U+2725 FOUR CLUB-SPOKED ASTERISK; \CrossClowerTips (bding)
19867 \DeclareTextCommand{\textClowerTips}{PU}{\9047\045}%* U+2725
19868 % U+2726 BLACK FOUR POINTED STAR; \FourStar (bding)
19869 \DeclareTextCommand{\textFourStar}{PU}{\9047\046}%* U+2726
19870 % U+2727 WHITE FOUR POINTED STAR; \FourStarOpen (bding)
19871 \DeclareTextCommand{\textFourStarOpen}{PU}{\9047\047}%* U+2727
19872 % U+272A CIRCLED WHITE STAR; \FiveStarOpenCircled (bding)
19873 \DeclareTextCommand{\textFiveStarOpenCircled}{PU}{\9047\052}%* U+272A
19874 % U+272B OPEN CENTRE BLACK STAR; \FiveStarCenterOpen (bding)
19875 \DeclareTextCommand{\textFiveStarCenterOpen}{PU}{\9047\053}%* U+272B
19876 % U+272C BLACK CENTRE WHITE STAR; \FiveStarOpenDotted (bding)
19877 \DeclareTextCommand{\textFiveStarOpenDotted}{PU}{\9047\054}%* U+272C
19878 % U+272D OUTLINED BLACK STAR; \FiveStarOutline (bding)
19879 \DeclareTextCommand{\textFiveStarOutline}{PU}{\9047\055}%* U+272D
19880 % U+272E HEAVY OUTLINED BLACK STAR; \FiveStarOutlineHeavy (bding)
19881 \DeclareTextCommand{\textFiveStarOutlineHeavy}{PU}{\9047\056}%* U+272E
19882 % U+272F PINWHEEL STAR; \FiveStarConvex (bding)
19883 \DeclareTextCommand{\textFiveStarConvex}{PU}{\9047\057}%* U+272F
19884 % U+2730 SHADOWED WHITE STAR; \FiveStarShadow (bding)
19885 \DeclareTextCommand{\textFiveStarShadow}{PU}{\9047\060}%* U+2730
19886 % U+2731 HEAVY ASTERISK; \AsteriskBold (bding)
19887 \DeclareTextCommand{\textAsteriskBold}{PU}{\9047\061}%* U+2731
19888 % U+2732 OPEN CENTRE ASTERISK; \AsteriskCenterOpen (bding)
19889 \DeclareTextCommand{\textAsteriskCenterOpen}{PU}{\9047\062}%* U+2732
19890 % U+2734 EIGHT POINTED BLACK STAR; \EightStarTaper (bding)
19891 \DeclareTextCommand{\textEightStarTaper}{PU}{\9047\064}%* U+2734
19892 % U+2735 EIGHT POINTED PINWHEEL STAR; \EightStarConvex (bding)
19893 \DeclareTextCommand{\textEightStarConvex}{PU}{\9047\065}%* U+2735
19894 % U+2736 SIX POINTED BLACK STAR; \SixStar (bding)
19895 \DeclareTextCommand{\textSixStar}{PU}{\9047\066}%* U+2736
19896 % U+2737 EIGHT POINTED RECTILINEAR BLACK STAR; \EightStar (bding)
19897 \DeclareTextCommand{\textEightStar}{PU}{\9047\067}%* U+2737
19898 % U+2738 HEAVY EIGHT POINTED RECTILINEAR BLACK STAR; \EightStarBold (bding)
19899 \DeclareTextCommand{\textEightStarBold}{PU}{\9047\070}%* U+2738
19900 % U+2739 TWELVE POINTED BLACK STAR; \TwelveStar (bding)

19901 \DeclareTextCommand{\textTwelveStar}{PU}{\9047\071}%* U+2739
19902 % U+273A SIXTEEN POINTED ASTERISK; \SixteenStarLight (bding)
19903 \DeclareTextCommand{\textSixteenStarLight}{PU}{\9047\072}%* U+273A
19904 % U+273B TEARDROP-SPOKED ASTERISK; \SixFlowerPetalRemoved (bding)
19905 \DeclareTextCommand{\textSixFlowerPetalRemoved}{PU}{\9047\073}%* U+273B
19906 % U+273C OPEN CENTRE TEARDROP-SPOKED ASTERISK;
19907 % \SixFlowerOpenCenter (bding)
19908 \DeclareTextCommand{\textSixFlowerOpenCenter}{PU}{\9047\074}%* U+273C
19909 % U+273D HEAVY TEARDROP-SPOKED ASTERISK; \Asterisk (bding)
19910 \DeclareTextCommand{\textAsterisk}{PU}{\9047\075}%* U+273D
19911 % U+273E SIX PETALLED BLACK AND WHITE FLORETTE; \SixFlowerAlternate (bding)
19912 \DeclareTextCommand{\textSixFlowerAlternate}{PU}{\9047\076}%* U+273E
19913 % U+273F BLACK FLORETTE; \FiveFlowerPetal (bding)
19914 \DeclareTextCommand{\textFiveFlowerPetal}{PU}{\9047\077}%* U+273F
19915 % U+2740 WHITE FLORETTE; \FiveFlowerOpen (bding)
19916 \DeclareTextCommand{\textFiveFlowerOpen}{PU}{\9047\100}%* U+2740
19917 % U+2741 EIGHT PETALLED OUTLINED BLACK FLORETTE; \EightFlowerPetal (bding)
19918 \DeclareTextCommand{\textEightFlowerPetal}{PU}{\9047\101}%* U+2741
19919 % U+2742 CIRCLED OPEN CENTRE EIGHT POINTED STAR; \SunshineOpenCircled (bding)
19920 \DeclareTextCommand{\textSunshineOpenCircled}{PU}{\9047\102}%* U+2742
19921 % U+2743 HEAVY TEARDROP-SPOKED PINWHEEL ASTERISK; \SixFlowerAltPetal (bding)
19922 \DeclareTextCommand{\textSixFlowerAltPetal}{PU}{\9047\103}%* U+2743
19923 % U+2744 SNOWFLAKE; \SnowflakeChevron (bding)
19924 \DeclareTextCommand{\textSnowflakeChevron}{PU}{\9047\104}%* U+2744
19925 % U+2745 TIGHT TRIFOLIATE SNOWFLAKE; \Snowflake (bding)
19926 \DeclareTextCommand{\textSnowflake}{PU}{\9047\105}%* U+2745
19927 % U+2746 HEAVY CHEVRON SNOWFLAKE; \SnowflakeChevronBold (bding)
19928 \DeclareTextCommand{\textSnowflakeChevronBold}{PU}{\9047\106}%* U+2746
19929 % U+2747 SPARKLE; \Sparkle (bding)
19930 \DeclareTextCommand{\textSparkle}{PU}{\9047\107}%* U+2747
19931 % U+2748 HEAVY SPARKLE; \SparkleBold (bding)
19932 \DeclareTextCommand{\textSparkleBold}{PU}{\9047\110}%* U+2748
19933 % U+2749 BALLOON-SPOKED ASTERISK; \AsteriskRoundedEnds (bding)
19934 \DeclareTextCommand{\textAsteriskRoundedEnds}{PU}{\9047\111}%* U+2749
19935 % U+274A EIGHT TEARDROP-SPOKED PROPELLER ASTERISK;
19936 % \EightFlowerPetalRemoved (bding)
19937 \DeclareTextCommand{\textEightFlowerPetalRemoved}{PU}{\9047\112}%* U+274A
19938 % U+274B HEAVY EIGHT TEARDROP-SPOKED PROPELLER ASTERISK;
19939 % \EightAsterisk (bding)
19940 \DeclareTextCommand{\textEightAsterisk}{PU}{\9047\113}%* U+274B
19941 % U+274D SHADOWED WHITE CIRCLE; \CircleShadow (bding)
19942 \DeclareTextCommand{\textCircleShadow}{PU}{\9047\115}%* U+274D
19943 % U+274F LOWER RIGHT DROP-SHADOWED WHITE SQUARE;
19944 % \SquareShadowBottomRight (bding)
19945 \DeclareTextCommand{\textSquareShadowBottomRight}{PU}{\9047\117}%* U+274F
19946 % U+2750 UPPER RIGHT DROP-SHADOWED WHITE SQUARE;
19947 % \SquareShadowTopRight (bding)
19948 \DeclareTextCommand{\textSquareTopRight}{PU}{\9047\120}%* U+2750
19949 % U+2751 LOWER RIGHT SHADOWED WHITE SQUARE;
19950 % \SquareCastShadowBottomRight (bding)
19951 \DeclareTextCommand{\textSquareCastShadowBottomRight}{PU}{\9047\121}%* U+2751
19952 % U+2752 UPPER RIGHT SHADOWED WHITE SQUARE;

19953 % \SquareCastShadowTopRight (bbding)
19954 \DeclareTextCommand{\textSquareCastShadowTopRight}{PU}{\9047\122}%* U+2752
19955 % U+2756 BLACK DIAMOND MINUS WHITE X; \OrnamentDiamandSolid (bbding)
19956 \DeclareTextCommand{\textDiamandSolid}{PU}{\9047\126}%* U+2756
19957 % U+2758 LIGHT VERTICAL BAR; \RectangleThin (bbding)
19958 \DeclareTextCommand{\textRectangleThin}{PU}{\9047\130}%* U+2758
19959 % U+2759 MEDIUM VERTICAL BAR; \Rectangle (bbding)
19960 \DeclareTextCommand{\textRectangle}{PU}{\9047\131}%* U+2759
19961 % U+275A HEAVY VERTICAL BAR; \RectangleBold (bbding)
19962 \DeclareTextCommand{\textRectangleBold}{PU}{\9047\132}%* U+275A

51.2.31 Miscellaneous Mathematical Symbols-A: U+27C0 to U+27EF

19963 % U+27C2 PERPENDICULAR; perpendicular; \perp (LaTeX)
19964 \DeclareTextCommand{\textperp}{PU}{\9047\302}%* U+27C2
19965 % \notperp (mathabx)
19966 \DeclareTextCommand{\textnotperp}{PU}{\9047\302\83\070}%* U+27C2 U+0338
19967 % U+27C7 OR WITH DOT INSIDE; \veedot (MnSymbol)
19968 \DeclareTextCommand{\textveedot}{PU}{\9047\307}%* U+27C7
19969 % U+27D1 AND WITH DOT; \wedgedot (MnSymbol)
19970 \DeclareTextCommand{\textwedgedot}{PU}{\9047\321}%* U+27D1
19971 % U+27DC LEFT MULTIMAP; \leftspoon (MnSymbol)
19972 \DeclareTextCommand{\textleftspoon}{PU}{\9047\334}%* U+27DC
19973 % U+27E6 MATHEMATICAL LEFT WHITE SQUARE BRACKET
19974 \DeclareTextCommand{\textlbrackdbl}{PU}{\9047\346}%* U+27E6
19975 %* \textlbrackdbl -> \lbracket (stmaryrd)
19976 % U+27E7 MATHEMATICAL RIGHT WHITE SQUARE BRACKET
19977 \DeclareTextCommand{\textrbrackdbl}{PU}{\9047\347}%* U+27E7
19978 %* \textrbrackdbl -> \rrbracket (stmaryrd)

51.2.32 Supplemental Arrows-A: U+27F0 to U+27FF

19979 % U+27F2 ANTICLOCKWISE GAPPED CIRCLE ARROW;
19980 % \circlearrowleft (AmS)
19981 \DeclareTextCommand{\textcirclearrowleft}{PU}{\9047\362}%* U+27F2
19982 % U+27F3 CLOCKWISE GAPPED CIRCLE ARROW; \circlearrowright (AmS)
19983 \DeclareTextCommand{\textcirclearrowright}{PU}{\9047\363}%* U+27F3
19984 % U+27F5 LONG LEFTWARDS ARROW; \longleftarrow (AmS)
19985 \DeclareTextCommand{\textlongleftarrow}{PU}{\9047\365}%* U+27F5
19986 % U+27F6 LONG RIGHTWARDS ARROW; \longrightarrow (AmS)
19987 \DeclareTextCommand{\textlongrightarrow}{PU}{\9047\366}%* U+27F6
19988 % U+27F7 LONG LEFT RIGHT ARROW; \longlefttrightarrow (AmS)
19989 \DeclareTextCommand{\textlonglefttrightarrow}{PU}{\9047\367}%* U+27F7
19990 % U+27F8 LONG LEFTWARDS DOUBLE ARROW; \Longleftarrow (AmS)
19991 \DeclareTextCommand{\textLongleftarrow}{PU}{\9047\370}%* U+27F8
19992 % U+27F9 LONG RIGHTWARDS DOUBLE ARROW; \Longrightarrow (AmS)
19993 \DeclareTextCommand{\textLongrightarrow}{PU}{\9047\371}%* U+27F9
19994 % U+27FA LONG LEFT RIGHT DOUBLE ARROW; \Longlefttrightarrow (AmS)
19995 \DeclareTextCommand{\textLonglefttrightarrow}{PU}{\9047\372}%* U+27FA
19996 % U+27FC LONG RIGHTWARDS ARROW FROM BAR; \longmapsto (AmS)
19997 \DeclareTextCommand{\textlongmapsto}{PU}{\9047\374}%* U+27FC
19998 % U+27FD LONG LEFTWARDS DOUBLE ARROW FROM BAR; \Longmapsfrom (stmaryrd)
19999 \DeclareTextCommand{\textLongmapsfrom}{PU}{\9047\375}%* U+27FD
20000 % U+27FE LONG RIGHTWARDS DOUBLE ARROW FROM BAR; \Longmapsto (stmaryrd)
20001 \DeclareTextCommand{\textLongmapsto}{PU}{\9047\376}%* U+27FE

51.2.33 Supplemental Arrows-B: U+2900 to U+297F

20002 % U+2921 NORTH WEST AND SOUTH EAST ARROW; \nwsearrow (MnSymbol)
20003 \DeclareTextCommand{\textnwsearrow}{PU}{\9051\041}%* U+2921
20004 % U+2922 NORTH EAST AND SOUTH WEST ARROW; \neswarrow (MnSymbol)
20005 \DeclareTextCommand{\textneswarrow}{PU}{\9051\042}%* U+2922
20006 % U+2923 NORTH WEST ARROW WITH HOOK; \lhooknwarrow (MnSymbol)
20007 \DeclareTextCommand{\textlhooknwarrow}{PU}{\9051\043}%* U+2923
20008 % U+2924 NORTH EAST ARROW WITH HOOK; \rhooknearrow (MnSymbol)
20009 \DeclareTextCommand{\textrhooknearrow}{PU}{\9051\044}%* U+2924
20010 % U+2925 SOUTH EAST ARROW WITH HOOK; \lhooksearrow (MnSymbol)
20011 \DeclareTextCommand{\textlhooksearrow}{PU}{\9051\045}%* U+2925
20012 % U+2926 SOUTH WEST ARROW WITH HOOK; \rhookswarrow (MnSymbol)
20013 \DeclareTextCommand{\textrhookswarrow}{PU}{\9051\046}%* U+2926
20014 % U+2933 WAVE ARROW POINTING DIRECTLY RIGHT; \leadsto (wasysym)
20015 \DeclareTextCommand{\textleadsto}{PU}{\9051\063}%* U+2933
20016 % U+2934 ARROW POINTING RIGHTWARDS THEN CURVING UPWARDS;
20017 % \rcurvearrowne (MnSymbol)
20018 \DeclareTextCommand{\textrcurvearrowne}{PU}{\9051\064}%* U+2934
20019 % U+2935 ARROW POINTING RIGHTWARDS THEN CURVING DOWN-
WARDS;
20020 % \lcurvearrowse (MnSymbol)
20021 \DeclareTextCommand{\textlcurvearrowse}{PU}{\9051\065}%* U+2935
20022 % U+2936 ARROW POINTING DOWNWARDS THEN CURVING LEFT-
WARDS;
20023 % \lcurvearrowsw (MnSymbol)
20024 \DeclareTextCommand{\textlcurvearrowsw}{PU}{\9051\066}%* U+2936
20025 % U+2937 ARROW POINTING DOWNWARDS THEN CURVING RIGHT-
WARDS;
20026 % \rcurvearrowse (MnSymbol)
20027 \DeclareTextCommand{\textrcurvearrowse}{PU}{\9051\067}%* U+2937
20028 % U+2938 RIGHT-SIDE ARC CLOCKWISE ARROW; \lcurvearrowdown (Mn-
Symbol)
20029 \DeclareTextCommand{\textlcurvearrowdown}{PU}{\9051\070}%* U+2938
20030 %* \textlcurvearrowdown -> \RightTorque (marvosym)
20031 %* \textlcurvearrowdown -> \Righttorque (marvosym)
20032 % U+2939 LEFT-SIDE ARC ANTICLOCKWISE ARROW;
20033 % \rcurvearrowdown (MnSymbol)
20034 \DeclareTextCommand{\textrcurvearrowdown}{PU}{\9051\071}%* U+2939
20035 %* \textrcurvearrowdown -> \LeftTorque (marvosym)
20036 %* \textrcurvearrowdown -> \Lefttorque (marvosym)
20037 % U+293A TOP ARC ANTICLOCKWISE ARROW; \rcurvearrowleft (MnSym-
bol)
20038 \DeclareTextCommand{\textrcurvearrowleft}{PU}{\9051\072}%* U+293A
20039 % U+293B BOTTOM ARC ANTICLOCKWISE ARROW;
20040 % \rcurvearrowright (MnSymbol)
20041 \DeclareTextCommand{\textrcurvearrowright}{PU}{\9051\073}%* U+293B
20042 % U+294A LEFT BARB UP RIGHT BARB DOWN HARPOON; \leftrighthar-
poon (mathabx)
20043 \DeclareTextCommand{\textleftrightharpoon}{PU}{\9051\112}%* U+294A
20044 % U+294B LEFT BARB DOWN RIGHT BARB UP HARPOON; \rightlefthar-
poon (mathabx)
20045 \DeclareTextCommand{\textrightleftharpoon}{PU}{\9051\113}%* U+294B
20046 % U+294C UP BARB RIGHT DOWN BARB LEFT HARPOON;
20047 % \updownharpoonrightleft (MnSymbol)
20048 \DeclareTextCommand{\textupdownharpoonrightleft}{PU}{\9051\114}%* U+294C

20049 % U+294D UP BARB LEFT DOWN BARB RIGHT HARPOON;
 20050 % \updownharpoonleftright (MnSymbol)
 20051 \DeclareTextCommand{\textupdownharpoonleftright}{PU}{\9051\115}%* U+294D
 20052 % U+2962 LEFTWARDS HARPOON WITH BARB UP ABOVE LEFTWARDS
 20053 % HARPOON WITH BARB DOWN; \leftleftharpoons (mathabx)
 20054 \DeclareTextCommand{\textleftleftharpoons}{PU}{\9051\142}%* U+2962
 20055 % U+2963 UPWARDS HARPOON WITH BARB LEFT BESIDE UPWARDS
 20056 % HARPOON WITH BARB RIGHT; \upupharpoons (mathabx)
 20057 \DeclareTextCommand{\textupupharpoons}{PU}{\9051\143}%* U+2963
 20058 % U+2964 RIGHTWARDS HARPOON WITH BARB UP ABOVE RIGHT-
 WARDS HARPOON
 20059 % WITH BARB DOWN; \rightrightarpoons (mathabx)
 20060 \DeclareTextCommand{\textrightarpoons}{PU}{\9051\144}%* U+2964
 20061 % U+2965 DOWNWARDS HARPOON WITH BARB LEFT BESIDE DOWN-
 WARDS HARPOON
 20062 % WITH BARB RIGHT; \downdownharpoons (mathabx)
 20063 \DeclareTextCommand{\textdowndownharpoons}{PU}{\9051\145}%* U+2965
 20064 % U+296A LEFTWARDS HARPOON WITH BARB UP ABOVE LONG DASH;
 20065 % \leftbarharpoon (mathabx)
 20066 \DeclareTextCommand{\textleftbarharpoon}{PU}{\9051\152}%* U+296A
 20067 % U+296B LEFTWARDS HARPOON WITH BARB DOWN BELOW
 20068 % LONG DASH; \barleftharpoon (mathabx)
 20069 \DeclareTextCommand{\textbarleftharpoon}{PU}{\9051\153}%* U+296B
 20070 % U+296C RIGHTWARDS HARPOON WITH BARB UP ABOVE
 20071 % LONG DASH; \rightbarharpoon (mathabx)
 20072 \DeclareTextCommand{\textrightbarharpoon}{PU}{\9051\154}%* U+296C
 20073 % U+296D RIGHTWARDS HARPOON WITH BARB DOWN BELOW
 20074 % LONG DASH; \barrightharpoon (mathabx)
 20075 \DeclareTextCommand{\textbarrightharpoon}{PU}{\9051\155}%* U+296D
 20076 % U+296E UPWARDS HARPOON WITH BARB LEFT BESIDE DOWN-
 WARDS HARPOON
 20077 % WITH BARB RIGHT; \updownharpoons (mathabx)
 20078 \DeclareTextCommand{\textupdownharpoons}{PU}{\9051\156}%* U+296E
 20079 % U+296F DOWNWARDS HARPOON WITH BARB LEFT BESIDE UP-
 WARDS HARPOON
 20080 % WITH BARB RIGHT; \downupharpoons (mathabx)
 20081 \DeclareTextCommand{\textdownupharpoons}{PU}{\9051\157}%* U+296F
 20082 % U+297F DOWN FISH TAIL
 20083 \DeclareTextCommand{\textmoo}{PU}{\9051\177\83\066}%* U+297F U+0336

51.2.34 Miscellaneous Mathematical Symbols-B: U+2980 to U+29FF

20084 % U+2987 Z NOTATION LEFT IMAGE BRACKET; \lparenthesis (stmaryrd)
 20085 \DeclareTextCommand{\textlparenthesis}{PU}{\9051\207}%* U+2987
 20086 % U+2988 Z NOTATION RIGHT IMAGE BRACKET; \rrparenthesis (stmaryrd)
 20087 \DeclareTextCommand{\textrrparenthesis}{PU}{\9051\210}%* U+2988
 20088 % U+29B0 REVERSED EMPTY SET; \invdiameter (wasysym)
 20089 \DeclareTextCommand{\textinvdiameter}{PU}{\9051\260}%* U+29B0
 20090 % U+29B6 CIRCLED VERTICAL BAR; \obar (stmaryrd)
 20091 \DeclareTextCommand{\textobar}{PU}{\9051\266}%* U+29B6
 20092 %* \textobar -> \textvarobar (stmaryrd)
 20093 % U+29B8 CIRCLED REVERSE SOLIDUS; \obslash (stmaryrd)
 20094 \DeclareTextCommand{\textobslash}{PU}{\9051\270}%* U+29B8
 20095 %* \textobslash -> \circledbslash (txfonts/pxfonts)
 20096 %* \textobslash -> \obackslash (mathabx)
 20097 %* \textobslash -> \varobslash (stmaryrd)
 20098 % U+29BA CIRCLE DIVIDED BY HORIZONTAL BAR AND TOP HALF
 20099 % DIVIDED BY VERTICAL BAR; \obot (mathabx)

20100 \DeclareTextCommand{\textobot}{PU}{\9051\272}%* U+29BA
 20101 %* \textobot -> \odplus (ulsy)
 20102 % U+29BB CIRCLED WITH SUPERIMPOSED X; \NoChemicalCleaning (marvosym)
 20103 \DeclareTextCommand{\textNoChemicalCleaning}{PU}{\9051\273}%* U+29BB
 20104 % U+29C0 CIRCLED LESS-THAN; \olessthan (stmaryrd)
 20105 \DeclareTextCommand{\textolessthan}{PU}{\9051\300}%* U+29C0
 20106 %* \textolessthan -> \varolessthan (stmaryrd)
 20107 % U+29C1 CIRCLED GREATER-THAN; \ogreaterthan (stmaryrd)
 20108 \DeclareTextCommand{\textogreaterthan}{PU}{\9051\301}%* U+29C1
 20109 %* \textogreaterthan -> \varogreaterthan (stmaryrd)
 20110 % U+29C4 SQUARED RISING DIAGONAL SLASH; \boxslash (mathabx, stmaryrd)
 20111 \DeclareTextCommand{\textboxslash}{PU}{\9051\304}%* U+29C4
 20112 % U+29C5 SQUARED FALLING DIAGONAL SLASH; \boxbslash (stmaryrd)
 20113 \DeclareTextCommand{\textboxbslash}{PU}{\9051\305}%* U+29C5
 20114 % U+29C6 SQUARED ASTERISK; \boxast (stmaryrd)
 20115 \DeclareTextCommand{\textboxast}{PU}{\9051\306}%* U+29C6
 20116 % U+29C7 SQUARED SMALL CIRCLE; \boxcircle (stmaryrd)
 20117 \DeclareTextCommand{\textboxcircle}{PU}{\9051\307}%* U+29C7
 20118 % U+29C8 SQUARED SQUARE; \boxbox (stmaryrd)
 20119 \DeclareTextCommand{\textboxbox}{PU}{\9051\310}%* U+29C8
 20120 % U+29D3 BLACK BOWTIE; \Valve (marvosym)
 20121 \DeclareTextCommand{\textValve}{PU}{\9051\323}%* U+29D3
 20122 % U+29DF DOUBLE-ENDED MULTIMAP; \multimapboth (txfonts/pxfonts)
 20123 \DeclareTextCommand{\textmultimapboth}{PU}{\9051\337}%* U+29DF
 20124 % U+29E2 SHUFFLE PRODUCT; \shuffle (shuffle)
 20125 \DeclareTextCommand{\textshuffle}{PU}{\9051\342}%* U+29E2

51.2.35 Supplemental Mathematical Operators: U+2A00 to U+2AFF

20126 % U+2A04 N-ARY UNION OPERATOR WITH PLUS; \uplus (LaTeX)
 20127 \DeclareTextCommand{\textuplus}{PU}{\9052\004}%* U+2A04
 20128 % U+2A07 TWO LOGICAL AND OPERATOR; \bigdoublewedge (MnSymbol)
 20129 \DeclareTextCommand{\textbigdoublewedge}{PU}{\9052\007}%* U+2A07
 20130 % U+2A08 TWO LOGICAL OR OPERATOR; \bigdoublevee (MnSymbol)
 20131 \DeclareTextCommand{\textbigdoublevee}{PU}{\9052\010}%* U+2A08
 20132 % U+2A1D JOIN; \Join (latsym, amsfonts, amssymb, mathabx, txfonts, pxfonts, wasysym)
 20133 % U+2A1D JOIN; \Join (latsym, amsfonts, amssymb, mathabx, txfonts, pxfonts, wasysym)
 20134 \DeclareTextCommand{\textJoin}{PU}{\9052\035}%* U+2A1D
 20135 % U+2A1F Z NOTATION SCHEMA COMPOSITION; \fatsemi (stmaryrd)
 20136 \DeclareTextCommand{\textfatsemi}{PU}{\9052\037}%* U+2A1F
 20137 % U+2A22 PLUS SIGN WITH SMALL CIRCLE ABOVE; \cirplus (mathabx)
 20138 \DeclareTextCommand{\textcirplus}{PU}{\9052\042}%* U+2A22
 20139 % U+2A2A MINUS SIGN WITH DOT BELOW; \minusdot (MnSymbol)
 20140 \DeclareTextCommand{\textminusdot}{PU}{\9052\052}%* U+2A2A
 20141 %* \textminusdot -> \divdot (mathabx)
 20142 % U+2A30 MULTIPLICATION SIGN WITH DOT ABOVE; \dottimes (mathabx)
 20143 \DeclareTextCommand{\textdottimes}{PU}{\9052\060}%* U+2A30
 20144 % U+2A32 SEMIDIRECT PRODUCT WITH BOTTOM CLOSED;
 20145 % \dtimes (mathdesign)
 20146 \DeclareTextCommand{\textdtimes}{PU}{\9052\062}%* U+2A32
 20147 % U+2A38 CIRCLED DIVISION SIGN; \odiv (mathabx)
 20148 \DeclareTextCommand{\textodiv}{PU}{\9052\070}%* U+2A38
 20149 % U+2A3C INTERIOR PRODUCT; \invneg (MnSymbol)
 20150 \DeclareTextCommand{\textinvneg}{PU}{\9052\074}%* U+2A3C
 20151 % U+2A4E DOUBLE SQUARE INTERSECTION; \sqdoublecap (mathabx)
 20152 \DeclareTextCommand{\textsqdoublecap}{PU}{\9052\116}%* U+2A4E

20153 %* \textsqdoublecap -> \doublesqcap (MnSymbol)
20154 % U+2A40 INTERSECTION WITH DOT; \capdot (MnSymbol)
20155 \DeclareTextCommand{\textcapdot}{PU}{\9052\100}%* U+2A40
20156 % U+2A4F DOUBLE SQUARE UNION; \sqdoublecup (mathabx)
20157 \DeclareTextCommand{\textsqdoublecup}{PU}{\9052\117}%* U+2A4F
20158 %* \textsqdoublecup -> \doublesqcup (MnSymbol)
20159 % U+2A55 TWO INTERSECTING LOGICAL AND; \doublewedge (MnSymbol)
20160 \DeclareTextCommand{\textdoublewedge}{PU}{\9052\125}%* U+2A55
20161 % U+2A56 TWO INTERSECTING LOGICAL OR; \doublevee (MnSymbol)
20162 \DeclareTextCommand{\textdoublevee}{PU}{\9052\126}%* U+2A56
20163 %* \textdoublevee -> \merge (stmaryrd)
20164 % U+2A5E LOGICAL AND WITH DOUBLE OVERBAR;
20165 % \doublebarwedge (AmS)
20166 \DeclareTextCommand{\textdoublebarwedge}{PU}{\9052\136}%* U+2A5E
20167 % U+2A63 LOGICAL OR WITH DOUBLE UNDERBAR;
20168 % \veedoublebar (mahtabx)
20169 \DeclareTextCommand{\textveedoublebar}{PU}{\9052\143}%* U+2A63
20170 % U+2A66 EQUALS SIGN WITH DOT BELOW; \eqdot (MnSymbol)
20171 \DeclareTextCommand{\texteqdot}{PU}{\9052\146}%* U+2A66
20172 % \neqdot (MnSymbol)
20173 \DeclareTextCommand{\textneqdot}{PU}{\9052\146\83\070}%* U+2A66 U+0338
20174 % U+2A74 DOUBLE COLON EQUAL; \coloncolonequals (colonequals)
20175 \DeclareTextCommand{\textcoloncolonequals}{PU}{\9052\164}%* U+2A74
20176 % U+2A7D LESS-THAN OR SLANTED EQUAL TO; \leqslant (AmS)
20177 \DeclareTextCommand{\textleqslant}{PU}{\9052\175}%* U+2A7D
20178 % \nleqslant (txfonts/pxfonts)
20179 \DeclareTextCommand{\textnleqslant}{PU}{\9052\175\83\070}%* U+2A7D U+0338
20180 % U+2A7E GREATER-THAN OR SLANTED EQUAL TO; \geqslant (AmS)
20181 \DeclareTextCommand{\textgeqslant}{PU}{\9052\176}%* U+2A7E
20182 % \ngeqslant (txfonts/pxfonts)
20183 \DeclareTextCommand{\textngeqslant}{PU}{\9052\176\83\070}%* U+2A7E U+0338
20184 % U+2A85 LESS-THAN OR APPROXIMATE; \lessapprox (AmS)
20185 \DeclareTextCommand{\textlessapprox}{PU}{\9052\205}%* U+2A85
20186 % \nlessapprox (txfonts/pxfonts)
20187 \DeclareTextCommand{\textnlessapprox}{PU}{\9052\205\83\070}%* U+2A85 U+0338
20188 % U+2A86 GREATER-THAN OR APPROXIMATE; \gtrapprox (AmS)
20189 \DeclareTextCommand{\textgtrapprox}{PU}{\9052\206}%* U+2A86
20190 % \ngtrapprox (txfonts/pxfonts)
20191 \DeclareTextCommand{\textngtrapprox}{PU}{\9052\206\83\070}%* U+2A86 U+0338
20192 % U+2A87 LESS-THAN AND SINGLE-LINE NOT EQUAL TO; \lneq (AmS)
20193 \DeclareTextCommand{\textlneq}{PU}{\9052\207}%* U+2A87
20194 % U+2A88 GREATER-THAN AND SINGLE-LINE NOT EQUAL TO;
20195 % \gneq (AmS)
20196 \DeclareTextCommand{\textgneq}{PU}{\9052\210}%* U+2A88
20197 % U+2A89 LESS-THAN AND NOT APPROXIMATE; \lnapprox (AmS)
20198 \DeclareTextCommand{\textlnapprox}{PU}{\9052\211}%* U+2A89
20199 % U+2A8A GREATER-THAN AND NOT APPROXIMATE; \gnapprox (AmS)
20200 \DeclareTextCommand{\textgnapprox}{PU}{\9052\212}%* U+2A8A
20201 % U+2A8B LESS-THAN ABOVE DOUBLE-LINE EQUAL ABOVE GREATER-THAN;
20202 % \lesseqgtr (AmS)
20203 \DeclareTextCommand{\textlesseqgtr}{PU}{\9052\213}%* U+2A8B
20204 % U+2A8C GREATER-THAN ABOVE DOUBLE-LINE EQUAL ABOVE LESS-THAN;
20205 % \gtreqless (AmS)
20206 \DeclareTextCommand{\textgtreqless}{PU}{\9052\214}%* U+2A8C
20207 % U+2A95 SLANTED EQUAL TO OR LESS-THAN; \eqslantless (AmS)
20208 \DeclareTextCommand{\texteqslantless}{PU}{\9052\225}%* U+2A95
20209 % U+2A96 SLANTED EQUAL TO OR GREATER-THAN; \eqslantgtr (AmS)

20210 \DeclareTextCommand{\texteqslantgtr}{PU}{\9052\226}%* U+2A96
20211 % U+2AA6 LESS-THAN CLOSED BY CURVE; \leftslice (stmaryrd)
20212 \DeclareTextCommand{\textleftslice}{PU}{\9052\246}%* U+2AA6
20213 % U+2AA7 GREATER-THAN CLOSED BY CURVE; \rightslice (stmaryrd)
20214 \DeclareTextCommand{\textright slice}{PU}{\9052\247}%* U+2AA7
20215 % U+2AAF PRECEDES ABOVE SINGLE-LINE EQUALS SIGN; \preceq (Mn-Symbol)
20216 \DeclareTextCommand{\textpreceq}{PU}{\9052\257}%* U+2AAF
20217 % \preceq (txfonts/pxfonts)
20218 \DeclareTextCommand{\textnpreceq}{PU}{\9052\257\83\070}%* U+2AAF U+0338
20219 % U+2AB0 SUCCEEDS ABOVE SINGLE-LINE EQUALS SIGN; \succeq (Mn-Symbol)
20220 \DeclareTextCommand{\textsucceq}{PU}{\9052\260}%* U+2AB0
20221 % \succeq (txfonts/pxfonts)
20222 \DeclareTextCommand{\textnsucceq}{PU}{\9052\260\83\070}%* U+2AB0 U+0338
20223 % U+2AB1 PRECEDES ABOVE SINGLE-LINE NOT EQUAL TO; \precneq (mathabx)
20224 \DeclareTextCommand{\textprecneq}{PU}{\9052\261}%* U+2AB1
20225 % U+2AB2 SUCCEEDS ABOVE SINGLE-LINE NOT EQUAL TO; \succneq (mathabx)
20226 \DeclareTextCommand{\textsuccneq}{PU}{\9052\262}%* U+2AB2
20227 % U+2AB3 PRECEDES ABOVE EQUALS SIGN; \preceqq (txfonts/pxfonts)
20228 \DeclareTextCommand{\textpreceqq}{PU}{\9052\263}%* U+2AB3
20229 % \preceqq (txfonts/pxfonts)
20230 \DeclareTextCommand{\textnpreceqq}{PU}{\9052\263\83\070}%* U+2AB3 U+0338
20231 % U+2AB4 SUCCEEDS ABOVE EQUALS SIGN; \succeqq (txfonts/pxfonts)
20232 \DeclareTextCommand{\textsucceqq}{PU}{\9052\264}%* U+2AB4
20233 % \succeqq (txfonts/pxfonts)
20234 \DeclareTextCommand{\textnsucceqq}{PU}{\9052\264\83\070}%* U+2AB4 U+0338
20235 % U+2AB5 PRECEDES ABOVE NOT EQUAL TO; \precneqq (txfonts/pxfonts)
20236 \DeclareTextCommand{\textprecneqq}{PU}{\9052\265}%* U+2AB5
20237 % U+2AB6 SUCCEEDS ABOVE NOT EQUAL TO; \succneqq (txfonts/pxfonts)
20238 \DeclareTextCommand{\textsuccneqq}{PU}{\9052\266}%* U+2AB6
20239 % U+2AB7 PRECEDES ABOVE ALMOST EQUAL TO; \precapprox (AmS)
20240 \DeclareTextCommand{\textprecapprox}{PU}{\9052\267}%* U+2AB7
20241 % \precapprox (txfonts/pxfonts)
20242 \DeclareTextCommand{\textnprecapprox}{PU}{\9052\267\83\070}%* U+2AB7 U+0338
20243 % U+2AB8 SUCCEEDS ABOVE ALMOST EQUAL TO; \succapprox (AmS)
20244 \DeclareTextCommand{\textsuccapprox}{PU}{\9052\270}%* U+2AB8
20245 % \succapprox (txfonts/pxfonts)
20246 \DeclareTextCommand{\textnsuccapprox}{PU}{\9052\270\83\070}%* U+2AB8 U+0338
20247 % U+2AB9 PRECEDES ABOVE NOT ALMOST EQUAL TO; \precnapprox (AmS)
20248 \DeclareTextCommand{\textprecnapprox}{PU}{\9052\271}%* U+2AB9
20249 % U+2ABA SUCCEEDS ABOVE NOT ALMOST EQUAL TO; \succnapprox (AmS)
20250 \DeclareTextCommand{\textsuccnapprox}{PU}{\9052\272}%* U+2ABA
20251 % U+2AC5 SUBSET OF ABOVE EQUALS SIGN; \subseteqq (AmS)
20252 \DeclareTextCommand{\textsubseteqq}{PU}{\9052\305}%* U+2AC5
20253 % \subseteqq (txfonts/pxfonts, mathabx)
20254 \DeclareTextCommand{\textnsubseteqq}{PU}{\9052\305\83\070}%* U+2AC5 U+0338
20255 % U+2AC6 SUPERSET OF ABOVE EQUALS SIGN; \supseteqq (AmS)
20256 \DeclareTextCommand{\textsupseteqq}{PU}{\9052\306}%* U+2AC6
20257 % \supseteqq (mathabx)
20258 \DeclareTextCommand{\textnsupseteqq}{PU}{\9052\306\83\070}%* U+2AC6 U+0338
20259 % U+2AE3 DOUBLE VERTICAL BAR LEFT TURNSTILE
20260 \DeclareTextCommand{\textdashV}{PU}{\9052\343}%* U+2AE3

20261 %* \textdashV -> \leftVdash (MnSymbol)
20262 % \ndashV (mathabx)
20263 \DeclareTextCommand{\textndashV}{PU}{\9052\343\83\070}%* U+2AE3 U+0338
20264 %* \textndashV -> \nleftVdash (MnSymbol)
20265 % U+2AE4 VERTICAL BAR DOUBLE LEFT TURNSTILE; \Dashv (mathabx)
20266 \DeclareTextCommand{\textDashv}{PU}{\9052\344}%* U+2AE4
20267 %* \textDashv -> \leftmodels (MnSymbol)
20268 % \nDashv (mathabx)
20269 \DeclareTextCommand{\textnDashv}{PU}{\9052\344\83\070}%* U+2AE4 U+0338
20270 %* \textnDashv -> \nleftmodels (MnSymbol)
20271 % U+2AE5 DOUBLE VERTICAL BAR DOUBLE LEFT TURNSTILE;
20272 % \DashV (mathabx)
20273 \DeclareTextCommand{\textDashV}{PU}{\9052\345}%* U+2AE5
20274 %* \textDashV -> \leftModels (MnSymbol)
20275 % \nDashV (mathabx)
20276 \DeclareTextCommand{\textnDashV}{PU}{\9052\345\83\070}%* U+2AE5 U+0338
20277 %* \textnDashV -> \nleftModels (MnSymbol)
20278 % U+2AEA DOUBLE DOWN TACK; \downmodels (MnSymbol)
20279 \DeclareTextCommand{\textdownmodels}{PU}{\9052\352}%* U+2AEA
20280 % \ndownmodels (MnSymbol)
20281 \DeclareTextCommand{\textndownmodels}{PU}{\9052\352\83\070}%* U+2AEA U+0338
20282 % U+2AEB DOUBLE UP TACK; \upmodels (MnSymbol)
20283 \DeclareTextCommand{\textupmodels}{PU}{\9052\353}%* U+2AEB
20284 % \nupmodels (MnSymbol)
20285 \DeclareTextCommand{\textnupmodels}{PU}{\9052\353\83\070}%* U+2AEB U+0338
20286 % U+2AEF VERTICAL LINE WITH CIRCLE ABOVE; \upspoon (MnSymbol)
20287 \DeclareTextCommand{\textupspoon}{PU}{\9052\357}%* U+2AEF
20288 % U+2AF4 TRIPLE VERTICAL BAR BINARY RELATION;
20289 % \interleave (stmaryrd)
20290 \DeclareTextCommand{\textinterleave}{PU}{\9052\364}%* U+2AF4
20291 % U+2AFD DOUBLE SOLIDUS OPERATOR; \sslash (stmaryrd)
20292 \DeclareTextCommand{\textsslash}{PU}{\9052\375}%* U+2AFD
20293 %* \textsslash -> \varparallel (txfonts\pxfonts)

51.2.36 Miscellaneous Symbols and Arrows: U+2B00 to U+2BFF

20294 % U+2B20 WHITE PENTAGON; \pentagon (wasysym)
20295 \DeclareTextCommand{\textpentagon}{PU}{\9053\040}%* U+2B20
20296 % U+2B21 WHITE HEXAGON; \varhexagon (wasysym)
20297 \DeclareTextCommand{\textvarhexagon}{PU}{\9053\041}%* U+2B21

51.2.37 Latin Extended-C: U+2C60 to U+2C7F

20298 % U+2C7C LATIN SUBSCRIPT SMALL LETTER J
20299 \DeclareTextCommand{\textjinferior}{PU}{\9054\174}%* U+2C7C

51.2.38 Supplemental Punctuation: U+2E00 to U+2E7F

20300 % U+2E13 DOTTED OBELOS; \slashdiv (MnSymbol)
20301 \DeclareTextCommand{\textslashdiv}{PU}{\9056\023}%* U+2E13
20302 % U+2E18 INVERTED INTERROBANG; \textinterrobangdown (textcomp)
20303 \DeclareTextCommand{\textinterrobangdown}{PU}{\9056\030}%* U+2E18
20304 % U+2E2D FIVE DOT MARK; \fivedots (MnSymbol)
20305 \DeclareTextCommand{\textfivedots}{PU}{\9056\055}%* U+2E2D

51.2.39 Modifier Tone Letters: U+A700 to U+A71F

20306 % U+A71B MODIFIER LETTER RAISED UP ARROW; \textupstep (tipa)
20307 \DeclareTextCommand{\textupstep}{PU}{\9247\033}%* U+A71B
20308 % U+A71C MODIFIER LETTER RAISED DOWN ARROW;
20309 % \textdownstep (tipa)

20310 \DeclareTextCommand{\textdownstep}{PU}{\9247\034}% U+A71C

51.2.40 Latin Extended-D: U+A720 to U+A7FF

20311 % U+A727 LATIN SMALL LETTER HENG; \texheng (tipx)
20312 \DeclareTextCommand{\textPUheng}{PU}{\9247\047}% U+A727
20313 %* \textPUheng -> \texheng (tipx)
20314 % U+A72C LATIN CAPITAL LETTER CUATRILLO; \textlhookfour (tipx)
20315 \DeclareTextCommand{\textPUIhookfour}{PU}{\9247\054}% U+A72C
20316 %* \textPUIhookfour -> \textlhookfour (tipx)
20317 % U+A730 LATIN LETTER SMALL CAPITAL F; \textscf (tipx)
20318 \DeclareTextCommand{\textPUscf}{PU}{\9247\060}% U+A730
20319 %* \textPUscf -> \textscf (tipx)
20320 % U+A735 LATIN SMALL LETTER AO; \textaoilig (tipx)
20321 \DeclareTextCommand{\textPUaolig}{PU}{\9247\065}% U+A735
20322 %* \textPUaolig -> \textaoilig (tipx)
20323 % U+A74F LATIN SMALL LETTER OO; \oo (wsuipa)
20324 \DeclareTextCommand{\textoo}{PU}{\9247\117}%* U+A74F
20325 % U+A788 MODIFIER LETTER LOW CIRCUMFLEX ACCENT
20326 \DeclareTextCommand{\textcircumlw}{PU}{\9247\210}% U+A788

51.2.41 Alphabetic Presentation Forms: U+FB00 to U+FB4F

20327 % U+FB01 LATIN SMALL LIGATURE FI; fi
20328 \DeclareTextCommand{\textfi}{PU}{\9373\001}% U+FB01
20329 % U+FB02 LATIN SMALL LIGATURE FL; fl
20330 \DeclareTextCommand{\textfl}{PU}{\9373\002}% U+FB02

51.2.42 Musical Symbols: U+1D100 to U+1D1FF

20331 % U+1D13B MUSICAL SYMBOL WHOLE REST; \GaPa (harmony)
20332 \DeclareTextCommand{\textGaPa}{PU}{\9330\064\9335\073}%* U+1D13B
20333 % U+1D13C MUSICAL SYMBOL HALF REST; \HaPa (harmony)
20334 \DeclareTextCommand{\textHaPa}{PU}{\9330\064\9335\074}%* U+1D13C
20335 % U+1D13D MUSICAL SYMBOL QUARTER REST; \ViPa (harmony)
20336 \DeclareTextCommand{\textViPa}{PU}{\9330\064\9335\075}%* U+1D13D
20337 % U+1D13E MUSICAL SYMBOL EIGHTH REST; \AcPa (harmony)
20338 \DeclareTextCommand{\textAcPa}{PU}{\9330\064\9335\076}%* U+1D13E
20339 % U+1D13F MUSICAL SYMBOL SIXTEENTH REST; \SePa (harmony)
20340 \DeclareTextCommand{\textSePa}{PU}{\9330\064\9335\077}%* U+1D13F
20341 % U+1D140 MUSICAL SYMBOL THIRTY-SECOND REST; \ZwPa (harmony)
20342 \DeclareTextCommand{\textZwPa}{PU}{\9330\064\9335\100}%* U+1D140
20343 % U+1D15D MUSICAL SYMBOL WHOLE NOTE; \fullnote (wasysym)
20344 \DeclareTextCommand{\textfullnote}{PU}{\9330\064\9335\135}%* U+1D15D
20345 %* \textfullnote -> \Ganz (harmony)
20346 % U+1D15E MUSICAL SYMBOL HALF NOTE; \halfnote (wasysym)
20347 \DeclareTextCommand{\texthalfnote}{PU}{\9330\064\9335\136}%* U+1D15E
20348 %* \texthalfnote -> \Halb (harmony)
20349 % U+1D15F MUSICAL SYMBOL QUARTER NOTE; \Vier (harmony)
20350 \DeclareTextCommand{\textVier}{PU}{\9330\064\9335\137}%* U+1D15F
20351 % U+1D160 MUSICAL SYMBOL EIGHTH NOTE; \Acht (harmony)
20352 \DeclareTextCommand{\textAcht}{PU}{\9330\064\9335\140}%* U+1D160
20353 % U+1D161 MUSICAL SYMBOL SIXTEENTH NOTE; \Sech (harmony)
20354 \DeclareTextCommand{\textSech}{PU}{\9330\064\9335\141}%* U+1D161
20355 % U+1D162 MUSICAL SYMBOL THIRTY-SECOND NOTE; \Zwdr (harmony)
20356 \DeclareTextCommand{\textZwdr}{PU}{\9330\064\9335\142}%* U+1D162

51.2.43 Miscellaneous Symbols and Pictographs: U+1F300 to U+1F5FF

20357 % U+1F30D EARTH GLOBE EUROPE-AFRICA; \Mundus (marvosym)
20358 \DeclareTextCommand{\textMundus}{PU}{\9330\074\9337\015}%* U+1F30D

20359 % U+1F319 CRESCENT MOON; \Moon (marvosym)
20360 \DeclareTextCommand{\textMoon}{PU}{\9330\074\9337\031}%* U+1F319
20361 % U+1F468 MAN; \ManFace (marvosym)
20362 \DeclareTextCommand{\textManFace}{PU}{\9330\075\9334\150}%* U+1F468
20363 % U+1F469 WOMAN; \WomanFace (marvosym)
20364 \DeclareTextCommand{\textWomanFace}{PU}{\9330\075\9334\151}%* U+1F469
20365 %* \textWomanFace -> \Womanface (marvosym)
20366 % U+1F4E0 FAX MACHINE; \Fax (marvosym)
20367 \DeclareTextCommand{\textFax}{PU}{\9330\075\9334\340}%* U+1F4E0
20368 %* \textFax -> \Faxmachine (marvosym)
20369 % U+1F525 FIRE; \Fire (ifsym)
20370 \DeclareTextCommand{\textFire}{PU}{\9330\075\9335\045}%* U+1F525

51.2.44 Transport and Map Symbols: U+1F680 to U+1F6FF

20371 % U+1F6B2 BICYCLE; \Bicycle (marvosym)
20372 \DeclareTextCommand{\textBicycle}{PU}{\9330\075\9336\262}%* U+1F6B2
20373 % U+1F6B9 MENS SYMBOL; \Gentsroom (marvosym)
20374 \DeclareTextCommand{\textGentsroom}{PU}{\9330\075\9336\271}%* U+1F6B9
20375 % U+1F6BA WOMENS SYMBOL; \Ladiesroom (marvosym)
20376 \DeclareTextCommand{\textLadiesroom}{PU}{\9330\075\9336\272}%* U+1F6BA

51.2.45 Miscellaneous

20377 \DeclareTextCommand{\SS}{PU}{SS}%
20378 % \textcopyleft (textcomp)
20379 \DeclareTextCommand{\textcopyleft}{PU}{\9041\204\9040\335}% U+2184 U+20DD
20380 % \ccnc (ccllicenses)
20381 \DeclareTextCommand{\textccnc}{PU}{\80\044\9040\340}%* U+0024 U+20E0
20382 % \ccnd (ccllicenses)
20383 \DeclareTextCommand{\textccnd}{PU}{=\9040\335}%* U+003D U+20DD
20384 % \ccsa (ccllicenses)
20385 \DeclareTextCommand{\textccsa}{PU}{\9047\362\9040\335}%* U+27F2 U+20DD
20386 % \Info (marvosym, china2e)
20387 \DeclareTextCommand{\textInfo}{PU}{\9330\065\9334\042\9040\336}%* U+1D422 U+20DE
20388 % \CESign (marvosym)
20389 \DeclareTextCommand{\textCESign}{PU}{\80\103\80\105}%* U+0043 U+0045
20390 %* \textCESign -> \CESign (marvosym)

51.2.46 Aliases

Aliases (german.sty)

20391 \DeclareTextCommand{\textglqq}{PU}{\quotedblbase}%
20392 \DeclareTextCommand{\textgrqq}{PU}{\textquotedblleft}%
20393 \DeclareTextCommand{\textglq}{PU}{\quotesinglbase}%
20394 \DeclareTextCommand{\textgrq}{PU}{\textquoteleft}%
20395 \DeclareTextCommand{\textflqq}{PU}{\guillemotleft}%
20396 \DeclareTextCommand{\textfrqq}{PU}{\guillemotright}%
20397 \DeclareTextCommand{\textflq}{PU}{\guilsinglleft}%
20398 \DeclareTextCommand{\textfrq}{PU}{\guilsinglright}%

Aliases (math names)

20399 \DeclareTextCommand{\textneg}{PU}{\textlogicalnot}%*
20400 \DeclareTextCommand{\texttimes}{PU}{\textmultiply}%*
20401 \DeclareTextCommand{\textdiv}{PU}{\textdivide}%*
20402 \DeclareTextCommand{\textpm}{PU}{\textplusminus}%*
20403 \DeclareTextCommand{\textcdot}{PU}{\textperiodcentered}%*
20404 (/puenc)

51.3 PU encoding, additions for VnTeX

This file is provided by Han The Thanh.

```
20405 (*puvnenc)
20406 \DeclareTextCommand{\abreve}{PU}{\81\003}% U+0103
20407 \DeclareTextCommand{\acircumflex}{PU}{\80\342}% U+00E2
20408 \DeclareTextCommand{\ecircumflex}{PU}{\80\352}% U+00EA
20409 \DeclareTextCommand{\ocircumflex}{PU}{\80\364}% U+00F4
20410 \DeclareTextCommand{\ohorn}{PU}{\81\241}% U+01A1
20411 \DeclareTextCommand{\uhorn}{PU}{\81\260}% U+01B0
20412 \DeclareTextCommand{\ABREVE}{PU}{\81\002}% U+0102
20413 \DeclareTextCommand{\ACIRCUMFLEX}{PU}{\80\302}% U+00C2
20414 \DeclareTextCommand{\ECIRCUMFLEX}{PU}{\80\312}% U+00CA
20415 \DeclareTextCommand{\OCIRCUMFLEX}{PU}{\80\324}% U+00D4
20416 \DeclareTextCommand{\OHORN}{PU}{\81\240}% U+01A0
20417 \DeclareTextCommand{\UHORN}{PU}{\81\257}% U+01AF
20418 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\341}% U+00E1
20419 \DeclareTextCompositeCommand{\d}{PU}{a}{\9036\241}% U+1EA1
20420 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\340}% U+00E0
20421 \DeclareTextCompositeCommand{\h}{PU}{a}{\9036\243}% U+1EA3
20422 \DeclareTextCompositeCommand{\~}{PU}{a}{\80\343}% U+00E3
20423 \DeclareTextCompositeCommand{\'}{PU}{\abreve}{\9036\257}% U+1EAF
20424 \DeclareTextCompositeCommand{\d}{PU}{\abreve}{\9036\267}% U+1EB7
20425 \DeclareTextCompositeCommand{\'}{PU}{\abreve}{\9036\261}% U+1EB1
20426 \DeclareTextCompositeCommand{\h}{PU}{\abreve}{\9036\263}% U+1EB3
20427 \DeclareTextCompositeCommand{\~}{PU}{\abreve}{\9036\265}% U+1EB5
20428 \DeclareTextCompositeCommand{\'}{PU}{\acircumflex}{\9036\245}% U+1EA5
20429 \DeclareTextCompositeCommand{\d}{PU}{\acircumflex}{\9036\255}% U+1EAD
20430 \DeclareTextCompositeCommand{\'}{PU}{\acircumflex}{\9036\247}% U+1EA7
20431 \DeclareTextCompositeCommand{\h}{PU}{\acircumflex}{\9036\251}% U+1EA9
20432 \DeclareTextCompositeCommand{\~}{PU}{\acircumflex}{\9036\253}% U+1EAB
20433 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\351}% U+00E9
20434 \DeclareTextCompositeCommand{\d}{PU}{e}{\9036\271}% U+1EB9
20435 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\350}% U+00E8
20436 \DeclareTextCompositeCommand{\h}{PU}{e}{\9036\273}% U+1EBB
20437 \DeclareTextCompositeCommand{\~}{PU}{e}{\9036\275}% U+1EBD
20438 \DeclareTextCompositeCommand{\'}{PU}{\ecircumflex}{\9036\277}% U+1EBF
20439 \DeclareTextCompositeCommand{\d}{PU}{\ecircumflex}{\9036\307}% U+1EC7
20440 \DeclareTextCompositeCommand{\'}{PU}{\ecircumflex}{\9036\301}% U+1EC1
20441 \DeclareTextCompositeCommand{\h}{PU}{\ecircumflex}{\9036\303}% U+1EC3
20442 \DeclareTextCompositeCommand{\~}{PU}{\ecircumflex}{\9036\305}% U+1EC5
20443 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\355}% U+00ED
20444 \DeclareTextCompositeCommand{\d}{PU}{i}{\9036\313}% U+1ECB
20445 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\354}% U+00EC
20446 \DeclareTextCompositeCommand{\h}{PU}{i}{\9036\311}% U+1EC9
20447 \DeclareTextCompositeCommand{\~}{PU}{i}{\81\051}% U+0129
20448 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\363}% U+00F3
20449 \DeclareTextCompositeCommand{\d}{PU}{o}{\9036\315}% U+1ECD
20450 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\362}% U+00F2
20451 \DeclareTextCompositeCommand{\h}{PU}{o}{\9036\317}% U+1ECF
20452 \DeclareTextCompositeCommand{\~}{PU}{o}{\80\365}% U+00F5
20453 \DeclareTextCompositeCommand{\'}{PU}{\ocircumflex}{\9036\321}% U+1ED1
20454 \DeclareTextCompositeCommand{\d}{PU}{\ocircumflex}{\9036\331}% U+1ED9
20455 \DeclareTextCompositeCommand{\'}{PU}{\ocircumflex}{\9036\323}% U+1ED3
20456 \DeclareTextCompositeCommand{\h}{PU}{\ocircumflex}{\9036\325}% U+1ED5
20457 \DeclareTextCompositeCommand{\~}{PU}{\ocircumflex}{\9036\327}% U+1ED7
20458 \DeclareTextCompositeCommand{\'}{PU}{\ohorn}{\9036\333}% U+1EDB
```

20459 \DeclareTextCompositeCommand{\d}{PU}{\ohorn}{\9036\343}% U+1EE3
20460 \DeclareTextCompositeCommand{\'}{PU}{\ohorn}{\9036\335}% U+1EDD
20461 \DeclareTextCompositeCommand{\h}{PU}{\ohorn}{\9036\337}% U+1EDF
20462 \DeclareTextCompositeCommand{\~}{PU}{\ohorn}{\9036\341}% U+1EE1
20463 \DeclareTextCompositeCommand{\'}{PU}{u}{\80\372}% U+00FA
20464 \DeclareTextCompositeCommand{\d}{PU}{u}{\9036\345}% U+1EE5
20465 \DeclareTextCompositeCommand{\'}{PU}{u}{\80\371}% U+00F9
20466 \DeclareTextCompositeCommand{\h}{PU}{u}{\9036\347}% U+1EE7
20467 \DeclareTextCompositeCommand{\~}{PU}{u}{\81\151}% U+0169
20468 \DeclareTextCompositeCommand{\'}{PU}{\uhorn}{\9036\351}% U+1EE9
20469 \DeclareTextCompositeCommand{\d}{PU}{\uhorn}{\9036\361}% U+1EF1
20470 \DeclareTextCompositeCommand{\'}{PU}{\uhorn}{\9036\353}% U+1EEB
20471 \DeclareTextCompositeCommand{\h}{PU}{\uhorn}{\9036\355}% U+1EED
20472 \DeclareTextCompositeCommand{\~}{PU}{\uhorn}{\9036\357}% U+1EEF
20473 \DeclareTextCompositeCommand{\'}{PU}{y}{\80\375}% U+00FD
20474 \DeclareTextCompositeCommand{\d}{PU}{y}{\9036\365}% U+1EF5
20475 \DeclareTextCompositeCommand{\'}{PU}{y}{\9036\363}% U+1EF3
20476 \DeclareTextCompositeCommand{\h}{PU}{y}{\9036\367}% U+1EF7
20477 \DeclareTextCompositeCommand{\~}{PU}{y}{\9036\371}% U+1EF9
20478 \DeclareTextCompositeCommand{\'}{PU}{A}{\80\301}% U+00C1
20479 \DeclareTextCompositeCommand{\d}{PU}{A}{\9036\240}% U+1EA0
20480 \DeclareTextCompositeCommand{\'}{PU}{A}{\80\300}% U+00C0
20481 \DeclareTextCompositeCommand{\h}{PU}{A}{\9036\242}% U+1EA2
20482 \DeclareTextCompositeCommand{\~}{PU}{A}{\80\303}% U+00C3
20483 \DeclareTextCompositeCommand{\'}{PU}{\ABREVE}{\9036\256}% U+1EAE
20484 \DeclareTextCompositeCommand{\d}{PU}{\ABREVE}{\9036\266}% U+1EB6
20485 \DeclareTextCompositeCommand{\'}{PU}{\ABREVE}{\9036\260}% U+1EB0
20486 \DeclareTextCompositeCommand{\h}{PU}{\ABREVE}{\9036\262}% U+1EB2
20487 \DeclareTextCompositeCommand{\~}{PU}{\ABREVE}{\9036\264}% U+1EB4
20488 \DeclareTextCompositeCommand{\'}{PU}{\ACIRCUMFLEX}{\9036\244}% U+1EA4
20489 \DeclareTextCompositeCommand{\d}{PU}{\ACIRCUMFLEX}{\9036\254}% U+1EAC
20490 \DeclareTextCompositeCommand{\'}{PU}{\ACIRCUMFLEX}{\9036\246}% U+1EA6
20491 \DeclareTextCompositeCommand{\h}{PU}{\ACIRCUMFLEX}{\9036\250}% U+1EA8
20492 \DeclareTextCompositeCommand{\~}{PU}{\ACIRCUMFLEX}{\9036\252}% U+1EAA
20493 \DeclareTextCompositeCommand{\'}{PU}{E}{\80\311}% U+00C9
20494 \DeclareTextCompositeCommand{\d}{PU}{E}{\9036\270}% U+1EB8
20495 \DeclareTextCompositeCommand{\'}{PU}{E}{\80\310}% U+00C8
20496 \DeclareTextCompositeCommand{\h}{PU}{E}{\9036\272}% U+1EBA
20497 \DeclareTextCompositeCommand{\~}{PU}{E}{\9036\274}% U+1EBC
20498 \DeclareTextCompositeCommand{\'}{PU}{\ECIRCUMFLEX}{\9036\276}% U+1EBE
20499 \DeclareTextCompositeCommand{\d}{PU}{\ECIRCUMFLEX}{\9036\306}% U+1EC6
20500 \DeclareTextCompositeCommand{\'}{PU}{\ECIRCUMFLEX}{\9036\300}% U+1EC0
20501 \DeclareTextCompositeCommand{\h}{PU}{\ECIRCUMFLEX}{\9036\302}% U+1EC2
20502 \DeclareTextCompositeCommand{\~}{PU}{\ECIRCUMFLEX}{\9036\304}% U+1EC4
20503 \DeclareTextCompositeCommand{\'}{PU}{I}{\80\315}% U+00CD
20504 \DeclareTextCompositeCommand{\d}{PU}{I}{\9036\312}% U+1ECA
20505 \DeclareTextCompositeCommand{\'}{PU}{I}{\80\314}% U+00CC
20506 \DeclareTextCompositeCommand{\h}{PU}{I}{\9036\310}% U+1EC8
20507 \DeclareTextCompositeCommand{\~}{PU}{I}{\81\050}% U+0128
20508 \DeclareTextCompositeCommand{\'}{PU}{O}{\80\323}% U+00D3
20509 \DeclareTextCompositeCommand{\d}{PU}{O}{\9036\314}% U+1ECC
20510 \DeclareTextCompositeCommand{\'}{PU}{O}{\80\322}% U+00D2
20511 \DeclareTextCompositeCommand{\h}{PU}{O}{\9036\316}% U+1ECE
20512 \DeclareTextCompositeCommand{\~}{PU}{O}{\80\325}% U+00D5
20513 \DeclareTextCompositeCommand{\'}{PU}{\OCIRCUMFLEX}{\9036\320}% U+1ED0
20514 \DeclareTextCompositeCommand{\d}{PU}{\OCIRCUMFLEX}{\9036\330}% U+1ED8
20515 \DeclareTextCompositeCommand{\'}{PU}{\OCIRCUMFLEX}{\9036\322}% U+1ED2

20516 \DeclareTextCompositeCommand{\h}{PU}{\OCIRCUMFLEX}{\9036\324}% U+1ED4
 20517 \DeclareTextCompositeCommand{\~}{PU}{\OCIRCUMFLEX}{\9036\326}% U+1ED6
 20518 \DeclareTextCompositeCommand{\'}{PU}{\OHORN}{\9036\332}% U+1EDA
 20519 \DeclareTextCompositeCommand{\d}{PU}{\OHORN}{\9036\342}% U+1EE2
 20520 \DeclareTextCompositeCommand{\'}{PU}{\OHORN}{\9036\334}% U+1EDC
 20521 \DeclareTextCompositeCommand{\h}{PU}{\OHORN}{\9036\336}% U+1EDE
 20522 \DeclareTextCompositeCommand{\~}{PU}{\OHORN}{\9036\340}% U+1EE0
 20523 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\332}% U+00DA
 20524 \DeclareTextCompositeCommand{\d}{PU}{U}{\9036\344}% U+1EE4
 20525 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\331}% U+00D9
 20526 \DeclareTextCompositeCommand{\h}{PU}{U}{\9036\346}% U+1EE6
 20527 \DeclareTextCompositeCommand{\~}{PU}{U}{\81\150}% U+0168
 20528 \DeclareTextCompositeCommand{\'}{PU}{\UHORN}{\9036\350}% U+1EE8
 20529 \DeclareTextCompositeCommand{\d}{PU}{\UHORN}{\9036\360}% U+1EF0
 20530 \DeclareTextCompositeCommand{\'}{PU}{\UHORN}{\9036\352}% U+1EEA
 20531 \DeclareTextCompositeCommand{\h}{PU}{\UHORN}{\9036\354}% U+1EEC
 20532 \DeclareTextCompositeCommand{\~}{PU}{\UHORN}{\9036\356}% U+1EEE
 20533 \DeclareTextCompositeCommand{\'}{PU}{Y}{\80\335}% U+00DD
 20534 \DeclareTextCompositeCommand{\d}{PU}{Y}{\9036\364}% U+1EF4
 20535 \DeclareTextCompositeCommand{\'}{PU}{Y}{\9036\362}% U+1EF2
 20536 \DeclareTextCompositeCommand{\h}{PU}{Y}{\9036\366}% U+1EF6
 20537 \DeclareTextCompositeCommand{\~}{PU}{Y}{\9036\370}% U+1EF8
 20538 (/puvnenc)

51.4 PU encoding, additions for Arabi

This file is provided and maintained by Youssef Jabri.

20539 (*puarenc)
 20540 % U+0621;afii57409;ARABIC LETTER HAMZA
 20541 \DeclareTextCommand{\hamza}{PU}{\86\041}% U+0621
 20542 % U+0622;afii57410;ARABIC LETTER ALEF WITH MADDA ABOVE
 20543 \DeclareTextCommand{\alefmadda}{PU}{\86\042}% U+0622
 20544 % U+0623;afii57411;ARABIC LETTER ALEF WITH HAMZA ABOVE
 20545 \DeclareTextCommand{\alefhamza}{PU}{\86\043}% U+0623
 20546 % U+0624;afii57412;ARABIC LETTER WAW WITH HAMZA ABOVE
 20547 \DeclareTextCommand{\wawhamza}{PU}{\86\044}% U+0624
 20548 % U+0625;afii57413;ARABIC LETTER ALEF WITH HAMZA BELOW
 20549 \DeclareTextCommand{\aleflowerhamza}{PU}{\86\045}% U+0625
 20550 % U+0626;afii57414;ARABIC LETTER YEH WITH HAMZA ABOVE
 20551 \DeclareTextCommand{\yahamza}{PU}{\86\046}% U+0626
 20552 % U+0627;afii57415;ARABIC LETTER ALEF
 20553 \DeclareTextCommand{\alef}{PU}{\86\047}% U+0627
 20554 % U+0628;afii57416;ARABIC LETTER BEH
 20555 \DeclareTextCommand{\baa}{PU}{\86\050}% U+0628
 20556 % U+0629;afii57417;ARABIC LETTER TEH MARBUTA
 20557 \DeclareTextCommand{\T}{PU}{\86\051}% U+0629
 20558 % U+062A;afii57418;ARABIC LETTER TEH
 20559 \DeclareTextCommand{\taa}{PU}{\86\052}% U+062A
 20560 % U+062B;afii57419;ARABIC LETTER THEH
 20561 \DeclareTextCommand{\thaa}{PU}{\86\053}% U+062B
 20562 % U+062C;afii57420;ARABIC LETTER JEEM
 20563 \DeclareTextCommand{\jeem}{PU}{\86\054}% U+062C
 20564 % U+062D;afii57421;ARABIC LETTER HAH
 20565 \DeclareTextCommand{\Haa}{PU}{\86\055}% U+062D
 20566 % U+062E;afii57422;ARABIC LETTER KHAH
 20567 \DeclareTextCommand{\kha}{PU}{\86\056}% U+062E

20568 % U+062F;afii57423;ARABIC LETTER DAL
 20569 \DeclareTextCommand{\dal}{PU}{\86\057}% U+062F
 20570 % U+0630;afii57424;ARABIC LETTER THAL
 20571 \DeclareTextCommand{\dhal}{PU}{\86\060}% U+0630
 20572 % U+0631;afii57425;ARABIC LETTER REH
 20573 \DeclareTextCommand{\ra}{PU}{\86\061}% U+0631
 20574 % U+0632;afii57426;ARABIC LETTER ZAIN
 20575 \DeclareTextCommand{\zay}{PU}{\86\062}% U+0632
 20576 % U+0633;afii57427;ARABIC LETTER SEEN
 20577 \DeclareTextCommand{\seen}{PU}{\86\063}% U+0633
 20578 % U+0634;afii57428;ARABIC LETTER SHEEN
 20579 \DeclareTextCommand{\sheen}{PU}{\86\064}% U+0634
 20580 % U+0635;afii57429;ARABIC LETTER SAD
 20581 \DeclareTextCommand{\sad}{PU}{\86\065}% U+0635
 20582 % U+0636;afii57430;ARABIC LETTER DAD
 20583 \DeclareTextCommand{\dad}{PU}{\86\066}% U+0636
 20584 % U+0637;afii57431;ARABIC LETTER TAH
 20585 \DeclareTextCommand{\Ta}{PU}{\86\067}% U+0637
 20586 % U+0638;afii57432;ARABIC LETTER ZAH
 20587 \DeclareTextCommand{\za}{PU}{\86\070}% U+0638
 20588 % U+0639;afii57433;ARABIC LETTER AIN
 20589 \DeclareTextCommand{\ayn}{PU}{\86\071}% U+0639
 20590 % U+063A;afii57434;ARABIC LETTER GHAIN
 20591 \DeclareTextCommand{\ghayn}{PU}{\86\072}% U+063A
 20592 % U+0640;afii57440;ARABIC TATWEEL
 20593 \DeclareTextCommand{\tatweel}{PU}{\86\100}% U+0640
 20594 % U+0641;afii57441;ARABIC LETTER FEH
 20595 \DeclareTextCommand{\fa}{PU}{\86\101}% U+0641
 20596 % U+0642;afii57442;ARABIC LETTER QAF
 20597 \DeclareTextCommand{\qaf}{PU}{\86\102}% U+0642
 20598 % U+0643;afii57443;ARABIC LETTER KAF
 20599 \DeclareTextCommand{\kaf}{PU}{\86\103}% U+0643
 20600 % U+0644;afii57444;ARABIC LETTER LAM
 20601 \DeclareTextCommand{\lam}{PU}{\86\104}% U+0644
 20602 % U+0645;afii57445;ARABIC LETTER MEEM
 20603 \DeclareTextCommand{\meem}{PU}{\86\105}% U+0645
 20604 % U+0646;afii57446;ARABIC LETTER NOON
 20605 \DeclareTextCommand{\nun}{PU}{\86\106}% U+0646
 20606 % U+0647;afii57470;ARABIC LETTER HEH
 20607 \DeclareTextCommand{\ha}{PU}{\86\107}% U+0647
 20608 % U+0648;afii57448;ARABIC LETTER WAW
 20609 \DeclareTextCommand{\waw}{PU}{\86\110}% U+0648
 20610 % U+0649;afii57449;ARABIC LETTER ALEF MAKSURA
 20611 \DeclareTextCommand{\alefmaqsura}{PU}{\86\111}% U+0649
 20612 % U+064A;afii57450;ARABIC LETTER YEH
 20613 \DeclareTextCommand{\ya}{PU}{\86\112}% U+064A

 20614 % U+064B;afii57451;ARABIC FATHATAN
 20615 \DeclareTextCommand{\nasb}{PU}{\86\113}% U+064B
 20616 % U+064C;afii57452;ARABIC DAMMATAN
 20617 \DeclareTextCommand{\raff}{PU}{\86\114}% U+064C
 20618 % U+064D;afii57453;ARABIC KASRATAN
 20619 \DeclareTextCommand{\jarr}{PU}{\86\115}% U+064D
 20620 % U+064E;afii57454;ARABIC FATHA
 20621 \DeclareTextCommand{\fatha}{PU}{\86\116}% U+064E
 20622 % U+064F;afii57455;ARABIC DAMMA
 20623 \DeclareTextCommand{\damma}{PU}{\86\117}% U+064F
 20624 % U+0650;afii57456;ARABIC KASRA

20625 \DeclareTextCommand{\kasra}{PU}{\86\120}% U+0650
20626 % U+0651;afii57457;ARABIC SHADDA
20627 \DeclareTextCommand{\shadda}{PU}{\86\121}% U+0651
20628 % U+0652;afii57458;ARABIC SUKUN
20629 \DeclareTextCommand{\sukun}{PU}{\86\122}% U+0652

Farsi
20630 % U+067E ARABIC LETTER PEH; afii57506
20631 \DeclareTextCommand{\peh}{PU}{\86\176}% U+067E
20632 % U+0686 ARABIC LETTER TCHEH; afii57507
20633 \DeclareTextCommand{\tcheh}{PU}{\86\206}% U+0686
20634 % U+0698 ARABIC LETTER JEH; afii57508
20635 \DeclareTextCommand{\jeh}{PU}{\86\230}% U+0698
20636 % U+06A9 ARABIC LETTER KEHEH
20637 \DeclareTextCommand{\farsikaf}{PU}{\86\251}% U+06A9
20638 % U+06AF ARABIC LETTER GAF; afii57509
20639 \DeclareTextCommand{\gaf}{PU}{\86\257}% U+06AF
20640 % U+06CC ARABIC LETTER FARSI YEH
20641 \DeclareTextCommand{\farsiya}{PU}{\86\314}% U+06CC

20642 % U+200C ZERO WIDTH NON-JOINER; afii61664
20643 \DeclareTextCommand{\ZWJ}{PU}{\9040\014}% U+200C
20644 % U+200D ZERO WIDTH JOINER; afii301
20645 \DeclareTextCommand{\noboundary}{PU}{\9040\015}% U+200D

20646 </puarenc>
20647 < *psdextra >
20648 \Hy@VersionCheck{psdextra.def}
20649 \newcommand*{\psdmapshortnames}{%
20650 \let\MVPlus\textMVPlus
20651 \let\MVComma\textMVComma
20652 \let\MVMinus\textMVMinus
20653 \let\MVPeriod\textMVPeriod
20654 \let\MVDivision\textMVDivision
20655 \let\MVZero\textMVZero
20656 \let\MVOne\textMVOne
20657 \let\MVTwo\textMVTwo
20658 \let\MVThree\textMVThree
20659 \let\MVFour\textMVFour
20660 \let\MVFive\textMVFive
20661 \let\MVSix\textMVSix
20662 \let\MVSeven\textMVSeven
20663 \let\MVEight\textMVEight
20664 \let\MVNine\textMVNine
20665 \let\MVAt\textMVAAt
20666 \let\copyright\textcopyright
20667 \let\twosuperior\texttwosuperior
20668 \let\threesuperior\textthreesuperior
20669 \let\onesuperior\textonesuperior
20670 \let\Thorn\textThorn
20671 \let\thorn\textthorn
20672 \let\hbar\texthbar
20673 \let\hausaB\texthausaB
20674 \let\hausaD\texthausaD
20675 \let\hausaK\texthausaK
20676 \let\barl\textbarl
20677 \let\inve\textinve
20678 \let\slashc\textslashc
20679 \let\scripta\textscripta

20680 \let\openo\textopeno
20681 \let\rtaild\textrtaild
20682 \let\reve\textreve
20683 \let\schwa\textscha
20684 \let\niepsilon\textniepsilon
20685 \let\repsilon\textrepsilon
20686 \let\rhookrepsilon\texthookrepsilon
20687 \let\scriptg\textscriptg
20688 \let\scg\textscg
20689 \let\ipagamma\textipagamma
20690 \let\babygamma\textbabygamma
20691 \let\bari\textbari
20692 \let\niiota\textniiota
20693 \let\sci\textsci
20694 \let\scn\textscn
20695 \let\niphi\textniphi
20696 \let\longlegr\textlonglegr
20697 \let\scr\textscr
20698 \let\invscr\textinvscr
20699 \let\esh\textesh
20700 \let\baru\textbaru
20701 \let\niupsilon\textniupsilon
20702 \let\scriptv\textscriptv
20703 \let\turnv\textturnv
20704 \let\turnw\textturnw
20705 \let\turny\textturny
20706 \let\scy\textscy
20707 \let\yogh\textyogh
20708 \let\glotstop\textglotstop
20709 \let\revglotstop\textrevglotstop
20710 \let\invglotstop\textinvglotstop
20711 \let\Gamma\textGamma
20712 \let\Delta\textDelta
20713 \let\Theta\textTheta
20714 \let\Lambda\textLambda
20715 \let\Xi\textXi
20716 \let\Pi\textPi
20717 \let\Sigma\textSigma
20718 \let\Upsilon\textUpsilon
20719 \let\Phi\textPhi
20720 \let\Psi\textPsi
20721 \let\Omega\textOmega
20722 \let\alpha\textalpha
20723 \let\beta\textbeta
20724 \let\gamma\textgamma
20725 \let\delta\textdelta
20726 \let\epsilon\textepsilon
20727 \let\zeta\textzeta
20728 \let\eta\texteta
20729 \let\theta\texttheta
20730 \let\iota\textiota
20731 \let\kappa\textkappa
20732 \let\lambda\textlambda
20733 \let\mugreek\textmugreek
20734 \let\nu\textnu
20735 \let\xi\textxi
20736 \let\pi\textpi

20737 \let\rho\textrho
 20738 \let\varsigma\textvarsigma
 20739 \let\sigma\textsigma
 20740 \let\tau\texttau
 20741 \let\upsilon\textupsilon
 20742 \let\phi\textphi
 20743 \let\chi\textchi
 20744 \let\psi\textpsi
 20745 \let\omega\textomega
 20746 \let\scd\textscd
 20747 \let\scu\textscu
 20748 \let\iinferior\textiinferior
 20749 \let\rinferior\textrinferior
 20750 \let\uinferior\textuinferior
 20751 \let\vinferior\textvinferior
 20752 \let\betainferior\textbetainferior
 20753 \let\gammainferior\textgammainferior
 20754 \let\rhoinferior\textrhoinferior
 20755 \let\phiinferior\textphiinferior
 20756 \let\chiinferior\textchiinferior
 20757 \let\barsci\textbarsci
 20758 \let\barp\textbarp
 20759 \let\barscu\textbarscu
 20760 \let\htrtaild\texthtrtaild
 20761 \let\dagger\textdagger
 20762 \let\bullet\textbullet
 20763 \let\hdotfor\texthdotfor
 20764 \let\prime\textprime
 20765 \let\second\textsecond
 20766 \let\third\textthird
 20767 \let\backprime\textbackprime
 20768 \let\lefttherefore\textlefttherefore
 20769 \let\fourth\textfourth
 20770 \let\diamonddots\textdiamonddots
 20771 \let\zerosuperior\textzerosuperior
 20772 \let\isuperior\textisuperior
 20773 \let\foursuperior\textfoursuperior
 20774 \let\fivesuperior\textfivesuperior
 20775 \let\sixsuperior\textsixsuperior
 20776 \let\sevensuperior\textsevensuperior
 20777 \let\eightsuperior\texteightsuperior
 20778 \let\ninesuperior\textninesuperior
 20779 \let\plussuperior\textplussuperior
 20780 \let\minussuperior\textminussuperior
 20781 \let>equalsuperior\textequalsuperior
 20782 \let\parenleftsuperior\textparenleftsuperior
 20783 \let\parenrightsuperior\textparenrightsuperior
 20784 \let\nsuperior\textnsuperior
 20785 \let\zeroinferior\textzeroinferior
 20786 \let\oneinferior\textoneinferior
 20787 \let\twoinferior\texttwoinferior
 20788 \let\threeinferior\textthreeinferior
 20789 \let\fourinferior\textfourinferior
 20790 \let\fiveinferior\textfiveinferior
 20791 \let\sixinferior\textsixinferior
 20792 \let\seveninferior\textseveninferior
 20793 \let\eightinferior\texteightinferior

20794 `\let\nineinferior\textnineinferior`
20795 `\let\plusinferior\textplusinferior`
20796 `\let\minusinferior\textminusinferior`
20797 `\let\equalsinferior\textequalsinferior`
20798 `\let\parenleftinferior\textparenleftinferior`
20799 `\let\parenrightinferior\textparenrightinferior`
20800 `\let\ainferior\textainferior`
20801 `\let\einferior\texteinferior`
20802 `\let\oinferior\textoinferior`
20803 `\let\xinferior\textxinferior`
20804 `\let\schwainferior\textschwainferior`
20805 `\let\hinferior\texthinferior`
20806 `\let\kinferior\textkinferior`
20807 `\let\linferior\textlinferior`
20808 `\let\minferior\textminferior`
20809 `\let\ninferior\textninferior`
20810 `\let\pinferior\textpinferior`
20811 `\let\sinferior\textsinferior`
20812 `\let\tinferior\texttinferior`
20813 `\let\Deleatur\textDeleatur`
20814 `\let\hslash\texthslash`
20815 `\let\Im\textIm`
20816 `\let\ell\textell`
20817 `\let\wp\textwp`
20818 `\let\Re\textRe`
20819 `\let\mho\textmho`
20820 `\let\riota\textriota`
20821 `\let\Finv\textFinv`
20822 `\let\aleph\textaleph`
20823 `\let\beth\textbeth`
20824 `\let\gimel\textgimel`
20825 `\let\daleth\textdaleth`
20826 `\let\xfax\textfax`
20827 `\let\Game\textGame`
20828 `\let\leftarrow\textleftarrow`
20829 `\let\uparrow\textuparrow`
20830 `\let\rightarrow\textrightarrow`
20831 `\let\downarrow\textdownarrow`
20832 `\let\leftrightarrow\textleftrightarrow`
20833 `\let\updownarrow\textupdownarrow`
20834 `\let\nwarrow\textnwarrow`
20835 `\let\nearrow\textnearrow`
20836 `\let\searrow\textsearrow`
20837 `\let\swarrow\textswarrow`
20838 `\let\nleftarrow\textnleftarrow`
20839 `\let\nrightarrow\textnrightarrow`
20840 `\let\twoheadleftarrow\texttwoheadleftarrow`
20841 `\let\ntwoheadleftarrow\textntwoheadleftarrow`
20842 `\let\twoheaduparrow\texttwoheaduparrow`
20843 `\let\twoheadrightarrow\texttwoheadrightarrow`
20844 `\let\ntwoheadrightarrow\textntwoheadrightarrow`
20845 `\let\twoheaddownarrow\texttwoheaddownarrow`
20846 `\let\leftarrowtail\textleftarrowtail`
20847 `\let\rightarrowtail\textrightarrowtail`
20848 `\let\mapsto\textmapsto`
20849 `\let\hookleftarrow\texthookleftarrow`
20850 `\let\hookrightarrow\texthookrightarrow`

20851 \looparrowleft \textlooparrowleft
20852 \looparrowright \textlooparrowright
20853 \nleftarrow \textnleftarrow
20854 \lightning \textlightning
20855 \dlsh \textdlsh
20856 \curvearrowleft \textcurvearrowleft
20857 \curvearrowright \textcurvearrowright
20858 \leftharpoonup \textleftharpoonup
20859 \leftharpoondown \textleftharpoondown
20860 \upharpoonright \textupharpoonright
20861 \upharpoonleft \textupharpoonleft
20862 \rightharpoonup \textrightharpoonup
20863 \rightharpoondown \textrightharpoondown
20864 \downharpoonright \textdownharpoonright
20865 \downharpoonleft \textdownharpoonleft
20866 \rightleftarrows \textrightleftarrows
20867 \updownarrows \textupdownarrows
20868 \leftrightarrows \textleftrightarrows
20869 \leftleftarrows \textleftleftarrows
20870 \upuparrows \textupuparrows
20871 \rightrightarrows \textrightrightarrows
20872 \downdownarrows \textdowndownarrows
20873 \leftrightharpoons \textleftrightharpoons
20874 \rightleftharpoons \textrightleftharpoons
20875 \nLeftarrow \textnLeftarrow
20876 \nLeftrightarrow \textnLeftrightarrow
20877 \nRightarrow \textnRightarrow
20878 \Leftarrow \textLeftarrow
20879 \Uparrow \textUparrow
20880 \Rightarrow \textRightarrow
20881 \Downarrow \textDownarrow
20882 \Leftrightarrow \textLeftrightarrow
20883 \Updownarrow \textUpdownarrow
20884 \Nwarrow \textNwarrow
20885 \Nearrow \textNearrow
20886 \Searrow \textSearrow
20887 \Swarrow \textSwarrow
20888 \Lleftarrow \textLleftarrow
20889 \Rrightarrow \textRrightarrow
20890 \leftsquigarrow \textleftsquigarrow
20891 \rightsquigarrow \textrightsquigarrow
20892 \dashleftarrow \textdashleftarrow
20893 \dasheduparrow \textdasheduparrow
20894 \dashrightarrow \textdashrightarrow
20895 \dasheddownarrow \textdasheddownarrow
20896 \pointer \textpointer
20897 \downuparrows \textdownuparrows
20898 \leftarrowtriangle \textleftarrowtriangle
20899 \rightarrowtriangle \textrightarrowtriangle
20900 \leftarrowtriangle \textleftarrowtriangle
20901 \forall \textforall
20902 \complement \textcomplement
20903 ∂ \textpartial
20904 \exists \textexists
20905 \nexists \textnexists
20906 \emptyset \textemptyset
20907 \triangle \texttriangle

20908 `\let\nabla\textnabla`
20909 `\let\in\textin`
20910 `\let\notin\textnotin`
20911 `\let\smallin\textsmallin`
20912 `\let\ni\textni`
20913 `\let\notowner\textnotowner`
20914 `\let\smallowns\textsmallowns`
20915 `\let\prod\textprod`
20916 `\let\amalg\textamalg`
20917 `\let\sum\textsum`
20918 `\let\mp\textmp`
20919 `\let\dotplus\textdotplus`
20920 `\let\Divides\textDivides`
20921 `\let\DividesNot\textDividesNot`
20922 `\let\setminus\textsetminus`
20923 `\let\ast\textast`
20924 `\let\circ\textcirc`
20925 `\let\surd\textsurd`
20926 `\let\propto\textpropto`
20927 `\let\infty\textinfty`
20928 `\let\angle\textangle`
20929 `\let\measuredangle\textmeasuredangle`
20930 `\let\sphericalangle\textsphericalangle`
20931 `\let\mid\textmid`
20932 `\let\nmid\textnmid`
20933 `\let\parallel\textparallel`
20934 `\let\nparallel\textnparallel`
20935 `\let\wedge\textwedge`
20936 `\let\owedge\textowedge`
20937 `\let\vee\textvee`
20938 `\let\ovee\textovee`
20939 `\let\cap\textcap`
20940 `\let\cup\textcup`
20941 `\let\int\textint`
20942 `\let\iint\textiint`
20943 `\let\iiint\textiiint`
20944 `\let\oint\textoint`
20945 `\let\oiint\textoiint`
20946 `\let\ointclockwise\textointclockwise`
20947 `\let\ointctrlockwise\textointctrlockwise`
20948 `\let\therefore\texttherefore`
20949 `\let\because\textbecause`
20950 `\let\vdotdot\textvdotdot`
20951 `\let\squaredots\textsquaredots`
20952 `\let\dotminus\textdotminus`
20953 `\let\eqcolon\texteqcolon`
20954 `\let\sim\textsim`
20955 `\let\backsim\textbacksim`
20956 `\let\nbacksim\textnbacksim`
20957 `\let\wr\textwr`
20958 `\let\nsim\textnsim`
20959 `\let\eqsim\texteqsim`
20960 `\let\neqsim\textneqsim`
20961 `\let\simeq\textsimeq`
20962 `\let\nsimeq\textnsimeq`
20963 `\let\cong\textcong`
20964 `\let\ncong\textncong`

20965 \let\approx\textapprox
20966 \let\napprox\textnapprox
20967 \let\approxeq\textapproxeq
20968 \let\napproxeq\textnapproxeq
20969 \let\triplesim\texttriplesim
20970 \let\ntriplesim\textntriplesim
20971 \let\backcong\textbackcong
20972 \let\nbackcong\textnbackcong
20973 \let\asymp\textasymp
20974 \let\nasymp\textnasymp
20975 \let\Bumpeq\textBumpeq
20976 \let\nBumpeq\textnBumpeq
20977 \let\bumpeq\textbumpeq
20978 \let\nbumpeq\textnbumpeq
20979 \let\doteq\textdoteq
20980 \let\ndoteq\textndoteq
20981 \let\doteqdot\textdoteqdot
20982 \let\ndoteq\textndoteq
20983 \let\fallingdoteq\textfallingdoteq
20984 \let\nfallingdoteq\textnfallingdoteq
20985 \let\risingdoteq\textrisingdoteq
20986 \let\nrisingdoteq\textnrisingdoteq
20987 \let\colonequals\textcolonequals
20988 \let\equalscolon\textequalscolon
20989 \let\eqcirc\texteqcirc
20990 \let\neqcirc\textneqcirc
20991 \let\circeq\textcirceq
20992 \let\ncirceq\textncirceq
20993 \let\hateq\texthateq
20994 \let\nhateq\textnhateq
20995 \let\triangleq\texttriangleq
20996 \let\neq\textneq
20997 \let\ne\textne
20998 \let\equiv\textequiv
20999 \let\nequiv\textnequiv
21000 \let\leq\textleq
21001 \let\le\textle
21002 \let\geq\textgeq
21003 \let\ge\textge
21004 \let\leqq\textleqq
21005 \let\nleqq\textnleqq
21006 \let\geqq\textgeqq
21007 \let\ngeqq\textngeqq
21008 \let\lneqq\textlneqq
21009 \let\gneqq\textgneqq
21010 \let\ll\textll
21011 \let\nll\textnll
21012 \let\gg\textgg
21013 \let\ngg\textngg
21014 \let\between\textbetween
21015 \let\nless\textnless
21016 \let\ngr\textngr
21017 \let\nleq\textnleq
21018 \let\ngeq\textngeq
21019 \let\lesssim\textlessim
21020 \let\gtrsim\textgtrsim
21021 \let\nlessim\textnlessim

21022 \let\ngtrsim\textngtrsim
21023 \let\lessgtr\textlessgtr
21024 \let\gtrless\textgtrless
21025 \let\ngtrless\textngtrless
21026 \let\nlessgtr\textnlessgtr
21027 \let\prec\textprec
21028 \let\succ\textsucc
21029 \let\preccurlyeq\textpreccurlyeq
21030 \let\succcurlyeq\textsucccurlyeq
21031 \let\precsim\textprecsim
21032 \let\nprecsim\textnprecsim
21033 \let\succsim\textsuccsim
21034 \let\nsuccsim\textnsuccsim
21035 \let\nprec\textnprec
21036 \let\nsucc\textnsucc
21037 \let\subset\textsubset
21038 \let\supset\textsupset
21039 \let\nsubset\textnsubset
21040 \let\nsupset\textnsupset
21041 \let\subseteq\textsubseteq
21042 \let\supseteq\textsupseteq
21043 \let\nsubseteq\textnsubseteq
21044 \let\nsupseteq\textnsupseteq
21045 \let\subsetneq\textsubsetneq
21046 \let\supsetneq\textsupsetneq
21047 \let\cupdot\textcupdot
21048 \let\cupplus\textcupplus
21049 \let\sqsubset\textsqsubset
21050 \let\nsqsubset\textnsqsubset
21051 \let\sqsupset\textsqsupset
21052 \let\nsqsupset\textnsqsupset
21053 \let\sqsubseteq\textsqsubseteq
21054 \let\nsqsubseteq\textnsqsubseteq
21055 \let\sqsupseteq\textsqsupseteq
21056 \let\nsqsupseteq\textnsqsupseteq
21057 \let\sqcap\textsqcap
21058 \let\sqcup\textsqcup
21059 \let\oplus\textoplus
21060 \let\ominus\textominus
21061 \let\otimes\textotimes
21062 \let\oslash\textoslash
21063 \let\odot\textodot
21064 \let\circledcirc\textcircledcirc
21065 \let\circledast\textcircledast
21066 \let\circleddash\textcircleddash
21067 \let\boxplus\textboxplus
21068 \let\boxminus\textboxminus
21069 \let\boxtimes\textboxtimes
21070 \let\boxdot\textboxdot
21071 \let\vdash\textvdash
21072 \let\dashv\textdashv
21073 \let\ndashv\textndashv
21074 \let\top\texttop
21075 \let\ndownvdash\textndownvdash
21076 \let\bot\textbot
21077 \let\nupvdash\textnupvdash
21078 \let\VDash\textVDash

21079 `\let\Vdash\textVdash`
21080 `\let\Vvdash\textVvdash`
21081 `\let\NVdash\textNVdash`
21082 `\let\VDash\textVDash`
21083 `\let\Nvdash\textNvdash`
21084 `\let\NVDash\textNVDash`
21085 `\let\NVdash\textNVdash`
21086 `\let\NVDash\textNVDash`
21087 `\let\lhd\textlhd`
21088 `\let\rhd\textrhd`
21089 `\let\unlhd\textunlhd`
21090 `\let\unrhd\textunrhd`
21091 `\let\multimapdotbothA\textmultimapdotbothA`
21092 `\let\multimapdotbothB\textmultimapdotbothB`
21093 `\let\multimap\textmultimap`
21094 `\let\veebar\textveebar`
21095 `\let\barwedge\textbarwedge`
21096 `\let\star\textstar`
21097 `\let\divideontimes\textdivideontimes`
21098 `\let\bowtie\textbowtie`
21099 `\let\ltimes\textltimes`
21100 `\let\rtimes\textrtimes`
21101 `\let\leftthreetimes\textleftthreetimes`
21102 `\let\rightthreetimes\textrightthreetimes`
21103 `\let\backsimeq\textbacksimeq`
21104 `\let\Nbacksimeq\textNbacksimeq`
21105 `\let\curlyvee\textcurlyvee`
21106 `\let\curlywedge\textcurlywedge`
21107 `\let\Subset\textSubset`
21108 `\let\NSubset\textNSubset`
21109 `\let\Supset\textSupset`
21110 `\let\NSupset\textNSupset`
21111 `\let\Cap\textCap`
21112 `\let\Cup\textCup`
21113 `\let\pitchfork\textpitchfork`
21114 `\let\lessdot\textlessdot`
21115 `\let\gtrdot\textgtrdot`
21116 `\let\lll\textlll`
21117 `\let\ggg\textggg`
21118 `\let\lesseqgtr\textlesseqgtr`
21119 `\let\gtreqless\textgtreqless`
21120 `\let\curlyeqprec\textcurlyeqprec`
21121 `\let\Ncurlyeqprec\textNcurlyeqprec`
21122 `\let\curlyeqsucc\textcurlyeqsucc`
21123 `\let\Ncurlyeqsucc\textNcurlyeqsucc`
21124 `\let\Npreccurlyeq\textNpreccurlyeq`
21125 `\let\Nsucccurlyeq\textNsucccurlyeq`
21126 `\let\Nqsubseteq\textNqsubseteq`
21127 `\let\Nqsupseteq\textNqsupseteq`
21128 `\let\sqsubsetneq\textsqsubsetneq`
21129 `\let\sqsupsetneq\textsqsupsetneq`
21130 `\let\lnsim\textlnsim`
21131 `\let\gnsim\textgnsim`
21132 `\let\precnsim\textprecnsim`
21133 `\let\succnsim\textsuccnsim`
21134 `\let\Ntriangleleft\textNtriangleleft`
21135 `\let\Ntriangleright\textNtriangleright`

21136 `\let\ntrianglelefteq\textntrianglelefteq`
21137 `\let\ntrianglerighteq\textntrianglerighteq`
21138 `\let\vdots\textvdots`
21139 `\let\cdots\textcdots`
21140 `\let\udots\textudots`
21141 `\let\ddots\textddots`
21142 `\let\barin\textbarin`
21143 `\let\diameter\textdiameter`
21144 `\let\backneg\textbackneg`
21145 `\let\wasylounge\textwasylounge`
21146 `\let\invbackneg\textinvbackneg`
21147 `\let\clock\textclock`
21148 `\let\ulcorner\textulcorner`
21149 `\let\urcorner\texturcorner`
21150 `\let\llcorner\textllcorner`
21151 `\let\lrcorner\textlrcorner`
21152 `\let\frown\textfrown`
21153 `\let\smile\textsmile`
21154 `\let\Keyboard\textKeyboard`
21155 `\let\langle\textlangle`
21156 `\let\rangle\textrangle`
21157 `\let\APLin\textAPLin`
21158 `\let\Tumbler\textTumbler`
21159 `\let\notslash\textnotslash`
21160 `\let\notbackslash\textnotbackslash`
21161 `\let\boxbackslash\textboxbackslash`
21162 `\let\APLleftarrowbox\textAPLleftarrowbox`
21163 `\let\APLrightarrowbox\textAPLrightarrowbox`
21164 `\let\APLuparrowbox\textAPLuparrowbox`
21165 `\let\APLdownarrowbox\textAPLdownarrowbox`
21166 `\let\APLinput\textAPLinput`
21167 `\let\Request\textRequest`
21168 `\let\Beam\textBeam`
21169 `\let\hexagon\texthexagon`
21170 `\let\APLbox\textAPLbox`
21171 `\let\ForwardToIndex\textForwardToIndex`
21172 `\let\RewindToIndex\textRewindToIndex`
21173 `\let\bbslash\textbbslash`
21174 `\let\CircledA\textCircledA`
21175 `\let\CleaningF\textCleaningF`
21176 `\let\CleaningFF\textCleaningFF`
21177 `\let\CleaningP\textCleaningP`
21178 `\let\CleaningPP\textCleaningPP`
21179 `\let\CuttingLine\textCuttingLine`
21180 `\let\UParrow\textUParrow`
21181 `\let\bigtriangleup\textbigtriangleup`
21182 `\let\Forward\textForward`
21183 `\let\triangleright\texttriangleright`
21184 `\let\RHD\textRHD`
21185 `\let\DOWNarrow\textDOWNarrow`
21186 `\let\bigtriangledown\textbigtriangledown`
21187 `\let\Rewind\textRewind`
21188 `\let\triangleleft\texttriangleleft`
21189 `\let\LHD\textLHD`
21190 `\let\diamond\textdiamond`
21191 `\let\lozenge\textlozenge`
21192 `\let\LEFTCIRCLE\textLEFTCIRCLE`

21193 \let\RIGHTCIRCLE\textRIGHTCIRCLE
21194 \let\openbullet\textopenbullet
21195 \let\boxbar\textboxbar
21196 \let\bigcircle\textbigcircle
21197 \let\Cloud\textCloud
21198 \let\FiveStar\textFiveStar
21199 \let\FiveStarOpen\textFiveStarOpen
21200 \let\Phone\textPhone
21201 \let\boxempty\textboxempty
21202 \let\Checkedbox\textCheckedbox
21203 \let\Crossedbox\textCrossedbox
21204 \let\Coffeecup\textCoffeecup
21205 \let\HandCuffLeft\textHandCuffLeft
21206 \let\HandCuffRight\textHandCuffRight
21207 \let\HandLeft\textHandLeft
21208 \let\HandRight\textHandRight
21209 \let\Radioactivity\textRadioactivity
21210 \let\Biohazard\textBiohazard
21211 \let\Ankh\textAnkh
21212 \let\YinYang\textYinYang
21213 \let\frownie\textfrownie
21214 \let\smiley\textsmiley
21215 \let\blacksmiley\textblacksmiley
21216 \let\sun\textsun
21217 \let\leftmoon\textleftmoon
21218 \let\rightmoon\textrightmoon
21219 \let\mercury\textmercury
21220 \let\earth\textearth
21221 \let\male\textmale
21222 \let\jupiter\textjupiter
21223 \let\saturn\textsaturn
21224 \let\uranus\texturanus
21225 \let\neptune\textneptune
21226 \let\pluto\textpluto
21227 \let\aries\textaries
21228 \let\taurus\texttaurus
21229 \let\gemini\textgemini
21230 \let\cancer\textcancer
21231 \let\leo\textleo
21232 \let\virgo\textvirgo
21233 \let\libra\textlibra
21234 \let\scorpio\textscorpio
21235 \let\sagittarius\textsagittarius
21236 \let\capricornus\textcapricornus
21237 \let\aquarius\textaquarius
21238 \let\pisces\textpisces
21239 \let\quarternote\textquarternote
21240 \let\twonotes\texttwonotes
21241 \let\sixteenthnote\textsixteenthnote
21242 \let\flat\textflat
21243 \let\natural\textnatural
21244 \let\sharp\textsharp
21245 \let\recycle\textrecycle
21246 \let\Wheelchair\textWheelchair
21247 \let\Flag\textFlag
21248 \let\MineSign\textMineSign
21249 \let\ds\textds

21250 \let\dsmedical\textdsmedical
21251 \let\dsjuridical\textdsjuridical
21252 \let\dschemical\textdschemical
21253 \let\dsbiological\textdsbiological
21254 \let\dscommercial\textdscommercial
21255 \let\manstar\textmanstar
21256 \let\danger\textdanger
21257 \let\FemaleFemale\textFemaleFemale
21258 \let\MaleMale\textMaleMale
21259 \let\FemaleMale\textFemaleMale
21260 \let\Hermaphrodite\textHermaphrodite
21261 \let\Neutral\textNeutral
21262 \let\hexstar\texthexstar
21263 \let\SunCloud\textSunCloud
21264 \let\Rain\textRain
21265 \let\noway\textnoway
21266 \let\Mountain\textMountain
21267 \let\Tent\textTent
21268 \let\ScissorRight\textScissorRight
21269 \let\ScissorRightBrokenTop\textScissorRightBrokenTop
21270 \let\ScissorHollowRight\textScissorHollowRight
21271 \let\PhoneHandset\textPhoneHandset
21272 \let\Tape\textTape
21273 \let\Plane\textPlane
21274 \let\Envelope\textEnvelope
21275 \let\Peace\textPeace
21276 \let\WritingHand\textWritingHand
21277 \let\PencilRightDown\textPencilRightDown
21278 \let\PencilRight\textPencilRight
21279 \let\PencilRightUp\textPencilRightUp
21280 \let\NibRight\textNibRight
21281 \let\NibSolidRight\textNibSolidRight
21282 \let\Checkmark\textCheckmark
21283 \let\CheckmarkBold\textCheckmarkBold
21284 \let\XSolid\textXSolid
21285 \let\XSolidBold\textXSolidBold
21286 \let\XSolidBrush\textXSolidBrush
21287 \let\PlusOutline\textPlusOutline
21288 \let\Plus\textPlus
21289 \let\PlusThinCenterOpen\textPlusThinCenterOpen
21290 \let\PlusCenterOpen\textPlusCenterOpen
21291 \let\Cross\textCross
21292 \let\CrossOpenShadow\textCrossOpenShadow
21293 \let\CrossOutline\textCrossOutline
21294 \let\CrossMaltese\textCrossMaltese
21295 \let\DavidStar\textDavidStar
21296 \let\FourAsterisk\textFourAsterisk
21297 \let\JackStar\textJackStar
21298 \let\JackStarBold\textJackStarBold
21299 \let\ClowerTips\textClowerTips
21300 \let\FourStar\textFourStar
21301 \let\FourStarOpen\textFourStarOpen
21302 \let\FiveStarOpenCircled\textFiveStarOpenCircled
21303 \let\FiveStarCenterOpen\textFiveStarCenterOpen
21304 \let\FiveStarOpenDotted\textFiveStarOpenDotted
21305 \let\FiveStarOutline\textFiveStarOutline
21306 \let\FiveStarOutlineHeavy\textFiveStarOutlineHeavy

21307 \let\FiveStarConvex\textFiveStarConvex
21308 \let\FiveStarShadow\textFiveStarShadow
21309 \let\AsteriskBold\textAsteriskBold
21310 \let\AsteriskCenterOpen\textAsteriskCenterOpen
21311 \let\EightStarTaper\textEightStarTaper
21312 \let\EightStarConvex\textEightStarConvex
21313 \let\SixStar\textSixStar
21314 \let\EightStar\textEightStar
21315 \let\EightStarBold\textEightStarBold
21316 \let\TwelveStar\textTwelveStar
21317 \let\SixteenStarLight\textSixteenStarLight
21318 \let\SixFlowerPetalRemoved\textSixFlowerPetalRemoved
21319 \let\SixFlowerOpenCenter\textSixFlowerOpenCenter
21320 \let\Asterisk\textAsterisk
21321 \let\SixFlowerAlternate\textSixFlowerAlternate
21322 \let\FiveFlowerPetal\textFiveFlowerPetal
21323 \let\FiveFlowerOpen\textFiveFlowerOpen
21324 \let\EightFlowerPetal\textEightFlowerPetal
21325 \let\SunshineOpenCircled\textSunshineOpenCircled
21326 \let\SixFlowerAltPetal\textSixFlowerAltPetal
21327 \let\SnowflakeChevron\textSnowflakeChevron
21328 \let\Snowflake\textSnowflake
21329 \let\SnowflakeChevronBold\textSnowflakeChevronBold
21330 \let\Sparkle\textSparkle
21331 \let\SparkleBold\textSparkleBold
21332 \let\AsteriskRoundedEnds\textAsteriskRoundedEnds
21333 \let\EightFlowerPetalRemoved\textEightFlowerPetalRemoved
21334 \let\EightAsterisk\textEightAsterisk
21335 \let\CircleShadow\textCircleShadow
21336 \let\SquareShadowBottomRight\textSquareShadowBottomRight
21337 \let\SquareTopRight\textSquareTopRight
21338 \let\SquareCastShadowBottomRight\textSquareCastShadowBottomRight
21339 \let\SquareCastShadowTopRight\textSquareCastShadowTopRight
21340 \let\DiamondSolid\textDiamondSolid
21341 \let\RectangleThin\textRectangleThin
21342 \let\Rectangle\textRectangle
21343 \let\RectangleBold\textRectangleBold
21344 \let\perp\textperp
21345 \let\notperp\textnotperp
21346 \let\veedot\textveedot
21347 \let\wedgedot\textwedgedot
21348 \let\leftspoon\textleftspoon
21349 \let\lbrackdbl\textlbrackdbl
21350 \let\rbrackdbl\textrbrackdbl
21351 \let\circlearrowleft\textcirclearrowleft
21352 \let\circlearrowright\textcirclearrowright
21353 \let\longleftarrow\textlongleftarrow
21354 \let\longrightarrow\textlongrightarrow
21355 \let\longleftarrow\textlongleftarrow
21356 \let\Longleftarrow\textLongleftarrow
21357 \let\Longrightarrow\textLongrightarrow
21358 \let\Longleftarrow\textLongleftarrow
21359 \let\longmapsto\textlongmapsto
21360 \let\Longmapsto\textLongmapsto
21361 \let\Longmapsto\textLongmapsto
21362 \let\nwsearrow\textnwsearrow
21363 \let\neswarrow\textneswarrow

21364 `\let\lhooknarrow\textlhooknarrow`
21365 `\let\rhooknarrow\textrhooknarrow`
21366 `\let\lhooksearrow\textlhooksearrow`
21367 `\let\rhooksearrow\textrhooksearrow`
21368 `\let\leadsto\textleadsto`
21369 `\let\rcurvearrowne\textrcurvearrowne`
21370 `\let\lcurvearrowse\textlcurvearrowse`
21371 `\let\lcurvearrowsw\textlcurvearrowsw`
21372 `\let\rcurvearrowse\textrcurvearrowse`
21373 `\let\lcurvearrowdown\textlcurvearrowdown`
21374 `\let\rcurvearrowdown\textrcurvearrowdown`
21375 `\let\rcurvearrowleft\textrcurvearrowleft`
21376 `\let\rcurvearrowright\textrcurvearrowright`
21377 `\let\leftrightharpoon\textleftrightharpoon`
21378 `\let\rightrightharpoon\textrightlefttharpoon`
21379 `\let\updownharpoonrightleft\textupdownharpoonrightleft`
21380 `\let\updownharpoonleftright\textupdownharpoonleftright`
21381 `\let\leftleftharpoons\textleftleftharpoons`
21382 `\let\upupharpoons\textupupharpoons`
21383 `\let\righttrightharpoons\textrighttrightharpoons`
21384 `\let\downdownharpoons\textdowndownharpoons`
21385 `\let\leftbarharpoon\textleftbarharpoon`
21386 `\let\barleftharpoon\textbarleftharpoon`
21387 `\let\rightbarharpoon\textrightbarharpoon`
21388 `\let\barrightharpoon\textbarrightharpoon`
21389 `\let\updownharpoons\textupdownharpoons`
21390 `\let\downupharpoons\textdownupharpoons`
21391 `\let\moo\textmoo`
21392 `\let\llparenthesis\textllparenthesis`
21393 `\let\rrparenthesis\textrrparenthesis`
21394 `\let\invdiameter\textinvdiameter`
21395 `\let\obar\textobar`
21396 `\let\obslash\textobslash`
21397 `\let\obot\textobot`
21398 `\let\NoChemicalCleaning\textNoChemicalCleaning`
21399 `\let\olessthan\textolessthan`
21400 `\let\ogreaterthan\textogreaterthan`
21401 `\let\boxslash\textboxslash`
21402 `\let\boxbslash\textboxbslash`
21403 `\let\boxast\textboxast`
21404 `\let\boxcircle\textboxcircle`
21405 `\let\boxbox\textboxbox`
21406 `\let\Valve\textValve`
21407 `\let\multimapboth\textmultimapboth`
21408 `\let\shuffle\textshuffle`
21409 `\let\upplus\textupplus`
21410 `\let\bigdoublewedge\textbigdoublewedge`
21411 `\let\bigdoublevee\textbigdoublevee`
21412 `\let\Join\textJoin`
21413 `\let\fatsemi\textfatsemi`
21414 `\let\circplus\textcircplus`
21415 `\let\minusdot\textminusdot`
21416 `\let\dottimes\textdottimes`
21417 `\let\dtimes\textdtimes`
21418 `\let\odiv\textodiv`
21419 `\let\invneg\textinvneg`
21420 `\let\squdoublecap\textsqudoublecap`

21421 `\let\capdot\textcapdot`
21422 `\let\sqdoublecup\textsqdoublecup`
21423 `\let\doublewedge\textdoublewedge`
21424 `\let\doublevee\textdoublevee`
21425 `\let\doublebarwedge\textdoublebarwedge`
21426 `\let\veedoublebar\textveedoublebar`
21427 `\let\eqdot\texteqdot`
21428 `\let\neqdot\textneqdot`
21429 `\let\coloncolonequals\textcoloncolonequals`
21430 `\let\leqslant\textleqslant`
21431 `\let\mleqslant\textmleqslant`
21432 `\let\geqslant\textgeqslant`
21433 `\let\mgeqslant\textmgeqslant`
21434 `\let\lessapprox\textlessapprox`
21435 `\let\mlessapprox\textmlessapprox`
21436 `\let\gtrapprox\textgtrapprox`
21437 `\let\mngtrapprox\textmngtrapprox`
21438 `\let\lneq\textlneq`
21439 `\let\gneq\textgneq`
21440 `\let\lnapprox\textlnapprox`
21441 `\let\gnapprox\textgnapprox`
21442 `\let\lesseqgtr\textlesseqgtr`
21443 `\let\gtreqless\textgtreqless`
21444 `\let\eqslantless\texteqslantless`
21445 `\let\eqslantgtr\texteqslantgtr`
21446 `\let\leftslice\textleftslice`
21447 `\let\rightslice\textrightslice`
21448 `\let\preceq\textpreceq`
21449 `\let\mpreceq\textmpreceq`
21450 `\let\succeq\textsucceq`
21451 `\let\msucceq\textmsucceq`
21452 `\let\precneq\textprecneq`
21453 `\let\succneq\textsuccneq`
21454 `\let\preceqq\textpreceqq`
21455 `\let\mpreceqq\textmpreceqq`
21456 `\let\succeqq\textsucceqq`
21457 `\let\msucceqq\textmsucceqq`
21458 `\let\precneqq\textprecneqq`
21459 `\let\succneqq\textsuccneqq`
21460 `\let\precapprox\textprecapprox`
21461 `\let\mprecapprox\textmprecapprox`
21462 `\let\succapprox\textsuccapprox`
21463 `\let\msuccapprox\textmsuccapprox`
21464 `\let\precnapprox\textprecnapprox`
21465 `\let\succnapprox\textsuccnapprox`
21466 `\let\subseteqq\textsubseteqq`
21467 `\let\msubseteqq\textmsubseteqq`
21468 `\let\supseteqq\textsupseteqq`
21469 `\let\msupseteqq\textmsupseteqq`
21470 `\let\dashV\textdashV`
21471 `\let\ndashV\textndashV`
21472 `\let\Dashv\textDashv`
21473 `\let\mDashv\textmDashv`
21474 `\let\DashV\textDashV`
21475 `\let\mDashV\textmDashV`
21476 `\let\downmodels\textdownmodels`
21477 `\let\mndownmodels\textmndownmodels`

21478 \let\upmodels\textupmodels
21479 \let\nupmodels\textnupmodels
21480 \let\upspoon\textupspoon
21481 \let\interleave\textinterleave
21482 \let\sslash\textsslash
21483 \let\pentagon\textpentagon
21484 \let\varhexagon\textvarhexagon
21485 \let\jinferior\textjinferior
21486 \let\slashdiv\textslashdiv
21487 \let\fivedots\textfivedots
21488 \let\oo\textoo
21489 \let\GaPa\textGaPa
21490 \let\HaPa\textHaPa
21491 \let\ViPa\textViPa
21492 \let\AcPa\textAcPa
21493 \let\SePa\textSePa
21494 \let\ZwPa\textZwPa
21495 \let\fullnote\textfullnote
21496 \let\halfnote\texthalfnote
21497 \let\Vier\textVier
21498 \let\Acht\textAcht
21499 \let\Sech\textSech
21500 \let\Zwdr\textZwdr
21501 \let\Mundus\textMundus
21502 \let\Moon\textMoon
21503 \let\ManFace\textManFace
21504 \let\WomanFace\textWomanFace
21505 \let\Fax\textFax
21506 \let\Fire\textFire
21507 \let\Bicycle\textBicycle
21508 \let\Gentsroom\textGentsroom
21509 \let\Ladiesroom\textLadiesroom
21510 \let\ccnc\textccnc
21511 \let\ccsa\textccsa
21512 \let\Info\textInfo
21513 \let\CESign\textCESign
21514 \let\neg\textneg
21515 \let\times\texttimes
21516 \let\div\textdiv
21517 \let\pm\textpm
21518 \let\cdot\textcdot
21519 }% \psdmapshortnames
21520 \newcommand*{\psdaliasnames}{%
21521 \let\epsdice\HyPsd@DieFace
21522 \let\fcdice\HyPsd@DieFace
21523 \let\MoonPha\HyPsd@MoonPha
21524 \let\mathdollar\textdollar
21525 \let\EyesDollar\textdollar
21526 \let\binampersand\textampersand
21527 \let\with\textampersand
21528 \let\mathunderscore\textunderscore
21529 \let\textvertline\textbar
21530 \let\mathsterling\textsterling
21531 \let\pounds\textsterling
21532 \let\brokenvert\textbrokenbar
21533 \let\mathsection\textsection
21534 \let\S\textsection

21535 $\backslash\text{mathparagraph}\backslash\text{textparagraph}$
21536 $\backslash\text{MultiplicationDot}\backslash\text{textperiodcentered}$
21537 $\backslash\text{Squaredot}\backslash\text{textperiodcentered}$
21538 $\backslash\text{vartimes}\backslash\text{textmultiply}$
21539 $\backslash\text{MVMultiplication}\backslash\text{textmultiply}$
21540 $\backslash\text{eth}\backslash\text{dh}$
21541 $\backslash\text{crossd}\backslash\text{textcrd}$
21542 $\backslash\text{textbard}\backslash\text{textcrd}$
21543 $\backslash\text{bard}\backslash\text{textcrd}$
21544 $\backslash\text{textcrh}\backslash\text{texthbar}$
21545 $\backslash\text{crossh}\backslash\text{texthbar}$
21546 $\backslash\text{planck}\backslash\text{texthbar}$
21547 $\backslash\text{eng}\backslash\text{ng}$
21548 $\backslash\text{engma}\backslash\text{ng}$
21549 $\backslash\text{crossb}\backslash\text{textcrb}$
21550 $\backslash\text{textbarb}\backslash\text{textcrb}$
21551 $\backslash\text{barb}\backslash\text{textcrb}$
21552 $\backslash\text{Florin}\backslash\text{textflorin}$
21553 $\backslash\text{hv}\backslash\text{texthvlig}$
21554 $\backslash\text{hausak}\backslash\text{texthtk}$
21555 $\backslash\text{crossnilambda}\backslash\text{textcrlambda}$
21556 $\backslash\text{barlambda}\backslash\text{textcrlambda}$
21557 $\backslash\text{lambdabar}\backslash\text{textcrlambda}$
21558 $\backslash\text{lambdaslash}\backslash\text{textcrlambda}$
21559 $\backslash\text{texnrleg}\backslash\text{textPUnleg}$
21560 $\backslash\text{textpipevar}\backslash\text{textpipe}$
21561 $\backslash\text{textdoublepipevar}\backslash\text{textdoublepipe}$
21562 $\backslash\text{textdoublebarpipevar}\backslash\text{textdoublebarpipe}$
21563 $\backslash\text{textcrg}\backslash\text{textgslash}$
21564 $\backslash\text{textdblig}\backslash\text{textPUdblig}$
21565 $\backslash\text{textqplig}\backslash\text{textPUqplig}$
21566 $\backslash\text{textcentoldstyle}\backslash\text{textslashc}$
21567 $\backslash\text{textbarc}\backslash\text{textslashc}$
21568 $\backslash\text{inva}\backslash\text{textturna}$
21569 $\backslash\text{vara}\backslash\text{textscripta}$
21570 $\backslash\text{invscripta}\backslash\text{textturnscripta}$
21571 $\backslash\text{rotvara}\backslash\text{textturnscripta}$
21572 $\backslash\text{hookb}\backslash\text{texthtb}$
21573 $\backslash\text{hausab}\backslash\text{texthtb}$
21574 $\backslash\text{varopeno}\backslash\text{textopeno}$
21575 $\backslash\text{curlyc}\backslash\text{textctc}$
21576 $\backslash\text{taild}\backslash\text{textrtaild}$
21577 $\backslash\text{hookd}\backslash\text{texthtd}$
21578 $\backslash\text{hausad}\backslash\text{texthtd}$
21579 $\backslash\text{er}\backslash\text{textrhookschwa}$
21580 $\backslash\text{epsi}\backslash\text{textniepsilon}$
21581 $\backslash\text{hookrevepsilon}\backslash\text{textrhookrevepsilon}$
21582 $\backslash\text{closedrevepsilon}\backslash\text{textcloserevepsilon}$
21583 $\backslash\text{barj}\backslash\text{textbardotlessj}$
21584 $\backslash\text{hookg}\backslash\text{texthtg}$
21585 $\backslash\text{varg}\backslash\text{textscriptg}$
21586 $\backslash\text{vod}\backslash\text{textipagamma}$
21587 $\backslash\text{invh}\backslash\text{textturnh}$
21588 $\backslash\text{udesc}\backslash\text{textturnh}$
21589 $\backslash\text{hookh}\backslash\text{texthth}$
21590 $\backslash\text{voicedh}\backslash\text{texthth}$
21591 $\backslash\text{hookheng}\backslash\text{texththeng}$

21592 \let\ibar\textbari
21593 \let\vari\textniiota
21594 \let\tildel\textltilde
21595 \let\latfric\textbeltl
21596 \let\tail\textrtail
21597 \let\lz\textlyoghlig
21598 \let\invm\textturnm
21599 \let\rotm\textturnm
21600 \let\legm\textturnmleg
21601 \let\labdentalnas\textltailm
21602 \let\emgma\textltailm
21603 \let\nj\textltailn
21604 \let\enya\textltailn
21605 \let\tain\textrtainn
21606 \let\closedniomega\textcloseomega
21607 \let\varomega\textcloseomega
21608 \let\invr\textturnr
21609 \let\rotr\textturnr
21610 \let\invlegr\textturnlonglegr
21611 \let\tailinvr\textturnrrtail
21612 \let\legr\textlonglegr
21613 \let\tair\textrtair
21614 \let\flapr\textfishhookr
21615 \let\flap\textfishhookr
21616 \let\tails\textrtails
21617 \let\curlyesh\textctesh
21618 \let\clickt\textturnt
21619 \let\tailt\textrtailt
21620 \let\ubar\textbaru
21621 \let\rotOmega\textniupsilon
21622 \let\invv\textturnv
21623 \let\pwedge\textturnv
21624 \let\invw\textturnw
21625 \let\rotw\textturnw
21626 \let\invy\textturny
21627 \let\roty\textturny
21628 \let\tailz\textrtailz
21629 \let\curlyz\textctz
21630 \let\curlyyogh\textctyogh
21631 \let\ejective\textglotstop
21632 \let\glottal\textglotstop
21633 \let\reject\textrevglotstop
21634 \let\clickc\textstretchc
21635 \let\textstretchcvar\textstretchc
21636 \let\clickb\textbullseye
21637 \let\textObullseye\textbullseye
21638 \let\textctjvar\textctj
21639 \let\textturnsck\textturnk
21640 \let\dz\textdzlig
21641 \let\tesh\textteshlig
21642 \let\digamma\textdigammagreek
21643 \let\hardsign\cyrhrdsn
21644 \let\softsign\cyrsoftsn
21645 \let\hebsin\hebshin
21646 \let\textsck\textPUscck
21647 \let\textscm\textPUscm
21648 \let\textscp\textPUscp

21649 \let\textrevscr\textPUrevscr
21650 \let\textrhooka\textPURhooka
21651 \let\textrhooke\textPURhooke
21652 \let\textrhookepsilon\textPURhookepsilon
21653 \let\texthookopeno\textPURhookopeno
21654 \let\textdoublevertline\textbardbl
21655 \let\dag\textdagger
21656 \let\ddagger\textdaggerdbl
21657 \let\ddag\textdaggerdbl
21658 \let\mathellipsis\textellipsis
21659 \let\EurDig\texteuro
21660 \let\EURdig\texteuro
21661 \let\EurHv\texteuro
21662 \let\EURhv\texteuro
21663 \let\EurCr\texteuro
21664 \let\EURcr\texteuro
21665 \let\EurTm\texteuro
21666 \let\EURtm\texteuro
21667 \let\Eur\texteuro
21668 \let\Denarius\textDeleatur
21669 \let\agemO\textmho
21670 \let\EstimatedSign\textestimated
21671 \let\Ecommerce\textestimated
21672 \let\bindnasrepma\textinvamp
21673 \let\parr\textinvamp
21674 \let\MVRightArrow\textrightarrow
21675 \let\MVRightarrow\textrightarrow
21676 \let\MVArrowDown\textdownarrow
21677 \let\Force\textdownarrow
21678 \let\textglobrise\textnearrow
21679 \let\textglobfall\textsearrow
21680 \let\Lightning\textlightning
21681 \let\Conclusion\textRightarrow
21682 \let\dashedleftarrow\textdashleftarrow
21683 \let\dashedrightarrow\textdashrightarrow
21684 \let\varnothing\textemptyset
21685 \let\owns\textni
21686 \let\notni\textnotowner
21687 \let\varprop\textpropto
21688 \let\varangle\textsphericalangle
21689 \let\Anglesign\textsphericalangle
21690 \let\AngleSign\textsphericalangle
21691 \let\notdivides\textnmid
21692 \let\varowedge\texttowedge
21693 \let\varovee\texttovee
21694 \let\varint\textint
21695 \let\varoint\textoint
21696 \let\downtherefore\textbecause
21697 \let\textdotdiv\textdotminus
21698 \let\AC\textsim
21699 \let\wreath\textwr
21700 \let\nthickapprox\textnapprox
21701 \let\VHF\texttriplesim
21702 \let\notasymp\textnasymp
21703 \let\Doteq\textdoteqdot
21704 \let\corresponds\texthateq
21705 \let\Corresponds\texthateq

21706 \let\nequal\textneq
21707 \let\Congruent\textequiv
21708 \let\NotCongruent\textnequiv
21709 \let\notequiv\textnequiv
21710 \let\LessOrEqual\textleq
21711 \let\LargerOrEqual\textgeq
21712 \let\apprle\textlesssim
21713 \let\apprge\textgtrsim
21714 \let\varoplus\textoplus
21715 \let\varominus\textominus
21716 \let\varotimes\textotimes
21717 \let\varoslash\textoslash
21718 \let\varodot\textodot
21719 \let\ocirc\textcircledcirc
21720 \let\varocircle\textcircledcirc
21721 \let\varoast\textcircledast
21722 \let\oasterisk\textcircledast
21723 \let\rightvdash\textvdash
21724 \let\leftvdash\textdashv
21725 \let\nleftvdash\textndashv
21726 \let\downvdash\texttop
21727 \let\upvdash\textbot
21728 \let\nperp\textnupvdash
21729 \let\models\textvDash
21730 \let\rightmodels\textvDash
21731 \let\rightVdash\textVdash
21732 \let\rightModels\textVDash
21733 \let\nrightvdash\textnvdash
21734 \let\nrightmodels\textnvDash
21735 \let\nmodels\textnvDash
21736 \let\nrightVdash\textnVdash
21737 \let\nrightModels\textnVDash
21738 \let\lessclosed\textlhd
21739 \let\gtrclosed\textrhd
21740 \let\leqclosed\textunlhd
21741 \let\trianglelefteq\textunlhd
21742 \let\geqclosed\textunrhd
21743 \let\trianglerighteq\textunrhd
21744 \let\Bowtie\textbowtie
21745 \let\varcurlyvee\textcurlyvee
21746 \let\varcurlywedge\textcurlywedge
21747 \let\doublecap\textCap
21748 \let\doublecup\textCup
21749 \let\varsqsubsetneq\textsqsubsetneq
21750 \let\varsqsupsetneq\textsqsupsetneq
21751 \let\nlessclosed\textntriangleleft
21752 \let\ngtrclosed\textntriangleright
21753 \let\Clocklogo\textclock
21754 \let\ClockLogo\textclock
21755 \let\baro\textstmaryrdbaro
21756 \let\varparallelinv\textbbslash
21757 \let\CleaningA\textCircledA
21758 \let\Kutline\textCuttingLine
21759 \let\CutLine\textCuttingLine
21760 \let\Cutline\textCuttingLine
21761 \let\MoveUp\textUParrow
21762 \let\APLup\textbigtriangleup

21763 \let\Bleech\textbigtriangleup
21764 \let\MoveDown\textDOWNarrow
21765 \let\APLdown\textbigtriangledown
21766 \let\Diamond\textdiamond
21767 \let\varbigcirc\textbigcircle
21768 \let\Telefon\textPhone
21769 \let\Box\textboxempty
21770 \let\CheckedBox\textCheckedbox
21771 \let\XBox\textCrossedbox
21772 \let\CrossedBox\textCrossedbox
21773 \let\rightpointleft\textHandLeft
21774 \let\leftpointright\textHandRight
21775 \let\PointingHand\textHandRight
21776 \let\Pointinghand\textHandRight
21777 \let\Radiation\textRadioactivity
21778 \let\Yinyang\textYinYang
21779 \let\YingYang\textYinYang
21780 \let\Yingyang\textYinYang
21781 \let\Frowny\textfrownie
21782 \let\Smiley\textsmiley
21783 \let\Sun\textsun
21784 \let\Mercury\textmercury
21785 \let\textfemale\textPUfemale
21786 \let\female\textPUfemale
21787 \let\venus\textPUfemale
21788 \let\Venus\textPUfemale
21789 \let\Female\textPUfemale
21790 \let\Earth\textearth
21791 \let\mars\textmale
21792 \let\Mars\textmale
21793 \let\Male\textmale
21794 \let\Jupiter\textjupiter
21795 \let\Saturn\textsaturn
21796 \let\Uranus\texturanus
21797 \let\Neptune\textneptune
21798 \let\Pluto\textpluto
21799 \let\Aries\textaries
21800 \let\Taurus\texttaurus
21801 \let\Gemini\textgemini
21802 \let\Cancer\textcancer
21803 \let\Leo\textleo
21804 \let\Virgo\textvirgo
21805 \let\Libra\textlibra
21806 \let\Scorpio\textscorpio
21807 \let\Sagittarius\textsagittarius
21808 \let\Capricorn\textcapricornus
21809 \let\Aquarius\textaquarius
21810 \let\Pisces\textpisces
21811 \let\spadesuit\textspadesuitblack
21812 \let\Heart\textheartsuitwhite
21813 \let\heartsuit\textheartsuitwhite
21814 \let\diamondsuit\textdiamondsuitwhite
21815 \let\clubsuit\textclubsuitblack
21816 \let\eighthnote\textmusicalnote
21817 \let\Recycling\textrecycle
21818 \let\VarFlag\textFlag
21819 \let\textxswup\textdsmilitary

```

21820 \let\textunconfemale\textPUunconfemale
21821 \let\Football\textSoccerBall
21822 \let\CutLeft\textScissorRightBrokenBottom
21823 \let\Cutright\textScissorRightBrokenBottom
21824 \let\RightScissors\textScissorRight
21825 \let\Leftscissors\textScissorRight
21826 \let\Letter\textEnvelope
21827 \let\Writinghand\textWritingHand
21828 \let\checkmark\textCheckmark
21829 \let\daavidstar\textDavidStar
21830 \let\llbracket\textlbrackdbl
21831 \let\rrbracket\textrbrackdbl
21832 \let\RightTorque\textlcurvearrowdown
21833 \let\Righttorque\textlcurvearrowdown
21834 \let\LeftTorque\textrcurvearrowdown
21835 \let\Lefttorque\textrcurvearrowdown
21836 \let\textvarobar\textobar
21837 \let\circledbslash\textobslash
21838 \let\obackslash\textobslash
21839 \let\varobslash\textobslash
21840 \let\odplus\textobot
21841 \let\varolessthan\textolessthan
21842 \let\varogreaterthan\textogreaterthan
21843 \let\divdot\textminusdot
21844 \let\doublesqcap\textsqdoublingcap
21845 \let\doublesqcup\textsqdoublingcup
21846 \let\merge\textdoublevee
21847 \let\leftVdash\textdashV
21848 \let\nleftVdash\textndashV
21849 \let\leftmodels\textDashv
21850 \let\nleftmodels\textnDashv
21851 \let\leftModels\textDashV
21852 \let\nleftModels\textnDashV
21853 \let\varparallel\textsslash
21854 \let\textheng\textPUheng
21855 \let\textlhookfour\textPUlhookfour
21856 \let\textscf\textPUscf
21857 \let\textaoilig\textPUaoilig
21858 \let\Ganz\textfullnote
21859 \let\Halb\texthalfnote
21860 \let\Womanface\textWomanFace
21861 \let\Faxmachine\textFax
21862 \let\CEsign\textCESign
21863 }% \psdaliasnames
21864 </psdextra>

```

52 End of file hyccheck.tex

```

21865 <*check>
21866 \typeout{}
21867 \begin{document}
21868 \end{document}
21869 </check>

```

53 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			
<code>\!</code>	195, 220, 2174		
<code>\”</code>	202, 227, 3423, 15122, 15482, 15494, 15506, 15632, 15718, 15732, 15740, 15755, 15767, 15784, 15798, 15809, 15810, 15824, 15836, 15843, 15894, 15935, 15962, 15991, 16164, 16178, 16186, 16200, 16214, 16231, 16245, 16256, 16257, 16272, 16284, 16292, 16550, 17212, 17214, 17225, 17277, 17279, 17311, 17325, 17481, 17495, 17739, 17741, 17756, 17759, 17761, 17763, 17765, 17767, 17777, 17779, 17781, 17783, 17790, 17793, 17795, 17797, 17803, 17805, 17811, 17813, 17819, 17821, 18028, 18030, 18180, 18182, 18196, 18198, 18218	16492, 16552, 16554, 16675, 16677, 16683, 16685, 16688, 16691, 17145, 17147, 17149, 17151, 17153, 17155, 17157, 17160, 17216, 17218, 17220, 17222, 17281, 17284, 17286, 17315, 17335, 17485, 17505, 18044, 18046, 18068, 18070, 18108, 18110, 18176, 18178, 20418, 20423, 20428, 20433, 20438, 20443, 20448, 20453, 20458, 20463, 20468, 20473, 20478, 20483, 20488, 20493, 20498, 20503, 20508, 20513, 20518, 20523, 20528, 20533	<code>\@</code> 3414 <code>\@@@</code> 2615 <code>\@@BOOKMARK</code> 15103, 15106, <u>15164</u> , 15232, 15239 <code>\@@ListBox</code> 13406, 13437, 14008, <u>14042</u> , 14363, <u>14404</u> <code>\@@Menu</code> 13647, 13655 <code>\@@PasswordField</code> . 13596, 13602 <code>\@@Radio</code> . 13391, 13412, 13645, 13669, 13993, 14014, 14348, <u>14369</u> <code>\@@TextField</code> 13598, 13613 <code>\@@commahyperpage</code> 8835, 8836 <code>\@hyper@readexternallink</code> 5398, 5400 <code>\@hyperref</code> 5245, 5246 <code>\@latextohtmlX</code> . . . 3227, 5615 <code>\@wrintex</code> 8736, 8737 <code>\@writetorep</code> 14963, 14969 <code>\@Alph</code> 7313, 7315 <code>\@BIBLABEL</code> . 8156, 8162, 8168 <code>\@BOOKMARK</code> . . 15103, 15105 <code>\@CITE</code> 8233, 8241 <code>\@CITEX</code> 8235 <code>\@CheckBox</code> 6416, 11140, 13526, 13562, 13700, 14130, <u>14506</u> <code>\@ChoiceMenu</code> 6413, 11143, <u>13344</u> , 13565, 13635, 13945, <u>14300</u> <code>\@Form</code> 6073, 11130, 13097, <u>13552</u> , 13579, 13834, <u>14214</u> <code>\@Gauge</code> . . . 6422, 11134, 13281, 13556, 13584, 13721, <u>14211</u> <code>\@Localurlfalse</code> 11083 <code>\@Localurltrue</code> 11080 <code>\@M</code> . . . 1225, 2672, 5129, 7768 <code>\@MM</code> 7918 <code>\@PackageError</code> 265 <code>\@PackageInfo</code> 268 <code>\@PackageInfoNoLine</code> 269 <code>\@PackageWarning</code> 266 <code>\@PackageWarningNoLine</code> . . 267 <code>\@PushButton</code> 6419, 11146, 13448, 13568, 13681, 14052, <u>14420</u> <code>\@Refstar</code> 9139, 9146 <code>\@Reset</code> 6428, 11149, 13499, <u>13571</u> , 13697, 14105, <u>14477</u> <code>\@Roman</code> 658 <code>\@SCTR</code> 8883, 8935 <code>\@SetMaxRnhefLabel</code> 8230
<code>\#</code>	563, 2259, 2260, 5022, 5033, 5035, 5051, 5083, 5143, 9330, 9332, 10190, 10199, 10234, 11075, 12717, 12728, 12764, 13003, 13012, 13052, 15042	<code>\(</code> 190, 215, 334, 784, 787, 789, 2176, 15188, 15552 <code>\)</code> 191, 216, 335, 756, 762, 765, 2177, 15189, 15554 <code>*</code> 337 <code>\+</code> 200, 225, 338 <code>\-</code> 201, 226 <code>\.</code> 198, 223, 331, 1319, 3765, 4199, 15485, 15497, 15509, 15573, 15867, 15874, 15892, 15938, 15965, 15997, 16074, 16075, 16314, 16316, 16344, 16346, 16364, 16366, 16403, 16434, 16436, 16556, 16558, 16743, 16745, 16751, 16753, 17960, 17962, 17972, 17974, 18012, 18014, 18020, 18022, 18072, 18074, 18080, 18082, 18112, 18114, 18116, 18118, 18128, 18130, 18136, 18138, 18184, 18186, 18192, 18194, 18200, 18202, 18224 <code>\/</code> 194, 219, 697, 698, 699, 767, 1943, 8701 <code>\:</code> 189, 214 <code>\;</code> 199, 224, 9024 <code>\<</code> 196, 221 <code>\=</code> 167, 173, 180, 183, 15487, 15499, 15511, 15887, 15942, 15969, 15996, 16294, 16296, 16336, 16338, 16388, 16390, 16391, 16462, 16464, 16522, 16524, 16755, 16757, 17773, 17775, 17799, 17801, 18016, 18018 <code>\></code> 197, 222 <code>\?</code> 339	
<code>\\$</code>	184, 209, 333, 564, 5024, 5142		
<code>\%</code>	565, 2174, 2234, 2235, 5021, 5030, 5032, 5084, 9332		
<code>\&</code>	185, 210, 566, 5025, 5036, 5038, 12774		
<code>\’</code>	203, 228, 3363, 3377, 3418, 3420, 3421, 3422, 3423, 3428, 3429, 3431, 3436, 3442, 3446, 3447, 3450, 3493, 3494, 3499, 3500, 3501, 3502, 3503, 3504, 3505, 3506, 3508, 3512, 3525, 15120, 15479, 15491, 15503, 15712, 15728, 15736, 15749, 15763, 15769, 15778, 15794, 15803, 15804, 15818, 15832, 15838, 15862, 15864, 15865, 15866, 15869, 15871, 15872, 15873, 15881, 15932, 15959, 15988, 16158, 16174, 16182, 16194, 16210, 16216, 16225, 16241, 16250, 16251, 16266, 16280, 16286, 16306, 16308, 16422, 16424, 16442, 16444, 16478, 16480, 16490,		

<code>\@Submit</code> .. 6425, 11152, 13479, 13574, 13694, 14082, <u>14454</u>	<code>\@citedatax@opt</code> ... 8375, <u>8381</u>	<code>\@extra@b@citeb</code> .. 8141, 8144, 8161, 8166, 8186, 8234, 8256, 8272, 8279
<code>\@TextField</code> . 6410, 11137, 13312, 13559, 13587, 13915, <u>14263</u>	<code>\@citeseppen</code> .. 8360, 8366	<code>\@extra@b@info</code> . 8140, 8143, 8147
<code>\@addchap</code> .. 15439	<code>\@citex</code> .. 8262	<code>\@fifthoffive</code> .. 4523, 4961, 5279, 9090, 9209
<code>\@addtoreset</code> . 8630, 8631, 8645, 8880	<code>\@clubpenalty</code> .. 7770	<code>\@filebordercolor</code> 3808, 4399, 9738, 9740, 10764, 10766, 11283, 11285, 12363
<code>\@afterheading</code> .. 15456	<code>\@commahyperpage</code> . 8830, 8835	<code>\@filecolor</code> ... 3734, 3746, 9759, 10373, 10390, 10782, 11289
<code>\@alph</code> .. 7309, 7311	<code>\@ctrerr</code> .. 7286, 7295	<code>\@firstoffive</code> .. 4957, 4966, 9129, 9214
<code>\@anchorcolor</code> 3744, 10159, 10254, 11197, 12685, 12973	<code>\@currDisplay</code> 6161, 13356, 13419, 13664, 13678, 13957, 14021, 14312, 14379	<code>\@firstofone</code> .. 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 647, 684, 840, 1061, 1072, 1305, 1309, 1313, 1651, 4177, 4848, 6039, 6045, 6311, 7117, 7306, 7318, 7385, 8022, 8104, 8245, 8268, 8450, 8691, 10047, 13788, 14592, 14609, 14627
<code>\@arabic</code> 1195, 1200, 1204, 7221, 7237, 7308	<code>\@currValue</code> .. 6163, 6165, 13417, 13428, 13664, 13675, 14019, 14029, 14377, 14394, 14837	<code>\@firstoftwo</code> ... 667, 1013, 1187, 1859, 6606, 15405
<code>\@auxout</code> 2609, 5292, 5562, 6636, 6638, 7398, 7426, 8176, 8191, 8207, 8217, 8247, 8270, 8296, 8302, 8326	<code>\@currentHlabel</code> .. 7359	<code>\@fnsymbol</code> .. 7307
<code>\@backslashchar</code> .. 880, 883, 886, 1449, 2136, 2140, 2143, 2281, 2298, 2304, 2308, 2316, 5046, 9345, 9355	<code>\@currentHref</code> .. 2617, 5591, 6518, 7202, 7339, 7341, 7350, 7352, 7359, 7440, 7442, 7452, 7503, 7514, 7516, 7555, 7574, 7578, 7587, 7613, 7705, 7736, 7761, 7834, 7844, 7846, 7847, 7903, 7931, 8029, 8055, 8059, 8086, 8088, 8305, 8489, 8512, 8525, 8532, 8600, 8624, 8626, 14953, 15344, 15357, 15368, 15398, 15415, 15450	<code>\@footnotemark</code> 7777, 7840, 7858, 7940, 7952, 7954, 7966, 7967, 7997, 7999
<code>\@baseurl</code> 3751, 3753, 5456, 9871, 9874, 10144, 10146, 10432, 10434, 10952, 10962, 11048, 11050, 11586, 11588, 11978, 11992, 12670, 12672, 12871, 12885, 12959, 12961	<code>\@currentlabel</code> 7482, 7921, 8298, 8305, 8605, 8612, 8889, 8941	<code>\@footnotetext</code> .. 7776, 7783, 7817, 7857, 7953, 7955, 7969, 7970, 7990
<code>\@begintheorem</code> 7670, 7674, 7700, 7707, 7731, 7738	<code>\@currentlabelname</code> . 2607, 7835, 7904, 7932, 8034	<code>\@for</code> ... 3784, 5681, 8242, 8265, 13353, 13415, 13653, 13660, 13670, 13954, 14017, 14309, 14375
<code>\@bibitem</code> .. 8183, 8214	<code>\@currentlabstr</code> 2606, 2614	<code>\@fourthoffive</code> 4960, 5280, 9204, 9211
<code>\@biblabel</code> .. 8156, 8203	<code>\@curropt</code> . 13353, 13354, 13415, 13416, 13653, 13660, 13661, 13663, 13670, 13671, 13673, 13954, 13955, 14017, 14018, 14309, 14310, 14375, 14376	<code>\@gobble</code> .. 49, 56, 117, 587, 588, 589, 590, 627, 628, 629, 630, 670, 671, 672, 681, 683, 844, 1020, 1059, 1070, 1211, 1215, 1218, 1588, 1649, 1668, 1681, 1685, 1748, 1811, 1812, 1819, 1824, 1838, 1843, 2462, 2644, 2917, 2929, 4165, 4474, 4511, 4566, 5012, 6024, 6301, 6571, 6575, 6592, 6594, 6610, 6611, 6614, 6615, 6617, 7091, 7111, 7115, 7659, 7687, 7720, 8011, 8101, 8488, 9269, 10049, 11466, 11469, 13835, 14215, 15010, 15011, 15012, 15013
<code>\@bookmarkopenstatus</code> .. 4846, 4863, 15024	<code>\@dblarg</code> .. 8024, 8106	<code>\@gobblefour</code> ... 593, 707, 1345,
<code>\@bookmarkopenlevel</code> .. 3705, 3707, 4849	<code>\@definecounter</code> 8585, 8586	
<code>\@bsphack</code> 2602, 5285, 8300	<code>\@documentclasshook</code> 4482	
<code>\@capstartfalse</code> .. 8049	<code>\@ehc</code> .. 2970, 3085, 3110, 3143, 3181, 3188, 3199, 3205, 4564, 5191, 5420, 5785, 5909, 6105, 6138, 6348, 6401, 13457, 13510, 14062, 14116, 14430, 14488	
<code>\@caption</code> 8014, 8026, 8069, 8106, 8108	<code>\@ehd</code> .. 63, 284, 290, 314, 8010, 8100	
<code>\@capter</code> 2611, 8009, 8013, 8017, 8024, 8031, 8085, 8099, 8103, 8106	<code>\@elt</code> ... 7209, 7211, 7212, 7217	
<code>\@car</code> ... 1731, 1747, 1765, 1785, 3684, 5691, 9823, 9834	<code>\@endForm</code> . 6074, 11133, 13280, 13555, 13583, 13888, <u>14241</u>	
<code>\@cdr</code> .. 9824, 9835	<code>\@endpary</code> .. 7668, 7696, 7727	
<code>\@chapter</code> .. 15363, 15364	<code>\@eqnncr</code> .. 7597	
<code>\@cite</code> .. 8233, 8264, 8361, 8367	<code>\@eqnstarfalse</code> .. 7569, 7600	
<code>\@cite@opt</code> 8362, 8368, 8372, 8382	<code>\@eqnstartrue</code> .. 7597	
<code>\@citea</code> . 8236, 8243, 8244, 8263, 8266, 8267	<code>\@eqnswtrue</code> .. 7530, 7539	
<code>\@citeb</code> . 8242, 8245, 8247, 8249, 8253, 8256, 8265, 8268, 8270, 8272, 8276, 8279	<code>\@esphack</code> 2623, 5296, 8310, 8748	
<code>\@citebordercolor</code> .. 3807, 4401		
<code>\@citecolor</code> .. 3745		
<code>\@citedata@opt</code> 8363, 8369, <u>8371</u>		
<code>\@citedatax</code> .. 8378, 8383		

1346, 1347, 3961, 9004	8635, 8643, 8644, 8657,	2579, 2581, 2583, 2585,
\@gobbleopt 6617, 6619	8658, 8665, 9388, 11024,	2586, 2587, 2588, 2589,
\@gobbletwo 591, 674, 700, 708,	11666, 11667, 12476, 13835,	2590, 2591, 2592, 2593,
709, 857, 1344, 1766, 1843,	14215, 14601, 15020	2739, 3050, 3051, 3052,
1847, 2802, 3959, 3960,	\@indexfile . . . 8740, 8755, 8770,	3053, 3054, 3055, 3056,
4515, 5970, 6596, 6605,	8774, 8784	3057, 3552, 3564, 5791,
6613, 6617, 9192, 15354	\@inlabeledfalse 7749	5792, 5793, 5794, 6116,
\@charvarditem 8315, 8317	\@inmathwarn 557, 558	6117, 7371, 7596, 7599,
\@hyper@C@anchor . . 5506, 5507	\@inpenC@undefined@ 2336	8290, 8291, 8292, 8293
\@hyper@itemfalse . . 7147, 7165,	\@labels 7765	\@namerefstar 4999, 9134
7179	\@latex@ 6721, 6722	\@nameuse 2611, 3047, 5797, 6108
\@hyper@itemtrue 7148	\@latex@error 8010, 8100	\@ne 1194, 2989, 3131, 4834, 5161,
\@hyper@launch . . . 5426, 5435,	\@latex@warning . . . 5272, 8252,	10696, 10701, 11565, 12509,
9763, 10787, 11358, 12381	8275, 9065, 9085, 9102, 9220	13287, 14250
\@hyper@linkfile . . . 5407, 5410,	\@lbibitem 8157, 8202	\@newctr 8590, 8591
5414, 5446	\@linkbordercolor . . 3809, 4396,	\@newl@bel . . . 5545, 6684, 8143
\@hyper@readexternallink 5401,	9687, 11187	\@newlistfalse 7746
5405	\@linkcolor 3743, 12031	\@nil 295, 322, 502, 506, 511, 515,
\@hyperdef 5253, 5254	\@linkdim . . . 485, 10208, 10209,	530, 1643, 1646, 1654, 1731,
\@hyperpage 8827, 8828	10217, 10218, 10219, 10288,	1749, 1767, 1783, 1785,
\@hyperref 5234, 5245	10289, 10301, 10302, 10303,	1788, 1791, 1794, 2345,
\@ifclasslater 15462, 15467	10325, 10326, 10339, 10340,	2347, 2363, 2365, 3684,
\@ifclassloaded	10341, 10365, 10366, 10379,	5068, 5072, 5077, 5473,
. . . 2594, 4988, 7370, 7407,	10380, 10381, 12738, 12739,	5481, 5487, 5489, 5691,
8225, 8863, 8867, 10052,	12747, 12748, 12749, 13021,	6292, 6295, 6314, 6709,
15461, 15466	13022, 13035, 13036, 13037	6712, 6719, 6721, 6722,
\@ifnextchar . . 12, 88, 103, 123,	\@listctr 8192, 8218	6834, 6882, 6883, 6885,
701, 5136, 5234, 5253, 5354,	\@m . . . 1208, 8244, 8267, 11513	6908, 6925, 6979, 6981,
6073, 6410, 6413, 6416,	\@mainaux 6634, 6635, 7074, 7082,	7498, 7507, 7509, 7521,
6419, 6422, 6425, 6428,	13781, 13784, 13812, 13827	8814, 8816, 8823, 8846,
6617, 6690, 6699, 7956,	\@makecaption 8050, 8052, 8119	8849, 8859, 9069, 9072,
7974, 8315, 8373, 12003,	\@makefnmark 7849, 8002	9228, 9259, 9341, 9347,
12292, 12306, 15103, 15106	\@makefnstext 7922	9351, 9357, 9823, 9824,
\@ifpackagelater 238, 1081, 2625,	\@makeoother 166, 167,	9834, 9835, 11431, 11433,
7361, 8655	179, 180, 182, 183, 188, 189,	14599, 14612, 14618, 15052,
\@ifpackageloaded 516,	190, 191, 192, 193, 194, 195,	15055, 15058, 15067, 15070,
910, 1080, 2597, 3022, 3661,	196, 197, 198, 199, 200, 201,	15079
3665, 4459, 4669, 7188,	202, 203, 5036, 9317, 15192,	\@nobeckfalse 6681, 7768
7360, 7373, 7435, 7468,	15195, 15222, 15225	\@nocnterr 8644, 8658
7472, 7492, 7526, 7653,	\@makeschapterhead 15453,	\@nocounterr 8643, 8657
7854, 7870, 7910, 8082,	15455	\@noparitemfalse 7747
8285, 8358, 8597, 8654,	\@mem@titleref 4995	\@number 7306, 7385, 8450
8696, 8697, 8698, 8873,	\@mem@titleref@nolink 4995	\@nx 8647, 8661, 8664, 8666
9138, 9282, 9286, 12951	\@menubordercolor . 3810, 4398,	\@onelevel@sanitize . 2795, 2799,
\@ifpackagewith 3543, 4457, 8620	10109, 10111, 10858, 10860,	3004, 3683, 4541, 4571,
\@ifstar . . . 66, 4983, 4986, 4995,	11396, 11398, 12285	4592, 5102, 5468, 5471,
4999, 6553, 6557, 6623,	\@menucolor 3748, 10124, 10869,	5484, 5498, 5781, 6017,
6627, 9146, 9172, 9192	11402	6101, 6935, 6937, 7346,
\@ifundefined 34, 373, 977,	\@minipagefalse 7745	8518, 9115, 10553, 15049
987, 1016, 1019, 1033, 2891,	\@mkboth . . . 674, 8986, 15354,	\@oparg . 7670, 7674, 7700, 7707,
3040, 3561, 3597, 3605,	15442, 15444	7731, 7738
3612, 3634, 3682, 4425,	\@mpfn 7780, 7975, 7987	\@outlinefile 15022, 15111, 15206,
5780, 6100, 7044, 7157,	\@mpfootnotetext . . 7783, 7796,	15208, 15210, 15288, 15290,
7192, 7207, 7474, 7495,	7797, 7859	15292
7496, 7549, 7580, 7608,	\@mycount 15168, 15178	\@pagerefstar . . 4986, 9131, 9162
7645, 8015, 8033, 8150,	\@namedef 1325, 2565, 2567, 2569,	\@pagesetref 9081
8233, 8249, 8272, 8594,	2571, 2573, 2575, 2577,	\@parboxrestore 7920, 8042, 8114

<code>\@parcount</code>	15170, 15178	14496, 14525, 14536, 14568,	4203, 4205, 4206, 4207,
<code>\@part</code>	15381, 15388	14576, 15259	4218, 4222, 4224, 4225,
<code>\@pdfauthor</code> .	3977, 4404, 9931,	<code>\@pdfmoddate</code> 4016, 4408, 9939,	4227, 4414, 9751, 10773,
	10414, 10899, 11639, 11904,	9941, 10410, 10412, 10895,	12371
	12802	10897, 11883, 11887, 12798,	<code>\@pdfstartpage</code> 4186, 4188, 4415,
<code>\@pdfborder</code>		12800	9879, 9883, 10440, 10445,
..	3626, 3822, 3823, 3824,	<code>\@pdfnonfullscreenpagemode</code> . . .	10955, 10959, 11578, 11582,
	3831, 3835, 3858, 3860,	9893, 10469, 10931, 11597,	11928, 11933, 12821, 12826
	4929, 9617, 10571, 11185,	11957, 12850	<code>\@pdfstartview</code> 4193, 4195, 4413,
	11770, 11865, 12283, 12296,	<code>\@pdfnumcopies</code> . . . 9909, 9911,	9881, 9883, 10442, 10446,
	12311, 12332, 12360, 12391,	10485, 10487, 10947, 10949,	10957, 10959, 11580, 11930,
	12420, 12515, 12611, 12779	11613, 11615, 11973, 11975,	11934, 12823, 12827
		12866, 12868	<code>\@pdfsubject</code> . 4023, 4409, 9933,
<code>\@pdfborderstyle</code>		<code>\@pdfpageduration</code> . 3761, 9991,	10419, 10889, 11641, 11902,
..	3627, 3839, 3840, 3841,	9995, 10000, 10997, 10999,	12807
	3850, 3854, 3862, 3864,	11002, 11522, 11524, 11527,	<code>\@pdftempa</code> . . . 5412, 5413, 5416
	4930, 6263, 9618, 10572,	11809, 11811, 11819	<code>\@pdftempwordfile</code> . 5403, 5413
	11186, 11771, 11866, 12284,	<code>\@pdfpagelayout</code> . . 9919, 10497,	<code>\@pdftempwordrun</code> . 5404, 5416
	12297, 12312, 12333, 12361,	10971, 11618, 11620, 11987,	<code>\@pdftitle</code> . . . 3971, 4403, 9932,
	12392, 12421, 12516, 12612,	12880	10404, 10888, 11640, 11901,
	12780	<code>\@pdfpagemode</code>	12792
<code>\@pdfcreationdate</code> . .	4010, 4407,	..	4657, 4658, 4859, 4860,
	9935, 9937, 10406, 10408,	4869, 4870, 9873, 10453,	4869, 4870, 9873, 10453,
	10891, 10893, 11879, 11881,	10966, 11585, 11941, 12834	10966, 11585, 11941, 12834
	12794, 12796	<code>\@pdfpagescrop</code> 4231, 4412, 9858,	<code>\@pdftrapped</code> 4034, 4037, 4040,
<code>\@pdfcreator</code> .	4005, 4406, 9934,	9862, 10436, 10437, 10458,	4049, 4058, 4411, 9948,
	10405, 10890, 11642, 11903,	10460, 10978, 10980, 11574,	9950, 10905, 10907, 11906
	12793	11576, 11946, 11948, 12839,	<code>\@pdfview</code> . . . 4167, 9599, 9607,
<code>\@pdfdirection</code>	9894, 10470,	12841	10521, 10525, 10529, 10533,
	10932, 11598, 11958, 12851	<code>\@pdfpagetransition</code> . 3757, 9967,	10537, 10541, 10542, 10545,
<code>\@pdfduplex</code> 9900, 10476, 10938,		9971, 9976, 10986, 10988,	10546, 10549, 10553, 10555,
	11604, 11964, 12857	10991, 11411, 11413, 11415,	10570, 11184, 11194, 11206,
<code>\@pdfhighlight</code> 3814, 4402, 9637,		11792, 11794, 11802	11707, 11727, 12422, 12517,
	9639, 9698, 9734, 9736,	<code>\@pdfpicktraybypdfsize</code> . . 9901,	12613, 12893
	9771, 9773, 10105, 10107,	9903, 10477, 10479, 10939,	<code>\@pdfviewarea</code> 9895, 10471,
	11769, 11864, 12282, 12331,	10941, 11605, 11607, 11965,	10933, 11599, 11959, 12852
	12359, 12390	11967, 12858, 12860	<code>\@pdfviewclip</code> 9896, 10472, 10934,
<code>\@pdfhighlight</code>	9696	<code>\@pdfprintarea</code> . . . 9897, 10473,	11600, 11960, 12853
<code>\@pdfkeywords</code> 4029, 4410, 9947,		10935, 11601, 11961, 12854	<code>\@pdfviewparams</code> . . 4169, 4171,
	10403, 10904, 11647, 11905,	<code>\@pdfprintclip</code> 9898, 10474,	11707, 11727, 12423, 12518,
	12791	10936, 11602, 11962, 12855	12614, 12894
<code>\@pdflang</code> 4277, 4279, 4280, 4282,		<code>\@pdfprintpagerange</code> 3929, 4416,	<code>\@percentchar</code> 5031, 5032, 5084,
	4284, 4286, 4292, 4322,	9905, 9907, 10481, 10483,	15026
	4323, 4325, 4346, 4350,	10943, 10945, 11609, 11611,	<code>\@processme</code> . 6149, 6150, 9973,
	4352, 4369, 4378, 4385,	11969, 11971, 12862, 12864	9979, 9997, 10003, 10019,
	4417, 9920, 9922, 10498,	<code>\@pdfprintscaling</code> . 9899, 10475,	10025, 12006, 12007, 12129,
	10500, 10972, 10974, 11988,	10937, 11603, 11963, 12856	12130, 12133, 12134
	11990, 12881, 12883	<code>\@pdfproducer</code> 3983, 4405, 9799,	<code>\@protected@testopt</code> 704
<code>\@pdfm@dest</code> 10515, 10574, 10578		9943, 9945, 10396, 10397,	<code>\@protected@testopt@xargs</code> . 705
<code>\@pdfm@mark</code> 7062, 10514,		10415, 10417, 10875, 10876,	<code>\@refstar</code> 4983, 9128
	10566, 10586, 10600, 10602,	10880, 10900, 10902, 11542,	<code>\@runbordercolor</code> . . . 3811, 4400,
	10616, 10618, 10623, 10624,	11543, 11547, 11550, 11551,	9775, 9777, 10798, 10800,
	10654, 10678, 10680, 10685,	11643, 11645, 11890, 11894,	11377, 11379, 12394
	10703, 10726, 10758, 10792,	12417, 12418, 12508, 12510,	<code>\@runcolor</code> . . . 3749, 9795, 10814,
	10823, 10852, 10886, 10953,	12512, 12608, 12609, 12784,	11383
	10980, 14218, 14219, 14220,	12785, 12803, 12805	<code>\@safe@activesfalse</code> . . 656, 4963
	14239, 14257, 14260, 14290,	<code>\@pdfremotestartview</code>	<code>\@safe@activestrue</code> . . . 655, 4962
	14385, 14412, 14443, 14468,		<code>\@savsf</code> 9602, 9610
			<code>\@schapter</code> 15351, 15352

<code>\@secondoffive</code>	4524, 4958, 4971, 9091, 9092, 9132	<code>\@temptokena</code>	3530, 3535, 3538, 3540	16160, 16176, 16184, 16196, 16212, 16227, 16243, 16253, 16254, 16268, 16282, 16310, 16312, 16356, 16358, 16372, 16374, 16411, 16413, 16414, 16494, 16496, 16542, 16544, 16546, 16548, 18204, 18206
<code>\@secondoftwo</code>	637, 646, 1011, 1190, 1717, 1857, 4523, 4524, 15407	<code>\@tfor</code>	7626	<code>_</code>
<code>\@sect</code>	15402, 15403	<code>\@the@H@page</code>	8417, 8453, 8455, 8456	187, 212, 568, 5023, 5040, 5041
<code>\@seqnrcr</code>	7597	<code>\@thefnmark</code>	7781, 7792, 7883, 7921, 7938, 7945, 7976, 7988, 7995	<code>\'</code>
<code>\@serial@counter</code>	15118, 15166, 15168, 15169	<code>\@thirdoffive</code>	4959, 9135	166, 172, 179, 182, 3377, 3511, 3514, 3516, 3524, 15043, 15478, 15490, 15502, 15710, 15726, 15734, 15747, 15761, 15776, 15792, 15800, 15801, 15816, 15830, 15879, 15931, 15958, 15987, 16156, 16172, 16180, 16192, 16208, 16223, 16239, 16247, 16248, 16264, 16278, 16679, 16681, 17308, 17337, 17478, 17507, 18172, 18174, 18250, 18252, 20420, 20425, 20430, 20435, 20440, 20445, 20450, 20455, 20460, 20465, 20470, 20475, 20480, 20485, 20490, 20495, 20500, 20505, 20510, 20515, 20520, 20525, 20530, 20535
<code>\@seteqlabel</code>	8621, 8622	<code>\@thm</code>	7679, 7680, 7713	<code>\l</code>
<code>\@setminipage</code>	8044, 8116	<code>\@topnewpage</code>	15453	188, 213, 336, 2082, 2175, 2216, 3323, 4440, 8700, 9316, 9326
<code>\@setref</code>	4966, 4971, 9060, 9061, 9098	<code>\@topsep</code>	7667, 7695, 7726	<code>\~</code>
<code>\@sharp</code>	7498, 7504	<code>\@topsepadd</code>	7668, 7696, 7727	567, 1363, 2324, 3435, 3443, 3444, 3445, 4585, 5044, 15481, 15493, 15505, 15716, 15745, 15753, 15782, 15814, 15822, 15885, 15934, 15961, 15990, 16162, 16190, 16198, 16229, 16262, 16270, 16383, 16385, 16386, 16518, 16520, 18164, 18166, 18234, 18236, 18258, 18260, 20422, 20427, 20432, 20437, 20442, 20447, 20452, 20457, 20462, 20467, 20472, 20477, 20482, 20487, 20492, 20497, 20502, 20507, 20512, 20517, 20522, 20527, 20532, 20537
<code>\@skiphyperreffalse</code>	7166, 8172, 8184	<code>\@typeset@protect</code>	15323	Numbers
<code>\@skiphyperreftrue</code>	8158, 8184	<code>\@undefined</code>	386, 389, 710, 3534, 6607, 6642, 6655, 6667, 6897, 6915, 6960, 8009, 8073, 8078, 8084, 8099, 9123, 9590, 9803, 9812, 11157, 11553, 11567	<code>\3</code>
<code>\@spaces</code>	272	<code>\@undottedtocline</code>	9050	544, 1407, 1408, 1409, 1410, 1411, 1412, 1413, 1414, 1523, 1524, 1525, 1526, 1527, 1528, 1529, 1530, 2438, 2575, 2583, 2585, 15187, 15710, 15712, 15714, 15716, 15718, 15720, 15722, 15724, 15726, 15728, 15730, 15732, 15734, 15736, 15738, 15740, 15742, 15743,
<code>\@spart</code>	15394, 15395	<code>\@unexpandable@protect</code>	8801	
<code>\@ssect</code>	15337, 15338	<code>\@unprocessedoptions</code>	4807	
<code>\@startlos</code>	8998, 9005, 9054	<code>\@urlbordercolor</code>	3812, 4397, 9700, 9702, 10829, 10831, 11309, 11311, 12334	
<code>\@starttoc</code>	6668	<code>\@urlcolor</code>	3747, 9719, 10213, 10226, 10333, 10350, 10843, 11315, 12743, 12756, 13030, 13043	
<code>\@tempa</code>	7669, 7670, 7673, 7677, 7699, 7706, 7710, 7730, 7737, 7741, 7872, 7876, 7879, 7891	<code>\@urltype</code>	10179, 10184, 11053, 11079, 11214, 11228, 12705, 12710, 12992, 12997	
<code>\@tempb</code>	7625, 7629	<code>\@vpageref</code>	9156	
<code>\@tempboxa</code>	10206, 10208, 10217, 10286, 10288, 10291, 10292, 10301, 10307, 10308, 10323, 10325, 10328, 10329, 10339, 10345, 10346, 10363, 10365, 10368, 10369, 10379, 10385, 10386, 12736, 12738, 12747, 13019, 13021, 13035	<code>\@whilenum</code>	1361	
<code>\@tempcnta</code>	14975, 14976, 14977, 14978, 14979, 14981, 14984, 14985, 14986, 14992, 14994, 14996, 15087, 15088, 15089, 15092, 15093, 15094, 15095, 15096, 15310, 15311, 15312	<code>\@wrindex</code>	8704, 8705, 8736	
<code>\@tempdim</code>	2675, 6450, 6451, 6452, 6453, 6454, 6455, 6456, 6457, 9592, 13352, 13357, 13359, 13395, 13396, 13397, 13401, 13402, 13403, 13404, 13953, 13958, 13960, 13997, 13998, 13999, 14003, 14004, 14005, 14006, 14308, 14313, 14315, 14352, 14353, 14354, 14358, 14359, 14360, 14361	<code>\@writefile</code>	8303	
<code>\@tempdimb</code>	13356, 13357, 13957, 13958, 14312, 14313	<code>\@x@sf</code>	7842, 7851, 8001, 8003	
<code>\@tempswafalse</code>	8377	<code>\@xfootnote</code>	7974	
<code>\@tempswatru</code>	8347, 8350, 8353, 8374	<code>\@xfootnotemark</code>	7789, 7992	
		<code>\@xfootnotenext</code>	7778, 7985	
		<code>\@xp</code>	8611, 8646, 8647, 8660, 8661, 8663, 8664	
		<code>\@xxxii</code>	5310	
		<code>\[</code>	192, 217, 332, 3828, 3846, 5203	
		<code>\{</code>	340, 362, 560, 2176, 11698, 15044	
		<code>\}</code>	341, 367, 561, 2177, 11698, 15045	
		<code>\]</code>	193, 218	
		<code>\^</code>	186, 211, 330, 2274, 2275, 3441, 5019, 5020, 5028, 15480, 15492, 15504, 15714, 15730, 15738, 15751, 15765, 15780, 15796, 15806, 15807, 15820, 15834, 15883, 15933, 15960, 15989,	

15745, 15747, 15749, 15751,
15753, 15755, 15757, 15759,
15761, 15763, 15765, 15767,
15769, 15771, 15772, 15774,
15776, 15778, 15780, 15782,
15784, 15786, 15788, 15790,
15792, 15794, 15796, 15798,
15800, 15801, 15803, 15804,
15806, 15807, 15809, 15810,
15812, 15814, 15816, 15818,
15820, 15822, 15824, 15826,
15828, 15830, 15832, 15834,
15836, 15838, 15840, 15841,
15843, 15928, 16156, 16158,
16160, 16162, 16164, 16166,
16168, 16170, 16172, 16174,
16176, 16178, 16180, 16182,
16184, 16186, 16188, 16190,
16192, 16194, 16196, 16198,
16200, 16202, 16206, 16208,
16210, 16212, 16214, 16216,
16218, 16219, 16221, 16223,
16225, 16227, 16229, 16231,
16233, 16235, 16237, 16239,
16241, 16243, 16245, 16247,
16248, 16250, 16251, 16253,
16254, 16256, 16257, 16259,
16262, 16264, 16266, 16268,
16270, 16272, 16274, 16276,
16278, 16280, 16282, 16284,
16286, 16289, 16290, 16292,
16625, 16629, 16633, 16636,
16638, 16640, 16642, 16643,
16645, 16647, 16649, 16651,
16653, 16655, 16657, 16660,
16662, 16664, 16666, 16668,
16670, 16672, 16673, 16675,
16677, 16679, 16681, 16683,
16685, 16688, 16691, 17086,
17089, 17092, 17094, 17097,
17100, 17103, 17106, 17108,
17110, 17112, 17114, 17116,
17118, 17119, 17121, 17123,
17125, 17127, 17129, 17257,
17259, 17261, 17263, 17265,
17267, 17269, 17271, 17273,
17275, 17277, 17279, 17281,
17283, 17284, 17286, 17288,
17290, 17292, 17294, 17297,
17299, 17301, 17303, 17306,
17709, 17711, 17713, 17715,
17717, 17719, 17721, 17723,
17725, 17727, 17729, 17731,
17733, 17735, 17737, 17739,
17741, 17743, 17745, 17747,
17749, 17751, 17753, 17756,
17759, 17761, 17763, 17765,

17767, 17769, 17771, 17773,
17775, 17777, 17779, 17781,
17783, 17785, 17787, 17790,
17793, 17795, 17797, 17799,
17801, 17803, 17805, 17807,
17809, 17811, 17813, 17815,
17817, 17819, 17821, 17823,
17825, 17827, 17829, 17831,
17833, 17835, 17837, 17839,
17841, 17843, 17845, 17847,
17849, 17851, 17853, 17855,
17857, 17859, 17861, 17863,
17865, 17867, 17869, 17871,
17873, 17875, 17877, 17879,
17882, 17884, 17886, 17888,
18238, 18240, 18242, 18244,
18246, 18248, 18250, 18252,
18254, 18256, 18258, 18260,
18616, 18619, 18622, 18625,
18628, 18631, 18634, 18636,
18638, 18640, 18642, 18645,
18648, 18651, 18653, 18656,
18659, 18661, 18664, 18667,
18670, 18673, 18675, 18677,
18679, 18681, 18683, 18685,
18687, 18689, 18692, 18695,
18697, 18700, 18702, 18705,
18707, 18709, 18711, 18758,
18796, 18801, 19174, 19176,
19178, 19181, 19184, 19186,
19188, 19190, 19192, 19194,
19197, 19200, 19202, 19204,
19206, 19208, 19211, 19214,
19216, 19218, 19220, 19222,
19225, 19228, 19230, 19232,
19234, 19236, 19238, 19240,
19242, 19244, 19246, 19249,
19252, 19254, 19256, 19258,
19260, 19263, 19267, 19270,
19273, 19275, 19277, 19279,
19281, 19350, 19353, 19429,
19431, 19433, 19435, 19437,
19439, 19441, 19443, 19445,
19447, 19449, 19451, 19453,
19455, 19457, 19459, 19461,
19463, 19465, 19467, 19469,
19471, 19473, 19475, 19477,
19479, 19481, 19483, 19485,
19487, 19489, 19491, 19493,
19495, 19497, 19499, 19501,
19503, 19505, 19507, 19509,
19511, 19513, 19515, 19517,
19546, 19549, 19551, 19553,
19556, 19558, 19560, 19562,
19565, 19567, 19785, 19787,
19789, 19791, 19793, 19964,
19966, 19968, 19970, 19972,

19974, 19977, 19981, 19983,
19985, 19987, 19989, 19991,
19993, 19995, 19997, 19999,
20001, 20105, 20108, 20111,
20113, 20115, 20117, 20119,
20121, 20123, 20125, 20252,
20254, 20256, 20258, 20260,
20263, 20266, 20269, 20273,
20276, 20279, 20281, 20283,
20285, 20287, 20290, 20292,
20367, 20379, 20381, 20383,
20385, 20387, 20407, 20408,
20409, 20413, 20414, 20415,
20418, 20420, 20422, 20433,
20435, 20439, 20440, 20441,
20442, 20443, 20444, 20445,
20446, 20448, 20449, 20450,
20451, 20452, 20453, 20454,
20455, 20456, 20457, 20458,
20459, 20460, 20461, 20462,
20463, 20464, 20465, 20466,
20468, 20469, 20470, 20471,
20472, 20473, 20474, 20475,
20476, 20477, 20478, 20480,
20482, 20493, 20495, 20499,
20500, 20501, 20502, 20503,
20504, 20505, 20506, 20508,
20509, 20510, 20511, 20512,
20513, 20514, 20515, 20516,
20517, 20518, 20519, 20520,
20521, 20522, 20523, 20524,
20525, 20526, 20528, 20529,
20530, 20531, 20532, 20533,
20534, 20535, 20536, 20537,
20641

\9 . 547, 1427, 1430, 1461, 2366,
2381, 2390, 2418, 2438,
2475, 2479, 2493, 2497,
2505, 2510, 2513, 2547,
2551, 2554, 2557, 2567,
2569, 2571, 2573, 2575,
2577, 2579, 2581, 2583,
2585, 15928, 17890, 17892,
17894, 17896, 17898, 17900,
17903, 17906, 17909, 17912,
17914, 17916, 17918, 17920,
17922, 17924, 17926, 17928,
17930, 17933, 17935, 17938,
17940, 17943, 17945, 17949,
17953, 17956, 17958, 17960,
17962, 17964, 17966, 17968,
17970, 17972, 17974, 17976,
17978, 17980, 17982, 17984,
17986, 17988, 17990, 17993,
17996, 17999, 18002, 18004,
18006, 18008, 18010, 18012,
18014, 18016, 18018, 18020,

18022, 18024, 18026, 18028,
18030, 18032, 18034, 18036,
18038, 18040, 18042, 18044,
18046, 18048, 18050, 18052,
18054, 18056, 18058, 18060,
18062, 18064, 18066, 18068,
18070, 18072, 18074, 18076,
18078, 18080, 18082, 18084,
18086, 18088, 18090, 18092,
18094, 18097, 18100, 18103,
18106, 18108, 18110, 18112,
18114, 18116, 18118, 18120,
18122, 18124, 18126, 18128,
18130, 18132, 18134, 18136,
18138, 18140, 18142, 18144,
18146, 18148, 18150, 18152,
18154, 18156, 18158, 18160,
18162, 18164, 18166, 18168,
18170, 18172, 18174, 18176,
18178, 18180, 18182, 18184,
18186, 18188, 18190, 18192,
18194, 18196, 18198, 18200,
18202, 18204, 18206, 18208,
18210, 18212, 18214, 18216,
18218, 18220, 18222, 18224,
18226, 18228, 18230, 18232,
18234, 18236, 18238, 18240,
18242, 18244, 18246, 18248,
18250, 18252, 18254, 18256,
18258, 18260, 18262, 18264,
18266, 18268, 18271, 18273,
18275, 18277, 18279, 18281,
18283, 18286, 18290, 18292,
18294, 18297, 18299, 18301,
18303, 18305, 18307, 18309,
18311, 18313, 18315, 18317,
18319, 18321, 18323, 18325,
18327, 18329, 18331, 18333,
18335, 18337, 18339, 18341,
18343, 18345, 18347, 18349,
18351, 18353, 18355, 18357,
18359, 18361, 18363, 18365,
18367, 18369, 18371, 18373,
18375, 18377, 18379, 18381,
18383, 18385, 18387, 18389,
18391, 18393, 18395, 18397,
18399, 18401, 18403, 18405,
18407, 18409, 18411, 18413,
18415, 18417, 18419, 18421,
18423, 18425, 18427, 18438,
18441, 18443, 18445, 18447,
18449, 18451, 18453, 18455,
18458, 18460, 18462, 18464,
18466, 18468, 18470, 18473,
18475, 18477, 18481, 18483,
18485, 18487, 18489, 18491,
18493, 18495, 18499, 18501,

18503, 18505, 18507, 18509,
18511, 18513, 18515, 18517,
18519, 18521, 18523, 18525,
18527, 18529, 18531, 18533,
18535, 18537, 18541, 18545,
18547, 18549, 18551, 18554,
18557, 18559, 18561, 18563,
18565, 18567, 18570, 18572,
18574, 18576, 18578, 18580,
18582, 18584, 18586, 18588,
18590, 18592, 18596, 18599,
18601, 18604, 18607, 18610,
18613, 18616, 18619, 18622,
18625, 18628, 18631, 18634,
18636, 18638, 18640, 18642,
18645, 18648, 18651, 18653,
18656, 18659, 18661, 18664,
18667, 18670, 18673, 18675,
18677, 18679, 18681, 18683,
18685, 18687, 18689, 18692,
18695, 18697, 18700, 18702,
18705, 18707, 18709, 18711,
18713, 18715, 18717, 18719,
18721, 18723, 18726, 18728,
18730, 18732, 18734, 18736,
18739, 18742, 18744, 18746,
18748, 18750, 18752, 18754,
18756, 18758, 18760, 18762,
18764, 18766, 18768, 18770,
18773, 18775, 18777, 18779,
18784, 18786, 18789, 18791,
18794, 18796, 18799, 18801,
18804, 18806, 18808, 18811,
18813, 18815, 18818, 18821,
18823, 18825, 18828, 18831,
18833, 18835, 18838, 18840,
18843, 18845, 18847, 18850,
18852, 18854, 18856, 18858,
18860, 18863, 18865, 18867,
18870, 18872, 18874, 18877,
18879, 18881, 18883, 18885,
18888, 18890, 18892, 18894,
18896, 18898, 18901, 18904,
18907, 18909, 18912, 18914,
18916, 18918, 18920, 18922,
18924, 18926, 18928, 18932,
18934, 18936, 18937, 18940,
18943, 18947, 18948, 18952,
18953, 18956, 18958, 18960,
18962, 18964, 18966, 18968,
18970, 18972, 18974, 18976,
18978, 18980, 18983, 18985,
18987, 18990, 18993, 18995,
18997, 18999, 19001, 19003,
19005, 19007, 19009, 19011,
19013, 19015, 19017, 19019,
19021, 19023, 19025, 19027,

19029, 19031, 19033, 19035,
19037, 19039, 19041, 19043,
19045, 19047, 19049, 19051,
19053, 19055, 19057, 19059,
19061, 19063, 19065, 19067,
19069, 19072, 19075, 19078,
19081, 19084, 19088, 19092,
19094, 19096, 19098, 19100,
19102, 19105, 19108, 19111,
19114, 19116, 19119, 19122,
19126, 19129, 19131, 19134,
19137, 19140, 19144, 19147,
19150, 19153, 19156, 19160,
19164, 19166, 19168, 19170,
19172, 19174, 19176, 19178,
19181, 19184, 19186, 19188,
19190, 19192, 19194, 19197,
19200, 19202, 19204, 19206,
19208, 19211, 19214, 19216,
19218, 19220, 19222, 19225,
19228, 19230, 19232, 19234,
19236, 19238, 19240, 19242,
19244, 19246, 19249, 19252,
19254, 19256, 19258, 19260,
19263, 19267, 19270, 19273,
19275, 19277, 19279, 19281,
19283, 19285, 19287, 19289,
19291, 19295, 19297, 19299,
19301, 19303, 19305, 19307,
19309, 19311, 19313, 19315,
19317, 19320, 19323, 19325,
19328, 19331, 19333, 19336,
19339, 19341, 19343, 19345,
19347, 19350, 19353, 19355,
19357, 19359, 19362, 19364,
19366, 19368, 19370, 19372,
19374, 19376, 19378, 19380,
19382, 19384, 19386, 19388,
19390, 19392, 19394, 19396,
19398, 19400, 19402, 19404,
19407, 19409, 19411, 19413,
19415, 19417, 19419, 19421,
19423, 19425, 19427, 19429,
19431, 19433, 19435, 19437,
19439, 19441, 19443, 19445,
19447, 19449, 19451, 19453,
19455, 19457, 19459, 19461,
19463, 19465, 19467, 19469,
19471, 19473, 19475, 19477,
19479, 19481, 19483, 19485,
19487, 19489, 19491, 19493,
19495, 19497, 19499, 19501,
19503, 19505, 19507, 19509,
19511, 19513, 19515, 19517,
19519, 19524, 19528, 19532,
19535, 19537, 19539, 19543,
19546, 19549, 19551, 19553,

19556, 19558, 19560, 19562,	20117, 20119, 20121, 20123,	8267, 15502, 15503, 15504,
19565, 19567, 19571, 19573,	20125, 20127, 20129, 20131,	15505, 15506, 15507, 15508,
19575, 19577, 19580, 19583,	20134, 20136, 20138, 20140,	15509, 15510, 15511, 15512,
19586, 19590, 19592, 19594,	20143, 20146, 20148, 20150,	15513, 15958, 15959, 15960,
19596, 19599, 19604, 19607,	20152, 20155, 20157, 20160,	15961, 15962, 15963, 15964,
19609, 19611, 19616, 19619,	20162, 20166, 20169, 20171,	15965, 15966, 15967, 15968,
19622, 19624, 19627, 19629,	20173, 20175, 20177, 20179,	15969, 15970, 15971, 15972,
19631, 19634, 19641, 19644,	20181, 20183, 20185, 20187,	15973, 15974, 15975, 15976,
19649, 19652, 19655, 19658,	20189, 20191, 20193, 20196,	15977, 15978, 15979, 15980,
19661, 19664, 19667, 19670,	20198, 20200, 20203, 20206,	15981, 15982, 15983, 15984
19673, 19676, 19679, 19682,	20208, 20210, 20212, 20214,	
19685, 19688, 19691, 19694,	20216, 20218, 20220, 20222,	
19697, 19700, 19703, 19707,	20224, 20226, 20228, 20230,	
19710, 19713, 19715, 19717,	20232, 20234, 20236, 20238,	
19719, 19721, 19723, 19726,	20240, 20242, 20244, 20246,	
19728, 19730, 19732, 19734,	20248, 20250, 20252, 20254,	
19736, 19739, 19741, 19744,	20256, 20258, 20260, 20263,	
19746, 19749, 19751, 19753,	20266, 20269, 20273, 20276,	
19755, 19757, 19759, 19761,	20279, 20281, 20283, 20285,	
19763, 19765, 19767, 19769,	20287, 20290, 20292, 20295,	
19771, 19773, 19775, 19777,	20297, 20299, 20301, 20303,	
19780, 19782, 19785, 19787,	20305, 20307, 20310, 20312,	
19789, 19791, 19793, 19795,	20315, 20318, 20321, 20324,	
19799, 19803, 19805, 19807,	20326, 20328, 20330, 20332,	
19809, 19811, 19813, 19816,	20334, 20336, 20338, 20340,	
19818, 19821, 19823, 19825,	20342, 20344, 20347, 20350,	
19827, 19829, 19831, 19834,	20352, 20354, 20356, 20358,	
19836, 19838, 19840, 19842,	20360, 20362, 20364, 20367,	
19844, 19846, 19848, 19850,	20370, 20372, 20374, 20376,	
19852, 19854, 19856, 19858,	20379, 20381, 20383, 20385,	
19861, 19863, 19865, 19867,	20387, 20419, 20421, 20423,	
19869, 19871, 19873, 19875,	20424, 20425, 20426, 20427,	
19877, 19879, 19881, 19883,	20428, 20429, 20430, 20431,	
19885, 19887, 19889, 19891,	20432, 20434, 20436, 20437,	
19893, 19895, 19897, 19899,	20438, 20439, 20440, 20441,	
19901, 19903, 19905, 19908,	20442, 20444, 20446, 20449,	
19910, 19912, 19914, 19916,	20451, 20453, 20454, 20455,	
19918, 19920, 19922, 19924,	20456, 20457, 20458, 20459,	
19926, 19928, 19930, 19932,	20460, 20461, 20462, 20464,	
19934, 19937, 19940, 19942,	20466, 20468, 20469, 20470,	
19945, 19948, 19951, 19954,	20471, 20472, 20474, 20475,	
19956, 19958, 19960, 19962,	20476, 20477, 20479, 20481,	
19964, 19966, 19968, 19970,	20483, 20484, 20485, 20486,	
19972, 19974, 19977, 19981,	20487, 20488, 20489, 20490,	
19983, 19985, 19987, 19989,	20491, 20492, 20494, 20496,	
19991, 19993, 19995, 19997,	20497, 20498, 20499, 20500,	
19999, 20001, 20003, 20005,	20501, 20502, 20504, 20506,	
20007, 20009, 20011, 20013,	20509, 20511, 20513, 20514,	
20015, 20018, 20021, 20024,	20515, 20516, 20517, 20518,	
20027, 20029, 20034, 20038,	20519, 20520, 20521, 20522,	
20041, 20043, 20045, 20048,	20524, 20526, 20528, 20529,	
20051, 20054, 20057, 20060,	20530, 20531, 20532, 20534,	
20063, 20066, 20069, 20072,	20535, 20536, 20537, 20643,	
20075, 20078, 20081, 20083,	20645	
20085, 20087, 20089, 20091,		
20094, 20100, 20103, 20105,		
20108, 20111, 20113, 20115,		
	\sqcup 343, 689, 946,	
	966, 3458, 3461, 4199, 8244,	
		A
	\backslash a 301, 303, 307, 313	
	\backslash ABREVE . 20412, 20483, 20484,	
	20485, 20486, 20487	
	\backslash abreve . . . 20406, 20423, 20424,	
	20425, 20426, 20427	
	\backslash AC 18841, 21698	
	\backslash AccFancyVerbLineautorefname .	
	. . . . . 3485	
	\backslash Accfootnoteautorefname . . 3465	
	\backslash Acctheoremautorefname . . 3489	
	\backslash Acht 20351, 21498	
	\backslash ACIRCUMFLEX 20413, 20488,	
	20489, 20490, 20491, 20492	
	\backslash acircumflex 3516, 20407, 20428,	
	20429, 20430, 20431, 20432	
	\backslash AcPa 20337, 21492	
	\backslash Acrobatmenu 2646, 4520, 6604,	
	10098, 10848, 11388, 12276	
	\backslash active . . 1341, 1348, 1953, 5020,	
	5021, 5022, 5023, 5024,	
	5025, 5028, 5030, 5033,	
	5041, 15191, 15221	
	\backslash add@accent 559	
	\backslash addcontentsline . . . 8038, 8110,	
	8486, 8491, 8579, 15458	
	\backslash AddLineBeginAux 5606	
	\backslash addtocontents 8531, 8580, 8881,	
	8933, 15446, 15447	
	\backslash addtocounter 7382, 7405, 7414,	
	7425, 7429, 7647, 10705	
	\backslash addvspace 15446, 15447	
	\backslash adl@LT@array 7496	
	\backslash advance 483,	
	484, 1362, 5169, 5319, 5332,	
	5641, 5969, 6015, 6451,	
	6452, 6455, 6456, 6807,	
	6815, 6852, 8389, 8399,	
	8402, 8416, 9848, 10218,	
	10302, 10340, 10380, 11549,	
	12748, 13036, 13287, 13359,	
	13402, 13403, 13897, 13960,	
	14004, 14005, 14250, 14315,	
	14359, 14360, 14976, 14978,	
	14979, 14985, 14994, 15095,	
	15311	
	\backslash AE 15722, 16168, 16683	

<code>\ae</code>	15788, 16235, 16685	<code>\Asterisk</code>	19909, 21320	<code>\barp</code>	17934, 20758
<code>\afterassignment</code>	1962, 1968, 1974, 6224	<code>\AsteriskBold</code>	19886, 21309	<code>\barrightharpoon</code>	20074, 21388
<code>\AfterBeginDocument</code>	373, 387	<code>\AsteriskCenterOpen</code>	19888, 21310	<code>\barscu</code>	17932, 20757
<code>\aftergroup</code>	7925	<code>\AsteriskRoundedEnds</code>	19933, 21332	<code>\barscu</code>	17937, 20759
<code>\agemO</code>	18471, 21669	<code>\asymp</code>	18882, 20973	<code>\baru</code>	16973, 20700
<code>\ainferior</code>	20800	<code>\AtBeginDocument</code>	374, 1032, 5574, 5578, 6640, 7486, 13065	<code>\barwedge</code>	19171, 21095
<code>\alef</code>	20553	<code>\AtBeginShipout</code>	6753, 6765, 10137, 10651	<code>\baselineskip</code>	2649, 6464, 6465, 6466, 6467, 6468, 6469, 10273, 11723, 11755, 12456
<code>\alefhamza</code>	20545	<code>\AtBeginShipoutBox</code>	6757, 6760, 10130, 10131, 10652, 10653	<code>\bbl@cite@choice</code>	8151
<code>\aleflowerhamza</code>	20549	<code>\AtBeginShipoutFirst</code>	6770, 11021, 12473, 12604	<code>\bbslash</code>	19358, 21173
<code>\alefmadda</code>	20543	<code>\AtEndDocument</code>	6654	<code>\Beam</code>	19342, 21168
<code>\alefmaqsura</code>	20611	<code>\AtEndOfPackage</code>	384	<code>\because</code>	18827, 20949
<code>\aleph</code>	18482, 20822	<code>\AtVeryEndDocument</code>	7000, 13844	<code>\BeforeTeXIVht</code>	3092
<code>\Alph</code>	6901, 7266	<code>\author</code>	6689, 6699	<code>\begin</code>	635, 13086, 21867
<code>\alph</code>	6902, 7618, 7649	<code>\autopageref</code>	4656, 9171	<code>\belowpdfbookmark</code>	15091
<code>\alpha</code>	17226, 20722	<code>\autoref</code>	678, 4655, 9190, 13060	<code>\beta</code>	17228, 20723
<code>\amalg</code>	18745, 20916	<code>\ayn</code>	20589	<code>\betainferior</code>	20752
<code>\AMSautorefname</code>	9291			<code>\beth</code>	18484, 20823
<code>\anchor@spot</code>	5511, 5524, 5531, 5537, 5539, 9657, 10159, 10254, 11125, 11197, 11704, 12061, 12064, 12685, 12973			<code>\between</code>	18975, 21014
<code>\angle</code>	18774, 20928			<code>\bfseries</code>	609, 8250, 8273, 9064, 9084, 9101, 9219
<code>\AngleSign</code>	18782, 21690			<code>\bgroup</code>	698, 5136, 7912, 7924, 9559, 10669, 11125, 11744, 13591, 13683, 13704
<code>\Anglesign</code>	18781, 21689			<code>\biblecite</code>	8142, 8148, 8152, 8177, 8192, 8208, 8218
<code>\Ankh</code>	19608, 21211			<code>\Bicycle</code>	20371, 21507
<code>\APLbox</code>	19346, 21170			<code>\bigcircle</code>	21196
<code>\APLdown</code>	19544, 21765			<code>\bigdoublevee</code>	20130, 21411
<code>\APLdownarrowbox</code>	19335, 21165			<code>\bigdoublewedge</code>	20128, 21410
<code>\APLinup</code>	19338, 21166			<code>\bigtriangledown</code>	19542, 21186
<code>\APLinu</code>	19312, 21157			<code>\bigtriangleup</code>	19527, 21181
<code>\APLleftarrowbox</code>	19327, 21162			<code>\binampersand</code>	16018, 21526
<code>\APLrightarrowbox</code>	19330, 21163			<code>\bindnasrepma</code>	18496, 21672
<code>\APLup</code>	19529, 21762			<code>\Biohazard</code>	19606, 21210
<code>\APLuparrowbox</code>	19332, 21164			<code>\bitsetGetDec</code>	5693, 5826, 5844, 5858, 5871, 5887, 5919, 5944
<code>\appendix</code>	7258, 7270			<code>\bitsetGetHex</code>	5694
<code>\appendixautorefname</code>	3333, 3351, 3369, 3387, 3405, 3423, 3441, 3473, 3474, 3499, 3517, 9301			<code>\bitsetGetSetBitList</code>	5682
<code>\apprge</code>	18991, 21713			<code>\bitsetIsEmpty</code>	5823, 5841, 5855, 5868, 5884, 5916, 5941
<code>\apprle</code>	18988, 21712			<code>\bitsetReset</code>	5796, 5830, 5849, 5863, 5876, 5892, 5924
<code>\approx</code>	18864, 20965			<code>\bitsetSetValue</code>	5662, 5672
<code>\approxseq</code>	18869, 20967			<code>\blacksmiley</code>	19621, 21215
<code>\Aquarius</code>	19695, 21809			<code>\Bleech</code>	19530, 21763
<code>\aquarius</code>	19693, 21237			<code>\BOOKMARK</code>	15023, 15102
<code>\arabic</code>	6898, 7122, 7125, 7128, 7129, 7130, 7132, 7133, 7134, 7135, 7137, 7138, 7139, 7140, 7141, 7142, 7145, 7155, 7156, 7389, 8588, 8594, 8642, 8656, 8869, 8874, 8876			<code>\booknumberline</code>	15006, 15011
<code>\Aries</code>	19665, 21799			<code>\bot</code>	19115, 21076
<code>\aries</code>	19663, 21227			<code>\Bowtie</code>	19179, 21744
<code>\ast</code>	18761, 20923			<code>\bowtie</code>	19177, 21098
				<code>\Box</code>	19581, 21769
				<code>\box</code>	6458, 6760, 9573, 10683, 12108, 12111
				<code>\boxast</code>	20114, 21403

<code>\boxbackslash</code>	19324, 21161	<code>\capitalcedilla</code>	15985	8098, 8108, 8202, 8214, 8579, 8582, 8642, 9098
<code>\boxbar</code>	19564, 21195	<code>\capitalcircumflex</code>	15989	
<code>\boxbox</code>	20118, 21405	<code>\capitaldieresis</code>	15991	<code>\CheckedBox</code>
<code>\boxbslash</code>	20112, 21402	<code>\capitaldotaccent</code>	15997	19584, 21770
<code>\boxcircle</code>	20116, 21404	<code>\capitalgrave</code>	15987	<code>\Checkedbox</code>
<code>\boxdot</code>	19099, 21070	<code>\capitalhungarumlaut</code>	15992	19582, 21202
<code>\boxempty</code>	19579, 21201	<code>\capitalmacron</code>	15996	<code>\checklatex</code>
<code>\boxminus</code>	19095, 21068	<code>\capitalnewtie</code>	15999	4, 7984, 8097, 8201, 8578, 9097
<code>\boxplus</code>	19093, 21067	<code>\capitalogonek</code>	15986	<code>\Checkmark</code>
<code>\boxslash</code>	20110, 21401	<code>\capitalring</code>	15993	19830, 21282
<code>\boxtimes</code>	19097, 21069	<code>\capitaltie</code>	15998	<code>\checkmark</code>
<code>\brokenvert</code>	16099, 21532	<code>\capitaltilde</code>	15990	19832, 21828
<code>\bullet</code>	9016, 9024, 9034, 9042, 18765, 20762	<code>\Capricorn</code>	19692, 21808	<code>\CheckmarkBold</code>
<code>\Bumpeq</code>	18887, 20975	<code>\capricornus</code>	19690, 21236	19833, 21283
<code>\bumpeq</code>	18891, 20977	<code>\caption</code>	8008, 8010, 8098, 8100	<code>\checkpackage</code>
		<code>\catcode</code>	172, 173, 184, 185, 186, 187, 206, 837, 838, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 1041, 1341, 1348, 1953, 2082, 2083, 2216, 2217, 2273, 2274, 2275, 4879, 4881, 5019, 5020, 5021, 5022, 5023, 5024, 5025, 5028, 5030, 5033, 5041, 5051, 5142, 5143, 9316, 11785, 11786, 15120, 15122, 15191, 15194, 15221, 15224	<code>\chi</code>
		<code>\ccnc</code>	20380, 21510	17270, 20743
		<code>\ccnd</code>	20382	<code>\chiinferior</code>
		<code>\ccsa</code>	20384, 21511	20756
		<code>\cdot</code>	21518	<code>\ChoiceBox</code>
		<code>\cdots</code>	19274, 21139	6019
		<code>\CESign</code>	20388, 21513	<code>\ChoiceMenu</code>
		<code>\CEsign</code>	20390, 21862	6412
		<code>\cf@encoding</code>	1666	<code>\circ</code>
		<code>\chapterautorefname</code>	3334, 3352, 3370, 3388, 3406, 3424, 3442, 3471, 3500, 3518, 9302	<code>\circeq</code>
		<code>\chapternumberline</code>	15008, 15013	18763, 20924
		<code>\char</code>	13878, 15124, 15161	18923, 20991
		<code>\chardef</code>	277, 320, 2881, 2882, 2883, 2884, 3131, 3133, 4802, 4834, 12056, 12059, 12065	<code>\circlearrowleft</code>
		<code>\check@bm@number</code>	15244, 15252, 15302, 15310	19980, 21351
		<code>\CheckBox</code>	6415	<code>\circlearrowright</code>
		<code>\CheckCommand</code>	7871	19982, 21352
		<code>\checkcommand</code>	42, 7424, 7985, 7992, 7999,	<code>\CircledA</code>
				19403, 21174
				<code>\circledast</code>
				19087, 21065
				<code>\circledbslash</code>
				20095, 21837
				<code>\circledcirc</code>
				19083, 21064
				<code>\circleddash</code>
				19091, 21066
				<code>\CircleShadow</code>
				19941, 21335
				<code>\circplus</code>
				20137, 21414
				<code>\citation</code>
				8247, 8270, 8296
				<code>\citeauthoryear</code>
				8362, 8368
				<code>\citeN</code>
				8359
				<code>\CJK@char</code>
				1344
				<code>\CJK@charx</code>
				1345
				<code>\CJK@CJK</code>
				1333
				<code>\CJK@eight</code>
				1544, 1547, 1661
				<code>\CJK@five</code>
				1544, 1546, 1661
				<code>\CJK@four</code>
				1543, 1546, 1660
				<code>\CJK@hundred</code>
				1610
				<code>\CJK@hundredmillion</code>
				1573
				<code>\CJK@ignorespaces</code>
				1343
				<code>\CJK@kern</code>
				1331
				<code>\CJK@minus</code>
				1535
				<code>\CJK@nine</code>
				1544, 1548, 1661
				<code>\CJK@null</code>
				1637
				<code>\CJK@one</code>
				1543, 1545, 1660
				<code>\CJK@punctchar</code>
				1346
				<code>\CJK@punctcharx</code>
				1347
				<code>\CJK@seven</code>
				1544, 1547, 1661
				<code>\CJK@six</code>
				1544, 1547, 1661
				<code>\CJK@ten</code>
				1545, 1546, 1547, 1548, 1625
				<code>\CJK@tenthousand</code>
				1558, 1579
				<code>\CJK@thousand</code>
				1595
				<code>\CJK@three</code>
				1543, 1546, 1660
				<code>\CJK@two</code>
				1543, 1545, 1660
				<code>\CJK@zero</code>
				1543, 1561, 1578, 1582, 1598, 1613, 1635
				<code>\CJKdigits</code>
				1420
				<code>\CJKkern</code>
				1332
				<code>\CJKnumber</code>
				1419

<code>\cl@ckpt</code>	7216	<code>\CrossMaltese</code>	19855, 21294	<code>\CYRC</code>	17389
<code>\CleaningA</code>	19405, 21757	<code>\crossnilambda</code>	16598, 21555	<code>\cyr</code>	17456
<code>\CleaningF</code>	19416, 21175	<code>\CrossOpenShadow</code>	19851, 21292	<code>\CYRCH</code>	17391, 17811
<code>\CleaningFF</code>	19418, 21176	<code>\CrossOutline</code>	19853, 21293	<code>\cyrch</code>	3461, 3462, 3470, 17458, 17813
<code>\CleaningP</code>	19440, 21177	<code>\Cube</code>	632	<code>\CYRCHLDSC</code>	17727
<code>\CleaningPP</code>	19442, 21178	<code>\Cup</code>	19210, 21112	<code>\cyrchldsc</code>	17729
<code>\clickb</code>	17030, 21636	<code>\cup</code>	18805, 20940	<code>\CYRCHRSDSC</code>	17685
<code>\clickc</code>	17025, 21634	<code>\cupdot</code>	19044, 21047	<code>\cyrchrds</code>	17687
<code>\clickt</code>	16967, 21618	<code>\cupplus</code>	19046, 21048	<code>\CYRCHVCRS</code>	17690
<code>\clock</code>	19290, 21147	<code>\curlyc</code>	16797, 21575	<code>\cyrchvcrs</code>	17693
<code>\ClockLogo</code>	19293, 21754	<code>\curlyeqprec</code>	19229, 21120	<code>\CYRD</code>	17352
<code>\Clocklogo</code>	19292, 21753	<code>\curlyeqsucc</code>	19233, 21122	<code>\cyr</code>	3458, 3461, 3472, 3477, 3478, 17419
<code>\close@pdfink</code>	9651, 9676, 9685, 9720, 9760, 9796, 10125	<code>\curlyesh</code>	16964, 21617	<code>\CYRDJE</code>	17313
<code>\closedniomega</code>	16916, 21606	<code>\curlyvee</code>	19193, 21105	<code>\cyrdje</code>	17483
<code>\closedrepsilon</code>	16829, 21582	<code>\curlywedge</code>	19196, 21106	<code>\CYRDZE</code>	17319
<code>\closeout</code>	6634, 15111	<code>\curlyyogh</code>	17009, 21630	<code>\cyrdze</code>	17489
<code>\Cloud</code>	19570, 21197	<code>\curlyz</code>	17002, 21629	<code>\CYRDZHE</code>	17342
<code>\ClowerTips</code>	21299	<code>\CurrentBorderColor</code>	9641, 9643, 9670, 9672, 9680, 9682, 9687, 11187, 11221, 11223, 11239, 11241, 11260, 11262, 11324, 11326, 11343, 11345	<code>\cyrdzhe</code>	17512
<code>\clubpenalty</code>	7768, 7770	<code>\currentpdfbookmark</code>	15083	<code>\CYRE</code>	17308, 17311, 17354, 17747
<code>\clubsuit</code>	19709, 19711, 21815	<code>\curu</code>	17510	<code>\cyr</code>	3455, 3461, 3462, 3475, 3487, 3488, 3489, 17421, 17478, 17481, 17749
<code>\codeof</code>	8326	<code>\curvearrowleft</code>	18598, 20856	<code>\cyreref</code>	17797
<code>\Coffeecup</code>	19589, 21204	<code>\curvearrowright</code>	18600, 20857	<code>\CYREREV</code>	17405, 17795
<code>\coloncolonequals</code>	20174, 21429	<code>\CutLeft</code>	19796, 21822	<code>\cyrerev</code>	17472
<code>\colonequals</code>	18915, 20987	<code>\CutLine</code>	19521, 21759	<code>\CYRERY</code>	17400, 17819
<code>\color@begingroup</code>	9559, 10669	<code>\Cutline</code>	19522, 21760	<code>\cyrery</code>	3453, 3455, 17467, 17821
<code>\color@endgroup</code>	9566, 10676	<code>\Cutright</code>	19797, 21823	<code>\CYRF</code>	17385
<code>\columnwidth</code>	7919	<code>\CuttingLine</code>	19518, 21179	<code>\cyr</code>	17452
<code>\comma@entry</code>	6010, 6017, 6019	<code>\cyr</code>	657, 3453, 3455, 3458, 3461, 3464, 3465, 3466, 3467, 3468, 3469, 3470, 3471, 3472, 3473, 3475, 3477, 3478, 3479, 3480, 3481, 3482, 3483, 3484, 3485, 3486, 3487, 3488, 3489, 3490	<code>\CYRFITA</code>	17550
<code>\comma@parse</code>	6009	<code>\CYRA</code>	17344, 17735, 17739	<code>\cyrfita</code>	17552
<code>\complement</code>	18714, 20902	<code>\cyr</code>	3455, 3462, 3464, 3469, 3472, 3477, 3478, 3484, 3488, 17411, 17737, 17741	<code>\CYRG</code>	17315, 17350
<code>\Conclusion</code>	18665, 21681	<code>\CYRABHCH</code>	17699, 17704	<code>\cyr</code>	3471, 17417, 17485
<code>\cong</code>	18859, 20963	<code>\cyrabhch</code>	17701, 17707	<code>\CYRGDSC</code>	17815
<code>\Congruent</code>	18941, 21707	<code>\CYRABHCHDSC</code>	17703	<code>\cyr</code>	17817
<code>\contentsline</code>	6643, 6644, 6656, 8532, 8536, 8580, 8582	<code>\cyrabhchdsc</code>	17706	<code>\CYRGHCRS</code>	17602
<code>\copy</code>	5328, 5330, 5341, 5349, 9569, 10131, 10653, 10679	<code>\CYRABHDZE</code>	17769	<code>\cyrghcrs</code>	17604
<code>\copyright</code>	20666	<code>\cyrabhdze</code>	17771	<code>\CYRGHK</code>	17607
<code>\Corresponds</code>	18930, 21705	<code>\CYRABHHA</code>	17654	<code>\cyrghk</code>	17610
<code>\corresponds</code>	18929, 21704	<code>\cyrabhha</code>	17656	<code>\CYRGUP</code>	17598
<code>\count@</code>	876, 878, 879, 882, 885, 888, 891, 1360, 1361, 1362, 1363, 1963, 3691, 3692, 3697, 3698, 5640, 5641, 5656, 5952, 5967, 5969, 5993, 6015, 6031, 9843, 9844, 9845, 9846, 9847, 9848, 9851, 11545, 11546, 11547, 11548, 11549, 11552	<code>\CYRAE</code>	17743	<code>\cyr</code>	17600
<code>\Cross</code>	19849, 21291	<code>\cyr</code>	17745	<code>\CYRH</code>	17387
<code>\crossb</code>	16567, 21549	<code>\CYRAE</code>	17745	<code>\cyrh</code>	17454
<code>\CrossClowerTips</code>	19866	<code>\CYRB</code>	17346	<code>\CYRHDSC</code>	17676
<code>\crossd</code>	16331, 21541	<code>\cyr</code>	3469, 17413	<code>\cyrhdsc</code>	17678
<code>\CrossedBox</code>	19588, 21772	<code>\CYRBYUS</code>	17534	<code>\CYRHHK</code>	17823
<code>\Crossedbox</code>	19585, 21203	<code>\cyr</code>	17536	<code>\cyrhkh</code>	17825
<code>\crossh</code>	16380, 21545	<code>\CYRBYUS</code>	17536	<code>\CYRHRDSN</code>	17398
				<code>\cyrhrdsn</code>	17464, 17465, 21643
				<code>\CYRI</code>	17337, 17360, 17363, 17773, 17777
				<code>\cyr</code>	3455, 3458, 3462, 3468, 3473, 3475, 17427, 17430, 17507, 17775, 17779

\CYRIE	17317	\cyrng	17648	3485, 3486, 3487, 3488,	
\cyrrie	17487	\CYRNHK	17723	3489, 17448	
\CYRII	17322, 17325	\cyrnhk	17725	\CYRTDSC	17664
\cyrrii	17492, 17495	\CYRNJE	17331	\cyrtdsc	17666
\CYRIOTBYUS	17538	\cyrnje	17501	\CYRTETSE	17680
\cyrriotbyus	17540	\CYRO	17373, 17781	\cyrtetse	17682
\CYRIOTE	17522	\cyro	3458, 3461, 3464, 3465,	\cyrthousands	17584
\cyrriote	17524		3475, 3484, 3485, 3487,	\CYRTSHE	17333
\CYRIOTLYUS	17530		3488, 3489, 17440, 17783	\cyrtshe	17503
\cyrriotlyus	17532	\CYROMEGA	17514	\CYRU	17340, 17383, 17799,
\CYRISHRT	17362	\cyromega	17516		17803, 17807
\cyrishrt	17429	\CYROMEGARND	17568	\cyru	3465, 3467, 3481, 3482, 3485,
\CYRISHRTDSC	17586	\cyromegarnd	17570		3489, 17450, 17801, 17805,
\cyrishrtdsc	17588	\CYROMEGATITLO	17572		17809
\CYRIZH	17554, 17559	\cyromegatitlo	17574	\CYRUK	17564
\cyrizh	17556, 17562	\CYROT	17576	\cyruk	17566
\CYRJE	17327	\cyrot	17578	\CYRUSHRT	17339
\cyrje	17497	\CYROTLD	17785, 17790	\cyrushrt	17509
\CYRK	17335, 17365	\cyrotld	17787, 17793	\CYRV	17348
\cyrk	3464, 3465, 3467, 3481, 3482,	\CYRP	17375	\cyrv	3453, 3455, 17415
	3484, 3485, 3486, 17432,	\cyrp	3458, 3461, 3462, 3466,	\CYRY	17668
	17505		3467, 3473, 3475, 3479,	\cyr	17670
\CYRKBEAK	17638		3480, 3481, 3482, 17442	\CYRYA	17409
\cyrkbeak	17640	\CYRpalochka	17709	\cyr	17476
\CYRKDSC	17624	\CYRPHK	17650	\CYRYAT	17518
\cyrkdsc	17626	\cyrphk	17652	\cyr	17520
\CYRKHCRS	17634	\CYRPSI	17546	\CYRYHCRS	17672
\cyrkhcrs	17636	\cyrpsi	17548	\cyr	17674
\CYRKHK	17715	\CYRR	17377	\CYRYI	17324
\cyrkhk	17717	\cyr	3453, 3455, 3458, 3461,	\cyr	17494
\CYRKOPPA	17580		3462, 3468, 3472, 3473,	\CYRYO	17310
\cyrkoppa	17582		3475, 3477, 3478, 3483,	\cyr	17480
\CYRKSI	17542		3484, 3485, 3486, 3487,	\CYRYU	17407
\cyrksi	17544		3488, 3489, 17444	\cyr	17474
\CYRKVCRS	17629	\CYRRTICK	17594	\CYRZ	17358, 17619, 17765
\cyrkvcrs	17632	\cyr	17596	\cyrz	3472, 3477, 3478, 17425,
\CYRL	17367	\CYRS	17379, 17659		17622, 17767
\cyr	3469, 3471, 3473, 3475,	\cyr	3458, 3461, 3464, 3465,	\CYRZDSC	17618
	17434		3468, 3483, 3484, 3485,	\cyrz	17621
\CYRLDSC	17719		3486, 3490, 17446, 17662	\CYRZH	17356, 17711, 17761
\cyrldsc	17721	\CYRSCHWA	17751, 17756	\cyrz	3455, 3475, 17423, 17713,
\CYRLJE	17329	\cyr	17753, 17759		17763
\cyrlje	17499	\CYRSDSC	17658, 17659	\CYRZHDSC	17613
\CYRLYUS	17526	\cyr	17661	\cyrzhdsc	17616
\cyrlyus	17528	\CYRSEMISFTSN	17590		
\CYRM	17369	\cyr	17592		
\cyr	3458, 3462, 3488, 3489,	\CYRSFTSN	17403		
	17436	\cyr	17469, 17470, 21644		
\CYRMDSC	17731	\CYRSH	17393		
\cyrmdsc	17733	\cyr	17460		
\CYRN	17371	\CYRSHCH	17395		
\cyr	3455, 3461, 3462, 3464,	\cyr	17462		
	3465, 3467, 3475, 3481,	\CYRSHHA	17695		
	3482, 17438	\cyr	17697		
\CYRNDSC	17642	\CYRT	17381		
\cyrndsc	17644	\cyr	3458, 3461, 3467, 3469,		
\CYRNG	17646		3481, 3482, 3483, 3484,		

D

\d	913, 917, 923, 3513, 3517, 3519,
	3520, 3521, 3522, 3523,
	3525, 15489, 15501, 15513,
	15907, 15952, 15979, 17964,
	17966, 17976, 17978, 18024,
	18026, 18048, 18050, 18056,
	18058, 18076, 18078, 18084,
	18086, 18120, 18122, 18132,
	18134, 18140, 18142, 18168,
	18170, 18188, 18190, 18208,
	18210, 18226, 18228, 18230,

18232, 18238, 18240, 18242, 18244, 18246, 18248, 18254, 18256, 20419, 20424, 20429, 20434, 20439, 20444, 20449, 20454, 20459, 20464, 20469, 20474, 20479, 20484, 20489, 20494, 20499, 20504, 20509, 20514, 20519, 20524, 20529, 20534		15484, 15485, 15486, 15487, 15488, 15489	3676, 3704, 3709, 3713, 3716, 3723, 3735, 3742, 3752, 3755, 3758, 3762, 3777, 3786, 3796, 3803, 3814, 3821, 3838, 3928, 3937, 3967, 3973, 3979, 4001, 4007, 4013, 4019, 4025, 4031, 4064, 4071, 4163, 4164, 4184, 4191, 4201, 4231, 4232, 4235, 4238, 4241, 4244, 4247, 4250, 4253, 4276, 4390, 4393, 5150, 5179, 5185, 5197, 5634, 5722, 5778, 6080, 6085, 6098, 6126, 6168, 6171, 6174, 6178, 6181, 6185, 6188, 6192, 6196, 6200, 6203, 6207, 6210, 6213, 6216, 6219, 6256, 6272, 6275, 6278, 6281, 6284, 6287, 6317, 6320, 6323, 6326, 6345, 6351, 6365, 6370, 6376, 6393, 6398, 6404, 7013, 7024, 11624, 11630, 12140, 12142, 12145, 12148, 12150, 12152, 12161, 12169, 12176, 12178, 12180, 12182, 12184, 12186, 12195, 12205, 12207, 12209, 12210, 12216, 12225, 12227, 12229, 12231, 12233, 12235, 12237, 12239, 12241, 12243, 12245, 12247, 12249, 12251, 12253, 12255, 12256, 12257, 12258, 12259, 12260, 12261, 12262, 12263, 12264, 12265, 12266
\dad 20583	\DeclareVoidOption	6464, 13531, 14135, 14511	\Deleatur 18437, 20813
\dag 18284, 21655	. . . . . 3089, 3103, 3113, 3118, 3123, 3136, 3146, 3151, 3156, 3162, 3191, 3208, 3215, 3220, 3225, 3230, 3594, 3602, 3610, 3620		\Delta 17167, 20712
\dagger 20761	\DefaultHeightofCheckBox	6466, 13349, 13950, 14305	\delta 17232, 20725
\dal 20569	\DefaultHeightofChoiceMenu	6462, 13501, 14107, 14479	\Denarius 18439, 21668
\daleth 18488, 20825	\DefaultHeightofReset	6460, 13481, 14084, 14456	\dest@name 5554
\damma 20623	\DefaultHeightofSubmit	6468, 13321, 13924, 14272	\df@tag 8603, 8609
\danger 19760, 21256	\DefaultHeightofText	6468, 13321, 13924, 14272	\DH 15742, 16188
\dasheddownarrow 18699, 20895	\DefaultHeightofTextMultiline	6469, 13319, 13922, 14270	\dh 15812, 16259, 16260, 21540
\dashedleftarrow . . 18693, 21682	\DefaultOptionsofCheckBox 6474, 13533, 14137, 14513		\dhal 20571
\dashedrightarrow . 18698, 21683	\DefaultOptionsofComboBox	6477	\DiamondSolid 21340
\dasheduparrow . . . 18694, 20893	\DefaultOptionsofListBox	6476	\diameter 19282, 21143
\dashleftarrow 18691, 20892	\DefaultOptionsofPopdownBox	6478	\Diamond 19554, 21766
\dashrightarrow . . . 18696, 20894	\DefaultOptionsofPushButton	6473, 13452, 14056, 14424	\diamond 19552, 21190
\DashV 20272, 21474	\DefaultOptionsofRadio	6479	\diamonddots 18328, 20770
\Dashv 20265, 21472	\DefaultOptionsofReset	6472, 13504, 14110, 14482	\diamondsuit 19706, 19708, 21814
\dashV 21470	\DefaultOptionsofSubmit	6471, 13484, 14087, 14459	\digamma 17295, 21642
\dashv 19104, 21072	\DefaultOptionsofText	6475, 13326, 13929, 14277	\dimen@ 522, 523, 527, 1969, 2046, 2047, 2050, 2052, 4426, 4427, 4429, 4436, 4437, 5318, 5319,
\DavidStar 19857, 21295	\DefaultWidthofCheckBox 6465, 13530, 14134, 14510		
\davidstar 19859, 21829	\DefaultWidthofChoiceMenu	6467, 13348, 13949, 14304	
\ddag 18288, 21657	\DefaultWidthofReset	6463, 13500, 14106, 14478	
\ddagger 15586, 18285, 18287, 21656	\DefaultWidthofSubmit	6461, 13480, 14083, 14455	
\ddots 19278, 21141	\DefaultWidthofText	6470, 13316, 13919, 14267	
\declare@shorthand	\define@key 2780, 2782, 2825, 2840, 2843, 2846, 2854, 2857, 2867, 2870, 2873, 2890, 2902, 2904, 2907, 2910, 2927, 2931, 2934, 2937, 2940, 2943, 2946, 2949, 2952, 2977, 3033, 3039, 3128, 3236, 3252, 3262, 3265, 3272, 3301, 3320, 3323, 3560, 3617, 3629, 3644, 3669, 3672,		
. 1095, 1096, 1101, 1102, 1107, 1117, 1118, 1119, 1124, 1125, 1130, 1131, 1136, 1141, 1142, 1147, 1152, 1153, 1154, 1155, 1156, 1157, 1162, 1163, 1168, 1169, 1174, 1175			
\DeclareFontEncoding 15477, 15877			
\DeclareFontFamily 983, 993			
\DeclareFontShape 984, 994			
\DeclareFontSubstitution 985, 995			
\DeclareLocalOptions 4454			
\DeclareRobustCommand			
. 4982, 4985, 4994, 4998, 5133, 5220, 5222, 5224, 5233, 6409, 6412, 6415, 6418, 6421, 6424, 6427, 6552, 6556, 6622, 6626, 9145, 9171, 9190, 15327			
\DeclareTextAccent 15478, 15479, 15480, 15481, 15482, 15483,			

5322, 5331, 5332, 5336,
6225, 6234, 6237, 6250,
9586, 9588, 11512, 11513,
11515, 12098, 12113, 12116,
12495, 12497, 12562, 12564,
12656, 12658, 12941, 12943

`\dimexpr` . 534, 2342, 2344, 2352,
2357, 2360, 2362, 2376,
2378, 2381, 2382, 2389,
2392, 2395, 2396, 2397,
2398, 2408, 2413, 2421,
2425, 2430, 2440, 2443,
2448, 2451, 2456, 2457, 6250

`\ding` 631, 6292, 6295

`\DingObject` 14029

`\discretionary` 700

`\div` 21516

`\divdot` 20141, 21843

`\divide` 9844, 11546

`\divideontimes` 19175, 21097

`\Divides` 18755, 20920

`\DividesNot` 18757, 20921

`\DJ` 3525, 15743, 16326

`\dj` 3522, 3523, 16329

`\dsh` 18595, 20855

`\do` 1361, 2797, 2802, 2807, 3784,
3816, 3817, 3818, 3819,
3868, 3869, 3870, 3871,
3872, 3873, 3876, 3877,
3878, 3879, 3880, 3881,
3884, 3885, 3888, 3889,
3890, 3891, 3892, 3895,
3896, 3897, 3898, 3899,
3902, 3903, 3904, 3905,
3906, 3909, 3910, 3911,
3912, 3913, 3916, 3917,
3920, 3921, 3922, 3925,
3926, 3932, 3933, 3934,
3935, 4269, 4270, 4271,
4272, 4273, 4274, 5682,
7629, 8242, 8265, 13353,
13415, 13653, 13660, 13670,
13954, 14017, 14309, 14375,
15190, 15220

`\documentclass` 2, 9445

`\dospecials` 15199, 15229

`\Doteq` 18902, 21703

`\doteq` 18895, 20979

`\doteqdot` 18900, 20981

`\dotminus` 18834, 20952

`\dotplus` 18753, 20919

`\dots` 571

`\dottimes` 20142, 21416

`\doublebarwedge` 20165, 21425

`\doublecap` 19209, 21747

`\doublecup` 19212, 21748

`\doublesqcap` 20153, 21844

`\doublesqcup` 20158, 21845

`\doublevav` 17884

`\doublevee` 20161, 21424

`\doublewedge` 20159, 21423

`\doubleyod` 17888

`\DOWNarrow` 19538, 21185

`\Downarrow` 18666, 20881

`\downarrow` 20831

`\downdownarrows` 18641, 20872

`\downdownharpoons` 20062,
21384

`\downharpoonleft` 18624, 20865

`\downharpoonright` 18621, 20864

`\downmodels` 20278, 21476

`\downtherefore` 18829, 21696

`\downuparrows` 18704, 20897

`\downupharpoons` 20080, 21390

`\downvdash` 19112, 21726

`\dp` 5318, 5326, 5339, 6454, 6457,
7917, 10208, 10288, 10325,
10365, 12099, 12102, 12738,
13021, 14245

`\dsbiological` 19754, 21253

`\dschemical` 19752, 21252

`\dscommercial` 19756, 21254

`\dsjuridical` 19750, 21251

`\dsmedical` 19748, 21250

`\dsmilitary` 19745, 21249

`\dth@counter` 7697, 7698, 7728,
7729, 7756

`\dth@everypar` 7744

`\dtimes` 20145, 21417

`\dvipdfm@setdim` 14242, 14292,
14391, 14414, 14445, 14470,
14498, 14527

`\dz` 17061, 21640

E

`\Earth` 19642, 21790

`\earth` 19640, 21220

`\ECIRCUMFLEX` 20414, 20498,
20499, 20500, 20501, 20502

`\ecircumflex` 20408, 20438, 20439,
20440, 20441, 20442

`\Ecommerce` 18479, 21671

`\EdefEscapeHex` 856

`\EdefEscapeName` 4095, 4146,
10101, 10851, 11389, 12277,
13414, 13417, 14016, 14019,
14371, 14377

`\EdefEscapeString` 810, 820

`\EdefUnescapeName` 4096

`\EdefUnescapeString` 805, 8455

`\egroup` 699, 9566, 10676, 11125,
11780, 13600, 13692, 13717

`\EightAsterisk` 19939, 21334

`\EightFlowerPetal` 19917, 21324

`\EightFlowerPetalRemoved`
. 19936, 21333

`\eighthnote` 19724, 21816

`\eightinferior` 20793

`\EightStar` 19896, 21314

`\EightStarBold` 19898, 21315

`\EightStarConvex` 19892, 21312

`\EightStarTaper` 19890, 21311

`\eightsuperior` 20777

`\einferior` 20801

`\ejective` 17013, 21631

`\ell` 18450, 20816

`\em` 615

`\emgma` 16895, 21602

`\emph` 594

`\empty` 1343, 3679

`\emptyset` 18722, 20906

`\enc@html` 6084, 6087

`\enc@update` 556

`\END` 1691, 1692, 1718, 1719,
1734, 1735, 1752, 1753,
1770, 1771, 2155, 2161,
2166, 2268, 2270, 9970,
9983, 9987, 9994, 10007,
10011, 10017, 10029, 10033

`\end` 636, 21868

`\endeqnarray` 7571, 7593, 7600

`\endequation` 7525, 7559

`\endForm` 6074

`\endinput` 64, 3100, 3175, 4652,
4758, 9058, 11713, 13084,
15317

`\endlinechar` 931, 952, 5018

`\endNoHyper` 6586

`\EndPreamble` 13087

`\endsubeqnarray` 7604, 7615

`\eng` 16459, 21547

`\engma` 16460, 21548

`\ensuremath` 684

`\Envelope` 19812, 21274

`\enya` 16899, 21604

`\epsdice` 633, 21521

`\epsi` 16818, 21580

`\epsilon` 17234, 20726

`\eqcirc` 18919, 20989

`\eqcolon` 18837, 20953

`\eqdot` 20170, 21427

`\eqnarray` 7570, 7572, 7597

`\eqsim` 18851, 20959

`\eqslantgtr` 20209, 21445

`\eqslantless` 20207, 21444

`\equal` 8323

`\equalscolon` 18917, 20988

`\equalsinferior` 20797

`\equalsuperior` 20781

`\equation` 7524, 7533, 7537, 7546

<code>\equationautorefname</code>	<code>\female</code>	<code>\Fld@annotflags</code>
. . . 3327, 3345, 3363, 3381,	<code>\FemaleFemale</code>	14719, 14751, 14779, 14813,
3399, 3417, 3435, 3453,	<code>\FemaleMale</code>	14848, 14884, 14920
3454, 3493, 3511, 9291, 9295	<code>\Field@addtoks</code> 6148, 6179, 6182,	<code>\Fld@annotnames</code> 14706, 14721,
<code>\equiv</code> 18939, 20998	6371, 6394	14753, 14781, 14815, 14850,
<code>\Equivalence</code> 18671	<code>\Field@boolkey</code> 5635, 5723, 6142,	14886, 14922
<code>\er</code> 16814, 21579	6172, 6175	<code>\Fld@bcolor</code> . . . 6065, 6321, 14735,
<code>\errmessage</code> 3557	<code>\Field@toks</code> . . . 6146, 6147, 6149,	14737, 14800, 14802, 14829,
<code>\es@roman</code> 658	13592, 13609, 13620, 13631,	14831, 14857, 14869, 14871
<code>\es@save@dot</code> 1319	13641, 13658, 13676, 13684,	<code>\fid@bcolor</code> 14788
<code>\escapechar</code> 540, 861, 4599, 7622,	13689, 13705, 13714	<code>\Fld@bordercolor</code> . . . 6066, 6324,
15050, 15231, 15282	<code>\Field@Width</code> 6059, 6205	14731, 14733, 14759, 14767,
<code>\esh</code> 16954, 20699	<code>\figureautorefname</code> . 3330, 3348,	14769, 14787, 14796, 14798,
<code>\EstimatedSign</code> . . . 18478, 21670	3366, 3384, 3402, 3420,	14825, 14827, 14856, 14865,
<code>\eta</code> 17238, 20728	3438, 3468, 3496, 3514, 9298	14867, 14892, 14900, 14902,
<code>\eTeX</code> 580, 13092	<code>\filename@area</code> 5452	14928, 14936, 14938
<code>\etex@unexpanded</code> . . 1894, 1901	<code>\filename@base</code> 5452	<code>\Fld@bordersep</code> 6067, 6273
<code>\eTeXversion</code> . . . 9803, 9805, 9807	<code>\filename@ext</code> 5449, 5450, 5452,	<code>\Fld@borderstyle</code>
<code>\eth</code> 16260, 21540	5453	. . . 6069, 6257, 6258, 6259,
<code>\Eur</code> 18436, 21667	<code>\filename@parse</code> 5448	6269, 14725, 14757, 14785,
<code>\EURcr</code> 18433, 21664	<code>\find@pdfink</code> . . . 9620, 9674, 9684	14819, 14854, 14890, 14944
<code>\EurCr</code> 18432, 21663	<code>\Finv</code> 18480, 20821	<code>\Fld@borderwidth</code>
<code>\EURdig</code> 18429, 21660	<code>\Fire</code> 20369, 21506	. . . 6068, 6220, 6448, 6451,
<code>\EurDig</code> 18428, 21659	<code>\fivedots</code> 20304, 21487	6452, 6455, 6456, 13402,
<code>\EURhv</code> 18431, 21662	<code>\FiveFlowerOpen</code> . . 19915, 21323	13403, 14004, 14005, 14359,
<code>\EurHv</code> 18430, 21661	<code>\FiveFlowerPetal</code> . . 19913, 21322	14360, 14725, 14757, 14785,
<code>\EURtm</code> 18435, 21666	<code>\fiveinferior</code> 20790	14819, 14854, 14890, 14944
<code>\EurTm</code> 18434, 21665	<code>\FiveStar</code> 19572, 21198	<code>\Fld@calculate@code</code> 6332, 13301,
<code>\evensidemargin</code> 8473	<code>\FiveStarCenterOpen</code> . . . 19874,	13805, 14258, 14668, 14670
<code>\everypar</code> 7770	21303	<code>\Fld@calculate@sortkey</code> . . 6364,
<code>\ExecuteOptions</code> 4441, 4442, 4446	<code>\FiveStarConvex</code> . . . 19882, 21307	6366, 13814
<code>\exists</code> 18718, 20904	<code>\FiveStarOpen</code> 19574, 21199	<code>\Fld@cbsymbol</code> 6070, 6285, 14739
<code>\ext@figure</code> 8865	<code>\FiveStarOpenCircled</code> . . . 19872,	<code>\Fld@charsize</code> 6060, 6061, 6217,
<code>\ext@table</code> 8864	21302	13401, 14003, 14358, 14741,
<code>\extra@b@citeb</code> 8249	<code>\FiveStarOpenDotted</code> . . . 19876,	14806, 14835, 14875, 14926
<code>\extrasvietnam</code> 3603	21304	<code>\Fld@checkedfalse</code> 6056
<code>\extrasvietnamese</code> 3595	<code>\FiveStarOutline</code> . . . 19878, 21305	<code>\Fld@chequequals</code> . 6160, 13354,
<code>\EyesDollar</code> 16013, 21525	<code>\FiveStarOutlineHeavy</code> . . 19880,	13416, 13661, 13671, 13955,
	21306	14018, 14310, 14376
	<code>\FiveStarShadow</code> . . . 19884, 21308	<code>\Fld@choices</code>
F	<code>\fivesuperior</code> 20774	. . . 5949, 5957, 5959, 5963,
<code>\fa</code> 20595	<code>\Flag</code> 19740, 21247	5972, 5980, 5985, 6033,
<code>\fallingdotseq</code> 20983	<code>\flap</code> 16942, 21615	6035, 6043, 6044, 14808
<code>\fallingdotseq</code> 18906	<code>\flapr</code> 16941, 21614	<code>\Fld@color</code> . . . 6064, 6327, 14742,
<code>\FancyVerbLineautorefname</code> . . .	<code>\flat</code> 19729, 21242	14807, 14836, 14876
. . . 3340, 3358, 3376, 3394,	<code>\Fld@@@additionalactions</code> . 14655,	<code>\Fld@default</code> . 5974, 5977, 5979,
3412, 3430, 3448, 3483,	14698, 14702	6276, 13314, 13330, 13346,
3486, 3506, 3524, 9308	<code>\Fld@@@DingDef</code> 6292, 6295, 6314	13386, 13414, 13528, 13590,
<code>\farsikaf</code> 20637	<code>\Fld@additionalactions</code> . . 14655,	13608, 13622, 13630, 13637,
<code>\farsiya</code> 20641	14745, 14774, 14809, 14844,	13663, 13673, 13703, 13713,
<code>\fatha</code> 20621	14879, 14914, 14946	13917, 13934, 13947, 13988,
<code>\fatsemi</code> 20135, 21413	<code>\Fld@align</code> . . . 6063, 6279, 14724,	14016, 14132, 14265, 14282,
<code>\Fax</code> 20366, 21505	14784, 14853	14302, 14343, 14371, 14508,
<code>\fax</code> 18490, 20826	<code>\Fld@altname</code> 6195, 6197, 14634,	14837, 14838, 14839, 14877
<code>\Faxmachine</code> 20368, 21861	14636, 14708, 14710	<code>\Fld@DingDef</code> . 6285, 6288, 6290
<code>\fbox</code> 13882, 13885		<code>\Fld@disabledfalse</code> 6057
<code>\fcdice</code> 634, 21522		
<code>\Female</code> 19639, 21789		

<code>\Fld@export</code> . 5787, 5790, 5797, 6089	<code>\Fld@onenter@code</code> 6338, 14688, 14690	<code>\font</code> 5306
<code>\Fld@findlength</code> . . . 13640, 13651	<code>\Fld@onexit@code</code> . 6339, 14692, 14694	<code>\fontencoding</code> . . . 548, 552, 587, 13874
<code>\Fld@flags</code> 5856, 5858, 5869, 5871, 5885, 5887, 5917, 5919, 5942, 5944, 14723, 14755, 14783, 14817, 14852, 14888, 14924	<code>\Fld@onfocus@code</code> 6334, 14672, 14674	<code>\fontfamily</code> 588, 13873
<code>\Fld@format@code</code> . 6330, 14660, 14662	<code>\Fld@onmousedown@code</code> 6336, 14680, 14682	<code>\fontseries</code> 589, 7662, 7690, 7721, 13875
<code>\Fld@getmethodfalse</code> 6109	<code>\Fld@onmouseup@code</code> . . 6337, 14684, 14686	<code>\fontshape</code> 590, 4945, 13876
<code>\Fld@getmethodtrue</code> 6111	<code>\Fld@pageobjref</code> . 13292, 13890, 13901, 14255, 14589, 14720, 14752, 14780, 14814, 14849, 14885, 14921	<code>\fontsize</code> 591
<code>\Fld@height</code> . 6214, 13317, 13335, 13349, 13404, 13424, 13441, 13481, 13501, 13531, 13541, 13920, 13940, 13950, 14006, 14034, 14048, 14084, 14107, 14135, 14147, 14268, 14284, 14305, 14361, 14373, 14407, 14456, 14479, 14511, 14519	<code>\Fld@printfalse</code> 5750	<code>\Football</code> . . 19781, 19783, 21821
<code>\Fld@hiddenfalse</code> 5745	<code>\Fld@printtrue</code> 5749	<code>\footins</code> 7912
<code>\Fld@hiddentruer</code> 5746	<code>\Fld@radiosymbol</code> . . 6071, 6288, 14833	<code>\footnote</code> 5611
<code>\Fld@invisiblefalse</code> 5741	<code>\Fld@rotation</code> 6072, 6318, 14727, 14729, 14758, 14763, 14765, 14786, 14792, 14794, 14821, 14823, 14855, 14861, 14863, 14891, 14896, 14898, 14927, 14932, 14934	<code>\footnoteautorefname</code> 3328, 3346, 3364, 3382, 3400, 3418, 3436, 3457, 3460, 3494, 3512, 9292, 9296
<code>\Fld@invisibletrue</code> 5742	<code>\Fld@submitflags</code> . . . 5824, 5826, 14912	<code>\footnotesep</code> 7916, 7923
<code>\Fld@keystroke@code</code> 6333, 14656, 14658	<code>\Fld@temp</code> . . 6291, 6293, 6296, 6297, 6306, 6307	<code>\footnotesize</code> 620, 7914
<code>\Fld@listcount</code> . . . 13413, 13418, 13421, 13426, 13431, 13436, 14015, 14020, 14035, 14041, 14370, 14378, 14382, 14387, 14398, 14403	<code>\Fld@validate@code</code> 6331, 14664, 14666	<code>\footnotetext</code> 7874
<code>\Fld@loc</code> 6169	<code>\Fld@value</code> 5975, 5982, 5984, 6282, 13315, 13330, 13347, 13385, 13386, 13918, 13934, 13948, 13987, 13988, 14266, 14282, 14303, 14342, 14343, 14878	<code>\footref</code> 7942, 7943
<code>\Fld@mappingname</code> . 6199, 6201, 14638, 14640, 14712, 14714	<code>\Fld@width</code> . 6204, 13316, 13329, 13335, 13348, 13384, 13395, 13397, 13424, 13441, 13464, 13480, 13488, 13500, 13514, 13530, 13536, 13541, 13919, 13933, 13940, 13949, 13986, 13997, 13999, 14034, 14048, 14069, 14083, 14091, 14106, 14120, 14134, 14141, 14147, 14267, 14281, 14284, 14304, 14341, 14352, 14354, 14373, 14407, 14438, 14455, 14463, 14478, 14492, 14510, 14517, 14519	<code>\forall</code> 18712, 20901
<code>\Fld@maxlen</code> . 6062, 6208, 14880	<code>\float@caption</code> 8018, 8090	<code>\Force</code> 18543, 21677
<code>\Fld@menulength</code> . . 6058, 6211, 13351, 13355, 13401, 13652, 13653, 13656, 13952, 13956, 14003, 14307, 14311, 14358	<code>\float@makebox</code> 8092, 8093	<code>\foreignlanguage</code> 646
<code>\Fld@name</code> . 6193, 13313, 13345, 13449, 13527, 13589, 13594, 13605, 13606, 13617, 13618, 13627, 13628, 13636, 13657, 13674, 13682, 13687, 13702, 13711, 13916, 13946, 14053, 14131, 14264, 14301, 14421, 14507, 14633, 14707	<code>\floatingpenalty</code> 7918	<code>\Form</code> 6073
<code>\Fld@norotatefalse</code> 5758	<code>\Florin</code> 16582, 21552	<code>\Form@action</code> 6083, 13581, 14910
<code>\Fld@norotatetrue</code> 5757	<code>\flq</code> 665	<code>\Form@boolkey</code> 6077
<code>\Fld@noviewfalse</code> 5761	<code>\flqq</code> 663	<code>\Form@htmlfalse</code> . . . 6076, 6095
<code>\Fld@noviewtrue</code> 5762	<code>\fmtname</code> 7	<code>\Form@htmltrue</code> 6088
<code>\Fld@nozoomfalse</code> 5754	<code>\fmtversion</code> 7	<code>\Form@method</code> 6107, 6115, 13581
<code>\Fld@nozoomtrue</code> 5753		<code>\Forward</code> 19531, 21182
<code>\Fld@onblur@code</code> . 6335, 14676, 14678		<code>\ForwardToIndex</code> . . 19349, 21171
<code>\Fld@onclick@code</code> . 6329, 6405, 14773		<code>\FourAsterisk</code> 19860, 21296
		<code>\fourinferior</code> 20789
		<code>\FourStar</code> 19868, 21300
		<code>\FourStarOpen</code> . . . 19870, 21301
		<code>\foursuperior</code> 20773
		<code>\fourth</code> 18326, 20769
		<code>\frown</code> 19302, 21152
		<code>\frownie</code> 19615, 21213
		<code>\Frowny</code> 19617, 21781
		<code>\frq</code> 666
		<code>\frqq</code> 664
		<code>\fullnote</code> 20343, 21495
		<code>\futurelet</code> 719, 1685
		<code>\FV@SetLineNo</code> 7363
		<code>\FV@StepLineNo</code> . . . 7362, 7364, 7365
		G
		<code>\G</code> . . 15902, 15941, 15968, 16693, 16695, 16697, 16699, 16705, 16707, 16708, 16715, 16717, 16723, 16725, 16727, 16729
		<code>\g@addto@macro</code> 6774, 6946, 8151, 8428, 8431, 8434, 8483, 10037, 11014, 11536, 11836, 12425, 12519, 12589, 12899, 13098

\backslash G@refundefinedtrue 5271, 8251, 8274, 9063, 9083, 9100, 9218
 \backslash gaf 20639
 \backslash Game 18492, 20827
 \backslash Gamma 17165, 20711
 \backslash gamma 17230, 20724
 \backslash gammainferior 20753
 \backslash Ganz 20345, 21858
 \backslash GaPa 20331, 21489
 \backslash Gauge 6421
 \backslash ge 18951, 21003
 \backslash Gemini 19671, 21801
 \backslash gemini 19669, 21229
 \backslash GenericError 707, 3961
 \backslash GenericInfo 709, 3959
 \backslash GenericWarning . 271, 708, 3960
 \backslash Gentsroom 20373, 21508
 \backslash geq 18951, 21002
 \backslash geqclosed 19161, 21742
 \backslash geqq 18959, 21006
 \backslash geqslant 20180, 21432
 \backslash getpagerefnumber 7477
 \backslash getrefbykeydefault . 7433, 7434
 \backslash gexmode . 11567, 11568, 11668
 \backslash gg 18971, 21012
 \backslash ggg 19221, 21117
 \backslash ghayn 20591
 \backslash gimel 18486, 20824
 \backslash Gin@setfile 8680, 8681
 \backslash glossary 672
 \backslash glotstop 17011, 20708
 \backslash glottal 17014, 21632
 \backslash glq 661
 \backslash glqq 659
 \backslash gnapprox 20199, 21441
 \backslash gneq 20195, 21439
 \backslash gneqq 18965, 21009
 \backslash gnsim 19253, 21131
 \backslash Greeknumeral 1183
 \backslash greeknumeral 1182
 \backslash grq 662
 \backslash grqq 660
 \backslash gtrapprox 20188, 21436
 \backslash gtrclosed 19154, 21739
 \backslash gtrdot 19217, 21115
 \backslash gtreqless 19227, 21119
 \backslash gtreqqls 20205, 21443
 \backslash gtrless 18998, 21024
 \backslash gtrsims 18989, 21020
 \backslash guill@spacing 1112
 \backslash guillemotleft 1152, 15669, 15851, 16111, 20395
 \backslash guillemotright . . . 1153, 15700, 15852, 16146, 20396
 \backslash guilsinglleft 15600, 15853, 18309, 20397

\backslash guilsinglright . . . 15602, 15854, 18311, 20398

H

\backslash H .. 15898, 15943, 15970, 15992, 16470, 16472, 16534, 16536, 17807, 17809
 \backslash h .. 3515, 20421, 20426, 20431, 20436, 20441, 20446, 20451, 20456, 20461, 20466, 20471, 20476, 20481, 20486, 20491, 20496, 20501, 20506, 20511, 20516, 20521, 20526, 20531, 20536
 \backslash H@@footnotemark . 7777, 7794, 7858, 7947, 7954, 7966, 7977
 \backslash H@@footnotetext 7776, 7786, 7818, 7857, 7896, 7955, 7969, 7977
 \backslash H@mpfootnotetext 7784, 7796, 7798, 7859
 \backslash H@definecounter .. 8585, 8587
 \backslash H@endeqnarray . . . 7571, 7594
 \backslash H@endequation . . . 7525, 7565
 \backslash H@endsubeqnarray . 7604, 7616
 \backslash H@eqnarray 7570, 7575
 \backslash H@equation 7524, 7548
 \backslash H@item 7143, 7149, 8159, 8184
 \backslash H@newctr 8590, 8592
 \backslash H@old@part 15381, 15392
 \backslash H@old@schapter . . 15351, 15360
 \backslash H@old@ssect 15402, 15413, 15422
 \backslash H@old@spart 15394, 15400
 \backslash H@old@ssect 15337, 15342
 \backslash H@refstepcounter . . 7160, 7170, 7364, 7488, 7501, 7547, 7703, 7734, 8013, 8879, 8932
 \backslash H@seteqlabel 8621, 8623
 \backslash H@subeqnarray . . . 7603, 7607
 \backslash ha 20607
 \backslash Haa 20565
 \backslash Halb 20348, 21859
 \backslash halfnote 20346, 21496
 \backslash halign 681
 \backslash hamza 20541
 \backslash HandCuffLeft . . . 19591, 21205
 \backslash HandCuffRight . . . 19593, 21206
 \backslash HandLeft 19595, 21207
 \backslash HandRight 19598, 21208
 \backslash HaPa 20333, 21490
 \backslash HAR@checkcitations . . . 8339
 \backslash HAR@citetoaux 8295
 \backslash HAR@tempa 8340, 8341, 8342, 8343, 8344, 8345
 \backslash hardsign 17465, 21643
 \backslash harvardcite 8289, 8326
 \backslash harvarditem 8314

\backslash hateq 18927, 20993
 \backslash hausab 16571, 20673
 \backslash hausab 16790, 21573
 \backslash hausad 16575, 20674
 \backslash hausad 16804, 21578
 \backslash hausak 16586, 20675
 \backslash hausak 16590, 21554
 \backslash hb@xt@ 5321, 5334
 \backslash hbar 16377, 20672
 \backslash hbox . . 1961, 1967, 1973, 2679, 3690, 3696, 5322, 5336, 5487, 5489, 6205, 6442, 6443, 6444, 6445, 8279, 8468, 9559, 10130, 10209, 10219, 10289, 10303, 10326, 10341, 10366, 10381, 10652, 10669, 11744, 12102, 12116, 12739, 12749, 13022, 13037, 13729, 14283, 14372, 14406, 14436, 14464, 14493, 14518, 15329
 \backslash hc@currentHref 8029
 \backslash HCode . . . 13581, 13583, 13594, 13603, 13615, 13623, 13625, 13656, 13662, 13667, 13672, 13686, 13691, 13695, 13698, 13707
 \backslash hdotfor 18291, 20763
 \backslash headerps@out . . . 7047, 12415, 12426, 12506, 12520, 12581, 12590, 12603, 12617, 12664, 12782, 12900, 13099
 \backslash Heart 19704, 21812
 \backslash heartsuit . 19702, 19705, 21813
 \backslash hebalef 17829
 \backslash hebayin 17865
 \backslash hebbet 17831
 \backslash hebdalet 17835
 \backslash hebfinalkaf 17849
 \backslash hebfinalmem 17855
 \backslash hebfinalnun 17859
 \backslash hebfinalpe 17867
 \backslash hebfinaltsadi 17871
 \backslash hebgimel 17833
 \backslash hebhe 17837
 \backslash hebhet 17843
 \backslash hebkafe 17851
 \backslash heblamed 17853
 \backslash hebmeme 17857
 \backslash hebnu 17861
 \backslash hebpe 17869
 \backslash hebpof 17875
 \backslash hebresh 17877
 \backslash hebsamekh 17863
 \backslash hebshin . . 17879, 17880, 21645
 \backslash hebsin 17880, 21645
 \backslash hebtav 17882

<code>\hebtet</code>	17845	<code>\hvtex@par@direction</code> . . .	11427, 11470	<code>\Hy@activeanchortrue</code> . . .	9661, 10158, 10172, 10253, 10262, 10577, 11106, 11124, 11196, 11208, 11720, 12684, 12698, 12972, 12985
<code>\hebtsadi</code>	17873	<code>\hvtex@par@duration</code>	11428, 11462	<code>\Hy@ActiveCarriageReturn</code>	5052, 5055
<code>\hebvav</code>	17839	<code>\hvtex@par@motion</code>	11429, 11464	<code>\Hy@AllowHyphens</code>	5126, 11718, 11750, 12085
<code>\hebyod</code>	17847	<code>\hvtex@param@dimension</code>	11439, 11468, 11486, 11489	<code>\Hy@AlphNoErr</code>	7259, 7272, 7274
<code>\hebzayin</code>	17841	<code>\hvtex@param@direction</code> .	11440, 11471, 11497, 11505	<code>\Hy@AnchorName</code> . . . . .	. . . . . 5256, 5258, 5261, 5263, 5287, 5289, 5293, 5298, 5300
<code>\Hermaphrodite</code> . . .	19768, 21260	<code>\hvtex@param@duration</code> .	11441, 11463, 11510, 11512	<code>\Hy@appendixstring</code>	7254, 7276
<code>\hexagon</code>	19344, 21169	<code>\hvtex@param@motion</code> . .	11442, 11465, 11486, 11493	<code>\Hy@AtBeginDocument</code> . . . . .	. . . . . 376, 1091, 2961, 3021, 3096, 3171, 3227, 3632, 4423, 4492, 4509, 4648, 4654, 4754, 4913, 5003, 6520, 6631, 7080, 7369, 8286, 9137, 9285, 9554, 10045, 10664, 11179, 12616, 12662, 13746, 13779
<code>\hexstar</code>	19779, 21262	<code>\hvtex@parse@trans</code>	11415, 11437	<code>\Hy@AtBeginDocumentHook</code>	377, 382, 388, 389
<code>\hfill</code>	6442, 6443, 6444, 6445, 8170, 8203	<code>\hvtex@produce@trans</code> . . .	11476, 11482	<code>\Hy@AtEndOfPackage</code>	379, 919, 2595, 3596, 3604, 3611, 4636, 4662, 4668, 4865
<code>\Hfootnoteautorefname</code> . . .	9292	<code>\hvtex@token</code>	11434, 11445, 11451, 11458, 11463, 11466, 11469, 11471	<code>\Hy@AtEndOfPackageHook</code>	380, 383, 385, 386
<code>\hhyperref</code>	5616	<code>\hvtex@trans@code</code>	11419, 11420, 11421, 11422, 11423, 11424, 11425, 11438, 11484, 11485, 11487, 11489, 11491, 11493, 11495, 11497, 11499, 11500, 11501, 11502, 11503, 11505	<code>\Hy@author</code>	6701, 6705
<code>\hinferior</code>	20805	<code>\hvtex@trans@effect@Blinds</code>	11419	<code>\Hy@babelnormalise</code>	5234, 5236
<code>\hoffset</code>	8469	<code>\hvtex@trans@effect@Box</code>	11420	<code>\Hy@backout</code>	5012, 6571, 6575, 8125
<code>\hookb</code>	16789, 21572	<code>\hvtex@trans@effect@Dissolve</code>	11421	<code>\Hy@backreffalse</code>	444, 3292, 3314, 4660
<code>\hookd</code>	16803, 21577	<code>\hvtex@trans@effect@Glitter</code>	11422	<code>\Hy@backreftrue</code>	3285, 3289, 3311
<code>\hookg</code>	16836, 21584	<code>\hvtex@trans@effect@R</code> . .	11425	<code>\Hy@BeginAnnot</code>	10694, 10711, 10752, 10789, 10821, 10850
<code>\hookh</code>	16856, 21589	<code>\hvtex@trans@effect@Split</code>	11423	<code>\Hy@bibcite</code>	8148, 8152
<code>\hookheng</code>	16860, 21591	<code>\hvtex@trans@effect@Wipe</code>	11424	<code>\Hy@bookmarksdepth</code> . . .	3675, 3680, 3692, 3698, 14961
<code>\hookleftarrow</code>	18581, 20849	<code>\hvtex@trans@par</code>	11458, 11462, 11464, 11467, 11470	<code>\Hy@bookmarksnumberedfalse</code>	445
<code>\hookrelepsilon</code>	16825, 21581	<code>\hvtex@trans@params</code> . . .	11452, 11454, 11478	<code>\Hy@bookmarksopenfalse</code> . .	446
<code>\hookrightarrow</code> . . .	18583, 20850	<code>\Hy@@@CleanupFile</code> . . .	5487, 5489	<code>\Hy@bookmarkstrue</code>	447
<code>\hphantom</code>	630	<code>\Hy@@@DefNameKey</code> . . .	2822, 2824	<code>\Hy@bookmarkstype</code>	3710, 3712, 8499, 14972
<code>\href</code> 673, 5133, 5610, 5611, 6612		<code>\Hy@@@escapeform</code>	14599, 14612, 14618	<code>\Hy@boolkey</code>	2749, 2841, 2844, 2847, 2868, 2871, 2874, 2905, 2908, 2911, 2928, 2932, 2935, 2938, 2941, 2944, 2947, 2950, 2953, 3034, 3263, 3266, 3321, 3618, 3630, 3645, 3670, 3673, 3714, 3717, 3778, 3938, 4233, 4236, 4239,
<code>\href@</code>	5136, 5139, 5144	<code>\Hy@@@SectionAnchor</code>	15324, 15327		
<code>\href@split</code>	5144, 5145	<code>\Hy@@@temp</code>	3720, 3722, 6341, 6343		
<code>\hsize</code>	7919	<code>\Hy@@@VersionCheck</code> . . .	293, 322		
<code>\hskip</code>	1972, 2059, 2720, 2721, 5130, 6448, 13729	<code>\Hy@abspage</code>	6794, 6880, 6996, 7073		
<code>\hslash</code>	18446, 20814	<code>\Hy@Acrobatmenu</code>	4537, 4578, 10099, 10849, 11390, 12278		
<code>\hspace</code>	669, 8329, 8330	<code>\Hy@activeanchorfalse</code>	5016, 9665, 10161, 10176, 10255, 10265, 10581, 11110, 11127, 11198, 11211, 11730, 12687, 12702, 12975, 12989		
<code>\hss</code>	5323, 5335, 8477, 15334				
<code>\ht</code> 5327, 5331, 5340, 6450, 6453, 10217, 10292, 10301, 10308, 10329, 10339, 10346, 10369, 10379, 10386, 12098, 12747, 13035, 14243					
<code>\htmladding</code>	5609				
<code>\htmladdnormallink</code>	5610				
<code>\htmladdnormallinkfoot</code> . . .	5611				
<code>\htmlref</code>	5612				
<code>\htrtaild</code>	20760				
<code>\Huge</code>	617				
<code>\huge</code>	621				
<code>\Hurl</code>	5219, 5221, 5223				
<code>\hv</code>	16585, 21553				
<code>\hv@pdf@char</code>	15119, 15184, 15185, 15186, 15187				
<code>\hvtex@buffer</code>	11431, 11435, 11443, 11446, 11455, 11459, 11475				
<code>\hvtex@gettoken</code>	11430, 11444, 11448, 11457, 11461				
<code>\hvtex@gettoken@</code>	11431, 11433				
<code>\hvtex@par@dimension</code> . .	11426, 11467				

4242, 4245, 4248, 4251, 4259, 4391, 4394, 7014	\Hy@DisableOption . . . . .	. . . . . 4835, 4842
\Hy@BorderArrayPatch . . 12156, 12159, 12424, 12898	. . . . . 2778, 4529, 4530, 4531, 4533, 4536, 4641, 4667, 4809, 4810, 4811, 4812, 4813, 4814, 4815, 4816, 4817, 4818, 4819, 4820, 4821, 4822, 4823, 4824, 4825, 4826, 4827, 4828, 4873, 4926, 4954, 4955, 5014, 5015, 5605, 6524, 6525, 6526, 6527, 6528, 6529, 6530, 6531, 6532, 6533, 6534, 6535, 6536, 6537, 6538, 6539, 6540, 6541, 6542, 6543, 6544, 6545, 6546, 6547, 6725, 6948, 7981, 8685, 8810, 8811, 9478, 9582, 9955, 9956, 9957, 9958, 9959, 9960, 9961, 9962, 9963, 9964, 10094, 10420, 10421, 10422, 10423, 10424, 10425, 10426, 10427, 10428, 10429, 10692, 10912, 10913, 10914, 10915, 10916, 10917, 10918, 10919, 10920, 10921, 11039, 11181, 11648, 11649, 11650, 11651, 11652, 11653, 11654, 11655, 11656, 11657, 11915, 11916, 11917, 11918, 11919, 11920, 11921, 11922, 11923, 11924, 12491, 12808, 12809, 12810, 12811, 12812, 12813, 12814, 12815, 12816, 12817	\Hy@EndAnnot . . . 10700, 10746, 10785, 10817, 10846, 10872
\Hy@breaklinks@unsupported 2916, 11696	\Hy@Driver 486, 2921, 3093, 3105, 3115, 3120, 3125, 3138, 3148, 3153, 3158, 3165, 3168, 3194, 3210, 3217, 3222, 3232, 3992, 4670, 4673, 4677, 4680, 4684, 4687, 4689, 4693, 4699, 4703, 4706, 4710, 4715, 4719, 4722, 4726, 4729, 4731, 4735, 4741, 4745, 4748, 4751, 4762, 4765, 4768, 4777, 4778, 4789, 4791, 4799, 4801, 4803, 4805	\Hy@EndColorlink 3625, 4941, 4946, 4950, 9564, 9652, 10159, 10196, 10220, 10228, 10254, 10278, 10299, 10313, 10337, 10352, 10377, 10392, 10674, 10702, 11197, 11270, 11291, 11317, 11352, 11385, 11404, 11775, 12045, 12685, 12724, 12750, 12758, 12973, 13009, 13034, 13045
\Hy@breaklinksfalse 448	\Hy@Dth@currentHref 7705, 7736, 7761	\Hy@Error 265, 281, 287, 310, 2965, 3082, 3107, 3140, 3178, 3185, 3196, 3202, 4562, 5187, 5418, 5782, 5906, 6102, 6134, 6346, 6399, 13455, 13508, 14060, 14114, 14428, 14486
\Hy@breaklinksunhbox . . 12052, 12106	\Hy@dviErrMsg 3060, 3062, 3065, 3071, 3084	\Hy@EscapeForm . . 13334, 13420, 13439, 13468, 13489, 13515, 13540, 13938, 14024, 14046, 14073, 14094, 14122, 14145, 14289, 14381, 14410, 14442, 14466, 14494, 14524, 14593, 14623, 14630
\Hy@CatcodeWrapper . . . 4874, 4933, 4977, 5006	\Hy@dviModetrue . . 3069, 3074	\Hy@EndWrap 4875, 4877, 4878, 4911
\Hy@chapapp 7255, 7276, 7303, 15355, 15366, 15448	\Hy@dviOutlineOpentru	\Hy@EveryPageAnchor . . 8441, 8484
\Hy@chapterstring . . 7250, 7252, 7255, 7302		\Hy@EveryPageBoxHook 6751, 6755, 6759, 8483, 11014, 11536, 11836
\Hy@CheckOptionValue . . 2792, 2829		\Hy@EveryPageHook 6750, 6754, 6946, 10037
\Hy@CJKbookmarksfalse . . . 450		\Hy@ExchangeLeftParenthesis 9341, 9347
\Hy@cjkpu 1354, 1356, 1377		\Hy@ExchangeRightParenthesis 9351, 9357
\Hy@CleanupFile . . . 5485, 9726, 10754, 11275, 12350		\Hy@false 2643, 2759, 3277, 3313, 6131
\Hy@colorlink 3624, 4937, 4945, 4949, 9555, 9646, 9719, 9759, 9795, 10124, 10159, 10182, 10213, 10226, 10254, 10270, 10295, 10311, 10333, 10350, 10373, 10390, 10665, 10743, 10782, 10814, 10843, 10869, 11197, 11219, 11289, 11315, 11350, 11383, 11402, 11748, 12031, 12033, 12685, 12708, 12743, 12756, 12973, 12995, 13030, 13043		\Hy@finalfalse 407
\Hy@colorlinksfalse 3621		\Hy@finaltrue 406
\Hy@ColorList 3783, 3784		\Hy@FirstPage 4548
\Hy@CounterExists . . 7108, 7121, 7124		\Hy@FirstPageHook 6752, 6766, 6767, 6771, 6774, 7045, 7046, 12425, 12519, 12589, 12899, 13098
\Hy@currentbookmarklevel 14967, 14977, 14978, 14984, 14991, 15084, 15087, 15092, 15096		\Hy@FixNotFirstPage . . . 10128, 10129, 10137
\Hy@debugfalse 440		
\Hy@debugtrue 439		
\Hy@defaultbp 6220, 6222		
\Hy@defaultbpAux . . 6224, 6229, 6243		
\Hy@defaultdriver . . 4743, 4768, 4778, 4789		
\Hy@DefFormAction 6081, 6083		
\Hy@DefNameKey . . 2821, 3815, 3867, 3875, 3883, 3887, 3894, 3901, 3908, 3915, 3919, 3924, 3931, 4268		
\Hy@DEST 12053, 12120		
\Hy@destlabelfalse 451		
\Hy@DestName 9607, 9614		
\Hy@DestRename . . 5550, 5575, 5579		

<code>\Hy@float@caption</code>	<code>\Hy@linkcounter</code>	<code>\Hy@next</code>
8019, 8069, 8083	488, 490, 7333, 7334, 7356, 7357, 8624, 8921, 8922, 8926, 8972, 8973, 8977	6896, 6906, 6911, 15365, 15374, 15377
<code>\Hy@float@currentHref</code>	<code>\Hy@linkfileprefix</code>	<code>\Hy@nextfalse</code>
8073, 8076, 8078, 8084, 8086, 8088	3754, 5437, 10199, 11075, 12728, 13012	4580, 8695
<code>\Hy@footnote@currentHref</code>	<code>\Hy@LinkMath</code>	<code>\Hy@NextPage</code>
6519, 7806, 7811, 7826, 7831, 7834, 7846, 7848, 7887, 7928, 7931	11739, 11741, 11746, 11778, 12077, 12079, 12084, 12086, 12092, 12094	4542
<code>\Hy@FormObjects</code>	<code>\Hy@linktoc</code>	<code>\Hy@nexttrue</code>
13838, 14153, 14207, 14217, 14535, 14585	2876, 2878, 2886, 2888, 2898, 8545	4581, 4582, 4583, 8696, 8697, 8698
<code>\Hy@frenchlinksfalse</code>	<code>\Hy@linktoc@call</code>	<code>\Hy@NIL</code>
3623	2884	4466, 4479, 4482
<code>\Hy@Gin@setfile</code>	<code>\Hy@linktoc@none</code>	<code>\Hy@number</code>
8680, 8682	2881	4176, 4180, 4188
<code>\Hy@GlobalStepCount</code>	<code>\Hy@linktoc@page</code>	<code>\Hy@numberline</code>
484, 6880, 7333, 7356, 8459, 8921, 8972	2876, 2883, 2886	14968, 15005, 15006, 15007, 15008
<code>\Hy@gtemp</code>	<code>\Hy@linktoc@section</code>	<code>\Hy@ObsoletePaperOption</code>
834, 835, 4600, 4606, 4608, 5979, 5980, 5984, 5985, 5996, 6010, 7863, 7868, 9365, 9367, 14651, 14653	2878, 2882, 2888	2850, 2858
<code>\Hy@href</code>	<code>\Hy@linktocpagefalse</code>	<code>\Hy@ocgcolor</code>
5136, 5138	459	9558, 9572, 10668, 10682
<code>\Hy@href@nextactionraw</code>	<code>\Hy@localanchornamefalse</code>	<code>\Hy@ocgcolorlinksfalse</code>
5173, 5196, 5198, 5199, 5201, 5206, 5210, 5212, 9715, 9755, 9791, 10120, 10739, 10778, 10810, 10839, 10865, 11234, 11304, 11372, 12375, 12404	460	3622, 4921
<code>\Hy@href@page</code>	<code>\Hy@LookForParentCounter</code>	<code>\Hy@Org@chapter</code>
5151, 5153, 5157, 5158, 5160, 5167, 5170, 9751, 10773, 12371	7225	15363, 15378
<code>\Hy@hyperfiguresfalse</code>	<code>\Hy@LT@currentHref</code>	<code>\Hy@OrgMakeLabel</code>
453	7503, 7514	13067, 13074
<code>\Hy@hyperfootnotetrue</code>	<code>\Hy@LT@footnotetext</code>	<code>\Hy@OutlineName</code>
455	7886, 7895	15243, 15298
<code>\Hy@hyperindextrue</code>	<code>\Hy@make@anchor</code>	<code>\Hy@OutlineRerunCheck</code>
456	8598, 8604, 8610	15108, 15207, 15289
<code>\Hy@hypertexnamesfalse</code>	<code>\Hy@make@df@tag@@</code>	<code>\Hy@PageAnchorSlide</code>
2599	8602, 8617	8401, 8439, 8452
<code>\Hy@hypertexnamestrue</code>	<code>\Hy@make@df@tag@@@</code>	<code>\Hy@PageAnchorSlidesPlain</code>
457	8608, 8618	8388, 8438, 8447
<code>\Hy@ifStringEndsWith</code>	<code>\Hy@MakeCurrentHref</code>	<code>\Hy@pageanchortrue</code>
5453, 5465	7344, 7357	466, 489, 491, 7395, 8459, 8461
<code>\Hy@implicittrue</code>	<code>\Hy@MakeCurrentHrefAuto</code>	<code>\Hy@pageheight</code>
458	7355, 7437, 8599, 14952, 15339, 15355, 15366, 15396, 15410, 15448	4437, 12521, 12618
<code>\Hy@Info</code>	<code>\Hy@MakeRemoteAction</code>	<code>\Hy@param</code>
268, 2767, 4611, 4613, 4616, 4618, 4621, 4623, 4626, 4628, 4631, 4633, 4858, 4864, 4942, 4947, 4951, 5095, 5122, 5689, 6481, 6483, 6486, 6488, 6491, 6493, 6496, 6498, 6501, 6503, 6506, 6508, 6511, 6513, 8226, 8287, 8504, 8521	5156, 9729, 10757, 12353	4467, 4468, 4471, 4472, 7301, 7302, 7303, 7330, 7334
<code>\Hy@InfoNoLine</code>	<code>\Hy@maketitle@end</code>	<code>\Hy@pdfafalse</code>
269, 4643, 4645, 9403, 12952	7958, 7963, 7965	482
<code>\Hy@IsNotEmpty</code>	<code>\Hy@maketitle@optarg</code>	<code>\Hy@pdfcenterwindowfalse</code>
5557, 5558, 5581	7956, 7961	449
<code>\Hy@LastPage</code>	<code>\Hy@Match</code>	<code>\Hy@pdfdisplaydoctitlefalse</code>
4551	326, 328, 329, 3764, 3824, 3841, 4207, 4286, 4292, 4322, 4323, 4326, 4337, 4352, 5201, 6259	481
<code>\Hy@level</code>	<code>\Hy@MaybeStopNow</code>	<code>\Hy@pdfencoding@pdfdoc</code>
14973, 14975, 14986, 14991, 14992, 14993, 15024	3161, 4447, 4450	3016
<code>\Hy@levelcheck</code>	<code>\Hy@Message</code>	<code>\Hy@pdfescapeformfalse</code>
14974, 14989	270, 3095, 3170, 4647, 4753, 4801, 11131, 11135, 11138, 11141, 11144, 11147, 11150, 11153, 13282, 13553, 13557, 13560, 13563, 13566, 13569, 13572, 13575, 13585, 13722, 14212	452
	<code>\Hy@naturalnamesfalse</code>	<code>\Hy@pdffitwindowfalse</code>
	462	454
	<code>\Hy@nestingfalse</code>	<code>\Hy@pdfmarkererrorfalse</code>
	463	12005
	<code>\Hy@newline@author</code>	<code>\Hy@pdfmarkererrortrue</code>
	6744	12189, 12198
	<code>\Hy@newline@title</code>	<code>\Hy@pdfmenubartrue</code>
	6743	461
		<code>\Hy@pdfminorversion</code>
		9377, 9383, 9386, 9394, 9413, 9436, 9457, 9472, 9476
		<code>\Hy@pdfnewwindowfalse</code>
		465
		<code>\Hy@pdfnewwindowsetfalse</code>
		464, 4256
		<code>\Hy@pdfnewwindowsettrue</code>
		4258, 5175
		<code>\Hy@pdfnewwindowtrue</code>
		5176
		<code>\Hy@pdfpagehiddenfalse</code>
		468
		<code>\Hy@pdfpagelabelsfalse</code>
		6781
		<code>\Hy@pdfpagelabelstrue</code>
		467
		<code>\Hy@pdfstringdef</code>
		833, 5954, 5962
		<code>\Hy@pdfstringfalse</code>
		469, 6549
		<code>\Hy@pdfstringtrue</code>
		686, 6521

\Hy@pdftoolbartrue	475				
\Hy@pdfusetitlefalse	478				
\Hy@pdfversion 3047, 3058, 5956,					
9399, 9407, 9413, 9436,					
9439, 9457, 9459, 9473,					
9476, 14645					
\Hy@pdfwindowuitrue	480				
\Hy@pkg	4465, 4472				
\Hy@plainpagesfalse	470				
\Hy@PrevPage	4545				
\Hy@ProvideTheHCounter	7206				
\Hy@ps@CR 12571, 12578, 12583,					
12584, 12601, 12622, 12623,					
12624, 12630, 12637, 12644,					
12651					
\Hy@psdextrafalse	474				
\Hy@pstringB 9871, 9876, 10952,					
10964, 11978, 11994, 12871,					
12887					
\Hy@pstringD 9728, 9753, 10756,					
10775, 12352, 12373					
\Hy@pstringdef 9312, 9606, 9630,					
9690, 9727, 9728, 9765,					
9766, 9871, 10519, 10720,					
10755, 10756, 10790, 10791,					
10822, 10952, 11218, 11296,					
11359, 11360, 11978, 12187,					
12196, 12325, 12351, 12352,					
12383, 12384, 12871, 14616,					
15242, 15258					
\Hy@pstringDest . . . 9606, 9607,					
10519, 10566, 12187, 12188,					
12192, 12196, 12197, 12201					
\Hy@pstringF					
. 9725, 9726, 9727, 9747,					
9765, 9784, 9789, 10753,					
10754, 10755, 10770, 10790,					
10803, 10808, 11274, 11275,					
11279, 11359, 11366, 11370,					
12349, 12350, 12351, 12368,					
12383, 12399, 12402					
\Hy@pstringName 15242, 15243,					
15258, 15272					
\Hy@pstringP 9766, 9789, 10791,					
10808, 11360, 11370, 12384,					
12402					
\Hy@pstringURI . . . 9690, 9711,					
10822, 10835, 11218, 11230,					
11296, 11300, 12325, 12337					
\Hy@PutCatalog 6942, 6950, 7062					
\Hy@raisedlink 2667, 7201, 7439,					
7460, 7461, 7462, 7465,					
7515, 7555, 7560, 7563,					
7586, 7758, 7809, 7829,					
7900, 7926, 8057, 8136,					
8160, 8165, 8185, 8600,					
8625, 12413, 12504, 12778,					
12950, 14953, 15331, 15356,					
15367, 15397, 15449					
\Hy@raiselinksfalse . . 471, 8288					
\Hy@RemoveDurPageAttr 9994,					
10007					
\Hy@RemoveHidPageAttr 10017,					
10029					
\Hy@RemovePercentCr . . 5068,					
5072, 5077					
\Hy@RemoveTransPageAttr 9969,					
9983					
\Hy@Reserved@a 5353, 7573, 7606,					
13588, 13638, 13701					
\Hy@RestoreCatcodes 205, 4443,					
4808					
\Hy@RestoreCatcodeSettings 973,					
980, 990, 1004					
\Hy@RestoreLastskip 2688, 9608,					
10162, 10177, 10256, 10266,					
10568, 11111, 11128, 11199,					
11212, 11711, 11731, 12688,					
12703, 12976, 12990					
\Hy@RestoreSavedSpaceFactor .					
2663, 10207, 10287, 10324,					
10364, 12737, 13020					
\Hy@RestoreSpaceFactor . 2654,					
2680, 2685, 10206, 10214,					
10221, 10286, 10296, 10304,					
10323, 10334, 10342, 10363,					
10374, 10382, 11745, 11781,					
12083, 12091, 12118, 12736,					
12744, 12751, 13019, 13031,					
13038, 13075, 13079					
\Hy@ReturnAfterElseFiFiEnd . .					
. 494, 1928					
\Hy@ReturnAfterFiFiEnd . 493,					
1920, 1934, 2027, 2034					
\Hy@ReturnEnd . 492, 493, 494,					
1940, 2039					
\Hy@safe@activesfalse 495, 4967,					
4972, 5386, 9207					
\Hy@safe@activestrue					
495, 4589, 4965, 4970, 5048,					
5085, 5093, 5121, 5238,					
5543, 5553, 7300, 8538,					
9113, 9196, 13749, 13808,					
15200, 15230					
\Hy@SaveCatcodeSettings . 929,					
978, 988, 1002					
\Hy@saved@currentHref . . 7844,					
7847					
\Hy@saved@footnotemark 7952,					
7967					
\Hy@saved@footnotetext . 7953,					
7970					
\Hy@saved@hook . . . 6729, 6739					
\Hy@saved@refstepcounter 7187,					
7489					
\Hy@SavedSpaceFactor					
. 2650, 2652, 2657, 2658,					
2664, 13072					
\Hy@SaveLastskip . . 2688, 9604,					
10150, 10165, 10247, 10259,					
10516, 11098, 11114, 11189,					
11202, 11701, 11715, 12677,					
12691, 12965, 12979					
\Hy@SaveSavedSpaceFactor 2662,					
10205, 10285, 10322, 10362,					
12735, 13018					
\Hy@SaveSpaceFactor 2651, 2671,					
2682, 10204, 10216, 10284,					
10298, 10321, 10336, 10361,					
10376, 11743, 11779, 12075,					
12087, 12095, 12734, 12746,					
13017, 13033, 13070, 13077					
\Hy@scanauthor . . . 6699, 6704					
\Hy@scanoptauthor . 6699, 6700					
\Hy@scanopttitle . . . 6690, 6691					
\Hy@scantitle 6690, 6695					
\Hy@secnum@part 15384, 15386,					
15389					
\Hy@SectionAnchorHref . . 683,					
15322, 15344, 15415					
\Hy@SectionHShift 15321, 15330,					
15340, 15411					
\Hy@seminarslidesfalse . . . 8871					
\Hy@seminarslidestrue 8868					
\Hy@setbreaklinks . . 2913, 2917,					
2929, 9373, 10509					
\Hy@SetCatcodes 181, 231, 4445					
\Hy@SetNewWindow 4262, 9749,					
9786, 10777, 10805, 11367,					
12367, 12398					
\Hy@setouterhbox . 12051, 12082					
\Hy@setpagesizetrue 472					
\Hy@setpdfborder					
. 3857, 9636, 9695, 9733,					
9770, 10104, 10731, 10763,					
10797, 10828, 10857, 11238,					
11259, 11282, 11308, 11342,					
11376, 11395					
\Hy@setpdfversiontrue 3046					
\Hy@setref@link 9069, 9072					
\Hy@SlidesFormatOptionalPage					
. 6810, 8387, 8406, 8410					
\Hy@SlidesPage 6817, 8420, 8421,					
8427, 8429, 8432, 8435					
\Hy@slidetitle 8898, 8900, 8907,					
8915, 8925, 8949, 8951,					
8958, 8966, 8976					
\Hy@StartlinkName . 9634, 9648					
\Hy@StepCount 483, 6857, 13355,					
13418, 13653, 13956, 14020,					

14311, 14378, 15088, 15093, 15169	12268, 12820, 12825, 12831, 12835, 12838, 12843, 12876, 12878, 13809, 13821, 14598, 14599, 15240, 15246, 15254, 15269	11329, 11330, 11335, 11339, 11853, 11854, 11859, 11870
\Hy@stoppedearlyfalse 4452, 7107		\Hy@texhtfalse 473
\Hy@stoppedearlytrue 4449, 7104		\Hy@texhttrue 3090, 4671
\Hy@StringLocalhost 5483, 5484, 5499	\Hy@temp@A 746, 747, 1912, 1914, 1925, 1927, 1932, 1933, 1936, 4068, 4070, 4466, 4479, 4482, 7226, 7229, 7230, 7231, 7232, 8714, 8715, 8716, 8723, 8751, 8752, 8753, 8762, 8789, 9416, 9427, 9428, 9429, 9430, 9433, 9438, 9441, 9467	\Hy@TheSlideOptionalPage 8405, 8409, 8414, 8423
\Hy@tabularx@hook 7856, 7864		\Hy@title 6692, 6696
\Hy@temp 714, 721, 837, 909, 1079, 1082, 1090, 1091, 2856, 2861, 2862, 2863, 2864, 2865, 2866, 3719, 3728, 3729, 3730, 3731, 3732, 3733, 3734, 3784, 3785, 3786, 3789, 3791, 3794, 3804, 3807, 3808, 3809, 3810, 3811, 3812, 3822, 3835, 3839, 3854, 3991, 3992, 4032, 4033, 4036, 4039, 4042, 4067, 4075, 4076, 4077, 4078, 4079, 4080, 4081, 4082, 4083, 4254, 4255, 4278, 4279, 4325, 4326, 4333, 4337, 4569, 4573, 4574, 4575, 4576, 4675, 4677, 4682, 4684, 4687, 4701, 4703, 4708, 4710, 4717, 4719, 4724, 4726, 4729, 4790, 4791, 5679, 5683, 5684, 5695, 5779, 5780, 5781, 5783, 5787, 6099, 6100, 6101, 6103, 6107, 6108, 6257, 6269, 6340, 6356, 6357, 6358, 6359, 6360, 6361, 6362, 6363, 6369, 6375, 6381, 6382, 6383, 6384, 6385, 6386, 6387, 6388, 6389, 6390, 6391, 6837, 6840, 6849, 6851, 6855, 6859, 6903, 6905, 7209, 7210, 7231, 7389, 7392, 7395, 7401, 7527, 7533, 7654, 7679, 7936, 7942, 8552, 8553, 8561, 8562, 8765, 8767, 8771, 8802, 8803, 8804, 8819, 8820, 9415, 9418, 9419, 9435, 9453, 9886, 9915, 9917, 10439, 10444, 10450, 10454, 10457, 10462, 10493, 10495, 10924, 10967, 10969, 11878, 11881, 11885, 11886, 11892, 11893, 11899, 11927, 11932, 11938, 11942, 11945, 11950, 11983, 11985, 12057, 12058, 12062, 12153, 12154, 12162, 12163, 12267,	\Hy@tocdestname . . 8540, 8542, 8549, 8557, 8564, 8568, 8570	
		\Hy@toclevel . . 8509, 8513, 8526
		\Hy@true 2642, 2755, 2757, 3307, 3309, 6128
		\Hy@typexmlfalse 476
	\Hy@temp@B 1913, 1914	\Hy@undefinedname 9619, 9626, 9628, 10707, 10716, 10718, 11215, 11250, 11252, 11333, 11335, 11844, 11857, 11859
	\Hy@temp@menu . 10101, 10119, 10851, 10864, 11389, 11392, 12277, 12286	\Hy@unicodefalse 477, 813, 823, 2972, 2973, 2981, 4009, 4015, 7391, 8451, 14647
	\Hy@tempa . . 2750, 2752, 2754, 2755, 2757, 2759, 2761, 2764, 2767, 2768, 3273, 3274, 3275, 3277, 3278, 3280, 3281, 3283, 3287, 3291, 3302, 3304, 3306, 3307, 3309, 3313, 5054, 5055, 5066, 5070, 5239, 5243, 5365, 5367, 6086, 6087, 6127, 6128, 6131, 6135, 6886, 6888, 6926, 6928, 7073, 7075, 7624, 7626, 7627, 7630, 7631, 7632, 8014, 8019, 8024, 8498, 8499, 8517, 8518, 8524, 8885, 8886, 8937, 8938, 10183, 10184, 11079, 11227, 11228, 12709, 12710, 12996, 12997, 14971, 14972, 14995, 14997, 15016, 15017, 15025, 15049, 15051, 15052, 15054, 15055, 15438, 15463, 15468, 15471, 15474	\Hy@unicodetrue . . . 2973, 7007, 7021
		\Hy@useHidKeyfalse 3776
		\Hy@useHidKeytrue 3780
		\Hy@UseMaketitleInfos . . 6745, 9928, 10401, 10884, 11637, 11876, 12789
		\Hy@UseMaketitleString . 6726, 6746, 6747
		\Hy@UseNameKey 2834, 9893, 9894, 9895, 9896, 9897, 9898, 9899, 9900, 9919, 10469, 10470, 10471, 10472, 10473, 10474, 10475, 10476, 10497, 10931, 10932, 10933, 10934, 10935, 10936, 10937, 10938, 10971, 11597, 11598, 11599, 11600, 11601, 11602, 11603, 11604, 11957, 11958, 11959, 11960, 11961, 11962, 11963, 11964, 11987, 12850, 12851, 12852, 12853, 12854, 12855, 12856, 12857, 12880
	\Hy@tempb 5366, 5368, 5389, 6887, 6888, 6927, 6928, 14996, 14997, 15025	\Hy@varioref@refstepcounter 7480, 7487
	\Hy@tempcolor . . 11757, 11759, 11772, 11848, 11850, 11862	\Hy@varioref@undefined . 7471, 7475, 9202
	\Hy@TempPageAnchor . . 8390, 8446, 8456, 8460, 8476	\Hy@VerboseAnchor 5118, 9605, 10151, 10166, 10248, 10260, 10517, 11099, 11115, 11190, 11203, 11702, 11716, 12678, 12692, 12966, 12980
	\Hy@Test@Alph 7289, 7313	\Hy@verbosefalse 440, 479
	\Hy@Test@alph 7280, 7309	\Hy@VerboseGlobalTemp 5094, 5095, 5096, 5097, 5101
	\Hy@testname 9622, 9623, 9628, 9630, 9631, 9645, 10712, 10713, 10718, 10720, 10722, 10738, 11246, 11247, 11252, 11256,	

<code>\Hy@VerboseLinkInfo</code>	5101, 5102, 5105, 5112		
<code>\Hy@VerboseLinkStart</code>	.. 5090, 9668, 9678, 10181, 10233, 10269, 10281, 10709, 11055, 11078, 11217, 11322, 11734, 11846, 12707, 12763, 12994, 13051		
<code>\Hy@VerboseLinkStop</code>	5106, 9653		
<code>\Hy@verbosetrue</code>	..... 439		
<code>\Hy@VersionCheck</code>	.. 278, 4805, 20648		
<code>\Hy@VersionChecked</code>	.. 277, 320, 4802, 4804		
<code>\Hy@vt@PutCatalog</code>	6979, 6981		
<code>\Hy@VTeXversion</code>	.. 6959, 6971, 11278, 11408, 11544, 15121		
<code>\Hy@WarnHTMLFieldOption</code>	.. 6153, 6186, 6189, 6377		
<code>\Hy@Warning</code>	..... 266, 351, 517, 1852, 2772, 2787, 2812, 2892, 3000, 3005, 3243, 3256, 3636, 3688, 3767, 3830, 3849, 3985, 3993, 4044, 4091, 4099, 4217, 4340, 4363, 4373, 4381, 4917, 5162, 5205, 5362, 5369, 5509, 5736, 6091, 6154, 6262, 7017, 7032, 8490, 9182, 9232, 9624, 10550, 10554, 10714, 11248, 11331, 11625, 11631, 11855, 12190, 12199, 14980, 14998		
<code>\Hy@WarningNoLine</code>	..... 267, 304, 2851, 2919, 3026, 3739, 3800, 3944, 4060, 4430, 4527, 4679, 4688, 4705, 4721, 4730, 6673, 6782, 6973, 7087, 7376, 8500, 8672, 9449, 12014		
<code>\Hy@WarningPageBorderColor</code>	.. 3797, 3799, 3801		
<code>\Hy@WarningPageColor</code>	.. 3736, 3738, 3740		
<code>\Hy@WarnOptionDisabled</code>	2784, 2786		
<code>\Hy@WarnOptionValue</code>	.. 2765, 2771, 3294, 3316		
<code>\Hy@wrapper@babel</code>	4587, 4605		
<code>\Hy@WrapperDef</code>	.. 4597, 9600, 10149, 10164, 10246, 10258, 10515, 11097, 11113, 11188, 11201, 11700, 11714, 12676, 12690, 12964, 12978		
<code>\Hy@writebookmark</code>	2647, 8510, 8905, 8913, 8923, 8956,	8964, 8974, 14957, 15099	
<code>\Hy@xspace@end</code>	.....	.. 4490, 4495, 4499, 4504, 4507, 4512, 4513, 4514, 4516, 4517, 4518, 4519, 4520, 6560, 6561, 6563, 6566, 6568, 6569, 6570, 6574, 6577, 6580, 6582, 6583, 6584, 9684, 9719, 9759, 9795, 10226, 10297, 10312, 10335, 10351, 10375, 10391, 10748, 10784, 10816, 10845, 10871, 11059, 11069, 11290, 11316, 11351, 11384, 11403, 12085, 12093, 12745, 12756, 13032, 13044, 13076	
<code>\HyAnn@AbsPageLabel</code>	.. 13889, 13896, 13937, 14023, 14045, 14072, 14093, 14121, 14144		
<code>\HyAnn@Count</code>	.. 13894, 13895, 13897, 13898, 13899, 13902, 13904, 13906		
<code>\HyC@@cmd</code>	..... 87, 109, 122		
<code>\HyC@check</code>	..... 68, 71, 74		
<code>\HyC@checkcommand</code>	50, 57, 59		
<code>\HyC@checkFailed</code>	.... 146, 157		
<code>\HyC@checkItem</code>	.. 132, 133, 134, 135, 138		
<code>\HyC@checklong</code>	..... 45, 53		
<code>\HyC@checkOk</code>	..... 144, 154		
<code>\HyC@checkPackage</code>	.. 12, 16, 18		
<code>\HyC@cmd</code>	.. 62, 75, 87, 95, 118, 131		
<code>\HyC@date</code>	.. 11, 15, 23, 29, 31		
<code>\HyC@DeclareRobustCommand</code>	..... 114		
<code>\HyC@def</code>	..... 125		
<code>\HyC@defcmd</code>	..... 47, 54, 93		
<code>\HyC@doCheck</code>	..... 99, 130		
<code>\HyC@edef</code>	..... 125		
<code>\HyC@getDate</code>	..... 12, 14		
<code>\HyC@meaning</code>	..... 152, 160		
<code>\HyC@nc@default</code>	.... 103, 105		
<code>\HyC@nc@noopt</code>	88, 91, 103, 112, 123, 127		
<code>\HyC@nc@opt</code>	.... 88, 101, 123		
<code>\HyC@newcommand</code>	..... 86		
<code>\HyC@next</code>	..... 48, 55, 60, 83		
<code>\HyC@noValue</code>	80, 81, 82, 85, 139		
<code>\HyC@optcmd</code>	..... 107, 111		
<code>\HyC@org@cmd</code>	..... 76		
<code>\HyC@org@optcmd</code>	.... 80, 111		
<code>\HyC@org@robustcmd</code>	.. 81, 120		
<code>\HyC@org@robustoptcmd</code>	.. 82		
<code>\HyC@package</code>	10, 22, 28, 34, 37, 38		
<code>\HyC@param</code>	..... 78, 96, 102		
<code>\HyC@robustcmd</code>	115, 120, 121, 122		
<code>\HyC@star</code>	..... 67, 70, 94		
<code>\HyC@string</code>	.. 131, 152, 155, 158		
<code>\HyC@Toks</code>	.. 79, 90, 96, 106, 126		
<code>\HyCal@do</code>	..... 511, 515		
<code>\HyCal@scan</code>	.... 502, 506, 530		
<code>\HyCnt@LookForParentCounter</code>	..... 7213, 7225		
<code>\HyCnt@ProvideTheHCounter</code>	.. 7197, 7206		
<code>\HyColor@FieldBColor</code>	.. 6321, 6324		
<code>\HyColor@FieldColor</code>	.... 6327		
<code>\HyColor@HyperrefBorderColor</code>	..... 3787, 3805		
<code>\HyColor@HyperrefColor</code>	..... 3724, 3743, 3744, 3745, 3746, 3747, 3748, 3749		
<code>\HyColor@UseColor</code>	.. 4939, 9561, 9572, 10671, 10682		
<code>\HyField@@AddToFields</code>	.. 13802, 13824		
<code>\HyField@@PDFChoices</code>	.. 5974, 5975, 5990		
<code>\HyField@@SetFlag</code>	.. 5669, 5671		
<code>\HyField@@UseFlag</code>	.. 5659, 5661		
<code>\HyField@ABD@AuxAddToCoFields</code>	..... 13747, 13799		
<code>\HyField@AddCoField</code>	... 13757, 13770, 13773		
<code>\HyField@AddToFields</code>	.. 13293, 13341, 13432, 13446, 13475, 13496, 13522, 13547, 13735, 13801, 13941, 14036, 14050, 14077, 14102, 14126, 14149, 14256, 14296, 14399, 14418, 14450, 14474, 14502, 14531		
<code>\HyField@AdvanceAnnotCount</code>	.. 13286, 13331, 13422, 13440, 13465, 13490, 13516, 13537, 14249, 14286, 14383, 14411, 14439, 14467, 14495, 14521		
<code>\HyField@afields</code>	.. 13731, 13790, 13791, 13793, 13847		
<code>\HyField@AfterAuxOpen</code>	.. 13746, 13788, 13825		
<code>\HyField@AnnotCount</code>	.. 13284, 13285, 13287, 13290, 14247, 14250, 14253		
<code>\HyField@AuxAddToCoFields</code>	.. 13745, 13785, 13799, 13813		
<code>\HyField@AuxAddToFields</code>	.... 13744, 13782, 13789, 13828		

\HyField@cofields	13732, 13751, 13752, 13772, 13774, 13848, 13850	13443, 13471, 13493, 13519, 13543, <u>14252</u> , 14257, 14260, 14291, 14388, 14413, 14444, 14469, 14497, 14526	\HyInfo@trapped@false	.. 4036, 4055	
\HyField@FlagsAnnot	<u>5829</u> , 5848, 5862, 5875, 5891, 5923		\HyInfo@trapped@true	4033, 4054	
\HyField@FlagsCheckBox	<u>5861</u> , 13535, 14140, 14516		\HyInfo@trapped@unknown	4039, 4056	
\HyField@FlagsChoice	... <u>5922</u> , 13394, 13996, 14351		\HyInfo@TrappedUnsupported	. 4057, 4061, 10402, 11638, 12790	
\HyField@FlagsPushButton	<u>5847</u> , 13463, 13486, 13513, 14068, 14089, 14119, 14437, 14461, 14491		\HyInfo@Value	.... 4110, 4113	
\HyField@FlagsRadioButton	... <u>5874</u> , 13390, 13992, 14347		\HyLang@addto	3528, 3544, 3562, 3595, 3603	
\HyField@FlagsSubmit	.. <u>5795</u> , 13487, 14090, 14462		\HyLang@afrikaans	..... 3326	
\HyField@FlagsText	<u>5890</u> , 13328, 13932, 14280		\HyLang@DeclareLang	.....
\HyField@NeedAppearancesfalse	..... 6119, 6132		.. 3542, 3571, 3572, 3573, 3574, 3575, 3576, 3577, 3578, 3579, 3580, 3581, 3582, 3583, 3584, 3585, 3586, 3587, 3588, 3589, 3590, 3591, 3592, 3593		
\HyField@NeedAppearancetrue	... 6122, 6125, 6129		\HyLang@english	..... 3344	
\HyField@NewBitsetFlag	. <u>5627</u> , 5630, <u>5638</u>		\HyLang@french	..... 3362	
\HyField@NewFlag	. <u>5625</u> , 5701, 5702, 5703, 5704, 5705, 5706, 5707, 5708, 5709, 5710, 5711, 5712, 5713, 5714, 5715, 5716, 5717, 5718, 5719, 5720, 5725, 5726, 5727, 5728, 5729, 5730, 5731, 5732, 5733, 5766, 5768, 5769, 5771, 5772, 5774, 5775, 5776, 5777	\HyInd@@@wrintex	. 8710, 8713, 8744, 8750	\HyLang@german	..... 3380
\HyField@NewFlagOnly	. <u>5629</u> , 5767, 5770, 5773	\HyInd@@@hyperpage	8817, 8827	\HyLang@italian	..... 3398
\HyField@NewOption	<u>5626</u> , <u>5632</u>	\HyInd@@@wrintex	.. 8705, 8706	\HyLang@magyar	..... 3416
\HyField@PDFAFlagWarning	.. 5735, 5743, 5747, 5751, 5755, 5759, 5763	\HyInd@DefKey	8763, 8777, 8790, 8799	\HyLang@portuges	..... 3434
\HyField@PDFChoices	.. <u>5947</u> , 13438, 14043, 14405	\HyInd@EncapChar	. 3324, 4440, 8700	\HyLang@russian	..... 3452
\HyField@PrintFlags	.....	\HyInd@hyperpage	. 8814, 8816, 8823	\HyLang@spanish	..... 3492
\HyField@SetFlag	.. <u>5668</u> , 5808, 5814, 5819, 5853, 5881	\HyInd@key	.. 8764, 8768, 8779, 8792, 8804	\HyLang@vietnamese	3510, 3595, 3603
\HyField@SetKeys	. <u>6051</u> , 13325, 13361, 13364, 13383, 13451, 13483, 13503, 13532, 13928, 13962, 13965, 13984, 14055, 14086, 14109, 14136, 14276, 14317, 14320, 14339, 14423, 14458, 14481, 14512	\HyInd@org@wrintex	8704, 8708, 8718, 8724, 8726, 8729	\HyLinguex@OrgB	... 911, 915
\HyField@TheAnnotCount	13289, 13298, 13307, 13337, 13426,	\HyInd@pagelink	... 8832, 8838, 8840, 8843	\HyLinguex@OrgC	... 912, 916
		\HyInd@ParenLeft	.. 8687, 8715, 8752, 8789	\HyLinguex@OrgD	... 913, 917
		\HyInd@ParenRight	. 8688, 8716, 8723, 8753, 8762	\HyLinguex@Restore	.. 914, 927, 981, 991
		\HyInd@removespaces	8846, 8849, 8859	\HyNew@float@makebox	. 8070, 8093
		\HyInfo@AddonHandler	.. 4086, 4089	\HyOpt@CheckDvi	.....
		\HyInfo@AddonList	. 4120, 4121, 4155, 4162	.. 3078, 3114, 3119, 3124, 3147, 3152, 3157, 3209, 3216, 3221, 3226, 3231	
		\HyInfo@Addons	... 4141, 4157, 9952, 10909, 11908, 11912	\HyOpt@CustomDriver	... 302, 3251, 3254, 4740, 4799
		\HyInfo@AddonUnsupportedtrue	.. 10399, 11623, 12787	\HyOpt@DriverFallback	.. 3235, 3238, 3239, 3247, 4767, 4772
		\HyInfo@do	... 4088, 4122, 4145	\HyOpt@DriverType	4739, 4742, 4769, 4779, 4781, 4798, 4801
		\HyInfo@GenerateAddons	4139, 9929, 10885, 11877	\HyOrg@addtoreset	. 8630, 8632, 8659
		\HyInfo@Key	. 4096, 4097, 4116, 4118, 4119, 4122, 4125, 4132, 4146, 4150	\HyOrg@appendix	.. 7258, 7277
		\HyInfo@KeyEscaped	4095, 4096	\HyOrg@author	6689, 6702, 6706
		\HyInfo@tmp	..... 4105, 4116	\HyOrg@elt	..... 7211, 7217
				\HyOrg@float@makebox	.. 8071, 8092
				\HyOrg@hyperpage	. 8690, 8692, 8693
				\HyOrg@languageshorthands	... . 1050, 1064, 1075, 1085

<code>\HyOrg@make@df@tag@@</code>	. 8615	11085, 11101, 11118, 11193,	<code>\hyper@natanchorstart</code>	... 8135
<code>\HyOrg@make@df@tag@@@</code>	8616	11205, 11297, 12326, 12694,	<code>\hyper@natlinkbreak</code>	..... 8132
<code>\HyOrg@maketitle</code>	.. 7950, 7957,	12714, 12740, 12754, 12768,	<code>\hyper@natlinkend</code>	..... 8129
	7962	12982, 13001, 13024, 13041,	<code>\hyper@natlinkstart</code>	..... 8124
<code>\HyOrg@subequations</code>	7641, 7648	13056	<code>\hyper@newdestlabel</code>	<u>5541</u> , 5563,
<code>\HyOrg@title</code>	.. 6688, 6693, 6697	<code>\hyper@currentanchor</code>	...	<u>5602</u> , 5607
<code>\HyOrg@TX@endtabularx</code>	. 7855	... 11719,	<code>\hyper@normalise</code>	.. 4441, 4446,
<code>\HyOrg@url</code>	..... 5218	11728, 11751, 11768	...	5026, 5136, 5139, 5220,
<code>\HyPat@NonNegativeReal</code>	.....	<code>\hyper@currentlinktype</code>	...	5222, 5224, 5245, 6081
..	3825, 3826, 3827, 3828,	... 11752,	<code>\hyper@pageduration</code>	.... 9990,
	3844, 3846, 4198, 4208,	11756, 11760	...	<u>10039</u> , <u>10996</u> , 11016, 11521,
	4209, 4210, 4212, 4213, 4214	<code>\hyper@destlabel@hook</code>	...	11538, <u>11808</u> , 11838
<code>\HyPat@ObjRef</code>	5202, 5203, 5216,	... 5549,	<code>\hyper@pagehidden</code>	<u>10014</u> , 10040,
	9374, 10510, 11697	5556	...	<u>11007</u> , 11017, 11531, 11539,
<code>\hyper@@@anchor</code>	4511, 5228, 5230,	<code>\hyper@hash</code>	...	<u>11825</u> , 11839
	5261, 5263, 5298, 5300,	. 5034, 5035, 5083,	<code>\hyper@pagetransition</code>	... 9966,
	5506, 6561, 6576, 6592,	5429, 5441, 5458, 5461,	...	<u>10038</u> , <u>10985</u> , 11015, 11410,
	7805, 7810, 7825, 7830,	6515, 11058	...	11537, <u>11791</u> , 11837
	7898, 7901, 7927, 8055,	<code>\hyper@image</code>	...	<code>\hyper@quote</code>
	8058, 8075, 8391, 8446,	5224, 5225, 10236,	...	6517, 10156, 10170,
	8456, 8461, 8904, 8912,	11355, 11841, 12766, 13054	...	10185, 10190, 10211, 10225,
	8922, 8955, 8963, 8973	<code>\hyper@last</code>	...	10239, 11058, 11068, 11081,
<code>\hyper@@@link</code>	. 5088, 5146, 5251,	..... 6662, 6667	...	11104, 11122, 12682, 12696,
	5279, 5353, 8144, 8290,	<code>\hyper@link</code>	...	12711, 12717, 12741, 12755,
	8291, 8292, 8340, 8342,	.. 4512, 5377, 6562,	...	12769, 12970, 12983, 12998,
	8344, 9074, 9089, 9192	6563, 6577, 6587, 6593,	<code>\hyper@readexternallink</code>	... 5383,
<code>\hyper@@@normalise</code>	. 5057, 5061,	9677, 10232, 10280, 10747,	...	5394
	5065	11054, 11321, 11845, 12762,	<code>\hyper@refstepcounter</code>	... 7178,
<code>\hyper@anchor</code>	.....	13050	...	7181, <u>7189</u>
..	5533, 6564, 6578, 6642,	<code>\hyper@link@</code>	...	<code>\hyper@tildes</code>
	6655, 9656, 10149, 10246,	. 4519, 5354, 5360,	...	. 5043, 5044, 5045,
	10573, 11113, 11188, 11700,	6560, 6574, 6600	...	6516
	12676, 12964	<code>\hyper@linkend</code>	...	<code>\hyperbaseurl</code>
<code>\hyper@anchorend</code>	.....	.....	...	. 3751, 3752, 6611
..	4499, 4507, 4514, 6548,	.. 4499, 4507, 4516, 6568,	<code>\hypercalcbp</code>	..... <u>497</u> , <u>497</u>
	6566, 6580, 6595, 7202,	6582, 6597, 7850, 8130,	<code>\hypercalcbpdef</code>	. 499, 536, 4195,
	7441, 7516, 7561, 7563,	8133, 8549, 8557, 8564,	...	4205
	7587, 7613, 7762, 8138,	8568, 8570, 9676, 10194,	<code>\hyperdef</code>	..... 5253, 6613
	8163, 8166, 8186, 8319,	10277, 10746, 10748, 11090,	...	<code>\HyperDestLabelReplace</code>
	8600, 8626, 9663, 10174,	11268, 11754, 12722, 13007	...	. 5593,
	10264, 10580, 11108, 11210,	<code>\hyper@linkfile</code>	...	<u>5600</u> , <u>5603</u>
	11722, 12700, 12987, 14953,	.. 4518, 5454, 6570, 6584,	<code>\HyperDestNameFilter</code>	.....
	15100, 15332, 15357, 15368,	6599, 9723, 10198, 10356,	...	.. 4422, 5122, 5600, 9606,
	15398, 15450	10750, 11074, 11272, 12347,	<code>\HyperFirstAtBeginDocument</code>	...
<code>\hyper@anchorstart</code>	. 4513, 6548,	12726, 13011	...	. 6639, 6641, 6663, 6666
	6565, 6579, 6594, 7202,	<code>\hyper@linkstart</code>	...	<code>\hypergetpageref</code>
	7440, 7516, 7555, 7587,	4515, 6567, 6581,	...	..... 7434
	7613, 7759, 8136, 8161,	6596, 7848, 8126, 8133,	<code>\hypergetref</code>	..... 7433
	8166, 8186, 8319, 8600,	8549, 8557, 8564, 8568,	...	<code>\HyperGlobalCurrentHref</code>
	8626, 9659, 10164, 10258,	8570, 9667, 10180, 10268,	...	7319,
	10576, 11097, 11201, 11714,	10708, 10748, 11077, 11216,	<code>\HyperDestRename</code>	...
	12690, 12978, 14953, 15100,	11733, 12706, 12993	...	<u>5573</u> , 5591,
	15332, 15357, 15368, 15398,	<code>\hyper@linkurl</code>	...	<u>5604</u>
	15450	.....	<code>\HyperDestRename</code>	...
<code>\hyper@chars</code>	. 5082, 9691, 10154,	.. 4517, 5223, 5429, 5436,	...	5604
	10168, 10188, 10210, 10224,	5457, 5461, 6569, 6583,	<code>\HyperFirstAtBeginDocument</code>	...
	10238, 10318, 10358, 11064,	6598, 9688, 10199, 10201,	...	. 6639, 6641, 6663, 6666
		10234, 10316, 10819, 11062,	<code>\hypergetpageref</code>	..... 7434
		11075, 11294, 11356, 11842,	<code>\hypergetref</code>	..... 7433
		12323, 12727, 12731, 12764,	...	<code>\HyperGlobalCurrentHref</code>
		13012, 13014, 13052	...	7319,
<code>\hyper@livelink</code>	.... 6562, 6587	<code>\hyper@normalise</code>	...	7321, 7329, 7330, 7334,
<code>\hyper@makecurrent</code>	7198, <u>7298</u> ,	.. 5049, 5053	<code>\HyperDestRename</code>	...
	7502, 7553, 7584, 7612,	<code>\hyper@nat@current</code>	...	7337, 7341, 7347, 7348, 7352
	7704, 7735, 7845, 8031, 8085	..... 8127	<code>\HyperDestRename</code>	...
<code>\hyper@nat@current</code>	..... 8127	<code>\hyper@natanchorend</code>	...	8138
<code>\hyper@natanchorend</code>	.... 8138	.... 8138		

[\hyperimage](#) .. 5224, 5609, 8682
[\hyperindexformat](#) 8689
[\hyperlink](#) ... 5087, 6614, 8855, 8994, 9002, 9017, 9025, 9035, 9043, 9050
[\hyperlinkfileprefix](#) . 3754, 3755, 3756, 12956
[\HyperLocalCurrentHref](#) 7337, 7339, 7345, 7346, 7347, 7348, 7350
[\hyperpage](#) .. 6620, 8690, 8691, 8693, 8813
[\HyperRaiseLinkDefault](#) . 2649, 2676
[\HyperRaiseLinkHook](#) 2648, 2677
[\HyperRaiseLinkLength](#) .. 2675, 2676, 2679
[\hyperref](#) 5233, 5616, 5617, 6616, 9149, 9153, 9163, 9177
[\hypersetup](#) .. 2993, 3037, 3580, 4072, 4442, 6610
[\hypertarget](#) 5226, 6615
[\HyPL@@@CheckThePage](#) 6907, 6925
[\HyPL@@CheckThePage](#) . 6883, 6885
[\HyPL@Alph](#) 6802
[\HyPL@alph](#) 6803
[\HyPL@arabic](#) 6799
[\HyPL@CheckThePage](#) .. 6834, 6882
[\HyPL@Entry](#) 7075, 7083, 7091, 7093
[\HyPL@EveryPage](#) . 6822, 6946
[\HyPL@Format](#) 6898, 6899, 6900, 6901, 6902, 6914
[\HyPL@found](#) 6897, 6904, 6908, 6915, 6925, 6927
[\HyPL@Labels](#) 6793, 6937, 6938, 6940, 6942, 6993, 6994, 7086, 7094, 7095
[\HyPL@LastNumber](#) 6797, 6853, 6876
[\HyPL@LastPrefix](#) .. 6798, 6847, 6878
[\HyPL@LastType](#) .. 6796, 6838, 6877
[\HyPL@page](#) . 6816, 6825, 6828, 6834, 6843
[\HyPL@Prefix](#) 6843, 6845, 6847, 6861, 6864, 6866, 6878, 6892, 6930
[\HyPL@Roman](#) 6800
[\HyPL@roman](#) 6801
[\HyPL@SetPageLabels](#) ... 6936, 7001, 7089
[\HyPL@SlidesOptionalPage](#) 6809, 6813, 6818
[\HyPL@SlidesSetPage](#) 6804, 6806, 6826, 6833
[\HyPL@StorePageLabel](#) .. 6861, 6863, 6933, 6991, 7070
[\HyPL@thisLabel](#) .. 6790, 6792, 6824, 6828, 6829
[\HyPL@Type](#) . 6831, 6838, 6842, 6860, 6868, 6877, 6891, 6929
[\HyPL@Useless](#) 6934, 6940
[\HyPsd@@@autoref](#) . 1773, 1775, 1778
[\HyPsd@@@CJKdigits](#) ... 1643, 1646, 1654
[\HyPsd@@@nameref](#) 1755, 1757, 1760
[\HyPsd@@@pageref](#) . 1737, 1739, 1742
[\HyPsd@@@ref](#) . 1721, 1723, 1726
[\HyPsd@@@UTFviii@four](#) 2391, 2394
[\HyPsd@@@AppendItalcrr](#) . 1942
[\HyPsd@@@autoref](#) .. 1770, 1771
[\HyPsd@@@autorefname](#) .. 1791, 1794
[\HyPsd@@@CJKdigits](#) 1635, 1637, 1640
[\HyPsd@@@CJKnumber](#) 1536, 1538, 1541, 1594, 1609, 1622, 1624, 1628
[\HyPsd@@@ConvertToUnicode](#) 2270
[\HyPsd@@@ding](#) 2529, 2533, 2544
[\HyPsd@@@GetNextTwoTokens](#) 2268
[\HyPsd@@@GlyphProcessWarning](#) 2128, 2131
[\HyPsd@@@GreekNum](#) 1198, 1207, 1306, 1310, 1314
[\HyPsd@@@hspace](#) ... 1691, 1692
[\HyPsd@@@LetCommand](#) . 1815, 1836
[\HyPsd@@@nameref](#) .. 1752, 1753
[\HyPsd@@@pageref](#) .. 1734, 1735
[\HyPsd@@@ProtectSpacesFi](#) 1864, 1868, 1886, 1892, 1897
[\HyPsd@@@ref](#) 1718, 1719
[\HyPsd@@@RemoveBraces](#) .. 1910
[\HyPsd@@@RemoveBracesFi](#) 1907, 1910
[\HyPsd@@@RemoveCmdPrefix](#) 2085, 2088
[\HyPsd@@@ReplaceFi](#) 2155, 2161, 2166
[\HyPsd@@@UTFviii@four](#) .. 2375, 2380
[\HyPsd@add@accent](#) . 559, 1680
[\HyPsd@AfterCountRemove](#) 1962, 2042
[\HyPsd@AfterDimenRemove](#) 1968, 2045
[\HyPsd@AfterSkipRemove](#) 1974, 2057
[\HyPsd@AMScsclassfix](#) . 668, 1701, 1703
[\HyPsd@AppendItalcrr](#) . 1926, 1933, 1942
[\HyPsd@autoref](#) 678, 1770
[\HyPsd@autorefname](#) 1782, 1788
[\HyPsd@babel@danish](#) 1094
[\HyPsd@babel@dutch](#) 1100
[\HyPsd@babel@finnish](#) 1106
[\HyPsd@babel@frenchb](#) ... 1111
[\HyPsd@babel@german](#) ... 1116
[\HyPsd@babel@macedonian](#) 1123
[\HyPsd@babel@ngerman](#) .. 1129
[\HyPsd@babel@portuges](#) .. 1135
[\HyPsd@babel@russian](#) ... 1140
[\HyPsd@babel@slovene](#) ... 1146
[\HyPsd@babel@spanish](#) ... 1151
[\HyPsd@babel@swedish](#) ... 1161
[\HyPsd@babel@ukrainian](#) . 1167
[\HyPsd@babel@usorbian](#) .. 1173
[\HyPsd@EabelPatch](#) . 654, 1049, 1084
[\HyPsd@CatcodeWarning](#) 1978, 2002, 2005, 2008, 2011, 2069
[\HyPsd@Char](#) 2272
[\HyPsd@CharOctByte](#) ... 2292, 2294, 2297, 2306, 2311
[\HyPsd@CharSurrogate](#) .. 2286, 2303
[\HyPsd@CharTwoByte](#) .. 2284, 2291
[\HyPsd@CheckCatcodes](#) .. 732, 1952
[\HyPsd@CJK@Unicode](#) .. 1418, 1422
[\HyPsd@CJKActiveChars](#) 1358, 1373
[\HyPsd@CJKdigit](#) .. 1647, 1657
[\HyPsd@CJKdigits](#) . 1420, 1633
[\HyPsd@CJKhook](#) ... 685, 1329, 1340
[\HyPsd@CJKhook@bookmarks](#) 1335, 1369
[\HyPsd@CJKhook@unicode](#) 1337, 1417
[\HyPsd@CJKnumber](#) 1419, 1533
[\HyPsd@CJKnumberFour](#) 1551, 1555, 1559, 1572, 1576, 1580, 1586

[\HyPsd@CJKnumberLarge](#) 1564, 1571
[\HyPsd@CJKnumberThree](#) 1592, 1596, 1602
[\HyPsd@CJKnumberTwo](#) 1607, 1611, 1617
[\HyPsd@ConvertToUnicode](#) 801, 2218
[\HyPsd@DecimalToOctal](#) . 1350, 1381
[\HyPsd@DecimalToOctalFirst](#) 1424, 1460
[\HyPsd@DecimalToOctalSecond](#) 1425, 1434, 1497, 2548, 2554, 2557
[\HyPsd@DefCommand](#) 715, 716, 717, 718, 1804
[\HyPsd@DieFace](#) . 632, 633, 634, 2469, 21521, 21522
[\HyPsd@DieFaceLarge](#) 2477, 2486
[\HyPsd@ding](#) 631, 2519
[\HyPsd@DisableCommands](#) 1025, 1027
[\HyPsd@DoConvert](#) . 2220, 2230
[\HyPsd@DoEscape](#) 2244
[\HyPsd@doxspace](#) . . . 773, 2191
[\HyPsd@empty](#) . . 758, 760, 764, 765, 767, 775, 782
[\HyPsd@end](#) 732, 736, 1865, 1868, 1871, 1874, 1877, 1890, 1900, 1907, 1910, 1955, 1963, 1969, 1975, 2028, 2035, 2042, 2045, 2057
[\HyPsd@endWithElse](#) 1670, 1679
[\HyPsd@EscapeTeX](#) . . 812, 822, 2173
[\HyPsd@fi](#) 1882, 1888, 1892, 1898
[\HyPsd@GetNextTwoTokens](#) 2268
[\HyPsd@GetOneByte](#) 2263
[\HyPsd@GetTwoBytes](#) 2259
[\HyPsd@GLYPHERR](#) 738, 1667, 1681, 1688
[\HyPsd@GlyphProcess](#) 740, 2116, 2129
[\HyPsd@GlyphProcessWarning](#) 2123, 2127
[\HyPsd@GobbleFiFi](#) 1672, 1678
[\HyPsd@greekNum](#) . 1187, 1190, 1192
[\HyPsd@greeknumeral](#) . . 1183, 1189
[\HyPsd@greeknumeral](#) 1182, 1186
[\HyPsd@greekNumI](#) 1210, 1236, 1279, 1305
[\HyPsd@greekNumII](#) 1214, 1258, 1302, 1309
[\HyPsd@greekNumIII](#) . . . 1217, 1281, 1313
[\HyPsd@greekNumIV](#) 1226, 1304
[\HyPsd@greekNumV](#) 1229, 1308
[\HyPsd@greekNumVI](#) 1231, 1312
[\HyPsd@greekPatch](#) . 651, 1179, 1181
[\HyPsd@HighA](#) 1428, 1437
[\HyPsd@HighB](#) 1438, 1443
[\HyPsd@HighC](#) 1444, 1447
[\HyPsd@HighD](#) 1440, 1452
[\HyPsd@href](#) 673, 1717
[\HyPsd@hspace](#) 669, 1691
[\HyPsd@hspacetest](#) . 1694, 1696, 1699
[\HyPsd@ifnextchar](#) 701, 702, 703, 1841
[\HyPsd@ignorespaces](#) 682, 1040
[\HyPsd@inmathwarn](#) . 558, 1664
[\HyPsd@ITALCORR](#) . . 693, 697, 1688
[\HyPsd@langshort@system](#) 1055, 1058
[\HyPsd@LanguageShorthands](#) 1051, 1056, 1068
[\HyPsd@LetCommand](#) 719, 720, 1804
[\HyPsd@LetUnexpandableSpace](#) . 688, 689, 690, 691, 1684, 1687
[\HyPsd@LoadExtra](#) . . . 996, 999, 3035
[\HyPsd@LoadStringEnc](#) . . 2997, 3017, 3019, 3023, 3025, 7012
[\HyPsd@LoadUnicode](#) 986, 2956, 2962, 2964, 2971, 7006
[\HyPsd@MoonPha](#) . . 2500, 2518, 21523
[\HyPsd@nameref](#) 677, 1752
[\HyPsd@pageref](#) 676, 1734
[\HyPsd@pdfencoding](#) 802, 2955, 2958, 2980, 2992, 2995, 2996, 3001, 3016, 7008, 7010, 7027, 7030
[\HyPsd@pdfencoding@auto](#) 802, 2986, 2996, 3013, 7010, 7029
[\HyPsd@pdfencoding@pdfdoc](#) 2979, 3001, 3014
[\HyPsd@pdfencoding@unicode](#) 2983, 3015, 7008, 7026
[\HyPsd@pdfstringdefDisableCommands](#) 1031, 1034
[\HyPsd@PrerenderUnicode](#) 3954, 3970, 3976, 3982, 4004, 4022, 4028, 4109
[\HyPsd@protected@testopt](#) 704, 705, 1845
[\HyPsd@ProtectSpaces](#) 725, 1862, 1883, 1932
[\HyPsd@ref](#) 675, 1718
[\HyPsd@RemoveBraces](#) . . . 727, 1904, 1921, 1929, 1935
[\HyPsd@RemoveCmdPrefix](#) 2078, 2084
[\HyPsd@RemoveMask](#) 735, 1871, 1877, 1890, 1900
[\HyPsd@RemoveSpaceWarning](#) 2052, 2064, 2090
[\HyPsd@ReplaceSpaceWarning](#) 2047, 2059, 2103
[\HyPsd@Rest](#) 1956, 2024, 2032, 2035, 2043, 2048, 2054, 2060, 2066
[\HyPsd@RussianPatch](#) 653, 1322
[\HyPsd@SanitizeForOutFile](#) 15017, 15048
[\HyPsd@SanitizeOut@BraceLeft](#) 15052, 15058, 15067
[\HyPsd@SanitizeOut@BraceRight](#) 15055, 15070, 15079
[\HyPsd@SPACEOPTI](#) . 729, 745, 746, 748, 750, 752, 753, 792, 794, 1998, 2202
[\HyPsd@spaceopti](#) . . . 794, 2147
[\HyPsd@SpanishPatch](#) 652, 1316
[\HyPsd@String](#) 726, 728, 731, 733, 739, 741, 1915, 1916, 1926, 1986, 1988, 1992, 1993, 1997, 1998, 2013, 2014, 2046, 2058, 2117, 2118
[\HyPsd@StringSubst](#) . . 742, 744, 750, 756, 759, 762, 765, 784, 787, 789, 2170
[\HyPsd@Subst](#) 738, 747, 751, 757, 763, 767, 771, 776, 777, 778, 779, 780, 781, 785, 788, 2154, 2171, 2186, 2187, 2188
[\HyPsd@temp](#) 805, 807, 808, 810, 811, 818, 820, 821, 2978, 2979, 2980, 2983, 2986, 2992, 3004, 3008, 7025, 7026, 7027, 7029, 7030, 7035
[\HyPsd@ToBigChar](#) 862, 863, 872
[\HyPsd@ToBigChars](#) . . 815, 854
[\HyPsd@tocsection](#) 1704, 1705, 1706, 1707, 1708, 1709, 1710, 1712
[\HyPsd@UnescapedString](#) . 807, 856, 857, 863

<code>\HyPsd@UnexpandableSpace</code>	<code>\HyRef@ShowKeysRef</code> 9201, 9269	<code>\ifdim</code>
. 1687, 1873, 1897, 2048, 2060	<code>\HyRef@StarSetRef</code> . 9111, 9129, 9132, 9135, 9140	2062, 2691, 2710, 4427, 4832, 10058, 10062, 10067, 10071, 10078, 10081, 10085, 10088, 11025, 11026, 11031, 11032, 11164, 11167, 11171, 11174, 12099, 12113, 12477, 12478, 12483, 12484, 13357, 13395, 13396, 13958, 13997, 13998, 14313, 14352, 14353
<code>\HyPsd@unichar</code> 2333, 2400, 2406, 2411	<code>\HyRef@StripStar</code> 9228, 9259	<code>\ifetex@unexpanded</code> 1856
<code>\HyPsd@unichar@first@byte</code> 2419, 2439	<code>\HyRef@testreftype</code> 9206, 9225	<code>\iffalse</code> 849, 6120
<code>\HyPsd@unichar@octtwo</code> 2441, 2449, 2455	<code>\HyRef@thisref</code> 9203, 9206	<code>\ifFileExists</code> 232, 3253, 6672, 9440, 13084
<code>\HyPsd@unichar@second@byte</code> 2427, 2447	<code>\HyTmp@found</code> 6001, 6011, 6014	<code>\ifFld@checked</code> 6054, 13708, 14744
<code>\HyPsd@UnicodeReplacementCharacter</code> 2403, 2438, 2472, 2502, 2507, 2515, 2522, 2525, 2535, 2593	<code>\HyTmp@key</code> 5995, 5996	<code>\ifFld@comb</code> 5901
<code>\HyPsd@utf@viii@undeferr</code> 555, 2461	<code>\HyTmp@optitem</code> 5951, 5967, 5994, 5999, 6005, 6026, 6037	<code>\ifFld@combo</code> 5929, 5934, 13370, 13399, 13971, 14001, 14326, 14356
<code>\HyPsd@UTFviii</code> 549, 2321, 2326	<code>\HyTmp@optlist</code> 5950, 5965, 5966, 5997, 5998, 6003, 6004, 6012, 6013, 6033, 6035, 6042, 6045	<code>\ifFld@disabled</code> 6055, 13709
<code>\HyPsd@UTFviii@@three</code> 2356, 2365	<code>\HyXeTeX@CheckUnicode</code> 3940, 3951, 3968, 3974, 3980, 4002, 4020, 4026, 4107, 7040	<code>\ifFld@edit</code> 5935
<code>\HyPsd@UTFviii@@two</code> 2341, 2347	I	<code>\ifFld@fileselect</code> 5904
<code>\HyPsd@UTFviii@ccxliv@def</code> 2331, 2337	<code>\i</code> 15637, 15801, 15804, 15807, 15810, 16074, 16248, 16251, 16254, 16257, 16386, 16391, 16396, 16401, 16405, 16642, 16707, 16713	<code>\ifFld@hidden</code> 13329, 13384, 13464, 13488, 13514, 13536, 13607, 13619, 13629, 13712, 13933, 13986, 14069, 14091, 14120, 14141, 14281, 14341, 14438, 14463, 14492, 14517
<code>\HyPsd@UTFviii@ccxliv@undef</code> 2330, 2336	<code>\ibar</code> 16864, 21592	<code>\ifFld@multiline</code> 5902, 13318, 13614, 13921, 14269
<code>\HyPsd@UTFviii@four</code> 2329, 2374	<code>\if</code> 1713, 2636, 6851, 6859, 7630, 7631, 11484, 11487, 11491, 11495, 11499, 11501, 11503, 14698	<code>\ifFld@multiselect</code> 5973
<code>\HyPsd@UTFviii@three</code> 2328, 2355	<code>\if@eqnstar</code> 7568, 7576	<code>\ifFld@password</code> 5903, 13595
<code>\HyPsd@UTFviii@two</code> 2327, 2340	<code>\if@filesw</code> 2604, 5291, 5561, 6632, 6677, 7071, 7081, 7383, 8173, 8188, 8204, 8216, 8246, 8269, 8296, 8301, 8320, 8738, 13780, 13811, 13826, 15018, 15205, 15287	<code>\ifFld@popdown</code> 5721, 13371, 13972, 14327
<code>\HyPsd@Warning</code> 1849, 2070, 2091, 2104, 2133, 2139	<code>\if@hyper@item</code> 7163, 7176	<code>\ifFld@radio</code> 13367, 13389, 13644, 13968, 13991, 14323, 14346
<code>\HyPsd@XeTeXBigCharsfalse</code> 829, 843, 848	<code>\if@inlabel</code> 7748	<code>\ifFld@readonly</code> 13616, 13626, 13710
<code>\HyPsd@XeTeXBigCharstrue</code> 842, 851, 3969, 3975, 3981, 4003, 4021, 4027, 4108, 14650, 15015	<code>\if@Localurl</code> 11045, 11091	<code>\ifForm@html</code> 6075
<code>\HyPsd@XSPACE</code> 695, 772, 1688	<code>\if@mid@expandable</code> 667	<code>\ifhmode</code> 2652, 2656, 2709, 2718, 5128, 7655, 7681, 7714, 7842, 7851, 8001, 8003, 9601, 9609, 12105, 13069
<code>\HyPsd@xspace</code> 770, 772, 773	<code>\if@minipage</code> 8043, 8115	<code>\ifHy@activeanchor</code> 395, 5530
<code>\HyRef@@StarSetRef</code> 9117, 9122	<code>\if@nmbrrlist</code> 7148	<code>\ifHy@backref</code> 396, 4630, 5009, 6495, 8297, 8333
<code>\HyRef@autopageref</code> 9174, 9176	<code>\if@nobreak</code> 7767	<code>\ifHy@bookmarks</code> 397, 4857
<code>\HyRef@autopagerefname</code> 9173, 9177, 9179	<code>\if@skiphyperref</code> 7164, 7174	<code>\ifHy@bookmarksnumbered</code> 398, 8897, 8948, 15004
<code>\HyRef@autoref</code> 9192, 9194	<code>\if@twocolumn</code> 15452	<code>\ifHy@bookmarksopen</code> 399, 4847
<code>\HyRef@autosetref</code> 9197, 9200	<code>\if@twoside</code> 15441	<code>\ifHy@breaklinks</code> 400, 2918, 11735, 11776, 12081, 12104
<code>\HyRef@CaseStar</code> 9261, 9267	<code>\ifcase</code> 344, 1243, 1265, 1288, 1382, 1431, 1453, 1456, 1462, 1498, 1542, 1658, 2369, 2501, 2983, 3685, 4804, 5797, 5902, 6031, 6108, 7281, 7290, 8545, 8715, 8752, 9009, 9202, 11557, 12070, 14758, 14786, 14855, 14891, 14927, 15125	<code>\ifHy@CJKbookmarks</code> 402, 1334
<code>\HyRef@currentHtag</code> 9213, 9231, 9234, 9240, 9247, 9253, 9268	<code>\ifcat</code> 1957, 1984, 1991, 1996, 2001, 2004, 2007, 2010, 5517, 5519	<code>\ifHy@colorlinks</code> 403, 4928, 6500, 12663
<code>\HyRef@MakeUppercaseFirstOfFive</code> 9140, 9142		<code>\ifHy@destlabel</code> 404, 5540
<code>\HyRef@name</code> 9229, 9230, 9235, 9242, 9260, 9261, 9262, 9264		
<code>\HyRef@Ref</code> 9146, 9148		
<code>\HyRef@ShowKeysInit</code> 9270, 9283, 9287		

<code>\ifHy@draft</code>	405, 4510	<code>\ifHy@pdfnewwindow</code>	422, 4265, 11278	1209, 1213, 1221, 1225, 1228, 1238, 1260, 1283, 1423, 1534, 1550, 1554, 1574, 1587, 1590, 1603, 1605, 1618, 1620, 1626, 2280, 2283, 2359, 2402, 2405, 2417, 2471, 2474, 2487, 2521, 2524, 2527, 2531, 2546, 2550, 2553, 2657, 3164, 3167, 3193, 3686, 3687, 4841, 4848, 5161, 5956, 6027, 6038, 6808, 6832, 6853, 6869, 6971, 7260, 7263, 8393, 8403, 9011, 9049, 9394, 9399, 9413, 9417, 9422, 9439, 9459, 9807, 9814, 9820, 9828, 10696, 10701, 11278, 11408, 11544, 11552, 11554, 11555, 11565, 11568, 11666, 11668, 11788, 12509, 13421, 13426, 13431, 13762, 13839, 14035, 14382, 14387, 14398, 14645, 14727, 14758, 14763, 14786, 14792, 14821, 14855, 14861, 14880, 14891, 14896, 14927, 14932, 14961, 14977, 15121, 15191, 15194, 15221, 15224, 15262, 15371, 15389, 15404	
<code>\ifHy@DviMode</code>	3059, 3079, 3237	<code>\ifHy@pdfnewwindowset</code> . .	421, 4263	<code>\ifodd</code>	2383, 2388, 8470
<code>\ifHy@DvipdfmxOutlineOpen</code>	4830, 15260	<code>\ifHy@pdfpagehidden</code> .	426, 3779, 10018, 11010, 11533, 11831	<code>\ifpdf</code>	242, 3061, 3104, 4676, 4744
<code>\ifHy@frenchlinks</code> . . .	411, 4944	<code>\ifHy@pdfpagelabels</code> .	425, 6778, 6991, 7069	<code>\ifpdfstringunicode</code> . . .	550, 553
<code>\ifHy@href@ismap</code> . .	5184, 9712, 10836, 11231, 11301, 12338	<code>\ifHy@pdfstring</code> .	427, 1010, 7168	<code>\ifportrait</code>	10057
<code>\ifHy@hyperfigures</code> . .	409, 4610, 6480, 8679	<code>\ifHy@pdftoolbar</code>	435, 9887, 10463, 10925, 11591, 11951, 12844	<code>\ifthenelse</code>	8323
<code>\ifHy@hyperfootnotes</code>	412, 7774	<code>\ifHy@pdfusetitle</code>	437, 6687	<code>\iftrue</code>	852, 1863, 1885, 2165, 6123, 15373
<code>\ifHy@hyperindex</code> . . .	413, 4620, 6490, 8686	<code>\ifHy@pdfwindowui</code> . .	441, 9889, 10465, 10927, 11593, 11953, 12846	<code>\ifvmode</code>	2668, 2690, 2699
<code>\ifHy@hypertexnames</code>	414, 7305, 7387, 8444, 8902, 8953	<code>\ifHy@plainpages</code>	428, 4625, 7388, 8445	<code>\ifvoid</code>	7509, 7513, 7752
<code>\ifHy@implicit</code> .	415, 4642, 15315	<code>\ifHy@psdextra</code> . .	434, 640, 1000	<code>\ifvtex</code>	3067, 3163, 3192
<code>\ifHy@linktocpage</code> . . .	416, 2875, 2885	<code>\ifHy@psize</code>	429	<code>\ifvtexdvi</code>	3068
<code>\ifHy@localanchorname</code> . . .	417, 7338, 7349	<code>\ifHy@raiselinks</code>	430, 10203, 10283, 10320, 10360, 12733, 13016	<code>\ifvtexhtml</code>	4718, 4750
<code>\ifHy@naturalnames</code> .	419, 7317, 8903, 8954	<code>\ifHy@seminarslides</code>	431	<code>\ifvtexpdf</code>	4761
<code>\ifHy@nesting</code> .	420, 4615, 5227, 5260, 5297, 5515, 6485, 7799, 7819, 7897, 8054	<code>\ifHy@setpagesize</code> . .	432, 10046, 11022, 11161, 12474	<code>\ifvtexps</code>	4764
<code>\ifHy@next</code> . . .	1092, 4584, 8703	<code>\ifHy@setpdfversion</code> .	3038, 9398	<code>\ifxetex</code>	806, 839, 3064, 3137, 3941, 3984, 4702, 4747, 4831, 5305
<code>\ifHy@ocgcolorlinks</code>	423, 3635, 4914, 4924, 6505, 9393, 9479, 9557, 9565, 10584, 10667, 10675	<code>\ifHy@stoppedearly</code>	393	<code>\ignorespaces</code> . .	682, 7469, 7650, 7933, 8039, 8050, 8053, 8111, 8119, 8181, 8196, 8212, 8221, 8331, 8882, 8934
<code>\ifHy@pageanchor</code> . . .	424, 7374, 7386, 7401, 8443	<code>\ifHy@texht</code>	433, 4697, 4956, 5004, 6145, 6177, 6368, 6392, 6548, 9057	<code>\iiint</code>	18812, 20943
<code>\ifHy@pdfa</code>	443, 4534, 4916, 5417, 5734, 6344, 6397, 6510, 9635, 9707, 9745, 9782, 10116, 10730, 10762, 10796, 10827, 10856, 11237, 11258, 11281, 11307, 11341, 11375, 11394, 12211, 13263, 13454, 13507, 13859, 14059, 14113, 14231, 14427, 14485, 14700, 14747, 14916	<code>\ifHy@typexml</code>	394, 4635, 4931, 4975, 6633, 15209, 15291	<code>\iinferior</code>	20748
<code>\ifHy@pdfcenterwindow</code> . . .	401, 9891, 10467, 10929, 11595, 11955, 12848	<code>\ifHy@unicode</code> . . .	436, 545, 578, 581, 641, 743, 755, 783, 791, 800, 1193, 1353, 2072, 2093, 2106, 2135, 2141, 2401, 2470, 2520, 2954, 2994, 3942, 7015, 14646	<code>\iint</code>	18810, 20942
<code>\ifHy@pdfdisplaydoctitle</code> . .	442, 9892, 10468, 10930, 11596, 11956, 12849	<code>\ifHy@useHidKey</code> . .	3775, 10015, 11008, 11532, 11826	<code>\IJ</code>	15633, 16407
<code>\ifHy@pdfescapeform</code>	408, 14594, 14624	<code>\ifHy@verbose</code> .	438, 5091, 5107, 5119, 5677, 8315, 9402	<code>\ij</code>	15844, 16409
<code>\ifHy@pdffitwindow</code> . .	410, 9890, 10466, 10928, 11594, 11954, 12847	<code>\ifHyField@NeedAppearances</code>	6118, 6120, 6123, 13265, 13861, 14233	<code>\Im</code>	18448, 20815
<code>\ifHy@pdfmarkerror</code>	12002, 12011	<code>\ifHyInfo@AddonUnsupported</code>	4084, 4098, 4140		
<code>\ifHy@pdfmenubar</code> . . .	418, 9888, 10464, 10926, 11592, 11952, 12845	<code>\IfHyperBoolean</code>	2740		
		<code>\IfHyperBooleanExists</code>	2734, 2741		
		<code>\ifHyPsd@XeTeXBigChars</code> .	847, 849, 852, 855		
		<code>\ifin@</code>	7233		
		<code>\ifmeasuring@</code>	7188, 7199		
		<code>\ifmmode</code>	11738, 12076		
		<code>\ifnum</code>	244, 879, 882, 885, 888, 891, 1069, 1194, 1197, 1208,		

\immediate .. 6634, 6635, 6636,
6638, 6679, 6984, 7074,
7082, 7398, 7426, 8176,
8191, 8207, 8217, 8247,
8270, 8296, 8326, 9481,
9496, 9511, 11671, 12506,
13725, 13781, 13784, 13845,
15111, 15177, 15208, 15210,
15290, 15292
\in 18729, 20909
\in@ 7231
\incr@eqnum 7528, 7541
\indent 7660, 7688
\index 671
\indexentry .. 8741, 8756, 8771,
8775, 8785
\Info 20386, 21512
\infty 18772, 20927
\input 979,
989, 1003, 3598, 3606, 3613,
4803, 12416, 12507, 12606,
12783
\InputIfFileExists . 4444, 15201,
15235, 15280, 15282
\inputlineno 5098, 5522
\insert 7912
\int 18807, 20941
\IntCalcAdd 2309
\IntCalcDec 1445, 2497
\intcalcDec 2479
\IntCalcDiv .. 1439, 1448, 1453,
1556, 1565, 1577, 1594,
1609, 1624, 2293, 2299, 2305
\intcalcDiv 1429, 2300, 2307, 2310
\IntCalcMod . 1441, 1450, 1456,
1560, 1566, 1581, 1597,
1612, 1626, 1628, 2295,
2300, 2301, 2307, 2310, 2312
\intcalcMod 1431
\intcalcNum .. 2501, 2529, 2533
\IntCalcSub .. 2495, 2548, 2551,
2554, 2557
\intcalcSub 2287, 2477
\interfootnotelinepenalty .. 7915
\interleave 20289, 21481
\interlinepenalty 7915
\inva 16777, 21568
\invamp 18494
\invbackneg 19288, 21146
\invdiameter 20088, 21394
\inve 16652, 20677
\invglotstop 17021, 20710
\invh 16852, 21587
\invlegr 16927, 21610
\invm 16886, 21598
\invneg 20149, 21419
\invr 16922, 21608

\invscr 16949, 20698
\invscripta 16785, 21570
\invv 16984, 21622
\invw 16988, 21624
\invy 16992, 21626
\iota 17242, 20730
\ipagamma 16844, 20689
\isuperior 20772
\item ... 7143, 7146, 8203, 8215,
8318
\Itemautorefname 9293
\itemautorefname .. 3329, 3347,
3365, 3383, 3401, 3419,
3437, 3466, 3467, 3495,
3513, 9293, 9294, 9297
\itemindent 7753
\itshape 611

J

\j 16414, 16672, 16763
\JackStar 19862, 21297
\JackStarBold 19864, 21298
\jarr 20619
\jeem 20563
\jeh 20635
\jinferior 21485
\jobname 6635, 6672, 6679,
13084, 15110, 15201, 15208,
15235, 15280, 15282, 15290
\Join 20132, 21412
\Jupiter 19650, 21794
\jupiter 19648, 21222

K

\k .. 15514, 15861, 15863, 15868,
15870, 15915, 15944, 15971,
15986, 16302, 16304, 16348,
16350, 16398, 16400, 16401,
16538, 16540, 16668, 16670,
17662, 17704, 17707
\kaf 20599
\kappa 17244, 20731
\kasra 20625
\keepPDF@SetupDoc ... 12667,
12674
\kern ... 1966, 2047, 2052, 2064,
7753, 8465, 8466, 8467,
8469, 8470, 8475, 15330
\kernel@ifnextchar 702
\Keyboard 19306, 21154
\kha 20567
\kinferior 20806
\Kutline 19520, 21758
\kv@define@key 4106
\KV@href@pdfnewwindow . 5182
\KV@href@pdfnewwindow@de-
fault 5183
\KV@Hyp@draft 2849

\KV@Hyp@nolinks 2849
\KV@Hyp@pdfnewwindow . 5182
\KV@Hyp@pdfnewwindow@de-
fault 5183
\kv@key 4092, 4095, 4102, 5954,
5957, 5959, 5963, 5967
\kv@parse 5953
\kv@parse@normalized 4124, 4131
\kv@processor@default 4127, 4134
\kv@set@family@handler .. 4085
\kv@value 4090, 5955, 5962, 5963
\kvsetkeys 3037, 3091, 3211, 3948,
4065, 4535, 4774, 4792,
4915, 6052, 9395, 12010,
13278, 13580, 13593, 13642,
13685, 13706, 13836, 14216

L

\L 15626, 16438
\l 15639, 16440
\l@slide . 8882, 8992, 8997, 9001,
9008
\l@subslide 8934, 8997, 9004, 9048
\labdentalsnas 16894, 21601
\label 670, 8488
\label@hyperref ... 5267, 5269
\label@hook 5590
\label@hyperdef 5253, 5283
\label@hyperref 5234, 5266, 5613
\label@name .. 5555, 5565, 5591
\labelsep 8330
\labelwidth 8329
\Ladiesroom 20375, 21509
\lam 20601
\Lambda 17181, 20714
\lambda 17246, 20732
\lambdabar 16600, 21557
\lambdaslash 16601, 21558
\langle 19308, 21155
\language@group 649
\language@shorthands 1050, 1051,
1085
\LARGE 618
\Large 619
\large 622, 9014, 9022, 9032, 9040
\LargerOrEqual ... 18954, 21711
\lastbox 7751
\lastpage@putlabel 7369
\lastskip 2691, 2695, 2702, 2710,
2714, 2721
\LaTeX . 575, 577, 13090, 13091
\LaTeXe 576, 13091
\latfric 16876, 21595
\LayoutCheckField 6436, 13538,
14142, 14522
\LayoutChoiceField 6433, 13388,
13990, 14345

<code>\LayoutPushButtonField</code>	6439, 13458, 13466, 14063, 14070, 14431, 14440	<code>\lefttrightharpoons</code>	18644, 20873	<code>\lneq</code>	20192, 21438
<code>\LayoutTextField</code>	6430, 13332, 13935, 14287	<code>\Leftslice</code>	19801, 21825	<code>\lneqq</code>	18963, 21008
<code>\lbrackdbl</code>	21349	<code>\leftslice</code>	20211, 21446	<code>\lnsim</code>	19251, 21130
<code>\lccode</code>	362, 367, 878, 1363, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2324, 6304, 8700, 8701, 15035, 15036, 15037, 15038, 15039, 15040, 15041, 15042, 15043, 15044, 15045	<code>\leftspoon</code>	19971, 21348	<code>\Llongleftarrow</code>	19990, 21356
<code>\lcurvearrowdown</code>	20028, 21373	<code>\leftsquigarrow</code>	18686, 20890	<code>\Llongrightarrow</code>	19994, 21358
<code>\lcurvearrowse</code>	20020, 21370	<code>\lefttherefore</code>	18324, 20768	<code>\longleftarrow</code>	19984, 21353
<code>\lcurvearrowsw</code>	20023, 21371	<code>\leftthreetimes</code>	19185, 21101	<code>\Llongleftarrow</code>	19994, 21358
<code>\ldots</code>	570	<code>\LeftTorque</code>	20035, 21834	<code>\longleftarrow</code>	19988, 21355
<code>\le</code>	18946, 21001	<code>\Lefttorque</code>	20036, 21835	<code>\longleg</code>	20696
<code>\leadsto</code>	20014, 21368	<code>\leftVdash</code>	20261, 21847	<code>\Longmapsfrom</code>	19998, 21360
<code>\leavevmode</code>	679, 2646, 4520, 4538, 4578, 5315, 5347, 5422, 6604, 7841, 8000, 8237, 9152, 9160, 9191, 9621, 9692, 9730, 9767, 10100, 10202, 10282, 10319, 10359, 10710, 10751, 10788, 10820, 11056, 11065, 11119, 11273, 11298, 11328, 11361, 11737, 12074, 12327, 12354, 12385, 12732, 13015, 13333, 13459, 13467, 13506, 13539, 13936, 14022, 14044, 14064, 14071, 14092, 14112, 14143, 14288, 14380, 14409, 14432, 14441, 14465, 14484, 14523, 15328	<code>\leftvdash</code>	19106, 21724	<code>\Longmapsto</code>	20000, 21361
<code>\Leftarrow</code>	18658, 20878	<code>\legm</code>	16891, 21600	<code>\longmapsto</code>	19996, 21359
<code>\leftarrow</code>	20828	<code>\legr</code>	16934, 21612	<code>\Longrightarrow</code>	19992, 21357
<code>\leftarrowtail</code>	18575, 20846	<code>\Leo</code>	19677, 21803	<code>\longrightarrow</code>	19986, 21354
<code>\leftarrowtriangle</code>	18706, 20898	<code>\leo</code>	19675, 21231	<code>\looparrowleft</code>	18585, 20851
<code>\leftbarharpoon</code>	20065, 21385	<code>\leq</code>	18946, 21000	<code>\looparrowright</code>	18587, 20852
<code>\LEFTCIRCLE</code>	19557, 21192	<code>\leqclosed</code>	19157, 21740	<code>\lower</code>	5322, 10209, 10289, 10326, 10366, 12102, 12739, 13022
<code>\leftharpoondown</code>	18606, 20859	<code>\leqq</code>	18955, 21004	<code>\lowercase</code>	363, 368, 898, 1364, 2184, 2325, 2751, 3273, 3303, 4032, 4068, 5626, 5627, 5630, 5635, 5659, 5669, 5723, 5779, 6099, 6172, 6175, 6305, 8702, 11787, 15046
<code>\leftharpoonup</code>	18603, 20858	<code>\leqslant</code>	20176, 21430	<code>\lozenge</code>	19555, 21191
<code>\leftleftarrows</code>	18635, 20869	<code>\lessapprox</code>	20184, 21434	<code>\lrcorner</code>	19300, 21151
<code>\leftleftharpoons</code>	20053, 21381	<code>\lessclosed</code>	19151, 21738	<code>\lslide@flag</code>	9009, 9012, 9030, 9049, 9053
<code>\leftmodels</code>	20274, 21851	<code>\lessdot</code>	19215, 21114	<code>\LT@array</code>	7494
<code>\leftmoon</code>	19626, 21217	<code>\lesseqgtr</code>	19224, 21118	<code>\LT@foot</code>	7509, 7513
<code>\leftpointright</code>	19600, 21774	<code>\lesseqgtr</code>	20202, 21442	<code>\LT@p@ftn</code>	7873, 7876, 7880, 7890
<code>\Leftrightarrow</code>	18669, 20882	<code>\lessgtr</code>	18996, 21023	<code>\LT@p@ftntext</code>	7871, 7878
<code>\leftrightarrows</code>	18544, 20832	<code>\LessOrEqual</code>	18949, 21710	<code>\LT@start</code>	7511, 7521
<code>\leftrightharpoons</code>	18633, 20868	<code>\lesssim</code>	18986, 21019	<code>\ltimes</code>	19180, 21099
<code>\leftrightharpoontriangle</code>	18710, 20900	<code>\LetLtxMacro</code>	6551, 6555, 6621, 6625	<code>\ltx@backslashchar</code>	330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 342, 4338
<code>\leftrightharpoon</code>	20042, 21377	<code>\Letter</code>	19814, 21826	<code>\ltx@empty</code>	382, 383, 486, 1954, 3060, 3235, 3247, 3251, 3627, 3772, 4162, 4186, 4193, 4284, 4403, 4404, 4407, 4408, 4409, 4410, 4411, 4412, 4416, 4468, 4739, 4740, 4767, 4777, 4875, 5367, 5368, 5539, 5560, 5583, 5824, 5842, 5856, 5869, 5885, 5917, 5942, 5949, 5950, 6291, 6329, 6330, 6331, 6332, 6333, 6334, 6335, 6336, 6337, 6338, 6339, 6364, 6750, 6751, 6752, 6755, 6767, 6776, 6793, 6798, 6804, 6813, 6833, 7560, 8542, 8553, 8562, 8765, 9415, 9435, 9438, 10142, 11046, 11133,
		<code>\LHD</code>	19550, 21189		
		<code>\lhd</code>	19149, 21087		
		<code>\lhooknwarrow</code>	20006, 21364		
		<code>\lhooksearrow</code>	20010, 21366		
		<code>\Libra</code>	19683, 21805		
		<code>\libra</code>	19681, 21233		
		<code>\Lightning</code>	18593, 21680		
		<code>\lightning</code>	18591, 20854		
		<code>\limits</code>	5074		
		<code>\linferior</code>	20807		
		<code>\listofslides</code>	8983		
		<code>\listslidename</code>	8982, 8985, 8987, 8989		
		<code>\literalps@out</code>	2644, 11660, 11665, 11717, 11723, 11749, 11755, 12021, 12037, 12071, 12072, 12100, 12102, 12114, 12116, 12414, 12496, 12505, 12563, 12576, 12657, 12781, 12942		
		<code>\ll</code>	18967, 21010		
		<code>\llap</code>	5320		
		<code>\llbracket</code>	19975, 21830		
		<code>\llcorner</code>	19298, 21150		
		<code>\Lleftarrow</code>	18682, 20888		
		<code>\lll</code>	19219, 21116		
		<code>\llparenthesis</code>	20084, 21392		
		<code>\lnaprox</code>	20197, 21440		

11741, 12009, 12023, 12039, 12058, 12079, 12146, 12413, 12504, 12778, 12950, 12957, 13280, 13301, 13314, 13555, 13590, 13637, 13731, 13732, 13751, 13758, 13774, 13805, 13848, 13888, 13889, 13890, 13917, 14241, 14258, 14265	<code>\ltx@onelevel@sanitize</code> ... 7210, 7229, 8803	<code>\male</code> ... 19643, 21221
<code>\ltx@firstofone</code> 3080, 4476, 5586, 5603, 6666, 15063, 15075	<code>\ltx@ReturnAfterElseFi</code> ... 5056	<code>\MaleMale</code> ... 19764, 21258
<code>\ltx@firstoftwo</code> ... 245, 349, 357, 2488, 2736, 2743, 4990, 5478, 7800, 7820	<code>\ltx@ReturnAfterFi</code> ... 510, 2122, 5060, 5076, 8822, 8858, 9346, 9356, 14617	<code>\ManFace</code> ... 20361, 21503
<code>\ltx@GlobalAppendToMacro</code> ... 1028, 5590	<code>\ltx@rightbracechar</code> ... 341, 369	<code>\manstar</code> ... 19758, 21255
<code>\ltx@gobble</code> 274, 3086, 4469, 4496, 4505, 4863, 5582, 5584, 6564, 6565, 6576, 6578, 6579, 6952, 13064, 13744, 13760, 13765, 15061, 15073	<code>\ltx@secondoftwo</code> ... 240, 247, 251, 346, 2490, 2735, 2736, 2745, 2747, 4989, 4990, 4992, 5372, 5476, 7802, 7822, 13750, 13753, 13756, 13759, 13763, 13764, 13767	<code>\mapsto</code> ... 18579, 20848
<code>\ltx@gobblethree</code> ... 8425	<code>\ltx@space</code> ... 343, 1851	<code>\Mars</code> ... 19646, 21792
<code>\ltx@gobbletwo</code> 5602, 6567, 6581, 13745	<code>\ltx@zero</code> 2178, 2179, 2180, 2181, 2182, 2183, 9410, 9417, 13762, 13895	<code>\mars</code> ... 19645, 21791
<code>\ltx@ifclassloaded</code> .. 6805, 8386	<code>\luatexrevision</code> ... 9851	<code>\MathBSuppress</code> .. 11066, 11070
<code>\ltx@ifempty</code> ... 5361	<code>\luatexversion</code> ... 9843, 9848	<code>\mathclose</code> ... 7563
<code>\ltx@iffileloaded</code> ... 1001, 6764	<code>\lz</code> ... 16883, 21597	<code>\mathdisplay</code> ... 7531, 7540
<code>\ltx@ifpackagelater</code> . 360, 10135		<code>\mathdisplay@push</code> . 7529, 7538
<code>\ltx@ifpackageloaded</code> 1330, 6671, 13893		<code>\mathdollar</code> ... 16012, 21524
<code>\ltx@ifUndefined</code> ... 239, 280, 286, 325, 648, 692, 768, 803, 921, 922, 923, 1093, 1099, 1105, 1110, 1115, 1122, 1128, 1134, 1139, 1145, 1150, 1160, 1166, 1172, 1178, 1317, 1323, 1700, 1795, 1796, 1948, 2598, 2631, 4462, 4491, 4493, 4581, 4582, 4583, 4989, 4990, 5186, 5551, 5582, 6727, 7127, 7227, 7234, 7256, 7271, 7602, 8139, 8404, 8764, 9180, 9181, 9226, 9227, 9229, 9230, 9400, 9431, 9669, 9679, 10077, 11163, 11220, 11323, 11713, 11756, 11847, 12030, 13891, 15362, 15372		<code>\mathellipsis</code> ... 18295, 21658
<code>\ltx@ifundefined</code> 2545, 2735, 2736, 2779, 5594, 7760, 8420, 9460		<code>\mathopen</code> ... 7554, 7585
<code>\ltx@leftbracechar</code> ... 340, 364		<code>\mathparagraph</code> .. 16134, 21535
<code>\ltx@LocalAppendToMacro</code> 377, 380, 7219, 7235, 7240		<code>\mathsection</code> ... 16102, 21533
<code>\ltx@one</code> . 244, 6807, 6808, 6815, 8389, 8393, 8399, 8402, 8403, 8416, 9422, 13897		<code>\mathsterling</code> ... 16091, 21530
		<code>\mathunderscore</code> .. 16070, 21528
		<code>\mathversion</code> ... 627
		<code>\maxdimen</code> ... 3707, 13729
		<code>\MaybeStopEarly</code> 487, 3094, 3169, 4646, 4752, 7102, 7105
		<code>\mbox</code> ... 680, 8250, 8273, 9567, 10677
		<code>\mddefault</code> ... 7662, 7690, 7721
		<code>\mdseries</code> ... 610
		<code>\meaning</code> ... 62, 153, 159, 2607, 6711, 7330, 7627, 15246, 15254, 15269
		<code>\measuredangle</code> ... 18776, 20929
		<code>\measuring@false</code> ... 7188
		<code>\mediaheight</code> ... 11157, 11159, 11165, 11172
		<code>\mediawidth</code> ... 11168, 11175
		<code>\meem</code> ... 20603
		<code>\Mercury</code> ... 19632, 21784
		<code>\mercury</code> ... 19630, 21219
		<code>\merge</code> ... 20163, 21846
		<code>\message</code> ... 9010
		<code>\MessageBreak</code> ... 282, 288, 305, 306, 311, 312, 352, 353, 518, 2078, 2099, 2112, 2135, 2140, 2142, 2773, 2774, 2788, 2810, 2813, 2815, 2893, 2894, 2920, 2921, 2966, 2967, 2968, 3006, 3007, 3027, 3042, 3083, 3108, 3141, 3179, 3186, 3197, 3203, 3244, 3257, 3295, 3637, 3768, 3769, 3831, 3832, 3850, 3851, 3945, 3987, 3995, 4045, 4100, 4101, 4218, 4219, 4341, 4342, 4343, 4364, 4366, 4374, 4375, 4382, 4432, 4680, 4681, 4689, 4690, 4706, 4707, 4722,
		<code>\mbox</code> ... 680, 8250, 8273, 9567, 10677
		<code>\mddefault</code> ... 7662, 7690, 7721
		<code>\mdseries</code> ... 610
		<code>\meaning</code> ... 62, 153, 159, 2607, 6711, 7330, 7627, 15246, 15254, 15269
		<code>\measuredangle</code> ... 18776, 20929
		<code>\measuring@false</code> ... 7188
		<code>\mediaheight</code> ... 11157, 11159, 11165, 11172
		<code>\mediawidth</code> ... 11168, 11175
		<code>\meem</code> ... 20603
		<code>\Mercury</code> ... 19632, 21784
		<code>\mercury</code> ... 19630, 21219
		<code>\merge</code> ... 20163, 21846
		<code>\message</code> ... 9010
		<code>\MessageBreak</code> ... 282, 288, 305, 306, 311, 312, 352, 353, 518, 2078, 2099, 2112, 2135, 2140, 2142, 2773, 2774, 2788, 2810, 2813, 2815, 2893, 2894, 2920, 2921, 2966, 2967, 2968, 3006, 3007, 3027, 3042, 3083, 3108, 3141, 3179, 3186, 3197, 3203, 3244, 3257, 3295, 3637, 3768, 3769, 3831, 3832, 3850, 3851, 3945, 3987, 3995, 4045, 4100, 4101, 4218, 4219, 4341, 4342, 4343, 4364, 4366, 4374, 4375, 4382, 4432, 4680, 4681, 4689, 4690, 4706, 4707, 4722,
		<code>\male</code> ... 19643, 21221
		<code>\MaleMale</code> ... 19764, 21258
		<code>\ManFace</code> ... 20361, 21503
		<code>\manstar</code> ... 19758, 21255
		<code>\mapsto</code> ... 18579, 20848
		<code>\Mars</code> ... 19646, 21792
		<code>\mars</code> ... 19645, 21791
		<code>\MathBSuppress</code> .. 11066, 11070
		<code>\mathclose</code> ... 7563
		<code>\mathdisplay</code> ... 7531, 7540
		<code>\mathdisplay@push</code> . 7529, 7538
		<code>\mathdollar</code> ... 16012, 21524
		<code>\mathellipsis</code> ... 18295, 21658
		<code>\mathopen</code> ... 7554, 7585
		<code>\mathparagraph</code> .. 16134, 21535
		<code>\mathsection</code> ... 16102, 21533
		<code>\mathsterling</code> ... 16091, 21530
		<code>\mathunderscore</code> .. 16070, 21528
		<code>\mathversion</code> ... 627
		<code>\maxdimen</code> ... 3707, 13729
		<code>\MaybeStopEarly</code> 487, 3094, 3169, 4646, 4752, 7102, 7105
		<code>\mbox</code> ... 680, 8250, 8273, 9567, 10677
		<code>\mddefault</code> ... 7662, 7690, 7721
		<code>\mdseries</code> ... 610
		<code>\meaning</code> ... 62, 153, 159, 2607, 6711, 7330, 7627, 15246, 15254, 15269
		<code>\measuredangle</code> ... 18776, 20929
		<code>\measuring@false</code> ... 7188
		<code>\mediaheight</code> ... 11157, 11159, 11165, 11172
		<code>\mediawidth</code> ... 11168, 11175
		<code>\meem</code> ... 20603
		<code>\Mercury</code> ... 19632, 21784
		<code>\mercury</code> ... 19630, 21219
		<code>\merge</code> ... 20163, 21846
		<code>\message</code> ... 9010
		<code>\MessageBreak</code> ... 282, 288, 305, 306, 311, 312, 352, 353, 518, 2078, 2099, 2112, 2135, 2140, 2142, 2773, 2774, 2788, 2810, 2813, 2815, 2893, 2894, 2920, 2921, 2966, 2967, 2968, 3006, 3007, 3027, 3042, 3083, 3108, 3141, 3179, 3186, 3197, 3203, 3244, 3257, 3295, 3637, 3768, 3769, 3831, 3832, 3850, 3851, 3945, 3987, 3995, 4045, 4100, 4101, 4218, 4219, 4341, 4342, 4343, 4364, 4366, 4374, 4375, 4382, 4432, 4680, 4681, 4689, 4690, 4706, 4707, 4722,
		<code>\male</code> ... 19643, 21221
		<code>\MaleMale</code> ... 19764, 21258
		<code>\ManFace</code> ... 20361, 21503
		<code>\manstar</code> ... 19758, 21255
		<code>\mapsto</code> ... 18579, 20848
		<code>\Mars</code> ... 19646, 21792
		<code>\mars</code> ... 19645, 21791
		<code>\MathBSuppress</code> .. 11066, 11070
		<code>\mathclose</code> ... 7563
		<code>\mathdisplay</code> ... 7531, 7540
		<code>\mathdisplay@push</code> . 7529, 7538
		<code>\mathdollar</code> ... 16012, 21524
		<code>\mathellipsis</code> ... 18295, 21658
		<code>\mathopen</code> ... 7554, 7585
		<code>\mathparagraph</code> .. 16134, 21535
		<code>\mathsection</code> ... 16102, 21533
		<code>\mathsterling</code> ... 16091, 21530
		<code>\mathunderscore</code> .. 16070, 21528
		<code>\mathversion</code> ... 627
		<code>\maxdimen</code> ... 3707, 13729
		<code>\MaybeStopEarly</code> 487, 3094, 3169, 4646, 4752, 7102, 7105
		<code>\mbox</code> ... 680, 8250, 8273, 9567, 10677
		<code>\mddefault</code> ... 7662, 7690, 7721
		<code>\mdseries</code> ... 610
		<code>\meaning</code> ... 62, 153, 159, 2607, 6711, 7330, 7627, 15246, 15254, 15269
		<code>\measuredangle</code> ... 18776, 20929
		<code>\measuring@false</code> ... 7188
		<code>\mediaheight</code> ... 11157, 11159, 11165, 11172
		<code>\mediawidth</code> ... 11168, 11175
		<code>\meem</code> ... 20603
		<code>\Mercury</code> ... 19632, 21784
		<code>\mercury</code> ... 19630, 21219
		<code>\merge</code> ... 20163, 21846
		<code>\message</code> ... 9010
		<code>\MessageBreak</code> ... 282, 288, 305, 306, 311, 312, 352, 353, 518, 2078, 2099, 2112, 2135, 2140, 2142, 2773, 2774, 2788, 2810, 2813, 2815, 2893, 2894, 2920, 2921, 2966, 2967, 2968, 3006, 3007, 3027, 3042, 3083, 3108, 3141, 3179, 3186, 3197, 3203, 3244, 3257, 3295, 3637, 3768, 3769, 3831, 3832, 3850, 3851, 3945, 3987, 3995, 4045, 4100, 4101, 4218, 4219, 4341, 4342, 4343, 4364, 4366, 4374, 4375, 4382, 4432, 4680, 4681, 4689, 4690, 4706, 4707, 4722,

4723, 4731, 4732, 4918,			
5163, 5164, 5188, 5189,			
5205, 5206, 5680, 5685,			
5694, 5737, 5783, 5907,			
6020, 6092, 6103, 6135,			
6136, 6155, 6263, 6264,			
6265, 6266, 6783, 7018,			
7033, 7034, 7377, 8492,			
8522, 8523, 8524, 8525,			
8526, 8674, 9405, 9423,			
9442, 9444, 9450, 9452,			
9455, 9462, 9625, 10715,			
11249, 11332, 11626, 11632,			
11856, 13738, 13740, 14982,			
15000, 15113			
\MF	585, 13093		
\mho	20819		
\mid	18783, 20931		
\MineSign	19743, 21248		
\mininferior	20808		
\minusdot	20139, 21415		
\minusinferior	20796		
\minussuperior	20780		
\models	19123, 21729		
\moo	21391		
\Moon	20359, 21502		
\MoonPha	2504, 2509, 2512,		
2518, 21523			
\Mountain	19790, 21266		
\MoveDown	19540, 21764		
\MoveUp	19525, 21761		
\MP	586, 13094		
\mp	18751, 20918		
\mu	17248		
\mugreek	20733		
\multimap	19167, 21093		
\multimapboth	20122, 21407		
\multimapdotbothA	19163, 21091		
\multimapdotbothB	19165, 21092		
\MultiplicationDot	16137, 21536		
\multiply	9847, 11513, 11548		
\Mundus	20357, 21501		
\MVArrowDown	18542, 21676		
\MVAt	16062, 20665		
\MVComma	16030, 20651		
\MVDivision	16036, 20654		
\MVEight	16054, 20663		
\MVFive	16048, 20660		
\MVFour	16046, 20659		
\MVMinus	16032, 20652		
\VMultiplication	16204, 21539		
\MVNine	16056, 20664		
\MVOne	16040, 20656		
\MVPeriod	16034, 20653		
\MVPlus	16028, 20650		
\MVRightArrow	18538, 21674		
\MVRightarrow	18539, 21675		
\MVSeven	16052, 20662		
\MVSix	16050, 20661		
\MVThree	16044, 20658		
\MVTwo	16042, 20657		
\MVZero	16038, 20655		
N			
\n	889		
\nabla	18727, 20908		
\name@of@eq	7161, 7191		
\name@of@slide	7162, 7172		
\nameref	677, 4994, 4998		
\napprox	18866, 20966		
\napproxeq	18871, 20968		
\nasb	20615		
\nasymp	18884, 20974		
\natural	19731, 21243		
\nbackcong	18880, 20972		
\nbacksim	18844, 20956		
\nbacksimeq	19191, 21104		
\nBumpeq	18889, 20976		
\nbumpeq	18893, 20978		
\ncirceq	18925, 20992		
\ncong	18862, 20964		
\ncurlyeqprec	19231, 21121		
\ncurlyeqsucc	19235, 21123		
\nDashV	20275, 21475		
\nDashv	20268, 21473		
\ndashV	20262, 21471		
\ndashv	19107, 21073		
\nDoteq	18903, 20982		
\ndoteq	18897, 20980		
\ndownmodels	20280, 21477		
\ndownvdash	19113, 21075		
\ne	18935, 20997		
\Narrow	18676, 20885		
\narrow	18550, 20835		
\neg	21514		
\Neptune	19659, 21797		
\neptune	19657, 21225		
\neq	18935, 20996		
\neqcirc	18921, 20990		
\neqdot	20172, 21428		
\neqsim	18853, 20960		
\nequal	18938, 21706		
\nequiv	18942, 20999		
\neswarrow	20004, 21363		
\netscape	10245		
\Neural	19770		
\Neutral	21261		
\new@ifnextchar	703		
\new@pdfink	9600, 9657, 9660		
\new@refstepcounter	7523, 7557		
\newblock	8334		
\newcommand	4, 9,		
42, 2645, 5307, 5313, 5345,			
5550, 5573, 6608, 6612,			
8070, 8642, 15083, 15086,			
15091, 20649, 21520			
\newcount	488,		
489, 2650, 5154, 6058, 6794,			
13284, 13436, 13894, 14041,			
14247, 14403, 15118			
\newcounter	7144, 7775, 10583,		
15033			
\newdimen 485, 5303, 6059, 6060			
\newif	393, 394, 395, 396, 397,		
398, 399, 400, 401, 402, 403,			
404, 405, 408, 409, 410, 411,			
412, 413, 414, 415, 416, 417,			
418, 419, 420, 421, 422, 423,			
424, 425, 426, 427, 428, 429,			
430, 431, 432, 433, 434, 435,			
436, 437, 438, 441, 442, 443,			
847, 1092, 3038, 3059, 3775,			
4084, 4830, 5184, 5633,			
5721, 6054, 6055, 6075,			
6118, 7163, 7164, 7188,			
7568, 11045, 12002			
\newlabel 2610, 5293, 6648, 6649,			
6657, 6684, 7399, 7427			
\newlabelxx	6650, 6651		
\newlength	15321		
\newline	573, 6732		
\newname 7194, 7551, 7582, 7610,			
7623, 7632			
\newsavebox	10513, 12050		
\newtie	15516, 15517, 15954,		
15981, 15999			
\newtoks 90, 6146, 11874, 12125,			
12126			
\newwrite	6678, 15206, 15288		
\nexists	18720, 20905		
\next	8324, 8325, 8326, 11476,		
11478, 11480			
\nfallingdoteq	20984		
\nfallingdotseq	18908		
\nfss@text 9064, 9084, 9101, 9219			
\NG	16456		
\ng	16458, 16459, 16460, 21547,		
21548			
\ngeq	18984, 21018		
\ngeqq	18961, 21007		
\ngeqslang	20182		
\ngeqslant	21433		
\ngg	18973, 21013		
\ngtr	18979, 21016		
\ngtrapprox	20190, 21437		
\ngtrclosed	19264, 21752		
\ngtrless	19000, 21025		
\ngtrsim	18994, 21022		
\nhateq	18931, 20994		
\ni	18735, 20912		
\NibRight	19826, 21280		

<code>\NibSolidRight</code>	19828, 21281	9248, 9249, 9254, 9255,	<code>\nsqsubseteq</code>	19058, 19241, 21054		
<code>\niepsilon</code>	16816, 20684	9850, 10451, 11939, 12006,	<code>\nsqsupset</code>	19054, 21052		
<code>\niota</code>	16865, 20692	12573, 12832, 13363, 13364,	<code>\nsqsupseteq</code>	19062, 19243, 21056		
<code>\nineinferior</code>	20794	13365, 13366, 13964, 13965,	<code>\nSubset</code>	19201, 21108		
<code>\ninesuperior</code>	20778	13966, 13967, 14319, 14320,	<code>\nsubset</code>	19028, 21039		
<code>\ninferior</code>	20809	14321, 14322, 14596	<code>\nsubseteq</code>	19036, 21043		
<code>\nphi</code>	16918, 20695	<code>\noexpandQ</code>	1984	<code>\nsubseteqq</code>	20253, 21467	
<code>\niupsilon</code>	16976, 20701	<code>\nofrenchguillemets</code>	710, 712	<code>\nsucc</code>	19022, 21036	
<code>\nj</code>	16898, 21603	<code>\NoHy@OrgPageRef</code>	6555, 6557,	<code>\nsuccapprox</code>	20245, 21463	
<code>\nLeftarrow</code>	18650, 20875	6625, 6627	<code>\NoHy@OrgRef</code>	6551, 6553, 6621,	<code>\nsucccurlyeq</code>	19239, 21125
<code>\nleftarrow</code>	18558, 20838	6623	6623	<code>\nsucceq</code>	20221, 21451	
<code>\nleftModels</code>	20277, 21852	<code>\NoHyper</code>	6559	<code>\nsucceqq</code>	20233, 21457	
<code>\nleftmodels</code>	20270, 21850	<code>\nohyperpage</code>	6603, 8812, 8814,	<code>\nsuccsim</code>	19018, 21034	
<code>\nLeftrightarrow</code>	18652, 20876	8816	<code>\nolinkurl</code>	5220	<code>\nsuperior</code>	20784
<code>\nleftrightharrow</code>	18589, 20853	<code>\nolinkurl@</code>	5220, 5221	<code>\nSupset</code>	19205, 21110	
<code>\nleftVdash</code>	20264, 21848	<code>\NomFancyVerbLineautorefname</code>	3484	<code>\nsupset</code>	19030, 21040	
<code>\nleftvdash</code>	19109, 21725	<code>\Nomfootnoteautorefname</code>	3464	<code>\nsupseteq</code>	19038, 21044	
<code>\nleq</code>	18982, 21017	<code>\Nomtheoremautorefname</code>	3488	<code>\nsupseteqq</code>	20257, 21469	
<code>\nleqq</code>	18957, 21005	<code>\nonumber</code>	7597, 7600	<code>\nthickapprox</code>	18868, 21700	
<code>\nleqslant</code>	20178, 21431	<code>\normalfont</code>	605, 7656, 7684, 7717	<code>\ntriangleleft</code>	19259, 21134	
<code>\nless</code>	18977, 21015	<code>\normalsize</code>	623, 8046, 8118	<code>\ntriangleright</code>	19266, 21136	
<code>\nlessapprox</code>	20186, 21435	<code>\notasymp</code>	18886, 21702	<code>\ntrianglerighteq</code>	19262, 21135	
<code>\nlessclosed</code>	19261, 21751	<code>\notbackslash</code>	19322, 21160	<code>\ntrianglerighteq</code>	19269, 21137	
<code>\nlessgtr</code>	19002, 21026	<code>\NotCongruent</code>	18944, 21708	<code>\ntriplesim</code>	18876, 20970	
<code>\nlesssim</code>	18992, 21021	<code>\notdivides</code>	18787, 21691	<code>\ntwoheadleftarrow</code>	18564, 20841	
<code>\nll</code>	18969, 21011	<code>\note</code>	8434	<code>\ntwoheadrightarrow</code>	18571, 20844	
<code>\nmid</code>	18785, 20932	<code>\notequiv</code>	18945, 21709	<code>\nu</code>	17250, 20734	
<code>\nmodels</code>	19142, 21735	<code>\notin</code>	18731, 20910	<code>\null</code>	8315, 8323, 9106, 9215	
<code>\noboundary</code>	20645	<code>\notni</code>	18740, 21686	<code>\number</code>	1211, 1215, 1218, 1226,	
<code>\nobreak</code>	2692, 2700, 2711, 2719,	<code>\notowner</code>	18738, 20913	1229, 1231, 1536, 1538,		
7842, 8001	<code>\notperp</code>	19965, 21345	<code>\notslash</code>	1565, 1566, 2284, 2342,		
<code>\nobreakspace</code>	691, 9155, 9184,	<code>\notslant</code>	19319, 21159	2343, 2344, 2345, 2349,		
9187	<code>\noway</code>	19788, 21265	<code>\nparallel</code>	2350, 2351, 2352, 2353,		
<code>\NoChemicalCleaning</code>	20102,	<code>\nperp</code>	18790, 20934	2357, 2358, 2359, 2360,		
21398	<code>\nprec</code>	19120, 21728	<code>\nperp</code>	2361, 2362, 2363, 2367,		
<code>\noexpand</code>	22, 93, 95, 108, 116,	<code>\nprecapprox</code>	20241, 21461	2368, 2369, 2370, 2371,		
169, 171, 172, 173, 176, 206,	<code>\npreceq</code>	20217, 21449	<code>\npreceqq</code>	2372, 2375, 2377, 2381,		
867, 1038, 1377, 1810, 1827,	20217, 21449	20217, 21449	<code>\nprecsim</code>	2382, 2384, 2386, 2388,		
1957, 1984, 2338, 2698,	20217, 21449	20217, 21449	<code>\nqsubseteq</code>	2391, 2395, 2396, 2397,		
2699, 2700, 2703, 2717,	20217, 21449	20217, 21449	<code>\nqsupseteq</code>	2398, 2407, 2408, 2412,		
2718, 2719, 2722, 3556,	20217, 21449	20217, 21449	<code>\NR@getttitle</code>	2413, 2420, 2421, 2425,		
3558, 3560, 3561, 3562,	20217, 21449	20217, 21449	8036	2428, 2429, 2430, 2440,		
3564, 3580, 3786, 3787,	20217, 21449	20217, 21449	<code>\nRightarrow</code>	2442, 2443, 2448, 2450,		
3789, 4157, 4601, 4605,	20217, 21449	20217, 21449	18655, 20877	2451, 2456, 2457, 4177,		
4606, 4774, 5068, 5241,	20217, 21449	20217, 21449	<code>\nrightarrow</code>	4832, 4849, 5647, 7261,		
5517, 5519, 5545, 5689,	20217, 21449	20217, 21449	18560, 20839	7264, 7307, 7308, 7311,		
6236, 6249, 6907, 6908,	20217, 21449	20217, 21449	<code>\nrightModels</code>	7315, 9473, 9476, 10273,		
6917, 6919, 6922, 7047,	20217, 21449	20217, 21449	19148, 21737	10291, 10292, 10307, 10308,		
7213, 7214, 7231, 7411,	20217, 21449	20217, 21449	<code>\nrightmodels</code>	10328, 10329, 10345, 10346,		
7412, 7414, 7439, 7440,	20217, 21449	20217, 21449	19141, 21734	10368, 10369, 10385, 10386		
7441, 7442, 7443, 7451,	20217, 21449	20217, 21449	<code>\nrightVdash</code>	<code>\numberline</code>		
7452, 7453, 7626, 7864,	20217, 21449	20217, 21449	19145, 21736	8039, 8111, 15005,		
7874, 7882, 7883, 7884,	20217, 21449	20217, 21449	<code>\nrightvdash</code>	15010		
7886, 8010, 8100, 8175,	20217, 21449	20217, 21449	19138, 21733	<code>\numberwithin</code>		
8190, 8206, 8391, 8540,	20217, 21449	20217, 21449	<code>\nrisingdoteq</code>	8639		
8634, 8636, 9117, 9118,	20217, 21449	20217, 21449	18913, 20986	<code>\numexpr</code>		
9235, 9236, 9241, 9243,	20217, 21449	20217, 21449	<code>\nsim</code>	2349, 2350, 2351, 2353,		
	20217, 21449	20217, 21449	18849, 20958	2359, 2367, 2368, 2369,		
	20217, 21449	20217, 21449	<code>\nsimeq</code>	2370, 2371, 2372, 2376,		
	20217, 21449	20217, 21449	18857, 20962			
	20217, 21449	20217, 21449	<code>\nsqsubset</code>			
	20217, 21449	20217, 21449	19050, 21050			

2378, 2382, 2384, 2386,
2388, 2392, 2395, 2396,
2398, 2407, 2412, 2429,
2443, 2451, 2457, 4181

`\nun` 20605
`\nupmodels` 20284, 21479
`\nupvdash` 19118, 21077
`\nVDash` 19146, 21086
`\nVdash` 19143, 21085
`\nvDash` 19139, 21084
`\nvdash` 19136, 21083
`\nVvash` 19130, 21081
`\Nwarrow` 18674, 20884
`\narrow` 18548, 20834
`\nwsearrow` 20002, 21362

O

`\O` 15759, 16206, 16688
`\o` 15828, 16276, 16691
`\oasterisk` 19090, 21722
`\obackslash` 20096, 21838
`\obar` 20090, 21395
`\obeylines` 12572
`\OBJ@acroform` . . . 13867, 13868
`\OBJ@Helv` 13842, 13855, 14206
`\OBJ@OCG@print` . . 9510, 9513,
9521, 9548, 10601, 10603,
10616, 10620, 10629, 10658
`\OBJ@OCG@view` . . 9495, 9513,
9547, 10585, 10587, 10600,
10620, 10657
`\OBJ@OCGs` . 9516, 9519, 9525,
9530, 9535, 10617, 10619,
10623, 10627, 10633, 10638,
10643
`\OBJ@pdfdocencoding` . . . 13840,
14187, 14203
`\OBJ@ZaDb` 13841, 13854, 14196
`\obot` 20099, 21397
`\obslash` 20093, 21396
`\ocirc` 19085, 21719
`\OCIRCUMFLEX` 20415, 20513,
20514, 20515, 20516, 20517
`\ocircumflex` 20409, 20453, 20454,
20455, 20456, 20457
`\oddsidemargin` 8471
`\odiv` 20147, 21418
`\odot` 19080, 21063
`\odplus` 20101, 21840
`\OE` 15628, 16474
`\oe` 15641, 16476
`\offinterlineskip` 6758
`\ogreaterthan` 20107, 21400
`\OHORN` . . 20416, 20518, 20519,
20520, 20521, 20522
`\ohorn` 3511, 3518, 20410, 20458,
20459, 20460, 20461, 20462

`\oiint` 18817, 20945
`\oinferior` 20802
`\oint` 18814, 20944
`\ointclockwise` 18820, 20946
`\ointctrlockwise` . . 18822, 20947
`\oldb` 921
`\oldc` 922
`\oldcontentsline` 6643, 6646, 6656
`\oldd` 923
`\oldnewlabel` . . 6648, 6653, 6657
`\olessthan` 20104, 21399
`\OMEGA` 13089
`\Omega` 17208, 20721
`\omega` 17274, 20745
`\ominus` 19071, 21060
`\on@line` 8519, 8520
`\oneinferior` 20786
`\onesuperior` 20669
`\oo` 20323, 21488
`\openbullet` 21194
`\openo` 16792, 20680
`\openout` 6635, 6679, 15208,
15290
`\oplus` 19068, 21059
`\OpMode` 3164, 3167, 3180, 3193,
3198, 11565, 11668, 12509
`\or` 347, 1245, 1246, 1247, 1248,
1249, 1250, 1251, 1252,
1253, 1267, 1268, 1269,
1270, 1271, 1272, 1273,
1274, 1275, 1290, 1291,
1292, 1293, 1294, 1295,
1296, 1297, 1298, 1383,
1384, 1385, 1386, 1387,
1388, 1389, 1390, 1391,
1392, 1393, 1394, 1395,
1396, 1397, 1398, 1399,
1400, 1401, 1402, 1403,
1404, 1405, 1406, 1407,
1408, 1409, 1410, 1411,
1412, 1413, 1414, 1432,
1454, 1457, 1463, 1464,
1465, 1466, 1467, 1468,
1469, 1470, 1471, 1472,
1473, 1474, 1475, 1476,
1477, 1478, 1479, 1480,
1481, 1482, 1483, 1484,
1485, 1486, 1487, 1488,
1489, 1490, 1491, 1492,
1493, 1494, 1499, 1500,
1501, 1502, 1503, 1504,
1505, 1506, 1507, 1508,
1509, 1510, 1511, 1512,
1513, 1514, 1515, 1516,
1517, 1518, 1519, 1520,
1521, 1522, 1523, 1524,
1525, 1526, 1527, 1528,

1529, 1530, 1543, 1544,
1545, 1546, 1547, 1659,
1660, 1661, 2503, 2506,
2508, 2511, 5807, 5813,
5818, 6032, 7281, 7282,
7283, 7284, 7290, 7291,
7292, 7293, 8547, 8551,
9029, 9038, 11558, 15126,
15127, 15128, 15129, 15130,
15131, 15132, 15133, 15134,
15135, 15136, 15137, 15138,
15139, 15140, 15141, 15142,
15143, 15144, 15145, 15146,
15147, 15148, 15149, 15150,
15151, 15152, 15153, 15154,
15155, 15156, 15157

`\OrnamentDiamondSolid` . 19955
`\oslash` 19077, 21062
`\otimes` 19074, 21061
`\ovee` 18800, 20938
`\overlay` 8431
`\owedge` 18795, 20936
`\owns` 18737, 21685

P

`\P` 569
`\p@` 2408, 2413, 6061, 6067, 7664,
7692, 7723, 10218, 10302,
10340, 10380, 11512, 12748,
13036, 13359, 13960, 14315,
15446, 15447
`\p@equation` 8611
`\PackageError` 61
`\PackageInfo` . 9389, 9471, 13736
`\PackageWarning` . . 3041, 6018
`\pageautorefname`
. . . 3342, 3360, 3378, 3396,
3414, 3432, 3450, 3490,
3508, 3526, 9187, 9310
`\pagename` 9184
`\pageref`
676, 4656, 4985, 6555, 6556,
6625, 6626, 7377, 9173, 9177
`\paperheight` 4425, 10062, 10064,
10067, 10069, 10081, 10082,
11026, 11027, 11164, 11165,
11167, 12478, 12479
`\paperwidth` 10058, 10060, 10071,
10073, 10078, 10079, 11025,
11027, 11168, 12477, 12479
`\par` 7655, 7682, 7715, 8038, 8066,
8109, 8119, 8317, 8337
`\paragraphautorefname`
. . . 3338, 3356, 3374, 3392,
3410, 3428, 3446, 3479,
3481, 3504, 3522, 9306
`\parallel` 18788, 20933
`\parenleftinferior` 20798

<code>\parenleftsuperior</code>	20782	<code>\pdf@toks</code> .	12006, 12027, 12043, 12125, 12129, 12133	<code>\pdfm@box</code>	10513, 14243, 14244, 14245, 14283, 14295, 14372, 14397, 14406, 14417, 14436, 14449, 14464, 14473, 14493, 14501, 14518, 14530
<code>\parenrightinferior</code>	20799	<code>\pdf@type</code> .	12008, 12013, 12027, 12043, 12120, 12140	<code>\pdfmark</code> . . .	7065, 10451, 10460, 10490, 11704, 11724, 11763, 11798, 11815, 11827, 11861, 11898, 11910, 11939, 11948, 11979, 12003, 12279, 12294, 12309, 12321, 12328, 12355, 12386, 12832, 12841, 12872, 13294, 13303, 13335, 13424, 13441, 13469, 13491, 13517, 13541, 15250
<code>\parenrightsuperior</code>	20783	<code>\pdfannotlink</code>	9591	<code>\pdfmark@</code>	12003, 12004
<code>\parr</code>	18497, 21673	<code>\pdfbookmark</code>	2645, 6607, 6608, 15084, 15089, 15094, 15098	<code>\pdfmatch</code>	344
<code>\parskip</code>	6671	<code>\pdfcatalog</code> . .	6954, 9517, 9872, 9914, 13868	<code>\pdfminorversion</code>	9386
<code>\partautorefname</code> . .	3332, 3350, 3368, 3386, 3404, 3422, 3440, 3470, 3498, 3516, 9300	<code>\PDFdefaults</code>	12136	<code>\PDFNextPage</code>	12292
<code>\partial</code>	18716, 20903	<code>\pdfdest</code>	9615	<code>\PDFNextPage@</code> . .	12292, 12293
<code>\partnumberline</code> . .	15007, 15012	<code>\pdfdraftmode</code>	244	<code>\pdfobj</code>	9481, 9496, 9511, 13845, 14154, 14188, 14197
<code>\PassOptionsToPackage</code> . . . . .	. . 3212, 3284, 3288, 3310, 4460, 4473, 4484, 4793	<code>\pdfendlink</code> .	9654, 13940, 14034, 14049, 14076, 14101, 14125, 14148	<code>\pdfobjcompresslevel</code>	9410, 9464
<code>\pdf@addtoks</code> . . .	12128, 12150, 12156, 12165, 12172, 12176, 12178, 12180, 12182, 12184, 12192, 12201, 12205, 12207, 12209, 12212, 12221, 12225, 12227, 12229, 12231, 12233, 12235, 12237, 12239, 12241, 12243, 12245, 12247, 12249, 12251, 12253, 12255, 12256, 12257, 12258, 12259, 12260, 12261, 12262, 12263, 12264, 12265, 12270	<code>\PDFForm@@Name</code>	14633, 14636, 14640, 14643	<code>\PDFOpen</code>	12320
<code>\pdf@addtoksx</code> . .	12122, 12132, 12148	<code>\PDFForm@Check</code>	13540, 13544, 14145, 14146, 14524, 14528, 14717	<code>\pdfoptionpdfminorversion</code>	9383
<code>\pdf@box</code> . .	12050, 12082, 12090, 12098, 12099, 12102, 12106, 12108, 12111	<code>\PDFForm@List</code> .	13439, 13444, 14046, 14047, 14410, 14415, 14777	<code>\pdfoutline</code>	15299
<code>\pdf@defaulttoks</code> .	12006, 12126, 12127, 12137	<code>\PDFForm@Name</code>	13931, 13985, 14058, 14139, 14279, 14340, 14426, 14515, 14632	<code>\pdfpageattr</code> . . . . .	. . 9970, 9974, 9975, 9985, 9994, 9998, 9999, 10009, 10017, 10020, 10021, 10031
<code>\pdf@docset</code>	11874	<code>\PDFForm@Push</code> .	13468, 13472, 14073, 14074, 14442, 14446, 14747	<code>\pdfpageheight</code> . .	10064, 10073, 10082, 10089
<code>\pdf@endanchor</code>	9613, 9657, 9664	<code>\PDFForm@Radio</code>	13420, 13428, 14024, 14026, 14381, 14393, 14811	<code>\pdfpageref</code>	13905
<code>\pdf@escapestring</code>	9365	<code>\PDFForm@Reset</code>	13515, 13520, 14122, 14123, 14494, 14499, 14916	<code>\pdfpageresources</code> . .	9544, 9545
<code>\PDF@FinishDoc</code> . . . . .	. . 3097, 3098, 3172, 3173, 4419, 4522, 4649, 4650, 4755, 4756, 6602, 6775, 6776, 9926, 10142, 10400, 10883, 11046, 11636, 11875, 12788, 12957	<code>\PDFForm@Submit</code>	13489, 13494, 14094, 14096, 14466, 14471, 14882	<code>\pdfpagesattr</code> .	9861, 9863, 9865
<code>\pdf@ifdraftmode</code>	240, 243, 251, 6951, 9480, 9927, 10036, 13837, 15218	<code>\PDFForm@Text</code> .	13334, 13338, 13938, 13939, 14289, 14292, 14846	<code>\pdfpagewidth</code> . . .	10060, 10069, 10079, 10086
<code>\pdf@linktype</code> . . .	12030, 12034, 12142, 12143	<code>\pdffhorigin</code>	10054	<code>\PDFPreviousPage</code>	12305
<code>\pdf@objdef</code>	12009, 12023, 12025, 12039, 12041, 12145, 12146	<code>\pdfinfo</code>	9930	<code>\PDFPreviousPage@</code>	12306, 12308
<code>\pdf@rect</code> .	12017, 12036, 12054	<code>\pdflastannot</code>	9430	<code>\pdfrefform</code>	9595
<code>\PDF@SetupDoc</code> . . . . .	. . 4418, 4521, 6522, 6523, 6601, 9857, 10143, 10431, 10923, 11047, 11573, 11926, 12669, 12819, 12958	<code>\pdflastform</code>	9594	<code>\pdfrefobj</code> .	13840, 13841, 13842
<code>\PDF@SetupDox</code>	9857	<code>\pdflastlink</code> .	9433, 13803, 13816	<code>\pdfrefxform</code>	9595, 13729
<code>\pdf@strcmp</code>	1069	<code>\pdflastmatch</code>	4334	<code>\pdfstartlink</code> . . . . .	. . 9590, 9591, 9649, 9693, 9731, 9768, 10102, 13939, 14025, 14047, 14074, 14095, 14123, 14146
		<code>\pdflastobj</code>	9427, 9495, 9510, 9516, 13867, 14187, 14196, 14206	<code>\pdfstrcmp</code>	13762
		<code>\pdflastxform</code>	9428, 9594, 13727, 13729	<code>\pdfstringdef</code>	538, 834, 3971, 3977, 3983, 4005, 4010, 4016, 4023, 4029, 4110, 5979, 5984, 6010, 6735, 6843, 6845, 7392, 8417, 8453, 14651, 15016
		<code>\pdflastximage</code>	9429	<code>\pdfstringdefDisableCommands</code> .	. . . 920, 1022, 1031, 1034,
		<code>\pdflinkmargin</code>	9588, 9592, 9597		
		<code>\pdfliteral</code>	9568, 9570, 9575		

6605, 6730
`\pdfstringdefPostHook` 830, [1016](#)
`\pdfstringdefPreHook` 687, [1016](#),
1028, 6729, 6739
`\pdfstringdefWarn` 572, 573,
681, [1037](#), 1818, 1823, 1842,
1846
`\pdftexrevision` 9817, 9825, 9836
`\pdftexversion` 9812, 9814, 9817,
9820, 9823, 9824, 9828,
9834, 9835, 13839
`\pdfvorigin` 10055
`\pdfxform` 9593, 13725
`\Peace` 19815, 21275
`\peh` 20631
`\penalty` 1960, 2672, 5129, 8244,
8267
`\PencilRight` 19822, 21278
`\PencilRightDown` . 19820, 21277
`\PencilRightUp` . . . 19824, 21279
`\pentagon` 20294, 21483
`\perp` 19963, 21344
`\phantom` 628
`\phantomsection` . . . 4420, 6609,
8494, 14951, 15002, 15390
`\Phi` 17201, 20719
`\phi` 17268, 20742
`\phiinferior` 20755
`\Phone` 19576, 21200
`\PhoneHandset` . . . 19806, 21271
`\Pi` 20716
`\pi` 17256, 20736
`\pinferior` 20810
`\Pisces` 19698, 21810
`\pisces` 19696, 21238
`\pitchfork` 19213, 21113
`\planck` 16381, 21546
`\Plane` 19810, 21273
`\Plus` 19843, 21288
`\PlusCenterOpen` . 19847, 21290
`\plusinferior` 20795
`\PlusOutline` 19841, 21287
`\plussuperior` 20779
`\PlusThinCenterOpen` . . . 19845,
21289
`\Pluto` 19662, 21798
`\pluto` 19660, 21226
`\pm` 21517
`\pointer` 18701, 20896
`\PointingHand` 19601, 21775
`\Pointinghand` 19602, 21776
`\pounds` 16092, 21531
`\Preamble` 13085
`\prec` 19004, 21027
`\precapprox` 20239, 21460
`\preccurlyeq` 19008, 21029
`\preceq` 20215, 21448

`\preceqq` 20227, 21454
`\precnapprox` 20247, 21464
`\precneq` 20223, 21452
`\precneqq` 20235, 21458
`\precsim` 19255, 21132
`\PrerenderUnicode` 3962
`\prime` 18300, 20764
`\process@me` . 6709, 6721, 6722,
9860, 9869
`\ProcessKeyvalOptions` . . . 4489
`\prod` 18743, 20915
`\propto` 18769, 20926
`\protect` 1958, 5271, 8039,
8111, 8175, 8190, 8206,
8322, 8329, 8330, 8532,
8580, 8801, 8882, 8934,
9063, 9083, 9089, 9100,
9218, 10153, 10250, 11117,
11192, 12680, 12968, 15023,
15323, 15446, 15447
`\protected@edef` 5365, 6809, 6903,
7482, 7624, 7644, 8405,
8409, 9622, 10712, 11246,
11329, 11853
`\protected@write` . . . 2609, 5292,
5562, 8302, 8740, 8755,
8770, 8774, 8784, 15022
`\protected@xdef` . . . 7883, 7976
`\providecommand`
. . . 2626, 2627, 3662, 3663,
3666, 3667, 4743, 4962,
4963, 5082, 5225, 5549,
5607, 6639, 6933, 6958,
7083, 7122, 7125, 7128,
7129, 7130, 7132, 7133,
7134, 7135, 7137, 7138,
7139, 7140, 7141, 7142,
7151, 7152, 7153, 7154,
7155, 7156, 7618, 8140,
8141, 8156, 8234, 8864,
8865, 8869, 8874, 8875,
8982, 9291, 9292, 9293,
9294, 9295, 9296, 9297,
9298, 9299, 9300, 9301,
9302, 9303, 9304, 9305,
9306, 9307, 9308, 9309,
9310, 9372, 9599, 9617,
9618, 10141, 10244, 10245,
10508, 10570, 10571, 10572,
11043, 11162, 11184, 11185,
11186, 11661, 12051, 12052,
12412, 12420, 12421, 12422,
12423, 12503, 12515, 12516,
12517, 12518, 12570, 12611,
12612, 12613, 12614, 12777,
12779, 12780, 12893, 12894,

12949, 13782, 13785, 14589
`\psdaliasnames` . . . 21520, 21863
`\psdmapshortnames` 20649, 21519
`\Psi` 17205, 20720
`\psi` 17272, 20744
`\PushButton` 6418
`\put@me@back` 5512, 5525, 5535
`\pwedge` 16985, 21623
`\pxfonts` 20293

Q

`\Q` 1953, 13850
`\qaf` 20597
`\quaternote` 19720, 21239
`\quotedblbase` . . . 15608, 15847,
18281, 20391
`\quotesinglbase` . . 15618, 15849,
18275, 20393

R

`\r` 892, 15483, 15495, 15507,
15720, 15786, 15896, 15936,
15963, 15993, 16166, 16233,
16530, 16532, 18220, 18222
`\ra` 20573
`\Radiation` 19605, 21777
`\Radioactivity` 19603, 21209
`\raff` 20617
`\Rain` 19786, 21264
`\raise` . 2679, 5336, 10219, 10303,
10341, 10381, 12116, 12749,
13037
`\rangle` 19310, 21156
`\rbrackdbl` 21350
`\rcurvearrowdown` . 20033, 21374
`\rcurvearrowleft` . . . 20037, 21375
`\rcurvearrowne` . . . 20017, 21369
`\rcurvearrowright` . 20040, 21376
`\rcurvearrowse` 20026, 21372
`\Re` 18459, 20818
`\ReadBookmarks`
. . . 4488, 4525, 4663, 4866,
5006, [15182](#), 15217
`\real@setref` 9060, 9126
`\realfootnote` [7973](#)
`\Rectangle` 19959, 21342
`\RectangleBold` . . . 19961, 21343
`\RectangleThin` . . . 19957, 21341
`\recycle` 19735, 21245
`\Recycling` 19737, 21817
`\Ref` 9145, 9149, 9154
`\ref` 675, 4655, 4982, 5621, 6551,
6552, 6621, 6622, 7938,
7945, 9164, 13060
`\ref@one` 5247, 5248
`\rEfLiNK` 13061, 13062
`\refstepcounter`
. . . 7160, 7167, 7187, 7464,

	7487, 7488, 7489, 7498, 7523, 7547, 7557, 7672, 8103		
\rem@ptetc	11788, 11790		
\renewcommand	2601, 8656, 15098		
\Request	19340, 21167		
\RequirePackage	22, 233, 235, 236, 237, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 392, 1328, 1855, 2595, 3018, 3092, 4466, 4482, 4637, 4638, 4934, 4978, 5010, 5217, 5624, 6591, 6749, 6999, 9443, 11044, 12954, 15108		
\RerunFileCheck	15110		
\Reset	6427		
\reset@font	8250, 8273, 9064, 9084, 9101, 9219		
\reve	16806, 20682		
\reveject	17019, 21633		
\revepsilon	16820, 20685		
\revglotstop	17017, 20709		
\revtex@checking	8227		
\Rewind	19545, 21187		
\RewindToIndex	19352, 21172		
\RHD	19536, 21184		
\rhd	19152, 21088		
\rho	17258, 20737		
\rhoinferior	20754		
\rhooknearrow	20008, 21365		
\rhookrepsilon	20686		
\rhookswarrow	20012, 21367		
\Rightarrow	9016, 18663, 20880		
\rightarrow	20830		
\rightarrowtail	18577, 20847		
\rightarrowtriangle	18708, 20899		
\rightbarharpoon	20071, 21387		
\RIGHTCIRCLE	19559, 21193		
\rightbarpoondown	18618, 20863		
\rightbarpoonup	18615, 20862		
\rightleftarrows	18627, 20866		
\rightleftharpoon	20044, 21378		
\rightleftharpoons	18647, 20874		
\rightModels	19135, 21732		
\rightmodels	19124, 21730		
\rightmoon	19628, 21218		
\rightpointleft	19597, 21773		
\rightrightarrow	18639, 20871		
\rightrightarrowharpoons	20059, 21383		
\RightScissors	19800, 21824		
\rightslice	20213, 21447		
\rightsquigarrow	18688, 20891		
\rightthreetimes	19187, 21102		
\RightTorque	20030, 21832		
\Righttorque	20031, 21833		
\rightVdash	19127, 21731		
\rightarrowdash	19103, 21723		
\rinferior	20749		
\riota	18472, 20820		
\risingdoteq	20985		
\risingdotseq	18911		
\rlap	5333, 9569, 10679		
\rm	616		
\rmfamily	606		
\Roman	6899		
\roman	6900		
\romannumeral	1044, 1045, 13850		
\rotm	16887, 21599		
\rotOmega	16978, 21621		
\rotr	16923, 21609		
\rotvara	16786, 21571		
\rotw	16989, 21625		
\roty	16993, 21627		
\rrbracket	19978, 21831		
\Rrightarrow	18684, 20889		
\rrparentthesis	20086, 21393		
\rtaild	20681		
\rtimes	19183, 21100		
\rule	7923		
S			
\S	16103, 21534		
\sad	20581		
\Sagittarius	19689, 21807		
\sagittarius	19687, 21235		
\Saturn	19653, 21795		
\saturn	19651, 21223		
\sbox	3958, 5316, 5348, 6447, 10206, 10286, 10323, 10363, 12051, 12090, 12736, 13019, 13724		
\scd	17893, 20746		
\scg	16841, 20688		
\schwa	16809, 20683		
\schwainferior	20804		
\sci	16868, 20693		
\ScissorHollowRight	19804, 21270		
\ScissorRight	19798, 21268		
\ScissorRightBrokenBottom	19794		
\ScissorRightBrokenTop	19802, 21269		
\scn	16904, 20694		
\Scorpio	19686, 21806		
\scorpio	19684, 21234		
\scr	16946, 20697		
\scr@LT@array	7497		
\scripta	16779, 20679		
\scriptg	16838, 20687		
\scriptsize	624		
\scriptstyle	8240		
\scriptv	16980, 20702		
\scrollmode	1870, 1895, 1905, 1918, 2025, 2158		
\scshape	612, 7661, 7689		
\scu	17911, 20747		
\scy	16994, 20706		
\Searrow	18678, 20886		
\searrow	18553, 20836		
\Sech	20353, 21499		
\second	18302, 20765		
\section	8984		
\sectionautorefname	3335, 3353, 3371, 3389, 3407, 3425, 3443, 3472, 3501, 3519, 9303		
\seen	20577		
\selectfont	592, 4945, 13877		
\SePa	20339, 21493		
\set@display@protect	4590		
\setbox	1961, 1967, 1973, 3690, 3696, 5320, 5333, 6205, 6757, 7751, 9559, 10130, 10652, 10669, 14283, 14372, 14406, 14436, 14464, 14493, 14518		
\setcounter	5160		
\setkeys	5135, 5180		
\setlength	522, 523, 2676, 5304, 6217, 9586, 10054, 10055, 10060, 10064, 10069, 10073, 10079, 10082, 10086, 10089, 11165, 11168, 11172, 11175, 11512, 12495, 12562, 12656, 12941, 15340, 15411		
\setminus	18759, 20922		
\setpdfinkmargin	4164, 4165, 9584, 12493, 12560, 12654, 12939		
\settowidth	13356, 13957, 14312		
\SetupKeyvalOptions	2730, 4453		
\seveninferior	20792		
\sevensuperior	20776		
\sffamily	607		
\shadda	20627		
\sharp	19733, 21244		
\sheen	20579		
\shortciteN	8365		
\shuffle	20124, 21408		
\Sigma	17195, 20717		
\sigma	17262, 20739		
\sim	18839, 20954		
\simeq	18855, 20961		
\sinferior	20811		
\SixFlowerAlternate	19911, 21321		
\SixFlowerAltPetal	19921, 21326		
\SixFlowerOpenCenter	19907, 21319		
\SixFlowerPetalRemoved	19904, 21318		
\sixinferior	20791		

<code>\SixStar</code>	19894, 21313	<code>\SquareCastShadowBottomRight</code>	19950, 21338	<code>\subset</code>	19024, 21037
<code>\sixsuperior</code>	20775	<code>\SquareCastShadowTopRight</code>	19953, 21339	<code>\subseteq</code>	19032, 21041
<code>\SixteenStarLight</code> .	19902, 21317	<code>\Squaredot</code>	16138, 21537	<code>\subseteqq</code>	20251, 21466
<code>\sixteenthnote</code>	19727, 21241	<code>\squaredots</code>	18832, 20951	<code>\subsetneq</code>	19040, 21045
<code>\SK@</code>	9277	<code>\SquareShadowBottomRight</code>	19944, 21336	<code>\subsubsectionautorefname</code>	3337, 3355, 3373, 3391, 3409, 3427, 3445, 3478, 3503, 3521, 9305
<code>\SK@@ref</code>	9277	<code>\SquareShadowTopRight</code> .	19947	<code>\succ</code>	19006, 21028
<code>\SK@ref</code>	9274	<code>\SquareTopRight</code>	21337	<code>\succapprox</code>	20243, 21462
<code>\skip@</code>	1975, 2058, 2059, 2062, 2064, 2695, 2701, 2714, 2720	<code>\SS</code>	15845, 20377	<code>\succcurlyeq</code>	19010, 21030
<code>\slashc</code>	16770, 20678	<code>\ss</code>	3382, 15774, 15860, 16221	<code>\succeq</code>	20219, 21450
<code>\slashdiv</code>	20300, 21486	<code>\slash</code>	20291, 21482	<code>\succeqq</code>	20231, 21456
<code>\slide</code>	8428	<code>\st@rredfalse</code>	7530, 7539	<code>\succnapprox</code>	20249, 21465
<code>\slide@ccline</code>	9002, 9015, 9023, 9033, 9041	<code>\star</code>	19173, 21096	<code>\succneq</code>	20225, 21453
<code>\Slide@contents</code>	9007	<code>\stepcounter</code> . . . . .	. . . . .	<code>\succneqq</code> . . . . .	20237, 21459
<code>\slide@contents</code>	9000	. . . . .	7177, 7412, 7481, 7643, 7843, 7975, 10695, 15019	<code>\succnsim</code>	19257, 21133
<code>\slide@heading</code>	8878	<code>\stockheight</code>	4425, 10088, 10089, 11032, 11033, 11171, 11172, 12484, 12485	<code>\succsim</code>	19016, 21033
<code>\slide@subheading</code>	8931	<code>\stockwidth</code>	10085, 10086, 11031, 11033, 11174, 11175, 12483, 12485	<code>\sukun</code>	20629
<code>\slide@undottedccline</code>	8993	<code>\stop@hyper</code>	6573	<code>\sum</code>	18747, 20917
<code>\slidenumberline</code>	8994, 9002, 9016, 9024, 9034, 9042	<code>\StringEncodingConvertTest</code>	808, 818	<code>\Sun</code>	19625, 21783
<code>\SliTeX</code>	584	<code>\strip@period</code>	2614	<code>\sun</code>	19623, 21216
<code>\slshape</code>	613	<code>\strip@prefix</code>	62, 2607, 4334, 6711, 7330, 7627, 15246, 15254, 15269	<code>\SunCload</code>	21263
<code>\small</code>	625	<code>\strip@pt</code>	527, 534, 4437, 6237, 6250, 10060, 10064, 10069, 10073, 11515, 12497, 12564, 12658, 12943, 14741, 14806, 14835, 14875, 14926	<code>\SunCloud</code>	19784
<code>\smallin</code>	18733, 20911	<code>\strip@pt@and@otherjunk</code>	11723, 11755, 11790	<code>\SunshineOpenCircled</code>	19919, 21325
<code>\smallowns</code>	18741, 20914	<code>\strutbox</code>	7917	<code>\Supset</code>	19203, 21109
<code>\smash</code>	2673	<code>\sub@label</code>	2601	<code>\supset</code>	19026, 21038
<code>\smile</code>	19304, 21153	<code>\subeqnarray</code>	7603, 7605	<code>\supseteq</code>	19034, 21042
<code>\Smiley</code>	19620, 21782	<code>\subequations</code>	7641, 7642	<code>\supseteqq</code>	20255, 21468
<code>\smiley</code>	19618, 21214	<code>\subfig@oldlabel</code>	2603	<code>\supsetneq</code>	19042, 21046
<code>\Snowflake</code>	19925, 21328	<code>\Submit</code>	6424	<code>\surd</code>	9024, 20925
<code>\SnowflakeChevron</code>	19923, 21327	<code>\SubmitObject</code>	14097	<code>\Swarrow</code>	18680, 20887
<code>\SnowflakeChevronBold</code>	19927, 21329	<code>\SubmitPObject</code>	14097	<code>\swarrow</code>	18556, 20837
<code>\sofpasug</code>	17827	<code>\subparagraphautorefname</code>	3339, 3357, 3375, 3393, 3411, 3429, 3447, 3480, 3482, 3505, 3523, 9307		
<code>\softsign</code>	17470, 21644	<code>\subpdfbookmark</code>	15086		
<code>\spacefactor</code>	2652, 2658, 7842, 7851, 8001, 8003, 9602, 9610	<code>\subsection</code>	12773		
<code>\spadesuit</code>	19699, 19701, 21811	<code>\subsectionautorefname</code>	3336, 3354, 3372, 3390, 3408, 3426, 3444, 3477, 3502, 3520, 9304		
<code>\Sparkle</code>	19929, 21330	<code>\Subset</code>	19199, 21107		
<code>\SparkleBold</code>	19931, 21331				
<code>\special@paper</code>	4421				
<code>\SpecialDvipdfmxOutlineOpen</code>	3131, 3133, 4834, 4841				
<code>\sphericalangle</code>	18778, 20930				
<code>\splitmaxdepth</code>	7917				
<code>\splittopskip</code>	7916				
<code>\sqcap</code>	19064, 21057				
<code>\sqcup</code>	19066, 21058				
<code>\sqdoublecap</code>	20151, 21420				
<code>\sqdoublecup</code>	20156, 21422				
<code>\sqsubset</code>	19048, 21049				
<code>\sqsubseteq</code>	19056, 21053				
<code>\sqsubsetneq</code>	19245, 21128				
<code>\sqsupset</code>	19052, 21051				
<code>\sqsupseteq</code>	19060, 21055				
<code>\sqsupsetneq</code>	19248, 21129				

T

<code>\T</code>	20557
<code>\t</code>	15515, 15926, 15953, 15980, 15998
<code>\T@nameref</code>	4999
<code>\T@pageref</code>	4969, 4986, 9162
<code>\T@ref</code>	4964, 4983
<code>\T@temp</code>	8228, 8231
<code>\Ta</code>	20585
<code>\taa</code>	20559
<code>\tableautorefname</code>	3331, 3349, 3367, 3385, 3403, 3421, 3439, 3469, 3497, 3515, 9299
<code>\tagform@</code>	8610
<code>\taild</code>	16800, 21576
<code>\tailinvr</code>	16931, 21611
<code>\tail</code>	16880, 21596
<code>\tailn</code>	16903, 21605
<code>\tailr</code>	16937, 21613
<code>\tails</code>	16953, 21616
<code>\tailt</code>	16971, 21619
<code>\tailz</code>	16999, 21628

<code>\Tape</code>	19808, 21272	<code>\textasciicircum</code> . .	15480, 15492, 15504, 15566, 15933, 15960, 16067	<code>\textbbslash</code>	19359, 19360, 21173, 21756
<code>\tatweel</code>	20593	<code>\textasciidieresis</code> .	15482, 15494, 15506, 15663, 15935, 15962, 16105	<code>\textBeam</code>	19343, 21168
<code>\tau</code>	17264, 20740	<code>\textasciigrave</code> . . .	15478, 15490, 15502, 15571, 15931, 15958, 16072	<code>\textbecause</code>	18828, 18829, 20949, 21696
<code>\Taurus</code>	19668, 21800	<code>\textasciimacron</code> .	15487, 15499, 15511, 15676, 15942, 15969, 16118	<code>\textbeltl</code> . .	16874, 16875, 16876, 21595
<code>\taurus</code>	19666, 21228	<code>\textasciitilde</code>	567, 5045, 15581, 16084	<code>\textBeta</code>	1246, 17164
<code>\tcheh</code>	20633	<code>\textast</code>	18762, 20923	<code>\textbeta</code> . . .	1246, 15860, 17229, 20723
<code>\Telefon</code>	19578, 21768	<code>\textAsterisk</code>	19910, 21320	<code>\textbetainferior</code> . .	17922, 20752
<code>\temp@online</code>	8519, 8522	<code>\textAsteriskBold</code> .	19887, 21309	<code>\textbeth</code>	18485, 20823
<code>\Tent</code>	19792, 21267	<code>\textAsteriskCentered</code>	16027	<code>\textbetween</code>	18976, 21014
<code>\tesh</code>	17071, 21641	<code>\textAsteriskCenterOpen</code> .	19889, 21310	<code>\textbf</code>	599
<code>\TeX</code> .	574, 575, 582, 584, 13088, 13090, 13092	<code>\textAsteriskRoundedEnds</code>	19934, 21332	<code>\textBicycle</code>	20372, 21507
<code>\texorpdfstring</code>	1009, 6606	<code>\textasymp</code>	18883, 20973	<code>\textbigcircle</code>	15955, 15982, 19567, 19568, 21196, 21767
<code>\textAcht</code>	20352, 21498	<code>\textbabygamma</code> . .	16849, 20690	<code>\textbigdoublevee</code> .	20131, 21411
<code>\textAcPa</code>	20338, 21492	<code>\textbackcong</code>	18879, 20971	<code>\textbigdoublewedge</code>	20129, 21410
<code>\textacute</code> .	15479, 15491, 15503, 15686, 15932, 15959, 16128	<code>\textbackepsilon</code>	17306	<code>\textbigtriangledown</code>	19543, 19544, 21186, 21765
<code>\textacutedbl</code>	17119	<code>\textbackneg</code>	19285, 21144	<code>\textbigtriangleup</code>	19528, 19529, 19530, 21181, 21762, 21763
<code>\textacutemacron</code>	15929, 15956, 15983, 17999, 18002, 18103, 18106	<code>\textbackprime</code> . . .	18307, 20767	<code>\textBiohazard</code>	19607, 21210
<code>\textainferior</code>	18389, 20800	<code>\textbacksim</code>	18843, 20955	<code>\textblacksmyiley</code> . .	19622, 21215
<code>\textaleph</code>	18483, 20822	<code>\textbackslash</code> . .	562, 742, 2464, 15562, 15564, 16065	<code>\textblank</code>	19355
<code>\textAlpha</code> .	1245, 17145, 17162	<code>\textbaht</code>	17890	<code>\textbot</code> . .	19116, 19117, 21076, 21727
<code>\textalpha</code> . .	1245, 17216, 17227, 20722	<code>\textbar</code> . .	15577, 16079, 16080, 21529	<code>\textbowtie</code>	19178, 19179, 21098, 21744
<code>\textamalg</code>	18746, 20916	<code>\textbarb</code>	16569, 21550	<code>\textboxast</code>	20115, 21403
<code>\textampersand</code>	566, 15550, 16017, 16018, 16019, 21526, 21527	<code>\textbarc</code>	16774, 21567	<code>\textboxbackslash</code> .	19325, 21161
<code>\textangle</code>	18775, 20928	<code>\textbard</code>	16333, 21542	<code>\textboxbar</code>	19565, 21195
<code>\textangstrom</code>	18475	<code>\textbardbl</code>	18268, 18269, 21654	<code>\textboxbox</code>	20119, 21405
<code>\textAnkh</code>	19609, 21211	<code>\textbardotlessj</code> . .	16831, 16832, 16833, 21583	<code>\textboxbslash</code>	20113, 21402
<code>\textaoilig</code> .	20320, 20322, 21857	<code>\textbarglotstop</code> . .	17053, 17054	<code>\textboxcircle</code>	20117, 21404
<code>\textAPLbox</code>	19347, 21170	<code>\textbari</code> . .	16862, 16863, 16864, 20691, 21592	<code>\textboxdot</code>	19100, 21070
<code>\textAPLdownarrowbox</code> .	19336, 21165	<code>\textbarin</code>	19281, 21142	<code>\textboxempty</code> . .	19580, 19581, 21201, 21769
<code>\textAPLinput</code> . . .	19339, 21166	<code>\textbarl</code> . .	16592, 16593, 20676	<code>\textboxminus</code>	19096, 21068
<code>\textAPLinv</code>	19313, 21157	<code>\textbarleftharpoon</code>	20069, 21386	<code>\textboxplus</code>	19094, 21067
<code>\textAPLleftarrowbox</code> . .	19328, 21162	<code>\textbaro</code>	16908, 16910	<code>\textboxslash</code>	20111, 21401
<code>\textAPLrightarrowbox</code> . .	19331, 21163	<code>\textbarp</code>	17935, 20758	<code>\textboxtimes</code>	19098, 21069
<code>\textAPLuparrowbox</code> . . .	19333, 21164	<code>\textbarrevglotstop</code>	17057, 17058	<code>\textbraceleft</code>	560, 2465, 15575, 16077
<code>\textapprox</code>	18865, 20965	<code>\textbarriightharpoon</code>	20075, 21388	<code>\textbraceright</code>	561, 2465, 15579, 16082
<code>\textapproxeq</code>	18870, 20967	<code>\textbarsci</code>	17933, 20757	<code>\textbrokenbar</code> . .	15659, 16098, 16099, 21532
<code>\textaquarius</code>	19694, 19695, 21237, 21809	<code>\textbarscu</code>	17938, 20759	<code>\textbullet</code> .	15583, 18290, 20762
<code>\textaries</code> . .	19664, 19665, 21227, 21799	<code>\textbaru</code> . .	16973, 16974, 16975, 20700, 21620	<code>\textbulletoperator</code>	18766
<code>\textasciiacute</code>	16129	<code>\textbarwedge</code>	19172, 21095	<code>\textbullseye</code>	17028, 17029, 17030, 17031, 21636, 21637
<code>\textasciibreve</code> . . .	15526, 15940, 15967, 17108			<code>\textBumpeq</code>	18888, 20975
<code>\textasciicaron</code> . . .	15484, 15496, 15508, 15528, 15937, 15964, 17094			<code>\textbumpeq</code>	18892, 20977

<code>\textcancer</code>	19673, 19674, 21230, 21802	<code>\textcircledast</code>	19088, 19089, 19090, 21065, 21721, 21722	<code>\textCrossedbox</code>	19586, 19587, 19588, 21203, 21771, 21772
<code>\textCap</code>	19208, 19209, 21111, 21747	<code>\textcircledcirc</code>	19084, 19085, 19086, 21064, 21719, 21720	<code>\textCrossMaltese</code>	19856, 21294
<code>\textcap</code>	18804, 20939	<code>\textcircleddash</code>	19092, 21066	<code>\textCrossOpenShadow</code>	19852, 21292
<code>\textcapdot</code>	20155, 21421	<code>\textcircledP</code>	18455	<code>\textCrossOutline</code>	19854, 21293
<code>\textcapricornus</code>	19691, 19692, 21236, 21808	<code>\textCircleShadow</code>	19942, 21335	<code>\textcrtwo</code>	16616, 16617
<code>\textccnc</code>	20381, 21510	<code>\textcircirplus</code>	20138, 21414	<code>\textctc</code>	16795, 16796, 16797, 21575
<code>\textccnd</code>	20383	<code>\textcircircumflex</code>	15530	<code>\textctd</code>	16738, 16739
<code>\textccsa</code>	20385, 21511	<code>\textcircircumlow</code>	15948, 15975, 20326	<code>\textctesh</code>	16962, 16963, 16964, 21617
<code>\textcdj</code>	17042	<code>\textCleaningF</code>	19417, 21175	<code>\textctj</code>	17043, 17044, 21638
<code>\textcdot</code>	15859, 20403, 21518	<code>\textCleaningFF</code>	19419, 21176	<code>\textctjvar</code>	17044, 21638
<code>\textcdots</code>	19275, 21139	<code>\textCleaningP</code>	19441, 21177	<code>\textctn</code>	16758, 16759
<code>\textcedilla</code>	15486, 15498, 15510, 15694, 15939, 15966, 16140	<code>\textCleaningPP</code>	19443, 21178	<code>\textctt</code>	16760, 16761
<code>\textcelsius</code>	15846, 18445	<code>\textclock</code>	19291, 19292, 19293, 21147, 21753, 21754	<code>\textctyogh</code>	17007, 17008, 17009, 21630
<code>\textcent</code>	15651, 16088	<code>\textcloseepsilon</code>	17035, 17036	<code>\textctz</code>	17000, 17001, 17002, 21629
<code>\textcentoldstyle</code>	16772, 21566	<code>\textcloseomega</code>	16914, 16915, 16916, 16917, 21606, 21607	<code>\textCup</code>	19211, 19212, 21112, 21748
<code>\textCESign</code>	20389, 20390, 21513, 21862	<code>\textcloserevepsilon</code>	16827, 16828, 16829, 21582	<code>\textcup</code>	18806, 20940
<code>\textCheckedbox</code>	19583, 19584, 21202, 21770	<code>\textCloud</code>	19571, 21197	<code>\textcupdot</code>	19045, 21047
<code>\textCheckmark</code>	19831, 19832, 21282, 21828	<code>\textClowerTips</code>	19867, 21299	<code>\textcupplus</code>	19047, 21048
<code>\textCheckmarkBold</code>	19834, 21283	<code>\textclubsuitblack</code>	2586, 19710, 19711, 21815	<code>\textcurlyeqprec</code>	19230, 21120
<code>\textChi</code>	1295, 17204	<code>\textclubsuitwhite</code>	19719	<code>\textcurlyeqsucc</code>	19234, 21122
<code>\textchi</code>	1295, 17271, 20743	<code>\textCoffeecup</code>	19590, 21204	<code>\textcurlyvee</code>	19194, 19195, 21105, 21745
<code>\textchiinferior</code>	17930, 20756	<code>\textcoloncolonequals</code>	20175, 21429	<code>\textcurlywedge</code>	19197, 19198, 21106, 21746
<code>\textcirc</code>	18764, 20924	<code>\textcolonequals</code>	18916, 20987	<code>\textcurrency</code>	15655, 16094
<code>\textcircirseq</code>	18924, 20991	<code>\textcolonmonetary</code>	18415	<code>\textcurvearrowleft</code>	18599, 20856
<code>\textcircirclearrowleft</code>	19981, 21351	<code>\textcolor</code>	637, 13835, 13882, 13885, 14215	<code>\textcurvearrowright</code>	18601, 20857
<code>\textcircirclearrowright</code>	19983, 21352	<code>\textcommatailz</code>	16740, 16741	<code>\textCuttingLine</code>	19519, 19520, 19521, 19522, 21179, 21758, 21759, 21760
<code>\textcircircled</code>	15928, 15955, 15982, 19362, 19364, 19366, 19368, 19370, 19372, 19374, 19376, 19378, 19380, 19382, 19384, 19386, 19388, 19390, 19392, 19394, 19396, 19398, 19400, 19402, 19407, 19409, 19411, 19413, 19415, 19421, 19423, 19425, 19427, 19429, 19431, 19433, 19435, 19437, 19439, 19445, 19447, 19449, 19451, 19453, 19455, 19457, 19459, 19461, 19463, 19465, 19467, 19469, 19471, 19473, 19475, 19477, 19479, 19481, 19483, 19485, 19487, 19489, 19491, 19493, 19495, 19497, 19499, 19501, 19503, 19505, 19507, 19509, 19511, 19513, 19515, 19517	<code>\textcomplement</code>	18715, 20902	<code>\textdagger</code>	15585, 18283, 18284, 20761, 21655
<code>\textCircledA</code>	19404, 19405, 21174, 21757	<code>\textcompwordmark</code>	18262	<code>\textdaggerdbl</code>	15587, 18286, 18287, 18288, 21656, 21657
		<code>\textcong</code>	18860, 20963	<code>\textdaleth</code>	18489, 20825
		<code>\textcopyleft</code>	20378, 20379	<code>\textdanger</code>	19761, 21256
		<code>\textcopyright</code>	15665, 16107, 20666	<code>\textdasheddownarrow</code>	18700, 20895
		<code>\textcorner</code>	17128, 17129	<code>\textdasheduparrow</code>	18695, 20893
		<code>\textCR</code>	15524, 16005	<code>\textdashleftarrow</code>	18692, 18693, 20892, 21682
		<code>\textcrlb</code>	16565, 16566, 16567, 16569, 16570, 21549, 21550, 21551	<code>\textdashrightarrow</code>	18697, 18698, 20894, 21683
		<code>\textcrd</code>	16328, 16330, 16331, 16333, 16334, 21541, 21542, 21543	<code>\textDashV</code>	20273, 20274, 21474, 21851
		<code>\textcrg</code>	16658, 21563	<code>\textDashv</code>	20266, 20267, 21472, 21849
		<code>\textcrh</code>	16379, 21544	<code>\textdashV</code>	20260, 20261, 21470, 21847
		<code>\textcrinvglotstop</code>	16619, 16620		
		<code>\textcrlambda</code>	16596, 16597, 16598, 16599, 16600, 16601, 21555, 21556, 21557, 21558		
		<code>\textCross</code>	19850, 21291		

`\textdashv` . 19105, 19106, 21072, 21724
`\textDavidStar` .. 19858, 19859, 21295, 21829
`\textdbligr` . 16764, 16766, 21564
`\textdctzlig` 17065, 17066
`\textddagger` 15588
`\textddots` 19279, 21141
`\textdegree` 15678, 15846, 16120
`\textDeleatur` . . . 18438, 18439, 20813, 21668
`\textDelta` . . 1248, 17168, 20712
`\textdelta` . . 1248, 17233, 20725
`\textDiamondSolid` 19956, 21340
`\textdiameter` 19283, 21143
`\textdiamond` 19553, 19554, 21190, 21766
`\textdiamonddots` . 18329, 20770
`\textdiamondsuitblack` . . . 2587, 19717
`\textdiamondsuitwhite` . . 19707, 19708, 21814
`\textDigammagreek` 17292
`\textdigammagreek` 17294, 17295, 21642
`\textdiscount` 18323
`\textdiv` . . . 15857, 20401, 21516
`\textdivide` 15826, 15857, 16274, 20401
`\textdivideontimes` 19176, 21097
`\textDivides` 18756, 20920
`\textDividesNot` . . . 18758, 20921
`\textdivorced` 19775
`\textdlsh` 18596, 20855
`\textdollar` . . . 564, 15546, 16011, 16012, 16013, 21524, 21525
`\textdong` 18425
`\textdotaccent` . . . 15485, 15497, 15509, 15532, 15938, 15965, 17110
`\textdotbelow` . . . 15489, 15501, 15513, 15556, 15952, 15979, 17135
`\textdotdiv` 18836, 21697
`\textdoteq` 18896, 20979
`\textdoteqdot` . . . 18901, 18902, 20981, 21703
`\textdotminus` . . . 18835, 18836, 20952, 21697
`\textdotplus` 18754, 20919
`\textdottimes` 20143, 21416
`\textdoublebarpipe` 16632, 16633, 16634, 21562
`\textdoublebarpipevar` . . . 16634, 21562
`\textdoublebarwedge` 20166, 21425
`\textdoublegrave` . 15941, 15968, 17131
`\textdoublepipe` . . 16628, 16629, 16630, 21561
`\textdoublepipevar` 16630, 21561
`\textdoublevee` . . . 20162, 20163, 21424, 21846
`\textdoublevertline` 18269, 21654
`\textdoublewedge` . 20160, 21423
`\textDOWNarrow` 19539, 19540, 21185, 21764
`\textDownarrow` . . 18667, 20881
`\textdownarrow` . . 18541, 18542, 18543, 20831, 21676, 21677
`\textdownarrownarrow` . . . 18642, 20872
`\textdownarrowharpoons` . 20063, 21384
`\textdownarrowharpoonleft` . . . 18625, 20865
`\textdownarrowharpoonright` . . 18622, 20864
`\textdownmodels` . . 20279, 21476
`\textdownstep` 20309, 20310
`\textdownuparrows` 18705, 20897
`\textdownupharpoons` . . . 20081, 21390
`\textdsbiological` . . 19755, 21253
`\textdschemical` . . . 19753, 21252
`\textdscommercial` . 19757, 21254
`\textdsjuridical` . . . 19751, 21251
`\textdsmedical` 19749, 21250
`\textdsmilitary` . . 19746, 19747, 21249, 21819
`\textdtimes` 20146, 21417
`\textdyoghlig` 17062, 17063
`\textdzlig` . 17059, 17060, 17061, 21640
`\textearth` . 19641, 19642, 21220, 21790
`\textEightAsterisk` . 19940, 21334
`\textEightFlowerPetal` . . . 19918, 21324
`\textEightFlowerPetalRemoved` 19937, 21333
`\texteightinferior` . . 18375, 20793
`\textEightStar` 19897, 21314
`\textEightStarBold` 19899, 21315
`\textEightStarConvex` . . . 19893, 21312
`\textEightStarTaper` 19891, 21311
`\texteightsuperior` . 18343, 20777
`\texteinferior` 18391, 20801
`\textell` 18451, 20816
`\textellipsis` . . . 570, 571, 15590, 18294, 18295, 21658
`\textemdash` . 776, 15592, 18266
`\textemptyset` . . . 18723, 18724, 20906, 21684
`\textendash` . . 777, 15594, 18264
`\textEnvelope` . . . 19813, 19814, 21274, 21826
`\textEpsilon` 1249, 17147, 17170
`\textepsilon` 578, 581, 1249, 17218, 17235, 20726
`\texteqcirc` 18920, 20989
`\texteqcolon` 18838, 20953
`\texteqdot` 20171, 21427
`\texteqsim` 18852, 20959
`\texteqslantgtr` . . . 20210, 21445
`\texteqslantless` . . . 20208, 21444
`\textequalscolon` . . 18918, 20988
`\textequalsinferior` . 18383, 20797
`\textequalsuperior` . 18351, 20781
`\textequiv` . 18940, 18941, 20998, 21707
`\textEreversed` 16578
`\textesh` . . . 16954, 16955, 20699
`\textestimated` . . . 18477, 18478, 18479, 21670, 21671
`\textEta` . . . 1252, 17149, 17174
`\texteta` 1252, 17220, 17239, 20728
`\texteuro` . . 15647, 18427, 18428, 18429, 18430, 18431, 18432, 18433, 18434, 18435, 18436, 21659, 21660, 21661, 21662, 21663, 21664, 21665, 21666, 21667
`\textexclamdown` 780, 1156, 15649, 16086
`\textexists` 18719, 20904
`\textfallingdoteq` . . 18907, 20983
`\textfatsemi` 20136, 21413
`\textFax` . . 20367, 20368, 21505, 21861
`\textfax` 18491, 20826
`\textfemale` 19635, 21785
`\textFemaleFemale` 19763, 21257
`\textFemaleMale` . . 19767, 21259
`\textfi` 778, 15622, 20328
`\TextField` 6409
`\textFinv` 18481, 20821
`\textFire` 20370, 21506
`\textfishhookr` . . . 16939, 16940, 16941, 16942, 21614, 21615
`\textfivedots` 20305, 21487
`\textfiveighths` 18525
`\textFiveFlowerOpen` . . . 19916, 21323
`\textFiveFlowerPetal` 19914, 21322
`\textfiveinferior` . . . 18369, 20790
`\textfivesixths` 18519

<code>\textFiveStar</code>	19573, 21198	<code>\textgg</code>	18972, 21012	<code>\texhexstar</code>	19780, 21262
<code>\textFiveStarCenterOpen</code>	19875, 21303	<code>\textggg</code>	19222, 21117	<code>\texthinferior</code>	18399, 20805
<code>\textFiveStarConvex</code>	19883, 21307	<code>\textgimel</code>	18487, 20824	<code>\texthookleftarrow</code> .	18582, 20849
<code>\textFiveStarOpen</code>	19575, 21199	<code>\textglobfall</code>	18555, 21679	<code>\texthookrightarrow</code>	18584, 20850
<code>\textFiveStarOpenCircled</code>	19873, 21302	<code>\textglobrise</code>	18552, 21678	<code>\textHslash</code>	16376
<code>\textFiveStarOpenDotted</code>	19877, 21304	<code>\textglotstop</code>	17011, 17012, 17013, 17014, 20708, 21631, 21632	<code>\textHslash</code>	18447, 20814
<code>\textFiveStarOutline</code>	19879, 21305	<code>\textglq</code>	661, 15849, 20393	<code>\textHT</code>	15520, 16001
<code>\textFiveStarOutlineHeavy</code>	19881, 21306	<code>\textglqq</code>	659, 15847, 20391	<code>\texthtb</code> . .	16787, 16788, 16789, 16790, 21572, 21573
<code>\textFiveStarShadow</code>	19885, 21308	<code>\textgnapprox</code>	20200, 21441	<code>\texthtbardotlessj</code> .	16957, 16958
<code>\textfivesuperior</code> . .	18337, 20774	<code>\textgneq</code>	20196, 21439	<code>\texthtc</code>	16573, 16574
<code>\textfl</code>	779, 15624, 20330	<code>\textgneqq</code>	18966, 21009	<code>\texthtd</code> . .	16801, 16802, 16803, 16804, 21577, 21578
<code>\textFlag</code> . .	19741, 19742, 21247, 21818	<code>\textgnsim</code>	19254, 21131	<code>\texthtg</code> . . .	16834, 16835, 16836, 21584
<code>\textflat</code>	19730, 21242	<code>\textgravemacron</code>	15930, 15957, 15984, 17993, 17996, 18097, 18100	<code>\texthth</code> . .	16854, 16855, 16856, 16857, 21589, 21590
<code>\textflorin</code> .	15596, 16581, 16582, 21552	<code>\textgreater</code>	15560, 16061	<code>\texttheng</code>	16858, 16859, 16860, 21591
<code>\textflq</code>	665, 15853, 20397	<code>\textgrq</code>	662, 15850, 20394	<code>\texthtk</code> . . .	16588, 16589, 16590, 21554
<code>\textflqq</code>	663, 15851, 20395	<code>\textgrqq</code>	660, 15848, 20392	<code>\texthtp</code>	16606, 16607
<code>\textforall</code>	18713, 20901	<code>\textGslash</code>	16655	<code>\texthtq</code>	17050, 17051
<code>\textForward</code>	19532, 21182	<code>\textgslash</code>	16657, 16658, 21563	<code>\texthttrtaild</code>	17942, 17943, 20760
<code>\textForwardToIndex</code>	19350, 21171	<code>\textgtrapprox</code>	20189, 21436	<code>\texthtscg</code>	17038, 17039
<code>\textFourAsterisk</code> .	19861, 21296	<code>\textgtrdot</code>	19218, 21115	<code>\texthtt</code>	16611, 16612
<code>\textfourfifths</code>	18515	<code>\textgtreqless</code>	19228, 21119	<code>\texthungarumlaut</code>	15534, 15943, 15970, 17118
<code>\textfourinferior</code> . .	18367, 20789	<code>\textgtreqless</code> . . .	20206, 21443	<code>\texthvlig</code> .	16583, 16584, 16585, 21553
<code>\textFourStar</code>	19869, 21300	<code>\textgtrless</code>	18999, 21024	<code>\textiiint</code>	18813, 20943
<code>\textFourStarOpen</code>	19871, 21301	<code>\textgtrsimeq</code>	18990, 18991, 21020, 21713	<code>\textiinferior</code>	17914, 20748
<code>\textfoursuperior</code> . .	18335, 20773	<code>\textguarani</code>	18443	<code>\textiint</code>	18811, 20942
<code>\textfourth</code>	18327, 20769	<code>\texhalflength</code> . . .	17105, 17106	<code>\textIm</code>	18449, 20815
<code>\textfractionsolidus</code>	15598, 18317	<code>\texhalfnote</code>	20347, 20348, 21496, 21859	<code>\textin</code>	18730, 20909
<code>\textfrown</code>	19303, 21152	<code>\textHandCuffLeft</code> .	19592, 21205	<code>\textInfo</code>	20387, 21512
<code>\textfrownie</code>	19616, 19617, 21213, 21781	<code>\textHandCuffRight</code>	19594, 21206	<code>\textinfo</code>	18773, 20927
<code>\textfrq</code>	666, 15854, 20398	<code>\textHandLeft</code> . . .	19596, 19597, 21207, 21773	<code>\textint</code> . . .	18808, 18809, 20941, 21694
<code>\textfrqq</code>	664, 15852, 20396	<code>\textHandRight</code> . .	19599, 19600, 19601, 19602, 21208, 21774, 21775, 21776	<code>\textinterleave</code>	20290, 21481
<code>\textfullnote</code>	20344, 20345, 21495, 21858	<code>\textHaPa</code>	20334, 21490	<code>\textinterrobang</code>	18315
<code>\textGame</code>	18493, 20827	<code>\texhateq</code>	18928, 18929, 18930, 20993, 21704, 21705	<code>\textinterrobangdown</code> . . .	20302, 20303
<code>\textGamma</code>	1247, 17166, 20711	<code>\texthausaB</code>	16572, 20673	<code>\textinvamp</code>	18495, 18496, 18497, 21672, 21673
<code>\textgamma</code> .	1247, 17231, 20724	<code>\texthausaD</code>	16576, 20674	<code>\textinvbackneg</code> . . .	19289, 21146
<code>\textgammainferior</code>	17924, 20753	<code>\texthausaK</code>	16587, 20675	<code>\textinvbreve</code>	15905, 15945, 15972, 16701, 16703, 16710, 16712, 16713, 16719, 16721, 16731, 16733
<code>\textGaPa</code>	20332, 21489	<code>\texthbar</code> . .	16378, 16379, 16380, 16381, 20672, 21544, 21545, 21546	<code>\textinvdiameter</code> . .	20089, 21394
<code>\textge</code>	18953, 21003	<code>\texthdotfor</code>	18292, 20763	<code>\textinvneq</code>	16653, 20677
<code>\textgemini</code>	19670, 19671, 21229, 21801	<code>\textheartsuitblack</code> .	2588, 19715	<code>\textinvglotstop</code> .	17021, 17022, 20710
<code>\textGentsroom</code> . . .	20374, 21508	<code>\textheartsuitwhite</code>	19703, 19704, 19705, 21812, 21813	<code>\textinvneg</code>	20150, 21419
<code>\textgeq</code> . .	18952, 18954, 21002, 21711	<code>\texheng</code> .	20311, 20313, 21854	<code>\textinvscr</code>	16949, 16950, 20698
<code>\textgeqq</code>	18960, 21006	<code>\textHermaphrodite</code>	19769, 21260		
<code>\textgeqslant</code>	20181, 21432	<code>\texhexagon</code>	19345, 21169		

<code>\textIota</code> . . . 1267, 17151, 17178, 17212	<code>\textleftrightharpoon</code> 20043, 21377	<code>\textlongleftarrow</code> . . 19989, 21355
<code>\textiota</code> . . . 1267, 17222, 17243, 17277, 20730	<code>\textleftrightharpoons</code> . . . 18645, 20873	<code>\textlongleg</code> 16932, 16933, 16934, 20696, 21612
<code>\textIotadieresis</code> . . 17160, 17211	<code>\textleftslice</code> 20212, 21446	<code>\textLongmapsfrom</code> 19999, 21360
<code>\textipagamma</code> . . 16845, 16846, 20689, 21586	<code>\textleftspoon</code> 19972, 21348	<code>\textLongmapsto</code> . . 20001, 21361
<code>\textisuperior</code> 18333, 20772	<code>\textleftsquigarrow</code> 18687, 20890	<code>\textlongmapsto</code> . . 19997, 21359
<code>\textit</code> 601	<code>\textlefttherefore</code> . . 18325, 20768	<code>\textLongrightarrow</code> 19993, 21357
<code>\textJackStar</code> 19863, 21297	<code>\textleftthreetimes</code> . 19186, 21101	<code>\textlongrightarrow</code> 19987, 21354
<code>\textJackStarBold</code> . 19865, 21298	<code>\textlengthmark</code> . . 17102, 17103	<code>\textlongs</code> 16564, 18224
<code>\textjinferior</code> 20299, 21485	<code>\textleo</code> . . . 19676, 19677, 21231, 21803	<code>\textlooparrowleft</code> . 18586, 20851
<code>\textJoin</code> 20134, 21412	<code>\textleq</code> . . . 18947, 18949, 21000, 21710	<code>\textlooparrowright</code> 18588, 20852
<code>\textjupiter</code> 19649, 19650, 21222, 21794	<code>\textleqq</code> 18956, 21004	<code>\textlozenge</code> 19556, 21191
<code>\textKappa</code> 1268, 17180	<code>\textleqslant</code> 20177, 21430	<code>\textlptr</code> 17088, 17089
<code>\textkappa</code> . 1268, 17245, 20731	<code>\textless</code> 15558, 16059	<code>\textlquill</code> 18319
<code>\textKeyboard</code> 19307, 21154	<code>\textlessapprox</code> . . . 20185, 21434	<code>\textlrcorner</code> 19301, 21151
<code>\textkinferior</code> 18401, 20806	<code>\textlessdot</code> 19216, 21114	<code>\textltailm</code> . 16892, 16893, 16894, 16895, 21601, 21602
<code>\textKoppagreek</code> . . . 1275, 17297	<code>\textlesseqgtr</code> 19225, 21118	<code>\textltailn</code> . 16896, 16897, 16898, 16899, 21603, 21604
<code>\textkoppagreek</code> . . . 1275, 17299	<code>\textlesseqqtr</code> 20203, 21442	<code>\texttilde</code> . 16871, 16872, 16873, 21594
<code>\textkra</code> 16420	<code>\textlessgtr</code> 18997, 21023	<code>\textltimes</code> 19181, 21099
<code>\textLadiesroom</code> . . 20376, 21509	<code>\textlesssim</code> 18987, 18988, 21019, 21712	<code>\textlyoghlig</code> 16881, 16882, 16883, 21597
<code>\textLambda</code> 1269, 17182, 20714	<code>\textLF</code> 15522, 16003	<code>\textmacronbelow</code> 15488, 15500, 15512, 15569, 15951, 15978, 17137
<code>\textlambda</code> 1269, 17247, 20732	<code>\textLHD</code> 19551, 21189	<code>\textmale</code> . 19644, 19645, 19646, 19647, 21221, 21791, 21792, 21793
<code>\textlangle</code> 19309, 21155	<code>\textlhd</code> 19150, 19151, 21087, 21738	<code>\textMaleMale</code> 19765, 21258
<code>\textlatin</code> 647, 7318	<code>\textlhookfour</code> . . . 20314, 20316, 21855	<code>\textManFace</code> 20362, 21503
<code>\textlbrackdbl</code> . . . 19974, 19975, 21349, 21830	<code>\textlhooknarrow</code> 20007, 21364	<code>\textmanstar</code> 19759, 21255
<code>\textlcurvearrowdown</code> . . . 20029, 20030, 20031, 21373, 21832, 21833	<code>\textlhooksearrow</code> . 20011, 21366	<code>\textmapsto</code> 18580, 20848
<code>\textlcurvearrowse</code> . 20021, 21370	<code>\textlhookt</code> 16609, 16610	<code>\textmarried</code> 19773
<code>\textlcurvearrowsw</code> 20024, 21371	<code>\textlhtlongi</code> 16944, 16945	<code>\textmd</code> 600
<code>\textle</code> 18948, 21001	<code>\textlhtlongy</code> 17076, 17077	<code>\textmeasuredangle</code> 18777, 20929
<code>\textleadsto</code> 20015, 21368	<code>\textlibra</code> . . 19682, 19683, 21233, 21805	<code>\textmercury</code> 19631, 19632, 21219, 21784
<code>\textLeftarrow</code> 18659, 20878	<code>\textlightning</code> . . . 18592, 18593, 20854, 21680	<code>\textmho</code> . . 18470, 18471, 20819, 21669
<code>\textleftarrow</code> 18533, 20828	<code>\textlinferior</code> 18403, 20807	<code>\textmid</code> 18784, 20931
<code>\textleftarrowtail</code> . . 18576, 20846	<code>\textlira</code> 18417	<code>\textMineSign</code> 19744, 21248
<code>\textleftarrowtriangle</code> . . . 18707, 20898	<code>\textll</code> 18968, 21010	<code>\textminferior</code> 18405, 20808
<code>\textleftbarharpoon</code> 20066, 21385	<code>\textllcorner</code> 19299, 21150	<code>\textminus</code> 15604, 18750
<code>\textLEFTCIRCLE</code> 19558, 21192	<code>\textLleftarrow</code> . . . 18683, 20888	<code>\textminusdot</code> 20140, 20141, 21415, 21843
<code>\textleftharpoondown</code> . . . 18607, 20859	<code>\textlll</code> 19220, 21116	<code>\textminusinferior</code> . 18381, 20796
<code>\textleftharpoonup</code> 18604, 20858	<code>\textllparentthesis</code> . 20085, 21392	<code>\textminussuperior</code> 18349, 20780
<code>\textleftleftarrows</code> . 18636, 20869	<code>\textlnapprox</code> 20198, 21440	<code>\textmoo</code> 20083, 21391
<code>\textleftleftharpoons</code> 20054, 21381	<code>\textlneq</code> 20193, 21438	<code>\textMoon</code> 20360, 21502
<code>\textleftmoon</code> 19627, 21217	<code>\textlneqq</code> 18964, 21008	<code>\textMountain</code> 19791, 21266
<code>\textLeftrightarrow</code> 18670, 20882	<code>\textlnot</code> 15672, 16114	<code>\texttmp</code> 18752, 20918
<code>\textleftrightharpoon</code> . 2591, 18545, 20832	<code>\textlnsim</code> 19252, 21130	<code>\textMu</code> 1270, 17184
<code>\textleftrightharpoons</code> 18634, 20868	<code>\textlogicalnot</code> . . . 15671, 15855, 16113, 20399	<code>\textmu</code> 1270, 15688, 16131
<code>\textleftrightharpoontriangle</code> 18711, 20900	<code>\textLongleftarrow</code> 19991, 21356	<code>\textmugreek</code> 17249, 20733
	<code>\textlongleftarrow</code> . 19985, 21353	
	<code>\textLongleftrightarrow</code> . . 19995, 21358	

<code>\textmultimap</code>	19168, 21093	<code>\textndownvdash</code> . .	19114, 21075	<code>\textnmid</code> .	18786, 18787, 20932, 21691
<code>\textmultimapboth</code>	20123, 21407	<code>\textne</code>	18937, 20997	<code>\textNoChemicalCleaning</code>	20103, 21398
<code>\textmultimapdotbothA</code> .	19164, 21091	<code>\textNarrow</code>	18677, 20885	<code>\textnormal</code>	595
<code>\textmultimapdotbothB</code> .	19166, 21092	<code>\textnarrow</code>	18551, 18552, 20835, 21678	<code>\textnotbackslash</code> .	19323, 21160
<code>\textmultiply</code>	15757, 15856, 16202, 16203, 16204, 20400, 21538, 21539	<code>\textneg</code> . .	15855, 20399, 21514	<code>\textnotin</code>	18732, 20910
<code>\textMundus</code>	20358, 21501	<code>\textneptune</code>	19658, 19659, 21225, 21797	<code>\textnotowner</code> . . .	18739, 18740, 20913, 21686
<code>\textmusicalnote</code> .	19722, 19723, 19724, 21816	<code>\textneq</code> . .	18936, 18938, 20996, 21706	<code>\textnotperp</code>	19966, 21345
<code>\textMVAt</code>	16063, 20665	<code>\textneqcirc</code>	18922, 20990	<code>\textnotslash</code>	19320, 21159
<code>\textMVComma</code> . .	16031, 20651	<code>\textneqdot</code>	20173, 21428	<code>\textnoway</code>	19789, 21265
<code>\textMVDivision</code> . .	16037, 20654	<code>\textneqsim</code>	18854, 20960	<code>\textnparallel</code>	18791, 18792, 20934
<code>\textMVEight</code>	16055, 20663	<code>\textnequiv</code>	18943, 18944, 18945, 20999, 21708, 21709	<code>\textnprec</code>	19021, 21035
<code>\textMVFive</code>	16049, 20660	<code>\textneswarrow</code> . . .	20005, 21363	<code>\textnprecapprox</code> . .	20242, 21461
<code>\textMVFour</code>	16047, 20659	<code>\textNeutral</code>	19771, 21261	<code>\textnpreccurlyeq</code> .	19238, 21124
<code>\textMVMinus</code>	16033, 20652	<code>\textnewtie</code>	15954, 15981, 17133	<code>\textnpreceq</code>	20218, 21449
<code>\textMVNine</code>	16057, 20664	<code>\textnexists</code>	18721, 20905	<code>\textnpreceqq</code>	20230, 21455
<code>\textMVOne</code>	16041, 20656	<code>\textnfallingdoteq</code> .	18909, 20984	<code>\textnprecsim</code>	19015, 21032
<code>\textMVPeriod</code>	16035, 20653	<code>\textngeq</code>	18985, 21018	<code>\textnqsubseteq</code> . . .	19242, 21126
<code>\textMVPlus</code>	16029, 20650	<code>\textngeqq</code>	18962, 21007	<code>\textnqsupseteq</code> . . .	19244, 21127
<code>\textMVSeven</code>	16053, 20662	<code>\textngeqslant</code>	20183, 21433	<code>\textnRightarrow</code> .	18656, 20877
<code>\textMVSix</code>	16051, 20661	<code>\textngg</code>	18974, 21013	<code>\textnrightarrow</code> . .	18561, 20839
<code>\textMVThree</code>	16045, 20658	<code>\textngtr</code>	18980, 21016	<code>\textnrisingdoteq</code> . .	18914, 20986
<code>\textMVTwo</code>	16043, 20657	<code>\textngtrapprox</code> . . .	20191, 21437	<code>\textnrleg</code> .	16603, 16605, 21559
<code>\textMVZero</code>	16039, 20655	<code>\textngtrless</code>	19001, 21025	<code>\textnrsim</code>	18850, 20958
<code>\textnabla</code>	18728, 20908	<code>\textngtrsim</code>	18995, 21022	<code>\textnsimeq</code>	18858, 20962
<code>\textnaira</code>	18419	<code>\textnhateq</code>	18932, 20994	<code>\textnsqsubset</code>	19051, 21050
<code>\textnapostrophe</code>	16454	<code>\textni</code>	18736, 18737, 20912, 21685	<code>\textnsqsubseteq</code> . .	19059, 21054
<code>\textnapprox</code>	18867, 18868, 20966, 21700	<code>\textniRight</code>	19827, 21280	<code>\textnsqsupset</code>	19055, 21052
<code>\textnapproxreq</code>	18872, 20968	<code>\textNibRight</code>	19827, 21280	<code>\textnsqsupseteq</code> . .	19063, 21056
<code>\textnasymp</code>	18885, 18886, 20974, 21702	<code>\textNibSolidRight</code>	19829, 21281	<code>\textnSubset</code>	19202, 21108
<code>\textnatural</code>	19732, 21243	<code>\textniepsilon</code>	16817, 16818, 20684, 21580	<code>\textnsubset</code>	19029, 21039
<code>\textnbackcong</code>	18881, 20972	<code>\textniiota</code>	16866, 16867, 20692, 21593	<code>\textnsubseteq</code>	19037, 21043
<code>\textnbacksim</code>	18845, 20956	<code>\textnineinferior</code> . .	18377, 20794	<code>\textnsubseteqq</code> . . .	20254, 21467
<code>\textnbacksimseq</code>	19192, 21104	<code>\textninesuperior</code> . .	18345, 20778	<code>\textnsucc</code>	19023, 21036
<code>\textnBumpeq</code>	18890, 20976	<code>\textninferior</code>	18407, 20809	<code>\textnsuccapprox</code> . .	20246, 21463
<code>\textnbumpeq</code>	18894, 20978	<code>\textniph</code>	16919, 20695	<code>\textnsucccurlyeq</code> . .	19240, 21125
<code>\textncirceq</code>	18926, 20992	<code>\textniupsi</code>	16977, 16978, 20701, 21621	<code>\textnsucceq</code>	20222, 21451
<code>\textncong</code>	18863, 20964	<code>\textniupsilon</code>	16977, 16978, 20701, 21621	<code>\textnsucceqq</code>	20234, 21457
<code>\textncurlyeqprec</code>	19232, 21121	<code>\textnLeftarrow</code>	18651, 20875	<code>\textnsuccsim</code>	19019, 21034
<code>\textncurlyeqsucc</code>	19236, 21123	<code>\textnleftarrow</code>	18559, 20838	<code>\textnsuperior</code>	18357, 20784
<code>\textnDashV</code>	20276, 20277, 21475, 21852	<code>\textnLeftrightarrow</code>	18653, 20876	<code>\textnSupset</code>	19206, 21110
<code>\textnDashv</code>	20269, 20270, 21473, 21850	<code>\textnlefnrightarrow</code>	18590, 20853	<code>\textnSupseteq</code>	19031, 21040
<code>\textndashV</code>	20263, 20264, 21471, 21848	<code>\textnleq</code>	18983, 21017	<code>\textnSupseteqq</code> . . .	19039, 21044
<code>\textndashv</code>	19108, 19109, 21073, 21725	<code>\textnleqq</code>	18958, 21005	<code>\textnSupseteqq</code> . . .	20258, 21469
<code>\textnDoteq</code>	18904, 20982	<code>\textnleqslant</code>	20179, 21431	<code>\textntriangleleft</code> .	19260, 19261, 21134, 21751
<code>\textndoteq</code>	18898, 20980	<code>\textnless</code>	18978, 21015	<code>\textntriangleleftteq</code>	19267, 21136
<code>\textndownmodels</code>	20281, 21477	<code>\textnlessapprox</code> . .	20187, 21435	<code>\textntriangleright</code>	19263, 19264, 21135, 21752
		<code>\textnlessgtr</code>	19003, 21026	<code>\textntrianglerighteq</code>	19270, 19271, 21137
		<code>\textnlesssim</code>	18993, 21021	<code>\textntriplesim</code>	18877, 20970
		<code>\textnll</code>	18970, 21011	<code>\textntwoheadleftarrow</code> . .	18565, 20841

<code>\textntwoheadrightarrow</code> . 18572, 20844	<code>\textominus</code> 19072, 19073, 21060, 21715	<code>\textpertousand</code> 18299
<code>\textNu</code> 1271, 17186	<code>\textoneighth</code> 18521	<code>\textperthousand</code> . . 15606, 18297
<code>\textnu</code> 1271, 17251, 20734	<code>\textonefifth</code> 18509	<code>\textpeseta</code> 18421
<code>\textnumbersign</code> . . . 563, 15544, 16009	<code>\textonehalf</code> 15704, 16150	<code>\textpeso</code> 18441
<code>\textnumeralsigngreek</code> . . . 1222, 17141	<code>\textoneinferior</code> . . . 18361, 20786	<code>\textPhi</code> . . . 1294, 17202, 20719
<code>\textnumeralsignlowergreek</code> 1239, 1261, 1284, 17143	<code>\textoneninth</code> 18501	<code>\textphi</code> 1294, 17269, 20742
<code>\textnumero</code> 18453	<code>\textonequarter</code> . . . 15702, 16148	<code>\textphiinferior</code> . . . 17928, 20755
<code>\textnupmodels</code> . . . 20285, 21479	<code>\textoneseventh</code> 18499	<code>\textPhone</code> 19577, 19578, 21200, 21768
<code>\textnupvdash</code> . . . 19119, 19120, 21077, 21728	<code>\textonesixth</code> 18517	<code>\textPhoneHandset</code> 19807, 21271
<code>\textnVDash</code> 19147, 19148, 21086, 21737	<code>\textonesuperior</code> . 15696, 16142, 20669	<code>\textPi</code> 1274, 17192, 20716
<code>\textnVdash</code> 19144, 19145, 21085, 21736	<code>\textonetenth</code> 18503	<code>\textpi</code> 1274, 17257, 20736
<code>\textnvDash</code> 19140, 19141, 19142, 21084, 21734, 21735	<code>\textonethird</code> 18505	<code>\textpinferior</code> 18409, 20810
<code>\textnvdash</code> 19137, 19138, 21083, 21733	<code>\textoo</code> 20324, 21488	<code>\textpipe</code> . . 16624, 16625, 16626, 21560
<code>\textnVdash</code> 19131, 21081	<code>\textopenbullet</code> . . . 19562, 21194	<code>\textpipevar</code> 16626, 21560
<code>\textNwarrow</code> 18675, 20884	<code>\textopencorner</code> . . . 17126, 17127	<code>\textpiscis</code> . 19697, 19698, 21238, 21810
<code>\textnwarrow</code> 18549, 20834	<code>\textopeno</code> 16792, 16793, 16794, 20680, 21574	<code>\textpitchfork</code> 19214, 21113
<code>\textnwsearrow</code> . . . 20003, 21362	<code>\textoplus</code> . 19069, 19070, 21059, 21714	<code>\textPlane</code> 19811, 21273
<code>\textobar</code> . . 20091, 20092, 21395, 21836	<code>\textordfeminine</code> . . 15667, 16109	<code>\textPlus</code> 19844, 21288
<code>\textobot</code> . . 20100, 20101, 21397, 21840	<code>\textordmasculine</code> . 15698, 16144	<code>\textPlusCenterOpen</code> . . . 19848, 21290
<code>\textobslash</code> 20094, 20095, 20096, 20097, 21396, 21837, 21838, 21839	<code>\textoslash</code> 19078, 19079, 21062, 21717	<code>\textplusinferior</code> . . 18379, 20795
<code>\textObullseye</code> 17031, 21637	<code>\textotimes</code> 19075, 19076, 21061, 21716	<code>\textplusminus</code> . . 15680, 15858, 16122, 20402
<code>\textodiv</code> 20148, 21418	<code>\textovee</code> . . 18801, 18802, 20938, 21693	<code>\textPlusOutline</code> . . 19842, 21287
<code>\textodot</code> . . 19081, 19082, 21063, 21718	<code>\textowedge</code> 18796, 18797, 20936, 21692	<code>\textplussuperior</code> . . 18347, 20779
<code>\textogonek</code> 15536, 15944, 15971, 17114	<code>\textparagraph</code> 569, 15690, 16133, 16134, 21535	<code>\textPlusThinCenterOpen</code> 19846, 21289
<code>\textogreaterthan</code> 20108, 20109, 21400, 21842	<code>\textparallel</code> 18789, 20933	<code>\textpluto</code> . 19661, 19662, 21226, 21798
<code>\textohm</code> 18468	<code>\textparenleft</code> . . 784, 785, 15552, 16023	<code>\textpm</code> . . . 15858, 20402, 21517
<code>\textoiint</code> 18818, 20945	<code>\textparenleftinferior</code> 18385, 20798	<code>\textpointer</code> 18702, 20896
<code>\textoinferior</code> 18393, 20802	<code>\textparenleftsuperior</code> . . . 18353, 20782	<code>\textprec</code> 19005, 21027
<code>\textoint</code> . . 18815, 18816, 20944, 21695	<code>\textparenright</code> . . . 15554, 16025	<code>\textprecapprox</code> . . . 20240, 21460
<code>\textointclockwise</code> . 18821, 20946	<code>\textparenrightinferior</code> . . . 18387, 20799	<code>\textpreccurlyeq</code> . . 19009, 21029
<code>\textointctrlockwise</code> 18823, 20947	<code>\textparenrightsuperior</code> . . 18355, 20783	<code>\textpreceq</code> 20216, 21448
<code>\textolessthan</code> . . . 20105, 20106, 21399, 21841	<code>\textpartial</code> 18717, 20903	<code>\textpreceqq</code> 20228, 21454
<code>\textOmega</code> . 1297, 17157, 17209, 20721	<code>\textPeace</code> 19816, 21275	<code>\textprecnapprox</code> . . 20248, 21464
<code>\textomega</code> . 1297, 17275, 17286, 20745	<code>\textPencilRight</code> . . 19823, 21278	<code>\textprecneq</code> 20224, 21452
<code>\textOmicron</code> 1273, 17153, 17190	<code>\textPencilRightDown</code> . . . 19821, 21277	<code>\textprecneqq</code> 20236, 21458
<code>\textomicronn</code> 1273, 17255, 17281	<code>\textPencilRightUp</code> 19825, 21279	<code>\textprecsim</code> 19256, 21132
	<code>\textpentagon</code> 20295, 21483	<code>\textprime</code> 18301, 20764
	<code>\textpercent</code> . 565, 15548, 16015	<code>\textprimstress</code> . . . 17096, 17097
	<code>\textperiodcentered</code> 15692, 15859, 16136, 16137, 16138, 20403, 21536, 21537	<code>\textprod</code> 18744, 20915
	<code>\textperp</code> 19964, 21344	<code>\textpropto</code> 18770, 18771, 20926, 21687
		<code>\textPsi</code> 1296, 17206, 20720
		<code>\textpsi</code> 1296, 17273, 20744
		<code>\textPUaolig</code> 20321, 20322, 21857
		<code>\textPUdblig</code> 16765, 16766, 21564
		<code>\textPUfemale</code> . . . 19634, 19635, 19636, 19637, 19638, 19639, 21785, 21786, 21787, 21788, 21789

<code>\textPUheng</code>	20312, 20313, 21854	<code>\textRequest</code>	..... 19341, 21167	<code>\textrightsslice</code>	.... 20214, 21447
<code>\textPUhookfour</code>	20315, 20316, 21855	<code>\textrevapostrophe</code>	17082, 17083	<code>\textrightssquigarrow</code>	.... 18689, 20891
<code>\textPUnrleg</code>	16604, 16605, 21559	<code>\textrevc</code>	..... 18529	<code>\textrightsthrreetimes</code>	19188, 21102
<code>\textPUqplig</code>	16768, 16769, 21565	<code>\textrevE</code>	..... 16579	<code>\textrinferior</code>	..... 17916, 20749
<code>\textPUrevscr</code>	... 17909, 17910, 21649	<code>\textreve</code>	.. 16806, 16807, 20682	<code>\textring</code>	.. 15483, 15495, 15507, 15538, 15936, 15963, 17112
<code>\textPUrhooka</code>	.. 17940, 17941, 21650	<code>\textrepepsilon</code>	.. 16820, 16821, 20685	<code>\textringlow</code>	15947, 15974, 17121
<code>\textPUrhooke</code>	.. 17945, 17946, 21651	<code>\textrevglotstop</code>	.. 17017, 17018, 17019, 20709, 21633	<code>\textriota</code>	..... 18473, 20820
<code>\textPUrhookepsilon</code>	.... 17949, 17950, 21652	<code>\textrevscr</code>	17908, 17910, 21649	<code>\textrisingdoteq</code>	... 18912, 20985
<code>\textPUrhookopeno</code>	17953, 17954, 21653	<code>\textrevyogh</code>	..... 16614, 16615	<code>\textrm</code>	..... 596
<code>\textPUscf</code>	.. 20318, 20319, 21856	<code>\textRewind</code>	..... 19546, 21187	<code>\textrrptr</code>	..... 17091, 17092
<code>\textPUscck</code>	17900, 17901, 21646	<code>\textRewindToIndex</code>	.... 19353, 21172	<code>\textrrquill</code>	..... 18321
<code>\textPUscm</code>	17903, 17904, 21647	<code>\textRHD</code>	..... 19537, 21184	<code>\textRrightarrow</code>	.. 18685, 20889
<code>\textPUscp</code>	17906, 17907, 21648	<code>\textrhd</code>	.. 19153, 19154, 21088, 21739	<code>\textrrparenthesis</code>	.. 20087, 21393
<code>\textPUuncrfemale</code>	19777, 19778, 21820	<code>\textRho</code>	..... 1290, 17194	<code>\textrrtaild</code>	.. 16798, 16799, 16800, 20681, 21576
<code>\textqplig</code>	.. 16767, 16769, 21565	<code>\textrho</code>	... 1290, 17259, 20737	<code>\textrrtaill</code>	.. 16878, 16879, 16880, 21596
<code>\textquarternote</code>	.. 19721, 21239	<code>\textrhoinferior</code>	... 17926, 20754	<code>\textrrtailn</code>	.. 16901, 16902, 16903, 21605
<code>\textquestiondown</code>	... 781, 1157, 15708, 16154	<code>\textrhoooka</code>	17939, 17941, 21650	<code>\textrrtailr</code>	.. 16935, 16936, 16937, 21613
<code>\textquotedbl</code>	.... 15542, 16007	<code>\textrhoooke</code>	17944, 17946, 21651	<code>\textrrtails</code>	.. 16951, 16952, 16953, 21616
<code>\textquotedblleft</code>	.. 15610, 15848, 18277, 20392	<code>\textrhookepsilon</code>	17948, 17950, 21652	<code>\textrrtailt</code>	.. 16969, 16970, 16971, 21619
<code>\textquotedblright</code>	.. 15612, 18279	<code>\textrhoooknearrow</code>	.. 20009, 21365	<code>\textrrtailz</code>	.. 16997, 16998, 16999, 21628
<code>\textquoteleft</code>	... 15614, 15850, 18271, 20394	<code>\textrhoookopeno</code>	.. 17952, 17954, 21653	<code>\textrrtimes</code>	..... 19184, 21100
<code>\textquoteright</code>	... 15616, 18273	<code>\textrhoookrepepsilon</code>	.... 16823, 16824, 16825, 20686, 21581	<code>\textssagittarius</code>	.. 19688, 19689, 21235, 21807
<code>\textquotesingle</code>	..... 16021	<code>\textrhoookschwa</code>	.. 16812, 16813, 16814, 21579	<code>\textSampigreek</code>	... 1298, 17301
<code>\textRadioactivity</code>	19604, 19605, 21209, 21777	<code>\textrhoookswarrow</code>	20013, 21367	<code>\textssampigreek</code>	.... 1298, 17303
<code>\textRain</code>	..... 19787, 21264	<code>\textRrightarrow</code>	.. 18664, 18665, 20880, 21681	<code>\textssaturn</code>	19652, 19653, 21223, 21795
<code>\textraiseglotstop</code>	.. 17085, 17086	<code>\textrightarrow</code>	... 2590, 18537, 18538, 18539, 20830, 21674, 21675	<code>\textssc</code>	..... 602
<code>\texttriangle</code>	..... 19311, 21156	<code>\textrightarrowtail</code>	.. 18578, 20847	<code>\textscsa</code>	..... 17891, 17892
<code>\texttrbrackdbl</code>	... 19977, 19978, 21350, 21831	<code>\textrightarrowtriangle</code>	.. 18709, 20899	<code>\textscsb</code>	..... 17032, 17033
<code>\texttrcurvearrowdown</code>	... 20034, 20035, 20036, 21374, 21834, 21835	<code>\textrightarrowtrapezoid</code>	.. 18709, 20899	<code>\textscsd</code>	..... 17894, 20746
<code>\texttrcurvearrowleft</code>	20038, 21375	<code>\textrightbarharpoon</code>	.... 20072, 21387	<code>\textscse</code>	..... 17895, 17896
<code>\texttrcurvearrowne</code>	20018, 21369	<code>\textRIGHTCIRCLE</code>	.... 19560, 21193	<code>\textscsf</code>	... 20317, 20319, 21856
<code>\texttrcurvearrowright</code>	... 20041, 21376	<code>\textrightbarharpoondown</code>	.. 18619, 20863	<code>\textscsg</code>	... 16841, 16842, 20688
<code>\texttrcurvearrowse</code>	20027, 21372	<code>\textrightbarharpoonup</code>	18616, 20862	<code>\textsch</code>	..... 17040, 17041
<code>\textRe</code>	..... 18460, 20818	<code>\textrightleftarrows</code>	18628, 20866	<code>\textschwa</code>	.. 16809, 16810, 20683
<code>\textrecipe</code>	..... 18462	<code>\textrightleftharpoon</code>	.... 20045, 21378	<code>\textschwainferior</code>	.. 18397, 20804
<code>\textRectangle</code>	.... 19960, 21342	<code>\textrightleftharpoons</code>	... 18648, 20874	<code>\textsci</code>	... 16868, 16869, 20693
<code>\textRectangleBold</code>	19962, 21343	<code>\textrightmoon</code>	... 19629, 21218	<code>\textScissorHollowRight</code>	.. 19805, 21270
<code>\textRectangleThin</code>	19958, 21341	<code>\textrightmultimap</code>	.... 18640, 20871	<code>\textScissorRight</code>	.. 19799, 19800, 19801, 21268, 21824, 21825
<code>\textrecycle</code>	19736, 19737, 21245, 21817	<code>\textrightrightarrow</code>	.... 18640, 20871	<code>\textScissorRightBrokenBottom</code>	.... 19795, 19796, 19797, 21822, 21823
<code>\textreferencemark</code>	..... 18313	<code>\textrightrightarrowtail</code>	.. 18578, 20847	<code>\textScissorRightBrokenTop</code>	... .. 19803, 21269
<code>\textregistered</code>	.... 15674, 16116	<code>\textrightthreearrows</code>	.... 18640, 20871	<code>\textscj</code>	..... 17897, 17898

`\textsc` ... 17899, 17901, 21646
`\textscL` ... 17048, 17049
`\textscM` ... 17902, 17904, 21647
`\textscN` ... 16904, 16905, 20694
`\textscOelig` ... 16911, 16912
`\textscorpio` 19685, 19686, 21234, 21806
`\textscP` ... 17905, 17907, 21648
`\textscr` ... 16946, 16947, 20697
`\textscripta` 16779, 16780, 16781, 20679, 21569
`\textscriptg` 16838, 16839, 16840, 20687, 21585
`\textscriptv` 16980, 16981, 20702
`\textscu` ... 17911, 17912, 20747
`\textscy` ... 16994, 16995, 20706
`\textSearrow` ... 18679, 20886
`\textsearrow` 18554, 18555, 20836, 21679
`\textSech` ... 20354, 21499
`\textsecond` ... 18303, 20765
`\textsecstress` ... 17099, 17100
`\textsection` 15661, 16101, 16102, 16103, 21533, 21534
`\textSePa` ... 20340, 21493
`\textservicemark` ... 18464
`\textsetminus` ... 15564, 18760, 20922
`\textsevenights` ... 18527
`\textseveninferior` . 18373, 20792
`\textseveninferior` . 18341, 20776
`\textsf` ... 597, 13882, 13885
`\textsharp` ... 19734, 21244
`\textshuffle` ... 20125, 21408
`\textSigma` . 1291, 17196, 20717
`\textsigma` .. 1291, 17263, 20739
`\textsim` .. 18840, 18841, 20954, 21698
`\textsimseq` ... 18856, 20961
`\textsinferior` ... 18411, 20811
`\textSixFlowerAlternate` . 19912, 21321
`\textSixFlowerAltPetal` .. 19922, 21326
`\textSixFlowerOpenCenter` 19908, 21319
`\textSixFlowerPetalRemoved` ... 19905, 21318
`\textsixinferior` ... 18371, 20791
`\textSixStar` ... 19895, 21313
`\textsixsuperior` ... 18339, 20775
`\textSixteenStarLight` ... 19903, 21317
`\textsixteenthnote` . 19728, 21241
`\textsl` ... 603
`\textslashc` . 16771, 16772, 16774, 20678, 21566, 21567
`\textslashdiv` ... 20301, 21486
`\textsmallin` ... 18734, 20911
`\textsmallowns` ... 18742, 20914
`\textsmile` ... 19305, 21153
`\textsmiley` 19619, 19620, 21214, 21782
`\textSnowflake` ... 19926, 21328
`\textSnowflakeChevron` .. 19924, 21327
`\textSnowflakeChevronBold` ... 19928, 21329
`\textSoccerBall` .. 19782, 19783, 21821
`\textspadesuitblack` 2589, 19700, 19701, 21811
`\textspadesuitwhite` ... 19713
`\textSparkle` ... 19930, 21330
`\textSparkleBold` .. 19932, 21331
`\textSphericalangle` 18779, 18780, 18781, 18782, 20930, 21688, 21689, 21690
`\textsqcap` ... 19065, 21057
`\textsqcup` ... 19067, 21058
`\textsqdoublecap` . 20152, 20153, 21420, 21844
`\textsqdoublecup` . 20157, 20158, 21422, 21845
`\textsqsubset` ... 19049, 21049
`\textsqsubseq` ... 19057, 21053
`\textsqsubseqneq` . 19246, 19247, 21128, 21749
`\textsqsupset` ... 19053, 21051
`\textsqsupseteq` ... 19061, 21055
`\textsqsupsetneq` . 19249, 19250, 21129, 21750
`\textSquareCastShadowBottomRight` ... 19951, 21338
`\textSquareCastShadowTopRight` ... 19954, 21339
`\textSquarerothdots` ... 18833, 20951
`\textSquareShadowBottomRight` ... 19945, 21336
`\textSquareTopRight` ... 19948, 21337
`\textsslash` . 20292, 20293, 21482, 21853
`\textstar` ... 19174, 21096
`\textsterling` 15653, 16090, 16091, 16092, 21530, 21531
`\textStigmagreek` ... 1250, 17288
`\textstigmagreek` ... 1250, 17290
`\textstmaryrdbaro` 19317, 19318, 21755
`\textstretchc` ... 17023, 17024, 17025, 17026, 21634, 21635
`\textstretchcvar` ... 17026, 21635
`\textsubbreve` ... 15920, 15949, 15976, 18036, 18038
`\textsubcircum` .. 15917, 15918, 15948, 15975, 17988, 17990, 18004, 18006, 18064, 18066, 18092, 18094, 18148, 18150, 18160, 18162
`\textsubring` 15910, 15911, 15947, 15974, 17956, 17958
`\textSubset` ... 19200, 21107
`\textsubset` ... 19025, 21037
`\textsubseq` ... 19033, 21041
`\textsubseqeq` ... 20252, 21466
`\textsubseqneq` ... 19041, 21045
`\textsubtilde` ... 15921, 15922, 15950, 15977, 18008, 18010, 18040, 18042, 18156, 18158
`\textsubumlaut` .. 15908, 15909, 15946, 15973, 18152, 18154
`\textsucc` ... 19007, 21028
`\textsuccapprox` ... 20244, 21462
`\textsuccurlyeq` .. 19011, 21030
`\textsucceq` ... 20220, 21450
`\textsucceqq` ... 20232, 21456
`\textsuccnapprox` .. 20250, 21465
`\textsuccneq` ... 20226, 21453
`\textsuccneqq` ... 20238, 21459
`\textsuccnsim` ... 19258, 21133
`\textsuccsim` ... 19017, 21033
`\textsum` ... 18748, 20917
`\textsun` .. 19624, 19625, 21216, 21783
`\textSunCloud` ... 19785, 21263
`\textSunshineOpenCircled` 19920, 21325
`\textSupset` ... 19204, 21109
`\textsupset` ... 19027, 21038
`\textsupseteq` ... 19035, 21042
`\textsupseteqq` ... 20256, 21468
`\textsupsetneq` ... 19043, 21046
`\textSurd` ... 18768, 20925
`\textSwarrow` ... 18681, 20887
`\textswarrow` ... 18557, 20837
`\TextSymbolUnavailable` . 15514, 15515, 15517
`\textTape` ... 19809, 21272
`\textTau` ... 1292, 17198
`\texttau` ... 1292, 17265, 20740
`\texttaurus` 19667, 19668, 21228, 21800
`\texttctclig` ... 17073, 17074
`\textTent` ... 19793, 21267
`\texttेशlig` 17069, 17070, 17071, 21641
`\texttherefore` ... 18825, 18826, 20948
`\textTheta` . 1253, 17176, 20713

\texttheta . . . 1253, 17241, 20729
 \textthird 18305, 20766
 \textThorn 15772, 16219, 20670
 \textthorn . 15841, 16288, 16290, 20671
 \textthreeighths 18523
 \textthreefifths 18513
 $\text{\textthreeinferior}$. . 18365, 20788
 $\text{\textthreequarters}$. 15706, 16152
 $\text{\textthreesuperior}$ 15684, 16126, 20668
 \texttie . . . 15953, 15980, 17139
 \texttilde . . . 4585, 15481, 15493, 15505, 15540, 15934, 15961, 17116
 \texttildelow 15950, 15977, 17125
 \texttimes . 15856, 20400, 21515
 \texttinferior 18413, 20812
 \texttop . . 19111, 19112, 21074, 21726
 \texttrademark . . . 15620, 18466
 \texttriangle 18726, 20907
 \texttriangleleft . . . 18934, 20995
 \texttriangleleft . . . 19549, 21188
 $\text{\texttriangleright}$. . 19535, 21183
 \texttriplesim . . . 18874, 18875, 20969, 21701
 \textTslash 16514
 \textttslash 16516
 \texttslig 17067, 17068
 \textttt 598
 \textTumbler 19315, 21158
 \textturna . 16775, 16776, 16777, 21568
 \textturnh . 16850, 16851, 16852, 16853, 21587, 21588
 \textturnk . 17045, 17046, 17047, 21639
 \textturnlongleg . 16925, 16926, 16927, 21610
 \textturnm 16884, 16885, 16886, 16887, 21598, 21599
 \textturnmrl . . 16889, 16890, 16891, 21600
 \textturnr . 16920, 16921, 16922, 16923, 21608, 21609
 \textturnrrtail . . . 16929, 16930, 16931, 21611
 \textturnsck 17047, 21639
 \textturnscripta . . 16783, 16784, 16785, 16786, 21570, 21571
 \textturnt . 16965, 16966, 16967, 21618
 \textturnv . 16982, 16983, 16984, 16985, 20703, 21622, 21623
 \textturnw 16986, 16987, 16988, 16989, 20704, 21624, 21625
 \textturny . 16990, 16991, 16992, 16993, 20705, 21626, 21627
 \textTwelveStar . . . 19901, 21316
 \texttwofifths 18511
 $\text{\texttwoheaddownarrow}$. 18574, 20845
 $\text{\texttwoheadleftarrow}$. . . 18563, 20840
 $\text{\texttwoheadrightarrow}$. . 18570, 20843
 $\text{\texttwoheaduparrow}$. . . 18567, 20842
 \texttwoinferior . . . 18363, 20787
 \texttwoonotes 19726, 21240
 \texttwosuperior . 15682, 16124, 20667
 \texttwothirds 18507
 \textudots 19277, 21140
 \textuinferior 17918, 20750
 \textulcorner 19295, 21148
 \textuncrfemale . . 19776, 19778, 21820
 \textunderscore 568, 5039, 5040, 5042, 15568, 16069, 16070, 21528
 \textunlhd . 19156, 19157, 19158, 21089, 21740, 21741
 \textunrhd 19160, 19161, 19162, 21090, 21742, 21743
 \textup 604
 \textUParrow . . . 19524, 19525, 21180, 21761
 \textUparrow 18661, 20879
 \textuparrow 18535, 20829
 \textUpdownarrow 18673, 20883
 \textupdownarrow . 2592, 18547, 20833
 \textupdownarrows 18631, 20867
 $\text{\textupdownharpoonleftright}$ 20051, 21380
 $\text{\textupdownharpoonrightleft}$ 20048, 21379
 $\text{\textupdownharpoons}$. . . 20078, 21389
 $\text{\textupharpoonleft}$ 18613, 20861
 $\text{\textupharpoonright}$ 18610, 20860
 \textuplus 20127, 21409
 \textupmodels 20283, 21478
 \textUpsilon 1293, 17155, 17200, 17214, 20718
 \textupsilon . 1293, 17267, 17279, 17284, 20741
 \textupsilonacute . 17225, 17283
 \textupspoon 20287, 21480
 \textupstep 20306, 20307
 \textupuparrows . . 18638, 20870
 \textupupharpoons 20057, 21382
 \texturanus 19655, 19656, 21224, 21796
 \texturcorner 19297, 21149
 \textValve 20121, 21406
 \textvarhexagon . . 20297, 21484
 \textvarobar 20092, 21836
 \textvarsigma 17261, 20738
 \textVDash 19134, 19135, 21082, 21732
 \textVdash 19126, 19127, 21079, 21731
 \textvDash 19122, 19123, 19124, 21078, 21729, 21730
 \textvdash . 19102, 19103, 21071, 21723
 \textvdotdot 18831, 20950
 \textvdots 19273, 21138
 \textvee 18799, 20937
 \textveebar 19170, 21094
 \textveedot 19968, 21346
 \textveedoublebar . 20169, 21426
 \textvertline 16080, 21529
 \textvibyi 16960, 16961
 \textvibyy 17079, 17080
 \textVier 20350, 21497
 \textvinferior 17920, 20751
 \textViPa 20336, 21491
 \textvirgo . 19679, 19680, 21232, 21804
 \textvisiblespace 19357
 \textVvdash 19129, 21080
 \textwasylozenge . . 19287, 21145
 \textwedge 18794, 20935
 \textwedgedot 19970, 21347
 \textWheelchair . . . 19739, 21246
 \textWomanFace . 20364, 20365, 21504, 21860
 \textwon 18423
 \textwp 18458, 20817
 \textwr . . . 18847, 18848, 20957, 21699
 \textWritingHand 19818, 19819, 21276, 21827
 \textwynn 16621, 16622
 \textXi 1272, 17188, 20715
 \textxi 1272, 17253, 20735
 \textxinferior 18395, 20803
 \textXSolid 19836, 21284
 \textXSolidBold . . 19838, 21285
 \textXSolidBrush . 19840, 21286
 \textxswup 19747, 21819
 \texttyen 15657, 16096
 \textYinYang . . . 19611, 19612, 19613, 19614, 21212, 21778, 21779, 21780
 \textyogh . 17004, 17005, 20707

<code>\textzeroinferior</code> ..	18359, 20785	<code>\thepage</code>	2612, 5273, 6784, 6810, 6825, 7392, 7400, 7427, 8253, 8276, 8305, 8406, 8453, 8532, 8580, 8741, 8758, 8771, 8775, 8787, 9066, 9086, 9103, 9221	<code>\toclevel@part</code>	3649, 3651
<code>\textzerosuperior</code> ..	18331, 20771	<code>\therefore</code>	18824, 20948	<code>\toclevel@section</code>	3654
<code>\textzerothirds</code>	18531	<code>\theslideheading</code>	8895	<code>\toclevel@subfigure</code>	2626
<code>\textzeta</code>	1251, 17172	<code>\theslidesection</code>	8883, 8890, 8898, 8904, 8906, 8908, 8914, 8924	<code>\toclevel@subsection</code>	3658
<code>\textzeta</code> ...	1251, 17237, 20727	<code>\theslidesubheading</code> ..	8896, 8947	<code>\toclevel@subsubsection</code> ...	3655
<code>\textZwdr</code>	20356, 21500	<code>\theslidesubsection</code> .....	.. 8935, 8942, 8949, 8955, 8957, 8959, 8965, 8975	<code>\toclevel@subtable</code>	3656
<code>\textZwPa</code>	20342, 21494	<code>\Theta</code>	17175, 20713	<code>\toclevel@subtable</code>	2627
<code>\TH</code> ..	15770, 15771, 16217, 16218	<code>\theta</code>	17240, 20729	<code>\toclevel@table</code>	3660
<code>\th</code> ..	15839, 15840, 16288, 16289	<code>\third</code>	18304, 20766	<code>\tocparagraph</code>	1710
<code>\thaa</code>	20561	<code>\This@name</code> ..	7171, 7172, 7190, 7191	<code>\tocpart</code>	1704
<code>\thebookmark@seq@number</code> ...	15026	<code>\thispdfpagelabel</code>	6789	<code>\tocsection</code>	1707
<code>\theequation</code> ..	7193, 7550, 7581, 7609, 7645	<code>\ThisShouldNotHappen</code> ..	14603	<code>\tocsubsection</code>	1708
<code>\thefootnote</code>	7792, 7995	<code>\thm@headfont</code>	7661, 7689	<code>\tocsubsubsection</code>	1709
<code>\theHchapter</code> ..	7132, 7133, 7134, 7135, 7274	<code>\thm@headpunct</code> ...	7663, 7691, 7722	<code>\toks</code> ..	9074, 9075, 9077, 15343, 15348, 15414, 15419
<code>\theHenumi</code>	7151	<code>\thm@headsep</code> ..	7664, 7692, 7723	<code>\toks@</code>	171, 208, 501, 504, 507, 525, 526, 860, 867, 899, 900, 1342, 1365, 1368, 1370, 1878, 1879, 3537, 3538, 3540, 4144, 4148, 4149, 4157, 4593, 4594, 4772, 4774, 5370, 5375, 5381, 5387, 5388, 5391, 5491, 5496, 5500, 5504, 6905, 6907, 6993, 6995, 7045, 7057, 7409, 7413, 7449, 7454, 7862, 7865, 8611, 8612, 8845, 8850, 8852, 8855, 15342, 15348, 15413, 15419
<code>\theHenumii</code>	7152	<code>\thm@indent</code>	7660, 7688	<code>\top</code>	19110, 21074
<code>\theHenumiii</code>	7153	<code>\thm@notefont</code> ..	7662, 7690, 7721	<code>\topmargin</code>	8466
<code>\theHenumiv</code>	7154	<code>\thm@postskip</code> ..	7668, 7696, 7727	<code>\triangle</code>	18725, 20907
<code>\theHequation</code> ..	7122, 7194, 7551, 7582, 7610, 7618, 7645, 7649	<code>\thm@preskip</code> ..	7667, 7695, 7726	<code>\triangleeq</code>	18933, 20995
<code>\theHfigure</code>	7129, 7133	<code>\thm@space@setup</code> ..	7665, 7693, 7724	<code>\triangleleft</code>	19548, 21188
<code>\theHHfootnote</code>	7155, 7158	<code>\thm@swap</code> ...	7659, 7687, 7720	<code>\trianglelefteq</code>	19158, 21741
<code>\theHHmpfootnote</code>	7158	<code>\thmheadnl</code> ...	7658, 7686, 7719	<code>\triangleright</code>	19534, 21183
<code>\theHItem</code> ...	7145, 7151, 7152, 7153, 7154	<code>\Thorn</code> ...	15770, 16217, 20670	<code>\trianglerighteq</code> ...	19162, 21743
<code>\theHlisting</code>	3666	<code>\thorn</code>	15839, 16288, 20671	<code>\triplesim</code>	18873, 20969
<code>\theHlstlisting</code>	3662	<code>\threeinferior</code>	20788	<code>\trivlist</code>	7657, 7685, 7718
<code>\theHmpfootnote</code>	7156	<code>\threesuperior</code>	20668	<code>\tryhyper@link</code>	5248, 5250
<code>\theHpage</code>	8410	<code>\tildel</code>	16873, 21594	<code>\ttfamily</code>	608
<code>\theHparagraph</code>	7139, 7140	<code>\times</code>	21515	<code>\ttl@b</code>	7460, 7465
<code>\theHparentequation</code> ..	7644, 7649	<code>\tinferior</code>	20812	<code>\ttl@gobblecontents</code>	7469
<code>\theHpart</code>	7125	<code>\tiny</code>	626	<code>\ttl@Hy@PatchSaveWrite</code> ..	7443, 7447
<code>\theHsection</code> ..	7122, 7128, 7135, 7137, 7141, 7142, 7272	<code>\title</code>	6688, 6690	<code>\ttl@Hy@refstepcounter</code> ...	7459
<code>\theHslide</code>	8869	<code>\TMP@EnsureCode</code> .....	.. 4876, 4883, 4884, 4885, 4886, 4887, 4888, 4889, 4890, 4891, 4892, 4893, 4894, 4895, 4896, 4897, 4898, 4899, 4900, 4901, 4902, 4903, 4904, 4905, 4906, 4907, 4908, 4909	<code>\ttl@Hy@saveanchor</code> ..	7438, 7462
<code>\theHslidesection</code> ...	8874, 8876, 8912, 8916	<code>\tocappendix</code>	1706	<code>\ttl@Hy@SavedCurrentHref</code> ..	7442, 7453
<code>\theHslidesubsection</code> ..	8875, 8963, 8967	<code>\tocchapter</code>	1705	<code>\ttl@Hy@steplink</code>	7436
<code>\theHsubequation</code>	7618	<code>\toclevel@chapter</code>	3653	<code>\ttl@savewrite</code>	7449, 7451
<code>\theHsubparagraph</code>	7140	<code>\toclevel@figure</code>	3659	<code>\Tumbler</code>	19314, 21158
<code>\theHsubsection</code> ...	7137, 7138	<code>\toclevel@listing</code>	3667	<code>\turnv</code>	20703
<code>\theHsubsubsection</code> ..	7138, 7139	<code>\toclevel@lstlisting</code>	3663	<code>\turnw</code>	20704
<code>\theHtable</code>	7130, 7134	<code>\toclevel@paragraph</code>	3657	<code>\turny</code>	20705
<code>\theHtheorem</code>	7141				
<code>\theHthm</code>	7142				
<code>\theHy@tempcnt</code> ..	5155, 5163, 5170				
<code>\thelisting</code>	3666				
<code>\thelstlisting</code>	3662				
<code>\thempfn</code> ..	7781, 7884, 7976, 7988				
<code>\theoremautorefname</code> ..	3341, 3359, 3377, 3395, 3413, 3431, 3449, 3487, 3507, 3525, 9309				

`\tw@` 5320, 5326, 5327, 5328, 5333,
 5339, 5340, 5341, 15343,
 15348, 15414, 15419
`\TwelveStar` 19900, 21316
`\twoheaddownarrow` 18573, 20845
`\twoheadleftarrow` . 18562, 20840
`\twoheadrightarrow` 18569, 20843
`\twoheaduparrow` . . 18566, 20842
`\twoinferior` 20787
`\twonotes` 19725, 21240
`\twosuperior` 20667
`\TX@endtabularx` . . 7855, 7862,
 7868
`\typeout` 5, 6, 7, 19, 26, 27,
 36, 131, 155, 158, 159, 160,
 5521, 15440, 21866

U

`\U` . . 15890, 17340, 17363, 17430,
 17510, 17711, 17713, 17735,
 17737, 17747, 17749
`\u` . . 15889, 15940, 15967, 15995,
 16298, 16300, 16340, 16342,
 16360, 16362, 16393, 16395,
 16396, 16466, 16468, 16526,
 16528
`\ubar` 16975, 21620
`\udesc` 16853, 21588
`\udots` 19276, 21140
`\UHORN` . . 20417, 20528, 20529,
 20530, 20531, 20532
`\uhorn` 3511, 3518, 20411, 20468,
 20469, 20470, 20471, 20472
`\uinferior` 20750
`\ulcorner` 19294, 21148
`\UnDef` 13061
`\unhbox` . . . 7765, 12052, 14295,
 14417, 14449, 14473, 14501,
 14530
`\unhcopy` 14397
`\unicar` 2333
`\Unicode` 1418
`\unlhd` 19155, 21089
`\unrestored@protected@xdef` 7781,
 7792, 7938, 7945, 7988, 7995
`\unrhd` 19159, 21090
`\unskip` . 7655, 7682, 7715, 8238,
 9152, 9156, 9160, 9165
`\UParrow` 19523, 21180
`\Uparrow` 18660, 20879
`\uparrow` 20829
`\Updownarrow` . . . 18672, 20883
`\updownarrow` . . . 18546, 20833
`\updownarrows` . . . 18630, 20867
`\updownharpoonleftright` . 20050,
 21380
`\updownharpoonleftright` . 20047,
 21379

`\updownharpoons` . 20077, 21389
`\upharpoonleft` . . . 18612, 20861
`\upharpoonright` . . 18609, 20860
`\uplus` 20126, 21409
`\upmodels` 20282, 21478
`\upshape` . 614, 7662, 7690, 7721
`\Upsilon` 17199, 20718
`\upsilon` 17266, 20741
`\upspoon` 20286, 21480
`\upuparrows` 18637, 20870
`\upupharpoons` . . . 20056, 21382
`\upvdash` 19117, 21727
`\Uranus` 19656, 21796
`\uranus` 19654, 21224
`\urcorner` 19296, 21149
`\Url` 5219
`\url` 5218, 5222
`\url@` 5222, 5223
`\use@file` 5452, 5454, 5461
`\usefont` 593
`\utf@viii@undeferr` 555
`\UTFviii@four@octets` 2329, 2338
`\UTFviii@three@octets` . . . 2328
`\UTFviii@two@octets` 2327

V

`\v` . . 15484, 15496, 15508, 15630,
 15635, 15643, 15645, 15900,
 15937, 15964, 15994, 16318,
 16320, 16322, 16324, 16352,
 16354, 16430, 16432, 16450,
 16452, 16486, 16488, 16502,
 16504, 16510, 16512, 16560,
 16562, 16636, 16638, 16640,
 16642, 16643, 16645, 16647,
 16649, 16651, 16660, 16662,
 16664, 16666, 16672, 16673,
 16735, 16737
`\V@@@footnotetext` 7925
`\V@footnotetext` 7911
`\value` . . 6808, 7260, 7261, 7263,
 7264, 8192, 8218, 8470,
 8636, 10696, 10701
`\Valve` 20120, 21406
`\vara` 16781, 21569
`\varangle` 18780, 21688
`\varbigcirc` 19568, 21767
`\varcurlyvee` 19195, 21745
`\varcurlywedge` . . . 19198, 21746
`\VarFlag` 19742, 21818
`\varg` 16840, 21585
`\varhexagon` 20296, 21484
`\vari` 16867, 21593
`\varint` 18809, 21694
`\varnothing` 18722, 18724, 21684
`\varoast` 19089, 21721
`\varobslash` 20097, 21839

`\varocircle` 19086, 21720
`\varodot` 19082, 21718
`\varogreaterthan` . . 20109, 21842
`\varoint` 18816, 21695
`\varolessthan` 20106, 21841
`\varomega` 16917, 21607
`\varominus` 19073, 21715
`\varopeno` 16794, 21574
`\varoplus` 19070, 21714
`\varoslash` 19079, 21717
`\varotimes` 19076, 21716
`\varovee` 18802, 21693
`\varowedge` 18797, 21692
`\varparallel` 20293, 21853
`\varparallelinv` 19360, 21756
`\varprop` 18771, 21687
`\varsigma` 20738
`\varsqsubsetneq` 19247, 21749
`\varsqsupsetneq` 19250, 21750
`\vartimes` 16203, 21538
`\vavyod` 17886
`\vbox` . . 6442, 6443, 6444, 6445,
 6757, 8464
`\VDash` 19133, 21082
`\Vdash` 19125, 21079
`\vDash` 19121, 21078
`\vdash` 19101, 21071
`\vdotdot` 18830, 20950
`\vdots` 19272, 21138
`\vee` 18798, 20937
`\veebar` 19169, 21094
`\veedot` 19967, 21346
`\veedoublebar` 20168, 21426
`\Venus` 19638, 21788
`\venus` 19637, 21787
`\vfill` . . . 6442, 6443, 6444, 6445
`\VHF` 18875, 21701
`\Vier` 20349, 21497
`\vinferior` 20751
`\ViPa` 20335, 21491
`\Virgo` 19680, 21804
`\virgo` 19678, 21232
`\vod` 16844, 16846, 21586
`\voffset` 8465
`\voicedh` 16857, 21590
`\vpageref` 9165
`\vphantom` 629
`\Vr@f` 9151
`\vr@f` 9159
`\vref@pagenum` 7473
`\vref@space` . . . 9152, 9155, 9160
`\vskip` 2701, 2702
`\vss` 8479
`\vtex@trans@special` 11483,
 11485, 11488, 11492, 11496,
 11500, 11502, 11504, 11508,
 11514, 11515, 11518

<code>\VTeXInitMediaSize</code>	11162, 11179	5467, 5468, 5469, 5481,	4560, 5470, 5471,	
<code>\VTeXOS</code>	. 11553, 11554, 11555, 11557	5492, 5493, 5494, 5495, 5498, 5499, 5544, 5547,	5473, 5481, 6711, 7494, 7496, 7497,	
<code>\VTeXversion</code>	6960, 6963, 6966, 11545, 11549	5642, 5656, 5681, 5685, 5688, 5698, 6235, 6239,	7507, 12061, 12062, 12064	
<code>\Vvdash</code>	..... 19128, 21080	6248, 6252, 6710, 6711, 6716, 7410, 7417, 7450, 7457, 7498, 7507, 7509,	<code>\ya</code>
W		7521, 8539, 8541, 8852, 8853, 9076, 9079, 9114, 9115, 9116, 9118, 9120, 9543, 9552, 9845, 9846, 9849, 9851, 9854, 10520, 10521, 10522, 10524, 10525, 10526, 10528, 10529, 10530, 10532, 10533, 10534, 10536, 10537, 10538, 10540, 10541, 10542, 10544, 10545, 10546, 10548, 10549, 10551, 10557, 10566, 11665, 11670, 11674, 12056, 12059, 12065, 12070, 12218, 12219, 13362, 13382, 13963, 13983, 14318, 14338, 15347, 15349, 15418, 15420	<code>\yahamza</code>	
<code>\wasylozenge</code>	..... 19286, 21145	<code>\XeTeXLink@font</code> .. 5306, 5309	<code>\YingYang</code> 19613,
<code>\waw</code>	..... 20609	<code>\XeTeXLink@space</code> . 5307, 5322, 5336	<code>\Yingyang</code> 19614,
<code>\wawhamza</code>	..... 20547	<code>\XeTeXLinkBox</code> ... 5313, 5345	<code>\YinYang</code> 19610,
<code>\wd</code>	. 10291, 10307, 10328, 10345, 10368, 10385, 14244	<code>\XeTeXLinkMargin</code> . 5303, 5304, 5319, 5321, 5332, 5334	<code>\Yinyang</code> 19612,	
<code>\wedge</code>	..... 18793, 20935	<code>\XeTeXrevision</code> 4832, 10880	<code>\yogh</code> 17004,
<code>\wedgedot</code> 19969, 21347	<code>\Xi</code> 17187, 20715	Z	
<code>\Wheelchair</code>	..... 19738, 21246	<code>\xi</code> 17252, 20735	<code>\z</code> 298, 299, 307, 313, 2798, 2800, 5473, 5481
<code>\with</code>	..... 16019, 21527	<code>\xinferior</code> 20803	<code>\z@</code>
<code>\WomanFace</code>	..... 20363, 21504	<code>\XR@dURL</code> 2633, 2634	878, 1069, 1221, 1238, 1283, 1534, 1574, 1603, 1618, 1626, 1961, 1967, 1973, 2050, 2058, 2062, 2657, 2691, 2710, 2987, 3133, 3690, 4427, 4841, 5316, 5326, 5327, 5330, 5339, 5340, 5348, 6671, 6961, 6964, 7752, 7923, 10058, 10067, 10071, 10078, 10085, 10088, 11025, 11031, 11032, 11544, 11788, 12099, 12113, 12478, 12483, 12484, 13352, 13953, 14248, 14727, 14758, 14763, 14792, 14821, 14855, 14880, 14891, 14896, 14932, 15037, 15038, 15040, 15041, 15042, 15044, 15045, 15262,
<code>\Womanface</code>	..... 20365, 21860	<code>\XR@addURL</code> 2633	<code>\z@skip</code>
<code>\wp</code>	..... 18457, 20817	<code>\XR@ext</code> 2902, 2903, 5450, 5453, 6958, 9372, 10141, 10244, 10508, 11043, 12412, 12503, 12570, 12777, 12949	<code>\za</code>
<code>\wr</code>	..... 18846, 20957	<code>\XR@URL</code> 2638	<code>\zay</code>
<code>\wreath</code>	..... 18848, 21699	<code>\XSolid</code> 19835, 21284	<code>\zeroinferior</code>
<code>\write</code>	. . 5110, 6636, 6638, 7074, 7082, 7398, 7426, 8176, 8191, 8207, 8217, 8247, 8270, 8296, 8326, 13781, 13784, 13812, 13827, 15210, 15292	<code>\XSolidBold</code> 19837, 21285	<code>\zerosuperior</code>	
<code>\WriteBookmarks</code>	. . 4526, 4664, 4845, 4867, 14959, 15203, 15236, 15237, 15279, 15285	<code>\XSolidBrush</code> 19839, 21286	<code>\zeta</code> 17236,	
<code>\WritingHand</code>	.... 19817, 21276	<code>\xspace</code> 693, 695	<code>\zref@extractdefault</code>
<code>\Writinghand</code>	..... 19819, 21827	<code>\xspaceaddexceptions</code> 4498, 4507	<code>\zref@ifrefcontainsprop</code> ..
<code>\wwwbrowser</code>	.... 10245, 10330, 10347	Y	
X		<code>\y</code> 297, 299, 306, 312, 877, 880, 883, 886, 889, 892, 901, 2796, 2801, 2806, 3684, 3685, 3686, 3687, 4543, 4546, 4549, 4552, 4554,	<code>\zref@ifrefundefined</code>	
<code>\x</code>	..... 21, 25, 92, 98, 168, 169, 176, 178, 206, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 292, 297, 298, 524, 529, 862, 865, 869, 874, 906, 1042, 1048, 1805, 1833, 2276, 2278, 2696, 2706, 2715, 2725, 2794, 2795, 2800, 2816, 3548, 3551, 3555, 3568, 3678, 3679, 3682, 3683, 3684, 3688, 3691, 3697, 4147, 4153, 4156, 4159, 4425, 4426, 4431, 4432, 4540, 4541, 4542, 4545, 4548, 4551, 4591, 4592, 4594, 4595, 4773, 4776, 5109, 5115,	<code>\Zwdr</code> 20355,	<code>\ZWNJ</code>