

Hypertext marks in L^AT_EX

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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”

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3 File hycheck.tex

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

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

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

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

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

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

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

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

`\HyC@checkPackage`

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

```

40 }%
41 }

```

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

```

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

```

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

```

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

```

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

```

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

```

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

```

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

```

`\HyC@noValue`

```

85 \def\HyC@noValue{NoValue}

```

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

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

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

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

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

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

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

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

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

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

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

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

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

```

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

```

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

```

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

```

`\HyC@checkItem` A single check.

```

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

```

`\HyC@string` Some shorthands.

```

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

```

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

```

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

```

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

```

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

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

```

4 Package options and setup

4.1 Save catcodes

There are many packages that change the standard catcodes.

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

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

\Hy@SetCatcodes

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

\Hy@RestoreCatcodes

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

```

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

```

```

231 \Hy@SetCatcodes

```

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

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

```

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

235 \RequirePackage{ltxcmds}[2010/11/12]
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 \let\Hy@Match\ltx@gobblefour
327 }{%
328 \def\Hy@Match#1#2{%
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}{#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 --> #2 <--\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 \LaTeX 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@stoppeearly
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@pdffitwindow
411 \newif\ifHy@frenchlinks
412 \newif\ifHy@hyperfootnotes
413 \newif\ifHy@hyperindex
414 \newif\ifHy@hypertextnames
415 \newif\ifHy@implicit
416 \newif\ifHy@linktocpage
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@verbosettrue
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@implicitttrue
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@unicodedefalse
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@activetrue` Babel's switch setting commands cannot be used directly, because they can be undefined if babel is not loaded.

```
495 \def\Hy@safe@activetrue{\csname @safe@activetrue\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).

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

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

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

Example (TeX):

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

`\hypercalcbp`

```
497 \begingroup\expandafter\expandafter\expandafter\endgroup
498 \expandafter\ifx\csname dimexpr\endcsname\relax
499 \def\hypercalcbpdef#1#2{%
500   \begingroup
501     \toks@{}%
502     \HyCal@scan#2\hypercalcbp\@nil
503   \expandafter\endgroup
504   \expandafter\def\expandafter#1\expandafter{\the\toks@}%
505 }%
506 \def\HyCal@scan#1\hypercalcbp#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 }
```

```

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 T_EX'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 T_EX 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 T_EX string is expanded the first time to get a PDF string.
3. Postprocessing. The result of the expansion is checked and converted to the final form.

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

- The result should obey the rules of the PDF specification for strings.
- The string can safely be processed by T_EX, 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 T_EX escape character indeed prints as a normal backslash. Eventually this line can be removed, because this is standard L^AT_EX behaviour.

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

From the view of T_EX 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 \TeX logo does not work while writing to a file, the standard \TeX 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\SlTeX{\SlTeX}%
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\sffamily\@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}{\@firstofone}{\@secondoftwo}%

```

```

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@CJKhook
```

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@testopt`, 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 L^AT_EX:

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

\csname: First the string is expanded within a `\csname` and `\endcsname`. Then the command name is converted to characters with catcode 12 by `\string` and the first escape character removed by `\@gobble`. This method has the great *advantage* that stomach tokens that aren’t allowed in PDF strings are detected by T_EX and reported as errors in order to force the user to write correct things. So he get no wrong results by forgetting the proofreading of his text. But the *disadvantage* is that old wrong code cannot processed without errors. Mainly the error message is very cryptic and for the normal user hard to understand. T_EX provides no way to catch the error caused by `\csname` or allows to support the user with a descriptive error message. Therefore the experienced user had to enable this behaviour by an option `exactdef` in previous versions less or equal 6.50.

\edef This version uses this standard form for expansion. It is stronger than L^AT_EX’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 L^AT_EX 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 T_EX, 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 litte more complicate:

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

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

```

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 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` with `\let` is a little bit faster than `\providecommand`.

`\pdfstringdefPostHook`

```

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 \LaTeX 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 }

```

`\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`.

```

1031 \def\pdfstringdefWarn#1{%
1032   \expandafter\noexpand\csname<>\string#1\endcsname
1033 }

```

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.

```

1034 \begingroup
1035   \catcode0=12 %
1036   \def\x{\endgroup
1037     \def\HyPsd@ignorespaces{%
1038       \romannumeral\expandafter'\expandafter^^@%
1039       \romannumeral'^^@%
1040     }%
1041   }%
1042   \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`.

```

1043 \def\HyPsd@BabelPatch{%
1044   \let\HyOrg@languageshorthands\languageshorthands
1045   \let\languageshorthands\HyPsd@LanguageShorthands
1046 }
1047 \begingroup\expandafter\expandafter\expandafter\endgroup
1048 \expandafter\ifx\csname pdf@stricmp\endcsname\relax
1049   \let\HyPsd@langshort@system\@empty
1050   \def\HyPsd@LanguageShorthands#1{%
1051     \expandafter\ifx\csname HyPsd@langshort@#1\endcsname
1052       \HyPsd@langshort@system
1053     \expandafter\@gobble
1054   \else
1055     \expandafter\@firstofone
1056   \fi
1057   {%
1058     \HyOrg@languageshorthands{#1}%
1059   }%
1060 }%
1061 \else
1062   \def\HyPsd@LanguageShorthands#1{%
1063     \ifnum\pdf@stricmp{#1}{system}=\z@
1064       \expandafter\@gobble
1065     \else
1066       \expandafter\@firstofone
1067     \fi
1068     {%
1069       \HyOrg@languageshorthands{#1}%
1070     }%
1071   }%
1072 \fi
1073 \def\Hy@temp{%
1074   \@ifpackageloaded{babel}{%
1075     \@ifpackagelater{babel}{2008/03/16}{%
1076       \let\Hy@temp\@empty
1077     }{%
1078       \def\HyPsd@BabelPatch{%
1079         \let\HyOrg@languageshorthands\languageshorthands
1080       }%
1081     }%
1082   }{}%
1083 }
1084 \Hy@temp
1085 \expandafter\Hy@AtBeginDocument\expandafter{\Hy@temp}
1086 \newif\ifHy@next

```

Nothing to do for english.

```

1087 \ltx@ifundefined{danish@sh@"@sel}{}{%
1088   \def\HyPsd@babel@danish{%
1089     \declare@shorthand{danish}{"}{}%

```

```

1090 \declare@shorthand{danish}{~}{-}%
1091 }%
1092 }
1093 \ltx@ifundefined{dutch@sh@}{@sel}{-}{%
1094 \def\HyPsd@babel@dutch{%
1095 \declare@shorthand{dutch}{~}{-}%
1096 \declare@shorthand{dutch}{~}{-}%
1097 }%
1098 }
1099 \ltx@ifundefined{finnish@sh@}{@sel}{-}{%
1100 \def\HyPsd@babel@finnish{%
1101 \declare@shorthand{finnish}{~}{-}%
1102 }%
1103 }
1104 \ltx@ifundefined{french@sh@}{@sel}{-}{%
1105 \def\HyPsd@babel@frenchb{%
1106 \def\guill@spacing{ }%
1107 }%
1108 }
1109 \ltx@ifundefined{german@sh@}{@sel}{-}{%
1110 \def\HyPsd@babel@german{%
1111 \declare@shorthand{german}{~}{-}%
1112 \declare@shorthand{german}{~}{-}%
1113 \declare@shorthand{german}{~}{-}%
1114 }%
1115 }
1116 \ltx@ifundefined{macedonian@sh@}{@sel}{-}{%
1117 \def\HyPsd@babel@macedonian{%
1118 \declare@shorthand{macedonian}{~}{-}%
1119 \declare@shorthand{macedonian}{~}{-}%
1120 }%
1121 }{}
1122 \ltx@ifundefined{ngerman@sh@}{@sel}{-}{%
1123 \def\HyPsd@babel@ngerman{%
1124 \declare@shorthand{ngerman}{~}{-}%
1125 \declare@shorthand{ngerman}{~}{-}%
1126 }%
1127 }
1128 \ltx@ifundefined{portuges@sh@}{@sel}{-}{%
1129 \def\HyPsd@babel@portuges{%
1130 \declare@shorthand{portuges}{~}{-}%
1131 }%
1132 }
1133 \ltx@ifundefined{russian@sh@}{@sel}{-}{%
1134 \def\HyPsd@babel@russian{%
1135 \declare@shorthand{russian}{~}{-}%
1136 \declare@shorthand{russian}{~}{-}%
1137 }%
1138 }
1139 \ltx@ifundefined{slovene@sh@}{@sel}{-}{%
1140 \def\HyPsd@babel@slovene{%
1141 \declare@shorthand{slovene}{~}{-}%
1142 }%
1143 }

```

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

```

1144 \ltx@ifundefined{spanish@sh@}{@sel}{-}{%
1145 \def\HyPsd@babel@spanish{%

```

```

1146 \declare@shorthand{spanish}{<<}{\guillemotleft}%
1147 \declare@shorthand{spanish}{>>}{\guillemotright}%
1148 \declare@shorthand{spanish}{"}={-}%
1149 \declare@shorthand{spanish}{'~}{-}%
1150 \declare@shorthand{spanish}{"!}{\textexclamdown}%
1151 \declare@shorthand{spanish}{"?}{\textquestiondown}%
1152 }%
1153 }
1154 \ltx@ifundefined{swedish@sh@"@sel}{-}{%
1155 \def\HyPsd@babel@swedish{%
1156 \declare@shorthand{swedish}{"}|}{-}%
1157 \declare@shorthand{swedish}{'~}{-}%
1158 }%
1159 }
1160 \ltx@ifundefined{ukrainian@sh@"@sel}{-}{%
1161 \def\HyPsd@babel@ukrainian{%
1162 \declare@shorthand{ukrainian}{"}|}{-}%
1163 \declare@shorthand{ukrainian}{'~}{-}%
1164 }%
1165 }
1166 \ltx@ifundefined{usorbian@sh@"@sel}{-}{%
1167 \def\HyPsd@babel@usorbian{%
1168 \declare@shorthand{usorbian}{"}f}{f}%
1169 \declare@shorthand{usorbian}{"}|}{-}%
1170 }%
1171 }
1172 \ltx@ifundefined{greek@sh@\string~@sel}{-}{%
1173 \let\HyPsd@GreekPatch@empty
1174 }{%
1175 \def\HyPsd@GreekPatch{%
1176 \let\greeknumeral\HyPsd@greeknumeral
1177 \let\Greeknumeral\HyPsd@Greeknumeral
1178 }%
1179 }
1180 \def\HyPsd@greeknumeral#1{%
1181 \HyPsd@GreekNum\@firstoftwo{#1}%
1182 }
1183 \def\HyPsd@Greeknumeral#1{%
1184 \HyPsd@GreekNum\@secondoftwo{#1}%
1185 }
1186 \def\HyPsd@GreekNum#1#2{%
1187 \ifHy@unicode
1188 \ifnum#2<\@ne
1189 \@arabic{#2}%
1190 \else
1191 \ifnum#2<1000000 %
1192 \HyPsd@@GreekNum#1{#2}%
1193 \else
1194 \@arabic{#2}%
1195 \fi
1196 \fi
1197 \else
1198 \@arabic{#2}%
1199 \fi
1200 }
1201 \def\HyPsd@@GreekNum#1#2{%
1202 \ifnum#2<\@m

```

```

1203 \ifnum#2<10 %
1204 \expandafter\HyPsd@GreekNumI
1205 \expandafter\@gobble\expandafter#1\number#2%
1206 \else
1207 \ifnum#2<100 %
1208 \expandafter\HyPsd@GreekNumII
1209 \expandafter\@gobble\expandafter#1\number#2%
1210 \else
1211 \expandafter\HyPsd@GreekNumIII
1212 \expandafter\@gobble\expandafter#1\number#2%
1213 \fi
1214 \fi
1215 \ifnum#2>\z@
1216 \textnumeralsigngreek
1217 \fi
1218 \else
1219 \ifnum#2<\@M
1220 \expandafter\HyPsd@GreekNumIV\expandafter#1\number#2%
1221 \else
1222 \ifnum#2<100000 %
1223 \expandafter\HyPsd@GreekNumV\expandafter#1\number#2%
1224 \else
1225 \expandafter\HyPsd@GreekNumVI\expandafter#1\number#2%
1226 \fi
1227 \fi
1228 \fi
1229 }
1230 \def\HyPsd@GreekNumI#1#2#3{%
1231 #1{%
1232 \ifnum#3>\z@
1233 \textnumeralsignlowergreek
1234 \fi
1235 }%
1236 \expandafter#2%
1237 \ifcase#3 %
1238 {}{}%
1239 \or\textalpha\textAlpha
1240 \or\textbeta\textBeta
1241 \or\textgamma\textGamma
1242 \or\textdelta\textDelta
1243 \or\textepsilon\textEpsilon
1244 \or\textstigmagreek\textStigmagreek
1245 \or\textzeta\textZeta
1246 \or\texteta\textEta
1247 \or\texttheta\textTheta
1248 \else
1249 {}{}%
1250 \fi
1251 }
1252 \def\HyPsd@GreekNumII#1#2#3#4{%
1253 #1{%
1254 \ifnum#3>\z@
1255 \textnumeralsignlowergreek
1256 \fi
1257 }%
1258 \expandafter#2%
1259 \ifcase#3 %

```

```

1260 {}{}%
1261 \or\textiota\textIota
1262 \or\textkappa\textKappa
1263 \or\textlambda\textLambda
1264 \or\textmu\textMu
1265 \or\textnu\textNu
1266 \or\textxi\textXi
1267 \or\textomicron\textOmicron
1268 \or\textpi\textPi
1269 \or\textkoppagreek\textKoppagreek
1270 \else
1271 {}{}%
1272 \fi
1273 \HyPsd@GreekNumI#1#2#4%
1274 }
1275 \def\HyPsd@GreekNumIII#1#2#3#4#5{%
1276 #1{%
1277 \ifnum#3>\z@
1278 \textnumeralsignlowergreek
1279 \fi
1280 }%
1281 \expandafter#2%
1282 \ifcase#3 %
1283 {}{}%
1284 \or\textrho\textRho
1285 \or\textsigma\textSigma
1286 \or\texttau\textTau
1287 \or\textupsilon\textUpsilon
1288 \or\textphi\textPhi
1289 \or\textchi\textChi
1290 \or\textpsi\textPsi
1291 \or\textomega\textOmega
1292 \or\textsampigreek\textSampigreek
1293 \else
1294 {}{}%
1295 \fi
1296 \HyPsd@GreekNumII#1#2#4#5%
1297 }
1298 \def\HyPsd@GreekNumIV#1#2#3#4#5{%
1299 \HyPsd@GreekNumI\@firstofone#1#2%
1300 \HyPsd@@GreekNum#1{#3#4#5}%
1301 }
1302 \def\HyPsd@GreekNumV#1#2#3#4#5#6{%
1303 \HyPsd@GreekNumII\@firstofone#1#2#3%
1304 \HyPsd@@GreekNum#1{#4#5#6}%
1305 }
1306 \def\HyPsd@GreekNumVI#1#2#3#4#5#6#7{%
1307 \HyPsd@GreekNumIII\@firstofone#1#2#3#4%
1308 \HyPsd@@GreekNum#1{#5#6#7}%
1309 }
1310 \def\HyPsd@SpanishPatch{%
1311 \ltx@ifundefined{es@save@dot}{%
1312 }{%
1313 \let\.\es@save@dot
1314 }%
1315 }

```

Shorthand ”- of ‘russianb.ldf’ is not expandable, therefore it is disabled and replaced by -.

```

1316 \def\HyPsd@RussianPatch{%
1317   \ltx@ifundefined{russian@sh@”@-@}{%
1318     }{%
1319     \@namedef{russian@sh@”@-@}{-}%
1320   }%
1321 }
```

6.5.3 CJK patch

```

1322 \RequirePackage{intcalc}[2007/09/27]
```

\HyPsd@CJKhook

```

1323 \def\HyPsd@CJKhook{%
1324   \ltx@ifpackageloaded{CJK}{%
1325     \let\CJK@kern\relax
1326     \let\CJKkern\relax
1327     \let\CJK@CJK\relax
1328     \ifHy@CJKbookmarks
1329       \HyPsd@CJKhook@bookmarks
1330     \fi
1331     \HyPsd@CJKhook@unicode
1332   }{%
1333 }
```

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 ($\geq 0x40$).

```

1334 \begingroup
1335   \catcode”7F=\active
1336   \toks@{%
1337     \let\CJK@ignorespaces\empty
1338     \def\CJK@char#1{\@gobbletwo}%
1339     \let\CJK@charx\@gobblefour
1340     \let\CJK@punctchar\@gobblefour
1341     \def\CJK@punctcharx#1{\@gobblefour}%
1342     \catcode”7F=\active
1343     \def^^7f#1^^7f#2^^7f{%
1344       \string #1\HyPsd@DecimalToOctal{#2}%
1345     }%
1346     % ... ?
1347     \ifHy@unicode
1348       \def\Hy@cjkpu{\80}%
1349     \else
1350       \let\Hy@cjkpu\@empty
1351     \fi
1352   \HyPsd@CJKActiveChars
```

```

1353 }%
1354 \count@=127 %
1355 \@whilenum\count@<255 \do{%
1356   \advance\count@ by 1 %
1357   \lccode'\~=\count@
1358   \lowercase{%
1359     \toks@\expandafter{\the\toks@ ~}%
1360   }%
1361 }%
1362 \toks@\expandafter{\the\toks@ !}%
1363 \xdef\HyPsd@CJKhook@bookmarks{%
1364   \the\toks@
1365 }%
1366 \endgroup

```

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

```

1367 \def\HyPsd@CJKActiveChars#1{%
1368   \ifx#1!%
1369     \let\HyPsd@CJKActiveChars\relax
1370   \else
1371     \edef#1{\noexpand\Hy@cjkpu\string#1}%
1372   \fi
1373   \HyPsd@CJKActiveChars
1374 }

```

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

```

1375 \def\HyPsd@DecimalToOctal#1{%
1376   \ifcase #1 %
1377     \000\or \001\or \002\or \003\or \004\or \005\or \006\or \007%
1378     \or \010\or \011\or \012\or \013\or \014\or \015\or \016\or \017%
1379     \or \020\or \021\or \022\or \023\or \024\or \025\or \026\or \027%
1380     \or \030\or \031\or \032\or \033\or \034\or \035\or \036\or \037%
1381     \or \040\or \041\or \042\or \043\or \044\or \045\or \046\or \047%
1382     \or \050\or \051\or \052\or \053\or \054\or \055\or \056\or \057%
1383     \or 0\or 1\or 2\or 3\or 4\or 5\or 6\or 7%
1384     \or 8\or 9\or \072\or \073\or \074\or \075\or \076\or \077%
1385     \or @\or A\or B\or C\or D\or E\or F\or G%
1386     \or H\or I\or J\or K\or L\or M\or N\or O%
1387     \or P\or Q\or R\or S\or T\or U\or V\or W%
1388     \or X\or Y\or Z\or \133\or \134\or \135\or \136\or \137%
1389     \or \140\or a\or b\or c\or d\or e\or f\or g%
1390     \or h\or i\or j\or k\or l\or m\or n\or o%
1391     \or p\or q\or r\or s\or t\or u\or v\or w%
1392     \or x\or y\or z\or \173\or \174\or \175\or \176\or \177%
1393     \or \200\or \201\or \202\or \203\or \204\or \205\or \206\or \207%
1394     \or \210\or \211\or \212\or \213\or \214\or \215\or \216\or \217%
1395     \or \220\or \221\or \222\or \223\or \224\or \225\or \226\or \227%
1396     \or \230\or \231\or \232\or \233\or \234\or \235\or \236\or \237%
1397     \or \240\or \241\or \242\or \243\or \244\or \245\or \246\or \247%
1398     \or \250\or \251\or \252\or \253\or \254\or \255\or \256\or \257%
1399     \or \260\or \261\or \262\or \263\or \264\or \265\or \266\or \267%
1400     \or \270\or \271\or \272\or \273\or \274\or \275\or \276\or \277%
1401     \or \300\or \301\or \302\or \303\or \304\or \305\or \306\or \307%
1402     \or \310\or \311\or \312\or \313\or \314\or \315\or \316\or \317%
1403     \or \320\or \321\or \322\or \323\or \324\or \325\or \326\or \327%
1404     \or \330\or \331\or \332\or \333\or \334\or \335\or \336\or \337%

```

```

1405 \or \340\or \341\or \342\or \343\or \344\or \345\or \346\or \347%
1406 \or \350\or \351\or \352\or \353\or \354\or \355\or \356\or \357%
1407 \or \360\or \361\or \362\or \363\or \364\or \365\or \366\or \367%
1408 \or \370\or \371\or \372\or \373\or \374\or \375\or \376\or \377%
1409 \fi
1410 }

```

6.5.5 CJK unicode

\HyPsd@CJKhook@unicode

```

1411 \def\HyPsd@CJKhook@unicode{%
1412 \let\Unicode\HyPsd@CJK@Unicode
1413 \let\CJKnumber\HyPsd@CJKnumber
1414 \let\CJKdigits\HyPsd@CJKdigits
1415 }

```

\HyPsd@CJK@Unicode

```

1416 \def\HyPsd@CJK@Unicode#1#2{%
1417 \ifnum#1<256 %
1418 \HyPsd@DecimalToOctalFirst{#1}%
1419 \HyPsd@DecimalToOctalSecond{#2}%
1420 \else
1421 \933%
1422 \expandafter\expandafter\expandafter\HyPsd@HighA
1423 \intcalcDiv{#1}{4}!%
1424 \933%
1425 \ifcase\intcalcMod{#1}{4} %
1426 4\or 5\or 6\or 7%
1427 \fi
1428 \HyPsd@DecimalToOctalSecond{#2}%
1429 \fi
1430 }

1431 \def\HyPsd@HighA#1!{%
1432 \expandafter\expandafter\expandafter\HyPsd@HighB
1433 \IntCalcDiv#1!64!!%
1434 \expandafter\expandafter\expandafter\HyPsd@HighD
1435 \IntCalcMod#1!64!!%
1436 }
1437 \def\HyPsd@HighB#1!{%
1438 \expandafter\expandafter\expandafter\HyPsd@HighC
1439 \IntCalcDec#1!!%
1440 }
1441 \def\HyPsd@HighC#1!{%
1442 \IntCalcDiv#1!4!%
1443 \@backslashchar
1444 \IntCalcMod#1!4!%
1445 }
1446 \def\HyPsd@HighD#1!{%
1447 \ifcase\IntCalcDiv#1!8! %
1448 0\or 1\or 2\or 3\or 4\or 5\or 6\or 7%
1449 \fi
1450 \ifcase\IntCalcMod#1!8! %
1451 0\or 1\or 2\or 3\or 4\or 5\or 6\or 7%
1452 \fi
1453 }
1454 \def\HyPsd@DecimalToOctalFirst#1{%

```

```

1455 \9%
1456 \ifcase#1 %
1457     000\or 001\or 002\or 003\or 004\or 005\or 006\or 007%
1458     \or 010\or 011\or 012\or 013\or 014\or 015\or 016\or 017%
1459     \or 020\or 021\or 022\or 023\or 024\or 025\or 026\or 027%
1460     \or 030\or 031\or 032\or 033\or 034\or 035\or 036\or 037%
1461     \or 040\or 041\or 042\or 043\or 044\or 045\or 046\or 047%
1462     \or 050\or 051\or 052\or 053\or 054\or 055\or 056\or 057%
1463     \or 060\or 061\or 062\or 063\or 064\or 065\or 066\or 067%
1464     \or 070\or 071\or 072\or 073\or 074\or 075\or 076\or 077%
1465     \or 100\or 101\or 102\or 103\or 104\or 105\or 106\or 107%
1466     \or 120\or 111\or 112\or 113\or 114\or 115\or 116\or 117%
1467     \or 120\or 121\or 122\or 123\or 124\or 125\or 126\or 127%
1468     \or 130\or 131\or 132\or 133\or 134\or 135\or 136\or 137%
1469     \or 140\or 141\or 142\or 143\or 144\or 145\or 146\or 147%
1470     \or 150\or 151\or 152\or 153\or 154\or 155\or 156\or 157%
1471     \or 160\or 161\or 162\or 163\or 164\or 165\or 166\or 167%
1472     \or 170\or 171\or 172\or 173\or 174\or 175\or 176\or 177%
1473     \or 200\or 201\or 202\or 203\or 204\or 205\or 206\or 207%
1474     \or 210\or 211\or 212\or 213\or 214\or 215\or 216\or 217%
1475     \or 220\or 221\or 222\or 223\or 224\or 225\or 226\or 227%
1476     \or 230\or 231\or 232\or 233\or 234\or 235\or 236\or 237%
1477     \or 240\or 241\or 242\or 243\or 244\or 245\or 246\or 247%
1478     \or 250\or 251\or 252\or 253\or 254\or 255\or 256\or 257%
1479     \or 260\or 261\or 262\or 263\or 264\or 265\or 266\or 267%
1480     \or 270\or 271\or 272\or 273\or 274\or 275\or 276\or 277%
1481     \or 300\or 301\or 302\or 303\or 304\or 305\or 306\or 307%
1482     \or 310\or 311\or 312\or 313\or 314\or 315\or 316\or 317%
1483     \or 320\or 321\or 322\or 323\or 324\or 325\or 326\or 327%
1484     \or 330\or 331\or 332\or 333\or 334\or 335\or 336\or 337%
1485     \or 340\or 341\or 342\or 343\or 344\or 345\or 346\or 347%
1486     \or 350\or 351\or 352\or 353\or 354\or 355\or 356\or 357%
1487     \or 360\or 361\or 362\or 363\or 364\or 365\or 366\or 367%
1488     \or 370\or 371\or 372\or 373\or 374\or 375\or 376\or 377%
1489 \fi
1490 }
1491 \def\HyPsd@DecimalToOctalSecond#1{%
1492     \ifcase #1 %
1493         \000\or \001\or \002\or \003\or \004\or \005\or \006\or \007%
1494         \or \010\or \011\or \012\or \013\or \014\or \015\or \016\or \017%
1495         \or \020\or \021\or \022\or \023\or \024\or \025\or \026\or \027%
1496         \or \030\or \031\or \032\or \033\or \034\or \035\or \036\or \037%
1497         \or \040\or \041\or \042\or \043\or \044\or \045\or \046\or \047%
1498         \or \050\or \051\or \052\or \053\or \054\or \055\or \056\or \057%
1499         \or \060\or \061\or \062\or \063\or \064\or \065\or \066\or \067%
1500         \or \070\or \071\or \072\or \073\or \074\or \075\or \076\or \077%
1501         \or \100\or \101\or \102\or \103\or \104\or \105\or \106\or \107%
1502         \or \110\or \111\or \112\or \113\or \114\or \115\or \116\or \117%
1503         \or \120\or \121\or \122\or \123\or \124\or \125\or \126\or \127%
1504         \or \130\or \131\or \132\or \133\or \134\or \135\or \136\or \137%
1505         \or \140\or \141\or \142\or \143\or \144\or \145\or \146\or \147%
1506         \or \150\or \151\or \152\or \153\or \154\or \155\or \156\or \157%
1507         \or \160\or \161\or \162\or \163\or \164\or \165\or \166\or \167%
1508         \or \170\or \171\or \172\or \173\or \174\or \175\or \176\or \177%
1509         \or \200\or \201\or \202\or \203\or \204\or \205\or \206\or \207%
1510         \or \210\or \211\or \212\or \213\or \214\or \215\or \216\or \217%
1511         \or \220\or \221\or \222\or \223\or \224\or \225\or \226\or \227%

```

```

1512 \or \230\or \231\or \232\or \233\or \234\or \235\or \236\or \237%
1513 \or \240\or \241\or \242\or \243\or \244\or \245\or \246\or \247%
1514 \or \250\or \251\or \252\or \253\or \254\or \255\or \256\or \257%
1515 \or \260\or \261\or \262\or \263\or \264\or \265\or \266\or \267%
1516 \or \270\or \271\or \272\or \273\or \274\or \275\or \276\or \277%
1517 \or \300\or \301\or \302\or \303\or \304\or \305\or \306\or \307%
1518 \or \310\or \311\or \312\or \313\or \314\or \315\or \316\or \317%
1519 \or \320\or \321\or \322\or \323\or \324\or \325\or \326\or \327%
1520 \or \330\or \331\or \332\or \333\or \334\or \335\or \336\or \337%
1521 \or \340\or \341\or \342\or \343\or \344\or \345\or \346\or \347%
1522 \or \350\or \351\or \352\or \353\or \354\or \355\or \356\or \357%
1523 \or \360\or \361\or \362\or \363\or \364\or \365\or \366\or \367%
1524 \or \370\or \371\or \372\or \373\or \374\or \375\or \376\or \377%
1525 \fi
1526 }

1527 \def\HyPsd@CJKnumber#1{%
1528 \ifnum#1<\z@
1529 \CJK@minus
1530 \expandafter\HyPsd@@CJKnumber\expandafter{\number-\number#1}%
1531 \else
1532 \expandafter\HyPsd@@CJKnumber\expandafter{\number#1}%
1533 \fi
1534 }

1535 \def\HyPsd@@CJKnumber#1{%
1536 \ifcase#1 %
1537 \CJK@zero\or\CJK@one\or\CJK@two\or\CJK@three\or\CJK@four\or
1538 \CJK@five\or\CJK@six\or\CJK@seven\or\CJK@eight\or\CJK@nine\or
1539 \CJK@ten\or\CJK@ten\CJK@one\or\CJK@ten\CJK@two\or
1540 \CJK@ten\CJK@three\or\CJK@ten\CJK@four\or\CJK@ten\CJK@five\or
1541 \CJK@ten\CJK@six\or\CJK@ten\CJK@seven\or\CJK@ten\CJK@eight\or
1542 \CJK@ten\CJK@nine
1543 \else
1544 \ifnum#1<10000 %
1545 \HyPsd@CJKnumberFour#1!\@empty{20}%
1546 \@empty
1547 \else
1548 \ifnum#1<100000000 %
1549 \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1550 \IntCalcDiv#1!10000!%
1551 !\{20}%
1552 \CJK@tenthousand
1553 \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1554 \IntCalcMod#1!10000!%
1555 !\CJK@zero{10}%
1556 \@empty
1557 \else
1558 \expandafter\HyPsd@CJKnumberLarge
1559 \number\IntCalcDiv#1!100000000!\expandafter!%
1560 \number\IntCalcMod#1!100000000!!%
1561 \fi
1562 \fi
1563 \fi
1564 }

1565 \def\HyPsd@CJKnumberLarge#1!#2!{%
1566 \HyPsd@CJKnumberFour#1!\{20}%
1567 \CJK@hundredmillion
1568 \ifnum#2=\z@

```

```

1569 \else
1570 \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1571 \IntCalcDiv#2!10000!%
1572 !\CJK@zero{10}%
1573 \CJK@tenthousand
1574 \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1575 \IntCalcMod#2!10000!%
1576 !\CJK@zero{10}%
1577 \@empty
1578 \fi
1579 }
1580 \def\HyPsd@CJKnumberFour#1!#2#3{%
1581 \ifnum#1=\z@
1582 \expandafter\@gobble
1583 \else
1584 \ifnum#1<1000 %
1585 #2%
1586 \HyPsd@CJKnumberThree#1!#{#3}%
1587 \else
1588 \HyPsd@@CJKnumber{\IntCalcDiv#1!1000!}%
1589 \CJK@thousand
1590 \expandafter\expandafter\expandafter\HyPsd@CJKnumberThree
1591 \IntCalcMod#1!1000!%
1592 !\CJK@zero{10}%
1593 \fi
1594 \fi
1595 }
1596 \def\HyPsd@CJKnumberThree#1!#2#3{%
1597 \ifnum#1=\z@
1598 \else
1599 \ifnum#1<100 %
1600 #2%
1601 \HyPsd@CJKnumberTwo#1!#{#3}%
1602 \else
1603 \HyPsd@@CJKnumber{\IntCalcDiv#1!100!}%
1604 \CJK@hundred
1605 \expandafter\expandafter\expandafter\HyPsd@CJKnumberTwo
1606 \IntCalcMod#1!100!%
1607 !\CJK@zero{10}%
1608 \fi
1609 \fi
1610 }
1611 \def\HyPsd@CJKnumberTwo#1!#2#3{%
1612 \ifnum#1=\z@
1613 \else
1614 \ifnum#1<#3 %
1615 #2%
1616 \HyPsd@@CJKnumber{#1}%
1617 \else
1618 \HyPsd@@CJKnumber{\IntCalcDiv#1!10!}%
1619 \CJK@ten
1620 \ifnum\IntCalcMod#1!10!=\z@
1621 \else
1622 \HyPsd@@CJKnumber{\IntCalcMod#1!10!}%
1623 \fi
1624 \fi
1625 \fi

```

```

1626 }
1627 \def\HyPsd@CJKdigits#1{%
1628   \ifx*#1\relax
1629     \expandafter\HyPsd@@CJKdigits\expandafter\CJK@zero
1630   \else
1631     \HyPsd@@CJKdigits\CJK@null{#1}%
1632   \fi
1633 }
1634 \def\HyPsd@@CJKdigits#1#2{%
1635   \ifx\#2\%
1636   \else
1637     \HyPsd@@@CJKdigits#1#2\@nil
1638   \fi
1639 }%
1640 \def\HyPsd@@@CJKdigits#1#2#3\@nil{%
1641   \HyPsd@CJKdigit#1{#2}%
1642   \ifx\#3\%
1643     \expandafter\@gobble
1644   \else
1645     \expandafter\@firstofone
1646   \fi
1647   {%
1648     \HyPsd@@@CJKdigits#1#3\@nil
1649   }%
1650 }
1651 \def\HyPsd@CJKdigit#1#2{%
1652   \ifcase#2 %
1653     #1\or
1654     \CJK@one\or\CJK@two\or\CJK@three\or\CJK@four\or
1655     \CJK@five\or\CJK@six\or\CJK@seven\or\CJK@eight\or\CJK@nine
1656   \fi
1657 }

```

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

```

\def\@current@cmd#1{%
  \ifx\protect\@typeset@protect
    \@inmathwarn#1%
  \else
    \noexpand#1\expandafter\@gobble
  \fi}
\def\@changed@cmd#1#2{%
  \ifx\protect\@typeset@protect
    \@inmathwarn#1%
    \expandafter\ifx\csname\cf@encoding\string#1\endcsname\relax
      \expandafter\ifx\csname?\string#1\endcsname\relax
        \expandafter\def\csname?\string#1\endcsname{%

```

```

        \TextSymbolUnavailable#1%
      }%
    \fi
    \global\expandafter\let
      \csname\cf@encoding\string#1\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}

1658 \def\HyPsd@inmathwarn#1#2{%
1659   \ifx#2\expandafter
1660     \expandafter\ifx\csname\cf@encoding\string#1\endcsname\relax
1661       \HyPsd@GLYPHERR
1662       \expandafter\@gobble\string#1%
1663     >%
1664     \expandafter\expandafter\expandafter\HyPsd@EndWithElse
1665   \else
1666     \expandafter\expandafter\expandafter\HyPsd@GobbleFiFi
1667   \fi
1668 \else
1669   \expandafter#2%
1670 \fi
1671 }
1672 \def\HyPsd@GobbleFiFi#1\fi#2\fi{}
1673 \def\HyPsd@EndWithElse#1\else\else}

\HyPsd@add@accent

1674 \def\HyPsd@add@accent#1#2{%
1675   \HyPsd@GLYPHERR\expandafter\@gobble\string#1+\string#2>%
1676   #2%
1677 }%

```

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`.

```

1678 \def\HyPsd@LetUnexpandableSpace#1{%
1679   \expandafter\futurelet\expandafter#1\expandafter\@gobble\space\relax
1680 }

```

`\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.

```
1681 \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.

```
1682 \edef\HyPsd@XSPACE{\string#\string X}
1683 \edef\HyPsd@ITALCORR{\string#\string I}
1684 \edef\HyPsd@GLYPHERR{\string#\string G}
```

6.5.9 `\hspace` fix

`\HyPsd@hspace`

```
1685 \def\HyPsd@hspace#1{\HyPsd@@hspace#1*END}
```

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

```
1686 \def\HyPsd@@hspace#1*#2END{%
1687   \ifx\#2\%
1688     \HyPsd@hspacetest{#1}%
1689   \else
1690     \expandafter\HyPsd@hspacetest
1691   \fi
1692 }
```

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

```
1693 \def\HyPsd@hspacetest#1{\ifdim#1>\z@\space\fi}
```

6.5.10 Fix for AMS classes

```
1694 \ltx@ifundefined{tocsection}{%
1695   \let\HyPsd@AMSclassfix\relax
1696 }{%
1697   \def\HyPsd@AMSclassfix{%
1698     \let\tocpart\HyPsd@tocsection
1699     \let\tocchapter\HyPsd@tocsection
1700     \let\tocappendix\HyPsd@tocsection
1701     \let\tocsection\HyPsd@tocsection
1702     \let\tocsubsection\HyPsd@tocsection
1703     \let\tocsubsubsection\HyPsd@tocsection
1704     \let\tocparagraph\HyPsd@tocsection
1705   }%
1706   \def\HyPsd@tocsection#1#2#3{%
1707     \if @#2@ \else \if @#1@ \else #1 \fi #2. \fi
1708     #3%
1709   }%
1710 }
```

6.5.11 Reference commands

`\HyPsd@href`

```
1711 \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.

```
1712 \def\HyPsd@ref#1{\HyPsd@@ref#1*\END}%
```

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

```
1713 \def\HyPsd@@ref#1*#2\END{%
1714   \ifx\#2\%
1715     \HyPsd@@@ref{#1}%
1716   \else
1717     \expandafter\HyPsd@@@ref
1718   \fi
1719 }%
```

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

```
1720 \def\HyPsd@@@ref#1{%
1721   \expandafter\ifx\csname r@#1\endcsname\relax
1722     ??%
1723   \else
1724     \expandafter\expandafter\expandafter
1725     \@car\csname r@#1\endcsname\@nil
1726   \fi
1727 }
```

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

```
1728 \def\HyPsd@pageref#1{\HyPsd@@pageref#1*\END}
```

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

```
1729 \def\HyPsd@@pageref#1*#2\END{%
1730   \ifx\#2\%
1731     \HyPsd@@@pageref{#1}%
1732   \else
1733     \expandafter\HyPsd@@@pageref
1734   \fi
1735 }
```

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

```
1736 \def\HyPsd@@@pageref#1{%
1737   \expandafter\ifx\csname r@#1\endcsname\relax
1738     ??%
1739   \else
1740     \expandafter\expandafter\expandafter\expandafter
1741     \expandafter\expandafter\expandafter\@car
1742     \expandafter\expandafter\expandafter\@gobble
1743     \csname r@#1\endcsname{}\@nil
1744   \fi
1745 }
```

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

```
1746 \def\HyPsd@nameref#1{\HyPsd@@nameref#1*\END}
```

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

```
1747 \def\HyPsd@@nameref#1*#2\END{%
1748   \ifx\#2\%
1749     \HyPsd@@@nameref{#1}%
```

```

1750 \else
1751 \expandafter\HyPsd@@@nameref
1752 \fi
1753 }

```

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

```

1754 \def\HyPsd@@@nameref#1{%
1755 \expandafter\ifx\csname r@#1\endcsname\relax
1756 ??%
1757 \else
1758 \expandafter\expandafter\expandafter\expandafter
1759 \expandafter\expandafter\expandafter\@car
1760 \expandafter\expandafter\expandafter\@gobbletwo
1761 \csname r@#1\endcsname\}\}\@nil
1762 \fi
1763 }

```

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

```

1764 \def\HyPsd@autoref#1{\HyPsd@@autoref#1*\END}

```

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

```

1765 \def\HyPsd@@autoref#1*#2\END{%
1766 \ifx\#2\%
1767 \HyPsd@@@autoref{#1}%
1768 \else
1769 \expandafter\HyPsd@@@autoref
1770 \fi
1771 }

```

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

```

1772 \def\HyPsd@@@autoref#1{%
1773 \expandafter\ifx\csname r@#1\endcsname\relax
1774 ??%
1775 \else
1776 \expandafter\expandafter\expandafter\HyPsd@autorefname
1777 \csname r@#1\endcsname\}\}\}\@nil
1778 \expandafter\expandafter\expandafter
1779 \@car\csname r@#1\endcsname\@nil
1780 \fi
1781 }

```

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

```

1782 \def\HyPsd@autorefname#1#2#3#4#5\@nil{%
1783 \ifx\#4\%
1784 \else
1785 \HyPsd@@@autorefname#4.\@nil
1786 \fi
1787 }

```

\HyPsd@@@autorefname

```

1788 \def\HyPsd@@@autorefname#1.#2\@nil{%
1789 \ltx@ifundefined{#1autorefname}{%
1790 \ltx@ifundefined{#1name}{%
1791 }{%
1792 \csname#1name\endcsname\space
1793 }%

```

```

1794 }{%
1795   \csname#1\autorefname\endcsname\space
1796 }%
1797 }

```

6.5.12 Redefining the defining commands

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

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

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

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

The difference between `\HyPsd@DefCommand` and `\HyPsd@LetCommand` is that the first one also cancels this arguments, the parameter and definition text. The right side of the `\let` commands cannot be canceled with an undelimited parameter because of a possible space token after `\futurelet`.

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

```

\HyPsd@DefCommand
\HyPsd@LetCommand
1798 \begingroup
1799   \def\x#1#2{%
1800     \endgroup
1801     \let#1\def
1802     \def\HyPsd@DefCommand##1##2###{%
1803       #1%
1804       \expandafter\noexpand
1805         \csname\expandafter\@gobble\string##1\@empty\endcsname
1806       \@gobble
1807     }%
1808     \let#2\let
1809     \def\HyPsd@@LetCommand##1{%
1810       \expandafter\ifx\csname##1\expandafter\endcsname
1811         \csname iftrue\endcsname
1812         \pdfstringdefWarn\let
1813         \expandafter\@gobble
1814       \else
1815         \expandafter\ifx\csname##1\expandafter\endcsname
1816           \csname iffalse\endcsname

```

```

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

```

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).

```

1835 \def\HyPsd@ifnextchar#1{%
1836 \pdfstringdefWarn#1%
1837 \expandafter\@gobbletwo\@gobble
1838 }

```

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`.

```

1839 \def\HyPsd@protected@testopt#1{%
1840 \pdfstringdefWarn#1%
1841 \@gobbletwo
1842 }

```

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:

```

1843 \def\HyPsd@Warning#1{%
1844   \begingroup
1845   \let\space\ltx@space
1846   \Hy@Warning{#1}%
1847 \endgroup
1848 }

```

6.6.2 Protecting spaces

```

1849 \RequirePackage{etexcmds}[2007/09/09]
1850 \ifetex@unexpanded
1851   \expandafter\@secondoftwo
1852 \else
1853   \expandafter\@firstoftwo
1854 \fi
1855 {%

```

`\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`.

```

1856 \def\HyPsd@ProtectSpaces#1{%
1857   \iftrue
1858     \expandafter\HyPsd@@ProtectSpacesFi
1859     \expandafter|\expandafter\@empty#1| \HyPsd@End#1%
1860   \fi
1861 }%

```

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

```

1862 \def\HyPsd@@ProtectSpacesFi#1 #2\HyPsd@End#3\fi{%
1863   \fi
1864   \ifx\scrollmode#2\scrollmode
1865     \HyPsd@RemoveMask#1\HyPsd@End#3%
1866   \else
1867     \gdef#3{#1\HyPsd@UnexpandableSpace#2}%
1868     \expandafter\HyPsd@@ProtectSpacesFi#3\HyPsd@End#3%
1869   \fi
1870 }%

```

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.

```

1871 \def\HyPsd@RemoveMask|#1|\HyPsd@End#2{%
1872   \toks@\expandafter{#1}%
1873   \xdef#2{\the\toks@}%
1874 }%

1875 }{%
1876   \let\HyPsd@fi\fi
1877   \def\HyPsd@ProtectSpaces#1{%
1878     \xdef#1{%
1879       \iftrue
1880         \expandafter\HyPsd@@ProtectSpacesFi

```

```

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

```

6.6.3 Remove grouping braces

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

```

1898 \def\HyPsd@RemoveBraces#1{%
1899   \ifx\scrollmode#1\scrollmode
1900   \else
1901     \HyPsd@@RemoveBracesFi#1\HyPsd@End{#1}%
1902   \fi
1903 }

```

`\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`.

```

1904 \def\HyPsd@@RemoveBracesFi#1#2\HyPsd@End#3\fi{%
1905   \fi
1906   \def\Hy@temp@A{#1#2}%
1907   \def\Hy@temp@B{#3}%
1908   \ifx\Hy@temp@A\Hy@temp@B
1909     \expandafter\def\expandafter\HyPsd@String\expandafter{%
1910       \HyPsd@String#1%
1911     }%
1912   \ifx\scrollmode#2\scrollmode
1913   \else
1914     \Hy@ReturnAfterFiFiEnd{%
1915       \HyPsd@RemoveBraces{#2}%
1916     }%
1917   \fi
1918 \else
1919   \def\Hy@temp@A{#1}%
1920   \HyPsd@AppendItalcorr\HyPsd@String

```

```

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

```

`\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`.

```

1936 \def\HyPsd@AppendItalcorr#1{%
1937 \expandafter\HyPsd@@AppendItalcorr\expandafter{/}%#1%
1938 }
1939 \def\HyPsd@@AppendItalcorr#1#2{%
1940 \expandafter\def\expandafter#2\expandafter{#2#1}%
1941 }

```

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>.

```

1942 \ltx@ifundefined{directlua}{%
1943 }{%
1944 \expandafter\ifx\csname\endcsname\relax\fi
1945 }

```

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`.

```

1946 \begingroup
1947 \catcode'\Q=\active
1948 \let Q\ltx@empty
1949 \gdef\HyPsd@CheckCatcodes#1#2\HyPsd@End{%
1950 \global\let\HyPsd@Rest\relax
1951 \ifcat\relax\noexpand#1\relax

```

```

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

```

```

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

```

Remove counts, dimens, skips.

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

```

2036 \def\HyPsd@AfterCountRemove#1\HyPsd@End{%
2037 \gdef\HyPsd@Rest{#1}%
2038 }

```

`\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.

```

2039 \def\HyPsd@AfterDimenRemove#1\HyPsd@End{%
2040 \ifdim\ifx\HyPsd@String\@empty\z@\else\dimen@>1ex %
2041 \HyPsd@ReplaceSpaceWarning{\string\kern\space\the\dimen@}%
2042 \gdef\HyPsd@Rest{\HyPsd@UnexpandableSpace #1}%
2043 \else
2044 \ifdim\dimen@=\z@
2045 \else
2046 \HyPsd@RemoveSpaceWarning{\string\kern\space\the\dimen@}%
2047 \fi
2048 \gdef\HyPsd@Rest{#1}%
2049 \fi
2050 }

```

`\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).

```

2051 \def\HyPsd@AfterSkipRemove#1\HyPsd@End{%
2052 \ifdim\ifx\HyPsd@String\@empty\z@\else\skip@>1ex %
2053 \HyPsd@ReplaceSpaceWarning{\string\hskip\space\the\skip@}%

```

```

2054 \gdef\HyPsd@Rest{\HyPsd@UnexpandableSpace #1}%
2055 \else
2056 \ifdim\skip@=\z@
2057 \else
2058 \HyPsd@RemoveSpaceWarning{\string\kern\space\the\skip@}%
2059 \fi
2060 \gdef\HyPsd@Rest{#1}%
2061 \fi
2062 }

```

Catcode warnings.

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

```

2063 \def\HyPsd@CatcodeWarning#1{%
2064 \HyPsd@Warning{%
2065 Token not allowed in a PDF string (%)
2066 \ifHy@unicode
2067 Unicode%
2068 \else
2069 PDFDocEncoding%
2070 \fi
2071 }:%
2072 \MessageBreak removing '\HyPsd@RemoveCmdPrefix#1'%
2073 }%
2074 }
2075 \begingroup
2076 \catcode'\|=0 %
2077 \catcode'\|=12 %
2078 \gdef\HyPsd@RemoveCmdPrefix#1{%
2079 |expandafter\HyPsd@@RemoveCmdPrefix
2080 |string#1|@empty\<>-|@empty|@empty
2081 }%
2082 \gdef\HyPsd@@RemoveCmdPrefix#1\<>-#2|@empty#3|@empty{#1#2}%
2083 \endgroup

```

\HyPsd@RemoveSpaceWarning

```

2084 \def\HyPsd@RemoveSpaceWarning#1{%
2085 \HyPsd@Warning{%
2086 Token not allowed in a PDF string (%)
2087 \ifHy@unicode
2088 Unicode%
2089 \else
2090 PDFDocEncoding%
2091 \fi
2092 }:%
2093 \MessageBreak #1\MessageBreak
2094 removed%
2095 }%
2096 }

```

\HyPsd@ReplaceSpaceWarning

```

2097 \def\HyPsd@ReplaceSpaceWarning#1{%
2098 \HyPsd@Warning{%
2099 Token not allowed in a PDF string (%)
2100 \ifHy@unicode
2101 Unicode%
2102 \else

```

```

2103     PDFDocEncoding%
2104     \fi
2105     ):%
2106     \MessageBreak #1\MessageBreak
2107     replaced by space%
2108     }%
2109 }

```

6.6.5 Check for wrong glyphs

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

```

2110 \def\HyPsd@GlyphProcess#1\relax#2\@empty{%
2111   \expandafter\def\expandafter\HyPsd@String\expandafter{%
2112     \HyPsd@String#1%
2113   }%
2114   \ifx\#2\%
2115   \else
2116     \ltx@ReturnAfterFi{%
2117       \HyPsd@GlyphProcessWarning#2\@empty
2118     }%
2119   \fi
2120 }
2121 \def\HyPsd@GlyphProcessWarning#1>#2\@empty{%
2122   \HyPsd@@@GlyphProcessWarning#1++>%
2123   \HyPsd@GlyphProcess#2\@empty
2124 }
2125 \def\HyPsd@@@GlyphProcessWarning#1+#2+#3>{%
2126   \ifx\#2\%
2127     \HyPsd@Warning{%
2128       Glyph not defined in %
2129       P\ifHy@unicode U\else D1\fi\space encoding,\MessageBreak
2130       removing '@backslashchar#1'%
2131     }%
2132   \else
2133     \HyPsd@Warning{%
2134       Composite letter '@backslashchar#1+#2'\MessageBreak
2135       not defined in P\ifHy@unicode U\else D1\fi\space encoding,%
2136       \MessageBreak
2137       removing '@backslashchar#1'%
2138     }%
2139   \fi
2140 }

```

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`.

```

2141 \def\HyPsd@spaceopti#1{ % first space
2142   \ifx\HyPsd@spaceopti#1%
2143     \040%
2144   \else
2145     #1%
2146   \fi
2147 }%

```

6.6.6 Replacing tokens

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

```
#1    Exact the tokens that should be replaced.
#2    The replacement (don't need to be expanded).
#3    Command with the string.
2148 \def\HyPsd@Subst#1#2#3{%
2149   \def\HyPsd@@ReplaceFi##1#1##2\END\fi{%
2150     \fi
2151     ##1%
2152     \ifx\scrollmode##2\scrollmode
2153     \else
2154       #2%
2155       \HyPsd@@ReplaceFi##2\END
2156     \fi
2157   }%
2158   \xdef#3{%
2159     \iftrue
2160       \expandafter\HyPsd@@ReplaceFi#3#1\END
2161     \fi
2162   }%
2163 }
```

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

```
2164 \def\HyPsd@StringSubst#1{%
2165   \expandafter\HyPsd@Subst\expandafter{\string#1}%
2166 }
```

`\HyPsd@EscapeTeX`

```
2167 \begingroup
2168   \lccode'\!='\%%
2169   \lccode'\|='\%%
2170   \lccode'\(='\{%
2171   \lccode'\)='\}%
2172   \lccode'0=\ltx@zero
2173   \lccode'1=\ltx@zero
2174   \lccode'3=\ltx@zero
2175   \lccode'4=\ltx@zero
2176   \lccode'5=\ltx@zero
2177   \lccode'7=\ltx@zero
2178 \lowercase{\endgroup
2179   \def\HyPsd@EscapeTeX#1{%
2180     \HyPsd@Subst!{|045}#1%
2181     \HyPsd@Subst({|173}#1%
2182     \HyPsd@Subst){|175}#1%
2183   }%
2184 }
```

6.6.7 Support for package `xspace`

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

```

2185 \def\HyPsd@doxspace#1{%
2186   \ifx#1\relax\else
2187     \ifx#1.\else
2188       \ifx#1:\else
2189         \ifx#1,\else
2190         \ifx#1;\else
2191         \ifx#1!\else
2192         \ifx#1?\else
2193         \ifx#1/\else
2194         \ifx#1-\else
2195         \ifx#1'\else
2196         \HyPsd@SPACEOPTI
2197       \fi
2198     \fi
2199   \fi
2200 \fi
2201 \fi
2202 \fi
2203 \fi
2204 \fi
2205 \fi
2206 \fi
2207 #1%
2208 }%

```

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.

```

2209 \begingroup
2210 \catcode'\|=0 %
2211 \catcode'\|=12 %

```

\HyPsd@ConvertToUnicode

```

2212 |gdef|HyPsd@ConvertToUnicode#1{%
2213   |xdef#1{%
2214     |expandafter|HyPsd@DoConvert#1|@empty|@empty|@empty
2215   }%
2216   |ifx#1|@empty
2217   |else
2218     |xdef#1{%
2219       \376\377%
2220       #1%
2221     }%
2222   |fi
2223 }%

```

\HyPsd@DoConvert

```

2224 |gdef|HyPsd@DoConvert#1{%
2225   |ifx#1|@empty
2226   |else
2227     |ltx@ReturnAfterFi{%
2228       |ifx#1\%%
2229       \%%
2230       |expandafter|HyPsd@DoEscape
2231     |else

```

```

2232     |HyPsd@Char{#1}%
2233     |expandafter|HyPsd@DoConvert
2234     |fi
2235     }%
2236     |fi
2237     }%

```

\HyPsd@DoEscape

```

2238 |gdef|HyPsd@DoEscape#1{%
2239 |ifx#19%
2240 |expandafter|HyPsd@GetTwoBytes
2241 |else
2242 |ltx@ReturnAfterFi{%
2243 |ifx#18%
2244 00%
2245 |expandafter|HyPsd@GetTwoBytes
2246 |else
2247 #1%
2248 |expandafter|HyPsd@GetOneByte
2249 |fi
2250 }%
2251 |fi
2252 }%

```

\HyPsd@GetTwoBytes

```

2253 |gdef|HyPsd@GetTwoBytes#1\#2#3#4{%
2254 #1\#2#3#4%
2255 |HyPsd@DoConvert
2256 }%

```

\HyPsd@GetOneByte

```

2257 |gdef|HyPsd@GetOneByte#1#2{%
2258 #1#2%
2259 |HyPsd@DoConvert
2260 }%
2261 |endgroup

```

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

```

2262 \def\HyPsd@GetNextTwoTokens#1#2#3\END#4{%
2263 \xdef#4{#4#1#2}%
2264 \HyPsd@@ConvertToUnicode#3\END#4%
2265 }

```

\HyPsd@Char

```

2266 \begingroup
2267 \catcode0=9 %
2268 \catcode'\^=7 %
2269 \catcode'\^^=12 %
2270 \def\x{^^^^0000}%
2271 \expandafter\endgroup
2272 \ifx\x\@empty
2273 \def\HyPsd@Char#1{%
2274 \ifnum'#1<128 %
2275 \@backslashchar 000#1%
2276 \else
2277 \ifnum'#1<65536 %

```

```

2278 \expandafter\HyPsd@CharTwoByte\number'#1!%
2279 \else
2280 \expandafter\expandafter\expandafter\HyPsd@CharSurrogate
2281 \intcalcSub{'#1}{65536}!%
2282 \fi
2283 \fi
2284 }%
2285 \def\HyPsd@CharTwoByte#1!{%
2286 \expandafter\expandafter\expandafter\HyPsd@CharOctByte
2287 \IntCalcDiv#1!256!!%
2288 \expandafter\expandafter\expandafter\HyPsd@CharOctByte
2289 \IntCalcMod#1!256!!%
2290 }%
2291 \def\HyPsd@CharOctByte#1!{%
2292 \@backslashchar
2293 \IntCalcDiv#1!64!%
2294 \intcalcDiv{\IntCalcMod#1!64!}{8}%
2295 \IntCalcMod#1!8!%
2296 }%
2297 \def\HyPsd@CharSurrogate#1!{%
2298 \@backslashchar 33%
2299 \IntCalcDiv#1!262144!%
2300 \expandafter\expandafter\expandafter\HyPsd@CharOctByte
2301 \intcalcDiv{\IntCalcMod#1!262144!}{1024}!%
2302 \@backslashchar 33%
2303 \expandafter\expandafter\expandafter\IntCalcAdd
2304 \intcalcDiv{\IntCalcMod#1!1024!}{256}!4!%
2305 \expandafter\expandafter\expandafter\HyPsd@CharOctByte
2306 \IntCalcMod#1!256!!%
2307 }%
2308 \else
2309 \def\HyPsd@Char#1{%
2310 \@backslashchar 000#1%
2311 }%
2312 \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`

```

2313 \begingroup\expandafter\expandafter\expandafter\endgroup
2314 \expandafter\ifx\csname numexpr\endcsname\relax
2315 \let\HyPsd@UTFviii\relax
2316 \else
2317 \begingroup
2318 \lccode'\~='^^f4\relax
2319 \lowercase{\endgroup
2320 \def\HyPsd@UTFviii{%

```

```

2321 \let\UTFviii@two@octets\HyPsd@UTFviii@two
2322 \let\UTFviii@three@octets\HyPsd@UTFviii@three
2323 \let\UTFviii@four@octets\HyPsd@UTFviii@four
2324 \ifx~\HyPsd@UTFviii@ccxliv@undef
2325 \let~\HyPsd@UTFviii@ccxliv@def
2326 \fi
2327 \let\unichar\HyPsd@unichar
2328 }%
2329 }%
2330 \def\HyPsd@UTFviii@ccxliv@undef{\@inpenc@undefined@{utf8}}}%
2331 \edef\HyPsd@UTFviii@ccxliv@def{%
2332 \noexpand\UTFviii@four@octets\string ^f4%
2333 }%

```

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.

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

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

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

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

$$(5)$$

```

2334 \def\HyPsd@UTFviii@two#1#2{%
2335 \expandafter\HyPsd@UTFviii@@two
2336 \number\dimexpr.25\dimexpr'#1sp\expandafter\relax\expandafter| %
2337 \number'#1\expandafter| %
2338 \number\dimexpr.125\dimexpr'#2sp\expandafter\relax\expandafter| %
2339 \number'#2 \@nil
2340 }%
2341 \def\HyPsd@UTFviii@@two#1|#2|#3|#4\@nil{%
2342 \expandafter\8%
2343 \number\numexpr #1-48\expandafter\relax
2344 \csname\number\numexpr #2-4*#1\relax\expandafter\endcsname
2345 \number\numexpr #3-8*%
2346 \number\dimexpr.125\dimexpr#3sp\relax\relax\expandafter\relax
2347 \number\numexpr #4-8*#3\relax
2348 }%

```

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

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

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

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

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

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

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

$$(12)$$

```

2349 \def\HyPsd@UTFviii@three#1#2#3{%
2350 \expandafter\HyPsd@UTFviii@@three
2351 \number\dimexpr.25\dimexpr'#1sp\expandafter\relax\expandafter| %
2352 \number'#1\expandafter| %

```

```

2353 \number\ifnum\numexpr'#2-128\relax <32 0\else 1\fi\expandafter| %
2354 \number\dimexpr.25\dimexpr'#2sp\expandafter\relax\expandafter| %
2355 \number'#2\expandafter| %
2356 \number\dimexpr.125\dimexpr'#3sp\expandafter\relax\expandafter| %
2357 \number'#3 \@nil
2358 }%
2359 \def\HyPsd@UTFviii@@three#1|#2|#3|#4|#5|#6|#7\@nil{%
2360 \expandafter\9%
2361 \number\numexpr #1-56\expandafter\relax
2362 \number\numexpr 2*(#2-4*#1)+#3\expandafter\relax
2363 \number\numexpr #4 - 32 -\ifcase#3 0\else 8\fi\expandafter\relax
2364 \csname\number\numexpr #5-4*#4\relax\expandafter\endcsname
2365 \number\numexpr #6-16\expandafter\relax
2366 \number\numexpr #7-8*#6\relax
2367 }%

```

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

```

```

2368 \def\HyPsd@UTFviii@four#1#2{%
2369 \expandafter\HyPsd@@UTFviii@four\number
2370 \numexpr-1+('#1-240)*4+\dimexpr.0625\dimexpr'#2sp-128sp%
2371 \expandafter|\number
2372 \numexpr'#2-16*\dimexpr.0625\dimexpr'#2sp| %
2373 }%
2374 \def\HyPsd@@UTFviii@four#1|#2|#3{%
2375 \933\number\dimexpr.25\dimexpr#1sp\relax\relax
2376 \csname\number\numexpr#1-4*\dimexpr.25\dimexpr#1sp\endcsname
2377 \ifodd#2 %
2378 \number\numexpr(#2-1)/2\relax
2379 \else
2380 \number\numexpr#2/2\relax
2381 \fi
2382 \number\numexpr\ifodd#2 4+\fi
2383 \dimexpr.0625\dimexpr'#3sp-128sp\relax\relax\relax
2384 \933%
2385 \expandafter\HyPsd@@@UTFviii@four\number
2386 \numexpr'#3-16*\dimexpr.0625\dimexpr'#3sp| %
2387 }%
2388 \def\HyPsd@@@UTFviii@four#1|#2{%
2389 \number\numexpr4+\dimexpr.25\dimexpr#1sp\relax\relax\relax
2390 \csname\number\numexpr#1-4*\dimexpr.25\dimexpr#1sp\endcsname
2391 \number\dimexpr.125\dimexpr'#2sp-128sp\relax\relax
2392 \number\numexpr'#2-8*\dimexpr.125\dimexpr'#2sp\relax\relax\relax
2393 }%

```

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

```

2394 \def\HyPsd@unichar#1{%
2395 \ifHy@unicode
2396 \ifnum#1>"10FFFF %
2397 \HyPsd@UnicodeReplacementCharacter % illegal
2398 \else
2399 \ifnum#1>"FFFF %

```

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

```
2400      \expandafter\HyPsd@unichar\expandafter{%
2401      \number\numexpr 55296+%
2402      \dimexpr.0009765625\dimexpr\number#1sp-\p@
2403      \relax\relax\relax
2404      }%
```

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

```
2405      \expandafter\HyPsd@unichar\expandafter{%
2406      \number\numexpr#1-9216%
2407      -1024*\dimexpr.0009765625\dimexpr\number#1sp-\p@
2408      \relax\relax\relax
2409      }%
2410      \else
2411      \ifnum#1>"7FF %
2412      \9%
2413      \expandafter\HyPsd@unichar@first@byte\expandafter{%
2414      \number
2415      \dimexpr.00390625\dimexpr\number#1sp\relax\relax
2416      }%
2417      \else
2418      \8%
2419      \number\dimexpr.00390625\dimexpr\number#1sp\relax\relax
2420      \fi
2421      \expandafter\HyPsd@unichar@second@byte\expandafter{%
2422      \number
2423      \numexpr#1-256*\number
2424      \dimexpr.00390625\dimexpr\number#1sp\relax\relax\relax
2425      }%
2426      \fi
2427      \fi
2428      \else
2429      .% unsupported (Unicode -> PDF Doc Encoding)
2430      \fi
2431      }%
2432      \def\HyPsd@UnicodeReplacementCharacter{\9377\375}%
2433      \def\HyPsd@unichar@first@byte#1{%
2434      \number\dimexpr.015625\dimexpr#1sp\relax\relax
2435      \expandafter\HyPsd@unichar@octtwo\expandafter{%
2436      \number
2437      \numexpr#1-64*\number\dimexpr.015625\dimexpr#1sp%
2438      \relax\relax\relax
2439      }%
2440      }%
2441      \def\HyPsd@unichar@second@byte#1{%
2442      \csname\number\dimexpr.015625\dimexpr#1sp\relax\relax\endcsname
2443      \expandafter\HyPsd@unichar@octtwo\expandafter{%
2444      \number
2445      \numexpr#1-64*\number\dimexpr.015625\dimexpr#1sp%
2446      \relax\relax\relax
2447      }%
2448      }%
2449      \def\HyPsd@unichar@octtwo#1{%
2450      \number\dimexpr.125\dimexpr#1sp\relax\relax
2451      \number\numexpr#1-8*\number\dimexpr.125\dimexpr#1sp%
2452      \relax\relax\relax
2453      }%
```

2454 \fi

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

```
2455 \def\HyPsd@utf@viii@undeferr#1#2#3#4#5#6{%
2456   \ifx\@gobble#1%
2457   \else
2458     [Please insert \textbackslash PrerenderUnicode%
2459     \textbraceleft#1\textbraceright\space
2460     into preamble]%
2461   \fi
2462 }%
```

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.

```
2463 \def\HyPsd@DieFace#1{%
2464   \ifHy@unicode
2465   \ifnum#1<1 %
2466     \HyPsd@UnicodeReplacementCharacter
2467   \else
2468     \ifnum#1>6 %
2469       \9046\205%
2470       \expandafter\expandafter\expandafter
2471       \HyPsd@DieFaceLarge\intcalcSub{#1}{6}!%
2472     \else
2473       \9046\20\intcalcDec{#1}%
2474     \fi
2475   \fi
2476 \else
2477   .% Die faces are not part of PDFDocEncoding
2478 \fi
2479 }
```

\HyPsd@DieFaceLarge

```
2480 \def\HyPsd@DieFaceLarge#1!{%
2481   \ifnum#1>6 %
2482     \expandafter\ltx@firstoftwo
2483   \else
2484     \expandafter\ltx@secondoftwo
2485   \fi
2486   {%
2487     \9046\205%
2488     \expandafter\expandafter\expandafter
2489     \HyPsd@DieFaceLarge\IntCalcSub#1!6!%
2490   }{%
2491     \9046\20\IntCalcDec#1!%
2492   }%
2493 }
```

6.6.11 Support for moon phases of package china2e

```

2494 \def\HyPsd@MoonPha#1{%
2495   \ifcase\intcalcNum{#1} %
2496     \HyPsd@UnicodeReplacementCharacter
2497   \or % 1
2498   % U+1F31A NEW MOON WITH FACE; \MoonPha{1} (china2e)
2499   \9330\074\9337\032%
2500   \or % 2
2501   \HyPsd@UnicodeReplacementCharacter
2502   \or % 3
2503   % U+1F31D FULL MOON WITH FACE; \MoonPha{3} (china2e)
2504   \9330\074\9337\035%
2505   \or % 4
2506   % U+1F31C LAST QUARTER MOON WITH FACE; \MoonPha{4} (china2e)
2507   \9330\074\9337\034%
2508   \else
2509     \HyPsd@UnicodeReplacementCharacter
2510   \fi
2511 }
2512 %* \HyPsd@MoonPha -> \MoonPha

```

6.6.12 Support for package pifont

\HyPsd@ding

```

2513 \def\HyPsd@ding#1{%
2514   \ifHy@unicode
2515     \ifnum#1<32 %
2516       \HyPsd@UnicodeReplacementCharacter
2517     \else
2518       \ifnum#1>254 %
2519         \HyPsd@UnicodeReplacementCharacter
2520       \else
2521         \ifnum#1<127 %
2522           \expandafter\expandafter\expandafter
2523           \HyPsd@@@ding\intcalcNum{#1}!%
2524         \else
2525           \ifnum#1>160 %
2526             \expandafter\expandafter\expandafter
2527             \HyPsd@@@ding\intcalcNum{#1}!%
2528           \else
2529             \HyPsd@UnicodeReplacementCharacter
2530           \fi
2531         \fi
2532       \fi
2533     \fi
2534   \else
2535     .% Dingbats are not part of PDFDocEncoding
2536   \fi
2537 }

```

\HyPsd@@@ding

```

2538 \def\HyPsd@@@ding#1!{%
2539   \ltx@ifundefined{HyPsd@ding@#1}{%
2540     \ifnum#1<127 %
2541       \9047%
2542     \HyPsd@DecimalToOctalSecond{\IntCalcSub#1!32!}%
2543   \else

```

```

2544 \ifnum#1<168 %
2545 \9047\14\IntCalcSub#1!160!%
2546 \else
2547 \ifnum#1>181 %
2548 \9047\HyPsd@DecimalToOctalSecond{\IntCalcSub#1!64!}%
2549 \else
2550 % 172..181 -> U+2460..U+2469
2551 \9044\HyPsd@DecimalToOctalSecond{\IntCalcSub#1!76!}%
2552 \fi
2553 \fi
2554 \fi
2555 }{%
2556 \csname HyPsd@ding@#1\endcsname
2557 }%
2558 }

2559 \@namedef{HyPsd@ding@32}{\space}
2560 % U+260E BLACK TELEPHONE
2561 \@namedef{HyPsd@ding@37}{\9046\016}% U+260E
2562 % U+261B BLACK RIGHT POINTING INDEX
2563 \@namedef{HyPsd@ding@42}{\9046\033}% U+261B
2564 % U+261E WHITE RIGHT POINTING INDEX
2565 \@namedef{HyPsd@ding@43}{\9046\036}% U+261E
2566 % U+2605 BLACK STAR
2567 \@namedef{HyPsd@ding@72}{\9046\005}% U+2605
2568 % U+25CF BLACK CIRCLE
2569 \@namedef{HyPsd@ding@108}{\9045\317}% U+25CF
2570 % U+25A0 BLACK SQUARE
2571 \@namedef{HyPsd@ding@110}{\9045\240}% U+25A0
2572 % U+25B2 BLACK UP-POINTING TRIANGLE
2573 \@namedef{HyPsd@ding@115}{\9045\262}% U+25B2
2574 % U+25BC BLACK DOWN-POINTING TRIANGLE
2575 \@namedef{HyPsd@ding@116}{\9045\274}% U+25BC
2576 % U+25C6 BLACK DIAMOND
2577 \@namedef{HyPsd@ding@117}{\9045\306}% U+25C6
2578 % U+25D7 RIGHT HALF BLACK CIRCLE
2579 \@namedef{HyPsd@ding@119}{\9045\327}% U+25D7
2580 \@namedef{HyPsd@ding@168}{\textclubsuitblack}%
2581 \@namedef{HyPsd@ding@169}{\textdiamondsuitblack}%
2582 \@namedef{HyPsd@ding@170}{\textheartsuitblack}%
2583 \@namedef{HyPsd@ding@171}{\textspadesuitblack}%
2584 \@namedef{HyPsd@ding@213}{\textrightarrow}%
2585 \@namedef{HyPsd@ding@214}{\textleftarrow}%
2586 \@namedef{HyPsd@ding@215}{\textupdownarrow}%
2587 \@namedef{HyPsd@ding@240}{\HyPsd@UnicodeReplacementCharacter}

```

7 Support of other packages

7.1 Class memoir

```

2588 \@ifclassloaded{memoir}{%
2589 \Hy@AtEndOfPackage{\RequirePackage{memhfixc}}%
2590 }{}

```

7.2 Package subfigure

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

```

2591 \ifpackageloaded{subfigure}{%
2592   \ltx@ifundefined{sub@label}{%
2593     \Hy@hypertexnamesfalse
2594   }{%
2595     \renewcommand*{\sub@label}[1]{%
2596       \@bsphack
2597       \subfig@oldlabel{#1}%
2598       \if@filesw
2599         \begingroup
2600         \edef\@currentlabstr{%
2601           \expandafter\strip@prefix\meaning\@currentlabelname
2602         }%
2603         \protected@write\@auxout{}{%
2604           \string\newlabel{sub@#1}{%
2605             {\@nameuse{\@thesub\@captype}}%
2606             {\thepage}%
2607             {%
2608               \expandafter\strip@period\@currentlabstr
2609               \relax.\relax\@@@%
2610             }%
2611             {\@currentHref}%
2612             {}%
2613           }%
2614         }%
2615         \endgroup
2616       \fi
2617       \@esphack
2618     }%
2619     \@ifpackagelater{subfigure}{2002/03/26}{%
2620       \providecommand*{\toclevel@subfigure}{1}%
2621       \providecommand*{\toclevel@subtable}{1}%
2622     }%
2623   }%
2624 }{}

```

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:

```

2625 \ltx@ifundefined{XR@addURL}{%
2626 }{}

```

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.

```

2627 \def\XR@addURL#1{\XR@@dURL#1{}{}{}{}\\}%
2628 \def\XR@@dURL#1#2#3#4#5\\{%
2629   {#1}{#2}%
2630   \if!#4!%
2631   \else
2632     {#3}{#4}{\XR@URL}%
2633   \fi
2634 }%
2635 }

2636 \def\Hy@true{true}
2637 \def\Hy@false{false}

```

Providing dummy definitions.

```

2638 \let\literalps@out\@gobble
2639 \newcommand\pdfbookmark[3][{}]{
2640 \def\Acrobatmenu#1#2{\leavevmode#2}
2641 \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

```

2642 \let\HyperRaiseLinkHook\@empty
2643 \def\HyperRaiseLinkDefault{\baselineskip}

```

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

```

2644 \newcount\Hy@SavedSpaceFactor
2645 \def\Hy@SaveSpaceFactor{%
2646 \global\Hy@SavedSpaceFactor=\ifhmode\spacefactor\else\z@\fi
2647 }
2648 \def\Hy@RestoreSpaceFactor{%
2649 \relax
2650 \ifhmode
2651 \ifnum\Hy@SavedSpaceFactor>\z@
2652 \spacefactor=\Hy@SavedSpaceFactor
2653 \fi
2654 \fi
2655 }
2656 \def\Hy@SaveSavedSpaceFactor{%
2657 \edef\Hy@RestoreSavedSpaceFactor{%
2658 \global\Hy@SavedSpaceFactor=\the\Hy@SavedSpaceFactor\relax
2659 }%
2660 }
2661 \def\Hy@raisedlink#1{%
2662 \ifvmode
2663 #1%
2664 \else
2665 \Hy@SaveSpaceFactor
2666 \penalty\@M
2667 \smash{%
2668 \begingroup
2669 \let\HyperRaiseLinkLength\@tempdima
2670 \setlength\HyperRaiseLinkLength\HyperRaiseLinkDefault
2671 \HyperRaiseLinkHook
2672 \expandafter\endgroup
2673 \expandafter\raise\the\HyperRaiseLinkLength\hbox{%
2674 \Hy@RestoreSpaceFactor
2675 #1%
2676 \Hy@SaveSpaceFactor

```

```

2677 }%
2678 }%
2679 \Hy@RestoreSpaceFactor
2680 \fi
2681 }

```

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

```

2682 \def\Hy@SaveLastskip{%
2683 \let\Hy@RestoreLastskip\relax
2684 \ifvmode
2685 \ifdim\lastskip=\z@
2686 \let\Hy@RestoreLastskip\nobreak
2687 \else
2688 \begingroup
2689 \skip@=-\lastskip
2690 \edef\x{%
2691 \endgroup
2692 \def\noexpand\Hy@RestoreLastskip{%
2693 \noexpand\ifvmode
2694 \noexpand\nobreak
2695 \vskip\the\skip@
2696 \vskip\the\lastskip\relax
2697 \noexpand\fi
2698 }%
2699 }%
2700 \x
2701 \fi
2702 \else
2703 \ifhmode
2704 \ifdim\lastskip=\z@
2705 \let\Hy@RestoreLastskip\nobreak
2706 \else
2707 \begingroup
2708 \skip@=-\lastskip
2709 \edef\x{%
2710 \endgroup
2711 \def\noexpand\Hy@RestoreLastskip{%
2712 \noexpand\ifhmode
2713 \noexpand\nobreak
2714 \hskip\the\skip@
2715 \hskip\the\lastskip\relax
2716 \noexpand\fi
2717 }%
2718 }%
2719 \x
2720 \fi
2721 \fi
2722 \fi
2723 }%

```

9 Options

```

2724 \SetupKeyvalOptions{%
2725 family=Hyp,%
2726 prefix=HyOpt%
2727 }

```

9.1 Help macros

`\IfHyperBooleanExists`

```
2728 \def\IfHyperBooleanExists#1{%
2729   \ltx@ifundefined{Hy@#1false}\ltx@secondoftwo{%
2730     \ltx@ifundefined{KV@Hyp@#1@default}\ltx@secondoftwo\ltx@firstoftwo
2731   }%
2732 }

2733 \@namedef{KV@Hyp@stoppeearly@default}{}
```

`\IfHyperBoolean`

```
2734 \def\IfHyperBoolean#1{%
2735   \IfHyperBooleanExists{#1}{%
2736     \csname ifHy@#1\endcsname
2737     \expandafter\ltx@firstoftwo
2738   \else
2739     \expandafter\ltx@secondoftwo
2740   \fi
2741 } \ltx@secondoftwo
2742 }
```

`\Hy@boolkey`

```
2743 \def\Hy@boolkey#1#2{%
2744   \edef\Hy@tempa{#2}%
2745   \lowercase\expandafter{%
2746     \expandafter\def\expandafter\Hy@tempa\expandafter{\Hy@tempa}%
2747   }%
2748   \ifx\Hy@tempa\@empty
2749     \let\Hy@tempa\Hy@true
2750   \fi
2751   \ifx\Hy@tempa\Hy@true
2752   \else
2753     \ifx\Hy@tempa\Hy@false
2754     \else
2755       \let\Hy@tempa\relax
2756     \fi
2757   \fi
2758   \ifx\Hy@tempa\relax
2759     \Hy@WarnOptionValue{#2}{#1}{‘true’ or ‘false’}%
2760   \else
2761     \Hy@Info{Option ‘#1’ set ‘\Hy@tempa’}%
2762     \csname Hy@#1\Hy@tempa\endcsname
2763   \fi
2764 }
```

`\Hy@WarnOptionValue`

```
2765 \def\Hy@WarnOptionValue#1#2#3{%
2766   \Hy@Warning{%
2767     Unexpected value ‘#1’\MessageBreak
2768     of option ‘#2’ instead of\MessageBreak
2769     #3%
2770   }%
2771 }
```

`\Hy@DisableOption`

```
2772 \def\Hy@DisableOption#1{%
```

```

2773 \ltx@ifundefined{KV@Hyp@#1@default}{%
2774   \define@key{Hyp}{#1}%
2775 }{%
2776   \define@key{Hyp}{#1}[]%
2777 }%
2778 {\Hy@WarnOptionDisabled{#1}}%
2779 }

```

`\Hy@WarnOptionDisabled`

```

2780 \def\Hy@WarnOptionDisabled#1{%
2781   \Hy@Warning{%
2782     Option ‘#1’ has already been used,\MessageBreak
2783     setting the option has no effect%
2784   }%
2785 }

```

`\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`.

```

2786 \def\Hy@CheckOptionValue#1#2#3{%
2787   \begingroup
2788   \edef\x{#1}%
2789   \@onelevel@sanitize\x
2790   \let\y=y%
2791   \def\do##1##2{%
2792     \def\z{##1}%
2793     \@onelevel@sanitize\z
2794     \ifx\x\z
2795       \let\y=n%
2796       \let\do\@gobbletwo
2797     \fi
2798   }%
2799   #3%
2800   \ifx\y y%
2801     \def\do##1##2{%
2802       * ‘##1’%
2803       \ifx\##2\\\else\space(##2)\fi
2804       \MessageBreak
2805     }%
2806     \Hy@Warning{%
2807       Values of option ‘#2’: \MessageBreak
2808       #3%
2809       * An empty value disables the option.\MessageBreak
2810       Unknown value ‘\x’%
2811     }%
2812   \fi
2813   \endgroup
2814 }

```

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

```

2815 \def\Hy@DefNameKey#1{%
2816   \expandafter\Hy@@DefNameKey\csname @#1\endcsname{#1}%
2817 }

```

```

\Hy@@DefNameKey #1: macro for value storage
#2: option name
#3: \do list with known values.
2818 \def\Hy@@DefNameKey#1#2#3{%
2819 \define@key{Hyp}{#2}{%
2820 \edef#1{##1}%
2821 \ifx#1\@empty
2822 \else
2823 \Hy@CheckOptionValue{##1}{#2}{#3}%
2824 \fi
2825 }%
2826 \let#1\@empty
2827 }

```

```

\Hy@UseNameKey
2828 \def\Hy@UseNameKey#1#2{%
2829 \ifx#2\@empty
2830 \else
2831 /#1/#2%
2832 \fi
2833 }

```

9.2 Defining the options

```

2834 \define@key{Hyp}{implicit}[true]{%
2835 \Hy@boolkey{implicit}{#1}%
2836 }
2837 \define@key{Hyp}{draft}[true]{%
2838 \Hy@boolkey{draft}{#1}%
2839 }
2840 \define@key{Hyp}{final}[true]{%
2841 \Hy@boolkey{final}{#1}%
2842 }
2843 \let\KV@Hyp@nolinks\KV@Hyp@draft
2844 \def\Hy@ObsoletePaperOption#1{%
2845 \Hy@WarningNoLine{%
2846 Option ‘#1’ is no longer used%
2847 }%
2848 \define@key{Hyp}{#1}[true]{}%
2849 }
2850 \def\Hy@temp#1{%
2851 \define@key{Hyp}{#1}[true]{%
2852 \Hy@ObsoletePaperOption{#1}%
2853 }%
2854 }
2855 \Hy@temp{a4paper}
2856 \Hy@temp{a5paper}
2857 \Hy@temp{b5paper}
2858 \Hy@temp{letterpaper}
2859 \Hy@temp{legalpaper}
2860 \Hy@temp{executivepaper}
2861 \define@key{Hyp}{setpagesize}[true]{%
2862 \Hy@boolkey{setpagesize}{#1}%
2863 }
2864 \define@key{Hyp}{debug}[true]{%
2865 \Hy@boolkey{debug}{#1}%

```

```

2866 }
2867 \define@key{Hyp}{linktocpage}[true]{%
2868   \Hy@boolkey{linktocpage}{#1}%
2869   \ifHy@linktocpage
2870     \let\Hy@linktoc\Hy@linktoc@page
2871   \else
2872     \let\Hy@linktoc\Hy@linktoc@section
2873   \fi
2874 }
2875 \chardef\Hy@linktoc@none=0 %
2876 \chardef\Hy@linktoc@section=1 %
2877 \chardef\Hy@linktoc@page=2 %
2878 \chardef\Hy@linktoc@all=3 %
2879 \ifHy@linktocpage
2880   \let\Hy@linktoc\Hy@linktoc@page
2881 \else
2882   \let\Hy@linktoc\Hy@linktoc@section
2883 \fi
2884 \define@key{Hyp}{linktoc}{%
2885   \@ifundefined{Hy@linktoc@#1}{%
2886     \Hy@Warning{%
2887       Unexpected value '#1' of\MessageBreak
2888       option 'linktoc' instead of 'none',\MessageBreak
2889       'section', 'page' or 'all'%
2890     }%
2891   }{%
2892     \expandafter\let\expandafter\Hy@linktoc
2893       \csname Hy@linktoc@#1\endcsname
2894   }%
2895 }
2896 \define@key{Hyp}{extension}{\def\XR@ext{#1}}
2897 \let\XR@ext\relax
2898 \define@key{Hyp}{verbose}[true]{%
2899   \Hy@boolkey{verbose}{#1}%
2900 }
2901 \define@key{Hyp}{typexml}[true]{%
2902   \Hy@boolkey{typexml}{#1}%
2903 }

```

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.

```

2904 \define@key{Hyp}{raiselinks}[true]{%
2905   \Hy@boolkey{raiselinks}{#1}%
2906 }

```

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

```

2907 \def\Hy@setbreaklinks#1{%
2908   \csname breaklinks#1\endcsname
2909 }
2910 \def\Hy@breaklinks@unsupported{%
2911   \ifx\Hy@setbreaklinks\@gobble
2912     \ifHy@breaklinks
2913       \Hy@WarningNoLine{%
2914         You have enabled option 'breaklinks'\MessageBreak
2915         But driver '\Hy@driver.def' does not support this.\MessageBreak
2916         Expect trouble with the link areas of broken links%

```

```

2917     }%
2918   \fi
2919 \fi
2920 }

2921 \define@key{Hyp}{breaklinks}[true]{%
2922   \Hy@boolkey{breaklinks}{#1}%
2923   \let\Hy@setbreaklinks\@gobble
2924 }

2925 \define@key{Hyp}{localanchorname}[true]{%
2926   \Hy@boolkey{localanchorname}{#1}%
2927 }

```

Determines whether an automatic anchor is put on each page

```

2928 \define@key{Hyp}{pageanchor}[true]{%
2929   \Hy@boolkey{pageanchor}{#1}%
2930 }

```

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.

```

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

```

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

```

2934 \define@key{Hyp}{naturalnames}[true]{%
2935   \Hy@boolkey{naturalnames}{#1}%
2936 }

```

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

```

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

```

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

```

2940 \define@key{Hyp}{nesting}[true]{%
2941   \Hy@boolkey{nesting}{#1}%
2942 }

```

```

2943 \define@key{Hyp}{destlabel}[true]{%
2944   \Hy@boolkey{destlabel}{#1}%
2945 }

```

```

2946 \define@key{Hyp}{unicode}[true]{%
2947   \Hy@boolkey{unicode}{#1}%
2948   \ifHy@unicode
2949     \def\HyPsd@pdfencoding{unicode}%
2950     \HyPsd@LoadUnicode
2951   \else
2952     \def\HyPsd@pdfencoding{pdfdoc}%
2953   \fi
2954 }

```

```

2955 \Hy@AtBeginDocument{%
2956   \ifx\HyPsd@LoadUnicode\relax
2957   \else
2958     \def\HyPsd@LoadUnicode{%
2959       \Hy@Error{%
2960         Unicode support for bookmarks is not available.\MessageBreak
2961         Activate unicode support by using one of the options\MessageBreak

```

```

2962     'unicode', 'pdfencoding=unicode', 'pdfencoding=auto'\MessageBreak
2963     in the preamble%
2964 } \@ehc
2965 \global\let\HyPsd@LoadUnicode\relax
2966 \global\Hy@unicodedefalse
2967 \global\let\Hy@unicodetrue\Hy@unicodedefalse
2968 }%
2969 \fi
2970 }

2971 \define@key{Hyp}{pdfencoding}{%
2972 \edef\HyPsd@temp{#1}%
2973 \ifx\HyPsd@temp\HyPsd@pdfencoding@pdfdoc
2974 \let\HyPsd@pdfencoding\HyPsd@temp
2975 \Hy@unicodedefalse
2976 \else
2977 \ifcase\ifx\HyPsd@temp\HyPsd@pdfencoding@unicode
2978 \z@
2979 \else
2980 \ifx\HyPsd@temp\HyPsd@pdfencoding@auto
2981 \z@
2982 \else
2983 \@ne
2984 \fi
2985 \fi
2986 \let\HyPsd@pdfencoding\HyPsd@temp
2987 \hypersetup{unicode}%
2988 \ifHy@unicode
2989 \def\HyPsd@pdfencoding{#1}%
2990 \ifx\HyPsd@pdfencoding\HyPsd@pdfencoding@auto
2991 \HyPsd@LoadStringEncoding
2992 \fi
2993 \else
2994 \Hy@Warning{Cannot switch to unicode bookmarks}%
2995 \let\HyPsd@pdfencoding\HyPsd@pdfencoding@pdfdoc
2996 \fi
2997 \else
2998 \@onelevel@sanitize\HyPsd@temp
2999 \Hy@Warning{%
3000 Values of option 'pdfencoding':\MessageBreak
3001 'pdfdoc', 'unicode', 'auto'.\MessageBreak
3002 Ignoring unknown value '\HyPsd@temp'%
3003 }%
3004 \fi
3005 \fi
3006 }
3007 \def\HyPsd@pdfencoding@auto{auto}
3008 \def\HyPsd@pdfencoding@pdfdoc{pdfdoc}
3009 \def\HyPsd@pdfencoding@unicode{unicode}
3010 \let\HyPsd@pdfencoding\Hy@pdfencoding@pdfdoc
3011 \def\HyPsd@LoadStringEncoding{%
3012 \RequirePackage{stringenc}[2009/12/15]%
3013 \let\HyPsd@LoadStringEncoding\relax
3014 }
3015 \Hy@AtBeginDocument{%
3016 \@ifpackageloaded{stringenc}{%
3017 \let\HyPsd@LoadStringEncoding\relax
3018 }{%

```

```

3019 \def\HyPsd@LoadStringEnc{%
3020 \Hy@WarningNoLine{%
3021 Missing package 'stringenc'. Use 'pdfencoding=auto'\MessageBreak
3022 in the preamble or load the package there%
3023 }%
3024 }%
3025 }%
3026 }

3027 \define@key{Hyp}{psdextra}[true]{%
3028 \Hy@boolkey{psdextra}{#1}%
3029 \HyPsd@LoadExtra
3030 }

3031 \def\hypersetup{\kvsetkeys{Hyp}}

3032 \newif\ifHy@setpdfversion
3033 \define@key{Hyp}{pdfversion}{%
3034 \ifundefined{Hy@pdfversion@#1}{%
3035 \PackageWarning{hyperref}{%
3036 Unsupported PDF version '#1'.\MessageBreak
3037 Valid values: 1.2 until 1.9%
3038 }%
3039 }{%
3040 \Hy@setpdfversiontrue
3041 \edef\Hy@pdfversion{\@nameuse{Hy@pdfversion@#1}}%
3042 }%
3043 }
3044 \@namedef{Hy@pdfversion@1.2}{2}%
3045 \@namedef{Hy@pdfversion@1.3}{3}%
3046 \@namedef{Hy@pdfversion@1.4}{4}%
3047 \@namedef{Hy@pdfversion@1.5}{5}%
3048 \@namedef{Hy@pdfversion@1.6}{6}%
3049 \@namedef{Hy@pdfversion@1.7}{7}%
3050 \@namedef{Hy@pdfversion@1.8}{8}%
3051 \@namedef{Hy@pdfversion@1.9}{9}%
3052 \def\Hy@pdfversion{2}

```

10 Options for different drivers

```

3053 \newif\ifHy@DviMode
3054 \let\Hy@DviErrMsg\ltx@empty
3055 \ifpdf
3056 \def\Hy@DviErrMsg{pdfTeX or LuaTeX is running in PDF mode}%
3057 \else
3058 \ifxetex
3059 \def\Hy@DviErrMsg{XeTeX is running}%
3060 \else
3061 \ifvtex
3062 \ifvtexdvi
3063 \Hy@DviModetrue
3064 \else
3065 \def\Hy@DviErrMsg{VTeX is running, but not in DVI mode}%
3066 \fi
3067 \else
3068 \Hy@DviModetrue
3069 \fi
3070 \fi
3071 \fi

```

```

3072 \def\HyOpt@CheckDvi#1{%
3073   \ifHy@DviMode
3074     \expandafter\ltx@firstofone
3075   \else
3076     \Hy@Error{%
3077       Wrong DVI mode driver option '#1',\MessageBreak
3078       because \Hy@DviErrMsg
3079     }\@ehc
3080   \expandafter\ltx@gobble
3081 \fi
3082 }

3083 \DeclareVoidOption{tex4ht}{%
3084   \Hy@texhttrue
3085   \kvsetkeys{Hyp}{colorlinks=true}%
3086   \def\BeforeTeXIVht{\RequirePackage{color}}}%
3087   \def\Hy@driver{htex4ht}%
3088   \def\MaybeStopEarly{%
3089     \Hy@Message{Stopped early}%
3090   \Hy@AtBeginDocument{%
3091     \PDF@FinishDoc
3092     \gdef\PDF@FinishDoc{}}%
3093   }%
3094   \endinput
3095 }%
3096 }

3097 \DeclareVoidOption{pdftex}{%
3098   \ifpdf
3099     \def\Hy@driver{hpdftex}%
3100   \else
3101     \Hy@Error{%
3102       Wrong driver option 'pdftex',\MessageBreak
3103       because pdfTeX in PDF mode is not detected%
3104     }\@ehc
3105   \fi
3106 }

3107 \DeclareVoidOption{nativepdf}{%
3108   \HyOpt@CheckDvi{nativepdf}{%
3109     \def\Hy@driver{hdvips}%
3110   }%
3111 }

3112 \DeclareVoidOption{dvipdfm}{%
3113   \HyOpt@CheckDvi{dvipdfm}{%
3114     \def\Hy@driver{hdvipdfm}%
3115   }%
3116 }

3117 \DeclareVoidOption{dvipdfmx}{%
3118   \HyOpt@CheckDvi{dvipdfmx}{%
3119     \def\Hy@driver{hdvipdfm}%
3120   }%
3121 }

3122 \define@key{Hyp}{dvipdfmx-outline-open}[true]{%
3123   \expandafter\ifx\csname if#1\expandafter\endcsname
3124     \csname iftrue\endcsname
3125   \chardef\SpecialDvipdfmxOutlineOpen\@ne
3126 \else
3127   \chardef\SpecialDvipdfmxOutlineOpen\z@
3128 \fi

```

```

3129 }
3130 \DeclareVoidOption{xetex}{%
3131   \ifxetex
3132     \def\Hy@driver{hxtex}%
3133   \else
3134     \Hy@Error{%
3135       Wrong driver option 'xetex',\MessageBreak
3136       because XeTeX is not detected%
3137     }\@ehc
3138   \fi
3139 }
3140 \DeclareVoidOption{pdfmark}{%
3141   \HyOpt@CheckDvi{pdfmark}{%
3142     \def\Hy@driver{hdvips}%
3143   }%
3144 }
3145 \DeclareVoidOption{dvips}{%
3146   \HyOpt@CheckDvi{dvips}{%
3147     \def\Hy@driver{hdvips}%
3148   }%
3149 }
3150 \DeclareVoidOption{hypertex}{%
3151   \HyOpt@CheckDvi{hypertex}{%
3152     \def\Hy@driver{hypertex}%
3153   }%
3154 }
3155 \let\Hy@MaybeStopNow\relax
3156 \DeclareVoidOption{vtex}{%
3157   \ifvtex
3158     \ifnum 0\ifnum\OpMode<1 1\fi \ifnum\OpMode>3 1\fi =0 %
3159     \def\Hy@driver{hvtex}%
3160   \else
3161     \ifnum\OpMode=10\relax
3162       \def\Hy@driver{hvtexhtm}%
3163       \def\MaybeStopEarly{%
3164         \Hy@Message{Stopped early}%
3165         \Hy@AtBeginDocument{%
3166           \PDF@FinishDoc
3167           \gdef\PDF@FinishDoc{}%
3168         }%
3169       \endinput
3170     }%
3171   \else
3172     \Hy@Error{%
3173       Wrong driver option 'vtex',\MessageBreak
3174       because of wrong OpMode (\the\OpMode)%
3175     }\@ehc
3176   \fi
3177 }
3178 \else
3179   \Hy@Error{%
3180     Wrong driver option 'vtex',\MessageBreak
3181     because VTeX is not running%
3182   }\@ehc
3183 }
3184 }
3185 \DeclareVoidOption{vtexpdfmark}{%

```

```

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

```

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

```

3224 \DeclareVoidOption{ps2pdf}{}%
3225 \HyOpt@CheckDvi{ps2pdf}{}%
3226 \def\Hy@driver{hdvips}%
3227 }%
3228 }
3229 \let\HyOpt@DriverFallback\ltx@empty
3230 \define@key{Hyp}{driverfallback}{}%
3231 \ifHy@DviMode
3232   \def\HyOpt@DriverFallback{#1}%
3233   \Hy@Match\HyOpt@DriverFallback{%
3234     ~(|dvipdfm|dvipdfmx|dvips|dvipsone|dviwindo|hypertex|ps2pdf|
3235     latex2html|tex4ht)$%
3236   }{ }{%
3237     \let\HyOpt@DriverFallback\ltx@empty
3238   }%
3239 \fi
3240 }

```

```

3241 \let\HyOpt@CustomDriver\ltx@empty
3242 \define@key{Hyp}{customdriver}{%
3243   \IfFileExists{#1.def}{%
3244     \def\HyOpt@CustomDriver{#1}%
3245   }{%
3246     \Hy@Warning{%
3247       Missing driver file '#1.def',\MessageBreak
3248       ignoring custom driver%
3249     }%
3250   }%
3251 }

```

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.

```

3252 \define@key{Hyp}{hyperfigures}[true]{%
3253   \Hy@boolkey{hyperfigures}{#1}%
3254 }

```

The automatic footnote linking can be disabled by option hyperfootnotes.

```

3255 \define@key{Hyp}{hyperfootnotes}[true]{%
3256   \Hy@boolkey{hyperfootnotes}{#1}%
3257 }

```

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

```

3258 \def\back@none{none}
3259 \def\back@section{section}
3260 \def\back@page{page}
3261 \def\back@slide{slide}
3262 \define@key{Hyp}{backref}[section]{%
3263   \lowercase{\def\Hy@tempa{#1}}%
3264   \ifx\Hy@tempa\@empty
3265     \let\Hy@tempa\back@section
3266   \fi
3267   \ifx\Hy@tempa\Hy@false
3268     \let\Hy@tempa\back@none
3269   \fi
3270   \ifx\Hy@tempa\back@slide
3271     \let\Hy@tempa\back@section
3272   \fi
3273   \ifx\Hy@tempa\back@page
3274     \PassOptionsToPackage{hyperpageref}{backref}%
3275     \Hy@backreftrue
3276   \else
3277     \ifx\Hy@tempa\back@section
3278       \PassOptionsToPackage{hyperref}{backref}%
3279       \Hy@backreftrue
3280     \else
3281       \ifx\Hy@tempa\back@none
3282         \Hy@backreffalse
3283       \else
3284         \Hy@WarnOptionValue{#1}{backref}{%
3285           'section', 'slide', 'page', 'none',\MessageBreak
3286           or 'false'}%
3287       \fi
3288     \fi
3289   \fi

```

```

3290 }
3291 \define@key{Hyp}{pagebackref}[true]{%
3292   \edef\Hy@tempa{#1}%
3293   \lowercase\expandafter{%
3294     \expandafter\def\expandafter\Hy@tempa\expandafter{\Hy@tempa}%
3295   }%
3296   \ifx\Hy@tempa\@empty
3297     \let\Hy@tempa\Hy@true
3298   \fi
3299   \ifx\Hy@tempa\Hy@true
3300     \PassOptionsToPackage{hyperpageref}{backref}%
3301     \Hy@backreftrue
3302   \else
3303     \ifx\Hy@tempa\Hy@false
3304       \Hy@backreffalse
3305     \else
3306       \Hy@WarnOptionValue{#1}{pagebackref}{‘true’ or ‘false’}%
3307     \fi
3308   \fi
3309 }

```

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

```

3310 \define@key{Hyp}{hyperindex}[true]{%
3311   \Hy@boolkey{hyperindex}{#1}%
3312 }

```

Configuration of encap char.

```

3313 \define@key{Hyp}{encap}[|]{%
3314   \def\HyInd@EncapChar{#1}%
3315 }

```

12 Language options

The `\autoref` feature depends on the language.

```

3316 \def\HyLang@afrikaans{%
3317   \def\equationautorefname{Vergelyking}%
3318   \def\footnoteautorefname{Voetnota}%
3319   \def\itemautorefname{Item}%
3320   \def\figureautorefname{Figuur}%
3321   \def\tableautorefname{Tabel}%
3322   \def\partautorefname{Deel}%
3323   \def\appendixautorefname{Bylae}%
3324   \def\chapterautorefname{Hoofstuk}%
3325   \def\sectionautorefname{Afdeling}%
3326   \def\subsectionautorefname{Subafdeling}%
3327   \def\subsubsectionautorefname{Subsubafdeling}%
3328   \def\paragraphautorefname{Paragraaf}%
3329   \def\subparagraphautorefname{Subparagraaf}%
3330   \def\FancyVerbLineautorefname{Lyn}%
3331   \def\theoremautorefname{Teorema}%
3332   \def\pageautorefname{Bladsy}%
3333 }
3334 \def\HyLang@english{%
3335   \def\equationautorefname{Equation}%
3336   \def\footnoteautorefname{footnote}%
3337   \def\itemautorefname{item}%

```

```

3338 \def\figureautorefname{Figure}%
3339 \def\tableautorefname{Table}%
3340 \def\partautorefname{Part}%
3341 \def\appendixautorefname{Appendix}%
3342 \def\chapterautorefname{chapter}%
3343 \def\sectionautorefname{section}%
3344 \def\subsectionautorefname{subsection}%
3345 \def\subsubsectionautorefname{subsubsection}%
3346 \def\paragraphautorefname{paragraph}%
3347 \def\subparagraphautorefname{subparagraph}%
3348 \def\FancyVerbLineautorefname{line}%
3349 \def\theoremautorefname{Theorem}%
3350 \def\pageautorefname{page}%
3351 }
3352 \def\HyLang@french{%
3353 \def\equationautorefname{'Equation}%
3354 \def\footnoteautorefname{note}%
3355 \def\itemautorefname{item}%
3356 \def\figureautorefname{Figure}%
3357 \def\tableautorefname{Tableau}%
3358 \def\partautorefname{Partie}%
3359 \def\appendixautorefname{Appendice}%
3360 \def\chapterautorefname{chapitre}%
3361 \def\sectionautorefname{section}%
3362 \def\subsectionautorefname{sous-section}%
3363 \def\subsubsectionautorefname{sous-sous-section}%
3364 \def\paragraphautorefname{paragraphe}%
3365 \def\subparagraphautorefname{sous-paragraphe}%
3366 \def\FancyVerbLineautorefname{ligne}%
3367 \def\theoremautorefname{Th\'eor\`eme}%
3368 \def\pageautorefname{page}%
3369 }
3370 \def\HyLang@german{%
3371 \def\equationautorefname{Gleichung}%
3372 \def\footnoteautorefname{Fu\ss note}%
3373 \def\itemautorefname{Punkt}%
3374 \def\figureautorefname{Abbildung}%
3375 \def\tableautorefname{Tabelle}%
3376 \def\partautorefname{Teil}%
3377 \def\appendixautorefname{Anhang}%
3378 \def\chapterautorefname{Kapitel}%
3379 \def\sectionautorefname{Abschnitt}%
3380 \def\subsectionautorefname{Unterabschnitt}%
3381 \def\subsubsectionautorefname{Unterunterabschnitt}%
3382 \def\paragraphautorefname{Absatz}%
3383 \def\subparagraphautorefname{Unterabsatz}%
3384 \def\FancyVerbLineautorefname{Zeile}%
3385 \def\theoremautorefname{Theorem}%
3386 \def\pageautorefname{Seite}%
3387 }
3388 \def\HyLang@italian{%
3389 \def\equationautorefname{Equazione}%
3390 \def\footnoteautorefname{nota}%
3391 \def\itemautorefname{punto}%
3392 \def\figureautorefname{Figura}%
3393 \def\tableautorefname{Tabella}%
3394 \def\partautorefname{Parte}%

```

```

3395 \def\appendixautorefname{Appendice}%
3396 \def\chapterautorefname{Capitolo}%
3397 \def\sectionautorefname{sezione}%
3398 \def\subsectionautorefname{sottosezione}%
3399 \def\subsubsectionautorefname{sottosottosezione}%
3400 \def\paragraphautorefname{paragrafo}%
3401 \def\subparagraphautorefname{sottoparagrafo}%
3402 \def\FancyVerbLineautorefname{linea}%
3403 \def\theoremautorefname{Teorema}%
3404 \def\pageautorefname{Pag.\@}%
3405 }
3406 \def\HyLang@magyar{%
3407 \def\equationautorefname{Egyenlet}%
3408 \def\footnoteautorefname{l\'abjegyzet}%
3409 \def\itemautorefname{Elem}%
3410 \def\figureautorefname{'Abra}%
3411 \def\tableautorefname{T\'abl\'azat}%
3412 \def\partautorefname{R\'esz}%
3413 \def\appendixautorefname{F\'uggel\'ek}%
3414 \def\chapterautorefname{fejezet}%
3415 \def\sectionautorefname{szakasz}%
3416 \def\subsectionautorefname{alszakasz}%
3417 \def\subsubsectionautorefname{alalszakasz}%
3418 \def\paragraphautorefname{bekezd\'es}%
3419 \def\subparagraphautorefname{albekezd\'es}%
3420 \def\FancyVerbLineautorefname{sor}%
3421 \def\theoremautorefname{T\'etel}%
3422 \def\pageautorefname{oldal}%
3423 }
3424 \def\HyLang@portuges{%
3425 \def\equationautorefname{Equa\c c\~ao}%
3426 \def\footnoteautorefname{Nota de rodap\'e}%
3427 \def\itemautorefname{Item}%
3428 \def\figureautorefname{Figura}%
3429 \def\tableautorefname{Tabela}%
3430 \def\partautorefname{Parte}%
3431 \def\appendixautorefname{Ap\~endice}%
3432 \def\chapterautorefname{Cap\'itulo}%
3433 \def\sectionautorefname{Se\c c\~ao}%
3434 \def\subsectionautorefname{Subse\c c\~ao}%
3435 \def\subsubsectionautorefname{Subsubse\c c\~ao}%
3436 \def\paragraphautorefname{par\'agrafo}%
3437 \def\subparagraphautorefname{subpar\'agrafo}%
3438 \def\FancyVerbLineautorefname{linha}%
3439 \def\theoremautorefname{Teorema}%
3440 \def\pageautorefname{P\'agina}%
3441 }

```

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`.

```

3442 \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`?

```
3443 \def\equationautorefname{\cyr\cyrv\cyrry\cyrr.}%
```

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

```
3444 % \def\equationautorefname{%
3445 %   \cyr\cyrv\cyrry\cyrr\cyra\cyrrh\cyre\cyrn\cyri\cyre
3446 % }%
```

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

```
3447 \def\footnoteautorefname{%
3448   \cyr\cyrp\cyro\cyrd\cyrs\cyrt\cyrr.\ \cyrp\cyrr\cyri\cyrm.%
3449 }%
```

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

```
3450 % \def\footnoteautorefname{%
3451 %   \cyr\cyrp\cyro\cyrd\cyrs\cyrt\cyrr\cyro\cyrch\cyrn\cyro\cyre\ %
3452 %   \cyrp\cyrr\cyri\cyrm\cyre\cyrch\cyra\cyrn\cyri\cyre
3453 % }%
```

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

```
3454 % \def\Nomfootnoteautorefname{\cyr\cyrs\cyrn\cyro\cyrs\cyrk\cyra}%
3455 % \def\Accfootnoteautorefname{\cyr\cyrs\cyrn\cyro\cyrs\cyrk\cyru}%
```

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

```
3456 \def\itemautorefname{\cyr\cyrp.}%
3457 % \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.

```
3458 \def\figureautorefname{\cyr\cyrr\cyri\cyrs.}%
3459 \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.

```
3460 \def\partautorefname{\cyr\cyrch.}%
3461 \def\chapterautorefname{\cyr\cyrg\cyrl.}%
3462 \def\sectionautorefname{\cyr\cyrr\cyra\cyrz\cyrd.}%
```

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

```
3463 \def\appendixautorefname{\cyr\cyrp\cyrr\cyri\cyrl.}%
3464 % \def\appendixautorefname{%
3465 %   \cyr\cyrp\cyrr\cyri\cyrl\cyro\cyrrh\cyre\cyrn\cyri\cyre
3466 % }%
```

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.

```

3467 \def\subsectionautorefname{\cyr\cyrr\cyra\cyrz\cyrd.}%
3468 \def\subsubsectionautorefname{\cyr\cyrr\cyra\cyrz\cyrd.}%

```

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

```

3469 \def\paragraphautorefname{\cyr\cyrp.}%
3470 \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.

```

3471 % \def\paragraphautorefname{\cyr\cyrp\cyru\cyrn\cyrk\cyrt}%
3472 % \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.

```

3473 \def\FancyVerbLineautorefname{\cyr\cyrs\cyrt\cyrr.}%

```

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

```

3474 % \def\NomFancyVerbLineautorefname{\cyr\cyrs\cyrt\cyrr\cyro\cyrk\cyra}%
3475 % \def\AccFancyVerbLineautorefname{\cyr\cyrs\cyrt\cyrr\cyro\cyrk\cyru}%

```

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

```

3476 % \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 ...

```

3477 \def\theoremautorefname{\cyr\cyrt\cyre\cyro\cyrr.}%

```

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

```

3478 % \def\Nomtheoremautorefname{\cyr\cyrt\cyre\cyro\cyrr\cyre\cyrm\cyra}%
3479 % \def\Acctheoremautorefname{\cyr\cyrt\cyre\cyro\cyrr\cyre\cyrm\cyru}%

```

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

```

3480 \def\pageautorefname{\cyr\cyrs.}%
3481 }

```

```

3482 \def\HyLang@spanish{%
3483 \def\equationautorefname{Ecuaci'on}%
3484 \def\footnoteautorefname{Nota a pie de p'agina}%
3485 \def\itemautorefname{Elemento}%
3486 \def\figureautorefname{Figura}%
3487 \def\tableautorefname{Tabla}%
3488 \def\partautorefname{Parte}%
3489 \def\appendixautorefname{Ap'endice}%
3490 \def\chapterautorefname{Cap'itulo}%
3491 \def\sectionautorefname{Secci'on}%
3492 \def\subsectionautorefname{Subsecci'on}%
3493 \def\subsubsectionautorefname{Subsubsecci'on}%
3494 \def\paragraphautorefname{P'arrafo}%
3495 \def\subparagraphautorefname{Subp'arrafo}%
3496 \def\FancyVerbLineautorefname{L'inea}%
3497 \def\theoremautorefname{Teorema}%
3498 \def\pageautorefname{P'agina}%

```

```

3499 }
3500 \def\HyLang@vietnamese{%
3501   \def\equationautorefname{Ph\uhorn{}}\ohorn{}ng tr\`inh}%
3502   \def\footnoteautorefname{Ch\`u th\`ich}%
3503   \def\itemautorefname{m\`d{u}c}%
3504   \def\figureautorefname{H\`inh}%
3505   \def\tableautorefname{B\`h{a}ng}%
3506   \def\partautorefname{Ph\`acircumflex{}n}%
3507   \def\appendixautorefname{Ph\`d{u} l\`d{u}c}%
3508   \def\chapterautorefname{ch\uhorn{}}\ohorn{}ng}%
3509   \def\sectionautorefname{m\`d{u}c}%
3510   \def\subsectionautorefname{m\`d{u}c}%
3511   \def\subsubsectionautorefname{m\`d{u}c}%
3512   \def\paragraphautorefname{\dj{}o\`d{a}n}%
3513   \def\subparagraphautorefname{\dj{}o\`d{a}n}%
3514   \def\FancyVerbLineautorefname{d\`ong}%
3515   \def\theoremautorefname{\DJ{}d{i}nh l\`y}%
3516   \def\pageautorefname{Trang}%
3517 }

```

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

```

3518 \def\HyLang@addto#1#2{%
3519   #2%
3520   \@temptokena{#2}%
3521   \ifx#1\relax
3522     \let#1\@empty
3523   \fi
3524   \ifx#1\@undefined
3525     \edef#1{\the\@temptokena}%
3526   \else
3527     \toks@\expandafter{#1}%
3528     \edef#1{\the\toks@\the\@temptokena}%
3529   \fi
3530   \@temptokena{}\toks@\@temptokena
3531 }

3532 \def\HyLang@DeclareLang#1#2#3{%
3533   \@ifpackagewith{babel}{#1}{%
3534     \expandafter\HyLang@addto
3535       \csname extras#1\expandafter\endcsname
3536       \csname HyLang@#2\endcsname
3537     \begingroup
3538       \edef\x{\endgroup
3539         #3%
3540       }%
3541       \x
3542       \@namedef{HyLang@#1@done}{}%
3543     }{}%
3544     \begingroup
3545       \edef\x##1##2{%
3546         \noexpand\ifx##2\relax
3547           \errmessage{No definitions for language #2' found!}%
3548         \noexpand\fi
3549       \endgroup
3550       \noexpand\define@key{Hyp}{#1}[]{}%
3551       \noexpand\@ifundefined{HyLang@#1@done}{%
3552         \noexpand\HyLang@addto{\noexpand##1}{\noexpand##2}%

```

```

3553      #3%
3554      \noexpand\@namedef{HyLang@#1@done}{}%
3555    }{}%
3556  }%
3557 }%
3558 \expandafter\x\csname extras#1\expandafter\endcsname
3559      \csname HyLang@#2\endcsname
3560 }
3561 \HyLang@DeclareLang{english}{english}{}
3562 \HyLang@DeclareLang{UKenglish}{english}{}
3563 \HyLang@DeclareLang{british}{english}{}
3564 \HyLang@DeclareLang{USenglish}{english}{}
3565 \HyLang@DeclareLang{american}{english}{}
3566 \HyLang@DeclareLang{german}{german}{}
3567 \HyLang@DeclareLang{austrian}{german}{}
3568 \HyLang@DeclareLang{ngerman}{german}{}
3569 \HyLang@DeclareLang{naustrian}{german}{}
3570 \HyLang@DeclareLang{russian}{russian}{\noexpand\hypersetup{unicode}}
3571 \HyLang@DeclareLang{brazil}{portuges}{}
3572 \HyLang@DeclareLang{brazilian}{portuges}{}
3573 \HyLang@DeclareLang{portuguese}{portuges}{}
3574 \HyLang@DeclareLang{spanish}{spanish}{}
3575 \HyLang@DeclareLang{afrikaans}{afrikaans}{}
3576 \HyLang@DeclareLang{french}{french}{}
3577 \HyLang@DeclareLang{frenchb}{french}{}
3578 \HyLang@DeclareLang{francais}{french}{}
3579 \HyLang@DeclareLang{acadian}{french}{}
3580 \HyLang@DeclareLang{canadien}{french}{}
3581 \HyLang@DeclareLang{italian}{italian}{}
3582 \HyLang@DeclareLang{magyar}{magyar}{}
3583 \HyLang@DeclareLang{hungarian}{magyar}{}

```

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

```

3584 \DeclareVoidOption{vietnamese}{%
3585   \HyLang@addto\extrasvietnamese\HyLang@vietnamese
3586   \Hy@AtEndOfPackage{%
3587     \@ifundefined{T@PU}{}{}%
3588     \input{puvnenc.def}%
3589   }%
3590 }%
3591 }
3592 \DeclareVoidOption{vietnam}{%
3593   \HyLang@addto\extravietnam\HyLang@vietnamese
3594   \Hy@AtEndOfPackage{%
3595     \@ifundefined{T@PU}{}{}%
3596     \input{puvnenc.def}%
3597   }%
3598 }%
3599 }

```

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

```

3600 \DeclareVoidOption{arabic}{%
3601   \Hy@AtEndOfPackage{%
3602     \@ifundefined{T@PU}{}{}%
3603     \input{puarenc.def}%
3604   }%
3605 }%
3606 }

```

13 Options to change appearance of links

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

```
3607 \define@key{Hyp}{colorlinks}[true]{%
3608   \Hy@boolkey{colorlinks}{#1}%
3609 }
3610 \DeclareVoidOption{hidelinks}{%
3611   \Hy@colorlinksfalse
3612   \Hy@ocgcolorlinksfalse
3613   \Hy@frenchlinksfalse
3614   \def\Hy@colorlink##1{\begingroup}%
3615   \def\Hy@endcolorlink{\endgroup}%
3616   \def\@pdfborder{0 0 0}%
3617   \let\@pdfborderstyle\ltx@empty
3618 }
3619 \define@key{Hyp}{ocgcolorlinks}[true]{%
3620   \Hy@boolkey{ocgcolorlinks}{#1}%
3621 }
3622 \Hy@AtBeginDocument{%
3623   \begingroup
3624   \@ifundefined{OBJ@OCG@view}{%
3625     \ifHy@ocgcolorlinks
3626       \Hy@Warning{%
3627         Driver does not support ‘ocgcolorlinks’,\MessageBreak
3628         using ‘colorlinks’ instead%
3629       }%
3630     \fi
3631   }{%
3632   }%
3633 }
3634 \define@key{Hyp}{frenchlinks}[true]{%
3635   \Hy@boolkey{frenchlinks}{#1}%
3636 }
```

14 Bookmarking

```
3637 \begingroup\expandafter\expandafter\expandafter\endgroup
3638 \expandafter\ifx\csname chapter\endcsname\relax
3639   \def\toclevel@part{0}%
3640 \else
3641   \def\toclevel@part{-1}%
3642 \fi
3643 \def\toclevel@chapter{0}
3644 \def\toclevel@section{1}
3645 \def\toclevel@subsection{2}
3646 \def\toclevel@subsubsection{3}
3647 \def\toclevel@paragraph{4}
3648 \def\toclevel@subparagraph{5}
3649 \def\toclevel@figure{0}
3650 \def\toclevel@table{0}
3651 \@ifpackageloaded{listings}{%
3652   \providecommand*\theHlstlisting{\thelstlisting}%
3653   \providecommand*\toclevel@lstlisting{0}%
3654 }{}
3655 \@ifpackageloaded{listing}{%
3656   \providecommand*\theHlisting{\thelisting}%
3657 }
```

```

3657 \providecommand*\toclevel@listing{0}%
3658 }{}

```

```

3659 \define@key{Hyp}{bookmarks}[true]{%
3660   \Hy@boolkey{bookmarks}{#1}%
3661 }

```

```

3662 \define@key{Hyp}{bookmarksopen}[true]{%
3663   \Hy@boolkey{bookmarksopen}{#1}%
3664 }

```

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.

```

3665 \let\Hy@bookmarksdepth\c@tocdepth
3666 \define@key{Hyp}{bookmarksdepth}[]{}%
3667 \begingroup
3668   \edef\x{#1}%
3669   \ifx\x\empty
3670     \global\let\Hy@bookmarksdepth\c@tocdepth
3671   \else
3672     \@ifundefined{toclevel@\x}{%
3673       \@onelevel@sanitize\x
3674       \edef\y{\expandafter\@car\x\@nil}%
3675       \ifcase 0\expandafter\ifx\y-1\fi
3676         \expandafter\ifnum\expandafter'\y>47 %
3677         \expandafter\ifnum\expandafter'\y<58 1\fi\fi\relax
3678       \Hy@Warning{Unknown document division name (\x)}%
3679     \else
3680       \setbox\z@=\hbox{%
3681         \count@=\x
3682         \xdef\Hy@bookmarksdepth{\the\count@}%
3683       }%
3684     \fi
3685   }{}%
3686   \setbox\z@=\hbox{%
3687     \count@=\csname toclevel@\x\endcsname
3688     \xdef\Hy@bookmarksdepth{\the\count@}%
3689   }%
3690 }%
3691 \fi
3692 \endgroup
3693 }

```

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

```

3694 \define@key{Hyp}{bookmarksopenlevel}{%
3695   \def\@bookmarksopenlevel{#1}%
3696 }
3697 \def\@bookmarksopenlevel{\maxdimen}
3698 % ‘bookmarkstype’ to specify which ‘toc’ file to mimic
3699 \define@key{Hyp}{bookmarkstype}{%
3700   \def\Hy@bookmarkstype{#1}%

```

```

3701 }
3702 \def\Hy@bookmarkstype{toc}

```

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

```

3703 \define@key{Hyp}{bookmarksnumbered}[true]{%
3704   \Hy@boolkey{bookmarksnumbered}{#1}%
3705 }

```

Option CJKbookmarks enables the patch for CJK bookmarks.

```

3706 \define@key{Hyp}{CJKbookmarks}[true]{%
3707   \Hy@boolkey{CJKbookmarks}{#1}%
3708 }

3709 \def\Hy@temp#1{%
3710   \expandafter\Hy@@temp\csname @#1color\endcsname{#1}%
3711 }
3712 \def\Hy@@temp#1#2#3{%
3713   \define@key{Hyp}{#2color}{%
3714     \HyColor@HyperrefColor{##1}#1%
3715   }%
3716   \def#1{#3}%
3717 }
3718 \Hy@temp{link}{red}
3719 \Hy@temp{anchor}{black}
3720 \Hy@temp{cite}{green}
3721 \Hy@temp{file}{cyan}
3722 \Hy@temp{url}{magenta}
3723 \Hy@temp{menu}{red}
3724 \Hy@temp{run}{\@filecolor}
3725 \define@key{Hyp}{pagecolor}{%
3726   \Hy@WarningPageColor
3727 }
3728 \def\Hy@WarningPageColor{%
3729   \Hy@WarningNoLine{Option 'pagecolor' is not available anymore}%
3730   \global\let\Hy@WarningPageColor\relax
3731 }
3732 \define@key{Hyp}{allcolors}{%
3733   \HyColor@HyperrefColor{#1}\@linkcolor
3734   \HyColor@HyperrefColor{#1}\@anchorcolor
3735   \HyColor@HyperrefColor{#1}\@citecolor
3736   \HyColor@HyperrefColor{#1}\@filecolor
3737   \HyColor@HyperrefColor{#1}\@urlcolor
3738   \HyColor@HyperrefColor{#1}\@menucolor
3739   \HyColor@HyperrefColor{#1}\@runcolor
3740 }

3741 \def\hyperbaseurl#1{\def\@baseurl{#1}}
3742 \define@key{Hyp}{baseurl}{\hyperbaseurl{#1}}
3743 \let\@baseurl\empty
3744 \def\hyperlinkfileprefix#1{\def\Hy@linkfileprefix{#1}}
3745 \define@key{Hyp}{linkfileprefix}{\hyperlinkfileprefix{#1}}
3746 \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.

```

3747 \let\@pdfpagetransition\relax
3748 \define@key{Hyp}{pdfpagetransition}{%
3749   \def\@pdfpagetransition{#1}%
3750 }
```

`\@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.

```

3751 \let\@pdfpageduration\relax
3752 \define@key{Hyp}{pdfpageduration}{%
3753   \def\@pdfpageduration{#1}%
3754   \Hy@Match\@pdfpageduration{%
3755     ^([0-9]+\.[0-9]*|[0-9]*\.[0-9]+)$%
3756   }{}%
3757   \Hy@Warning{%
3758     Invalid value '\@pdfpageduration'\MessageBreak
3759     of option 'pdfpageduration'\MessageBreak
3760     is replaced by an empty value%
3761   }%
3762   \let\@pdfpageduration\lt@empty
3763 }%
3764 }
```

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.

```

3765 \newif\ifHy@useHidKey
3766 \Hy@useHidKeyfalse
3767 \define@key{Hyp}{pdfpagehidden}[true]{%
3768   \Hy@boolkey{pdfpagehidden}{#1}%
3769   \ifHy@pdfpagehidden
3770     \global\Hy@useHidKeytrue
3771   \fi
3772 }
```

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).

```

3773 \def\Hy@ColorList{cite,file,link,menu,run,url}
3774 \@for\Hy@temp:=\Hy@ColorList\do{%
3775   \edef\Hy@temp{%
3776     \noexpand\define@key{Hyp}{\Hy@temp bordercolor}{%
3777       \noexpand\HyColor@HyperrefBorderColor
3778         {##1}%
3779       \expandafter\noexpand\csname @\Hy@temp bordercolor\endcsname
3780       {hyperref}%
3781       {\Hy@temp bordercolor}%
3782     }%
3783   }%
3784   \Hy@temp
```

```

3785 }
3786 \define@key{Hyp}{pagebordercolor}{%
3787 \Hy@WarningPageBorderColor
3788 }
3789 \def\Hy@WarningPageBorderColor{%
3790 \Hy@WarningNoLine{Option 'pagebordercolor' is not available anymore}%
3791 \global\let\Hy@WarningPageBorderColor\relax
3792 }
3793 \define@key{Hyp}{allbordercolors}{%
3794 \def\Hy@temp##1##2{%
3795 \HyColor@HyperrefBorderColor{#1}##1{hyperref}{##2bordercolor}%
3796 }%
3797 \Hy@temp\@citebordercolor{cite}%
3798 \Hy@temp\@filebordercolor{file}%
3799 \Hy@temp\@linkbordercolor{link}%
3800 \Hy@temp\@menubordercolor{menu}%
3801 \Hy@temp\@runbordercolor{run}%
3802 \Hy@temp\@urlbordercolor{url}%
3803 }

3804 \define@key{Hyp}{pdfhighlight}{\def\@pdfhighlight{#1}}
3805 \Hy@DefNameKey{pdfhighlight}{%
3806 \do{/I}{Invert}%
3807 \do{/N}{None}%
3808 \do{/O}{Outline}%
3809 \do{/P}{Push}%
3810 }
3811 \define@key{Hyp}{pdfborder}{%
3812 \let\Hy@temp\@pdfborder
3813 \def\@pdfborder{#1}%
3814 \Hy@Match\@pdfborder{%
3815 ~\HyPat@NonNegativeReal/ %
3816 \HyPat@NonNegativeReal/ %
3817 \HyPat@NonNegativeReal/%
3818 ( ?\[\HyPat@NonNegativeReal/( \HyPat@NonNegativeReal/)*\])?}%
3819 }-{}{%
3820 \Hy@Warning{%
3821 Invalid value '\@pdfborder'\MessageBreak
3822 for option 'pdfborder'.\MessageBreak
3823 Option setting is ignored%
3824 }%
3825 \let\@pdfborder\Hy@temp
3826 }%
3827 }
3828 \define@key{Hyp}{pdfborderstyle}{%
3829 \let\Hy@temp\@pdfborderstyle
3830 \def\@pdfborderstyle{#1}%
3831 \Hy@Match\@pdfborderstyle{%
3832 ~%
3833 ( */Type */Border%
3834 | */W +\HyPat@NonNegativeReal/%
3835 | */S */[SDBIU]%
3836 | */D *[ ( \HyPat@NonNegativeReal/( \HyPat@NonNegativeReal/)? )? ]%
3837 )* *}%
3838 }-{}{%
3839 \Hy@Warning{%
3840 Invalid value '\@pdfborderstyle'\MessageBreak
3841 for option 'pdfborderstyle'.\MessageBreak

```

```

3842     Option setting is ignored%
3843 }%
3844 \let\@pdfborderstyle\Hy@temp
3845 }%
3846 }
3847 \def\Hy@setpdfborder{%
3848 \ifx\@pdfborder\@empty
3849 \else
3850 /Border[\@pdfborder]%
3851 \fi
3852 \ifx\@pdfborderstyle\@empty
3853 \else
3854 /BS<<\@pdfborderstyle>>%
3855 \fi
3856 }
3857 \Hy@DefNameKey{pdfpagemode}{%
3858 \do{UseNone}{}%
3859 \do{UseOutlines}{}%
3860 \do{UseThumbs}{}%
3861 \do{FullScreen}{}%
3862 \do{UseOC}{PDF 1.5}%
3863 \do{UseAttachments}{PDF 1.6}%
3864 }
3865 \Hy@DefNameKey{pdfnonfullscreenpagemode}{%
3866 \do{UseNone}{}%
3867 \do{UseOutlines}{}%
3868 \do{UseThumbs}{}%
3869 \do{FullScreen}{}%
3870 \do{UseOC}{PDF 1.5}%
3871 \do{UseAttachments}{PDF 1.6}%
3872 }
3873 \Hy@DefNameKey{pdfdirection}{%
3874 \do{L2R}{Left to right}%
3875 \do{R2L}{Right to left}%
3876 }
3877 \Hy@DefNameKey{pdfviewarea}{%
3878 \do{MediaBox}{}%
3879 \do{CropBox}{}%
3880 \do{BleedBox}{}%
3881 \do{TrimBox}{}%
3882 \do{ArtBox}{}%
3883 }
3884 \Hy@DefNameKey{pdfviewclip}{%
3885 \do{MediaBox}{}%
3886 \do{CropBox}{}%
3887 \do{BleedBox}{}%
3888 \do{TrimBox}{}%
3889 \do{ArtBox}{}%
3890 }
3891 \Hy@DefNameKey{pdfprintarea}{%
3892 \do{MediaBox}{}%
3893 \do{CropBox}{}%
3894 \do{BleedBox}{}%
3895 \do{TrimBox}{}%
3896 \do{ArtBox}{}%
3897 }
3898 \Hy@DefNameKey{pdfprintclip}{%

```

```

3899 \do{MediaBox}{}%
3900 \do{CropBox}{}%
3901 \do{BleedBox}{}%
3902 \do{TrimBox}{}%
3903 \do{ArtBox}{}%
3904 }
3905 \Hy@DefNameKey{pdfprintscaling}{%
3906 \do{AppDefault}{}%
3907 \do{None}{}%
3908 }
3909 \Hy@DefNameKey{pdfduplex}{%
3910 \do{Simplex}{}%
3911 \do{DuplexFlipShortEdge}{}%
3912 \do{DuplexFlipLongEdge}{}%
3913 }
3914 \Hy@DefNameKey{pdfpicktraybypdfsize}{%
3915 \do{true}{}%
3916 \do{false}{}%
3917 }
3918 \define@key{Hyp}{pdfprintpagerange}{%
3919 \def\@pdfprintpagerange{#1}%
3920 }
3921 \Hy@DefNameKey{pdfnumcopies}{%
3922 \do{2}{two copies}%
3923 \do{3}{three copies}%
3924 \do{4}{four copies}%
3925 \do{5}{five copies}%
3926 }
3927 \define@key{Hyp}{pdfusetitle}[true]{%
3928 \Hy@boolkey{pdfusetitle}{#1}%
3929 }
3930 \def\HyXeTeX@CheckUnicode{%
3931 \ifxetex
3932 \ifHy@unicode
3933 \else
3934 \Hy@WarningNoLine{%
3935 XeTeX driver only supports unicode.\MessageBreak
3936 Enabling option 'unicode'%
3937 }%
3938 \kvsetkeys{Hyp}{unicode}%
3939 \fi
3940 \else
3941 \let\HyXeTeX@CheckUnicode\relax
3942 \fi
3943 }
3944 \def\HyPsd@PrerenderUnicode#1{%
3945 \begingroup
3946 \expandafter\ifx\csname PrerenderUnicode\endcsname\relax
3947 \else
3948 \sbox0{%
3949 \let\GenericInfo\@gobbles
3950 \let\GenericWarning\@gobbles
3951 \let\GenericError\@gobblefour
3952 \PrerenderUnicode{#1}%
3953 }%
3954 \fi
3955 \endgroup

```

```

3956 }
3957 \define@key{Hyp}{pdftitle}{%
3958   \HyXeTeX@CheckUnicode
3959   \HyPsd@XeTeXBigCharstrue
3960   \HyPsd@PrerenderUnicode{#1}%
3961   \pdfstringdef\@pdftitle{#1}%
3962 }
3963 \define@key{Hyp}{pdfauthor}{%
3964   \HyXeTeX@CheckUnicode
3965   \HyPsd@XeTeXBigCharstrue
3966   \HyPsd@PrerenderUnicode{#1}%
3967   \pdfstringdef\@pdfauthor{#1}%
3968 }
3969 \define@key{Hyp}{pdfproducer}{%
3970   \HyXeTeX@CheckUnicode
3971   \HyPsd@XeTeXBigCharstrue
3972   \HyPsd@PrerenderUnicode{#1}%
3973   \pdfstringdef\@pdfproducer{#1}%
3974   \ifxetex
3975     \Hy@Warning{%
3976       pdfproducer: %
3977       xdvipdfmx will use its own setting\MessageBreak
3978       instead of the value given%
3979     }%
3980   \else
3981     \def\Hy@temp{hdvipdfm}%
3982     \ifx\Hy@driver\Hy@temp
3983       \Hy@Warning{%
3984         pdfproducer: %
3985         dvipdfm(x) will use its own setting\MessageBreak
3986         instead of the value given%
3987       }%
3988     \fi
3989   \fi
3990 }
3991 \define@key{Hyp}{pdfcreator}{%
3992   \HyXeTeX@CheckUnicode
3993   \HyPsd@XeTeXBigCharstrue
3994   \HyPsd@PrerenderUnicode{#1}%
3995   \pdfstringdef\@pdfcreator{#1}%
3996 }
3997 \define@key{Hyp}{pdfcreationdate}{%
3998   \begingroup
3999   \Hy@unicodetfalse
4000   \pdfstringdef\@pdfcreationdate{#1}%
4001   \endgroup
4002 }
4003 \define@key{Hyp}{pdfmoddate}{%
4004   \begingroup
4005   \Hy@unicodetfalse
4006   \pdfstringdef\@pdfmoddate{#1}%
4007   \endgroup
4008 }
4009 \define@key{Hyp}{pdfsubject}{%
4010   \HyXeTeX@CheckUnicode
4011   \HyPsd@XeTeXBigCharstrue
4012   \HyPsd@PrerenderUnicode{#1}%

```

```

4013 \pdfstringdef\@pdfsubject{#1}%
4014 }
4015 \define@key{Hyp}{pdfkeywords}{%
4016 \HyXeTeX@CheckUnicode
4017 \HyPsd@XeTeXBigCharstrue
4018 \HyPsd@PrerenderUnicode{#1}%
4019 \pdfstringdef\@pdfkeywords{#1}%
4020 }
4021 \define@key{Hyp}{pdftrapped}{%
4022 \lowercase{\edef\Hy@temp{#1}}}%
4023 \ifx\Hy@temp\HyInfo@trapped@true
4024 \def\@pdftrapped{True}%
4025 \else
4026 \ifx\Hy@temp\HyInfo@trapped@false
4027 \def\@pdftrapped{False}%
4028 \else
4029 \ifx\Hy@temp\HyInfo@trapped@unknown
4030 \def\@pdftrapped{Unknown}%
4031 \else
4032 \ifx\Hy@temp\@empty
4033 \else
4034 \Hy@Warning{%
4035 Unsupported value '#1'\MessageBreak
4036 for option 'pdftrapped'%
4037 }%
4038 \fi
4039 \def\@pdftrapped{}%
4040 \fi
4041 \fi
4042 \fi
4043 }
4044 \def\HyInfo@trapped@true{true}
4045 \def\HyInfo@trapped@false{false}
4046 \def\HyInfo@trapped@unknown{unknown}
4047 \def\HyInfo@TrappedUnsupported{%
4048 \ifx\@pdftrapped\@empty
4049 \else
4050 \Hy@WarningNoLine{'pdftrapped' is not supported by this driver}%
4051 \gdef\HyInfo@TrappedUnsupported{}%
4052 \fi
4053 }
4054 \define@key{Hyp}{pdfinfo}{%
4055 \kvsetkeys{pdfinfo}{#1}%
4056 }
4057 \def\Hy@temp#1{%
4058 \lowercase{\Hy@temp@A{#1}}{#1}%
4059 }
4060 \def\Hy@temp@A#1#2{%
4061 \define@key{pdfinfo}{#2}{%
4062 \hypersetup{pdf#1={##1}}}%
4063 }%
4064 }
4065 \Hy@temp{Title}
4066 \Hy@temp{Author}
4067 \Hy@temp{Keywords}
4068 \Hy@temp{Subject}
4069 \Hy@temp{Creator}

```

```

4070 \Hy@temp{Producer}
4071 \Hy@temp{CreationDate}
4072 \Hy@temp{ModDate}
4073 \Hy@temp{Trapped}
4074 \newif\ifHyInfo@AddonUnsupported
4075 \kv@set@family@handler{pdfinfo}{%
4076   \HyInfo@AddonHandler{#1}{#2}%
4077 }
4078 \let\HyInfo@do\relax
4079 \def\HyInfo@AddonHandler#1#2{%
4080   \ifx\kv@value\relax
4081     \Hy@Warning{%
4082       Option 'pdfinfo': ignoring key '\kv@key' without value%
4083     }%
4084   \else
4085     \EdefEscapeName\HyInfo@KeyEscaped{\kv@key}%
4086     \EdefUnescapeName\HyInfo@Key{\HyInfo@KeyEscaped}%
4087     \expandafter\ifx\csname KV@pdfinfo@\HyInfo@Key\endcsname\relax
4088       \ifHyInfo@AddonUnsupported
4089         \Hy@Warning{%
4090           This driver does not support additional\MessageBreak
4091           information entries, therefore\MessageBreak
4092           '\kv@key' is ignored%
4093         }%
4094       \else
4095         \def\HyInfo@tmp##1{%
4096           \kv@define@key{pdfinfo}{##1}{%
4097             \HyXeTeX@CheckUnicode
4098             \HyPsd@XeTeXBigCharstrue
4099             \HyPsd@PrerenderUnicode{####1}%
4100             \pdfstringdef\HyInfo@Value{####1}%
4101             \global\expandafter
4102             \let\csname HyInfo@Value@##1\endcsname
4103               \HyInfo@Value
4104           }%
4105         }%
4106         \expandafter\HyInfo@tmp\expandafter{\HyInfo@Key}%
4107         \global\expandafter
4108         \let\csname KV@pdfinfo@\HyInfo@Key\expandafter\endcsname
4109           \csname KV@pdfinfo@\HyInfo@Key\endcsname
4110         \xdef\HyInfo@AddonList{%
4111           \HyInfo@AddonList
4112           \HyInfo@do{\HyInfo@Key}%
4113         }%
4114         \kv@parse@normalized{%
4115           \HyInfo@Key={#2}%
4116         }{%
4117           \kv@processor@default{pdfinfo}%
4118         }%
4119       \fi
4120     \else
4121       \kv@parse@normalized{%
4122         \HyInfo@Key={#2}%
4123       }{%
4124         \kv@processor@default{pdfinfo}%
4125       }%
4126     \fi

```

```

4127 \fi
4128 }
4129 \def\HyInfo@GenerateAddons{%
4130 \ifHyInfo@AddonUnsupported
4131 \def\HyInfo@Addons{%
4132 \else
4133 \begingroup
4134 \toks@{%
4135 \def\HyInfo@do##1{%
4136 \EdefEscapeName\HyInfo@Key{##1}%
4137 \edef\x{%
4138 \toks@{%
4139 \the\toks@
4140 /\HyInfo@Key(\csname HyInfo@Value@##1\endcsname)%
4141 }%
4142 }%
4143 \x
4144 }%
4145 \HyInfo@AddonList
4146 \edef\x{\endgroup
4147 \def\noexpand\HyInfo@Addons{\the\toks@}%
4148 }%
4149 \x
4150 \fi
4151 }
4152 \global\let\HyInfo@AddonList\ltx@empty
4153 \define@key{Hyp}{pdfview}{\calculate@pdfview#1 \}
4154 \define@key{Hyp}{pdflinkmargin}{\setpdflinkmargin{#1}}
4155 \let\setpdflinkmargin\@gobble
4156 \def\calculate@pdfview#1 #2\{%
4157 \def\@pdfview{#1}%
4158 \ifx\#2\%
4159 \def\@pdfviewparams{-32768}%
4160 \else
4161 \def\@pdfviewparams{#2}%
4162 \fi
4163 }
4164 \begingroup\expandafter\expandafter\expandafter\endgroup
4165 \expandafter\ifx\csname numexpr\endcsname\relax
4166 \def\Hy@number#1{%
4167 \expandafter\@firstofone\expandafter{\number#1}%
4168 }%
4169 \else
4170 \def\Hy@number#1{%
4171 \the\numexpr#1\relax
4172 }%
4173 \fi
4174 \define@key{Hyp}{pdfstartpage}{%
4175 \ifx\#1\%
4176 \let\@pdfstartpage\ltx@empty
4177 \else
4178 \edef\@pdfstartpage{\Hy@number{#1}}%
4179 \fi
4180 }%
4181 \define@key{Hyp}{pdfstartview}{%
4182 \ifx\#1\%
4183 \let\@pdfstartview\ltx@empty

```

```

4184 \else
4185 \hypercalcbpdef\@pdfstartview{/#1}%
4186 \fi
4187 }
4188 \def\HyPat@NonNegativeReal/{%
4189 \ *([0-9]+\.[0-9]*|[0-9]*\.[0-9]+) *%
4190 }
4191 \define@key{Hyp}{pdfremotestartview}{%
4192 \ifx\#1\%
4193 \def\@pdfremotestartview{/Fit}%
4194 \else
4195 \hypercalcbpdef\@pdfremotestartview{#1}%
4196 \edef\@pdfremotestartview{\@pdfremotestartview}%
4197 \Hy@Match\@pdfremotestartview{%
4198 ^{XYZ -?(null|\HyPat@NonNegativeReal/) %
4199 -?(null|\HyPat@NonNegativeReal/) %
4200 (null|\HyPat@NonNegativeReal/)|%
4201 Fit(|B| %
4202 (H|V|BH|BV) (null|\HyPat@NonNegativeReal/)|%
4203 R \HyPat@NonNegativeReal/ \HyPat@NonNegativeReal/ %
4204 \HyPat@NonNegativeReal/ \HyPat@NonNegativeReal/%
4205 )}$%
4206 }{}{%
4207 \Hy@Warning{%
4208 Invalid value '\@pdfremotestartview'\MessageBreak
4209 of 'pdfremotestartview'\MessageBreak
4210 is replaced by 'Fit'%
4211 }%
4212 \let\@pdfremotestartview\@empty
4213 }%
4214 \ifx\@pdfremotestartview\@empty
4215 \def\@pdfremotestartview{/Fit}%
4216 \else
4217 \edef\@pdfremotestartview{/ \@pdfremotestartview}%
4218 \fi
4219 \fi
4220 }
4221 \define@key{Hyp}{pdfpagescrop}{\edef\@pdfpagescrop{#1}}
4222 \define@key{Hyp}{pdftoolbar}[true]{%
4223 \Hy@boolkey{pdftoolbar}{#1}%
4224 }
4225 \define@key{Hyp}{pdfmenubar}[true]{%
4226 \Hy@boolkey{pdfmenubar}{#1}%
4227 }
4228 \define@key{Hyp}{pdfwindowui}[true]{%
4229 \Hy@boolkey{pdfwindowui}{#1}%
4230 }
4231 \define@key{Hyp}{pdffitwindow}[true]{%
4232 \Hy@boolkey{pdffitwindow}{#1}%
4233 }
4234 \define@key{Hyp}{pdfcenterwindow}[true]{%
4235 \Hy@boolkey{pdfcenterwindow}{#1}%
4236 }
4237 \define@key{Hyp}{pdfdisplaydoctitle}[true]{%
4238 \Hy@boolkey{pdfdisplaydoctitle}{#1}%
4239 }
4240 \define@key{Hyp}{pdfa}[true]{%

```

```

4241 \Hy@boolkey{pdfa}{#1}%
4242 }
4243 \define@key{Hyp}{pdfnewwindow}[true]{%
4244 \def\Hy@temp{#1}%
4245 \ifx\Hy@temp\@empty
4246 \Hy@pdfnewwindowsetfalse
4247 \else
4248 \Hy@pdfnewwindowsettrue
4249 \Hy@boolkey{pdfnewwindow}{#1}%
4250 \fi
4251 }
4252 \def\Hy@SetNewWindow{%
4253 \ifHy@pdfnewwindowset
4254 /NewWindow %
4255 \ifHy@pdfnewwindow true\else false\fi
4256 \fi
4257 }
4258 \Hy@DefNameKey{pdfpagelayout}{%
4259 \do{SinglePage}{}%
4260 \do{OneColumn}{}%
4261 \do{TwoColumnLeft}{}%
4262 \do{TwoColumnRight}{}%
4263 \do{TwoPageLeft}{PDF 1.5}%
4264 \do{TwoPageRight}{PDF 1.5}%
4265 }
4266 \define@key{Hyp}{pdflang}{%
4267 \def\@pdflang{#1}%
4268 }
4269 \define@key{Hyp}{pdfpagelabels}[true]{%
4270 \Hy@boolkey{pdfpagelabels}{#1}%
4271 }
4272 \define@key{Hyp}{pdfescapeform}[true]{%
4273 \Hy@boolkey{pdfescapeform}{#1}%
4274 }

```

Default values:

```

4275 \def\@linkbordercolor{1 0 0}
4276 \def\@urlbordercolor{0 1 1}
4277 \def\@menubordercolor{1 0 0}
4278 \def\@filebordercolor{0 .5 .5}
4279 \def\@runbordercolor{0 .7 .7}
4280 \def\@citebordercolor{0 1 0}
4281 \def\@pdfhighlight{/I}
4282 \let\@pdftitle\ltx@empty
4283 \let\@pdfauthor\ltx@empty
4284 \let\@pdfproducer\relax
4285 \def\@pdfcreator{LaTeX with hyperref package}
4286 \let\@pdfcreationdate\ltx@empty
4287 \let\@pdfmoddate\ltx@empty
4288 \let\@pdfsubject\ltx@empty
4289 \let\@pdfkeywords\ltx@empty
4290 \let\@pdftrapped\ltx@empty
4291 \let\@pdfpagescrop\ltx@empty
4292 \def\@pdfstartview{/Fit}
4293 \def\@pdfremotestartview{/Fit}
4294 \def\@pdfstartpage{1}
4295 \let\@pdfprintpagerange\ltx@empty
4296 \let\@pdflang\ltx@empty

```

```

4297 \let\PDF@SetupDoc\@empty
4298 \let\PDF@FinishDoc\@empty
4299 \let\phantomsection\@empty
4300 \let\special@paper\@empty
4301 \def\HyperDestNameFilter#1{#1}
4302 \Hy@AtBeginDocument{%
4303   \begingroup
4304     \edef\x{\@ifundefined{stockheight}\paperheight\stockheight}%
4305     \dimen@=\x\relax
4306     \ifdim\dimen@>\z@
4307     \else
4308       \dimen@=11in\relax
4309       \Hy@WarningNoLine{%
4310         Height of page (\expandafter\string\x) %
4311         is invalid (\the\x),\MessageBreak
4312         using 11in%
4313       }%
4314     \fi
4315     \dimen@=0.99626401\dimen@
4316     \xdef\Hy@pageheight{\strip@pt\dimen@}%
4317   \endgroup
4318 }
4319 \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.

```

4320 \let\hyper@normalise\ExecuteOptions
4321 \let\ExecuteOptions\hypersetup
4322 \Hy@RestoreCatcodes
4323 \InputIfFileExists{hyperref.cfg}{-}{-}
4324 \Hy@SetCatcodes
4325 \let\ExecuteOptions\hyper@normalise
4326 \ifx\Hy@MaybeStopNow\relax
4327 \else
4328   \Hy@stoppedeasilytrue
4329   \expandafter\Hy@MaybeStopNow
4330 \fi
4331 \Hy@stoppedeasilyfalse

```

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.

```

4332 \SetupKeyvalOptions{family=Hyp}
4333 \DeclareLocalOptions{%
4334   a4paper,a5paper,b5paper,letterpaper,legalpaper,executivepaper%
4335 }

```

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

```

4336 \@ifpackageloaded{tex4ht}{%
4337   \@ifpackagewith{hyperref}{tex4ht}{%
4338   }{%
4339     \PassOptionsToPackage{tex4ht}{hyperref}%
4340   }%
4341 }{}
4342 \ltx@ifundefined{HCode}{%
4343 }{%
4344   \@ifpackagewith{hyperref}{tex4ht}{%
4345   }{%

```

```

4346 \PassOptionsToPackage{tex4ht}{hyperref}%
4347 }%
4348 }

```

```

4349 \let\ReadBookmarks\relax
4350 \ProcessKeyvalOptions{Hyp}

```

After processing options.

15.1 Package xspace support

```

4351 \def\Hy@xspace@end{}
4352 \ltx@ifundefined{xspaceaddexceptions}{%
4353 \Hy@AtBeginDocument{%
4354 \ltx@ifundefined{xspaceaddexceptions}{%
4355 }{%
4356 \def\Hy@xspace@end{%
4357 \ltx@gobble{end for xspace}%
4358 }%
4359 \xspaceaddexceptions{%
4360 \Hy@xspace@end,\hyper@linkend,\hyper@anchorend
4361 }%
4362 }%
4363 }%
4364 }{%
4365 \def\Hy@xspace@end{%
4366 \ltx@gobble{end for xspace}%
4367 }%
4368 \xspaceaddexceptions{\Hy@xspace@end,\hyper@linkend,\hyper@anchorend}%
4369 }

```

15.2 Option draft

```

4370 \Hy@AtBeginDocument{%
4371 \ifHy@draft
4372 \let\hyper@@anchor\@gobble
4373 \gdef\hyper@link#1#2#3{#3\Hy@xspace@end}%
4374 \def\hyper@anchorstart#1#2{#2\Hy@xspace@end}%
4375 \def\hyper@anchorend{\Hy@xspace@end}%
4376 \let\hyper@linkstart\@gobbletwo
4377 \def\hyper@linkend{\Hy@xspace@end}%
4378 \def\hyper@linkurl#1#2{#1\Hy@xspace@end}%
4379 \def\hyper@linkfile#1#2#3{#1\Hy@xspace@end}%
4380 \def\hyper@link@[#1]#2#3#4{#4\Hy@xspace@end}%
4381 \def\Acrobatmenu#1#2{\leavevmode#2\Hy@xspace@end}%
4382 \let\PDF@SetupDoc\@empty
4383 \let\PDF@FinishDoc\@empty
4384 \let\@fifthoffive\@secondoftwo
4385 \let\@secondoffive\@secondoftwo
4386 \let\ReadBookmarks\relax
4387 \let\WriteBookmarks\relax
4388 \Hy@WarningNoLine{Draft mode on}%
4389 \fi
4390 \Hy@DisableOption{draft}%
4391 \Hy@DisableOption{nolinks}%
4392 \Hy@DisableOption{final}%
4393 }

```

15.3 PDF/A

```

4394 \Hy@DisableOption{pdfa}
4395 \ifHy@pdfa
4396 \kvsetkeys{Hyp}{pdfversion=1.4}%
4397 \Hy@DisableOption{pdfversion}%
4398 \def\Hy@Acrobatmenu#1#2{%
4399 \leavevmode
4400 \begingroup
4401 \edef\x{#1}%
4402 \@onelevel@sanitize\x
4403 \ifx\x\Hy@NextPage
4404 \let\y=Y%
4405 \else
4406 \ifx\x\Hy@PrevPage
4407 \let\y=Y%
4408 \else
4409 \ifx\x\Hy@FirstPage
4410 \let\y=Y%
4411 \else
4412 \ifx\x\Hy@LastPage
4413 \let\y=Y%
4414 \else
4415 \let\y=N%
4416 \fi
4417 \fi
4418 \fi
4419 \fi
4420 \expandafter\endgroup
4421 \ifx\y Y%
4422 \else
4423 \Hy@Error{%
4424 PDF/A: Named action ‘#1’ is not permitted%
4425 }\@ehc
4426 {#2}%
4427 \expandafter\@gobble
4428 \fi
4429 }%
4430 \def\Hy@temp#1{%
4431 \expandafter\def\csname Hy@#1\endcsname{#1}%
4432 \expandafter\@onelevel@sanitize\csname Hy@#1\endcsname
4433 }%
4434 \Hy@temp{NextPage}%
4435 \Hy@temp{PrevPage}%
4436 \Hy@temp{FirstPage}%
4437 \Hy@temp{LastPage}%
4438 \else
4439 \def\Hy@Acrobatmenu#1#2{\leavevmode}%
4440 \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.

```

4441 \Hy@nextfalse
4442 \ltx@ifundefined{spanish@sh@}{\Hy@nexttrue}
4443 \ltx@ifundefined{galician@sh@}{\Hy@nexttrue}
4444 \ltx@ifundefined{estonian@sh@}{\Hy@nexttrue}

```

```

4445 \ifHy@next
4446 \let\texttilde\~%
4447 \fi

4448 \def\Hy@wrapper@babel#1#2{%
4449 \begingroup
4450 \Hy@safe@activestru
4451 \set@display@protect
4452 \edef\x{#2}%
4453 \@onelevel@sanitize\x
4454 \toks@{#1}%
4455 \edef\x{\endgroup\the\toks@\x}}%
4456 \x
4457 }

4458 \def\Hy@WrapperDef#1{%
4459 \begingroup
4460 \escapechar=\m@ne
4461 \xdef\Hy@gtemp{%
4462 \expandafter\noexpand\csname HyWrap@string#1\endcsname
4463 }%
4464 \endgroup
4465 \edef#1{%
4466 \noexpand\Hy@wrapper@babel
4467 \expandafter\noexpand\Hy@gtemp
4468 }%
4469 \expandafter\def\Hy@gtemp
4470 }

4471 \ifHy@hyperfigures
4472 \Hy@Info{Hyper figures ON}%
4473 \else
4474 \Hy@Info{Hyper figures OFF}%
4475 \fi

4476 \ifHy@nesting
4477 \Hy@Info{Link nesting ON}%
4478 \else
4479 \Hy@Info{Link nesting OFF}%
4480 \fi

4481 \ifHy@hyperindex
4482 \Hy@Info{Hyper index ON}%
4483 \else
4484 \Hy@Info{Hyper index OFF}%
4485 \fi

4486 \ifHy@plainpages
4487 \Hy@Info{Plain pages ON}%
4488 \else
4489 \Hy@Info{Plain pages OFF}%
4490 \fi

4491 \ifHy@backref
4492 \Hy@Info{Backreferencing ON}%
4493 \else
4494 \Hy@Info{Backreferencing OFF}%
4495 \fi

4496 \ifHy@typexml
4497 \Hy@AtEndOfPackage{%
4498 \RequirePackage{color}%
4499 \RequirePackage{nameref}[2012/07/28]%
4500 }%
4501 \fi

```

```

4502 \Hy@DisableOption{typexml}
4503 \ifHy@implicit
4504   \Hy@InfoNoLine{Implicit mode ON; LaTeX internals redefined}%
4505 \else
4506   \Hy@InfoNoLine{Implicit mode OFF; no redefinition of LaTeX internals}%
4507   \def\MaybeStopEarly{%
4508     \Hy@Message{Stopped early}%
4509     \Hy@AtBeginDocument{%
4510       \PDF@FinishDoc
4511       \gdef\PDF@FinishDoc{}}%
4512   }%
4513   \endinput
4514 }%
4515 \Hy@AtBeginDocument{%
4516   \let\autoref\ref
4517   \let\autopageref\pageref
4518   \ifx\@pdfpagemode\@empty
4519     \gdef\@pdfpagemode{UseNone}%
4520   \fi
4521   \global\Hy@backreffalse
4522 }%
4523 \Hy@AtEndOfPackage{%
4524   \global\let\ReadBookmarks\relax
4525   \global\let\WriteBookmarks\relax
4526 }%
4527 \fi
4528 \Hy@DisableOption{implicit}

```

15.4.1 Driver loading

```

4529 \Hy@AtEndOfPackage{%
4530   \@ifpackageloaded{tex4ht}{%
4531     \def\Hy@driver{htex4ht}%
4532     \Hy@texhttrue
4533   }{}%

```

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.

```

4534   \ifx\Hy@driver\@empty
4535   \else
4536     \def\Hy@temp{hpdftex}%
4537     \ifpdf
4538       \ifx\Hy@driver\Hy@temp
4539       \else
4540         \Hy@WarningNoLine{%
4541           Wrong driver ‘\Hy@driver.def’;\MessageBreak
4542           pdfTeX is running in PDF mode.\MessageBreak
4543           Forcing driver ‘\Hy@temp.def’%
4544         }%
4545         \let\Hy@driver\Hy@temp
4546       \fi
4547     \else
4548       \ifx\Hy@driver\Hy@temp
4549       \Hy@WarningNoLine{%
4550         Wrong driver ‘\Hy@driver.def’;\MessageBreak
4551         pdfTeX is not running in PDF mode.\MessageBreak
4552         Using default driver%
4553       }%

```

```

4554     \let\Hy@driver\@empty
4555     \fi
4556   \fi
4557 \fi
4558 \ifHy@texht
4559 \else
4560   \ifx\Hy@driver\@empty
4561   \else
4562     \def\Hy@temp{hxtex}%
4563     \ifxetex
4564       \ifx\Hy@driver\Hy@temp
4565       \else
4566         \Hy@WarningNoLine{%
4567           Wrong driver '\Hy@driver.def';\MessageBreak
4568           XeTeX is running.\MessageBreak
4569           Forcing driver '\Hy@temp.def' for XeTeX%
4570         }%
4571       \let\Hy@driver\Hy@temp
4572     \fi
4573   \fi
4574 \fi
4575 \fi
4576 \ifx\Hy@driver\@empty
4577 \else
4578   \def\Hy@temp{hvtexhtm}%
4579   \ifvtexhtml
4580     \ifx\Hy@driver\Hy@temp
4581     \else
4582       \Hy@WarningNoLine{%
4583         Wrong driver '\Hy@driver.def';\MessageBreak
4584         VTeX is running in HTML mode.\MessageBreak
4585         Forcing driver '\Hy@temp.def'%
4586       }%
4587     \let\Hy@driver\Hy@temp
4588   \fi
4589 \else
4590   \ifx\Hy@driver\Hy@temp
4591   \Hy@WarningNoLine{%
4592     Wrong driver '\Hy@driver.def';\MessageBreak
4593     VTeX is not running in HTML mode.\MessageBreak
4594     Using default driver%
4595   }%
4596   \let\Hy@driver\@empty
4597 \fi
4598 \fi
4599 \fi

```

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

```

4600 \let\HyOpt@DriverType\ltx@empty
4601 \ifx\HyOpt@CustomDriver\ltx@empty
4602   \ifx\Hy@driver\@empty
4603     \def\HyOpt@DriverType{ (autodetected)}%
4604     \providecommand*{\Hy@defaultdriver}{hypertex}%
4605     \ifpdf
4606       \def\Hy@driver{hpdfetex}%
4607     \else
4608       \ifxetex
4609         \def\Hy@driver{hxtex}%

```

```

4610 \else
4611 \ifvtexhtml
4612 \def\Hy@driver{hvtexhtm}%
4613 \def\MaybeStopEarly{%
4614 \Hy@Message{Stopped early}%
4615 \Hy@AtBeginDocument{%
4616 \PDF@FinishDoc
4617 \gdef\PDF@FinishDoc{}}%
4618 }%
4619 \endinput
4620 }%
4621 \else
4622 \ifvtexpdf
4623 \def\Hy@driver{hvtex}%
4624 \else
4625 \ifvtexps
4626 \def\Hy@driver{hvtex}%
4627 \else
4628 \ifx\HyOpt@DriverFallback\ltx@empty
4629 \let\Hy@driver\Hy@defaultdriver
4630 \def\HyOpt@DriverType{(default)}%
4631 \else
4632 \begingroup
4633 \toks@{\expandafter{\HyOpt@DriverFallback}%
4634 \edef\x{\endgroup
4635 \noexpand\kvsetkeys{Hyp}{\the\toks@}%
4636 }%
4637 \x
4638 \ifx\Hy@driver\ltx@empty
4639 \let\Hy@driver\Hy@defaultdriver
4640 \def\HyOpt@DriverType{(default)}%
4641 \else
4642 \def\HyOpt@DriverType{(fallback)}%
4643 \fi
4644 \fi
4645 \fi
4646 \fi
4647 \fi
4648 \fi
4649 \fi
4650 \ifx\Hy@driver\Hy@defaultdriver
4651 \def\Hy@temp{hdviwind}%
4652 \ifx\Hy@temp\Hy@driver
4653 \kvsetkeys{Hyp}{colorlinks}%
4654 \PassOptionsToPackage{dviwindo}{color}%
4655 \fi
4656 \fi
4657 \fi
4658 \else
4659 \def\HyOpt@DriverType{(custom)}%
4660 \let\Hy@driver\HyOpt@CustomDriver
4661 \fi
4662 \Hy@Message{Driver\HyOpt@DriverType: \Hy@driver}%
4663 \chardef\Hy@VersionChecked=0 %
4664 \input{\Hy@driver.def}%
4665 \ifcase\Hy@VersionChecked
4666 \Hy@VersionCheck{\Hy@driver.def}%

```

```

4667 \fi
4668 \let\@unprocessedoptions\relax
4669 \Hy@RestoreCatcodes
4670 \Hy@DisableOption{tex4ht}%
4671 \Hy@DisableOption{pdftex}%
4672 \Hy@DisableOption{nativepdf}%
4673 \Hy@DisableOption{dvipdfm}%
4674 \Hy@DisableOption{dvipdfmx}%
4675 \Hy@DisableOption{dvipdfmx-outline-open}%
4676 \Hy@DisableOption{pdfmark}%
4677 \Hy@DisableOption{dvips}%
4678 \Hy@DisableOption{hypertex}%
4679 \Hy@DisableOption{vtex}%
4680 \Hy@DisableOption{vtexpdfmark}%
4681 \Hy@DisableOption{dviwindo}%
4682 \Hy@DisableOption{dvipsone}%
4683 \Hy@DisableOption{textures}%
4684 \Hy@DisableOption{latex2html}%
4685 \Hy@DisableOption{ps2pdf}%
4686 \Hy@DisableOption{xetex}%
4687 \Hy@DisableOption{driverfallback}%
4688 \Hy@DisableOption{customdriver}%
4689 \Hy@DisableOption{pdfversion}%
4690 }

```

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.

```

4691 \newif\ifHy@DvipdfmxOutlineOpen
4692 \ifxetex
4693   \ifdim\number\XeTeXversion\XeTeXrevision in<0.9995in %
4694   \else
4695     \chardef\SpecialDvipdfmxOutlineOpen\@ne
4696     \Hy@DvipdfmxOutlineOpenttrue
4697   \fi
4698 \fi
4699 \begingroup\expandafter\expandafter\expandafter\endgroup
4700 \expandafter\ifx\csname SpecialDvipdfmxOutlineOpen\endcsname\relax
4701 \else
4702   \ifnum\SpecialDvipdfmxOutlineOpen>\z@
4703     \Hy@DvipdfmxOutlineOpenttrue
4704   \fi
4705 \fi

```

15.4.2 Bookmarks

```

4706 \def\WriteBookmarks{0}
4707 \def\@bookmarkopenstatus#1{%
4708   \ifHy@bookmarksopen

```

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

```

4709   \ifnum#1<\expandafter\@firstofone\expandafter
4710     {\number\@bookmarksopenlevel} % explicit space
4711   \else
4712     -%
4713   \fi
4714 \else
4715   -%

```

```

4716 \fi
4717 }
4718 \ifHy@bookmarks
4719 \Hy@Info{Bookmarks ON}%
4720 \ifx\@pdfpagemode\@empty
4721 \def\@pdfpagemode{UseOutlines}%
4722 \fi
4723 \else
4724 \let\@bookmarkopenstatus\ltx@gobble
4725 \Hy@Info{Bookmarks OFF}%
4726 \Hy@AtEndOfPackage{%
4727 \global\let\ReadBookmarks\relax
4728 \global\let\WriteBookmarks\relax
4729 }%
4730 \ifx\@pdfpagemode\@empty
4731 \def\@pdfpagemode{UseNone}%
4732 \fi
4733 \fi
4734 \Hy@DisableOption{bookmarks}

Add wrapper for setting standard catcodes (babel's shorthands).
4735 \def\Hy@CatcodeWrapper#1{%
4736 \let\Hy@endWrap\ltx@empty
4737 \def\TMP@EnsureCode##1##2{%
4738 \edef\Hy@endWrap{%
4739 \Hy@endWrap
4740 \catcode##1 \the\catcode##1\relax
4741 }%
4742 \catcode##1 ##2\relax
4743 }%
4744 \TMP@EnsureCode{10}{12}% ^^J
4745 \TMP@EnsureCode{33}{12}% !
4746 \TMP@EnsureCode{34}{12}% "
4747 \TMP@EnsureCode{36}{3}% $ (math)
4748 \TMP@EnsureCode{38}{4}% & (alignment)
4749 \TMP@EnsureCode{39}{12}% '
4750 \TMP@EnsureCode{40}{12}% (
4751 \TMP@EnsureCode{41}{12}% )
4752 \TMP@EnsureCode{42}{12}% *
4753 \TMP@EnsureCode{43}{12}% +
4754 \TMP@EnsureCode{44}{12}% ,
4755 \TMP@EnsureCode{45}{12}% -
4756 \TMP@EnsureCode{46}{12}% .
4757 \TMP@EnsureCode{47}{12}% /
4758 \TMP@EnsureCode{58}{12}% :
4759 \TMP@EnsureCode{59}{12}% ;
4760 \TMP@EnsureCode{60}{12}% <
4761 \TMP@EnsureCode{61}{12}% =
4762 \TMP@EnsureCode{62}{12}% >
4763 \TMP@EnsureCode{63}{12}% ?
4764 \TMP@EnsureCode{91}{12}% [
4765 \TMP@EnsureCode{93}{12}% ]
4766 \TMP@EnsureCode{94}{7}% ^ (superscript)
4767 \TMP@EnsureCode{95}{8}% _ (subscript)
4768 \TMP@EnsureCode{96}{12}% '
4769 \TMP@EnsureCode{124}{12}% |
4770 \TMP@EnsureCode{126}{13}% ~ (active)
4771 #1\relax

```

```

4772 \Hy@EndWrap
4773 }

```

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

```

4774 \Hy@AtBeginDocument{%
4775   \ifHy@ocgcolorlinks
4776     \kvsetkeys{Hyp}{colorlinks}%
4777     \ifHy@pdfa
4778       \Hy@Warning{%
4779         PDF/A: Optional Content Groups are prohibited,\MessageBreak
4780         using 'colorlinks' instead of 'ocgcolorlinks'%
4781       }%
4782     \Hy@ocgcolorlinksfalse
4783   \fi
4784 \fi
4785 \ifHy@ocgcolorlinks
4786 \else
4787   \Hy@DisableOption{ocgcolorlinks}%
4788 \fi
4789 \ifHy@colorlinks
4790   \def\@pdfborder{0 0 0}%
4791   \let\@pdfborderstyle\@empty
4792   \ifHy@typexml
4793   \else
4794     \Hy@CatcodeWrapper{%
4795       \RequirePackage{color}%
4796     }%
4797   \fi
4798   \def\Hy@colorlink#1{%
4799     \begingroup
4800     \HyColor@UseColor#1%
4801   }%
4802   \def\Hy@endcolorlink{\endgroup}%
4803   \Hy@Info{Link coloring ON}%
4804 \else
4805   \ifHy@frenchlinks
4806     \def\Hy@colorlink#1{\begingroup\fontshape{sc}\selectfont}%
4807     \def\Hy@endcolorlink{\endgroup}%
4808     \Hy@Info{French linking ON}%
4809   \else

```

for grouping consistency:

```

4810     \def\Hy@colorlink#1{\begingroup}%
4811     \def\Hy@endcolorlink{\endgroup}%
4812     \Hy@Info{Link coloring OFF}%
4813   \fi
4814 \fi
4815 \Hy@DisableOption{colorlinks}%
4816 \Hy@DisableOption{frenchlinks}%
4817 \ifHy@texht
4818   \long\def\@firstoffive#1#2#3#4#5{#1}%
4819   \long\def\@secondoffive#1#2#3#4#5{#2}%
4820   \long\def\@thirdoffive#1#2#3#4#5{#3}%
4821   \long\def\@fourthoffive#1#2#3#4#5{#4}%
4822   \long\def\@fifthoffive#1#2#3#4#5{#5}%
4823   \providecommand*\@safe@activetrue{}%
4824   \providecommand*\@safe@activesfalse{}%
4825   \def\T@ref#1{%

```

```

4826 \Hy@safe@activetrue
4827 \expandafter\@setref\csname r@#1\endcsname\@firstoffive{#1}%
4828 \Hy@safe@activesfalse
4829 }%
4830 \def\T@pageref#1{%
4831 \Hy@safe@activetrue
4832 \expandafter\@setref\csname r@#1\endcsname\@secondoffive{#1}%
4833 \Hy@safe@activesfalse
4834 }%
4835 \else
4836 \ifHy@typexml
4837 \else
4838 \Hy@CatcodeWrapper{%
4839 \RequirePackage{nameref}[2012/07/28]%
4840 }%
4841 \fi
4842 \fi
4843 \DeclareRobustCommand\ref{%
4844 \@ifstar\@crefstar\T@ref
4845 }%
4846 \DeclareRobustCommand\pageref{%
4847 \@ifstar\@pagerefstar\T@pageref
4848 }%
4849 % \@ifclassloaded{memoir}{%
4850 % \ltx@ifundefined{@mem@titlerefno link}\ltx@secondoftwo{%
4851 % \ltx@ifundefined{@mem@titleref}\ltx@secondoftwo\ltx@firstoftwo
4852 % }%
4853 % }\ltx@secondoftwo
4854 % {%
4855 % \DeclareRobustCommand*{\nameref}{%
4856 % \@ifstar\@mem@titlerefno link\@mem@titleref
4857 % }%
4858 % }{%
4859 \DeclareRobustCommand*{\nameref}{%
4860 \@ifstar\@namerefstar\T@nameref
4861 }%
4862 % }%
4863 }
4864 \Hy@AtBeginDocument{%
4865 \ifHy@texht
4866 \else
4867 \Hy@CatcodeWrapper\ReadBookmarks
4868 \fi
4869 }
4870 \ifHy@backref
4871 \RequirePackage{backref}%
4872 \else
4873 \let\Hy@backout\@gobble
4874 \fi
4875 \Hy@DisableOption{backref}
4876 \Hy@DisableOption{pagebackref}
4877 \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`.

```

4878 \begingroup
4879 \endlinechar=-1 %
4880 \catcode'\^^A=14 %
4881 \catcode'\^^M\active
4882 \catcode'\%\active
4883 \catcode'\#\active
4884 \catcode'\_\active
4885 \catcode'\$\active
4886 \catcode'\&\active
4887 \gdef\hyper@normalise{^^A
4888   \begingroup
4889   \catcode'\^^M\active
4890   \def^^M{ }^^A
4891   \catcode'\%\active
4892   \let%\@percentchar
4893   \let%\@percentchar
4894   \catcode'\#\active
4895   \def#{\hyper@hash}^^A
4896   \def\#{\hyper@hash}^^A
4897   \@makeother\&^^A
4898   \edef&{\string&}^^A
4899   \edef\&{\string&}^^A
4900   \edef\textunderscore{\string_}^^A
4901   \let\_ \textunderscore
4902   \catcode'\_\active
4903   \let\_ \textunderscore
4904   \let~\hyper@tilde
4905   \let~\hyper@tilde
4906   \let\textasciitilde\hyper@tilde
4907   \let\\\@backslashchar
4908   \edef$\{ \string$ }^^A
4909   \Hy@safe@activestrue
4910   \hyper@n@rmalise
4911 }^^A
4912 \catcode'\#=6 ^^A
4913 \gdef\Hy@ActiveCarriageReturn{^^M}^^A
4914 \gdef\hyper@n@rmalise#1#2{^^A
4915   \def\Hy@tempa{#2}^^A
4916   \ifx\Hy@tempa\Hy@ActiveCarriageReturn
4917     \ltx@ReturnAfterElseFi{^^A
4918       \hyper@@normalise{#1}^^A
4919     }^^A
4920   \else
4921     \ltx@ReturnAfterFi{^^A
4922       \hyper@@normalise{#1}{#2}^^A
4923     }^^A
4924   \fi
4925 }^^A
4926 \gdef\hyper@@normalise#1#2{^^A
4927   \edef\Hy@tempa{^^A
4928     \endgroup
4929     \noexpand#1{\Hy@RemovePercentCr#2%\^^M\@nil}^^A

```

```

4930 }^^A
4931 \Hy@tempa
4932 }^^A
4933 \gdef\Hy@RemovePercentCr#1%^^M#2\@nil{^^A
4934 #1^^A
4935 \ifx\limits#2\limits
4936 \else
4937 \ltx@ReturnAfterFi{^^A
4938 \Hy@RemovePercentCr #2\@nil
4939 }^^A
4940 \fi
4941 }^^A
4942 \endgroup
4943 \providecommand*\hyper@chars{%
4944 \let\#\hyper@hash
4945 \let\%\@percentchar
4946 \Hy@safe@activetrue
4947 }

4948 \def\hyperlink#1#2{%
4949 \hyper@@link@{#1}{#2}%
4950 }

4951 \def\Hy@VerboseLinkStart#1#2{%
4952 \ifHy@verbose
4953 \begingroup
4954 \Hy@safe@activetrue
4955 \xdef\Hy@VerboseGlobalTemp{(#1) '#2'}%
4956 \Hy@Info{Reference \Hy@VerboseGlobalTemp}%
4957 \xdef\Hy@VerboseGlobalTemp{%
4958 \Hy@VerboseGlobalTemp, %
4959 line \the\inputlineno
4960 }%
4961 \endgroup
4962 \let\Hy@VerboseLinkInfo\Hy@VerboseGlobalTemp
4963 \@onelevel@sanitize\Hy@VerboseLinkInfo
4964 \fi
4965 }

4966 \def\Hy@VerboseLinkInfo{<VerboseLinkInfo>}
4967 \def\Hy@VerboseLinkStop{%
4968 \ifHy@verbose
4969 \begingroup
4970 \edef\x{\endgroup
4971 \write\m@ne{%
4972 Package 'hyperref' Info: %
4973 End of reference \Hy@VerboseLinkInfo.%
4974 }%
4975 }%
4976 \x
4977 \fi
4978 }

4979 \def\Hy@VerboseAnchor#1{%
4980 \ifHy@verbose
4981 \begingroup
4982 \Hy@safe@activetrue
4983 \Hy@Info{Anchor '\HyperDestNameFilter{#1}'}%
4984 \endgroup
4985 \fi

```

```

4986 }
4987 \def\Hy@AllowHyphens{%
4988   \relax
4989   \ifhmode
4990     \penalty\@M
4991     \hskip\z@skip
4992   \fi
4993 }
4994 \DeclareRobustCommand*{\href}[1][]{%
4995   \begingroup
4996   \setkeys{href}{#1}%
4997   \@ifnextchar\bgroup\Hy@href{\hyper@normalise\href@}%
4998 }
4999 \def\Hy@href#{%
5000   \hyper@normalise\href@
5001 }
5002 \begingroup
5003 \catcode'\$=6 %
5004 \catcode'\#=12 %
5005 \gdef\href@#1{\expandafter\href@split$1##\}%
5006 \gdef\href@split$1#\$2#\$3\\$4{%
5007   \hyper@@link{$1}{$2}{$3}{$4}%
5008   \endgroup
5009 }%
5010 \endgroup

```

Option ‘page’.

```

5011 \define@key{href}{page}{%
5012   \def\Hy@href@page{#1}%
5013 }
5014 \let\Hy@href@page\@empty
5015 \newcount\c@Hy@tempcnt
5016 \def\theHy@tempcnt{\the\c@Hy@tempcnt}
5017 \def\Hy@MakeRemoteAction{%
5018   \ifx\Hy@href@page\@empty
5019     \def\Hy@href@page{0}%
5020   \else
5021     \setcounter{Hy@tempcnt}{\Hy@href@page}%
5022     \ifnum\c@Hy@tempcnt<\@ne
5023       \Hy@Warning{%
5024         Invalid page number (\theHy@tempcnt)\MessageBreak
5025         for remote PDF file.\MessageBreak
5026         Using page 1%
5027       }%
5028       \def\Hy@href@page{0}%
5029     \else
5030       \global\advance\c@Hy@tempcnt\m@ne
5031       \edef\Hy@href@page{\theHy@tempcnt}%
5032     \fi
5033   \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.

```

5034 \ifx\Hy@href@nextactionraw\@empty
5035 \else
5036   \Hy@pdfnewwindowsettrue
5037   \Hy@pdfnewwindowtrue

```

```

5038 \fi
5039 }

```

Option ‘pdfremotestartview’.

```

5040 \define@key{href}{pdfremotestartview}{%
5041 \setkeys{Hyp}{pdfremotestartview={#1}}}%
5042 }

```

Option ‘pdfnewwindow’.

```

5043 \let\KV@href@pdfnewwindow\KV@Hyp@pdfnewwindow
5044 \let\KV@href@pdfnewwindow@default\KV@Hyp@pdfnewwindow@default

```

Option ‘ismap’.

```

5045 \newif\ifHy@href@ismap
5046 \define@key{href}{ismap}[true]{%
5047 \ltx@ifundefined{Hy@href@ismap#1}{%
5048 \Hy@Error{%
5049 Invalid value (#1) for key ‘ismap’.\MessageBreak
5050 Permitted values are ‘true’ or ‘false’.\MessageBreak
5051 Ignoring ‘ismap’%
5052 } \@ehc
5053 }{%
5054 \csname Hy@href@ismap#1\endcsname
5055 }%
5056 }

```

Option ‘nextactionraw’.

```

5057 \let\Hy@href@nextactionraw\@empty
5058 \define@key{href}{nextactionraw}{%
5059 \edef\Hy@href@nextactionraw{#1}%
5060 \ifx\Hy@href@nextactionraw\@empty
5061 \else
5062 \Hy@Match\Hy@href@nextactionraw{%
5063 ~(\HyPat@ObjRef/|<<.*[/S[/|. +>>|)%
5064 \[( ?\HyPat@ObjRef/|<<.*[/S[/|. +>>)+ ?)]$%
5065 }{ }{%
5066 \Hy@Warning{Invalid value for ‘nextactionraw’:\MessageBreak
5067 \Hy@href@nextactionraw\MessageBreak
5068 The action is discarded%
5069 }%
5070 }%
5071 \ifx\Hy@href@nextactionraw\@empty
5072 \else
5073 \edef\Hy@href@nextactionraw{/Next \Hy@href@nextactionraw}%
5074 \fi
5075 \fi
5076 }
5077 \def\HyPat@ObjRef/{. +}

```

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

```

5078 \RequirePackage{url}
5079 \let\HyOrg@url\url
5080 \def\Hurl{\begingroup \Url}
5081 \DeclareRobustCommand*{\nolinkurl}{\hyper@normalise\nolinkurl@}
5082 \def\nolinkurl@#1{\Hurl{#1}}
5083 \DeclareRobustCommand*{\url}{\hyper@normalise\url@}
5084 \def\url@#1{\hyper@linkurl{\Hurl{#1}}{#1}}
5085 \DeclareRobustCommand*{\hyperimage}{\hyper@normalise\hyper@image}
5086 \providecommand\hyper@image[2]{#2}

```

```

5087 \def\hypertarget#1#2{%
5088   \ifHy@nesting
5089     \hyper@@anchor{#1}{#2}%
5090   \else
5091     \hyper@@anchor{#1}{\relax}#2%
5092   \fi
5093 }

```

`\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.

```

5094 \DeclareRobustCommand*\hyperref{%
5095   \ifnextchar{\Hy@babelnormalise\label@hyperref}\@hyperref
5096 }
5097 \def\Hy@babelnormalise#1[#2]{%
5098   \begingroup
5099     \Hy@safe@activestrue
5100     \edef\Hy@tempa{%
5101       \endgroup
5102       \noexpand#1[{#2}]%
5103     }%
5104   \Hy@tempa
5105 }
5106 \def\@hyperref{\hyper@normalise\@hyperref}
5107 \def\@hyperref#1#2#3{%
5108   \edef\ref@one{\ifx\\#2\\\else#2.\fi#3}%
5109   \expandafter\tryhyper@link\ref@one\\{#1}%
5110 }
5111 \def\tryhyper@link#1\\#2{%
5112   \hyper@@link{#2}{#1}%
5113 }
5114 \def\hyperdef{\ifnextchar{\label@hyperdef}\@hyperdef}
5115 \def\@hyperdef#1#2#3{%, category, name, text
5116   \ifx\\#1\\%
5117     \def\Hy@AnchorName{#2}%
5118   \else
5119     \def\Hy@AnchorName{#1.#2}%
5120   \fi
5121   \ifHy@nesting
5122     \expandafter\hyper@@anchor\expandafter{\Hy@AnchorName}{#3}%
5123   \else
5124     \expandafter\hyper@@anchor\expandafter{\Hy@AnchorName}{\relax}#3%
5125   \fi
5126 }

```

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

```

5127 \def\label@hyperref[#1]{%
5128   \expandafter\label@@hyperref\csname r@#1\endcsname{#1}%
5129 }%
5130 \def\label@@hyperref#1#2#3{%
5131   \ifx#1\relax
5132     \protect\G@refundefinedtrue

```

```

5133 \latex@warning{%
5134   Hyper reference ‘#2’ on page \thepage \space undefined%
5135 }%
5136 \begingroup
5137   #3%
5138 \endgroup
5139 \else
5140   \hyper@@link{\expandafter\@fifthoffive#1}%
5141   {\expandafter\@fourthoffive#1\@empty\@empty}{#3}%
5142 \fi
5143 }
5144 \def\label@hyperdef[#1]#2#3#4{% label name, category, name,
5145                               % anchor text
5146   \@bsphack
5147   \ifx\\#2\\%
5148     \def\Hy@AnchorName{#3}%
5149   \else
5150     \def\Hy@AnchorName{#2.#3}%
5151   \fi
5152   \if@filesw
5153     \protected@write\@auxout{}{%
5154       \string\newlabel{#1}{\Hy@AnchorName}{#3}%
5155     }%
5156   \fi
5157   \@esphack
5158   \ifHy@nesting
5159     \expandafter\hyper@@anchor\expandafter{\Hy@AnchorName}{#4}%
5160   \else
5161     \expandafter\hyper@@anchor\expandafter{\Hy@AnchorName}{\relax}{#4}%
5162   \fi
5163 }

```

16.1 Link box support for XeTeX

```

5164 \newdimen\XeTeXLinkMargin
5165 \setlength{\XeTeXLinkMargin}{2pt}
5166 \ifxetex
5167   \font\XeTeXLink@font=pzdr at 1sp\relax
5168   \newcommand*\XeTeXLink@space{%
5169     \begingroup
5170       \XeTeXLink@font
5171       \@xxxii
5172     \endgroup
5173   }%
5174   \newcommand{\XeTeXLinkBox}[1]{%
5175     \begingroup
5176       \leavevmode
5177       \sbox\z@{#1}%
5178     \begingroup
5179       \dimen@=\dp\z@
5180       \advance\dimen@\XeTeXLinkMargin
5181       \setbox\tw@=\llap{%
5182         \hb@xt@\XeTeXLinkMargin{%
5183           \lower\dimen@\hbox{\XeTeXLink@space}%
5184         \hss
5185       }%
5186     }%

```

```

5187     \dp\tw@=\dp\z@
5188     \ht\tw@=\ht\z@
5189     \copy\tw@
5190   \endgroup
5191   \copy\z@
5192   \dimen@=\ht\z@
5193   \advance\dimen@\XeTeXLinkMargin
5194   \setbox\tw@=\rlap{%
5195     \hb@xt@\XeTeXLinkMargin{%
5196       \hss
5197       \raise\dimen@\hbox{\XeTeXLink@space}%
5198     }%
5199   }%
5200   \dp\tw@=\dp\z@
5201   \ht\tw@=\ht\z@
5202   \copy\tw@
5203 \endgroup
5204 }%
5205 \else
5206   \newcommand*{\XeTeXLinkBox}[1]{%
5207     \begingroup
5208     \leavevmode
5209     \sbox\z@{#1}%
5210     \copy\z@
5211   \endgroup
5212 }%
5213 \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.

```

5214 \def\hyper@link{\let\Hy@reserved@a\relax
5215   \@ifnextchar{\hyper@link@}{\hyper@link@[link]}%
5216 }
5217 % #1: type
5218 % #2: URL
5219 % #3: destination name
5220 % #4: text
5221 \def\hyper@link@[#1]#2#3#4{%
5222   \ltx@ifempty{#4}{% link text
5223     \Hy@Warning{Suppressing empty link}%
5224   }{%
5225     \begingroup
5226     \protected@edef\Hy@tempa{#2}%
5227     \edef\Hy@tempb{#3}%
5228     \ifx\Hy@tempa\ltx@empty
5229       \toks@{%
5230         \endgroup
5231         \hyper@link{#1}%
5232       }%
5233     \else
5234       \toks@{%
5235         \endgroup
5236         \expandafter\hyper@readexternallink#2\{\{#1}%

```

```

5237     }%
5238     \fi
5239     \Hy@safe@activetrue
5240     \Hy@safe@activesfalse
5241     \toks@\expandafter{%
5242       \the\expandafter\toks@
5243       \expandafter{\Hy@tempb}{#4}%
5244     }%
5245     \the\toks@
5246   }%
5247 }

```

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.

```

5248 \def\hyper@readexternallink#1\\#2#3#4{%
5249   \begingroup
5250     \let\\ \relax
5251   \expandafter\endgroup
5252   \expandafter\@hyper@@readexternallink#1\\#{2}{#3}{#4}%
5253 }
5254 \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.

```

5255   \@hyper@readexternallink#{2}{#3}{#4}#1::\#{1}%
5256 }

```

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

```

5257 \def\@pdftempwordfile{file}%
5258 \def\@pdftempwordrun{run}%
5259 \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:**

```

5260   \ifx\\#6\\%
5261     \@hyper@linkfile file:#7\\#{3}{#2}{#7}%
5262   \else
5263     \ifx\\#4\\%
5264       \@hyper@linkfile file:#7\\#{3}{#2}{#7}%
5265     \else

```

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

```

5266 \def\@pdftempa{#4}%
5267 \ifx\@pdftempa\@pdftempwordfile
5268 \@hyper@linkfile#7\{#3}{#2}{#7}%
5269 \else

```

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

```

5270 \ifx\@pdftempa\@pdftempwordrun
5271 \ifHy@pdfa
5272 \Hy@Error{%
5273 PDF/A: Launch action is prohibited%
5274 }\@ehc
5275 \begingroup
5276 \leavevmode
5277 #2%
5278 \endgroup
5279 \else
5280 \@hyper@launch#7\{#3}{#2}%
5281 \fi
5282 \else

```

otherwise its a URL

```

5283 \hyper@linkurl{#3}{#7\ifx\#2\\\else\hyper@hash#2\fi}%
5284 \fi
5285 \fi
5286 \fi
5287 \fi
5288 }

```

By default, turn run: into file:

```

5289 \def\@hyper@launch run:#1\#2#3{% filename, anchor text, linkname
5290 \hyper@linkurl{#2}{%
5291 \Hy@linkfileprefix
5292 #1%
5293 \ifx\#3\\\%
5294 \else
5295 \hyper@hash
5296 #3%
5297 \fi
5298 }%
5299 }

```

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

```

5300 \def\@hyper@linkfile file:#1\#2#3#4{%
5301 %file url,link string, name, original uri
5302 \filename@parse{#1}%
5303 \ifx\filename@ext\relax
5304 \edef\filename@ext{\XR@ext}%
5305 \fi
5306 \def\use@file{\filename@area\filename@base.\filename@ext}%
5307 \Hy@IfStringEndsWith\filename@ext\XR@ext{%
5308 \hyper@linkfile{#2}{\use@file}{#3}%
5309 }{%
5310 \ifx\@baseurl\@empty
5311 \hyper@linkurl{#2}{%
5312 #4\ifx\#3\\\else\hyper@hash#3\fi
5313 }%
5314 \else

```

```

5315 \hyper@linkurl{#2}{\use@file\ifx\\#3\\\else\hyper@hash#3\fi}%
5316 \fi
5317 }%
5318 }

5319 \def\Hy@ifStringEndsWith#1#2{%
5320 \begingroup
5321 \edef\x{#1}%
5322 \@onelevel@sanitize\x
5323 \edef\x{.\x}%
5324 \edef\y{#2}%
5325 \@onelevel@sanitize\y
5326 \edef\y{.\y}%
5327 \expandafter\def\expandafter\z\expandafter##\expandafter1\y##2\@nil{%
5328 \endgroup
5329 \ifx\relax##2\relax
5330 \expandafter\ltx@secondoftwo
5331 \else
5332 \expandafter\ltx@firstoftwo
5333 \fi
5334 }%
5335 \expandafter\expandafter\expandafter\z\expandafter\x\y\@nil
5336 }

5337 \def\Hy@StringLocalhost{localhost}
5338 \@onelevel@sanitize\Hy@StringLocalhost
5339 \def\Hy@CleanupFile#1{%
5340 \edef#1{#1}%
5341 \expandafter\Hy@@CleanupFile#1\hbox{//\hbox\@nil{#1}%
5342 }
5343 \def\Hy@@CleanupFile#1//#2/#3\hbox#4\@nil#5{%
5344 \begingroup
5345 \toks@{\endgroup}%
5346 \def\x{#1}%
5347 \ifx\x@empty
5348 \def\x{#2}%
5349 \ifx\x@empty
5350 \toks@{\endgroup\def#5{/#3}}%
5351 \else
5352 \@onelevel@sanitize\x
5353 \ifx\x\Hy@StringLocalhost
5354 \toks@{\endgroup\def#5{/#3}}%
5355 \fi
5356 \fi
5357 \fi
5358 \the\toks@
5359 }

```

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.

```

5360 \long\def\hyper@@anchor#1#2{\@hyper@@anchor#1\relax#2\relax}
5361 \long\def\@hyper@@anchor#1\relax#2#3\relax{%
5362 \ifx\\#1\\%

```

```

5363   #2\Hy@Warning{Ignoring empty anchor}%
5364 \else
5365   \def\anchor@spot{#2#3}%
5366   \let\put@me@back\@empty
5367   \ifx\relax#2\relax
5368   \else
5369     \ifHy@nesting
5370     \else
5371       \ifcat a\noexpand#2\relax
5372       \else
5373         \ifcat 0\noexpand#2 \relax
5374         \else
5375           \typeout{Anchor start is not alphanumeric %
5376             on input line\the\inputlineno%
5377           }%
5378           \let\anchor@spot\@empty
5379           \def\put@me@back{#2#3}%
5380         \fi
5381       \fi
5382     \fi
5383   \fi
5384   \ifHy@activeanchor
5385     \anchor@spot
5386   \else
5387     \hyper@anchor{#1}%
5388   \fi
5389   \expandafter\put@me@back
5390 \fi
5391 \let\anchor@spot\@empty
5392 }
5393 \let\anchor@spot\ltx@empty

```

18 Option ‘destlabel’

```

5394 \ifHy@destlabel

\hyper@newdestlabel

5395 \def\hyper@newdestlabel#1#2{%
5396   \begingroup
5397   \Hy@safe@activetrue
5398   \edef\x{\endgroup
5399     \noexpand\@newl@bel{HyDL}{#1}{#2}%
5400   }%
5401   \x
5402 }%

\hyper@destlabel@hook

5403 \providecommand*\hyper@destlabel@hook{}%

\Hy@DestRename

5404 \newcommand*\Hy@DestRename[2]{%
5405   \ltx@ifundefined{HyDL!#1}{%
5406     \begingroup
5407     \Hy@safe@activetrue
5408     \edef\dest@name{#1}%
5409     \edef\label@name{#2}%
5410     \hyper@destlabel@hook

```

```

5411 \Hy@IsNotEmpty{dest@name}{%
5412 \Hy@IsNotEmpty{label@name}{%
5413 \global\expandafter
5414 \let\csname HyDL!#1\endcsname\ltx@empty
5415 \if@filesw
5416 \protected@write\@auxout{}\ltx@empty
5417 \string\hyper@newdestlabel
5418 {#1}%
5419 {\label@name}%
5420 }%
5421 \fi
5422 }%
5423 }%
5424 \endgroup
5425 }{}%
5426 }%

```

\HyperDestRename

```

5427 \newcommand*{\HyperDestRename}[2]{%
5428 \AtBeginDocument{%
5429 \Hy@DestRename{#1}{#2}%
5430 }%
5431 }%
5432 \AtBeginDocument{%
5433 \let\HyperDestRename\Hy@DestRename
5434 }%

```

\Hy@IsNotEmpty

```

5435 \def\Hy@IsNotEmpty#1{%
5436 \ltx@ifundefined{#1}\ltx@gobble{%
5437 \expandafter\ifx\csname#1\endcsname\ltx@empty
5438 \expandafter\ltx@gobble
5439 \else
5440 \expandafter\ltx@firstofone
5441 \fi
5442 }%
5443 }%

5444 \ltx@GlobalAppendToMacro\label@hook{%
5445 \HyperDestRename\@currentHref\label@name
5446 }%

```

\HyperDestLabelReplace

```

5447 \def\HyperDestLabelReplace#1{%
5448 \ltx@ifundefined{HyDL@#1}{%
5449 #1%
5450 }{%
5451 \csname HyDL@#1\endcsname
5452 }%
5453 }%

```

\HyperDestNameFilter

```

5454 \let\HyperDestNameFilter\HyperDestLabelReplace
5455 \else

```

\hyper@newdestlabel

```

5456 \let\hyper@newdestlabel\ltx@gobbletwo

```

`\HyperDestLabelReplace`

```
5457 \let\HyperDestLabelReplace\ltx@firstofone
```

`\HyperDestRename`

```
@gobbletwo
```

```
5458 \fi
```

```
5459 \Hy@DisableOption{destlabel}
```

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

```
5460 \AddLineBeginAux{%
```

```
5461 \string\providecommand\string\hyper@newdestlabel[2]{}%
```

```
5462 }
```

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.

```
5463 \let\htmladdimg\hyperimage
```

```
5464 \def\htmladdnormallink#1#2{\href{#2}{#1}}
```

```
5465 \def\htmladdnormallinkfoot#1#2{\href{#2}{#1}\footnote{#2}}
```

```
5466 \def\htmlref#1#2{% anchor text, label
```

```
5467 \label@hyperref[{#2}]{#1}%
```

```
5468 }
```

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.

```
5469 \def\@@latextohtmlX{%
```

```
5470 \let\hhyperref\hyperref
```

```
5471 \def\hyperref##1##2##3##4{% anchor text for HTML
```

```
5472 % text to print before label in print
```

```
5473 % label
```

```
5474 % post-label text in print
```

```
5475 ##2\ref{##4}##3%
```

```
5476 }%
```

```
5477 }
```

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.

```
5478 \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

```
5479 \def\HyField@NewFlag#1#2{%
5480   \lowercase{\HyField@NewOption{#2}}%
5481   \lowercase{\HyField@NewBitsetFlag{#2}}{#2}{#1}%
5482 }
```

\HyField@NewFlagOnly

```
5483 \def\HyField@NewFlagOnly#1#2{%
5484   \lowercase{\HyField@NewBitsetFlag{#2}}{#2}{#1}%
5485 }
```

\HyField@NewOption #1: option name

```
5486 \def\HyField@NewOption#1{%
5487   \expandafter\newif\csname ifFld@#1\endcsname
5488   \define@key{Field}{#1}[true]{%
5489     \lowercase{\Field@boolkey{##1}}{#1}%
5490   }%
5491 }
```

\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

```
5492 \def\HyField@NewBitsetFlag#1#2#3#4{%
5493   \begingroup
5494     \count@=#4\relax
5495     \advance\count@\m@ne
5496     \def\x##1{%
5497       \endgroup
5498       \expandafter\def\csname HyField@#3@#1\endcsname{##1}%
5499       \expandafter\ifx\csname HyField@#3@##1\endcsname\relax
5500         \expandafter\edef\csname HyField@#3@##1\endcsname{%
5501           (\number#4) #2%
5502         }%
5503       \else
5504         \expandafter\edef\csname HyField@#3@##1\endcsname{%
5505           \csname HyField@#3@##1\endcsname
5506           /#2%
5507         }%
5508       \fi
5509     }%
5510   \expandafter\x\expandafter{\the\count@}%
5511 }
```

```

\HyField@UseFlag The bit set is HyField@#1
5512 \def\HyField@UseFlag#1#2{%
5513 \lowercase{\HyField@@UseFlag{#2}}{#1}%
5514 }

\HyField@@UseFlag
5515 \def\HyField@@UseFlag#1#2{%
5516 \bitsetSetValue{HyField@#2}{%
5517 \csname HyField@#2@#1\endcsname
5518 }{%
5519 \csname ifFld@#1\endcsname 1\else 0\fi
5520 }%
5521 }

\HyField@SetFlag The bit set is HyField@#1
5522 \def\HyField@SetFlag#1#2{%
5523 \lowercase{\HyField@@SetFlag{#2}}{#1}%
5524 }

\HyField@@SetFlag
5525 \def\HyField@@SetFlag#1#2{%
5526 \bitsetSetValue{HyField@#2}{%
5527 \csname HyField@#2@#1\endcsname
5528 }{1}%
5529 }

\HyField@PrintFlags
5530 \def\HyField@PrintFlags#1#2{%
5531 \ifHy@verbose
5532 \begingroup
5533 \let\Hy@temp\@empty
5534 \let\MessageBreak\relax
5535 \expandafter\@for\expandafter\x\expandafter:\expandafter=%
5536 \bitsetGetSetBitList{HyField@#1}\do{%
5537 \edef\Hy@temp{%
5538 \Hy@temp
5539 \csname HyField@#1@\x\endcsname\MessageBreak
5540 }%
5541 }%
5542 \edef\x{\endgroup
5543 \noexpand\Hy@Info{%
5544 Field flags: %
5545 \expandafter\ifx\@car#1\@nil S\else/\fi
5546 #1 %
5547 \bitsetGetDec{HyField@#1} %
5548 (0x\bitsetGetHex{HyField@#1}{32})\MessageBreak
5549 \Hy@temp
5550 for #2%
5551 }%
5552 }\x
5553 \fi
5554 }

```

20.1.1 Declarations of field flags

“Table 8.70 Field flags common to all field types”

```

5555 \HyField@NewFlag{Ff}{ReadOnly}{1}
5556 \HyField@NewFlag{Ff}{Required}{2}
5557 \HyField@NewFlag{Ff}{NoExport}{3}

```

“Table 8.75 Field flags specific to button fields”

```

5558 \HyField@NewFlag{Ff}{NoToggleToOff}{15}
5559 \HyField@NewFlag{Ff}{Radio}{16}
5560 \HyField@NewFlag{Ff}{Pushbutton}{17}
5561 \HyField@NewFlag{Ff}{RadiosInUnison}{26}

```

“Table 8.77 Field flags specific to text fields”

```

5562 \HyField@NewFlag{Ff}{Multiline}{13}
5563 \HyField@NewFlag{Ff}{Password}{14}
5564 \HyField@NewFlag{Ff}{FileSelect}{21}% PDF 1.4
5565 \HyField@NewFlag{Ff}{DoNotSpellCheck}{23}% PDF 1.4
5566 \HyField@NewFlag{Ff}{DoNotScroll}{24}% PDF 1.4
5567 \HyField@NewFlag{Ff}{Comb}{25}% PDF 1.4
5568 \HyField@NewFlag{Ff}{RichText}{26}% PDF 1.5

```

“Table 8.79 field flags specific to choice fields”

```

5569 \HyField@NewFlag{Ff}{Combo}{18}
5570 \HyField@NewFlag{Ff}{Edit}{19}
5571 \HyField@NewFlag{Ff}{Sort}{20}
5572 \HyField@NewFlag{Ff}{MultiSelect}{22}% PDF 1.4
5573 % \HyField@NewFlag{Ff}{DoNotSpellCheck}{23}% PDF 1.4
5574 \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.

```

5575 \newif\iffld@popdown
5576 \define@key{Field}{popdown}[true]{%
5577   \lowercase{\Field@boolkey{#1}}{popdown}%
5578 }

```

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.

```

5579 \HyField@NewFlag{F}{Invisible}{1}
5580 \HyField@NewFlag{F}{Hidden}{2}% PDF 1.2
5581 \HyField@NewFlag{F}{Print}{3}% PDF 1.2
5582 \HyField@NewFlag{F}{NoZoom}{4}% PDF 1.2
5583 \HyField@NewFlag{F}{NoRotate}{5}% PDF 1.3
5584 \HyField@NewFlag{F}{NoView}{6}% PDF 1.3
5585 \HyField@NewFlag{F}{Locked}{8}% PDF 1.4
5586 \HyField@NewFlag{F}{ToggleNoView}{9}% PDF 1.5
5587 \HyField@NewFlag{F}{LockedContents}{10}% PDF 1.7

5588 \ifHy@pdfa
5589   \def\HyField@PDFAFldWarning#1#2{%
5590     \Hy@Warning{%
5591       PDF/A: Annotation flag ‘#1’ must\MessageBreak
5592       be set to ‘#2’%
5593     }%
5594   }%
5595   \Fld@invisiblefalse
5596   \def\Fld@invisibletrue{%

```

```

5597 \HyField@PDFAFFlagWarning{invisible}{false}%
5598 }%
5599 \Fld@hiddenfalse
5600 \def\Fld@hiddentrue{%
5601 \HyField@PDFAFFlagWarning{hidden}{false}%
5602 }%
5603 \Fld@printtrue
5604 \def\Fld@printfalse{%
5605 \HyField@PDFAFFlagWarning{print}{true}%
5606 }%
5607 \Fld@nozoomtrue
5608 \def\Fld@nozoomfalse{%
5609 \HyField@PDFAFFlagWarning{nozoom}{true}%
5610 }%
5611 \Fld@norotatetrue
5612 \def\Fld@norotatefalse{%
5613 \HyField@PDFAFFlagWarning{norotate}{true}%
5614 }%
5615 \Fld@noviewfalse
5616 \def\Fld@noviewtrue{%
5617 \HyField@PDFAFFlagWarning{noview}{false}%
5618 }%
5619 \fi

```

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

```

5620 \HyField@NewFlag{Submit}{IncludeNoValueFields}{2}
5621 \HyField@NewFlagOnly{Submit}{ExportFormat}{3}
5622 \HyField@NewFlag{Submit}{GetMethod}{4}
5623 \HyField@NewFlag{Submit}{SubmitCoordinates}{5}
5624 \HyField@NewFlagOnly{Submit}{XFDF}{6}
5625 \HyField@NewFlag{Submit}{IncludeAppendSaves}{7}
5626 \HyField@NewFlag{Submit}{IncludeAnnotations}{8}
5627 \HyField@NewFlagOnly{Submit}{SubmitPDF}{9}
5628 \HyField@NewFlag{Submit}{CanonicalFormat}{10}
5629 \HyField@NewFlag{Submit}{ExclNonUserAnnots}{11}
5630 \HyField@NewFlag{Submit}{ExclFKey}{12}
5631 \HyField@NewFlag{Submit}{EmbedForm}{14}

5632 \define@key{Field}{export}{%
5633 \lowercase{\def\Hy@temp{#1}}%
5634 \@ifundefined{Fld@export@\Hy@temp}{%
5635 \@onelevel@sanitize\Hy@temp
5636 \Hy@Error{%
5637 Unknown export format '\Hy@temp'.\MessageBreak
5638 Known formats are 'FDF', 'HTML', 'XFDF', and 'PDF'%
5639 }\@ehc
5640 }{%
5641 \let\Fld@export\Hy@temp
5642 }%
5643 }
5644 \def\Fld@export{fdf}
5645 \@namedef{Fld@export@fdf}{0}%
5646 \@namedef{Fld@export@html}{1}%
5647 \@namedef{Fld@export@xfdf}{2}%
5648 \@namedef{Fld@export@pdf}{3}%

```

20.1.2 Set submit flags

\HyField@FlagsSubmit

```
5649 \def\HyField@FlagsSubmit{%
5650   \bitsetReset{HyField@Submit}%
5651   \ifcase\@nameuse{Fld@export@\Fld@export} %
5652     % FDF
5653     \HyField@UseFlag{Submit}{IncludeNoValueFields}%
5654     \HyField@UseFlag{Submit}{SubmitCoordinates}%
5655     \HyField@UseFlag{Submit}{IncludeAppendSaves}%
5656     \HyField@UseFlag{Submit}{IncludeAnnotations}%
5657     \HyField@UseFlag{Submit}{CanonicalFormat}%
5658     \HyField@UseFlag{Submit}{ExclNonUserAnnots}%
5659     \HyField@UseFlag{Submit}{ExclFKey}%
5660     \HyField@UseFlag{Submit}{EmbedForm}%
5661   \or % HTML
5662     \HyField@SetFlag{Submit}{ExportFormat}%
5663     \HyField@UseFlag{Submit}{IncludeNoValueFields}%
5664     \HyField@UseFlag{Submit}{GetMethod}%
5665     \HyField@UseFlag{Submit}{SubmitCoordinates}%
5666     \HyField@UseFlag{Submit}{CanonicalFormat}%
5667   \or % XFDF
5668     \HyField@SetFlag{Submit}{XFDF}%
5669     \HyField@UseFlag{Submit}{IncludeNoValueFields}%
5670     \HyField@UseFlag{Submit}{SubmitCoordinates}%
5671     \HyField@UseFlag{Submit}{CanonicalFormat}%
5672   \or % PDF
5673     \HyField@SetFlag{Submit}{SubmitPDF}%
5674     \HyField@UseFlag{Submit}{GetMethod}%
5675   \fi
5676   \HyField@PrintFlags{Submit}{submit button field}%
5677   \bitsetIsEmpty{HyField@Submit}{%
5678     \let\Fld@submitflags\ltx@empty
5679   }{%
5680     \edef\Fld@submitflags{/Flags \bitsetGetDec{HyField@Submit}}%
5681   }%
5682 }
```

20.1.3 Set annot flags in fields

\HyField@FlagsAnnot

```
5683 \def\HyField@FlagsAnnot#1{%
5684   \bitsetReset{HyField@F}%
5685   \HyField@UseFlag{F}{Invisible}%
5686   \HyField@UseFlag{F}{Hidden}%
5687   \HyField@UseFlag{F}{Print}%
5688   \HyField@UseFlag{F}{NoZoom}%
5689   \HyField@UseFlag{F}{NoRotate}%
5690   \HyField@UseFlag{F}{NoView}%
5691   \HyField@UseFlag{F}{Locked}%
5692   \HyField@UseFlag{F}{ToggleNoView}%
5693   \HyField@UseFlag{F}{LockedContents}%
5694   \HyField@PrintFlags{F}{#1}%
5695   \bitsetIsEmpty{HyField@F}{%
5696     \let\Fld@annotflags\ltx@empty
5697   }{%
5698     \edef\Fld@annotflags{/F \bitsetGetDec{HyField@F}}%
5699   }
```

```

5699 }%
5700 }

```

20.1.4 Pushbutton field

\HyField@FlagsPushButton

```

5701 \def\HyField@FlagsPushButton{%
5702   \HyField@FlagsAnnot{push button field}%
5703   \bitsetReset{HyField@Ff}%
5704   \HyField@UseFlag{Ff}{ReadOnly}%
5705   \HyField@UseFlag{Ff}{Required}%
5706   \HyField@UseFlag{Ff}{NoExport}%
5707   \HyField@SetFlag{Ff}{PushButton}%
5708   \HyField@PrintFlags{Ff}{push button field}%
5709   \bitsetIsEmpty{HyField@Ff}{%
5710     \let\Fld@flags\ltx@empty
5711   }{%
5712     \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5713   }%
5714 }

```

20.1.5 Check box field

\HyField@FlagsCheckBox

```

5715 \def\HyField@FlagsCheckBox{%
5716   \HyField@FlagsAnnot{check box field}%
5717   \bitsetReset{HyField@Ff}%
5718   \HyField@UseFlag{Ff}{ReadOnly}%
5719   \HyField@UseFlag{Ff}{Required}%
5720   \HyField@UseFlag{Ff}{NoExport}%
5721   \HyField@PrintFlags{Ff}{check box field}%
5722   \bitsetIsEmpty{HyField@Ff}{%
5723     \let\Fld@flags\ltx@empty
5724   }{%
5725     \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5726   }%
5727 }

```

20.1.6 Radio button field

\HyField@FlagsRadioButton

```

5728 \def\HyField@FlagsRadioButton{%
5729   \HyField@FlagsAnnot{radio button field}%
5730   \bitsetReset{HyField@Ff}%
5731   \HyField@UseFlag{Ff}{ReadOnly}%
5732   \HyField@UseFlag{Ff}{Required}%
5733   \HyField@UseFlag{Ff}{NoExport}%
5734   \HyField@UseFlag{Ff}{NoToggleToOff}%
5735   \HyField@SetFlag{Ff}{Radio}%
5736   \HyField@UseFlag{Ff}{RadiosInUnison}%
5737   \HyField@PrintFlags{Ff}{radio button field}%
5738   \bitsetIsEmpty{HyField@Ff}{%
5739     \let\Fld@flags\ltx@empty
5740   }{%
5741     \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5742   }%
5743 }

```

20.1.7 Text fields

\HyField@FlagsText

```
5744 \def\HyField@FlagsText{%
5745   \HyField@FlagsAnnot{text field}%
5746   \bitsetReset{HyField@Ff}%
5747   \HyField@UseFlag{Ff}{ReadOnly}%
5748   \HyField@UseFlag{Ff}{Required}%
5749   \HyField@UseFlag{Ff}{NoExport}%
5750   \HyField@UseFlag{Ff}{Multiline}%
5751   \HyField@UseFlag{Ff}{Password}%
5752   \HyField@UseFlag{Ff}{FileSelect}%
5753   \HyField@UseFlag{Ff}{DoNotSpellCheck}%
5754   \HyField@UseFlag{Ff}{DoNotScroll}%
5755   \ifFld@comb
5756     \ifcase0\ifFld@multiline
5757       \else\ifFld@password
5758       \else\ifFld@fileselect
5759       \else 1\fi\fi\fi\relax
5760     \Hy@Error{%
5761       Field option ‘comb’ cannot used together with\MessageBreak
5762       ‘multiline’, ‘password’, or ‘fileselect’%
5763     }\@ehc
5764   \else
5765     \HyField@UseFlag{Ff}{Comb}%
5766   \fi
5767 \fi
5768 \HyField@UseFlag{Ff}{RichText}%
5769 \HyField@PrintFlags{Ff}{text field}%
5770 \bitsetIsEmpty{HyField@Ff}%
5771 \let\Fld@flags\ltx@empty
5772 }{%
5773   \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5774 }%
5775 }
```

20.1.8 Choice fields

\HyField@FlagsChoice

```
5776 \def\HyField@FlagsChoice{%
5777   \HyField@FlagsAnnot{choice field}%
5778   \bitsetReset{HyField@Ff}%
5779   \HyField@UseFlag{Ff}{ReadOnly}%
5780   \HyField@UseFlag{Ff}{Required}%
5781   \HyField@UseFlag{Ff}{NoExport}%
5782   \HyField@UseFlag{Ff}{Combo}%
5783   \ifFld@combo
5784     \HyField@UseFlag{Ff}{Edit}%
5785   \fi
5786   \HyField@UseFlag{Ff}{Sort}%
5787   \HyField@UseFlag{Ff}{MultiSelect}%
5788   \ifFld@combo
5789     \ifFld@edit
5790       \HyField@UseFlag{Ff}{DoNotSpellCheck}%
5791     \fi
5792   \fi
5793   \HyField@UseFlag{Ff}{CommitOnSelChange}%

```

```

5794 \HyField@PrintFlags{Ff}{choice field}%
5795 \bitsetIsEmpty{HyField@Ff}{%
5796   \let\Fld@flags\ltx@empty
5797 }{%
5798   \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5799 }%
5800 }

```

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`.

```

5801 \def\HyField@PDFChoices#1{%
5802   \begingroup
5803   \global\let\Fld@choices\ltx@empty
5804   \let\HyTmp@optlist\ltx@empty
5805   \let\HyTmp@optitem\relax
5806   \count@=0 %
5807   \kv@parse{#1}{%
5808     \Hy@pdfstringdef\kv@key\kv@key
5809     \ifx\kv@value\relax
5810       \ifnum\Hy@pdfversion<3 % implementation note 122, PDF spec 1.7
5811         \xdef\Fld@choices{\Fld@choices(\kv@key)(\kv@key)}%
5812       \else
5813         \xdef\Fld@choices{\Fld@choices(\kv@key)}%
5814       \fi
5815     \else
5816       \Hy@pdfstringdef\kv@value\kv@value
5817       \xdef\Fld@choices{\Fld@choices(\kv@value)(\kv@key)}%
5818     \fi
5819     \edef\HyTmp@optlist{%
5820       \HyTmp@optlist
5821       \HyTmp@optitem{\the\count@}{\kv@key}0%
5822     }%
5823     \advance\count@ by 1 %
5824     \@gobbletwo
5825   }%
5826   \xdef\Fld@choices{/Opt[\Fld@choices]}%
5827   \ifFld@multiselect
5828     \HyField@@@PDFChoices{DV}\Fld@default
5829     \HyField@@@PDFChoices{V}\Fld@value
5830   \else
5831     \ifx\Fld@default\relax
5832     \else
5833       \pdfstringdef\Hy@gtemp\Fld@default
5834       \xdef\Fld@choices{\Fld@choices/DV(\Hy@gtemp)}%
5835     \fi
5836     \ifx\Fld@value\relax
5837     \else
5838       \pdfstringdef\Hy@gtemp\Fld@value
5839       \xdef\Fld@choices{\Fld@choices/V(\Hy@gtemp)}%
5840     \fi
5841   \fi
5842   \endgroup
5843 }

```

\HyField@@PDFChoices

```
5844 \def\HyField@@PDFChoices#1#2{%
5845   \ifx#2\relax
5846   \else
5847     \count@=0 %
5848     \def\HyTmp@optitem##1##2##3{%
5849       \def\HyTmp@key{##2}%
5850       \ifx\HyTmp@key\Hy@gtemp
5851         \expandafter\def\expandafter\HyTmp@optlist\expandafter{%
5852           \HyTmp@optlist
5853           \HyTmp@optitem{##1}{##2}1%
5854         }%
5855         \let\HyTmp@found=Y%
5856       \else
5857         \expandafter\def\expandafter\HyTmp@optlist\expandafter{%
5858           \HyTmp@optlist
5859           \HyTmp@optitem{##1}{##2}##3%
5860         }%
5861       \fi
5862     }%
5863     \expandafter\comma@parse\expandafter{#2}{%
5864       \pdfstringdef\Hy@gtemp\comma@entry
5865       \let\HyTmp@found=N %
5866       \expandafter\let\expandafter\HyTmp@optlist\expandafter\@empty
5867       \HyTmp@optlist
5868       \ifx\HyTmp@found Y%
5869         \advance\count@ by 1 %
5870       \else
5871         \@onelevel@sanitize\comma@entry
5872         \PackageWarning{hyperref}{%
5873           \string\ChoiceBox: Ignoring value ‘\comma@entry’,%
5874           \MessageBreak
5875           it cannot be found in the choices%
5876         }%
5877       \fi
5878       \@gobble
5879     }%
5880     \def\HyTmp@optitem##1##2##3{%
5881       \ifnum##3=1 %
5882         (##2)%
5883       \fi
5884     }%
5885     \ifcase\count@
5886     \or
5887       \xdef\Fld@choices{\Fld@choices/#1\HyTmp@optlist}%
5888     \else
5889       \xdef\Fld@choices{\Fld@choices/#1[\HyTmp@optlist]}%
5890     \ifx#1V%
5891       \def\HyTmp@optitem##1##2##3{%
5892         \ifnum##3=1 %
5893           \@firstofone{ ##1}%
5894         \fi
5895       }%
5896       \edef\HyTmp@optlist{\HyTmp@optlist}%
5897       \xdef\Fld@choices{%
5898         \Fld@choices
5899         /I[\expandafter\@firstofone\HyTmp@optlist]%

```

```

5900     }%
5901     \fi
5902     \fi
5903     \fi
5904 }

```

20.3 Forms

\HyField@SetKeys

```

5905 \def\HyField@SetKeys{%
5906   \kvsetkeys{Field}%
5907 }

5908 \newif\ifFld@checked
5909 \newif\ifFld@disabled
5910 \Fld@checkedfalse
5911 \Fld@disabledfalse
5912 \newcount\Fld@menulength
5913 \newdimen\Fld@Width
5914 \newdimen\Fld@charsize
5915 \Fld@charsize=10\p@
5916 \def\Fld@maxlen{0}
5917 \def\Fld@align{0}
5918 \def\Fld@color{0 0 0 rg}
5919 \def\Fld@bcolor{1 1 1}
5920 \def\Fld@bordercolor{1 0 0}
5921 \def\Fld@bordersep{1\p@}
5922 \def\Fld@borderwidth{1}
5923 \def\Fld@borderstyle{S}
5924 \def\Fld@cbsymbol{4}
5925 \def\Fld@radiosymbol{H}
5926 \def\Fld@rotation{0}
5927 \def\Form{\@ifnextchar[{\@Form}{\@Form[]}}
5928 \def\endForm{\@endForm}
5929 \newif\ifForm@html
5930 \Form@htmlfalse
5931 \def\Form@boolkey#1#2{%
5932   \csname Form@#2\ifx\relax#1\relax true\else#1\fi\endcsname
5933 }
5934 \define@key{Form}{action}{%
5935   \hyper@normalise\Hy@DefFormAction{#1}%
5936 }
5937 \def\Hy@DefFormAction{\def\Form@action}
5938 \def\enc@html{html}
5939 \define@key{Form}{encoding}{%
5940   \def\Hy@tempa{#1}%
5941   \ifx\Hy@tempa\enc@html
5942     \Form@htmltrue
5943     \def\Fld@export{html}%
5944   \else
5945     \Hy@Warning{%
5946       Form 'encoding' key with \MessageBreak
5947       unknown value '#1'%
5948     }%
5949     \Form@htmlfalse
5950   \fi
5951 }

```

```

5952 \define@key{Form}{method}{%
5953   \lowercase{\def\Hy@temp{#1}}%
5954   \@ifundefined{Form@method@\Hy@temp}{%
5955     \@onelevel@sanitize\Hy@temp
5956     \Hy@Error{%
5957       Unknown method '\Hy@temp'.\MessageBreak
5958       Known values are 'post' and 'get'%
5959     }\@ehc
5960   }{%
5961     \let\Form@method\Hy@temp
5962     \ifcase\@nameuse{Form@method@\Hy@temp} %
5963       \Fld@getmethodfalse
5964     \else
5965       \Fld@getmethodtrue
5966     \fi
5967   }%
5968 }
5969 \def\Form@method{
5970 \namedef{Form@method@post}{0}
5971 \namedef{Form@method@get}{1}

5972 \newif\ifHyField@NeedAppearances
5973 \def\HyField@NeedAppearancesfalse{%
5974   \global\let\ifHyField@NeedAppearances\iffalse
5975 }
5976 \def\HyField@NeedAppearancetrue{%
5977   \global\let\ifHyField@NeedAppearances\iftrue
5978 }
5979 \HyField@NeedAppearancetrue
5980 \define@key{Form}{NeedAppearances}[true]{%
5981   \edef\Hy@tempa{#1}%
5982   \ifx\Hy@tempa\Hy@true
5983     \HyField@NeedAppearancetrue
5984   \else
5985     \ifx\Hy@tempa\Hy@false
5986       \HyField@NeedAppearancesfalse
5987     \else
5988       \Hy@Error{%
5989         Unexpected value '\Hy@tempa'.\MessageBreak
5990         of option 'NeedAppearances' instead of\MessageBreak
5991         'true' or 'false'%
5992       }\@ehc
5993     \fi
5994   \fi
5995 }
5996 \def\Field@boolkey#1#2{%
5997   \csname Fld@#2\ifx\relax#1\relax true\else#1\fi\endcsname
5998 }
5999 \ifHy@texht
6000   \newtoks\Field@toks
6001   \Field@toks={ }%
6002   \def\Field@addtoks#1#2{%
6003     \edef\@processme{\Field@toks{\the\Field@toks\space #1="#2"}}%
6004     \@processme
6005   }%
6006 \else
6007   \def\Hy@WarnHTMLFieldOption#1{%
6008     \Hy@Warning{%

```

```

6009     HTML field option '#1'\MessageBreak
6010     is ignored%
6011 }%
6012 }%
6013 \fi
6014 \def\Fld@checkequals#1=#2=#3\{%
6015   \def\@currDisplay{#1}%
6016   \ifx\#2\%
6017     \def\@currValue{#1}%
6018   \else
6019     \def\@currValue{#2}%
6020   \fi
6021 }
6022 \define@key{Field}{loc}{%
6023   \def\Fld@loc{#1}%
6024 }
6025 \define@key{Field}{checked}[true]{%
6026   \lowercase{\Field@boolkey{#1}}{checked}%
6027 }
6028 \define@key{Field}{disabled}[true]{%
6029   \lowercase{\Field@boolkey{#1}}{disabled}%
6030 }
6031 \ifHy@texht
6032   \define@key{Field}{accesskey}{%
6033     \Field@addtoks{accesskey}{#1}%
6034   }%
6035   \define@key{Field}{tabkey}{%
6036     \Field@addtoks{tabkey}{#1}%
6037   }%
6038 \else
6039   \define@key{Field}{accesskey}{%
6040     \Hy@WarnHTMLFieldOption{accesskey}%
6041   }%
6042   \define@key{Field}{tabkey}{%
6043     \Hy@WarnHTMLFieldOption{tabkey}%
6044   }%
6045 \fi
6046 \define@key{Field}{name}{%
6047   \def\Fld@name{#1}%
6048 }
6049 \let\Fld@altname\relax
6050 \define@key{Field}{altname}{%
6051   \def\Fld@altname{#1}%
6052 }
6053 \let\Fld@mappingname\relax
6054 \define@key{Field}{mappingname}{%
6055   \def\Fld@mappingname{#1}%
6056 }
6057 \define@key{Field}{width}{%
6058   \def\Fld@width{#1}%
6059   \Field@Width#1\setbox0=\hbox{m}%
6060 }
6061 \define@key{Field}{maxlen}{%
6062   \def\Fld@maxlen{#1}%
6063 }
6064 \define@key{Field}{menulength}{%
6065   \Fld@menulength=#1\relax

```

```

6066 }
6067 \define@key{Field}{height}{%
6068   \def\Fld@height{#1}%
6069 }
6070 \define@key{Field}{charsize}{%
6071   \setlength{\Fld@charsize}{#1}%
6072 }
6073 \define@key{Field}{borderwidth}{%
6074   \Hy@defaultbp\Fld@borderwidth{#1}%
6075 }
6076 \def\Hy@defaultbp#1#2{%
6077   \begingroup
6078     \afterassignment\Hy@defaultbpAux
6079     \dimen@=#2bp\relax{#1}{#2}%
6080 }
6081 \begingroup\expandafter\expandafter\expandafter\endgroup
6082 \expandafter\ifx\csname dimexpr\endcsname\relax
6083   \def\Hy@defaultbpAux#1\relax#2#3{%
6084     \ifx!#1!%
6085       \endgroup
6086       \def#2{#3}%
6087     \else
6088       \dimen@=.99626\dimen@
6089       \edef\x{\endgroup
6090         \def\noexpand#2{%
6091           \strip@pt\dimen@
6092         }%
6093       }\x
6094     \fi
6095   }%
6096 \else
6097   \def\Hy@defaultbpAux#1\relax#2#3{%
6098     \ifx!#1!%
6099       \endgroup
6100       \def#2{#3}%
6101     \else
6102       \edef\x{\endgroup
6103         \def\noexpand#2{%
6104           \strip@pt\dimexpr\dimen@*800/803\relax
6105         }%
6106       }\x
6107     \fi
6108   }%
6109 \fi
6110 \define@key{Field}{borderstyle}{%
6111   \let\Hy@temp\Fld@borderstyle
6112   \def\Fld@borderstyle{#1}%
6113   \Hy@Match\Fld@borderstyle{%
6114     ~[SDBIU]$%
6115   }{}{%
6116     \Hy@Warning{%
6117       Invalid value '@pdfborderstyle'\MessageBreak
6118       for option 'pdfborderstyle'. Valid values:\MessageBreak
6119       \space\space S (Solid), D (Dashed), B (Beveled),\MessageBreak
6120       \space\space I (Inset), U (Underline)\MessageBreak
6121       Option setting is ignored%
6122     }%

```

```

6123 \let\Fld@borderstyle\Hy@temp
6124 }%
6125 }
6126 \define@key{Field}{bordersep}{%
6127 \def\Fld@bordersep{#1}%
6128 }
6129 \define@key{Field}{default}{%
6130 \def\Fld@default{#1}%
6131 }
6132 \define@key{Field}{align}{%
6133 \def\Fld@align{#1}%
6134 }
6135 \define@key{Field}{value}{%
6136 \def\Fld@value{#1}%
6137 }
6138 \define@key{Field}{checkboxsymbol}{%
6139 \Fld@DingDef\Fld@cbsymbol{#1}%
6140 }
6141 \define@key{Field}{radiosymbol}{%
6142 \Fld@DingDef\Fld@radiosymbol{#1}%
6143 }
6144 \def\Fld@DingDef#1#2{%
6145 \let\Fld@temp\ltx@empty
6146 \Fld@@@DingDef#2\ding{ }\@nil
6147 \let#1\Fld@temp
6148 }
6149 \def\Fld@@@DingDef#1\ding#2#3\@nil{%
6150 \expandafter\def\expandafter\Fld@temp\expandafter{%
6151 \Fld@temp
6152 #1%
6153 }%
6154 \ifx\\#3\\%
6155 \expandafter\@gobble
6156 \else
6157 \begingroup
6158 \lccode'0=#2\relax
6159 \lowercase{\endgroup
6160 \expandafter\def\expandafter\Fld@temp\expandafter{%
6161 \Fld@temp
6162 0%
6163 }%
6164 }%
6165 \expandafter\@firstofone
6166 \fi
6167 {%
6168 \Fld@@@DingDef#3\@nil
6169 }%
6170 }

6171 \define@key{Field}{rotation}{%
6172 \def\Fld@rotation{#1}%
6173 }

6174 \define@key{Field}{backgroundcolor}{%
6175 \HyColor@FieldBColor{#1}\Fld@bcolor{hyperref}{backgroundcolor}%
6176 }
6177 \define@key{Field}{bordercolor}{%
6178 \HyColor@FieldBColor{#1}\Fld@bordercolor{hyperref}{bordercolor}%
6179 }

```

```

6180 \define@key{Field}{color}{%
6181   \HyColor@FieldColor{#1}\Fld@color{hyperref}{color}%
6182 }

6183 \let\Fld@onclick@code\ltx@empty
6184 \let\Fld@format@code\ltx@empty
6185 \let\Fld@validate@code\ltx@empty
6186 \let\Fld@calculate@code\ltx@empty
6187 \let\Fld@keystroke@code\ltx@empty
6188 \let\Fld@onfocus@code\ltx@empty
6189 \let\Fld@onblur@code\ltx@empty
6190 \let\Fld@onmousedown@code\ltx@empty
6191 \let\Fld@onmouseup@code\ltx@empty
6192 \let\Fld@onenter@code\ltx@empty
6193 \let\Fld@onexit@code\ltx@empty
6194 \def\Hy@temp#1{%
6195   \expandafter\Hy@@temp\csname Fld@#1@code\endcsname{#1}%
6196 }
6197 \def\Hy@@temp#1#2{%
6198   \ifHy@pdfa
6199     \define@key{Field}{#2}{%
6200       \Hy@Error{%
6201         PDF/A: Additional action ‘#2’ is prohibited%
6202       }\@ehc
6203     }%
6204   \else
6205     \define@key{Field}{#2}{%
6206       \def#1{##1}%
6207     }%
6208   \fi
6209 }
6210 \Hy@temp{keystroke}
6211 \Hy@temp{format}
6212 \Hy@temp{validate}
6213 \Hy@temp{calculate}
6214 \Hy@temp{onfocus}
6215 \Hy@temp{onblur}
6216 \Hy@temp{onenter}
6217 \Hy@temp{onexit}

6218 \let\Fld@calculate@sortkey\ltx@empty
6219 \define@key{Field}{calculatesortkey}[1]{%
6220   \def\Fld@calculate@sortkey{#1}%
6221 }

6222 \ifHy@texht
6223   \def\Hy@temp#1{%
6224     \define@key{Field}{#1}{%
6225       \Field@addtoks{#1}{##1}%
6226     }%
6227   }%
6228 \else
6229   \def\Hy@temp#1{%
6230     \define@key{Field}{#1}{%
6231       \Hy@WarnHTMLFieldOption{#1}%
6232     }%
6233   }%
6234 \fi
6235 \Hy@temp{ondblclick}

```

```

6236 \Hy@temp{onmousedown}
6237 \Hy@temp{onmouseup}
6238 \Hy@temp{onmouseover}
6239 \Hy@temp{onmousemove}
6240 \Hy@temp{onmouseout}
6241 \Hy@temp{onkeydown}
6242 \Hy@temp{onkeyup}
6243 \Hy@temp{onselect}
6244 \Hy@temp{onchange}
6245 \Hy@temp{onkeypress}
6246 \ifHy@texht
6247   \define@key{Field}{onclick}{%
6248     \Field@addtoks{onclick}{#1}%
6249   }%
6250 \else
6251   \ifHy@pdfa
6252     \define@key{Field}{onclick}{%
6253       \Hy@Error{%
6254         PDF/A: Action 'onclick' is prohibited%
6255       }\@ehc
6256     }%
6257   \else
6258     \define@key{Field}{onclick}{%
6259       \def\Fld@onclick@code{#1}%
6260     }%
6261   \fi
6262 \fi

6263 \DeclareRobustCommand\TextField{%
6264   \@ifnextchar[{\@TextField}{\@TextField[]}%
6265 }
6266 \DeclareRobustCommand\ChoiceMenu{%
6267   \@ifnextchar[{\@ChoiceMenu}{\@ChoiceMenu[]}%
6268 }
6269 \DeclareRobustCommand\CheckBox{%
6270   \@ifnextchar[{\@CheckBox}{\@CheckBox[]}%
6271 }
6272 \DeclareRobustCommand\PushButton{%
6273   \@ifnextchar[{\@PushButton}{\@PushButton[]}%
6274 }
6275 \DeclareRobustCommand\Gauge{%
6276   \@ifnextchar[{\@Gauge}{\@Gauge[]}%
6277 }
6278 \DeclareRobustCommand\Submit{%
6279   \@ifnextchar[{\@Submit}{\@Submit[]}%
6280 }
6281 \DeclareRobustCommand\Reset{%
6282   \@ifnextchar[{\@Reset}{\@Reset[]}%
6283 }
6284 \def\LayoutTextField#1#2{% label, field
6285   #1 #2%
6286 }
6287 \def\LayoutChoiceField#1#2{% label, field
6288   #1 #2%
6289 }
6290 \def\LayoutCheckField#1#2{% label, field
6291   #1 #2%
6292 }

```

```

6293 \def\LayoutPushButtonField#1{% button
6294   #1%
6295 }
6296 \def\MakeRadioField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
6297 \def\MakeCheckField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
6298 \def\MakeTextField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
6299 \def\MakeChoiceField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
6300 \def\MakeButtonField#1{%
6301   \sbox0{%
6302     \hskip\Fld@borderwidth bp#1\hskip\Fld@borderwidth bp%
6303   }%
6304   \@tempdima\ht0 %
6305   \advance\@tempdima by \Fld@borderwidth bp %
6306   \advance\@tempdima by \Fld@borderwidth bp %
6307   \ht0\@tempdima
6308   \@tempdima\dp0 %
6309   \advance\@tempdima by \Fld@borderwidth bp %
6310   \advance\@tempdima by \Fld@borderwidth bp %
6311   \dp0\@tempdima
6312   \box0\relax
6313 }
6314 \def\DefaultHeightofSubmit{14pt}
6315 \def\DefaultWidthofSubmit{2cm}
6316 \def\DefaultHeightofReset{14pt}
6317 \def\DefaultWidthofReset{2cm}
6318 \def\DefaultHeightofCheckBox{\baselineskip}
6319 \def\DefaultWidthofCheckBox{\baselineskip}
6320 \def\DefaultHeightofChoiceMenu{\baselineskip}
6321 \def\DefaultWidthofChoiceMenu{\baselineskip}
6322 \def\DefaultHeightofText{\baselineskip}
6323 \def\DefaultHeightofTextMultiline{4\baselineskip}
6324 \def\DefaultWidthofText{3cm}
6325 \def\DefaultOptionsofSubmit{print,name=Submit,noexport}
6326 \def\DefaultOptionsofReset{print,name=Reset,noexport}
6327 \def\DefaultOptionsofPushButton{print}
6328 \def\DefaultOptionsofCheckBox{print}
6329 \def\DefaultOptionsofText{print}

```

Default options for the types of \ChoiceMenu.

```

6330 \def\DefaultOptionsofListBox{print}
6331 \def\DefaultOptionsofComboBox{print,edit,sort}
6332 \def\DefaultOptionsofPopdownBox{print}
6333 \def\DefaultOptionsofRadio{print,notoggletooff}

```

21 Setup

```

6334 \ifHy@hyperfigures
6335   \Hy@Info{Hyper figures ON}%
6336 \else
6337   \Hy@Info{Hyper figures OFF}%
6338 \fi
6339 \ifHy@nesting
6340   \Hy@Info{Link nesting ON}%
6341 \else
6342   \Hy@Info{Link nesting OFF}%
6343 \fi
6344 \ifHy@hyperindex

```

```

6345 \Hy@Info{Hyper index ON}%
6346 \else
6347 \Hy@Info{Hyper index OFF}%
6348 \fi
6349 \ifHy@backref
6350 \Hy@Info{backreferencing ON}%
6351 \else
6352 \Hy@Info{backreferencing OFF}%
6353 \fi
6354 \ifHy@colorlinks
6355 \Hy@Info{Link coloring ON}%
6356 \else
6357 \Hy@Info{Link coloring OFF}%
6358 \fi
6359 \ifHy@ocgcolorlinks
6360 \Hy@Info{Link coloring with OCG ON}%
6361 \else
6362 \Hy@Info{Link coloring with OCG OFF}%
6363 \fi
6364 \ifHy@pdfa
6365 \Hy@Info{PDF/A mode ON}%
6366 \else
6367 \Hy@Info{PDF/A mode OFF}%
6368 \fi

```

22 Low-level utility macros

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

```

6369 \edef\hyper@hash{\string#}
6370 \edef\hyper@tilde{\string~}
6371 \edef\hyper@quote{\string"}

```

Support \label before \begin{document}.

```

6372 \def\@currentHref{Doc-Start}
6373 \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.

```

6374 \Hy@AtBeginDocument{%
6375 \Hy@pdfstringtrue
6376 \PDF@SetupDoc
6377 \let\PDF@SetupDoc\@empty
6378 \Hy@DisableOption{pdfpagescrop}%
6379 \Hy@DisableOption{pdfpagemode}%
6380 \Hy@DisableOption{pdfnonfullscreenpagemode}%
6381 \Hy@DisableOption{pdfdirection}%
6382 \Hy@DisableOption{pdfviewarea}%
6383 \Hy@DisableOption{pdfviewclip}%
6384 \Hy@DisableOption{pdfprintarea}%
6385 \Hy@DisableOption{pdfprintclip}%
6386 \Hy@DisableOption{pdfprintscaling}%
6387 \Hy@DisableOption{pdfduplex}%
6388 \Hy@DisableOption{pdfpicktraybypdfsize}%
6389 \Hy@DisableOption{pdfprintpagerange}%
6390 \Hy@DisableOption{pdfnumcopies}%
6391 \Hy@DisableOption{pdfstartview}%
6392 \Hy@DisableOption{pdfstartpage}%

```

```

6393 \Hy@DisableOption{pdftoolbar}%
6394 \Hy@DisableOption{pdfmenubar}%
6395 \Hy@DisableOption{pdfwindowui}%
6396 \Hy@DisableOption{pdfwindow}%
6397 \Hy@DisableOption{pdfcenterwindow}%
6398 \Hy@DisableOption{pdfdisplaydoctitle}%
6399 \Hy@DisableOption{pdfpagelayout}%
6400 \Hy@DisableOption{pdflang}%
6401 \Hy@DisableOption{baseurl}%
6402 \ifHy@texht\else\hyper@anchorstart{Doc-Start}\hyper@anchorend\fi
6403 \Hy@pdfstringfalse
6404 }

```

Ignore star from referencing macros:

```

6405 \LetLtxMacro\NoHy@OrgRef\ref
6406 \DeclareRobustCommand*{\ref}{%
6407 \ifstar\NoHy@OrgRef\NoHy@OrgRef
6408 }
6409 \LetLtxMacro\NoHy@OrgPageRef\pageref
6410 \DeclareRobustCommand*{\pageref}{%
6411 \ifstar\NoHy@OrgPageRef\NoHy@OrgPageRef
6412 }

```

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.

```

6413 \def\NoHyper{%
6414 \def\hyper@link@[##1]##2##3##4{##4\Hy@xspace@end}%
6415 \def\hyper@@anchor##1##2{##2\Hy@xspace@end}%
6416 \global\let\hyper@livelink\hyper@link
6417 \gdef\hyper@link##1##2##3{##3\Hy@xspace@end}%
6418 \let\hyper@anchor\ltx@gobble
6419 \let\hyper@anchorstart\ltx@gobble
6420 \def\hyper@anchorend{\Hy@xspace@end}%
6421 \let\hyper@linkstart\ltx@gobbletwo
6422 \def\hyper@linkend{\Hy@xspace@end}%
6423 \def\hyper@linkurl##1##2{##1\Hy@xspace@end}%
6424 \def\hyper@linkfile##1##2##3{##1\Hy@xspace@end}%
6425 \let\Hy@backout\@gobble
6426 }
6427 \def\stop@hyper{%
6428 \def\hyper@link@[##1]##2##3##4{##4\Hy@xspace@end}%
6429 \let\Hy@backout\@gobble
6430 \let\hyper@@anchor\ltx@gobble
6431 \def\hyper@link##1##2##3{##3\Hy@xspace@end}%
6432 \let\hyper@anchor\ltx@gobble
6433 \let\hyper@anchorstart\ltx@gobble
6434 \def\hyper@anchorend{\Hy@xspace@end}%
6435 \let\hyper@linkstart\ltx@gobbletwo
6436 \def\hyper@linkend{\Hy@xspace@end}%
6437 \def\hyper@linkurl##1##2{##1\Hy@xspace@end}%
6438 \def\hyper@linkfile##1##2##3{##1\Hy@xspace@end}%
6439 }

```

```

6440 \def\endNoHyper{%
6441   \global\let\hyper@link\hyper@livelink
6442 }
6443 \end{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:

```

6444 \def\*nohyperref
6445 \RequirePackage{letltxmacro}[2008/06/13]
6446 \let\hyper@@anchor\@gobble
6447 \def\hyper@link#1#2#3{#3}%
6448 \let\hyper@anchorstart\@gobble
6449 \let\hyper@anchorend\@empty
6450 \let\hyper@linkstart\@gobbletwo
6451 \let\hyper@linkend\@empty
6452 \def\hyper@linkurl#1#2{#1}%
6453 \def\hyper@linkfile#1#2#3{#1}%
6454 \def\hyper@link@{#1}#2#3{#1}%
6455 \let\PDF@SetupDoc\@empty
6456 \let\PDF@FinishDoc\@empty
6457 \def\nohyperpage#1{#1}

```

Some top-level commands:

```

6458 \def\Acrobatmenu#1#2{\leavevmode#2}
6459 \let\pdfstringdefDisableCommands\@gobbletwo
6460 \let\texorpdfstring\@firstoftwo
6461 \let\pdfbookmark\@undefined
6462 \newcommand\pdfbookmark[3]{}
6463 \let\phantomsection\@empty
6464 \let\hypersetup\@gobble
6465 \let\hyperbaseurl\@gobble
6466 \newcommand*\href[3]{}
6467 \let\hyperdef\@gobbletwo
6468 \let\hyperlink\@gobble
6469 \let\hypertarget\@gobble
6470 \def\hyperref{%
6471   \ifnextchar\@gobbleopt{\expandafter\@gobbletwo\@gobble}%
6472 }
6473 \long\def\@gobbleopt[#1]{}
6474 \let\hyperpage\@empty

```

Ignore star from referencing macros:

```

6475 \LetLtxMacro\NoHy@OrgRef\ref
6476 \DeclareRobustCommand*\ref{%
6477   \ifstar\NoHy@OrgRef\NoHy@OrgRef
6478 }
6479 \LetLtxMacro\NoHy@OrgPageRef\pageref
6480 \DeclareRobustCommand*\pageref{%
6481   \ifstar\NoHy@OrgPageRef\NoHy@OrgPageRef
6482 }
6483 \end{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}`

```
6484 (*package)
6485 \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.

```
6486 \if@filesw
6487 \ifHy@typexml
6488 \immediate\closeout\@mainaux
6489 \immediate\openout\@mainaux\jobname.aux\relax
6490 \immediate\write\@auxout{<relaxxml>\relax}%
6491 \fi
6492 \immediate\write\@auxout{%
6493 \string\providecommand\string\HyperFirstAtBeginDocument{%
6494 \string\AtBeginDocument}^^J%
6495 \string\HyperFirstAtBeginDocument{%
6496 \string\ifx\string\hyper@anchor\string\@undefined^^J%
6497 \string\global\string\let\string\oldcontentsline\string\contentsline^^J%
6498 \string\gdef\string\contentsline%
6499 \string#1\string#2\string#3\string#4{%
6500 \string\oldcontentsline%
6501 {\string#1}{\string#2}{\string#3}}^^J%
6502 \string\global\string\let\string\oldnewlabel\string\newlabel^^J%
6503 \string\gdef\string\newlabel\string#1\string#2{%
6504 \string\newlabelxx{\string#1}\string#2}^^J%
6505 \string\gdef\string\newlabelxx%
6506 \string#1\string#2\string#3\string#4\string#5\string#6{%
6507 \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.

```
6508 \string\AtEndDocument{%
6509 \string\ifx\string\hyper@anchor\string\@undefined^^J%
6510 \string\let\string\contentsline\string\oldcontentsline^^J%
6511 \string\let\string\newlabel\string\oldnewlabel^^J%
6512 \string\fi%
6513 }^^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.

```
6514 \string\fi%
6515 }^^J%
6516 \string\global\string\let\string\hyper@last\relax^^J%
6517 \string\gdef\string\HyperFirstAtBeginDocument\string#1{\string#1}%
6518 }%
6519 \fi
6520 \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.

```

6521 \ifx\hyper@last\@undefined
6522 \def\@starttoc#1{%
6523 \begingroup
6524 \makeatletter
6525 \ltx@ifpackageloaded{parskip}{\parskip\z@}{}%
6526 \IfFileExists{\jobname.#1}{%
6527 \Hy@WarningNoLine{%
6528 old #1 file detected, not used; run LaTeX again%
6529 }%
6530 }{}%
6531 \if@filesw
6532 \expandafter\newwrite\csname tf@#1\endcsname
6533 \immediate\openout\csname tf@#1\endcsname \jobname.#1\relax
6534 \fi
6535 \@nobreakfalse
6536 \endgroup
6537 }%
6538 \def\newlabel#1#2{\@newl@bel r{#1}{#2}{}{}{}}%
6539 \fi
6540 }

```

26 Title strings

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

```

6541 \ifHy@pdfusetitle
6542 \let\HyOrg@title\title
6543 \let\HyOrg@author\author
6544 \def\title{\@ifnextchar[{\Hy@scanopttitle}{\Hy@scantitle}}%
6545 \def\Hy@scanopttitle[#1]{%
6546 \gdef\Hy@title{#1}%
6547 \HyOrg@title[#{#1}]%
6548 }%
6549 \def\Hy@scantitle#1{%
6550 \gdef\Hy@title{#1}%
6551 \HyOrg@title{#1}%
6552 }%
6553 \def\author{\@ifnextchar[{\Hy@scanoptauthor}{\Hy@scanauthor}}%
6554 \def\Hy@scanoptauthor[#1]{%
6555 \gdef\Hy@author{#1}%
6556 \HyOrg@author[#{#1}]%
6557 }%
6558 \def\Hy@scanauthor#1{%
6559 \gdef\Hy@author{#1}%
6560 \HyOrg@author{#1}%
6561 }%

```

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

```

6562 \begingroup
6563 \def\process@me#1\@nil#2{%
6564 \expandafter\let\expandafter\x\csname @#2\endcsname
6565 \edef\y{\expandafter\strip@prefix\meaning\x}%
6566 \def\c##1##2\@nil{%
6567 \ifx\\##1\\%

```

```

6568     \else
6569     \expandafter\gdef\csname Hy@#2\expandafter\endcsname
6570         \expandafter{\x}%
6571     \fi
6572 }%
6573 \expandafter\c\y\relax#1\@nil
6574 }%
6575 \expandafter\process@me\string\@latex@\@nil{title}%
6576 \expandafter\process@me\string\@latex@\@nil{author}%
6577 \endgroup
6578 \fi
6579 \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.

```

6580 \def\Hy@UseMaketitleString#1{%
6581     \ltx@ifundefined{Hy@#1}{-}%
6582     \begingroup
6583     \let\Hy@saved@hook\pdfstringdefPreHook
6584     \pdfstringdefDisableCommands{%
6585         \expandafter\let\expandafter\\ \csname Hy@newline@#1\endcsname
6586         \let\newline\\%
6587     }%
6588     \expandafter\ifx\csname @pdf#1\endcsname\@empty
6589     \expandafter\pdfstringdef\csname @pdf#1\endcsname{%
6590         \csname Hy@#1\endcsname\@empty
6591     }%
6592     \fi
6593     \global\let\pdfstringdefPreHook\Hy@saved@hook
6594     \endgroup
6595 }%
6596 }
6597 \def\Hy@newline@title#1{ #1}
6598 \def\Hy@newline@author#1{, #1}
6599 \def\Hy@UseMaketitleInfos{%
6600     \Hy@UseMaketitleString{title}%
6601     \Hy@UseMaketitleString{author}%
6602 }

```

27 Page numbers

This stuff is done by Heiko Oberdiek.

28 Every page

```

6603 \RequirePackage{atbegshi}[2007/09/09]
6604 \let\Hy@EveryPageHook\ltx@empty
6605 \let\Hy@EveryPageBoxHook\ltx@empty

```

```

6606 \let\Hy@FirstPageHook\ltx@empty
6607 \AtBeginShipout{%
6608   \Hy@EveryPageHook
6609   \ifx\Hy@EveryPageBoxHook\ltx@empty
6610   \else
6611     \setbox\AtBeginShipoutBox=\vbox{%
6612       \offinterlineskip
6613       \Hy@EveryPageBoxHook
6614       \box\AtBeginShipoutBox
6615     }%
6616   \fi
6617 }
6618 \ltx@iffileloaded{hpdftex.def}{%
6619   \AtBeginShipout{%
6620     \Hy@FirstPageHook
6621     \global\let\Hy@FirstPageHook\ltx@empty
6622   }%
6623 }{%
6624   \AtBeginShipoutFirst{%
6625     \Hy@FirstPageHook
6626   }%
6627 }
6628 \g@addto@macro\Hy@FirstPageHook{%
6629   \PDF@FinishDoc
6630   \global\let\PDF@FinishDoc\ltx@empty
6631 }

```

28.1 PDF /PageLabels

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

```

6632 \ifHy@pdfpagelabels
6633   \begingroup\expandafter\expandafter\expandafter\endgroup
6634   \expandafter\ifx\csname thepage\endcsname\relax
6635     \Hy@pdfpagelabelsfalse
6636     \Hy@WarningNoLine{%
6637       Option 'pdfpagelabels' is turned off\MessageBreak
6638       because \string\thepage\space is undefined%
6639     }%
6640     \csname fi\endcsname
6641     \csname iffalse\expandafter\endcsname
6642   \fi

```

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

```

6643 \def\thispdfpagelabel#1{%
6644   \gdef\HyPL@thisLabel{#1}%
6645 }%
6646 \global\let\HyPL@thisLabel\relax

```

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

```

6647 \let\HyPL@Labels\ltx@empty

```

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

```

6648 \newcount\Hy@abspage
6649 \Hy@abspage=0 %

```

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

```
6650 \def\HyPL@LastType{init}%
6651 \def\HyPL@LastNumber{0}%
6652 \let\HyPL@LastPrefix\ltx@empty
```

Definitions for the PDF names of the \LaTeX pendants.

```
6653 \def\HyPL@arabic{D}%
6654 \def\HyPL@Roman{R}%
6655 \def\HyPL@roman{r}%
6656 \def\HyPL@Alph{A}%
6657 \def\HyPL@alph{a}%

6658 \let\HyPL@SlidesSetPage\ltx@empty
6659 \ltx@ifclassloaded{slides}{%
6660   \def\HyPL@SlidesSetPage{%
6661     \advance\c@page\ltx@one
6662     \ifnum\value{page}>\ltx@one
6663       \protected@edef\HyPL@SlidesOptionalPage{%
6664         \Hy@SlidesFormatOptionalPage{\thepage}%
6665       }%
6666     \else
6667       \let\HyPL@SlidesOptionalPage\ltx@empty
6668     \fi
6669     \advance\c@page-\ltx@one
6670     \def\HyPL@page{%
6671       \csname the\Hy@SlidesPage\endcsname
6672       \HyPL@SlidesOptionalPage
6673     }%
6674   }%
6675 }{}
```

`\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.

```
6676 \def\HyPL@EveryPage{%
6677   \begingroup
6678   \ifx\HyPL@thisLabel\relax
6679     \let\HyPL@page\thepage
6680     \HyPL@SlidesSetPage
6681   \else
6682     \let\HyPL@page\HyPL@thisLabel
6683     \global\let\HyPL@thisLabel\relax
6684   \fi
6685   \let\HyPL@Type\relax
6686   \ifnum\c@page>0 %
6687     \ifx\HyPL@SlidesSetPage\ltx@empty
6688       \expandafter\HyPL@CheckThePage\HyPL@page\@nil
6689     \fi
6690   \fi
6691   \let\Hy@temp Y%
6692   \ifx\HyPL@Type\HyPL@LastType
6693   \else
6694     \let\Hy@temp N%
6695   \fi
6696   \ifx\HyPL@Type\relax
6697     \pdfstringdef\HyPL@Prefix{\HyPL@page}%
6698   \else
6699     \pdfstringdef\HyPL@Prefix\HyPL@Prefix
6700   \fi
```

```

6701 \ifx\HyPL@Prefix\HyPL@LastPrefix
6702 \else
6703 \let\Hy@temp N%
6704 \fi
6705 \if Y\Hy@temp
6706 \advance\c@page by -1 %
6707 \ifnum\HyPL@LastNumber=\the\c@page\relax
6708 \else
6709 \let\Hy@temp N%
6710 \fi
6711 \Hy@StepCount\c@page
6712 \fi
6713 \if N\Hy@temp
6714 \ifx\HyPL@Type\relax
6715 \HyPL@StorePageLabel{/P(\HyPL@Prefix)}%
6716 \else
6717 \HyPL@StorePageLabel{%
6718 \ifx\HyPL@Prefix\@empty
6719 \else
6720 /P(\HyPL@Prefix)%
6721 \fi
6722 /S/\csname HyPL\HyPL@Type\endcsname
6723 \ifnum\the\c@page=1 %
6724 \else
6725 \space/St \the\c@page
6726 \fi
6727 }%
6728 \fi
6729 \fi
6730 \xdef\HyPL@LastNumber{\the\c@page}%
6731 \global\let\HyPL@LastType\HyPL@Type
6732 \global\let\HyPL@LastPrefix\HyPL@Prefix
6733 \endgroup
6734 \Hy@GlobalStepCount\Hy@abspage
6735 }%

```

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

```

6736 \def\HyPL@CheckThePage#1\@nil{%
6737 \HyPL@@CheckThePage{#1}#1\csname\endcsname\c@page\@nil
6738 }%

```

`\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`.

```

6739 \def\HyPL@@CheckThePage#1#2\csname#3\endcsname\c@page#4\@nil{%
6740 \def\Hy@tempa{#4}%
6741 \def\Hy@tempb{\csname\endcsname\c@page}%
6742 \ifx\Hy@tempa\Hy@tempb
6743 \expandafter\ifx\csname HyPL#3\endcsname\relax
6744 \else
6745 \def\HyPL@Type{#3}%
6746 \def\HyPL@Prefix{#2}%
6747 \fi
6748 \else
6749 \begingroup

```

```

6750 \let\Hy@next\endgroup
6751 \let\HyPL@found\@undefined
6752 \def\arabic{\HyPL@Format{arabic}}%
6753 \def\Roman{\HyPL@Format{Roman}}%
6754 \def\roman{\HyPL@Format{roman}}%
6755 \def\Alph{\HyPL@Format{Alph}}%
6756 \def\alph{\HyPL@Format{alph}}%
6757 \protected@edef\Hy@temp{#1}%
6758 \ifx\HyPL@found\relax
6759 \toks@{\expandafter{\Hy@temp}}%
6760 \edef\Hy@next{\endgroup
6761 \noexpand\HyPL@@@CheckThePage\the\toks@
6762 \noexpand\HyPL@found\relax\noexpand\@nil
6763 }%
6764 \fi
6765 \Hy@next
6766 \fi
6767 }%

```

`\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`.

```

6768 \def\HyPL@Format#1#2{%
6769 \ifx\HyPL@found\@undefined
6770 \expandafter\ifx\csname c@#2\endcsname\c@page
6771 \expandafter\noexpand\csname HyPL@found\endcsname{#1}%
6772 \else
6773 \expandafter\noexpand\csname#1\endcsname{#2}%
6774 \fi
6775 \else
6776 \expandafter\noexpand\csname#1\endcsname{#2}%
6777 \fi
6778 }%

```

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

```

6779 \def\HyPL@@@CheckThePage#1\HyPL@found#2#3\@nil{%
6780 \def\Hy@tempa{#3}%
6781 \def\Hy@tempb{\HyPL@found\relax}%
6782 \ifx\Hy@tempa\Hy@tempb
6783 \def\HyPL@Type{#2}%
6784 \def\HyPL@Prefix{#1}%
6785 \fi
6786 }%

```

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

```

6787 \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`.

```

6788 \def\HyPL@Useless{0<</S/D>>}%
6789 \@onelevel@sanitize\HyPL@Useless

```

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

```

6790 \def\HyPL@SetPageLabels{%
6791   \@onelevel@sanitize\HyPL@Labels
6792   \ifx\HyPL@Labels\@empty
6793     \else
6794       \ifx\HyPL@Labels\HyPL@Useless
6795         \else
6796           \Hy@PutCatalog{/PageLabels<</Nums[\HyPL@Labels]>>>}%
6797         \fi
6798       \fi
6799   }%

```

```

6800 \g@addto@macro\Hy@EveryPageHook{\HyPL@EveryPage}%
6801 \fi

```

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

```

6802 \Hy@DisableOption{pdfpagelabels}
6803 \</package>

```

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`

```

6804 <{*pdfTeX}>
6805 \pdf@ifdraftmode{%
6806   \let\Hy@PutCatalog\ltx@gobble
6807 }{%
6808   \let\Hy@PutCatalog\pdfcatalog
6809 }
6810 </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.

```

6811 <{*vTeX}>
6812 \providecommand*{\XR@ext}{pdf}
6813 \edef\Hy@VTeXversion{%
6814   \ifx\VTeXversion\@undefined
6815     \z@
6816   \else
6817     \ifx\VTeXversion\relax
6818       \z@
6819     \else
6820       \VTeXversion
6821     \fi
6822   \fi
6823 }
6824 \begingroup
6825   \ifnum\Hy@VTeXversion<660 %
6826     \gdef\Hy@PutCatalog#1{%
6827       \Hy@WarningNoLine{%
6828         VTeX 6.59g or above required for pdfpagelabels%
6829       }%
6830     }%

```

```

6831 \else
6832   \gdef\Hy@PutCatalog#1{%
6833     \Hy@vt@PutCatalog#1/PageLabels<<>>\@nil
6834   }%
6835   \gdef\Hy@vt@PutCatalog#1/PageLabels<<#2>>#3\@nil{%
6836     \ifx\#2\%
6837       \else
6838         \immediate\special{!pdfpagelabels #2}%
6839       \fi
6840     }%
6841   \fi
6842 \endgroup
6843 </vtex>

6844 <*pdftex | vtex>

```

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

```

6845 \ifHy@pdfpagelabels
6846   \def\HyPL@StorePageLabel#1{%
6847     \toks@{\expandafter{\HyPL@Labels}}%
6848     \xdef\HyPL@Labels{%
6849       \the\toks@
6850       \the\Hy@abspage<<#1>>%
6851     }%
6852   }%

```

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.

```

6853 \RequirePackage{atveryend}[2009/12/07]%
6854 \AtVeryEndDocument{%
6855   \HyPL@SetPageLabels
6856 }%

6857 \fi
6858 </pdftex | vtex>

```

28.1.2 xetex

```

6859 <*xetex>
6860 \HyPsd@LoadUnicode
6861 \Hy@unicodetrue
6862 \ifx\HyPsd@pdfencoding\HyPsd@pdfencoding@unicode
6863 \else
6864   \let\HyPsd@pdfencoding\HyPsd@pdfencoding@auto
6865 \fi
6866 \HyPsd@LoadStringEncoding
6867 \define@key{Hyp}{unicode}[true]{%
6868   \Hy@boolkey{unicode}{#1}%
6869   \ifHy@unicode
6870   \else
6871     \Hy@Warning{%
6872       XeTeX driver only supports 'unicode=true'. Ignoring\MessageBreak
6873       option setting 'unicode=false'%
6874     }%
6875   \Hy@unicodetrue
6876 \fi
6877 }

```

```

6878 \define@key{Hyp}{pdfencoding}{%
6879   \edef\HyPsd@temp{#1}%
6880   \ifx\HyPsd@temp\HyPsd@pdfencoding@unicode
6881     \let\HyPsd@pdfencoding\HyPsd@temp
6882   \else
6883     \ifx\HyPsd@temp\HyPsd@pdfencoding@auto
6884       \let\HyPsd@pdfencoding\HyPsd@temp
6885     \else
6886       \Hy@Warning{%
6887         XeTeX driver only supports\MessageBreak
6888         'pdfencoding=unicode|auto'. Ignoring option\MessageBreak
6889         setting 'pdfencoding=\HyPsd@temp'%
6890       }%
6891     \fi
6892   \fi
6893 }
6894 \let\HyXeTeX@CheckUnicode\relax
6895 \</xetex>

```

28.1.3 pdfmarkbase, dvipdfm, xetex

```

6896 \<*pdfmarkbase>
6897 \begingroup
6898   \@ifundefined{headerps@out}{-}{%
6899     \toks@\expandafter{\Hy@FirstPageHook}%
6900     \xdef\Hy@FirstPageHook{%
6901       \noexpand\headerps@out{%
6902         systemdict /pdfmark known%
6903         {%
6904           userdict /?pdfmark systemdict /exec get put%
6905         }{%
6906           userdict /?pdfmark systemdict /pop get put %
6907           userdict /pdfmark systemdict /cleartomark get put%
6908         }%
6909         ifelse%
6910       }%
6911       \the\toks@
6912     }%
6913   }%
6914 \endgroup
6915 \</pdfmarkbase>

```

\Hy@PutCatalog

```

6916 \<dvipdfm | xetex>\def\Hy@PutCatalog#1{\@pdfm@mark{docview <<#1>>}}
6917 \<*pdfmarkbase>
6918 \def\Hy@PutCatalog#1{%
6919   \pdfmark{pdfmark=/PUT,Raw={\string{Catalog\string} <<#1>>}}%
6920 }
6921 \</pdfmarkbase>

6922 \<*pdfmarkbase | dvipdfm | xetex>
6923 \ifHy@pdfpagelabels

```

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

```

6924 \def\HyPL@StorePageLabel#1{%
6925   \if@filesw
6926     \begingroup
6927     \edef\Hy@tempa{\the\Hy@abspage<<#1>>}%
6928     \immediate\write\@mainaux{%

```

```

6929      \string\HyPL@Entry{\Hy@tempa}%
6930      }%
6931  \endgroup
6932  \fi
6933  }%

```

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.

```

6934  \Hy@AtBeginDocument{%
6935    \if@filesw
6936      \immediate\write\@mainaux{%
6937        \string\providecommand\string*\string\HyPL@Entry[1]{}%
6938      }%
6939    \fi
6940    \ifx\HyPL@Labels\@empty
6941      \Hy@WarningNoLine{Rerun to get /PageLabels entry}%
6942    \else
6943      \HyPL@SetPageLabels
6944    \fi
6945    \let\HyPL@Entry\@gobble
6946  }%

```

`\HyPL@Entry`

```

6947  \def\HyPL@Entry#1{%
6948    \expandafter\gdef\expandafter\HyPL@Labels\expandafter{%
6949      \HyPL@Labels
6950      #1%
6951    }%
6952  }%

6953  \fi
6954  </pdfmarkbase | dvipdfm | xetex>

6955  <*package>

6956  \ifx\MaybeStopEarly\relax
6957  \else
6958    \Hy@stoppedearlytrue
6959    \expandafter\MaybeStopEarly
6960  \fi
6961  \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

```

6962 \def\Hy@CounterExists#1{%
6963   \begingroup\expandafter\expandafter\expandafter\endgroup
6964   \expandafter\ifx\csname c@#1\endcsname\relax
6965     \expandafter\@gobble
6966   \else
6967     \begingroup\expandafter\expandafter\expandafter\endgroup
6968     \expandafter\ifx\csname the#1\endcsname\relax
6969       \expandafter\expandafter\expandafter\@gobble
6970     \else
6971       \expandafter\expandafter\expandafter\@firstofone
6972     \fi
6973   \fi
6974 }
6975 \Hy@CounterExists{section}{%
6976   \providecommand\theHequation{\theHsection.\arabic{equation}}}%
6977 }
6978 \Hy@CounterExists{part}{%
6979   \providecommand\theHpart{\arabic{part}}}%
6980 }
6981 \ltx@ifundefined{thechapter}{%
6982   \providecommand\theHsection   {\arabic{section}}}%
6983   \providecommand\theHfigure    {\arabic{figure}}}%
6984   \providecommand\theHtable     {\arabic{table}}}%
6985 }{%
6986   \providecommand\theHchapter   {\arabic{chapter}}}%
6987   \providecommand\theHfigure    {\theHchapter.\arabic{figure}}}%
6988   \providecommand\theHtable     {\theHchapter.\arabic{table}}}%
6989   \providecommand\theHsection   {\theHchapter.\arabic{section}}}%
6990 }
6991 \providecommand\theHsubsection  {\theHsection.\arabic{subsection}}
6992 \providecommand\theHsubsubsection{\theHsubsection.\arabic{subsubsection}}
6993 \providecommand\theHparagraph   {\theHsubsubsection.\arabic{paragraph}}
6994 \providecommand\theHsubparagraph{\theHparagraph.\arabic{subparagraph}}
6995 \providecommand\theHtheorem     {\theHsection.\arabic{theorem}}
6996 \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.

```

6997 \let\H@item\item
6998 \newcounter{Item}
6999 \def\theHItem{\arabic{Item}}
7000 \def\item{%
7001   \@hyper@itemfalse
7002   \if@nmbrlist\@hyper@itemtrue\fi
7003   \H@item
7004 }
7005 \providecommand\theHenumi      {\theHItem}

```

```

7006 \providecommand\theHenumii {\theHItem}
7007 \providecommand\theHenumiii {\theHItem}
7008 \providecommand\theHenumiv {\theHItem}
7009 \providecommand\theHHfootnote {\arabic{Hfootnote}}
7010 \providecommand\theHmpfootnote{\arabic{mpfootnote}}
7011 \@ifundefined{theHHmpfootnote}{%
7012 \let\theHHmpfootnote\theHHfootnote
7013 }{}

```

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.

```

7014 \let\H@refstepcounter\refstepcounter
7015 \edef\name@of@eq{equation}%
7016 \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.

```

7017 \newif\if@hyper@item
7018 \newif\if@skiphyperref
7019 \@hyper@itemfalse
7020 \@skiphyperreffalse
7021 \def\refstepcounter#1{%
7022 \ifHy@pdfstring
7023 \else
7024 \H@refstepcounter{#1}%
7025 \edef\This@name{#1}%
7026 \ifx\This@name\name@of@slide
7027 \else
7028 \if@skiphyperref
7029 \else
7030 \if@hyper@item
7031 \stepcounter{Item}%
7032 \hyper@refstepcounter{Item}%
7033 \@hyper@itemfalse
7034 \else
7035 \hyper@refstepcounter{#1}%
7036 \fi
7037 \fi
7038 \fi
7039 \fi
7040 }
7041 \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.

```

7042 \@ifpackageloaded{amsmath}{\newif\ifmeasuring@\measuring@false}

```

`\hyper@refstepcounter`

```

7043 \def\hyper@refstepcounter#1{%
7044 \edef\This@name{#1}%
7045 \ifx\This@name\name@of@eq
7046 \@ifundefined{theHequation}{%
7047 \make@stripped@name{\theequation}%
7048 \let\theHequation\newname
7049 }{}%

```

```

7050 \fi
7051 \HyCnt@ProvideTheHCounter{#1}%
7052 \hyper@makecurrent{#1}%
7053 \ifmeasuring@
7054 \else
7055   \Hy@raisedlink{%
7056     \hyper@anchorstart{\@currentHref}\hyper@anchorend
7057   }%
7058 \fi
7059 }

```

`\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`, L^AT_EX 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 L^AT_EX’, substring search `\in@` can be used.

```

7060 \def\HyCnt@ProvideTheHCounter#1{%
7061   \@ifundefined{theH#1}{%
7062     \expandafter\def\csname theH#1\endcsname{%
7063       \def\Hy@temp{\@elt{#1}}%
7064       \ltx@onelevel@sanitize\Hy@temp
7065       \let\HyOrg@elt\@elt
7066       \edef\@elt{%
7067         \noexpand\HyCnt@LookForParentCounter
7068         \expandafter\noexpand\csname theH#1\endcsname
7069       }%
7070       \cl@@ckpt
7071       \let\@elt\HyOrg@elt
7072       \expandafter
7073       \ltx@LocalAppendToMacro\csname theH#1\endcsname
7074       \expandafter{%
7075         \expandafter\@arabic\csname c@#1\endcsname
7076       }%
7077     }{}%
7078   }

```

`\Hy@LookForParentCounter`

```

7079 \def\HyCnt@LookForParentCounter#1#2{%
7080   \expandafter\let\expandafter\Hy@temp@A\csname cl@#2\endcsname
7081   \ltx@ifundefined{cl@#2}{%
7082     }{%
7083     \ltx@onelevel@sanitize\Hy@temp@A
7084     \edef\Hy@temp@A{%
7085       \noexpand\in{\Hy@temp}\Hy@temp@A}%
7086     }\Hy@temp@A
7087     \ifn@
7088     \ltx@ifundefined{theH#2}{%
7089       \expandafter\ltx@LocalAppendToMacro\expandafter#1%
7090       \expandafter{%
7091         \expandafter\@arabic\csname c@#2\endcsname.%
7092       }%
7093     }{}%
7094     \expandafter\ltx@LocalAppendToMacro\expandafter#1%
7095     \expandafter{%
7096       \csname theH#2\endcsname.%

```

```

7097     }%
7098     }%
7099     \fi
7100 }%
7101 }

```

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`.

```

7102 \begingroup\expandafter\expandafter\expandafter\endgroup
7103 \expandafter\ifx\csname chapter\endcsname\relax
7104   \def\Hy@chapterstring{section}%
7105 \else
7106   \def\Hy@chapterstring{chapter}%
7107 \fi
7108 \def\Hy@appendixstring{appendix}
7109 \def\Hy@chapapp{\Hy@chapterstring}
7110 \ltx@ifundefined{appendix}{%
7111 }{%
7112   \let\HyOrg@appendix\appendix
7113   \def\Hy@AlphNoErr#1{%
7114     \ifnum\value{#1}>26 %
7115       Alph\number\value{#1}%
7116     \else
7117       \ifnum\value{#1}<1 %
7118         Alph\number\value{#1}%
7119       \else
7120         \Alph{#1}%
7121       \fi
7122     \fi
7123   }%
7124   \def\appendix{%
7125     \ltx@ifundefined{chapter}{%
7126       \gdef\theHsection{\Hy@AlphNoErr{section}}}%
7127     }{%
7128       \gdef\theHchapter{\Hy@AlphNoErr{chapter}}}%
7129     }%
7130     \xdef\Hy@chapapp{\Hy@appendixstring}%
7131     \HyOrg@appendix
7132   }%
7133 }

```

`\Hy@Test@alph`

```

7134 \def\Hy@Test@alph#1{%
7135   \ifcase#1\or
7136     a\or b\or c\or d\or e\or f\or g\or h\or i\or j\or
7137     k\or l\or m\or n\or o\or p\or q\or r\or s\or t\or
7138     u\or v\or w\or x\or y\or z%
7139   \else
7140     \@ctrerr
7141   \fi
7142 }

```

`\Hy@Test@Alph`

```

7143 \def\Hy@Test@Alph#1{%
7144   \ifcase#1\or
7145     A\or B\or C\or D\or E\or F\or G\or H\or I\or J\or
7146     K\or L\or M\or N\or O\or P\or Q\or R\or S\or T\or
7147     U\or V\or W\or X\or Y\or Z%
7148   \else
7149     \@ctrerr
7150   \fi
7151 }

```

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

```

7152 \def\hyper@makecurrent#1{%
7153   \begingroup
7154     \Hy@safe@activestruer
7155     \edef\Hy@param{#1}%
7156     \ifx\Hy@param\Hy@chapterstring
7157       \let\Hy@param\Hy@chapapp
7158     \fi
7159     \ifHy@hypertextnames
7160       \let\@number\@firstofone
7161       \def\@fnsymbol##1{fnsymbol\number##1}%
7162       \def\@arabic##1{\number##1}%
7163       \ifx\@alph\Hy@Test@alph
7164       \else
7165         \def\@alph{alph\number}%
7166       \fi
7167       \ifx\@Alph\Hy@Test@Alph
7168       \else
7169         \def\@Alph{Alph\number}%
7170       \fi
7171       \ifHy@naturalnames
7172         \let\textlatin\@firstofone
7173         \xdef\HyperGlobalCurrentHref{\csname the#1\endcsname}%
7174       \else
7175         \xdef\HyperGlobalCurrentHref{%
7176           \csname
7177             the%
7178             \expandafter\ifx\csname theH#1\endcsname\relax\else H\fi
7179             #1%
7180           \endcsname
7181         }%
7182       \fi
7183       \xdef\HyperGlobalCurrentHref{%
7184         \Hy@param.\expandafter\strip@prefix\meaning\HyperGlobalCurrentHref
7185       }%
7186     \else
7187       \Hy@GlobalStepCount\Hy@linkcounter
7188       \xdef\HyperGlobalCurrentHref{\Hy@param.\the\Hy@linkcounter}%
7189     \fi
7190   \endgroup
7191   \let\HyperLocalCurrentHref\HyperGlobalCurrentHref
7192   \ifHy@localanchorname
7193     \let\@currentHref\HyperLocalCurrentHref
7194   \else
7195     \global\let\@currentHref\HyperGlobalCurrentHref
7196   \fi

```

```
7197 }
```

```
\Hy@MakeCurrentHref
```

```
7198 \def\Hy@MakeCurrentHref#1{%
7199 \edef\HyperLocalCurrentHref{#1}%
7200 \@onelevel@sanitize\HyperLocalCurrentHref
7201 \global\let\HyperGlobalCurrentHref\HyperLocalCurrentHref
7202 \let\HyperLocalCurrentHref\HyperGlobalCurrentHref
7203 \ifHy@localanchorname
7204 \let\@currentHref\HyperLocalCurrentHref
7205 \else
7206 \global\let\@currentHref\HyperGlobalCurrentHref
7207 \fi
7208 }
```

```
\Hy@MakeCurrentHrefAuto
```

```
7209 \def\Hy@MakeCurrentHrefAuto#1{%
7210 \Hy@GlobalStepCount\Hy@linkcounter
7211 \Hy@MakeCurrentHref{#1.\the\Hy@linkcounter}%
7212 }
```

```
\@currentHlabel \@currentHlabel is only defined for compatibility with package ‘hypdvips’.
```

```
7213 \def\@currentHlabel{\@currentHref}

7214 \@ifpackageloaded{fancyvrb}{%
7215 \@ifpackagelater{fancyvrb}{1998/05/20}{%
7216 \def\FV@StepLineNo{%
7217 \FV@SetLineNo
7218 \def\FV@StepLineNo{\H@refstepcounter{FancyVerbLine}}%
7219 \FV@StepLineNo
7220 }%
7221 }%
7222 }{}
```

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 `hypertextnames` 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
```

```
7223 \Hy@AtBeginDocument{%
7224 \@ifclassloaded{revtex4}{%
7225 \@namedef{ver@lastpage.sty}{1994/06/25}%
7226 }{}%
7227 \@ifpackageloaded{lastpage}{%
7228 \ifHy@pageanchor
7229 \else
7230 \Hy@WarningNoLine{%
7231 The \string\pageref{LastPage} link doesn’t work\MessageBreak
7232 with disabled option ‘pageanchor’%
7233 }%
7234 }
```

```

7234 \fi
7235 \def\lastpage@putlabel{%
7236 \addtocounter{page}{-1}%
7237 \if@filesw
7238 \begingroup
7239 \let\@number\@firstofone
7240 \ifHy@pageanchor
7241 \ifHy@hypertexnames
7242 \ifHy@plainpages
7243 \def\Hy@temp{\arabic{page}}}%
7244 \else
7245 \Hy@unicodedefalse
7246 \pdfstringdef\Hy@temp{\thepage}%
7247 \fi
7248 \else
7249 \def\Hy@temp{\the\Hy@pagecounter}%
7250 \fi
7251 \fi
7252 \immediate\write\@auxout{%
7253 \string\newlabel
7254 {LastPage}{\thepage}{\thepage}%
7255 \ifHy@pageanchor page.\Hy@temp\fi}{}}%
7256 }%
7257 \endgroup
7258 \fi
7259 \addtocounter{page}{1}%
7260 }%
7261 \@ifclassloaded{revtex4}{%
7262 \begingroup
7263 \toks@\expandafter{\lastpage@putlabel}%
7264 \edef\x{\endgroup
7265 \def\noexpand\lastpage@putlabel{%
7266 \noexpand\stepcounter{page}%
7267 \the\toks@
7268 \noexpand\addtocounter{page}\noexpand\m@ne
7269 }%
7270 }%
7271 \x
7272 }{}%
7273 }{}%
7274 }
7275 \end{package}
7276 \check
7277 \checkpackage{lastpage}[1994/06/25]
7278 \checkcommand\def\lastpage@putlabel{%
7279 \addtocounter{page}{-1}%
7280 \immediate\write\@auxout{%
7281 \string\newlabel{LastPage}{\thepage}{\thepage}%
7282 }%
7283 \addtocounter{page}{1}%
7284 }
7285 \end{check}
7286 \end{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.

```
7287 \def\hypergetref#1{\getrefbykeydefault{#1}{}}{??}}
7288 \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:

```
7289 \@ifpackageloaded{titlesec}{%
7290   \def\ttl@Hy@steplink#1{%
7291     \Hy@MakeCurrentHrefAuto{#1*}%
7292     \edef\ttl@Hy@saveanchor{%
7293       \noexpand\Hy@raisedlink{%
7294         \noexpand\hyper@anchorstart{\@currentHref}%
7295         \noexpand\hyper@anchorend
7296       \def\noexpand\ttl@Hy@SavedCurrentHref{\@currentHref}%
7297       \noexpand\ttl@Hy@PatchSaveWrite
7298     }%
7299   }%
7300 }%
7301 \def\ttl@Hy@PatchSaveWrite{%
7302   \begingroup
7303   \toks@{\expandafter{\ttl@savewrite}}%
7304   \edef\x{\endgroup
7305     \def\noexpand\ttl@savewrite{%
7306       \let\noexpand\@currentHref
7307       \noexpand\ttl@Hy@SavedCurrentHref
7308     \the\toks@
7309   }%
7310 }%
7311 \x
7312 }%
7313 \def\ttl@Hy@refstepcounter#1{%
7314   \let\ttl@b\Hy@raisedlink
7315   \def\Hy@raisedlink##1{%
7316     \def\ttl@Hy@saveanchor{\Hy@raisedlink{##1}}%
7317   }%
7318   \refstepcounter{#1}%
7319   \let\Hy@raisedlink\ttl@b
7320 }%
7321 }
```

Package titletoc support:

```
7322 \@ifpackageloaded{titletoc}{%
7323   \def\ttl@gobblecontents#1#2#3#4{\ignorespaces}%
7324 }
```

33 Package varioref support

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

```

7325 \def\Hy@varioref@undefined{{??}{??}{}}{}{}
7326 \@ifpackageloaded{varioref}{%
7327   \def\vref@pagenum#1#2{%
7328     \@ifundefined{r@#2}{%
7329       \expandafter\let\csname r@#2\endcsname\Hy@varioref@undefined
7330     }{}%
7331     \edef#1{\getpagerefnumber{#2}}}%
7332   }%
7333 }{}

```

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

```

7334 \def\Hy@varioref@refstepcounter#1{%
7335   \stepcounter{#1}%
7336   \protected@edef\@currentlabel{%
7337     \csname p@#1\expandafter\endcsname\csname the#1\endcsname
7338   }%
7339 }
7340 \AtBeginDocument{%
7341   \ifx\refstepcounter\Hy@varioref@refstepcounter
7342     \let\H@refstepcounter\refstepcounter
7343     \let\refstepcounter\Hy@saved@refstepcounter
7344   \fi
7345 }

```

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

```

7346 \@ifpackageloaded{longtable}{%
7347   \begingroup
7348     \def\y{\LT@array}%
7349     \@ifundefined{scr@LT@array}{%
7350       \@ifundefined{adl@LT@array}{%{\def\y{\adl@LT@array}}}%
7351     }{\def\y{\scr@LT@array}}%
7352     \long\def\x\refstepcounter#1#2\@sharp#3#4\@nil{%
7353       \expandafter\endgroup
7354       \expandafter\def\y[##1]##2{%
7355         \H@refstepcounter{#1}%
7356         \hyper@makecurrent{table}%
7357         \let\Hy@LT@currentHref\@currentHref
7358         #2\@sharp####4%
7359       }%
7360     }%
7361     \expandafter\expandafter\expandafter\x\y[{#1}]{#2}\@nil

```

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

```

7362 \begingroup
7363 \def\x#1\ifvoid\LT@foot#2\fi#3\@nil{%
7364   \endgroup
7365   \def\LT@start{%
7366     #1%
7367     \ifvoid\LT@foot#2\fi
7368     \let\@currentHref\Hy@LT@currentHref

```

```

7369     \Hy@raisedlink{%
7370     \hyper@anchorstart{\@currentHref}\hyper@anchorend
7371     }%
7372     #3%
7373     }%
7374     }%
7375     \expandafter\x\LT@start\@nil
7376 }{}

```

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.

```

7377 \let\new@refstepcounter\refstepcounter
7378 \let\H@equation\equation
7379 \let\H@endequation\endequation
7380 \@ifpackageloaded{amsmath}{%
7381   \long\def\Hy@temp{%
7382     \incr@eqnum
7383     \mathdisplay@push
7384     \st@rredfalse \global\@eqnswtrue
7385     \mathdisplay{equation}%
7386   }%
7387   \ifx\Hy@temp\equation
7388     \expandafter\ifx\csname if@fleqn\expandafter\endcsname
7389       \csname iftrue\endcsname
7390   \else
7391     \long\def\equation{%
7392       \mathdisplay@push
7393       \st@rredfalse \global\@eqnswtrue
7394       \mathdisplay{equation}%
7395       \incr@eqnum
7396     }%
7397   \fi
7398 \fi
7399 }{%
7400 \def\equation{%
7401   \let\refstepcounter\H@refstepcounter
7402   \H@equation
7403   \@ifundefined{theHequation}{%
7404     \make@stripped@name{\theequation}%
7405     \let\theHequation\newname
7406   }{}%
7407   \hyper@makecurrent{equation}%

```

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

```

7408   \mathopen{%
7409     \Hy@raisedlink{\hyper@anchorstart{\@currentHref}}%
7410   }%
7411   \let\refstepcounter\new@refstepcounter
7412 }%
7413 \def\endequation{%
7414   \ifx\Hy@raisedlink\ltx@empty

```

```

7415 \hyper@anchorend
7416 \else
7417 \mathclose{\Hy@raisedlink{\hyper@anchorend}}%
7418 \fi
7419 \H@endequation
7420 }%
7421 }

```

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.

```

7422 \newif\if@eqnstar
7423 \@eqnstarfalse
7424 \let\H@eqnarray\eqnarray
7425 \let\H@endeqnarray\endeqnarray
7426 \def\eqnarray{%
7427 \let\Hy@reserved@a\relax
7428 \def\@currentHref{}%
7429 \H@eqnarray
7430 \if@eqnstar
7431 \else
7432 \ifx\\\@currentHref\\%
7433 \else
7434 \@ifundefined{theHequation}{%
7435 \make@stripped@name{\theequation}%
7436 \let\theHequation\newname
7437 }{}%
7438 \hyper@makecurrent{equation}%
7439 \mathopen{%
7440 \Hy@raisedlink{%
7441 \hyper@anchorstart{\@currentHref}\hyper@anchorend
7442 }%
7443 }%
7444 \fi
7445 \fi
7446 }
7447 \def\endeqnarray{%
7448 \H@endeqnarray
7449 }

```

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.

```

7450 \@namedef{eqnarray*}{%
7451 \def\@eqncr{\nonumber\@seqncr}\@eqnstartrue\eqnarray
7452 }
7453 \@namedef{endeqnarray*}{%
7454 \nonumber\endeqnarray\@eqnstarfalse
7455 }

```

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

```

7456 \ltx@ifundefined{subeqnarray}{}{}%
7457 \let\H@subeqnarray\subeqnarray
7458 \let\H@endsubeqnarray\endsubeqnarray
7459 \def\subeqnarray{%

```

```

7460 \let\Hy@reserved@a\relax
7461 \H@subeqnarray
7462 \@ifundefined{theHequation}{%
7463   \make@stripped@name{\theequation}%
7464   \let\theHequation\newname
7465 }{}%
7466 \hyper@makecurrent{equation}%
7467 \hyper@anchorstart{\@currentHref}{\hyper@anchorend
7468 }%
7469 \def\endsubeqnarray{%
7470   \H@endsubeqnarray
7471 }%
7472 \providecommand\theHsubequation{\theHequation\alph{subequation}}%
7473 }

```

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

```

7474 \def\make@stripped@name#1{%
7475   \begingroup
7476   \escapechar\m@ne
7477   \global\let\newname\@empty
7478   \protected@edef\Hy@tempa{#1}%
7479   \edef\@tempb{%
7480     \noexpand\@tfor\noexpand\Hy@tempa:=%
7481     \expandafter\strip@prefix\meaning\Hy@tempa
7482   }%
7483   \@tempb\do{%
7484     \if{\Hy@tempa\else
7485       \if}\Hy@tempa\else
7486       \xdef\newname{\newname\Hy@tempa}%
7487     \fi
7488     \fi
7489   }%
7490   \endgroup
7491 }

```

Support for amsmath's subequations:

```

7492 \begingroup\expandafter\expandafter\expandafter\endgroup
7493 \expandafter\ifx\csname subequations\endcsname\relax
7494 \else
7495   \let\HyOrg@subequations\subequations
7496   \def\subequations{%
7497     \stepcounter{equation}%
7498     \protected@edef\theHparentequation{%
7499       \@ifundefined{theHequation}\theequation\theHequation
7500     }%
7501     \addtocounter{equation}{-1}%
7502     \HyOrg@subequations
7503     \def\theHequation{\theHparentequation\alph{equation}}%
7504     \ignorespaces
7505   }%
7506   \fi

```

Support for package amsthm (Daniel Müllner):

```

7507 \@ifpackageloaded{amsthm}{%

```

Class amsbook uses a different definition of `\@thm`, where two lines are added (thanks to Dan Luecking for his analysis):

```

\let\thm@indent\indent % indent
\thm@headfont{\scshape}% heading font small caps

7508 \def\Hy@temp#1#2#3{%
7509   \ifhmode\unskip\unskip\par\fi
7510   \normalfont
7511   \trivlist
7512   \let\thmheadnl\relax
7513   \let\thm@swap\@gobble
7514   \let\thm@indent\indent % indent
7515   \thm@headfont{\scshape}% heading font small caps
7516   \thm@notefont{\fontseries\mddefault\upshape}%
7517   \thm@headpunct{.}% add period after heading
7518   \thm@headsep 5\p@ plus\p@ minus\p@\relax
7519   \thm@space@setup
7520   #1% style overrides
7521   \@topsep \thm@preskip          % used by thm head
7522   \@topsepadd \thm@postskip      % used by \@endparenv
7523   \def\@tempa{#2}\ifx\@empty\@tempa
7524     \def\@tempa{\@oparg{\@begintheorem{#3}{}}}%
7525   \else
7526     \refstepcounter{#2}%
7527     \def\@tempa{%
7528       \@oparg{\@begintheorem{#3}{\csname the#2\endcsname}}}%
7529   }%
7530   \fi
7531   \@tempa
7532 }%
7533 \ifx\Hy@temp\@thm
7534   \def\@thm#1#2#3{%
7535     \ifhmode
7536       \unskip\unskip\par
7537     \fi
7538     \normalfont
7539     \trivlist
7540     \let\thmheadnl\relax
7541     \let\thm@swap\@gobble
7542     \let\thm@indent\indent % indent
7543     \thm@headfont{\scshape}% heading font small caps
7544     \thm@notefont{\fontseries\mddefault\upshape}%
7545     \thm@headpunct{.}% add period after heading
7546     \thm@headsep 5\p@ plus\p@ minus\p@\relax
7547     \thm@space@setup
7548     #1% style overrides
7549     \@topsep \thm@preskip          % used by thm head
7550     \@topsepadd \thm@postskip      % used by \@endparenv
7551     \def\dth@counter{#2}%
7552     \ifx\@empty\dth@counter
7553       \def\@tempa{%
7554         \@oparg{\@begintheorem{#3}{}}}%
7555     }%
7556   \else
7557     \H@refstepcounter{#2}%
7558     \hyper@makecurrent{#2}%
7559     \let\Hy@dth@currentHref\@currentHref
7560     \def\@tempa{%
7561       \@oparg{\@begintheorem{#3}{\csname the#2\endcsname}}}%
7562   }%

```

```

7563 \fi
7564 \@tempa
7565 }%
7566 \else
7567 \def\@thm#1#2#3{%
7568 \ifhmode
7569 \unskip\unskip\par
7570 \fi
7571 \normalfont
7572 \trivlist
7573 \let\thmheadnl\relax
7574 \let\thm@swap\@gobble
7575 \thm@notefont{\fontseries\mddefault\upshape}%
7576 \thm@headpunct{.}% add period after heading
7577 \thm@headsep 5\p@ plus\p@ minus\p@\relax
7578 \thm@space@setup
7579 #1% style overrides
7580 \@topsep \thm@preskip % used by thm head
7581 \@topsepadd \thm@postskip % used by \@endparenv
7582 \def\dth@counter{#2}%
7583 \ifx\@empty\dth@counter
7584 \def\@tempa{%
7585 \@oparg{\@begintheorem{#3}{}}{}%
7586 }%
7587 \else
7588 \H@refstepcounter{#2}%
7589 \hyper@makecurrent{#2}%
7590 \let\Hy@dth@currentHref\@currentHref
7591 \def\@tempa{%
7592 \@oparg{\@begintheorem{#3}{\csname the#2\endcsname}}{}%
7593 }%
7594 \fi
7595 \@tempa
7596 }%
7597 \fi
7598 \dth@everypar={%
7599 \@minipagefalse
7600 \global\@newlistfalse
7601 \@noparitemfalse
7602 \if@inlabel
7603 \global\@inlabelfalse
7604 \begingroup
7605 \setbox\z@\lastbox
7606 \ifvoid\z@
7607 \kern-\itemindent
7608 \fi
7609 \endgroup
7610 \ifx\@empty\dth@counter
7611 \else
7612 \Hy@raisedlink{%
7613 \hyper@anchorstart{%
7614 \ltx@ifundefined{Hy@dth@currentHref}%
7615 \@currentHref\Hy@dth@currentHref
7616 }\hyper@anchorend
7617 }%
7618 \fi
7619 \unhbox\@labels

```

```

7620 \fi
7621 \if@nobreak
7622 \clubpenalty\clubpenalty\@M
7623 \else
7624 \clubpenalty\clubpenalty \everypar{ }%
7625 \fi
7626 }%
7627 }-{}

```

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.

```

7628 \ifHy@hyperfootnotes
7629 \newcounter{Hfootnote}%
7630 \let\H@@footnotetext\@footnotetext
7631 \let\H@@footnotemark\@footnotemark
7632 \def\@xfootnotenext[#1]{%
7633 \begingroup
7634 \csname c@\@mpfn\endcsname #1\relax
7635 \unrestored@protected@xdef\@thefnmark{\thempfn}%
7636 \endgroup
7637 \ifx\@footnotetext\@mpfootnotetext
7638 \expandafter\H@@mpfootnotetext
7639 \else
7640 \expandafter\H@@footnotetext
7641 \fi
7642 }%
7643 \def\@xfootnotemark[#1]{%
7644 \begingroup
7645 \c@footnote #1\relax
7646 \unrestored@protected@xdef\@thefnmark{\thefootnote}%
7647 \endgroup
7648 \H@@footnotemark
7649 }%
7650 \let\H@@mpfootnotetext\@mpfootnotetext
7651 \long\def\@mpfootnotetext#1{%
7652 \H@@mpfootnotetext{%
7653 \ifHy@nesting
7654 \expandafter\ltx@firstoftwo
7655 \else
7656 \expandafter\ltx@secondoftwo
7657 \fi
7658 {%
7659 \expandafter\hyper@@anchor\expandafter{%
7660 \Hy@footnote@currentHref
7661 }{#1}%
7662 }{%
7663 \Hy@raisedlink{%
7664 \expandafter\hyper@@anchor\expandafter{%
7665 \Hy@footnote@currentHref
7666 }{\relax}%
7667 }#1%

```

```

7668 }%
7669 }%
7670 }%
7671 \long\def\@footnotetext#1{%
7672 \H@@footnotetext{%
7673 \ifHy@nesting
7674 \expandafter\ltx@firstoftwo
7675 \else
7676 \expandafter\ltx@secondoftwo
7677 \fi
7678 {%
7679 \expandafter\hyper@@anchor\expandafter{%
7680 \Hy@footnote@currentHref
7681 }{#1}%
7682 }{%
7683 \Hy@raisedlink{%
7684 \expandafter\hyper@@anchor\expandafter{%
7685 \Hy@footnote@currentHref
7686 }{\relax}%
7687 }%
7688 \let\@currentHref\Hy@footnote@currentHref
7689 \let\@currentlabelname\@empty
7690 #1%
7691 }%
7692 }%
7693 }%

```

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.

```

7694 \def\@footnotemark{%
7695 \leavevmode
7696 \ifhmode\edef\@x@sf{\the\spacefactor}\nobreak\fi
7697 \stepcounter{Hfootnote}%
7698 \global\let\Hy@saved@currentHref\@currentHref
7699 \hyper@makecurrent{Hfootnote}%
7700 \global\let\Hy@footnote@currentHref\@currentHref
7701 \global\let\@currentHref\Hy@saved@currentHref
7702 \hyper@linkstart{link}{\Hy@footnote@currentHref}%
7703 \@makefnmark
7704 \hyper@linkend
7705 \ifhmode\spacefactor\@x@sf\fi
7706 \relax
7707 }%

```

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

```

7708 \@ifpackageloaded{tabularx}{%
7709 \let\HyOrg@TX@endtabularx\TX@endtabularx
7710 \def\Hy@tabularx@hook{%
7711 \let\@footnotetext\H@@footnotetext
7712 \let\@footnotemark\H@@footnotemark
7713 \let\@mpfootnotetext\H@@mpfootnotetext
7714 }%
7715 \begingroup
7716 \toks@\expandafter{\TX@endtabularx}%

```

```

7717 \xdef\Hy@gtemp{%
7718 \noexpand\Hy@tabularx@hook
7719 \the\toks@
7720 }%
7721 \endgroup
7722 \let\TX@endtabularx\Hy@gtemp
7723 }{}%

```

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

```

7724 \@ifpackageloaded{longtable}{%
7725 \CheckCommand*{\LT@p@ftntext}[1]{%
7726 \edef\@tempa{%
7727 \the\LT@p@ftn
7728 \noexpand\footnotetext[\the\c@footnote]%
7729 }%
7730 \global\LT@p@ftn\expandafter{\@tempa{#1}}%
7731 }%
7732 \long\def\LT@p@ftntext#1{%
7733 \edef\@tempa{%
7734 \the\LT@p@ftn
7735 \begingroup
7736 \noexpand\c@footnote=\the\c@footnote\relax
7737 \noexpand\protected\xdef\noexpand\@thefnmark{%
7738 \noexpand\thempfn
7739 }%
7740 \noexpand\Hy@LT@footnotetext{%
7741 \Hy@footnote@currentHref
7742 }%
7743 }%
7744 \global\LT@p@ftn\expandafter{
7745 \@tempa{#1}}%
7746 \endgroup
7747 }%
7748 }%
7749 \long\def\Hy@LT@footnotetext#1#2{%
7750 \H@@@footnotetext{%
7751 \ifHy@nesting
7752 \hyper@@anchor{#1}{#2}%
7753 \else
7754 \Hy@raisedlink{%
7755 \hyper@@anchor{#1}{\relax}%
7756 }%
7757 \def\@currentHref{#1}%
7758 \let\@currentlabelname\@empty
7759 #2%
7760 \fi
7761 }%
7762 }%
7763 }{}%

```

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

```

7764 \@ifpackageloaded{fancyvrb}{%
7765 \def\V@@@footnotetext{%
7766 \insert\footins\bgroup
7767 \csname reset@font\endcsname

```

```

7768 \footnotesize
7769 \interlinepenalty\interfootnotelinepenalty
7770 \splittopskip\footnotesep
7771 \splitmaxdepth\dp\strutbox
7772 \floatingpenalty \@MM
7773 \hsize\columnwidth
7774 \@parboxrestore
7775 \edef\@currentlabel{\csname p@footnote\endcsname\@thefnmark}%
7776 \@makefnmark{%
7777 \rule{\z@}{\footnotesep}%
7778 \bgroup
7779 \aftergroup\V@@@footnotetext
7780 \Hy@raisedlink{%
7781 \expandafter\hyper@@anchor\expandafter{%
7782 \Hy@footnote@currentHref
7783 }{\relax}%
7784 }%
7785 \let\@currentHref\Hy@footnote@currentHref
7786 \let\@currentlabelname\@empty
7787 \ignorespaces
7788 }%
7789 }{}%

```

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

```

7790 \def\Hy@temp#1{%
7791 \begingroup
7792 \unrestored@protected@xdef\@thefnmark{\ref{#1}}%
7793 \endgroup
7794 \@footnotemark
7795 }%
7796 \ifx\Hy@temp\footref
7797 \def\footref#1{%
7798 \begingroup
7799 \unrestored@protected@xdef\@thefnmark{\ref{#1}}%
7800 \endgroup
7801 \H@@@footnotemark
7802 }%
7803 \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.

```

7804 \let\HyOrg@maketitle\maketitle
7805 \def\maketitle{%
7806 \let\Hy@saved@footnotemark\@footnotemark
7807 \let\Hy@saved@footnotetext\@footnotetext
7808 \let\@footnotemark\H@@@footnotemark
7809 \let\@footnotetext\H@@@footnotetext
7810 \@ifnextchar[\Hy@maketitle@optarg{% ]
7811 \HyOrg@maketitle
7812 \Hy@maketitle@end
7813 }%
7814 }%
7815 \def\Hy@maketitle@optarg[#1]{%
7816 \HyOrg@maketitle[{#1}]%
7817 \Hy@maketitle@end
7818 }%

```

```

7819 \def\Hy@maketitle@end{%
7820   \ifx\@footnotemark\H@@footnotemark
7821     \let\@footnotemark\Hy@saved@footnotemark
7822   \fi
7823   \ifx\@footnotetext\H@@footnotetext
7824     \let\@footnotetext\Hy@saved@footnotetext
7825   \fi
7826 }%

```

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

```

7827 \def\realfootnote{%
7828   \@ifnextchar[\@xfootnote{%
7829     \stepcounter{\@mpfn}%
7830     \protected@xdef\@thefnmark{\thempfn}%
7831     \H@@@footnotemark\H@@@footnotetext
7832   }%
7833 }%

7834 \fi
7835 \Hy@DisableOption{hyperfootnotes}

7836 \</package>
7837 \< *check>
7838 \checklatex
7839 \checkcommand\def\@xfootnotenext[#1]{%
7840   \begingroup
7841     \csname c@\@mpfn\endcsname #1\relax
7842     \unrestored@protected@xdef\@thefnmark{\thempfn}%
7843   \endgroup
7844   \@footnotetext
7845 }
7846 \checkcommand\def\@xfootnotemark[#1]{%
7847   \begingroup
7848     \c@footnote #1\relax
7849     \unrestored@protected@xdef\@thefnmark{\thefootnote}%
7850   \endgroup
7851   \@footnotemark
7852 }
7853 \checkcommand\def\@footnotemark{%
7854   \leavevmode
7855   \ifhmode\edef\@x@sf{\the\spacefactor}\nobreak\fi
7856   \@makefnmark
7857   \ifhmode\spacefactor\@x@sf\fi
7858   \relax
7859 }
7860 \</check>
7861 \< *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.

```

7862 \def\caption{%
7863   \ifx\@capytype\@undefined
7864     \@latex@error{\noexpand\caption outside float}\@ehd
7865     \expandafter\@gobble
7866   \else

```

```

7867 \H@refstepcounter\@captype
7868 \let\Hy@tempa\@caption
7869 \@ifundefined{float@caption}{%
7870 }{%
7871 \expandafter\ifx\csname @float@c@\@captype\endcsname
7872 \float@caption
7873 \let\Hy@tempa\Hy@float@caption
7874 \fi
7875 }%
7876 \expandafter\@firstofone
7877 \fi
7878 {\@dblarg{\Hy@tempa\@captype}}%
7879 }
7880 \long\def\@caption#1[#2]#3{%
7881 \expandafter\ifx\csname if@capstart\expandafter\endcsname
7882 \csname iftrue\endcsname
7883 \global\let\@currentHref\hc@currentHref
7884 \else
7885 \hyper@makecurrent{\@captype}%
7886 \fi
7887 \@ifundefined{NR@getttitle}{%
7888 \def\@currentlabelname{#2}%
7889 }{%
7890 \NR@getttitle{#2}%
7891 }%
7892 \par\addcontentsline{\csname ext@#1\endcsname}{#1}{%
7893 \protect\numberline{\csname the#1\endcsname}{\ignorespaces #2}%
7894 }%
7895 \begingroup
7896 \@parboxrestore
7897 \if@minipage
7898 \@setminipage
7899 \fi
7900 \normalsize
7901 \expandafter\ifx\csname if@capstart\expandafter\endcsname
7902 \csname iftrue\endcsname
7903 \global\@capstartfalse
7904 \@makecaption{\csname fnum@#1\endcsname}{\ignorespaces#3}%
7905 \else
7906 \@makecaption{\csname fnum@#1\endcsname}{%
7907 \ignorespaces

```

If we cannot have nesting, the anchor is empty.

```

7908 \ifHy@nesting
7909 \expandafter\hyper@@@anchor\expandafter{\@currentHref}{#3}%
7910 \else
7911 \Hy@raisedlink{%
7912 \expandafter\hyper@@@anchor\expandafter{%
7913 \@currentHref
7914 }{\relax}%
7915 }%
7916 #3%
7917 \fi
7918 }%
7919 \fi
7920 \par
7921 \endgroup
7922 }

```

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’.

```

7923 \let\Hy@float@caption\@caption
7924 \newcommand{\HyNew@float@makebox}[1]{%
7925   \HyOrg@float@makebox{%
7926     #1\relax
7927     \ifx\Hy@float@currentHref\@undefined
7928       \else
7929         \expandafter\hyper@@anchor\expandafter{%
7930           \Hy@float@currentHref
7931         }\relax}%
7932     \global\let\Hy@float@currentHref\@undefined
7933   \fi
7934 }%
7935 }%
7936 \@ifpackageloaded{float}{%
7937   \def\Hy@float@caption{%
7938     \ifx\Hy@float@currentHref\@undefined
7939       \hyper@makecurrent{\@capttype}%
7940       \global\let\Hy@float@currentHref\@currentHref
7941     \else
7942       \let\@currentHref\Hy@float@currentHref
7943     \fi
7944     \float@caption
7945   }%
7946   \let\HyOrg@float@makebox\float@makebox
7947   \let\float@makebox\HyNew@float@makebox
7948 }{}
7949 \end{package}
7950 \check{*check}
7951 \checklatex[1999/06/01 - 2000/06/01]
7952 \checkcommand\def\caption{%
7953   \ifx\@capttype\@undefined
7954     \@latex@error{\noexpand\caption outside float}\@ehd
7955     \expandafter\@gobble
7956   \else
7957     \refstepcounter\@capttype
7958     \expandafter\@firstofone
7959   \fi
7960   {\@dblarg{\@caption\@capttype}}}%
7961 }
7962 \checkcommand\long\def\@caption#1[#2]#3{%
7963   \par
7964   \addcontentsline{\csname ext@#1\endcsname}{#1}{%
7965     \protect\numberline{\csname the#1\endcsname}{\ignorespaces #2}%
7966   }%
7967   \begingroup
7968     \@parboxrestore
7969     \if@minipage
7970       \setminipage
7971     \fi
7972     \normalsize
7973     \@makecaption{\csname fnum@#1\endcsname}{\ignorespaces #3}\par
7974   \endgroup

```

```

7975 }
7976 </check>
7977 <*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 `\bibtex`; 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, let's make an attempt to get *natbib* right, because that's a powerful, important package. Patrick Daly (daly@linmpi.mpg.de) has provided hooks for us, so all we need to do is activate them.

```

7978 \def\hyper@natlinkstart#1{%
7979   \Hy@backout{#1}%
7980   \hyper@linkstart{cite}{cite.#1}%
7981   \def\hyper@nat@current{#1}%
7982 }
7983 \def\hyper@natlinkend{%
7984   \hyper@linkend
7985 }
7986 \def\hyper@natlinkbreak#1#2{%
7987   \hyper@linkend#1\hyper@linkstart{cite}{cite.#2}%
7988 }
7989 \def\hyper@natanchorstart#1{%
7990   \Hy@raisedlink{\hyper@anchorstart{cite.#1}}%
7991 }
7992 \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.

```

7993 \ltx@ifundefined{NAT@parse}{%
7994   \providecommand*\@extra@binfo{}%
7995   \providecommand*\@extra@b@citeb{}%
7996   \def\bibtex#1#2{%
7997     \@newl@bel{b}{#1\@extra@binfo}{%
7998       \hyper@link{cite}{cite.#1\@extra@b@citeb}{#2}%
7999     }%
8000   }%
8001   \gdef\@extra@binfo{}%

```

Package *babel* redefines `\bibtex` with macro `\bbl@cite@choice`. It needs to be overwritten to avoid the warning “Label(s) may have changed.”.

```

8002 \let\Hy@bibtex\bibtex
8003 \begingroup
8004   \@ifundefined{bbl@cite@choice}{}{%
8005     \g@addto@macro\bbl@cite@choice{%
8006       \let\bibtex\Hy@bibtex
8007     }%
8008   }%
8009 \endgroup

```

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

```

8010 \providecommand*\@BIBLABEL{\@biblabel}%
8011 \def\@bibitem[#1]#2{%
8012   \@skiphyperreftrue
8013   \H@item[%
8014     \ifx\Hy@raisedlink\@empty
8015       \hyper@anchorstart{cite.#2\@extra@b@citeb}%
8016       \@BIBLABEL{#1}%
8017       \hyper@anchorend
8018     \else
8019       \Hy@raisedlink{%
8020         \hyper@anchorstart{cite.#2\@extra@b@citeb}\hyper@anchorend
8021       }%
8022       \@BIBLABEL{#1}%
8023     \fi
8024   \hfill
8025 }%
8026 \@skiphyperreffalse
8027 \if@filesw
8028   \begingroup
8029   \let\protect\noexpand
8030   \immediate\write\@auxout{%
8031     \string\bibcite{#2}{#1}%
8032   }%
8033   \endgroup
8034 \fi
8035 \ignorespaces
8036 }%

```

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

```

8037 \def\@bibitem#1{%
8038   \@skiphyperreftrue\H@item\@skiphyperreffalse
8039   \Hy@raisedlink{%
8040     \hyper@anchorstart{cite.#1\@extra@b@citeb}\relax\hyper@anchorend
8041   }%
8042   \if@filesw
8043     \begingroup
8044     \let\protect\noexpand
8045     \immediate\write\@auxout{%
8046       \string\bibcite{#1}{\the\value{\@listctr}}%
8047     }%
8048     \endgroup
8049   \fi
8050   \ignorespaces
8051 }%
8052 \}{}

8053 \</package>
8054 \< *check>
8055 \checklatex
8056 \checkcommand\def\@bibitem[#1]#2{%
8057   \item[\@biblabel{#1}\hfill]%
8058   \if@filesw
8059     {%
8060       \let\protect\noexpand
8061       \immediate\write\@auxout{%
8062         \string\bibcite{#2}{#1}%
8063       }%

```

```

8064 }%
8065 \fi
8066 \ignorespaces
8067 }
8068 \checkcommand\def\@bibitem#1{%
8069 \item
8070 \if@filesw
8071 \immediate\write\@auxout{%
8072 \string\bibcite{#1}{\the\value{\@listctr}}}%
8073 }%
8074 \fi
8075 \ignorespaces
8076 }
8077 \</check>
8078 \*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.

```

8079 \ifclassloaded{revtex}{%
8080 \Hy@Info{*** compatibility with revtex **** }%
8081 \def\revtex@checking#1#2{%
8082 \expandafter\let\expandafter\T@temp\csname b@#1\endcsname
8083 \expandafter\def\csname b@#1\endcsname{#2}%
8084 \@SetMaxRnhefLabel{#1}%
8085 \expandafter\let\csname b@#1\endcsname\T@temp
8086 }%

```

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

```

8087 \ifundefined{CITE}{\def\CITE{\@cite}}}%
8088 \providecommand*\@extra@b@citeb{}%
8089 \def\CITEX[#1]#2{%
8090 \let\@citea\@empty
8091 \leavevmode
8092 \unskip
8093 $\sim$%
8094 \scriptstyle
8095 \@CITE{%
8096 \for\@citeb:=#2\do{%
8097 \@citea
8098 \def\@citea{,\penalty\@m\ }%
8099 \edef\@citeb{\expandafter\@firstofone\@citeb}%
8100 \if@filesw
8101 \immediate\write\@auxout{\string\citation{\@citeb}}%
8102 \fi
8103 \ifundefined{b@\@citeb\extra@b@citeb}{%
8104 \mbox{\reset@font\bfseries ?}%
8105 \G@refundefinedtrue
8106 \@latex@warning{%
8107 Citation '\@citeb' on page \thepage \space undefined%
8108 }%
8109 }%
8110 {\csname b@\@citeb\@extra@b@citeb\endcsname}%
8111 }%
8112 }%
8113 }{#1}%
8114 }$%

```

8115 }%

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.

```

8116 \def\@citex[#1]#2{%
8117   \let\@citea\@empty
8118   \@cite{%
8119     \@for\@citeb:=#2\do{%
8120       \@citea
8121       \def\@citea{\penalty\@m\ }%
8122       \edef\@citeb{\expandafter\@firstofone\@citeb}%
8123       \if@filesw
8124         \immediate\write\@auxout{\string\citation{\@citeb}}%
8125       \fi
8126       \ifundefined{b@\@citeb\@extra@b@citeb}{%
8127         \mbox{\reset@font\bfseries ?}%
8128         \G@refundefinedtrue
8129         \@latex@warning{%
8130           Citation '\@citeb' on page \thepage \space undefined%
8131         }%
8132       }{%
8133         \hbox{\csname b@\@citeb\@extra@b@citeb\endcsname}%
8134       }%
8135     }%
8136   }{#1}%
8137 }%
8138 }{}

```

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 pdf_{TEX}, then `hyperref` is already loaded at the begin of `harvard.sty`, and the `\newcommand` macros causes error messages.

```

8139 \ifpackageloaded{harvard}{%
8140   \Hy@AtBeginDocument{%
8141     \Hy@Info{*** compatibility with harvard *** }%
8142     \Hy@raiselinksfalse
8143     \def\harvardcite#1#2#3#4{%
8144       \global\@namedef{HAR@fn@#1}{\hyper@link[cite]{#1}{#2}}%
8145       \global\@namedef{HAR@an@#1}{\hyper@link[cite]{#1}{#3}}%
8146       \global\@namedef{HAR@yr@#1}{\hyper@link[cite]{#1}{#4}}%
8147       \global\@namedef{HAR@df@#1}{\csname HAR@fn@#1\endcsname}%
8148     }%
8149     \def\HAR@citetoaux#1{%
8150       \if@filesw\immediate\write\@auxout{\string\citation{#1}}\fi%
8151       \ifHy@backref
8152         \ifx\@empty\@currentlabel
8153         \else
8154           \@bsphack
8155           \if@filesw
8156             \protected@write\@auxout{}{%
8157               \string\@writefile{brf}{%
8158                 \string\backcite{#1}{%

```

```

8159         {\thepage}{\@currentlabel}{\@currentHref}%
8160     }%
8161 }%
8162 }%
8163 \fi
8164 \@esphack
8165 \fi
8166 \fi
8167 }%
8168 \def\harvarditem{%
8169     \ifnextchar[{\@harvarditem}{\@harvarditem[\null]}%
8170 }%
8171 \def\@harvarditem[#1]#2#3#4#5\par{%
8172     \item[]%
8173     \hyper@anchorstart{cite.#4}\relax\hyper@anchorend
8174     \if@filesw
8175         \begingroup
8176         \def\protect##1{\string ##1\space}%
8177         \ifthenelse{\equal{#1}{\null}}{%
8178             {\def\next{{#4}{#2}{#2}{#3}}}%
8179             {\def\next{{#4}{#2}{#1}{#3}}}%
8180             \immediate\write\@auxout{\string\harvardcite\codeof\next}%
8181         \endgroup
8182         \fi
8183         \protect\hspace*{-\labelwidth}%
8184         \protect\hspace*{-\labelsep}%
8185         \ignorespaces
8186         #5%
8187         \ifHy@backref
8188             \newblock
8189             \backref{\csname br@#4\endcsname}%
8190         \fi
8191         \par
8192     }%

```

\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:

```

8193 \long\def\HAR@checkcitations#1#2#3#4{%
8194     \def\HAR@tempa{\hyper@@link[cite]{}{cite.#1}{#2}}%
8195     \expandafter\ifx\csname HAR@fn@#1\endcsname\HAR@tempa
8196         \def\HAR@tempa{\hyper@@link[cite]{}{cite.#1}{#3}}%
8197         \expandafter\ifx\csname HAR@an@#1\endcsname\HAR@tempa
8198             \def\HAR@tempa{\hyper@@link[cite]{}{cite.#1}{#4}}%
8199             \expandafter\ifx\csname HAR@yr@#1\endcsname\HAR@tempa
8200                 \else
8201                     \@tempswatrue
8202                 \fi
8203             \else
8204                 \@tempswatrue
8205             \fi
8206         \else
8207             \@tempswatrue
8208         \fi
8209     }%
8210 }%
8211 }{}

```

38.2 Package chicago

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

```

8212 \@ifpackageloaded{chicago}{%

\citeN
8213   \def\citeN{%
8214     \def\@citesep{-1000}%
8215     \def\@cite##1##2{##1}%
8216     \def\citeauthoryear##1##2##3{##1 (##3\@cite@opt)}%
8217     \@citedata@opt
8218   }%

\shortciteN
8219   \def\shortciteN{%
8220     \def\@citesep{-1000}%
8221     \def\@cite##1##2{##1}%
8222     \def\citeauthoryear##1##2##3{##2 (##3\@cite@opt)}%
8223     \@citedata@opt
8224   }%

\@citedata@opt
8225   \def\@citedata@opt{%
8226     \let\@cite@opt\@empty
8227     \@ifnextchar [{%
8228       \@tempswatrue
8229       \@citedatax@opt
8230     }{%
8231       \@tempswafalse
8232       \@citedatax[]%
8233     }%
8234   }%

\@citedatax@opt
8235   \def\@citedatax@opt[#1]{%
8236     \def\@cite@opt{, #1}%
8237     \@citedatax[{#1}]%
8238   }%

8239 }{}

```

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.

```

8240 \ltx@ifclassloaded{slides}{%
8241   \def\Hy@SlidesFormatOptionalPage#1{(#1)}%
8242   \def\Hy@PageAnchorSlidesPlain{%
8243     \advance\c@page\ltx@one
8244     \edef\Hy@TempPageAnchor{%
8245       \noexpand\hyper@@anchor{%

```

```

8246     page.\the\c@slide.\the\c@overlay.\the\c@note%
8247     \ifnum\c@page=\ltx@one
8248     \else
8249     .\the\c@page
8250     \fi
8251     }%
8252     }%
8253     \advance\c@page-\ltx@one
8254     }%
8255     \def\Hy@PageAnchorSlide{%
8256     \advance\c@page-\ltx@one
8257     \ifnum\c@page>\ltx@one
8258     \ltx@ifundefined{theHpage}{%
8259     \protected@edef\Hy@TheSlideOptionalPage{%
8260     \Hy@SlidesFormatOptionalPage{theHpage}%
8261     }%
8262     }{%
8263     \protected@edef\Hy@TheSlideOptionalPage{%
8264     \Hy@SlidesFormatOptionalPage{theHpage}%
8265     }%
8266     }%
8267     \else
8268     \def\Hy@TheSlideOptionalPage{}%
8269     \fi
8270     \advance\c@page-\ltx@one
8271     \pdfstringdef\@the@H@page{%
8272     \csname
8273     the%
8274     \ltx@ifundefined{theH\Hy@SlidesPage}{H}%
8275     \Hy@SlidesPage
8276     \endcsname
8277     \Hy@TheSlideOptionalPage
8278     }%
8279     \ltx@gobblethree
8280     }%
8281     \def\Hy@SlidesPage{slide}%
8282     \g@addto@macro\slide{%
8283     \def\Hy@SlidesPage{slide}%
8284     }%
8285     \g@addto@macro\overlay{%
8286     \def\Hy@SlidesPage{overlay}%
8287     }%
8288     \g@addto@macro\note{%
8289     \def\Hy@SlidesPage{note}%
8290     }%
8291     }{%
8292     \def\Hy@PageAnchorSlidesPlain{}%
8293     \def\Hy@PageAnchorSlide{}%
8294     }
8295     \def\Hy@EveryPageAnchor{%
8296     \Hy@DistillerDestFix
8297     \ifHy@pageanchor
8298     \ifHy@hypertextnames
8299     \ifHy@plainpages
8300     \def\Hy@TempPageAnchor{\hyper@@anchor{page.\the\c@page}}%
8301     \Hy@PageAnchorSlidesPlain
8302     \else

```

```

8303 \begingroup
8304 \let\@number\@firstofone
8305 \Hy@unicodedefalse
8306 \Hy@PageAnchorSlide
8307 \pdfstringdef\@the@H@page{\thepage}%
8308 \endgroup
8309 \EdefUnescapeString\@the@H@page{\@the@H@page}%
8310 \def\Hy@TempPageAnchor{\hyper@@anchor{page.\@the@H@page}}%
8311 \fi
8312 \else
8313 \Hy@GlobalStepCount\Hy@pagecounter
8314 \def\Hy@TempPageAnchor{%
8315 \hyper@@anchor{page.\the\Hy@pagecounter}%
8316 }%
8317 \fi
8318 \vbox to 0pt{%
8319 \kern\voffset
8320 \kern\topmargin
8321 \kern-1bp\relax
8322 \hbox to 0pt{%
8323 \kern\hoffset
8324 \kern\ifodd\value{page}%
8325 \oddsidemargin
8326 \else
8327 \evensidemargin
8328 \fi
8329 \kern-1bp\relax
8330 \Hy@TempPageAnchor\relax
8331 \hss
8332 }%
8333 \vss
8334 }%
8335 \fi
8336 }
8337 \g@addto@macro\Hy@EveryPageBoxHook{%
8338 \Hy@EveryPageAnchor
8339 }

```

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.

```

8340 \def\addcontentsline#1#2#3{% toc extension, type, tag
8341 \begingroup
8342 \let\label\@gobble
8343 \ifx\@currentHref\@empty
8344 \Hy@Warning{%
8345 No destination for bookmark of \string\addcontentsline,%
8346 \MessageBreak destination is added%
8347 }%
8348 \phantomsection
8349 \fi
8350 \expandafter\ifx\csname toplevel@#2\endcsname\relax
8351 \begingroup
8352 \def\Hy@tempa{#1}%

```

```

8353 \ifx\Hy@tempa\Hy@bookmarkstype
8354 \Hy@WarningNoLine{%
8355     bookmark level for unknown #2 defaults to 0%
8356 }%
8357 \else
8358 \Hy@Info{bookmark level for unknown #2 defaults to 0}%
8359 \fi
8360 \endgroup
8361 \expandafter\gdef\csname toplevel@#2\endcsname{0}%
8362 \fi
8363 \edef\Hy@toplevel{\csname toplevel@#2\endcsname}%
8364 \Hy@writebookmark{\csname the#2\endcsname}%
8365     {#3}%
8366     {\@currentHref}%
8367     {\Hy@toplevel}%
8368     {#1}%
8369 \ifHy@verbose
8370 \begingroup
8371 \def\Hy@tempa{#3}%
8372 \@onelevel@sanitize\Hy@tempa
8373 \let\temp@online\on@line
8374 \let\on@line\@empty
8375 \Hy@Info{%
8376     bookmark\temp@online:\MessageBreak
8377     thecounter {\csname the#2\endcsname}\MessageBreak
8378     text {\Hy@tempa}\MessageBreak
8379     reference {\@currentHref}\MessageBreak
8380     toplevel {\Hy@toplevel}\MessageBreak
8381     type {#1}%
8382 }%
8383 \endgroup
8384 \fi
8385 \addtocontents{#1}{%
8386 \protect\contentsline{#2}{#3}{\thepage}{\@currentHref}%
8387 }%
8388 \endgroup
8389 }

```

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

```

8390 \def\contentsline#1#2#3#4{%
8391 \begingroup
8392 \Hy@safe@activetrue
8393 \edef\x{\endgroup
8394 \def\noexpand\Hy@tocdestname{#4}%
8395 }\x
8396 \ifx\Hy@tocdestname\ltx@empty
8397 \csname l@#1\endcsname{#2}{#3}%
8398 \else
8399 \ifcase\Hy@linktoc % none
8400 \csname l@#1\endcsname{#2}{#3}%
8401 \or % section
8402 \csname l@#1\endcsname{%
8403 \hyper@linkstart{link}{\Hy@tocdestname}{#2}\hyper@linkend
8404 }{#3}%
8405 \or % page
8406 \def\Hy@temp{#3}%

```

```

8407 \ifx\Hy@temp\ltx@empty
8408 \csname l@#1\endcsname{#2}{#3}%
8409 \else
8410 \csname l@#1\endcsname{{#2}}{%
8411 \hyper@linkstart{link}{\Hy@tocdestname}{#3}\hyper@linkend
8412 }%
8413 \fi
8414 \else % all
8415 \def\Hy@temp{#3}%
8416 \ifx\Hy@temp\ltx@empty
8417 \csname l@#1\endcsname{%
8418 \hyper@linkstart{link}{\Hy@tocdestname}{#2}\hyper@linkend
8419 }{%
8420 \else
8421 \csname l@#1\endcsname{%
8422 \hyper@linkstart{link}{\Hy@tocdestname}{#2}\hyper@linkend
8423 }{%
8424 \hyper@linkstart{link}{\Hy@tocdestname}{#3}\hyper@linkend
8425 }%
8426 \fi
8427 \fi
8428 \fi
8429 }

8430 \</package>
8431 \<*check>
8432 \checklatex
8433 \checkcommand\def\addcontentsline#1#2#3{%
8434 \addtocontents{#1}{\protect\contentsline{#2}{#3}{\thepage}}}%
8435 }
8436 \checkcommand\def\contentsline#1{\csname l@#1\endcsname}
8437 \</check>
8438 \<*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.

```

8439 \let\H@definecounter\@definecounter
8440 \def\@definecounter#1{%
8441 \H@definecounter{#1}%
8442 \expandafter\gdef\csname theH#1\endcsname{\arabic{#1}}%
8443 }

```

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.

```

8444 \let\H@newctr\@newctr
8445 \def\@newctr#1[#2]{%
8446 \H@newctr#1[#2]}%
8447 \expandafter\gdef\csname theH#1\endcsname{%
8448 \csname the\@ifundefined{theH#2}{H}{H}#2\endcsname.\arabic{#1}%
8449 }%
8450 }

```

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.

```

8451 \ifpackageloaded{amsmath}{%
8452   \def\Hy@make@anchor{%
8453     \Hy@MakeCurrentHrefAuto{AMS}%
8454     \Hy@raisedlink{\hyper@anchorstart{\@currentHref}\hyper@anchorend}%
8455   }%
8456   \def\Hy@make@df@tag@@#1{%
8457     \gdef\df@tag{%
8458       \maketag@@@{\Hy@make@anchor#1}%
8459       \def\@currentlabel{#1}%
8460     }%
8461   }%
8462   \def\Hy@make@df@tag@@@#1{%
8463     \gdef\df@tag{%
8464       \tagform@{\Hy@make@anchor#1}%
8465       \toks@{\xp{p@equation{#1}}}%
8466       \edef\@currentlabel{\the\toks@}%
8467     }%
8468   }%
8469   \let\HyOrg@make@df@tag@@\make@df@tag@@
8470   \let\HyOrg@make@df@tag@@@\make@df@tag@@@
8471   \let\make@df@tag@@\Hy@make@df@tag@@
8472   \let\make@df@tag@@@\Hy@make@df@tag@@@
8473 }{}

```

Only play with `\seteqlebal` if we are using pdf \TeX . Other drivers cause problems; requested by Michael Downes (AMS).

```

8474 \ifpackagewith{hyperref}{pdf $\text{\TeX}$ }{%
8475   \let\H@seteqlabel\@seteqlabel
8476   \def\@seteqlabel#1{%
8477     \H@seteqlabel{#1}%
8478     \xdef\@currentHref{AMS.\the\Hy@linkcounter}%
8479     \Hy@raisedlink{%
8480       \hyper@anchorstart{\@currentHref}\hyper@anchorend
8481     }%
8482   }%
8483 }{}

```

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.

```

8484 \let\HyOrg@addtoreset\@addtoreset
8485 \def\@addtoreset#1#2{%
8486   \HyOrg@addtoreset{#1}{#2}%
8487   \expandafter\xdef\csname theH#1\endcsname{%
8488     \expandafter\noexpand
8489       \csname the\@ifundefined{theH#2}{H#2}\endcsname
8490     .\noexpand\the\noexpand\value{#1}%
8491   }%
8492 }
```

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

```

8493 </package>
8494 <*check>
8495 \checkpackage{amsmath}[1999/12/14 - 2000/06/06]
8496 \checkcommand\newcommand{\numberwithin}[3][\arabic]{%
8497   \@ifundefined{c@#2}{\@nocounterr{#2}}{%
8498     \@ifundefined{c@#3}{\@nocnterr{#3}}{%
8499       \@addtoreset{#2}{#3}%
8500       \@xp\xdef\csname the#2\endcsname{%
8501         \@xp\@nx\csname the#3\endcsname .\@nx#1{#2}%
8502       }%
8503     }%
8504   }%
8505 }%
8506 </check>
8507 <*package>
8508 \@ifpackageloaded{amsmath}{%
8509   \@ifpackagelater{amsmath}{1999/12/14}{%
8510     \renewcommand*\numberwithin[3][\arabic]{%
8511       \@ifundefined{c@#2}{\@nocounterr{#2}}{%
8512         \@ifundefined{c@#3}{\@nocnterr{#3}}{%
8513           \HyOrg@addtoreset{#2}{#3}%
8514           \@xp\xdef\csname the#2\endcsname{%
8515             \@xp\@nx\csname the#3\endcsname .\@nx#1{#2}%
8516           }%
8517           \@xp\xdef\csname theH#2\endcsname{%
8518             \@xp\@nx
8519             \csname the\@ifundefined{theH#3}{H#3}\endcsname
8520             .\@nx#1{#2}%
8521           }%
8522         }%
8523       }%
8524     }%
8525   }%
8526   \Hy@WarningNoLine{%
8527     \string\numberwithin\space of package 'amsmath' %
8528     only fixed\MessageBreak
8529     for version 2000/06/06 v2.12 or newer%
8530   }%
8531 }
```

8532 }{}

43 Included figures

Simply intercept the low level graphics package macro.

```

8533 \ifHy@hyperfigures
8534 \let\Hy@Gin@setfile\Gin@setfile
8535 \def\Gin@setfile#1#2#3{%
8536   \hyperimage{#3}{\Hy@Gin@setfile{#1}{#2}{#3}}%
8537 }%
8538 \fi
8539 \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 boldening entries. That would make Makeindex fail (cannot have two | specifiers). The solution is for the author to use generic coding, and put in the requisite \hyperpage in his/her own macros along with the boldness.

This section is poor stuff; it's open to all sorts of abuse. Sensible large projects will design their own indexing macros any bypass this.

```

8540 \ifHy@hyperindex
8541 \def\HyInd@ParenLeft{({}%
8542 \def\HyInd@ParenRight{)}}%
8543 \def\hyperindexformat#1#2{%
8544   \let\HyOrg@hyperpage\hyperpage
8545   \let\hyperpage\@firstofone
8546   #1{\HyOrg@hyperpage{#2}}%
8547   \let\hyperpage\HyOrg@hyperpage
8548 }%
8549 \Hy@nextfalse
8550 \@ifpackageloaded{multind}{\Hy@nexttrue}{}%
8551 \@ifpackageloaded{index}{\Hy@nexttrue}{}%
8552 \@ifpackageloaded{amsmidx}{\Hy@nexttrue}{}%
8553 \begingroup
8554 \lccode'\l=\expandafter'\HyInd@EncapChar\relax
8555 \lccode'\l='\\relax
8556 \lowercase{\endgroup
8557 \ifHy@next
8558   \let\HyInd@org@wrindex\@wrindex
8559   \def\@wrindex#1#2{\HyInd@@wrindex{#1}{#2}||}%
8560   \def\HyInd@@wrindex#1#2|#3|#4\\{%
8561     \ifx\\#3\\%
8562       \HyInd@org@wrindex{#1}{#2|hyperpage}%
8563     \else
8564       \HyInd@@@wrindex{#1}{#2}#3\\%
8565     \fi
8566   }%
8567   \def\HyInd@@@wrindex#1#2#3#4\\{%
8568     \def\Hy@temp@A{#3}%
8569     \ifcase0\ifx\Hy@temp@A\HyInd@ParenLeft 1\fi

```

```

8570         \ifx\Hy@temp@A\HyInd@ParenRight 1\fi
8571         \relax
8572         \HyInd@org@wrindex{#1}{%
8573         #2|hyperindexformat{/#3#4}%
8574         }%
8575     \else
8576     \ifx\#4\%
8577     \ifx\Hy@temp@A\HyInd@ParenRight
8578     \HyInd@org@wrindex{#1}{#2|#3}%
8579     \else
8580     \HyInd@org@wrindex{#1}{#2|#3hyperpage}%
8581     \fi
8582     \else
8583     \HyInd@org@wrindex{#1}{%
8584     #2|#3hyperindexformat{/#4}%
8585     }%
8586     \fi
8587     \fi
8588     }%
8589 \else
8590 \def\@wrindex#1{\@wrindex#1||\}%
8591 \def\@wrindex#1|#2|#3\{\%
8592 \if@filesw
8593 \ifx\#2\%
8594 \protected@write\@indexfile{\%
8595 \string\indexentry{#1|hyperpage}{\thepage}%
8596 }%
8597 \else
8598 \HyInd@@@wrindex{#1}#2\%
8599 \fi
8600 \fi
8601 \endgroup
8602 \@esphack
8603 }%
8604 \def\HyInd@@@wrindex#1#2#3\{\%
8605 \def\Hy@temp@A{#2}%
8606 \ifcase0\ifx\Hy@temp@A\HyInd@ParenLeft 1\fi
8607 \ifx\Hy@temp@A\HyInd@ParenRight 1\fi
8608 \relax
8609 \protected@write\@indexfile{\%
8610 \string\indexentry{%
8611 #1|hyperindexformat{/#2#3}%
8612 }{\thepage}%
8613 }%
8614 \else
8615 \ifx\#3\%
8616 \ifx\Hy@temp@A\HyInd@ParenRight
8617 \protected@write\@indexfile{\%
8618 \string\indexentry{#1|#2}{\thepage}%
8619 }%
8620 \else
8621 \protected@write\@indexfile{\%
8622 \string\indexentry{#1|#2hyperpage}{\thepage}%
8623 }%
8624 \fi
8625 \else
8626 \protected@write\@indexfile{\%

```

```

8627         \string\indexentry{%
8628             #1|#2hyperindexformat{/#3}%
8629         }\the page}%
8630     }%
8631     \fi
8632     \fi
8633 }%
8634 \fi
8635 }%
8636 \fi
8637 \Hy@DisableOption{hyperindex}
8638 \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.

```

8639 \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.

```

8640 \def\hyperpage#1{%
8641     \HyInd@hyperpage#1\nohyperpage{}\@nil
8642 }
8643 \def\HyInd@hyperpage#1\nohyperpage#2#3\@nil{%
8644     \HyInd@@hyperpage{#1}%
8645     #2%
8646     \def\Hy@temp{#3}%
8647     \ifx\Hy@temp\@empty
8648     \else
8649         \ltx@ReturnAfterFi{%
8650             \HyInd@hyperpage#3\@nil
8651         }%
8652     \fi
8653 }
8654 \def\HyInd@@hyperpage#1{\@hyperpage#1----\}
8655 \def\@hyperpage#1--#2--#3\{\%
8656     \ifx\#2\%
8657         \@commahyperpage{#1}%
8658     \else
8659         \HyInd@pagelink{#1}--\HyInd@pagelink{#2}%
8660     \fi
8661 }
8662 \def\@commahyperpage#1{\@commahyperpage#1, \}
8663 \def\@commahyperpage#1, #2,#3\{\%
8664     \ifx\#2\%
8665         \HyInd@pagelink{#1}%
8666     \else
8667         \HyInd@pagelink{#1}, \HyInd@pagelink{#2}%
8668     \fi
8669 }

```

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

```

8670 \def\HyInd@pagelink#1{%
8671     \begingroup
8672     \toks@={}%
8673     \HyInd@removespaces#1 \@nil
8674     \endgroup

```

```

8675 }
8676 \def\HyInd@removespaces#1 #2\@nil{%
8677 \toks@=\expandafter{\the\toks@#1}%
8678 \ifx\\#2\\%
8679 \edef\x{\the\toks@}%
8680 \ifx\x\@empty
8681 \else
8682 \hyperlink{page.\the\toks@}{\the\toks@}%
8683 \fi
8684 \else
8685 \ltx@ReturnAfterFi{%
8686 \HyInd@removespaces#2\@nil
8687 }%
8688 \fi
8689 }

```

45 Compatibility with foiltex

```

8690 \@ifclassloaded{foils}{%
8691 \providecommand*\ext@table{lot}%
8692 \providecommand*\ext@figure{lof}%
8693 }{}

```

46 Compatibility with seminar slide package

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

```

8694 \@ifclassloaded{seminar}{%
8695 \Hy@seminarslidestrue
8696 \providecommand\theHslide{\arabic{slide}}}%
8697 }{%
8698 \Hy@seminarslidesfalse
8699 }
8700 \@ifpackageloaded{slidesec}{%
8701 \providecommand\theHslidesection {\arabic{slidesection}}}%
8702 \providecommand\theHslidesubsection{%
8703 \theHslidesection.\arabic{slidesubsection}}%
8704 }%
8705 \def\slide@heading[#1]#2{%
8706 \H@refstepcounter{slidesection}%
8707 \@addtoreset{slidesubsection}{slidesection}%
8708 \addtocontents{los}{%
8709 \protect\l@slide{\the\c@slidesection}{\ignorespaces#1}%
8710 {\@SCTR}{\slideheading.\theslidesection}}%
8711 }%
8712 \def\Hy@tempa{#2}%
8713 \ifx\Hy@tempa\@empty
8714 \else
8715 {%
8716 \edef\@currentlabel{%
8717 \csname p@slidesection\endcsname\theslidesection
8718 }%
8719 \makeslideheading{#2}%
8720 }%
8721 \fi
8722 \gdef\theslideheading{#1}%

```

```

8723 \gdef\theslidesubheading{}%
8724 \ifHy@bookmarksnumbered
8725   \def\Hy@slidetitle{\theslidesection\space #1}%
8726 \else
8727   \def\Hy@slidetitle{#1}%
8728 \fi
8729 \ifHy@hypertextnames
8730   \ifHy@naturalnames
8731     \hyper@@anchor{slideheading.\theslidesection}{\relax}%
8732     \Hy@writebookmark
8733       {\theslidesection}%
8734       {\Hy@slidetitle}%
8735       {slideheading.\theslidesection}%
8736       {1}%
8737       {toc}%
8738   \else
8739     \hyper@@anchor{slideheading.\theHslidesection}{\relax}%
8740     \Hy@writebookmark
8741       {\theslidesection}%
8742       {\Hy@slidetitle}%
8743       {slideheading.\theHslidesection}%
8744       {1}%
8745       {toc}%
8746   \fi
8747 \else
8748   \Hy@GlobalStepCount\Hy@linkcounter
8749   \hyper@@anchor{slideheading.\the\Hy@linkcounter}{\relax}%
8750   \Hy@writebookmark
8751     {\theslidesection}%
8752     {\Hy@slidetitle}%
8753     {slideheading.\the\Hy@linkcounter}%
8754     {1}%
8755     {toc}%
8756 \fi
8757 }%
8758 \def\slide@subheading[#1]#2{%
8759   \H@refstepcounter{slidesubsection}%
8760   \addtocontents{los}{%
8761     \protect\l@subslide{\the\c@slidesubsection}{\ignorespaces#1}%
8762     {\@SCTR}{slideheading.\theslidesubsection}%
8763   }%
8764   \def\Hy@tempa{#2}%
8765   \ifx\Hy@tempa\@empty
8766   \else
8767     {%
8768       \edef\@currentlabel{%
8769         \csname p@slidesubsection\endcsname\theslidesubsection
8770       }%
8771       \makeslidesubheading{#2}%
8772     }%
8773   \fi
8774   \gdef\theslidesubheading{#1}%
8775   \ifHy@bookmarksnumbered
8776     \def\Hy@slidetitle{\theslidesubsection\space #1}%
8777   \else
8778     \def\Hy@slidetitle{#1}%
8779   \fi

```

```

8780 \ifHy@hypertextnames
8781 \ifHy@naturalnames
8782 \hyper@@anchor{slideheading.\theslidesubsection}{\relax}%
8783 \Hy@writebookmark
8784 {\theslidesubsection}%
8785 {\Hy@slidetitle}%
8786 {slideheading.\theslidesubsection}%
8787 {2}%
8788 {toc}%
8789 \else
8790 \hyper@@anchor{slideheading.\theHslidesubsection}{\relax}%
8791 \Hy@writebookmark
8792 {\theslidesubsection}%
8793 {\Hy@slidetitle}%
8794 {slideheading.\theHslidesubsection}%
8795 {2}%
8796 {toc}%
8797 \fi
8798 \else
8799 \Hy@GlobalStepCount\Hy@linkcounter
8800 \hyper@@anchor{slideheading.\the\Hy@linkcounter}{\relax}%
8801 \Hy@writebookmark
8802 {\theslidesubsection}%
8803 {\Hy@slidetitle}%
8804 {slideheading.\the\Hy@linkcounter}%
8805 {1}%
8806 {toc}%
8807 \fi
8808 }%
8809 \providecommand*\listslidenamelist{List of Slides}%
8810 \def\listofslides{%
8811 \section*{%
8812 \listslidenamelist
8813 \@mkboth{%
8814 \expandafter\MakeUppercase\listslidenamelist
8815 }{%
8816 \expandafter\MakeUppercase\listslidenamelist
8817 }%
8818 }%
8819 \def\l@slide##1##2##3##4{%
8820 \slide@undottedcline{%
8821 \slidenumberline{##3}{\hyperlink{##4}{##2}}%
8822 }{%
8823 }%
8824 \let\l@subslide\l@slide
8825 \@startlos
8826 }%
8827 \def\slide@contents{%
8828 \def\l@slide##1##2##3##4{%
8829 \slide@cline{\slidenumberline{##3}{\hyperlink{##4}{##2}}}{##3}%
8830 }%
8831 \let\l@subslide\@gobblefour
8832 \@startlos
8833 }%
8834 \def\Slide@contents{%
8835 \def\l@slide##1##2##3##4{%
8836 \ifcase\l@slide@flag

```

```

8837 \message{##1 ** \the\c@slide@section}%
8838 \ifnum##1>\c@slide@section
8839 \def\lslide@flag{1}%
8840 {%
8841 \large
8842 \slide@cline{%
8843 \slidenumberline{$\rightarrow\bullet$}%
8844 {\hyperlink{##4}{##2}}}%
8845 }{##3}%
8846 }%
8847 \else
8848 {%
8849 \large
8850 \slide@cline{%
8851 \slidenumberline{$\surd\;\bullet$}%
8852 {\hyperlink{##4}{##2}}}%
8853 }{##3}%
8854 }%
8855 \fi
8856 \or
8857 \def\lslide@flag{2}%
8858 {%
8859 \large
8860 \slide@cline{%
8861 \slidenumberline{$\bullet$}%
8862 {\hyperlink{##4}{##2}}}%
8863 }{##3}%
8864 }%
8865 \or
8866 {%
8867 \large
8868 \slide@cline{%
8869 \slidenumberline{$\bullet$}%
8870 {\hyperlink{##4}{##2}}}%
8871 }{##3}%
8872 }%
8873 \fi
8874 }%
8875 \def\l@subslide##1##2##3##4{%
8876 \ifnum\lslide@flag=1 %
8877 \@undottedtocline{2}{3.8em}{3.2em}{\hyperlink{##4}{##2}}{}}%
8878 \fi
8879 }%
8880 \def\lslide@flag{0}%
8881 \@startlos
8882 }%
8883 }-}

```

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.)

```

8884 \ifHy@texht
8885 \expandafter\endinput
8886 \fi
8887 \let\real@setref\@setref
8888 \def\@setref#1#2#3{% curname, extract group, refname
8889 \ifx#1\relax
8890 \protect\G@refundefinedtrue

```

```

8891 \nfss@text{\reset@font\bfseries ??}%
8892 \@latex@warning{%
8893   Reference ‘#3’ on page \thepage \space undefined%
8894 }%
8895 \else
8896 \expandafter\Hy@setref@link#1\@empty\@empty\@nil{#2}%
8897 \fi
8898 }

```

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

```

8899 \def\Hy@setref@link#1#2#3#4#5#6\@nil#7{%
8900 \begingroup
8901 \toks0={\hyper@@link{#5}{#4}}%
8902 \toks1=\expandafter{#7{#1}{#2}{#3}{#4}{#5}}%
8903 \edef\x{\endgroup
8904   \the\toks0 {\the\toks1 }%
8905 }%
8906 \x
8907 }
8908 \def\@pagesetref#1#2#3{% csname, extract macro, ref
8909 \ifx#1\relax
8910 \protect\G@refundefinedtrue
8911 \nfss@text{\reset@font\bfseries ??}%
8912 \@latex@warning{%
8913   Reference ‘#3’ on page \thepage \space undefined%
8914 }%
8915 \else
8916 \protect\hyper@@link
8917 {\expandafter\@fifthoffive#1}%
8918 {page.\expandafter\@secondoffive#1}%
8919 {\expandafter\@secondoffive#1}%
8920 \fi
8921 }
8922 \endpackage
8923 \if*check
8924 \checklatex
8925 \checkcommand\def\@setref#1#2#3{%
8926 \ifx#1\relax
8927 \protect\G@refundefinedtrue
8928 \nfss@text{\reset@font\bfseries ??}%
8929 \@latex@warning{%
8930   Reference ‘#3’ on page \thepage\space undefined%
8931 }%
8932 \else
8933 \expandafter#2#1\@null
8934 \fi
8935 }
8936 \endcheck
8937 \if*package

```

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

```

8938 \def\HyRef@StarSetRef#1{%
8939 \begingroup
8940 \Hy@safe@activetrue
8941 \edef\x{#1}%
8942 \@onelevel@sanitize\x

```

```

8943 \edef\x{\endgroup
8944 \noexpand\HyRef@@StarSetRef
8945 \expandafter\noexpand\csname r@\x\endcsname{\x}%
8946 }%
8947 \x
8948 }
8949 \def\HyRef@@StarSetRef#1#2#3{%
8950 \ifx#1\@undefined
8951 \let#1\relax
8952 \fi
8953 \real@setref#1#3{#2}%
8954 }
8955 \def\@refstar#1{%
8956 \HyRef@StarSetRef{#1}\@firstoffive
8957 }
8958 \def\@pagerefstar#1{%
8959 \HyRef@StarSetRef{#1}\@secondoffive
8960 }
8961 \def\@namerefstar#1{%
8962 \HyRef@StarSetRef{#1}\@thirdoffive
8963 }
8964 \Hy@AtBeginDocument{%
8965 \@ifpackageloaded{varioref}{%
8966 \def\@Refstar#1{%
8967 \HyRef@StarSetRef{#1}\HyRef@MakeUppercaseFirstOfFive
8968 }%
8969 \def\HyRef@MakeUppercaseFirstOfFive#1#2#3#4#5{%
8970 \MakeUppercase#1%
8971 }%
8972 \DeclareRobustCommand*{\Ref}{%
8973 \@ifstar\@Refstar\HyRef@Ref
8974 }%
8975 \def\HyRef@Ref#1{%
8976 \hyperref[{#1}]{\Ref*{#1}}%
8977 }%
8978 \def\Vr@f#1{%
8979 \leavevmode\unskip\vref@space
8980 \hyperref[{#1}]{%
8981 \Ref*{#1}%
8982 \let\vref@space\nobreakspace
8983 \@vpageref\unskip]{#1}%
8984 }%
8985 }%
8986 \def\vr@f#1{%
8987 \leavevmode\unskip\vref@space
8988 \begingroup
8989 \let\T@pageref\@pagerefstar
8990 \hyperref[{#1}]{%
8991 \ref*{#1}%
8992 \vpageref\unskip]{#1}%
8993 }%
8994 \endgroup
8995 }%
8996 }-}%
8997 }
8998 \DeclareRobustCommand*{\autopageref}{%
8999 \@ifstar{%

```

```

9000 \HyRef@autopagerefname\pageref*%
9001 }\HyRef@autopageref
9002 }
9003 \def\HyRef@autopageref#1{%
9004 \hyperref[{#1}]{\HyRef@autopagerefname\pageref*{#1}}%
9005 }
9006 \def\HyRef@autopagerefname{%
9007 \ltx@ifundefined{pageautorefname}{%
9008 \ltx@ifundefined{pagename}{%
9009 \Hy@Warning{No autoref name for 'page'}%
9010 }{%
9011 \pagename\nobreakspace
9012 }%
9013 }{%
9014 \pageautorefname\nobreakspace
9015 }%
9016 }

```

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

```

9017 \DeclareRobustCommand*{\autoref}{%
9018 \leavevmode
9019 \@ifstar{\HyRef@autoref\@gobbletwo}{\HyRef@autoref\hyper@@link}%
9020 }
9021 \def\HyRef@autoref#1#2{%
9022 \begingroup
9023 \Hy@safe@activetrue
9024 \expandafter\HyRef@autosetref\csname r@#2\endcsname{#2}{#1}%
9025 \endgroup
9026 }
9027 \def\HyRef@autosetref#1#2#3{% link command, csname, refname
9028 \HyRef@ShowKeysRef{#2}%
9029 \ifcase 0\ifx#1\relax 1\fi\ifx#1\Hy@varioref@undefined 1\fi\relax
9030 \edef\HyRef@thisref{%
9031 \expandafter\@fourthoffive#1\@empty\@empty\@empty
9032 }%
9033 \expandafter\HyRef@testreftype\HyRef@thisref.\.%
9034 \Hy@safe@activesfalse
9035 #3{%
9036 \expandafter\@fifthoffive#1\@empty\@empty\@empty
9037 }{%
9038 \expandafter\@fourthoffive#1\@empty\@empty\@empty
9039 }{%
9040 \HyRef@currentHtag
9041 \expandafter\@firstoffive#1\@empty\@empty\@empty
9042 \null
9043 }%
9044 \else
9045 \protect\G@refundefinedtrue
9046 \nfss@text{\reset@font\bfseries ??}%
9047 \@latex@warning{%
9048 Reference ‘#2’ on page \thepage\space undefined%
9049 }%
9050 \fi
9051 }
9052 \def\HyRef@testreftype#1.#2\{%
9053 \ltx@ifundefined{#1autorefname}{%
9054 \ltx@ifundefined{#1name}{%

```

```

9055 \HyRef@StripStar#1\\*\\\@nil{#1}%
9056 \ltx@ifundefined{\HyRef@name autorefname}{%
9057 \ltx@ifundefined{\HyRef@name name}{%
9058 \def\HyRef@currentHtag{%
9059 \Hy@Warning{No autoref name for '#1'}%
9060 }{%
9061 \edef\HyRef@currentHtag{%
9062 \expandafter\noexpand\csname\HyRef@name name\endcsname
9063 \noexpand~%
9064 }%
9065 }%
9066 }{%
9067 \edef\HyRef@currentHtag{%
9068 \expandafter\noexpand
9069 \csname\HyRef@name autorefname\endcsname
9070 \noexpand~%
9071 }%
9072 }%
9073 }{%
9074 \edef\HyRef@currentHtag{%
9075 \expandafter\noexpand\csname#1name\endcsname
9076 \noexpand~%
9077 }%
9078 }%
9079 }{%
9080 \edef\HyRef@currentHtag{%
9081 \expandafter\noexpand\csname#1autorefname\endcsname
9082 \noexpand~%
9083 }%
9084 }%
9085 }
9086 \def\HyRef@StripStar#1*\\#2\@nil#3{%
9087 \def\HyRef@name{#2}%
9088 \ifx\HyRef@name\HyRef@CaseStar
9089 \def\HyRef@name{#1}%
9090 \else
9091 \def\HyRef@name{#3}%
9092 \fi
9093 }
9094 \def\HyRef@CaseStar{*\\}
9095 \def\HyRef@currentHtag{

```

Support for package showkeys.

\HyRef@ShowKeysRef

```

9096 \let\HyRef@ShowKeysRef\@gobble
9097 \def\HyRef@ShowKeysInit{%
9098 \begingroup\expandafter\expandafter\expandafter\endgroup
9099 \expandafter\ifx\csname SK@@label\endcsname\relax
9100 \else
9101 \ifx\SK@ref\@empty
9102 \else
9103 \def\HyRef@ShowKeysRef{%
9104 \SK@\SK@@ref
9105 }%
9106 \fi
9107 \fi
9108 }

```

```

9109 \@ifpackageloaded{showkeys}{%
9110   \HyRef@ShowKeysInit
9111 }{%
9112   \Hy@AtBeginDocument{%
9113     \@ifpackageloaded{showkeys}{%
9114       \HyRef@ShowKeysInit
9115     }{}%
9116   }%
9117 }

Defaults for the names that \autoref uses.

9118 \providecommand*\AMSautorefname{\equationautorefname}
9119 \providecommand*\Hfootnoteautorefname{\footnoteautorefname}
9120 \providecommand*\Itemautorefname{\itemautorefname}
9121 \providecommand*\itemautorefname{item}
9122 \providecommand*\equationautorefname{Equation}
9123 \providecommand*\footnoteautorefname{footnote}
9124 \providecommand*\itemautorefname{item}
9125 \providecommand*\figureautorefname{Figure}
9126 \providecommand*\tableautorefname{Table}
9127 \providecommand*\partautorefname{Part}
9128 \providecommand*\appendixautorefname{Appendix}
9129 \providecommand*\chapterautorefname{chapter}
9130 \providecommand*\sectionautorefname{section}
9131 \providecommand*\subsectionautorefname{subsection}
9132 \providecommand*\subsubsectionautorefname{subsubsection}
9133 \providecommand*\paragraphautorefname{paragraph}
9134 \providecommand*\subparagraphautorefname{subparagraph}
9135 \providecommand*\FancyVerbLineautorefname{line}
9136 \providecommand*\theoremautorefname{Theorem}
9137 \providecommand*\pageautorefname{page}
9138 \endpackage

```

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 pdfTeX offers `\pdfescapestring`.

```

9139 (*pdfTeX | dvipdfm | xetex | vtex | pdfmarkbase | dviwindo)
9140 \begingroup\expandafter\expandafter\expandafter\endgroup
9141 \expandafter\ifx\csname pdf@escapestring\endcsname\relax
9142   \begingroup
9143     \catcode'\|=0 %
9144     \@makeother\|%
9145     |@firstofone{| \endgroup
9146     |def|Hy@pstringdef#1#2{%
9147       |begingroup
9148         |edef~{| |string~}%
9149         |xdef|Hy@gtemp{#2}%
9150       |endgroup

```

```

9151 |let#1|Hy@gtemp
9152 |@onelevel@sanitize#1%
9153 |edef#1{|expandafter|Hy@ExchangeBackslash#1\|@nil}%
9154 |edef#1{|expandafter|Hy@ExchangeLeftParenthesis#1(|@nil}%
9155 |edef#1{|expandafter|Hy@ExchangeRightParenthesis#1)|@nil}%
9156 }%
9157 |def|Hy@ExchangeBackslash#1\#2|@nil{%
9158 #1%
9159 |ifx|\#2|\%%
9160 |else
9161 \\\%
9162 |ltx@ReturnAfterFi{%
9163 |Hy@ExchangeBackslash#2|@nil
9164 }%
9165 |fi
9166 }%
9167 }%
9168 \def\Hy@ExchangeLeftParenthesis#1(#2\@nil{%
9169 #1%
9170 \ifx\#2\%%
9171 \else
9172 \@backslashchar(%
9173 |ltx@ReturnAfterFi{%
9174 \Hy@ExchangeLeftParenthesis#2\@nil
9175 }%
9176 \fi
9177 }%
9178 \def\Hy@ExchangeRightParenthesis#1)#2\@nil{%
9179 #1%
9180 \ifx\#2\%%
9181 \else
9182 \@backslashchar)%
9183 |ltx@ReturnAfterFi{%
9184 \Hy@ExchangeRightParenthesis#2\@nil
9185 }%
9186 \fi
9187 }%
9188 \else
9189 \def\Hy@pstringdef#1#2{%
9190 \begingroup
9191 \edef~{\string~}%
9192 \xdef\Hy@gtemp{\pdf@escapestring{#2}}%
9193 \endgroup
9194 \let#1\Hy@gtemp
9195 }%
9196 \fi
9197 </pdfTeX | dvipdfm | xetex | vtex | pdfmarkbase | dviwindo>

```

47.2 pdfTeX

```

9198 <*pdfTeX>
9199 \providecommand*\XR@ext}{pdf}
9200 \Hy@setbreaklinks{true}
9201 \def\HyPat@ObjRef{%
9202 [0-9]*[1-9][0-9]* 0 R%
9203 }

```

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

```

9204 \let\Hy@pdfminorversion\relax
9205 \begingroup\expandafter\expandafter\expandafter\endgroup
9206 \expandafter\ifx\csname pdfminorversion\endcsname\relax
9207 \begingroup\expandafter\expandafter\expandafter\endgroup
9208 \expandafter\ifx\csname pdfoptionpdfminorversion\endcsname\relax
9209 \else
9210   \def\Hy@pdfminorversion{\pdfoptionpdfminorversion}%
9211 \fi
9212 \else
9213   \def\Hy@pdfminorversion{\pdfminorversion}%
9214 \fi
9215 \@ifundefined{Hy@pdfminorversion}{%
9216   \PackageInfo{hyperref}{%
9217     PDF version is not set, because pdfTeX is too old (<1.10a)%
9218   }%
9219 }{%
9220   \ifHy@ocgcolorlinks
9221     \ifnum\Hy@pdfminorversion<5 %
9222       \kvsetkeys{Hyp}{pdfversion=1.5}%
9223     \fi
9224   \fi
9225   \ifHy@setpdfversion
9226     \ifnum\Hy@pdfversion<5 %
9227       \ltx@ifundefined{pdfobjcompresslevel}{%
9228         }{%
9229           \ifHy@verbose
9230             \Hy@InfoNoLine{%
9231               PDF object streams are disabled, because they are%
9232               \MessageBreak
9233               not supported in requested PDF version %
9234               1.\Hy@pdfversion
9235             }%
9236           \fi
9237           \pdfobjcompresslevel=\ltx@zero
9238         }%
9239       \fi
9240       \ifnum\Hy@pdfminorversion=\Hy@pdfversion\relax
9241       \else
9242         \let\Hy@temp\ltx@empty
9243         \def\Hy@temp@A#1#2{%
9244           \ifnum#1>\ltx@zero
9245             \edef\Hy@temp{%
9246               \Hy@temp
9247               \space\space
9248               \the#1\space #2%
9249             \ifnum#1=\ltx@one\else s\fi
9250             \MessageBreak
9251           }%
9252         \fi
9253       }%

```

```

9254 \Hy@temp@A\pdflastobj{PDF object}%
9255 \Hy@temp@A\pdflastxform{form XObject}%
9256 \Hy@temp@A\pdflastximage{image XObject}%
9257 \Hy@temp@A\pdflastannot{annotation}%
9258 \ltx@ifundefined{pdflastlink}{%
9259 }{%
9260 \Hy@temp@A\pdflastlink{link}%
9261 }%
9262 \ifx\Hy@temp\ltx@empty
9263 \Hy@pdfminorversion=\Hy@pdfversion\relax
9264 \else
9265 \let\Hy@temp@A\ltx@empty
9266 \ifnum\Hy@pdfversion=4 %
9267 \IfFileExists{pdf14.sty}{%
9268 \def\Hy@temp@A{%
9269 \MessageBreak
9270 Or \string\RequirePackage{pdf14} can be used%
9271 \MessageBreak
9272 before \string\documentclass\space as shortcut%
9273 }%
9274 }{}%
9275 \fi
9276 \Hy@WarningNoLine{%
9277 The PDF version number could not be set,\MessageBreak
9278 because some PDF objects are already written:%
9279 \MessageBreak
9280 \Hy@temp
9281 The version should be set as early as possible:%
9282 \MessageBreak
9283 \space\space
9284 \expandafter\string\Hy@pdfminorversion=\Hy@pdfversion
9285 \string\relax
9286 \ifnum\Hy@pdfversion<5 %
9287 \ltx@ifundefined{pdfobjcompresslevel}{%
9288 }{%
9289 \MessageBreak
9290 \space\space
9291 \string\pdfobjcompresslevel=0\string\relax
9292 }%
9293 \fi
9294 \Hy@temp@A
9295 }%
9296 \fi
9297 \fi
9298 \PackageInfo{hyperref}{%
9299 \expandafter\string\Hy@pdfminorversion
9300 :=\number\Hy@pdfversion\space
9301 }%
9302 \fi
9303 \edef\Hy@pdfversion{\number\Hy@pdfminorversion}%
9304 }
9305 \Hy@DisableOption{pdfversion}%
9306 \ifHy@ocgcolorlinks
9307 \pdf@ifdraftmode{}{%
9308 \immediate\pdfobj{%
9309 <<%
9310 /Type/OCG%

```

```

9311      /Name(View)%
9312      /Usage<<%
9313      /Print<<%
9314          /PrintState/OFF%
9315      >>%
9316      /View<<%
9317          /ViewState/ON%
9318      >>%
9319      >>%
9320      >>%
9321 }%
9322  \edef\OBJ@OCG@view{\the\pdfastobj\space 0 R}%
9323  \immediate\pdfobj{%
9324      <<%
9325          /Type/OCG%
9326          /Name(Print)%
9327          /Usage<<%
9328              /Print<<%
9329                  /PrintState/ON%
9330              >>%
9331              /View<<%
9332                  /ViewState/OFF%
9333              >>%
9334              >>%
9335          >>%
9336      }%
9337  \edef\OBJ@OCG@print{\the\pdfastobj\space 0 R}%
9338  \immediate\pdfobj{%
9339      [%
9340          \OBJ@OCG@view\space\OBJ@OCG@print
9341      ]%
9342  }%
9343  \edef\OBJ@OCGs{\the\pdfastobj\space 0 R}%
9344  \pdfcatalog{%
9345      /OCProperties<<%
9346          /OCGs \OBJ@OCGs
9347          /D<<%
9348              /OFF[\OBJ@OCG@print]%
9349              /AS[%
9350                  <<%
9351                      /Event/View%
9352                      /OCGs \OBJ@OCGs
9353                      /Category[/View]%
9354                  >>%
9355                  <<%
9356                      /Event/Print%
9357                      /OCGs \OBJ@OCGs
9358                      /Category[/Print]%
9359                  >>%
9360                  <<%
9361                      /Event/Export%
9362                      /OCGs \OBJ@OCGs
9363                      /Category[/Print]%
9364                  >>%
9365              ]%
9366          >>%
9367      >>%

```

```

9368 }%
9369 \begingroup
9370 \edef\x{\endgroup
9371 \pdfpageresources{%
9372 \the\pdfpageresources
9373 /Properties<<%
9374 /OCView \OBJ@OCG@view
9375 /OCPrint \OBJ@OCG@print
9376 >>%
9377 }%
9378 }%
9379 \x
9380 }%
9381 \Hy@AtBeginDocument{%
9382 \def\Hy@colorlink#1{%
9383 \begingroup
9384 \ifHy@ocgcolorlinks
9385 \def\Hy@ocgcolor{#1}%
9386 \setbox0=\hbox\bgroup\color@begingroup
9387 \else
9388 \HyColor@UseColor#1%
9389 \fi
9390 }%
9391 \def\Hy@endcolorlink{%
9392 \ifHy@ocgcolorlinks
9393 \color@endgroup\egroup
9394 \mbox{%
9395 \pdfliteral page{/OC/OCPrint BDC}%
9396 \rlap{\copy0}%
9397 \pdfliteral page{EMC/OC/OCView BDC}%
9398 \begingroup
9399 \expandafter\HyColor@UseColor\Hy@ocgcolor
9400 \box0 %
9401 \endgroup
9402 \pdfliteral page{EMC}%
9403 }%
9404 \fi
9405 \endgroup
9406 }%
9407 }%
9408 \else
9409 \Hy@DisableOption{ocgcolorlinks}%
9410 \fi

```

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

```

9411 \def\setpdfinkmargin#1{%
9412 \begingroup
9413 \setlength{\dimen@}{#1}%
9414 \expandafter\endgroup
9415 \expandafter\pdfinkmargin\the\dimen@\relax
9416 }
9417 \ifx\pdfstartlink\@undefined% less than version 14
9418 \let\pdfstartlink\pdfannotlink
9419 \let\pdfinkmargin\@tempdima
9420 \let\pdfxform\pdfform
9421 \let\pdfastxform\pdfastform
9422 \let\pdfrefxform\pdfrefform
9423 \else

```

```

9424 \pdfinkmargin1pt %
9425 \fi

```

First set up the default linking

```

9426 \providecommand*\@pdfview{XYZ}

```

First define the anchors:

```

9427 \Hy@WrapperDef\new@pdfink#1{%
9428   \ifhmode
9429     \@savsf\spacefactor
9430   \fi
9431   \Hy@SaveLastskip
9432   \Hy@VerboseAnchor{#1}%
9433   \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
9434   \Hy@DestName\Hy@pstringDest\@pdfview
9435   \Hy@RestoreLastskip
9436   \ifhmode
9437     \spacefactor\@savsf
9438   \fi
9439 }
9440 \let\pdf@endanchor\@empty

```

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

```

9441 \def\Hy@DestName#1#2{%
9442   \pdfdest name{#1}#2\relax
9443 }

```

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.

```

9444 \providecommand*\@pdfborder{0 0 1}
9445 \providecommand*\@pdfborderstyle{}
9446 \def\Hy@undefinedname{UNDEFINED}
9447 \def\find@pdfink#1#2{%
9448   \leavevmode
9449   \protected@edef\Hy@testname{#2}%
9450   \ifx\Hy@testname\@empty
9451     \Hy@Warning{%
9452       Empty destination name,\MessageBreak
9453       using ‘\Hy@undefinedname’%
9454     }%
9455     \let\Hy@testname\Hy@undefinedname
9456   \else
9457     \Hy@pstringdef\Hy@testname{%
9458       \expandafter\HyperDestNameFilter\expandafter{\Hy@testname}%
9459     }%
9460   \fi
9461   \Hy@StartlinkName{%
9462     \ifHy@pdfa /F 4\fi
9463     \Hy@setpdfborder
9464     \ifx\@pdfhighlight\@empty
9465       \else
9466         /H\@pdfhighlight
9467       \fi
9468     \ifx\CurrentBorderColor\relax
9469       \else

```

```

9470      /C[\CurrentBorderColor]%
9471      \fi
9472    }\Hy@testname
9473    \expandafter\Hy@colorlink\csname @#1color\endcsname
9474  }
9475  \def\Hy@StartlinkName#1#2{%
9476    \pdfstartlink attr{#1}goto name{#2}\relax
9477  }
9478  \def\close@pdfink{%
9479    \Hy@endcolorlink
9480    \Hy@VerboseLinkStop
9481    \pdfendlink
9482  }
9483  \def\hyper@anchor#1{%
9484    \new@pdfink{#1}\anchor@spot\pdf@endanchor
9485  }
9486  \def\hyper@anchorstart#1{%
9487    \new@pdfink{#1}%
9488    \Hy@activeanchortrue
9489  }
9490  \def\hyper@anchorend{%
9491    \pdf@endanchor
9492    \Hy@activeanchorfalse
9493  }
9494  \def\hyper@linkstart#1#2{%
9495    \Hy@VerboseLinkStart{#1}{#2}%
9496    \ltx@ifundefined{@#1bordercolor}{%
9497      \let\CurrentBorderColor\relax
9498    }{%
9499      \edef\CurrentBorderColor{\csname @#1bordercolor\endcsname}%
9500    }%
9501    \find@pdfink{#1}{#2}%
9502  }
9503  \def\hyper@linkend{\close@pdfink}
9504  \def\hyper@link#1#2#3{%
9505    \Hy@VerboseLinkStart{#1}{#2}%
9506    \ltx@ifundefined{@#1bordercolor}{%
9507      \let\CurrentBorderColor\relax
9508    }{%
9509      \edef\CurrentBorderColor{\csname @#1bordercolor\endcsname}%
9510    }%
9511    \find@pdfink{#1}{#2}#3\Hy@xspace@end
9512    \close@pdfink
9513  }
9514  \let\CurrentBorderColor\@linkbordercolor
9515  \def\hyper@linkurl#1#2{%
9516    \begingroup
9517      \Hy@pstringdef\Hy@pstringURI{#2}%
9518      \hyper@chars
9519      \leavevmode
9520      \pdfstartlink
9521        attr{%
9522          \Hy@setpdfborder
9523          \ifx\@pdfhighlight\@empty
9524            \else
9525              /H\@pdfhighlight
9526          \fi

```

```

9527     \ifx\@urlbordercolor\relax
9528     \else
9529         /C[\@urlbordercolor]%
9530     \fi
9531 }%
9532 user{%
9533     /Subtype/Link%
9534     \ifHy@pdfa /F 4\fi
9535     /A<<%
9536         /Type/Action%
9537         /S/URI%
9538         /URI(\Hy@pstringURI)%
9539     \ifHy@href@ismap
9540         /IsMap true%
9541     \fi
9542     \Hy@href@nextactionraw
9543     >>%
9544 }%
9545 \relax
9546 \Hy@colorlink\@urlcolor#1\Hy@xspace@end
9547 \close@pdflink
9548 \endgroup
9549 }
9550 \def\hyper@linkfile#1#2#3{% anchor text, filename, linkname
9551     \begingroup
9552     \def\Hy@pstringF{#2}%
9553     \Hy@CleanupFile\Hy@pstringF
9554     \Hy@pstringdef\Hy@pstringF\Hy@pstringF
9555     \Hy@pstringdef\Hy@pstringD{#3}%
9556     \Hy@MakeRemoteAction
9557     \leavevmode
9558     \pdfstartlink
9559     attr{%
9560         \Hy@setpdfborder
9561         \ifx\@pdfhighlight\@empty
9562             \else
9563                 /H\@pdfhighlight
9564             \fi
9565         \ifx\@filebordercolor\relax
9566             \else
9567                 /C[\@filebordercolor]%
9568             \fi
9569     }%
9570     user {%
9571         /Subtype/Link%
9572         \ifHy@pdfa /F 4\fi
9573         /A<<%
9574         /F(\Hy@pstringF)%
9575         /S/GoToR%
9576         \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}

9577      \ifx\\#3\\%
9578      /D[\Hy@href@page\@pdfremotestartview]%
9579      \else
9580      /D(\Hy@pstringD)%
9581      \fi
9582      \Hy@href@nextactionraw
9583      >>%
9584      }%
9585      \relax
9586      \Hy@colorlink\@filecolor#1\Hy@xspace@end
9587      \close@pdflink
9588      \endgroup
9589      }
9590      \def\@hyper@launch run:#1\\#2#3{% filename, anchor text linkname
9591      \begingroup
9592      \Hy@pstringdef\Hy@pstringF{#1}%
9593      \Hy@pstringdef\Hy@pstringP{#3}%
9594      \leavevmode
9595      \pdfstartlink
9596      attr{%
9597      \Hy@setpdfborder
9598      \ifx\@pdfhighlight\@empty
9599      \else
9600      /H\@pdfhighlight
9601      \fi
9602      \ifx\@runbordercolor\relax
9603      \else
9604      /C[\@runbordercolor]%
9605      \fi
9606      }%
9607      user {%
9608      /Subtype/Link%
9609      \ifHy@pdfa /F 4\fi
9610      /A<<%
9611      /F(\Hy@pstringF)%
9612      /S/Launch%
9613      \Hy@SetNewWindow
9614      \ifx\\#3\\%
9615      \else
9616      /Win<</P(\Hy@pstringP)/F(\Hy@pstringF)>>%
9617      \fi
9618      \Hy@href@nextactionraw
9619      >>%
9620      }%
9621      \relax
9622      \Hy@colorlink\@runcolor#2\Hy@xspace@end
9623      \close@pdflink
9624      \endgroup
9625      }

```

\@pdfproducer

```

9626 \ifx\@pdfproducer\relax
9627 \begingroup\expandafter\expandafter\expandafter\endgroup

```

```

9628 \expandafter\ifx\csname luatexversion\endcsname\relax
9629 \def\@pdfproducer{pdfTeX}%
9630 \ifx\eTeXversion\@undefined
9631 \else
9632 \ifx\eTeXversion\relax
9633 \else
9634 \ifnum\eTeXversion>0 %
9635 \def\@pdfproducer{pdfTeX}%
9636 \fi
9637 \fi
9638 \fi
9639 \ifx\pdfTeXversion\@undefined
9640 \else
9641 \ifnum\pdfTeXversion<100 %
9642 \edef\@pdfproducer{%
9643 \@pdfproducer
9644 \the\pdfTeXversion.\pdfTeXrevision
9645 }%
9646 \else
9647 \ifnum\pdfTeXversion<130 %
9648 \edef\@pdfproducer{%
9649 \@pdfproducer-%
9650 \expandafter\@car\the\pdfTeXversion\@empty\@nil.%
9651 \expandafter\@cdr\the\pdfTeXversion\@empty\@nil.%
9652 \pdfTeXrevision
9653 }%
9654 \else
9655 \ifnum\pdfTeXversion<140 %
9656 \else
9657 \def\@pdfproducer{pdfTeX}%
9658 \fi
9659 \edef\@pdfproducer{%
9660 \@pdfproducer-%
9661 \expandafter\@car\the\pdfTeXversion\@empty\@nil.%
9662 \expandafter\@cdr\the\pdfTeXversion\@empty\@nil.%
9663 \pdfTeXrevision
9664 }%
9665 \fi
9666 \fi
9667 \fi
9668 \else
9669 \begingroup
9670 \count@=\luatexversion
9671 \divide\count@ by 100 %
9672 \edef\x{\the\count@}%
9673 \count@=-\x\relax
9674 \multiply\count@ by 100 %
9675 \advance\count@ by \luatexversion
9676 \edef\x{\endgroup
9677 \def\noexpand\@pdfproducer{%
9678 LuaTeX-\x.\the\count@.\luatexrevision
9679 }%
9680 }%
9681 \x
9682 \fi
9683 \fi

```

\PDF@SetupDox

```
9684 \def\PDF@SetupDoc{%
9685   \ifx\@pdfpagescrop\@empty
9686   \else
9687     \edef\process@me{%
9688       \pdfpagesattr={%
9689         /CropBox[\@pdfpagescrop]%
9690         \expandafter\ifx\expandafter\\the\pdfpagesattr\\%
9691         \else
9692           ^^J\the\pdfpagesattr
9693         \fi
9694       }%
9695     }%
9696     \process@me
9697   \fi
9698   \Hy@pstringdef\Hy@pstringB{\@baseurl}%
9699   \pdfcatalog{%
9700     /PageMode/\@pdfpagemode
9701     \ifx\@baseurl\@empty
9702     \else
9703       /URI<</Base(\Hy@pstringB)>>%
9704     \fi
9705   }%
9706   \ifx\@pdfstartpage\@empty
9707   \else
9708     \ifx\@pdfstartview\@empty
9709     \else
9710       openaction goto page\@pdfstartpage{\@pdfstartview}%
9711     \fi
9712   \fi
9713   \edef\Hy@temp{%
9714     \ifHy@pdftoolbar\else /HideToolbar true\fi
9715     \ifHy@pdfmenubar\else /HideMenubar true\fi
9716     \ifHy@pdfwindowui\else /HideWindowUI true\fi
9717     \ifHy@pdffitwindow /FitWindow true\fi
9718     \ifHy@pdfcenterwindow /CenterWindow true\fi
9719     \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
9720     \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
9721     \Hy@UseNameKey{Direction}\@pdfdirection
9722     \Hy@UseNameKey{ViewArea}\@pdfviewarea
9723     \Hy@UseNameKey{ViewClip}\@pdfviewclip
9724     \Hy@UseNameKey{PrintArea}\@pdfprintarea
9725     \Hy@UseNameKey{PrintClip}\@pdfprintclip
9726     \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
9727     \Hy@UseNameKey{Duplex}\@pdfduplex
9728     \ifx\@pdfpicktraybypdfsize\@empty
9729     \else
9730       /PickTrayByPDFSize \@pdfpicktraybypdfsize
9731     \fi
9732     \ifx\@pdfprintpagerange\@empty
9733     \else
9734       /PrintPageRange[\@pdfprintpagerange]%
9735     \fi
9736     \ifx\@pdfnumcopies\@empty
9737     \else
9738       /NumCopies \@pdfnumcopies
9739     \fi
```

```

9740 }%
9741 \pdfcatalog{%
9742   \ifx\Hy@temp\@empty
9743     \else
9744       /ViewerPreferences<<\Hy@temp>>%
9745     \fi
9746     \Hy@UseNameKey{PageLayout}\@pdfpagelayout
9747   \ifx\@pdflang\@empty
9748     \else
9749       /Lang(\@pdflang)%
9750     \fi
9751 }%
9752 }

```

\PDF@FinishDoc

```

9753 \def\PDF@FinishDoc{%
9754   \pdf@ifdraftmode{}{%
9755     \Hy@UseMaketitleInfos
9756     \HyInfo@GenerateAddons
9757     \pdfinfo{%
9758       /Author(\@pdfauthor)%
9759       /Title(\@pdftitle)%
9760       /Subject(\@pdfsubject)%
9761       /Creator(\@pdfcreator)%
9762       \ifx\@pdfcreationdate\@empty
9763         \else
9764           /CreationDate(\@pdfcreationdate)%
9765         \fi
9766       \ifx\@pdfmoddate\@empty
9767         \else
9768           /ModDate(\@pdfmoddate)%
9769         \fi
9770       \ifx\@pdfproducer\relax
9771         \else
9772           /Producer(\@pdfproducer)%
9773         \fi
9774       /Keywords(\@pdfkeywords)%
9775       \ifx\@pdftrapped\@empty
9776         \else
9777           /Trapped/\@pdftrapped
9778         \fi
9779       \HyInfo@Addons
9780     }%
9781   }%
9782   \Hy@DisableOption{pdfauthor}%
9783   \Hy@DisableOption{pdftitle}%
9784   \Hy@DisableOption{pdfsubject}%
9785   \Hy@DisableOption{pdfcreator}%
9786   \Hy@DisableOption{pdfcreationdate}%
9787   \Hy@DisableOption{pdfmoddate}%
9788   \Hy@DisableOption{pdfproducer}%
9789   \Hy@DisableOption{pdfkeywords}%
9790   \Hy@DisableOption{pdftrapped}%
9791   \Hy@DisableOption{pdfinfo}%
9792 }

```

\hyper@pagetransition \@pdfpagetransition is initialized with \relax. So it indicates, if option pdfpagetransition is used. First previous /Trans entries are removed. If a new /Trans

key exists, it is appended to `\pdfpageattr`.

```

9793 \def\hyper@pagetransition{%
9794   \ifx\@pdfpagetransition\relax
9795   \else
9796     \expandafter\Hy@RemoveTransPageAttr
9797     \the\pdfpageattr^^J/Trans{}}>>\END
9798   \ifx\@pdfpagetransition\@empty
9799   \else
9800     \edef\@processme{%
9801       \global\pdfpageattr{%
9802         \the\pdfpageattr
9803         ^^J/Trans << /S /\@pdfpagetransition\space >>%
9804       }%
9805     }%
9806     \@processme
9807   \fi
9808 \fi
9809 }
```

`\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.

```

9810 \gdef\Hy@RemoveTransPageAttr#1^^J/Trans#2#3>>#4\END{%
9811   \ifx\#2\%
9812     \global\pdfpageattr{#1}%
9813   \else
9814     \Hy@RemoveTransPageAttr#1#4\END
9815   \fi
9816 }
```

`\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`.

```

9817 \def\hyper@pageduration{%
9818   \ifx\@pdfpageduration\relax
9819   \else
9820     \expandafter
9821     \Hy@RemoveDurPageAttr\the\pdfpageattr^^J/Dur{}} \END
9822   \ifx\@pdfpageduration\@empty
9823   \else
9824     \edef\@processme{%
9825       \global\pdfpageattr{%
9826         \the\pdfpageattr
9827         ^^J/Dur \@pdfpageduration\space
9828       }%
9829     }%
9830     \@processme
9831   \fi
9832 \fi
9833 }
```

`\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.

```

9834 \gdef\Hy@RemoveDurPageAttr#1^^J/Dur#2#3 #4\END{%
9835   \ifx\|#2\%
9836     \global\pdfpageattr{#1}%
9837   \else
9838     \Hy@RemoveDurPageAttr#1#4\END
9839   \fi
9840 }

```

`\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).

```

9841 \def\hyper@pagehidden{%
9842   \ifHy@useHidKey
9843     \expandafter
9844     \Hy@RemoveHidPageAttr\the\pdfpageattr^^J/Hid{} \END
9845   \ifHy@pdfpagehidden
9846     \edef\@processme{%
9847       \global\pdfpageattr{%
9848         \the\pdfpageattr
9849         ^^J/Hid true % SPACE
9850       }%
9851     }%
9852     \@processme
9853   \fi
9854 }
9855 }

```

`\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.

```

9856 \gdef\Hy@RemoveHidPageAttr#1^^J/Hid#2#3 #4\END{%
9857   \ifx\|#2\%
9858     \global\pdfpageattr{#1}%
9859   \else
9860     \Hy@RemoveHidPageAttr#1#4\END
9861   \fi
9862 }

9863 \pdf@ifdraftmode{}{%
9864   \g@addto@macro\Hy@EveryPageHook{%
9865     \hyper@pagetransition
9866     \hyper@pageduration
9867     \hyper@pagehidden
9868   }%
9869 }

```

Also XeTeX support `\pdfpagewidth` and `\pdfpageheight`, but it does not provide `\pdfhorigin` and `\pdfvorigin`.

```

9870 \pdfifxetex
9871 \ifxetex
9872   \Hy@AtBeginDocument{%
9873     \ifHy@setpagesize
9874       \expandafter\@firstofone
9875     \else
9876       \expandafter\@gobble
9877     \fi

```

```

9878 {%
9879   \@ifclassloaded{seminar}{%
9880 (*pdfTeX)
9881   \setlength{\pdfhorigin}{1truein}%
9882   \setlength{\pdfvorigin}{1truein}%
9883 (/pdfTeX)
9884   \ifportrait
9885     \ifdim\paperwidth=\z@
9886     \else
9887       \setlength{\pdfpagewidth}{\strip@pt\paperwidth truept}%
9888     \fi
9889     \ifdim\paperheight=\z@
9890     \else
9891       \setlength{\pdfpageheight}{\strip@pt\paperheight truept}%
9892     \fi
9893   \else
9894     \ifdim\paperheight=\z@
9895     \else
9896       \setlength{\pdfpagewidth}{\strip@pt\paperheight truept}%
9897     \fi
9898     \ifdim\paperwidth=\z@
9899     \else
9900       \setlength{\pdfpageheight}{\strip@pt\paperwidth truept}%
9901     \fi
9902   \fi
9903 }{%
9904   \ltx@ifundefined{stockwidth}{%
9905     \ifdim\paperwidth>\z@
9906       \setlength{\pdfpagewidth}{\paperwidth}%
9907     \fi
9908     \ifdim\paperheight>\z@
9909       \setlength{\pdfpageheight}{\paperheight}%
9910     \fi
9911   }{%
9912     \ifdim\stockwidth>\z@
9913       \setlength{\pdfpagewidth}{\stockwidth}%
9914     \fi
9915     \ifdim\stockheight>\z@
9916       \setlength{\pdfpageheight}{\stockheight}%
9917     \fi
9918   }%
9919 }%
9920 }%
9921 \Hy@DisableOption{setpagesize}%
9922 }
9923 (/pdfTeX | xetex)
9924 (*pdfTeX)
9925 \def\Acrobatmenu#1#2{%
9926   \Hy@Acrobatmenu{#1}{#2}{%
9927     \leavevmode
9928     \EdefEscapeName\Hy@temp@menu{#1}%
9929     \pdfstartlink
9930     attr{%
9931       \Hy@setpdfborder
9932       \ifx\@pdfhighlight\@empty
9933       \else
9934         /H\@pdfhighlight

```

```

9935 \fi
9936 \ifx\@menubordercolor\relax
9937 \else
9938 /C[\@menubordercolor]%
9939 \fi
9940 }%
9941 user{%
9942 /Subtype/Link%
9943 \ifHy@pdfa /F 4\fi
9944 /A<<%
9945 /S/Named%
9946 /N/\Hy@temp@menu
9947 \Hy@href@nextactionraw
9948 >>%
9949 }%
9950 \relax
9951 \Hy@colorlink\@menucolor#2%
9952 \close@pdfink
9953 }%
9954 }

```

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.

```

9955 \def\Hy@FixNotFirstPage{%
9956 \gdef\Hy@FixNotFirstPage{%
9957 \setbox\AtBeginShipoutBox=\hbox{%
9958 \copy\AtBeginShipoutBox
9959 }%
9960 }%
9961 }
9962 \ltx@ifpackagelater{atbegshi}{2011/10/05}{%
9963 }{%
9964 \AtBeginShipout{\Hy@FixNotFirstPage}%
9965 }
9966 \</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 be used to communicate to the *dvi* viewer the full (URL) location of the current document so that files specified by relative URL's may be retrieved correctly.

The *href* and *name* commands must be paired with an *end* command later in the T_EX file — the T_EX 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.

```
9967 \*hypertext>
9968 \providecommand*\XR@ext}{dvi}
9969 \let\PDF@FinishDoc\ltx@empty
9970 \def\PDF@SetupDoc{%
9971   \ifx\@baseurl\@empty
9972   \else
9973     \special{html:<base href="\@baseurl">}%
9974   \fi
9975 }
9976 \Hy@WrapperDef\hyper@anchor#1{%
9977   \Hy@SaveLastskip
9978   \Hy@VerboseAnchor{#1}%
9979   \begingroup
9980     \let\protect=\string
9981     \hyper@chars
9982     \special{html:<a name=%
9983       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
9984   \endgroup
9985   \Hy@activeanchortrue
9986   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
9987   \special{html:</a>}%
9988   \Hy@activeanchorfalse
9989   \Hy@RestoreLastskip
9990 }
9991 \Hy@WrapperDef\hyper@anchorstart#1{%
9992   \Hy@SaveLastskip
9993   \Hy@VerboseAnchor{#1}%
9994   \begingroup
9995     \hyper@chars
9996     \special{html:<a name=%
9997       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
9998   \endgroup
9999   \Hy@activeanchortrue
10000 }
```

```

10001 \def\hyper@anchorend{%
10002   \special{html:</a>}}%
10003   \Hy@activeanchorfalse
10004   \Hy@RestoreLastskip
10005 }
10006 \def\@urltype{url}
10007 \def\hyper@linkstart#1#2{%
10008   \Hy@VerboseLinkStart{#1}{#2}%
10009   \expandafter\Hy@colorlink\csname @#1color\endcsname
10010   \def\Hy@tempa{#1}%
10011   \ifx\Hy@tempa\@urltype
10012     \special{html:<a href=\hyper@quote#2\hyper@quote>}}%
10013   \else
10014     \begingroup
10015       \hyper@chars
10016       \special{html:<a href=%
10017         \hyper@quote\#\Hy@DestNameFilter{#2}\hyper@quote>}}%
10018     \endgroup
10019   \fi
10020 }
10021 \def\hyper@linkend{%
10022   \special{html:</a>}}%
10023   \Hy@endcolorlink
10024 }
10025 \def\hyper@linkfile#1#2#3{%
10026   \hyper@linkurl{#1}{\Hy@linkfileprefix#2\ifx\\#3\\\else\##3\fi}%
10027 }
10028 \def\hyper@linkurl#1#2{%

```

If we want to raise up the final link `\special`, we need to get its height; ask me why \LaTeX constructs make this totally foul up, and make us revert to basic \TeX . I do not know.

```

10029   \leavevmode
10030   \ifHy@raiselinks
10031     \Hy@SaveSpaceFactor
10032     \Hy@SaveSavedSpaceFactor
10033     \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
10034     \Hy@RestoreSavedSpaceFactor
10035     \@linkdim\dp\@tempboxa
10036     \lower\@linkdim\hbox{%
10037       \hyper@chars
10038       \special{html:<a href=\hyper@quote#2\hyper@quote>}}%
10039     }%
10040     \Hy@colorlink\@urlcolor
10041     \Hy@RestoreSpaceFactor
10042     #1%
10043     \Hy@SaveSpaceFactor
10044     \@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).

```

10045   \advance\@linkdim by -6.5\p@
10046   \raise\@linkdim\hbox{\special{html:</a>}}%
10047   \Hy@endcolorlink
10048   \Hy@RestoreSpaceFactor
10049   \else
10050     \begingroup

```

```

10051 \hyper@chars
10052 \special{html:<a href=\hyper@quote#2\hyper@quote>}%
10053 \Hy@colorlink\@urlcolor#1\Hy@xspace@end
10054 \special{html:</a>}%
10055 \Hy@endcolorlink
10056 \endgroup
10057 \fi
10058 }

```

Very poor implementation of `\hyper@link` without considering #1.

```

10059 \def\hyper@link#1#2#3{%
10060 \Hy@VerboseLinkStart{#1}{#2}%
10061 \hyper@linkurl{#3}{\#}\HyperDestNameFilter{#2}}%
10062 }

10063 \def\hyper@image#1#2{%
10064 \begingroup
10065 \hyper@chars
10066 \special{html:<img src=\hyper@quote#1\hyper@quote>}%
10067 \endgroup
10068 }
10069 </hypertex>
10070 <*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.

```

10071 \providecommand*\XR@ext}{dvi}
10072 \providecommand*\wwwbrowser{c:\string\netscape\string\netscape}
10073 \Hy@WrapperDef\hyper@anchor#1{%
10074 \Hy@SaveLastskip
10075 \Hy@VerboseAnchor{#1}%
10076 \begingroup
10077 \let\protect=\string
10078 \special{mark: #1}%
10079 \endgroup
10080 \Hy@activeanchortrue
10081 \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
10082 \Hy@activeanchorfalse
10083 \Hy@RestoreLastskip
10084 }
10085 \Hy@WrapperDef\hyper@anchorstart#1{%
10086 \Hy@SaveLastskip
10087 \Hy@VerboseAnchor{#1}%
10088 \special{mark: #1}%
10089 \Hy@activeanchortrue
10090 }

```

```

10091 \def\hyper@anchorend{%
10092   \Hy@activeanchorfalse
10093   \Hy@RestoreLastskip
10094 }
10095 \def\hyper@linkstart#1#2{%
10096   \Hy@VerboseLinkStart{#1}{#2}%
10097   \expandafter\Hy@colorlink\csname @#1color\endcsname
10098   \special{button: %
10099     10000000 %
10100     \number\baselineskip\space
10101     #2%
10102   }%
10103 }
10104 \def\hyper@linkend{%
10105   \Hy@endcolorlink
10106 }
10107 \def\hyper@link#1#2#3{%
10108   \Hy@VerboseLinkStart{#1}{#2}%
10109   \leavevmode
10110   \ifHy@raiselinks
10111     \Hy@SaveSpaceFactor
10112     \Hy@SaveSavedSpaceFactor
10113     \sbox\@tempboxa{\Hy@RestoreSpaceFactor#3}%
10114     \Hy@RestoreSavedSpaceFactor
10115     \@linkdim\dp\@tempboxa
10116     \lower\@linkdim\hbox{%
10117       \special{button: %
10118         \number\wd\@tempboxa\space
10119         \number\ht\@tempboxa\space
10120         #2%
10121       }%
10122       \expandafter\Hy@colorlink\csname @#1color\endcsname
10123       \Hy@RestoreSpaceFactor
10124       #3\Hy@xspace@end
10125       \Hy@SaveSpaceFactor
10126       \Hy@endcolorlink
10127     }%
10128     \@linkdim\ht\@tempboxa
10129     \advance\@linkdim by -6.5\p@
10130     \raise\@linkdim\hbox{}%
10131     \Hy@RestoreSpaceFactor
10132   \else
10133     \special{button: %
10134       \number\wd\@tempboxa\space
10135       \number\ht\@tempboxa\space
10136       #2%
10137     }%
10138     \expandafter\Hy@colorlink\csname @#1color\endcsname
10139     #3\Hy@xspace@end
10140     \Hy@endcolorlink
10141   \fi
10142 }
10143 \def\hyper@linkurl#1#2{%
10144   \begingroup
10145     \hyper@chars
10146     \leavevmode
10147     \ifHy@raiselinks

```

```

10148 \Hy@SaveSpaceFactor
10149 \Hy@SaveSavedSpaceFactor
10150 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
10151 \Hy@RestoreSavedSpaceFactor
10152 \@linkdim\dp\@tempboxa
10153 \lower\@linkdim\hbox{%
10154   \special{button: %
10155     \number\wd\@tempboxa\space
10156     \number\ht\@tempboxa\space
10157     launch: \wwwbrowser\space
10158     #2%
10159   }%
10160   \Hy@colorlink\@urlcolor
10161   \Hy@RestoreSpaceFactor
10162   #1\Hy@xspace@end
10163   \Hy@SaveSpaceFactor
10164   \Hy@endcolorlink
10165 }%
10166 \@linkdim\ht\@tempboxa
10167 \advance\@linkdim by -6.5\p@
10168 \raise\@linkdim\hbox{}%
10169 \Hy@RestoreSpaceFactor
10170 \else
10171   \special{button: %
10172     \number\wd\@tempboxa\space
10173     \number\ht\@tempboxa\space
10174     launch: \wwwbrowser\space
10175     #2%
10176   }%
10177   \Hy@colorlink\@urlcolor
10178   #1\Hy@xspace@end
10179   \Hy@endcolorlink
10180 \fi
10181 \endgroup
10182 }
10183 \def\hyper@linkfile#1#2#3{%
10184   \begingroup
10185     \hyper@chars
10186     \leavevmode
10187     \ifHy@raiselinks
10188       \Hy@SaveSpaceFactor
10189       \Hy@SaveSavedSpaceFactor
10190       \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
10191       \Hy@RestoreSavedSpaceFactor
10192       \@linkdim\dp\@tempboxa
10193       \lower\@linkdim\hbox{%
10194         \special{button: %
10195           \number\wd\@tempboxa\space
10196           \number\ht\@tempboxa\space
10197           #3,%
10198           file: #2%
10199         }%
10200         \Hy@colorlink\@filecolor
10201         \Hy@RestoreSpaceFactor
10202         #1\Hy@xspace@end
10203         \Hy@SaveSpaceFactor
10204         \Hy@endcolorlink

```

```

10205 }%
10206 \@linkdim\ht\@tempboxa
10207 \advance\@linkdim by -6.5\p@
10208 \raise\@linkdim\hbox{}%
10209 \Hy@RestoreSpaceFactor
10210 \else
10211 \special{button: %
10212 \number\wd\@tempboxa\space
10213 \number\ht\@tempboxa\space
10214 #3,%
10215 file: #2%
10216 }%
10217 \Hy@colorlink\@filecolor
10218 #1\Hy@xspace@end
10219 \Hy@endcolorlink
10220 \fi
10221 \endgroup
10222 }
10223 \ifx\@pdfproducer\relax
10224 \def\@pdfproducer{dviwindo + Distiller}%
10225 \fi
10226 \HyInfo@AddonUnsupportedtrue
10227 \def\PDF@FinishDoc{%
10228 \Hy@UseMaketitleInfos
10229 \HyInfo@TrappedUnsupported
10230 \special{PDF: Keywords \@pdfkeywords}%
10231 \special{PDF: Title \@pdftitle}%
10232 \special{PDF: Creator \@pdfcreator}%
10233 \ifx\@pdfcreationdate\@empty
10234 \else
10235 \special{PDF: CreationDate \@pdfcreationdate}%
10236 \fi
10237 \ifx\@pdfmoddate\@empty
10238 \else
10239 \special{PDF: ModDate \@pdfmoddate}%
10240 \fi
10241 \special{PDF: Author \@pdfauthor}%
10242 \ifx\@pdfproducer\relax
10243 \else
10244 \special{PDF: Producer \@pdfproducer}%
10245 \fi
10246 \special{PDF: Subject \@pdfsubject}%
10247 \Hy@DisableOption{pdfauthor}%
10248 \Hy@DisableOption{pdftitle}%
10249 \Hy@DisableOption{pdfsubject}%
10250 \Hy@DisableOption{pdfcreator}%
10251 \Hy@DisableOption{pdfcreationdate}%
10252 \Hy@DisableOption{pdfmoddate}%
10253 \Hy@DisableOption{pdfproducer}%
10254 \Hy@DisableOption{pdfkeywords}%
10255 \Hy@DisableOption{pdftrapped}%
10256 \Hy@DisableOption{pdfinfo}%
10257 }
10258 \def\PDF@SetupDoc{%
10259 \ifx\@baseurl\@empty
10260 \else
10261 \special{PDF: Base \@baseurl}%

```

```

10262 \fi
10263 \ifx\@pdfpagescrop\@empty\else
10264 \special{PDF: BBox \@pdfpagescrop}%
10265 \fi
10266 \def\Hy@temp{}%
10267 \ifx\@pdfstartpage\@empty
10268 \else
10269 \ifx\@pdfstartview\@empty
10270 \else
10271 \edef\Hy@temp{%
10272     ,Page=\@pdfstartpage
10273     ,View=\@pdfstartview
10274 }%
10275 \fi
10276 \fi
10277 \edef\Hy@temp{%
10278     \noexpand\pdfmark{%
10279         pdfmark=/DOCVIEW,%
10280         PageMode=/\@pdfpagemode
10281         \Hy@temp
10282     }%
10283 }%
10284 \Hy@temp
10285 \ifx\@pdfpagescrop\@empty
10286 \else
10287 \pdfmark{pdfmark=/PAGES,CropBox=\@pdfpagescrop}%
10288 \fi
10289 \edef\Hy@temp{%
10290     \ifHy@pdftoolbar\else /HideToolbar true\fi
10291     \ifHy@pdfmenubar\else /HideMenubar true\fi
10292     \ifHy@pdfwindowui\else /HideWindowUI true\fi
10293     \ifHy@pdfwindow /FitWindow true\fi
10294     \ifHy@pdfcenterwindow /CenterWindow true\fi
10295     \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
10296     \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
10297     \Hy@UseNameKey{Direction}\@pdfdirection
10298     \Hy@UseNameKey{ViewArea}\@pdfviewarea
10299     \Hy@UseNameKey{ViewClip}\@pdfviewclip
10300     \Hy@UseNameKey{PrintArea}\@pdfprintarea
10301     \Hy@UseNameKey{PrintClip}\@pdfprintclip
10302     \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
10303     \Hy@UseNameKey{Duplex}\@pdfduplex
10304     \ifx\@pdfpicktraybypdfsize\@empty
10305     \else
10306         /PickTrayByPDFSize \@pdfpicktraybypdfsize
10307     \fi
10308     \ifx\@pdfprintpagerange\@empty
10309     \else
10310         /PrintPageRange[\@pdfprintpagerange]%
10311     \fi
10312     \ifx\@pdfnumcopies\@empty
10313     \else
10314         /NumCopies \@pdfnumcopies
10315     \fi
10316 }%
10317 \pdfmark{pdfmark=/PUT,%
10318     Raw={%

```

```

10319 \string{Catalog\string}<<%
10320 \ifx\Hy@temp\@empty
10321 \else
10322 /ViewerPreferences<<\Hy@temp>>%
10323 \fi
10324 \Hy@UseNameKey{PageLayout}\@pdfpagelayout
10325 \ifx\@pdflang\@empty
10326 \else
10327 /Lang(\@pdflang)%
10328 \fi
10329 >>%
10330 }%
10331 }%
10332 }
10333 </dviwindo>
10334 <*dvipdfm|xetex>

```

47.5 dvipdfm/xetex dvi to PDF converter

Provided by Mark Wicks (mwicks@kettering.edu)

```

10335 \providecommand*\XR@ext\pdf
10336 \Hy@setbreaklinks{true}
10337 \def\HyPat@ObjRef{%
10338 @[\ ]+}%
10339 }
10340 \newsavebox{\pdfm@box}
10341 \def\@pdfm@mark#1{\special{pdf:#1}}
10342 \Hy@WrapperDef\@pdfm@dest#1{%
10343 \Hy@SaveLastskip
10344 \Hy@VerboseAnchor{#1}%
10345 \begingroup
10346 \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
10347 \def\x{XYZ}%
10348 \ifx\x\@pdfview
10349 \def\x{XYZ @xpos @ypos null}%
10350 \else
10351 \def\x{FitH}%
10352 \ifx\x\@pdfview
10353 \def\x{FitH @ypos}%
10354 \else
10355 \def\x{FitBH}%
10356 \ifx\x\@pdfview
10357 \def\x{FitBH @ypos}%
10358 \else
10359 \def\x{FitV}%
10360 \ifx\x\@pdfview
10361 \def\x{FitV @xpos}%
10362 \else
10363 \def\x{FitBV}%
10364 \ifx\x\@pdfview
10365 \def\x{FitBV @xpos}%
10366 \else
10367 \def\x{Fit}%
10368 \ifx\x\@pdfview
10369 \let\x\@pdfview
10370 \else
10371 \def\x{FitB}%

```

```

10372         \ifx\x\@pdfview
10373         \let\x\@pdfview
10374     \else
10375         \def\x{FitR}%
10376         \ifx\x\@pdfview
10377             \Hy@Warning{'pdfview=FitR' is not supported}%
10378             \def\x{XYZ @xpos @ypos null}%
10379         \else
10380             \@onelevel@sanitize\x\@pdfview
10381             \Hy@Warning{%
10382                 Unknown value '\@pdfview' for pdfview%
10383             }%
10384             \def\x{XYZ @xpos @ypos null}%
10385         \fi
10386     \fi
10387 \fi
10388 \fi
10389 \fi
10390 \fi
10391 \fi
10392 \fi
10393 \pdfmark{dest (\Hy@pstringDest) [atthispage /x]}%
10394 \endgroup
10395 \Hy@RestoreLastskip
10396 }
10397 \providecommand*\@pdfview{XYZ}
10398 \providecommand*\@pdfborder{0 0 1}
10399 \providecommand*\@pdfborderstyle{}
10400 \def\hyper@anchor#1{%
10401     \pdfmark{dest{#1}}%
10402 }
10403 \def\hyper@anchorstart#1{%
10404     \Hy@activeanchortrue
10405     \pdfmark{dest{#1}}%
10406 }
10407 \def\hyper@anchorend{%
10408     \Hy@activeanchorfalse
10409 }
10410 \newcounter{Hy@AnnotLevel}
10411 \ifHy@ocgcolorlinks
10412     \def\OBJ@OCG@view{@OCG@view}%
10413     \pdfmark{%
10414         obj \OBJ@OCG@view <<%
10415         /Type/OCG%
10416         /Name(View)%
10417         /Usage<<%
10418         /Print<<%
10419         /PrintState/OFF%
10420         >>%
10421         /View<<%
10422         /ViewState/ON%
10423         >>%
10424         >>%
10425         >>%
10426     }%
10427     \pdfmark{close \OBJ@OCG@view}%
10428     \def\OBJ@OCG@print{@OCG@print}%

```

```

10429 \@pdfm@mark{%
10430   obj \OBJ@OCG@print <<%
10431     /Type/OCG%
10432     /Name(Print)%
10433     /Usage<<%
10434     /Print<<%
10435     /PrintState/ON%
10436     >>%
10437     /View<<%
10438     /ViewState/OFF%
10439     >>%
10440     >>%
10441     >>%
10442  }%
10443 \@pdfm@mark{close \OBJ@OCG@print}%
10444 \def\OBJ@OCGs{@OCGs}%
10445 \@pdfm@mark{%
10446   obj \OBJ@OCGs [%
10447     \OBJ@OCG@view\space\OBJ@OCG@print
10448   ]%
10449 }%
10450 \@pdfm@mark{close \OBJ@OCGs}%
10451 \@pdfm@mark{%
10452   put @catalog <<%
10453     /OCProperties<<%
10454     /OCGs \OBJ@OCGs
10455     /D<<%
10456     /OFF[\OBJ@OCG@print]%
10457     /AS[%
10458       <<%
10459         /Event/View%
10460         /OCGs \OBJ@OCGs
10461         /Category[/View]%
10462       >>%
10463       <<%
10464         /Event/Print%
10465         /OCGs \OBJ@OCGs
10466         /Category[/Print]%
10467       >>%
10468       <<%
10469         /Event/Export%
10470         /OCGs \OBJ@OCGs
10471         /Category[/Print]%
10472       >>%
10473     ]%
10474     >>%
10475     >>%
10476     >>%
10477  }%
10478 \AtBeginShipout{%
10479   \setbox\AtBeginShipoutBox=\hbox{%
10480     \copy\AtBeginShipoutBox
10481     \@pdfm@mark{%
10482       put @resources <<%
10483         /Properties<<%
10484         /OCView \OBJ@OCG@view
10485         /OCPrint \OBJ@OCG@print

```

```

10486      >>%
10487      >>%
10488      }%
10489      }%
10490      }%
10491      \Hy@AtBeginDocument{%
10492      \def\Hy@colorlink#1{%
10493      \begingroup
10494      \ifHy@ocgcolorlinks
10495      \def\Hy@ocgcolor{#1}%
10496      \setbox0=\hbox\bgroup\color@begingroup
10497      \else
10498      \HyColor@UseColor#1%
10499      \fi
10500      }%
10501      \def\Hy@endcolorlink{%
10502      \ifHy@ocgcolorlinks
10503      \color@endgroup\egroup
10504      \mbox{%
10505      \@pdfm@mark{content /OC/OCPrint BDC}%
10506      \rlap{\copy0}%
10507      \@pdfm@mark{content EMC/OC/OCView BDC}%
10508      \begingroup
10509      \expandafter\HyColor@UseColor\Hy@ocgcolor
10510      \box0 %
10511      \endgroup
10512      \@pdfm@mark{content EMC}%
10513      }%
10514      \fi
10515      \endgroup
10516      }%
10517      }%
10518      \else
10519      \Hy@DisableOption{ocgcolorlinks}%
10520      \fi
10521      \def\Hy@BeginAnnot#1{%
10522      \stepcounter{Hy@AnnotLevel}%
10523      \ifnum\value{Hy@AnnotLevel}=\@ne
10524      #1%
10525      \fi
10526      }
10527      \def\Hy@endAnnot{%
10528      \ifnum\value{Hy@AnnotLevel}=\@ne
10529      \Hy@endcolorlink
10530      \@pdfm@mark{eann}%
10531      \fi
10532      \addtocounter{Hy@AnnotLevel}\m@ne
10533      }
10534      \def\Hy@undefinedname{UNDEFINED}
10535      \def\hyper@linkstart#1#2{%
10536      \Hy@VerboseLinkStart{#1}{#2}%
10537      \leavevmode
10538      \Hy@BeginAnnot{%
10539      \protected@edef\Hy@testname{#2}%
10540      \ifx\Hy@testname\@empty
10541      \Hy@Warning{%
10542      Empty destination name,\MessageBreak

```

```

10543     using '\Hy@undefinedname'%
10544 }%
10545 \let\Hy@testname\Hy@undefinedname
10546 \else
10547 \Hy@pstringdef\Hy@testname{%
10548 \expandafter\HyperDestNameFilter\expandafter{%
10549 \Hy@testname
10550 }%
10551 }%
10552 \fi
10553 \@pdfm@mark{%
10554 bann<<%
10555 /Type/Annot%
10556 /Subtype/Link%
10557 \ifHy@pdfa /F 4\fi
10558 \Hy@setpdfborder
10559 \expandafter\ifx\csname @#1bordercolor\endcsname\relax
10560 \else
10561 /C[\csname @#1bordercolor\endcsname]%
10562 \fi
10563 /A<<%
10564 /S/GoTo%
10565 /D(\Hy@testname)%
10566 \Hy@href@nextactionraw
10567 >>%
10568 >>%
10569 }%
10570 \expandafter\Hy@colorlink\csname @#1color\endcsname
10571 }%
10572 }
10573 \def\hyper@linkend{\Hy@EndAnnot}%
10574 \def\hyper@link#1#2#3{%
10575 \hyper@linkstart{#1}{#2}#3\Hy@xspace@end\hyper@linkend
10576 }
10577 \def\hyper@linkfile#1#2#3{%
10578 \leavevmode
10579 \Hy@BeginAnnot{%
10580 \def\Hy@pstringF{#2}%
10581 \Hy@CleanupFile\Hy@pstringF
10582 \Hy@pstringdef\Hy@pstringF\Hy@pstringF
10583 \Hy@pstringdef\Hy@pstringD{#3}%
10584 \Hy@MakeRemoteAction
10585 \@pdfm@mark{%
10586 bann<<%
10587 /Type/Annot%
10588 /Subtype/Link%
10589 \ifHy@pdfa /F 4\fi
10590 \Hy@setpdfborder
10591 \ifx\@filebordercolor\relax
10592 \else
10593 /C[\@filebordercolor]%
10594 \fi
10595 /A<<%
10596 /S/GoToR%
10597 /F(\Hy@pstringF)%
10598 /D%
10599 \ifx\@#3\%

```

```

10600      [\Hy@href@page\@pdfremotestartview]%
10601      \else
10602      (\Hy@pstringD)%
10603      \fi
10604      \Hy@SetNewWindow
10605      \Hy@href@nextactionraw
10606      >>%
10607      >>%
10608      }%
10609      \Hy@colorlink\@filecolor
10610      }%
10611      #1\Hy@xspace@end
10612      \Hy@EndAnnot
10613      }
10614      \def\@hyper@launch run:#1\|#2#3{% filename, anchor text linkname
10615      \leavevmode
10616      \Hy@BeginAnnot{%
10617      \Hy@pstringdef\Hy@pstringF{#1}%
10618      \Hy@pstringdef\Hy@pstringP{#3}%
10619      \@pdfm@mark{%
10620      bann<<%
10621      /Type/Annot%
10622      /Subtype/Link%
10623      \ifHy@pdfa /F 4\fi
10624      \Hy@setpdfborder
10625      \ifx\@runbordercolor\relax
10626      \else
10627      /C[\@runbordercolor]%
10628      \fi
10629      /A<<%
10630      /F(\Hy@pstringF)%
10631      /S/Launch%
10632      \Hy@SetNewWindow
10633      \ifx\|#3\|%
10634      \else
10635      /Win<</P(\Hy@pstringP)/F(\Hy@pstringF)>>%
10636      \fi
10637      \Hy@href@nextactionraw
10638      >>%
10639      >>%
10640      }%
10641      \Hy@colorlink\@runcolor
10642      }%
10643      #2\Hy@xspace@end
10644      \Hy@EndAnnot
10645      }
10646      \def\hyper@linkurl#1#2{%
10647      \leavevmode
10648      \Hy@BeginAnnot{%
10649      \Hy@pstringdef\Hy@pstringURI{#2}%
10650      \@pdfm@mark{%
10651      bann<<%
10652      /Type/Annot%
10653      /Subtype/Link%
10654      \ifHy@pdfa /F 4\fi
10655      \Hy@setpdfborder
10656      \ifx\@urlbordercolor\relax

```

```

10657 \else
10658 /C[\@urlbordercolor]%
10659 \fi
10660 /A<<%
10661 /S/URI%
10662 /URI(\Hy@pstringURI)%
10663 \ifHy@href@ismap
10664 /IsMap true%
10665 \fi
10666 \Hy@href@nextactionraw
10667 >>%
10668 >>%
10669 }%
10670 \Hy@colorlink\@urlcolor
10671 }%
10672 #1\Hy@xspace@end
10673 \Hy@endAnnot
10674 }
10675 \def\Acrobatmenu#1#2{%
10676 \Hy@Acrobatmenu{#1}{#2}{%
10677 \Hy@BeginAnnot{%
10678 \EdefEscapeName\Hy@temp@menu{#1}%
10679 \@pdfm@mark{%
10680 bann<<%
10681 /Type/Annot%
10682 /Subtype/Link%
10683 \ifHy@pdfa /F 4\fi
10684 \Hy@setpdfborder
10685 \ifx\@menubordercolor\relax
10686 \else
10687 /C[\@menubordercolor]%
10688 \fi
10689 /A<<%
10690 /S/Named%
10691 /N/\Hy@temp@menu
10692 \Hy@href@nextactionraw
10693 >>%
10694 >>%
10695 }%
10696 \Hy@colorlink\@menucolor
10697 }%
10698 #2\Hy@xspace@end
10699 \Hy@endAnnot
10700 }%
10701 }
10702 \ifx\@pdfproducer\relax
10703 \def\@pdfproducer{dvipdfm}%

```

Detect XeTeX. However, but xdvipdfmx will overwrite it in the final PDF file.

```

10704 \begingroup\expandafter\expandafter\expandafter\endgroup
10705 \expandafter\ifx\csname XeTeXversion\endcsname\relax
10706 \else
10707 \edef\@pdfproducer{XeTeX \the\XeTeXversion\XeTeXrevision}%
10708 \fi
10709 \fi
10710 \def\PDF@FinishDoc{%
10711 \Hy@UseMaketitleInfos
10712 \HyInfo@GenerateAddons

```

```

10713 \@pdfm@mark{%
10714   docinfo<<%
10715     /Title(\@pdftitle)%
10716     /Subject(\@pdfsubject)%
10717     /Creator(\@pdfcreator)%
10718     \ifx\@pdfcreationdate\@empty
10719     \else
10720       /CreationDate(\@pdfcreationdate)%
10721     \fi
10722     \ifx\@pdfmoddate\@empty
10723     \else
10724       /ModDate(\@pdfmoddate)%
10725     \fi
10726     /Author(\@pdfauthor)%
10727     \ifx\@pdfproducer\relax
10728     \else
10729       /Producer(\@pdfproducer)%
10730     \fi
10731     /Keywords(\@pdfkeywords)%
10732     \ifx\@pdftrapped\@empty
10733     \else
10734       /Trapped/\@pdftrapped
10735     \fi
10736     \HyInfo@Addons
10737   >>%
10738 }%
10739 \Hy@DisableOption{pdfauthor}%
10740 \Hy@DisableOption{pdftitle}%
10741 \Hy@DisableOption{pdfsubject}%
10742 \Hy@DisableOption{pdfcreator}%
10743 \Hy@DisableOption{pdfcreationdate}%
10744 \Hy@DisableOption{pdfmoddate}%
10745 \Hy@DisableOption{pdfproducer}%
10746 \Hy@DisableOption{pdfkeywords}%
10747 \Hy@DisableOption{pdftrapped}%
10748 \Hy@DisableOption{pdfinfo}%
10749 }

10750 \def\PDF@SetupDoc{%
10751   \edef\Hy@temp{%
10752     \ifHy@pdftoolbar\else /HideToolbar true\fi
10753     \ifHy@pdfmenubar\else /HideMenubar true\fi
10754     \ifHy@pdfwindowui\else /HideWindowUI true\fi
10755     \ifHy@pdfitwindow /FitWindow true\fi
10756     \ifHy@pdfcenterwindow /CenterWindow true\fi
10757     \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
10758     \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
10759     \Hy@UseNameKey{Direction}\@pdfdirection
10760     \Hy@UseNameKey{ViewArea}\@pdfviewarea
10761     \Hy@UseNameKey{ViewClip}\@pdfviewclip
10762     \Hy@UseNameKey{PrintArea}\@pdfprintarea
10763     \Hy@UseNameKey{PrintClip}\@pdfprintclip
10764     \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
10765     \Hy@UseNameKey{Duplex}\@pdfduplex
10766     \ifx\@pdfpicktraybypdfsize\@empty
10767     \else
10768       /PickTrayByPDFSize \@pdfpicktraybypdfsize
10769     \fi

```

```

10770 \ifx\@pdfprintpagerange\@empty
10771 \else
10772 /PrintPageRange[\@pdfprintpagerange]%
10773 \fi
10774 \ifx\@pdfnumcopies\@empty
10775 \else
10776 /NumCopies \@pdfnumcopies
10777 \fi
10778 }%
10779 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
10780 \@pdfm@mark{%
10781 docview<<%
10782 \ifx\@pdfstartpage\@empty
10783 \else
10784 \ifx\@pdfstartview\@empty
10785 \else
10786 /OpenAction[@page\@pdfstartpage\@pdfstartview]%
10787 \fi
10788 \fi
10789 \ifx\@baseurl\@empty
10790 \else
10791 /URI<</Base(\Hy@pstringB)>>%
10792 \fi
10793 /PageMode/\@pdfpagemode
10794 \ifx\Hy@temp\@empty
10795 \else
10796 /ViewerPreferences<<\Hy@temp>>%
10797 \fi
10798 \Hy@UseNameKey{PageLayout}\@pdfpagelayout
10799 \ifx\@pdflang\@empty
10800 \else
10801 /Lang(\@pdflang)%
10802 \fi
10803 >>%
10804 }%
10805 \ifx\@pdfpagescrop\@empty
10806 \else
10807 \@pdfm@mark{put @pages <</CropBox[\@pdfpagescrop]>>}%
10808 \fi
10809 }
10810 </dvipdfm | xetex>
10811 < *dvipdfm | xetex>

```

\hyper@pagetransition

```

10812 \def\hyper@pagetransition{%
10813 \ifx\@pdfpagetransition\relax
10814 \else
10815 \ifx\@pdfpagetransition\@empty
10816 \else
10817 \special{pdf:put @thispage %
10818 <</Trans<</S/\@pdfpagetransition>>>>%
10819 }%
10820 \fi
10821 \fi
10822 }

```

\hyper@pageduration

```

10823 \def\hyper@pageduration{%
10824   \ifx\@pdfpageduration\relax
10825   \else
10826     \ifx\@pdfpageduration\@empty
10827     \else
10828       \special{pdf:put @thispage %
10829         <</Dur \@pdfpageduration>>%
10830       }%
10831     \fi
10832   \fi
10833 }

```

\hyper@pagehidden

```

10834 \def\hyper@pagehidden{%
10835   \ifHy@useHidKey
10836   \special{pdf:put @thispage %
10837     <</Hid \ifHy@pdfpagehidden true\else false\fi>>%
10838   }%
10839   \fi
10840 }

10841 \g@addto@macro\Hy@EveryPageBoxHook{%
10842   \hyper@pagetransition
10843   \hyper@pageduration
10844   \hyper@pagehidden
10845 }

10846 </dvipdfm | xetex>

```

XeTeX uses pdfTeX's method \pdfpagewidth and \pdfpageheight for setting the paper size.

```

10847 <*\dvipdfm>
10848 \AtBeginShipoutFirst{%
10849   \ifHy@setpagesize
10850   \begingroup
10851     \ifundefined{stockwidth}{%
10852       \ifdim\paperwidth>\z@
10853       \ifdim\paperheight>\z@
10854         \special{papersize=\the\paperwidth,\the\paperheight}%
10855       \fi
10856     \fi
10857   }{%
10858     \ifdim\stockwidth>\z@
10859     \ifdim\stockheight>\z@
10860       \special{papersize=\the\stockwidth,\the\stockheight}%
10861     \fi
10862   \fi
10863 }%
10864 \endgroup
10865 \fi
10866 \Hy@DisableOption{setpagesize}%
10867 }
10868 </dvipdfm>

```

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.

```

10869 \*vtexhtml\
10870 \providecommand*\XR@ext\{htm\}
10871 \RequirePackage{vtexhtml}
10872 \newif\if@Localurl
10873 \let\PDF@FinishDoc\ltx@empty
10874 \def\PDF@SetupDoc{%
10875   \ifx\@baseurl\@empty
10876   \else
10877     \special{!direct <base href="\@baseurl">}%
10878   \fi
10879 }
10880 \def\@urltype{url}
10881 \def\hyper@link#1#2#3{%
10882   \Hy@VerboseLinkStart{#1}{#2}%
10883   \leavevmode
10884   \special{!direct <a href=%
10885     \hyper@quote\hyper@hash\HyperDestNameFilter{#2}\hyper@quote>}%
10886   #3\Hy@xspace@end
10887   \special{!direct </a>}%
10888 }
10889 \def\hyper@linkurl#1#2{%
10890   \begingroup
10891     \hyper@chars
10892     \leavevmode
10893     \MathBSuppress=1\relax
10894     \special{!direct <a href=%
10895       \hyper@quote\HyperDestNameFilter{#2}\hyper@quote>}%
10896     #1\Hy@xspace@end
10897     \MathBSuppress=0\relax
10898     \special{!direct </a>}%
10899   \endgroup
10900 }
10901 \def\hyper@linkfile#1#2#3{%
10902   \hyper@linkurl{#1}{\Hy@linkfileprefix#2\ifx\\#3\\\else\##3\fi}%
10903 }
10904 \def\hyper@linkstart#1#2{%
10905   \Hy@VerboseLinkStart{#1}{#2}%
10906   \def\Hy@tempa{#1}\ifx\Hy@tempa\@urltype
10907     \@Localurltrue
10908     \special{!direct <a href=\hyper@quote#2\hyper@quote>}%
10909   \else
10910     \@Localurlfalse
10911     \begingroup
10912       \hyper@chars
10913       \special{!aref \HyperDestNameFilter{#2}}%
10914     \endgroup
10915   \fi
10916 }
10917 \def\hyper@linkend{%
10918   \if@Localurl
10919     \special{!endaref}%
10920   \else
10921     \special{!direct </a>}%
10922   \fi
10923 }
10924 \Hy@WrapperDef\hyper@anchorstart#1{%
10925   \Hy@SaveLastskip

```

```

10926 \Hy@VerboseAnchor{#1}%
10927 \begingroup
10928 \hyper@chars
10929 \special{!aname #1}%
10930 \special{!direct <a name=%
10931 \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}}%
10932 \endgroup
10933 \Hy@activeanchortrue
10934 }
10935 \def\hyper@anchorend{%
10936 \special{!direct </a>}}%
10937 \Hy@activeanchorfalse
10938 \Hy@RestoreLastskip
10939 }
10940 \Hy@WrapperDef\hyper@anchor#1{%
10941 \Hy@SaveLastskip
10942 \Hy@VerboseAnchor{#1}%
10943 \begingroup
10944 \let\protect=\string
10945 \hyper@chars
10946 \leavevmode
10947 \special{!aname #1}%
10948 \special{!direct <a name=%
10949 \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}}%
10950 \endgroup
10951 \Hy@activeanchortrue
10952 \bgroup\anchor@spot\egroup
10953 \special{!direct </a>}}%
10954 \Hy@activeanchorfalse
10955 \Hy@RestoreLastskip
10956 }
10957 \def\@Form[#1]{%
10958 \Hy@Message{Sorry, TeXpider does not yet support FORMs}%
10959 }
10960 \let\@endForm\ltx@empty
10961 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
10962 \Hy@Message{Sorry, TeXpider does not yet support FORM gauges}%
10963 }
10964 \def\@TextField[#1]#2{% parameters, label
10965 \Hy@Message{Sorry, TeXpider does not yet support FORM text fields}%
10966 }
10967 \def\@CheckBox[#1]#2{% parameters, label
10968 \Hy@Message{Sorry, TeXpider does not yet support FORM checkboxes}%
10969 }
10970 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
10971 \Hy@Message{Sorry, TeXpider does not yet support FORM choice menus}%
10972 }
10973 \def\@PushButton[#1]#2{% parameters, label
10974 \Hy@Message{Sorry, TeXpider does not yet support FORM pushbuttons}%
10975 }
10976 \def\@Reset[#1]#2{%
10977 \Hy@Message{Sorry, TeXpider does not yet support FORMs}%
10978 }
10979 \def\@Submit[#1]#2{%
10980 \Hy@Message{Sorry, TeXpider does not yet support FORMs}%
10981 }
10982 \</vtexhtml>

```

10983 $\langle *vtex \rangle$

VT_EX version 6.88 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.

```

10984 \ifx\mediaheight\@undefined
10985 \else
10986   \ifx\mediaheight\relax
10987   \else
10988     \ifHy@setpagesize
10989       \providecommand*\VTEXInitMediaSize\{%
10990         \ltx@ifundefined{stockwidth}\{%
10991           \ifdim\paperheight>0pt %
10992             \setlength\mediaheight\paperheight
10993           \fi
10994           \ifdim\paperheight>0pt %
10995             \setlength\mediawidth\paperwidth
10996           \fi
10997         }\%
10998         \ifdim\stockheight>0pt %
10999           \setlength\mediaheight\stockheight
11000         \fi
11001         \ifdim\stockwidth>0pt %
11002           \setlength\mediawidth\stockwidth
11003         \fi
11004       }\%
11005     }\%
11006     \Hy@AtBeginDocument{\VTEXInitMediaSize}%
11007   \fi
11008   \Hy@DisableOption{setpagesize}%
11009 \fi
11010 \fi

```

Older versions of VT_EX require `xyz` in lower case.

```

11011 \providecommand*\@pdfview{xyz}
11012 \providecommand*\@pdfborder{0 0 1}
11013 \providecommand*\@pdfborderstyle{}
11014 \let\CurrentBorderColor\@linkbordercolor
11015 \Hy@WrapperDef\hyper@anchor#1{%
11016   \Hy@SaveLastskip
11017   \Hy@VerboseAnchor{#1}%
11018   \begingroup
11019     \let\protect=\string
11020     \hyper@chars
11021     \special{!aname \HyperDestNameFilter{#1};\@pdfview}%
11022   \endgroup
11023   \Hy@activeanchortrue
11024   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
11025   \Hy@activeanchorfalse
11026   \Hy@RestoreLastskip
11027 }
11028 \Hy@WrapperDef\hyper@anchorstart#1{%
11029   \Hy@SaveLastskip
11030   \Hy@VerboseAnchor{#1}%
11031   \begingroup
11032     \hyper@chars
11033     \special{!aname \HyperDestNameFilter{#1};\@pdfview}%
11034   \endgroup

```

```

11035 \Hy@activeanchortrue
11036 }
11037 \def\hyper@anchorend{%
11038 \Hy@activeanchorfalse
11039 \Hy@RestoreLastskip
11040 }
11041 \def\@urltype{url}
11042 \def\Hy@undefinedname{UNDEFINED}
11043 \def\hyper@linkstart#1#2{%
11044 \Hy@VerboseLinkStart{#1}{#2}%
11045 \Hy@pstringdef\Hy@pstringURI{#2}%
11046 \expandafter\Hy@colorlink\csname @#1color\endcsname
11047 \ltx@ifundefined{@#1bordercolor}{%
11048 \let\CurrentBorderColor\relax
11049 }{%
11050 \edef\CurrentBorderColor{%
11051 \csname @#1bordercolor\endcsname
11052 }%
11053 }%
11054 \def\Hy@tempa{#1}%
11055 \ifx\Hy@tempa\@urltype
11056 \special{!%
11057 aref <u=/Type/Action/S/URI/URI(\Hy@pstringURI)%
11058 \ifHy@href@ismap
11059 /IsMap true%
11060 \fi
11061 \Hy@href@nextactionraw
11062 >;%
11063 a=<%
11064 \ifHy@pdfa /F 4\fi
11065 \Hy@setpdfborder
11066 \ifx\CurrentBorderColor\relax
11067 \else
11068 /C [\CurrentBorderColor]%
11069 \fi
11070 >%
11071 }%
11072 \else
11073 \protected@edef\Hy@testname{#2}%
11074 \ifx\Hy@testname\@empty
11075 \Hy@Warning{%
11076 Empty destination name,\MessageBreak
11077 using '\Hy@undefinedname'%
11078 }%
11079 \let\Hy@testname\Hy@undefinedname
11080 \fi
11081 \special{!%
11082 aref \expandafter\HyperDestNameFilter
11083 \expandafter{\Hy@testname};%
11084 a=<%
11085 \ifHy@pdfa /F 4\fi
11086 \Hy@setpdfborder
11087 \ifx\CurrentBorderColor\relax
11088 \else
11089 /C [\CurrentBorderColor]%
11090 \fi
11091 >%

```

```

11092 }%
11093 \fi
11094 }
11095 \def\hyper@linkend{%
11096 \special{!endaref}%
11097 \Hy@endcolorlink
11098 }
11099 \def\hyper@linkfile#1#2#3{%
11100 \leavevmode
11101 \def\Hy@pstringF{#2}%
11102 \Hy@CleanupFile\Hy@pstringF
11103 \special{!%
11104   aref <%
11105   \ifnum\Hy@VTeXversion>753 \ifHy@pdfnewwindow n\fi\fi
11106   f=\Hy@pstringF>#3;%
11107   a=<%
11108     \ifHy@pdfa /F 4\fi
11109     \Hy@setpdfborder
11110     \ifx\@filebordercolor\relax
11111     \else
11112       /C [\@filebordercolor]%
11113     \fi
11114   >%
11115 }%
11116 \Hy@colorlink\@filecolor
11117 #1\Hy@xspace@end
11118 \Hy@endcolorlink
11119 \special{!endaref}%
11120 }
11121 \def\hyper@linkurl#1#2{%
11122 \begingroup
11123 \Hy@pstringdef\Hy@pstringURI{#2}%
11124 \hyper@chars
11125 \leavevmode
11126 \special{!%
11127   aref <u=/Type/Action/S/URI/URI(\Hy@pstringURI)%
11128   \ifHy@href@ismap
11129     /IsMap true%
11130   \fi
11131   \Hy@href@nextactionraw
11132   >;%
11133   a=<%
11134     \ifHy@pdfa /F 4\fi
11135     \Hy@setpdfborder
11136     \ifx\@urlbordercolor\relax
11137     \else
11138       /C [\@urlbordercolor]%
11139     \fi
11140   >%
11141 }%
11142 \Hy@colorlink\@urlcolor
11143 #1\Hy@xspace@end
11144 \Hy@endcolorlink
11145 \special{!endaref}%
11146 \endgroup
11147 }
11148 \def\hyper@link#1#2#3{%

```

```

11149 \Hy@VerboseLinkStart{#1}{#2}%
11150 \ltx@ifundefined{#1bordercolor}{%
11151   \let\CurrentBorderColor\relax
11152 }{%
11153   \edef\CurrentBorderColor{\csname @#1bordercolor\endcsname}%
11154 }%
11155 \leavevmode
11156 \protected@edef\Hy@testname{#2}%
11157 \ifx\Hy@testname\@empty
11158   \Hy@Warning{%
11159     Empty destination name,\MessageBreak
11160     using '\Hy@undefinedname'%
11161   }%
11162   \let\Hy@testname\Hy@undefinedname
11163 \fi
11164 \special{!%
11165   aref \expandafter\HyperDestNameFilter
11166     \expandafter{\Hy@testname};%
11167   a=<%
11168     \ifHy@pdfa /F 4\fi
11169     \Hy@setpdfborder
11170     \ifx\CurrentBorderColor\relax
11171       \else
11172         /C [\CurrentBorderColor]%
11173       \fi
11174   >%
11175 }%
11176 \expandafter
11177 \Hy@colorlink\csname @#1color\endcsname
11178   #3\Hy@xspace@end
11179 \Hy@endcolorlink
11180 \special{!endaref}%
11181 }
11182 \def\hyper@image#1#2{%
11183   \hyper@linkurl{#2}{#1}%
11184 }
11185 \def\@hyper@launch run:#1\#2#3{%
11186   \Hy@pstringdef\Hy@pstringF{#1}%
11187   \Hy@pstringdef\Hy@pstringP{#3}%
11188   \leavevmode
11189   \special{!aref %
11190     <u=%
11191       /Type/Action%
11192       /S/Launch%
11193       /F(\Hy@pstringF)%
11194       \Hy@SetNewWindow
11195       \ifx\#3\%
11196         \else
11197           /Win<</F(\Hy@pstringF)/P(\Hy@pstringP)>>%
11198         \fi
11199       \Hy@href@nextactionraw
11200     >,%
11201     a=<%
11202       \ifHy@pdfa /F 4\fi
11203       \Hy@setpdfborder
11204       \ifx\@runbordercolor\relax
11205         \else

```

```

11206      /C[\@runbordercolor]%
11207      \fi
11208    >%
11209  }%
11210  \Hy@colorlink\@runcolor
11211    #2\Hy@xspace@end
11212  \Hy@endcolorlink
11213  \special{!endaref}%
11214 }
11215 \def\Acrobatmenu#1#2{%
11216   \EdefEscapeName\Hy@temp@menu{#1}%
11217   \Hy@Acrobatmenu{#1}{#2}{%
11218     \special{!%
11219       aref <u=/S /Named /N /\Hy@temp@menu>;%
11220       a=<%
11221         \ifHy@pdfa /F 4\fi
11222         \Hy@setpdfborder
11223         \ifx\@menubordercolor\relax
11224           \else
11225             /C[\@menubordercolor]%
11226           \fi
11227         >%
11228       }%
11229       \Hy@colorlink\@menucolor
11230       #2\Hy@xspace@end
11231       \Hy@endcolorlink
11232       \special{!endaref}%
11233     }%
11234 }

```

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*.

```

11235 \ifnum\Hy@VTeXversion<702 %
11236 \else
11237   \def\hyper@pagetransition{%
11238     \ifx\@pdfpagetransition\relax
11239     \else
11240       \ifx\@pdfpagetransition\@empty

```

Standard incantation.

1. Does an old entry have to be deleted? 2. If 1=yes, how to delete?

```

11241   \else
11242     \hvtex@parse@trans\@pdfpagetransition
11243   \fi
11244 \fi
11245 }%

```

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:

```

11246 \def\hvtex@trans@effect@Blinds{\def\hvtex@trans@code{B}}%
11247 \def\hvtex@trans@effect@Box{\def\hvtex@trans@code{X}}%
11248 \def\hvtex@trans@effect@Dissolve{\def\hvtex@trans@code{D}}%
11249 \def\hvtex@trans@effect@Glitter{\def\hvtex@trans@code{G}}%
11250 \def\hvtex@trans@effect@Split{\def\hvtex@trans@code{S}}%
11251 \def\hvtex@trans@effect@Wipe{\def\hvtex@trans@code{W}}%
11252 \def\hvtex@trans@effect@R{\def\hvtex@trans@code{R}}%

```

Optional parameters:

```

11253 \def\hvtex@par@dimension{/Dm}%
11254 \def\hvtex@par@direction{/Di}%
11255 \def\hvtex@par@duration{/D}%
11256 \def\hvtex@par@motion{/M}%

```

Tokenizer:

```

11257 \def\hvtex@gettoken{%
11258 \expandafter\hvtex@gettoken@\hvtex@buffer\@nil
11259 }%

```

Notice that tokens in the input buffer must be space delimited.

```

11260 \def\hvtex@gettoken@#1 #2\@nil{%
11261 \edef\hvtex@token{#1}%
11262 \edef\hvtex@buffer{#2}%
11263 }%
11264 \def\hvtex@parse@trans#1{%

```

Initializing code:

```

11265 \let\hvtex@trans@code\@empty
11266 \let\hvtex@param@dimension\@empty
11267 \let\hvtex@param@direction\@empty
11268 \let\hvtex@param@duration\@empty
11269 \let\hvtex@param@motion\@empty
11270 \edef\hvtex@buffer{#1\space}%

```

First token is the PDF transition name without escape.

```

11271 \hvtex@gettoken
11272 \ifx\hvtex@token\@empty

```

Leading space(s)?

```

11273 \ifx\hvtex@buffer\@empty

```

The buffer is empty, nothing to do.

```

11274 \else
11275 \hvtex@gettoken
11276 \fi
11277 \fi
11278 \csname hvtex@trans@effect@\hvtex@token\endcsname

```

Now is time to parse optional parameters.

```

11279 \hvtex@trans@params
11280 }%

```

Reentrant macro to parse optional parameters.

```

11281 \def\hvtex@trans@params{%
11282   \ifx\hvtex@buffer\@empty
11283   \else
11284     \hvtex@gettoken
11285     \let\hvtex@trans@par\hvtex@token
11286     \ifx\hvtex@buffer\@empty
11287     \else
11288       \hvtex@gettoken
11289       \ifx\hvtex@trans@par\hvtex@par@duration
/D is the effect duration in seconds. VTEX special takes it in milliseconds.
11290       \let\hvtex@param@duration\hvtex@token
11291       \else \ifx\hvtex@trans@par\hvtex@par@motion
/M can be either /I or /O
11292       \expandafter\edef\expandafter\hvtex@param@motion
11293       \expandafter{\expandafter\@gobble\hvtex@token}%
11294       \else \ifx\hvtex@trans@par\hvtex@par@dimension
/Dm can be either /H or /V
11295       \expandafter\edef\expandafter\hvtex@param@dimension
11296       \expandafter{\expandafter\@gobble\hvtex@token}%
11297       \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).

```

11298       \let\hvtex@param@direction\hvtex@token
11299       \fi\fi\fi\fi
11300     \fi
11301   \fi
11302   \ifx\hvtex@buffer\@empty
11303     \let\next\hvtex@produce@trans
11304   \else
11305     \let\next\hvtex@trans@params
11306   \fi
11307   \next
11308 }%

```

Merge <transition_effect> and issue the special when possible. Too lazy to validate optional parameters.

```

11309 \def\hvtex@produce@trans{%
11310   \let\vtex@trans@special\@empty
11311   \if S\hvtex@trans@code
11312     \edef\vtex@trans@special{\hvtex@trans@code
11313       \hvtex@param@dimension\hvtex@param@motion}%
11314   \else\if B\hvtex@trans@code
11315     \edef\vtex@trans@special{%
11316       \hvtex@trans@code\hvtex@param@dimension
11317     }%
11318   \else\if X\hvtex@trans@code
11319     \edef\vtex@trans@special{%
11320       \hvtex@trans@code\hvtex@param@motion
11321     }%
11322   \else\if W\hvtex@trans@code
11323     \edef\vtex@trans@special{%
11324       \hvtex@trans@code\hvtex@param@direction
11325     }%
11326   \else\if D\hvtex@trans@code

```

```

11327 \let\vtex@trans@special\hvtex@trans@code
11328 \else\if R\hvtex@trans@code
11329 \let\vtex@trans@special\hvtex@trans@code
11330 \else\if G\hvtex@trans@code
11331 \edef\vtex@trans@special{%
11332 \hvtex@trans@code\hvtex@param@direction
11333 }%
11334 \fi\fi\fi\fi\fi\fi
11335 \ifx\vtex@trans@special\@empty
11336 \else
11337 \ifx\hvtex@param@duration\@empty
11338 \else
11339 \setlength{\dimen@}{\hvtex@param@duration\p@}%

```

I'm not guilty of possible overflow.

```

11340 \multiply\dimen@\@m
11341 \edef\vtex@trans@special{%
11342 \vtex@trans@special,\strip@pt\dimen@
11343 }%
11344 \fi

```

And all the mess is just for this.

```

11345 \special{!trans \vtex@trans@special}%
11346 \fi
11347 }%

11348 \def\hyper@pageduration{%
11349 \ifx\@pdfpageduration\relax
11350 \else
11351 \ifx\@pdfpageduration\@empty
11352 \special{!duration-}%
11353 \else
11354 \special{!duration \@pdfpageduration}%
11355 \fi
11356 \fi
11357 }%
11358 \def\hyper@pagehidden{%
11359 \ifHy@useHidKey
11360 \special{!hidden\ifHy@pdfpagehidden +\else -\fi}%
11361 \fi
11362 }%
11363 \g@addto@macro\Hy@EveryPageBoxHook{%
11364 \hyper@pagetransition
11365 \hyper@pageduration
11366 \hyper@pagehidden
11367 }%
11368 \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

```

11369 \ifx\@pdfproducer\relax
11370 \def\@pdfproducer{VTeX}%
11371 \ifnum\Hy@VTeXversion>\z@
11372 \count@\VTeXversion
11373 \divide\count@ 100 %
11374 \edef\@pdfproducer{\@pdfproducer\space v\the\count@}%
11375 \multiply\count@ -100 %
11376 \advance\count@\VTeXversion
11377 \edef\@pdfproducer{%
11378 \@pdfproducer
11379 .\ifnum\count@<10 0\fi\the\count@
11380 \ifx\VTeXOS\@undefined\else
11381 \ifnum\VTeXOS>0 %
11382 \ifnum\VTeXOS<6 %
11383 \space(%
11384 \ifcase\VTeXOS
11385 \or Windows\or Linux\or OS/2\or MacOS\or MacOS/X%
11386 \fi
11387 )%
11388 \fi
11389 \fi
11390 \fi
11391 ,\space
11392 \ifnum\OpMode=\@one PDF\else PS\fi
11393 \space backend%
11394 \ifx\gexmode\@undefined\else
11395 \ifnum\gexmode>\z@\space with GeX\fi
11396 \fi
11397 }%
11398 \fi
11399 \fi

```

Current `!pdfinfo` key syntax:

Key	Field	Type
a	A uthor	String
b	C rop B ox	String
c	C reator	String
k	K eywords	String
l	P age L ayout	PS
p	P age M ode	PS
r	P roducer	String
s	S ubject	String
t	T itle	String
u	U RI	PS
v	V iew P references	PS

Note: PS objects that are dicts are in <<.>>> (yuck; no choice).

```

11400 \def\PDF@SetupDoc{%
11401 \ifx\@pdfpagescrop\@empty
11402 \else
11403 \special{!pdfinfo b=<\@pdfpagescrop>}%
11404 \fi
11405 \ifx\@pdfstartpage\@empty
11406 \else
11407 \ifx\@pdfstartview\@empty
11408 \else
11409 \special{!onopen Page\@pdfstartpage}%
11410 \fi

```

```

11411 \fi
11412 \special{!pdfinfo p=</\@pdfpagemode>}%
11413 \ifx\@baseurl\@empty
11414 \else
11415 \special{!pdfinfo u=<<</Base (\@baseurl)>>>}%
11416 \fi
11417 \special{!pdfinfo v=<<<%
11418 \ifHy@pdftoolbar\else /HideToolbar true\fi
11419 \ifHy@pdfmenubar\else /HideMenubar true\fi
11420 \ifHy@pdfwindowui\else /HideWindowUI true\fi
11421 \ifHy@pdfwindow /FitWindow true\fi
11422 \ifHy@pdfcenterwindow /CenterWindow true\fi
11423 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
11424 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
11425 \Hy@UseNameKey{Direction}\@pdfdirection
11426 \Hy@UseNameKey{ViewArea}\@pdfviewarea
11427 \Hy@UseNameKey{ViewClip}\@pdfviewclip
11428 \Hy@UseNameKey{PrintArea}\@pdfprintarea
11429 \Hy@UseNameKey{PrintClip}\@pdfprintclip
11430 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
11431 \Hy@UseNameKey{Duplex}\@pdfduplex
11432 \ifx\@pdfpicktraybypdfsize\@empty
11433 \else
11434 /PickTrayByPDFSize \@pdfpicktraybypdfsize
11435 \fi
11436 \ifx\@pdfprintpagerange\@empty
11437 \else
11438 /PrintPageRange[\@pdfprintpagerange]%
11439 \fi
11440 \ifx\@pdfnumcopies\@empty
11441 \else
11442 /NumCopies \@pdfnumcopies
11443 \fi
11444 >>>}%
11445 \ifx\@pdfpagelayout\@empty
11446 \else
11447 \special{!pdfinfo l=</\@pdfpagelayout\space>}%
11448 \fi
11449 }%
11450 \HyInfo@AddonUnsupportedtrue
11451 \define@key{Hyp}{pdfcreationdate}{%
11452 \Hy@Warning{%
11453 VTeX does not support pdfcreationdate.\MessageBreak
11454 Therefore its setting is ignored%
11455 }%
11456 }
11457 \define@key{Hyp}{pdfmoddate}{%
11458 \Hy@Warning{%
11459 VTeX does not support pdfmoddate.\MessageBreak
11460 Therefore its setting is ignored%
11461 }%
11462 }
11463 \def\PDF@FinishDoc{%
11464 \Hy@UseMaketitleInfos
11465 \HyInfo@TrappedUnsupported
11466 \special{!pdfinfo a=<\@pdfauthor>}%
11467 \special{!pdfinfo t=<\@pdftitle>}%

```

```

11468 \special{!pdfinfo s=<\pdfsubject>}%
11469 \special{!pdfinfo c=<\pdfcreator>}%
11470 \ifx\pdfproducer\relax
11471 \else
11472 \special{!pdfinfo r=<\pdfproducer>}%
11473 \fi
11474 \special{!pdfinfo k=<\pdfkeywords>}%
11475 \Hy@DisableOption{pdfauthor}%
11476 \Hy@DisableOption{pdftitle}%
11477 \Hy@DisableOption{pdfsubject}%
11478 \Hy@DisableOption{pdfcreator}%
11479 \Hy@DisableOption{pdfcreationdate}%
11480 \Hy@DisableOption{pdfmoddate}%
11481 \Hy@DisableOption{pdfproducer}%
11482 \Hy@DisableOption{pdfkeywords}%
11483 \Hy@DisableOption{pdftrapped}%
11484 \Hy@DisableOption{pdfinfo}%
11485 }
11486 </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.

```

11487 <dviwindo>\def\literalps@out#1{\special{ps:#1}}%
11488 <package>\providecommand*{\Hy@DistillerDestFix}{%
11489 <*pdfmark | dviwindo>
11490 \def\Hy@DistillerDestFix{%
11491 \begingroup
11492 \let\x\literalps@out

```

The fix has to be passed unchanged through GeX, if VTeX in PostScript mode with GeX is used.

```

11493 \ifnum \@ifundefined{OpMode}{0}{%
11494 \ifundefined{gexmode}{0}{%
11495 \ifnum\gexmode>0 \OpMode\else 0\fi
11496 }}>1 %
11497 \def\x##1{%
11498 \immediate\special{!##1}%
11499 }%
11500 \fi
11501 \x{%
11502 /product where{%
11503 pop %
11504 product(Distiller)search{%
11505 pop pop pop %
11506 version(.)search{%
11507 exch pop exch pop%
11508 (3011)eq{%
11509 gsave %

```

```

11510      newpath 0 0 moveto closepath clip%
11511      /Courier findfont 10 scalefont setfont %
11512      72 72 moveto(.)show %
11513      grestore%
11514      }if%
11515      }{pop}ifelse%
11516      }{pop}ifelse%
11517      }if%
11518      }%
11519      \endgroup
11520  }
11521  </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

```

```

11522 <*pdfmark>
11523 \Hy@breaklinks@unsupported
11524 \def\HyPat@ObjRef{%
11525   \{[~{}]+\}%
11526 }
11527 \Hy@WrapperDef\hyper@anchor#1{%
11528   \Hy@SaveLastskip
11529   \Hy@VerboseAnchor{#1}%
11530   \begingroup
11531     \pdfmark[\anchor@spot]{%
11532       pdfmark=/DEST,%
11533       linktype=anchor,%
11534       View=/\@pdfview \@pdfviewparams,%
11535       DestAnchor={#1}%
11536     }%
11537   \endgroup
11538   \Hy@RestoreLastskip
11539 }
11540 \ltx@ifundefined{hyper@anchorstart}{\endinput}
11541 \Hy@WrapperDef\hyper@anchorstart#1{%
11542   \Hy@SaveLastskip
11543   \Hy@VerboseAnchor{#1}%
11544   \literalps@out{H.S}%
11545   \Hy@AllowHyphens
11546   \xdef\hyper@currentanchor{#1}%
11547   \Hy@activeanchortrue
11548 }
11549 \def\hyper@anchorend{%
11550   \literalps@out{\strip@pt@and@otherjunk\baselineskip\space H.A}%

```

```

11551 \pdfmark{%
11552   pdfmark=/DEST,%
11553   linktype=anchor,%
11554   View=/\@pdfview \@pdfviewparams,%
11555   DestAnchor=\hyper@currentanchor,%
11556 }%
11557 \Hy@activeanchorfalse
11558 \Hy@RestoreLastskip
11559 }
11560 \def\hyper@linkstart#1#2{%
11561   \Hy@VerboseLinkStart{#1}{#2}%
11562   \ifHy@breaklinks
11563   \else
11564     \leavevmode
11565     \ifmmode
11566       \def\Hy@LinkMath{$}%
11567     \else
11568       \let\Hy@LinkMath\ltx@empty
11569     \fi
11570     \Hy@SaveSpaceFactor
11571     \hbox\bgroup
11572     \Hy@RestoreSpaceFactor
11573     \Hy@LinkMath
11574   \fi
11575   \expandafter\Hy@colorlink\csname @#1color\endcsname
11576   \literalps@out{H.S}%
11577   \Hy@AllowHyphens
11578   \xdef\hyper@currentanchor{#2}%
11579   \gdef\hyper@currentlinktype{#1}%
11580 }
11581 \def\hyper@linkend{%
11582   \literalps@out{\strip@pt@and@otherjunk\baselineskip\space H.L}%
11583   \ltx@ifundefined{@\hyper@currentlinktype bordercolor}{%
11584     \let\Hy@tempcolor\relax
11585   }{%
11586     \edef\Hy@tempcolor{%
11587       \csname @\hyper@currentlinktype bordercolor\endcsname
11588     }%
11589   }%
11590   \pdfmark{%
11591     pdfmark=/ANN,%
11592     linktype=link,%
11593     Subtype=/Link,%
11594     PDFAFflags=4,%
11595     Dest=\hyper@currentanchor,%
11596     AcroHighlight=\@pdfhighlight,%
11597     Border=\@pdfborder,%
11598     BorderStyle=\@pdfborderstyle,%
11599     Color=\Hy@tempcolor,%
11600     Raw=H.B%
11601   }%
11602   \Hy@endcolorlink
11603   \ifHy@breaklinks
11604   \else
11605     \Hy@LinkMath
11606     \Hy@SaveSpaceFactor
11607     \egroup

```

```

11608 \Hy@RestoreSpaceFactor
11609 \fi
11610 }

```

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.

```

11611 \begingroup
11612 \catcode'P=12 %
11613 \catcode'T=12 %
11614 \lowercase{\endgroup
11615 \gdef\rem@ptetc#1.#2PT#3!{#1\ifnum#2>\z@.#2\fi}%
11616 }
11617 \def\strip@pt@and@otherjunk#1{\expandafter\rem@ptetc\the#1!}

```

`\hyper@pagetransition`

```

11618 \def\hyper@pagetransition{%
11619 \ifx\@pdfpagetransition\relax
11620 \else
11621 \ifx\@pdfpagetransition\@empty
11622 % 1. Does an old entry have to be deleted?
11623 % 2. If 1=yes, how to delete?
11624 \else
11625 \pdfmark{%
11626 pdfmark=/PUT,%
11627 Raw={%
11628 \string{ThisPage\string}%
11629 <</Trans << /S /\@pdfpagetransition\space >> >>%
11630 }%
11631 }%
11632 \fi
11633 \fi
11634 }

```

`\hyper@pageduration`

```

11635 \def\hyper@pageduration{%
11636 \ifx\@pdfpageduration\relax
11637 \else
11638 \ifx\@pdfpageduration\@empty
11639 % 1. Does an old entry have to be deleted?
11640 % 2. If 1=yes, how to delete?
11641 \else
11642 \pdfmark{%
11643 pdfmark=/PUT,%
11644 Raw={%
11645 \string{ThisPage\string}%
11646 <</Dur \@pdfpageduration>>%
11647 }%
11648 }%
11649 \fi
11650 \fi
11651 }

```

`\hyper@pagehidden`

```

11652 \def\hyper@pagehidden{%
11653 \ifHy@useHidKey
11654 \pdfmark{%

```

```

11655 pdfmark=/PUT,%
11656 Raw={%
11657   \string{ThisPage\string}%
11658   <</Hid \ifHy@pdfpagehidden true\else false\fi>>%
11659 }%
11660 }%
11661 \fi
11662 }

11663 \g@addto@macro\Hy@EveryPageBoxHook{%
11664   \hyper@pagetransition
11665   \hyper@pageduration
11666   \hyper@pagehidden
11667 }

11668 \def\hyper@image#1#2{%
11669   \hyper@linkurl{#2}{#1}%
11670 }

11671 \def\Hy@undefinedname{UNDEFINED}
11672 \def\hyper@link#1#2#3{%
11673   \Hy@VerboseLinkStart{#1}{#2}%
11674   \ltx@ifundefined{#1bordercolor}{%
11675     \let\Hy@tempcolor\relax
11676   }{%
11677     \edef\Hy@tempcolor{\csname @#1bordercolor\endcsname}%
11678   }%
11679   \begingroup
11680     \protected@edef\Hy@testname{#2}%
11681     \ifx\Hy@testname\@empty
11682       \Hy@Warning{%
11683         Empty destination name,\MessageBreak
11684         using '\Hy@undefinedname'%
11685       }%
11686     \let\Hy@testname\Hy@undefinedname
11687   \fi
11688   \pdfmark[{#3}]{%
11689     Color=\Hy@tempcolor,%
11690     linktype={#1},%
11691     AcroHighlight=\@pdfhighlight,%
11692     Border=\@pdfborder,%
11693     BorderStyle=\@pdfborderstyle,%
11694     pdfmark=/ANN,%
11695     Subtype=/Link,%
11696     PDFAFlags=4,%
11697     Dest=\Hy@testname
11698   }%
11699   \endgroup
11700 }

11701 \newtoks\pdf@docset
11702 \def\PDF@FinishDoc{%
11703   \Hy@UseMaketitleInfos
11704   \HyInfo@GenerateAddons
11705   \let\Hy@temp\@empty
11706   \ifx\@pdfcreationdate\@empty
11707   \else
11708     \def\Hy@temp{CreationDate=\@pdfcreationdate,}%
11709   \fi
11710   \ifx\@pdfmoddate\@empty
11711   \else

```

```

11712 \expandafter\def\expandafter\Hy@temp\expandafter{%
11713 \Hy@temp
11714 ModDate=\@pdfmoddate,%
11715 }%
11716 \fi
11717 \ifx\@pdfproducer\relax
11718 \else
11719 \expandafter\def\expandafter\Hy@temp\expandafter{%
11720 \Hy@temp
11721 Producer=\@pdfproducer,%
11722 }%
11723 \fi
11724 \expandafter
11725 \pdfmark\expandafter{%
11726 \Hy@temp
11727 pdfmark=/DOCINFO,%
11728 Title=\@pdftitle,%
11729 Subject=\@pdfsubject,%
11730 Creator=\@pdfcreator,%
11731 Author=\@pdfauthor,%
11732 Keywords=\@pdfkeywords,%
11733 Trapped=\@pdftrapped
11734 }%
11735 \ifx\HyInfo@Addons\@empty
11736 \else
11737 \pdfmark{%
11738 pdfmark=/DOCINFO,%
11739 Raw={\HyInfo@Addons}%
11740 }%
11741 \fi
11742 \Hy@DisableOption{pdfauthor}%
11743 \Hy@DisableOption{pdftitle}%
11744 \Hy@DisableOption{pdfsubject}%
11745 \Hy@DisableOption{pdfcreator}%
11746 \Hy@DisableOption{pdfcreationdate}%
11747 \Hy@DisableOption{pdfmoddate}%
11748 \Hy@DisableOption{pdfproducer}%
11749 \Hy@DisableOption{pdfkeywords}%
11750 \Hy@DisableOption{pdftrapped}%
11751 \Hy@DisableOption{pdfinfo}%
11752 }
11753 \def\PDF@SetupDoc{%
11754 \def\Hy@temp{}%
11755 \ifx\@pdfstartpage\@empty
11756 \else
11757 \ifx\@pdfstartview\@empty
11758 \else
11759 \edef\Hy@temp{%
11760 ,Page=\@pdfstartpage
11761 ,View=\@pdfstartview
11762 }%
11763 \fi
11764 \fi
11765 \edef\Hy@temp{%
11766 \noexpand\pdfmark{%
11767 pdfmark=/DOCVIEW,%
11768 PageMode=/\@pdfpagemode

```

```

11769     \Hy@temp
11770   }%
11771 }%
11772 \Hy@temp
11773 \ifx\@pdfpagescrop\@empty
11774 \else
11775   \pdfmark{pdfmark=/PAGES,CropBox=\@pdfpagescrop}%
11776 \fi
11777 \edef\Hy@temp{%
11778   \ifHy@pdftoolbar\else /HideToolbar true\fi
11779   \ifHy@pdfmenubar\else /HideMenubar true\fi
11780   \ifHy@pdfwindowui\else /HideWindowUI true\fi
11781   \ifHy@pdfwindow /FitWindow true\fi
11782   \ifHy@pdfcenterwindow /CenterWindow true\fi
11783   \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
11784   \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
11785   \Hy@UseNameKey{Direction}\@pdfdirection
11786   \Hy@UseNameKey{ViewArea}\@pdfviewarea
11787   \Hy@UseNameKey{ViewClip}\@pdfviewclip
11788   \Hy@UseNameKey{PrintArea}\@pdfprintarea
11789   \Hy@UseNameKey{PrintClip}\@pdfprintclip
11790   \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
11791   \Hy@UseNameKey{Duplex}\@pdfduplex
11792   \ifx\@pdfpicktraybypdfsize\@empty
11793     \else
11794       /PickTrayByPDFSize \@pdfpicktraybypdfsize
11795     \fi
11796     \ifx\@pdfprintpagerange\@empty
11797     \else
11798       /PrintPageRange[\@pdfprintpagerange]%
11799     \fi
11800     \ifx\@pdfnumcopies\@empty
11801     \else
11802       /NumCopies \@pdfnumcopies
11803     \fi
11804   }%
11805 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
11806 \pdfmark{%
11807   pdfmark=/PUT,%
11808   Raw={%
11809     \string{Catalog\string}<<%
11810     \ifx\Hy@temp\@empty
11811     \else
11812       /ViewerPreferences<<\Hy@temp>>%
11813     \fi
11814     \Hy@UseNameKey{PageLayout}\@pdfpagelayout
11815     \ifx\@pdflang\@empty
11816     \else
11817       /Lang(\@pdflang)%
11818     \fi
11819     \ifx\@baseurl\@empty
11820     \else
11821       /URI<</Base(\Hy@pstringB)>>%
11822     \fi
11823   >>%
11824   }%
11825 }%

```

```

11826 }
11827 </pdfmark>
11828 <*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.

```

11829 \newif\ifHy@pdfmarkerror
11830 \def\pdfmark{\@ifnextchar[{\pdfmark@}{\pdfmark@[]}}
11831 \def\pdfmark@[#1]#2{%
11832   \Hy@pdfmarkerrorfalse
11833   \edef\@processme{\noexpand\pdf@toks={\the\pdf@defaulttoks}}%
11834   \@processme
11835   \let\pdf@type\relax
11836   \let\pdf@objdef\ltx@empty
11837   \kvsetkeys{PDF}{#2}%
11838   \ifHy@pdfmarkerror
11839   \else
11840     \ifx\pdf@type\relax
11841       \Hy@WarningNoLine{no pdfmark type specified in #2!!}%
11842       \ifx\#1\%
11843         \else
11844           \pdf@rect{#1}%
11845         \fi
11846       \else
11847         \ifx\#1\%
11848           \literalps@out{%
11849             [%
11850             \ifx\pdf@objdef\ltx@empty
11851             \else
11852               /_objdef\string{\pdf@objdef\string}%
11853             \fi
11854             \the\pdf@toks\space\pdf@type\space pdfmark%
11855             }%
11856           \else
11857             \ltx@ifundefined{@pdf@linktype color}{%
11858               \Hy@colorlink\@linkcolor
11859             }{%
11860               \expandafter\Hy@colorlink
11861               \csname @\pdf@linktype color\endcsname
11862             }%
11863             \pdf@rect{#1}%
11864             \literalps@out{%
11865               [%
11866               \ifx\pdf@objdef\ltx@empty
11867               \else
11868                 /_objdef\string{\pdf@objdef\string}%
11869               \fi
11870               \the\pdf@toks\space\pdf@type\space pdfmark%
11871               }%
11872               \Hy@endcolorlink
11873             \fi
11874           \fi
11875         \fi

```

11876 }

The complicated bit is working out the right enclosing rectangle of some piece of \TeX text, needed by the `/Rect` key. This solution originates with Toby Thain (toby@netspace.net.au).

For the case `breaklinks` is enabled, I have added two hooks, the first one for package `setouterhbox`, it provides a hopefully better method without setting the text twice.

```
\usepackage[hyperref]{setouterhbox}
```

With the second hook, also you can set the text twice, e.g.:

```
\long\def\Hy@setouterhbox#1#2{\long\def\my@temp{#2}}
\def\Hy@breaklinksunhbox#1{\my@temp}
```

```
11877 \newsavebox{\pdf@box}
11878 \providecommand*{\Hy@setouterhbox}{\sbox}
11879 \providecommand*{\Hy@breaklinksunhbox}{\unhbox}
11880 \def\Hy@DEST{/DEST}
11881 \def\pdf@rect#1{%
11882   \begingroup
11883     \chardef\x=1 %
11884     \def\Hy@temp{#1}%
11885     \ifx\Hy@temp\ltx@empty
11886       \chardef\x=0 %
11887     \else
11888       \def\y{\anchor@spot}%
11889       \ifx\Hy@temp\y
11890         \def\y{\relax}%
11891         \ifx\anchor@spot\y
11892           \chardef\x=0 %
11893         \fi
11894       \fi
11895     \fi
11896   \expandafter\endgroup
11897   \ifcase\x
11898     \literalps@out{H.S}%
11899     \literalps@out{H.R}%
11900   \else
11901     \leavevmode
11902     \Hy@SaveSpaceFactor
11903     \ifmmode
11904       \def\Hy@LinkMath{$}%
11905     \else
11906       \let\Hy@LinkMath\ltx@empty
11907     \fi
11908     \ifHy@breaklinks
11909       \Hy@setouterhbox\pdf@box{%
11910         \Hy@RestoreSpaceFactor
11911         \Hy@LinkMath
11912         \Hy@AllowHyphens#1\Hy@xspace@end
11913         \Hy@LinkMath
11914         \Hy@SaveSpaceFactor
11915       }%
11916     \else
11917       \sbox\pdf@box{%
11918         \Hy@RestoreSpaceFactor
11919         \Hy@LinkMath
```

```

11920      #1\Hy@xspace@end
11921      \Hy@LinkMath
11922      \Hy@SaveSpaceFactor
11923    }%
11924  \fi
11925  \dimen@ht\pdf@box
11926  \ifdim\dp\pdf@box=\z@
11927    \literalps@out{H.S}%
11928  \else
11929    \lower\dp\pdf@box\hbox{\literalps@out{H.S}}%
11930  \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...).

```

11931  \ifHy@breaklinks
11932    \ifhmode
11933      \Hy@breaklinksunhbox\pdf@box
11934    \else
11935      \box\pdf@box
11936    \fi
11937  \else
11938    \expandafter\box\pdf@box
11939  \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

11940  \ifdim\dimen@=\z@
11941    \literalps@out{H.R}%
11942  \else
11943    \raise\dimen@\hbox{\literalps@out{H.R}}%
11944  \fi
11945  \Hy@RestoreSpaceFactor
11946  \fi
11947  \ifx\pdf@type\Hy@DEST
11948  \else
11949    \pdf@addtoksx{H.B}%
11950  \fi
11951 }

```

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.

```

11952 \newtoks\pdf@toks
11953 \newtoks\pdf@defaulttoks
11954 \pdf@defaulttoks={}%
11955 \def\pdf@addtoks#1#2{%
11956   \edef\@processme{\pdf@toks{\the\pdf@toks/#2 #1}}%
11957   \@processme
11958 }
11959 \def\pdf@addtoksx#1{%
11960   \edef\@processme{\pdf@toks{\the\pdf@toks\space #1}}%
11961   \@processme
11962 }
11963 \def\PDFdefaults#1{%
11964   \pdf@defaulttoks={#1}%

```

11965 }

This is the list of allowed keys. See the Acrobat manual for an explanation.

```
11966 % what is the type of pdfmark?
11967 \define@key{PDF}{pdfmark}{\def\pdf@type{#1}}
11968 % what is the link type?
11969 \define@key{PDF}{linktype}{\def\pdf@linktype{#1}}
11970 \def\pdf@linktype{link}
11971 % named object?
11972 \define@key{PDF}{objdef}{\edef\pdf@objdef{#1}}
11973 \let\pdf@objdef\ltx@empty
11974 % parameter is a stream of PDF
11975 \define@key{PDF}{Raw}{\pdf@addtoksx{#1}}
11976 % parameter is a name
11977 \define@key{PDF}{Action}{\pdf@addtoks{#1}{Action}}
11978 % parameter is a array
11979 \define@key{PDF}{Border}{%
11980   \edef\Hy@temp{#1}%
11981   \ifx\Hy@temp\@empty
11982     \else
11983       \pdf@addtoks{[#1]\Hy@BorderArrayPatch}{Border}% hash-ok
11984     \fi
11985 }
11986 \let\Hy@BorderArrayPatch\@empty
11987 % parameter is a dictionary
11988 \define@key{PDF}{BorderStyle}{%
11989   \edef\Hy@temp{#1}%
11990   \ifx\Hy@temp\@empty
11991     \else
11992       \pdf@addtoks{<<#1>>}{BS}%
11993     \fi
11994 }
11995 % parameter is a array
11996 \define@key{PDF}{Color}{%
11997   \ifx\relax#1\relax
11998     \else
11999       \pdf@addtoks{[#1]}{Color}% hash-ok
12000   \fi
12001 }
12002 % parameter is a string
12003 \define@key{PDF}{Contents}{\pdf@addtoks{(#1)}{Contents}}
12004 % parameter is a integer
12005 \define@key{PDF}{Count}{\pdf@addtoks{#1}{Count}}
12006 % parameter is a array
12007 \define@key{PDF}{CropBox}{\pdf@addtoks{[#1]}{CropBox}}% hash-ok
12008 % parameter is a string
12009 \define@key{PDF}{DOSFile}{\pdf@addtoks{(#1)}{DOSFile}}
12010 % parameter is a string or file
12011 \define@key{PDF}{DataSource}{\pdf@addtoks{(#1)}{DataSource}}
12012 % parameter is a destination
12013 \define@key{PDF}{Dest}{%
12014   \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
12015   \ifx\Hy@pstringDest\@empty
12016     \Hy@pdfmarkerrortrue
12017     \Hy@Warning{Destination with empty name ignored}%
12018   \else
12019     \pdf@addtoks{(\Hy@pstringDest) cvn}{Dest}%
12020   \fi
```

```

12021 }
12022 \define@key{PDF}{DestAnchor}{%
12023   \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
12024   \ifx\Hy@pstringDest\@empty
12025     \Hy@pdfmarkerrortrue
12026     \Hy@Warning{Destination with empty name ignored}%
12027   \else
12028     \pdf@addtoks{\Hy@pstringDest} cvn}{Dest}%
12029   \fi
12030 }
12031 % parameter is a string
12032 \define@key{PDF}{Dir}{\pdf@addtoks{(#1)}{Dir}}
12033 % parameter is a string
12034 \define@key{PDF}{File}{\pdf@addtoks{(#1)}{File}}
12035 % parameter is a int
12036 \define@key{PDF}{Flags}{\pdf@addtoks{#1}{Flags}}
12037 \define@key{PDF}{PDFAFlags}{%
12038   \ifHy@pdfa
12039     \pdf@addtoks{#1}{F}%
12040   \fi
12041 }
12042 % parameter is a name
12043 \define@key{PDF}{AcroHighlight}{%
12044   \begingroup
12045     \edef\x{#1}%
12046     \expandafter\endgroup\ifx\x\@empty
12047     \else
12048       \pdf@addtoks{#1}{H}%
12049     \fi
12050 }
12051 % parameter is a string
12052 \define@key{PDF}{ID}{\pdf@addtoks{[#1]}{ID}}% hash-ok
12053 % parameter is a string
12054 \define@key{PDF}{MacFile}{\pdf@addtoks{(#1)}{MacFile}}
12055 % parameter is a string
12056 \define@key{PDF}{ModDate}{\pdf@addtoks{(#1)}{ModDate}}
12057 % parameter is a string
12058 \define@key{PDF}{Op}{\pdf@addtoks{(#1)}{Op}}
12059 % parameter is a Boolean
12060 \define@key{PDF}{Open}{\pdf@addtoks{#1}{Open}}
12061 % parameter is a integer or name
12062 \define@key{PDF}{Page}{\pdf@addtoks{#1}{Page}}
12063 % parameter is a name
12064 \define@key{PDF}{PageMode}{\pdf@addtoks{#1}{PageMode}}
12065 % parameter is a string
12066 \define@key{PDF}{Params}{\pdf@addtoks{(#1)}{Params}}
12067 % parameter is a array
12068 \define@key{PDF}{Rect}{\pdf@addtoks{[#1]}{Rect}}% hash-ok
12069 % parameter is a integer
12070 \define@key{PDF}{SrcPg}{\pdf@addtoks{#1}{SrcPg}}
12071 % parameter is a name
12072 \define@key{PDF}{Subtype}{\pdf@addtoks{#1}{Subtype}}
12073 % parameter is a string
12074 \define@key{PDF}{Title}{\pdf@addtoks{(#1)}{Title}}
12075 % parameter is a string
12076 \define@key{PDF}{Unix}{\pdf@addtoks{(#1)}{Unix}}
12077 % parameter is a string

```

```

12078 \define@key{PDF}{UnixFile}{\pdf@addtoks{(#1)}{UnixFile}}
12079 % parameter is an array
12080 \define@key{PDF}{View}{\pdf@addtoks{[#1]}{View}}% hash-ok
12081 % parameter is a string
12082 \define@key{PDF}{WinFile}{\pdf@addtoks{(#1)}{WinFile}}

```

These are the keys used in the DOCINFO section.

```

12083 \define@key{PDF}{Author}{\pdf@addtoks{(#1)}{Author}}
12084 \define@key{PDF}{Creator}{\pdf@addtoks{(#1)}{Creator}}
12085 \define@key{PDF}{CreationDate}{\pdf@addtoks{(#1)}{CreationDate}}
12086 \define@key{PDF}{ModDate}{\pdf@addtoks{(#1)}{ModDate}}
12087 \define@key{PDF}{Producer}{\pdf@addtoks{(#1)}{Producer}}
12088 \define@key{PDF}{Subject}{\pdf@addtoks{(#1)}{Subject}}
12089 \define@key{PDF}{Keywords}{\pdf@addtoks{(#1)}{Keywords}}
12090 \define@key{PDF}{ModDate}{\pdf@addtoks{(#1)}{ModDate}}
12091 \define@key{PDF}{Base}{\pdf@addtoks{(#1)}{Base}}
12092 \define@key{PDF}{URI}{\pdf@addtoks{#1}{URI}}
12093 \define@key{PDF}{Trapped}{%
12094   \edef\Hy@temp{#1}%
12095   \ifx\Hy@temp\@empty
12096     \else
12097       \pdf@addtoks{/#1}{Trapped}%
12098     \fi
12099 }
12100
12101 </pdfmarkbase>
12102 <*pdfmark>
12103 \def\Acrobatmenu#1#2{%
12104   \EdefEscapeName\Hy@temp@menu{#1}%
12105   \Hy@Acrobatmenu{#1}{#2}{%
12106     \pdfmark[{#2}]{%
12107       linktype=menu,%
12108       pdfmark=/ANN,%
12109       AcroHighlight=\@pdfhighlight,%
12110       Border=\@pdfborder,%
12111       BorderStyle=\@pdfborderstyle,%
12112       Color=\@menubordercolor,%
12113       Action={<</Subtype/Named/N/\Hy@temp@menu>>},%
12114       Subtype=/Link,%
12115       PDFAFlags=4%
12116     }%
12117   }%
12118 }

```

And now for some useful examples:

```

12119 \def\PDFNextPage{\@ifnextchar{\PDFNextPage@}{\PDFNextPage@[]}}
12120 \def\PDFNextPage@[#1]#2{%
12121   \pdfmark[{#2}]{%
12122     #1,%
12123     Border=\@pdfborder,%
12124     BorderStyle=\@pdfborderstyle,%
12125     Color=.2 .1 .5,%
12126     pdfmark=/ANN,%
12127     Subtype=/Link,%
12128     PDFAFlags=4,%
12129     Page=/Next%
12130   }%
12131 }

```

```

12132 \def\PDFPreviousPage{%
12133   \@ifnextchar[{\PDFPreviousPage@}{\PDFPreviousPage@[]}%
12134 }
12135 \def\PDFPreviousPage@[#1]#2{%
12136   \pdfmark[#{#2}]{%
12137     #1,%
12138     Border=\@pdfborder,%
12139     BorderStyle=\@pdfborderstyle,%
12140     Color=.4 .4 .1,%
12141     pdfmark=/ANN,%
12142     Subtype=/Link,%
12143     PDFAFlags=4,%
12144     Page=/Prev%
12145   }%
12146 }
12147 \def\PDFOpen#1{%
12148   \pdfmark{#1,pdfmark=/DOCVIEW}%
12149 }

```

This will only work if you use Distiller 2.1 or higher.

```

12150 \def\hyper@linkurl#1#2{%
12151   \begingroup
12152     \Hy@pstringdef\Hy@pstringURI{#2}%
12153     \hyper@chars
12154     \leavevmode
12155     \pdfmark[#{#1}]{%
12156       pdfmark=/ANN,%
12157       linktype=url,%
12158       AcroHighlight=\@pdfhighlight,%
12159       Border=\@pdfborder,%
12160       BorderStyle=\@pdfborderstyle,%
12161       Color=\@urlbordercolor,%
12162       Action={<<%
12163         /Subtype/URI%
12164         /URI(\Hy@pstringURI)%
12165         \ifHy@href@ismap
12166         /IsMap true%
12167         \fi
12168       >>},%
12169       Subtype=/Link,%
12170       PDFAFlags=4%
12171     }%
12172   \endgroup
12173 }
12174 \def\hyper@linkfile#1#2#3{%
12175   \begingroup
12176     \def\Hy@pstringF{#2}%
12177     \Hy@CleanupFile\Hy@pstringF
12178     \Hy@pstringdef\Hy@pstringF\Hy@pstringF
12179     \Hy@pstringdef\Hy@pstringD{#3}%
12180     \Hy@MakeRemoteAction
12181     \leavevmode
12182     \pdfmark[#{#1}]{%
12183       pdfmark=/ANN,%
12184       Subtype=/Link,%
12185       PDFAFlags=4,%
12186       AcroHighlight=\@pdfhighlight,%
12187       Border=\@pdfborder,%

```

```

12188 BorderStyle=\@pdfborderstyle,%
12189 linktype=file,%
12190 Color=\@filebordercolor,%
12191 Action={%
12192   <<%
12193     /S/GoToR%
12194     \Hy@SetNewWindow
12195     /F(\Hy@pstringF)%
12196     /D%
12197     \ifx\#3\%
12198       [\Hy@href@page\@pdfremotestartview]%
12199     \else
12200       (\Hy@pstringD)cvn%
12201     \fi
12202     \Hy@href@nextactionraw
12203   >>%
12204 }%
12205 }%
12206 \endgroup
12207 }
12208 \def\@hyper@launch run:#1\#2#3{%
12209   \begingroup
12210   \Hy@pstringdef\Hy@pstringF{#1}%
12211   \Hy@pstringdef\Hy@pstringP{#3}%
12212   \leavevmode
12213   \pdfmark[{#2}]{%
12214     pdfmark=/ANN,%
12215     Subtype=/Link,%
12216     PDFAFlags=4,%
12217     AcroHighlight=\@pdfhighlight,%
12218     Border=\@pdfborder,%
12219     BorderStyle=\@pdfborderstyle,%
12220     linktype=run,%
12221     Color=\@runbordercolor,%
12222     Action={%
12223       <<%
12224         /S/Launch%
12225         \Hy@SetNewWindow
12226         /F(\Hy@pstringF)%
12227         \ifx\#3\%
12228         \else
12229           /Win<</P(\Hy@pstringP)/F(\Hy@pstringF)>>%
12230         \fi
12231         \Hy@href@nextactionraw
12232       >>%
12233     }%
12234   }%
12235   \endgroup
12236 }
12237 </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.

```

12238 <*dvips>
12239 \providecommand*\XR@ext>{pdf}
12240 \let\Hy@raisedlink\ltx@empty
12241 \def\literalps@out#1{\special{ps:SDict begin #1 end}}%
12242 \def\headerps@out#1{\special{! #1}}%
12243 \input{pdfmark.def}%
12244 \ifx\@pdfproducer\relax
12245   \def\@pdfproducer{dvips + Distiller}%
12246 \fi
12247 \providecommand*\@pdfborder{0 0 1}
12248 \providecommand*\@pdfborderstyle{}
12249 \providecommand*\@pdfview{XYZ}
12250 \providecommand*\@pdfviewparams{ H.V}
12251 \def\Hy@BorderArrayPatch{BorderArrayPatch}
12252 \g@addto@macro\Hy@FirstPageHook{%
12253   \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.

```

12254   /DvipsToPDF{72.27 mul Resolution div} def%
12255   /PDFToDvips{72.27 div Resolution mul} def%
12256   /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.

```

12257   /BorderArrayPatch{%
12258     [exch{%
12259       dup dup type/integertype eq exch type/realtype eq or%
12260       {BPToDvips}if%
12261     }forall]%
12262   }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.

```

12263   /HyperBorder {1 PDFToDvips} def%
12264   /H.V {pdf@hoff pdf@voff null} def%
12265   /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

```

12266   /H.S {%
12267     currentpoint %
12268     HyperBorder add /pdf@lly exch def %
12269     dup DvipsToPDF 72 add /pdf@hoff exch def %

```

```

12270   HyperBorder sub /pdf@llx exch def%
12271   } def%

```

The calculation of upper left y is done without raising the point in $\text{T}_{\text{E}}\text{X}$, by simply adding on the current `\baselineskip` to the current y . This is usually too much, so we remove a notional 2 points.

We have to see what the current `baselineskip` is, and convert it to the dvips coordinate system.

Argument: `baselineskip` in pt. The x and y coordinates of the current point, minus the `baselineskip`

```

12272   /H.L {%
12273     2 sub dup%
12274     /HyperBasePt exch def %
12275     PDFToDvips /HyperBaseDvips exch def %
12276     currentpoint %
12277     HyperBaseDvips sub /pdf@ury exch def%
12278     /pdf@urx exch def%
12279   } def%
12280   /H.A {%
12281     H.L %
12282     % | /pdf@voff| = the distance from the top of the page to a point
12283     % | \baselineskip| above the current point in PDF coordinates
12284     currentpoint exch pop %
12285     vsize 72 sub exch DvipsToPDF %
12286     HyperBasePt sub % baseline skip
12287     sub /pdf@voff exch def%
12288   } def%
12289   /H.R {%
12290     currentpoint %
12291     HyperBorder sub /pdf@ury exch def %
12292     HyperBorder add /pdf@urx exch def %
12293     % | /pdf@voff| = the distance from the top of the page to the current point, in
12294     % PDF coordinates
12295     currentpoint exch pop vsize 72 sub %
12296     exch DvipsToPDF sub /pdf@voff exch def%
12297   } def%
12298 }%
12299 }
12300 \AtBeginShipoutFirst{%
12301   \ifHy@setpagesize
12302     \begingroup
12303       \@ifundefined{stockwidth}{%
12304         \ifdim\paperwidth>\z@
12305           \ifdim\paperheight>\z@
12306             \special{papersize=\the\paperwidth,\the\paperheight}%
12307           \fi
12308         \fi
12309       }{%
12310         \ifdim\stockwidth>\z@
12311           \ifdim\stockheight>\z@
12312             \special{papersize=\the\stockwidth,\the\stockheight}%
12313           \fi
12314         \fi
12315       }%
12316     \endgroup
12317   \fi
12318   \Hy@DisableOption{setpagesize}%

```

```

12319 }
12320 \def\setpdfinkmargin#1{%
12321   \begingroup
12322     \setlength{\dimen@}{#1}%
12323     \literalps@out{%
12324       /HyperBorder{\strip@pt\dimen@\space PDFToDvips}def%
12325     }%
12326   \endgroup
12327 }
12328 </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.

```

12329 <*vtexpdfmark>
12330 \providecommand*\XR@ext>{pdf}
12331 \let\Hy@raisedlink\ltx@empty
12332 \def\literalps@out#1{\special{pS:#1}}%
12333 \def\headerps@out#1{\immediate\special{pS:#1}}%
12334 \input{pdfmark.def}%
12335 \ifx\@pdfproducer\relax
12336   \ifnum\OpMode=\@ne
12337     \def\@pdfproducer{VTeX}%
12338   \else
12339     \def\@pdfproducer{VTeX + Distiller}%
12340   \fi
12341 \fi
12342 \providecommand*\@pdfborder{0 0 1}
12343 \providecommand*\@pdfborderstyle{}
12344 \providecommand*\@pdfview{XYZ}
12345 \providecommand*\@pdfviewparams{ H.V}

12346 \g@addto@macro\Hy@FirstPageHook{%
12347   \headerps@out{%
12348     /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.

```

12349   /HyperBorder {1} def%
12350   /H.V {pdf@hoff pdf@voff null} def%
12351   /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: $\text{pdf@lly} = Y_c - \text{HyperBorder}$, $\text{pdf@hoff} = X_c + 72$, $\text{pdf@llx} = X_c - \text{HyperBorder}$

```

12352   /H.S {%
12353     currentpoint %
12354     HyperBorder sub%
12355     /pdf@lly exch def %
12356     dup 72 add /pdf@hoff exch def %
12357     HyperBorder sub%
12358     /pdf@llx exch def%
12359   } def%

```

The x and y coordinates of the current point, minus the `\baselineskip`: $\text{pdf@ury} = Y_c + \text{HyperBasePt} + \text{HyperBorder}$, $\text{pdf@urx} = X_c + \text{HyperBorder}$

```

12360 /H.L {%
12361 2 sub%
12362 /HyperBasePt exch def %
12363 currentpoint %
12364 HyperBasePt add HyperBorder add%
12365 /pdf@ury exch def %
12366 HyperBorder add%
12367 /pdf@urx exch def%
12368 } def%
12369 /H.A {%
12370 H.L %
12371 currentpoint exch pop %
12372 vsize 72 sub exch %
12373 HyperBasePt add add%
12374 /pdf@voff exch def%
12375 } def%
```

$\text{pdf@ury} = Y_c + \text{HyperBorder}$, $\text{pdf@urx} = X_c + \text{HyperBorder}$

```

12376 /H.R {%
12377 currentpoint %
12378 HyperBorder add%
12379 /pdf@ury exch def %
12380 HyperBorder add%
12381 /pdf@urx exch def %
12382 currentpoint exch pop vsize 72 sub add%
12383 /pdf@voff exch def%
12384 } def%
12385 }%
12386 }

12387 \def\setpdfinkmargin#1{%
12388 \begingroup
12389 \setlength{\dimen@}{#1}%
12390 \literalps@out{%
12391 /HyperBorder{\strip@pt\dimen@}def%
12392 }%
12393 \endgroup
12394 }

12395 \</vtxpdfmark>
```

47.11 Textures

```

12396 \<*textures>
12397 \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.

```

12398 \begingroup
12399 \obeylines %
```

```

12400 \gdef\Hy@ps@CR{\noexpand
12401 }%
12402 \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`.

```

12403 \def\literalps@out#1{%
12404 \special{postscript 0 0 transform}%
12405 \special{rawpostscript itransform moveto\Hy@ps@CR #1}%
12406 }%
12407 %

```

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.

```

12408 \def\headerps@out#1{%
12409 \special{%
12410 prepostscript TeXdict begin\Hy@ps@CR
12411 #1\Hy@ps@CR
12412 end%
12413 }%
12414 }%
12415 %

```

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.

```

12416 \g@addto@macro\Hy@FirstPageHook{%
12417 \headerps@out{%
12418 /betterpdfmark {%
12419 systemdict begin %
12420 dup /BP eq%
12421 {cleartomark gsave nulldevice []%
12422 {dup /EP eq%
12423 {cleartomark cleartomark grestore}%
12424 {cleartomark}%
12425 ifelse%
12426 }ifelse %
12427 end%
12428 }def\Hy@ps@CR
12429 ___pdfmark___ not{/pdfmark /betterpdfmark load def}if%
12430 }% end of \headerps@out
12431 }% end of \AtBeginShipoutFirst
12432 %
12433 \input{pdfmark.def}%
12434 %
12435 \ifx\@pdfproducer\relax
12436 \def\@pdfproducer{Textures + Distiller}%

```

```

12437 \fi
12438 \providecommand*\@pdfborder{0 0 1}
12439 \providecommand*\@pdfborderstyle{}
12440 \providecommand*\@pdfview{XYZ}
12441 \providecommand*\@pdfviewparams{ H.V}
12442 %

```

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.

```

12443 \Hy@AtBeginDocument{%
12444   \headerps@out{%

```

Textures lives in normal points, I think. So conversion from one coordinate system to another involves doing nothing.

```

12445   /vsize {\Hy@pageheight} def%
12446   /DvipsToPDF {} def%
12447   /PDFToDvips {} def%
12448   /BPToDvips {} def%
12449   /HyperBorder { 1 PDFToDvips } def\Hy@ps@CR
12450   /H.V {pdf@hoff pdf@voff null} def\Hy@ps@CR
12451   /H.B {/Rect[pdf@llx pdf@lly pdf@urx pdf@ury]} def\Hy@ps@CR
12452   /H.S {%
12453     currentpoint %
12454     HyperBorder add /pdf@lly exch def %
12455     dup DvipsToPDF 72 add /pdf@hoff exch def %
12456     HyperBorder sub /pdf@llx exch def%
12457   } def\Hy@ps@CR
12458   /H.L {%
12459     2 sub %
12460     PDFToDvips /HyperBase exch def %
12461     currentpoint %
12462     HyperBase sub /pdf@ury exch def%
12463     /pdf@urx exch def%
12464   } def\Hy@ps@CR
12465   /H.A {%
12466     H.L %
12467     currentpoint exch pop %
12468     vsize 72 sub exch DvipsToPDF %
12469     HyperBase sub % baseline skip
12470     sub /pdf@voff exch def%
12471   } def\Hy@ps@CR
12472   /H.R {%
12473     currentpoint %
12474     HyperBorder sub /pdf@ury exch def %
12475     HyperBorder add /pdf@urx exch def %
12476     currentpoint exch pop vsize 72 sub %
12477     exch DvipsToPDF sub /pdf@voff exch def%
12478   } def\Hy@ps@CR
12479 }%
12480 }

12481 \def\setpdflinkmargin#1{%
12482   \begingroup
12483     \setlength{\dimen@}{#1}%
12484     \literalps@out{%

```

```

12485 /HyperBorder{\strip@pt\dimen@\space PDFToDvips}def%
12486 }%
12487 \endgroup
12488 }

12489 \Hy@AtBeginDocument{%
12490 \ifHy@colorlinks
12491 \headerps@out{/PDFBorder{/Border [0 0 0]}def}%
12492 \fi
12493 }

```

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.

```

12494 \expandafter\let\expandafter\keepPDF@SetupDoc
12495 \csname PDF@SetupDoc\endcsname
12496 \def\PDF@SetupDoc{%
12497 \ifx\@baseurl\@empty
12498 \else
12499 \special{html:<base href="\@baseurl">}%
12500 \fi
12501 \keepPDF@SetupDoc
12502 }

12503 \Hy@WrapperDef\hyper@anchor#1{%
12504 \Hy@SaveLastskip
12505 \Hy@VerboseAnchor{#1}%
12506 \begingroup
12507 \let\protect=\string
12508 \special{html:<a name=%
12509 \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
12510 \endgroup
12511 \Hy@activeanchortrue
12512 \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
12513 \special{html:</a>}%
12514 \Hy@activeanchorfalse
12515 \Hy@RestoreLastskip
12516 }

12517 \Hy@WrapperDef\hyper@anchorstart#1{%
12518 \Hy@SaveLastskip
12519 \Hy@VerboseAnchor{#1}%
12520 \begingroup
12521 \hyper@chars
12522 \special{html:<a name=%
12523 \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
12524 \endgroup
12525 \Hy@activeanchortrue
12526 }

12527 \def\hyper@anchorend{%
12528 \special{html:</a>}%
12529 \Hy@activeanchorfalse
12530 \Hy@RestoreLastskip
12531 }

12532 \def\@urltype{url}
12533 \def\hyper@linkstart#1#2{%
12534 \Hy@VerboseLinkStart{#1}{#2}%
12535 \expandafter\Hy@colorlink\csname @#1color\endcsname
12536 \def\Hy@tempa{#1}%
12537 \ifx\Hy@tempa\@urltype

```

```

12538 \special{html:<a href=\hyper@quote#2\hyper@quote>}%
12539 \else
12540 \begingroup
12541 \hyper@chars
12542 \special{%
12543     html:<a href=%
12544     \hyper@quote\#\HyperDestNameFilter{#2}\hyper@quote>%
12545     }%
12546 \endgroup
12547 \fi
12548 }
12549 \def\hyper@linkend{%
12550 \special{html:</a>}}%
12551 \Hy@endcolorlink
12552 }
12553 \def\hyper@linkfile#1#2#3{%
12554 \hyper@linkurl{#1}{%
12555     \Hy@linkfileprefix#2\ifx\#3\\\else\##3\fi
12556     }%
12557 }
12558 \def\hyper@linkurl#1#2{%
12559 \leavevmode
12560 \ifHy@raiselinks
12561 \Hy@SaveSpaceFactor
12562 \Hy@SaveSavedSpaceFactor
12563 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
12564 \Hy@RestoreSavedSpaceFactor
12565 \@linkdim\dp\@tempboxa
12566 \lower\@linkdim\hbox{%
12567     \hyper@chars
12568     \special{html:<a href=\hyper@quote#2\hyper@quote>}}%
12569     }%
12570 \Hy@colorlink\@urlcolor
12571 \Hy@RestoreSpaceFactor
12572 #1\Hy@xspace@end
12573 \Hy@SaveSpaceFactor
12574 \@linkdim\ht\@tempboxa
12575 \advance\@linkdim by -6.5\p@
12576 \raise\@linkdim\hbox{\special{html:</a>}}%
12577 \Hy@endcolorlink
12578 \Hy@RestoreSpaceFactor
12579 \else
12580 \begingroup
12581 \hyper@chars
12582 \special{html:<a href=\hyper@quote#2\hyper@quote>}}%
12583 \Hy@colorlink\@urlcolor#1\Hy@xspace@end
12584 \special{html:</a>}}%
12585 \Hy@endcolorlink
12586 \endgroup
12587 \fi
12588 }

```

Very poor implementation of \hyper@link without considering #1.

```

12589 \def\hyper@link#1#2#3{%
12590 \Hy@VerboseLinkStart{#1}{#2}%
12591 \hyper@linkurl{#3}{\#\HyperDestNameFilter{#2}}}%
12592 }
12593 \def\hyper@image#1#2{%

```

```

12594 \begingroup
12595   \hyper@chars
12596   \special{html:<img src=\hyper@quote#1\hyper@quote>}%
12597 \endgroup
12598 }
12599 </textures>

```

47.12 dvipsone

```

12600 % \subsection{dvipsone driver}
12601 % Over-ride the default setup macro in pdfmark driver to use Y\&Y
12602 % |\special| commands.
12603 <*dvipsone>
12604 \providecommand*\XR@ext}{pdf}
12605 \let\Hy@raisedlink\ltx@empty
12606 \providecommand*\@pdfborder{0 0 1}
12607 \providecommand*\@pdfborderstyle{}
12608 \def\literalps@out#1{\special{ps:#1}}%
12609 \def\headerps@out#1{\special{headertext=#1}}%
12610 \input{pdfmark.def}%
12611 \ifx\@pdfproducer\relax
12612   \def\@pdfproducer{dvipsone + Distiller}%
12613 \fi
12614 \HyInfo@AddonUnsupportedtrue
12615 \def\PDF@FinishDoc{%
12616   \Hy@UseMaketitleInfos
12617   \HyInfo@TrappedUnsupported
12618   \special{PDF: Keywords \@pdfkeywords}%
12619   \special{PDF: Title \@pdftitle}%
12620   \special{PDF: Creator \@pdfcreator}%
12621   \ifx\@pdfcreationdate\@empty
12622   \else
12623     \special{PDF: CreationDate \@pdfcreationdate}%
12624   \fi
12625   \ifx\@pdfmoddate\@empty
12626   \else
12627     \special{PDF: ModDate \@pdfmoddate}%
12628   \fi
12629   \special{PDF: Author \@pdfauthor}%
12630   \ifx\@pdfproducer\relax
12631   \else
12632     \special{PDF: Producer \@pdfproducer}%
12633   \fi
12634   \special{PDF: Subject \@pdfsubject}%
12635   \Hy@DisableOption{pdfauthor}%
12636   \Hy@DisableOption{pdftitle}%
12637   \Hy@DisableOption{pdfsubject}%
12638   \Hy@DisableOption{pdfcreator}%
12639   \Hy@DisableOption{pdfcreationdate}%
12640   \Hy@DisableOption{pdfmoddate}%
12641   \Hy@DisableOption{pdfproducer}%
12642   \Hy@DisableOption{pdfkeywords}%
12643   \Hy@DisableOption{pdftrapped}%
12644   \Hy@DisableOption{pdfinfo}%
12645 }
12646 \def\PDF@SetupDoc{%
12647   \def\Hy@temp{}%

```

```

12648 \ifx\@pdfstartpage\@empty
12649 \else
12650 \ifx\@pdfstartview\@empty
12651 \else
12652 \edef\Hy@temp{%
12653 ,Page=\@pdfstartpage
12654 ,View=\@pdfstartview
12655 }%
12656 \fi
12657 \fi
12658 \edef\Hy@temp{%
12659 \noexpand\pdfmark{%
12660 pdfmark=/DOCVIEW,%
12661 PageMode=/\@pdfpagemode
12662 \Hy@temp
12663 }%
12664 }%
12665 \Hy@temp
12666 \ifx\@pdfpagescrop\@empty
12667 \else
12668 \pdfmark{pdfmark=/PAGES,CropBox=\@pdfpagescrop}%
12669 \fi
12670 \edef\Hy@temp{%
12671 \ifHy@pdftoolbar\else /HideToolbar true\fi
12672 \ifHy@pdfmenubar\else /HideMenubar true\fi
12673 \ifHy@pdfwindowui\else /HideWindowUI true\fi
12674 \ifHy@pdffitwindow /FitWindow true\fi
12675 \ifHy@pdfcenterwindow /CenterWindow true\fi
12676 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
12677 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
12678 \Hy@UseNameKey{Direction}\@pdfdirection
12679 \Hy@UseNameKey{ViewArea}\@pdfviewarea
12680 \Hy@UseNameKey{ViewClip}\@pdfviewclip
12681 \Hy@UseNameKey{PrintArea}\@pdfprintarea
12682 \Hy@UseNameKey{PrintClip}\@pdfprintclip
12683 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
12684 \Hy@UseNameKey{Duplex}\@pdfduplex
12685 \ifx\@pdfpicktraybypdfsize\@empty
12686 \else
12687 /PickTrayByPDFSize \@pdfpicktraybypdfsize
12688 \fi
12689 \ifx\@pdfprintpagerange\@empty
12690 \else
12691 /PrintPageRange[\@pdfprintpagerange]%
12692 \fi
12693 \ifx\@pdfnumcopies\@empty
12694 \else
12695 /NumCopies \@pdfnumcopies
12696 \fi
12697 }%
12698 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
12699 \pdfmark{%
12700 pdfmark=/PUT,%
12701 Raw={%
12702 \string{Catalog\string}<<%
12703 \ifx\Hy@temp\@empty
12704 \else

```

```

12705      /ViewerPreferences<<\Hy@temp>>%
12706      \fi
12707      \Hy@UseNameKey{PageLayout}\@pdfpagelayout
12708      \ifx\@pdflang\@empty
12709      \else
12710      /Lang(\@pdflang)%
12711      \fi
12712      \ifx\@baseurl\@empty
12713      \else
12714      /URI<</Base(\Hy@pstringB)>>%
12715      \fi
12716      >>%
12717    }%
12718  }%
12719 }
12720 \providecommand*\@pdfview{XYZ}
12721 \providecommand*\@pdfviewparams{ %
12722   gsave revscl currentpoint grestore %
12723   72 add exch pop null exch null%
12724 }
12725 \def\Hy@BorderArrayPatch{BorderArrayPatch}

```

These are called at the start and end of unboxed links; their job is to leave available PS variables called `pdf@llx pdf@lly pdf@urx pdf@ury`, which are the coordinates of the bounding rectangle of the link, and `pdf@hoff pdf@voff` which are the PDF page offsets. These latter are currently not used in the dvipsone setup. The Rect pair are called at the LL and UR corners of a box known to \TeX .

```

12726 \g@addto@macro\Hy@FirstPageHook{%
12727   \headerps@out{%

```

dvipsone lives in scaled points; does this mean 65536 or 65781?

```

12728   /DvipsToPDF { 65781 div } def%
12729   /PDFToDvips { 65781 mul } def%
12730   /BPToDvips{65781 mul}def%
12731   /HyperBorder { 1 PDFToDvips } def%
12732   /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.

```

12733   /BorderArrayPatch{%
12734     [exch{%
12735       dup dup type/integertype eq exch type/realtype eq or%
12736       {BPToDvips}if%
12737     }forall]%
12738   }def%
12739   /H.S {%
12740     currentpoint %
12741     HyperBorder add /pdf@lly exch def %
12742     dup DvipsToPDF 72 add /pdf@hoff exch def %
12743     HyperBorder sub /pdf@llx exch def%
12744   } def%
12745   /H.L {%
12746     2 sub %
12747     PDFToDvips /HyperBase exch def %
12748     currentpoint %
12749     HyperBase sub /pdf@ury exch def%
12750     /pdf@urx exch def%
12751   } def%

```

```

12752 /H.A {%
12753     H.L %
12754     currentpoint exch pop %
12755     HyperBase sub % baseline skip
12756     DvipsToPDF /pdf@voff exch def%
12757 } def%
12758 /H.R {%
12759     currentpoint %
12760     HyperBorder sub /pdf@ury exch def %
12761     HyperBorder add /pdf@urx exch def %
12762     currentpoint exch pop DvipsToPDF /pdf@voff exch def%
12763 } def%
12764 }%
12765 }

12766 \def\setpdfinkmargin#1{%
12767     \begingroup
12768     \setlength{\dimen@}{#1}%
12769     \literalps@out{%
12770         /HyperBorder{\strip@pt\dimen@\space PDFToDvips}def%
12771     }%
12772     \endgroup
12773 }

12774 </dvipsone>

```

47.13 TeX4ht

```

12775 <*tex4ht>
12776 \providecommand*\XR@ext\{html}
12777 \let\Hy@raisedlink\ltx@empty
12778 \@ifpackageloaded{tex4ht}{%
12779     \Hy@InfoNoLine{tex4ht is already loaded}%
12780 }{%
12781     \RequirePackage[hTeX4ht]{tex4ht}%
12782 }

12783 \hyperlinkfileprefix{}
12784 \let\PDF@FinishDoc\ltx@empty
12785 \def\PDF@SetupDoc{%
12786     \ifx\@baseurl\@empty
12787     \else
12788         \special{t4ht=<base href="\@baseurl">}%
12789     \fi
12790 }

12791 \Hy@WrapperDef\hyper@anchor#1{%
12792     \Hy@SaveLastskip
12793     \Hy@VerboseAnchor{#1}%
12794     \begingroup
12795         \let\protect=\string
12796         \special{t4ht=<a name=%
12797             \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
12798     \endgroup
12799     \Hy@activeanchortrue
12800     \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
12801     \special{t4ht=</a>}%
12802     \Hy@activeanchorfalse
12803     \Hy@RestoreLastskip
12804 }

12805 \Hy@WrapperDef\hyper@anchorstart#1{%
12806     \Hy@SaveLastskip

```

```

12807 \Hy@VerboseAnchor{#1}%
12808 \begingroup
12809   \hyper@chars\special{t4ht=<a name=%
12810     \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}}%
12811 \endgroup
12812 \Hy@activeanchortrue
12813 }
12814 \def\hyper@anchorend{%
12815   \special{t4ht=</a>}%
12816   \Hy@activeanchorfalse
12817   \Hy@RestoreLastskip
12818 }
12819 \def\@urltype{url}
12820 \def\hyper@linkstart#1#2{%
12821   \Hy@VerboseLinkStart{#1}{#2}%
12822   \expandafter\Hy@colorlink\csname @#1color\endcsname
12823   \def\Hy@tempa{#1}%
12824   \ifx\Hy@tempa\@urltype
12825     \special{t4ht=<a href=\hyper@quote#2\hyper@quote>}}%
12826   \else
12827     \begingroup
12828       \hyper@chars
12829       \special{t4ht=<a href=%
12830         \hyper@quote\#\HyperDestNameFilter{#2}\hyper@quote>}}%
12831     \endgroup
12832   \fi
12833 }
12834 \def\hyper@linkend{%
12835   \special{t4ht=</a>}%
12836   \Hy@endcolorlink
12837 }
12838 \def\hyper@linkfile#1#2#3{%
12839   \hyper@linkurl{#1}{\Hy@linkfileprefix#2\ifx\\#3\\\else\##3\fi}%
12840 }
12841 \def\hyper@linkurl#1#2{%
12842   \leavevmode
12843   \ifHy@raiselinks
12844     \Hy@SaveSpaceFactor
12845     \Hy@SaveSavedSpaceFactor
12846     \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
12847     \Hy@RestoreSavedSpaceFactor
12848     \@linkdim\dp\@tempboxa
12849     \lower\@linkdim\hbox{%
12850       \begingroup
12851         \hyper@chars
12852         \special{%
12853           t4ht=<a href=\hyper@quote#2\hyper@quote>%
12854           }%
12855       \endgroup
12856     }%
12857     \Hy@colorlink\@urlcolor
12858     \Hy@RestoreSpaceFactor
12859     #1\Hy@xspace@end
12860     \Hy@SaveSpaceFactor
12861     \Hy@endcolorlink
12862     \@linkdim\ht\@tempboxa
12863     \advance\@linkdim by -6.5\p@

```

```

12864 \raise\@linkdim\hbox{\special{t4ht=</a>}}%
12865 \Hy@RestoreSpaceFactor
12866 \else
12867 \begingroup
12868 \hyper@chars
12869 \special{t4ht=<a href=\hyper@quote#2\hyper@quote>}%
12870 \Hy@colorlink\@urlcolor
12871 #1\Hy@xspace@end
12872 \Hy@endcolorlink
12873 \special{t4ht=</a>}}%
12874 \endgroup
12875 \fi
12876 }

```

Poor implementation of \hyper@link without considering #1.

```

12877 \def\hyper@link#1#2#3{%
12878 \Hy@VerboseLinkStart{#1}{#2}%
12879 \hyper@linkurl{#3}{\#\HyperDestNameFilter{#2}}%
12880 }
12881 \def\hyper@image#1#2{%
12882 \begingroup
12883 \hyper@chars
12884 \special{t4ht=<img src=\hyper@quote#1\hyper@quote>}%
12885 \endgroup
12886 }
12887 \let\autoref\ref
12888 \ifx \rEfLiNK \UnDef
12889 \def\rEfLiNK #1#2{#2}%
12890 \fi
12891 \let\backref\ltx@gobble

```

Fix for tex4ht.

```

12892 \AtBeginDocument{%
12893 \expandafter
12894 \let\expandafter\Hy@OrgMakeLabel\csname Make:Label\endcsname
12895 \expandafter\def\csname Make:Label\endcsname#1#2{%
12896 \ifhmode
12897 \Hy@SaveSpaceFactor
12898 \else
12899 \global\Hy@SavedSpaceFactor=1000 %
12900 \fi
12901 \Hy@OrgMakeLabel{#1}{%
12902 \Hy@RestoreSpaceFactor
12903 #2\Hy@xspace@end%
12904 \Hy@SaveSpaceFactor
12905 }%
12906 \Hy@RestoreSpaceFactor
12907 }%
12908 }
12909 </tex4ht>
12910 <*\tex4htcfg>
12911 \IfFileExists{\jobname.cfg}{\endinput}{\fi}
12912 \Preamble{html}
12913 \begin{document}%
12914 \EndPreamble
12915 \def\TeX{TeX}
12916 \def\OMEGA{\Omega}
12917 \def\LaTeX{LaTeX}
12918 \def\LaTeXe{LaTeX2e}

```

```

12919 \def\TeX{e-TeX}
12920 \def\MF{Metafont}
12921 \def\MP{MetaPost}
12922 </tex4htcfg>

```

48 Driver-specific form support

48.1 pdfmarks

```

12923 <*pdfmark>
12924 \long\def\@Form[#1]{%
12925 \g@addto@macro\Hy@FirstPageHook{%
12926 \headerps@out{%
12927 [%
12928 /_objdef{pdfDocEncoding}%
12929 /type/dict%
12930 /OBJ pdfmark%
12931 [%
12932 {pdfDocEncoding}%
12933 <<%
12934 /Type/Encoding%
12935 /Differences[%
12936 24/breve/caron/circumflex/dotaccent/hungarumlaut/ogonek/ring%
12937 /tilde %
12938 39/quotesingle %
12939 96/grave %
12940 128/bullet/dagger/daggerdbl/ellipsis/emdash/endash/florin%
12941 /fraction/guilsinglleft/guilsinglright/minus/perthousand%
12942 /quotedblbase/quotedblleft/quotedblright/quoteleft%
12943 /quoteright/quotesinglbase/trademark/fi/fl/Lslash/OE/Scaron%
12944 /Ydieresis/Zcaron/dotlessi/lslash/oe/scaron/zcaron %
12945 164/currency %
12946 166/brokenbar %
12947 168/dieresis/copyright/ordfeminine %
12948 172/logicalnot/.notdef/registered/macron/degree/plusminus%
12949 /twosuperior/threesuperior/acute/mu %
12950 183/periodcentered/cedilla/onesuperior/ordmasculine %
12951 188/onequarter/onehalf/threequarters %
12952 192/Agrave/Aacute/Acircumflex/Atilde/Adieresis/Aring/AE%
12953 /Ccedilla/Egrave/Eacute/Ecircumflex/Edieresis/Igrave%
12954 /Iacute/Icircumflex/Idieresis/Eth/Ntilde/Ograve/Oacute%
12955 /Ocircumflex/Otilde/Odieresis/multiply/Oslash/Ugrave%
12956 /Uacute/Ucircumflex/Udieresis/Yacute/Thorn/germandbls%
12957 /agrave/aacute/acircumflex/atilde/adieresis/aring/ae%
12958 /ccedilla/egrave/eacute/ecircumflex/edieresis/igrave%
12959 /iacute/icircumflex/idieresis/eth/ntilde/ograde/oacute%
12960 /ocircumflex/otilde/odieresis/divide/oslash/ugrave/uacute%
12961 /ucircumflex/udieresis/yacute/thorn/ydieresis%
12962 ]%
12963 >>%
12964 /PUT pdfmark%
12965 [%
12966 /_objdef{ZaDb}%
12967 /type/dict%
12968 /OBJ pdfmark%
12969 [%
12970 {ZaDb}%
12971 <<%

```

```

12972 /Type/Font%
12973 /Subtype/Type1%
12974 /Name/ZaDb%
12975 /BaseFont/ZapfDingbats%
12976 >>%
12977 /PUT pdfmark%
12978 [%
12979 /__objdef{Helv}%
12980 /type/dict%
12981 /OBJ pdfmark%
12982 [%
12983 {Helv}%
12984 <<%
12985 /Type/Font%
12986 /Subtype/Type1%
12987 /Name/Helv%
12988 /BaseFont/Helvetica%
12989 /Encoding{pdfDocEncoding}%
12990 >>%
12991 /PUT pdfmark%
12992 [%
12993 /__objdef{aform}%
12994 /type/dict%
12995 /OBJ pdfmark%
12996 [%
12997 /__objdef{afields}%
12998 /type/array%
12999 /OBJ pdfmark%
13000 [%
13001 /__objdef{corder}%
13002 /type/array%
13003 /OBJ pdfmark%
13004 {%
13005 [%
13006 /BBox[0 0 100 100]%
13007 /__objdef{Check}%
13008 /BP pdfmark %
13009 1 0 0 setrgbcolor%
13010 /ZapfDingbats 80 selectfont %
13011 20 20 moveto%
13012 (4)show%
13013 [/EP pdfmark%
13014 [%
13015 /BBox[0 0 100 100]%
13016 /__objdef{Cross}%
13017 /BP pdfmark %
13018 1 0 0 setrgbcolor%
13019 /ZapfDingbats 80 selectfont %
13020 20 20 moveto%
13021 (8)show%
13022 [/EP pdfmark%
13023 [%
13024 /BBox[0 0 250 100]%
13025 /__objdef{Submit}%
13026 /BP pdfmark %
13027 0.6 setgray %
13028 0 0 250 100 rectfill %

```

```

13029 1 setgray %
13030 2 2 moveto %
13031 2 98 lineto %
13032 248 98 lineto %
13033 246 96 lineto %
13034 4 96 lineto %
13035 4 4 lineto %
13036 fill %
13037 0.34 setgray %
13038 248 98 moveto %
13039 248 2 lineto %
13040 2 2 lineto %
13041 4 4 lineto %
13042 246 4 lineto %
13043 246 96 lineto %
13044 fill%
13045 /Helvetica 76 selectfont %
13046 0 setgray %
13047 8 22.5 moveto%
13048 (Submit)show%
13049 [/EP pdfmark%
13050 [%
13051 /BBox[0 0 250 100]%
13052 /_objdef{SubmitP}%
13053 /BP pdfmark %
13054 0.6 setgray %
13055 0 0 250 100 rectfill %
13056 0.34 setgray %
13057 2 2 moveto %
13058 2 98 lineto %
13059 248 98 lineto %
13060 246 96 lineto %
13061 4 96 lineto %
13062 4 4 lineto %
13063 fill %
13064 1 setgray %
13065 248 98 moveto %
13066 248 2 lineto %
13067 2 2 lineto %
13068 4 4 lineto %
13069 246 4 lineto %
13070 246 96 lineto %
13071 fill%
13072 /Helvetica 76 selectfont %
13073 0 setgray %
13074 10 20.5 moveto%
13075 (Submit)show%
13076 [/EP pdfmark%
13077 } ?pdfmark%
13078 [%
13079 {aform}%
13080 <<%
13081 /Fields{afields}%
13082 /DR<<%
13083 /Font<<%
13084 /ZaDb{ZaDb}%
13085 /Helv{Helv}%

```

```

13086     >>%
13087     >>%
13088     /DA(/Helv 10 Tf 0 g)%
13089     /CO{corder}%
13090     \ifHy@pdfa
13091     \else
13092         \ifHyField@NeedAppearances
13093             /NeedAppearances true%
13094         \fi
13095     \fi
13096     >>%
13097 /PUT pdfmark%
13098 [%
13099     {Catalog}%
13100     <<%
13101         /AcroForm{aform}%
13102     >>%
13103 /PUT pdfmark%
13104 }}%
13105     \kvsetkeys{Form}{#1}%
13106 }
13107 \let\@endForm\ltx@empty
13108 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
13109     \Hy@Message{Sorry, pdfmark drivers do not support FORM gauges}%
13110 }

13111 \newcount\HyField@AnnotCount
13112 \HyField@AnnotCount=\z@
13113 \def\HyField@AdvanceAnnotCount{%
13114     \global\advance\HyField@AnnotCount\@ne
13115 }
13116 \def\HyField@TheAnnotCount{%
13117     \the\HyField@AnnotCount
13118 }

13119 \edef\Fld@pageobjref{/P\string{ThisPage\string}}
13120 \def\HyField@AddToFields#1{%
13121     \pdfmark{%
13122         pdfmark=/APPEND,%
13123         Raw={%
13124             \string{afields\string}%
13125             \string{#1\HyField@TheAnnotCount\string}%
13126         }%
13127     }%
13128     \ifx\Fld@calculate@code\ltx@empty
13129     \else
13130         \pdfmark{%
13131             pdfmark=/APPEND,%
13132             Raw={%
13133                 \string{corder\string}%
13134                 \string{#1\HyField@TheAnnotCount\string}%
13135             }%
13136         }%
13137     \fi
13138 }

13139 \def\@TextField[#1]#2{% parameters, label
13140     \def\Fld@name{#2}%
13141     \let\Fld@default\ltx@empty

```

```

13142 \let\Fld@value\@empty
13143 \def\Fld@width{\DefaultWidthofText}%
13144 \def\Fld@height{%
13145   \ifFld@multiline
13146     \DefaultHeightofTextMultiline
13147   \else
13148     \DefaultHeightofText
13149   \fi
13150 }%
13151 \begingroup
13152 \expandafter\HyField@SetKeys\expandafter{%
13153   \DefaultOptionsofText,#1%
13154 }%
13155 \HyField@FlagsText
13156 \ifFld@hidden\def\Fld@width{1sp}\fi
13157 \ifx\Fld@value\@empty\def\Fld@value{\Fld@default}\fi
13158 \HyField@AdvanceAnnotCount
13159 \LayoutTextField{#2}{%
13160   \leavevmode
13161   \Hy@escapeform\PDFForm@Text
13162   \pdfmark{\MakeTextField{\Fld@width}{\Fld@height}}{%
13163     pdfmark=/ANN,%
13164     objdef=text\HyField@TheAnnotCount,%
13165     Raw={\PDFForm@Text}%
13166   }%
13167 }%
13168 \HyField@AddToFields{text}%
13169 \endgroup
13170 }
13171 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13172   \def\Fld@name{#2}%
13173   \let\Fld@default\relax
13174   \let\Fld@value\relax
13175   \def\Fld@width{\DefaultWidthofChoiceMenu}%
13176   \def\Fld@height{\DefaultHeightofChoiceMenu}%
13177   \begingroup
13178     \Fld@menulength=0 %
13179     \@tempdima\z@
13180     \@for\@curropt:=#3\do{%
13181       \expandafter\Fld@checkequals\@curropt==\%
13182       \Hy@StepCount\Fld@menulength
13183       \settowidth{\@tempdimb}{\@currDisplay}%
13184       \ifdim\@tempdimb>\@tempdima\@tempdima\@tempdimb\fi
13185     }%
13186     \advance\@tempdima by 15\p@
13187     \begingroup
13188       \HyField@SetKeys{#1}%
13189     \edef\x{\endgroup
13190       \noexpand\expandafter
13191       \noexpand\HyField@SetKeys
13192       \noexpand\expandafter{%
13193         \expandafter\noexpand\cname DefaultOptionsof%
13194         \ifFld@radio
13195           Radio%
13196         \else
13197           \ifFld@combo
13198             \ifFld@popdown

```

```

13199         PopdownBox%
13200     \else
13201         ComboBox%
13202     \fi
13203 \else
13204     ListBox%
13205 \fi
13206 \fi
13207 \endcsname
13208 }%
13209 }\x
13210 \HyField@SetKeys{#1}%
13211 \ifFld@hidden\def\Fld@width{1sp}\fi
13212 \ifx\Fld@value\relax
13213     \let\Fld@value\Fld@default
13214 \fi
13215 \LayoutChoiceField{#2}{%
13216     \ifFld@radio
13217         \HyField@FlagsRadioButton
13218         \@@Radio{#3}%
13219     \else
13220         \begingroup
13221             \HyField@FlagsChoice
13222             \ifdim\Fld@width<\@tempdima
13223                 \ifdim\@tempdima<1cm\@tempdima1cm\fi
13224                 \edef\Fld@width{\the\@tempdima}%
13225             \fi
13226             \ifFld@combo
13227             \else
13228                 \@tempdima=\the\Fld@menulength\Fld@charsize
13229                 \advance\@tempdima by \Fld@borderwidth bp %
13230                 \advance\@tempdima by \Fld@borderwidth bp %
13231                 \edef\Fld@height{\the\@tempdima}%
13232             \fi
13233             \@@ListBox{#3}%
13234         \endgroup
13235     \fi
13236 }%
13237 \endgroup
13238 }
13239 \def\@@Radio#1{%
13240     \Fld@listcount=0 %
13241     \EdefEscapeName\Fld@default{\Fld@default}%
13242     \@for\@curropt:=#1\do{%
13243         \expandafter\Fld@checkequals\@curropt==\%
13244         \EdefEscapeName\@currValue{\@currValue}%
13245         \Hy@StepCount\Fld@listcount
13246         \@currDisplay\space
13247         \Hy@escapeform\PDFForm@Radio
13248         \ifnum\Fld@listcount=1 %
13249             \HyField@AdvanceAnnotCount
13250         \fi
13251         \pdfmark[\MakeRadioField{\Fld@width}{\Fld@height}]{%
13252             pdfmark=/ANN,%
13253             objdef=\ifnum\Fld@listcount=1 radio\HyField@TheAnnotCount\fi,%
13254             Raw={%
13255                 \PDFForm@Radio /AP <</N <</\@currValue\space {Check}>> >>%

```

```

13256     }%
13257   } % deliberate space between radio buttons
13258   \ifnum\Fld@listcount=1 %
13259     \HyField@AddToFields{radio}%
13260   \fi
13261 }%
13262 }
13263 \newcount\Fld@listcount
13264 \def\@@ListBox#1{%
13265   \HyField@PDFChoices{#1}%
13266   \Hy@escapeform\PDFForm@List
13267   \HyField@AdvanceAnnotCount
13268   \pdfmark[\MakeChoiceField{\Fld@width}{\Fld@height}]{%
13269     pdfmark=/ANN,%
13270     objdef=list\HyField@TheAnnotCount,%
13271     Raw={\PDFForm@List}%
13272   }%
13273   \HyField@AddToFields{list}%
13274 }
13275 \def\@PushButton[#1]#2{% parameters, label
13276   \def\Fld@name{#2}%
13277   \begingroup
13278     \expandafter\HyField@SetKeys\expandafter{%
13279       \DefaultOptionsofPushButton,#1%
13280     }%
13281     \ifHy@pdfa
13282       \Hy@Error{%
13283         PDF/A: Push button with JavaScript is prohibited%
13284       }\@ehc
13285       \LayoutPushButtonField{%
13286         \leavevmode
13287         \MakeButtonField{#2}%
13288       }%
13289     \else
13290       \HyField@FlagsPushButton
13291       \ifFld@hidden\def\Fld@width{1sp}\fi
13292       \HyField@AdvanceAnnotCount
13293       \LayoutPushButtonField{%
13294         \leavevmode
13295         \Hy@escapeform\PDFForm@Push
13296         \pdfmark[\MakeButtonField{#2}]{%
13297           pdfmark=/ANN,%
13298           objdef=push\HyField@TheAnnotCount,%
13299           Raw={\PDFForm@Push}%
13300         }%
13301       }%
13302       \HyField@AddToFields{push}%
13303     \fi
13304   \endgroup
13305 }
13306 \def\@Submit[#1]#2{%
13307   \def\Fld@width{\DefaultWidthofSubmit}%
13308   \def\Fld@height{\DefaultHeightofSubmit}%
13309   \begingroup
13310     \expandafter\HyField@SetKeys\expandafter{%
13311       \DefaultOptionsofSubmit,#1%
13312     }%

```

```

13313 \HyField@FlagsPushButton
13314 \HyField@FlagsSubmit
13315 \ifFld@hidden\def\Fld@width{1sp}\fi
13316 \Hy@escapeform\PDFForm@Submit
13317 \HyField@AdvanceAnnotCount
13318 \pdfmark[\MakeButtonField{#2}]{%
13319 pdfmark=/ANN,%
13320 objdef=submit\HyField@TheAnnotCount,%
13321 Raw={\PDFForm@Submit /AP<</N{Submit}/D{SubmitP}>>}}%
13322 }%
13323 \HyField@AddToFields{submit}%
13324 \endgroup
13325 }
13326 \def\@Reset[#1]#2{%
13327 \def\Fld@width{\DefaultWidthofReset}%
13328 \def\Fld@height{\DefaultHeightofReset}%
13329 \beginngroup
13330 \expandafter\HyField@SetKeys\expandafter{%
13331 \DefaultOptionsofReset,#1%
13332 }%
13333 \leavevmode
13334 \ifHy@pdfa
13335 \Hy@Error{%
13336 PDF/A: Reset action is prohibited%
13337 }\@ehc
13338 \MakeButtonField{#2}%
13339 \else
13340 \HyField@FlagsPushButton
13341 \ifFld@hidden\def\Fld@width{1sp}\fi
13342 \Hy@escapeform\PDFForm@Reset
13343 \HyField@AdvanceAnnotCount
13344 \pdfmark[\MakeButtonField{#2}]{%
13345 pdfmark=/ANN,%
13346 objdef=reset\HyField@TheAnnotCount,%
13347 Raw={\PDFForm@Reset}%
13348 }%
13349 \HyField@AddToFields{reset}%
13350 \fi
13351 \endgroup
13352 }%
13353 \def\@CheckBox[#1]#2{% parameters, label
13354 \def\Fld@name{#2}%
13355 \def\Fld@default{0}%
13356 \beginngroup
13357 \def\Fld@width{\DefaultWidthofCheckBox}%
13358 \def\Fld@height{\DefaultHeightofCheckBox}%
13359 \expandafter\HyField@SetKeys\expandafter{%
13360 \DefaultOptionsofCheckBox,#1%
13361 }%
13362 \HyField@FlagsCheckBox
13363 \ifFld@hidden\def\Fld@width{1sp}\fi
13364 \HyField@AdvanceAnnotCount
13365 \LayoutCheckField{#2}{%
13366 \leavevmode
13367 \Hy@escapeform\PDFForm@Check
13368 \pdfmark[\MakeCheckField{\Fld@width}{\Fld@height}]{%
13369 pdfmark=/ANN,%

```

```

13370      objdef=check\HyField@TheAnnotCount,%
13371      Raw={\PDFForm@Check}%
13372    }%
13373  }%
13374  \HyField@AddToFields{check}%
13375 \endgroup
13376 }
13377 </pdfmark>

```

48.2 HyperTeX

```

13378 <*hypertex>
13379 \def\@Form[#1]{%
13380   \Hy@Message{Sorry, HyperTeX does not support FORMs}%
13381 }
13382 \let\@endForm\ltx@empty
13383 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
13384   \Hy@Message{Sorry, HyperTeX does not support FORM gauges}%
13385 }
13386 \def\@TextField[#1]#2{% parameters, label
13387   \Hy@Message{Sorry, HyperTeX does not support FORM text fields}%
13388 }
13389 \def\@CheckBox[#1]#2{% parameters, label
13390   \Hy@Message{Sorry, HyperTeX does not support FORM checkboxes}%
13391 }
13392 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13393   \Hy@Message{Sorry, HyperTeX does not support FORM choice menus}%
13394 }
13395 \def\@PushButton[#1]#2{% parameters, label
13396   \Hy@Message{Sorry, HyperTeX does not support FORM pushbuttons}%
13397 }
13398 \def\@Reset[#1]#2{%
13399   \Hy@Message{Sorry, HyperTeX does not support FORMs}%
13400 }
13401 \def\@Submit[#1]#2{%
13402   \Hy@Message{Sorry, HyperTeX does not support FORMs}%
13403 }
13404 </hypertex>

```

48.3 TeX4ht

```

13405 <*tex4ht>
13406 \def\@Form[#1]{%
13407   \kvsetkeys{Form}{#1}%
13408   \HCode{<form action="\Form@action" method="\Form@method">}%
13409 }
13410 \def\@endForm{\HCode{</form>}}
13411 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
13412   \Hy@Message{Sorry, TeX4ht does not support gauges}%
13413 }
13414 \def\@TextField[#1]#2{% parameters, label
13415   \let\Hy@reserved@a\@empty
13416   \def\Fld@name{#2}%
13417   \let\Fld@default\ltx@empty
13418   \bgroup
13419     \Field@toks={ }%
13420     \kvsetkeys{Field}{#1}%
13421     \HCode{<label for="\Fld@name">#2</label>}%
13422     \ifFld@password

```

```

13423 \@@PasswordField
13424 \else
13425 \@@TextField
13426 \fi
13427 \egroup
13428 }
13429 \def\@@PasswordField{%
13430 \HCode{%
13431 <input type="password" %
13432 id="\Fld@name" %
13433 name="\Fld@name" %
13434 \ifFld@hidden type="hidden" \fi
13435 value="\Fld@default" %
13436 \the\Field@toks
13437 >%
13438 }%
13439 }
13440 \def\@@TextField{%
13441 \ifFld@multiline
13442 \HCode{<textarea %
13443 \ifFld@readonly readonly \fi
13444 id="\Fld@name" %
13445 name="\Fld@name" %
13446 \ifFld@hidden type="hidden" \fi
13447 \the\Field@toks>%
13448 }%
13449 \Fld@default
13450 \HCode{</textarea>}%
13451 \else
13452 \HCode{<input type="text" %
13453 \ifFld@readonly readonly \fi
13454 id="\Fld@name" %
13455 name="\Fld@name" %
13456 \ifFld@hidden type="hidden" \fi
13457 value="\Fld@default" %
13458 \the\Field@toks>%
13459 }%
13460 \fi
13461 }
13462 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13463 \def\Fld@name{#2}%
13464 \let\Fld@default\ltx@empty
13465 \let\Hy@reserved@a\relax
13466 \begin{group}
13467 \expandafter\Fld@findlength#3\\%
13468 \Field@toks={ }%
13469 \kvsetkeys{Field}{#1}%
13470 #2%
13471 \ifFld@radio
13472 \expandafter\@@Radio#3\\%
13473 \else
13474 \expandafter\@@Menu#3\\%
13475 \fi
13476 \end{group}
13477 }
13478 \def\Fld@findlength#1\\{%
13479 \Fld@menulength=0 %

```

```

13480 \@for\@curropt:=#1\do{\Hy@StepCount\Fld@menulength}%
13481 }
13482 \def\@@Menu#1\{\%
13483 \HCode{<select size="\the\Fld@menulength" %
13484   name="\Fld@name" %
13485   \the\Field@toks>%
13486 }%
13487 \@for\@curropt:=#1\do{%
13488   \expandafter\Fld@checkequals\@curropt==\\%
13489   \HCode{<option %
13490     \ifx\@curropt\Fld@default selected \fi
13491     value="\@currValue">\@currDisplay</option>%
13492   }%
13493 }%
13494 \HCode{</select>}%
13495 }
13496 \def\@@Radio#1\{\%
13497 \@for\@curropt:=#1\do{%
13498   \expandafter\Fld@checkequals\@curropt==\\%
13499   \HCode{<input type="radio" %
13500     \ifx\@curropt\Fld@default checked \fi
13501     name="\Fld@name" %
13502     value="\@currValue" %
13503     \the\Field@toks>%
13504   }%
13505   \@currDisplay
13506 }%
13507 }
13508 \def\@PushButton[#1]#2{% parameters, label
13509 \def\Fld@name{#2}%
13510 \bgroup
13511 \Field@toks={ }%
13512 \kvsetkeys{Field}{#1}%
13513 \HCode{<input type="button" %
13514   name="\Fld@name" %
13515   value="#2" %
13516   \the\Field@toks>%
13517 }%
13518 \HCode{</button>}%
13519 \egroup
13520 }
13521 \def\@Submit[#1]#2{%
13522 \HCode{<button type="submit">#2</button>}%
13523 }
13524 \def\@Reset[#1]#2{%
13525 \HCode{<button type="reset">#2</button>}%
13526 }
13527 \def\@CheckBox[#1]#2{% parameters, label
13528 \let\Hy@reserved@a\@empty
13529 \def\Fld@name{#2}%
13530 \def\Fld@default{0}%
13531 \bgroup
13532 \Field@toks={ }%
13533 \kvsetkeys{Field}{#1}%
13534 \HCode{<input type="checkbox" %
13535   \ifFld@checked checked \fi
13536   \ifFld@disabled disabled \fi

```

```

13537 \ifFld@readonly readonly \fi
13538 name="\Fld@name" %
13539 \ifFld@hidden type="hidden" \fi
13540 value="\Fld@default" %
13541 \the\Fld@toks>%
13542 #2%
13543 }%
13544 \egroup
13545 }
13546 </tex4ht>

```

48.4 pdfTeX

```

13547 <*pdfTeX>
13548 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
13549 \Hy@Message{Sorry, pdfTeX does not support FORM gauges}%
13550 }
13551 \def\MakeFieldObject#1#2{\sbox0{#1}%
13552 \immediate\pdfxform0 %
13553 \expandafter\edef\csname #2Object\endcsname{%
13554 \the\pdflastxform\space 0 R%
13555 }%
13556 % \hbox to Opt{\hskip-\maxdimen{\pdfrefxform \the\pdflastxform}}}%
13557 }%
13558 \let\HyField@afields\ltx@empty
13559 \let\HyField@cofields\ltx@empty
13560 \begingroup\expandafter\expandafter\expandafter\endgroup
13561 \expandafter\ifx\csname pdflastlink\endcsname\relax
13562 \let\HyField@AddToFields\relax
13563 \PackageInfo{hyperref}{%
13564 You need pdfTeX 1.40.0 for setting the /Fields entry.%
13565 \MessageBreak
13566 Adobe Reader/Acrobat accepts an empty /Field array,%
13567 \MessageBreak
13568 but other PDF viewers might complain%
13569 }%
13570 \else
13571 \let\HyField@AuxAddToFields\ltx@gobble
13572 \let\HyField@AuxAddToCoFields\ltx@gobbletwo
13573 \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.

```

13574 \def\HyField@ABD@AuxAddToCoFields#1#2{%
13575 \begingroup
13576 \Hy@safe@activestrue
13577 \let\ltx@secondoftwo\relax
13578 \ifx\HyField@cofields\ltx@empty
13579 \xdef\HyField@cofields{%
13580 \ltx@secondoftwo{#1}{ #2 0 R}%
13581 }%
13582 \else
13583 \let\ltx@secondoftwo\relax
13584 \def\HyField@AddCoField###1##2###3{%
13585 \ifx##1\ltx@empty
13586 \ltx@secondoftwo{#1}{ #2 0 R}%
13587 \expandafter\ltx@gobble
13588 \else
13589 \ifnum\pdfstrcmp{##2}{#1}>\ltx@zero

```

```

13590         \ltx@secondoftwo{#1}{ #2 0 R}%
13591         \ltx@secondoftwo{##2}{##3}%
13592         \expandafter\expandafter\expandafter\ltx@gobble
13593     \else
13594         \ltx@secondoftwo{##2}{##3}%
13595     \fi
13596 \fi
13597 \HyField@AddCoField
13598 }%
13599 \xdef\HyField@cofields{%
13600     \expandafter\HyField@AddCoField
13601     \HyField@cofields\ltx@empty\ltx@empty\ltx@empty
13602 }%
13603 \fi
13604 \endgroup
13605 }%
13606 \Hy@AtBeginDocument{%
13607     \if@filesw
13608         \immediate\write\@mainaux{%
13609             \string\providecommand\string\HyField@AuxAddToFields[1]{}%
13610         }%
13611         \immediate\write\@mainaux{%
13612             \string\providecommand\string\HyField@AuxAddToCoFields[2]{}%
13613         }%
13614     \fi
13615     \let\HyField@AfterAuxOpen\@firstofone
13616     \def\HyField@AuxAddToFields#1{%
13617         \xdef\HyField@afields{%
13618             \ifx\HyField@afields\@empty
13619                 \else
13620                     \HyField@afields
13621                 \space
13622             \fi
13623             #1 0 R%
13624         }%
13625     }%
13626     \let\HyField@AuxAddToCoFields\HyField@ABD@AuxAddToCoFields
13627 }%
13628 \def\HyField@AddToFields{%
13629     \expandafter\HyField@@AddToFields\expandafter{%
13630         \the\pdfastlink
13631     }%
13632     \ifx\Fld@calculate@code\ltx@empty
13633     \else
13634         \begingroup
13635         \Hy@safe@activestruer
13636         \edef\Hy@temp{%
13637             \endgroup
13638             \if@filesw
13639                 \write\@mainaux{%
13640                     \string\HyField@AuxAddToCoFields{%
13641                         \Fld@calculate@sortkey
13642                     }{%
13643                         \the\pdfastlink
13644                     }%
13645                 }%
13646             \fi

```

```

13647     }%
13648     \Hy@temp
13649   \fi
13650 }%
13651 \def\HyField@@AddToFields#1{%
13652   \HyField@AfterAuxOpen{%
13653     \if@filesw
13654       \write\@mainaux{%
13655         \string\HyField@AuxAddToFields{#1}%
13656       }%
13657     \fi
13658   }%
13659 }%
13660 \fi
13661 \def\@Form[#1]{%
13662   \@ifundefined{textcolor}{\let\textcolor\@gobble}{}%
13663   \kvsetkeys{Form}{#1}%
13664   \pdf@ifdraftmode{}{%
13665     \Hy@FormObjects
13666     \ifnum\pdftexversion>13 %
13667       \pdfrefobj\OBJ@pdfdocencoding
13668       \pdfrefobj\OBJ@ZaDb
13669       \pdfrefobj\OBJ@Helv
13670     \fi
13671     \AtVeryEndDocument{%
13672       \immediate\pdfobj{%
13673         <<%
13674         /Fields[\HyField@afields]%
13675         \ifx\HyField@cofields\ltx@empty
13676         \else
13677           /CO[\romannumeral-'\Q\HyField@cofields]%
13678         \fi
13679         /DR<<%
13680         /Font<<%
13681         /ZaDb \OBJ@ZaDb\space 0 R%
13682         /Helv \OBJ@Helv\space 0 R%
13683         >>%
13684         >>%
13685         /DA(/Helv 10 Tf 0 g)%
13686         \ifHy@pdfa
13687         \else
13688           \ifHyField@NeedAppearances
13689           /NeedAppearances true%
13690         \fi
13691         \fi
13692         >>%
13693       }%
13694       \edef\OBJ@acroform{\the\pdflastobj}%
13695       \pdfcatalog{/AcroForm \OBJ@acroform\space 0 R}%
13696     }%
13697   }%
13698   \MakeFieldObject{%
Same as \ding{123} of package pifont.
13699   \begingroup
13700     \fontfamily{pzd}%
13701     \fontencoding{U}%
13702     \fontseries{m}%

```

```

13703 \fontshape{n}%
13704 \selectfont
13705 \char123 %
13706 \endgroup
13707 }{Ding}%
13708 \MakeFieldObject{%
13709 \fbox{\textcolor{yellow}{\textsf{Submit}}}}}%
13710 }{Submit}%
13711 \MakeFieldObject{%
13712 \fbox{\textcolor{yellow}{\textsf{SubmitP}}}}}%
13713 }{SubmitP}%
13714 }
13715 \let\@endForm\ltx@empty
13716 \let\HyAnn@AbsPageLabel\ltx@empty
13717 \let\Fld@pageobjref\ltx@empty
13718 \ltx@ifUndefined{pdfpageref}{%
13719 }{%
13720 \ltx@ifpackageloaded{zref-abspage}{%
13721 \newcount\HyAnn@Count
13722 \HyAnn@Count=\ltx@zero
13723 \def\HyAnn@AbsPageLabel{%
13724 \global\advance\HyAnn@Count by\ltx@one
13725 \zref@labelbyprops{HyAnn@\the\HyAnn@Count}{abspage}%
13726 \zref@refused{HyAnn@\the\HyAnn@Count}%
13727 }%
13728 \def\Fld@pageobjref{%
13729 \zref@ifrefundefined{HyAnn@\the\HyAnn@Count}{%
13730 }{%
13731 \zref@ifrefcontainsprop{HyAnn@\the\HyAnn@Count}{abspage}{%
13732 /P \pdfpageref
13733 \zref@extractdefault{HyAnn@\the\HyAnn@Count}{abspage}{1} %
13734 \space 0 R%
13735 }{%
13736 }%
13737 }%
13738 }%
13739 }{%
13740 }%
13741 }
13742 \def\@TextField[#1]#2{% parameters, label
13743 \def\Fld@name{#2}%
13744 \let\Fld@default\ltx@empty
13745 \let\Fld@value\@empty
13746 \def\Fld@width{\DefaultWidthofText}%
13747 \def\Fld@height{%
13748 \ifFld@multiline
13749 \DefaultHeightofTextMultiline
13750 \else
13751 \DefaultHeightofText
13752 \fi
13753 }%
13754 \begingroup
13755 \expandafter\HyField@SetKeys\expandafter{%
13756 \DefaultOptionsofText,#1%
13757 }%
13758 \PDFForm@Name
13759 \HyField@FlagsText

```

```

13760 \ifFld@hidden\def\Fld@width{1sp}\fi
13761 \ifx\Fld@value\@empty\def\Fld@value{\Fld@default}\fi
13762 \LayoutTextField{#2}{%
13763   \leavevmode
13764   \HyAnn@AbsPageLabel
13765   \Hy@escapeform\PDFForm@Text
13766   \pdfstartlink user {\PDFForm@Text}\relax
13767   \MakeTextField{\Fld@width}{\Fld@height}\pdfendlink
13768   \HyField@AddToFields
13769 }%
13770 \endgroup
13771 }
13772 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13773   \def\Fld@name{#2}%
13774   \let\Fld@default\relax
13775   \let\Fld@value\relax
13776   \def\Fld@width{\DefaultWidthofChoiceMenu}%
13777   \def\Fld@height{\DefaultHeightofChoiceMenu}%
13778   \begingroup
13779     \Fld@menulength=0 %
13780     \@tempdima\z@
13781     \@for\@curropt:=#3\do{%
13782       \expandafter\Fld@checkequals\@curropt==\\%
13783       \Hy@StepCount\Fld@menulength
13784       \settowidth{\@tempdimb}{\@currDisplay}%
13785       \ifdim\@tempdimb>\@tempdima\@tempdima\@tempdimb\fi
13786     }%
13787     \advance\@tempdima by 15\p@
13788     \begingroup
13789       \HyField@SetKeys{#1}%
13790     \edef\x{\endgroup
13791       \noexpand\expandafter
13792       \noexpand\HyField@SetKeys
13793       \noexpand\expandafter{%
13794         \expandafter\noexpand\curname DefaultOptionsof%
13795         \ifFld@radio
13796           Radio%
13797         \else
13798           \ifFld@combo
13799             \ifFld@popdown
13800               PopdownBox%
13801             \else
13802               ComboBox%
13803             \fi
13804           \else
13805             ListBox%
13806           \fi
13807         \fi
13808       \endcurname
13809     }%
13810   }\x
13811   \HyField@SetKeys{#1}%
13812   \PDFForm@Name
13813   \ifFld@hidden\def\Fld@width{1sp}\fi
13814   \ifx\Fld@value\relax
13815     \let\Fld@value\Fld@default
13816   \fi

```

```

13817 \LayoutChoiceField{#2}{%
13818 \ifFld@radio
13819 \HyField@FlagsRadioButton
13820 \@@Radio{#3}%
13821 \else
13822 \begingroup
13823 \HyField@FlagsChoice
13824 \ifdim\Fld@width<\@tempdima
13825 \ifdim\@tempdima<1cm\@tempdima1cm\fi
13826 \edef\Fld@width{\the\@tempdima}%
13827 \fi
13828 \ifFld@combo
13829 \else
13830 \@tempdima=\the\Fld@menulength\Fld@charsize
13831 \advance\@tempdima by \Fld@borderwidth bp %
13832 \advance\@tempdima by \Fld@borderwidth bp %
13833 \edef\Fld@height{\the\@tempdima}%
13834 \fi
13835 \@@ListBox{#3}%
13836 \endgroup
13837 \fi
13838 }%
13839 \endgroup
13840 }
13841 \def\@@Radio#1{%
13842 \Fld@listcount=0 %
13843 \EdefEscapeName\Fld@default{\Fld@default}%
13844 \@for\@curropt:=#1\do{%
13845 \expandafter\Fld@checkequals\@curropt==\%
13846 \EdefEscapeName\@currValue{\@currValue}%
13847 \Hy@StepCount\Fld@listcount
13848 \@currDisplay\space
13849 \leavevmode
13850 \HyAnn@AbsPageLabel
13851 \Hy@escapeform\PDFForm@Radio
13852 \pdfstartlink user {%
13853 \PDFForm@Radio
13854 /AP<<%
13855 /N<<%

```

Laurent.Guillope@math.univ-nantes.fr (Laurent Guillope) persuades me that this was wrong: `/\Fld@name\the\Fld@listcount`. But I leave it here to remind me that it is untested.

```

13856 /\@currValue\space \DingObject
13857 >>%
13858 >>%
13859 }%
13860 \relax
13861 \MakeRadioField{\Fld@width}{\Fld@height}\pdfendlink
13862 \ifnum\Fld@listcount=1 %
13863 \HyField@AddToFields
13864 \fi
13865 \space % deliberate space between radio buttons
13866 }%
13867 }
13868 \newcount\Fld@listcount
13869 \def\@@ListBox#1{%
13870 \HyField@PDFChoices{#1}%

```

```

13871 \leavevmode
13872 \HyAnn@AbsPageLabel
13873 \Hy@escapeform\PDFForm@List
13874 \pdfstartlink user {\PDFForm@List}\relax
13875 \MakeChoiceField{\Fld@width}{\Fld@height}%
13876 \pdfendlink
13877 \HyField@AddToFields
13878 }
13879 \def\@PushButton[#1]#2{% parameters, label
13880 \def\Fld@name{#2}%
13881 \begingroup
13882 \expandafter\HyField@SetKeys\expandafter{%
13883 \DefaultOptionsofPushButton,#1%
13884 }%
13885 \PDFForm@Name
13886 \ifHy@pdfa
13887 \Hy@Error{%
13888 PDF/A: Push button with JavaScript is prohibited%
13889 }\@ehc
13890 \LayoutPushButtonField{%
13891 \leavevmode
13892 \MakeButtonField{#2}%
13893 }%
13894 \else
13895 \HyField@FlagsPushButton
13896 \ifFld@hidden\def\Fld@width{1sp}\fi
13897 \LayoutPushButtonField{%
13898 \leavevmode
13899 \HyAnn@AbsPageLabel
13900 \Hy@escapeform\PDFForm@Push
13901 \pdfstartlink user {\PDFForm@Push}\relax
13902 \MakeButtonField{#2}%
13903 \pdfendlink
13904 \HyField@AddToFields
13905 }%
13906 \fi
13907 \endgroup
13908 }
13909 \def\@Submit[#1]#2{%
13910 \def\Fld@width{\DefaultWidthofSubmit}%
13911 \def\Fld@height{\DefaultHeightofSubmit}%
13912 \begingroup
13913 \expandafter\HyField@SetKeys\expandafter{%
13914 \DefaultOptionsofSubmit,#1%
13915 }%
13916 \HyField@FlagsPushButton
13917 \HyField@FlagsSubmit
13918 \ifFld@hidden\def\Fld@width{1sp}\fi
13919 \leavevmode
13920 \HyAnn@AbsPageLabel
13921 \Hy@escapeform\PDFForm@Submit
13922 \pdfstartlink user {%
13923 \PDFForm@Submit
13924 /AP<</N \SubmitObject/D \SubmitPObject>>%
13925 }%
13926 \relax
13927 \MakeButtonField{#2}%

```

```

13928 \pdfendlink
13929 \HyField@AddToFields
13930 \endgroup
13931 }
13932 \def\@Reset[#1]#2{%
13933 \def\Fld@width{\DefaultWidthofReset}%
13934 \def\Fld@height{\DefaultHeightofReset}%
13935 \begingroup
13936 \expandafter\HyField@SetKeys\expandafter{%
13937 \DefaultOptionsofReset,#1%
13938 }%
13939 \leavevmode
13940 \ifHy@pdfa
13941 \Hy@Error{%
13942 PDF/A: Reset action is prohibited%
13943 }\@ehc
13944 \MakeButtonField{#2}%
13945 \else
13946 \HyField@FlagsPushButton
13947 \ifFld@hidden\def\Fld@width{1sp}\fi
13948 \HyAnn@AbsPageLabel
13949 \Hy@escapeform\PDFForm@Reset
13950 \pdfstartlink user {\PDFForm@Reset}\relax
13951 \MakeButtonField{#2}%
13952 \pdfendlink
13953 \HyField@AddToFields
13954 \fi
13955 \endgroup
13956 }
13957 \def\@CheckBox[#1]#2{% parameters, label
13958 \def\Fld@name{#2}%
13959 \def\Fld@default{0}%
13960 \begingroup
13961 \def\Fld@width{\DefaultWidthofCheckBox}%
13962 \def\Fld@height{\DefaultHeightofCheckBox}%
13963 \expandafter\HyField@SetKeys\expandafter{%
13964 \DefaultOptionsofCheckBox,#1%
13965 }%
13966 \PDFForm@Name
13967 \HyField@FlagsCheckBox
13968 \ifFld@hidden\def\Fld@width{1sp}\fi
13969 \LayoutCheckField{#2}{%
13970 \leavevmode
13971 \HyAnn@AbsPageLabel
13972 \Hy@escapeform\PDFForm@Check
13973 \pdfstartlink user {\PDFForm@Check}\relax
13974 \MakeCheckField{\Fld@width}{\Fld@height}%
13975 \pdfendlink
13976 \HyField@AddToFields
13977 }%
13978 \endgroup
13979 }
13980 \def\Hy@FormObjects{%
13981 \pdfobj {%
13982 <<%
13983 /Type/Encoding%
13984 /Differences[%

```

```

13985 24/breve/caron/circumflex/dotaccent/hungarumlaut/ogonek%
13986 /ring/tilde %
13987 39/quotesingle %
13988 96/grave %
13989 128/bullet/dagger/daggerdbl/ellipsis/emdash/endash/florin%
13990 /fraction/guilsinglleft/guilsinglright/minus/perthousand%
13991 /quotedblbase/quotedblleft/quotedblright/quoteleft%
13992 /quoteright/quotesinglbase/trademark/fi/fl/Lslash/OE%
13993 /Scaron/Ydieresis/Zcaron/dotlessi/lslash/oe/scaron/zcaron %
13994 164/currency %
13995 166/brokenbar %
13996 168/dieresis/copyright/ordfeminine %
13997 172/logicalnot/.notdef/registered/macron/degree/plusminus%
13998 /twosuperior/threesuperior/acute/mu %
13999 183/periodcentered/cedilla/onesuperior/ordmasculine %
14000 188/onequarter/onehalf/threequarters %
14001 192/Agrave/Aacute/Acircumflex/Atilde/Adieresis/Aring/AE%
14002 /Ccedilla/Egrave/Eacute/Ecircumflex/Edieresis/Igrave%
14003 /Iacute/Icircumflex/Idieresis/Eth/Ntilde/Ograve/Oacute%
14004 /Ocircumflex/Otilde/Odieresis/multiply/Oslash/Ugrave%
14005 /Uacute/Ucircumflex/Udieresis/Yacute/Thorn/germandbls%
14006 /agrave/aacute/acircumflex/atilde/adieresis/aring/ae%
14007 /ccedilla/egrave/eacute/ecircumflex/edieresis/igrave%
14008 /iacute/icircumflex/idieresis/eth/ntilde/ograde/oacute%
14009 /ocircumflex/otilde/odieresis/divide/oslash/ugrave%
14010 /uacute/ucircumflex/udieresis/yacute/thorn/ydieresis%
14011 }%
14012 >>%
14013 }%
14014 \xdef\OBJ@pdfdocencoding{\the\pdfastobj}%
14015 \pdfobj{%
14016 <<%
14017 /Type/Font%
14018 /Subtype/Type1%
14019 /Name/ZaDb%
14020 /BaseFont/ZapfDingbats%
14021 >>%
14022 }%
14023 \xdef\OBJ@ZaDb{\the\pdfastobj}%
14024 \pdfobj{%
14025 <<%
14026 /Type/Font%
14027 /Subtype/Type1%
14028 /Name/Helv%
14029 /BaseFont/Helvetica%
14030 /Encoding \OBJ@pdfdocencoding\space 0 R%
14031 >>%
14032 }%
14033 \xdef\OBJ@Helv{\the\pdfastobj}%
14034 \global\let\Hy@FormObjects\relax
14035 }
14036 (/pdfTeX)

```

48.5 dvipdfm, xetex

D. P. Story adapted the pdf \TeX forms part for dvipdfm, of which version 0.12.7b or higher is required because of a bug.

```
14037 {*dvipdfm | xetex}
```

\@Gauge

```
14038 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
14039 \Hy@Message{Sorry, dvipdfm/XeTeX does not support FORM gauges}%
14040 }
```

\@Form

```
14041 \def\@Form[#1]{%
14042 \ifundefined{textcolor}{\let\textcolor\@gobble}{}%
14043 \kvsetkeys{Form}{#1}%
14044 \Hy@FormObjects
14045 \@pdfm@mark{obj @afields []}%
14046 \@pdfm@mark{obj @corder []}%
14047 \@pdfm@mark{%
14048 obj @aform <<%
14049 /Fields @afields%
14050 /DR<<%
14051 /Font<<%
14052 /ZaDb @OBJZaDb%
14053 /Helv @OBJHelv%
14054 >>%
14055 >>%
14056 /DA(/Helv 10 Tf 0 g)%
14057 /CO @corder%
14058 \ifHy@pdfa
14059 \else
14060 \ifHyField@NeedAppearances
14061 /NeedAppearances true%
14062 \fi
14063 \fi
14064 >>%
14065 }%
14066 \@pdfm@mark{put @catalog <</AcroForm @aform>>}%
14067 }
```

\@endForm

```
14068 \let\@endForm\ltx@empty
```

\dvipdfm@setdim \dvipdfm@setdim sets dimensions for ann using \pdfm@box.

```
14069 \def\dvipdfm@setdim{%
14070 height \the\ht\pdfm@box\space
14071 width \the\wd\pdfm@box\space
14072 depth \the\dp\pdfm@box\space
14073 }
```

\HyField@AnnotCount

```
14074 \newcount\HyField@AnnotCount
14075 \HyField@AnnotCount=\z@
```

\HyField@AdvanceAnnotCount

```
14076 \def\HyField@AdvanceAnnotCount{%
14077 \global\advance\HyField@AnnotCount\@ne
14078 }
```

\HyField@TheAnnotCount

```
14079 \def\HyField@TheAnnotCount{%
14080 \the\HyField@AnnotCount
14081 }
```

\Fld@pageobjref

```
14082 \def\Fld@pageobjref{/P @thispage}%
```

\HyField@AddToFields

```
14083 \def\HyField@AddToFields#1{%
14084   \@pdfm@mark{put @afields @#1\HyField@TheAnnotCount}%
14085   \ifx\Fld@calculate@code\ltx@empty
14086   \else
14087     \@pdfm@mark{put @corder @#1\HyField@TheAnnotCount}%
14088   \fi
14089 }
```

\@TextField

```
14090 \def\@TextField[#1]#2{% parameters, label
14091   \def\Fld@name{#2}%
14092   \let\Fld@default\ltx@empty
14093   \let\Fld@value\@empty
14094   \def\Fld@width{\DefaultWidthofText}%
14095   \def\Fld@height{%
14096     \ifFld@multiline
14097       \DefaultHeightofTextMultiline
14098     \else
14099       \DefaultHeightofText
14100     \fi
14101   }%
14102   \begingroup
14103     \expandafter\HyField@SetKeys\expandafter{%
14104       \DefaultOptionsofText,#1%
14105     }%
14106     \PDFForm@Name
14107     \HyField@FlagsText
14108     \ifFld@hidden\def\Fld@width{1sp}\fi
14109     \ifx\Fld@value\@empty\def\Fld@value{\Fld@default}\fi
14110     \setbox\pdfm@box=\hbox{%
14111       \MakeTextField{\Fld@width}{\Fld@height}%
14112     }%
14113     \HyField@AdvanceAnnotCount
14114     \LayoutTextField{#2}%
14115     \leavevmode
14116     \Hy@escapeform\PDFForm@Text
14117     \@pdfm@mark{%
14118       ann @text\HyField@TheAnnotCount\space
14119       \dvipdfm@setdim << \PDFForm@Text >>%
14120     }%
14121   }%
14122   \unhbox\pdfm@box
14123   \HyField@AddToFields{text}%
14124   % record in @afields array
14125 \endgroup
14126 }
```

\@ChoiceMenu

```
14127 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
14128   \def\Fld@name{#2}%
14129   \let\Fld@default\relax
14130   \let\Fld@value\relax
14131   \def\Fld@width{\DefaultWidthofChoiceMenu}%
```

```

14132 \def\Fld@height{\DefaultHeightofChoiceMenu}%
14133 \begingroup
14134 \Fld@menulength=0 %
14135 \@tempdima\z@
14136 \@for\@curropt:=#3\do{%
14137 \expandafter\Fld@checkequals\@curropt==\\%
14138 \Hy@StepCount\Fld@menulength
14139 \settowidth{\@tempdimb}{\@currDisplay}%
14140 \ifdim\@tempdimb>\@tempdima\@tempdima\@tempdimb\fi
14141 }%
14142 \advance\@tempdima by 15\p@
14143 \begingroup
14144 \HyField@SetKeys{#1}%
14145 \edef\x{\endgroup
14146 \noexpand\expandafter
14147 \noexpand\HyField@SetKeys
14148 \noexpand\expandafter{%
14149 \expandafter\noexpand\csname DefaultOptionsof%
14150 \ifFld@radio
14151 Radio%
14152 \else
14153 \ifFld@combo
14154 \ifFld@popdown
14155 PopdownBox%
14156 \else
14157 ComboBox%
14158 \fi
14159 \else
14160 ListBox%
14161 \fi
14162 \fi
14163 \endcsname
14164 }%
14165 }\x
14166 \HyField@SetKeys{#1}%
14167 \PDFForm@Name
14168 \ifFld@hidden\def\Fld@width{1sp}\fi
14169 \ifx\Fld@value\relax
14170 \let\Fld@value\Fld@default
14171 \fi
14172 \LayoutChoiceField{#2}{%
14173 \ifFld@radio
14174 \HyField@FlagsRadioButton
14175 \@@Radio{#3}%
14176 \else
14177 \begingroup
14178 \HyField@FlagsChoice
14179 \ifdim\Fld@width<\@tempdima
14180 \ifdim\@tempdima<1cm\@tempdima1cm\fi
14181 \edef\Fld@width{\the\@tempdima}%
14182 \fi
14183 \ifFld@combo
14184 \else
14185 \@tempdima=\the\Fld@menulength\Fld@charsize
14186 \advance\@tempdima by \Fld@borderwidth bp %
14187 \advance\@tempdima by \Fld@borderwidth bp %
14188 \edef\Fld@height{\the\@tempdima}%

```

```

14189         \fi
14190         \@@ListBox{#3}%
14191     \endgroup
14192     \fi
14193 }%
14194 \endgroup
14195 }

\@@Radio

14196 \def\@@Radio#1{%
14197     \Fld@listcount=0 %
14198     \EdefEscapeName\Fld@default{\Fld@default}%
14199     \setbox\pdfm@box=\hbox{%
14200         \MakeRadioField{\Fld@width}{\Fld@height}%
14201     }%
14202     \@for\@curropt:=#1\do{%
14203         \expandafter\Fld@checkequals\@curropt==\\%
14204         \EdefEscapeName\@currValue{\@currValue}%
14205         \Hy@StepCount\Fld@listcount
14206         \@currDisplay\space
14207         \leavevmode
14208         \Hy@escapeform\PDFForm@Radio
14209         \ifnum\Fld@listcount=1 %
14210             \HyField@AdvanceAnnotCount
14211             \fi
14212             \@pdfm@mark{%
14213                 ann %
14214                 \ifnum\Fld@listcount=1 %
14215                     @radio\HyField@TheAnnotCount%
14216                 \space
14217             \fi
14218             \dvipdfm@setdim
14219             <<%
14220             \PDFForm@Radio
14221             /AP<</N<</\@currValue /null>>>>%
14222             >>%
14223         }%
14224         \unhcopy\pdfm@box\space% deliberate space between radio buttons
14225         \ifnum\Fld@listcount=1 %
14226             \HyField@AddToFields{radio}%
14227         \fi
14228     }%
14229 }

\Fld@listcount

14230 \newcount\Fld@listcount

\@@ListBox

14231 \def\@@ListBox#1{%
14232     \HyField@PDFChoices{#1}%
14233     \setbox\pdfm@box=\hbox{%
14234         \MakeChoiceField{\Fld@width}{\Fld@height}%
14235     }%
14236     \leavevmode
14237     \Hy@escapeform\PDFForm@List
14238     \HyField@AdvanceAnnotCount
14239     \@pdfm@mark{%

```

```

14240 ann @list\HyField@TheAnnotCount\space
14241 \dvipdfm@setdim
14242 <<\PDFForm@List>>%
14243 }%
14244 \unhbox\pdfm@box
14245 \HyField@AddToFields{list}%
14246 }

```

\@PushButton

```

14247 \def\@PushButton[#1]#2{% parameters, label
14248 \def\Fld@name{#2}%
14249 \begingroup
14250 \expandafter\HyField@SetKeys\expandafter{%
14251 \DefaultOptionsofPushButton,#1%
14252 }%
14253 \PDFForm@Name
14254 \ifHy@pdfa
14255 \Hy@Error{%
14256 PDF/A: Push button with JavaScript is prohibited%
14257 } \@ehc
14258 \LayoutPushButtonField{%
14259 \leavevmode
14260 \MakeButtonField{#2}%
14261 }%
14262 \else
14263 \setbox\pdfm@box=\hbox{\MakeButtonField{#2}}%
14264 \HyField@FlagsPushButton
14265 \ifFld@hidden\def\Fld@width{1sp}\fi
14266 \HyField@AdvanceAnnotCount
14267 \LayoutPushButtonField{%
14268 \leavevmode
14269 \Hy@escapeform\PDFForm@Push
14270 \@pdfm@mark{%
14271 ann @push\HyField@TheAnnotCount\space
14272 \dvipdfm@setdim
14273 <<\PDFForm@Push>>%
14274 }%
14275 }%
14276 \unhbox\pdfm@box
14277 \HyField@AddToFields{push}%
14278 \fi
14279 \endgroup
14280 }

```

\@Submit

```

14281 \def\@Submit[#1]#2{%
14282 \def\Fld@width{\DefaultWidthofSubmit}%
14283 \def\Fld@height{\DefaultHeightofSubmit}%
14284 \begingroup
14285 \expandafter\HyField@SetKeys\expandafter{%
14286 \DefaultOptionsofSubmit,#1%
14287 }%
14288 \HyField@FlagsPushButton
14289 \HyField@FlagsSubmit
14290 \ifFld@hidden\def\Fld@width{1sp}\fi
14291 \setbox\pdfm@box=\hbox{\MakeButtonField{#2}}%
14292 \leavevmode

```

```

14293 \Hy@escapeform\PDFForm@Submit
14294 \HyField@AdvanceAnnotCount
14295 \@pdfm@mark{%
14296     ann @submit\HyField@TheAnnotCount\space
14297     \dvipdfm@setdim
14298     <<\PDFForm@Submit>>%
14299 }%
14300 \unhbox\pdfm@box%
14301 \HyField@AddToFields{submit}%
14302 \endgroup
14303 }

```

\@Reset

```

14304 \def\@Reset[#1]#2{%
14305     \def\Fld@width{\DefaultWidthofReset}%
14306     \def\Fld@height{\DefaultHeightofReset}%
14307     \begingroup
14308     \expandafter\HyField@SetKeys\expandafter{%
14309         \DefaultOptionsofReset,#1%
14310     }%
14311     \leavevmode
14312     \ifHy@pdfa
14313         \Hy@Error{%
14314             PDF/A: Reset action is prohibited%
14315         }\@ehc
14316         \MakeButtonField{#2}%
14317     \else
14318         \HyField@FlagsPushButton
14319         \ifFld@hidden\def\Fld@width{1sp}\fi
14320         \setbox\pdfm@box=\hbox{\MakeButtonField{#2}}%
14321         \Hy@escapeform\PDFForm@Reset
14322         \HyField@AdvanceAnnotCount
14323         \@pdfm@mark{%
14324             ann @reset\HyField@TheAnnotCount\space
14325             \dvipdfm@setdim
14326             <<\PDFForm@Reset>>%
14327         }%
14328         \unhbox\pdfm@box
14329         \HyField@AddToFields{reset}%
14330     \fi
14331 \endgroup
14332 }

```

\@CheckBox

```

14333 \def\@CheckBox[#1]#2{% parameters, label
14334     \def\Fld@name{#2}%
14335     \def\Fld@default{0}%
14336     \begingroup
14337     \def\Fld@width{\DefaultWidthofCheckBox}%
14338     \def\Fld@height{\DefaultHeightofCheckBox}%
14339     \expandafter\HyField@SetKeys\expandafter{%
14340         \DefaultOptionsofCheckBox,#1%
14341     }%
14342     \PDFForm@Name
14343     \HyField@FlagsCheckBox
14344     \ifFld@hidden\def\Fld@width{1sp}\fi
14345     \setbox\pdfm@box=\hbox{%

```

```

14346 \MakeCheckField{\Fld@width}{\Fld@height}%
14347 }%
14348 \HyField@AdvanceAnnotCount
14349 \LayoutCheckField{#2}{%
14350 \leavevmode
14351 \Hy@escapeform\PDFForm@Check
14352 \@pdfm@mark{%
14353 ann @check\HyField@TheAnnotCount\space
14354 \dvipdfm@setdim
14355 <<\PDFForm@Check>>%
14356 }%
14357 \unhbox\pdfm@box
14358 \HyField@AddToFields{check}%
14359 }%
14360 \endgroup
14361 }

14362 \def\Hy@FormObjects{%
14363 \@pdfm@mark{obj @OBJpdfdocencoding%
14364 <<%
14365 /Type/Encoding%
14366 /Differences[
14367 24/breve/caron/circumflex/dotaccent/hungarumlaut/ogonek/ring/tilde %
14368 39/quotesingle %
14369 96/grave %
14370 128/bullet/dagger/daggerdbl/ellipsis/emdash/endash/florin%
14371 /fraction/guilsinglleft/guilsinglright/minus/perthousand%
14372 /quotedblbase/quotedblleft/quotedblright/quoteleft/quoteright%
14373 /quotesinglbase/trademark/fl/fl/Lslash/OE/Scaron/Ydieresis%
14374 /Zcaron/dotlessi/lslash/oe/scaron/zcaron %
14375 164/currency %
14376 166/brokenbar %
14377 168/dieresis/copyright/ordfeminine %
14378 172/logicalnot/.notdef/registered/macron/degree/plusminus%
14379 /twosuperior/threesuperior/acute/mu %
14380 183/periodcentered/cedilla/onesuperior/ordmasculine %
14381 188/onequarter/onehalf/threequarters %
14382 192/Agrave/Aacute/Acircumflex/Atilde/Adieresis/Aring/AE%
14383 /Ccedilla/Egrave/Eacute/Ecircumflex/Edieresis/Igrave/Iacute%
14384 /Icircumflex/Idieresis/Eth/Ntilde/Ograve/Oacute/Ocircumflex%
14385 /Otilde/Odieresis/multiply/Oslash/Ugrave/Uacute/Ucircumflex%
14386 /Udieresis/Yacute/Thorn/germandbls/agrave/aacute/acircumflex%
14387 /atilde/adieresis/aring/ae/ccedilla/egrave/eacute%
14388 /ecircumflex/edieresis/igrave/iacute/icircumflex/idieresis%
14389 /eth/ntilde/ograve/oacute/ocircumflex/otilde/odieresis%
14390 /divide/oslash/ugrave/uacute/ucircumflex/udieresis/yacute%
14391 /thorn/ydieresis%
14392 ]%
14393 >>%
14394 }%
14395 \@pdfm@mark{obj @OBJZaDb%
14396 <<%
14397 /Type/Font%
14398 /Subtype/Type1%
14399 /Name/ZaDb%
14400 /BaseFont/ZapfDingbats%
14401 >>%
14402 }%

```

```

14403 \@pdfm@mark{obj @OBJHelv%
14404 <<%
14405 /Type/Font%
14406 /Subtype/Type1%
14407 /Name/Helv%
14408 /BaseFont/Helvetica%
14409 /Encoding @OBJpdfdocencoding%
14410 >>%
14411 }%
14412 \global\let\Hy@FormObjects\relax
14413 }
14414 \</dvipdfm | xetex>

```

48.6 Common forms part

```

14415 (*pdfform)

\Fld@pageobjref

14416 \providecommand*{\Fld@pageobjref}{%

\Hy@escapestring

14417 \begingroup\expandafter\expandafter\expandafter\endgroup
14418 \expandafter\ifx\csname pdf@escapestring\endcsname\relax
14419 \let\Hy@escapestring\@firstofone
14420 \def\Hy@escapeform#1{%
14421 \ifHy@pdfescapeform
14422 \def\Hy@escapestring##1{%
14423 \noexpand\Hy@escapestring{\noexpand##1}%
14424 }%
14425 \edef\Hy@temp{#1}%
14426 \expandafter\Hy@@@escapeform\Hy@temp\Hy@escapestring{}\@nil
14427 \def\Hy@escapestring##1{%
14428 \@ifundefined{Hy@esc@\string##1}{%
14429 ##1%
14430 \ThisShouldNotHappen
14431 }{%
14432 \csname Hy@esc@\string##1\endcsname
14433 }%
14434 }%
14435 \else
14436 \let\Hy@escapestring\@firstofone
14437 \fi
14438 }%
14439 \def\Hy@@@escapeform#1\Hy@escapestring#2#3\@nil{%
14440 \ifx\#3\%
14441 \else
14442 \expandafter
14443 \Hy@pstringdef\csname Hy@esc@\string#2\endcsname{#2}%
14444 \ltx@ReturnAfterFi{%
14445 \Hy@@@escapeform#3\@nil
14446 }%
14447 \fi
14448 }%
14449 \else
14450 \def\Hy@escapeform#1{%
14451 \ifHy@pdfescapeform
14452 \let\Hy@escapestring\pdfescapestring

```

```

14453 \else
14454 \let\Hy@escapestring\@firstofone
14455 \fi
14456 }%
14457 \Hy@escapeform{}%
14458 \fi

\PDFForm@Name
14459 \def\PDFForm@Name{%
14460 \PDFForm@@Name\Fld@name
14461 \ifx\Fld@altname\relax
14462 \else
14463 \PDFForm@@Name\Fld@altname
14464 \fi
14465 \ifx\Fld@mappingname\relax
14466 \else
14467 \PDFForm@@Name\Fld@mappingname
14468 \fi
14469 }

\PDFForm@@Name
14470 \def\PDFForm@@Name#1{%
14471 \begingroup
14472 \ifnum\Hy@pdfversion<5 % implementation note 117, PDF spec 1.7
14473 \ifHy@unicode
14474 \Hy@unicodedefalse
14475 \fi
14476 \fi
14477 \HyPsd@XeTeXBigCharstrue
14478 \pdfstringdef\Hy@gtemp#1%
14479 \endgroup
14480 \let#1\Hy@gtemp
14481 }

\Fld@additionalactions
14482 \def\Fld@@additionalactions{%
K input (keystroke) format
14483 \ifx\Fld@keystroke@code\@empty
14484 \else
14485 /K<</S/JavaScript/JS(\Hy@escapestring{\Fld@keystroke@code})>>%
14486 \fi
F display format
14487 \ifx\Fld@format@code\@empty
14488 \else
14489 /F<</S/JavaScript/JS(\Hy@escapestring{\Fld@format@code})>>%
14490 \fi
V validation
14491 \ifx\Fld@validate@code\@empty
14492 \else
14493 /V<</S/JavaScript/JS(\Hy@escapestring{\Fld@validate@code})>>%
14494 \fi
C calculation
14495 \ifx\Fld@calculate@code\@empty
14496 \else
14497 /C<</S/JavaScript/JS(\Hy@escapestring{\Fld@calculate@code})>>%
14498 \fi

```

Fo receiving the input focus

```
14499 \ifx\Fld@onfocus@code\@empty
14500 \else
14501 /Fo<</S/JavaScript/JS(\Hy@escapestring{\Fld@onfocus@code})>>%
14502 \fi
```

Bl loosing the input focus (blurred)

```
14503 \ifx\Fld@onblur@code\@empty
14504 \else
14505 /Bl<</S/JavaScript/JS(\Hy@escapestring{\Fld@onblur@code})>>%
14506 \fi
```

D pressing the mouse button (down)

```
14507 \ifx\Fld@onmousedown@code\@empty
14508 \else
14509 /D<</S/JavaScript/JS(\Hy@escapestring{\Fld@onmousedown@code})>>%
14510 \fi
```

U releasing the mouse button (up)

```
14511 \ifx\Fld@onmouseup@code\@empty
14512 \else
14513 /U<</S/JavaScript/JS(\Hy@escapestring{\Fld@onmouseup@code})>>%
14514 \fi
```

E cursor enters the annotation's active area.

```
14515 \ifx\Fld@onenter@code\@empty
14516 \else
14517 /E<</S/JavaScript/JS(\Hy@escapestring{\Fld@onenter@code})>>%
14518 \fi
```

X cursor exits the annotation's active area.

```
14519 \ifx\Fld@onexit@code\@empty
14520 \else
14521 /X<</S/JavaScript/JS(\Hy@escapestring{\Fld@onexit@code})>>%
14522 \fi
14523 }
14524 \def\Fld@additionalactions{%
14525 \if-\Fld@@additionalactions-%
14526 \else
14527 \ifHy@pdfa
14528 \else
14529 /AA<<\Fld@@additionalactions>>%
14530 \fi
14531 \fi
14532 }
```

\Fld@annotnames

```
14533 \def\Fld@annotnames{%
14534 /T(\Fld@name)%
14535 \ifx\Fld@altname\relax
14536 \else
14537 /TU(\Fld@altname)%
14538 \fi
14539 \ifx\Fld@mappingname\relax
14540 \else
14541 /TM(\Fld@mappingname)%
14542 \fi
14543 }
```

\PDFForm@Check

```
14544 \def\PDFForm@Check{%
14545   /Subtype/Widget%
14546   \Fld@annotflags
14547   \Fld@pageobjref
14548   \Fld@annotnames
14549   /FT/Btn%
14550   \Fld@flags
14551   /Q \Fld@align
14552   /BS<</W \Fld@borderwidth /S/\Fld@borderstyle>>%
14553   /MK<<%
14554     \ifnum\Fld@rotation=\z@
14555     \else
14556       /R \Fld@rotation
14557     \fi
14558     \ifx\Fld@bordercolor\relax
14559     \else
14560       /BC[\Fld@bordercolor]%
14561     \fi
14562     \ifx\Fld@bcolor\relax
14563     \else
14564       /BG[\Fld@bcolor]%
14565     \fi
14566     /CA(\Hy@escapestring{\Fld@cbsymbol})%
14567   >>%
14568   /DA(/ZaDb \strip@pt\Fld@charsize\space Tf%
14569     \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
14570   /H/P%
14571   \ifFld@checked /V/Yes/AS/Yes\else /V/Off/AS/Off\fi
14572   \Fld@additionalactions
14573 }
```

\PDFForm@Push

```
14574 \ifHy@pdfa
14575 \else
14576   \def\PDFForm@Push{%
14577     /Subtype/Widget%
14578     \Fld@annotflags
14579     \Fld@pageobjref
14580     \Fld@annotnames
14581     /FT/Btn%
14582     \Fld@flags
14583     /H/P%
14584     /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14585     \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14586       \ifx\Fld@bordercolor\relax\else 1\fi
14587       \space
14588     \else
14589       /MK<<%
14590       \ifnum\Fld@rotation=\z@
14591       \else
14592         /R \Fld@rotation
14593       \fi
14594       \ifx\Fld@bordercolor\relax
14595       \else
14596         /BC[\Fld@bordercolor]%
14597       \fi
```

```

14598     >>%
14599     \fi
14600     /A<</S/JavaScript/JS(\Hy@escapestring{\Fld@onclick@code})>>%
14601     \Fld@additionalactions
14602   }%
14603 \fi

```

\PDFForm@List

```

14604 \def\PDFForm@List{%
14605   /Subtype/Widget%
14606   \Fld@annotflags
14607   \Fld@pageobjref
14608   \Fld@annotnames
14609   /FT/Ch%
14610   \Fld@flags
14611   /Q \Fld@align
14612   /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14613   \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14614     \ifx\Fld@bordercolor\relax\else 1\fi
14615     \ifx\Fld@bcolor\relax \else 1\fi
14616     \space
14617   \else
14618     /MK<<%
14619     \ifnum\Fld@rotation=\z@
14620     \else
14621       /R \Fld@rotation
14622     \fi
14623     \ifx\Fld@bordercolor\relax
14624     \else
14625       /BC[\Fld@bordercolor]%
14626     \fi
14627     \ifx\Fld@bcolor\relax
14628     \else
14629       /BG[\Fld@bcolor]%
14630     \fi
14631   >>%
14632 \fi
14633 /DA(/Helv \strip@pt\Fld@charsize\space Tf%
14634   \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
14635 \Fld@choices
14636 \Fld@additionalactions
14637 }

```

\PDFForm@Radio

```

14638 \def\PDFForm@Radio{%
14639   /Subtype/Widget%
14640   \Fld@annotflags
14641   \Fld@pageobjref
14642   \Fld@annotnames
14643   /FT/Btn%
14644   \Fld@flags
14645   /H/P%
14646   /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14647   /MK<<%
14648   \ifnum\Fld@rotation=\z@
14649   \else
14650     /R \Fld@rotation

```

```

14651 \fi
14652 \ifx\Fld@bordercolor\relax
14653 \else
14654 /BC[\Fld@bordercolor]%
14655 \fi
14656 \ifx\Fld@bcolor\relax
14657 \else
14658 /BG[\Fld@bcolor]%
14659 \fi
14660 /CA(\Hy@escapestring{\Fld@radiosymbol})%
14661 >>%
14662 /DA(/ZaDb \strip@pt\Fld@charsize\space Tf%
14663 \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
14664 \ifx\@currValue\Fld@default
14665 /V/\Fld@default
14666 /DV/\Fld@default
14667 \else
14668 /V/Off%
14669 /DV/Off%
14670 \fi
14671 \Fld@additionalactions
14672 }

```

\PDFForm@Text

```

14673 \def\PDFForm@Text{%
14674 /Subtype/Widget%
14675 \Fld@annotflags
14676 \Fld@pageobjref
14677 \Fld@annotnames
14678 /FT/Tx%
14679 \Fld@flags
14680 /Q \Fld@align
14681 /BS<</W \Fld@borderwidth\space /S /\Fld@borderstyle>>%
14682 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14683 \ifx\Fld@bordercolor\relax\else 1\fi
14684 \ifx\Fld@bcolor\relax \else 1\fi
14685 \space
14686 \else
14687 /MK<<%
14688 \ifnum\Fld@rotation=\z@
14689 \else
14690 /R \Fld@rotation
14691 \fi
14692 \ifx\Fld@bordercolor\relax
14693 \else
14694 /BC[\Fld@bordercolor]%
14695 \fi
14696 \ifx\Fld@bcolor\relax
14697 \else
14698 /BG[\Fld@bcolor]%
14699 \fi
14700 >>%
14701 \fi
14702 /DA(/Helv \strip@pt\Fld@charsize\space Tf%
14703 \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
14704 /DV(\Hy@escapestring{\Fld@default})%
14705 /V(\Hy@escapestring{\Fld@value})%
14706 \Fld@additionalactions

```

```

14707 \ifnum\Fld@maxlen>\z@/MaxLen \Fld@maxlen \fi
14708 }

```

\PDFForm@Submit

```

14709 \def\PDFForm@Submit{%
14710 /Subtype/Widget%
14711 \Fld@annotflags
14712 \Fld@pageobjref
14713 \Fld@annotnames
14714 /FT/Btn%
14715 \Fld@flags
14716 /H/P%
14717 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14718 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14719     \ifx\Fld@bordercolor\relax\else 1\fi
14720     \space
14721 \else
14722 /MK<<%
14723     \ifnum\Fld@rotation=\z@
14724     \else
14725     /R \Fld@rotation
14726     \fi
14727     \ifx\Fld@bordercolor\relax
14728     \else
14729     /BC[\Fld@bordercolor]%
14730     \fi
14731 >>%
14732 \fi
14733 /A<<%
14734 /S/SubmitForm%
14735 /F<<%
14736 /FS/URL%
14737 /F(\Hy@escapestring{\Form@action})%
14738 >>%
14739 \Fld@submitflags
14740 >>%
14741 \Fld@additionalactions
14742 }

```

\PDFForm@Reset

```

14743 \ifHy@pdfa
14744 \else
14745 \def\PDFForm@Reset{%
14746 /Subtype/Widget%
14747 \Fld@annotflags
14748 \Fld@pageobjref
14749 \Fld@annotnames
14750 /FT/Btn%
14751 \Fld@flags
14752 /H/P%
14753 /DA(/Helv \strip@pt\Fld@charsize\space Tf 0 0 1 rg)%
14754 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14755     \ifx\Fld@bordercolor\relax\else 1\fi
14756     \space
14757 \else
14758 /MK<<%
14759     \ifnum\Fld@rotation=\z@

```

```

14760     \else
14761         /R \Fld@rotation
14762     \fi
14763     \ifx\Fld@bordercolor\relax
14764     \else
14765         /BC[\Fld@bordercolor]%
14766     \fi
14767 %     /CA (Clear)
14768 %     /AC (Done)
14769     >>%
14770     \fi
14771     /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14772     /A<</S/ResetForm>>%
14773     \Fld@additionalactions
14774 }%
14775 \fi

14776 </pdfform>
14777 <*package>

```

49 Bookmarks in the PDF file

This was originally developed by Yannis Haralambous (it was the separate `repere.sty`); it needed the `repere` or `makebook.pl` post-processor to work properly. Now redundant, as it is done entirely in L^AT_EX macros.

To write out the current section title, and its rationalized number, we have to intercept the `\@sect` command, which is rather dangerous. But how else to see the information we need? We do the *same* for `\@ssect`, giving anchors to unnumbered sections. This allows things like bibliographies to get bookmarks when used with a manual `\addcontentsline`

```

14778 \def\phantomsection{%
14779   \Hy@MakeCurrentHrefAuto{section*}%
14780   \Hy@raisedlink{\hyper@anchorstart{\@currentHref}\hyper@anchorend}%
14781 }
14782 </package>

```

49.1 Bookmarks

```
14783 <*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.

```

14784 \def\Hy@writebookmark#1#2#3#4#5{%
14785   % section number, text, label, level, file
14786   \ifx\WriteBookmarks\relax%
14787   \else
14788     \ifnum#4>\Hy@bookmarksdepth\relax
14789     \else
14790       \@@writetorep{#1}{#2}{#3}{#4}{#5}%
14791     \fi
14792   \fi
14793 }
14794 \def\Hy@currentbookmarklevel{0}
14795 \def\Hy@numberline#1{#1 }
14796 \def\@@writetorep#1#2#3#4#5{%
14797   \begingroup
14798     \edef\Hy@tempa{#5}%
14799     \ifx\Hy@tempa\Hy@bookmarkstype
14800       \edef\Hy@level{#4}%
14801       \ifx\Hy@levelcheck Y%
14802         \@tempcnta\Hy@level\relax
14803         \advance\@tempcnta by -1 %
14804         \ifnum\Hy@currentbookmarklevel<\@tempcnta
14805           \advance\@tempcnta by -\Hy@currentbookmarklevel\relax
14806           \advance\@tempcnta by 1 %
14807           \Hy@Warning{%
14808             Difference (\the\@tempcnta) between bookmark levels is %
14809             greater \MessageBreak than one, level fixed%
14810           }%
14811           \@tempcnta\Hy@currentbookmarklevel
14812           \advance\@tempcnta by 1 %
14813           \edef\Hy@level{\the\@tempcnta}%
14814         \fi
14815       \else
14816         \global\let\Hy@levelcheck Y%
14817       \fi
14818       \global\let\Hy@currentbookmarklevel\Hy@level
14819       \@tempcnta\Hy@level\relax
14820       \expandafter\xdef\csname Parent\Hy@level\endcsname{#3}%
14821       \advance\@tempcnta by -1 %
14822       \edef\Hy@tempa{#3}%
14823       \edef\Hy@tempb{\csname Parent\the\@tempcnta\endcsname}%
14824       \ifx\Hy@tempa\Hy@tempb
14825         \Hy@Warning{%
14826           The anchor of a bookmark and its parent's must not%
14827           \MessageBreak be the same. Added a new anchor%
14828         }%
14829       \phantomsection
14830     \fi
14831     \ifHy@bookmarksnumbered
14832       \let\numberline\Hy@numberline
14833       \let\booknumberline\Hy@numberline
14834       \let\partnumberline\Hy@numberline
14835       \let\chapternumberline\Hy@numberline
14836     \else
14837       \let\numberline\@gobble
14838       \let\booknumberline\@gobble

```

```

14839 \let\partnumberline\@gobble
14840 \let\chapternumberline\@gobble
14841 \fi
14842 \HyPsd@XeTeXBigCharstrue
14843 \pdfstringdef\Hy@tempa{#2}%
14844 \HyPsd@SanitizeForOutFile\Hy@tempa
14845 \if@filesw
14846 \stepcounter{bookmark@seq@number}%
14847 \@ifundefined{@outlinefile}{%
14848 }{%
14849 \protected@write\@outlinefile}{%
14850 \protect\BOOKMARK
14851 [\Hy@level][\@bookmarkopenstatus{\Hy@level}]{#3}%
14852 {\Hy@tempa}{\Hy@tempb}%
14853 \@percentchar\space\thebookmark@seq@number
14854 }%
14855 }%
14856 \fi
14857 \fi
14858 \endgroup
14859 }
14860 \newcounter{bookmark@seq@number}
14861 \begingroup
14862 \lccode'('= '{%
14863 \lccode'('= }%
14864 \lccode'1=\z@
14865 \lccode'2=\z@
14866 \lccode'3=\z@
14867 \lccode'5=\z@
14868 \lccode'7=\z@
14869 \lccode'\#=\z@
14870 \lccode'\='=\z@
14871 \lccode'\{=\z@
14872 \lccode'\}=\z@
14873 \lowercase{%
14874 \endgroup
14875 \def\HyPsd@SanitizeForOutFile#1{%
14876 \@onelevel@sanitize\Hy@tempa
14877 \escapechar'\%
14878 \edef\Hy@tempa{%
14879 \expandafter\HyPsd@SanitizeOut@BraceLeft\Hy@tempa(\@nil
14880 }%
14881 \edef\Hy@tempa{%
14882 \expandafter\HyPsd@SanitizeOut@BraceRight\Hy@tempa)\@nil
14883 }%
14884 }%
14885 \def\HyPsd@SanitizeOut@BraceLeft#1(#2\@nil{%
14886 #1%
14887 \ifx\#2\%
14888 \expandafter\ltx@gobble
14889 \else
14890 \expandafter\ltx@firstofone
14891 \fi
14892 {%
14893 \string\173%
14894 \HyPsd@SanitizeOut@BraceLeft#2\@nil
14895 }%

```

```

14896 }%
14897 \def\HyPsd@SanitizeOut@BraceRight#1)#2\@nil{%
14898   #1%
14899   \ifx\#2\%
14900     \expandafter\ltx@gobble
14901   \else
14902     \expandafter\ltx@firstofone
14903   \fi
14904   {%
14905     \string\175%
14906     \HyPsd@SanitizeOut@BraceRight#2\@nil
14907   }%
14908 }%
14909 }

```

In the call of `\BOOKMARK` the braces around `#4` are omitted, because it is not likely, that the level number contains `]`.

```

14910 \newcommand{\currentpdfbookmark}{%
14911   \pdfbookmark[\Hy@currentbookmarklevel]%
14912 }
14913 \newcommand{\subpdfbookmark}{%
14914   \@tempcnta\Hy@currentbookmarklevel
14915   \Hy@StepCount\@tempcnta
14916   \expandafter\pdfbookmark\expandafter[\the\@tempcnta]%
14917 }
14918 \newcommand{\belowpdfbookmark}[2]{%
14919   \@tempcnta\Hy@currentbookmarklevel
14920   \Hy@StepCount\@tempcnta
14921   \expandafter\pdfbookmark\expandafter[\the\@tempcnta]{#1}{#2}%
14922   \advance\@tempcnta by -1 %
14923   \xdef\Hy@currentbookmarklevel{\the\@tempcnta}%
14924 }

```

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.

```

14925 \renewcommand\pdfbookmark[3][0]{%
14926   \Hy@writebookmark{#2}{#3.#1}{#1}{toc}%
14927   \hyper@anchorstart{#3.#1}\hyper@anchorend
14928 }
14929 \def\BOOKMARK{%
14930   \ifnextchar{\@BOOKMARK}{\@BOOKMARK[1][-]}%
14931 }
14932 \def\@BOOKMARK[#1]{%
14933   \ifnextchar{\@BOOKMARK[{#1}]}{\@BOOKMARK[{#1}][-]}%
14934 }

```

The macros for calculating structure of outlines are derived from those by Petr Olsak used in the `texinfopdf` macros.

49.1.1 Rerun warning

`\Hy@OutlineRerunCheck`

```

14935 \RequirePackage{rerunfilecheck}[2009/12/10]
14936 \def\Hy@OutlineRerunCheck{%
14937   \RerunFileCheck{\jobname.out}{%
14938     \immediate\closeout\@outlinefile
14939   }{%
14940     Rerun to get outlines right\MessageBreak

```

```

14941   or use package 'bookmark'%
14942 }%
14943 }

```

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.

```

14944 (*vtex)
14945 \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.

```

14946 \begingroup
14947 \catcode'\=12 %
14948 \ifnum\Hy@VTeXversion<650 %
14949 \catcode'\=12 %
14950 \gdef\hv@pdf@char#1#2#3{%
14951 \char
14952 \ifcase'#1#2#3 %
14953 "00\or"01\or"02\or"03\or"04\or"05\or"06\or"07%
14954 \or"08\or"09\or"0A\or"0B\or"0C\or"0D\or"0E\or"0F%
14955 \or"10\or"11\or"12\or"13\or"14\or"15\or"16\or"17%
14956 \or"18\or"19\or"1A\or"1B\or"1C\or"1D\or"1E\or"1F%
14957 \or"20\or"21\or"22\or"23\or"24\or"25\or"26\or"27%
14958 \or"28\or"29\or"2A\or"2B\or"2C\or"2D\or"2E\or"2F%
14959 \or"30\or"31\or"32\or"33\or"34\or"35\or"36\or"37%
14960 \or"38\or"39\or"3A\or"3B\or"3C\or"3D\or"3E\or"3F%
14961 \or"40\or"41\or"42\or"43\or"44\or"45\or"46\or"47%
14962 \or"48\or"49\or"4A\or"4B\or"4C\or"4D\or"4E\or"4F%
14963 \or"50\or"51\or"52\or"53\or"54\or"55\or"56\or"57%
14964 \or"58\or"59\or"5A\or"5B\or"5C\or"5D\or"5E\or"5F%
14965 \or"60\or"61\or"62\or"63\or"64\or"65\or"66\or"67%
14966 \or"68\or"69\or"6A\or"6B\or"6C\or"6D\or"6E\or"6F%
14967 \or"70\or"71\or"72\or"73\or"74\or"75\or"76\or"77%
14968 \or"78\or"79\or"7A\or"7B\or"7C\or"7D\or"7E\or"7F%
14969 \or"80\or"81\or"82\or"83\or"84\or"85\or"86\or"87%
14970 \or"88\or"89\or"8A\or"8B\or"8C\or"8D\or"8E\or"8F%
14971 \or"90\or"91\or"92\or"93\or"94\or"95\or"96\or"97%
14972 \or"98\or"99\or"9A\or"9B\or"9C\or"9D\or"9E\or"9F%
14973 \or"A0\or"A1\or"A2\or"A3\or"A4\or"A5\or"A6\or"A7%
14974 \or"A8\or"A9\or"AA\or"AB\or"AC\or"AD\or"AE\or"AF%
14975 \or"B0\or"B1\or"B2\or"B3\or"B4\or"B5\or"B6\or"B7%
14976 \or"B8\or"B9\or"BA\or"BB\or"BC\or"BD\or"BE\or"BF%
14977 \or"C0\or"C1\or"C2\or"C3\or"C4\or"C5\or"C6\or"C7%
14978 \or"C8\or"C9\or"CA\or"CB\or"CC\or"CD\or"CE\or"CF%
14979 \or"D0\or"D1\or"D2\or"D3\or"D4\or"D5\or"D6\or"D7%
14980 \or"D8\or"D9\or"DA\or"DB\or"DC\or"DD\or"DE\or"DF%
14981 \or"E0\or"E1\or"E2\or"E3\or"E4\or"E5\or"E6\or"E7%
14982 \or"E8\or"E9\or"EA\or"EB\or"EC\or"ED\or"EE\or"EF%
14983 \or"F0\or"F1\or"F2\or"F3\or"F4\or"F5\or"F6\or"F7%
14984 \or"F8\or"F9\or"FA\or"FB\or"FC\or"FD\or"FE\or"FF%
14985 \fi

```

```

14986 }%
14987 \else
14988 \gdef\hv@pdf@char{\char'}%
14989 \fi
14990 \endgroup

```

\@@BOOKMARK

```

14991 \def\@@BOOKMARK[#1][#2]#3#4#5{%
14992 \expandafter\edef\csname @count@#3\endcsname{%
14993 \the\@serial@counter
14994 }%
14995 \edef\@mycount{\the\@serial@counter}%
14996 \Hy@StepCount\@serial@counter
14997 \edef\@parcount{%
14998 \expandafter\ifx\csname @count@#5\endcsname\relax
14999 0%
15000 \else
15001 \csname @count@#5\endcsname
15002 \fi
15003 }%
15004 \immediate\special{%
15005 !outline \HyperDestNameFilter{#3};p=\@parcount,i=\@mycount,%
15006 s=\ifx#2-c\else o\fi,t=#4%
15007 }%
15008 }%

```

\ReadBookmarks

```

15009 \def\ReadBookmarks{%
15010 \begingroup
15011 \def\0{\hv@pdf@char 0}%
15012 \def\1{\hv@pdf@char 1}%
15013 \def\2{\hv@pdf@char 2}%
15014 \def\3{\hv@pdf@char 3}%
15015 \def\({}%
15016 \def\)}%
15017 \def\do##1{%
15018 \ifnum\catcode'##1=\active
15019 \@makeother##1%
15020 \else
15021 \ifnum\catcode'##1=6 %
15022 \@makeother##1%
15023 \fi
15024 \fi
15025 }%
15026 \dospecials
15027 \Hy@safe@activetrue
15028 \InputIfFileExists{\jobname.out}{-}{-}%
15029 \endgroup
15030 \ifx\WriteBookmarks\relax
15031 \else
15032 \if@filesw
15033 \newwrite\@outlinefile
15034 \Hy@OutlineRerunCheck
15035 \immediate\openout\@outlinefile=\jobname.out\relax
15036 \ifHy@typexml
15037 \immediate\write\@outlinefile{<relaxxml>\relax}%
15038 \fi

```

```

15039 \fi
15040 \fi
15041 }

15042 </vtex>
15043 <*\vtex>
15044 \def\ReadBookmarks{%
15045 \pdf@ifdraftmode{}{%
15046 \begingroup
15047 \def\do###1{%
15048 \ifnum\catcode'##1=\active
15049 \@makeoother##1%
15050 \else
15051 \ifnum\catcode'##1=6 %
15052 \@makeoother##1%
15053 \fi
15054 \fi
15055 }%
15056 \dospecials
15057 \Hy@safe@activetrue
15058 \escapechar='\%
15059 \def\@@BOOKMARK[##1][##2]##3##4##5{%
15060 \calc@bm@number{##5}%
15061 }%
15062 \InputIfFileExists{\jobname.out}{-}{-}%
15063 \ifx\WriteBookmarks\relax
15064 \global\let\WriteBookmarks\relax
15065 \fi
15066 \def\@@BOOKMARK[##1][##2]##3##4##5{%
15067 \def\Hy@temp{##4}%
15068 (*pdfTeX)
15069 \Hy@pstringdef\Hy@pstringName{\HyperDestNameFilter{##3}}%
15070 \Hy@OutlineName{}\Hy@pstringName{%
15071 ##2\check@bm@number{##3}%
15072 }{%
15073 \expandafter\strip@prefix\meaning\Hy@temp
15074 }%
15075 </pdfTeX>
15076 (*pdfmark)
15077 \pdfmark{%
15078 pdfmark=/OUT,%
15079 Count={##2\check@bm@number{##3}},%
15080 Dest={##3},%
15081 Title=\expandafter\strip@prefix\meaning\Hy@temp
15082 }%
15083 </pdfmark>
15084 <*\dvipdfm|xetex>
15085 \Hy@pstringdef\Hy@pstringName{\HyperDestNameFilter{##3}}%
15086 \@pdfm@mark{%
15087 outline \ifHy@DvipdfmxOutlineOpen
15088 [%
15089 \ifnum##21>\z@
15090 \else
15091 -%
15092 \fi
15093 ] %
15094 \fi
15095 ##1<<%

```

```

15096      /Title(\expandafter\strip@prefix\meaning\Hy@temp)%
15097      /A<<%
15098      /S/GoTo%
15099      /D(\Hy@pstringName)%
15100      >>%
15101      >>%
15102      }%
15103 </dvipdfm | xetex>
15104      }%
15105      \begingroup
15106      \def\WriteBookmarks{0}%
15107      \InputIfFileExists{jobname.out}{\relax}%
15108      \endgroup
15109      %{\escapechar\m@ne\InputIfFileExists{jobname.out}{\relax}}%
15110      \endgroup
15111      }%
15112      \ifx\WriteBookmarks\relax
15113      \else
15114      \if@files
15115      \newwrite\@outlinefile
15116      \Hy@OutlineRerunCheck
15117      \immediate\openout\@outlinefile=jobname.out\relax
15118      \ifHy@typexml
15119      \immediate\write\@outlinefile{<relaxxml>\relax}%
15120      \fi
15121      \fi
15122      \fi
15123      }
15124 <*\pdfTeX>
15125 \def\Hy@OutlineName#1#2#3#4{%
15126 \pdfoutline goto name{#2}count#3{#4}%
15127 }
15128 </pdfTeX>
15129 \def\check@bm@number#1{%
15130 \expandafter\ifx\csname B_#1\endcsname\relax
15131 0%
15132 \else
15133 \csname B_#1\endcsname
15134 \fi
15135 }
15136 \def\calc@bm@number#1{%
15137 \@tempcnta=\check@bm@number{#1}\relax
15138 \advance\@tempcnta by 1 %
15139 \expandafter\xdef\csname B_#1\endcsname{\the\@tempcnta}%
15140 }
15141 </!vtex>

15142 \ifHy@implicit
15143 \else
15144 \expandafter\endinput
15145 \fi

15146 </outlines>
15147 <*\outlines | hypertex>

15148 \newlength\Hy@SectionHShift
15149 \def\Hy@SectionAnchorHref#1{%
15150 \ifx\protect\@typeset@protect
15151 \Hy@@@SectionAnchor{#1}%

```

```

15152 \fi
15153 }
15154 \DeclareRobustCommand*{\Hy@@SectionAnchor}[1]{%
15155 \leavevmode
15156 \hbox to 0pt{%
15157 \kern-\Hy@SectionHShift
15158 \Hy@raisedlink{%
15159 \hyper@anchorstart{#1}\hyper@anchorend
15160 }%
15161 \hss
15162 }%
15163 }
15164 \let\H@old@ssect\@ssect
15165 \def\@ssect#1#2#3#4#5{%
15166 \Hy@MakeCurrentHrefAuto{section*}%
15167 \setlength{\Hy@SectionHShift}{#1}%
15168 \begingroup
15169 \toks@{\H@old@ssect{#1}{#2}{#3}{#4}}%
15170 \toks\tw@\expandafter{%
15171 \expandafter\Hy@SectionAnchorHref\expandafter{\@currentHref}%
15172 #5%
15173 }%
15174 \edef\x{\endgroup
15175 \the\toks@\the\toks\tw@}%
15176 }\x
15177 }
15178 \let\H@old@schapter\@schapter
15179 \def\@schapter#1{%
15180 \begingroup
15181 \let\@mkboth\@gobbletwo
15182 \Hy@MakeCurrentHrefAuto{\Hy@chapapp*}%
15183 \Hy@raisedlink{%
15184 \hyper@anchorstart{\@currentHref}\hyper@anchorend
15185 }%
15186 \endgroup
15187 \H@old@schapter{#1}%
15188 }

```

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:

```

15189 \ltx@ifundefined{@chapter}{}{%
15190 \let\Hy@org@chapter\@chapter
15191 \def\@chapter{%
15192 \def\Hy@next{%
15193 \Hy@MakeCurrentHrefAuto{\Hy@chapapp*}%
15194 \Hy@raisedlink{%
15195 \hyper@anchorstart{\@currentHref}\hyper@anchorend
15196 }%
15197 }%
15198 \ifnum\c@secnumdepth>\m@ne
15199 \ltx@ifundefined{if@mainmatter}%
15200 \iftrue{\csname if@mainmatter\endcsname}%
15201 \let\Hy@next\relax
15202 \fi
15203 \fi
15204 \Hy@next
15205 \Hy@org@chapter

```

```

15206 }%
15207 }

15208 \let\H@old@part\@part
15209 \begingroup\expandafter\expandafter\expandafter\endgroup
15210 \expandafter\ifx\csname chapter\endcsname\relax
15211 \let\Hy@secnum@part\z@
15212 \else
15213 \let\Hy@secnum@part\m@ne
15214 \fi
15215 \def\@part{%
15216 \ifnum\Hy@secnum@part>\c@secnumdepth
15217 \phantomsection
15218 \fi
15219 \H@old@part
15220 }

15221 \let\H@old@spart\@spart
15222 \def\@spart#1{%
15223 \Hy@MakeCurrentHrefAuto{part*}%
15224 \Hy@raisedlink{%
15225 \hyper@anchorstart{\@currentHref}\hyper@anchorend
15226 }%
15227 \H@old@spart{#1}%
15228 }

15229 \let\H@old@sect\@sect
15230 \def\@sect#1#2#3#4#5#6[#7]#8{%
15231 \ifnum #2>\c@secnumdepth
15232 \expandafter\@firstoftwo
15233 \else
15234 \expandafter\@secondoftwo
15235 \fi
15236 {%
15237 \Hy@MakeCurrentHrefAuto{section*}%
15238 \setlength{\Hy@SectionHShift}{#3}%
15239 \begingroup
15240 \toks@{\H@old@sect{#1}{#2}{#3}{#4}{#5}{#6}{#7}}%
15241 \toks\tw@\expandafter{%
15242 \expandafter\Hy@SectionAnchorHref\expandafter{\@currentHref}%
15243 #8%
15244 }%
15245 \edef\x{\endgroup
15246 \the\toks@\the\toks\tw@}%
15247 }\x
15248 }{%
15249 \H@old@sect{#1}{#2}{#3}{#4}{#5}{#6}{#7}{#8}%
15250 }%
15251 }

15252 </outlines | hypertex>
15253 <*outlines>

15254 \expandafter\def\csname Parent-4\endcsname{}
15255 \expandafter\def\csname Parent-3\endcsname{}
15256 \expandafter\def\csname Parent-2\endcsname{}
15257 \expandafter\def\csname Parent-1\endcsname{}
15258 \expandafter\def\csname Parent0\endcsname{}
15259 \expandafter\def\csname Parent1\endcsname{}
15260 \expandafter\def\csname Parent2\endcsname{}
15261 \expandafter\def\csname Parent3\endcsname{}

```

```

15262 \expandafter\def\csname Parent4\endcsname{}
15263 </outlines>

```

50 Compatibility with koma-script classes

```

15264 (*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.

```

15265 \def\Hy@tempa{%
15266   \def\@addchap{##1}##2{%
15267     \typeout{##2}%
15268     \if@twoside
15269       \@mkboth{##1}{}%
15270     \else
15271       \@mkboth{}{##1}%
15272     \fi
15273     \addtocontents{lof}{\protect\addvspace{10\p@}}%
15274     \addtocontents{lot}{\protect\addvspace{10\p@}}%
15275     \Hy@MakeCurrentHrefAuto{\Hy@chapapp*}%
15276     \Hy@raisedlink{%
15277       \hyper@anchorstart{\@currentHref}\hyper@anchorend
15278     }%
15279     \if@twocolumn
15280       \@topnewpage[\@makeschapterhead{##2}]%
15281     \else
15282       \@makeschapterhead{##2}%
15283       \@afterheading
15284     \fi
15285     \addcontentsline{toc}{chapter}{##1}%
15286   }%
15287 }
15288 \@ifclassloaded{scrbook}{%
15289   \@ifclasslater{scrbook}{2001/01/01}{%
15290     \let\Hy@tempa\@empty
15291   }{}%
15292 }{%
15293   \@ifclassloaded{scrreprt}{%
15294     \@ifclasslater{scrreprt}{2001/01/01}{%
15295       \let\Hy@tempa\@empty
15296     }{}%
15297   }{}%
15298   \let\Hy@tempa\@empty
15299 }%
15300 }%
15301 \Hy@tempa
15302 </outlines | hypertex>

```

51 Encoding definition files for encodings of PDF strings

This was contributed by Heiko Oberdiek.

51.1 PD1 encoding

```
15303 ⟨*pd1enc⟩
15304 \DeclareFontEncoding{PD1}{-}{-}

Accents
15305 \DeclareTextAccent{\'}{PD1}{\textasciigrave}
15306 \DeclareTextAccent{'}{PD1}{\textacute}
15307 \DeclareTextAccent{^}{PD1}{\textasciicircum}
15308 \DeclareTextAccent{~}{PD1}{\texttilde}
15309 \DeclareTextAccent{¨}{PD1}{\textasciidieresis}
15310 \DeclareTextAccent{r}{PD1}{\textring}
15311 \DeclareTextAccent{v}{PD1}{\textasciicaron}
15312 \DeclareTextAccent{.}{PD1}{\textdotaccent}
15313 \DeclareTextAccent{c}{PD1}{\textcedilla}
15314 \DeclareTextAccent{=}{PD1}{\textasciimacron}
15315 \DeclareTextAccent{b}{PD1}{\textmacronbelow}
15316 \DeclareTextAccent{d}{PD1}{\textdotbelow}
15317 \DeclareTextCompositeCommand{\'}{PD1}{\@empty}{\textasciigrave}
15318 \DeclareTextCompositeCommand{'}{PD1}{\@empty}{\textacute}
15319 \DeclareTextCompositeCommand{^}{PD1}{\@empty}{\textasciicircum}
15320 \DeclareTextCompositeCommand{~}{PD1}{\@empty}{\texttilde}
15321 \DeclareTextCompositeCommand{¨}{PD1}{\@empty}{\textasciidieresis}
15322 \DeclareTextCompositeCommand{r}{PD1}{\@empty}{\textring}
15323 \DeclareTextCompositeCommand{v}{PD1}{\@empty}{\textasciicaron}
15324 \DeclareTextCompositeCommand{.}{PD1}{\@empty}{\textdotaccent}
15325 \DeclareTextCompositeCommand{c}{PD1}{\@empty}{\textcedilla}
15326 \DeclareTextCompositeCommand{=}{PD1}{\@empty}{\textasciimacron}
15327 \DeclareTextCompositeCommand{b}{PD1}{\@empty}{\textmacronbelow}
15328 \DeclareTextCompositeCommand{d}{PD1}{\@empty}{\textdotbelow}
15329 \DeclareTextCompositeCommand{\'}{PD1}{\ }{\textasciigrave}
15330 \DeclareTextCompositeCommand{'}{PD1}{\ }{\textacute}
15331 \DeclareTextCompositeCommand{^}{PD1}{\ }{\textasciicircum}
15332 \DeclareTextCompositeCommand{~}{PD1}{\ }{\texttilde}
15333 \DeclareTextCompositeCommand{¨}{PD1}{\ }{\textasciidieresis}
15334 \DeclareTextCompositeCommand{r}{PD1}{\ }{\textring}
15335 \DeclareTextCompositeCommand{v}{PD1}{\ }{\textasciicaron}
15336 \DeclareTextCompositeCommand{.}{PD1}{\ }{\textdotaccent}
15337 \DeclareTextCompositeCommand{c}{PD1}{\ }{\textcedilla}
15338 \DeclareTextCompositeCommand{=}{PD1}{\ }{\textasciimacron}
15339 \DeclareTextCompositeCommand{b}{PD1}{\ }{\textmacronbelow}
15340 \DeclareTextCompositeCommand{d}{PD1}{\ }{\textdotbelow}
15341 \DeclareTextCommand{\k}{PD1}[1]{\TextSymbolUnavailable{\k{#1}}#1}
15342 \DeclareTextCommand{\t}{PD1}[1]{\TextSymbolUnavailable{\t{#1}}#1}
15343 \DeclareTextCommand{\newtie}{PD1}[1]{%
15344   \TextSymbolUnavailable{\newtie{#1}}#1%
15345 }
```

Special white space escape characters not for use in bookmarks but for other PDF strings.

```
15346 % U+0009 (CHARACTER TABULATION)
15347 \DeclareTextCommand{\textHT}{PD1}{\011}% U+0009
15348 % U+000A (LINE FEED)
15349 \DeclareTextCommand{\textLF}{PD1}{\012}% U+000A
15350 % U+000D (CARRIAGE RETURN)
15351 \DeclareTextCommand{\textCR}{PD1}{\015}% U+000D
```

Accent glyph names

```
15352 % U+02D8 BREVE; breve
15353 \DeclareTextCommand{\textasciibreve}{PD1}{\030}% U+02D8
```

15354 % U+02C7 CARON; caron
 15355 \DeclareTextCommand{\textasciicaron}{PD1}{\031}% U+02C7
 15356 % U+02C6 MODIFIER LETTER CIRCUMFLEX ACCENT; circumflex
 15357 \DeclareTextCommand{\textcircumflex}{PD1}{\032}% U+02C6
 15358 % U+02D9 DOT ABOVE; dotaccent
 15359 \DeclareTextCommand{\textdotaccent}{PD1}{\033}% U+02D9
 15360 % U+02DD DOUBLE ACUTE ACCENT; hungarumlaut
 15361 \DeclareTextCommand{\texthungarumlaut}{PD1}{\034}% U+02DD
 15362 % U+02DB OGONEK; ogonek
 15363 \DeclareTextCommand{\textogonek}{PD1}{\035}% U+02DB
 15364 % U+02DA RING ABOVE; ring
 15365 \DeclareTextCommand{\textring}{PD1}{\036}% U+02DA
 15366 % U+02DC SMALL TILDE; ilde, *tilde
 15367 \DeclareTextCommand{\texttilde}{PD1}{\037}% U+02DC
 \040: U+0020 SPACE; *space, spacehackarabic
 \041: U+0021 EXCLAMATION MARK; exclam
 15368 % U+0022 QUOTATION MARK; quotedbl
 15369 \DeclareTextCommand{\textquotedbl}{PD1}{"}% \042 U+0022
 15370 % U+0023 NUMBER SIGN; numbersign
 15371 \DeclareTextCommand{\textnumbersign}{PD1}{\043}% U+0023
 15372 % U+0024 DOLLAR SIGN; dollar
 15373 \DeclareTextCommand{\textdollar}{PD1}{\044}% U+0024
 15374 % U+0025 PERCENT SIGN; percent
 15375 \DeclareTextCommand{\textpercent}{PD1}{\045}% U+0025
 15376 % U+0026 AMPERSAND; ampersand
 15377 \DeclareTextCommand{\textampersand}{PD1}{\046}% U+0026
 \047: U+0027 APOSTROPHE; quotesingle

 15378 % U+0028 LEFT PARENTHESIS; parenleft
 15379 \DeclareTextCommand{\textparenleft}{PD1}{\string\{}% \050 U+0028
 15380 % U+0029 RIGHT PARENTHESIS; parenright
 15381 \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
 15382 % U+002E FULL STOP; period
 15383 \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
 15384 % U+003C LESS-THAN SIGN; less
 15385 \DeclareTextCommand{\textless}{PD1}{<}% \074 U+003C
 \075: U+003D EQUALS SIGN; equal
 15386 % U+003E GREATER-THAN SIGN; greater
 15387 \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
 15388 % U+005C REVERSE SOLIDUS; backslash
 15389 \DeclareTextCommand{\textbackslash}{PD1}{\134}% U+005C
 15390 % "U+2216 SET MINUS" simulated by "U+005C REVERSE SOLIDUS"
 15391 \DeclareTextCommand{\textsetminus}{PD1}{\textbackslash}
 \135: U+005D RIGHT SQUARE BRACKET; bracketright
 15392 % U+005E CIRCUMFLEX ACCENT; asciicircum
 15393 \DeclareTextCommand{\textasciicircum}{PD1}{\136}% U+005E
 15394 % U+005F LOW LINE; underscore
 15395 \DeclareTextCommand{\textunderscore}{PD1}{\137}% U+005F
 15396 \DeclareTextCommand{\textmacronbelow}{PD1}{\137}% U+005F
 15397 % U+0060 GRAVE ACCENT; grave
 15398 \DeclareTextCommand{\textasciigrave}{PD1}{\140}% U+0060
 \141: U+0061 LATIN SMALL LETTER A; a
 ...
 \150: U+0068 LATIN SMALL LETTER H; h
 15399 % U+0069 LATIN SMALL LETTER I; i
 15400 \DeclareTextCompositeCommand{\.}{PD1}{i}{i}% \151 U+0069
 \152: U+006A LATIN SMALL LETTER J; j
 ...
 \172: U+007A LATIN SMALL LETTER Z; z
 15401 % U+007B LEFT CURLY BRACKET; braceleft
 15402 \DeclareTextCommand{\textbraceleft}{PD1}{\173}% U+007B
 15403 % U+007C VERTICAL LINE; *bar, verticalbar
 15404 \DeclareTextCommand{\textbar}{PD1}{|}% U+007C
 15405 % U+007D RIGHT CURLY BRACKET; braceright
 15406 \DeclareTextCommand{\textbraceright}{PD1}{\175}% U+007D
 15407 % U+007E TILDE; asciitilde
 15408 \DeclareTextCommand{\textasciitilde}{PD1}{\176}% U+007E
 Slot \177 (0x7F) is undefined in PDFDocEncoding.
 15409 % U+2022 BULLET; bullet
 15410 \DeclareTextCommand{\textbullet}{PD1}{\200}% U+2022
 15411 % U+2020 DAGGER; dagger
 15412 \DeclareTextCommand{\textdagger}{PD1}{\201}% U+2020
 15413 % U+2021 DOUBLE DAGGER; daggerdbl; \ddagger (LaTeX)
 15414 \DeclareTextCommand{\textdaggerdbl}{PD1}{\202}% U+2021
 15415 \DeclareTextCommand{\textddagger}{PD1}{\textddagger}
 15416 % U+2026 HORIZONTAL ELLIPSIS; ellipsis
 15417 \DeclareTextCommand{\textellipsis}{PD1}{\203}% U+2026
 15418 % U+2014 EM DASH; emdash
 15419 \DeclareTextCommand{\textemdash}{PD1}{\204}% U+2014
 15420 % U+2013 EN DASH; endash
 15421 \DeclareTextCommand{\textendash}{PD1}{\205}% U+2013
 15422 % U+0192 LATIN SMALL LETTER F WITH HOOK; florin
 15423 \DeclareTextCommand{\textflorin}{PD1}{\206}% U+0192
 15424 % U+2044 FRACTION SLASH; fraction
 15425 \DeclareTextCommand{\textfractionsolidus}{PD1}{\207}% U+2044
 15426 % U+2039 SINGLE LEFT-POINTING ANGLE QUOTATION MARK; guil-
 lingleft
 15427 \DeclareTextCommand{\guilsinglleft}{PD1}{\210}% U+2039
 15428 % U+203A SINGLE RIGHT-POINTING ANGLE QUOTATION MARK; guil-
 lingright
 15429 \DeclareTextCommand{\guilsinglright}{PD1}{\211}% U+203A
 15430 % U+2212 MINUS SIGN; minus
 15431 \DeclareTextCommand{\textminus}{PD1}{\212}% U+2212

15432 % U+2030 PER MILLE SIGN; perthousand
 15433 \DeclareTextCommand{\textperthousand}{PD1}{\213}% U+2030
 15434 % U+201E DOUBLE LOW-9 QUOTATION MARK; quotedblbase
 15435 \DeclareTextCommand{\quotedblbase}{PD1}{\214}% U+201E
 15436 % U+201C LEFT DOUBLE QUOTATION MARK; quotedblleft
 15437 \DeclareTextCommand{\textquotedblleft}{PD1}{\215}% U+201C
 15438 % U+201D RIGHT DOUBLE QUOTATION MARK; quotedblright
 15439 \DeclareTextCommand{\textquotedblright}{PD1}{\216}% U+201D
 15440 % U+2018 LEFT SINGLE QUOTATION MARK; quoteleft
 15441 \DeclareTextCommand{\textquoteleft}{PD1}{\217}% U+2018
 15442 % U+2019 RIGHT SINGLE QUOTATION MARK; quoteright
 15443 \DeclareTextCommand{\textquoteright}{PD1}{\220}% U+2019
 15444 % U+201A SINGLE LOW-9 QUOTATION MARK; quotesinglbase
 15445 \DeclareTextCommand{\quotesinglbase}{PD1}{\221}% U+201A
 15446 % U+2122 TRADE MARK SIGN; trademark
 15447 \DeclareTextCommand{\texttrademark}{PD1}{\222}% U+2122
 15448 % U+FB01 LATIN SMALL LIGATURE FI; fi
 15449 \DeclareTextCommand{\textfi}{PD1}{\223}% U+FB01
 15450 % U+FB02 LATIN SMALL LIGATURE FL; fl
 15451 \DeclareTextCommand{\textfl}{PD1}{\224}% U+FB02
 15452 % U+0141 LATIN CAPITAL LETTER L WITH STROKE; Lslash
 15453 \DeclareTextCommand{\L}{PD1}{\225}% U+0141
 15454 % U+0152 LATIN CAPITAL LIGATURE OE; OE
 15455 \DeclareTextCommand{\OE}{PD1}{\226}% U+0152
 15456 % U+0160 LATIN CAPITAL LETTER S WITH CARON; Scaron
 15457 \DeclareTextCompositeCommand{\v}{PD1}{S}{\227}% U+0160
 15458 % U+0178 LATIN CAPITAL LETTER Y WITH DIAERESIS; Ydieresis
 15459 \DeclareTextCompositeCommand{\"}{PD1}{Y}{\230}% U+0178
 15460 \DeclareTextCommand{\IJ}{PD1}{IJ}% ligature U+0049 U+004A
 15461 % U+017D LATIN CAPITAL LETTER Z WITH CARON; Zcaron
 15462 \DeclareTextCompositeCommand{\v}{PD1}{Z}{\231}% U+017D
 15463 % U+0131 LATIN SMALL LETTER DOTLESS I; dotlessi
 15464 \DeclareTextCommand{\i}{PD1}{\232}% U+0131
 15465 % U+0142 LATIN SMALL LETTER L WITH STROKE; lslash
 15466 \DeclareTextCommand{\l}{PD1}{\233}% U+0142
 15467 % U+0153 LATIN SMALL LIGATURE OE; oe
 15468 \DeclareTextCommand{\oe}{PD1}{\234}% U+0153
 15469 % U+0161 LATIN SMALL LETTER S WITH CARON; scaron
 15470 \DeclareTextCompositeCommand{\v}{PD1}{s}{\235}% U+0161
 15471 % U+017E LATIN SMALL LETTER Z WITH CARON; zcaron
 15472 \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.
 15473 % U+20AC EURO SIGN; *Euro, euro
 15474 \DeclareTextCommand{\texteuro}{PD1}{\240}% U+20AC
 15475 % U+00A1 INVERTED EXCLAMATION MARK; exclamdown
 15476 \DeclareTextCommand{\textexclamdown}{PD1}{\241}% U+00A1
 15477 % U+00A2 CENT SIGN; cent
 15478 \DeclareTextCommand{\textcent}{PD1}{\242}% U+00A2
 15479 % U+00A3 POUND SIGN; sterling
 15480 \DeclareTextCommand{\textsterling}{PD1}{\243}% U+00A3
 15481 % U+00A4 CURRENCY SIGN; currency
 15482 \DeclareTextCommand{\textcurrency}{PD1}{\244}% U+00A4
 15483 % U+00A5 YEN SIGN; yen
 15484 \DeclareTextCommand{\textyen}{PD1}{\245}% U+00A5
 15485 % U+00A6 BROKEN BAR; brokenbar
 15486 \DeclareTextCommand{\textbrokenbar}{PD1}{\246}% U+00A6

15487 % U+00A7 SECTION SIGN; section
 15488 \DeclareTextCommand{\textsection}{PD1}{\247}% U+00A7
 15489 % U+00A8 DIAERESIS; dieresis
 15490 \DeclareTextCommand{\textasciidieresis}{PD1}{\250}% U+00A8
 15491 % U+00A9 COPYRIGHT SIGN; copyright
 15492 \DeclareTextCommand{\textcopyright}{PD1}{\251}% U+00A9
 15493 % U+00AA FEMININE ORDINAL INDICATOR; ordfeminine
 15494 \DeclareTextCommand{\textordfeminine}{PD1}{\252}% U+00AA
 15495 % U+00AB LEFT-POINTING DOUBLE ANGLE QUOTATION MARK; guille-
 motleft
 15496 \DeclareTextCommand{\guillemotleft}{PD1}{\253}% U+00AB
 15497 % U+00AC NOT SIGN; logicalnot
 15498 \DeclareTextCommand{\textlogicalnot}{PD1}{\254}% U+00AC
 15499 \DeclareTextCommand{\textlnot}{PD1}{\254}% logical not
 No glyph \255 in PDFDocEncoding.
 15500 % U+00AE REGISTERED SIGN; registered
 15501 \DeclareTextCommand{\textregistered}{PD1}{\256}% U+00AE
 15502 % U+00AF MACRON; *macron, overscore
 15503 \DeclareTextCommand{\textasciimacron}{PD1}{\257}% U+00AF
 15504 % U+00B0 DEGREE SIGN; degree
 15505 \DeclareTextCommand{\textdegree}{PD1}{\260}% U+00B0
 15506 % U+00B1 PLUS-MINUS SIGN; plusminus
 15507 \DeclareTextCommand{\textplusminus}{PD1}{\261}% U+00B1
 15508 % U+00B2 SUPERSCRIPT TWO; twosuperior
 15509 \DeclareTextCommand{\texttwosuperior}{PD1}{\262}%* U+00B2
 15510 % U+00B3 SUPERSCRIPT THREE; threesuperior
 15511 \DeclareTextCommand{\textthreesuperior}{PD1}{\263}%* U+00B3
 15512 % U+00B4 ACUTE ACCENT; acute
 15513 \DeclareTextCommand{\textacute}{PD1}{\264}% U+00B4
 15514 % U+00B5 MICRO SIGN; mu, mul
 15515 \DeclareTextCommand{\textmu}{PD1}{\265}% U+00B5
 15516 % U+00B6 PILCROW SIGN; paragraph
 15517 \DeclareTextCommand{\textparagraph}{PD1}{\266}% U+00B6
 15518 % U+00B7 MIDDLE DOT; middot, *periodcentered
 15519 \DeclareTextCommand{\textperiodcentered}{PD1}{\267}% U+00B7
 15520 % U+00B8 CEDILLA; cedilla
 15521 \DeclareTextCommand{\textcedilla}{PD1}{\270}% U+00B8
 15522 % U+00B9 SUPERSCRIPT ONE; onesuperior
 15523 \DeclareTextCommand{\textonesuperior}{PD1}{\271}%* U+00B9
 15524 % U+00BA MASCULINE ORDINAL INDICATOR; ordmasculine
 15525 \DeclareTextCommand{\textordmasculine}{PD1}{\272}% U+00BA
 15526 % U+00BB RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK; guille-
 motright
 15527 \DeclareTextCommand{\guillemotright}{PD1}{\273}% U+00BB
 15528 % U+00BC VULGAR FRACTION ONE QUARTER; onequarter
 15529 \DeclareTextCommand{\textonequarter}{PD1}{\274}% U+00BC
 15530 % U+00BD VULGAR FRACTION ONE HALF; onehalf
 15531 \DeclareTextCommand{\textonehalf}{PD1}{\275}% U+00BD
 15532 % U+00BE VULGAR FRACTION THREE QUARTERS; threequarters
 15533 \DeclareTextCommand{\textthreequarters}{PD1}{\276}% U+00BE
 15534 % U+00BF INVERTED QUESTION MARK; questiondown
 15535 \DeclareTextCommand{\textquestiondown}{PD1}{\277}% U+00BF
 15536 % U+00C0 LATIN CAPITAL LETTER A WITH GRAVE; Agrave
 15537 \DeclareTextCompositeCommand{\`}{PD1}{A}{\300}% U+00C0
 15538 % U+00C1 LATIN CAPITAL LETTER A WITH ACUTE; Aacute
 15539 \DeclareTextCompositeCommand{\'}{PD1}{A}{\301}% U+00C1
 15540 % U+00C2 LATIN CAPITAL LETTER A WITH CIRCUMFLEX; Acircumflex

15541 \DeclareTextCompositeCommand{\^}{PD1}{A}{\302}% U+00C2
15542 % U+00C3 LATIN CAPITAL LETTER A WITH TILDE; Atilde
15543 \DeclareTextCompositeCommand{\~}{PD1}{A}{\303}% U+00C3
15544 % U+00C4 LATIN CAPITAL LETTER A WITH DIAERESIS; Adieresis
15545 \DeclareTextCompositeCommand{\"}{PD1}{A}{\304}% U+00C4
15546 % U+00C5 LATIN CAPITAL LETTER A WITH RING ABOVE; Aring
15547 \DeclareTextCompositeCommand{\r}{PD1}{A}{\305}% U+00C5
15548 % U+00C6 LATIN CAPITAL LETTER AE; AE
15549 \DeclareTextCommand{\AE}{PD1}{\306}% U+00C6
15550 % U+00C7 LATIN CAPITAL LETTER C WITH CEDILLA; Ccedilla
15551 \DeclareTextCompositeCommand{\c}{PD1}{C}{\307}% U+00C7
15552 % U+00C8 LATIN CAPITAL LETTER E WITH GRAVE; Egrave
15553 \DeclareTextCompositeCommand{\`}{PD1}{E}{\310}% U+00C8
15554 % U+00C9 LATIN CAPITAL LETTER E WITH ACUTE; Eacute
15555 \DeclareTextCompositeCommand{\'}{PD1}{E}{\311}% U+00C9
15556 % U+00CA LATIN CAPITAL LETTER E WITH CIRCUMFLEX; Ecircumflex
15557 \DeclareTextCompositeCommand{\^}{PD1}{E}{\312}% U+00CA
15558 % U+00CB LATIN CAPITAL LETTER E WITH DIAERESIS; Edieresis
15559 \DeclareTextCompositeCommand{\"}{PD1}{E}{\313}% U+00CB
15560 % U+00CC LATIN CAPITAL LETTER I WITH GRAVE; Igrave
15561 \DeclareTextCompositeCommand{\`}{PD1}{I}{\314}% U+00CC
15562 % U+00CD LATIN CAPITAL LETTER I WITH ACUTE; Iacute
15563 \DeclareTextCompositeCommand{\'}{PD1}{I}{\315}% U+00CD
15564 % U+00CE LATIN CAPITAL LETTER I WITH CIRCUMFLEX; Icircumflex
15565 \DeclareTextCompositeCommand{\^}{PD1}{I}{\316}% U+00CE
15566 % U+00CF LATIN CAPITAL LETTER I WITH DIAERESIS; Idieresis
15567 \DeclareTextCompositeCommand{\"}{PD1}{I}{\317}% U+00CF
15568 % U+00D0 LATIN CAPITAL LETTER ETH; Eth
15569 \DeclareTextCommand{\DH}{PD1}{\320}% U+00D0
15570 \DeclareTextCommand{\DJ}{PD1}{\320}% U+00D0
15571 % U+00D1 LATIN CAPITAL LETTER N WITH TILDE; Ntilde
15572 \DeclareTextCompositeCommand{\~}{PD1}{N}{\321}% U+00D1
15573 % U+00D2 LATIN CAPITAL LETTER O WITH GRAVE; Ograve
15574 \DeclareTextCompositeCommand{\`}{PD1}{O}{\322}% U+00D2
15575 % U+00D3 LATIN CAPITAL LETTER O WITH ACUTE; Oacute
15576 \DeclareTextCompositeCommand{\'}{PD1}{O}{\323}% U+00D3
15577 % U+00D4 LATIN CAPITAL LETTER O WITH CIRCUMFLEX; Ocircumflex
15578 \DeclareTextCompositeCommand{\^}{PD1}{O}{\324}% U+00D4
15579 % U+00D5 LATIN CAPITAL LETTER O WITH TILDE; Otilde
15580 \DeclareTextCompositeCommand{\~}{PD1}{O}{\325}% U+00D5
15581 % U+00D6 LATIN CAPITAL LETTER O WITH DIAERESIS; Odieresis
15582 \DeclareTextCompositeCommand{\"}{PD1}{O}{\326}% U+00D6
15583 % U+00D7 MULTIPLICATION SIGN; multiply
15584 \DeclareTextCommand{\textmultiply}{PD1}{\327}% U+00D7
15585 % U+00D8 LATIN CAPITAL LETTER O WITH STROKE; Oslash
15586 \DeclareTextCommand{\O}{PD1}{\330}% U+00D8
15587 % U+00D9 LATIN CAPITAL LETTER U WITH GRAVE; Ugrave
15588 \DeclareTextCompositeCommand{\`}{PD1}{U}{\331}% U+00D9
15589 % U+00DA LATIN CAPITAL LETTER U WITH ACUTE; Uacute
15590 \DeclareTextCompositeCommand{\'}{PD1}{U}{\332}% U+00DA
15591 % U+00DB LATIN CAPITAL LETTER U WITH CIRCUMFLEX; Ucircumflex
15592 \DeclareTextCompositeCommand{\^}{PD1}{U}{\333}% U+00DB
15593 % U+00DC LATIN CAPITAL LETTER U WITH DIAERESIS; Udieresis
15594 \DeclareTextCompositeCommand{\"}{PD1}{U}{\334}% U+00DC
15595 % U+00DD LATIN CAPITAL LETTER Y WITH ACUTE; Yacute
15596 \DeclareTextCompositeCommand{\'}{PD1}{Y}{\335}% U+00DD
15597 % U+00DE LATIN CAPITAL LETTER THORN; Thorn; \TH, \Thorn (wasysym)

15598 \DeclareTextCommand{\TH}{PD1}{\336}% U+00DE
15599 \DeclareTextCommand{\textThorn}{PD1}{\336}%* U+00DE
15600 % U+00DF LATIN SMALL LETTER SHARP S; germandbls
15601 \DeclareTextCommand{\ss}{PD1}{\337}% U+00DF
15602 % U+00E0 LATIN SMALL LETTER A WITH GRAVE; agrave
15603 \DeclareTextCompositeCommand{\`}{PD1}{a}{\340}% U+00E0
15604 % U+00E1 LATIN SMALL LETTER A WITH ACUTE; aacute
15605 \DeclareTextCompositeCommand{\'}{PD1}{a}{\341}% U+00E1
15606 % U+00E2 LATIN SMALL LETTER A WITH CIRCUMFLEX; acircumflex
15607 \DeclareTextCompositeCommand{\^}{PD1}{a}{\342}% U+00E2
15608 % U+00E3 LATIN SMALL LETTER A WITH TILDE; atilde
15609 \DeclareTextCompositeCommand{\~}{PD1}{a}{\343}% U+00E3
15610 % U+00E4 LATIN SMALL LETTER A WITH DIAERESIS; adieresis
15611 \DeclareTextCompositeCommand{\\"}{PD1}{a}{\344}% U+00E4
15612 % U+00E5 LATIN SMALL LETTER A WITH RING ABOVE; aring
15613 \DeclareTextCompositeCommand{\r}{PD1}{a}{\345}% U+00E5
15614 % U+00E6 LATIN SMALL LETTER AE; ae
15615 \DeclareTextCommand{\ae}{PD1}{\346}% U+00E6
15616 % U+00E7 LATIN SMALL LETTER C WITH CEDILLA; ccedilla
15617 \DeclareTextCompositeCommand{\c}{PD1}{c}{\347}% U+00E7
15618 % U+00E8 LATIN SMALL LETTER E WITH GRAVE; egrave
15619 \DeclareTextCompositeCommand{\`}{PD1}{e}{\350}% U+00E8
15620 % U+00E9 LATIN SMALL LETTER E WITH ACUTE; eacute
15621 \DeclareTextCompositeCommand{\'}{PD1}{e}{\351}% U+00E9
15622 % U+00EA LATIN SMALL LETTER E WITH CIRCUMFLEX; ecircumflex
15623 \DeclareTextCompositeCommand{\^}{PD1}{e}{\352}% U+00EA
15624 % U+00EB LATIN SMALL LETTER E WITH DIAERESIS; edieresis
15625 \DeclareTextCompositeCommand{\\"}{PD1}{e}{\353}% U+00EB
15626 % U+00EC LATIN SMALL LETTER I WITH GRAVE; igrave
15627 \DeclareTextCompositeCommand{\`}{PD1}{i}{\354}% U+00EC
15628 \DeclareTextCompositeCommand{\'}{PD1}{i}{\354}% U+00EC
15629 % U+00ED LATIN SMALL LETTER I WITH ACUTE; iacute
15630 \DeclareTextCompositeCommand{\'}{PD1}{i}{\355}% U+00ED
15631 \DeclareTextCompositeCommand{\'}{PD1}{i}{\355}% U+00ED
15632 % U+00EE LATIN SMALL LETTER I WITH CIRCUMFLEX; icircumflex
15633 \DeclareTextCompositeCommand{\^}{PD1}{i}{\356}% U+00EE
15634 \DeclareTextCompositeCommand{\^}{PD1}{i}{\356}% U+00EE
15635 % U+00EF LATIN SMALL LETTER I WITH DIAERESIS; idieresis
15636 \DeclareTextCompositeCommand{\\"}{PD1}{i}{\357}% U+00EF
15637 \DeclareTextCompositeCommand{\\"}{PD1}{i}{\357}% U+00EF
15638 % U+00F0 LATIN SMALL LETTER ETH; eth
15639 \DeclareTextCommand{\dh}{PD1}{\360}% U+00F0
15640 % U+00F1 LATIN SMALL LETTER N WITH TILDE; ntilde
15641 \DeclareTextCompositeCommand{\~}{PD1}{n}{\361}% U+00F1
15642 % U+00F2 LATIN SMALL LETTER O WITH GRAVE; ograve
15643 \DeclareTextCompositeCommand{\`}{PD1}{o}{\362}% U+00F2
15644 % U+00F3 LATIN SMALL LETTER O WITH ACUTE; oacute
15645 \DeclareTextCompositeCommand{\'}{PD1}{o}{\363}% U+00F3
15646 % U+00F4 LATIN SMALL LETTER O WITH CIRCUMFLEX; ocircumflex
15647 \DeclareTextCompositeCommand{\^}{PD1}{o}{\364}% U+00F4
15648 % U+00F5 LATIN SMALL LETTER O WITH TILDE; otilde
15649 \DeclareTextCompositeCommand{\~}{PD1}{o}{\365}% U+00F5
15650 % U+00F6 LATIN SMALL LETTER O WITH DIAERESIS; odieresis
15651 \DeclareTextCompositeCommand{\\"}{PD1}{o}{\366}% U+00F6
15652 % U+00F7 DIVISION SIGN; divide
15653 \DeclareTextCommand{\textdivide}{PD1}{\367}% U+00F7
15654 % U+00F8 LATIN SMALL LETTER O WITH STROKE; oslash

```

15655 \DeclareTextCommand{\o}{PD1}{\370}% U+00F8
15656 % U+00F9 LATIN SMALL LETTER U WITH GRAVE; ugrave
15657 \DeclareTextCompositeCommand{\'}{PD1}{u}{\371}% U+00F9
15658 % U+00FA LATIN SMALL LETTER U WITH ACUTE; uacute
15659 \DeclareTextCompositeCommand{\'}{PD1}{u}{\372}% U+00FA
15660 % U+00FB LATIN SMALL LETTER U WITH CIRCUMFLEX; ucircumflex
15661 \DeclareTextCompositeCommand{\^}{PD1}{u}{\373}% U+00FB
15662 % U+00FC LATIN SMALL LETTER U WITH DIAERESIS; udieresis
15663 \DeclareTextCompositeCommand{\"}{PD1}{u}{\374}% U+00FC
15664 % U+00FD LATIN SMALL LETTER Y WITH ACUTE; yacute
15665 \DeclareTextCompositeCommand{\'}{PD1}{y}{\375}% U+00FD
15666 % U+00FE LATIN SMALL LETTER THORN; thorn; \th, \thorn (wasysym)
15667 \DeclareTextCommand{\th}{PD1}{\376}% U+00FE
15668 \DeclareTextCommand{\textthorn}{PD1}{\376}%* U+00FE
15669 % U+00FF LATIN SMALL LETTER Y WITH DIAERESIS; ydieresis
15670 \DeclareTextCompositeCommand{\"}{PD1}{y}{\377}% U+00FF
15671 \DeclareTextCommand{\ij}{PD1}{ij}% ligature U+0069 U+006A

```

Glyphs that consist of several characters.

```

15672 \DeclareTextCommand{\SS}{PD1}{SS}%
15673 \DeclareTextCommand{\textcelsius}{PD1}{\textdegree C}%

```

Aliases (german.sty)

```

15674 \DeclareTextCommand{\textglqq}{PD1}{\quotedblbase}%
15675 \DeclareTextCommand{\textgrqq}{PD1}{\textquotedblleft}%
15676 \DeclareTextCommand{\textglq}{PD1}{\quotesinglbase}%
15677 \DeclareTextCommand{\textgrq}{PD1}{\textquoteleft}%
15678 \DeclareTextCommand{\textflqq}{PD1}{\guillemotleft}%
15679 \DeclareTextCommand{\textfrqq}{PD1}{\guillemotright}%
15680 \DeclareTextCommand{\textflq}{PD1}{\guilsinglleft}%
15681 \DeclareTextCommand{\textfrq}{PD1}{\guilsinglright}%

```

Aliases (math names)

```

15682 \DeclareTextCommand{\textneg}{PD1}{\textlogicalnot}%
15683 \DeclareTextCommand{\texttimes}{PD1}{\textmultiply}%
15684 \DeclareTextCommand{\textdiv}{PD1}{\textdivide}%
15685 \DeclareTextCommand{\textpm}{PD1}{\textplusminus}%
15686 \DeclareTextCommand{\textcdot}{PD1}{\textperiodcentered}%
15687 \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).

```

15688 \DeclareTextCompositeCommand{\k}{PD1}{a}{a}% aogonek
15689 \DeclareTextCompositeCommand{\'}{PD1}{c}{c}% cacute
15690 \DeclareTextCompositeCommand{\k}{PD1}{e}{e}% eogonek
15691 \DeclareTextCompositeCommand{\'}{PD1}{n}{n}% nacute
15692 \DeclareTextCompositeCommand{\'}{PD1}{s}{s}% sacute
15693 \DeclareTextCompositeCommand{\'}{PD1}{z}{z}% zacute
15694 \DeclareTextCompositeCommand{\.}{PD1}{z}{z}% zdot
15695 \DeclareTextCompositeCommand{\k}{PD1}{A}{A}% Aogonek
15696 \DeclareTextCompositeCommand{\'}{PD1}{C}{C}% Cacute
15697 \DeclareTextCompositeCommand{\k}{PD1}{E}{E}% Eogonek
15698 \DeclareTextCompositeCommand{\'}{PD1}{N}{N}% Nacute
15699 \DeclareTextCompositeCommand{\'}{PD1}{S}{S}% Sacute
15700 \DeclareTextCompositeCommand{\'}{PD1}{Z}{Z}% Zacute
15701 \DeclareTextCompositeCommand{\.}{PD1}{Z}{Z}% Zdot

```

```

15702 </pd1enc>

```

51.2 PU encoding

```
15703 \*puenc)
15704 \DeclareFontEncoding{PU}{-}{-}
```

51.2.1 NFSS2 accents

```
15705 % U+0300 COMBINING GRAVE ACCENT; gravecmb, *gravecomb
15706 \DeclareTextCommand{'}{PU}[1]{#1\83\000}% U+0300
15707 % U+0301 COMBINING ACUTE ACCENT; acutecmb, *acutecomb
15708 \DeclareTextCommand{'}{PU}[1]{#1\83\001}% U+0301
15709 % U+0302 COMBINING CIRCUMFLEX ACCENT; circumflexcmb
15710 \DeclareTextCommand{'}{PU}[1]{#1\83\002}% U+0302
15711 % U+0303 COMBINING TILDE; tildecmb, *tildecomb
15712 \DeclareTextCommand{'}{PU}[1]{#1\83\003}% U+0303
15713 % U+0304 COMBINING MACRON; macroncmb
15714 \DeclareTextCommand{'}{PU}[1]{#1\83\004}% U+0304
15715 % U+0306 COMBINING BREVE; brevecmb
15716 \DeclareTextCommand{'}{PU}[1]{#1\83\006}% U+0306
15717 \DeclareTextCommand{'}{PU}[1]{#1\83\006}% U+0306
15718 % U+0307 COMBINING DOT ABOVE; dotaccentcmb
15719 \DeclareTextCommand{'}{PU}[1]{#1\83\007}% U+0307
15720 % U+0308 COMBINING DIAERESIS; dieresiscmb
15721 \DeclareTextCommand{'}{PU}[1]{#1\83\010}% U+0308
15722 % U+030A COMBINING RING ABOVE; ringcmb
15723 \DeclareTextCommand{'}{PU}[1]{#1\83\012}% U+030A
15724 % U+030B COMBINING DOUBLE ACUTE ACCENT; hungarumlautcmb
15725 \DeclareTextCommand{'}{PU}[1]{#1\83\013}% U+030B
15726 % U+030C COMBINING CARON; caroncmb
15727 \DeclareTextCommand{'}{PU}[1]{#1\83\014}% U+030C
15728 % U+030F COMBINING DOUBLE GRAVE ACCENT; dblgravecmb
15729 \DeclareTextCommand{'}{PU}[1]{#1\83\017}% U+030F
15730 \DeclareTextCommand{'}{PU}[1]{#1\83\017}% U+030F
15731 % U+0311 COMBINING INVERTED BREVE; breveinvertedcmb
15732 \DeclareTextCommand{'}{PU}[1]{#1\83\021}% U+0311
15733 % U+0323 COMBINING DOT BELOW; dotbelowcmb, *dotbelowcmb
15734 \DeclareTextCommand{'}{PU}[1]{#1\83\043}% U+0323
15735 % U+0324 COMBINING DIAERESIS BELOW; dieresisbelowcmb; \textsubum-
    laut (tipa)
15736 \DeclareTextCommand{'}{PU}[1]{#1\83\044}% U+0324
15737 % U+0325 COMBINING RING BELOW; ringbelowcmb; \textsubring (tipa)
15738 \DeclareTextCommand{'}{PU}[1]{#1\83\045}% U+0325
15739 % U+0327 COMBINING CEDILLA; cedillacmb
15740 \DeclareTextCommand{'}{PU}[1]{#1\83\047}% U+0327
15741 % U+0328 COMBINING OGONEK; ogonekcmb
15742 \DeclareTextCommand{'}{PU}[1]{#1\83\050}% U+0328
15743 % U+032D COMBINING CIRCUMFLEX ACCENT BELOW;
15744 % \textsubcircum (tipa)
15745 \DeclareTextCommand{'}{PU}[1]{#1\83\055}% U+032D
15746 % U+032E COMBINING BREVE BELOW; brevebelowcmb
15747 \DeclareTextCommand{'}{PU}[1]{#1\83\056}% U+032E
15748 % U+0330 COMBINING TILDE BELOW; tildebelowcmb; \textsubtilde (tipa)
15749 \DeclareTextCommand{'}{PU}[1]{#1\83\060}% U+0330
15750 % U+0331 COMBINING MACRON BELOW; macronbelowcmb
15751 \DeclareTextCommand{'}{PU}[1]{#1\83\061}% U+0331
15752 % U+0361 COMBINING DOUBLE INVERTED BREVE; breveinverteddou-
    blecmb
15753 \DeclareTextCommand{'}{PU}[1]{#1\83\141}% U+0361
15754 % U+20DD COMBINING ENCLOSING CIRCLE
```

15755 \DeclareTextCommand{\textcircled}{PU}[1]{\#1\9040\335}% U+20DD

Double accents.

15756 \DeclareTextCommand{\textacutemacron}{PU}[1]{\#1\83\001\83\004}% U+0301 U+0304

15757 \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.

15758 \DeclareTextCompositeCommand{\`}{PU}{\@empty}{\textasciigrave}%

15759 \DeclareTextCompositeCommand{\'}{PU}{\@empty}{\textacute}%

15760 \DeclareTextCompositeCommand{\~}{PU}{\@empty}{\textasciicircum}%

15761 \DeclareTextCompositeCommand{\~}{PU}{\@empty}{\texttilde}%

15762 \DeclareTextCompositeCommand{\"}{PU}{\@empty}{\textasciidieresis}%

15763 \DeclareTextCompositeCommand{\r}{PU}{\@empty}{\textstring}%

15764 \DeclareTextCompositeCommand{\v}{PU}{\@empty}{\textasciicaron}%

15765 \DeclareTextCompositeCommand{\.}{PU}{\@empty}{\textdotaccent}%

15766 \DeclareTextCompositeCommand{\c}{PU}{\@empty}{\textcedilla}%

15767 \DeclareTextCompositeCommand{\u}{PU}{\@empty}{\textasciibreve}%

15768 \DeclareTextCompositeCommand{\G}{PU}{\@empty}{\textdoublegrave}%

15769 \DeclareTextCompositeCommand{\=}{PU}{\@empty}{\textasciimacron}%

15770 \DeclareTextCompositeCommand{\H}{PU}{\@empty}{\texthungarumlaut}%

15771 \DeclareTextCompositeCommand{\k}{PU}{\@empty}{\textogonek}%

15772 \DeclareTextCompositeCommand{\textinvbreve}{PU}{\@empty}{\{\83\021\}}% U+0311

15773 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{\@empty}{\{\83\044\}}% U+0324

15774 \DeclareTextCompositeCommand{\textsubring}{PU}{\@empty}{\textringlow}%

15775 \DeclareTextCompositeCommand{\textsubcircum}{PU}{\@empty}{\textcircumlow}%

15776 \DeclareTextCompositeCommand{\textsubbreve}{PU}{\@empty}{\{\83\056\}}% U+032E

15777 \DeclareTextCompositeCommand{\textsubtilde}{PU}{\@empty}{\texttildelow}%

15778 \DeclareTextCompositeCommand{\b}{PU}{\@empty}{\textmacronbelow}%

15779 \DeclareTextCompositeCommand{\d}{PU}{\@empty}{\textdotbelow}%

15780 \DeclareTextCompositeCommand{\t}{PU}{\@empty}{\texttie}%

15781 \DeclareTextCompositeCommand{\newtie}{PU}{\@empty}{\textnewtie}%

15782 \DeclareTextCompositeCommand{\textcircled}{PU}{\@empty}{\textbigcircle}%

15783 \DeclareTextCompositeCommand{\textacutemacron}{PU}{\@empty}{\{\83\001\83\004\}}% U+0301 U

15784 \DeclareTextCompositeCommand{\textgravemacron}{PU}{\@empty}{\{\83\000\83\004\}}% U+0300 U

15785 \DeclareTextCompositeCommand{\`}{PU}{\ }{\textasciigrave}%

15786 \DeclareTextCompositeCommand{\'}{PU}{\ }{\textacute}%

15787 \DeclareTextCompositeCommand{\~}{PU}{\ }{\textasciicircum}%

15788 \DeclareTextCompositeCommand{\~}{PU}{\ }{\texttilde}%

15789 \DeclareTextCompositeCommand{\"}{PU}{\ }{\textasciidieresis}%

15790 \DeclareTextCompositeCommand{\r}{PU}{\ }{\textstring}%

15791 \DeclareTextCompositeCommand{\v}{PU}{\ }{\textasciicaron}%

15792 \DeclareTextCompositeCommand{\.}{PU}{\ }{\textdotaccent}%

15793 \DeclareTextCompositeCommand{\c}{PU}{\ }{\textcedilla}%

15794 \DeclareTextCompositeCommand{\u}{PU}{\ }{\textasciibreve}%

15795 \DeclareTextCompositeCommand{\G}{PU}{\ }{\textdoublegrave}%

15796 \DeclareTextCompositeCommand{\=}{PU}{\ }{\textasciimacron}%

15797 \DeclareTextCompositeCommand{\H}{PU}{\ }{\texthungarumlaut}%

15798 \DeclareTextCompositeCommand{\k}{PU}{\ }{\textogonek}%

15799 \DeclareTextCompositeCommand{\textinvbreve}{PU}{\ }{\{\83\021\}}% U+0311

15800 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{\ }{\{\83\044\}}% U+0324

15801 \DeclareTextCompositeCommand{\textsubring}{PU}{\ }{\textringlow}%

15802 \DeclareTextCompositeCommand{\textsubcircum}{PU}{\ }{\textcircumlow}%

15803 \DeclareTextCompositeCommand{\textsubbreve}{PU}{\ }{\{\83\056\}}% U+032E

15804 \DeclareTextCompositeCommand{\textsubtilde}{PU}{\ }{\texttildelow}%

15805 \DeclareTextCompositeCommand{\b}{PU}{\ }{\textmacronbelow}%

15806 \DeclareTextCompositeCommand{\d}{PU}{\ }{\textdotbelow}%

```

15807 \DeclareTextCompositeCommand{\t}{PU}{\ }{\texttie}%
15808 \DeclareTextCompositeCommand{\newtie}{PU}{\ }{\textnewtie}%
15809 \DeclareTextCompositeCommand{\textcircled}{PU}{\ }{\textbigcircle}%
15810 \DeclareTextCompositeCommand{\textacutemacron}{PU}{\ }{\ \83\001\83\004}% U+0301 U+0304
15811 \DeclareTextCompositeCommand{\textgravemacron}{PU}{\ }{\ \83\000\83\004}% U+0300 U+0304

```

Accents for capitals (see encoding TS1)

```

15812 \DeclareTextCommand{\capitalcedilla}{PU}[1]{\c{#1}}%
15813 \DeclareTextCommand{\capitalogonek}{PU}[1]{\k{#1}}%
15814 \DeclareTextCommand{\capitalgrave}{PU}[1]{\`{#1}}%
15815 \DeclareTextCommand{\capitalacute}{PU}[1]{\'{#1}}%
15816 \DeclareTextCommand{\capitalcircumflex}{PU}[1]{\^{#1}}%
15817 \DeclareTextCommand{\capitaltilde}{PU}[1]{\~{#1}}%
15818 \DeclareTextCommand{\capitaldieresis}{PU}[1]{\"{#1}}%
15819 \DeclareTextCommand{\capitalhungarumlaut}{PU}[1]{\H{#1}}%
15820 \DeclareTextCommand{\capitalring}{PU}[1]{\r{#1}}%
15821 \DeclareTextCommand{\capitalcaron}{PU}[1]{\v{#1}}%
15822 \DeclareTextCommand{\capitalbreve}{PU}[1]{\u{#1}}%
15823 \DeclareTextCommand{\capitalmacron}{PU}[1]{\={#1}}%
15824 \DeclareTextCommand{\capitaldotaccent}{PU}[1]{\.{#1}}%
15825 \DeclareTextCommand{\capitaltie}{PU}[1]{\t{#1}}%
15826 \DeclareTextCommand{\capitalnewtie}{PU}[1]{\newtie{#1}}%

```

51.2.2 Basic Latin: U+0000 to U+007F

Special white space escape characters.

```

15827 % U+0009 (CHARACTER TABULATION)
15828 \DeclareTextCommand{\textHT}{PU}{\80\011}% U+0009
15829 % U+000A (LINE FEED)
15830 \DeclareTextCommand{\textLF}{PU}{\80\012}% U+000A
15831 % U+000D (CARRIAGE RETURN)
15832 \DeclareTextCommand{\textCR}{PU}{\80\015}% U+000D

\80\040: U+0020 SPACE; space, spacehackarabic
\80\041: U+0021 EXCLAMATION MARK; exclam

15833 % U+0022 QUOTATION MARK; quotedbl
15834 \DeclareTextCommand{\textquotedbl}{PU}{"}% \80\042 U+0022
15835 % U+0023 NUMBER SIGN; numbersign
15836 \DeclareTextCommand{\textnumbersign}{PU}{\80\043}% U+0023
15837 % U+0024 DOLLAR SIGN; dollar
15838 \DeclareTextCommand{\textdollar}{PU}{\80\044}% U+0024
15839 %* \textdollar -> \mathdollar
15840 %* \textdollar -> \EyesDollar (marvosym)
15841 % U+0025 PERCENT SIGN; percent
15842 \DeclareTextCommand{\textpercent}{PU}{\80\045}% U+0025
15843 % U+0026 AMPERSAND; ampersand
15844 \DeclareTextCommand{\textampersand}{PU}{\80\046}% U+0026
15845 %* \textampersand -> \binampersand (stmaryrd)
15846 %* \textampersand -> \with (cmll)
15847 % U+0027 APOSTROPHE; quotesingle
15848 \DeclareTextCommand{\textquotesingle}{PU}{\80\047}% U+0027
15849 % U+0028 LEFT PARENTHESIS; parenleft
15850 \DeclareTextCommand{\textparenleft}{PU}{\80\050}% U+0028
15851 % U+0029 RIGHT PARENTHESIS; parenright
15852 \DeclareTextCommand{\textparenright}{PU}{\80\051}% U+0029
15853 % U+002A ASTERISK; asterisk; (?)
15854 \DeclareTextCommand{\textasteriskcentered}{PU}{\80\052}% U+002A
15855 % U+002B PLUS SIGN; plus; \MVPlus (marvosym)
15856 \DeclareTextCommand{\textMVPlus}{PU}{\80\053}%* U+002B

```

15857 % U+002C COMMA; comma; \MVComma (marvosym)
 15858 \DeclareTextCommand{\textMVComma}{PU}{\80\054}%* U+002C
 15859 % U+002D HYPHEN-MINUS; hyphen; \MVMinus (marvosym)
 15860 \DeclareTextCommand{\textMVMinus}{PU}{\80\055}%* U+002D
 15861 % U+002E FULL STOP; period; \MVPeriod (marvosym)
 15862 \DeclareTextCommand{\textMVPeriod}{PU}{\80\056}%* U+002E
 15863 % U+002F SOLIDUS; slash; \MVDivision (marvosym)
 15864 \DeclareTextCommand{\textMVDivision}{PU}{\80\057}%* U+002F
 15865 % U+0030 DIGIT ZERO; zero; \MVZero (marvosym)
 15866 \DeclareTextCommand{\textMVZero}{PU}{\80\060}%* U+0030
 15867 % U+0031 DIGIT ONE; one; \MVOne (marvosym)
 15868 \DeclareTextCommand{\textMVOne}{PU}{\80\061}%* U+0031
 15869 % U+0032 DIGIT TWO; two; \MVTwo (marvosym)
 15870 \DeclareTextCommand{\textMVTwo}{PU}{\80\062}%* U+0032
 15871 % U+0033 DIGIT THREE; three; \MVThree (marvosym)
 15872 \DeclareTextCommand{\textMVThree}{PU}{\80\063}%* U+0033
 15873 % U+0034 DIGIT FOUR; four; \MVFfour (marvosym)
 15874 \DeclareTextCommand{\textMVFfour}{PU}{\80\064}%* U+0034
 15875 % U+0035 DIGIT FIVE; five; \MVFfive (marvosym)
 15876 \DeclareTextCommand{\textMVFfive}{PU}{\80\065}%* U+0035
 15877 % U+0036 DIGIT SIX; six; \MVSix (marvosym)
 15878 \DeclareTextCommand{\textMVSix}{PU}{\80\066}%* U+0036
 15879 % U+0037 DIGIT SEVEN; seven; \MVSeven (marvosym)
 15880 \DeclareTextCommand{\textMVSeven}{PU}{\80\067}%* U+0037
 15881 % U+0038 DIGIT EIGHT; eight; \MVEight (marvosym)
 15882 \DeclareTextCommand{\textMVEight}{PU}{\80\070}%* U+0038
 15883 % U+0039 DIGIT NINE; nine; \MVNine (marvosym)
 15884 \DeclareTextCommand{\textMVNine}{PU}{\80\071}%* U+0039
 \80\072: U+003A COLON; colon
 \80\073: U+003B SEMICOLON; semicolon
 15885 % U+003C LESS-THAN SIGN; less
 15886 \DeclareTextCommand{\textless}{PU}{<}% \80\074 U+003C
 \80\075: U+003D EQUALS SIGN; equal
 15887 % U+003E GREATER-THAN SIGN; greater
 15888 \DeclareTextCommand{\textgreater}{PU}{>}% \80\076 U+003E
 \80\077: U+003F QUESTION MARK; question
 15889 % U+0040 COMMERCIAL AT; at; \MVAt (marvosym)
 15890 \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
 15891 % U+005C REVERSE SOLIDUS; backslash
 15892 \DeclareTextCommand{\textbackslash}{PU}{\80\134}% U+005C
 \80\135: U+005D RIGHT SQUARE BRACKET; bracketright
 15893 % U+005E CIRCUMFLEX ACCENT; asciicircum
 15894 \DeclareTextCommand{\textasciicircum}{PU}{\80\136}% U+005E
 15895 % U+005F LOW LINE; underscore
 15896 \DeclareTextCommand{\textunderscore}{PU}{\80\137}% U+005F
 15897 %* \textunderscore -> \mathunderscore (LaTeX)
 15898 % U+0060 GRAVE ACCENT; grave
 15899 \DeclareTextCommand{\textasciigrave}{PU}{\80\140}% U+0060

$\backslash 80\backslash 141$: U+0061 LATIN SMALL LETTER A; a
 ...
 $\backslash 80\backslash 150$: U+0068 LATIN SMALL LETTER H; h
 15900 % U+0069 LATIN SMALL LETTER I; i
 15901 $\backslash \text{DeclareTextCompositeCommand}\{\backslash .\}\{\text{PU}\}\{\text{i}\}\{\text{i}\}\%$ $\backslash 80\backslash 151$ U+0069
 15902 $\backslash \text{DeclareTextCompositeCommand}\{\backslash .\}\{\text{PU}\}\{\text{i}\}\{\text{i}\}\%$ $\backslash 80\backslash 151$ U+0069
 $\backslash 80\backslash 152$: U+006A LATIN SMALL LETTER J; j
 ...
 $\backslash 80\backslash 172$: U+007A LATIN SMALL LETTER Z; z
 15903 % U+007B LEFT CURLY BRACKET; braceleft
 15904 $\backslash \text{DeclareTextCommand}\{\backslash \text{textbraceleft}\}\{\text{PU}\}\{\backslash 80\backslash 173\}\%$ U+007B
 15905 % U+007C VERTICAL LINE; *bar, verticalbar
 15906 $\backslash \text{DeclareTextCommand}\{\backslash \text{textbar}\}\{\text{PU}\}\{\text{I}\}\%$ $\backslash 80\backslash 174$ U+007C
 15907 %* $\backslash \text{textbar} \rightarrow \backslash \text{textvertline}$ (tipa)
 15908 % U+007D RIGHT CURLY BRACKET; braceright
 15909 $\backslash \text{DeclareTextCommand}\{\backslash \text{textbraceright}\}\{\text{PU}\}\{\backslash 80\backslash 175\}\%$ U+007D
 15910 % U+007E TILDE; asciitilde
 15911 $\backslash \text{DeclareTextCommand}\{\backslash \text{textasciitilde}\}\{\text{PU}\}\{\backslash 80\backslash 176\}\%$ U+007E

51.2.3 Latin-1 Supplement: U+0080 to U+00FF

$\backslash 80\backslash 240$: U+00A0 NO-BREAK SPACE; nbspace, nonbreakingspace
 15912 % U+00A1 INVERTED EXCLAMATION MARK; exclamdown
 15913 $\backslash \text{DeclareTextCommand}\{\backslash \text{textexclamdown}\}\{\text{PU}\}\{\backslash 80\backslash 241\}\%$ U+00A1
 15914 % U+00A2 CENT SIGN; cent
 15915 $\backslash \text{DeclareTextCommand}\{\backslash \text{textcent}\}\{\text{PU}\}\{\backslash 80\backslash 242\}\%$ U+00A2
 15916 % U+00A3 POUND SIGN; sterling
 15917 $\backslash \text{DeclareTextCommand}\{\backslash \text{textsterling}\}\{\text{PU}\}\{\backslash 80\backslash 243\}\%$ U+00A3
 15918 %* $\backslash \text{textsterling} \rightarrow \backslash \text{mathsterling}$ (LaTeX)
 15919 %* $\backslash \text{textsterling} \rightarrow \backslash \text{pounds}$ (LaTeX)
 15920 % U+00A4 CURRENCY SIGN; currency
 15921 $\backslash \text{DeclareTextCommand}\{\backslash \text{textcurrency}\}\{\text{PU}\}\{\backslash 80\backslash 244\}\%$ U+00A4
 15922 % U+00A5 YEN SIGN; yen
 15923 $\backslash \text{DeclareTextCommand}\{\backslash \text{textyen}\}\{\text{PU}\}\{\backslash 80\backslash 245\}\%$ U+00A5
 15924 % U+00A6 BROKEN BAR; brokenbar
 15925 $\backslash \text{DeclareTextCommand}\{\backslash \text{textbrokenbar}\}\{\text{PU}\}\{\backslash 80\backslash 246\}\%$ U+00A6
 15926 %* $\backslash \text{textbrokenbar} \rightarrow \backslash \text{brokenvert}$ (wasysym)
 15927 % U+00A7 SECTION SIGN; section
 15928 $\backslash \text{DeclareTextCommand}\{\backslash \text{textsection}\}\{\text{PU}\}\{\backslash 80\backslash 247\}\%$ U+00A7
 15929 %* $\backslash \text{textsection} \rightarrow \backslash \text{mathsection}$ (LaTeX)
 15930 %* $\backslash \text{textsection} \rightarrow \backslash \text{S}$ (LaTeX)
 15931 % U+00A8 DIAERESIS; dieresis
 15932 $\backslash \text{DeclareTextCommand}\{\backslash \text{textasciidieresis}\}\{\text{PU}\}\{\backslash 80\backslash 250\}\%$ U+00A8
 15933 % U+00A9 COPYRIGHT SIGN; copyright
 15934 $\backslash \text{DeclareTextCommand}\{\backslash \text{textcopyright}\}\{\text{PU}\}\{\backslash 80\backslash 251\}\%$ * U+00A9
 15935 % U+00AA FEMININE ORDINAL INDICATOR; ordfeminine
 15936 $\backslash \text{DeclareTextCommand}\{\backslash \text{textordfeminine}\}\{\text{PU}\}\{\backslash 80\backslash 252\}\%$ U+00AA
 15937 % U+00AB LEFT-POINTING DOUBLE ANGLE QUOTATION MARK; guillemotleft
 15938 $\backslash \text{DeclareTextCommand}\{\backslash \text{guillemotleft}\}\{\text{PU}\}\{\backslash 80\backslash 253\}\%$ U+00AB
 15939 % U+00AC NOT SIGN; logicalnot
 15940 $\backslash \text{DeclareTextCommand}\{\backslash \text{textlogicalnot}\}\{\text{PU}\}\{\backslash 80\backslash 254\}\%$ U+00AC
 15941 $\backslash \text{DeclareTextCommand}\{\backslash \text{textlnot}\}\{\text{PU}\}\{\backslash 80\backslash 254\}\%$ U+00AC
 $\backslash 80\backslash 255$: U+00AD SOFT HYPHEN; sfthyphen, softthyphen
 15942 % U+00AE REGISTERED SIGN; registered

15943 \DeclareTextCommand{\textregistered}{PU}{\80\256}% U+00AE
15944 % U+00AF MACRON; *macron, overscore
15945 \DeclareTextCommand{\textasciimacron}{PU}{\80\257}% U+00AF
15946 % U+00B0 DEGREE SIGN; degree
15947 \DeclareTextCommand{\textdegree}{PU}{\80\260}% U+00B0
15948 % U+00B1 PLUS-MINUS SIGN; plusminus
15949 \DeclareTextCommand{\textplusminus}{PU}{\80\261}% U+00B1
15950 % U+00B2 SUPERSCRIPT TWO; twosuperior
15951 \DeclareTextCommand{\texttwosuperior}{PU}{\80\262}%* U+00B2
15952 % U+00B3 SUPERSCRIPT THREE; threesuperior
15953 \DeclareTextCommand{\textthreesuperior}{PU}{\80\263}%* U+00B3
15954 % U+00B4 ACUTE ACCENT; acute
15955 \DeclareTextCommand{\textacute}{PU}{\80\264}% U+00B4
15956 \DeclareTextCommand{\textasciiacute}{PU}{\80\264}% U+00B4
15957 % U+00B5 MICRO SIGN; mu, mul
15958 \DeclareTextCommand{\textmu}{PU}{\80\265}% U+00B5
15959 % U+00B6 PILCROW SIGN; paragraph
15960 \DeclareTextCommand{\textparagraph}{PU}{\80\266}% U+00B6
15961 %* \textparagraph -> \mathparagraph (LaTeX)
15962 % U+00B7 MIDDLE DOT; middot, *periodcentered
15963 \DeclareTextCommand{\textperiodcentered}{PU}{\80\267}% U+00B7
15964 %* \textperiodcentered -> \MultiplicationDot (marvosym)
15965 %* \textperiodcentered -> \Squaredot (marvosym)
15966 % U+00B8 CEDILLA; cedilla
15967 \DeclareTextCommand{\textcedilla}{PU}{\80\270}% U+00B8
15968 % U+00B9 SUPERSCRIPT ONE; onesuperior
15969 \DeclareTextCommand{\textonesuperior}{PU}{\80\271}%* U+00B9
15970 % U+00BA MASCULINE ORDINAL INDICATOR; ordmasculine
15971 \DeclareTextCommand{\textordmasculine}{PU}{\80\272}% U+00BA
15972 % U+00BB RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK; guille-
motright
15973 \DeclareTextCommand{\guillemotright}{PU}{\80\273}% U+00BB
15974 % U+00BC VULGAR FRACTION ONE QUARTER; onequarter
15975 \DeclareTextCommand{\textonequarter}{PU}{\80\274}% U+00BC
15976 % U+00BD VULGAR FRACTION ONE HALF; onehalf
15977 \DeclareTextCommand{\textonehalf}{PU}{\80\275}% U+00BD
15978 % U+00BE VULGAR FRACTION THREE QUARTERS; threequarters
15979 \DeclareTextCommand{\textthreequarters}{PU}{\80\276}% U+00BE
15980 % U+00BF INVERTED QUESTION MARK; questiondown
15981 \DeclareTextCommand{\textquestiondown}{PU}{\80\277}% U+00BF
15982 % U+00C0 LATIN CAPITAL LETTER A WITH GRAVE; Agrave
15983 \DeclareTextCompositeCommand{\`}{PU}{A}{\80\300}% U+00C0
15984 % U+00C1 LATIN CAPITAL LETTER A WITH ACUTE; Aacute
15985 \DeclareTextCompositeCommand{\'}{PU}{A}{\80\301}% U+00C1
15986 % U+00C2 LATIN CAPITAL LETTER A WITH CIRCUMFLEX; Acircumflex
15987 \DeclareTextCompositeCommand{\^}{PU}{A}{\80\302}% U+00C2
15988 % U+00C3 LATIN CAPITAL LETTER A WITH TILDE; Atilde
15989 \DeclareTextCompositeCommand{\~}{PU}{A}{\80\303}% U+00C3
15990 % U+00C4 LATIN CAPITAL LETTER A WITH DIAERESIS; Adieresis
15991 \DeclareTextCompositeCommand{\\"}{PU}{A}{\80\304}% U+00C4
15992 % U+00C5 LATIN CAPITAL LETTER A WITH RING ABOVE; Aring
15993 \DeclareTextCompositeCommand{\r}{PU}{A}{\80\305}% U+00C5
15994 % U+00C6 LATIN CAPITAL LETTER AE; AE
15995 \DeclareTextCommand{\AE}{PU}{\80\306}% U+00C6
15996 % U+00C7 LATIN CAPITAL LETTER C WITH CEDILLA; Ccedilla
15997 \DeclareTextCompositeCommand{\c}{PU}{C}{\80\307}% U+00C7
15998 % U+00C8 LATIN CAPITAL LETTER E WITH GRAVE; Egrave

15999 \DeclareTextCompositeCommand{\'}{PU}{E}{\80\310}% U+00C8
16000 % U+00C9 LATIN CAPITAL LETTER E WITH ACUTE; Eacute
16001 \DeclareTextCompositeCommand{\'}{PU}{E}{\80\311}% U+00C9
16002 % U+00CA LATIN CAPITAL LETTER E WITH CIRCUMFLEX; Ecircumflex
16003 \DeclareTextCompositeCommand{\^}{PU}{E}{\80\312}% U+00CA
16004 % U+00CB LATIN CAPITAL LETTER E WITH DIAERESIS; Edieresis
16005 \DeclareTextCompositeCommand{\"}{PU}{E}{\80\313}% U+00CB
16006 % U+00CC LATIN CAPITAL LETTER I WITH GRAVE; Igrave
16007 \DeclareTextCompositeCommand{\'}{PU}{I}{\80\314}% U+00CC
16008 % U+00CD LATIN CAPITAL LETTER I WITH ACUTE; Iacute
16009 \DeclareTextCompositeCommand{\'}{PU}{I}{\80\315}% U+00CD
16010 % U+00CE LATIN CAPITAL LETTER I WITH CIRCUMFLEX; Icircumflex
16011 \DeclareTextCompositeCommand{\^}{PU}{I}{\80\316}% U+00CE
16012 % U+00CF LATIN CAPITAL LETTER I WITH DIAERESIS; Idieresis
16013 \DeclareTextCompositeCommand{\"}{PU}{I}{\80\317}% U+00CF
16014 % U+00D0 LATIN CAPITAL LETTER ETH; Eth
16015 \DeclareTextCommand{\DH}{PU}{\80\320}% U+00D0
16016 % U+00D1 LATIN CAPITAL LETTER N WITH TILDE; Ntilde
16017 \DeclareTextCompositeCommand{\~}{PU}{N}{\80\321}% U+00D1
16018 % U+00D2 LATIN CAPITAL LETTER O WITH GRAVE; Ograve
16019 \DeclareTextCompositeCommand{\'}{PU}{O}{\80\322}% U+00D2
16020 % U+00D3 LATIN CAPITAL LETTER O WITH ACUTE; Oacute
16021 \DeclareTextCompositeCommand{\'}{PU}{O}{\80\323}% U+00D3
16022 % U+00D4 LATIN CAPITAL LETTER O WITH CIRCUMFLEX; Ocircumflex
16023 \DeclareTextCompositeCommand{\^}{PU}{O}{\80\324}% U+00D4
16024 % U+00D5 LATIN CAPITAL LETTER O WITH TILDE; Otilde
16025 \DeclareTextCompositeCommand{\~}{PU}{O}{\80\325}% U+00D5
16026 % U+00D6 LATIN CAPITAL LETTER O WITH DIAERESIS; Odieresis
16027 \DeclareTextCompositeCommand{\"}{PU}{O}{\80\326}% U+00D6
16028 % U+00D7 MULTIPLICATION SIGN; multiply
16029 \DeclareTextCommand{\textmultiply}{PU}{\80\327}% U+00D7
16030 %* \textmultiply -> \vartimes (stmaryrd)
16031 %* \textmultiply -> \MVMultiplication (marvosym)
16032 % U+00D8 LATIN CAPITAL LETTER O WITH STROKE; Oslash
16033 \DeclareTextCommand{\O}{PU}{\80\330}% U+00D8
16034 % U+00D9 LATIN CAPITAL LETTER U WITH GRAVE; Ugrave
16035 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\331}% U+00D9
16036 % U+00DA LATIN CAPITAL LETTER U WITH ACUTE; Uacute
16037 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\332}% U+00DA
16038 % U+00DB LATIN CAPITAL LETTER U WITH CIRCUMFLEX; Ucircumflex
16039 \DeclareTextCompositeCommand{\^}{PU}{U}{\80\333}% U+00DB
16040 % U+00DC LATIN CAPITAL LETTER U WITH DIAERESIS; Udieresis
16041 \DeclareTextCompositeCommand{\"}{PU}{U}{\80\334}% U+00DC
16042 % U+00DD LATIN CAPITAL LETTER Y WITH ACUTE; Yacute
16043 \DeclareTextCompositeCommand{\'}{PU}{Y}{\80\335}% U+00DD
16044 % U+00DE LATIN CAPITAL LETTER THORN; Thorn; \TH, \Thorn (wasysym)
16045 \DeclareTextCommand{\TH}{PU}{\80\336}% U+00DE
16046 \DeclareTextCommand{\textThorn}{PU}{\80\336}%* U+00DE
16047 % U+00DF LATIN SMALL LETTER SHARP S; germandbls
16048 \DeclareTextCommand{\ss}{PU}{\80\337}% U+00DF
16049 % U+00E0 LATIN SMALL LETTER A WITH GRAVE; agrave
16050 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\340}% U+00E0
16051 % U+00E1 LATIN SMALL LETTER A WITH ACUTE; aacute
16052 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\341}% U+00E1
16053 % U+00E2 LATIN SMALL LETTER A WITH CIRCUMFLEX; acircumflex
16054 \DeclareTextCompositeCommand{\^}{PU}{a}{\80\342}% U+00E2
16055 % U+00E3 LATIN SMALL LETTER A WITH TILDE; atilde

16056 \DeclareTextCompositeCommand{\~}{PU}{a}{\80\343}% U+00E3
16057 % U+00E4 LATIN SMALL LETTER A WITH DIAERESIS; adieresis
16058 \DeclareTextCompositeCommand{\"}{PU}{a}{\80\344}% U+00E4
16059 % U+00E5 LATIN SMALL LETTER A WITH RING ABOVE; aring
16060 \DeclareTextCompositeCommand{\r}{PU}{a}{\80\345}% U+00E5
16061 % U+00E6 LATIN SMALL LETTER AE; ae
16062 \DeclareTextCommand{\ae}{PU}{\80\346}% U+00E6
16063 % U+00E7 LATIN SMALL LETTER C WITH CEDILLA; ccedilla
16064 \DeclareTextCompositeCommand{\c}{PU}{c}{\80\347}% U+00E7
16065 % U+00E8 LATIN SMALL LETTER E WITH GRAVE; egrave
16066 \DeclareTextCompositeCommand{\`}{PU}{e}{\80\350}% U+00E8
16067 % U+00E9 LATIN SMALL LETTER E WITH ACUTE; eacute
16068 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\351}% U+00E9
16069 % U+00EA LATIN SMALL LETTER E WITH CIRCUMFLEX; ecircumflex
16070 \DeclareTextCompositeCommand{\^}{PU}{e}{\80\352}% U+00EA
16071 % U+00EB LATIN SMALL LETTER E WITH DIAERESIS; edieresis
16072 \DeclareTextCompositeCommand{\"}{PU}{e}{\80\353}% U+00EB
16073 % U+00EC LATIN SMALL LETTER I WITH GRAVE; igrave
16074 \DeclareTextCompositeCommand{\`}{PU}{i}{\80\354}% U+00EC
16075 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\354}% U+00EC
16076 % U+00ED LATIN SMALL LETTER I WITH ACUTE; iacute
16077 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\355}% U+00ED
16078 \DeclareTextCompositeCommand{\^}{PU}{i}{\80\355}% U+00ED
16079 % U+00EE LATIN SMALL LETTER I WITH CIRCUMFLEX; icircumflex
16080 \DeclareTextCompositeCommand{\^}{PU}{i}{\80\356}% U+00EE
16081 \DeclareTextCompositeCommand{\^}{PU}{i}{\80\356}% U+00EE
16082 % U+00EF LATIN SMALL LETTER I WITH DIAERESIS; idieresis
16083 \DeclareTextCompositeCommand{\"}{PU}{i}{\80\357}% U+00EF
16084 \DeclareTextCompositeCommand{\"}{PU}{i}{\80\357}% U+00EF
16085 % U+00F0 LATIN SMALL LETTER ETH; eth
16086 \DeclareTextCommand{\dh}{PU}{\80\360}% U+00F0
16087 %* \dh -> \eth (wsuipa, phonetic)
16088 % U+00F1 LATIN SMALL LETTER N WITH TILDE; ntilde
16089 \DeclareTextCompositeCommand{\~}{PU}{n}{\80\361}% U+00F1
16090 % U+00F2 LATIN SMALL LETTER O WITH GRAVE; ograve
16091 \DeclareTextCompositeCommand{\`}{PU}{o}{\80\362}% U+00F2
16092 % U+00F3 LATIN SMALL LETTER O WITH ACUTE; oacute
16093 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\363}% U+00F3
16094 % U+00F4 LATIN SMALL LETTER O WITH CIRCUMFLEX; ocircumflex
16095 \DeclareTextCompositeCommand{\^}{PU}{o}{\80\364}% U+00F4
16096 % U+00F5 LATIN SMALL LETTER O WITH TILDE; otilde
16097 \DeclareTextCompositeCommand{\~}{PU}{o}{\80\365}% U+00F5
16098 % U+00F6 LATIN SMALL LETTER O WITH DIAERESIS; odieresis
16099 \DeclareTextCompositeCommand{\"}{PU}{o}{\80\366}% U+00F6
16100 % U+00F7 DIVISION SIGN; divide
16101 \DeclareTextCommand{\textdivide}{PU}{\80\367}% U+00F7
16102 % U+00F8 LATIN SMALL LETTER O WITH STROKE; oslash
16103 \DeclareTextCommand{\o}{PU}{\80\370}% U+00F8
16104 % U+00F9 LATIN SMALL LETTER U WITH GRAVE; ugrave
16105 \DeclareTextCompositeCommand{\`}{PU}{u}{\80\371}% U+00F9
16106 % U+00FA LATIN SMALL LETTER U WITH ACUTE; uacute
16107 \DeclareTextCompositeCommand{\'}{PU}{u}{\80\372}% U+00FA
16108 % U+00FB LATIN SMALL LETTER U WITH CIRCUMFLEX; ucircumflex
16109 \DeclareTextCompositeCommand{\^}{PU}{u}{\80\373}% U+00FB
16110 % U+00FC LATIN SMALL LETTER U WITH DIAERESIS; udieresis
16111 \DeclareTextCompositeCommand{\"}{PU}{u}{\80\374}% U+00FC
16112 % U+00FD LATIN SMALL LETTER Y WITH ACUTE; yacute

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16113 \DeclareTextCompositeCommand{\'}{PU}{y}{\80\375}% U+00FD
16114 % U+00FE LATIN SMALL LETTER THORN; thorn;
16115 % \th, \thorn (wasysym), \textthorn (tipa)
16116 \DeclareTextCommand{\th}{PU}{\80\376}% U+00FE
16117 \DeclareTextCommand{\textthorn}{PU}{\80\376}%* U+00FE
16118 % U+00FF LATIN SMALL LETTER Y WITH DIAERESIS; ydieresis
16119 \DeclareTextCompositeCommand{\"}{PU}{y}{\80\377}% U+00FF

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51.2.4 Latin Extended-A: U+0080 to U+017F

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16120 % U+0100 LATIN CAPITAL LETTER A WITH MACRON; Amacron
16121 \DeclareTextCompositeCommand{\=}{PU}{A}{\81\000}% U+0100
16122 % U+0101 LATIN SMALL LETTER A WITH MACRON; amacron
16123 \DeclareTextCompositeCommand{\=}{PU}{a}{\81\001}% U+0101
16124 % U+0102 LATIN CAPITAL LETTER A WITH BREVE; Abreve
16125 \DeclareTextCompositeCommand{\u}{PU}{A}{\81\002}% U+0102
16126 % U+0103 LATIN SMALL LETTER A WITH BREVE; abreve
16127 \DeclareTextCompositeCommand{\u}{PU}{a}{\81\003}% U+0103
16128 % U+0104 LATIN CAPITAL LETTER A WITH OGONEK; Aogonek
16129 \DeclareTextCompositeCommand{\k}{PU}{A}{\81\004}% U+0104
16130 % U+0105 LATIN SMALL LETTER A WITH OGONEK; aogonek
16131 \DeclareTextCompositeCommand{\k}{PU}{a}{\81\005}% U+0105
16132 % U+0106 LATIN CAPITAL LETTER C WITH ACUTE; Cacute
16133 \DeclareTextCompositeCommand{\'}{PU}{C}{\81\006}% U+0106
16134 % U+0107 LATIN SMALL LETTER C WITH ACUTE; cacute
16135 \DeclareTextCompositeCommand{\'}{PU}{c}{\81\007}% U+0107
16136 % U+0108 LATIN CAPITAL LETTER C WITH CIRCUMFLEX; Ccircumflex
16137 \DeclareTextCompositeCommand{\^}{PU}{C}{\81\010}% U+0108
16138 % U+0109 LATIN SMALL LETTER C WITH CIRCUMFLEX; ccircumflex
16139 \DeclareTextCompositeCommand{\^}{PU}{c}{\81\011}% U+0109
16140 % U+010A LATIN CAPITAL LETTER C WITH DOT ABOVE; Cdot, Cdotac-
cent
16141 \DeclareTextCompositeCommand{\.}{PU}{C}{\81\012}% U+010A
16142 % U+010B LATIN SMALL LETTER C WITH DOT ABOVE; cdot, cdotaccent
16143 \DeclareTextCompositeCommand{\.}{PU}{c}{\81\013}% U+010B
16144 % U+010C LATIN CAPITAL LETTER C WITH CARON; Ccaron
16145 \DeclareTextCompositeCommand{\v}{PU}{C}{\81\014}% U+010C
16146 % U+010D LATIN SMALL LETTER C WITH CARON; ccaron
16147 \DeclareTextCompositeCommand{\v}{PU}{c}{\81\015}% U+010D
16148 % U+010E LATIN CAPITAL LETTER D WITH CARON; Dcaron
16149 \DeclareTextCompositeCommand{\v}{PU}{D}{\81\016}% U+010E
16150 % U+010F LATIN SMALL LETTER D WITH CARON; dcaron
16151 \DeclareTextCompositeCommand{\v}{PU}{d}{\81\017}% U+010F
16152 % U+0110 LATIN CAPITAL LETTER D WITH STROKE; Dcroat, Dslash
16153 \DeclareTextCommand{\DJ}{PU}{\81\020}% U+0110
16154 % U+0111 LATIN SMALL LETTER D WITH STROKE; dcroat, dmacron;
16155 % \textcrd (tipa)
16156 \DeclareTextCommand{\dj}{PU}{\81\021}% U+0111
16157 \DeclareTextCommand{\textcrd}{PU}{\81\021}% U+0111
16158 %* \textcrd -> \crossd (wsuipa)
16159 % An alternate glyph with the stroke through the bowl:
16160 %* \textcrd -> \textbard (tipa)
16161 %* \textcrd -> \bard (wsuipa)
16162 % U+0112 LATIN CAPITAL LETTER E WITH MACRON; Emacron
16163 \DeclareTextCompositeCommand{\=}{PU}{E}{\81\022}% U+0112
16164 % U+0113 LATIN SMALL LETTER E WITH MACRON; emacron
16165 \DeclareTextCompositeCommand{\=}{PU}{e}{\81\023}% U+0113

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16166 % U+0114 LATIN CAPITAL LETTER E WITH BREVE; Ebreve
16167 \DeclareTextCompositeCommand{\u}{PU}{E}{\81\024}% U+0114
16168 % U+0115 LATIN SMALL LETTER E WITH BREVE; ebreve
16169 \DeclareTextCompositeCommand{\u}{PU}{e}{\81\025}% U+0115
16170 % U+0116 LATIN CAPITAL LETTER E WITH DOT ABOVE; Edot, Edotaccent
16171 \DeclareTextCompositeCommand{\.}{PU}{E}{\81\026}% U+0116
16172 % U+0117 LATIN SMALL LETTER E WITH DOT ABOVE; edot, edotaccent
16173 \DeclareTextCompositeCommand{\.}{PU}{e}{\81\027}% U+0117
16174 % U+0118 LATIN CAPITAL LETTER E WITH OGONEK; Eogonek
16175 \DeclareTextCompositeCommand{\k}{PU}{E}{\81\030}% U+0118
16176 % U+0119 LATIN SMALL LETTER E WITH OGONEK; eogonek
16177 \DeclareTextCompositeCommand{\k}{PU}{e}{\81\031}% U+0119
16178 % U+011A LATIN CAPITAL LETTER E WITH CARON; Ecaron
16179 \DeclareTextCompositeCommand{\v}{PU}{E}{\81\032}% U+011A
16180 % U+011B LATIN SMALL LETTER E WITH CARON; ecaron
16181 \DeclareTextCompositeCommand{\v}{PU}{e}{\81\033}% U+011B
16182 % U+011C LATIN CAPITAL LETTER G WITH CIRCUMFLEX; Gcircumflex
16183 \DeclareTextCompositeCommand{\^}{PU}{G}{\81\034}% U+011C
16184 % U+011D LATIN SMALL LETTER G WITH CIRCUMFLEX; gcircumflex
16185 \DeclareTextCompositeCommand{\^}{PU}{g}{\81\035}% U+011D
16186 % U+011E LATIN CAPITAL LETTER G WITH BREVE; Gbreve
16187 \DeclareTextCompositeCommand{\u}{PU}{G}{\81\036}% U+011E
16188 % U+011F LATIN SMALL LETTER G WITH BREVE; gbreve
16189 \DeclareTextCompositeCommand{\u}{PU}{g}{\81\037}% U+011F
16190 % U+0120 LATIN CAPITAL LETTER G WITH DOT ABOVE; Gdot, Gdotac-
cent
16191 \DeclareTextCompositeCommand{\.}{PU}{G}{\81\040}% U+0120
16192 % U+0121 LATIN SMALL LETTER G WITH DOT ABOVE; gdot, gdotaccent
16193 \DeclareTextCompositeCommand{\.}{PU}{g}{\81\041}% U+0121
16194 % U+0122 LATIN CAPITAL LETTER G WITH CEDILLA; Gcedilla, Gcom-
maaccent
16195 \DeclareTextCompositeCommand{\c}{PU}{G}{\81\042}% U+0122
16196 % U+0123 LATIN SMALL LETTER G WITH CEDILLA; gcedilla, gcommaaccent
16197 \DeclareTextCompositeCommand{\c}{PU}{g}{\81\043}% U+0123
16198 % U+0124 LATIN CAPITAL LETTER H WITH CIRCUMFLEX; Hcircumflex
16199 \DeclareTextCompositeCommand{\^}{PU}{H}{\81\044}% U+0124
16200 % U+0125 LATIN SMALL LETTER H WITH CIRCUMFLEX; hcircumflex
16201 \DeclareTextCompositeCommand{\^}{PU}{h}{\81\045}% U+0125
16202 % U+0126 LATIN CAPITAL LETTER H WITH STROKE; Hbar
16203 \DeclareTextCommand{\textHslash}{PU}{\81\046}% U+0126
16204 % U+0127 LATIN SMALL LETTER H WITH STROKE; hbar; \hbar (AmS)
16205 \DeclareTextCommand{\texthbar}{PU}{\81\047}%* U+0127
16206 %* \texthbar -> \textcrh (tipa)
16207 %* \texthbar -> \crossh (wsuipa)
16208 %* \texthbar -> \planck (phonetic)
16209 % U+0128 LATIN CAPITAL LETTER I WITH TILDE; Itilde
16210 \DeclareTextCompositeCommand{\~}{PU}{I}{\81\050}% U+0128
16211 % U+0129 LATIN SMALL LETTER I WITH TILDE; itilde
16212 \DeclareTextCompositeCommand{\~}{PU}{i}{\81\051}% U+0129
16213 \DeclareTextCompositeCommand{\~}{PU}{i}{\81\051}% U+0129
16214 % U+012A LATIN CAPITAL LETTER I WITH MACRON; Imacron
16215 \DeclareTextCompositeCommand{\=}{PU}{I}{\81\052}% U+012A
16216 % U+012B LATIN SMALL LETTER I WITH MACRON; imacron
16217 \DeclareTextCompositeCommand{\=}{PU}{i}{\81\053}% U+012B
16218 \DeclareTextCompositeCommand{\=}{PU}{i}{\81\053}% U+012B
16219 % U+012C LATIN CAPITAL LETTER I WITH BREVE; Ibreve
16220 \DeclareTextCompositeCommand{\u}{PU}{I}{\81\054}% U+012C

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16221 % U+012D LATIN SMALL LETTER I WITH BREVE; ibreve
16222 \DeclareTextCompositeCommand{\u}{PU}{i}{\81\055}% U+012D
16223 \DeclareTextCompositeCommand{\u}{PU}{\i}{\81\055}% U+012D
16224 % U+012E LATIN CAPITAL LETTER I WITH OGONEK; iogonek
16225 \DeclareTextCompositeCommand{\k}{PU}{I}{\81\056}% U+012E
16226 % U+012F LATIN SMALL LETTER I WITH OGONEK; iogonek
16227 \DeclareTextCompositeCommand{\k}{PU}{i}{\81\057}% U+012F
16228 \DeclareTextCompositeCommand{\k}{PU}{\i}{\81\057}% U+012F
16229 % U+0130 LATIN CAPITAL LETTER I WITH DOT ABOVE; Idot, Idotaccent
16230 \DeclareTextCompositeCommand{\.}{PU}{I}{\81\060}% U+0130
16231 % U+0131 LATIN SMALL LETTER DOTLESS I; dotlessi
16232 \DeclareTextCommand{\i}{PU}{\81\061}% U+0131
16233 % U+0132 LATIN CAPITAL LIGATURE IJ; IJ
16234 \DeclareTextCommand{\IJ}{PU}{\81\062}% U+0132
16235 % U+0133 LATIN SMALL LIGATURE IJ; ij
16236 \DeclareTextCommand{\ij}{PU}{\81\063}% U+0133
16237 % U+0134 LATIN CAPITAL LETTER J WITH CIRCUMFLEX; Jcircumflex
16238 \DeclareTextCompositeCommand{\^}{PU}{J}{\81\064}% U+0134
16239 % U+0135 LATIN SMALL LETTER J WITH CIRCUMFLEX; jcircumflex
16240 \DeclareTextCompositeCommand{\^}{PU}{j}{\81\065}% U+0135
16241 \DeclareTextCompositeCommand{\^}{PU}{\j}{\81\065}% U+0135
16242 % U+0136 LATIN CAPITAL LETTER K WITH CEDILLA; Kcedilla, Kcommaac-
cent
16243 \DeclareTextCompositeCommand{\c}{PU}{K}{\81\066}% U+0136
16244 % U+0137 LATIN SMALL LETTER K WITH CEDILLA; kcedilla, kcommaaccent
16245 \DeclareTextCompositeCommand{\c}{PU}{k}{\81\067}% U+0137

```

The canonical name of U+0138, small letter kra, would be `\textkgreenlandic`, following the glyph naming convention. However `latex/base/inputenc.dtx` has choosen `\textkra`.

```

16246 % U+0138 LATIN SMALL LETTER KRA; kgreenlandic
16247 \DeclareTextCommand{\textkra}{PU}{\81\070}% U+0138
16248 % U+0139 LATIN CAPITAL LETTER L WITH ACUTE; Lacute
16249 \DeclareTextCompositeCommand{\'}{PU}{L}{\81\071}% U+0139
16250 % U+013A LATIN SMALL LETTER L WITH ACUTE; lacute
16251 \DeclareTextCompositeCommand{\'}{PU}{l}{\81\072}% U+013A
16252 % U+013B LATIN CAPITAL LETTER L WITH CEDILLA; Lcedilla, Lcommaac-
cent
16253 \DeclareTextCompositeCommand{\c}{PU}{L}{\81\073}% U+013B
16254 % U+013C LATIN SMALL LETTER L WITH CEDILLA; lcedilla, lcommaaccent
16255 \DeclareTextCompositeCommand{\c}{PU}{l}{\81\074}% U+013C
16256 % U+013D LATIN CAPITAL LETTER L WITH CARON; Lcaron
16257 \DeclareTextCompositeCommand{\v}{PU}{L}{\81\075}% U+013D
16258 % U+013E LATIN SMALL LETTER L WITH CARON; lcaron
16259 \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`.

```

16260 % U+013F LATIN CAPITAL LETTER L WITH MIDDLE DOT; Ldot, Ldotac-
cent
16261 \DeclareTextCompositeCommand{\.}{PU}{L}{\81\077}% U+013F
16262 % U+0140 LATIN SMALL LETTER L WITH MIDDLE DOT; ldot, ldotaccent
16263 \DeclareTextCompositeCommand{\.}{PU}{l}{\81\100}% U+0140
16264 % U+0141 LATIN CAPITAL LETTER L WITH STROKE; Lslash
16265 \DeclareTextCommand{\L}{PU}{\81\101}% U+0141
16266 % U+0142 LATIN SMALL LETTER L WITH STROKE; lslash
16267 \DeclareTextCommand{\l}{PU}{\81\102}% U+0142

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16268 % U+0143 LATIN CAPITAL LETTER N WITH ACUTE; Nacute
 16269 \DeclareTextCompositeCommand{\'}{PU}{N}{\81\103}% U+0143
 16270 % U+0144 LATIN SMALL LETTER N WITH ACUTE; nacute
 16271 \DeclareTextCompositeCommand{\'}{PU}{n}{\81\104}% U+0144
 16272 % U+0145 LATIN CAPITAL LETTER N WITH CEDILLA; Ncedilla, Ncommaac-
 cent
 16273 \DeclareTextCompositeCommand{\c}{PU}{N}{\81\105}% U+0145
 16274 % U+0146 LATIN SMALL LETTER N WITH CEDILLA; ncedilla, ncommaaccent
 16275 \DeclareTextCompositeCommand{\c}{PU}{n}{\81\106}% U+0146
 16276 % U+0147 LATIN CAPITAL LETTER N WITH CARON; Ncaron
 16277 \DeclareTextCompositeCommand{\v}{PU}{N}{\81\107}% U+0147
 16278 % U+0148 LATIN SMALL LETTER N WITH CARON; ncaron
 16279 \DeclareTextCompositeCommand{\v}{PU}{n}{\81\110}% U+0148
 16280 % U+0149 LATIN SMALL LETTER N PRECEDED BY APOSTROPHE; napos-
 trophe, quoterightn
 16281 \DeclareTextCommand{\textnapostrophe}{PU}{\81\111}% U+0149
 16282 % U+014A LATIN CAPITAL LETTER ENG; Eng
 16283 \DeclareTextCommand{\NG}{PU}{\81\112}% U+014A
 16284 % U+014B LATIN SMALL LETTER ENG; eng
 16285 \DeclareTextCommand{\ng}{PU}{\81\113}% U+014B
 16286 %* \ng -> \eng (wsuipa)
 16287 %* \ng -> \engma (phonetic)
 16288 % U+014C LATIN CAPITAL LETTER O WITH MACRON; Omacron
 16289 \DeclareTextCompositeCommand{=}{PU}{O}{\81\114}% U+014C
 16290 % U+014D LATIN SMALL LETTER O WITH MACRON; omacron
 16291 \DeclareTextCompositeCommand{=}{PU}{o}{\81\115}% U+014D
 16292 % U+014E LATIN CAPITAL LETTER O WITH BREVE; Obreve
 16293 \DeclareTextCompositeCommand{\u}{PU}{O}{\81\116}% U+014E
 16294 % U+014F LATIN SMALL LETTER O WITH BREVE; obreve
 16295 \DeclareTextCompositeCommand{\u}{PU}{o}{\81\117}% U+014F
 16296 % U+0150 LATIN CAPITAL LETTER O WITH DOUBLE ACUTE; Odbla-
 cute, Ohungarumlaut
 16297 \DeclareTextCompositeCommand{\H}{PU}{O}{\81\120}% U+0150
 16298 % U+0151 LATIN SMALL LETTER O WITH DOUBLE ACUTE; odbla-
 cute, ohungarumlaut
 16299 \DeclareTextCompositeCommand{\H}{PU}{o}{\81\121}% U+0151
 16300 % U+0152 LATIN CAPITAL LIGATURE OE; OE
 16301 \DeclareTextCommand{\OE}{PU}{\81\122}% U+0152
 16302 % U+0153 LATIN SMALL LIGATURE OE; oe
 16303 \DeclareTextCommand{\oe}{PU}{\81\123}% U+0153
 16304 % U+0154 LATIN CAPITAL LETTER R WITH ACUTE; Racute
 16305 \DeclareTextCompositeCommand{\'}{PU}{R}{\81\124}% U+0154
 16306 % U+0155 LATIN SMALL LETTER R WITH ACUTE; racute
 16307 \DeclareTextCompositeCommand{\'}{PU}{r}{\81\125}% U+0155
 16308 % U+0156 LATIN CAPITAL LETTER R WITH CEDILLA; Rcedilla, Rcommaac-
 cent
 16309 \DeclareTextCompositeCommand{\c}{PU}{R}{\81\126}% U+0156
 16310 % U+0157 LATIN SMALL LETTER R WITH CEDILLA; rcedilla, rcommaaccent
 16311 \DeclareTextCompositeCommand{\c}{PU}{r}{\81\127}% U+0157
 16312 % U+0158 LATIN CAPITAL LETTER R WITH CARON; Rcaron
 16313 \DeclareTextCompositeCommand{\v}{PU}{R}{\81\130}% U+0158
 16314 % U+0159 LATIN SMALL LETTER R WITH CARON; rcaron
 16315 \DeclareTextCompositeCommand{\v}{PU}{r}{\81\131}% U+0159
 16316 % U+015A LATIN CAPITAL LETTER S WITH ACUTE; Sacute
 16317 \DeclareTextCompositeCommand{\'}{PU}{S}{\81\132}% U+015A
 16318 % U+015B LATIN SMALL LETTER S WITH ACUTE; sacute
 16319 \DeclareTextCompositeCommand{\'}{PU}{s}{\81\133}% U+015B

16320 % U+015C LATIN CAPITAL LETTER S WITH CIRCUMFLEX; Scircumflex
 16321 \DeclareTextCompositeCommand{\~}{PU}{S}{\81\134}% U+015C
 16322 % U+015D LATIN SMALL LETTER S WITH CIRCUMFLEX; scircumflex
 16323 \DeclareTextCompositeCommand{\~}{PU}{s}{\81\135}% U+015D
 16324 % U+015E LATIN CAPITAL LETTER S WITH CEDILLA; Scedilla
 16325 \DeclareTextCompositeCommand{\c}{PU}{S}{\81\136}% U+015E
 16326 % U+015F LATIN SMALL LETTER S WITH CEDILLA; scedilla
 16327 \DeclareTextCompositeCommand{\c}{PU}{s}{\81\137}% U+015F
 16328 % U+0160 LATIN CAPITAL LETTER S WITH CARON; Scaron
 16329 \DeclareTextCompositeCommand{\v}{PU}{S}{\81\140}% U+0160
 16330 % U+0161 LATIN SMALL LETTER S WITH CARON; scaron
 16331 \DeclareTextCompositeCommand{\v}{PU}{s}{\81\141}% U+0161
 16332 % U+0162 LATIN CAPITAL LETTER T WITH CEDILLA; Tcedilla, Tcommaac-
 cent
 16333 \DeclareTextCompositeCommand{\c}{PU}{T}{\81\142}% U+0162
 16334 % U+0163 LATIN SMALL LETTER T WITH CEDILLA; tcedilla, tcommaaccent
 16335 \DeclareTextCompositeCommand{\c}{PU}{t}{\81\143}% U+0163
 16336 % U+0164 LATIN CAPITAL LETTER T WITH CARON; Tcaron
 16337 \DeclareTextCompositeCommand{\v}{PU}{T}{\81\144}% U+0164
 16338 % U+0165 LATIN SMALL LETTER T WITH CARON; tcaron
 16339 \DeclareTextCompositeCommand{\v}{PU}{t}{\81\145}% U+0165
 16340 % U+0166 LATIN CAPITAL LETTER T WITH STROKE; Tbar
 16341 \DeclareTextCommand{\textTslash}{PU}{\81\146}% U+0166
 16342 % U+0167 LATIN SMALL LETTER T WITH STROKE; tbar
 16343 \DeclareTextCommand{\texttslash}{PU}{\81\147}% U+0167
 16344 % U+0168 LATIN CAPITAL LETTER U WITH TILDE; Utilde
 16345 \DeclareTextCompositeCommand{\~}{PU}{U}{\81\150}% U+0168
 16346 % U+0169 LATIN SMALL LETTER U WITH TILDE; utilde
 16347 \DeclareTextCompositeCommand{\~}{PU}{u}{\81\151}% U+0169
 16348 % U+016A LATIN CAPITAL LETTER U WITH MACRON; Umacron
 16349 \DeclareTextCompositeCommand{\=}{PU}{U}{\81\152}% U+016A
 16350 % U+016B LATIN SMALL LETTER U WITH MACRON; umacron
 16351 \DeclareTextCompositeCommand{\=}{PU}{u}{\81\153}% U+016B
 16352 % U+016C LATIN CAPITAL LETTER U WITH BREVE; Ubreve
 16353 \DeclareTextCompositeCommand{\u}{PU}{U}{\81\154}% U+016C
 16354 % U+016D LATIN SMALL LETTER U WITH BREVE; ubreve
 16355 \DeclareTextCompositeCommand{\u}{PU}{u}{\81\155}% U+016D
 16356 % U+016E LATIN CAPITAL LETTER U WITH RING ABOVE; Uring
 16357 \DeclareTextCompositeCommand{\r}{PU}{U}{\81\156}% U+016E
 16358 % U+016F LATIN SMALL LETTER U WITH RING ABOVE; uring
 16359 \DeclareTextCompositeCommand{\r}{PU}{u}{\81\157}% U+016F
 16360 % U+0170 LATIN CAPITAL LETTER U WITH DOUBLE ACUTE; Udbla-
 cute, Uhungarumlaut
 16361 \DeclareTextCompositeCommand{\H}{PU}{U}{\81\160}% U+0170
 16362 % U+0171 LATIN SMALL LETTER U WITH DOUBLE ACUTE; udbla-
 cute, uhungarumlaut
 16363 \DeclareTextCompositeCommand{\H}{PU}{u}{\81\161}% U+0171
 16364 % U+0172 LATIN CAPITAL LETTER U WITH OGONEK; Uogonek
 16365 \DeclareTextCompositeCommand{\k}{PU}{U}{\81\162}% U+0172
 16366 % U+0173 LATIN SMALL LETTER U WITH OGONEK; uogonek
 16367 \DeclareTextCompositeCommand{\k}{PU}{u}{\81\163}% U+0173
 16368 % U+0174 LATIN CAPITAL LETTER W WITH CIRCUMFLEX; Wcircumflex
 16369 \DeclareTextCompositeCommand{\^}{PU}{W}{\81\164}% U+0174
 16370 % U+0175 LATIN SMALL LETTER W WITH CIRCUMFLEX; wcircumflex
 16371 \DeclareTextCompositeCommand{\^}{PU}{w}{\81\165}% U+0175
 16372 % U+0176 LATIN CAPITAL LETTER Y WITH CIRCUMFLEX; Ycircumflex
 16373 \DeclareTextCompositeCommand{\^}{PU}{Y}{\81\166}% U+0176

16374 % U+0177 LATIN SMALL LETTER Y WITH CIRCUMFLEX; ycircumflex
 16375 \DeclareTextCompositeCommand{\`}{PU}{y}{\81\167}% U+0177
 16376 % U+0178 LATIN CAPITAL LETTER Y WITH DIAERESIS; Ydieresis
 16377 \DeclareTextCompositeCommand{\"}{PU}{Y}{\81\170}% U+0178
 16378 % U+0179 LATIN CAPITAL LETTER Z WITH ACUTE; Zacute
 16379 \DeclareTextCompositeCommand{\'}{PU}{Z}{\81\171}% U+0179
 16380 % U+017A LATIN SMALL LETTER Z WITH ACUTE; zacute
 16381 \DeclareTextCompositeCommand{\'}{PU}{z}{\81\172}% U+017A
 16382 % U+017B LATIN CAPITAL LETTER Z WITH DOT ABOVE; Zdot, Zdotaccent
 16383 \DeclareTextCompositeCommand{\.}{PU}{Z}{\81\173}% U+017B
 16384 % U+017C LATIN SMALL LETTER Z WITH DOT ABOVE; zdot, zdotaccent
 16385 \DeclareTextCompositeCommand{\.}{PU}{z}{\81\174}% U+017C
 16386 % U+017D LATIN CAPITAL LETTER Z WITH CARON; Zcaron
 16387 \DeclareTextCompositeCommand{\v}{PU}{Z}{\81\175}% U+017D
 16388 % U+017E LATIN SMALL LETTER Z WITH CARON; zcaron
 16389 \DeclareTextCompositeCommand{\v}{PU}{z}{\81\176}% U+017E
 16390 % U+017F LATIN SMALL LETTER LONG S; longs, slong
 16391 \DeclareTextCommand{\textlongS}{PU}{\81\177}% U+017F

51.2.5 Latin Extended-B: U+0180 to U+024F

16392 % U+0180 LATIN SMALL LETTER B WITH STROKE; bstroke; \textcrb (tipa)
 16393 \DeclareTextCommand{\textcrb}{PU}{\81\200}% U+0180
 16394 %* \textcrb -> \crossb (wsuipa)
 16395 % An alternate glyph with the stroke through the bowl:
 16396 %* \textcrb -> \textbarb (tipa)
 16397 %* \textcrb -> \barb (wsuipa)
 16398 % U+0181 LATIN CAPITAL LETTER B WITH HOOK; Bhook; \hausaB (pho-
 netic)
 16399 \DeclareTextCommand{\texthausaB}{PU}{\81\201}%* U+0181
 16400 % U+0188 LATIN SMALL LETTER C WITH HOOK; chook; \texthtc (tipa)
 16401 \DeclareTextCommand{\texthtc}{PU}{\81\210}% U+0188
 16402 % U+018A LATIN CAPITAL LETTER D WITH HOOK; Dhook; \hausaD (pho-
 netic)
 16403 \DeclareTextCommand{\texthausaD}{PU}{\81\212}%* U+018A
 16404 % U+018E LATIN CAPITAL LETTER REVERSED E; Eversed
 16405 \DeclareTextCommand{\textEversed}{PU}{\81\216}% U+018E
 16406 \DeclareTextCommand{\textrevE}{PU}{\81\216}% U+018E
 16407 % U+0192 LATIN SMALL LETTER F WITH HOOK; florin
 16408 \DeclareTextCommand{\textflorin}{PU}{\81\222}% U+0192
 16409 %* \textflorin -> \Florin (marvosym)
 16410 % U+0195 LATIN SMALL LETTER HV; hv; \texthvlig (tipa)
 16411 \DeclareTextCommand{\texthvlig}{PU}{\81\225}% U+0195
 16412 %* \texthvlig -> \hv (wsuipa)
 16413 % U+0198 LATIN CAPITAL LETTER K WITH HOOK; Khook; \hausaK (pho-
 netic)
 16414 \DeclareTextCommand{\texthausaK}{PU}{\81\230}%* U+0198
 16415 % U+0199 LATIN SMALL LETTER K WITH HOOK; khook; \texthtk (tipa)
 16416 \DeclareTextCommand{\texthtk}{PU}{\81\231}% U+0199
 16417 %* \texthtk -> \hausak (phonetic)
 16418 % U+019A LATIN SMALL LETTER L WITH BAR; lbar;
 16419 % \textbarl (tipa), \barl (wsuipa)
 16420 \DeclareTextCommand{\textbarl}{PU}{\81\232}%* U+019A
 16421 % U+019B LATIN SMALL LETTER LAMBDA WITH STROKE/
 16422 % LATIN SMALL LETTER BARRED LAMBDA; lambdastroke;
 16423 % \textcrlambda (tipa)
 16424 \DeclareTextCommand{\textcrlambda}{PU}{\81\233}% U+019B
 16425 %* \textcrlambda -> \crossnilambda (wsuipa)

16426 %* \textcrlambda -> \barlambda (phonetic)
 16427 %* \textcrlambda -> \lambdabar (txfonts/pxfonts)
 16428 %* \textcrlambda -> \lambdash (txfonts/pxfonts)
 16429 % U+019E LATIN SMALL LETTER N WITH LONG RIGHT LEG; nlegright-long;
 16430 % \textnrleg (tipx)
 16431 \DeclareTextCommand{\textPUnrleg}{PU}{\81\236}% U+019E
 16432 %* \textPUnrleg -> \textnrleg (tipx)
 16433 % U+01A5 LATIN SMALL LETTER P WITH HOOK; phook; \texthtp (tipa)
 16434 \DeclareTextCommand{\texthtp}{PU}{\81\245}% U+01A5
 16435 % U+01AB LATIN SMALL LETTER T WITH PALATAL HOOK; tpalatalhook;
 16436 % \textlhookt (tipa)
 16437 \DeclareTextCommand{\textlhookt}{PU}{\81\253}% U+01AB
 16438 % U+01AD LATIN SMALL LETTER T WITH HOOK; thook; \texthtt (tipa)
 16439 \DeclareTextCommand{\texthtt}{PU}{\81\255}% U+01AD
 16440 % U+01B9 LATIN SMALL LETTER EZH REVERSED/
 16441 % LATIN SMALL LETTER REVERSED YOGH; \textrevyogh (tipa)
 16442 \DeclareTextCommand{\textrevyogh}{PU}{\81\271}% U+01B9
 16443 % U+01BB LATIN LETTER TWO WITH STROKE; twostroke; \textcrtwo (tipa)
 16444 \DeclareTextCommand{\textcrtwo}{PU}{\81\273}% U+01BB
 16445 % U+01BE LATIN LETTER INVERTED GLOTTAL STOP WITH STROKE;
 16446 % glottalinvertedstroke; \textcrinvglotstop (tipa)
 16447 \DeclareTextCommand{\textcrinvglotstop}{PU}{\81\276}% U+01BE
 16448 % U+01BF LATIN LETTER WYNN; wynn; \textwynn (tipa)
 16449 \DeclareTextCommand{\textwynn}{PU}{\81\277}% U+01BF
 16450 % U+01C0 LATIN LETTER DENTAL CLICK/LATIN LETTER PIPE; clickdental;
 16451 % \textpipe (tipa)
 16452 \DeclareTextCommand{\textpipe}{PU}{\81\300}% U+01C0
 16453 %* \textpipe -> \textpipevar (tipx)
 16454 % U+01C1 LATIN LETTER LATERAL CLICK/LATIN LETTER
 16455 % DOUBLE PIPE; clicklateral; \textdoublepipe (tipa)
 16456 \DeclareTextCommand{\textdoublepipe}{PU}{\81\301}% U+01C1
 16457 %* \textdoublepipe -> \textdoublepipevar (tipx)
 16458 % U+01C2 LATIN LETTER ALVEOLAR CLICK/LATIN LETTER PIPE DOUBLE BAR;
 16459 % clickalveolar; \textdoublebarpipe (tipa)
 16460 \DeclareTextCommand{\textdoublebarpipe}{PU}{\81\302}% U+01C2
 16461 %* \textdoublebarpipe -> \textdoublebarpipevar (tipx)
 16462 % U+01CD LATIN CAPITAL LETTER A WITH CARON; Acaron
 16463 \DeclareTextCompositeCommand{\v}{PU}{A}{\81\315}% U+01CD
 16464 % U+01CE LATIN SMALL LETTER A WITH CARON; acaron
 16465 \DeclareTextCompositeCommand{\v}{PU}{a}{\81\316}% U+01CE
 16466 % U+01CF LATIN CAPITAL LETTER I WITH CARON; Icaron
 16467 \DeclareTextCompositeCommand{\v}{PU}{I}{\81\317}% U+01CF
 16468 % U+01D0 LATIN SMALL LETTER I WITH CARON; icaron
 16469 \DeclareTextCompositeCommand{\v}{PU}{i}{\81\320}% U+01D0
 16470 \DeclareTextCompositeCommand{\v}{PU}{i}{\81\320}% U+01D0
 16471 % U+01D1 LATIN CAPITAL LETTER O WITH CARON; Ocaron
 16472 \DeclareTextCompositeCommand{\v}{PU}{O}{\81\321}% U+01D1
 16473 % U+01D2 LATIN SMALL LETTER O WITH CARON; ocaron
 16474 \DeclareTextCompositeCommand{\v}{PU}{o}{\81\322}% U+01D2
 16475 % U+01D3 LATIN CAPITAL LETTER U WITH CARON; Ucaron
 16476 \DeclareTextCompositeCommand{\v}{PU}{U}{\81\323}% U+01D3
 16477 % U+01D4 LATIN SMALL LETTER U WITH CARON; ucaron
 16478 \DeclareTextCompositeCommand{\v}{PU}{u}{\81\324}% U+01D4
 16479 % U+01DD LATIN SMALL LETTER TURNED E; eturned; \inve (wasysym)

16480 \DeclareTextCommand{\textinve}{PU}{\81\335}%* U+01DD
16481 % U+01E4 LATIN CAPITAL LETTER G WITH STROKE; Gstroke
16482 \DeclareTextCommand{\textGslash}{PU}{\81\344}% U+01E4
16483 % U+01E5 LATIN SMALL LETTER G WITH STROKE; gstroke
16484 \DeclareTextCommand{\textgslash}{PU}{\81\345}% U+01E5
16485 %* \textgslash -> \textcrg (tipa)
16486 % U+01E6 LATIN CAPITAL LETTER G WITH CARON; Gcaron
16487 \DeclareTextCompositeCommand{\v}{PU}{G}{\81\346}% U+01E6
16488 % U+01E7 LATIN SMALL LETTER G WITH CARON; gcaron
16489 \DeclareTextCompositeCommand{\v}{PU}{g}{\81\347}% U+01E7
16490 % U+01E8 LATIN CAPITAL LETTER K WITH CARON; Kcaron
16491 \DeclareTextCompositeCommand{\v}{PU}{K}{\81\350}% U+01E8
16492 % U+01E9 LATIN SMALL LETTER K WITH CARON; kcaron
16493 \DeclareTextCompositeCommand{\v}{PU}{k}{\81\351}% U+01E9
16494 % U+01EA LATIN CAPITAL LETTER O WITH OGONEK; Oogonek
16495 \DeclareTextCompositeCommand{\k}{PU}{O}{\81\352}% U+01EA
16496 % U+01EB LATIN SMALL LETTER O WITH OGONEK; oogonek
16497 \DeclareTextCompositeCommand{\k}{PU}{o}{\81\353}% U+01EB
16498 % U+01F0 LATIN SMALL LETTER J WITH CARON; jcaron
16499 \DeclareTextCompositeCommand{\v}{PU}{j}{\81\360}% U+01F0
16500 \DeclareTextCompositeCommand{\v}{PU}{j}{\81\360}% U+01F0
16501 % U+01F4 LATIN CAPITAL LETTER G WITH ACUTE; Gacute
16502 \DeclareTextCompositeCommand{\'}{PU}{G}{\81\364}% U+01F4
16503 % U+01F5 LATIN SMALL LETTER G WITH ACUTE; gacute
16504 \DeclareTextCompositeCommand{\'}{PU}{g}{\81\365}% U+01F5
16505 % U+01F8 LATIN CAPITAL LETTER N WITH GRAVE
16506 \DeclareTextCompositeCommand{\'}{PU}{N}{\81\370}% U+01F8
16507 % U+01F9 LATIN SMALL LETTER N WITH GRAVE
16508 \DeclareTextCompositeCommand{\'}{PU}{n}{\81\371}% U+01F9
16509 % U+01FC LATIN CAPITAL LETTER AE WITH ACUTE; AEacute
16510 \DeclareTextCompositeCommand{\'}{PU}{\AE}{\81\374}% U+01FC
16511 % U+01FD LATIN SMALL LETTER AE WITH ACUTE; aeacute
16512 \DeclareTextCompositeCommand{\'}{PU}{\ae}{\81\375}% U+01FD
16513 % U+01FE LATIN CAPITAL LETTER O WITH STROKE AND ACUTE;
16514 % *Oslashacute, Ostrokeacute
16515 \DeclareTextCompositeCommand{\'}{PU}{\O}{\81\376}% U+01FE
16516 % U+01FF LATIN SMALL LETTER O WITH STROKE AND ACUTE;
16517 % *oslashacute, ostrokeacute
16518 \DeclareTextCompositeCommand{\'}{PU}{\o}{\81\377}% U+01FF
16519 % U+0200 LATIN CAPITAL LETTER A WITH DOUBLE GRAVE; Adblgrave
16520 \DeclareTextCompositeCommand{\G}{PU}{A}{\82\000}% U+0200
16521 % U+0201 LATIN SMALL LETTER A WITH DOUBLE GRAVE; adblgrave
16522 \DeclareTextCompositeCommand{\G}{PU}{a}{\82\001}% U+0201
16523 % U+0204 LATIN CAPITAL LETTER E WITH DOUBLE GRAVE; Edblgrave
16524 \DeclareTextCompositeCommand{\G}{PU}{E}{\82\004}% U+0204
16525 % U+0205 LATIN SMALL LETTER E WITH DOUBLE GRAVE; edblgrave
16526 \DeclareTextCompositeCommand{\G}{PU}{e}{\82\005}% U+0205
16527 % U+0206 LATIN CAPITAL LETTER E WITH INVERTED BREVE; Einvert-
edbreve
16528 \DeclareTextCompositeCommand{\textinvbreve}{PU}{E}{\82\006}% U+0206
16529 % U+0207 LATIN SMALL LETTER E WITH INVERTED BREVE; einvert-
breve
16530 \DeclareTextCompositeCommand{\textinvbreve}{PU}{e}{\82\007}% U+0207
16531 % U+0208 LATIN CAPITAL LETTER I WITH DOUBLE GRAVE; Idblgrave
16532 \DeclareTextCompositeCommand{\G}{PU}{I}{\82\010}% U+0208
16533 % U+0209 LATIN SMALL LETTER I WITH DOUBLE GRAVE; idblgrave
16534 \DeclareTextCompositeCommand{\G}{PU}{i}{\82\011}% U+0209

16535 \DeclareTextCompositeCommand{\G}{PU}{i}{\82\011}% U+0209
16536 % U+020A LATIN CAPITAL LETTER I WITH INVERTED BREVE; inverted-
breve
16537 \DeclareTextCompositeCommand{\textinvbreve}{PU}{I}{\82\012}% U+020A
16538 % U+020B LATIN SMALL LETTER I WITH INVERTED BREVE; iinverted-
breve
16539 \DeclareTextCompositeCommand{\textinvbreve}{PU}{i}{\82\013}% U+020B
16540 \DeclareTextCompositeCommand{\textinvbreve}{PU}{\i}{\82\013}% U+020B
16541 % U+020C LATIN CAPITAL LETTER O WITH DOUBLE GRAVE; Odblgrave
16542 \DeclareTextCompositeCommand{\G}{PU}{O}{\82\014}% U+020C
16543 % U+020D LATIN SMALL LETTER O WITH DOUBLE GRAVE; odblgrave
16544 \DeclareTextCompositeCommand{\G}{PU}{o}{\82\015}% U+020D
16545 % U+020E LATIN CAPITAL LETTER O WITH INVERTED BREVE; Oinvert-
edbreve
16546 \DeclareTextCompositeCommand{\textinvbreve}{PU}{O}{\82\016}% U+020E
16547 % U+020F LATIN SMALL LETTER O WITH INVERTED BREVE; oinvert-
breve
16548 \DeclareTextCompositeCommand{\textinvbreve}{PU}{o}{\82\017}% U+020F
16549 % U+0210 LATIN CAPITAL LETTER R WITH DOUBLE GRAVE; Rdblgrave
16550 \DeclareTextCompositeCommand{\G}{PU}{R}{\82\020}% U+0210
16551 % U+0211 LATIN SMALL LETTER R WITH DOUBLE GRAVE; rdblgrave
16552 \DeclareTextCompositeCommand{\G}{PU}{r}{\82\021}% U+0211
16553 % U+0214 LATIN CAPITAL LETTER U WITH DOUBLE GRAVE; Udblgrave
16554 \DeclareTextCompositeCommand{\G}{PU}{U}{\82\024}% U+0214
16555 % U+0215 LATIN SMALL LETTER U WITH DOUBLE GRAVE; udblgrave
16556 \DeclareTextCompositeCommand{\G}{PU}{u}{\82\025}% U+0215
16557 % U+0216 LATIN CAPITAL LETTER U WITH INVERTED BREVE; Uinvert-
edbreve
16558 \DeclareTextCompositeCommand{\textinvbreve}{PU}{U}{\82\026}% U+0216
16559 % U+0217 LATIN SMALL LETTER U WITH INVERTED BREVE; uinvert-
breve
16560 \DeclareTextCompositeCommand{\textinvbreve}{PU}{u}{\82\027}% U+0217
16561 % U+021E LATIN CAPITAL LETTER H WITH CARON
16562 \DeclareTextCompositeCommand{\v}{PU}{H}{\82\036}% U+021E
16563 % U+021F LATIN SMALL LETTER H WITH CARON
16564 \DeclareTextCompositeCommand{\v}{PU}{h}{\82\037}% U+021F
16565 % U+0221 LATIN SMALL LETTER D WITH CURL; \textctd (tipa)
16566 \DeclareTextCommand{\textctd}{PU}{\82\041}% U+0221
16567 % U+0225 LATIN SMALL LETTER Z WITH HOOK; \textcommatailz (tipa)
16568 \DeclareTextCommand{\textcommatailz}{PU}{\82\045}% U+0225
16569 % U+0226 LATIN CAPITAL LETTER A WITH DOT ABOVE
16570 \DeclareTextCompositeCommand{\.}{PU}{A}{\82\046}% U+0226
16571 % U+0227 LATIN SMALL LETTER A WITH DOT ABOVE
16572 \DeclareTextCompositeCommand{\.}{PU}{a}{\82\047}% U+0227
16573 % U+0228 LATIN CAPITAL LETTER E WITH CEDILLA
16574 \DeclareTextCompositeCommand{\c}{PU}{E}{\82\050}% U+0228
16575 % U+0229 LATIN SMALL LETTER E WITH CEDILLA
16576 \DeclareTextCompositeCommand{\c}{PU}{e}{\82\051}% U+0229
16577 % U+022E LATIN CAPITAL LETTER O WITH DOT ABOVE
16578 \DeclareTextCompositeCommand{\.}{PU}{O}{\82\056}% U+022E
16579 % U+022F LATIN SMALL LETTER O WITH DOT ABOVE
16580 \DeclareTextCompositeCommand{\.}{PU}{o}{\82\057}% U+022F
16581 % U+0232 LATIN CAPITAL LETTER Y WITH MACRON
16582 \DeclareTextCompositeCommand{\=}{PU}{Y}{\82\062}% U+0232
16583 % U+0233 LATIN SMALL LETTER Y WITH MACRON
16584 \DeclareTextCompositeCommand{\=}{PU}{y}{\82\063}% U+0233
16585 % U+0235 LATIN SMALL LETTER N WITH CURL; \textctn (tipa)

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16586 \DeclareTextCommand{\textctn}{PU}{\82\065}% U+0235
16587 % U+0236 LATIN SMALL LETTER T WITH CURL; \textctt (tipa)
16588 \DeclareTextCommand{\textctt}{PU}{\82\066}% U+0236
16589 % U+0237 LATIN SMALL LETTER DOTLESS J
16590 \DeclareTextCommand{\j}{PU}{\82\067}% U+0237
16591 % U+0238 LATIN SMALL LETTER DB DIGRAPH; \textdblig (tipx)
16592 \DeclareTextCommand{\textPUdblig}{PU}{\82\070}% U+0238
16593 %* \textPUdblig -> \textdblig (tipx)
16594 % U+0239 LATIN SMALL LETTER QP DIGRAPH; \textqplig (tipx)
16595 \DeclareTextCommand{\textPUqplig}{PU}{\82\071}% U+0239
16596 %* \textPUqplig -> \textqplig (tipx)
16597 % U+023C LATIN SMALL LETTER C WITH STROKE; \slashc (wsuipa)
16598 \DeclareTextCommand{\textslashc}{PU}{\82\074}%* U+023C
16599 %* \textslashc -> \textcentoldstyle (textcomp)
16600 % With bar instead of stroke:
16601 %* \textslashc -> \textbarc (tipa)

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51.2.6 IPA Extensions: U+0250 to U+02AF

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16602 % U+0250 LATIN SMALL LETTER TURNED A; aturned; \textturna (tipa)
16603 \DeclareTextCommand{\textturna}{PU}{\82\120}% U+0250
16604 %* \textturna -> \inva (wasysym)
16605 % U+0251 LATIN SMALL LETTER ALPHA/LATIN SMALL LETTER
16606 % SCRIPT A; ascript; \textscripta (tipa), \scripta (wsuipa)
16607 \DeclareTextCommand{\textscripta}{PU}{\82\121}%* U+0251
16608 %* \textscripta -> \vara (phonetic)
16609 % U+0252 LATIN SMALL LETTER TURNED ALPHA; ascriptturned;
16610 % \textturnscripta (tipa)
16611 \DeclareTextCommand{\textturnscripta}{PU}{\82\122}% U+0252
16612 %* \textturnscripta -> \invscripta (wsuipa)
16613 %* \textturnscripta -> \rotvara (phonetic)
16614 % U+0253 LATIN CAPITAL LETTER B WITH HOOK; bhook; \texthtb (tipa)
16615 \DeclareTextCommand{\texthtb}{PU}{\82\123}% U+0253
16616 %* \texthtb -> \hookb (wsuipa)
16617 %* \texthtb -> \hausab (phonetic)
16618 % U+0254 LATIN SMALL LETTER OPEN O; oopen;
16619 % \textopeno (tipa), \openo (wasysym)
16620 \DeclareTextCommand{\textopeno}{PU}{\82\124}%* U+0254
16621 %* \textopeno -> \varopeno (phonetic)
16622 % U+0255 LATIN SMALL LETTER C WITH CURL; ccurl; \textctc (tipa)
16623 \DeclareTextCommand{\textctc}{PU}{\82\125}% U+0255
16624 %* \textctc -> \curlyc (wsuipa)
16625 % U+0256 LATIN SMALL LETTER D WITH TAIL; dtail; \textrtaild (tipa)
16626 \DeclareTextCommand{\textrtaild}{PU}{\82\126}%* U+0256
16627 %* \textrtaild -> \taild (wsuipa)
16628 % U+0257 LATIN SMALL LETTER D WITH HOOK; dhook; \texthtd (tipa)
16629 \DeclareTextCommand{\texthtd}{PU}{\82\127}% U+0257
16630 %* \texthtd -> \hookd (wsuipa)
16631 %* \texthtd -> \hausad (phonetic)
16632 % U+0258 LATIN SMALL LETTER REVERSED E; ereversed;
16633 % \textreve (tipa), \reve (wsuipa)
16634 \DeclareTextCommand{\textreve}{PU}{\82\130}%* U+0258
16635 % U+0259 LATIN SMALL LETTER SCHWA; schwa;
16636 % \textschwa (tipa), \schwa (wsuipa, phonetic)
16637 \DeclareTextCommand{\textschwa}{PU}{\82\131}%* U+0259
16638 % U+025A LATIN SMALL LETTER SCHWA WITH HOOK; schwahook;
16639 % \textrhookschwa (tipa)
16640 \DeclareTextCommand{\textrhookschwa}{PU}{\82\132}% U+025A

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16641 %* \textrhookswa -> \er (wsuipa)
16642 % U+025B LATIN SMALL LETTER OPEN E/LATIN SMALL LETTER EP-
SILON; eopen;
16643 % \niepsilon (wsuipa)
16644 \DeclareTextCommand{\textniepsilon}{PU}{\82\133}%* U+025B
16645 %* \textniepsilon -> \epsi (phonetic)
16646 % U+025C LATIN SMALL LETTER REVERSED OPEN E; eopenreversed;
16647 % \textrepsilon (tipa), \revepsilon (wsuipa)
16648 \DeclareTextCommand{\textrepsilon}{PU}{\82\134}%* U+025C
16649 % U+025D LATIN SMALL LETTER REVERSED OPEN E WITH HOOK; eopen-
reversedhook;
16650 % \textrhookreversed (tipa)
16651 \DeclareTextCommand{\textrhookreversed}{PU}{\82\135}%* U+025D
16652 %* \textrhookreversed -> \hookreversed (wsuipa)
16653 % U+025E LATIN SMALL LETTER CLOSED REVERSED OPEN E; eopenre-
versedclosed;
16654 % \textclosereversed (tipa)
16655 \DeclareTextCommand{\textclosereversed}{PU}{\82\136}% U+025E
16656 %* \textclosereversed -> \closedreversed (wsuipa)
16657 % U+025F LATIN SMALL LETTER DOTLESS J WITH STROKE; jdot-
lessstroke;
16658 % \textbardotlessj (tipa)
16659 \DeclareTextCommand{\textbardotlessj}{PU}{\82\137}% U+025F
16660 %* \textbardotlessj -> \barj (phonetic)
16661 % U+0260 LATIN SMALL LETTER G WITH HOOK; ghook; \texthtg (tipa)
16662 \DeclareTextCommand{\texthtg}{PU}{\82\140}% U+0260
16663 %* \texthtg -> \hookg (wsuipa)
16664 % U+0261 LATIN SMALL LETTER SCRIPT G; gscript;
16665 % \textscriptg (tipa), \scriptg (wsuipa)
16666 \DeclareTextCommand{\textscriptg}{PU}{\82\141}%* U+0261
16667 %* \textscriptg -> \varg (phonetic)
16668 % U+0262 LATIN LETTER SMALL CAPITAL G; \textscg (tipa), \scg (wsuipa)
16669 \DeclareTextCommand{\textscg}{PU}{\82\142}%* U+0262
16670 % U+0263 LATIN SMALL LETTER GAMMA; gammalatinsmall;
16671 % \ipagamma (wsuipa), \vod (phonetic)
16672 \DeclareTextCommand{\textipagamma}{PU}{\82\143}%* U+0263
16673 %* \textipagamma -> \vod (pnonetic)
16674 % U+0264 LATIN SMALL LETTER RAMS HORN; ramshorn;
16675 % \babygamma (wsuipa)
16676 \DeclareTextCommand{\textbabygamma}{PU}{\82\144}%* U+0264
16677 % U+0265 LATIN SMALL LETTER TURNED H; hturned; \textturnh (tipa)
16678 \DeclareTextCommand{\textturnh}{PU}{\82\145}% U+0265
16679 %* \textturnh -> \invh (wsuipa)
16680 %* \textturnh -> \udesc (phonetic)
16681 % U+0266 LATIN SMALL LETTER H WITH HOOK; hhook; \texthth (tipa)
16682 \DeclareTextCommand{\texthth}{PU}{\82\146}% U+0266
16683 %* \texthth -> \hookh (wsuipa)
16684 %* \texthth -> \voicedh (phonetic)
16685 % U+0267 LATIN SMALL LETTER HENG WITH HOOK; henghook; \tex-
ththeng (tipa)
16686 \DeclareTextCommand{\texththeng}{PU}{\82\147}% U+0267
16687 %* \texththeng -> \hookheng (wsuipa)
16688 % U+0268 LATIN SMALL LETTER I WITH STROKE;
16689 % \textbari (tipa), \bari (wsuipa)
16690 \DeclareTextCommand{\textbari}{PU}{\82\150}%* U+0268
16691 %* \textbari -> \ibar (phonetic)
16692 % U+0269 LATIN SMALL LETTER IOTA; iotalatin; \niota (wsuipa)

16693 \DeclareTextCommand{\textniota}{PU}{\82\151}%* U+0269
16694 %* \textniota -> \vari (phonetic)
16695 % U+026A LATIN LETTER SMALL CAPITAL I; \textsci (tipa), \sci (wsuipa)
16696 \DeclareTextCommand{\textsci}{PU}{\82\152}%* U+026A
16697 % U+026B LATIN SMALL LETTER L WITH MIDDLE TILDE; \lmiddletilde;
16698 % \textltilde (tipa)
16699 \DeclareTextCommand{\textltilde}{PU}{\82\153}% U+026B
16700 %* \textltilde -> \tildel (wsuipa)
16701 % U+026C LATIN SMALL LETTER L WITH BELT; \lbelt; \textbeltl (tipa)
16702 \DeclareTextCommand{\textbeltl}{PU}{\82\154}% U+026C
16703 %* \textbeltl -> \latfric (wsuipa)
16704 % U+026D LATIN SMALL LETTER L WITH RETROFLEX HOOK;
16705 % \hookretroflex; \textrtaill (tipa)
16706 \DeclareTextCommand{\textrtaill}{PU}{\82\155}% U+026D
16707 %* \textrtaill -> \taill (wsuipa)
16708 % U+026E LATIN SMALL LETTER LEZH; \lezh; \textlyoghlig (tipa)
16709 \DeclareTextCommand{\textlyoghlig}{PU}{\82\156}% U+026E
16710 %* \textlyoghlig -> \lz (wsuipa)
16711 % U+026F LATIN SMALL LETTER TURNED M; \mturned; \textturnm (tipa)
16712 \DeclareTextCommand{\textturnm}{PU}{\82\157}% U+026F
16713 %* \textturnm -> \invm (wsuipa)
16714 %* \textturnm -> \rotm (phonetic)
16715 % U+0270 LATIN SMALL LETTER TURNED M WITH LONG LEG; \mlongleg-
turned;
16716 % \textturnmrleg (tipa)
16717 \DeclareTextCommand{\textturnmrleg}{PU}{\82\160}% U+0270
16718 %* \textturnmrleg -> \legm (wsuipa)
16719 % U+0271 LATIN SMALL LETTER M WITH HOOK; \mhook; \textltailm (tipa)
16720 \DeclareTextCommand{\textltailm}{PU}{\82\161}% U+0271
16721 %* \textltailm -> \labdentalnas (wsuipa)
16722 %* \textltailm -> \emgma (phonetic)
16723 % U+0272 LATIN SMALL LETTER N WITH LEFT HOOK; \nhookleft; \textl-
tailn (tipa)
16724 \DeclareTextCommand{\textltailn}{PU}{\82\162}% U+0272
16725 %* \textltailn -> \nj (wsuipa)
16726 %* \textltailn -> \nya (phonetic)
16727 % U+0273 LATIN SMALL LETTER N WITH RETROFLEX HOOK;
16728 % \nhookretroflex; \textrtailn (tipa)
16729 \DeclareTextCommand{\textrtailn}{PU}{\82\163}% U+0273
16730 %* \textrtailn -> \tailn (wsuipa)
16731 % U+0274 LATIN LETTER SMALL CAPITAL N; \textscn (tipa), \scn (wsuipa)
16732 \DeclareTextCommand{\textscn}{PU}{\82\164}%* U+0274
16733 % U+0275 LATIN CAPITAL LETTER O WITH MIDDLE TILDE/
16734 % LATIN CAPITAL LETTER BARRED O; \obarred;
16735 % \textbaro (tipa), \baro (wsuipa)
16736 % But \baro from stmaryrd is different!
16737 \DeclareTextCommand{\textbaro}{PU}{\82\165}% U+0275
16738 % U+0276 LATIN LETTER SMALL CAPITAL OE; \textscelig (tipa)
16739 \DeclareTextCommand{\textscelig}{PU}{\82\166}% U+0276
16740 % U+0277 LATIN SMALL LETTER CLOSED OMEGA; \omegalatinclosed;
16741 % \textcloseomega (tipa)
16742 \DeclareTextCommand{\textcloseomega}{PU}{\82\167}% U+0277
16743 %* \textcloseomega -> \closedniomega (wsuipa)
16744 %* \textcloseomega -> \varomega (phonetic)
16745 % U+0278 LATIN SMALL LETTER PHI; \philatin; \niphy (wsuipa)
16746 \DeclareTextCommand{\textniphy}{PU}{\82\170}%* U+0278
16747 % U+0279 LATIN SMALL LETTER TURNED R; \rturned; \textturnr (tipa)

16748 \DeclareTextCommand{\textturnr}{PU}{\82\171}% U+0279
16749 %* \textturnr -> \invr (wsuipa)
16750 %* \textturnr -> \rotr (phonetic)
16751 % U+027A LATIN SMALL LETTER TURNED R WITH LONG LEG;
16752 % rlonglegturned; \textturnlonglegr (tipa)
16753 \DeclareTextCommand{\textturnlonglegr}{PU}{\82\172}% U+027A
16754 %* \textturnlonglegr -> \invlegr (wsuipa)
16755 % U+027B LATIN SMALL LETTER TURNED R WITH HOOK; rhocturned;
16756 % \textturnrrtail (tipa)
16757 \DeclareTextCommand{\textturnrrtail}{PU}{\82\173}% U+027B
16758 %* \textturnrrtail -> \tailinvr (wsuipa)
16759 % U+027C LATIN SMALL LETTER R WITH LONG LEG; rlongleg; \textlonglegr (tipa)
16760 \DeclareTextCommand{\textlonglegr}{PU}{\82\174}%* U+027C
16761 %* \textlonglegr -> \legr (wsuipa)
16762 % U+027D LATIN SMALL LETTER R WITH TAIL; rhoct; \textrtailr (tipa)
16763 \DeclareTextCommand{\textrtailr}{PU}{\82\175}% U+027D
16764 %* \textrtailr -> \tailr (wsuipa)
16765 % U+027E LATIN SMALL LETTER R WITH FISHHOOK; rfishhook;
16766 % \textfishhookr (tipa)
16767 \DeclareTextCommand{\textfishhookr}{PU}{\82\176}% U+027E
16768 %* \textfishhookr -> \flapr (wsuipa)
16769 %* \textfishhookr -> \flap (phonetic)
16770 % U+027F LATIN SMALL LETTER REVERSED R WITH FISHHOOK; rfishhookreversed;
16771 % \textlhtlongi (tipa)
16772 \DeclareTextCommand{\textlhtlongi}{PU}{\82\177}% U+027F
16773 % U+0280 LATIN LETTER SMALL CAPITAL R; \textscr (tipa), \scr (wsuipa)
16774 \DeclareTextCommand{\textscr}{PU}{\82\200}%* U+0280
16775 % U+0281 LATIN LETTER SMALL CAPITAL INVERTED R; Rsmallinverted;
16776 % \textinvscr (tipa), \invscr (wsuipa)
16777 \DeclareTextCommand{\textinvscr}{PU}{\82\201}%* U+0281
16778 % U+0282 LATIN SMALL LETTER S WITH HOOK; shook; \textrtails (tipa)
16779 \DeclareTextCommand{\textrtails}{PU}{\82\202}% U+0282
16780 %* \textrtails -> \tails (wsuipa)
16781 % U+0283 LATIN SMALL LETTER ESH; esh; \textesh (tipa), \esh (wsuipa)
16782 \DeclareTextCommand{\textesh}{PU}{\82\203}%* U+0283
16783 % U+0284 LATIN SMALL LETTER DOTLESS J WITH STROKE AND HOOK;
16784 % dotlessjstrokehook; \texthtbardotlessj (tipa)
16785 \DeclareTextCommand{\texthtbardotlessj}{PU}{\82\204}% U+0284
16786 % U+0285 LATIN SMALL LETTER SQUAT REVERSED ESH; eshsquatreversed;
16787 % \textvibyi (tipa)
16788 \DeclareTextCommand{\textvibyi}{PU}{\82\205}% U+0285
16789 % U+0286 LATIN SMALL LETTER ESH WITH CURL; eshcurl; \textctesh (tipa)
16790 \DeclareTextCommand{\textctesh}{PU}{\82\206}% U+0286
16791 %* \textctesh -> \curlyesh (wsuipa)
16792 % U+0287 LATIN SMALL LETTER TURNED T; tturned; \textturnt (tipa)
16793 \DeclareTextCommand{\textturnt}{PU}{\82\207}% U+0287
16794 %* \textturnt -> \clickt (wsuipa)
16795 % U+0288 LATIN SMALL LETTER T WITH RETROFLEX HOOK; tretroflexhook;
16796 % \textrtailt (tipa)
16797 \DeclareTextCommand{\textrtailt}{PU}{\82\210}% U+0288
16798 %* \textrtailt -> \tailt (wsuipa)
16799 % U+0289 LATIN SMALL LETTER U BAR; ubar;
16800 % \textbaru (tipa), \baru (wsuipa)

16801 \DeclareTextCommand{\textbaru}{PU}{\82\211}%* U+0289
16802 %* \textbaru -> \ubar (phonetic)
16803 % U+028A LATIN SMALL LETTER UPSILON; \niupsilon (wsuipa)
16804 \DeclareTextCommand{\textniupsilon}{PU}{\82\212}%* U+028A
16805 %* \textniupsilon -> \rotOmega (phonetic)
16806 % U+028B LATIN SMALL LETTER V WITH HOOK/LATIN SMALL LETTER SCRIPT V;
16807 % \vhook; \textscriptv (tipa), \scriptv (wsuipa)
16808 \DeclareTextCommand{\textscriptv}{PU}{\82\213}%* U+028B
16809 % U+028C LATIN SMALL LETTER TURNED V; \vturned; \textturnv (tipa)
16810 \DeclareTextCommand{\textturnv}{PU}{\82\214}%* U+028C
16811 %* \textturnv -> \invv (wsuipa)
16812 %* \textturnv -> \pwedge (phonetic)
16813 % U+028D LATIN SMALL LETTER TURNED W; \wturned; \textturnw (tipa)
16814 \DeclareTextCommand{\textturnw}{PU}{\82\215}%* U+028D
16815 %* \textturnw -> \invw (wsuipa)
16816 %* \textturnw -> \rotw (phonetic)
16817 % U+028E LATIN SMALL LETTER TURNED Y; \yturned; \textturny (tipa)
16818 \DeclareTextCommand{\textturny}{PU}{\82\216}%* U+028E
16819 %* \textturny -> \invy (wsuipa)
16820 %* \textturny -> \roty (phonetic)
16821 % U+028F LATIN LETTER SMALL CAPITAL Y; \textscy (tipa), \scy (wsuipa)
16822 \DeclareTextCommand{\textscy}{PU}{\82\217}%* U+028F
16823 % U+0290 LATIN SMALL LETTER Z WITH RETROFLEX HOOK; \zretroflexhook;
16824 % \textrtailz (tipa)
16825 \DeclareTextCommand{\textrtailz}{PU}{\82\220}% U+0290
16826 %* \textrtailz -> \tailz (wsuipa)
16827 % U+0291 LATIN SMALL LETTER Z WITH CURL; \zcurl; \textctz (tipa)
16828 \DeclareTextCommand{\textctz}{PU}{\82\221}% U+0291
16829 %* \textctz -> \curlyz (wsuipa)
16830 % U+0292 LATIN SMALL LETTER EZH/LATIN SMALL LETTER YOGH; \ezh;
16831 % \textyogh (tipa), \yogh (wsuipa)
16832 \DeclareTextCommand{\textyogh}{PU}{\82\222}%* U+0292
16833 % U+0293 LATIN SMALL LETTER EZH WITH CURL/LATIN SMALL LETTER YOGH CURL;
16834 % \ezhcurl; \textctyogh (tipa)
16835 \DeclareTextCommand{\textctyogh}{PU}{\82\223}% U+0293
16836 %* \textctyogh -> \curlyyogh (wsuipa)
16837 % U+0294 LATIN LETTER GLOTTAL STOP; \glottalstop;
16838 % \textglotstop (tipa), \glotstop (wsuipa)
16839 \DeclareTextCommand{\textglotstop}{PU}{\82\224}%* U+0294
16840 %* \textglotstop -> \ejective (wsuipa)
16841 %* \textglotstop -> \glottal (phonetic)
16842 % U+0295 LATIN LETTER PHARYNGEAL VOICED FRICATIVE/
16843 % LATIN LETTER REVERSED GLOTTAL STOP; \glottalstopreversed;
16844 % \textrevglotstop (tipa), \revglotstop (wsuipa)
16845 \DeclareTextCommand{\textrevglotstop}{PU}{\82\225}%* U+0295
16846 %* \textrevglotstop -> \reveject (wsuipa)
16847 % U+0296 LATIN LETTER INVERTED GLOTTAL STOP; \glottalstopinverted;
16848 % \textinvglotstop (tipa), \invglotstop (wsuipa)
16849 \DeclareTextCommand{\textinvglotstop}{PU}{\82\226}%* U+0296
16850 % U+0297 LATIN LETTER STRETCHED C; \cstretched; \textstretchc (tipa)
16851 \DeclareTextCommand{\textstretchc}{PU}{\82\227}% U+0297
16852 %* \textstretchc -> \clickc (wsuipa)
16853 %* \textstretchc -> \textstretchcvar (tipx)
16854 % U+0298 LATIN LETTER BILABIAL CLICK; \bilabialclick;

16855 % \textbullseye (tipa)
16856 \DeclareTextCommand{\textbullseye}{PU}{\82\230}% U+0298
16857 %* \textbullseye -> \clickb (wsuipa)
16858 %* \textbullseye -> \textObullseye (tipx)
16859 % U+0299 LATIN LETTER SMALL CAPITAL B; \textscb (tipa)
16860 \DeclareTextCommand{\textscb}{PU}{\82\231}% U+0299
16861 % U+029A LATIN SMALL LETTER CLOSED OPEN E; eopenclosed;
16862 % \textcloseepsilon (tipa)
16863 \DeclareTextCommand{\textcloseepsilon}{PU}{\82\232}% U+029A
16864 % U+029B LATIN LETTER SMALL CAPITAL G WITH HOOK; Gsmallhook;
16865 % \texthtscg (tipa)
16866 \DeclareTextCommand{\texthtscg}{PU}{\82\233}% U+029B
16867 % U+029C LATIN LETTER SMALL CAPITAL H; \textsch (tipa)
16868 \DeclareTextCommand{\textsch}{PU}{\82\234}% U+029C
16869 % U+029D LATIN SMALL LETTER J WITH CROSSED-TAIL; jcrossed-
tail; \textcdj (tipa)
16870 \DeclareTextCommand{\textctj}{PU}{\82\235}% U+029D
16871 %* \textctj -> \textctjvar (tipx)
16872 % U+029E LATIN SMALL LETTER TURNED K; kturned; \textturnk (tipa)
16873 \DeclareTextCommand{\textturnk}{PU}{\82\236}% U+029E
16874 %* \textturnk -> \textturnsck (tipx)
16875 % U+029F LATIN LETTER SMALL CAPITAL L; \textscL (tipa)
16876 \DeclareTextCommand{\textscL}{PU}{\82\237}% U+029F
16877 % U+02A0 LATIN SMALL LETTER Q WITH HOOK; qhook; \texthtq (tipa)
16878 \DeclareTextCommand{\texthtq}{PU}{\82\240}% U+02A0
16879 % U+02A1 LATIN LETTER GLOTTAL STOP WITH STROKE; glottalstop-
stroke;
16880 % \textbarglotstop (tipa)
16881 \DeclareTextCommand{\textbarglotstop}{PU}{\82\241}% U+02A1
16882 % U+02A2 LATIN LETTER REVERSED GLOTTAL STOP WITH STROKE/
16883 % LATIN LETTER REVERSED GLOTTAL STOP BAR; glottalstopstrokere-
versed;
16884 % \textbarrevglotstop (tipa)
16885 \DeclareTextCommand{\textbarrevglotstop}{PU}{\82\242}% U+02A2
16886 % U+02A3 LATIN SMALL LETTER DZ DIGRAPH; dzaltone; \textdzlig (tipa)
16887 \DeclareTextCommand{\textdzlig}{PU}{\82\243}% U+02A3
16888 %* \textdzlig -> \dz (wsuipa)
16889 % U+02A4 LATIN SMALL LETTER DEZH DIGRAPH; dezh; \textdyogh-
lig (tipa)
16890 \DeclareTextCommand{\textdyoghlig}{PU}{\82\244}% U+02A4
16891 % U+02A5 LATIN SMALL LETTER DZ DIGRAPH WITH CURL; dzcurl;
16892 % \textdctzlig (tipa)
16893 \DeclareTextCommand{\textdctzlig}{PU}{\82\245}% U+02A5
16894 % U+02A6 LATIN SMALL LETTER TS DIGRAPH; ts; \texttslig (tipa)
16895 \DeclareTextCommand{\texttslig}{PU}{\82\246}% U+02A6
16896 % U+02A7 LATIN SMALL LETTER TESH DIGRAPH; tesh; \texttshlig (tipa)
16897 \DeclareTextCommand{\texttshlig}{PU}{\82\247}% U+02A7
16898 %* \texttshlig -> \tesh (wsuipa)
16899 % U+02A8 LATIN SMALL LETTER TC DIGRAPH WITH CURL; tccurl;
16900 % \texttctclig (tipa)
16901 \DeclareTextCommand{\texttctclig}{PU}{\82\250}% U+02A8
16902 % U+02AE LATIN SMALL LETTER TURNED H WITH FISHHOOK;
16903 % \textlhtlongy (tipa)
16904 \DeclareTextCommand{\textlhtlongy}{PU}{\82\256}% U+02AE
16905 % U+02AF LATIN SMALL LETTER TURNED H WITH FISHHOOK AND TAIL;
16906 % \textvibyy (tipa)
16907 \DeclareTextCommand{\textvibyy}{PU}{\82\257}% U+02AF

51.2.7 Spacing Modifier Letters: U+02B0 to U+02FF

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16908 % U+02BD MODIFIER LETTER REVERSED COMMA;
16909 % commareversedmod, afi64937; \textrevapostrophe (tipa)
16910 \DeclareTextCommand{\textrevapostrophe}{PU}{\82\275}% U+02BD
16911 % U+02C0 MODIFIER LETTER GLOTTAL STOP; glottalstopmod;
16912 % \textrai seglotstop (tipa)
16913 \DeclareTextCommand{\textrai seglotstop}{PU}{\82\300}% U+02C0
16914 % U+02C2 MODIFIER LETTER LEFT ARROWHEAD; arrowheadleftmod;
16915 % \textlptr (tipa)
16916 \DeclareTextCommand{\textlptr}{PU}{\82\302}% U+02C2
16917 % U+02C3 MODIFIER LETTER RIGHT ARROWHEAD; arrowheadrightmod;
16918 % \textrptr (tipa)
16919 \DeclareTextCommand{\textrptr}{PU}{\82\303}% U+02C3
16920 % U+02C7 CARON; caron
16921 \DeclareTextCommand{\textasciicaron}{PU}{\82\307}% U+02C7
16922 % U+02C8 MODIFIER LETTER VERTICAL LINE; verticallinemod;
16923 % \textprimstress (tipa)
16924 \DeclareTextCommand{\textprimstress}{PU}{\82\310}% U+02C8
16925 % U+02CC MODIFIER LETTER LOW VERTICAL LINE; verticallinelowmod;
16926 % \textsecstress (tipa)
16927 \DeclareTextCommand{\textsecstress}{PU}{\82\314}% U+02CC
16928 % U+02D0 MODIFIER LETTER TRIANGULAR COLON; colontriangularmod;
16929 % \textlengthmark (tipa)
16930 \DeclareTextCommand{\textlengthmark}{PU}{\82\320}% U+02D0
16931 % U+02D1 MODIFIER LETTER HALF TRIANGULAR COLON; colontriangu-
    larhalfmod;
16932 % \texthalflength (tipa)
16933 \DeclareTextCommand{\texthalflength}{PU}{\82\321}% U+02D1
16934 % U+02D8 BREVE; breve
16935 \DeclareTextCommand{\textasciibreve}{PU}{\82\330}% U+02D8
16936 % U+02D9 DOT ABOVE; dotaccent
16937 \DeclareTextCommand{\textdotaccent}{PU}{\82\331}% U+02D9
16938 % U+02DA RING ABOVE; ring
16939 \DeclareTextCommand{\textring}{PU}{\82\332}% U+02DA
16940 % U+02DB OGONEK; ogonek
16941 \DeclareTextCommand{\textogonek}{PU}{\82\333}% U+02DB
16942 % U+02DC SMALL TILDE; ilde, *tilde
16943 \DeclareTextCommand{\texttilde}{PU}{\82\334}% U+02DC
16944 % U+02DD DOUBLE ACUTE ACCENT; hungarumlaut
16945 \DeclareTextCommand{\texthungarumlaut}{PU}{\82\335}% U+02DD
16946 \DeclareTextCommand{\textacutedbl}{PU}{\82\335}% U+02DD
16947 % U+02F3 MODIFIER LETTER LOW RING
16948 \DeclareTextCommand{\textringlow}{PU}{\82\363}% U+02F3
16949 % U+02F5 MODIFIER LETTER MIDDLE DOUBLE GRAVE ACCENT
16950 \DeclareTextCommand{\textgravedbl}{PU}{\82\365}% U+02F5
16951 % U+02F7 MODIFIER LETTER LOW TILDE
16952 \DeclareTextCommand{\texttildelow}{PU}{\82\367}% U+02F7
16953 % U+02F9 MODIFIER LETTER BEGIN HIGH TONE; \textopencorner (tipa)
16954 \DeclareTextCommand{\textopencorner}{PU}{\82\371}% U+02F9
16955 % U+02FA MODIFIER LETTER END HIGH TONE; \textcorner (tipa)
16956 \DeclareTextCommand{\textcorner}{PU}{\82\372}% U+02FA

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51.2.8 Combining Diacritical Marks: U+0300 to U+036F

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16957 % U+030F COMBINING DOUBLE GRAVE ACCENT; dblgravecmb
16958 \DeclareTextCommand{\textdoublegrave}{PU}{\83\017}% U+030F
16959 % U+0311 COMBINING INVERTED BREVE; breveinvertedcmb
16960 \DeclareTextCommand{\textnewtie}{PU}{\83\021}% U+0311

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16961 % U+0323 COMBINING DOT BELOW; dotbelowcmb, *dotbelowcmb
16962 \DeclareTextCommand{\textdotbelow}{PU}{\83\043}% U+0323
16963 % U+0331 COMBINING MACRON BELOW; macronbelowcmb
16964 \DeclareTextCommand{\textmacronbelow}{PU}{\83\061}% U+0331
16965 % U+0361 COMBINING DOUBLE INVERTED BREVE; breveinverteddoublecmb
16966 \DeclareTextCommand{\texttie}{PU}{\83\141}% U+0361

51.2.9 Greek and Coptic: U+0370 to U+03FF

16967 % U+0374 GREEK NUMERAL SIGN; numeralsigngreek
16968 \DeclareTextCommand{\textnumeralsigngreek}{PU}{\83\164}% U+0374
16969 % U+0375 GREEK LOWER NUMERAL SIGN; numeralsignlowergreek
16970 \DeclareTextCommand{\textnumeralsignlowergreek}{PU}{\83\165}% U+0375
16971 % U+0386 GREEK CAPITAL LETTER ALPHA WITH TONOS; Alphanos
16972 \DeclareTextCompositeCommand{\'}{PU}{\textAlpha}{\83\206}% U+0386
16973 % U+0388 GREEK CAPITAL LETTER EPSILON WITH TONOS; Epsilontonos
16974 \DeclareTextCompositeCommand{\'}{PU}{\textEpsilon}{\83\210}% U+0388
16975 % U+0389 GREEK CAPITAL LETTER ETA WITH TONOS; Etatonos
16976 \DeclareTextCompositeCommand{\'}{PU}{\textEta}{\83\211}% U+0389
16977 % U+038A GREEK CAPITAL LETTER IOTA WITH TONOS; Iotatonos
16978 \DeclareTextCompositeCommand{\'}{PU}{\textIota}{\83\212}% U+038A
16979 % U+038C GREEK CAPITAL LETTER OMICRON WITH TONOS; Omicrontonos
16980 \DeclareTextCompositeCommand{\'}{PU}{\textOmicron}{\83\214}% U+038C
16981 % U+038E GREEK CAPITAL LETTER UPSILON WITH TONOS; Upsilonontonos
16982 \DeclareTextCompositeCommand{\'}{PU}{\textUpsilon}{\83\216}% U+038E
16983 % U+038F GREEK CAPITAL LETTER OMEGA WITH TONOS; Omegatonos
16984 \DeclareTextCompositeCommand{\'}{PU}{\textOmega}{\83\217}% U+038F
16985 % U+0390 GREEK SMALL LETTER IOTA WITH DIALYTIKA AND TONOS;
16986 % iotadieresis
16987 \DeclareTextCompositeCommand{\'}{PU}{\textIotadieresis}{\83\220}% U+0390
16988 % U+0391 GREEK CAPITAL LETTER ALPHA; Alpha
16989 \DeclareTextCommand{\textAlpha}{PU}{\83\221}% U+0391
16990 % U+0392 GREEK CAPITAL LETTER BETA; Beta
16991 \DeclareTextCommand{\textBeta}{PU}{\83\222}% U+0392
16992 % U+0393 GREEK CAPITAL LETTER GAMMA; Gamma; \Gamma (LaTeX)
16993 \DeclareTextCommand{\textGamma}{PU}{\83\223}%* U+0393
16994 % U+0394 GREEK CAPITAL LETTER DELTA; Delta; \Delta (LaTeX)
16995 \DeclareTextCommand{\textDelta}{PU}{\83\224}%* U+0394
16996 % U+0395 GREEK CAPITAL LETTER EPSILON; Epsilon
16997 \DeclareTextCommand{\textEpsilon}{PU}{\83\225}% U+0395
16998 % U+0396 GREEK CAPITAL LETTER ZETA; Zeta
16999 \DeclareTextCommand{\textZeta}{PU}{\83\226}% U+0396
17000 % U+0397 GREEK CAPITAL LETTER ETA; Eta
17001 \DeclareTextCommand{\textEta}{PU}{\83\227}% U+0397
17002 % U+0398 GREEK CAPITAL LETTER THETA; Theta; \Theta (LaTeX)
17003 \DeclareTextCommand{\textTheta}{PU}{\83\230}%* U+0398
17004 % U+0399 GREEK CAPITAL LETTER IOTA; Iota
17005 \DeclareTextCommand{\textIota}{PU}{\83\231}% U+0399
17006 % U+039A GREEK CAPITAL LETTER KAPPA; Kappa
17007 \DeclareTextCommand{\textKappa}{PU}{\83\232}% U+039A
17008 % U+039B GREEK CAPITAL LETTER LAMDA; Lambda; \Lambda (LaTeX)
17009 \DeclareTextCommand{\textLambda}{PU}{\83\233}%* U+039B
17010 % U+039C GREEK CAPITAL LETTER MU; Mu
17011 \DeclareTextCommand{\textMu}{PU}{\83\234}% U+039C
17012 % U+039D GREEK CAPITAL LETTER NU; Nu

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17013 \DeclareTextCommand{\textNu}{PU}{\83\235}% U+039D
17014 % U+039E GREEK CAPITAL LETTER XI; Xi; \Xi (LaTeX)
17015 \DeclareTextCommand{\textXi}{PU}{\83\236}%* U+039E
17016 % U+039F GREEK CAPITAL LETTER OMICRON; Omicron
17017 \DeclareTextCommand{\textOmicron}{PU}{\83\237}% U+039F
17018 % U+03A0 GREEK CAPITAL LETTER PI; Pi
17019 \DeclareTextCommand{\textPi}{PU}{\83\240}%* U+03A0
17020 % U+03A1 GREEK CAPITAL LETTER RHO; Rho
17021 \DeclareTextCommand{\textRho}{PU}{\83\241}% U+03A1
17022 % U+03A3 GREEK CAPITAL LETTER SIGMA; Sigma; \Sigma (LaTeX)
17023 \DeclareTextCommand{\textSigma}{PU}{\83\243}%* U+03A3
17024 % U+03A4 GREEK CAPITAL LETTER TAU; Tau
17025 \DeclareTextCommand{\textTau}{PU}{\83\244}% U+03A4
17026 % U+03A5 GREEK CAPITAL LETTER UPSILON; Upsilon; \Upsilon (LaTeX)
17027 \DeclareTextCommand{\textUpsilon}{PU}{\83\245}%* U+03A5
17028 % U+03A6 GREEK CAPITAL LETTER PHI; Phi; \Phi (LaTeX)
17029 \DeclareTextCommand{\textPhi}{PU}{\83\246}%* U+03A6
17030 % U+03A7 GREEK CAPITAL LETTER CHI; Chi
17031 \DeclareTextCommand{\textChi}{PU}{\83\247}% U+03A7
17032 % U+03A8 GREEK CAPITAL LETTER PSI; Psi; \Psi (LaTeX)
17033 \DeclareTextCommand{\textPsi}{PU}{\83\250}%* U+03A8
17034 % U+03A9 GREEK CAPITAL LETTER OMEGA; Omegagreek, *Omega;
17035 % \Omega (LaTeX)
17036 \DeclareTextCommand{\textOmega}{PU}{\83\251}%* U+03A9
17037 % U+03AA GREEK CAPITAL LETTER IOTA WITH DIALYTIKA; Iotadieresis
17038 \DeclareTextCommand{\textIotadieresis}{PU}{\83\252}% U+03AA
17039 \DeclareTextCompositeCommand{"}{PU}{\textIota}{\83\252}% U+03AA
17040 % U+03AB GREEK CAPITAL LETTER UPSILON WITH DIALYTIKA; Up-
    silondieresis
17041 \DeclareTextCompositeCommand{"}{PU}{\textUpsilon}{\83\253}% U+03AB
17042 % U+03AC GREEK SMALL LETTER ALPHA WITH TONOS; alphanos
17043 \DeclareTextCompositeCommand{'}{PU}{\textalpha}{\83\254}%* U+03AC
17044 % U+03AD GREEK SMALL LETTER EPSILON WITH TONOS; epsilononos
17045 \DeclareTextCompositeCommand{'}{PU}{\textepsilon}{\83\255}% U+03AD
17046 % U+03AE GREEK SMALL LETTER ETA WITH TONOS; etatonos
17047 \DeclareTextCompositeCommand{'}{PU}{\texteta}{\83\256}% U+03AE
17048 % U+03AF GREEK SMALL LETTER IOTA WITH TONOS; iotatonos
17049 \DeclareTextCompositeCommand{'}{PU}{\textiota}{\83\257}% U+03AF
17050 % U+03B0 GREEK SMALL LETTER UPSILON WITH DIALYTIKA
17051 % AND TONOS; upsilondieresis
17052 \DeclareTextCompositeCommand{"}{PU}{\textupsilonacute}{\83\260}% U+03B0
17053 % U+03B1 GREEK SMALL LETTER ALPHA; alpha; \alpha (LaTeX)
17054 \DeclareTextCommand{\textalpha}{PU}{\83\261}%* U+03B1
17055 % U+03B2 GREEK SMALL LETTER BETA; beta; \beta (LaTeX)
17056 \DeclareTextCommand{\textbeta}{PU}{\83\262}%* U+03B2
17057 % U+03B3 GREEK SMALL LETTER GAMMA; gamma; \gamma (LaTeX)
17058 \DeclareTextCommand{\textgamma}{PU}{\83\263}%* U+03B3
17059 % U+03B4 GREEK SMALL LETTER DELTA; delta; \delta (LaTeX)
17060 \DeclareTextCommand{\textdelta}{PU}{\83\264}%* U+03B4
17061 % U+03B5 GREEK SMALL LETTER EPSILON; epsilon; \epsilon (LaTeX)
17062 \DeclareTextCommand{\textepsilon}{PU}{\83\265}%* U+03B5
17063 % U+03B6 GREEK SMALL LETTER ZETA; zeta; \zeta (LaTeX)
17064 \DeclareTextCommand{\textzeta}{PU}{\83\266}%* U+03B6
17065 % U+03B7 GREEK SMALL LETTER ETA; eta; \eta (LaTeX)
17066 \DeclareTextCommand{\texteta}{PU}{\83\267}%* U+03B7
17067 % U+03B8 GREEK SMALL LETTER THETA; theta; \theta (LaTeX)
17068 \DeclareTextCommand{\texttheta}{PU}{\83\270}%* U+03B8

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17069 % U+03B9 GREEK SMALL LETTER IOTA; iota; \iota (LaTeX)
17070 \DeclareTextCommand{\textiota}{PU}{\83\271}%* U+03B9
17071 % U+03BA GREEK SMALL LETTER KAPPA; kappa; \kappa (LaTeX)
17072 \DeclareTextCommand{\textkappa}{PU}{\83\272}%* U+03BA
17073 % U+03BB GREEK SMALL LETTER LAMDA; lambda; \lambda (LaTeX)
17074 \DeclareTextCommand{\textlambda}{PU}{\83\273}%* U+03BB
17075 % U+03BC GREEK SMALL LETTER MU; mugreek, *mu; \mu (LaTeX)
17076 \DeclareTextCommand{\textmugreek}{PU}{\83\274}%* U+03BC
17077 % U+03BD GREEK SMALL LETTER NU; nu; \nu (LaTeX)
17078 \DeclareTextCommand{\textnu}{PU}{\83\275}%* U+03BD
17079 % U+03BE GREEK SMALL LETTER XI; xi; \xi (LaTeX)
17080 \DeclareTextCommand{\textxi}{PU}{\83\276}%* U+03BE
17081 % U+03BF GREEK SMALL LETTER OMICRON; omicron
17082 \DeclareTextCommand{\textomicron}{PU}{\83\277}%* U+03BF
17083 % U+03C0 GREEK SMALL LETTER PI; pi; \pi (LaTeX)
17084 \DeclareTextCommand{\textpi}{PU}{\83\300}%* U+03C0
17085 % U+03C1 GREEK SMALL LETTER RHO; rho; \rho (LaTeX)
17086 \DeclareTextCommand{\textrho}{PU}{\83\301}%* U+03C1
17087 % U+03C2 GREEK SMALL LETTER FINAL SIGMA; *sigma1, sigmafinal
17088 \DeclareTextCommand{\textvarsigma}{PU}{\83\302}%* U+03C2
17089 % U+03C3 GREEK SMALL LETTER SIGMA; sigma; \sigma (LaTeX)
17090 \DeclareTextCommand{\textsigma}{PU}{\83\303}%* U+03C3
17091 % U+03C4 GREEK SMALL LETTER TAU; tau; \tau (LaTeX)
17092 \DeclareTextCommand{\texttau}{PU}{\83\304}%* U+03C4
17093 % U+03C5 GREEK SMALL LETTER UPSILON; upsilon; \upsilon (LaTeX)
17094 \DeclareTextCommand{\textupsilon}{PU}{\83\305}%* U+03C5
17095 % U+03C6 GREEK SMALL LETTER PHI; phi; \phi (LaTeX)
17096 \DeclareTextCommand{\textphi}{PU}{\83\306}%* U+03C6
17097 % U+03C7 GREEK SMALL LETTER CHI; chi; \chi (LaTeX)
17098 \DeclareTextCommand{\textchi}{PU}{\83\307}%* U+03C7
17099 % U+03C8 GREEK SMALL LETTER PSI; psi; \psi (LaTeX)
17100 \DeclareTextCommand{\textpsi}{PU}{\83\310}%* U+03C8
17101 % U+03C9 GREEK SMALL LETTER OMEGA; omega; \omega (LaTeX)
17102 \DeclareTextCommand{\textomega}{PU}{\83\311}%* U+03C9
17103 % U+03CA GREEK SMALL LETTER IOTA WITH DIALYTIKA; iotadieresis
17104 \DeclareTextCompositeCommand{"}{PU}{\textiota}{\83\312}% U+03CA
17105 % U+03CB GREEK SMALL LETTER UPSILON WITH DIALYTIKA; up-
      silondieresis
17106 \DeclareTextCompositeCommand{"}{PU}{\textupsilon}{\83\313}% U+03CB
17107 % U+03CC GREEK SMALL LETTER OMICRON WITH TONOS; omicrontonos
17108 \DeclareTextCompositeCommand{'}{PU}{\textomicron}{\83\314}% U+03CC
17109 % U+03CD GREEK SMALL LETTER UPSILON WITH TONOS; upsilontonos
17110 \DeclareTextCommand{\textupsilonacute}{PU}{\83\315}% U+03CD
17111 \DeclareTextCompositeCommand{'}{PU}{\textupsilon}{\83\315}% U+03CD
17112 % U+03CE GREEK SMALL LETTER OMEGA WITH TONOS; omegatonos
17113 \DeclareTextCompositeCommand{'}{PU}{\textomega}{\83\316}% U+03CE
17114 % U+03DA GREEK LETTER STIGMA; Stigmatagreek
17115 \DeclareTextCommand{\textStigmatagreek}{PU}{\83\332}% U+03DA
17116 % U+03DB GREEK SMALL LETTER STIGMA
17117 \DeclareTextCommand{\textstigmatagreek}{PU}{\83\333}% U+03DB
17118 % U+03DC GREEK LETTER DIGAMMA; Digammagreek
17119 \DeclareTextCommand{\textDigammagreek}{PU}{\83\334}% U+03DC
17120 % U+03DD GREEK SMALL LETTER DIGAMMA
17121 \DeclareTextCommand{\textdigammagreek}{PU}{\83\335}% U+03DD
17122 %* \textdigammagreek -> \digamma (AmS)
17123 % U+03DE GREEK LETTER KOPPA; Koppagreek
17124 \DeclareTextCommand{\textKoppagreek}{PU}{\83\336}% U+03DE

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17125 % U+03DF GREEK SMALL LETTER KOPPA
 17126 \DeclareTextCommand{\textkoppagreek}{PU}{\83\337}% U+03DF
 17127 % U+03E0 GREEK LETTER SAMPI; Sampigreek
 17128 \DeclareTextCommand{\textSampigreek}{PU}{\83\340}% U+03E0
 17129 % U+03E1 GREEK SMALL LETTER SAMPI
 17130 \DeclareTextCommand{\textsampigreek}{PU}{\83\341}% U+03E1
 17131 % U+03F6 GREEK REVERSED LUNATE EPSILON SYMBOL;
 17132 % \backepsilon (AmS)
 17133 \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.

17134 % U+0400 CYRILLIC CAPITAL LETTER IE WITH GRAVE
 17135 \DeclareTextCompositeCommand{\'}{PU}{\CYRE}{\84\000}% U+0400
 17136 % U+0401 CYRILLIC CAPITAL LETTER IO; Iocyrillic, *afii10023
 17137 \DeclareTextCommand{\CYRYO}{PU}{\84\001}% U+0401
 17138 \DeclareTextCompositeCommand{\"}{PU}{\CYRE}{\84\001}% U+0401
 17139 % U+0402 CYRILLIC CAPITAL LETTER DJE; Djecyrillic, *afii10051
 17140 \DeclareTextCommand{\CYRDJE}{PU}{\84\002}% U+0402
 17141 % U+0403 CYRILLIC CAPITAL LETTER GJE; Gjecyrillic, *afii10052
 17142 \DeclareTextCompositeCommand{\'}{PU}{\CYRG}{\84\003}% U+0403
 17143 % U+0404 CYRILLIC CAPITAL LETTER UKRAINIAN IE; Ecyrillic, *afii10053
 17144 \DeclareTextCommand{\CYRIE}{PU}{\84\004}% U+0404
 17145 % U+0405 CYRILLIC CAPITAL LETTER DZE; Dzecyrillic, *afii10054
 17146 \DeclareTextCommand{\CYRDZE}{PU}{\84\005}% U+0405
 17147 % U+0406 CYRILLIC CAPITAL LETTER BYELORUSSIAN-UKRAINIAN I;
 17148 % Icyrillic, *afii10055
 17149 \DeclareTextCommand{\CYRII}{PU}{\84\006}% U+0406
 17150 % U+0407 CYRILLIC CAPITAL LETTER YI; Yicyrillic, *afii10056
 17151 \DeclareTextCommand{\CYRYI}{PU}{\84\007}% U+0407
 17152 \DeclareTextCompositeCommand{\"}{PU}{\CYRII}{\84\007}% U+0407
 17153 % U+0408 CYRILLIC CAPITAL LETTER JE; Jecyrillic, *afii10057
 17154 \DeclareTextCommand{\CYRJE}{PU}{\84\010}% U+0408
 17155 % U+0409 CYRILLIC CAPITAL LETTER LJE; Ljecyrillic, *afii10058
 17156 \DeclareTextCommand{\CYRLJE}{PU}{\84\011}% U+0409
 17157 % U+040A CYRILLIC CAPITAL LETTER NJE; Njecyrillic, *afii10059
 17158 \DeclareTextCommand{\CYRNJE}{PU}{\84\012}% U+040A
 17159 % U+040B CYRILLIC CAPITAL LETTER TSHE; Tshecyrillic, *afii10060
 17160 \DeclareTextCommand{\CYRTSHE}{PU}{\84\013}% U+040B
 17161 % U+040C CYRILLIC CAPITAL LETTER KJE; Kjecyrillic, *afii10061
 17162 \DeclareTextCompositeCommand{\'}{PU}{\CYRK}{\84\014}% U+040C
 17163 % U+040D CYRILLIC CAPITAL LETTER I WITH GRAVE
 17164 \DeclareTextCompositeCommand{\'}{PU}{\CYRI}{\84\015}% U+040D
 17165 % U+040E CYRILLIC CAPITAL LETTER SHORT U; Ushortcyrillic, *afii10062
 17166 \DeclareTextCommand{\CYRUSHRT}{PU}{\84\016}% U+040E
 17167 \DeclareTextCompositeCommand{\U}{PU}{\CYRU}{\84\016}% U+040E
 17168 % U+040F CYRILLIC CAPITAL LETTER DZHE; Dzhecyrillic, *afii10145
 17169 \DeclareTextCommand{\CYRDZHE}{PU}{\84\017}% U+040F
 17170 % U+0410 CYRILLIC CAPITAL LETTER A; Acyrillic, *afii10017
 17171 \DeclareTextCommand{\CYRA}{PU}{\84\020}% U+0410
 17172 % U+0411 CYRILLIC CAPITAL LETTER BE; Becyrillic, *afii10018
 17173 \DeclareTextCommand{\CYRB}{PU}{\84\021}% U+0411
 17174 % U+0412 CYRILLIC CAPITAL LETTER VE; Vecyrillic, *afii10019
 17175 \DeclareTextCommand{\CYRV}{PU}{\84\022}% U+0412
 17176 % U+0413 CYRILLIC CAPITAL LETTER GHE; Gecyrillic, *afii10020
 17177 \DeclareTextCommand{\CYRG}{PU}{\84\023}% U+0413

17178 % U+0414 CYRILLIC CAPITAL LETTER DE; Decyrillic, *afii10021
17179 \DeclareTextCommand{\CYRD}{PU}{\84\024}% U+0414
17180 % U+0415 CYRILLIC CAPITAL LETTER IE; Iecyrillic, *afii10022
17181 \DeclareTextCommand{\CYRE}{PU}{\84\025}% U+0415
17182 % U+0416 CYRILLIC CAPITAL LETTER ZHE; Zhecyrillic, *afii10024
17183 \DeclareTextCommand{\CYRZH}{PU}{\84\026}% U+0416
17184 % U+0417 CYRILLIC CAPITAL LETTER ZE; Zecyrillic, *afii10025
17185 \DeclareTextCommand{\CYRZ}{PU}{\84\027}% U+0417
17186 % U+0418 CYRILLIC CAPITAL LETTER I; Iicyrillic, *afii10026
17187 \DeclareTextCommand{\CYRI}{PU}{\84\030}% U+0418
17188 % U+0419 CYRILLIC CAPITAL LETTER SHORT I; Iishortcyrillic, *afii10027
17189 \DeclareTextCommand{\CYRISHRT}{PU}{\84\031}% U+0419
17190 \DeclareTextCompositeCommand{\U}{PU}{\CYRI}{\84\031}% U+0419
17191 % U+041A CYRILLIC CAPITAL LETTER KA; Kacyrillic, *afii10028
17192 \DeclareTextCommand{\CYRK}{PU}{\84\032}% U+041A
17193 % U+041B CYRILLIC CAPITAL LETTER EL; Elcyrillic, *afii10029
17194 \DeclareTextCommand{\CYRL}{PU}{\84\033}% U+041B
17195 % U+041C CYRILLIC CAPITAL LETTER EM; Emcyrillic, *afii10030
17196 \DeclareTextCommand{\CYRM}{PU}{\84\034}% U+041C
17197 % U+041D CYRILLIC CAPITAL LETTER EN; Encyrillic, *afii10031
17198 \DeclareTextCommand{\CYRN}{PU}{\84\035}% U+041D
17199 % U+041E CYRILLIC CAPITAL LETTER O; Ocyrillic, *afii10032
17200 \DeclareTextCommand{\CYRO}{PU}{\84\036}% U+041E
17201 % U+041F CYRILLIC CAPITAL LETTER PE; Pecyrillic, *afii10033
17202 \DeclareTextCommand{\CYRP}{PU}{\84\037}% U+041F
17203 % U+0420 CYRILLIC CAPITAL LETTER ER; Ercyrillic, *afii10034
17204 \DeclareTextCommand{\CYRR}{PU}{\84\040}% U+0420
17205 % U+0421 CYRILLIC CAPITAL LETTER ES; Escyrillic, *afii10035
17206 \DeclareTextCommand{\CYRS}{PU}{\84\041}% U+0421
17207 % U+0422 CYRILLIC CAPITAL LETTER TE; Tecyrillic, *afii10036
17208 \DeclareTextCommand{\CYRT}{PU}{\84\042}% U+0422
17209 % U+0423 CYRILLIC CAPITAL LETTER U; Ucyrillic, *afii10037
17210 \DeclareTextCommand{\CYRU}{PU}{\84\043}% U+0423
17211 % U+0424 CYRILLIC CAPITAL LETTER EF; Efcyrillic, *afii10038
17212 \DeclareTextCommand{\CYRF}{PU}{\84\044}% U+0424
17213 % U+0425 CYRILLIC CAPITAL LETTER HA; Khacyrillic, *afii10039
17214 \DeclareTextCommand{\CYRH}{PU}{\84\045}% U+0425
17215 % U+0426 CYRILLIC CAPITAL LETTER TSE; Tsecyrillic, *afii10040
17216 \DeclareTextCommand{\CYRC}{PU}{\84\046}% U+0426
17217 % U+0427 CYRILLIC CAPITAL LETTER CHE; Checyrillic, *afii10041
17218 \DeclareTextCommand{\CYRCH}{PU}{\84\047}% U+0427
17219 % U+0428 CYRILLIC CAPITAL LETTER SHA; Shacyrillic, *afii10042
17220 \DeclareTextCommand{\CYRSH}{PU}{\84\050}% U+0428
17221 % U+0429 CYRILLIC CAPITAL LETTER SHCHA; Shchacyrillic, *afii10043
17222 \DeclareTextCommand{\CYRSHCH}{PU}{\84\051}% U+0429
17223 % U+042A CYRILLIC CAPITAL LETTER HARD SIGN;
17224 % Hardsigncyrillic, *afii10044
17225 \DeclareTextCommand{\CYRHRDSN}{PU}{\84\052}% U+042A
17226 % U+042B CYRILLIC CAPITAL LETTER YERU; Yericyrillic, *afii10045
17227 \DeclareTextCommand{\CYRERY}{PU}{\84\053}% U+042B
17228 % U+042C CYRILLIC CAPITAL LETTER SOFT SIGN;
17229 % Softsigncyrillic, *afii10046
17230 \DeclareTextCommand{\CYRSFTSN}{PU}{\84\054}% U+042C
17231 % U+042D CYRILLIC CAPITAL LETTER E; Eversedcyrillic, *afii10047
17232 \DeclareTextCommand{\CYREREV}{PU}{\84\055}% U+042D
17233 % U+042E CYRILLIC CAPITAL LETTER YU; IUcyrillic, *afii10048
17234 \DeclareTextCommand{\CYRYU}{PU}{\84\056}% U+042E

17235 % U+042F CYRILLIC CAPITAL LETTER YA; IAcyrillic, *afii10049
17236 \DeclareTextCommand{\CYRYA}{PU}{\84\057}% U+042F
17237 % U+0430 CYRILLIC SMALL LETTER A; acyrillic, *afii10065
17238 \DeclareTextCommand{\cyra}{PU}{\84\060}% U+0430
17239 % U+0431 CYRILLIC SMALL LETTER BE; *afii10066, becyrillic
17240 \DeclareTextCommand{\cyrb}{PU}{\84\061}% U+0431
17241 % U+0432 CYRILLIC SMALL LETTER VE; *afii10067, vecyrillic
17242 \DeclareTextCommand{\cyrv}{PU}{\84\062}% U+0432
17243 % U+0433 CYRILLIC SMALL LETTER GHE; *afii10068, gecyrillic
17244 \DeclareTextCommand{\cyrg}{PU}{\84\063}% U+0433
17245 % U+0434 CYRILLIC SMALL LETTER DE; *afii10069, decyrillic
17246 \DeclareTextCommand{\cyrd}{PU}{\84\064}% U+0434
17247 % U+0435 CYRILLIC SMALL LETTER IE; *afii10070, iecyrillic
17248 \DeclareTextCommand{\cyre}{PU}{\84\065}% U+0435
17249 % U+0436 CYRILLIC SMALL LETTER ZHE; *afii10072, zhecyrillic
17250 \DeclareTextCommand{\cyrz}{PU}{\84\066}% U+0436
17251 % U+0437 CYRILLIC SMALL LETTER ZE; *afii10073, zecyrillic
17252 \DeclareTextCommand{\cyrz}{PU}{\84\067}% U+0437
17253 % U+0438 CYRILLIC SMALL LETTER I; *afii10074, iicyrillic
17254 \DeclareTextCommand{\cyri}{PU}{\84\070}% U+0438
17255 % U+0439 CYRILLIC SMALL LETTER SHORT I; *afii10075, iishortcyrillic
17256 \DeclareTextCommand{\cyrishrt}{PU}{\84\071}% U+0439
17257 \DeclareTextCompositeCommand{\U}{PU}{\cyri}{\84\071}% U+0439
17258 % U+043A CYRILLIC SMALL LETTER KA; *afii10076, kacyrillic
17259 \DeclareTextCommand{\cyrk}{PU}{\84\072}% U+043A
17260 % U+043B CYRILLIC SMALL LETTER EL; *afii10077, elcyrillic
17261 \DeclareTextCommand{\cyrl}{PU}{\84\073}% U+043B
17262 % U+043C CYRILLIC SMALL LETTER EM; *afii10078, emcyrillic
17263 \DeclareTextCommand{\cyrm}{PU}{\84\074}% U+043C
17264 % U+043D CYRILLIC SMALL LETTER EN; *afii10079, encyrillic
17265 \DeclareTextCommand{\cyrn}{PU}{\84\075}% U+043D
17266 % U+043E CYRILLIC SMALL LETTER O; *afii10080, ocyrillic
17267 \DeclareTextCommand{\cyro}{PU}{\84\076}% U+043E
17268 % U+043F CYRILLIC SMALL LETTER PE; *afii10081, pecyrillic
17269 \DeclareTextCommand{\cyrp}{PU}{\84\077}% U+043F
17270 % U+0440 CYRILLIC SMALL LETTER ER; *afii10082, ercyrillic
17271 \DeclareTextCommand{\cyrr}{PU}{\84\100}% U+0440
17272 % U+0441 CYRILLIC SMALL LETTER ES; *afii10083, escyrillic
17273 \DeclareTextCommand{\cyrs}{PU}{\84\101}% U+0441
17274 % U+0442 CYRILLIC SMALL LETTER TE; *afii10084, tecyrillic
17275 \DeclareTextCommand{\cyrt}{PU}{\84\102}% U+0442
17276 % U+0443 CYRILLIC SMALL LETTER U; *afii10085, ucyrillic
17277 \DeclareTextCommand{\cyru}{PU}{\84\103}% U+0443
17278 % U+0444 CYRILLIC SMALL LETTER EF; *afii10086, efcyrillic
17279 \DeclareTextCommand{\cyrf}{PU}{\84\104}% U+0444
17280 % U+0445 CYRILLIC SMALL LETTER HA; *afii10087, khacyrillic
17281 \DeclareTextCommand{\cyrh}{PU}{\84\105}% U+0445
17282 % U+0446 CYRILLIC SMALL LETTER TSE; *afii10088, tsecyrillic
17283 \DeclareTextCommand{\cyrc}{PU}{\84\106}% U+0446
17284 % U+0447 CYRILLIC SMALL LETTER CHE; *afii10089, checyrillic
17285 \DeclareTextCommand{\cyrch}{PU}{\84\107}% U+0447
17286 % U+0448 CYRILLIC SMALL LETTER SHA; *afii10090, shacyrillic
17287 \DeclareTextCommand{\cyrsh}{PU}{\84\110}% U+0448
17288 % U+0449 CYRILLIC SMALL LETTER SHCHA; *afii10091, shchacyrillic
17289 \DeclareTextCommand{\cyrshch}{PU}{\84\111}% U+0449
17290 % U+044A CYRILLIC SMALL LETTER HARD SIGN; *afii10092, hardsigncyrillic

17291 \DeclareTextCommand{\cyrhrdsn}{PU}{\84\112}% U+044A
17292 %* \cyrhrdsn -> \hardsign (tipa)
17293 % U+044B CYRILLIC SMALL LETTER YERU; *afii10093, yericyrillic
17294 \DeclareTextCommand{\cyrery}{PU}{\84\113}% U+044B
17295 % U+044C CYRILLIC SMALL LETTER SOFT SIGN; *afii10094, softsigncyrillic
17296 \DeclareTextCommand{\cyrstsn}{PU}{\84\114}% U+044C
17297 %* \cyrstsn -> \softsign (tipa)
17298 % U+044D CYRILLIC SMALL LETTER E; *afii10095, ereversedcyrillic
17299 \DeclareTextCommand{\cyrerev}{PU}{\84\115}% U+044D
17300 % U+044E CYRILLIC SMALL LETTER YU; *afii10096, iucyrillic
17301 \DeclareTextCommand{\cyrYu}{PU}{\84\116}% U+044E
17302 % U+044F CYRILLIC SMALL LETTER YA; *afii10097, iacyrillic
17303 \DeclareTextCommand{\cyrYa}{PU}{\84\117}% U+044F
17304 % U+0450 CYRILLIC SMALL LETTER IE WITH GRAVE
17305 \DeclareTextCompositeCommand{\'}{PU}{\cyre}{\84\120}% U+0450
17306 % U+0451 CYRILLIC SMALL LETTER IO; *afii10071, iocyrillic
17307 \DeclareTextCommand{\cyrIo}{PU}{\84\121}% U+0451
17308 \DeclareTextCompositeCommand{\"}{PU}{\cyre}{\84\121}% U+0451
17309 % U+0452 CYRILLIC SMALL LETTER DJE; *afii10099, djecyrillic
17310 \DeclareTextCommand{\cyrdje}{PU}{\84\122}% U+0452
17311 % U+0453 CYRILLIC SMALL LETTER GJE; *afii10100, gjecyrillic
17312 \DeclareTextCompositeCommand{\'}{PU}{\cyrg}{\84\123}% U+0453
17313 % U+0454 CYRILLIC SMALL LETTER UKRAINIAN IE; *afii10101, ecyrillic
17314 \DeclareTextCommand{\cyrie}{PU}{\84\124}% U+0454
17315 % U+0455 CYRILLIC SMALL LETTER DZE; *afii10102, dzecyrillic
17316 \DeclareTextCommand{\cyrdze}{PU}{\84\125}% U+0455
17317 % U+0456 CYRILLIC SMALL LETTER BYELORUSSIAN-UKRAINIAN I;
17318 % *afii10103, icyrillic
17319 \DeclareTextCommand{\cyrii}{PU}{\84\126}% U+0456
17320 % U+0457 CYRILLIC SMALL LETTER YI; *afii10104, yicyrillic
17321 \DeclareTextCommand{\cyryi}{PU}{\84\127}% U+0457
17322 \DeclareTextCompositeCommand{\"}{PU}{\cyrii}{\84\127}% U+0457
17323 % U+0458 CYRILLIC SMALL LETTER JE; *afii10105, jecyrillic
17324 \DeclareTextCommand{\cyrje}{PU}{\84\130}% U+0458
17325 % U+0459 CYRILLIC SMALL LETTER LJE; *afii10106, ljecyrillic
17326 \DeclareTextCommand{\cyrLje}{PU}{\84\131}% U+0459
17327 % U+045A CYRILLIC SMALL LETTER NJE; *afii10107, njecyrillic
17328 \DeclareTextCommand{\cyrnje}{PU}{\84\132}% U+045A
17329 % U+045B CYRILLIC SMALL LETTER TSHE; *afii10108, tshecyrillic
17330 \DeclareTextCommand{\cyrtshe}{PU}{\84\133}% U+045B
17331 % U+045C CYRILLIC SMALL LETTER KJE; *afii10109, kjecyrillic
17332 \DeclareTextCompositeCommand{\'}{PU}{\cyrk}{\84\134}% U+045C
17333 % U+045D CYRILLIC SMALL LETTER I WITH GRAVE
17334 \DeclareTextCompositeCommand{\'}{PU}{\cyri}{\84\135}% U+045D
17335 % U+045E CYRILLIC SMALL LETTER SHORT U; *afii10110, ushortcyrillic
17336 \DeclareTextCommand{\cyrushrt}{PU}{\84\136}% U+045E
17337 \DeclareTextCompositeCommand{\U}{PU}{\curu}{\84\136}% U+045E
17338 % U+045F CYRILLIC SMALL LETTER DZHE; *afii10193, dzhecyrillic
17339 \DeclareTextCommand{\cyrdzhe}{PU}{\84\137}% U+045F
17340 % U+0460 CYRILLIC CAPITAL LETTER OMEGA; Omegacyrillic
17341 \DeclareTextCommand{\CYROMEGA}{PU}{\84\140}% U+0460
17342 % U+0461 CYRILLIC SMALL LETTER OMEGA; omegacyrillic
17343 \DeclareTextCommand{\cyromega}{PU}{\84\141}% U+0461
17344 % U+0462 CYRILLIC CAPITAL LETTER YAT; Yatcyrillic, *afii10146
17345 \DeclareTextCommand{\CYRYAT}{PU}{\84\142}% U+0462
17346 % U+0463 CYRILLIC SMALL LETTER YAT; *afii10194, yatcyrillic
17347 \DeclareTextCommand{\cyryat}{PU}{\84\143}% U+0463

17348 % U+0464 CYRILLIC CAPITAL LETTER IOTIFIED E; Eiotifiedcyrillic
 17349 \DeclareTextCommand{\CYRIOTE}{PU}{\84\144}% U+0464
 17350 % U+0465 CYRILLIC SMALL LETTER IOTIFIED E; eiotifiedcyrillic
 17351 \DeclareTextCommand{\cyriote}{PU}{\84\145}% U+0465
 17352 % U+0466 CYRILLIC CAPITAL LETTER LITTLE YUS; Yuslittlecyrillic
 17353 \DeclareTextCommand{\CYRLYUS}{PU}{\84\146}% U+0466
 17354 % U+0467 CYRILLIC SMALL LETTER LITTLE YUS; yuslittlecyrillic
 17355 \DeclareTextCommand{\cyrljus}{PU}{\84\147}% U+0467
 17356 % U+0468 CYRILLIC CAPITAL LETTER IOTIFIED LITTLE YUS; Yuslitlei-
 otifiedcyrillic
 17357 \DeclareTextCommand{\CYRIOTLYUS}{PU}{\84\150}% U+0468
 17358 % U+0469 CYRILLIC SMALL LETTER IOTIFIED LITTLE YUS; yuslitleioti-
 fiedcyrillic
 17359 \DeclareTextCommand{\cyriotlyus}{PU}{\84\151}% U+0469
 17360 % U+046A CYRILLIC CAPITAL LETTER BIG YUS; Yusbigcyrillic
 17361 \DeclareTextCommand{\CYRBYUS}{PU}{\84\152}% U+046A
 17362 % U+046B CYRILLIC SMALL LETTER BIG YUS; yusbigcyrillic
 17363 \DeclareTextCommand{\cyrbyus}{PU}{\84\153}% U+046B
 17364 % U+046C CYRILLIC CAPITAL LETTER IOTIFIED BIG YUS; Yusbigiotified-
 cyrillic
 17365 \DeclareTextCommand{\CYRIOTBYUS}{PU}{\84\154}% U+046C
 17366 % U+046D CYRILLIC SMALL LETTER IOTIFIED BIG YUS; yusbigiotified-
 cyrillic
 17367 \DeclareTextCommand{\cyriotbyus}{PU}{\84\155}% U+046D
 17368 % U+046E CYRILLIC CAPITAL LETTER KSI; Ksicyrillic
 17369 \DeclareTextCommand{\CYRKSI}{PU}{\84\156}% U+046E
 17370 % U+046F CYRILLIC SMALL LETTER KSI; ksicyrillic
 17371 \DeclareTextCommand{\cyrksi}{PU}{\84\157}% U+046F
 17372 % U+0470 CYRILLIC CAPITAL LETTER PSI; Psicyrillic
 17373 \DeclareTextCommand{\CYRPSI}{PU}{\84\160}% U+0470
 17374 % U+0471 CYRILLIC SMALL LETTER PSI; psicyrillic
 17375 \DeclareTextCommand{\cyrpsi}{PU}{\84\161}% U+0471
 17376 % U+0472 CYRILLIC CAPITAL LETTER FITA; Fitacyrillic, *afii10147
 17377 \DeclareTextCommand{\CYRFITA}{PU}{\84\162}% U+0472
 17378 % U+0473 CYRILLIC SMALL LETTER FITA; *afii10195, fitacyrillic
 17379 \DeclareTextCommand{\cyrfita}{PU}{\84\163}% U+0473
 17380 % U+0474 CYRILLIC CAPITAL LETTER IZHITSA; Izhitsacyrillic, *afii10148
 17381 \DeclareTextCommand{\CYRIZH}{PU}{\84\164}% U+0474
 17382 % U+0475 CYRILLIC SMALL LETTER IZHITSA; *afii10196, izhitsacyrillic
 17383 \DeclareTextCommand{\cyrizh}{PU}{\84\165}% U+0475
 17384 % U+0476 CYRILLIC CAPITAL LETTER IZHITSA WITH DOUBLE
 17385 % GRAVE ACCENT; Izhitsadblgravecyrillic
 17386 \DeclareTextCompositeCommand{\C}{PU}{\CYRIZH}{\84\166}% U+0476
 17387 % U+0477 CYRILLIC SMALL LETTER IZHITSA WITH DOUBLE
 17388 % GRAVE ACCENT; izhitsadblgravecyrillic
 17389 \DeclareTextCompositeCommand{\C}{PU}{\cyrizh}{\84\167}% U+0477
 17390 % U+0478 CYRILLIC CAPITAL LETTER UK; Ukcyrillic
 17391 \DeclareTextCommand{\CYRUK}{PU}{\84\170}% U+0478
 17392 % U+0479 CYRILLIC SMALL LETTER UK; ukcyrillic
 17393 \DeclareTextCommand{\cyruk}{PU}{\84\171}% U+0479
 17394 % U+047A CYRILLIC CAPITAL LETTER ROUND OMEGA; Omegaroundcyril-
 lic
 17395 \DeclareTextCommand{\CYROMEGARND}{PU}{\84\172}% U+047A
 17396 % U+047B CYRILLIC SMALL LETTER ROUND OMEGA; omegaroundcyrillic
 17397 \DeclareTextCommand{\cyromegarnd}{PU}{\84\173}% U+047B
 17398 % U+047C CYRILLIC CAPITAL LETTER OMEGA WITH TITLO; Omegatit-
 locyrillic

17399 \DeclareTextCommand{\CYROMEGATITLO}{PU}{\84\174}% U+047C
 17400 % U+047D CYRILLIC SMALL LETTER OMEGA WITH TITLO; omegatitlo-cyrillic
 17401 \DeclareTextCommand{\cyromegatitlo}{PU}{\84\175}% U+047D
 17402 % U+047E CYRILLIC CAPITAL LETTER OT; Otcyrillic
 17403 \DeclareTextCommand{\CYROT}{PU}{\84\176}% U+047E
 17404 % U+047F CYRILLIC SMALL LETTER OT; otcyrillic
 17405 \DeclareTextCommand{\cyrot}{PU}{\84\177}% U+047F
 17406 % U+0480 CYRILLIC CAPITAL LETTER KOPPA; Koppacyrillic
 17407 \DeclareTextCommand{\CYRKOPPA}{PU}{\84\200}% U+0480
 17408 % U+0481 CYRILLIC SMALL LETTER KOPPA; koppacyrillic
 17409 \DeclareTextCommand{\cyrkoppa}{PU}{\84\201}% U+0481
 17410 % U+0482 CYRILLIC THOUSANDS SIGN; thousandcyrillic
 17411 \DeclareTextCommand{\cyrthousands}{PU}{\84\202}% U+0482
 \84\203: U+0483 COMBINING CYRILLIC TITLO; titlocyrilliccmb
 \84\204: U+0484 COMBINING CYRILLIC PALATALIZATION; palatalization-cyrilliccmb
 \84\205: U+0485 COMBINING CYRILLIC DASIA PNEUMATA; dasiapneumatacyrilliccmb
 \84\206: U+0486 COMBINING CYRILLIC PSILI PNEUMATA; psilipneumat-acyrilliccmb
 \84\207: U+0487 COMBINING CYRILLIC POKRYTIE
 \84\210: U+0488 COMBINING CYRILLIC HUNDRED THOUSANDS SIGN
 \84\211: U+0489 COMBINING CYRILLIC MILLIONS SIGN
 17412 % U+048A CYRILLIC CAPITAL LETTER SHORT I WITH TAIL
 17413 \DeclareTextCommand{\CYRISHRTDSC}{PU}{\84\212}% U+048A
 17414 % U+048B CYRILLIC SMALL LETTER SHORT I WITH TAIL
 17415 \DeclareTextCommand{\cyrishrtdsc}{PU}{\84\213}% U+048B
 17416 % U+048C CYRILLIC CAPITAL LETTER SEMISOFT SIGN
 17417 \DeclareTextCommand{\CYRSEMISFTSN}{PU}{\84\214}% U+048C
 17418 % U+048D CYRILLIC SMALL LETTER SEMISOFT SIGN
 17419 \DeclareTextCommand{\cyrsemisftsn}{PU}{\84\215}% U+048D
 17420 % U+048E CYRILLIC CAPITAL LETTER ER WITH TICK
 17421 \DeclareTextCommand{\CYRRTICK}{PU}{\84\216}% U+048E
 17422 % U+048F CYRILLIC SMALL LETTER ER WITH TICK
 17423 \DeclareTextCommand{\cyrrtick}{PU}{\84\217}% U+048F
 17424 % U+0490 CYRILLIC CAPITAL LETTER GHE WITH UPTURN; Gheupturn-cyrillic, *afii10050
 17425 \DeclareTextCommand{\CYRGUP}{PU}{\84\220}% U+0490
 17426 % U+0491 CYRILLIC SMALL LETTER GHE WITH UPTURN; *afii10098, gheupturncyrillic
 17427 \DeclareTextCommand{\cyrgup}{PU}{\84\221}% U+0491
 17428 % U+0492 CYRILLIC CAPITAL LETTER GHE WITH STROKE; Ghestroke-cyrillic
 17429 \DeclareTextCommand{\CYRGHCRS}{PU}{\84\222}% U+0492
 17430 % U+0493 CYRILLIC SMALL LETTER GHE WITH STROKE; ghestrokecyrillic
 17431 \DeclareTextCommand{\cyrghcrs}{PU}{\84\223}% U+0493
 17432 % U+0494 CYRILLIC CAPITAL LETTER GHE WITH MIDDLE HOOK;
 17433 % Ghemiddlehookcyrillic
 17434 \DeclareTextCommand{\CYRGHK}{PU}{\84\224}% U+0494
 17435 % U+0495 CYRILLIC SMALL LETTER GHE WITH MIDDLE HOOK;
 17436 % ghemiddlehookcyrillic
 17437 \DeclareTextCommand{\cyrghk}{PU}{\84\225}% U+0495
 17438 % U+0496 CYRILLIC CAPITAL LETTER ZHE WITH DESCENDER;
 17439 % Zhedescendercyrillic
 17440 \DeclareTextCommand{\CYRZHDSC}{PU}{\84\226}% U+0496

17441 % U+0497 CYRILLIC SMALL LETTER ZHE WITH DESCENDER;
 17442 % zhedescendercyrillic
 17443 \DeclareTextCommand{\cyrzhdsc}{PU}{\84\227}% U+0497
 17444 % U+0498 CYRILLIC CAPITAL LETTER ZE WITH DESCENDER; Zedescendercyrillic
 17445 \DeclareTextCommand{\CYRZDSC}{PU}{\84\230}% U+0498
 17446 \DeclareTextCompositeCommand{\c}{PU}{\CYRZ}{\84\230}% U+0498
 17447 % U+0499 CYRILLIC SMALL LETTER ZE WITH DESCENDER; zedescendercyrillic
 17448 \DeclareTextCommand{\cyrzdsc}{PU}{\84\231}% U+0499
 17449 \DeclareTextCompositeCommand{\c}{PU}{\cyrz}{\84\231}% U+0499
 17450 % U+049A CYRILLIC CAPITAL LETTER KA WITH DESCENDER; Kadescendercyrillic
 17451 \DeclareTextCommand{\CYRKDSC}{PU}{\84\232}% U+049A
 17452 % U+049B CYRILLIC SMALL LETTER KA WITH DESCENDER; kadescendercyrillic
 17453 \DeclareTextCommand{\cyrkdsc}{PU}{\84\233}% U+049B
 17454 % U+049C CYRILLIC CAPITAL LETTER KA WITH VERTICAL STROKE;
 17455 % Kavertikalstrokecyrillic
 17456 \DeclareTextCommand{\CYRKVCRS}{PU}{\84\234}% U+049C
 17457 % U+049D CYRILLIC SMALL LETTER KA WITH VERTICAL STROKE;
 17458 % kavertikalstrokecyrillic
 17459 \DeclareTextCommand{\cyrkvcrs}{PU}{\84\235}% U+049D
 17460 % U+049E CYRILLIC CAPITAL LETTER KA WITH STROKE; Kastrokecyrillic
 17461 \DeclareTextCommand{\CYRKHCRS}{PU}{\84\236}% U+049E
 17462 % U+049F CYRILLIC SMALL LETTER KA WITH STROKE; kastrokecyrillic
 17463 \DeclareTextCommand{\cyrkhcrs}{PU}{\84\237}% U+049F
 17464 % U+04A0 CYRILLIC CAPITAL LETTER BASHKIR KA; Kabashkircyrillic
 17465 \DeclareTextCommand{\CYRKBEAK}{PU}{\84\240}% U+04A0
 17466 % U+04A1 CYRILLIC SMALL LETTER BASHKIR KA; kabashkircyrillic
 17467 \DeclareTextCommand{\cyrkbeak}{PU}{\84\241}% U+04A1
 17468 % U+04A2 CYRILLIC CAPITAL LETTER EN WITH DESCENDER; Endescendercyrillic
 17469 \DeclareTextCommand{\CYRNDSC}{PU}{\84\242}% U+04A2
 17470 % U+04A3 CYRILLIC SMALL LETTER EN WITH DESCENDER; endescendercyrillic
 17471 \DeclareTextCommand{\cyrndsc}{PU}{\84\243}% U+04A3
 17472 % U+04A4 CYRILLIC CAPITAL LIGATURE EN GHE; Enghecyrillic
 17473 \DeclareTextCommand{\CYRNG}{PU}{\84\244}% U+04A4
 17474 % U+04A5 CYRILLIC SMALL LIGATURE EN GHE; enghecyrillic
 17475 \DeclareTextCommand{\cyrng}{PU}{\84\245}% U+04A5
 17476 % U+04A6 CYRILLIC CAPITAL LETTER PE WITH MIDDLE HOOK; Pemiddlehookcyrillic
 17477 \DeclareTextCommand{\CYRPHK}{PU}{\84\246}% U+04A6
 17478 % U+04A7 CYRILLIC SMALL LETTER PE WITH MIDDLE HOOK; pemiddlehookcyrillic
 17479 \DeclareTextCommand{\cyrphk}{PU}{\84\247}% U+04A7
 17480 % U+04A8 CYRILLIC CAPITAL LETTER ABKHASIAN HA; Haabkhasiancyrillic
 17481 \DeclareTextCommand{\CYRABHHA}{PU}{\84\250}% U+04A8
 17482 % U+04A9 CYRILLIC SMALL LETTER ABKHASIAN HA; haabkhasiancyrillic
 17483 \DeclareTextCommand{\cyrabhha}{PU}{\84\251}% U+04A9
 17484 % U+04AA CYRILLIC CAPITAL LETTER ES WITH DESCENDER; Esdescendercyrillic
 17485 \DeclareTextCommand{\CYRSDSC}{PU}{\84\252}% U+04AA
 17486 \DeclareTextCompositeCommand{\CYRSDSC}{PU}{\CYRS}{\84\252}% U+04AA

17487 % U+04AB CYRILLIC SMALL LETTER ES WITH DESCENDER; esdescender-cyrillic
 17488 \DeclareTextCommand{\cyrsdsc}{PU}{\84\253}% U+04AB
 17489 \DeclareTextCompositeCommand{\k}{PU}{\cyrs}{\84\253}% U+04AB
 17490 % U+04AC CYRILLIC CAPITAL LETTER TE WITH DESCENDER; Tedescendercyrillic
 17491 \DeclareTextCommand{\CYRTDSC}{PU}{\84\254}% U+04AC
 17492 % U+04AD CYRILLIC SMALL LETTER TE WITH DESCENDER; tedescendercyrillic
 17493 \DeclareTextCommand{\cyrtasc}{PU}{\84\255}% U+04AD
 17494 % U+04AE CYRILLIC CAPITAL LETTER STRAIGHT U; Ustraightcyrillic
 17495 \DeclareTextCommand{\CYRY}{PU}{\84\256}% U+04AE
 17496 % U+04AF CYRILLIC SMALL LETTER STRAIGHT U; ustraightcyrillic
 17497 \DeclareTextCommand{\cyry}{PU}{\84\257}% U+04AF
 17498 % U+04B0 CYRILLIC CAPITAL LETTER STRAIGHT U WITH STROKE; Ustraightstrokecyrillic
 17499 \DeclareTextCommand{\CYRYHCRS}{PU}{\84\260}% U+04B0
 17500 % U+04B1 CYRILLIC SMALL LETTER STRAIGHT U WITH STROKE; usstraightstrokecyrillic
 17501 \DeclareTextCommand{\cyryhcrs}{PU}{\84\261}% U+04B1
 17502 % U+04B2 CYRILLIC CAPITAL LETTER HA WITH DESCENDER; Hdescendercyrillic
 17503 \DeclareTextCommand{\CYRHDSC}{PU}{\84\262}% U+04B2
 17504 % U+04B3 CYRILLIC SMALL LETTER HA WITH DESCENDER; hadescendercyrillic
 17505 \DeclareTextCommand{\cyrhdsc}{PU}{\84\263}% U+04B3
 17506 % U+04B4 CYRILLIC CAPITAL LIGATURE TE TSE; Tetsecyrillic
 17507 \DeclareTextCommand{\CYRTETSE}{PU}{\84\264}% U+04B4
 17508 % U+04B5 CYRILLIC SMALL LIGATURE TE TSE; tetsecyrillic
 17509 \DeclareTextCommand{\cyrtetse}{PU}{\84\265}% U+04B5
 17510 % U+04B6 CYRILLIC CAPITAL LETTER CHE WITH DESCENDER;
 17511 % Chedescendercyrillic
 17512 \DeclareTextCommand{\CYRCHRDSC}{PU}{\84\266}% U+04B6
 17513 % U+04B7 CYRILLIC SMALL LETTER CHE WITH DESCENDER; chedescendercyrillic
 17514 \DeclareTextCommand{\cyrchrdsc}{PU}{\84\267}% U+04B7
 17515 % U+04B8 CYRILLIC CAPITAL LETTER CHE WITH VERTICAL STROKE;
 17516 % Cheverticalstrokecyrillic
 17517 \DeclareTextCommand{\CYRCHVCRS}{PU}{\84\270}% U+04B8
 17518 % U+04B9 CYRILLIC SMALL LETTER CHE WITH VERTICAL STROKE;
 17519 % cheverticalstrokecyrillic
 17520 \DeclareTextCommand{\cyrchvcrs}{PU}{\84\271}% U+04B9
 17521 % U+04BA CYRILLIC CAPITAL LETTER SHHA; Shhacyrillic
 17522 \DeclareTextCommand{\CYRSHHA}{PU}{\84\272}% U+04BA
 17523 % U+04BB CYRILLIC SMALL LETTER SHHA; shhacyrillic
 17524 \DeclareTextCommand{\cyrshha}{PU}{\84\273}% U+04BB
 17525 % U+04BC CYRILLIC CAPITAL LETTER ABKHASIAN CHE; Cheabkhasiancyrillic
 17526 \DeclareTextCommand{\CYRABHCH}{PU}{\84\274}% U+04BC
 17527 % U+04BD CYRILLIC SMALL LETTER ABKHASIAN CHE; cheabkhasiancyrillic
 17528 \DeclareTextCommand{\cyrabhch}{PU}{\84\275}% U+04BD
 17529 % U+04BE CYRILLIC CAPITAL LETTER ABKHASIAN CHE WITH DESCENDER; Chedescenderabkhasiancyrillic
 17530 \DeclareTextCommand{\CYRABHCHDSC}{PU}{\84\276}% U+04BE
 17531 \DeclareTextCompositeCommand{\k}{PU}{\CYRABHCH}{\84\276}% U+04BE

17532 % U+04BF CYRILLIC SMALL LETTER ABKHASIAN CHE WITH DESCEN-
 DER; chedescenderabkhasiancyrillic
 17533 \DeclareTextCommand{\cyrabhchdsc}{PU}{\84\277}% U+04BF
 17534 \DeclareTextCompositeCommand{\k}{PU}{\cyrabhch}{\84\277}% U+04BF
 17535 % U+04C0 CYRILLIC LETTER PALOCHKA; palochkacyrillic
 17536 \DeclareTextCommand{\CYRpalochka}{PU}{\84\300}% U+04C0
 17537 % U+04C1 CYRILLIC CAPITAL LETTER ZHE WITH BREVE; Zhebrevecyrillic
 17538 \DeclareTextCompositeCommand{\U}{PU}{\CYRZH}{\84\301}% U+04C1
 17539 % U+04C2 CYRILLIC SMALL LETTER ZHE WITH BREVE; zhebrevecyrillic
 17540 \DeclareTextCompositeCommand{\U}{PU}{\cyrzh}{\84\302}% U+04C2
 17541 % U+04C3 CYRILLIC CAPITAL LETTER KA WITH HOOK; Kahookcyrillic
 17542 \DeclareTextCommand{\CYRKHK}{PU}{\84\303}% U+04C3
 17543 % U+04C4 CYRILLIC SMALL LETTER KA WITH HOOK; kahookcyrillic
 17544 \DeclareTextCommand{\cyrkhk}{PU}{\84\304}% U+04C4
 17545 % U+04C5 CYRILLIC CAPITAL LETTER EL WITH TAIL
 17546 \DeclareTextCommand{\CYRLDSC}{PU}{\84\305}% U+04C5
 17547 % U+04C6 CYRILLIC SMALL LETTER EL WITH TAIL
 17548 \DeclareTextCommand{\cyrldsc}{PU}{\84\306}% U+04C6
 17549 % U+04C7 CYRILLIC CAPITAL LETTER EN WITH HOOK; Enhookcyrillic
 17550 \DeclareTextCommand{\CYRNHK}{PU}{\84\307}% U+04C7
 17551 % U+04C8 CYRILLIC SMALL LETTER EN WITH HOOK; enhookcyrillic
 17552 \DeclareTextCommand{\cyrnhk}{PU}{\84\310}% U+04C8
 17553 % U+04CB CYRILLIC CAPITAL LETTER KHAKASSIAN CHE; Chekhakas-
 siancyrillic
 17554 \DeclareTextCommand{\CYRCHLDSC}{PU}{\84\313}% U+04CB
 17555 % U+04CC CYRILLIC SMALL LETTER KHAKASSIAN CHE; chekhakassian-
 cyrillic
 17556 \DeclareTextCommand{\cyrchldsc}{PU}{\84\314}% U+04CC
 17557 % U+04CD CYRILLIC CAPITAL LETTER EM WITH TAIL
 17558 \DeclareTextCommand{\CYRMDSC}{PU}{\84\315}% U+04CD
 17559 % U+04CE CYRILLIC SMALL LETTER EM WITH TAIL
 17560 \DeclareTextCommand{\cyrmdsc}{PU}{\84\316}% U+04CE
 \84\317: U+04CF CYRILLIC SMALL LETTER PALOCHKA
 17561 % U+04D0 CYRILLIC CAPITAL LETTER A WITH BREVE; Abrevecyrillic
 17562 \DeclareTextCompositeCommand{\U}{PU}{\CYRA}{\84\320}% U+04D0
 17563 % U+04D1 CYRILLIC SMALL LETTER A WITH BREVE; abrevecyrillic
 17564 \DeclareTextCompositeCommand{\U}{PU}{\cyra}{\84\321}% U+04D1
 17565 % U+04D2 CYRILLIC CAPITAL LETTER A WITH DIAERESIS; Adieresiscyrl-
 lic
 17566 \DeclareTextCompositeCommand{\"}{PU}{\CYRA}{\84\322}% U+04D2
 17567 % U+04D3 CYRILLIC SMALL LETTER A WITH DIAERESIS; adieresiscyrillic
 17568 \DeclareTextCompositeCommand{\"}{PU}{\cyra}{\84\323}% U+04D3
 17569 % U+04D4 CYRILLIC CAPITAL LIGATURE A IE; Aiecyrillic
 17570 \DeclareTextCommand{\CYRAE}{PU}{\84\324}% U+04D4
 17571 % U+04D5 CYRILLIC SMALL LIGATURE A IE; aiecyrillic
 17572 \DeclareTextCommand{\cyrae}{PU}{\84\325}% U+04D5
 17573 % U+04D6 CYRILLIC CAPITAL LETTER IE WITH BREVE; Iebrevecyrillic
 17574 \DeclareTextCompositeCommand{\U}{PU}{\CYRE}{\84\326}% U+04D6
 17575 % U+04D7 CYRILLIC SMALL LETTER IE WITH BREVE; iebrevecyrillic
 17576 \DeclareTextCompositeCommand{\U}{PU}{\cyre}{\84\327}% U+04D7
 17577 % U+04D8 CYRILLIC CAPITAL LETTER SCHWA; Schwacyrillic
 17578 \DeclareTextCommand{\CYRSCHWA}{PU}{\84\330}% U+04D8
 17579 % U+04D9 CYRILLIC SMALL LETTER SCHWA; *afi10846, schwacyrillic
 17580 \DeclareTextCommand{\cyrschwa}{PU}{\84\331}% U+04D9
 17581 % U+04DA CYRILLIC CAPITAL LETTER SCHWA WITH DIAERESIS;
 17582 % Schwadiesiscyrillic
 17583 \DeclareTextCompositeCommand{\"}{PU}{\CYRSCHWA}{\84\332}% U+04DA

17584 % U+04DB CYRILLIC SMALL LETTER SCHWA WITH DIAERESIS;
17585 % schwadieresiscyrillic
17586 \DeclareTextCompositeCommand{"}{PU}{\cyrschwa}{\84\333}% U+04DB
17587 % U+04DC CYRILLIC CAPITAL LETTER ZHE WITH DIAERESIS; Zhedieresiscyrillic
17588 \DeclareTextCompositeCommand{"}{PU}{\CYRZH}{\84\334}% U+04DC
17589 % U+04DD CYRILLIC SMALL LETTER ZHE WITH DIAERESIS; zhedieresiscyrillic
17590 \DeclareTextCompositeCommand{"}{PU}{\cyrz}{\84\335}% U+04DD
17591 % U+04DE CYRILLIC CAPITAL LETTER ZE WITH DIAERESIS; Zedieresiscyrillic
17592 \DeclareTextCompositeCommand{"}{PU}{\CYRZ}{\84\336}% U+04DE
17593 % U+04DF CYRILLIC SMALL LETTER ZE WITH DIAERESIS; zedieresiscyrillic
17594 \DeclareTextCompositeCommand{"}{PU}{\cyrz}{\84\337}% U+04DF
17595 % U+04E0 CYRILLIC CAPITAL LETTER ABKHASIAN DZE; Dzeabkhasiancyrillic
17596 \DeclareTextCommand{\CYRABHDZE}{PU}{\84\340}% U+04E0
17597 % U+04E1 CYRILLIC SMALL LETTER ABKHASIAN DZE; dzeabkhasiancyrillic
17598 \DeclareTextCommand{\cyrabhdze}{PU}{\84\341}% U+04E1
17599 % U+04E2 CYRILLIC CAPITAL LETTER I WITH MACRON; Iacroncyrillic
17600 \DeclareTextCompositeCommand{=}{PU}{\CYRI}{\84\342}% U+04E2
17601 % U+04E3 CYRILLIC SMALL LETTER I WITH MACRON; iacroncyrillic
17602 \DeclareTextCompositeCommand{=}{PU}{\cyri}{\84\343}% U+04E3
17603 % U+04E4 CYRILLIC CAPITAL LETTER I WITH DIAERESIS; Idieresiscyrillic
17604 \DeclareTextCompositeCommand{"}{PU}{\CYRI}{\84\344}% U+04E4
17605 % U+04E5 CYRILLIC SMALL LETTER I WITH DIAERESIS; idieresiscyrillic
17606 \DeclareTextCompositeCommand{"}{PU}{\cyri}{\84\345}% U+04E5
17607 % U+04E6 CYRILLIC CAPITAL LETTER O WITH DIAERESIS; Odieresiscyrillic
17608 \DeclareTextCompositeCommand{"}{PU}{\CYRO}{\84\346}% U+04E6
17609 % U+04E7 CYRILLIC SMALL LETTER O WITH DIAERESIS; odieresiscyrillic
17610 \DeclareTextCompositeCommand{"}{PU}{\cyro}{\84\347}% U+04E7
17611 % U+04E8 CYRILLIC CAPITAL LETTER BARRED O; Obarredcyrillic
17612 \DeclareTextCommand{\CYROTLD}{PU}{\84\350}% U+04E8
17613 % U+04E9 CYRILLIC SMALL LETTER BARRED O; obarredcyrillic
17614 \DeclareTextCommand{\cyrotld}{PU}{\84\351}% U+04E9
17615 % U+04EA CYRILLIC CAPITAL LETTER BARRED O WITH DIAERESIS;
17616 % Obarreddieresiscyrillic
17617 \DeclareTextCompositeCommand{"}{PU}{\CYROTLD}{\84\352}% U+04EA
17618 % U+04EB CYRILLIC SMALL LETTER BARRED O WITH DIAERESIS;
17619 % obarreddieresiscyrillic
17620 \DeclareTextCompositeCommand{"}{PU}{\cyrotld}{\84\353}% U+04EB
17621 % U+04EC CYRILLIC CAPITAL LETTER E WITH DIAERESIS
17622 \DeclareTextCompositeCommand{"}{PU}{\CYREREV}{\84\354}% U+04EC
17623 % U+04ED CYRILLIC SMALL LETTER E WITH DIAERESIS
17624 \DeclareTextCompositeCommand{"}{PU}{\cyreref}{\84\355}% U+04ED
17625 % U+04EE CYRILLIC CAPITAL LETTER U WITH MACRON; Umacroncyrillic
17626 \DeclareTextCompositeCommand{=}{PU}{\CYRU}{\84\356}% U+04EE
17627 % U+04EF CYRILLIC SMALL LETTER U WITH MACRON; umacroncyrillic
17628 \DeclareTextCompositeCommand{=}{PU}{\cyru}{\84\357}% U+04EF
17629 % U+04F0 CYRILLIC CAPITAL LETTER U WITH DIAERESIS; Udieresiscyrillic
17630 \DeclareTextCompositeCommand{"}{PU}{\CYRU}{\84\360}% U+04F0
17631 % U+04F1 CYRILLIC SMALL LETTER U WITH DIAERESIS; udieresiscyrillic
17632 \DeclareTextCompositeCommand{"}{PU}{\cyru}{\84\361}% U+04F1

17633 % U+04F2 CYRILLIC CAPITAL LETTER U WITH DOUBLE ACUTE; Uhun-
 garumlautcyrillic
 17634 \DeclareTextCompositeCommand{\H}{PU}{\CYRU}{\84\362}% U+04F2
 17635 % U+04F3 CYRILLIC SMALL LETTER U WITH DOUBLE ACUTE; uhun-
 garumlautcyrillic
 17636 \DeclareTextCompositeCommand{\H}{PU}{\cyru}{\84\363}% U+04F3
 17637 % U+04F4 CYRILLIC CAPITAL LETTER CHE WITH DIAERESIS; Chediere-
 siscyrillic
 17638 \DeclareTextCompositeCommand{\"}{PU}{\CYRCH}{\84\364}% U+04F4
 17639 % U+04F5 CYRILLIC SMALL LETTER CHE WITH DIAERESIS; chedieres-
 iscyrillic
 17640 \DeclareTextCompositeCommand{\"}{PU}{\cyrch}{\84\365}% U+04F5
 17641 % U+04F6 CYRILLIC CAPITAL LETTER GHE WITH DESCENDER
 17642 \DeclareTextCommand{\CYRGDSC}{PU}{\84\366}% U+04F6
 17643 % U+04F7 CYRILLIC SMALL LETTER GHE WITH DESCENDER
 17644 \DeclareTextCommand{\cyrgdsc}{PU}{\84\367}% U+04F7
 17645 % U+04F8 CYRILLIC CAPITAL LETTER YERU WITH DIAERESIS; Yerudiere-
 siscyrillic
 17646 \DeclareTextCompositeCommand{\"}{PU}{\CYRERY}{\84\370}% U+04F8
 17647 % U+04F9 CYRILLIC SMALL LETTER YERU WITH DIAERESIS; yerudiere-
 siscyrillic
 17648 \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
 17649 % U+04FC CYRILLIC CAPITAL LETTER HA WITH HOOK
 17650 \DeclareTextCommand{\CYRHHK}{PU}{\84\374}% U+04FC
 17651 % U+04FD CYRILLIC SMALL LETTER HA WITH HOOK
 17652 \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`.

17653 % U+05C3 HEBREW PUNCTUATION SOF PASUQ
 17654 \DeclareTextCommand{\sofpasuq}{PU}{\85\303}% U+05C3
 17655 % U+05D0 HEBREW LETTER ALEF
 17656 \DeclareTextCommand{\hebalef}{PU}{\85\320}% U+05D0
 17657 % U+05D1 HEBREW LETTER BET
 17658 \DeclareTextCommand{\hebbet}{PU}{\85\321}% U+05D1
 17659 % U+05D2 HEBREW LETTER GIMEL
 17660 \DeclareTextCommand{\hebgimel}{PU}{\85\322}% U+05D2
 17661 % U+05D3 HEBREW LETTER DALET
 17662 \DeclareTextCommand{\hebdalet}{PU}{\85\323}% U+05D3
 17663 % U+05D4 HEBREW LETTER HE
 17664 \DeclareTextCommand{\hebhe}{PU}{\85\324}% U+05D4
 17665 % U+05D5 HEBREW LETTER VAV
 17666 \DeclareTextCommand{\hebvav}{PU}{\85\325}% U+05D5
 17667 % U+05D6 HEBREW LETTER ZAYIN
 17668 \DeclareTextCommand{\hebzayin}{PU}{\85\326}% U+05D6
 17669 % U+05D7 HEBREW LETTER HET
 17670 \DeclareTextCommand{\hebheth}{PU}{\85\327}% U+05D7
 17671 % U+05D8 HEBREW LETTER TET
 17672 \DeclareTextCommand{\hebtet}{PU}{\85\330}% U+05D8

17673 % U+05D9 HEBREW LETTER YOD
 17674 \DeclareTextCommand{\hebyod}{PU}{\85\331}% U+05D9
 17675 % U+05DA HEBREW LETTER FINAL KAF
 17676 \DeclareTextCommand{\hebfinalkaf}{PU}{\85\332}% U+05DA
 17677 % U+05DB HEBREW LETTER KAF
 17678 \DeclareTextCommand{\hebkaf}{PU}{\85\333}% U+05DB
 17679 % U+05DC HEBREW LETTER LAMED
 17680 \DeclareTextCommand{\heblamed}{PU}{\85\334}% U+05DC
 17681 % U+05DD HEBREW LETTER FINAL MEM
 17682 \DeclareTextCommand{\hebfinalmem}{PU}{\85\335}% U+05DD
 17683 % U+05DE HEBREW LETTER MEM
 17684 \DeclareTextCommand{\hebmem}{PU}{\85\336}% U+05DE
 17685 % U+05DF HEBREW LETTER FINAL NUN
 17686 \DeclareTextCommand{\hebfinalnun}{PU}{\85\337}% U+05DF
 17687 % U+05E0 HEBREW LETTER NUN
 17688 \DeclareTextCommand{\hebnun}{PU}{\85\340}% U+05E0
 17689 % U+05E1 HEBREW LETTER SAMEKH
 17690 \DeclareTextCommand{\hebsamekh}{PU}{\85\341}% U+05E1
 17691 % U+05E2 HEBREW LETTER AYIN
 17692 \DeclareTextCommand{\hebayin}{PU}{\85\342}% U+05E2
 17693 % U+05E3 HEBREW LETTER FINAL PE
 17694 \DeclareTextCommand{\hebfinalpe}{PU}{\85\343}% U+05E3
 17695 % U+05E4 HEBREW LETTER PE
 17696 \DeclareTextCommand{\hebpe}{PU}{\85\344}% U+05E4
 17697 % U+05E5 HEBREW LETTER FINAL TSADI
 17698 \DeclareTextCommand{\hebfinaltsadi}{PU}{\85\345}% U+05E5
 17699 % U+05E6 HEBREW LETTER TSADI
 17700 \DeclareTextCommand{\hebtsadi}{PU}{\85\346}% U+05E6
 17701 % U+05E7 HEBREW LETTER QOF
 17702 \DeclareTextCommand{\hebqof}{PU}{\85\347}% U+05E7
 17703 % U+05E8 HEBREW LETTER RESH
 17704 \DeclareTextCommand{\hebresh}{PU}{\85\350}% U+05E8
 17705 % U+05E9 HEBREW LETTER SHIN
 17706 \DeclareTextCommand{\hebshin}{PU}{\85\351}% U+05E9
 17707 %* \hebshin -> \hebsin (he8)
 17708 % U+05EA HEBREW LETTER TAV
 17709 \DeclareTextCommand{\hebtav}{PU}{\85\352}% U+05EA
 17710 % U+05F0 HEBREW LIGATURE YIDDISH DOUBLE VAV
 17711 \DeclareTextCommand{\doublevav}{PU}{\85\360}% U+05F0
 17712 % U+05F1 HEBREW LIGATURE YIDDISH VAV YOD
 17713 \DeclareTextCommand{\vavyod}{PU}{\85\361}% U+05F1
 17714 % U+05F2 HEBREW LIGATURE YIDDISH DOUBLE YOD
 17715 \DeclareTextCommand{\doubleyod}{PU}{\85\362}% U+05F2

51.2.12 Thai: U+0E00 to U+0E7F

17716 % U+0E3F THAI CURRENCY SYMBOL BAHT; bahtthai
 17717 \DeclareTextCommand{\textbaht}{PU}{\9016\077}% U+0E3F

51.2.13 Phonetic Extensions: U+1D00 to U+1D7F

17718 % U+1D00 LATIN LETTER SMALL CAPITAL A; \textsca (tipa)
 17719 \DeclareTextCommand{\textsca}{PU}{\9035\000}% U+1D00
 17720 % U+1D05 LATIN LETTER SMALL CAPITAL D; \scd (wsuipa)
 17721 \DeclareTextCommand{\textscd}{PU}{\9035\005}%* U+1D05
 17722 % U+1D07 LATIN LETTER SMALL CAPITAL E; \textsce (tipa)
 17723 \DeclareTextCommand{\textsce}{PU}{\9035\007}% U+1D07
 17724 % U+1D0A LATIN LETTER SMALL CAPITAL J; \textscj (tipa)

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17725 \DeclareTextCommand{\textscj}{PU}{\9035\012}% U+1D0A
17726 % U+1D0B LATIN LETTER SMALL CAPITAL K; \textsk (tipx)
17727 \DeclareTextCommand{\textPUsck}{PU}{\9035\013}% U+1D0B
17728 %* \textPUsck -> \textsk (tipx)
17729 % U+1D0D LATIN LETTER SMALL CAPITAL M; \textscm (tipx)
17730 \DeclareTextCommand{\textPUscm}{PU}{\9035\015}% U+1D0D
17731 %* \textPUscm -> \textscm (tipx)
17732 % U+1D18 LATIN LETTER SMALL CAPITAL P; \textscp (tipx)
17733 \DeclareTextCommand{\textPUscp}{PU}{\9035\030}% U+1D18
17734 %* \textPUscp -> \textscp (tipx)
17735 % U+1D19 LATIN LETTER SMALL CAPITAL REVERSED R; \textrevscr (tipx)
17736 \DeclareTextCommand{\textPUrevscr}{PU}{\9035\031}% U+1D19
17737 %* \textPUrevscr -> \textrevscr (tipx)
17738 % U+1D1C LATIN LETTER SMALL CAPITAL U; \textscu (tipa), \scu (wsuipa)
17739 \DeclareTextCommand{\textscu}{PU}{\9035\034}%* U+1D1C
17740 % U+1D62 LATIN SUBSCRIPT SMALL LETTER I
17741 \DeclareTextCommand{\textiinferior}{PU}{\9035\142}%* U+1D62
17742 % U+1D63 LATIN SUBSCRIPT SMALL LETTER R
17743 \DeclareTextCommand{\textrinferior}{PU}{\9035\143}%* U+1D63
17744 % U+1D64 LATIN SUBSCRIPT SMALL LETTER U
17745 \DeclareTextCommand{\textuinferior}{PU}{\9035\144}%* U+1D64
17746 % U+1D65 LATIN SUBSCRIPT SMALL LETTER V
17747 \DeclareTextCommand{\textvinferior}{PU}{\9035\145}%* U+1D65
17748 % U+1D66 GREEK SUBSCRIPT SMALL LETTER BETA
17749 \DeclareTextCommand{\textbetainferior}{PU}{\9035\146}%* U+1D66
17750 % U+1D67 GREEK SUBSCRIPT SMALL LETTER GAMMA
17751 \DeclareTextCommand{\textgammainferior}{PU}{\9035\147}%* U+1D67
17752 % U+1D68 GREEK SUBSCRIPT SMALL LETTER RHO
17753 \DeclareTextCommand{\textrhoinferior}{PU}{\9035\150}%* U+1D68
17754 % U+1D69 GREEK SUBSCRIPT SMALL LETTER PHI
17755 \DeclareTextCommand{\textphiinferior}{PU}{\9035\151}%* U+1D69
17756 % U+1D6A GREEK SUBSCRIPT SMALL LETTER CHI
17757 \DeclareTextCommand{\textchiinferior}{PU}{\9035\152}%* U+1D6A
17758 % U+1D7B LATIN SMALL CAPITAL LETTER I WITH STROKE;
17759 % \barsci (wsuipa)
17760 \DeclareTextCommand{\textbarsci}{PU}{\9035\173}%* U+1D7B
17761 % U+1D7D LATIN SMALL LETTER P WITH STROKE; \barp (wsuipa)
17762 \DeclareTextCommand{\textbarp}{PU}{\9035\175}%* U+1D7D
17763 % U+1D7E LATIN SMALL CAPITAL LETTER U WITH STROKE;
17764 % \barscu (wsuipa)
17765 \DeclareTextCommand{\textbarscu}{PU}{\9035\176}%* U+1D7E

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51.2.14 Phonetic Extensions Supplement: U+1D80 to U+1DBF

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17766 % U+1D8F LATIN SMALL LETTER A WITH RETROFLEX HOOK; \tex-
      trhooka (tipx)
17767 \DeclareTextCommand{\textPUrhooka}{PU}{\9035\217}% U+1D8F
17768 %* \textPUrhooka -> \textrhooka (tipx)
17769 % U+1D91 LATIN SMALL LETTER D WITH HOOK AND TAIL; \texthtr-
      taild (tipa)
17770 \DeclareTextCommand{\texthtrtaild}{PU}{\9035\221}%* U+1D91
17771 % U+1D92 LATIN SMALL LETTER E WITH RETROFLEX HOOK; \tex-
      trhooke (tipx)
17772 \DeclareTextCommand{\textPUrhooke}{PU}{\9035\222}% U+1D92
17773 %* \textPUrhooke -> \textrhooke (tipx)
17774 % U+1D93 LATIN SMALL LETTER OPEN E WITH RETROFLEX HOOK;
17775 % \textrhookepsilon (tipx)
17776 \DeclareTextCommand{\textPUrhookepsilon}{PU}{\9035\223}% U+1D93

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17777 %* \textPURhookepsilon -> \textrhookepsilon (tipx)
 17778 % U+1D97 LATIN SMALL LETTER OPEN O WITH RETROFLEX HOOK;
 17779 % \textrhookopeno (tipx)
 17780 \DeclareTextCommand{\textPURhookopeno}{PU}{\9035\227}% U+1D97
 17781 %* \textPURhookopeno -> \textrhookopeno (tipx)

51.2.15 Latin Extended Additional: U+1E00 to U+1EFF

17782 % U+1E00 LATIN CAPITAL LETTER A WITH RING BELOW; Aringbelow
 17783 \DeclareTextCompositeCommand{\textsubring}{PU}{A}{\9036\000}% U+1E00
 17784 % U+1E01 LATIN SMALL LETTER A WITH RING BELOW; aringbelow
 17785 \DeclareTextCompositeCommand{\textsubring}{PU}{a}{\9036\001}% U+1E01
 17786 % U+1E02 LATIN CAPITAL LETTER B WITH DOT ABOVE; Bdotaccent
 17787 \DeclareTextCompositeCommand{.}{PU}{B}{\9036\002}% U+1E02
 17788 % U+1E03 LATIN SMALL LETTER B WITH DOT ABOVE; bdotaccent
 17789 \DeclareTextCompositeCommand{.}{PU}{b}{\9036\003}% U+1E03
 17790 % U+1E04 LATIN CAPITAL LETTER B WITH DOT BELOW; Bdotbelow
 17791 \DeclareTextCompositeCommand{\d}{PU}{B}{\9036\004}% U+1E04
 17792 % U+1E05 LATIN SMALL LETTER B WITH DOT BELOW; bdotbelow
 17793 \DeclareTextCompositeCommand{\d}{PU}{b}{\9036\005}% U+1E05
 17794 % U+1E06 LATIN CAPITAL LETTER B WITH LINE BELOW; Blinebelow
 17795 \DeclareTextCompositeCommand{\b}{PU}{B}{\9036\006}% U+1E06
 17796 % U+1E07 LATIN SMALL LETTER B WITH LINE BELOW; blinebelow
 17797 \DeclareTextCompositeCommand{\b}{PU}{b}{\9036\007}% U+1E07
 17798 % U+1E0A LATIN CAPITAL LETTER D WITH DOT ABOVE; Ddotaccent
 17799 \DeclareTextCompositeCommand{.}{PU}{D}{\9036\012}% U+1E0A
 17800 % U+1E0B LATIN SMALL LETTER D WITH DOT ABOVE; ddotaccent
 17801 \DeclareTextCompositeCommand{.}{PU}{d}{\9036\013}% U+1E0B
 17802 % U+1E0C LATIN CAPITAL LETTER D WITH DOT BELOW; Ddotbelow
 17803 \DeclareTextCompositeCommand{\d}{PU}{D}{\9036\014}% U+1E0C
 17804 % U+1E0D LATIN SMALL LETTER D WITH DOT BELOW; ddotbelow
 17805 \DeclareTextCompositeCommand{\d}{PU}{d}{\9036\015}% U+1E0D
 17806 % U+1E0E LATIN CAPITAL LETTER D WITH LINE BELOW; Dlinebelow
 17807 \DeclareTextCompositeCommand{\b}{PU}{D}{\9036\016}% U+1E0E
 17808 % U+1E0F LATIN SMALL LETTER D WITH LINE BELOW; dlinebelow
 17809 \DeclareTextCompositeCommand{\b}{PU}{d}{\9036\017}% U+1E0F
 17810 % U+1E10 LATIN CAPITAL LETTER D WITH CEDILLA; Dcedilla
 17811 \DeclareTextCompositeCommand{\c}{PU}{D}{\9036\020}% U+1E10
 17812 % U+1E11 LATIN SMALL LETTER D WITH CEDILLA; dcedilla
 17813 \DeclareTextCompositeCommand{\c}{PU}{d}{\9036\021}% U+1E11
 17814 % U+1E12 LATIN CAPITAL LETTER D WITH CIRCUMFLEX BELOW; Dcir-
 cumflexbelow
 17815 \DeclareTextCompositeCommand{\textsubcircum}{PU}{D}{\9036\022}% U+1E12
 17816 % U+1E13 LATIN SMALL LETTER D WITH CIRCUMFLEX BELOW; dcir-
 cumflexbelow
 17817 \DeclareTextCompositeCommand{\textsubcircum}{PU}{d}{\9036\023}% U+1E13
 17818 % U+1E14 LATIN CAPITAL LETTER E WITH MACRON AND GRAVE;
 17819 % Emacrongrave
 17820 \DeclareTextCompositeCommand{\textgravemacron}{PU}{E}{\9036\024}% U+1E14
 17821 % U+1E15 LATIN SMALL LETTER E WITH MACRON AND GRAVE;
 17822 % emacrongrave
 17823 \DeclareTextCompositeCommand{\textgravemacron}{PU}{e}{\9036\025}% U+1E15
 17824 % U+1E16 LATIN CAPITAL LETTER E WITH MACRON AND ACUTE;
 17825 % Emacronacute
 17826 \DeclareTextCompositeCommand{\textacutemacron}{PU}{E}{\9036\026}% U+1E16
 17827 % U+1E17 LATIN SMALL LETTER E WITH MACRON AND ACUTE;
 17828 % emacronacute
 17829 \DeclareTextCompositeCommand{\textacutemacron}{PU}{e}{\9036\027}% U+1E17

17830 % U+1E18 LATIN CAPITAL LETTER E WITH CIRCUMFLEX BELOW; Ecir-
 cumflexbelow
 17831 \DeclareTextCompositeCommand{\textsubcircum}{PU}{E}{\9036\030}% U+1E18
 17832 % U+1E19 LATIN SMALL LETTER E WITH CIRCUMFLEX BELOW; ecir-
 cumflexbelow
 17833 \DeclareTextCompositeCommand{\textsubcircum}{PU}{e}{\9036\031}% U+1E19
 17834 % U+1E1A LATIN CAPITAL LETTER E WITH TILDE BELOW; Etildebelow
 17835 \DeclareTextCompositeCommand{\textsubtilde}{PU}{E}{\9036\032}% U+1E1A
 17836 % U+1E1B LATIN SMALL LETTER E WITH TILDE BELOW; etildebelow
 17837 \DeclareTextCompositeCommand{\textsubtilde}{PU}{e}{\9036\033}% U+1E1B
 17838 % U+1E1E LATIN CAPITAL LETTER F WITH DOT ABOVE; Fdotaccent
 17839 \DeclareTextCompositeCommand{\.}{PU}{F}{\9036\036}% U+1E1E
 17840 % U+1E1F LATIN SMALL LETTER F WITH DOT ABOVE; fdotaccent
 17841 \DeclareTextCompositeCommand{\.}{PU}{f}{\9036\037}% U+1E1F
 17842 % U+1E20 LATIN CAPITAL LETTER G WITH MACRON; Gmacron
 17843 \DeclareTextCompositeCommand{=} {PU}{G}{\9036\040}% U+1E20
 17844 % U+1E21 LATIN SMALL LETTER G WITH MACRON; gmacron
 17845 \DeclareTextCompositeCommand{=} {PU}{g}{\9036\041}% U+1E21
 17846 % U+1E22 LATIN CAPITAL LETTER H WITH DOT ABOVE; Hdotaccent
 17847 \DeclareTextCompositeCommand{\.}{PU}{H}{\9036\042}% U+1E22
 17848 % U+1E23 LATIN SMALL LETTER H WITH DOT ABOVE; hdotaccent
 17849 \DeclareTextCompositeCommand{\.}{PU}{h}{\9036\043}% U+1E23
 17850 % U+1E24 LATIN CAPITAL LETTER H WITH DOT BELOW; Hdotbelow
 17851 \DeclareTextCompositeCommand{\d}{PU}{H}{\9036\044}% U+1E24
 17852 % U+1E25 LATIN SMALL LETTER H WITH DOT BELOW; hdotbelow
 17853 \DeclareTextCompositeCommand{\d}{PU}{h}{\9036\045}% U+1E25
 17854 % U+1E26 LATIN CAPITAL LETTER H WITH DIAERESIS; Hdieresis
 17855 \DeclareTextCompositeCommand{¨}{PU}{H}{\9036\046}% U+1E26
 17856 % U+1E27 LATIN SMALL LETTER H WITH DIAERESIS; hdieresis
 17857 \DeclareTextCompositeCommand{¨}{PU}{h}{\9036\047}% U+1E27
 17858 % U+1E28 LATIN CAPITAL LETTER H WITH CEDILLA; Hcedilla
 17859 \DeclareTextCompositeCommand{\c}{PU}{H}{\9036\050}% U+1E28
 17860 % U+1E29 LATIN SMALL LETTER H WITH CEDILLA; hcedilla
 17861 \DeclareTextCompositeCommand{\c}{PU}{h}{\9036\051}% U+1E29
 17862 % U+1E2A LATIN CAPITAL LETTER H WITH BREVE BELOW; Hbrevebelow
 17863 \DeclareTextCompositeCommand{\textsubbreve}{PU}{H}{\9036\052}% U+1E2A
 17864 % U+1E2B LATIN SMALL LETTER H WITH BREVE BELOW; hbrevebelow
 17865 \DeclareTextCompositeCommand{\textsubbreve}{PU}{h}{\9036\053}% U+1E2B
 17866 % U+1E2C LATIN CAPITAL LETTER I WITH TILDE BELOW; Itildebelow
 17867 \DeclareTextCompositeCommand{\textsubtilde}{PU}{I}{\9036\054}% U+1E2C
 17868 % U+1E2D LATIN SMALL LETTER I WITH TILDE BELOW; itildebelow
 17869 \DeclareTextCompositeCommand{\textsubtilde}{PU}{i}{\9036\055}% U+1E2D
 17870 % U+1E30 LATIN CAPITAL LETTER K WITH ACUTE; Kacute
 17871 \DeclareTextCompositeCommand{\'}{PU}{K}{\9036\060}% U+1E30
 17872 % U+1E31 LATIN SMALL LETTER K WITH ACUTE; kacute
 17873 \DeclareTextCompositeCommand{\'}{PU}{k}{\9036\061}% U+1E31
 17874 % U+1E32 LATIN CAPITAL LETTER K WITH DOT BELOW; Kdotbelow
 17875 \DeclareTextCompositeCommand{\d}{PU}{K}{\9036\062}% U+1E32
 17876 % U+1E33 LATIN SMALL LETTER K WITH DOT BELOW; kdotbelow
 17877 \DeclareTextCompositeCommand{\d}{PU}{k}{\9036\063}% U+1E33
 17878 % U+1E34 LATIN CAPITAL LETTER K WITH LINE BELOW; Klinebelow
 17879 \DeclareTextCompositeCommand{\b}{PU}{K}{\9036\064}% U+1E34
 17880 % U+1E35 LATIN SMALL LETTER K WITH LINE BELOW; klinebelow
 17881 \DeclareTextCompositeCommand{\b}{PU}{k}{\9036\065}% U+1E35
 17882 % U+1E36 LATIN CAPITAL LETTER L WITH DOT BELOW; Ldotbelow
 17883 \DeclareTextCompositeCommand{\d}{PU}{L}{\9036\066}% U+1E36
 17884 % U+1E37 LATIN SMALL LETTER L WITH DOT BELOW; ldotbelow

17885 \DeclareTextCompositeCommand{\d}{PU}{l}{\9036\067}% U+1E37
17886 % U+1E3A LATIN CAPITAL LETTER L WITH LINE BELOW; Llinebelow
17887 \DeclareTextCompositeCommand{\b}{PU}{L}{\9036\072}% U+1E3A
17888 % U+1E3B LATIN SMALL LETTER L WITH LINE BELOW; llinebelow
17889 \DeclareTextCompositeCommand{\b}{PU}{l}{\9036\073}% U+1E3B
17890 % U+1E3C LATIN CAPITAL LETTER L WITH CIRCUMFLEX BELOW; Lcir-
cumflexbelow
17891 \DeclareTextCompositeCommand{\textsubcircum}{PU}{L}{\9036\074}% U+1E3C
17892 % U+1E3D LATIN SMALL LETTER L WITH CIRCUMFLEX BELOW; lcir-
cumflexbelow
17893 \DeclareTextCompositeCommand{\textsubcircum}{PU}{l}{\9036\075}% U+1E3D
17894 % U+1E3E LATIN CAPITAL LETTER M WITH ACUTE; Macute
17895 \DeclareTextCompositeCommand{\'}{PU}{M}{\9036\076}% U+1E3E
17896 % U+1E3F LATIN SMALL LETTER M WITH ACUTE; macute
17897 \DeclareTextCompositeCommand{\'}{PU}{m}{\9036\077}% U+1E3F
17898 % U+1E40 LATIN CAPITAL LETTER M WITH DOT ABOVE; Mdotaccent
17899 \DeclareTextCompositeCommand{\.}{PU}{M}{\9036\100}% U+1E40
17900 % U+1E41 LATIN SMALL LETTER M WITH DOT ABOVE; mdotaccent
17901 \DeclareTextCompositeCommand{\.}{PU}{m}{\9036\101}% U+1E41
17902 % U+1E42 LATIN CAPITAL LETTER M WITH DOT BELOW; Mdotbelow
17903 \DeclareTextCompositeCommand{\d}{PU}{M}{\9036\102}% U+1E42
17904 % U+1E43 LATIN SMALL LETTER M WITH DOT BELOW; mdotbelow
17905 \DeclareTextCompositeCommand{\d}{PU}{m}{\9036\103}% U+1E43
17906 % U+1E44 LATIN CAPITAL LETTER N WITH DOT ABOVE; Ndotaccent
17907 \DeclareTextCompositeCommand{\.}{PU}{N}{\9036\104}% U+1E44
17908 % U+1E45 LATIN SMALL LETTER N WITH DOT ABOVE; ndotaccent
17909 \DeclareTextCompositeCommand{\.}{PU}{n}{\9036\105}% U+1E45
17910 % U+1E46 LATIN CAPITAL LETTER N WITH DOT BELOW; Ndotbelow
17911 \DeclareTextCompositeCommand{\d}{PU}{N}{\9036\106}% U+1E46
17912 % U+1E47 LATIN SMALL LETTER N WITH DOT BELOW; ndotbelow
17913 \DeclareTextCompositeCommand{\d}{PU}{n}{\9036\107}% U+1E47
17914 % U+1E48 LATIN CAPITAL LETTER N WITH LINE BELOW; Nlinebelow
17915 \DeclareTextCompositeCommand{\b}{PU}{N}{\9036\110}% U+1E48
17916 % U+1E49 LATIN SMALL LETTER N WITH LINE BELOW; nlinebelow
17917 \DeclareTextCompositeCommand{\b}{PU}{n}{\9036\111}% U+1E49
17918 % U+1E4A LATIN CAPITAL LETTER N WITH CIRCUMFLEX BELOW; Ncir-
cumflexbelow
17919 \DeclareTextCompositeCommand{\textsubcircum}{PU}{N}{\9036\112}% U+1E4A
17920 % U+1E4B LATIN SMALL LETTER N WITH CIRCUMFLEX BELOW; ncir-
cumflexbelow
17921 \DeclareTextCompositeCommand{\textsubcircum}{PU}{n}{\9036\113}% U+1E4B
17922 % U+1E50 LATIN CAPITAL LETTER O WITH MACRON AND GRAVE;
17923 % Omacrongrave
17924 \DeclareTextCompositeCommand{\textgravemacron}{PU}{O}{\9036\120}% U+1E50
17925 % U+1E51 LATIN SMALL LETTER O WITH MACRON AND GRAVE;
17926 % omacrongrave
17927 \DeclareTextCompositeCommand{\textgravemacron}{PU}{o}{\9036\121}% U+1E51
17928 % U+1E52 LATIN CAPITAL LETTER O WITH MACRON AND ACUTE;
17929 % Omacronacute
17930 \DeclareTextCompositeCommand{\textacutemacron}{PU}{O}{\9036\122}% U+1E52
17931 % U+1E53 LATIN SMALL LETTER O WITH MACRON AND ACUTE;
17932 % omacronacute
17933 \DeclareTextCompositeCommand{\textacutemacron}{PU}{o}{\9036\123}% U+1E53
17934 % U+1E54 LATIN CAPITAL LETTER P WITH ACUTE; Pacute
17935 \DeclareTextCompositeCommand{\'}{PU}{P}{\9036\124}% U+1E54
17936 % U+1E55 LATIN SMALL LETTER P WITH ACUTE; pacute
17937 \DeclareTextCompositeCommand{\'}{PU}{p}{\9036\125}% U+1E55

17938 % U+1E56 LATIN CAPITAL LETTER P WITH DOT ABOVE; Pdotaccent
17939 \DeclareTextCompositeCommand{\.}{PU}{P}{\9036\126}% U+1E56
17940 % U+1E57 LATIN SMALL LETTER P WITH DOT ABOVE; pdotaccent
17941 \DeclareTextCompositeCommand{\.}{PU}{p}{\9036\127}% U+1E57
17942 % U+1E58 LATIN CAPITAL LETTER R WITH DOT ABOVE; Rdotaccent
17943 \DeclareTextCompositeCommand{\.}{PU}{R}{\9036\130}% U+1E58
17944 % U+1E59 LATIN SMALL LETTER R WITH DOT ABOVE; rdotaccent
17945 \DeclareTextCompositeCommand{\.}{PU}{r}{\9036\131}% U+1E59
17946 % U+1E5A LATIN CAPITAL LETTER R WITH DOT BELOW; Rdotbelow
17947 \DeclareTextCompositeCommand{\d}{PU}{R}{\9036\132}% U+1E5A
17948 % U+1E5B LATIN SMALL LETTER R WITH DOT BELOW; rdotbelow
17949 \DeclareTextCompositeCommand{\d}{PU}{r}{\9036\133}% U+1E5B
17950 % U+1E5E LATIN CAPITAL LETTER R WITH LINE BELOW; Rlinebelow
17951 \DeclareTextCompositeCommand{\b}{PU}{R}{\9036\136}% U+1E5E
17952 % U+1E5F LATIN SMALL LETTER R WITH LINE BELOW; rlinebelow
17953 \DeclareTextCompositeCommand{\b}{PU}{r}{\9036\137}% U+1E5F
17954 % U+1E60 LATIN CAPITAL LETTER S WITH DOT ABOVE; Sdotaccent
17955 \DeclareTextCompositeCommand{\.}{PU}{S}{\9036\140}% U+1E60
17956 % U+1E61 LATIN SMALL LETTER S WITH DOT ABOVE; sdotaccent
17957 \DeclareTextCompositeCommand{\.}{PU}{s}{\9036\141}% U+1E61
17958 % U+1E62 LATIN CAPITAL LETTER S WITH DOT BELOW; Sdotbelow
17959 \DeclareTextCompositeCommand{\d}{PU}{S}{\9036\142}% U+1E62
17960 % U+1E63 LATIN SMALL LETTER S WITH DOT BELOW; sdotbelow
17961 \DeclareTextCompositeCommand{\d}{PU}{s}{\9036\143}% U+1E63
17962 % U+1E6A LATIN CAPITAL LETTER T WITH DOT ABOVE; Tdotaccent
17963 \DeclareTextCompositeCommand{\.}{PU}{T}{\9036\152}% U+1E6A
17964 % U+1E6B LATIN SMALL LETTER T WITH DOT ABOVE; tdotaccent
17965 \DeclareTextCompositeCommand{\.}{PU}{t}{\9036\153}% U+1E6B
17966 % U+1E6C LATIN CAPITAL LETTER T WITH DOT BELOW; Tdotbelow
17967 \DeclareTextCompositeCommand{\d}{PU}{T}{\9036\154}% U+1E6C
17968 % U+1E6D LATIN SMALL LETTER T WITH DOT BELOW; tdotbelow
17969 \DeclareTextCompositeCommand{\d}{PU}{t}{\9036\155}% U+1E6D
17970 % U+1E6E LATIN CAPITAL LETTER T WITH LINE BELOW; Tlinebelow
17971 \DeclareTextCompositeCommand{\b}{PU}{T}{\9036\156}% U+1E6E
17972 % U+1E6F LATIN SMALL LETTER T WITH LINE BELOW; tlinebelow
17973 \DeclareTextCompositeCommand{\b}{PU}{t}{\9036\157}% U+1E6F
17974 % U+1E70 LATIN CAPITAL LETTER T WITH CIRCUMFLEX BELOW; Tcir-
cumflexbelow
17975 \DeclareTextCompositeCommand{\textsubcircum}{PU}{T}{\9036\160}% U+1E70
17976 % U+1E71 LATIN SMALL LETTER T WITH CIRCUMFLEX BELOW; tcir-
cumflexbelow
17977 \DeclareTextCompositeCommand{\textsubcircum}{PU}{t}{\9036\161}% U+1E71
17978 % U+1E72 LATIN CAPITAL LETTER U WITH DIAERESIS BELOW; Udiere-
sisbelow
17979 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{U}{\9036\162}% U+1E72
17980 % U+1E73 LATIN SMALL LETTER U WITH DIAERESIS BELOW; udiere-
sisbelow
17981 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{u}{\9036\163}% U+1E73
17982 % U+1E74 LATIN CAPITAL LETTER U WITH TILDE BELOW; Utildebelow
17983 \DeclareTextCompositeCommand{\textsubtilde}{PU}{U}{\9036\164}% U+1E74
17984 % U+1E75 LATIN SMALL LETTER U WITH TILDE BELOW; utildebelow
17985 \DeclareTextCompositeCommand{\textsubtilde}{PU}{u}{\9036\165}% U+1E75
17986 % U+1E76 LATIN CAPITAL LETTER U WITH CIRCUMFLEX BELOW; Ucir-
cumflexbelow
17987 \DeclareTextCompositeCommand{\textsubcircum}{PU}{U}{\9036\166}% U+1E76
17988 % U+1E77 LATIN SMALL LETTER U WITH CIRCUMFLEX BELOW; ucir-
cumflexbelow

17989 \DeclareTextCompositeCommand{\textsubcircum}{PU}{u}{\9036\167}% U+1E77
17990 % U+1E7C LATIN CAPITAL LETTER V WITH TILDE; Vtilde
17991 \DeclareTextCompositeCommand{\~}{PU}{V}{\9036\174}% U+1E7C
17992 % U+1E7D LATIN SMALL LETTER V WITH TILDE; vtilde
17993 \DeclareTextCompositeCommand{\~}{PU}{v}{\9036\175}% U+1E7D
17994 % U+1E7E LATIN CAPITAL LETTER V WITH DOT BELOW; Vdotbelow
17995 \DeclareTextCompositeCommand{\d}{PU}{V}{\9036\176}% U+1E7E
17996 % U+1E7F LATIN SMALL LETTER V WITH DOT BELOW; vdotbelow
17997 \DeclareTextCompositeCommand{\d}{PU}{v}{\9036\177}% U+1E7F
17998 % U+1E80 LATIN CAPITAL LETTER W WITH GRAVE; Wgrave
17999 \DeclareTextCompositeCommand{\`}{PU}{W}{\9036\200}% U+1E80
18000 % U+1E81 LATIN SMALL LETTER W WITH GRAVE; wgrave
18001 \DeclareTextCompositeCommand{\`}{PU}{w}{\9036\201}% U+1E81
18002 % U+1E82 LATIN CAPITAL LETTER W WITH ACUTE; Wacute
18003 \DeclareTextCompositeCommand{\'}{PU}{W}{\9036\202}% U+1E82
18004 % U+1E83 LATIN SMALL LETTER W WITH ACUTE; wacute
18005 \DeclareTextCompositeCommand{\'}{PU}{w}{\9036\203}% U+1E83
18006 % U+1E84 LATIN CAPITAL LETTER W WITH DIAERESIS; Wdieresis
18007 \DeclareTextCompositeCommand{\"}{PU}{W}{\9036\204}% U+1E84
18008 % U+1E85 LATIN SMALL LETTER W WITH DIAERESIS; wdieresis
18009 \DeclareTextCompositeCommand{\"}{PU}{w}{\9036\205}% U+1E85
18010 % U+1E86 LATIN CAPITAL LETTER W WITH DOT ABOVE; Wdotaccent
18011 \DeclareTextCompositeCommand{\.}{PU}{W}{\9036\206}% U+1E86
18012 % U+1E87 LATIN SMALL LETTER W WITH DOT ABOVE; wdotaccent
18013 \DeclareTextCompositeCommand{\.}{PU}{w}{\9036\207}% U+1E87
18014 % U+1E88 LATIN CAPITAL LETTER W WITH DOT BELOW; wdotbelow
18015 \DeclareTextCompositeCommand{\d}{PU}{W}{\9036\210}% U+1E88
18016 % U+1E89 LATIN SMALL LETTER W WITH DOT BELOW; wdotbelow
18017 \DeclareTextCompositeCommand{\d}{PU}{w}{\9036\211}% U+1E89
18018 % U+1E8A LATIN CAPITAL LETTER X WITH DOT ABOVE; Xdotaccent
18019 \DeclareTextCompositeCommand{\.}{PU}{X}{\9036\212}% U+1E8A
18020 % U+1E8B LATIN SMALL LETTER X WITH DOT ABOVE; xdotaccent
18021 \DeclareTextCompositeCommand{\.}{PU}{x}{\9036\213}% U+1E8B
18022 % U+1E8C LATIN CAPITAL LETTER X WITH DIAERESIS; Xdieresis
18023 \DeclareTextCompositeCommand{\"}{PU}{X}{\9036\214}% U+1E8C
18024 % U+1E8D LATIN SMALL LETTER X WITH DIAERESIS; xdieresis
18025 \DeclareTextCompositeCommand{\"}{PU}{x}{\9036\215}% U+1E8D
18026 % U+1E8E LATIN CAPITAL LETTER Y WITH DOT ABOVE; Ydotaccent
18027 \DeclareTextCompositeCommand{\.}{PU}{Y}{\9036\216}% U+1E8E
18028 % U+1E8F LATIN SMALL LETTER Y WITH DOT ABOVE; ydotaccent
18029 \DeclareTextCompositeCommand{\.}{PU}{y}{\9036\217}% U+1E8F
18030 % U+1E90 LATIN CAPITAL LETTER Z WITH CIRCUMFLEX; Zcircumflex
18031 \DeclareTextCompositeCommand{\^}{PU}{Z}{\9036\220}% U+1E90
18032 % U+1E91 LATIN SMALL LETTER Z WITH CIRCUMFLEX; zcircumflex
18033 \DeclareTextCompositeCommand{\^}{PU}{z}{\9036\221}% U+1E91
18034 % U+1E92 LATIN CAPITAL LETTER Z WITH DOT BELOW; Zdotbelow
18035 \DeclareTextCompositeCommand{\d}{PU}{Z}{\9036\222}% U+1E92
18036 % U+1E93 LATIN SMALL LETTER Z WITH DOT BELOW; zdotbelow
18037 \DeclareTextCompositeCommand{\d}{PU}{z}{\9036\223}% U+1E93
18038 % U+1E94 LATIN CAPITAL LETTER Z WITH LINE BELOW; Zlinebelow
18039 \DeclareTextCompositeCommand{\b}{PU}{Z}{\9036\224}% U+1E94
18040 % U+1E95 LATIN SMALL LETTER Z WITH LINE BELOW; zlinebelow
18041 \DeclareTextCompositeCommand{\b}{PU}{z}{\9036\225}% U+1E95
18042 % U+1E96 LATIN SMALL LETTER H WITH LINE BELOW; hlinebelow
18043 \DeclareTextCompositeCommand{\b}{PU}{h}{\9036\226}% U+1E96
18044 % U+1E97 LATIN SMALL LETTER T WITH DIAERESIS; tdieresis
18045 \DeclareTextCompositeCommand{\"}{PU}{t}{\9036\227}% U+1E97

18046 % U+1E98 LATIN SMALL LETTER W WITH RING ABOVE; wring
 18047 \DeclareTextCompositeCommand{\r}{PU}{w}{\9036\230}% U+1E98
 18048 % U+1E99 LATIN SMALL LETTER Y WITH RING ABOVE; yring
 18049 \DeclareTextCompositeCommand{\r}{PU}{y}{\9036\231}% U+1E99
 18050 % U+1E9B LATIN SMALL LETTER LONG S WITH DOT ABOVE; slongdo-
 taccent
 18051 \DeclareTextCompositeCommand{\.}{PU}{\textlongs}{\9036\233}% U+1E9B
 18052 % U+1EA0 LATIN CAPITAL LETTER A WITH DOT BELOW; Adotbelow
 18053 \DeclareTextCompositeCommand{\d}{PU}{A}{\9036\240}% U+1EA0
 18054 % U+1EA1 LATIN SMALL LETTER A WITH DOT BELOW; adotbelow
 18055 \DeclareTextCompositeCommand{\d}{PU}{a}{\9036\241}% U+1EA1
 18056 % U+1EB8 LATIN CAPITAL LETTER E WITH DOT BELOW; Edotbelow
 18057 \DeclareTextCompositeCommand{\d}{PU}{E}{\9036\270}% U+1EB8
 18058 % U+1EB9 LATIN SMALL LETTER E WITH DOT BELOW; edotbelow
 18059 \DeclareTextCompositeCommand{\d}{PU}{e}{\9036\271}% U+1EB9
 18060 % U+1EBC LATIN CAPITAL LETTER E WITH TILDE; Etilde
 18061 \DeclareTextCompositeCommand{\~}{PU}{E}{\9036\274}% U+1EBC
 18062 % U+1EBD LATIN SMALL LETTER E WITH TILDE; etilde
 18063 \DeclareTextCompositeCommand{\~}{PU}{e}{\9036\275}% U+1EBD
 18064 % U+1ECA LATIN CAPITAL LETTER I WITH DOT BELOW; Idotbelow
 18065 \DeclareTextCompositeCommand{\d}{PU}{I}{\9036\312}% U+1ECA
 18066 % U+1ECB LATIN SMALL LETTER I WITH DOT BELOW; idotbelow
 18067 \DeclareTextCompositeCommand{\d}{PU}{i}{\9036\313}% U+1ECB
 18068 % U+1ECC LATIN CAPITAL LETTER O WITH DOT BELOW; Odotbelow
 18069 \DeclareTextCompositeCommand{\d}{PU}{O}{\9036\314}% U+1ECC
 18070 % U+1ECD LATIN SMALL LETTER O WITH DOT BELOW; odotbelow
 18071 \DeclareTextCompositeCommand{\d}{PU}{o}{\9036\315}% U+1ECD
 18072 % U+1EE4 LATIN CAPITAL LETTER U WITH DOT BELOW; Udotbelow
 18073 \DeclareTextCompositeCommand{\d}{PU}{U}{\9036\344}% U+1EE4
 18074 % U+1EE5 LATIN SMALL LETTER U WITH DOT BELOW; udotbelow
 18075 \DeclareTextCompositeCommand{\d}{PU}{u}{\9036\345}% U+1EE5
 18076 % U+1EF2 LATIN CAPITAL LETTER Y WITH GRAVE; Ygrave
 18077 \DeclareTextCompositeCommand{\`}{PU}{Y}{\9036\362}% U+1EF2
 18078 % U+1EF3 LATIN SMALL LETTER Y WITH GRAVE; ygrave
 18079 \DeclareTextCompositeCommand{\`}{PU}{y}{\9036\363}% U+1EF3
 18080 % U+1EF4 LATIN CAPITAL LETTER Y WITH DOT BELOW; Ydotbelow
 18081 \DeclareTextCompositeCommand{\d}{PU}{Y}{\9036\364}% U+1EF4
 18082 % U+1EF5 LATIN SMALL LETTER Y WITH DOT BELOW; ydotbelow
 18083 \DeclareTextCompositeCommand{\d}{PU}{y}{\9036\365}% U+1EF5
 18084 % U+1EF8 LATIN CAPITAL LETTER Y WITH TILDE; Ytilde
 18085 \DeclareTextCompositeCommand{\~}{PU}{Y}{\9036\370}% U+1EF8
 18086 % U+1EF9 LATIN SMALL LETTER Y WITH TILDE; ytilde
 18087 \DeclareTextCompositeCommand{\~}{PU}{y}{\9036\371}% U+1EF9

51.2.16 General Punctuation: U+2000 to U+206F

18088 % U+200C ZERO WIDTH NON-JOINER; *afii61664, zerowidthnonjoiner
 18089 \DeclareTextCommand{\textcompwordmark}{PU}{\9040\014}% U+200C
 18090 % U+2013 EN DASH; endash
 18091 \DeclareTextCommand{\textendash}{PU}{\9040\023}% U+2013
 18092 % U+2014 EM DASH; emdash
 18093 \DeclareTextCommand{\textemdash}{PU}{\9040\024}% U+2014
 18094 % U+2016 DOUBLE VERTICAL LINE; dblverticalbar
 18095 \DeclareTextCommand{\textbardbl}{PU}{\9040\026}% U+2016
 18096 %* \textbardbl -> \textdoublevertline (tipa)
 18097 % U+2018 LEFT SINGLE QUOTATION MARK; quoteleft
 18098 \DeclareTextCommand{\textquoteleft}{PU}{\9040\030}% U+2018
 18099 % U+2019 RIGHT SINGLE QUOTATION MARK; quoteright

18100 \DeclareTextCommand{\textquoteright}{PU}{\9040\031}% U+2019
18101 % U+201A SINGLE LOW-9 QUOTATION MARK; quotesinglbase
18102 \DeclareTextCommand{\quotesinglbase}{PU}{\9040\032}% U+201A
18103 % U+201C LEFT DOUBLE QUOTATION MARK; quotedblleft
18104 \DeclareTextCommand{\textquotedblleft}{PU}{\9040\034}% U+201C
18105 % U+201D RIGHT DOUBLE QUOTATION MARK; quotedblright
18106 \DeclareTextCommand{\textquotedblright}{PU}{\9040\035}% U+201D
18107 % U+201E DOUBLE LOW-9 QUOTATION MARK; quotedblbase
18108 \DeclareTextCommand{\quotedblbase}{PU}{\9040\036}% U+201E
18109 % U+2020 DAGGER; dagger
18110 \DeclareTextCommand{\textdagger}{PU}{\9040\040}%* U+2020
18111 %* \textdagger -> \dag (LaTeX)
18112 % U+2021 DOUBLE DAGGER; daggerdbl; \ddagger (LaTeX)
18113 \DeclareTextCommand{\textdaggerdbl}{PU}{\9040\041}% U+2021
18114 %* \textdaggerdbl -> \ddagger (LaTeX)
18115 %* \textdaggerdbl -> \ddag (LaTeX)
18116 % U+2022 BULLET; bullet
18117 \DeclareTextCommand{\textbullet}{PU}{\9040\042}%* U+2022
18118 % U+2025 TWO DOT LEADER; \hdotfor (MnSymbol)
18119 \DeclareTextCommand{\texthdotfor}{PU}{\9040\045}%* U+2025
18120 % U+2026 HORIZONTAL ELLIPSIS; ellipsis
18121 \DeclareTextCommand{\textellipsis}{PU}{\9040\046}% U+2026
18122 %* \textellipsis -> \mathellipsis
18123 % U+2030 PER MILLE SIGN; perthousand
18124 \DeclareTextCommand{\textperthousand}{PU}{\9040\060}% U+2030
18125 % U+2031 PER TEN THOUSAND SIGN
18126 \DeclareTextCommand{\textpertenthousand}{PU}{\9040\061}% U+2031
18127 % U+2032 PRIME; minute; \prime (MnSymbol)
18128 \DeclareTextCommand{\textprime}{PU}{\9040\062}%* U+2032
18129 % U+2033 DOUBLE PRIME; \second (mathabx)
18130 \DeclareTextCommand{\textsecond}{PU}{\9040\063}%* U+2033
18131 % U+2034 TRIPLE PRIME; \third (mathabx)
18132 \DeclareTextCommand{\texttthird}{PU}{\9040\064}%* U+2034
18133 % U+2035 REVERSED PRIME; \backprime (AmsS)
18134 \DeclareTextCommand{\textbackprime}{PU}{\9040\065}%* U+2035
18135 % U+2039 SINGLE LEFT-POINTING ANGLE QUOTATION MARK; guil-
inglleft
18136 \DeclareTextCommand{\guilsinglleft}{PU}{\9040\071}% U+2039
18137 % U+203A SINGLE RIGHT-POINTING ANGLE QUOTATION MARK; guil-
inglright
18138 \DeclareTextCommand{\guilsinglright}{PU}{\9040\072}% U+203A
18139 % U+203B REFERENCE MARK; referencemark
18140 \DeclareTextCommand{\textreferencemark}{PU}{\9040\073}% U+203B
18141 % U+203D INTERROBANG
18142 \DeclareTextCommand{\textinterrobang}{PU}{\9040\075}% U+203D
18143 % U+2044 FRACTION SLASH; fraction
18144 \DeclareTextCommand{\textfractionsolidus}{PU}{\9040\104}% U+2044
18145 % U+2045 LEFT SQUARE BRACKET WITH QUILL
18146 \DeclareTextCommand{\textlquill}{PU}{\9040\105}% U+2045
18147 % U+2046 RIGHT SQUARE BRACKET WITH QUILL
18148 \DeclareTextCommand{\textrquill}{PU}{\9040\106}% U+2046
18149 % U+2052 COMMERCIAL MINUS SIGN
18150 \DeclareTextCommand{\textdiscount}{PU}{\9040\122}% U+2052
18151 % U+2056 THREE DOT PUNCTUATION; \lefttherefore (MnSymbol)
18152 \DeclareTextCommand{\textlefttherefore}{PU}{\9040\126}%* U+2056
18153 % U+2057 QUADRUPLE PRIME; \fourth (mathabx)
18154 \DeclareTextCommand{\textfourth}{PU}{\9040\127}%* U+2057

18155 % U+2058 FOUR DOT PUNCTUATION; \diamonddots (MnSymbol)
 18156 \DeclareTextCommand{\textdiamonddots}{PU}{\9040\130}%* U+2058

51.2.17 Superscripts and Subscripts: U+2070 to U+209F

18157 % U+2070 SUPERSCRIPT ZERO; zerosuperior
 18158 \DeclareTextCommand{\textzerosuperior}{PU}{\9040\160}%* U+2070
 18159 % U+2071 SUPERSCRIPT LATIN SMALL LETTER I
 18160 \DeclareTextCommand{\textisuperior}{PU}{\9040\161}%* U+2071
 18161 % U+2074 SUPERSCRIPT FOUR; foursuperior
 18162 \DeclareTextCommand{\textfoursuperior}{PU}{\9040\164}%* U+2074
 18163 % U+2075 SUPERSCRIPT FIVE; fivesuperior
 18164 \DeclareTextCommand{\textfivesuperior}{PU}{\9040\165}%* U+2075
 18165 % U+2076 SUPERSCRIPT SIX; sixsuperior
 18166 \DeclareTextCommand{\textsixsuperior}{PU}{\9040\166}%* U+2076
 18167 % U+2077 SUPERSCRIPT SEVEN; sevensuperior
 18168 \DeclareTextCommand{\textsevensuperior}{PU}{\9040\167}%* U+2077
 18169 % U+2078 SUPERSCRIPT EIGHT; eightsuperior
 18170 \DeclareTextCommand{\texteightsuperior}{PU}{\9040\170}%* U+2078
 18171 % U+2079 SUPERSCRIPT NINE; ninesuperior
 18172 \DeclareTextCommand{\textninesuperior}{PU}{\9040\171}%* U+2079
 18173 % U+207A SUPERSCRIPT PLUS SIGN; plussuperior
 18174 \DeclareTextCommand{\textplussuperior}{PU}{\9040\172}%* U+207A
 18175 % U+207B SUPERSCRIPT MINUS
 18176 \DeclareTextCommand{\textminussuperior}{PU}{\9040\173}%* U+207B
 18177 % U+207C SUPERSCRIPT EQUALS SIGN; equalsuperior
 18178 \DeclareTextCommand{\textequalsuperior}{PU}{\9040\174}%* U+207C
 18179 % U+207D SUPERSCRIPT LEFT PARENTHESIS; parenleftsuperior
 18180 \DeclareTextCommand{\textparenleftsuperior}{PU}{\9040\175}%* U+207D
 18181 % U+207E SUPERSCRIPT RIGHT PARENTHESIS; parenrightsuperior
 18182 \DeclareTextCommand{\textparenrightsuperior}{PU}{\9040\176}%* U+207E
 18183 % U+207F SUPERSCRIPT LATIN SMALL LETTER N; nsuperior
 18184 \DeclareTextCommand{\textnsuperior}{PU}{\9040\177}%* U+207F
 18185 % U+2080 SUBSCRIPT ZERO; zeroinferior
 18186 \DeclareTextCommand{\textzeroinferior}{PU}{\9040\200}%* U+2080
 18187 % U+2081 SUBSCRIPT ONE; oneinferior
 18188 \DeclareTextCommand{\textoneinferior}{PU}{\9040\201}%* U+2081
 18189 % U+2082 SUBSCRIPT TWO; twoinferior
 18190 \DeclareTextCommand{\texttwoinferior}{PU}{\9040\202}%* U+2082
 18191 % U+2083 SUBSCRIPT THREE; threeinferior
 18192 \DeclareTextCommand{\textthreeinferior}{PU}{\9040\203}%* U+2083
 18193 % U+2084 SUBSCRIPT FOUR; fourinferior
 18194 \DeclareTextCommand{\textfourinferior}{PU}{\9040\204}%* U+2084
 18195 % U+2085 SUBSCRIPT FIVE; fiveinferior
 18196 \DeclareTextCommand{\textfiveinferior}{PU}{\9040\205}%* U+2085
 18197 % U+2086 SUBSCRIPT SIX; sixinferior
 18198 \DeclareTextCommand{\textsixinferior}{PU}{\9040\206}%* U+2086
 18199 % U+2087 SUBSCRIPT SEVEN; seveninferior
 18200 \DeclareTextCommand{\textseveninferior}{PU}{\9040\207}%* U+2087
 18201 % U+2088 SUBSCRIPT EIGHT; eightinferior
 18202 \DeclareTextCommand{\texteightinferior}{PU}{\9040\210}%* U+2088
 18203 % U+2089 SUBSCRIPT NINE; nineinferior
 18204 \DeclareTextCommand{\textnineinferior}{PU}{\9040\211}%* U+2089
 18205 % U+208A SUBSCRIPT PLUS SIGN
 18206 \DeclareTextCommand{\textplusinferior}{PU}{\9040\212}%* U+208A
 18207 % U+208B SUBSCRIPT MINUS
 18208 \DeclareTextCommand{\textminusinferior}{PU}{\9040\213}%* U+208B
 18209 % U+208C SUBSCRIPT EQUALS SIGN

18210 \DeclareTextCommand{\textequalsinferior}{PU}{\9040\214}%* U+208C
 18211 % U+208D SUBSCRIPT LEFT PARENTHESIS; parenleftinferior
 18212 \DeclareTextCommand{\textparenleftinferior}{PU}{\9040\215}%* U+208D
 18213 % U+208E SUBSCRIPT RIGHT PARENTHESIS; parenrightinferior
 18214 \DeclareTextCommand{\textparenrightinferior}{PU}{\9040\216}%* U+208E
 18215 % U+2090 LATIN SUBSCRIPT SMALL LETTER A
 18216 \DeclareTextCommand{\textainferior}{PU}{\9040\220}%* U+2090
 18217 % U+2091 LATIN SUBSCRIPT SMALL LETTER E
 18218 \DeclareTextCommand{\texteinferior}{PU}{\9040\221}%* U+2091
 18219 % U+2092 LATIN SUBSCRIPT SMALL LETTER O
 18220 \DeclareTextCommand{\textoinferior}{PU}{\9040\222}%* U+2092
 18221 % U+2093 LATIN SUBSCRIPT SMALL LETTER X
 18222 \DeclareTextCommand{\textxinferior}{PU}{\9040\223}%* U+2093
 18223 % U+2094 LATIN SUBSCRIPT SMALL LETTER SCHWA
 18224 \DeclareTextCommand{\textschwainferior}{PU}{\9040\224}%* U+2094
 18225 % U+2095 LATIN SUBSCRIPT SMALL LETTER H
 18226 \DeclareTextCommand{\texthinferior}{PU}{\9040\225}%* U+2095
 18227 % U+2096 LATIN SUBSCRIPT SMALL LETTER K
 18228 \DeclareTextCommand{\textkinferior}{PU}{\9040\226}%* U+2096
 18229 % U+2097 LATIN SUBSCRIPT SMALL LETTER L
 18230 \DeclareTextCommand{\textlinferior}{PU}{\9040\227}%* U+2097
 18231 % U+2098 LATIN SUBSCRIPT SMALL LETTER M
 18232 \DeclareTextCommand{\textminferior}{PU}{\9040\230}%* U+2098
 18233 % U+2099 LATIN SUBSCRIPT SMALL LETTER N
 18234 \DeclareTextCommand{\textninferior}{PU}{\9040\231}%* U+2099
 18235 % U+209A LATIN SUBSCRIPT SMALL LETTER P
 18236 \DeclareTextCommand{\textpinferior}{PU}{\9040\232}%* U+209A
 18237 % U+209B LATIN SUBSCRIPT SMALL LETTER S
 18238 \DeclareTextCommand{\textsinferior}{PU}{\9040\233}%* U+209B
 18239 % U+209C LATIN SUBSCRIPT SMALL LETTER T
 18240 \DeclareTextCommand{\texttinferior}{PU}{\9040\234}%* U+209C

51.2.18 Currency Symbols: U+20A0 to U+20CF

18241 % U+20A1 COLON SIGN; *colonmonetary, colonsign
 18242 \DeclareTextCommand{\textcolonmonetary}{PU}{\9040\241}% U+20A1
 18243 % U+20A4 LIRA SIGN; afi08941, *lira
 18244 \DeclareTextCommand{\textlira}{PU}{\9040\244}% U+20A4
 18245 % U+20A6 NAIRA SIGN
 18246 \DeclareTextCommand{\textnaira}{PU}{\9040\246}% U+20A6
 18247 % U+20A7 PESETA SIGN; peseta
 18248 \DeclareTextCommand{\textpeseta}{PU}{\9040\247}% U+20A7
 18249 % U+20A9 WON SIGN; won
 18250 \DeclareTextCommand{\textwon}{PU}{\9040\251}% U+20A9
 18251 % U+20AB DONG SIGN; dong
 18252 \DeclareTextCommand{\textdong}{PU}{\9040\253}% U+20AB
 18253 % U+20AC EURO SIGN; *Euro, euro
 18254 \DeclareTextCommand{\texteuro}{PU}{\9040\254}% U+20AC
 18255 %* \texteuro -> \EurDig (marvosym)
 18256 %* \texteuro -> \EURdig (marvosym)
 18257 %* \texteuro -> \EurHv (marvosym)
 18258 %* \texteuro -> \EURhv (marvosym)
 18259 %* \texteuro -> \EurCr (marvosym)
 18260 %* \texteuro -> \EURcr (marvosym)
 18261 %* \texteuro -> \EurTm (marvosym)
 18262 %* \texteuro -> \EURtm (marvosym)
 18263 %* \texteuro -> \Eur (marvosym)
 18264 % U+20B0 GERMAN PENNY SIGN; \Deleatur (marvosym)

18265 \DeclareTextCommand{\textDeleatur}{PU}{\9040\260}%* U+20B0
 18266 %* \textDeleatur -> \Denarius (marvosym)
 18267 % U+20B1 PESO SIGN
 18268 \DeclareTextCommand{\textpeso}{PU}{\9040\261}% U+20B1
 18269 % U+20B2 GUARANI SIGN
 18270 \DeclareTextCommand{\textguarani}{PU}{\9040\262}% U+20B2

51.2.19 Letterlike Symbols: U+2100 to U+214F

18271 % U+2103 DEGREE CELSIUS; centigrade
 18272 \DeclareTextCommand{\textcelsius}{PU}{\9041\003}% U+2103
 18273 % U+210F PLANCK CONSTANT OVER TWO PI; \hslash (AmS)
 18274 \DeclareTextCommand{\texthslash}{PU}{\9041\017}%* U+210F
 18275 % U+2111 BLACK-LETTER CAPITAL I (=imaginary part); Ifraktur; \Im (LaTeX)
 18276 \DeclareTextCommand{\textIm}{PU}{\9041\021}%* U+2111
 18277 % U+2113 SCRIPT SMALL L (=ell, liter); afii61289, lsquare; \ell (LaTeX)
 18278 \DeclareTextCommand{\textell}{PU}{\9041\023}%* U+2113
 18279 % U+2116 NUMERO SIGN; *afii61352, numero
 18280 \DeclareTextCommand{\textnumero}{PU}{\9041\026}% U+2116
 18281 % U+2117 SOUND RECORDING COPYRIGHT
 18282 \DeclareTextCommand{\textcircledP}{PU}{\9041\027}% U+2117
 18283 % U+2118 SCRIPT CAPITAL P (=Weierstrass elliptic function);
 18284 % weierstrass; \wp (LaTeX)
 18285 \DeclareTextCommand{\textwp}{PU}{\9041\030}%* U+2118
 18286 % U+211C BLACK-LETTER CAPITAL R (=real part); Rfraktur; \Re (LaTeX)
 18287 \DeclareTextCommand{\textRe}{PU}{\9041\034}%* U+211C
 18288 % U+211E PRESCRIPTION TAKE; prescription
 18289 \DeclareTextCommand{\textrecipe}{PU}{\9041\036}% U+211E
 18290 % U+2120 SERVICE MARK
 18291 \DeclareTextCommand{\textservicemark}{PU}{\9041\040}% U+2120
 18292 % U+2122 TRADE MARK SIGN; trademark
 18293 \DeclareTextCommand{\texttrademark}{PU}{\9041\042}% U+2122
 18294 % U+2126 OHM SIGN; Ohm, Omega
 18295 \DeclareTextCommand{\textohm}{PU}{\9041\046}% U+2126
 18296 % U+2127 INVERTED OHM SIGN
 18297 \DeclareTextCommand{\textmho}{PU}{\9041\047}%* U+2127
 18298 %* \textmho -> \agemO (wasysym)
 18299 % U+2129 TURNED GREEK SMALL LETTER IOTA; \riota (phonetic)
 18300 \DeclareTextCommand{\textriota}{PU}{\9041\051}%* U+2129
 18301 % U+212B ANGSTROM SIGN; angstrom
 18302 \DeclareTextCommand{\textangstrom}{PU}{\9041\053}% U+212B
 18303 % U+212E ESTIMATED SYMBOL; estimated
 18304 \DeclareTextCommand{\textestimated}{PU}{\9041\056}% U+212E
 18305 %* \textestimated -> \EstimatedSign (marvosym)
 18306 %* \textestimated -> \Ecommerce (marvosym)
 18307 % U+2132 TURNED CAPITAL F; \Finv (AmS)
 18308 \DeclareTextCommand{\textFinv}{PU}{\9041\062}%* U+2132
 18309 % U+2135 ALEF SYMBOL; aleph; \aleph (LaTeX)
 18310 \DeclareTextCommand{\textaleph}{PU}{\9041\065}%* U+2135
 18311 % U+2136 BET SYMBOL; \beth (AmS, MnSymbol)
 18312 \DeclareTextCommand{\textbeth}{PU}{\9041\066}%* U+2136
 18313 % U+2137 GIMEL SYMBOL; \gimel (AmS, MnSymbol)
 18314 \DeclareTextCommand{\textgimel}{PU}{\9041\067}%* U+2137
 18315 % U+2138 DALET SYMBOL; \daleth (AmS, MnSymbol)
 18316 \DeclareTextCommand{\textdaleth}{PU}{\9041\070}%* U+2138
 18317 % U+213B FACSIMILE SIGN; \fax (marvosym)
 18318 \DeclareTextCommand{\textfax}{PU}{\9041\073}%* U+213B

18319 % U+2141 TURNED SANS-SERIF CAPITAL G (=game); \Game
 18320 \DeclareTextCommand{\textGame}{PU}{\9041\101}%* U+2141
 18321 % U+214B TURNED AMPERSAND; \invamp (txfonts/pxfonts)
 18322 \DeclareTextCommand{\textinvamp}{PU}{\9041\113}% U+214B
 18323 %* \textinvamp -> \bindnasrepma (stmaryrd)
 18324 %* \textinvamp -> \parr (cml)

51.2.20 Number Forms: U+2150 to U+218F

18325 % U+2150 VULGAR FRACTION ONE SEVENTH
 18326 \DeclareTextCommand{\textoneseventh}{PU}{\9041\120}% U+2150
 18327 % U+2151 VULGAR FRACTION ONE NINTH
 18328 \DeclareTextCommand{\textoneninth}{PU}{\9041\121}% U+2151
 18329 % U+2152 VULGAR FRACTION ONE TENTH
 18330 \DeclareTextCommand{\textonetenth}{PU}{\9041\122}% U+2152
 18331 % U+2153 VULGAR FRACTION ONE THIRD; onethird
 18332 \DeclareTextCommand{\textonethird}{PU}{\9041\123}% U+2153
 18333 % U+2154 VULGAR FRACTION TWO THIRDS; twothirds
 18334 \DeclareTextCommand{\texttwothirds}{PU}{\9041\124}% U+2154
 18335 % U+2155 VULGAR FRACTION ONE FIFTH
 18336 \DeclareTextCommand{\textonefifth}{PU}{\9041\125}% U+2155
 18337 % U+2156 VULGAR FRACTION TWO FIFTHS
 18338 \DeclareTextCommand{\texttwofifths}{PU}{\9041\126}% U+2156
 18339 % U+2157 VULGAR FRACTION THREE FIFTHS
 18340 \DeclareTextCommand{\textthreefifths}{PU}{\9041\127}% U+2157
 18341 % U+2158 VULGAR FRACTION FOUR FIFTHS
 18342 \DeclareTextCommand{\textfourfifths}{PU}{\9041\130}% U+2158
 18343 % U+2159 VULGAR FRACTION ONE SIXTH
 18344 \DeclareTextCommand{\textonesixth}{PU}{\9041\131}% U+2159
 18345 % U+215A VULGAR FRACTION FIVE SIXTHS
 18346 \DeclareTextCommand{\textfivesixths}{PU}{\9041\132}% U+215A
 18347 % U+215B VULGAR FRACTION ONE EIGHTH; oneeighth
 18348 \DeclareTextCommand{\textoneeighth}{PU}{\9041\133}% U+215B
 18349 % U+215C VULGAR FRACTION THREE EIGHTHS; threeeighths
 18350 \DeclareTextCommand{\textthreeeighths}{PU}{\9041\134}% U+215C
 18351 % U+215D VULGAR FRACTION FIVE EIGHTHS; fiveeighths
 18352 \DeclareTextCommand{\textfiveeighths}{PU}{\9041\135}% U+215D
 18353 % U+215E VULGAR FRACTION SEVEN EIGHTHS; seveneighths
 18354 \DeclareTextCommand{\textseveneighths}{PU}{\9041\136}% U+215E
 18355 % U+2184 LATIN SMALL LETTER REVERSED C
 18356 \DeclareTextCommand{\textrevc}{PU}{\9041\204}% U+2184
 18357 % U+2189 VULGAR FRACTION ZERO THIRDS
 18358 \DeclareTextCommand{\textzerthirds}{PU}{\9041\211}% U+2189

51.2.21 Arrows: U+2190 to U+21FF

18359 % U+2190 LEFTWARDS ARROW; arrowleft
 18360 \DeclareTextCommand{\textleftarrow}{PU}{\9041\220}%* U+2190
 18361 % U+2191 UPWARDS ARROW; arrowup
 18362 \DeclareTextCommand{\textuparrow}{PU}{\9041\221}%* U+2191
 18363 % U+2192 RIGHTWARDS ARROW; arrowright
 18364 \DeclareTextCommand{\textrightarrow}{PU}{\9041\222}%* U+2192
 18365 %* \textrightarrow -> \MVRightArrow (marvosym)
 18366 %* \textrightarrow -> \MVRightarrow (marvosym)
 18367 % U+2193 DOWNWARDS ARROW; arrowdown
 18368 \DeclareTextCommand{\textdownarrow}{PU}{\9041\223}%* U+2193
 18369 %* \textdownarrow -> \MVAArrowDown (marvosym)
 18370 %* \textdownarrow -> \Force (marvosym)
 18371 % U+2194 LEFT RIGHT ARROW; arrowboth; \leftrightarrow (LaTeX)

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18372 \DeclareTextCommand{\textleftarrow}{PU}{\9041\224}%* U+2194
18373 % U+2195 UP DOWN ARROW; arrowupdn; \updownarrow (LaTeX)
18374 \DeclareTextCommand{\textupdownarrow}{PU}{\9041\225}%* U+2195
18375 % U+2196 NORTH WEST ARROW; arrowupleft; \nwarrow (LaTeX)
18376 \DeclareTextCommand{\textnwarrow}{PU}{\9041\226}%* U+2196
18377 % U+2197 NORTH EAST ARROW; arrowupright; \nearrow (LaTeX)
18378 \DeclareTextCommand{\textnearrow}{PU}{\9041\227}%* U+2197
18379 %* \textnearrow -> \textglobrise (tipa)
18380 % U+2198 SOUTH EAST ARROW; arrowdownright; \searrow (LaTeX)
18381 \DeclareTextCommand{\textsearrow}{PU}{\9041\230}%* U+2198
18382 %* \textsearrow -> \textglobfall (tipa)
18383 % U+2199 SOUTH WEST ARROW; arrowdownleft; \swarrow (LaTeX)
18384 \DeclareTextCommand{\textswarrow}{PU}{\9041\231}%* U+2199
18385 % U+219A LEFTWARDS ARROW WITH STROKE; \nleftarrow (AmS)
18386 \DeclareTextCommand{\textnleftarrow}{PU}{\9041\232}%* U+219A
18387 % U+219B RIGHTWARDS ARROW WITH STROKE; \rightarrow (AmS)
18388 \DeclareTextCommand{\textrightarrow}{PU}{\9041\233}%* U+219B
18389 % U+219E LEFTWARDS TWO HEADED ARROW; \twoheadleftarrow (AmS)
18390 \DeclareTextCommand{\texttwoheadleftarrow}{PU}{\9041\236}%* U+219E
18391 % \twoheadleftarrow (txfonts/pxfonts)
18392 \DeclareTextCommand{\textntwoheadleftarrow}{PU}{\9041\236\83\070}%* U+219E U+0338
18393 % U+219F UPWARDS TWO HEADED ARROW; \twoheaduparrow (MnSymbol)
18394 \DeclareTextCommand{\texttwoheaduparrow}{PU}{\9041\237}%* U+219F
18395 % U+21A0 RIGHTWARDS TWO HEADED ARROW;
18396 % \twoheadrightarrow (AmS)
18397 \DeclareTextCommand{\texttwoheadrightarrow}{PU}{\9041\240}%* U+21A0
18398 % \twoheadrightarrow (txfonts/pxfonts)
18399 \DeclareTextCommand{\textntwoheadrightarrow}{PU}{\9041\240\83\070}%* U+21A0 U+0338
18400 % U+21A1 DOWNWARDS TWO HEADED ARROW; \twoheaddownarrow (Mn-
      Symbol)
18401 \DeclareTextCommand{\texttwoheaddownarrow}{PU}{\9041\241}%* U+21A1
18402 % U+21A2 LEFTWARDS ARROW WITH TAIL; \leftarrowtail (AmS)
18403 \DeclareTextCommand{\textleftarrowtail}{PU}{\9041\242}%* U+21A2
18404 % U+21A3 RIGHTWARDS ARROW WITH TAIL; \rightarrowtail (AmS)
18405 \DeclareTextCommand{\textrightarrowtail}{PU}{\9041\243}%* U+21A3
18406 % U+21A6 RIGHTWARDS ARROW FROM BAR; \mapsto (LaTeX)
18407 \DeclareTextCommand{\textmapsto}{PU}{\9041\246}%* U+21A6
18408 % U+21A9 LEFTWARDS ARROW WITH HOOK; \hookleftarrow (LaTeX)
18409 \DeclareTextCommand{\texthookleftarrow}{PU}{\9041\251}%* U+21A9
18410 % U+21AA RIGHTWARDS ARROW WITH HOOK; \hookrightarrow (LaTeX)
18411 \DeclareTextCommand{\texthookrightarrow}{PU}{\9041\252}%* U+21AA
18412 % U+21AB LEFTWARDS ARROW WITH LOOP; \looparrowleft (AmS)
18413 \DeclareTextCommand{\textlooparrowleft}{PU}{\9041\253}%* U+21AB
18414 % U+21AC RIGHTWARDS ARROW WITH LOOP; \looparrowright (AmS)
18415 \DeclareTextCommand{\textlooparrowright}{PU}{\9041\254}%* U+21AC
18416 % U+21AE LEFT RIGHT ARROW WITH STROKE; \leftrightarrow (AmS)
18417 \DeclareTextCommand{\textnleftrightarrow}{PU}{\9041\256}%* U+21AE
18418 % U+21AF DOWNWARDS ZIGZAG ARROW; \lightning (stmaryrd)
18419 \DeclareTextCommand{\textlightning}{PU}{\9041\257}%* U+21AF
18420 %* \textlightning -> \Lightning (marvosym)
18421 % U+21B5 DOWNWARDS ARROW WITH CORNER LEFTWARDS;
18422 % \dls (mathabx)
18423 \DeclareTextCommand{\textdls}{PU}{\9041\265}%* U+21B5
18424 % U+21B6 ANTICLOCKWISE TOP SEMICIRCLE ARROW;
18425 % \curvearrowleft (AmS)
18426 \DeclareTextCommand{\textcurvearrowleft}{PU}{\9041\266}%* U+21B6
18427 % U+21B7 CLOCKWISE TOP SEMICIRCLE ARROW; \curvearrowright (AmS)

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18428 \DeclareTextCommand{\textcurvearrowright}{PU}{\9041\267}%* U+21B7
18429 % U+21BC LEFTWARDS HARPOON WITH BARB UPWARDS; harpoonleft-
      barbup;
18430 % \leftharpoonup (LaTeX)
18431 \DeclareTextCommand{\textleftharpoonup}{PU}{\9041\274}%* U+21BC
18432 % U+21BD LEFTWARDS HARPOON WITH BARB DOWNWARDS;
18433 % \leftharpoondown (LaTeX)
18434 \DeclareTextCommand{\textleftharpoondown}{PU}{\9041\275}%* U+21BD
18435 % U+21BE UPWARDS HARPOON WITH BARB RIGHTWARDS;
18436 % \upharpoonright (AmS)
18437 \DeclareTextCommand{\textupharpoonright}{PU}{\9041\276}%* U+21BE
18438 % U+21BF UPWARDS HARPOON WITH BARB LEFTWARDS;
18439 % \upharpoonleft (AmS)
18440 \DeclareTextCommand{\textupharpoonleft}{PU}{\9041\277}%* U+21BF
18441 % U+21C0 RIGHTWARDS HARPOON WITH BARB UPWARDS; harpoonright-
      barbup
18442 % \rightharpoonup (LaTeX)
18443 \DeclareTextCommand{\textrightharpoonup}{PU}{\9041\300}%* U+21C0
18444 % U+21C1 RIGHTWARDS HARPOON WITH BARB DOWNWARDS;
18445 % \rightharpoondown (LaTeX)
18446 \DeclareTextCommand{\textrightharpoondown}{PU}{\9041\301}%* U+21C1
18447 % U+21C2 DOWNWARDS HARPOON WITH BARB RIGHTWARDS;
18448 % \downharpoonright (AmS)
18449 \DeclareTextCommand{\textdownharpoonright}{PU}{\9041\302}%* U+21C2
18450 % U+21C3 DOWNWARDS HARPOON WITH BARB LEFTWARDS;
18451 % \downharpoonleft (AmS)
18452 \DeclareTextCommand{\textdownharpoonleft}{PU}{\9041\303}%* U+21C3
18453 % U+21C4 RIGHTWARDS ARROW OVER LEFTWARDS ARROW;
18454 % arrowrightoverleft; \rightleftarrows (MnSymbol)
18455 \DeclareTextCommand{\textrightleftarrows}{PU}{\9041\304}%* U+21C4
18456 % U+21C5 UPWARDS ARROW LEFTWARDS OF DOWNWARDS ARROW; ar-
      rowupleftofdown;
18457 % \updownarrows (MnSymbol)
18458 \DeclareTextCommand{\textupdownarrows}{PU}{\9041\305}%* U+21C5
18459 % U+21C6 LEFTWARDS ARROW OVER RIGHTWARDS ARROW; arrowleft-
      overright;
18460 % \leftrightharpoons (AmS)
18461 \DeclareTextCommand{\textleftrightharpoons}{PU}{\9041\306}%* U+21C6
18462 % U+21C7 LEFTWARDS PAIRED ARROWS; \leftleftarrows (AmS)
18463 \DeclareTextCommand{\textleftleftarrows}{PU}{\9041\307}%* U+21C7
18464 % U+21C8 UPWARDS PAIRED ARROWS; \upuparrows (AmS)
18465 \DeclareTextCommand{\textupuparrows}{PU}{\9041\310}%* U+21C8
18466 % U+21C9 RIGHTWARDS PAIRED ARROWS; \rightrightarrows (AmS)
18467 \DeclareTextCommand{\textrightarrows}{PU}{\9041\311}%* U+21C9
18468 % U+21CA DOWNWARDS PAIRED ARROWS; \downdownarrows (AmS)
18469 \DeclareTextCommand{\textdowndownarrows}{PU}{\9041\312}%* U+21CA
18470 % U+21CB LEFTWARDS HARPOON OVER RIGHTWARDS HARPOON;
18471 % \leftrightharpoons (AmS);
18472 \DeclareTextCommand{\textleftrightharpoons}{PU}{\9041\313}%* U+21CB
18473 % U+21CC RIGHTWARDS HARPOON OVER LEFTWARDS HARPOON;
18474 % \rightleftharpoons (LaTeX, AmS)
18475 \DeclareTextCommand{\textrightleftharpoons}{PU}{\9041\314}%* U+21CC
18476 % U+21CD LEFTWARDS DOUBLE ARROW WITH STROKE; arrowleftd-
      blstroke;
18477 % \nLeftarrow (AmS)
18478 \DeclareTextCommand{\textnLeftarrow}{PU}{\9041\315}%* U+21CD

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18479 % U+21CE LEFT RIGHT DOUBLE ARROW WITH STROKE; \nLeftrightarrow (AmS)
18480 \DeclareTextCommand{\textnLeftrightarrow}{PU}{\9041\316}%* U+21CE
18481 % U+21CF RIGHTWARDS DOUBLE ARROW WITH STROKE; arrowrightdblstroke;
18482 % \nRrightarrow (AmS)
18483 \DeclareTextCommand{\textnRrightarrow}{PU}{\9041\317}%* U+21CF
18484 % U+21D0 LEFTWARDS DOUBLE ARROW; arrowdblleft, arrowleftdbl;
18485 % \Leftarrow (LaTeX)
18486 \DeclareTextCommand{\textLeftarrow}{PU}{\9041\320}%* U+21D0
18487 % U+21D1 UPWARDS DOUBLE ARROW; arrowdblup; \Uparrow (LaTeX)
18488 \DeclareTextCommand{\textUparrow}{PU}{\9041\321}%* U+21D1
18489 % U+21D2 RIGHTWARDS DOUBLE ARROW; arrowdblright, dblarrowright;
18490 % \Rrightarrow (LaTeX)
18491 \DeclareTextCommand{\textRrightarrow}{PU}{\9041\322}%* U+21D2
18492 %* \textRrightarrow -> \Conclusion (marvosym)
18493 % U+21D3 DOWNWARDS DOUBLE ARROW; arrowdbldown; \Downarrow (LaTeX)
18494 \DeclareTextCommand{\textDownarrow}{PU}{\9041\323}%* U+21D3
18495 % U+21D4 LEFT RIGHT DOUBLE ARROW; arrowdblboth;
18496 % \Leftrightarrow (LaTeX)
18497 \DeclareTextCommand{\textLeftrightarrow}{PU}{\9041\324}%* U+21D4
18498 %* \textLeftrightarrow -> \Equivalence (marvosym)
18499 % U+21D5 UP DOWN DOUBLE ARROW; \Updownarrow (LaTeX)
18500 \DeclareTextCommand{\textUpdownarrow}{PU}{\9041\325}%* U+21D5
18501 % U+21D6 NORTH WEST DOUBLE ARROW; \Nwarrow (MnSymbol)
18502 \DeclareTextCommand{\textNwarrow}{PU}{\9041\326}%* U+21D6
18503 % U+21D7 NORTH EAST DOUBLE ARROW; \Nearrow (MnSymbol)
18504 \DeclareTextCommand{\textNearrow}{PU}{\9041\327}%* U+21D7
18505 % U+21D8 SOUTH EAST DOUBLE ARROW; \Searrow (MnSymbol)
18506 \DeclareTextCommand{\textSearrow}{PU}{\9041\330}%* U+21D8
18507 % U+21D9 SOUTH WEST DOUBLE ARROW; \Swarrow (MnSymbol)
18508 \DeclareTextCommand{\textSwarrow}{PU}{\9041\331}%* U+21D9
18509 % U+21DA LEFTWARDS TRIPLE ARROW; \Lleftarrow (AmS)
18510 \DeclareTextCommand{\textLleftarrow}{PU}{\9041\332}%* U+21DA
18511 % U+21DB RIGHTWARDS TRIPLE ARROW; \Rrightarrow (MnSymbol)
18512 \DeclareTextCommand{\textRrightarrow}{PU}{\9041\333}%* U+21DB
18513 % U+21DC LEFTWARDS SQUIGGLE ARROW; \leftsquigarrow (mathabx)
18514 \DeclareTextCommand{\textleftsquigarrow}{PU}{\9041\334}%* U+21DC
18515 % U+21DD RIGHTWARDS SQUIGGLE ARROW; \rightsquigarrow (mathabx)
18516 \DeclareTextCommand{\textright squigarrow}{PU}{\9041\335}%* U+21DD
18517 % U+21E0 LEFTWARDS DASHED ARROW; arrowdashleft;
18518 % \dashleftarrow (AmS)
18519 \DeclareTextCommand{\textdashleftarrow}{PU}{\9041\340}%* U+21E0
18520 %* \textdashleftarrow -> \dashedleftarrow (MnSymbol)
18521 % U+21E1 UPWARDS DASHED ARROW; arrowdashup; \dasheduparrow (MnSymbol)
18522 \DeclareTextCommand{\textdasheduparrow}{PU}{\9041\341}%* U+21E1
18523 % U+21E2 RIGHTWARDS DASHED ARROW; arrowdashright; \dashrightarrow (AmS)
18524 \DeclareTextCommand{\textdashrightarrow}{PU}{\9041\342}%* U+21E2
18525 %* \textdashrightarrow -> \dashedrightarrow (MnSymbol)
18526 % U+21E3 DOWNWARDS DASHED ARROW; arrowdashdown; \dasheddownarrow (MnSymbol)
18527 \DeclareTextCommand{\textdasheddownarrow}{PU}{\9041\343}%* U+21E3
18528 % U+21E8 RIGHTWARDS WHITE ARROW; \pointer (wasysym)
18529 \DeclareTextCommand{\textpointer}{PU}{\9041\350}%* U+21E8

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18530 % U+21F5 DOWNWARDS ARROW LEFTWARDS OF UPWARDS ARROW;
18531 % \downuparrows (MnSymbol)
18532 \DeclareTextCommand{\textdownuparrows}{PU}{\9041\365}%* U+21F5
18533 % U+21FD LEFTWARDS OPEN-HEADED ARROW; \leftarrowtriangle (stmaryrd)
18534 \DeclareTextCommand{\textleftarrowtriangle}{PU}{\9041\375}%* U+21FD
18535 % U+21FE RIGHTWARDS OPEN-HEADED ARROW; \rightarrowtriangle (stmaryrd)
18536 \DeclareTextCommand{\textrightarrowtriangle}{PU}{\9041\376}%* U+21FE
18537 % U+21FF LEFT RIGHT OPEN-HEADED ARROW; \leftrightarrowtriangle
      gle (stmaryrd)
18538 \DeclareTextCommand{\textleftrightarrowtriangle}{PU}{\9041\377}%* U+21FF

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51.2.22 Mathematical Operators: U+2200 to U+22FF

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18539 % U+2200 FOR ALL; forall; \forall (LaTeX)
18540 \DeclareTextCommand{\textforall}{PU}{\9042\000}%* U+2200
18541 % U+2201 COMPLEMENT; \complement (AmS)
18542 \DeclareTextCommand{\textcomplement}{PU}{\9042\001}%* U+2201
18543 % U+2202 PARTIAL DIFFERENTIAL; partialdiff; \partial (LaTeX)
18544 \DeclareTextCommand{\textpartial}{PU}{\9042\002}%* U+2202
18545 % U+2203 THERE EXISTS; existential; \exists (LaTeX)
18546 \DeclareTextCommand{\textexists}{PU}{\9042\003}%* U+2203
18547 % U+2204 THERE DOES NOT EXIST; \nexists (AmS)
18548 \DeclareTextCommand{\textnexists}{PU}{\9042\004}%* U+2204
18549 % U+2205 EMPTY SET; emptyset; \emptyset (LaTeX), \varnothing (AmS)
18550 \DeclareTextCommand{\textemptyset}{PU}{\9042\005}%* U+2205
18551 %* \textemptyset -> \varnothing (AmS)
18552 % U+2206 INCREMENT; increment, Delta; \triangle (LaTeX)
18553 \DeclareTextCommand{\texttriangle}{PU}{\9042\006}%* U+2206
18554 % U+2207 NABLA; nabla, gradient; \nabla (LaTeX)
18555 \DeclareTextCommand{\textnabla}{PU}{\9042\007}%* U+2207
18556 % U+2208 ELEMENT OF; element; \in (LaTeX)
18557 \DeclareTextCommand{\textin}{PU}{\9042\010}%* U+2208
18558 % U+2209 NOT AN ELEMENT OF; notelement, notelementof; \notin (LaTeX)
18559 \DeclareTextCommand{\textnotin}{PU}{\9042\011}%* U+2209
18560 % U+220A SMALL ELEMENT OF; \smallin (mathdesign)
18561 \DeclareTextCommand{\textsmallin}{PU}{\9042\012}%* U+220A
18562 % U+220B CONTAINS AS MEMBER; suchthat; \ni (LaTeX)
18563 \DeclareTextCommand{\textni}{PU}{\9042\013}%* U+220B
18564 %* \textni -> \owns (mathabx)
18565 % U+220C DOES NOT CONTAIN AS MEMBER; \notowner (mathabx)
18566 \DeclareTextCommand{\textnotowner}{PU}{\9042\014}%* U+220C
18567 %* \textnotowner -> \notni (txfonts/pxfonts)
18568 % U+220D SMALL CONTAINS AS MEMBER; \smallowns (mathdesign)
18569 \DeclareTextCommand{\textsmallowns}{PU}{\9042\015}%* U+220D
18570 % U+220F N-ARY PRODUCT; \prod (LaTeX)
18571 \DeclareTextCommand{\textprod}{PU}{\9042\017}%* U+220F
18572 % U+2210 N-ARY COPRODUCT; \amalg (LaTeX)
18573 \DeclareTextCommand{\textamalg}{PU}{\9042\020}%* U+2210
18574 % U+2211 N-ARY SUMMATION; summation; \sum (LaTeX)
18575 \DeclareTextCommand{\textsum}{PU}{\9042\021}%* U+2211
18576 % U+2212 MINUS SIGN; minus
18577 \DeclareTextCommand{\textminus}{PU}{\9042\022}%* U+2212
18578 % U+2213 MINUS-OR-PLUS SIGN; minusplus; \mp (LaTeX)
18579 \DeclareTextCommand{\textmp}{PU}{\9042\023}%* U+2213
18580 % U+2214 DOT PLUS; \dotplus (AmS)
18581 \DeclareTextCommand{\textdotplus}{PU}{\9042\024}%* U+2214
18582 % U+2215 DIVISION SLASH; divisionslash; \Divides (marvosym)
18583 \DeclareTextCommand{\textDivides}{PU}{\9042\025}%* U+2215

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18584 % \DividesNot (marvosym)
18585 \DeclareTextCommand{\textDividesNot}{PU}{\9042\025\9040\322}%* U+2215 U+20D2
18586 % U+2216 SET MINUS; \setminus (LaTeX)
18587 \DeclareTextCommand{\textsetminus}{PU}{\9042\026}%* U+2216
18588 % U+2217 ASTERISK OPERATOR; asteriskmath; \ast (LaTeX)
18589 \DeclareTextCommand{\textast}{PU}{\9042\027}%* U+2217
18590 % U+2218 RING OPERATOR; \circ (LaTeX)
18591 \DeclareTextCommand{\textcirc}{PU}{\9042\030}%* U+2218
18592 % U+2219 BULLET OPERATOR; bulletoperator; \bullet (LaTeX)
18593 \DeclareTextCommand{\textbulletoperator}{PU}{\9042\031}% U+2219
18594 % U+221A SQUARE ROOT; radical
18595 \DeclareTextCommand{\textsurd}{PU}{\9042\032}%* U+221A
18596 % U+221D PROPORTIONAL TO; proportional; \propto (LaTeX)
18597 \DeclareTextCommand{\textpropto}{PU}{\9042\035}%* U+221D
18598 %* \textpropto -> \varprop (wasysym)
18599 % U+221E INFINITY; infinity; \infty (LaTeX)
18600 \DeclareTextCommand{\textinfty}{PU}{\9042\036}%* U+221E
18601 % U+2220 ANGLE; angle; \angle (LaTeX)
18602 \DeclareTextCommand{\textangle}{PU}{\9042\040}%* U+2220
18603 % U+2221 MEASURED ANGLE; \measuredangle (mathabx, MnSymbol)
18604 \DeclareTextCommand{\textmeasuredangle}{PU}{\9042\041}%* U+2221
18605 % U+2222 SPHERICAL ANGLE; \sphericalangle (AMS)
18606 \DeclareTextCommand{\textsphericalangle}{PU}{\9042\042}%* U+2222
18607 %* \textsphericalangle -> \varangle (wasysym)
18608 %* \textsphericalangle -> \Anglesign (marvosym)
18609 %* \textsphericalangle -> \AngleSign (marvosym)
18610 % U+2223 DIVIDES; divides; \mid (LaTeX)
18611 \DeclareTextCommand{\textmid}{PU}{\9042\043}%* U+2223
18612 % U+2224 DOES NOT DIVIDE; \nmid (AMS)
18613 \DeclareTextCommand{\textnmid}{PU}{\9042\044}%* U+2224
18614 %* \textnmid -> \notdivides (mathabx)
18615 % U+2225 PARALLEL TO; parallel; \parallel (LaTeX)
18616 \DeclareTextCommand{\textparallel}{PU}{\9042\045}%* U+2225
18617 % U+2226 NOT PARALLEL TO; notparallel; \nparallel (AMS)
18618 \DeclareTextCommand{\textnparallel}{PU}{\9042\046}%* U+2226
18619 %* \textnparallel -> nUpdownline (MnSymbol)
18620 % U+2227 LOGICAL AND; logicaland; \wedge (LaTeX)
18621 \DeclareTextCommand{\textwedge}{PU}{\9042\047}%* U+2227
18622 % \owedge (stmaryrd)
18623 \DeclareTextCommand{\textowedge}{PU}{\9042\047\9040\335}%* U+2227 U+20DD
18624 %* \textowedge -> \varowedge (stmaryrd)
18625 % U+2228 LOGICAL OR; logicalor; \vee (LaTeX)
18626 \DeclareTextCommand{\textvee}{PU}{\9042\050}%* U+2228
18627 % \ovee (stmaryrd)
18628 \DeclareTextCommand{\textovee}{PU}{\9042\050\9040\335}%* U+2228 U+20DD
18629 %* \textovee -> \varovee (stmaryrd)
18630 % U+2229 INTERSECTION; intersection; \cap (LaTeX)
18631 \DeclareTextCommand{\textcap}{PU}{\9042\051}%* U+2229
18632 % U+222A UNION; union; \cup (LaTeX)
18633 \DeclareTextCommand{\textcup}{PU}{\9042\052}%* U+222A
18634 % U+222B INTEGRAL; integral; \int (LaTeX)
18635 \DeclareTextCommand{\textint}{PU}{\9042\053}%* U+222B
18636 %* \textint -> \varint (wasysym)
18637 % U+222C DOUBLE INTEGRAL; dblintegral; \iint (AMS)
18638 \DeclareTextCommand{\textiint}{PU}{\9042\054}%* U+222C
18639 % U+222D TRIPLE INTEGRAL; \iiint (AMS)
18640 \DeclareTextCommand{\textiiint}{PU}{\9042\055}%* U+222D

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18641 % U+222E CONTOUR INTEGRAL; contourintegral; \oint (LaTeX)
18642 \DeclareTextCommand{\textoint}{PU}{\9042\056}%* U+222E
18643 %* \textoint -> \varoint (wasysym)
18644 % U+222F SURFACE INTEGRAL; \oiint (wasysym)
18645 \DeclareTextCommand{\textoiint}{PU}{\9042\057}%* U+222F
18646 % U+2232 CLOCKWISE CONTOUR INTEGRAL;
18647 % \ointclockwise (txfonts/pxfonts)
18648 \DeclareTextCommand{\textointclockwise}{PU}{\9042\062}%* U+2232
18649 % U+2233 ANTICLOCKWISE CONTOUR INTEGRAL; \ointctrclockwise (tx-
      fonts/pxfonts)
18650 \DeclareTextCommand{\textointctrclockwise}{PU}{\9042\063}%* U+2233
18651 % U+2234 THEREFORE; therefore; \therefore (AmS)
18652 \DeclareTextCommand{\texttherefore}{PU}{\9042\064}%* U+2234
18653 %* \texttherefore -> uptherefore (MnSymbol)
18654 % U+2235 BECAUSE; because; \because (AmS)
18655 \DeclareTextCommand{\textbecause}{PU}{\9042\065}%* U+2235
18656 %* \textbecause -> \downtherefore (MnSymbol)
18657 % U+2236 RATIO; \vdotdot (MnSymbol)
18658 \DeclareTextCommand{\textvdotdot}{PU}{\9042\066}%* U+2236
18659 % U+2237 PROPORTION; \squaredots (MnSymbol)
18660 \DeclareTextCommand{\textsquaredots}{PU}{\9042\067}%* U+2237
18661 % U+2238 DOT MINUS; \dotminus (MnSymbol)
18662 \DeclareTextCommand{\textdotminus}{PU}{\9042\070}%* U+2238
18663 %* \textdotminus -> \textdotdiv (mathabx)
18664 % U+2239 EXCESS; \eqcolon (txfonts/pxfonts)
18665 \DeclareTextCommand{\texteqcolon}{PU}{\9042\071}%* U+2239
18666 % U+223C TILDE OPERATOR; similar; \sim (LaTeX)
18667 \DeclareTextCommand{\textsim}{PU}{\9042\074}%* U+223C
18668 %* \textsim -> \AC (wasysym)
18669 % U+223D REVERSED TILDE; reversedtilde; \backsim (AmS)
18670 \DeclareTextCommand{\textbacksim}{PU}{\9042\075}%* U+223D
18671 % \nbacksim (txfonts/pxfonts)
18672 \DeclareTextCommand{\textnbacksim}{PU}{\9042\075\83\070}%* U+223D U+0338
18673 % U+2240 WREATH PRODUCT; \wr (LaTeX)
18674 \DeclareTextCommand{\textwr}{PU}{\9042\100}%* U+2240
18675 %* \textwr -> \wreath (MnSymbol)
18676 % U+2241 NOT TILDE; \nsim (AmS)
18677 \DeclareTextCommand{\textnsim}{PU}{\9042\101}%* U+2241
18678 % U+2242 MINUS TILDE; \eqsim (MnSymbol)
18679 \DeclareTextCommand{\texteqsim}{PU}{\9042\102}%* U+2242
18680 % \neqsim (MnSymbol)
18681 \DeclareTextCommand{\textneqsim}{PU}{\9042\102\83\070}%* U+2242 U+0338
18682 % U+2243 ASYMPTOTICALLY EQUAL TO; asymptoticallyequal; \simeq (La-
      TeX)
18683 \DeclareTextCommand{\textsimeq}{PU}{\9042\103}%* U+2243
18684 % U+2244 NOT ASYMPTOTICALLY EQUAL TO; \nsimeq (txfonts/pxfonts)
18685 \DeclareTextCommand{\textnsimeq}{PU}{\9042\104}%* U+2244
18686 % U+2245 APPROXIMATELY EQUAL TO; approximatelyequal; \cong (LaTeX)
18687 \DeclareTextCommand{\textcong}{PU}{\9042\105}%* U+2245
18688 % U+2247 NEITHER APPROXIMATELY NOR ACTUALLY EQUAL TO;
18689 % \ncong (AmS)
18690 \DeclareTextCommand{\textncong}{PU}{\9042\107}%* U+2247
18691 % U+2248 ALMOST EQUAL TO; approxequal; \approx (LaTeX)
18692 \DeclareTextCommand{\textapprox}{PU}{\9042\110}%* U+2248
18693 % U+2249 NOT ALMOST EQUAL TO; \napprox (txfonts/pxfonts)
18694 \DeclareTextCommand{\textnapprox}{PU}{\9042\111}%* U+2249
18695 %* \textnapprox -> \nthickapprox (txfonts/pxfonts)

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18696 % U+224A ALMOST EQUAL OR EQUAL TO; \approxeq (AmS)
18697 \DeclareTextCommand{\textapproxeq}{PU}{\9042\112}%* U+224A
18698 % \napproxeq (txfonts/pxfonts)
18699 \DeclareTextCommand{\textnapproxeq}{PU}{\9042\112\83\070}%* U+224A U+0338
18700 % U+224B TRIPLE TILDE; \triplesim (MnSymbol)
18701 \DeclareTextCommand{\texttriplesim}{PU}{\9042\113}%* U+224B
18702 %* \texttriplesim -> \VHF (wasysym)
18703 % \ntriplesim (MnSymbol)
18704 \DeclareTextCommand{\textntriplesim}{PU}{\9042\113\83\070}%* U+224B U+0338
18705 % U+224C ALL EQUAL TO; allequal; \backcong (MnSymbol)
18706 \DeclareTextCommand{\textbackcong}{PU}{\9042\114}%* U+224C
18707 % \nbackcong (MnSymbol)
18708 \DeclareTextCommand{\textnbackcong}{PU}{\9042\114\83\070}%* U+224C U+0338
18709 % U+224D EQUIVALENT TO; \asymp (LaTeX)
18710 \DeclareTextCommand{\textasymp}{PU}{\9042\115}%* U+224D
18711 % \nasymp (txfonts/pxfonts)
18712 \DeclareTextCommand{\textnasymp}{PU}{\9042\115\83\070}%* U+224D U+0338
18713 %* \textnasymp -> \notasym (mathabx)
18714 % U+224E GEOMETRICALLY EQUIVALENT TO; \Bumpeq (AmS)
18715 \DeclareTextCommand{\textBumpeq}{PU}{\9042\116}%* U+224E
18716 % \nBumpeq (txfonts/pxfonts)
18717 \DeclareTextCommand{\textnBumpeq}{PU}{\9042\116\83\070}%* U+224E U+0338
18718 % U+224F DIFFERENCE BETWEEN; \bumpeq (AmS)
18719 \DeclareTextCommand{\textbumpeq}{PU}{\9042\117}%* U+224F
18720 % \nbumpeq (txfonts/pxfonts)
18721 \DeclareTextCommand{\textnbumpeq}{PU}{\9042\117\83\070}%* U+224F U+0338
18722 % U+2250 APPROACHES THE LIMIT; approaches; \doteq (LaTeX)
18723 \DeclareTextCommand{\textdoteq}{PU}{\9042\120}%* U+2250
18724 % \ndoteq (MnSymbol)
18725 \DeclareTextCommand{\textndoteq}{PU}{\9042\120\83\070}%* U+2250 U+0338
18726 % U+2251 GEOMETRICALLY EQUAL TO; geometricallyequal;
18727 % \doteqdot (AmS)
18728 \DeclareTextCommand{\textdoteqdot}{PU}{\9042\121}%* U+2251
18729 %* \textdoteqdot -> \Doteq (MnSymbol)
18730 % \nDoteq (MnSymbol)
18731 \DeclareTextCommand{\textnDoteq}{PU}{\9042\121\83\070}%* U+2251 U+0338
18732 % U+2252 APPROXIMATELY EQUAL TO OR THE IMAGE OF; approx-
qualorimage;
18733 % \fallingdotseq (AmS)
18734 \DeclareTextCommand{\textfallingdotseq}{PU}{\9042\122}%* U+2252
18735 % \nfallingdotseq (MnSymbol)
18736 \DeclareTextCommand{\textnfallingdotseq}{PU}{\9042\122\83\070}%* U+2252 U+0338
18737 % U+2253 IMAGE OF OR APPROXIMATELY EQUAL TO; imageorapproxi-
matelyequal;
18738 % \risingdotseq (AmS)
18739 \DeclareTextCommand{\textrisingdotseq}{PU}{\9042\123}%* U+2253
18740 % \nrisingdotseq (MnSymbol)
18741 \DeclareTextCommand{\textnrisingdotseq}{PU}{\9042\123\83\070}%* U+2253 U+0338
18742 % U+2254 COLON EQUALS; \colonequals (colonequals)
18743 \DeclareTextCommand{\textcolonequals}{PU}{\9042\124}%* U+2254
18744 % U+2255 EQUALS COLON; \equalscolon (colonequals)
18745 \DeclareTextCommand{\textequalscolon}{PU}{\9042\125}%* U+2255
18746 % U+2256 RING IN EQUAL TO; \eqcirc (AmS)
18747 \DeclareTextCommand{\texteqcirc}{PU}{\9042\126}%* U+2256
18748 % \neqcirc (MnSymbol)
18749 \DeclareTextCommand{\textneqcirc}{PU}{\9042\126\83\070}%* U+2256 U+0338
18750 % U+2257 RING EQUAL TO; \circeq (AmS)

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18751 \DeclareTextCommand{\textcirceq}{PU}{\9042\127}%* U+2257
18752 % \ncirceq (MnSymbol)
18753 \DeclareTextCommand{\textncirceq}{PU}{\9042\127\83\070}%* U+2257 U+0338
18754 % U+2259 ESTIMATES; \hateq (MnSymbol)
18755 \DeclareTextCommand{\texthateq}{PU}{\9042\131}%* U+2259
18756 %* \texthateq -> \corresponds (mathabx)
18757 %* \texthateq -> \Corresponds (marvosym)
18758 % \nhateq (MnSymbol)
18759 \DeclareTextCommand{\textnhateq}{PU}{\9042\131\83\070}%* U+2259 U+0338
18760 % U+225C DELTA EQUAL TO; \triangleeq (AmS)
18761 \DeclareTextCommand{\texttriangleeq}{PU}{\9042\134}%* U+225C
18762 % U+2260 NOT EQUAL TO; notequal; \ne (LaTeX), \neq (LaTeX)
18763 \DeclareTextCommand{\textneq}{PU}{\9042\140}%* U+2260
18764 \DeclareTextCommand{\textne}{PU}{\9042\140}%* U+2260
18765 %* \textneq -> \nequal (MnSymbol)
18766 % U+2261 IDENTICAL TO; equivalence; \equiv (LaTeX)
18767 \DeclareTextCommand{\textequiv}{PU}{\9042\141}%* U+2261
18768 %* \textequiv -> \Congruent (marvosym)
18769 % U+2262 NOT IDENTICAL TO; notidentical; \nequiv (txfonts/pxfonts)
18770 \DeclareTextCommand{\textnequiv}{PU}{\9042\142}%* U+2262
18771 %* \textnequiv -> \NotCongruent (marvosym)
18772 %* \textnequiv -> \notequiv (mathabx)
18773 % U+2264 LESS-THAN OR EQUAL TO; lessequal; \le (LaTeX), \leq (LaTeX)
18774 \DeclareTextCommand{\textleq}{PU}{\9042\144}%* U+2264
18775 \DeclareTextCommand{\textle}{PU}{\9042\144}%* U+2264
18776 %* \textleq -> \LessOrEqual (marvosym)
18777 % U+2265 GREATER-THAN OR EQUAL TO; greaterqual;
18778 % \ge (LaTeX), \geq (LaTeX)
18779 \DeclareTextCommand{\textgeq}{PU}{\9042\145}%* U+2265
18780 \DeclareTextCommand{\textge}{PU}{\9042\145}%* U+2265
18781 %* \textgeq -> \LargerOrEqual (marvosym)
18782 % U+2266 LESS-THAN OVER EQUAL TO; lessoverequal; \leqq (AmS)
18783 \DeclareTextCommand{\textleqq}{PU}{\9042\146}%* U+2266
18784 % \nleqq (txfonts/pxfonts)
18785 \DeclareTextCommand{\textnleqq}{PU}{\9042\146\83\070}%* U+2266 U+0338
18786 % U+2267 GREATER-THAN OVER EQUAL TO; greateroverequal; \geqq (AmS)
18787 \DeclareTextCommand{\textgeqq}{PU}{\9042\147}%* U+2267
18788 % \ngeqq (txfonts/pxfonts)
18789 \DeclareTextCommand{\textngeqq}{PU}{\9042\147\83\070}%* U+2267 U+0338
18790 % U+2268 LESS-THAN BUT NOT EQUAL TO; \lneqq (AmS)
18791 \DeclareTextCommand{\textlneqq}{PU}{\9042\150}%* U+2268
18792 % U+2269 GREATER-THAN BUT NOT EQUAL TO; \gneqq (AmS)
18793 \DeclareTextCommand{\textgneqq}{PU}{\9042\151}%* U+2269
18794 % U+226A MUCH LESS-THAN; muchless; \ll (LaTeX)
18795 \DeclareTextCommand{\textll}{PU}{\9042\152}%* U+226A
18796 % \nll (txfonts/pxfonts)
18797 \DeclareTextCommand{\textnll}{PU}{\9042\152\83\070}%* U+226A U+0338
18798 % U+226B MUCH GREATER-THAN; muchgreater; \gg (LaTeX)
18799 \DeclareTextCommand{\textgg}{PU}{\9042\153}%* U+226B
18800 % \ngg (txfonts/pxfonts)
18801 \DeclareTextCommand{\textngg}{PU}{\9042\153\83\070}%* U+226B U+0338
18802 % U+226C BETWEEN; \between (AmS)
18803 \DeclareTextCommand{\textbetween}{PU}{\9042\154}%* U+226C
18804 % U+226E NOT LESS-THAN; notless; \nless (AmS)
18805 \DeclareTextCommand{\textnless}{PU}{\9042\156}%* U+226E
18806 % U+226F NOT GREATER-THAN; notgreater; \ngtr (AmS)
18807 \DeclareTextCommand{\textngtr}{PU}{\9042\157}%* U+226F

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18808 % U+2270 NEITHER LESS-THAN NOR EQUAL TO; notlessnorequal;
18809 % \nleq (AmS)
18810 \DeclareTextCommand{\textnleq}{PU}{\9042\160}%* U+2270
18811 % U+2271 NEITHER GREATER-THAN NOR EQUAL TO; notgreaternorequal; \ngeq (AmS)
18812 \DeclareTextCommand{\textngeq}{PU}{\9042\161}%* U+2271
18813 % U+2272 LESS-THAN OR EQUIVALENT TO; lessorequivalent; \lessim (AmS)
18814 \DeclareTextCommand{\textlessim}{PU}{\9042\162}%* U+2272
18815 %* \textlessim -> \apprle (wasysym)
18816 % U+2273 GREATER-THAN OR EQUIVALENT TO; greaterorequivalent; \gtrsim (AmS)
18817 \DeclareTextCommand{\textgtrsim}{PU}{\9042\163}%* U+2273
18818 %* \textgtrsim -> \apprge (wasysym)
18819 % U+2274 NEITHER LESS-THAN NOR EQUIVALENT TO; \nlessim (tx-fonts/pxfonts)
18820 \DeclareTextCommand{\textnlessim}{PU}{\9042\164}%* U+2274
18821 % U+2275 NEITHER GREATER-THAN NOR EQUIVALENT TO; \ngtrsim (tx-fonts/pxfonts)
18822 \DeclareTextCommand{\textngtrsim}{PU}{\9042\165}%* U+2275
18823 % U+2276 LESS-THAN OR GREATER-THAN; lessorgreater; \lessgtr (AmS)
18824 \DeclareTextCommand{\textlessgtr}{PU}{\9042\166}%* U+2276
18825 % U+2277 GREATER-THAN OR LESS-THAN; greaterorless; \gtrless (AmS)
18826 \DeclareTextCommand{\textgtrless}{PU}{\9042\167}%* U+2277
18827 % U+2278 NEITHER LESS-THAN NOR GREATER-THAN; \ngtrless (tx-fonts/pxfonts)
18828 \DeclareTextCommand{\textngtrless}{PU}{\9042\170}%* U+2278
18829 % U+2279 NEITHER GREATER-THAN NOR LESS-THAN; \nlessgtr (tx-fonts/pxfonts)
18830 \DeclareTextCommand{\textnlessgtr}{PU}{\9042\171}%* U+2279
18831 % U+227A PRECEDES; precedes; \prec (LaTeX)
18832 \DeclareTextCommand{\textprec}{PU}{\9042\172}%* U+227A
18833 % U+227B SUCCEEDS; succeeds; \succ (LaTeX)
18834 \DeclareTextCommand{\textsucc}{PU}{\9042\173}%* U+227B
18835 % U+227C PRECEDES OR EQUAL TO; \preccurlyeq (AmS)
18836 \DeclareTextCommand{\textpreccurlyeq}{PU}{\9042\174}%* U+227C
18837 % U+227D SUCCEEDS OR EQUAL TO; \succcurlyeq (AmS)
18838 \DeclareTextCommand{\textsucccurlyeq}{PU}{\9042\175}%* U+227D
18839 % U+227E PRECEDES OR EQUIVALENT TO; \precsim (AmS)
18840 \DeclareTextCommand{\textprecsim}{PU}{\9042\176}%* U+227E
18841 % \nprecsim (txfonts/pxfonts)
18842 \DeclareTextCommand{\textnprecsim}{PU}{\9042\176\83\070}%* U+227E U+0338
18843 % U+227F SUCCEEDS OR EQUIVALENT TO; \succsim (AmS)
18844 \DeclareTextCommand{\textsuccsim}{PU}{\9042\177}%* U+227F
18845 % \nsuccsim (txfonts/pxfonts)
18846 \DeclareTextCommand{\textnsuccsim}{PU}{\9042\177\83\070}%* U+227F U+0338
18847 % U+2280 DOES NOT PRECEDE; notprecedes; \nprec (AmS)
18848 \DeclareTextCommand{\textnprec}{PU}{\9042\200}%* U+2280
18849 % U+2281 DOES NOT SUCCEED; notsucceeds; \nsucc (AmS)
18850 \DeclareTextCommand{\textnsucc}{PU}{\9042\201}%* U+2281
18851 % U+2282 SUBSET OF; propersubset; \subset (LaTeX)
18852 \DeclareTextCommand{\textsubset}{PU}{\9042\202}%* U+2282
18853 % U+2283 SUPERSET OF; propersuperset; \supset (LaTeX)
18854 \DeclareTextCommand{\textsupset}{PU}{\9042\203}%* U+2283
18855 % U+2284 NOT A SUBSET OF; notsubset; \nsubset (mathabx)
18856 \DeclareTextCommand{\textnsubset}{PU}{\9042\204}%* U+2284
18857 % U+2285 NOT A SUPERSET OF; notsuperset; \nsupset (mathabx)
18858 \DeclareTextCommand{\textnsupset}{PU}{\9042\205}%* U+2285

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18859 % U+2286 SUBSET OF OR EQUAL TO; reflexsubset; \subseteq (LaTeX)
18860 \DeclareTextCommand{\textsubseteq}{PU}{\9042\206}%* U+2286
18861 % U+2287 SUPERSET OF OR EQUAL TO; reflexsuperset; \supseteq (LaTeX)
18862 \DeclareTextCommand{\textsupseteq}{PU}{\9042\207}%* U+2287
18863 % U+2288 NEITHER A SUBSET OF NOR EQUAL TO; \nsubseteq (AmS)
18864 \DeclareTextCommand{\textnsubseteq}{PU}{\9042\210}%* U+2288
18865 % U+2289 NEITHER A SUPERSET OF NOR EQUAL TO; \nsupseteq (AmS)
18866 \DeclareTextCommand{\textnsupseteq}{PU}{\9042\211}%* U+2289
18867 % U+228A SUBSET OF WITH NOT EQUAL TO; subsetnotequal; \subsetneq (AmS)
18868 \DeclareTextCommand{\textsubsetneq}{PU}{\9042\212}%* U+228A
18869 % U+228B SUPERSET OF WITH NOT EQUAL TO; supersetnotequal; \supsetneq (AmS)
18870 \DeclareTextCommand{\textsupsetneq}{PU}{\9042\213}%* U+228B
18871 % U+228D MULTISSET MULTIPLICATION; \cupdot (MnSymbol)
18872 \DeclareTextCommand{\textcupdot}{PU}{\9042\215}%* U+228D
18873 % U+228E MULTISSET UNION; \cupplus (MnSymbol)
18874 \DeclareTextCommand{\textcupplus}{PU}{\9042\216}%* U+228E
18875 % U+228F SQUARE IMAGE OF; \sqsubset (latexsym, ...)
18876 \DeclareTextCommand{\textsqsubset}{PU}{\9042\217}%* U+228F
18877 % \nsqsubset (txfonts/pxfonts)
18878 \DeclareTextCommand{\textnsqsubset}{PU}{\9042\217\83\070}%* U+228F U+0338
18879 % U+2290 SQUARE ORIGINAL OF; \sqsupset (latexsym, ...)
18880 \DeclareTextCommand{\textsqsupset}{PU}{\9042\220}%* U+2290
18881 % \nsqsupset (txfonts/pxfonts)
18882 \DeclareTextCommand{\textnsqsupset}{PU}{\9042\220\83\070}%* U+2290 U+0338
18883 % U+2291 SQUARE IMAGE OF OR EQUAL TO; \sqsubseteq (LaTeX)
18884 \DeclareTextCommand{\textsqsubseteq}{PU}{\9042\221}%* U+2291
18885 % \nsqsubseteq (txfonts/pxfonts)
18886 \DeclareTextCommand{\textnsqsubseteq}{PU}{\9042\221\83\070}%* U+2291 U+0338
18887 % U+2292 SQUARE ORIGINAL OF OR EQUAL TO; \sqsupseteq (LaTeX)
18888 \DeclareTextCommand{\textsqsupseteq}{PU}{\9042\222}%* U+2292
18889 % \nsqsupseteq (txfonts/pxfonts)
18890 \DeclareTextCommand{\textnsqsupseteq}{PU}{\9042\222\83\070}%* U+2292 U+0338
18891 % U+2293 SQUARE CAP; \sqcap (LaTeX)
18892 \DeclareTextCommand{\textsqcap}{PU}{\9042\223}%* U+2293
18893 % U+2294 SQUARE CUP; \sqcup (LaTeX)
18894 \DeclareTextCommand{\textsqcup}{PU}{\9042\224}%* U+2294
18895 % U+2295 CIRCLED PLUS; circleplus; \oplus (LaTeX)
18896 \DeclareTextCommand{\textoplus}{PU}{\9042\225}%* U+2295
18897 %* \textoplus -> \varoplus (stmaryrd)
18898 % U+2296 CIRCLED MINUS; minuscircle; \ominus (LaTeX)
18899 \DeclareTextCommand{\textominus}{PU}{\9042\226}%* U+2296
18900 %* \textominus -> \varominus (stmaryrd)
18901 % U+2297 CIRCLED TIMES; circlemultiply; \otimes (LaTeX)
18902 \DeclareTextCommand{\textotimes}{PU}{\9042\227}%* U+2297
18903 %* \textotimes -> \varotimes (stmaryrd)
18904 % U+2298 CIRCLED DIVISION SLASH; \oslash (LaTeX)
18905 \DeclareTextCommand{\textoslash}{PU}{\9042\230}%* U+2298
18906 %* \textoslash -> \varoslash (stmaryrd)
18907 % U+2299 CIRCLED DOT OPERATOR; circle(d?)ot; \odot (LaTeX)
18908 \DeclareTextCommand{\textodot}{PU}{\9042\231}%* U+2299
18909 %* \textodot -> \varodot (stmaryrd)
18910 % U+229A CIRCLED RING OPERATOR; \circledcirc (AmS)
18911 \DeclareTextCommand{\textcircledcirc}{PU}{\9042\232}%* U+229A
18912 %* \textcircledcirc -> \ocirc (mathabx)
18913 %* \textcircledcirc -> \varocircle (stmaryrd)

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18914 % U+229B CIRCLED ASTERISK OPERATOR; \circledast (AmS)
18915 \DeclareTextCommand{\textcircledast}{PU}{\9042\233}%* U+229B
18916 %* \textcircledast -> \varoast (stmaryrd)
18917 %* \textcircledast -> \oasterisk (mathabx)
18918 % U+229D CIRCLED DASH; \circleddash (AmS)
18919 \DeclareTextCommand{\textcircleddash}{PU}{\9042\235}%* U+229D
18920 % U+229E SQUARED PLUS; \boxplus (AmS)
18921 \DeclareTextCommand{\textboxplus}{PU}{\9042\236}%* U+229E
18922 % U+229F SQUARED MINUS; \boxminus (AmS)
18923 \DeclareTextCommand{\textboxminus}{PU}{\9042\237}%* U+229F
18924 % U+22A0 SQUARED TIMES; \boxtimes (AmS)
18925 \DeclareTextCommand{\textboxtimes}{PU}{\9042\240}%* U+22A0
18926 % U+22A1 SQUARED DOT OPERATOR; \boxdot (AmS)
18927 \DeclareTextCommand{\textboxdot}{PU}{\9042\241}%* U+22A1
18928 % U+22A2 RIGHT TACK; \vdash (LaTeX)
18929 \DeclareTextCommand{\textvdash}{PU}{\9042\242}%* U+22A2
18930 %* \textvdash -> \rightvdash (MnSymbol)
18931 % U+22A3 LEFT TACK; \dashv (LaTeX)
18932 \DeclareTextCommand{\textdashv}{PU}{\9042\243}%* U+22A3
18933 %* \textdashv -> \leftvdash (MnSymbol)
18934 % \ndashv (mathabx)
18935 \DeclareTextCommand{\textndashv}{PU}{\9042\243\83\070}%* U+22A3 U+0338
18936 %* \textndashv -> \leftvdash (MnSymbol)
18937 % U+22A4 DOWN TACK (=top); \top (LaTeX)
18938 \DeclareTextCommand{\texttop}{PU}{\9042\244}%* U+22A4
18939 %* \texttop -> \downvdash (MnSymbol)
18940 % \ndownvdash (MnSymbol)
18941 \DeclareTextCommand{\textndownvdash}{PU}{\9042\244\83\070}%* U+22A4 U+0338
18942 % U+22A5 UP TACK (=base, bottom); \bot (LaTeX)
18943 \DeclareTextCommand{\textbot}{PU}{\9042\245}%* U+22A5
18944 %* \textbot -> \upvdash (MnSymbol)
18945 % \nupvdash (MnSymbol)
18946 \DeclareTextCommand{\textnupvdash}{PU}{\9042\245\83\070}%* U+22A5 U+0338
18947 %* \textnupvdash -> \nperp (MnSymbol)
18948 % U+22A8 TRUE; \vDash (AmS)
18949 \DeclareTextCommand{\textvDash}{PU}{\9042\250}%* U+22A8
18950 %* \textvDash -> \models (LaTeX)
18951 %* \textvDash -> \rightmodels (MnSymbol)
18952 % U+22A9 FORCES; \Vdash (AmS)
18953 \DeclareTextCommand{\textVdash}{PU}{\9042\251}%* U+22A9
18954 %* \textVdash -> \rightVdash (MnSymbol)
18955 % U+22AA TRIPLE VERTICAL BAR RIGHT TURNSTILE; \Vvdash (AmS)
18956 \DeclareTextCommand{\textVvdash}{PU}{\9042\252}%* U+22AA
18957 % \nVdash (mathabx)
18958 \DeclareTextCommand{\textnVdash}{PU}{\9042\252\83\070}%* U+22AA U+0338
18959 % U+22AB DOUBLE VERTICAL BAR DOUBLE RIGHT TURNSTILE;
18960 % \VDash (mathabx)
18961 \DeclareTextCommand{\textVDash}{PU}{\9042\253}%* U+22AB
18962 %* \textVDash -> \rightModels (MnSymbol)
18963 % U+22AC DOES NOT PROVE; \nvdash (AmS)
18964 \DeclareTextCommand{\textnvdash}{PU}{\9042\254}%* U+22AC
18965 %* \textnvdash -> \rightvdash (MnSymbol)
18966 % U+22AD NOT TRUE; \nvDash (AmS)
18967 \DeclareTextCommand{\textnvDash}{PU}{\9042\255}%* U+22AD
18968 %* \textnvDash -> \rightmodels (MnSymbol)
18969 %* \textnvDash -> \nmodels (MnSymbol)
18970 % U+22AE DOES NOT FORCE; \nVdash (txfonts/pxfonts)

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18971 \DeclareTextCommand{\textnVdash}{PU}{\9042\256}%* U+22AE
18972 %* \textnVdash -> \nrightVdash (MnSymbol)
18973 % U+22AF NEGATED DOUBLE VERTICAL BAR DOUBLE RIGHT TURN-
      STILE; \nVDash (AmS)
18974 \DeclareTextCommand{\textnVDash}{PU}{\9042\257}%* U+22AF
18975 %* \textnVDash -> \nrightModels (MnSymbol)
18976 % U+22B2 NORMAL SUBGROUP OF; \lhd (latexsym, ...)
18977 \DeclareTextCommand{\textlhd}{PU}{\9042\262}%* U+22B2
18978 %* \textlhd -> \lessclosed (MnSymbol)
18979 % U+22B3 CONTAINS AS NORMAL SUBGROUP; \rhd (latexsym, ...)
18980 \DeclareTextCommand{\textrhd}{PU}{\9042\263}%* U+22B3
18981 %* \textrhd -> \gtrclosed (MnSymbol)
18982 % U+22B4 NORMAL SUBGROUP OF OR EQUAL TO; \unlhd (latexsym, ...)
18983 \DeclareTextCommand{\textunlhd}{PU}{\9042\264}%* U+22B4
18984 %* \textunlhd -> \leqclosed (MnSymbol)
18985 %* \textunlhd -> \trianglelefteq (MnSymbol)
18986 % U+22B5 CONTAINS AS NORMAL SUBGROUP OR EQUAL TO; \unrhd (la-
      texsym, ...)
18987 \DeclareTextCommand{\textunrhd}{PU}{\9042\265}%* U+22B5
18988 %* \textunrhd -> \geqclosed (MnSymbol)
18989 %* \textunrhd -> \trianglerighteq (MnSymbol)
18990 % U+22B6 ORIGINAL OF; \multimapdotbothA (txfonts/pxfonts)
18991 \DeclareTextCommand{\textmultimapdotbothA}{PU}{\9042\266}%* U+22B6
18992 % U+22B7 IMAGE OF; \multimapdotbothB (txfonts/pxfonts)
18993 \DeclareTextCommand{\textmultimapdotbothB}{PU}{\9042\267}%* U+22B7
18994 % U+22B8 MULTIMAP; \multimap (AmS, txfonts/pxfonts)
18995 \DeclareTextCommand{\textmultimap}{PU}{\9042\270}%* U+22B8
18996 % U+22BB XOR; \veebar (AmS)
18997 \DeclareTextCommand{\textveebar}{PU}{\9042\273}%* U+22BB
18998 % U+22BC NAND; \barwedge (mathabx)
18999 \DeclareTextCommand{\textbarwedge}{PU}{\9042\274}%* U+22BC
19000 % U+22C6 STAR OPERATOR; \star (LaTeX)
19001 \DeclareTextCommand{\textstar}{PU}{\9042\306}%* U+22C6
19002 % U+22C7 DIVISION TIMES; \divideontimes (AmS)
19003 \DeclareTextCommand{\textdivideontimes}{PU}{\9042\307}%* U+22C7
19004 % U+22C8 BOWTIE; \bowtie (LaTeX)
19005 \DeclareTextCommand{\textbowtie}{PU}{\9042\310}%* U+22C8
19006 %* \textbowtie -> \Bowtie (wasysym)
19007 % U+22C9 LEFT NORMAL FACTOR SEMIDIRECT PRODUCT; \ltimes (AmS)
19008 \DeclareTextCommand{\textltimes}{PU}{\9042\311}%* U+22C9
19009 % U+22CA RIGHT NORMAL FACTOR SEMIDIRECT PRODUCT;
19010 % \rtimes (AmS)
19011 \DeclareTextCommand{\textrtimes}{PU}{\9042\312}%* U+22CA
19012 % U+22CB LEFT SEMIDIRECT PRODUCT; \leftthreetimes (AmS)
19013 \DeclareTextCommand{\textleftthreetimes}{PU}{\9042\313}%* U+22CB
19014 % U+22CC RIGHT SEMIDIRECT PRODUCT; \rightthreetimes (AmS)
19015 \DeclareTextCommand{\textrightthreetimes}{PU}{\9042\314}%* U+22CC
19016 % U+22CD REVERSED TILDE EQUALS; \backsimeq (AmS)
19017 \DeclareTextCommand{\textbacksimeq}{PU}{\9042\315}%* U+22CD
19018 % \nbacksimeq (txfonts/pxfonts)
19019 \DeclareTextCommand{\textnbacksimeq}{PU}{\9042\315\83\070}%* U+22CD U+0338
19020 % U+22CE CURLY LOGICAL OR; curlyor; \curlyvee (AmS)
19021 \DeclareTextCommand{\textcurlyvee}{PU}{\9042\316}%* U+22CE
19022 %* \textcurlyvee -> \varcurlyvee (stmaryrd)
19023 % U+22CF CURLY LOGICAL AND; curlyand; \curlywedge (AmS)
19024 \DeclareTextCommand{\textcurlywedge}{PU}{\9042\317}%* U+22CF
19025 %* \textcurlywedge -> \varcurlywedge (stmaryrd)

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19026 % U+22D0 DOUBLE SUBSET; \Subset (AmS)
19027 \DeclareTextCommand{\textSubset}{PU}{\9042\320}%* U+22D0
19028 % \nSubset (txfonts/pxfonts)
19029 \DeclareTextCommand{\textnSubset}{PU}{\9042\320\83\070}%* U+22D0 U+0338
19030 % U+22D1 DOUBLE SUPERSET; \Supset (AmS)
19031 \DeclareTextCommand{\textSupset}{PU}{\9042\321}%* U+22D1
19032 % \nSupset (txfonts/pxfonts)
19033 \DeclareTextCommand{\textnSupset}{PU}{\9042\321\83\070}%* U+22D1 U+0338
19034 % U+22D2 DOUBLE INTERSECTION; \Cap (AmS)
19035 \DeclareTextCommand{\textCap}{PU}{\9042\322}%* U+22D2
19036 %* \textCap -> \doublecap (mathabx)
19037 % U+22D3 DOUBLE UNION; \Cup (AmS)
19038 \DeclareTextCommand{\textCup}{PU}{\9042\323}%* U+22D3
19039 %* \textCup -> \doublecup (mathabx)
19040 % U+22D4 PITCHFORK; \pitchfork (mathabx)
19041 \DeclareTextCommand{\textpitchfork}{PU}{\9042\324}%* U+22D4
19042 % U+22D6 LESS-THAN WITH DOT; \lessdot (AmS)
19043 \DeclareTextCommand{\textlessdot}{PU}{\9042\326}%* U+22D6
19044 % U+22D7 GREATER-THAN WITH DOT; \gtrdot (AmS)
19045 \DeclareTextCommand{\textgtrdot}{PU}{\9042\327}%* U+22D7
19046 % U+22D8 VERY MUCH LESS-THAN; \lll (AmS)
19047 \DeclareTextCommand{\textlll}{PU}{\9042\330}%* U+22D8
19048 % U+22D9 VERY MUCH GREATER-THAN; \ggg (AmS)
19049 \DeclareTextCommand{\textggg}{PU}{\9042\331}%* U+22D9
19050 % U+22DA LESS-THAN EQUAL TO OR GREATER-THAN; lessequalorgreater;
19051 % \lesseqgtr (AmS)
19052 \DeclareTextCommand{\textlesseqgtr}{PU}{\9042\332}%* U+22DA
19053 % U+22DB GREATER-THAN EQUAL TO OR LESS-THAN; greaterequalorless;
19054 % \gtreqless (AmS)
19055 \DeclareTextCommand{\textgtreqless}{PU}{\9042\333}%* U+22DB
19056 % U+22DE EQUAL TO OR PRECEDES; \curlyeqprec (MnSymbol)
19057 \DeclareTextCommand{\textcurlyeqprec}{PU}{\9042\336}%* U+22DE
19058 % \ncurlyeqprec (mathabx)
19059 \DeclareTextCommand{\textncurlyeqprec}{PU}{\9042\336\83\070}%* U+22DE U+0338
19060 % U+22DF EQUAL TO OR SUCCEEDS; \curlyeqsucc (MnSymbol)
19061 \DeclareTextCommand{\textcurlyeqsucc}{PU}{\9042\337}%* U+22DF
19062 % \ncurlyeqsucc (mathabx)
19063 \DeclareTextCommand{\textncurlyeqsucc}{PU}{\9042\337\83\070}%* U+22DF U+0338
19064 % U+22E0 DOES NOT PRECEDE OR EQUAL; \npreccurlyeq (txfonts/pxfonts)
19065 \DeclareTextCommand{\textnpreccurlyeq}{PU}{\9042\340}%* U+22E0
19066 % U+22E1 DOES NOT SUCCEED OR EQUAL; \nsucccurlyeq (txfonts/pxfonts)
19067 \DeclareTextCommand{\textnsucccurlyeq}{PU}{\9042\341}%* U+22E1
19068 % U+22E2 NOT SQUARE IMAGE OF OR EQUAL TO; \nsqsubseq (tx-
font/pxfonts)
19069 \DeclareTextCommand{\textnqsubseq}{PU}{\9042\342}%* U+22E2
19070 % U+22E3 NOT SQUARE ORIGINAL OF OR EQUAL TO; \nsqsupseq (tx-
font/pxfonts)
19071 \DeclareTextCommand{\textnqsupseq}{PU}{\9042\343}%* U+22E3
19072 % U+22E4 SQUARE IMAGE OF OR NOT EQUAL TO; \sqsubseq (mathabx)
19073 \DeclareTextCommand{\textsqsubseq}{PU}{\9042\344}%* U+22E4
19074 %* \textsqsubseq -> \varsqsubseq (mathabx)
19075 % U+22E5 SQUARE ORIGINAL OF OR NOT EQUAL TO; \sqsupseq (math-
abx)
19076 \DeclareTextCommand{\textsqsupseq}{PU}{\9042\345}%* U+22E5
19077 %* \textsqsupseq -> \varsqsupseq (mathabx)
19078 % U+22E6 LESS-THAN BUT NOT EQUIVALENT TO; \lnsim (AmS)
19079 \DeclareTextCommand{\textlnsim}{PU}{\9042\346}%* U+22E6

19080 % U+22E7 GREATER-THAN BUT NOT EQUIVALENT TO; \gnsim (AmS)
 19081 \DeclareTextCommand{\textgnsim}{PU}{\9042\347}%* U+22E7
 19082 % U+22E8 PRECEDES BUT NOT EQUIVALENT TO; \precnsim (AmS)
 19083 \DeclareTextCommand{\textprecnsim}{PU}{\9042\350}%* U+22E8
 19084 % U+22E9 SUCCEEDS BUT NOT EQUIVALENT TO; \succnsim (AmS)
 19085 \DeclareTextCommand{\textsuccnsim}{PU}{\9042\351}%* U+22E9
 19086 % U+22EA NOT NORMAL SUBGROUP OF; \ntriangleleft (AmS)
 19087 \DeclareTextCommand{\textntriangleleft}{PU}{\9042\352}%* U+22EA
 19088 %* \textntriangleleft -> \nlessclosed (MnSymbol)
 19089 % U+22EB DOES NOT CONTAIN AS NORMAL SUBGROUP; \ntriangleright (AmS)
 19090 \DeclareTextCommand{\textntriangleright}{PU}{\9042\353}%* U+22EB
 19091 %* \textntriangleright -> \ngtrclosed (MnSymbol)
 19092 % U+22EC NOT NORMAL SUBGROUP OF OR EQUAL TO;
 19093 % \ntrianglelefteq (AmS)
 19094 \DeclareTextCommand{\textntrianglelefteq}{PU}{\9042\354}%* U+22EC
 19095 % U+22ED DOES NOT CONTAIN AS NORMAL SUBGROUP OR EQUAL;
 19096 % \ntrianglerighteq (AmS)
 19097 \DeclareTextCommand{\textntrianglerighteq}{PU}{\9042\355}%* U+22ED
 19098 %* \textntrianglerighteq -> \textngeqclosed
 19099 % U+22EE VERTICAL ELLIPSIS; \vdots (LaTeX)
 19100 \DeclareTextCommand{\textvdots}{PU}{\9042\356}%* U+22EE
 19101 % U+22EF MIDLINE HORIZONTAL ELLIPSIS; \cdots (LaTeX)
 19102 \DeclareTextCommand{\textcdots}{PU}{\9042\357}%* U+22EF
 19103 % U+22F0 UP RIGHT DIAGONAL ELLIPSIS; \udots (MnSymbol)
 19104 \DeclareTextCommand{\textudots}{PU}{\9042\360}%* U+22F0
 19105 % U+22F1 DOWN RIGHT DIAGONAL ELLIPSIS; \ddots (LaTeX)
 19106 \DeclareTextCommand{\textddots}{PU}{\9042\361}%* U+22F1
 19107 % U+22F6 ELEMENT OF WITH OVERBAR; \barin (mathabx)
 19108 \DeclareTextCommand{\textbarin}{PU}{\9042\366}%* U+22F6

51.2.23 Miscellaneous Technical: U+2300 to U+23FF

19109 % U+2300 DIAMETER SIGN; \diameter (mathabx,wasysym)
 19110 \DeclareTextCommand{\textdiameter}{PU}{\9043\000}%* U+2300
 19111 % U+2310 REVERSED NOT SIGN; \backneg (MnSymbol)
 19112 \DeclareTextCommand{\textbackneg}{PU}{\9043\020}%* U+2310
 19113 % U+2311 SQUARE LOZENGE; \wasylozenge (wasysym)
 19114 \DeclareTextCommand{\textwasylozenge}{PU}{\9043\021}%* U+2311
 19115 % U+2319 TURNED NOT SIGN; \invbackneg (MnSymbol)
 19116 \DeclareTextCommand{\textinvbackneg}{PU}{\9043\031}%* U+2319
 19117 % U+231A WATCH; \clock (wasysym)
 19118 \DeclareTextCommand{\textclock}{PU}{\9043\032}%* U+231A
 19119 %* \textclock -> \Clocklogo (marvosym)
 19120 %* \textclock -> \ClockLogo (marvosym)
 19121 % U+231C TOP LEFT CORNER; \ulcorner (AmS)
 19122 \DeclareTextCommand{\textulcorner}{PU}{\9043\034}%* U+231C
 19123 % U+231D TOP RIGHT CORNER; \urcorner (AmS)
 19124 \DeclareTextCommand{\texturcorner}{PU}{\9043\035}%* U+231D
 19125 % U+231E BOTTOM LEFT CORNER; \llcorner (AmS)
 19126 \DeclareTextCommand{\textllcorner}{PU}{\9043\036}%* U+231E
 19127 % U+231F BOTTOM RIGHT CORNER; \lrcorner (AmS)
 19128 \DeclareTextCommand{\textlrcorner}{PU}{\9043\037}%* U+231F
 19129 % U+2322 FROWN; \frown (LaTeX)
 19130 \DeclareTextCommand{\textfrown}{PU}{\9043\042}%* U+2322
 19131 % U+2323 SMILE; \smile (LaTeX)
 19132 \DeclareTextCommand{\textsmile}{PU}{\9043\043}%* U+2323
 19133 % U+2328 KEYBOARD; \Keyboard (marvosym)

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19134 \DeclareTextCommand{\textKeyboard}{PU}{\9043\050}%* U+2328
19135 % U+2329 LEFT-POINTING ANGLE BRACKET; angleleft; \langle (LaTeX)
19136 \DeclareTextCommand{\textlangle}{PU}{\9043\051}%* U+2329
19137 % U+232A RIGHT-POINTING ANGLE BRACKET; angleright; \rangle (LaTeX)
19138 \DeclareTextCommand{\textrangle}{PU}{\9043\052}%* U+232A
19139 % U+2339 APL FUNCTIONAL SYMBOL QUAD DIVIDE; \APLinv (wasysym)
19140 \DeclareTextCommand{\textAPLinv}{PU}{\9043\071}%* U+2339
19141 % U+233C APL FUNCTIONAL SYMBOL QUAD CIRCLE; \Tumbler (marvosym)
19142 \DeclareTextCommand{\textTumbler}{PU}{\9043\074}%* U+233C
19143 % U+233D APL FUNCTIONAL SYMBOL CIRCLE STILE; \baro (stmaryrd)
19144 \DeclareTextCommand{\textstmaryrdbaro}{PU}{\9043\075}%* U+233D
19145 %* \textstmaryrdbaro -> \baro (stmaryrd)
19146 % U+233F APL FUNCTIONAL SYMBOL SLASH BAR; \notslash (wasysym)
19147 \DeclareTextCommand{\textnotslash}{PU}{\9043\077}%* U+233F
19148 % U+2340 APL FUNCTIONAL SYMBOL BACKSLASH BAR;
19149 % \notbackslash (wasysym)
19150 \DeclareTextCommand{\textnotbackslash}{PU}{\9043\100}%* U+2340
19151 % U+2342 APL FUNCTIONAL SYMBOL QUAD BACKSLASH; \boxbackslash (mathabx)
19152 \DeclareTextCommand{\textboxbackslash}{PU}{\9043\102}%* U+2342
19153 % U+2347 APL FUNCTIONAL SYMBOL QUAD LEFTWARDS ARROW;
19154 % \APLleftarrowbox (wasysym)
19155 \DeclareTextCommand{\textAPLleftarrowbox}{PU}{\9043\107}%* U+2347
19156 % U+2348 APL FUNCTIONAL SYMBOL QUAD RIGHTWARDS ARROW;
19157 % \APLrightarrowbox (wasysym)
19158 \DeclareTextCommand{\textAPLrightarrowbox}{PU}{\9043\110}%* U+2348
19159 % U+2350 APL FUNCTIONAL SYMBOL QUAD UPWARDS ARROW; \APLuparrowbox (wasysym)
19160 \DeclareTextCommand{\textAPLuparrowbox}{PU}{\9043\120}%* U+2350
19161 % U+2357 APL FUNCTIONAL SYMBOL QUAD DOWNWARDS ARROW;
19162 % \APLdownarrowbox (wasysym)
19163 \DeclareTextCommand{\textAPLdownarrowbox}{PU}{\9043\127}%* U+2357
19164 % U+235E APL FUNCTIONAL SYMBOL QUOTE QUAD;
19165 % \APLinput (wasysym)
19166 \DeclareTextCommand{\textAPLinput}{PU}{\9043\136}%* U+235E
19167 % U+2370 APL FUNCTIONAL SYMBOL QUAD QUESTION; \Request (china2e)
19168 \DeclareTextCommand{\textRequest}{PU}{\9043\160}%* U+2370
19169 % U+2393 DIRECT CURRENT SYMBOL FORM TWO; \Beam (marvosym)
19170 \DeclareTextCommand{\textBeam}{PU}{\9043\223}%* U+2393
19171 % U+2394 SOFTWARE-FUNCTION SYMBOL; \hexagon (wasysym)
19172 \DeclareTextCommand{\texthexagon}{PU}{\9043\224}%* U+2394
19173 % U+2395 APL FUNCTIONAL SYMBOL QUAD; \APLbox (wasysym)
19174 \DeclareTextCommand{\textAPLbox}{PU}{\9043\225}%* U+2395
19175 % U+23ED BLACK RIGHT-POINTING DOUBLE TRIANGLE WITH VERTICAL BAR;
19176 % \ForwardToIndex (marvosym)
19177 \DeclareTextCommand{\textForwardToIndex}{PU}{\9043\355}%* U+23ED
19178 % U+23EE BLACK LEFT-POINTING DOUBLE TRIANGLE WITH VERTICAL BAR;
19179 % \RewindToIndex (marvosym)
19180 \DeclareTextCommand{\textRewindToIndex}{PU}{\9043\356}%* U+23EE

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51.2.24 Control Pictures: U+2400 to U+243F

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19181 % U+2422 BLANK SYMBOL
19182 \DeclareTextCommand{\textblank}{PU}{\9044\042}% U+2422
19183 % U+2423 OPEN BOX; blank

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19184 \DeclareTextCommand{\textvisiblespace}{PU}{\9044\043}% U+2423

51.2.25 Optical Character Recognition: U+2440 to U+245F

19185 % U+244A OCR DOUBLE BACKSLASH; \bbslash (stmaryrd)
19186 \DeclareTextCommand{\textbbslash}{PU}{\9044\112}%* U+244A
19187 %* \textbbslash -> \varparalelinv (txfonts/pxfonts)

51.2.26 Enclosed Alphanumerics: U+2460 to U+24FF

19188 % U+2460 CIRCLED DIGIT ONE; onecircle
19189 \DeclareTextCompositeCommand{\textcircled}{PU}{1}{\9044\140}% U+2460
19190 % U+2461 CIRCLED DIGIT TWO; twocircle
19191 \DeclareTextCompositeCommand{\textcircled}{PU}{2}{\9044\141}% U+2461
19192 % U+2462 CIRCLED DIGIT THREE; threecircle
19193 \DeclareTextCompositeCommand{\textcircled}{PU}{3}{\9044\142}% U+2462
19194 % U+2463 CIRCLED DIGIT FOUR; fourcircle
19195 \DeclareTextCompositeCommand{\textcircled}{PU}{4}{\9044\143}% U+2463
19196 % U+2464 CIRCLED DIGIT FIVE; fivecircle
19197 \DeclareTextCompositeCommand{\textcircled}{PU}{5}{\9044\144}% U+2464
19198 % U+2465 CIRCLED DIGIT SIX; sixcircle
19199 \DeclareTextCompositeCommand{\textcircled}{PU}{6}{\9044\145}% U+2465
19200 % U+2466 CIRCLED DIGIT SEVEN; sevenscircle
19201 \DeclareTextCompositeCommand{\textcircled}{PU}{7}{\9044\146}% U+2466
19202 % U+2467 CIRCLED DIGIT EIGHT; eightcircle
19203 \DeclareTextCompositeCommand{\textcircled}{PU}{8}{\9044\147}% U+2467
19204 % U+2468 CIRCLED DIGIT NINE; ninecircle
19205 \DeclareTextCompositeCommand{\textcircled}{PU}{9}{\9044\150}% U+2468
19206 % U+2469 CIRCLED NUMBER TEN; tencircle
19207 \DeclareTextCompositeCommand{\textcircled}{PU}{10}{\9044\151}% U+2469
19208 % U+246A CIRCLED NUMBER ELEVEN; elevencircle
19209 \DeclareTextCompositeCommand{\textcircled}{PU}{11}{\9044\152}% U+246A
19210 % U+246B CIRCLED NUMBER TWELVE; twelvecircle
19211 \DeclareTextCompositeCommand{\textcircled}{PU}{12}{\9044\153}% U+246B
19212 % U+246C CIRCLED NUMBER THIRTEEN; thirteencircle
19213 \DeclareTextCompositeCommand{\textcircled}{PU}{13}{\9044\154}% U+246C
19214 % U+246D CIRCLED NUMBER FOURTEEN; fourteencircle
19215 \DeclareTextCompositeCommand{\textcircled}{PU}{14}{\9044\155}% U+246D
19216 % U+246E CIRCLED NUMBER FIFTEEN; fifteencircle
19217 \DeclareTextCompositeCommand{\textcircled}{PU}{15}{\9044\156}% U+246E
19218 % U+246F CIRCLED NUMBER SIXTEEN; sixteencircle
19219 \DeclareTextCompositeCommand{\textcircled}{PU}{16}{\9044\157}% U+246F
19220 % U+2470 CIRCLED NUMBER SEVENTEEN; seventeencircle
19221 \DeclareTextCompositeCommand{\textcircled}{PU}{17}{\9044\160}% U+2470
19222 % U+2471 CIRCLED NUMBER EIGHTEEN; eighteencircle
19223 \DeclareTextCompositeCommand{\textcircled}{PU}{18}{\9044\161}% U+2471
19224 % U+2472 CIRCLED NUMBER NINETEEN; nineteencircle
19225 \DeclareTextCompositeCommand{\textcircled}{PU}{19}{\9044\162}% U+2472
19226 % U+2473 CIRCLED NUMBER TWENTY; twentycircle
19227 \DeclareTextCompositeCommand{\textcircled}{PU}{20}{\9044\163}% U+2473
19228 % U+24B6 CIRCLED LATIN CAPITAL LETTER A; Acircle
19229 \DeclareTextCompositeCommand{\textcircled}{PU}{A}{\9044\266}% U+24B6
19230 % \CircledA (marvosym)
19231 \DeclareTextCommand{\textCircledA}{PU}{\9044\266}%* U+24B6
19232 %* \textCircledA -> \CleaningA
19233 % U+24B7 CIRCLED LATIN CAPITAL LETTER B; Bcircle
19234 \DeclareTextCompositeCommand{\textcircled}{PU}{B}{\9044\267}% U+24B7
19235 % U+24B8 CIRCLED LATIN CAPITAL LETTER C; Ccircle
19236 \DeclareTextCompositeCommand{\textcircled}{PU}{C}{\9044\270}% U+24B8

19237 % U+24B9 CIRCLED LATIN CAPITAL LETTER D; Dcircle
 19238 \DeclareTextCompositeCommand{\textcircled}{PU}{D}{\9044\271}% U+24B9
 19239 % U+24BA CIRCLED LATIN CAPITAL LETTER E; Ecircle
 19240 \DeclareTextCompositeCommand{\textcircled}{PU}{E}{\9044\272}% U+24BA
 19241 % U+24BB CIRCLED LATIN CAPITAL LETTER F; Fcircle
 19242 \DeclareTextCompositeCommand{\textcircled}{PU}{F}{\9044\273}% U+24BB
 19243 % \CleaningF (marvosym)
 19244 \DeclareTextCommand{\textCleaningF}{PU}{\9044\273}%* U+24BB
 19245 % \CleaningFF (marvosym)
 19246 \DeclareTextCommand{\textCleaningFF}{PU}{\9044\273\83\062}%* U+24BB U+0332
 19247 % U+24BC CIRCLED LATIN CAPITAL LETTER G; Gcircle
 19248 \DeclareTextCompositeCommand{\textcircled}{PU}{G}{\9044\274}% U+24BC
 19249 % U+24BD CIRCLED LATIN CAPITAL LETTER H; Hcircle
 19250 \DeclareTextCompositeCommand{\textcircled}{PU}{H}{\9044\275}% U+24BD
 19251 % U+24BE CIRCLED LATIN CAPITAL LETTER I; Icircle
 19252 \DeclareTextCompositeCommand{\textcircled}{PU}{I}{\9044\276}% U+24BE
 19253 % U+24BF CIRCLED LATIN CAPITAL LETTER J; Jcircle
 19254 \DeclareTextCompositeCommand{\textcircled}{PU}{J}{\9044\277}% U+24BF
 19255 % U+24C0 CIRCLED LATIN CAPITAL LETTER K; Kcircle
 19256 \DeclareTextCompositeCommand{\textcircled}{PU}{K}{\9044\300}% U+24C0
 19257 % U+24C1 CIRCLED LATIN CAPITAL LETTER L; Lcircle
 19258 \DeclareTextCompositeCommand{\textcircled}{PU}{L}{\9044\301}% U+24C1
 19259 % U+24C2 CIRCLED LATIN CAPITAL LETTER M; Mcircle
 19260 \DeclareTextCompositeCommand{\textcircled}{PU}{M}{\9044\302}% U+24C2
 19261 % U+24C3 CIRCLED LATIN CAPITAL LETTER N; Ncircle
 19262 \DeclareTextCompositeCommand{\textcircled}{PU}{N}{\9044\303}% U+24C3
 19263 % U+24C4 CIRCLED LATIN CAPITAL LETTER O; Ocircle
 19264 \DeclareTextCompositeCommand{\textcircled}{PU}{O}{\9044\304}% U+24C4
 19265 % U+24C5 CIRCLED LATIN CAPITAL LETTER P; Pcircle
 19266 \DeclareTextCompositeCommand{\textcircled}{PU}{P}{\9044\305}% U+24C5
 19267 % \CleaningP (marvosym)
 19268 \DeclareTextCommand{\textCleaningP}{PU}{\9044\305}%* U+24C5
 19269 % \CleaningPP (marvosym)
 19270 \DeclareTextCommand{\textCleaningPP}{PU}{\9044\305\83\062}%* U+24C5 U+0332
 19271 % U+24C6 CIRCLED LATIN CAPITAL LETTER Q; Qcircle
 19272 \DeclareTextCompositeCommand{\textcircled}{PU}{Q}{\9044\306}% U+24C6
 19273 % U+24C7 CIRCLED LATIN CAPITAL LETTER R; Rcircle
 19274 \DeclareTextCompositeCommand{\textcircled}{PU}{R}{\9044\307}% U+24C7
 19275 % U+24C8 CIRCLED LATIN CAPITAL LETTER S; Scircle
 19276 \DeclareTextCompositeCommand{\textcircled}{PU}{S}{\9044\310}% U+24C8
 19277 % U+24C9 CIRCLED LATIN CAPITAL LETTER T; Tcircle
 19278 \DeclareTextCompositeCommand{\textcircled}{PU}{T}{\9044\311}% U+24C9
 19279 % U+24CA CIRCLED LATIN CAPITAL LETTER U; Ucircle
 19280 \DeclareTextCompositeCommand{\textcircled}{PU}{U}{\9044\312}% U+24CA
 19281 % U+24CB CIRCLED LATIN CAPITAL LETTER V; Vcircle
 19282 \DeclareTextCompositeCommand{\textcircled}{PU}{V}{\9044\313}% U+24CB
 19283 % U+24CC CIRCLED LATIN CAPITAL LETTER W; Wcircle
 19284 \DeclareTextCompositeCommand{\textcircled}{PU}{W}{\9044\314}% U+24CC
 19285 % U+24CD CIRCLED LATIN CAPITAL LETTER X; Xcircle
 19286 \DeclareTextCompositeCommand{\textcircled}{PU}{X}{\9044\315}% U+24CD
 19287 % U+24CE CIRCLED LATIN CAPITAL LETTER Y; Ycircle
 19288 \DeclareTextCompositeCommand{\textcircled}{PU}{Y}{\9044\316}% U+24CE
 19289 % U+24CF CIRCLED LATIN CAPITAL LETTER Z; Zcircle
 19290 \DeclareTextCompositeCommand{\textcircled}{PU}{Z}{\9044\317}% U+24CF
 19291 % U+24D0 CIRCLED LATIN SMALL LETTER A; acircle
 19292 \DeclareTextCompositeCommand{\textcircled}{PU}{a}{\9044\320}% U+24D0
 19293 % U+24D1 CIRCLED LATIN SMALL LETTER B; bcircle

19294 \DeclareTextCompositeCommand{\textcircled}{PU}{b}{\9044\321}% U+24D1
 19295 % U+24D2 CIRCLED LATIN SMALL LETTER C; ccircle
 19296 \DeclareTextCompositeCommand{\textcircled}{PU}{c}{\9044\322}% U+24D2
 19297 % U+24D3 CIRCLED LATIN SMALL LETTER D; dcircle
 19298 \DeclareTextCompositeCommand{\textcircled}{PU}{d}{\9044\323}% U+24D3
 19299 % U+24D4 CIRCLED LATIN SMALL LETTER E; ecircle
 19300 \DeclareTextCompositeCommand{\textcircled}{PU}{e}{\9044\324}% U+24D4
 19301 % U+24D5 CIRCLED LATIN SMALL LETTER F; fcircle
 19302 \DeclareTextCompositeCommand{\textcircled}{PU}{f}{\9044\325}% U+24D5
 19303 % U+24D6 CIRCLED LATIN SMALL LETTER G; gcircle
 19304 \DeclareTextCompositeCommand{\textcircled}{PU}{g}{\9044\326}% U+24D6
 19305 % U+24D7 CIRCLED LATIN SMALL LETTER H; hcircle
 19306 \DeclareTextCompositeCommand{\textcircled}{PU}{h}{\9044\327}% U+24D7
 19307 % U+24D8 CIRCLED LATIN SMALL LETTER I; icircle
 19308 \DeclareTextCompositeCommand{\textcircled}{PU}{i}{\9044\330}% U+24D8
 19309 % U+24D9 CIRCLED LATIN SMALL LETTER J; jcircle
 19310 \DeclareTextCompositeCommand{\textcircled}{PU}{j}{\9044\331}% U+24D9
 19311 % U+24DA CIRCLED LATIN SMALL LETTER K; kcircle
 19312 \DeclareTextCompositeCommand{\textcircled}{PU}{k}{\9044\332}% U+24DA
 19313 % U+24DB CIRCLED LATIN SMALL LETTER L; lcircle
 19314 \DeclareTextCompositeCommand{\textcircled}{PU}{l}{\9044\333}% U+24DB
 19315 % U+24DC CIRCLED LATIN SMALL LETTER M; mcircle
 19316 \DeclareTextCompositeCommand{\textcircled}{PU}{m}{\9044\334}% U+24DC
 19317 % U+24DD CIRCLED LATIN SMALL LETTER N; ncircle
 19318 \DeclareTextCompositeCommand{\textcircled}{PU}{n}{\9044\335}% U+24DD
 19319 % U+24DE CIRCLED LATIN SMALL LETTER O; ocircle
 19320 \DeclareTextCompositeCommand{\textcircled}{PU}{o}{\9044\336}% U+24DE
 19321 % U+24DF CIRCLED LATIN SMALL LETTER P; pcircle
 19322 \DeclareTextCompositeCommand{\textcircled}{PU}{p}{\9044\337}% U+24DF
 19323 % U+24E0 CIRCLED LATIN SMALL LETTER Q; qcircle
 19324 \DeclareTextCompositeCommand{\textcircled}{PU}{q}{\9044\340}% U+24E0
 19325 % U+24E1 CIRCLED LATIN SMALL LETTER R; rcircle
 19326 \DeclareTextCompositeCommand{\textcircled}{PU}{r}{\9044\341}% U+24E1
 19327 % U+24E2 CIRCLED LATIN SMALL LETTER S; scircle
 19328 \DeclareTextCompositeCommand{\textcircled}{PU}{s}{\9044\342}% U+24E2
 19329 % U+24E3 CIRCLED LATIN SMALL LETTER T; tcircle
 19330 \DeclareTextCompositeCommand{\textcircled}{PU}{t}{\9044\343}% U+24E3
 19331 % U+24E4 CIRCLED LATIN SMALL LETTER U; ucircle
 19332 \DeclareTextCompositeCommand{\textcircled}{PU}{u}{\9044\344}% U+24E4
 19333 % U+24E5 CIRCLED LATIN SMALL LETTER V; vcircle
 19334 \DeclareTextCompositeCommand{\textcircled}{PU}{v}{\9044\345}% U+24E5
 19335 % U+24E6 CIRCLED LATIN SMALL LETTER W; wcircle
 19336 \DeclareTextCompositeCommand{\textcircled}{PU}{w}{\9044\346}% U+24E6
 19337 % U+24E7 CIRCLED LATIN SMALL LETTER X; xcircle
 19338 \DeclareTextCompositeCommand{\textcircled}{PU}{x}{\9044\347}% U+24E7
 19339 % U+24E8 CIRCLED LATIN SMALL LETTER Y; ycircle
 19340 \DeclareTextCompositeCommand{\textcircled}{PU}{y}{\9044\350}% U+24E8
 19341 % U+24E9 CIRCLED LATIN SMALL LETTER Z; zcircle
 19342 \DeclareTextCompositeCommand{\textcircled}{PU}{z}{\9044\351}% U+24E9
 19343 % U+24EA CIRCLED DIGIT ZERO
 19344 \DeclareTextCompositeCommand{\textcircled}{PU}{0}{\9044\352}% U+24EA

51.2.27 Box Drawing: U+2500 to 257F

19345 % U+2504 BOX DRAWINGS LIGHT TRIPLE DASH HORIZONTAL; \Cutting-
 Line (marvosym)
 19346 \DeclareTextCommand{\textCuttingLine}{PU}{\9045\004}%* U+2504
 19347 %* \textCuttingLine -> \Kutline (marvosym)

19348 %* \textCuttingLine -> \CutLine (marvosym)
 19349 %* \textCuttingLine -> \Cutline (marvosym)

51.2.28 Geometric Shapes: U+25A0 to U+25FF

19350 % U+25B2 BLACK UP-POINTING TRIANGLE; \UParrow (wasysym)
 19351 \DeclareTextCommand{\textUParrow}{PU}{\9045\262}%* U+25B2
 19352 %* \textUParrow -> \MoveUp (marvosym)
 19353 % U+25B3 WHITE UP-POINTING TRIANGLE; whiteuppointingtriangle;
 19354 % \bigtriangleup (LaTeX)
 19355 \DeclareTextCommand{\textbigtriangleup}{PU}{\9045\263}%* U+25B3
 19356 %* \textbigtriangleup -> \APLup (wasysym)
 19357 %* \textbigtriangleup -> \Bleech (marvosym)
 19358 % U+25B6 BLACK RIGHT-POINTING TRIANGLE; \Forward (marvosym)
 19359 \DeclareTextCommand{\textForward}{PU}{\9045\266}%* U+25B6
 19360 % U+25B7 WHITE RIGHT-POINTING TRIANGLE (= z notation range restric-
 tion);
 19361 % whiterightpointingtriangle; \triangleright (LaTeX)
 19362 \DeclareTextCommand{\texttriangleright}{PU}{\9045\267}%* U+25B7
 19363 % U+25BA BLACK RIGHT-POINTING POINTER; \RHD (wasysym)
 19364 \DeclareTextCommand{\textRHD}{PU}{\9045\272}%* U+25BA
 19365 % U+25BC BLACK DOWN-POINTING TRIANGLE; \DOWNarrow (wasysym)
 19366 \DeclareTextCommand{\textDOWNarrow}{PU}{\9045\274}%* U+25BC
 19367 %* \textDOWNarrow -> \MoveDown (marvosym)
 19368 % U+25BD WHITE DOWN-POINTING TRIANGLE; whitedownpointingtri-
 angle;
 19369 % \bigtriangledown (LaTeX)
 19370 \DeclareTextCommand{\textbigtriangledown}{PU}{\9045\275}%* U+25BD
 19371 %* \textbigtriangledown -> \APLdown (wasysym)
 19372 % U+25C0 BLACK LEFT-POINTING TRIANGLE; \Rewind (marvosym)
 19373 \DeclareTextCommand{\textRewind}{PU}{\9045\300}%* U+25C0
 19374 % U+25C1 WHITE RIGHT-POINTING TRIANGLE (= z notation domain re-
 striction);
 19375 % whiteleftpointingtriangle; \triangleleft (LaTeX)
 19376 \DeclareTextCommand{\texttriangleleft}{PU}{\9045\301}%* U+25C1
 19377 % U+25C4 BLACK LEFT-POINTING POINTER; \LHD (wasysym)
 19378 \DeclareTextCommand{\textLHD}{PU}{\9045\304}%* U+25C4
 19379 % U+25C7 WHITE DIAMOND; whitediamond; \diamond (LaTeX)
 19380 \DeclareTextCommand{\textdiamond}{PU}{\9045\307}%* U+25C7
 19381 %* \textdiamond -> \Diamond (wasysym)
 19382 % U+25CA LOZENGE; lozenge; \lozenge (AmS)
 19383 \DeclareTextCommand{\textlozenge}{PU}{\9045\312}%* U+25CA
 19384 % U+25D6 LEFT HALF BLACK CIRCLE; \LEFTCIRCLE (wasysym)
 19385 \DeclareTextCommand{\textLEFTCIRCLE}{PU}{\9045\326}%* U+25D6
 19386 % U+25D7 RIGHT HALF BLACK CIRCLE; \RIGHTCIRCLE (wasysym)
 19387 \DeclareTextCommand{\textRIGHTCIRCLE}{PU}{\9045\327}%* U+25D7
 19388 % U+25E6 WHITE BULLET; *openbullet, whitebullet
 19389 \DeclareTextCommand{\textopenbullet}{PU}{\9045\346}%* U+25E6
 19390 % U+25EB WHITE SQUARE WITH VERTICAL BISECTING LINE;
 19391 % \boxbar (stmaryrd)
 19392 \DeclareTextCommand{\textboxbar}{PU}{\9045\353}%* U+25EB
 19393 % U+25EF LARGE CIRCLE; largecircle
 19394 \DeclareTextCommand{\textbigcircle}{PU}{\9045\357}%* U+25EF
 19395 %* \textbigcircle -> \varbigcirc (stmaryrd)
 19396 %

51.2.29 Miscellaneous Symbols: U+2600 to U+26FF

19397 % U+2601 CLOUD; \Cloud (ifsym)

19398 \DeclareTextCommand{\textCloud}{PU}{\9046\001}%* U+2601
 19399 % U+2605 BLACK STAR; \FiveStar (bbling)
 19400 \DeclareTextCommand{\textFiveStar}{PU}{\9046\005}%* U+2605
 19401 % U+2606 WHITE STAR; \FiveStarOpen (bbling)
 19402 \DeclareTextCommand{\textFiveStarOpen}{PU}{\9046\006}%* U+2606
 19403 % U+260E BLACK TELEPHONE; telephoneblack; \Phone (bbling)
 19404 \DeclareTextCommand{\textPhone}{PU}{\9046\016}%* U+260E
 19405 %* \textPhone -> \Telefon (marvosym)
 19406 % U+2610 BALLOT BOX; \boxempty (stmaryrd)
 19407 \DeclareTextCommand{\textboxempty}{PU}{\9046\020}%* U+2610
 19408 %* \textboxempty -> \Box (wasysym)
 19409 % U+2611 BALLOT BOX WITH CHECK; \Checkedbox (marvosym)
 19410 \DeclareTextCommand{\textCheckedbox}{PU}{\9046\021}%* U+2611
 19411 %* \textCheckedbox -> \CheckedBox (marvosym)
 19412 % U+2612 BALLOT BOX WITH X; \Crossedbox (marvosym)
 19413 \DeclareTextCommand{\textCrossedbox}{PU}{\9046\022}%* U+2612
 19414 %* \textCrossedbox -> \XBox (wasysym)
 19415 %* \textCrossedbox -> \CrossedBox (marvosym)
 19416 % U+2615 HOT BEVERAGE; \Coffeecup (marvosym)
 19417 \DeclareTextCommand{\textCoffeecup}{PU}{\9046\025}%* U+2615
 19418 % U+261A BLACK LEFT POINTING INDEX; \HandCuffLeft (bbling)
 19419 \DeclareTextCommand{\textHandCuffLeft}{PU}{\9046\032}%* U+261A
 19420 % U+261B BLACK RIGHT POINTING INDEX; \HandCuffRight (bbling)
 19421 \DeclareTextCommand{\textHandCuffRight}{PU}{\9046\033}%* U+261B
 19422 % U+261C WHITE LEFT POINTING INDEX; \HandLeft (bbling)
 19423 \DeclareTextCommand{\textHandLeft}{PU}{\9046\034}%* U+261C
 19424 %* \textHandLeft -> \rightpointleft (fourier)
 19425 % U+261E WHITE RIGHT POINTING INDEX; \HandRight (bbling)
 19426 \DeclareTextCommand{\textHandRight}{PU}{\9046\036}%* U+261E
 19427 %* \textHandRight -> \leftpointright (fourier)
 19428 %* \textHandRight -> \PointingHand (marvosym)
 19429 %* \textHandRight -> \Pointinghand (marvosym)
 19430 % U+2622 RADIOACTIVE SIGN; \Radioactivity (marvosym)
 19431 \DeclareTextCommand{\textRadioactivity}{PU}{\9046\042}%* U+2622
 19432 %* \textRadioactivity -> \Radiation (ifsym)
 19433 % U+2623 BIOHAZARD SIGN; \Biohazard (marvosym)
 19434 \DeclareTextCommand{\textBiohazard}{PU}{\9046\043}%* U+2623
 19435 % U+2625 ANKH; \Ankh (marvosym)
 19436 \DeclareTextCommand{\textAnkh}{PU}{\9046\045}%* U+2625
 19437 % U+262F YIN YANG; \YinYang (marvosym)
 19438 \DeclareTextCommand{\textYinYang}{PU}{\9046\057}%* U+262F
 19439 %* \textYinYang -> \Yinyang (marvosym)
 19440 %* \textYinYang -> \YingYang (marvosym)
 19441 %* \textYinYang -> \Yingyang (marvosym)
 19442 % U+2639 WHITE FROWNING FACE; \frownie (wasysym)
 19443 \DeclareTextCommand{\textfrownie}{PU}{\9046\071}%* U+2639
 19444 %* \textfrownie -> \Frowny (marvosym)
 19445 % U+263A WHITE SMILING FACE; \smiley (wasysym)
 19446 \DeclareTextCommand{\textsmiley}{PU}{\9046\072}%* U+263A
 19447 %* \textsmiley -> \Smiley (marvosym)
 19448 % U+263B BLACK SMILING FACE; \blacksmiley (wasysym)
 19449 \DeclareTextCommand{\textblacksmiley}{PU}{\9046\073}%* U+263B
 19450 % U+263C WHITE SUN WITH RAYS; \sun (wasysym)
 19451 \DeclareTextCommand{\textsun}{PU}{\9046\074}%* U+263C
 19452 %* \textsun -> \Sun (marvosym)
 19453 % U+263D FIRST QUARTER MOON; \leftmoon (wasysym, mathabx)
 19454 \DeclareTextCommand{\textleftmoon}{PU}{\9046\075}%* U+263D

19455 % U+263E LAST QUARTER MOON; \rightmoon (wasysym, mathabx)
19456 \DeclareTextCommand{\textrightmoon}{PU}{\9046\076}%* U+263E
19457 % U+263F MERCURY; \mercury (wasysym)
19458 \DeclareTextCommand{\textmercury}{PU}{\9046\077}%* U+263F
19459 %* \textmercury -> \Mercury (marvosym)
19460 % U+2640 FEMALE SIGN; female; \female (wasysym)
19461 \DeclareTextCommand{\textPUfemale}{PU}{\9046\100}% U+2640
19462 %* \textPUfemale -> \textfemale (tipx)
19463 %* \textPUfemale -> \female (wasysym)
19464 %* \textPUfemale -> \venus (wasysym)
19465 %* \textPUfemale -> \Venus (marvosym)
19466 %* \textPUfemale -> \Female (marvosym)
19467 % U+2641 EARTH; \earth (wasysym)
19468 \DeclareTextCommand{\textearth}{PU}{\9046\101}%* U+2641
19469 %* \textearth -> \Earth (marvosym)
19470 % U+2642 MALE SIGN; male, mars; \male (wasysym)
19471 \DeclareTextCommand{\textmale}{PU}{\9046\102}%* U+2642
19472 %* \textmale -> \mars (wasysym)
19473 %* \textmale -> \Mars (marvosym)
19474 %* \textmale -> \Male (marvosym)
19475 % U+2643 JUPITER; \jupiter (wasysym)
19476 \DeclareTextCommand{\textjupiter}{PU}{\9046\103}%* U+2643
19477 %* \textjupiter -> \Jupiter (marvosym)
19478 % U+2644 SATURN; \saturn (wasysym)
19479 \DeclareTextCommand{\textsaturn}{PU}{\9046\104}%* U+2644
19480 %* \textsaturn -> \Saturn (marvosym)
19481 % U+2645 URANUS; \uranus (wasysym)
19482 \DeclareTextCommand{\texturanus}{PU}{\9046\105}%* U+2645
19483 %* \texturanus -> \Uranus (marvosym)
19484 % U+2646 NEPTUNE; \neptune (wasysym)
19485 \DeclareTextCommand{\textneptune}{PU}{\9046\106}%* U+2646
19486 %* \textneptune -> \Neptune (marvosym)
19487 % U+2647 PLUTO; \pluto (wasysym)
19488 \DeclareTextCommand{\textpluto}{PU}{\9046\107}%* U+2647
19489 %* \textpluto -> \Pluto (marvosym)
19490 % U+2648 ARIES; \aries (wasysym)
19491 \DeclareTextCommand{\textaries}{PU}{\9046\110}%* U+2648
19492 %* \textaries -> \Aries (marvosym)
19493 % U+2649 TAURUS; \taurus (wasysym)
19494 \DeclareTextCommand{\texttaurus}{PU}{\9046\111}%* U+2649
19495 %* \texttaurus -> \Taurus (marvosym)
19496 % U+264A GEMINI; \gemini (wasysym)
19497 \DeclareTextCommand{\textgemini}{PU}{\9046\112}%* U+264A
19498 %* \textgemini -> \Gemini (marvosym)
19499 % U+264B CANCER; \cancer (wasysym)
19500 \DeclareTextCommand{\textcancer}{PU}{\9046\113}%* U+264B
19501 %* \textcancer -> \Cancer (marvosym)
19502 % U+264C LEO; \leo (wasysym)
19503 \DeclareTextCommand{\textleo}{PU}{\9046\114}%* U+264C
19504 %* \textleo -> \Leo (marvosym)
19505 % U+264D VIRGO; \virgo (wasysym)
19506 \DeclareTextCommand{\textvirgo}{PU}{\9046\115}%* U+264D
19507 %* \textvirgo -> \Virgo (marvosym)
19508 % U+264E LIBRA; \libra (wasysym)
19509 \DeclareTextCommand{\textlibra}{PU}{\9046\116}%* U+264E
19510 %* \textlibra -> \Libra (marvosym)
19511 % U+264F SCORPIO; \scorpio (wasysym)

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19512 \DeclareTextCommand{\textscorpio}{PU}{\9046\117}%* U+264F
19513 %* \textscorpio -> \Scorpio (marvosym)
19514 % U+2650 SAGITTARIUS; \sagittarius (wasysym)
19515 \DeclareTextCommand{\textsagittarius}{PU}{\9046\120}%* U+2650
19516 %* \textsagittarius -> \Sagittarius (marvosym)
19517 % U+2651 CAPRICORN; \capricornus (wasysym)
19518 \DeclareTextCommand{\textcapricornus}{PU}{\9046\121}%* U+2651
19519 %* \textcapricornus -> \Capricorn (marvosym)
19520 % U+2652 AQUARIUS; \aquarius (wasysym)
19521 \DeclareTextCommand{\textaquarius}{PU}{\9046\122}%* U+2652
19522 %* \textaquarius -> \Aquarius (marvosym)
19523 % U+2653 PISCES; \pisces (wasysym)
19524 \DeclareTextCommand{\textpisces}{PU}{\9046\123}%* U+2653
19525 %* \textpisces -> \Pisces (marvosym)
19526 % U+2660 BLACK SPADE SUIT; spade, spadesuitblack; \spadesuit (LaTeX)
19527 \DeclareTextCommand{\textspadesuitblack}{PU}{\9046\140}% U+2660
19528 %* \textspadesuitblack -> \spadesuit (MnSymbol)
19529 % U+2661 WHITE HEART SUIT; heartsuitwhite; \heartsuit (LaTeX)
19530 \DeclareTextCommand{\textheartsuitwhite}{PU}{\9046\141}% U+2661
19531 %* \textheartsuitwhite -> \Heart (marvosym)
19532 %* \textheartsuitwhite -> \heartsuit (MnSymbol)
19533 % U+2662 WHITE DIAMOND SUIT; diamondsuitwhite; \diamondsuit (LaTeX)
19534 \DeclareTextCommand{\textdiamondsuitwhite}{PU}{\9046\142}% U+2662
19535 %* \textdiamondsuitwhite -> \diamondsuit (MnSymbol)
19536 % U+2663 BLACK CLUB SUIT; club, clubsuitblack; \clubsuit (LaTeX)
19537 \DeclareTextCommand{\textclubsuitblack}{PU}{\9046\143}% U+2663
19538 %* \textclubsuitblack -> \clubsuit (MnSymbol)
19539 % U+2664 WHITE SPADE SUIT; spadesuitwhite
19540 \DeclareTextCommand{\textspadesuitwhite}{PU}{\9046\144}% U+2664
19541 % U+2665 BLACK HEART SUIT; heartsuitblack, heart
19542 \DeclareTextCommand{\textheartsuitblack}{PU}{\9046\145}% U+2665
19543 % U+2666 BLACK DIAMOND SUIT; diamond
19544 \DeclareTextCommand{\textdiamondsuitblack}{PU}{\9046\146}% U+2666
19545 % U+2667 WHITE CLUB SUIT; clubsuitwhite
19546 \DeclareTextCommand{\textclubsuitwhite}{PU}{\9046\147}% U+2667
19547 % U+2669 QUARTER NOTE; quarternote; \quarternote (wasysym, arev)
19548 \DeclareTextCommand{\textquarternote}{PU}{\9046\151}%* U+2669
19549 % U+266A EIGHTH NOTE; musicalnote; \textmusicalnote (textcomp)
19550 \DeclareTextCommand{\textmusicalnote}{PU}{\9046\152}% U+266A
19551 %* \textmusicalnote -> \eighthnote (wasysym, arev)
19552 % U+266B BEAMED EIGHTH NOTES; eighthnotebeamed; \twonotes (wasysym)
19553 \DeclareTextCommand{\texttwonotes}{PU}{\9046\153}%* U+266B
19554 % U+266C BEAMED SIXTEENTH NOTES; beamedsixteenthnotes; \sixteenth-
    note (arev)
19555 \DeclareTextCommand{\textsixteenthnote}{PU}{\9046\154}%* U+266C
19556 % U+266D MUSIC FLAT SIGN; musicflatsign; \flat (LaTeX)
19557 \DeclareTextCommand{\textflat}{PU}{\9046\155}%* U+266D
19558 % U+266E MUSIC NATURAL SIGN; \natural (LaTeX)
19559 \DeclareTextCommand{\textnatural}{PU}{\9046\156}%* U+266E
19560 % U+266F MUSIC SHARP SIGN; musicsharpsign; \sharp (LaTeX)
19561 \DeclareTextCommand{\textsharp}{PU}{\9046\157}%* U+266F
19562 % U+2672 UNIVERSAL RECYCLING SYMBOL; \recycle (recycle)
19563 \DeclareTextCommand{\textrecycle}{PU}{\9046\162}%* U+2672
19564 %* \textrecycle -> \Recycling (marvosym)
19565 % U+267F WHEELCHAIR SYMBOL; \Wheelchair (marvosym)
19566 \DeclareTextCommand{\textWheelchair}{PU}{\9046\177}%* U+267F
19567 % U+2691 BLACK FLAG; \Flag (ifsym)

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19568 \DeclareTextCommand{\textFlag}{PU}{\9046\221}%* U+2691
 19569 %* \textFlag -> \VarFlag (ifsym)
 19570 % U+2692 HAMMER AND PICK; \MineSign (marvosym)
 19571 \DeclareTextCommand{\textMineSign}{PU}{\9046\222}%* U+2692
 19572 % U+2694 CROSSED SWORDS; \dsmilitary (dictsym)
 19573 \DeclareTextCommand{\textdsmilitary}{PU}{\9046\224}%* U+2694
 19574 %* \textdsmilitary -> \textxswup (fourier)
 19575 % U+2695 STAFF OF AESCULAPIUS; \dsmedical (dictsym)
 19576 \DeclareTextCommand{\textdsmedical}{PU}{\9046\225}%* U+2695
 19577 % U+2696 SCALES; \dsjuridical (dictsym)
 19578 \DeclareTextCommand{\textdsjuridical}{PU}{\9046\226}%* U+2696
 19579 % U+2697 ALEMBIC; \dschemical (dictsym)
 19580 \DeclareTextCommand{\textdschemical}{PU}{\9046\227}%* U+2697
 19581 % U+2698 FLOWER; \dsbiological (dictsym)
 19582 \DeclareTextCommand{\textdsbiological}{PU}{\9046\230}%* U+2698
 19583 % U+269A STAFF OF HERMES; \dscommercial (dictsym)
 19584 \DeclareTextCommand{\textdscommercial}{PU}{\9046\232}%* U+269A
 19585 % U+269D OUTLINED WHITE STAR; \manstar (manfnt)
 19586 \DeclareTextCommand{\textmanstar}{PU}{\9046\235}%* U+269D
 19587 % U+26A0 WARNING SIGN; \danger (fourier)
 19588 \DeclareTextCommand{\textdanger}{PU}{\9046\240}%* U+26A0
 19589 % U+26A2 DOUBLED FEMALE SIGN; \FemaleFemale (marvosym)
 19590 \DeclareTextCommand{\textFemaleFemale}{PU}{\9046\242}%* U+26A2
 19591 % U+26A3 DOUBLED MALE SIGN; \MaleMale (marvosym)
 19592 \DeclareTextCommand{\textMaleMale}{PU}{\9046\243}%* U+26A3
 19593 % U+26A4 INTERLOCKED FEMALE AND MALE SIGN; \FemaleMale (marvosym)
 19594 \DeclareTextCommand{\textFemaleMale}{PU}{\9046\244}%* U+26A4
 19595 % U+26A5 MALE AND FEMALE SIGN; \Hermaphrodite (marvosym)
 19596 \DeclareTextCommand{\textHermaphrodite}{PU}{\9046\245}%* U+26A5
 19597 % U+26AA MEDIUM WHITE CIRCLE; \Neural (marvosym)
 19598 \DeclareTextCommand{\textNeutral}{PU}{\9046\252}%* U+26AA
 19599 % U+26AD MARRIAGE SYMBOL
 19600 \DeclareTextCommand{\textmarried}{PU}{\9046\255}% U+26AD
 19601 % U+26AE DIVORCE SYMBOL
 19602 \DeclareTextCommand{\textdivorced}{PU}{\9046\256}% U+26AE
 19603 % U+26B2 NEUTER; \textunconfemale (tipx)
 19604 \DeclareTextCommand{\textPUunconfemale}{PU}{\9046\262}% U+26B2
 19605 %* \textPUunconfemale -> \textunconfemale (tipx)
 19606 % U+26B9 SEXTILE; \hexstar (wasysym)
 19607 \DeclareTextCommand{\texthexstar}{PU}{\9046\271}%* U+26B9
 19608 % U+26BD SOCCER BALL; \Football (marvosym)
 19609 \DeclareTextCommand{\textSoccerBall}{PU}{\9046\275}% U+26BD
 19610 %* \textSoccerBall -> \Football (marvosym)
 19611 % U+26C5 SUN BEHIND CLOUD; \SunCloud (ifsym)
 19612 \DeclareTextCommand{\textSunCloud}{PU}{\9046\305}%* U+26C5
 19613 % U+26C6 RAIN; \Rain (ifsym)
 19614 \DeclareTextCommand{\textRain}{PU}{\9046\306}%* U+26C6
 19615 % U+26D4 NO ENTRY; \noway (fourier)
 19616 \DeclareTextCommand{\textnoway}{PU}{\9046\324}%* U+26D4
 19617 % U+26F0 MOUNTAIN; \Mountain (ifsym)
 19618 \DeclareTextCommand{\textMountain}{PU}{\9046\360}%* U+26F0
 19619 % U+26FA TENT; \Tent (ifsym)
 19620 \DeclareTextCommand{\textTent}{PU}{\9046\372}%* U+26FA

51.2.30 Dingbats: U+2700 to U+27BF

19621 % U+2701 UPPER BLADE SCISSORS; \ScissorRightBrokenBottom (bbding)

19622 \DeclareTextCommand{\textScissorRightBrokenBottom}{PU}{\9047\001}% U+2701
19623 %* \textScissorRightBrokenBottom -> \CutLeft (marvosym)
19624 %* \textScissorRightBrokenBottom -> \Cutright (marvosym)
19625 % U+2702 BLACK SCISSORS; \ScissorRight (bding)
19626 \DeclareTextCommand{\textScissorRight}{PU}{\9047\002}%* U+2702
19627 %* \textScissorRight -> \RightScissors (marvosym)
19628 %* \textScissorRight -> \Leftscissors (marvosym)
19629 % U+2703 LOWER BLADE SCISSORS; \ScissorRightBrokenTop (bding)
19630 \DeclareTextCommand{\textScissorRightBrokenTop}{PU}{\9047\003}%* U+2703
19631 % U+2704 WHITE SCISSORS; \ScissorHollowRight (bding)
19632 \DeclareTextCommand{\textScissorHollowRight}{PU}{\9047\004}%* U+2704
19633 % U+2706 TELEPHONE LOCATION SIGN; \PhoneHandset (bding)
19634 \DeclareTextCommand{\textPhoneHandset}{PU}{\9047\006}%* U+2706
19635 % U+2707 TAPE DRIVE; \Tape (bding)
19636 \DeclareTextCommand{\textTape}{PU}{\9047\007}%* U+2707
19637 % U+2708 AIRPLANE; \Plane (bding)
19638 \DeclareTextCommand{\textPlane}{PU}{\9047\010}%* U+2708
19639 % U+2709 ENVELOPE; \Envelope (bding),
19640 \DeclareTextCommand{\textEnvelope}{PU}{\9047\011}%* U+2709
19641 %* \textEnvelope -> \Letter (marvosym)
19642 % U+270C VICTORY HAND; \Peace (bding)
19643 \DeclareTextCommand{\textPeace}{PU}{\9047\014}%* U+270C
19644 % U+270D WRITING HAND; \WritingHand (marvosym)
19645 \DeclareTextCommand{\textWritingHand}{PU}{\9047\015}%* U+270D
19646 %* \textWritingHand -> \Writinghand (marvosym)
19647 % U+270E LOWER RIGHT PENCIL; \PencilRightDown (bding)
19648 \DeclareTextCommand{\textPencilRightDown}{PU}{\9047\016}%* U+270E
19649 % U+270F PENCIL; \PencilRight (bding)
19650 \DeclareTextCommand{\textPencilRight}{PU}{\9047\017}%* U+270F
19651 % U+2710 UPPER RIGHT PENCIL; \PencilRightUp (bding)
19652 \DeclareTextCommand{\textPencilRightUp}{PU}{\9047\020}%* U+2710
19653 % U+2711 WHITE NIB; \NibRight (bding)
19654 \DeclareTextCommand{\textNibRight}{PU}{\9047\021}%* U+2711
19655 % U+2712 BLACK NIB; \NibSolidRight (bding)
19656 \DeclareTextCommand{\textNibSolidRight}{PU}{\9047\022}%* U+2712
19657 % U+2713 CHECK MARK; checkmark; \Checkmark (bding)
19658 \DeclareTextCommand{\textCheckmark}{PU}{\9047\023}%* U+2713
19659 %* \textCheckmark -> \checkmark (MnSymbol)
19660 % U+2714 HEAVY CHECK MARK; \CheckmarkBold (bding)
19661 \DeclareTextCommand{\textCheckmarkBold}{PU}{\9047\024}%* U+2714
19662 % U+2715 MULTIPLICATION X; \XSolid (bding)
19663 \DeclareTextCommand{\textXSolid}{PU}{\9047\025}%* U+2715
19664 % U+2716 HEAVY MULTIPLICATION X; \XSolidBold (bding)
19665 \DeclareTextCommand{\textXSolidBold}{PU}{\9047\026}%* U+2716
19666 % U+2717 BALLOT X; \XSolidBrush (bding)
19667 \DeclareTextCommand{\textXSolidBrush}{PU}{\9047\027}%* U+2717
19668 % U+2719 OUTLINED GREEK CROSS; \PlusOutline (bding)
19669 \DeclareTextCommand{\textPlusOutline}{PU}{\9047\031}%* U+2719
19670 % U+271A HEAVY GREEK CROSS; \Plus (bding)
19671 \DeclareTextCommand{\textPlus}{PU}{\9047\032}%* U+271A
19672 % U+271B OPEN CENTRE CROSS; \PlusThinCenterOpen (bding)
19673 \DeclareTextCommand{\textPlusThinCenterOpen}{PU}{\9047\033}%* U+271B
19674 % U+271C HEAVY OPEN CENTRE CROSS; \PlusCenterOpen (bding)
19675 \DeclareTextCommand{\textPlusCenterOpen}{PU}{\9047\034}%* U+271C
19676 % U+271D LATIN CROSS; \Cross (bding)
19677 \DeclareTextCommand{\textCross}{PU}{\9047\035}%* U+271D
19678 % U+271E SHADOWED WHITE LATIN CROSS; \CrossOpenShadow (bding)

19679 \DeclareTextCommand{\textCrossOpenShadow}{PU}{\9047\036}%* U+271E
19680 % U+271F OUTLINED LATIN CROSS; \CrossOutline (bbling)
19681 \DeclareTextCommand{\textCrossOutline}{PU}{\9047\037}%* U+271F
19682 % U+2720 MALTESE CROSS; \CrossMaltese (bbling)
19683 \DeclareTextCommand{\textCrossMaltese}{PU}{\9047\040}%* U+2720
19684 % U+2721 STAR OF DAVID; \DavidStar (bbling)
19685 \DeclareTextCommand{\textDavidStar}{PU}{\9047\041}%* U+2721
19686 %* \textDavidStar -> \davidstar (wasysym)
19687 % U+2722 FOUR TEARDROP-SPOKED ASTERISK; \FourAsterisk (bbling)
19688 \DeclareTextCommand{\textFourAsterisk}{PU}{\9047\042}%* U+2722
19689 % U+2723 FOUR BALLOON-SPOKED ASTERISK; \JackStar (bbling)
19690 \DeclareTextCommand{\textJackStar}{PU}{\9047\043}%* U+2723
19691 % U+2724 HEAVY FOUR BALLOON-SPOKED ASTERISK; \JackStarBold (bbling)
19692 \DeclareTextCommand{\textJackStarBold}{PU}{\9047\044}%* U+2724
19693 % U+2725 FOUR CLUB-SPOKED ASTERISK; \CrossClowerTips (bbling)
19694 \DeclareTextCommand{\textClowerTips}{PU}{\9047\045}%* U+2725
19695 % U+2726 BLACK FOUR POINTED STAR; \FourStar (bbling)
19696 \DeclareTextCommand{\textFourStar}{PU}{\9047\046}%* U+2726
19697 % U+2727 WHITE FOUR POINTED STAR; \FourStarOpen (bbling)
19698 \DeclareTextCommand{\textFourStarOpen}{PU}{\9047\047}%* U+2727
19699 % U+272A CIRCLED WHITE STAR; \FiveStarOpenCircled (bbling)
19700 \DeclareTextCommand{\textFiveStarOpenCircled}{PU}{\9047\052}%* U+272A
19701 % U+272B OPEN CENTRE BLACK STAR; \FiveStarCenterOpen (bbling)
19702 \DeclareTextCommand{\textFiveStarCenterOpen}{PU}{\9047\053}%* U+272B
19703 % U+272C BLACK CENTRE WHITE STAR; \FiveStarOpenDotted (bbling)
19704 \DeclareTextCommand{\textFiveStarOpenDotted}{PU}{\9047\054}%* U+272C
19705 % U+272D OUTLINED BLACK STAR; \FiveStarOutline (bbling)
19706 \DeclareTextCommand{\textFiveStarOutline}{PU}{\9047\055}%* U+272D
19707 % U+272E HEAVY OUTLINED BLACK STAR; \FiveStarOutlineHeavy (bbling)
19708 \DeclareTextCommand{\textFiveStarOutlineHeavy}{PU}{\9047\056}%* U+272E
19709 % U+272F PINWHEEL STAR; \FiveStarConvex (bbling)
19710 \DeclareTextCommand{\textFiveStarConvex}{PU}{\9047\057}%* U+272F
19711 % U+2730 SHADOWED WHITE STAR; \FiveStarShadow (bbling)
19712 \DeclareTextCommand{\textFiveStarShadow}{PU}{\9047\060}%* U+2730
19713 % U+2731 HEAVY ASTERISK; \AsteriskBold (bbling)
19714 \DeclareTextCommand{\textAsteriskBold}{PU}{\9047\061}%* U+2731
19715 % U+2732 OPEN CENTRE ASTERISK; \AsteriskCenterOpen (bbling)
19716 \DeclareTextCommand{\textAsteriskCenterOpen}{PU}{\9047\062}%* U+2732
19717 % U+2734 EIGHT POINTED BLACK STAR; \EightStarTaper (bbling)
19718 \DeclareTextCommand{\textEightStarTaper}{PU}{\9047\064}%* U+2734
19719 % U+2735 EIGHT POINTED PINWHEEL STAR; \EightStarConvex (bbling)
19720 \DeclareTextCommand{\textEightStarConvex}{PU}{\9047\065}%* U+2735
19721 % U+2736 SIX POINTED BLACK STAR; \SixStar (bbling)
19722 \DeclareTextCommand{\textSixStar}{PU}{\9047\066}%* U+2736
19723 % U+2737 EIGHT POINTED RECTILINEAR BLACK STAR; \EightStar (bbling)
19724 \DeclareTextCommand{\textEightStar}{PU}{\9047\067}%* U+2737
19725 % U+2738 HEAVY EIGHT POINTED RECTILINEAR BLACK STAR; \EightStarBold (bbling)
19726 \DeclareTextCommand{\textEightStarBold}{PU}{\9047\070}%* U+2738
19727 % U+2739 TWELVE POINTED BLACK STAR; \TwelveStar (bbling)
19728 \DeclareTextCommand{\textTwelveStar}{PU}{\9047\071}%* U+2739
19729 % U+273A SIXTEEN POINTED ASTERISK; \SixteenStarLight (bbling)
19730 \DeclareTextCommand{\textSixteenStarLight}{PU}{\9047\072}%* U+273A
19731 % U+273B TEARDROP-SPOKED ASTERISK; \SixFlowerPetalRemoved (bbling)

19732 \DeclareTextCommand{\textSixFlowerPetalRemoved}{PU}{\9047\073}%* U+273B
19733 % U+273C OPEN CENTRE TEARDROP-SPOKED ASTERISK;
19734 % \SixFlowerOpenCenter (bding)
19735 \DeclareTextCommand{\textSixFlowerOpenCenter}{PU}{\9047\074}%* U+273C
19736 % U+273D HEAVY TEARDROP-SPOKED ASTERISK; \Asterisk (bding)
19737 \DeclareTextCommand{\textAsterisk}{PU}{\9047\075}%* U+273D
19738 % U+273E SIX PETALLED BLACK AND WHITE FLORETTE; \SixFlowerAl-
ternate (bding)
19739 \DeclareTextCommand{\textSixFlowerAlternate}{PU}{\9047\076}%* U+273E
19740 % U+273F BLACK FLORETTE; \FiveFlowerPetal (bding)
19741 \DeclareTextCommand{\textFiveFlowerPetal}{PU}{\9047\077}%* U+273F
19742 % U+2740 WHITE FLORETTE; \FiveFlowerOpen (bding)
19743 \DeclareTextCommand{\textFiveFlowerOpen}{PU}{\9047\100}%* U+2740
19744 % U+2741 EIGHT PETALLED OUTLINED BLACK FLORETTE; \EightFlow-
erPetal (bding)
19745 \DeclareTextCommand{\textEightFlowerPetal}{PU}{\9047\101}%* U+2741
19746 % U+2742 CIRCLED OPEN CENTRE EIGHT POINTED STAR; \Sunshi-
neOpenCircled (bding)
19747 \DeclareTextCommand{\textSunshineOpenCircled}{PU}{\9047\102}%* U+2742
19748 % U+2743 HEAVY TEARDROP-SPOKED PINWHEEL ASTERISK; \SixFlow-
erAltPetal (bding)
19749 \DeclareTextCommand{\textSixFlowerAltPetal}{PU}{\9047\103}%* U+2743
19750 % U+2744 SNOWFLAKE; \SnowflakeChevron (bding)
19751 \DeclareTextCommand{\textSnowflakeChevron}{PU}{\9047\104}%* U+2744
19752 % U+2745 TIGHT TRIFOLIATE SNOWFLAKE; \Snowflake (bding)
19753 \DeclareTextCommand{\textSnowflake}{PU}{\9047\105}%* U+2745
19754 % U+2746 HEAVY CHEVRON SNOWFLAKE; \SnowflakeChevronBold (bding)
19755 \DeclareTextCommand{\textSnowflakeChevronBold}{PU}{\9047\106}%* U+2746
19756 % U+2747 SPARKLE; \Sparkle (bding)
19757 \DeclareTextCommand{\textSparkle}{PU}{\9047\107}%* U+2747
19758 % U+2748 HEAVY SPARKLE; \SparkleBold (bding)
19759 \DeclareTextCommand{\textSparkleBold}{PU}{\9047\110}%* U+2748
19760 % U+2749 BALLOON-SPOKED ASTERISK; \AsteriskRoundedEnds (bding)
19761 \DeclareTextCommand{\textAsteriskRoundedEnds}{PU}{\9047\111}%* U+2749
19762 % U+274A EIGHT TEARDROP-SPOKED PROPELLER ASTERISK;
19763 % \EightFlowerPetalRemoved (bding)
19764 \DeclareTextCommand{\textEightFlowerPetalRemoved}{PU}{\9047\112}%* U+274A
19765 % U+274B HEAVY EIGHT TEARDROP-SPOKED PROPELLER ASTERISK;
19766 % \EightAsterisk (bding)
19767 \DeclareTextCommand{\textEightAsterisk}{PU}{\9047\113}%* U+274B
19768 % U+274D SHADOWED WHITE CIRCLE; \CircleShadow (bding)
19769 \DeclareTextCommand{\textCircleShadow}{PU}{\9047\115}%* U+274D
19770 % U+274F LOWER RIGHT DROP-SHADOWED WHITE SQUARE;
19771 % \SquareShadowBottomRight (bding)
19772 \DeclareTextCommand{\textSquareShadowBottomRight}{PU}{\9047\117}%* U+274F
19773 % U+2750 UPPER RIGHT DROP-SHADOWED WHITE SQUARE;
19774 % \SquareShadowTopRight (bding)
19775 \DeclareTextCommand{\textSquareShadowTopRight}{PU}{\9047\120}%* U+2750
19776 % U+2751 LOWER RIGHT SHADOWED WHITE SQUARE;
19777 % \SquareCastShadowBottomRight (bding)
19778 \DeclareTextCommand{\textSquareCastShadowBottomRight}{PU}{\9047\121}%* U+2751
19779 % U+2752 UPPER RIGHT SHADOWED WHITE SQUARE;
19780 % \SquareCastShadowTopRight (bding)
19781 \DeclareTextCommand{\textSquareCastShadowTopRight}{PU}{\9047\122}%* U+2752
19782 % U+2756 BLACK DIAMOND MINUS WHITE X; \OrnamentDiamandSolid (bb-
ding)
19783 \DeclareTextCommand{\textDiamandSolid}{PU}{\9047\126}%* U+2756

19784 % U+2758 LIGHT VERTICAL BAR; \RectangleThin (bbding)
 19785 \DeclareTextCommand{\textRectangleThin}{PU}{\9047\130}%* U+2758
 19786 % U+2759 MEDIUM VERTICAL BAR; \Rectangle (bbding)
 19787 \DeclareTextCommand{\textRectangle}{PU}{\9047\131}%* U+2759
 19788 % U+275A HEAVY VERTICAL BAR; \RectangleBold (bbding)
 19789 \DeclareTextCommand{\textRectangleBold}{PU}{\9047\132}%* U+275A

51.2.31 Miscellaneous Mathematical Symbols-A: U+27C0 to U+27EF

19790 % U+27C2 PERPENDICULAR; perpendicular; \perp (LaTeX)
 19791 \DeclareTextCommand{\textperp}{PU}{\9047\302}%* U+27C2
 19792 % \notperp (mathabx)
 19793 \DeclareTextCommand{\textnotperp}{PU}{\9047\302\83\070}%* U+27C2 U+0338
 19794 % U+27C7 OR WITH DOT INSIDE; \veedot (MnSymbol)
 19795 \DeclareTextCommand{\textveedot}{PU}{\9047\307}%* U+27C7
 19796 % U+27D1 AND WITH DOT; \wedgedot (MnSymbol)
 19797 \DeclareTextCommand{\textwedgedot}{PU}{\9047\321}%* U+27D1
 19798 % U+27DC LEFT MULTIMAP; \leftspoon (MnSymbol)
 19799 \DeclareTextCommand{\textleftspoon}{PU}{\9047\334}%* U+27DC
 19800 % U+27E6 MATHEMATICAL LEFT WHITE SQUARE BRACKET
 19801 \DeclareTextCommand{\textlbrackdbl}{PU}{\9047\346}%* U+27E6
 19802 %* \textlbrackdbl -> \llbracket (stmaryrd)
 19803 % U+27E7 MATHEMATICAL RIGHT WHITE SQUARE BRACKET
 19804 \DeclareTextCommand{\textrbrackdbl}{PU}{\9047\347}%* U+27E7
 19805 %* \textrbrackdbl -> \rrbracket (stmaryrd)

51.2.32 Supplemental Arrows-A: U+27F0 to U+27FF

19806 % U+27F2 ANTICLOCKWISE GAPPED CIRCLE ARROW;
 19807 % \circlearrowleft (AmS)
 19808 \DeclareTextCommand{\textcirclearrowleft}{PU}{\9047\362}%* U+27F2
 19809 % U+27F3 CLOCKWISE GAPPED CIRCLE ARROW; \circlearrowright (AmS)
 19810 \DeclareTextCommand{\textcirclearrowright}{PU}{\9047\363}%* U+27F3
 19811 % U+27F5 LONG LEFTWARDS ARROW; \longleftarrow (AmS)
 19812 \DeclareTextCommand{\textlongleftarrow}{PU}{\9047\365}%* U+27F5
 19813 % U+27F6 LONG RIGHTWARDS ARROW; \longrightarrow (AmS)
 19814 \DeclareTextCommand{\textlongrightarrow}{PU}{\9047\366}%* U+27F6
 19815 % U+27F7 LONG LEFT RIGHT ARROW; \longlefttrightarrow (AmS)
 19816 \DeclareTextCommand{\textlonglefttrightarrow}{PU}{\9047\367}%* U+27F7
 19817 % U+27F8 LONG LEFTWARDS DOUBLE ARROW; \Longleftarrow (AmS)
 19818 \DeclareTextCommand{\textLongleftarrow}{PU}{\9047\370}%* U+27F8
 19819 % U+27F9 LONG RIGHTWARDS DOUBLE ARROW; \Longrightarrow (AmS)
 19820 \DeclareTextCommand{\textLongrightarrow}{PU}{\9047\371}%* U+27F9
 19821 % U+27FA LONG LEFT RIGHT DOUBLE ARROW; \Longleftrightarrow (AmS)
 19822 \DeclareTextCommand{\textLongleftrightarrow}{PU}{\9047\372}%* U+27FA
 19823 % U+27FC LONG RIGHTWARDS ARROW FROM BAR; \longmapsto (AmS)
 19824 \DeclareTextCommand{\textlongmapsto}{PU}{\9047\374}%* U+27FC
 19825 % U+27FD LONG LEFTWARDS DOUBLE ARROW FROM BAR; \Longmaps-
 from (stmaryrd)
 19826 \DeclareTextCommand{\textLongmapsfrom}{PU}{\9047\375}%* U+27FD
 19827 % U+27FE LONG RIGHTWARDS DOUBLE ARROW FROM BAR; \Longmap-
 sto (stmaryrd)
 19828 \DeclareTextCommand{\textLongmapsto}{PU}{\9047\376}%* U+27FE

51.2.33 Supplemental Arrows-B: U+2900 to U+297F

19829 % U+2921 NORTH WEST AND SOUTH EAST ARROW; \nwsearrow (MnSym-
 bol)
 19830 \DeclareTextCommand{\textnwsearrow}{PU}{\9051\041}%* U+2921

19831 % U+2922 NORTH EAST AND SOUTH WEST ARROW; \neswarrow (MnSymbol)
 19832 \DeclareTextCommand{\textneswarrow}{PU}{\9051\042}%* U+2922
 19833 % U+2923 NORTH WEST ARROW WITH HOOK; \lhooknwarrow (MnSymbol)
 19834 \DeclareTextCommand{\textlhooknwarrow}{PU}{\9051\043}%* U+2923
 19835 % U+2924 NORTH EAST ARROW WITH HOOK; \rhooknearrow (MnSymbol)
 19836 \DeclareTextCommand{\textrhooknearrow}{PU}{\9051\044}%* U+2924
 19837 % U+2925 SOUTH EAST ARROW WITH HOOK; \lhooksearrow (MnSymbol)
 19838 \DeclareTextCommand{\textlhooksearrow}{PU}{\9051\045}%* U+2925
 19839 % U+2926 SOUTH WEST ARROW WITH HOOK; \rhookswarrow (MnSymbol)
 19840 \DeclareTextCommand{\textrhookswarrow}{PU}{\9051\046}%* U+2926
 19841 % U+2933 WAVE ARROW POINTING DIRECTLY RIGHT; \leadsto (wasysym)
 19842 \DeclareTextCommand{\textleadsto}{PU}{\9051\063}%* U+2933
 19843 % U+2934 ARROW POINTING RIGHTWARDS THEN CURVING UPWARDS;
 19844 % \rcurvearrowne (MnSymbol)
 19845 \DeclareTextCommand{\textrcurvearrowne}{PU}{\9051\064}%* U+2934
 19846 % U+2935 ARROW POINTING RIGHTWARDS THEN CURVING DOWN-
 WARDS;
 19847 % \lcurvearrowse (MnSymbol)
 19848 \DeclareTextCommand{\textlcurvearrowse}{PU}{\9051\065}%* U+2935
 19849 % U+2936 ARROW POINTING DOWNWARDS THEN CURVING LEFT-
 WARDS;
 19850 % \lcurvearrowsw (MnSymbol)
 19851 \DeclareTextCommand{\textlcurvearrowsw}{PU}{\9051\066}%* U+2936
 19852 % U+2937 ARROW POINTING DOWNWARDS THEN CURVING RIGHT-
 WARDS;
 19853 % \rcurvearrowse (MnSymbol)
 19854 \DeclareTextCommand{\textrcurvearrowse}{PU}{\9051\067}%* U+2937
 19855 % U+2938 RIGHT-SIDE ARC CLOCKWISE ARROW; \lcurvearrowdown (Mn-
 Symbol)
 19856 \DeclareTextCommand{\textlcurvearrowdown}{PU}{\9051\070}%* U+2938
 19857 %* \textlcurvearrowdown -> \RightTorque (marvosym)
 19858 %* \textlcurvearrowdown -> \Righttorque (marvosym)
 19859 % U+2939 LEFT-SIDE ARC ANTICLOCKWISE ARROW;
 19860 % \rcurvearrowdown (MnSymbol)
 19861 \DeclareTextCommand{\textrcurvearrowdown}{PU}{\9051\071}%* U+2939
 19862 %* \textrcurvearrowdown -> \LeftTorque (marvosym)
 19863 %* \textrcurvearrowdown -> \Lefttorque (marvosym)
 19864 % U+293A TOP ARC ANTICLOCKWISE ARROW; \rcurvearrowleft (MnSym-
 bol)
 19865 \DeclareTextCommand{\textrcurvearrowleft}{PU}{\9051\072}%* U+293A
 19866 % U+293B BOTTOM ARC ANTICLOCKWISE ARROW;
 19867 % \rcurvearrowright (MnSymbol)
 19868 \DeclareTextCommand{\textrcurvearrowright}{PU}{\9051\073}%* U+293B
 19869 % U+294A LEFT BARB UP RIGHT BARB DOWN HARPOON; \lefttrighthar-
 poon (mathabx)
 19870 \DeclareTextCommand{\textlefttrightharpoon}{PU}{\9051\112}%* U+294A
 19871 % U+294B LEFT BARB DOWN RIGHT BARB UP HARPOON; \rightlefthar-
 poon (mathabx)
 19872 \DeclareTextCommand{\textrightleftharpoon}{PU}{\9051\113}%* U+294B
 19873 % U+294C UP BARB RIGHT DOWN BARB LEFT HARPOON;
 19874 % \updownharpoonrightleft (MnSymbol)
 19875 \DeclareTextCommand{\textupdownharpoonrightleft}{PU}{\9051\114}%* U+294C
 19876 % U+294D UP BARB LEFT DOWN BARB RIGHT HARPOON;
 19877 % \updownharpoonleftright (MnSymbol)
 19878 \DeclareTextCommand{\textupdownharpoonleftright}{PU}{\9051\115}%* U+294D
 19879 % U+2962 LEFTWARDS HARPOON WITH BARB UP ABOVE LEFTWARDS

19880 % HARPOON WITH BARB DOWN; \leftleftharpoons (mathabx)
 19881 \DeclareTextCommand{\textleftleftharpoons}{PU}{\9051\142}%* U+2962
 19882 % U+2963 UPWARDS HARPOON WITH BARB LEFT BESIDE UPWARDS
 19883 % HARPOON WITH BARB RIGHT; \upupharpoons (mathabx)
 19884 \DeclareTextCommand{\textupupharpoons}{PU}{\9051\143}%* U+2963
 19885 % U+2964 RIGHTWARDS HARPOON WITH BARB UP ABOVE RIGHT-
 WARDS HARPOON
 19886 % WITH BARB DOWN; \rightrightarpoons (mathabx)
 19887 \DeclareTextCommand{\textrightarpoons}{PU}{\9051\144}%* U+2964
 19888 % U+2965 DOWNWARDS HARPOON WITH BARB LEFT BESIDE DOWN-
 WARDS HARPOON
 19889 % WITH BARB RIGHT; \downdownharpoons (mathabx)
 19890 \DeclareTextCommand{\textdowndownharpoons}{PU}{\9051\145}%* U+2965
 19891 % U+296A LEFTWARDS HARPOON WITH BARB UP ABOVE LONG DASH;
 19892 % \leftbarharpoon (mathabx)
 19893 \DeclareTextCommand{\textleftbarharpoon}{PU}{\9051\152}%* U+296A
 19894 % U+296B LEFTWARDS HARPOON WITH BARB DOWN BELOW
 19895 % LONG DASH; \barleftharpoon (mathabx)
 19896 \DeclareTextCommand{\textbarleftharpoon}{PU}{\9051\153}%* U+296B
 19897 % U+296C RIGHTWARDS HARPOON WITH BARB UP ABOVE
 19898 % LONG DASH; \rightbarharpoon (mathabx)
 19899 \DeclareTextCommand{\textrightbarharpoon}{PU}{\9051\154}%* U+296C
 19900 % U+296D RIGHTWARDS HARPOON WITH BARB DOWN BELOW
 19901 % LONG DASH; \barrightharpoon (mathabx)
 19902 \DeclareTextCommand{\textbarrightharpoon}{PU}{\9051\155}%* U+296D
 19903 % U+296E UPWARDS HARPOON WITH BARB LEFT BESIDE DOWN-
 WARDS HARPOON
 19904 % WITH BARB RIGHT; \updownharpoons (mathabx)
 19905 \DeclareTextCommand{\textupdownharpoons}{PU}{\9051\156}%* U+296E
 19906 % U+296F DOWNWARDS HARPOON WITH BARB LEFT BESIDE UP-
 WARDS HARPOON
 19907 % WITH BARB RIGHT; \downupharpoons (mathabx)
 19908 \DeclareTextCommand{\textdownupharpoons}{PU}{\9051\157}%* U+296F
 19909 % U+297F DOWN FISH TAIL
 19910 \DeclareTextCommand{\textmoo}{PU}{\9051\177\83\066}%* U+297F U+0336

51.2.34 Miscellaneous Mathematical Symbols-B: U+2980 to U+29FF

19911 % U+2987 Z NOTATION LEFT IMAGE BRACKET; \lparenthesis (stmaryrd)
 19912 \DeclareTextCommand{\textllparenthesis}{PU}{\9051\207}%* U+2987
 19913 % U+2988 Z NOTATION RIGHT IMAGE BRACKET; \rrparenthesis (stmaryrd)
 19914 \DeclareTextCommand{\textrrparenthesis}{PU}{\9051\210}%* U+2988
 19915 % U+29B0 REVERSED EMPTY SET; \invdiameter (wasysym)
 19916 \DeclareTextCommand{\textinvdiameter}{PU}{\9051\260}%* U+29B0
 19917 % U+29B6 CIRCLED VERTICAL BAR; \obar (stmaryrd)
 19918 \DeclareTextCommand{\textobar}{PU}{\9051\266}%* U+29B6
 19919 %* \textobar -> \textvarobar (stmaryrd)
 19920 % U+29B8 CIRCLED REVERSE SOLIDUS; \obslash (stmaryrd)
 19921 \DeclareTextCommand{\textobslash}{PU}{\9051\270}%* U+29B8
 19922 %* \textobslash -> \circledbslash (txfonts/pxfonts)
 19923 %* \textobslash -> \obackslash (mathabx)
 19924 %* \textobslash -> \varobslash (stmaryrd)
 19925 % U+29BA CIRCLE DIVIDED BY HORIZONTAL BAR AND TOP HALF
 19926 % DIVIDED BY VERTICAL BAR; \obot (mathabx)
 19927 \DeclareTextCommand{\textobot}{PU}{\9051\272}%* U+29BA
 19928 %* \textobot -> \odplus (ulsy)
 19929 % U+29BB CIRCLE WITH SUPERIMPOSED X; \NoChemicalCleaning (mar-
 vosym)

19930 \DeclareTextCommand{\textNoChemicalCleaning}{PU}{\9051\273}%* U+29BB
 19931 % U+29C0 CIRCLED LESS-THAN; \olessthan (stmaryrd)
 19932 \DeclareTextCommand{\textolessthan}{PU}{\9051\300}%* U+29C0
 19933 %* \textolessthan -> \varolessthan (stmaryrd)
 19934 % U+29C1 CIRCLED GREATER-THAN; \ogreaterthan (stmaryrd)
 19935 \DeclareTextCommand{\textogreaterthan}{PU}{\9051\301}%* U+29C1
 19936 %* \textogreaterthan -> \varogreaterthan (stmaryrd)
 19937 % U+29C4 SQUARED RISING DIAGONAL SLASH; \boxslash (mathabx, stmaryrd)
 19938 \DeclareTextCommand{\textboxslash}{PU}{\9051\304}%* U+29C4
 19939 % U+29C5 SQUARED FALLING DIAGONAL SLASH; \boxbslash (stmaryrd)
 19940 \DeclareTextCommand{\textboxbslash}{PU}{\9051\305}%* U+29C5
 19941 % U+29C6 SQUARED ASTERISK; \boxast (stmaryrd)
 19942 \DeclareTextCommand{\textboxast}{PU}{\9051\306}%* U+29C6
 19943 % U+29C7 SQUARED SMALL CIRCLE; \boxcircle (stmaryrd)
 19944 \DeclareTextCommand{\textboxcircle}{PU}{\9051\307}%* U+29C7
 19945 % U+29C8 SQUARED SQUARE; \boxbox (stmaryrd)
 19946 \DeclareTextCommand{\textboxbox}{PU}{\9051\310}%* U+29C8
 19947 % U+29D3 BLACK BOWTIE; \Valve (marvosym)
 19948 \DeclareTextCommand{\textValve}{PU}{\9051\323}%* U+29D3
 19949 % U+29DF DOUBLE-ENDED MULTIMAP; \multimapboth (txfonts/pxfonts)
 19950 \DeclareTextCommand{\textmultimapboth}{PU}{\9051\337}%* U+29DF
 19951 % U+29E2 SHUFFLE PRODUCT; \shuffle (shuffle)
 19952 \DeclareTextCommand{\textshuffle}{PU}{\9051\342}%* U+29E2

51.2.35 Supplemental Mathematical Operators: U+2A00 to U+2AFF

19953 % U+2A04 N-ARY UNION OPERATOR WITH PLUS; \uplus (LaTeX)
 19954 \DeclareTextCommand{\textuplus}{PU}{\9052\004}%* U+2A04
 19955 % U+2A07 TWO LOGICAL AND OPERATOR; \bigdoublewedge (MnSymbol)
 19956 \DeclareTextCommand{\textbigdoublewedge}{PU}{\9052\007}%* U+2A07
 19957 % U+2A08 TWO LOGICAL OR OPERATOR; \bigdoublevee (MnSymbol)
 19958 \DeclareTextCommand{\textbigdoublevee}{PU}{\9052\010}%* U+2A08
 19959 % U+2A1D JOIN; \Join (latexsym, amsfonts, amssymb, mathabx, txfonts,
 19960 % pxfonts, wasysym)
 19961 \DeclareTextCommand{\textJoin}{PU}{\9052\035}%* U+2A1D
 19962 % U+2A1F Z NOTATION SCHEMA COMPOSITION; \fatsemi (stmaryrd)
 19963 \DeclareTextCommand{\textfatsemi}{PU}{\9052\037}%* U+2A1F
 19964 % U+2A22 PLUS SIGN WITH SMALL CIRCLE ABOVE; \circplus (mathabx)
 19965 \DeclareTextCommand{\textcircplus}{PU}{\9052\042}%* U+2A22
 19966 % U+2A2A MINUS SIGN WITH DOT BELOW; \minusdot (MnSymbol)
 19967 \DeclareTextCommand{\textminusdot}{PU}{\9052\052}%* U+2A2A
 19968 %* \textminusdot -> \divdot (mathabx)
 19969 % U+2A30 MULTIPLICATION SIGN WITH DOT ABOVE; \dottimes (math-
 19970 % abx)
 19970 \DeclareTextCommand{\textdottimes}{PU}{\9052\060}%* U+2A30
 19971 % U+2A32 SEMIDIRECT PRODUCT WITH BOTTOM CLOSED;
 19972 % \dtimes (mathdesign)
 19973 \DeclareTextCommand{\textdtimes}{PU}{\9052\062}%* U+2A32
 19974 % U+2A38 CIRCLED DIVISION SIGN; \odiv (mathabx)
 19975 \DeclareTextCommand{\textodiv}{PU}{\9052\070}%* U+2A38
 19976 % U+2A3C INTERIOR PRODUCT; \invneg (MnSymbol)
 19977 \DeclareTextCommand{\textinvneg}{PU}{\9052\074}%* U+2A3C
 19978 % U+2A4E DOUBLE SQUARE INTERSECTION; \sqdoublecap (mathabx)
 19979 \DeclareTextCommand{\textsqdoublecap}{PU}{\9052\116}%* U+2A4E
 19980 %* \textsqdoublecap -> \doublesqcap (MnSymbol)
 19981 % U+2A40 INTERSECTION WITH DOT; \capdot (MnSymbol)
 19982 \DeclareTextCommand{\textcapdot}{PU}{\9052\100}%* U+2A40
 19983 % U+2A4F DOUBLE SQUARE UNION; \sqdoublecup (mathabx)

19984 \DeclareTextCommand{\textsqdoublecup}{PU}{\9052\117}%* U+2A4F
 19985 %* \textsqdoublecup -> \doublesqcup (MnSymbol)
 19986 % U+2A55 TWO INTERSECTING LOGICAL AND; \doublewedge (MnSymbol)
 19987 \DeclareTextCommand{\textdoublewedge}{PU}{\9052\125}%* U+2A55
 19988 % U+2A56 TWO INTERSECTING LOGICAL OR; \doublevee (MnSymbol)
 19989 \DeclareTextCommand{\textdoublevee}{PU}{\9052\126}%* U+2A56
 19990 %* \textdoublevee -> \merge (stmaryrd)
 19991 % U+2A5E LOGICAL AND WITH DOUBLE OVERBAR;
 19992 % \doublebarwedge (AmS)
 19993 \DeclareTextCommand{\textdoublebarwedge}{PU}{\9052\136}%* U+2A5E
 19994 % U+2A63 LOGICAL OR WITH DOUBLE UNDERBAR;
 19995 % \veedoublebar (mahtabx)
 19996 \DeclareTextCommand{\textveedoublebar}{PU}{\9052\143}%* U+2A63
 19997 % U+2A66 EQUALS SIGN WITH DOT BELOW; \eqdot (MnSymbol)
 19998 \DeclareTextCommand{\texteqdot}{PU}{\9052\146}%* U+2A66
 19999 % \neqdot (MnSymbol)
 20000 \DeclareTextCommand{\textneqdot}{PU}{\9052\146\83\070}%* U+2A66 U+0338
 20001 % U+2A74 DOUBLE COLON EQUAL; \coloncolonequals (colonequals)
 20002 \DeclareTextCommand{\textcoloncolonequals}{PU}{\9052\164}%* U+2A74
 20003 % U+2A7D LESS-THAN OR SLANTED EQUAL TO; \leqslant (AmS)
 20004 \DeclareTextCommand{\textleqslant}{PU}{\9052\175}%* U+2A7D
 20005 % \nleqslant (txfonts/pxfonts)
 20006 \DeclareTextCommand{\textnleqslant}{PU}{\9052\175\83\070}%* U+2A7D U+0338
 20007 % U+2A7E GREATER-THAN OR SLANTED EQUAL TO; \geqslant (AmS)
 20008 \DeclareTextCommand{\textgeqslant}{PU}{\9052\176}%* U+2A7E
 20009 % \ngeqslant (txfonts/pxfonts)
 20010 \DeclareTextCommand{\textngeqslant}{PU}{\9052\176\83\070}%* U+2A7E U+0338
 20011 % U+2A85 LESS-THAN OR APPROXIMATE; \lessapprox (AmS)
 20012 \DeclareTextCommand{\textlessapprox}{PU}{\9052\205}%* U+2A85
 20013 % \nlessapprox (txfonts/pxfonts)
 20014 \DeclareTextCommand{\textnlessapprox}{PU}{\9052\205\83\070}%* U+2A85 U+0338
 20015 % U+2A86 GREATER-THAN OR APPROXIMATE; \gtrapprox (AmS)
 20016 \DeclareTextCommand{\textgtrapprox}{PU}{\9052\206}%* U+2A86
 20017 % \ngtrapprox (txfonts/pxfonts)
 20018 \DeclareTextCommand{\textngtrapprox}{PU}{\9052\206\83\070}%* U+2A86 U+0338
 20019 % U+2A87 LESS-THAN AND SINGLE-LINE NOT EQUAL TO; \lneq (AmS)
 20020 \DeclareTextCommand{\textlneq}{PU}{\9052\207}%* U+2A87
 20021 % U+2A88 GREATER-THAN AND SINGLE-LINE NOT EQUAL TO;
 20022 % \gneq (AmS)
 20023 \DeclareTextCommand{\textgneq}{PU}{\9052\210}%* U+2A88
 20024 % U+2A89 LESS-THAN AND NOT APPROXIMATE; \lnapprox (AmS)
 20025 \DeclareTextCommand{\textlnapprox}{PU}{\9052\211}%* U+2A89
 20026 % U+2A8A GREATER-THAN AND NOT APPROXIMATE; \gnapprox (AmS)
 20027 \DeclareTextCommand{\textgnapprox}{PU}{\9052\212}%* U+2A8A
 20028 % U+2A8B LESS-THAN ABOVE DOUBLE-LINE EQUAL ABOVE GREATER-THAN;
 20029 % \lesseqgtr (AmS)
 20030 \DeclareTextCommand{\textlesseqgtr}{PU}{\9052\213}%* U+2A8B
 20031 % U+2A8C GREATER-THAN ABOVE DOUBLE-LINE EQUAL ABOVE LESS-THAN;
 20032 % \gtreqless (AmS)
 20033 \DeclareTextCommand{\textgtreqless}{PU}{\9052\214}%* U+2A8C
 20034 % U+2A95 SLANTED EQUAL TO OR LESS-THAN; \eqslantless (AmS)
 20035 \DeclareTextCommand{\texteqslantless}{PU}{\9052\225}%* U+2A95
 20036 % U+2A96 SLANTED EQUAL TO OR GREATER-THAN; \eqslantgtr (AmS)
 20037 \DeclareTextCommand{\texteqslantgtr}{PU}{\9052\226}%* U+2A96
 20038 % U+2AA6 LESS-THAN CLOSED BY CURVE; \leftslice (stmaryrd)
 20039 \DeclareTextCommand{\textleftslice}{PU}{\9052\246}%* U+2AA6
 20040 % U+2AA7 GREATER-THAN CLOSED BY CURVE; \rightslice (stmaryrd)

20041 \DeclareTextCommand{\textrightsslice}{PU}{\9052\247}%* U+2AA7
 20042 % U+2AAF PRECEDES ABOVE SINGLE-LINE EQUALS SIGN; \preceq (Mn-Symbol)
 20043 \DeclareTextCommand{\textpreceq}{PU}{\9052\257}%* U+2AAF
 20044 % \npreceq (txfonts/pxfonts)
 20045 \DeclareTextCommand{\textnpreceq}{PU}{\9052\257\83\070}%* U+2AAF U+0338
 20046 % U+2AB0 SUCCEEDS ABOVE SINGLE-LINE EQUALS SIGN; \succeq (Mn-Symbol)
 20047 \DeclareTextCommand{\textsucceq}{PU}{\9052\260}%* U+2AB0
 20048 % \nsucceq (txfonts/pxfonts)
 20049 \DeclareTextCommand{\textnsucceq}{PU}{\9052\260\83\070}%* U+2AB0 U+0338
 20050 % U+2AB1 PRECEDES ABOVE SINGLE-LINE NOT EQUAL TO; \precneq (mathabx)
 20051 \DeclareTextCommand{\textprecneq}{PU}{\9052\261}%* U+2AB1
 20052 % U+2AB2 SUCCEEDS ABOVE SINGLE-LINE NOT EQUAL TO; \succneq (mathabx)
 20053 \DeclareTextCommand{\textsuccneq}{PU}{\9052\262}%* U+2AB2
 20054 % U+2AB3 PRECEDES ABOVE EQUALS SIGN; \preceqq (txfonts/pxfonts)
 20055 \DeclareTextCommand{\textpreceqq}{PU}{\9052\263}%* U+2AB3
 20056 % \npreceqq (txfonts/pxfonts)
 20057 \DeclareTextCommand{\textnpreceqq}{PU}{\9052\263\83\070}%* U+2AB3 U+0338
 20058 % U+2AB4 SUCCEEDS ABOVE EQUALS SIGN; \succeqq (txfonts/pxfonts)
 20059 \DeclareTextCommand{\textsucceqq}{PU}{\9052\264}%* U+2AB4
 20060 % \nsucceqq (txfonts/pxfonts)
 20061 \DeclareTextCommand{\textnsucceqq}{PU}{\9052\264\83\070}%* U+2AB4 U+0338
 20062 % U+2AB5 PRECEDES ABOVE NOT EQUAL TO; \precneqq (txfonts/pxfonts)
 20063 \DeclareTextCommand{\textprecneqq}{PU}{\9052\265}%* U+2AB5
 20064 % U+2AB6 SUCCEEDS ABOVE NOT EQUAL TO; \succneqq (txfonts/pxfonts)
 20065 \DeclareTextCommand{\textsuccneqq}{PU}{\9052\266}%* U+2AB6
 20066 % U+2AB7 PRECEDES ABOVE ALMOST EQUAL TO; \precapprox (AmS)
 20067 \DeclareTextCommand{\textprecapprox}{PU}{\9052\267}%* U+2AB7
 20068 % \nprecapprox (txfonts/pxfonts)
 20069 \DeclareTextCommand{\textnprecapprox}{PU}{\9052\267\83\070}%* U+2AB7 U+0338
 20070 % U+2AB8 SUCCEEDS ABOVE ALMOST EQUAL TO; \succapprox (AmS)
 20071 \DeclareTextCommand{\textsuccapprox}{PU}{\9052\270}%* U+2AB8
 20072 % \nsuccapprox (txfonts/pxfonts)
 20073 \DeclareTextCommand{\textnsuccapprox}{PU}{\9052\270\83\070}%* U+2AB8 U+0338
 20074 % U+2AB9 PRECEDES ABOVE NOT ALMOST EQUAL TO; \precnapprox (AmS)
 20075 \DeclareTextCommand{\textprecnapprox}{PU}{\9052\271}%* U+2AB9
 20076 % U+2ABA SUCCEEDS ABOVE NOT ALMOST EQUAL TO; \succnapprox (AmS)
 20077 \DeclareTextCommand{\textsuccnapprox}{PU}{\9052\272}%* U+2ABA
 20078 % U+2AC5 SUBSET OF ABOVE EQUALS SIGN; \subseteqq (AmS)
 20079 \DeclareTextCommand{\textsubseteqq}{PU}{\9052\305}%* U+2AC5
 20080 % \nsubseteqq (txfonts/pxfonts, mathabx)
 20081 \DeclareTextCommand{\textnsubseteqq}{PU}{\9052\305\83\070}%* U+2AC5 U+0338
 20082 % U+2AC6 SUPERSET OF ABOVE EQUALS SIGN; \supseteqq (AmS)
 20083 \DeclareTextCommand{\textsupseteqq}{PU}{\9052\306}%* U+2AC6
 20084 % \nsupseteqq (mathabx)
 20085 \DeclareTextCommand{\textnsupseteqq}{PU}{\9052\306\83\070}%* U+2AC6 U+0338
 20086 % U+2AE3 DOUBLE VERTICAL BAR LEFT TURNSTILE
 20087 \DeclareTextCommand{\textdashV}{PU}{\9052\343}%* U+2AE3
 20088 %* \textdashV -> \leftVdash (MnSymbol)
 20089 % \ndashV (mathabx)
 20090 \DeclareTextCommand{\textndashV}{PU}{\9052\343\83\070}%* U+2AE3 U+0338
 20091 %* \textndashV -> \nleftVdash (MnSymbol)

20092 % U+2AE4 VERTICAL BAR DOUBLE LEFT TURNSTILE; \Dashv (mathabx)
 20093 \DeclareTextCommand{\textDashv}{PU}{\9052\344}%* U+2AE4
 20094 %* \textDashv -> \leftmodels (MnSymbol)
 20095 % \nDashv (mathabx)
 20096 \DeclareTextCommand{\textnDashv}{PU}{\9052\344\83\070}%* U+2AE4 U+0338
 20097 %* \textnDashv -> \nleftmodels (MnSymbol)
 20098 % U+2AE5 DOUBLE VERTICAL BAR DOUBLE LEFT TURNSTILE;
 20099 % \DashV (mathabx)
 20100 \DeclareTextCommand{\textDashV}{PU}{\9052\345}%* U+2AE5
 20101 %* \textDashV -> \leftModels (MnSymbol)
 20102 % \nDashV (mathabx)
 20103 \DeclareTextCommand{\textnDashV}{PU}{\9052\345\83\070}%* U+2AE5 U+0338
 20104 %* \textnDashV -> \nleftModels (MnSymbol)
 20105 % U+2AEA DOUBLE DOWN TACK; \downmodels (MnSymbol)
 20106 \DeclareTextCommand{\textdownmodels}{PU}{\9052\352}%* U+2AEA
 20107 % \ndownmodels (MnSymbol)
 20108 \DeclareTextCommand{\textndownmodels}{PU}{\9052\352\83\070}%* U+2AEA U+0338
 20109 % U+2AEB DOUBLE UP TACK; \upmodels (MnSymbol)
 20110 \DeclareTextCommand{\textupmodels}{PU}{\9052\353}%* U+2AEB
 20111 % \nupmodels (MnSymbol)
 20112 \DeclareTextCommand{\textnupmodels}{PU}{\9052\353\83\070}%* U+2AEB U+0338
 20113 % U+2AEF VERTICAL LINE WITH CIRCLE ABOVE; \upspoon (MnSymbol)
 20114 \DeclareTextCommand{\textupspoon}{PU}{\9052\357}%* U+2AEF
 20115 % U+2AF4 TRIPLE VERTICAL BAR BINARY RELATION;
 20116 % \interleave (stmaryrd)
 20117 \DeclareTextCommand{\textinterleave}{PU}{\9052\364}%* U+2AF4
 20118 % U+2AFD DOUBLE SOLIDUS OPERATOR; \sslash (stmaryrd)
 20119 \DeclareTextCommand{\textsslash}{PU}{\9052\375}%* U+2AFD
 20120 %* \textsslash -> \varparallel (txfonts\pxfonts)

51.2.36 Miscellaneous Symbols and Arrows: U+2B00 to U+2BFF

20121 % U+2B20 WHITE PENTAGON; \pentagon (wasysym)
 20122 \DeclareTextCommand{\textpentagon}{PU}{\9053\040}%* U+2B20
 20123 % U+2B21 WHITE HEXAGON; \varhexagon (wasysym)
 20124 \DeclareTextCommand{\textvarhexagon}{PU}{\9053\041}%* U+2B21

51.2.37 Latin Extended-C: U+2C60 to U+2C7F

20125 % U+2C7C LATIN SUBSCRIPT SMALL LETTER J
 20126 \DeclareTextCommand{\textjinferior}{PU}{\9054\174}%* U+2C7C

51.2.38 Supplemental Punctuation: U+2E00 to U+2E7F

20127 % U+2E13 DOTTED OBELOS; \slashdiv (MnSymbol)
 20128 \DeclareTextCommand{\textslashdiv}{PU}{\9056\023}%* U+2E13
 20129 % U+2E18 INVERTED INTERROBANG; \textinterrobangdown (textcomp)
 20130 \DeclareTextCommand{\textinterrobangdown}{PU}{\9056\030}% U+2E18
 20131 % U+2E2D FIVE DOT MARK; \fivedots (MnSymbol)
 20132 \DeclareTextCommand{\textfivedots}{PU}{\9056\055}%* U+2E2D

51.2.39 Modifier Tone Letters: U+A700 to U+A71F

20133 % U+A71B MODIFIER LETTER RAISED UP ARROW; \textupstep (tipa)
 20134 \DeclareTextCommand{\textupstep}{PU}{\9247\033}% U+A71B
 20135 % U+A71C MODIFIER LETTER RAISED DOWN ARROW;
 20136 % \textdownstep (tipa)
 20137 \DeclareTextCommand{\textdownstep}{PU}{\9247\034}% U+A71C

51.2.40 Latin Extended-D: U+A720 to U+A7FF

20138 % U+A727 LATIN SMALL LETTER HENG; \textheng (tipx)

20139 \DeclareTextCommand{\textPUheng}{PU}{\9247\047}% U+A727
 20140 %* \textPUheng -> \textheng (tipx)
 20141 % U+A72C LATIN CAPITAL LETTER CUATRILLO; \textlhookfour (tipx)
 20142 \DeclareTextCommand{\textPULhookfour}{PU}{\9247\054}% U+A72C
 20143 %* \textPULhookfour -> \textlhookfour (tipx)
 20144 % U+A730 LATIN LETTER SMALL CAPITAL F; \textscf (tipx)
 20145 \DeclareTextCommand{\textPUscf}{PU}{\9247\060}% U+A730
 20146 %* \textPUscf -> \textscf (tipx)
 20147 % U+A735 LATIN SMALL LETTER AO; \textao lig (tipx)
 20148 \DeclareTextCommand{\textPUaolig}{PU}{\9247\065}% U+A735
 20149 %* \textPUaolig -> \textao lig (tipx)
 20150 % U+A74F LATIN SMALL LETTER OO; \oo (wsuipa)
 20151 \DeclareTextCommand{\textoo}{PU}{\9247\117}%* U+A74F
 20152 % U+A788 MODIFIER LETTER LOW CIRCUMFLEX ACCENT
 20153 \DeclareTextCommand{\textcircumlow}{PU}{\9247\210}% U+A788

51.2.41 Alphabetic Presentation Forms: U+FB00 to U+FB4F

20154 % U+FB01 LATIN SMALL LIGATURE FI; fi
 20155 \DeclareTextCommand{\textfi}{PU}{\9373\001}% U+FB01
 20156 % U+FB02 LATIN SMALL LIGATURE FL; fl
 20157 \DeclareTextCommand{\textfl}{PU}{\9373\002}% U+FB02

51.2.42 Musical Symbols: U+1D100 to U+1D1FF

20158 % U+1D13B MUSICAL SYMBOL WHOLE REST; \GaPa (harmony)
 20159 \DeclareTextCommand{\textGaPa}{PU}{\9330\064\9335\073}%* U+1D13B
 20160 % U+1D13C MUSICAL SYMBOL HALF REST; \HaPa (harmony)
 20161 \DeclareTextCommand{\textHaPa}{PU}{\9330\064\9335\074}%* U+1D13C
 20162 % U+1D13D MUSICAL SYMBOL QUARTER REST; \ViPa (harmony)
 20163 \DeclareTextCommand{\textViPa}{PU}{\9330\064\9335\075}%* U+1D13D
 20164 % U+1D13E MUSICAL SYMBOL EIGHTH REST; \AcPa (harmony)
 20165 \DeclareTextCommand{\textAcPa}{PU}{\9330\064\9335\076}%* U+1D13E
 20166 % U+1D13F MUSICAL SYMBOL SIXTEENTH REST; \SePa (harmony)
 20167 \DeclareTextCommand{\textSePa}{PU}{\9330\064\9335\077}%* U+1D13F
 20168 % U+1D140 MUSICAL SYMBOL THIRTY-SECOND REST; \ZwPa (harmony)
 20169 \DeclareTextCommand{\textZwPa}{PU}{\9330\064\9335\100}%* U+1D140
 20170 % U+1D15D MUSICAL SYMBOL WHOLE NOTE; \fullnote (wasysym)
 20171 \DeclareTextCommand{\textfullnote}{PU}{\9330\064\9335\135}%* U+1D15D
 20172 %* \textfullnote -> \Ganz (harmony)
 20173 % U+1D15E MUSICAL SYMBOL HALF NOTE; \halfnote (wasysym)
 20174 \DeclareTextCommand{\texthalfnote}{PU}{\9330\064\9335\136}%* U+1D15E
 20175 %* \texthalfnote -> \Halb (harmony)
 20176 % U+1D15F MUSICAL SYMBOL QUARTER NOTE; \Vier (harmony)
 20177 \DeclareTextCommand{\textVier}{PU}{\9330\064\9335\137}%* U+1D15F
 20178 % U+1D160 MUSICAL SYMBOL EIGHTH NOTE; \Acht (harmony)
 20179 \DeclareTextCommand{\textAcht}{PU}{\9330\064\9335\140}%* U+1D160
 20180 % U+1D161 MUSICAL SYMBOL SIXTEENTH NOTE; \Sech (harmony)
 20181 \DeclareTextCommand{\textSech}{PU}{\9330\064\9335\141}%* U+1D161
 20182 % U+1D162 MUSICAL SYMBOL THIRTY-SECOND NOTE; \Zwdr (harmony)
 20183 \DeclareTextCommand{\textZwdr}{PU}{\9330\064\9335\142}%* U+1D162

51.2.43 Miscellaneous Symbols and Pictographs: U+1F300 to U+1F5FF

20184 % U+1F30D EARTH GLOBE EUROPE-AFRICA; \Mundus (marvosym)
 20185 \DeclareTextCommand{\textMundus}{PU}{\9330\074\9337\015}%* U+1F30D
 20186 % U+1F319 CRESCENT MOON; \Moon (marvosym)
 20187 \DeclareTextCommand{\textMoon}{PU}{\9330\074\9337\031}%* U+1F319
 20188 % U+1F468 MAN; \ManFace (marvosym)
 20189 \DeclareTextCommand{\textManFace}{PU}{\9330\075\9334\150}%* U+1F468

20190 % U+1F469 WOMAN; \WomanFace (marvosym)
 20191 \DeclareTextCommand{\textWomanFace}{PU}{\9330\075\9334\151}%* U+1F469
 20192 %* \textWomanFace -> \Womanface (marvosym)
 20193 % U+1F4E0 FAX MACHINE; \Fax (marvosym)
 20194 \DeclareTextCommand{\textFax}{PU}{\9330\075\9334\340}%* U+1F4E0
 20195 %* \textFax -> \Faxmachine (marvosym)
 20196 % U+1F525 FIRE; \Fire (ifsym)
 20197 \DeclareTextCommand{\textFire}{PU}{\9330\075\9335\045}%* U+1F525

51.2.44 Transport and Map Symbols: U+1F680 to U+1F6FF

20198 % U+1F6B2 BICYCLE; \Bicycle (marvosym)
 20199 \DeclareTextCommand{\textBicycle}{PU}{\9330\075\9336\262}%* U+1F6B2
 20200 % U+1F6B9 MENS SYMBOL; \Gentsroom (marvosym)
 20201 \DeclareTextCommand{\textGentsroom}{PU}{\9330\075\9336\271}%* U+1F6B9
 20202 % U+1F6BA WOMENS SYMBOL; \Ladiesroom (marvosym)
 20203 \DeclareTextCommand{\textLadiesroom}{PU}{\9330\075\9336\272}%* U+1F6BA

51.2.45 Miscellaneous

20204 \DeclareTextCommand{\SS}{PU}{SS}%
 20205 % \textcopyleft (textcomp)
 20206 \DeclareTextCommand{\textcopyleft}{PU}{\9041\204\9040\335}% U+2184 U+20DD
 20207 % \ccnc (ccllicenses)
 20208 \DeclareTextCommand{\textccnc}{PU}{\80\044\9040\340}%* U+0024 U+20E0
 20209 % \ccnd (ccllicenses)
 20210 \DeclareTextCommand{\textccnd}{PU}{=\9040\335}%* U+003D U+20DD
 20211 % \ccsa (ccllicenses)
 20212 \DeclareTextCommand{\textccsa}{PU}{\9047\362\9040\335}%* U+27F2 U+20DD
 20213 % \Info (marvosym, china2e)
 20214 \DeclareTextCommand{\textInfo}{PU}{\9330\065\9334\042\9040\336}%* U+1D422 U+20DE
 20215 % \CESign (marvosym)
 20216 \DeclareTextCommand{\textCESign}{PU}{\80\103\80\105}%* U+0043 U+0045
 20217 %* \textCESign -> \CESign (marvosym)

51.2.46 Aliases

Aliases (german.sty)

20218 \DeclareTextCommand{\textglqq}{PU}{\quotedblbase}%
 20219 \DeclareTextCommand{\textgrqq}{PU}{\textquotedblleft}%
 20220 \DeclareTextCommand{\textglq}{PU}{\quotesinglbase}%
 20221 \DeclareTextCommand{\textgrq}{PU}{\textquoteleft}%
 20222 \DeclareTextCommand{\textflqq}{PU}{\guillemotleft}%
 20223 \DeclareTextCommand{\textfrqq}{PU}{\guillemotright}%
 20224 \DeclareTextCommand{\textflq}{PU}{\guilsinglleft}%
 20225 \DeclareTextCommand{\textfrq}{PU}{\guilsinglright}%
 Aliases (math names)

20226 \DeclareTextCommand{\textneg}{PU}{\textlogicalnot}%*
 20227 \DeclareTextCommand{\texttimes}{PU}{\textmultiply}%*
 20228 \DeclareTextCommand{\textdiv}{PU}{\textdivide}%*
 20229 \DeclareTextCommand{\textpm}{PU}{\textplusminus}%*
 20230 \DeclareTextCommand{\textcdot}{PU}{\textperiodcentered}%*
 20231 </puenc>

51.3 PU encoding, additions for VnTeX

This file is provided by Han The Thanh.

20232 <*puvnenc>

20233 \DeclareTextCommand{\abreve}{PU}{\81\003}% U+0103
 20234 \DeclareTextCommand{\acircumflex}{PU}{\80\342}% U+00E2
 20235 \DeclareTextCommand{\ecircumflex}{PU}{\80\352}% U+00EA
 20236 \DeclareTextCommand{\ocircumflex}{PU}{\80\364}% U+00F4
 20237 \DeclareTextCommand{\ohorn}{PU}{\81\241}% U+01A1
 20238 \DeclareTextCommand{\uhorn}{PU}{\81\260}% U+01B0
 20239 \DeclareTextCommand{\ABREVE}{PU}{\81\002}% U+0102
 20240 \DeclareTextCommand{\ACIRCUMFLEX}{PU}{\80\302}% U+00C2
 20241 \DeclareTextCommand{\ECIRCUMFLEX}{PU}{\80\312}% U+00CA
 20242 \DeclareTextCommand{\OCIRCUMFLEX}{PU}{\80\324}% U+00D4
 20243 \DeclareTextCommand{\OHORN}{PU}{\81\240}% U+01A0
 20244 \DeclareTextCommand{\UHORN}{PU}{\81\257}% U+01AF

 20245 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\341}% U+00E1
 20246 \DeclareTextCompositeCommand{\d}{PU}{a}{\9036\241}% U+1EA1
 20247 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\340}% U+00E0
 20248 \DeclareTextCompositeCommand{\h}{PU}{a}{\9036\243}% U+1EA3
 20249 \DeclareTextCompositeCommand{\~}{PU}{a}{\80\343}% U+00E3
 20250 \DeclareTextCompositeCommand{\'}{PU}{\abreve}{\9036\257}% U+1EAF
 20251 \DeclareTextCompositeCommand{\d}{PU}{\abreve}{\9036\267}% U+1EB7
 20252 \DeclareTextCompositeCommand{\'}{PU}{\abreve}{\9036\261}% U+1EB1
 20253 \DeclareTextCompositeCommand{\h}{PU}{\abreve}{\9036\263}% U+1EB3
 20254 \DeclareTextCompositeCommand{\~}{PU}{\abreve}{\9036\265}% U+1EB5
 20255 \DeclareTextCompositeCommand{\'}{PU}{\acircumflex}{\9036\245}% U+1EA5
 20256 \DeclareTextCompositeCommand{\d}{PU}{\acircumflex}{\9036\255}% U+1EAD
 20257 \DeclareTextCompositeCommand{\'}{PU}{\acircumflex}{\9036\247}% U+1EA7
 20258 \DeclareTextCompositeCommand{\h}{PU}{\acircumflex}{\9036\251}% U+1EA9
 20259 \DeclareTextCompositeCommand{\~}{PU}{\acircumflex}{\9036\253}% U+1EAB
 20260 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\351}% U+00E9
 20261 \DeclareTextCompositeCommand{\d}{PU}{e}{\9036\271}% U+1EB9
 20262 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\350}% U+00E8
 20263 \DeclareTextCompositeCommand{\h}{PU}{e}{\9036\273}% U+1EBB
 20264 \DeclareTextCompositeCommand{\~}{PU}{e}{\9036\275}% U+1EBD
 20265 \DeclareTextCompositeCommand{\'}{PU}{\ecircumflex}{\9036\277}% U+1EBF
 20266 \DeclareTextCompositeCommand{\d}{PU}{\ecircumflex}{\9036\307}% U+1EC7
 20267 \DeclareTextCompositeCommand{\'}{PU}{\ecircumflex}{\9036\301}% U+1EC1
 20268 \DeclareTextCompositeCommand{\h}{PU}{\ecircumflex}{\9036\303}% U+1EC3
 20269 \DeclareTextCompositeCommand{\~}{PU}{\ecircumflex}{\9036\305}% U+1EC5
 20270 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\355}% U+00ED
 20271 \DeclareTextCompositeCommand{\d}{PU}{i}{\9036\313}% U+1ECB
 20272 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\354}% U+00EC
 20273 \DeclareTextCompositeCommand{\h}{PU}{i}{\9036\311}% U+1EC9
 20274 \DeclareTextCompositeCommand{\~}{PU}{i}{\81\051}% U+0129
 20275 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\363}% U+00F3
 20276 \DeclareTextCompositeCommand{\d}{PU}{o}{\9036\315}% U+1ECD
 20277 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\362}% U+00F2
 20278 \DeclareTextCompositeCommand{\h}{PU}{o}{\9036\317}% U+1ECF
 20279 \DeclareTextCompositeCommand{\~}{PU}{o}{\80\365}% U+00F5
 20280 \DeclareTextCompositeCommand{\'}{PU}{\ocircumflex}{\9036\321}% U+1ED1
 20281 \DeclareTextCompositeCommand{\d}{PU}{\ocircumflex}{\9036\331}% U+1ED9
 20282 \DeclareTextCompositeCommand{\'}{PU}{\ocircumflex}{\9036\323}% U+1ED3
 20283 \DeclareTextCompositeCommand{\h}{PU}{\ocircumflex}{\9036\325}% U+1ED5
 20284 \DeclareTextCompositeCommand{\~}{PU}{\ocircumflex}{\9036\327}% U+1ED7
 20285 \DeclareTextCompositeCommand{\'}{PU}{\ohorn}{\9036\333}% U+1EDB
 20286 \DeclareTextCompositeCommand{\d}{PU}{\ohorn}{\9036\343}% U+1EE3
 20287 \DeclareTextCompositeCommand{\'}{PU}{\ohorn}{\9036\335}% U+1EDD
 20288 \DeclareTextCompositeCommand{\h}{PU}{\ohorn}{\9036\337}% U+1EDF
 20289 \DeclareTextCompositeCommand{\~}{PU}{\ohorn}{\9036\341}% U+1EE1

20290 \DeclareTextCompositeCommand{'}{PU}{u}{\80\372}% U+00FA
 20291 \DeclareTextCompositeCommand{d}{PU}{u}{\9036\345}% U+1EE5
 20292 \DeclareTextCompositeCommand{'}{PU}{u}{\80\371}% U+00F9
 20293 \DeclareTextCompositeCommand{h}{PU}{u}{\9036\347}% U+1EE7
 20294 \DeclareTextCompositeCommand{~}{PU}{u}{\81\151}% U+0169
 20295 \DeclareTextCompositeCommand{'}{PU}{\uhorn}{\9036\351}% U+1EE9
 20296 \DeclareTextCompositeCommand{d}{PU}{\uhorn}{\9036\361}% U+1EF1
 20297 \DeclareTextCompositeCommand{'}{PU}{\uhorn}{\9036\353}% U+1EEB
 20298 \DeclareTextCompositeCommand{h}{PU}{\uhorn}{\9036\355}% U+1EED
 20299 \DeclareTextCompositeCommand{~}{PU}{\uhorn}{\9036\357}% U+1EEF
 20300 \DeclareTextCompositeCommand{'}{PU}{y}{\80\375}% U+00FD
 20301 \DeclareTextCompositeCommand{d}{PU}{y}{\9036\365}% U+1EF5
 20302 \DeclareTextCompositeCommand{'}{PU}{y}{\9036\363}% U+1EF3
 20303 \DeclareTextCompositeCommand{h}{PU}{y}{\9036\367}% U+1EF7
 20304 \DeclareTextCompositeCommand{~}{PU}{y}{\9036\371}% U+1EF9
 20305 \DeclareTextCompositeCommand{'}{PU}{A}{\80\301}% U+00C1
 20306 \DeclareTextCompositeCommand{d}{PU}{A}{\9036\240}% U+1EA0
 20307 \DeclareTextCompositeCommand{'}{PU}{A}{\80\300}% U+00C0
 20308 \DeclareTextCompositeCommand{h}{PU}{A}{\9036\242}% U+1EA2
 20309 \DeclareTextCompositeCommand{~}{PU}{A}{\80\303}% U+00C3
 20310 \DeclareTextCompositeCommand{'}{PU}{\ABREVE}{\9036\256}% U+1EAE
 20311 \DeclareTextCompositeCommand{d}{PU}{\ABREVE}{\9036\266}% U+1EB6
 20312 \DeclareTextCompositeCommand{'}{PU}{\ABREVE}{\9036\260}% U+1EB0
 20313 \DeclareTextCompositeCommand{h}{PU}{\ABREVE}{\9036\262}% U+1EB2
 20314 \DeclareTextCompositeCommand{~}{PU}{\ABREVE}{\9036\264}% U+1EB4
 20315 \DeclareTextCompositeCommand{'}{PU}{\ACIRCUMFLEX}{\9036\244}% U+1EA4
 20316 \DeclareTextCompositeCommand{d}{PU}{\ACIRCUMFLEX}{\9036\254}% U+1EAC
 20317 \DeclareTextCompositeCommand{'}{PU}{\ACIRCUMFLEX}{\9036\246}% U+1EA6
 20318 \DeclareTextCompositeCommand{h}{PU}{\ACIRCUMFLEX}{\9036\250}% U+1EA8
 20319 \DeclareTextCompositeCommand{~}{PU}{\ACIRCUMFLEX}{\9036\252}% U+1EAA
 20320 \DeclareTextCompositeCommand{'}{PU}{E}{\80\311}% U+00C9
 20321 \DeclareTextCompositeCommand{d}{PU}{E}{\9036\270}% U+1EB8
 20322 \DeclareTextCompositeCommand{'}{PU}{E}{\80\310}% U+00C8
 20323 \DeclareTextCompositeCommand{h}{PU}{E}{\9036\272}% U+1EBA
 20324 \DeclareTextCompositeCommand{~}{PU}{E}{\9036\274}% U+1EBC
 20325 \DeclareTextCompositeCommand{'}{PU}{\ECIRCUMFLEX}{\9036\276}% U+1EBE
 20326 \DeclareTextCompositeCommand{d}{PU}{\ECIRCUMFLEX}{\9036\306}% U+1EC6
 20327 \DeclareTextCompositeCommand{'}{PU}{\ECIRCUMFLEX}{\9036\300}% U+1EC0
 20328 \DeclareTextCompositeCommand{h}{PU}{\ECIRCUMFLEX}{\9036\302}% U+1EC2
 20329 \DeclareTextCompositeCommand{~}{PU}{\ECIRCUMFLEX}{\9036\304}% U+1EC4
 20330 \DeclareTextCompositeCommand{'}{PU}{I}{\80\315}% U+00CD
 20331 \DeclareTextCompositeCommand{d}{PU}{I}{\9036\312}% U+1ECA
 20332 \DeclareTextCompositeCommand{'}{PU}{I}{\80\314}% U+00CC
 20333 \DeclareTextCompositeCommand{h}{PU}{I}{\9036\310}% U+1EC8
 20334 \DeclareTextCompositeCommand{~}{PU}{I}{\81\050}% U+0128
 20335 \DeclareTextCompositeCommand{'}{PU}{O}{\80\323}% U+00D3
 20336 \DeclareTextCompositeCommand{d}{PU}{O}{\9036\314}% U+1ECC
 20337 \DeclareTextCompositeCommand{'}{PU}{O}{\80\322}% U+00D2
 20338 \DeclareTextCompositeCommand{h}{PU}{O}{\9036\316}% U+1ECE
 20339 \DeclareTextCompositeCommand{~}{PU}{O}{\80\325}% U+00D5
 20340 \DeclareTextCompositeCommand{'}{PU}{\OCIRCUMFLEX}{\9036\320}% U+1ED0
 20341 \DeclareTextCompositeCommand{d}{PU}{\OCIRCUMFLEX}{\9036\330}% U+1ED8
 20342 \DeclareTextCompositeCommand{'}{PU}{\OCIRCUMFLEX}{\9036\322}% U+1ED2
 20343 \DeclareTextCompositeCommand{h}{PU}{\OCIRCUMFLEX}{\9036\324}% U+1ED4
 20344 \DeclareTextCompositeCommand{~}{PU}{\OCIRCUMFLEX}{\9036\326}% U+1ED6
 20345 \DeclareTextCompositeCommand{'}{PU}{\OHORN}{\9036\332}% U+1EDA
 20346 \DeclareTextCompositeCommand{d}{PU}{\OHORN}{\9036\342}% U+1EE2

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20347 \DeclareTextCompositeCommand{\'}{PU}{\OHORN}{\9036\334}% U+1EDC
20348 \DeclareTextCompositeCommand{\h}{PU}{\OHORN}{\9036\336}% U+1EDE
20349 \DeclareTextCompositeCommand{\~}{PU}{\OHORN}{\9036\340}% U+1EE0
20350 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\332}% U+00DA
20351 \DeclareTextCompositeCommand{\d}{PU}{U}{\9036\344}% U+1EE4
20352 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\331}% U+00D9
20353 \DeclareTextCompositeCommand{\h}{PU}{U}{\9036\346}% U+1EE6
20354 \DeclareTextCompositeCommand{\~}{PU}{U}{\81\150}% U+0168
20355 \DeclareTextCompositeCommand{\'}{PU}{\UHORN}{\9036\350}% U+1EE8
20356 \DeclareTextCompositeCommand{\d}{PU}{\UHORN}{\9036\360}% U+1EF0
20357 \DeclareTextCompositeCommand{\'}{PU}{\UHORN}{\9036\352}% U+1EEA
20358 \DeclareTextCompositeCommand{\h}{PU}{\UHORN}{\9036\354}% U+1EEC
20359 \DeclareTextCompositeCommand{\~}{PU}{\UHORN}{\9036\356}% U+1EEE
20360 \DeclareTextCompositeCommand{\'}{PU}{Y}{\80\335}% U+00DD
20361 \DeclareTextCompositeCommand{\d}{PU}{Y}{\9036\364}% U+1EF4
20362 \DeclareTextCompositeCommand{\'}{PU}{Y}{\9036\362}% U+1EF2
20363 \DeclareTextCompositeCommand{\h}{PU}{Y}{\9036\366}% U+1EF6
20364 \DeclareTextCompositeCommand{\~}{PU}{Y}{\9036\370}% U+1EF8
20365 </puvnenc>

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51.4 PU encoding, additions for Arabi

This file is provided and maintained by Youssef Jabri.

```

20366 <*puarenc>
20367 % U+0621;afii57409;ARABIC LETTER HAMZA
20368 \DeclareTextCommand{\hamza}{PU}{\86\041}% U+0621
20369 % U+0622;afii57410;ARABIC LETTER ALEF WITH MADDA ABOVE
20370 \DeclareTextCommand{\alefmadda}{PU}{\86\042}% U+0622
20371 % U+0623;afii57411;ARABIC LETTER ALEF WITH HAMZA ABOVE
20372 \DeclareTextCommand{\alefhamza}{PU}{\86\043}% U+0623
20373 % U+0624;afii57412;ARABIC LETTER WAW WITH HAMZA ABOVE
20374 \DeclareTextCommand{\wawhamza}{PU}{\86\044}% U+0624
20375 % U+0625;afii57413;ARABIC LETTER ALEF WITH HAMZA BELOW
20376 \DeclareTextCommand{\aleflowerhamza}{PU}{\86\045}% U+0625
20377 % U+0626;afii57414;ARABIC LETTER YEH WITH HAMZA ABOVE
20378 \DeclareTextCommand{\yahamza}{PU}{\86\046}% U+0626
20379 % U+0627;afii57415;ARABIC LETTER ALEF
20380 \DeclareTextCommand{\alef}{PU}{\86\047}% U+0627
20381 % U+0628;afii57416;ARABIC LETTER BEH
20382 \DeclareTextCommand{\baa}{PU}{\86\050}% U+0628
20383 % U+0629;afii57417;ARABIC LETTER TEH MARBUTA
20384 \DeclareTextCommand{\T}{PU}{\86\051}% U+0629
20385 % U+062A;afii57418;ARABIC LETTER TEH
20386 \DeclareTextCommand{\taa}{PU}{\86\052}% U+062A
20387 % U+062B;afii57419;ARABIC LETTER THEH
20388 \DeclareTextCommand{\thaa}{PU}{\86\053}% U+062B
20389 % U+062C;afii57420;ARABIC LETTER JEEM
20390 \DeclareTextCommand{\jeem}{PU}{\86\054}% U+062C
20391 % U+062D;afii57421;ARABIC LETTER HAH
20392 \DeclareTextCommand{\Haa}{PU}{\86\055}% U+062D
20393 % U+062E;afii57422;ARABIC LETTER KHAH
20394 \DeclareTextCommand{\kha}{PU}{\86\056}% U+062E
20395 % U+062F;afii57423;ARABIC LETTER DAL
20396 \DeclareTextCommand{\dal}{PU}{\86\057}% U+062F
20397 % U+0630;afii57424;ARABIC LETTER THAL
20398 \DeclareTextCommand{\dhal}{PU}{\86\060}% U+0630

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20399 % U+0631;afii57425;ARABIC LETTER REH
 20400 \DeclareTextCommand{\ra}{PU}{\86\061}% U+0631
 20401 % U+0632;afii57426;ARABIC LETTER ZAIN
 20402 \DeclareTextCommand{\zay}{PU}{\86\062}% U+0632
 20403 % U+0633;afii57427;ARABIC LETTER SEEN
 20404 \DeclareTextCommand{\seen}{PU}{\86\063}% U+0633
 20405 % U+0634;afii57428;ARABIC LETTER SHEEN
 20406 \DeclareTextCommand{\sheen}{PU}{\86\064}% U+0634
 20407 % U+0635;afii57429;ARABIC LETTER SAD
 20408 \DeclareTextCommand{\sad}{PU}{\86\065}% U+0635
 20409 % U+0636;afii57430;ARABIC LETTER DAD
 20410 \DeclareTextCommand{\dad}{PU}{\86\066}% U+0636
 20411 % U+0637;afii57431;ARABIC LETTER TAH
 20412 \DeclareTextCommand{\Ta}{PU}{\86\067}% U+0637
 20413 % U+0638;afii57432;ARABIC LETTER ZAH
 20414 \DeclareTextCommand{\za}{PU}{\86\070}% U+0638
 20415 % U+0639;afii57433;ARABIC LETTER AIN
 20416 \DeclareTextCommand{\ayn}{PU}{\86\071}% U+0639
 20417 % U+063A;afii57434;ARABIC LETTER GHAIN
 20418 \DeclareTextCommand{\ghayn}{PU}{\86\072}% U+063A
 20419 % U+0640;afii57440;ARABIC TATWEEL
 20420 \DeclareTextCommand{\tatweel}{PU}{\86\100}% U+0640
 20421 % U+0641;afii57441;ARABIC LETTER FEH
 20422 \DeclareTextCommand{\fa}{PU}{\86\101}% U+0641
 20423 % U+0642;afii57442;ARABIC LETTER QAF
 20424 \DeclareTextCommand{\qaf}{PU}{\86\102}% U+0642
 20425 % U+0643;afii57443;ARABIC LETTER KAF
 20426 \DeclareTextCommand{\kaf}{PU}{\86\103}% U+0643
 20427 % U+0644;afii57444;ARABIC LETTER LAM
 20428 \DeclareTextCommand{\lam}{PU}{\86\104}% U+0644
 20429 % U+0645;afii57445;ARABIC LETTER MEEM
 20430 \DeclareTextCommand{\meem}{PU}{\86\105}% U+0645
 20431 % U+0646;afii57446;ARABIC LETTER NOON
 20432 \DeclareTextCommand{\nun}{PU}{\86\106}% U+0646
 20433 % U+0647;afii57470;ARABIC LETTER HEH
 20434 \DeclareTextCommand{\ha}{PU}{\86\107}% U+0647
 20435 % U+0648;afii57448;ARABIC LETTER WAW
 20436 \DeclareTextCommand{\waw}{PU}{\86\110}% U+0648
 20437 % U+0649;afii57449;ARABIC LETTER ALEF MAKSURA
 20438 \DeclareTextCommand{\alefmaqsura}{PU}{\86\111}% U+0649
 20439 % U+064A;afii57450;ARABIC LETTER YEH
 20440 \DeclareTextCommand{\ya}{PU}{\86\112}% U+064A
 20441 % U+064B;afii57451;ARABIC FATHATAN
 20442 \DeclareTextCommand{\nasb}{PU}{\86\113}% U+064B
 20443 % U+064C;afii57452;ARABIC DAMMATAN
 20444 \DeclareTextCommand{\raff}{PU}{\86\114}% U+064C
 20445 % U+064D;afii57453;ARABIC KASRATAN
 20446 \DeclareTextCommand{\jarr}{PU}{\86\115}% U+064D
 20447 % U+064E;afii57454;ARABIC FATHA
 20448 \DeclareTextCommand{\fatha}{PU}{\86\116}% U+064E
 20449 % U+064F;afii57455;ARABIC DAMMA
 20450 \DeclareTextCommand{\damma}{PU}{\86\117}% U+064F
 20451 % U+0650;afii57456;ARABIC KASRA
 20452 \DeclareTextCommand{\kasra}{PU}{\86\120}% U+0650
 20453 % U+0651;afii57457;ARABIC SHADDA
 20454 \DeclareTextCommand{\shadda}{PU}{\86\121}% U+0651
 20455 % U+0652;afii57458;ARABIC SUKUN

20456 \DeclareTextCommand{\sukun}{PU}{\86\122}% U+0652

Farsi

20457 % U+067E ARABIC LETTER PEH; afii57506

20458 \DeclareTextCommand{\peh}{PU}{\86\176}% U+067E

20459 % U+0686 ARABIC LETTER TCHEH; afii57507

20460 \DeclareTextCommand{\tcheh}{PU}{\86\206}% U+0686

20461 % U+0698 ARABIC LETTER JEK; afii57508

20462 \DeclareTextCommand{\jek}{PU}{\86\230}% U+0698

20463 % U+06A9 ARABIC LETTER KEHEH

20464 \DeclareTextCommand{\farsikaf}{PU}{\86\251}% U+06A9

20465 % U+06AF ARABIC LETTER GAF; afii57509

20466 \DeclareTextCommand{\gaf}{PU}{\86\257}% U+06AF

20467 % U+06CC ARABIC LETTER FARSI YEH

20468 \DeclareTextCommand{\farsiya}{PU}{\86\314}% U+06CC

20469 % U+200C ZERO WIDTH NON-JOINER; afii61664

20470 \DeclareTextCommand{\ZWNJ}{PU}{\9040\014}% U+200C

20471 % U+200D ZERO WIDTH JOINER; afii301

20472 \DeclareTextCommand{\noboundary}{PU}{\9040\015}% U+200D

20473 (/puarenc)

20474 (*psdextra)

20475 \Hy@VersionCheck{psdextra.def}

20476 \newcommand*{\psdmapshortnames}{%

20477 \let\MVPlus\textMVPlus

20478 \let\MVComma\textMVComma

20479 \let\MVMinus\textMVMinus

20480 \let\MVPeriod\textMVPeriod

20481 \let\MVDivision\textMVDivision

20482 \let\MVZero\textMVZero

20483 \let\MVOne\textMVOne

20484 \let\MVTwo\textMVTwo

20485 \let\MVThree\textMVThree

20486 \let\MVFour\textMVFour

20487 \let\MVFive\textMVFive

20488 \let\MVSix\textMVSix

20489 \let\MVSeven\textMVSeven

20490 \let\MVEight\textMVEight

20491 \let\MVNine\textMVNine

20492 \let\MVAt\textMVAt

20493 \let\copyright\textcopyright

20494 \let\twosuperior\texttwosuperior

20495 \let\threesuperior\textthreesuperior

20496 \let\onesuperior\textonesuperior

20497 \let\Thorn\textThorn

20498 \let\thorn\textthorn

20499 \let\hbar\texthbar

20500 \let\hausaB\texthausaB

20501 \let\hausaD\texthausaD

20502 \let\hausaK\texthausaK

20503 \let\barl\textbarl

20504 \let\inve\textinve

20505 \let\slashc\textslashc

20506 \let\scripta\textscripta

20507 \let\openo\textopeno

20508 \let\rtaild\textrtaild

20509 \let\reve\textreve

20510 \let\schwa\textschwa

20511 `\let\niepsilon\textniepsilon`
 20512 `\let\repsilon\textrepsilon`
 20513 `\let\rhookrepsilon\texthookrepsilon`
 20514 `\let\scriptg\textscriptg`
 20515 `\let\scg\textscg`
 20516 `\let\ipagamma\textipagamma`
 20517 `\let\babygamma\textbabygamma`
 20518 `\let\bari\textbari`
 20519 `\let\niiota\textniiota`
 20520 `\let\sci\textsci`
 20521 `\let\scn\textscn`
 20522 `\let\niphi\textniphy`
 20523 `\let\longlegr\textlonglegr`
 20524 `\let\scr\textscr`
 20525 `\let\invscr\textinvscr`
 20526 `\let\esh\textesh`
 20527 `\let\baru\textbaru`
 20528 `\let\niupsilon\textniupsilon`
 20529 `\let\scriptv\textscriptv`
 20530 `\let\turnv\textturnv`
 20531 `\let\turnw\textturnw`
 20532 `\let\turny\textturny`
 20533 `\let\scy\textscy`
 20534 `\let\yogh\textyogh`
 20535 `\let\glotstop\textglotstop`
 20536 `\let\revglotstop\textrevglotstop`
 20537 `\let\invglotstop\textinvglotstop`
 20538 `\let\Gamma\textGamma`
 20539 `\let\Delta\textDelta`
 20540 `\let\Theta\textTheta`
 20541 `\let\Lambda\textLambda`
 20542 `\let\Xi\textXi`
 20543 `\let\Pi\textPi`
 20544 `\let\Sigma\textSigma`
 20545 `\let\Upsilon\textUpsilon`
 20546 `\let\Phi\textPhi`
 20547 `\let\Psi\textPsi`
 20548 `\let\Omega\textOmega`
 20549 `\let\alpha\textalpha`
 20550 `\let\beta\textbeta`
 20551 `\let\gamma\textgamma`
 20552 `\let\delta\textdelta`
 20553 `\let\epsilon\textepsilon`
 20554 `\let\zeta\textzeta`
 20555 `\let\eta\texteta`
 20556 `\let\theta\texttheta`
 20557 `\let\iota\textiota`
 20558 `\let\kappa\textkappa`
 20559 `\let\lambda\textlambda`
 20560 `\let\mugreek\textmugreek`
 20561 `\let\nu\textnu`
 20562 `\let\xi\textxi`
 20563 `\let\pi\textpi`
 20564 `\let\rho\textrho`
 20565 `\let\varsigma\textvarsigma`
 20566 `\let\sigma\textsigma`
 20567 `\let\tau\texttau`

20568 \let\upsilon\textupsilon
 20569 \let\phi\textphi
 20570 \let\chi\textchi
 20571 \let\psi\textpsi
 20572 \let\omega\textomega
 20573 \let\scd\textscd
 20574 \let\scu\textscu
 20575 \let\iinferior\textiinferior
 20576 \let\rinferior\extrinferior
 20577 \let\uinferior\textuinferior
 20578 \let\vinferior\textvinferior
 20579 \let\betainferior\textbetainferior
 20580 \let\gammainferior\textgammainferior
 20581 \let\rhoinferior\textrhoinferior
 20582 \let\phiinferior\textphiinferior
 20583 \let\chiinferior\textchiinferior
 20584 \let\barsci\textbarsci
 20585 \let\barp\textbarp
 20586 \let\barscu\textbarscu
 20587 \let\htrtaild\texthtrtaild
 20588 \let\dagger\textdagger
 20589 \let\bullet\textbullet
 20590 \let\hdotfor\texthdotfor
 20591 \let\prime\textprime
 20592 \let\second\textsecond
 20593 \let\third\textthird
 20594 \let\backprime\textbackprime
 20595 \let\lefttherefore\textlefttherefore
 20596 \let\fourth\textfourth
 20597 \let\diamonddots\textdiamonddots
 20598 \let\zerosuperior\textzerosuperior
 20599 \let\isuperior\textisuperior
 20600 \let\foursuperior\textfoursuperior
 20601 \let\fivesuperior\textfivesuperior
 20602 \let\sixsuperior\textsixsuperior
 20603 \let\sevensuperior\textsevensuperior
 20604 \let\eightsuperior\texteightsuperior
 20605 \let\ninesuperior\textninesuperior
 20606 \let\plussuperior\textplussuperior
 20607 \let\minussuperior\textminussuperior
 20608 \let>equalsuperior\textequalsuperior
 20609 \let\parenleftsuperior\textparenleftsuperior
 20610 \let\parenrightsuperior\textparenrightsuperior
 20611 \let\nsuperior\textnsuperior
 20612 \let\zeroinferior\textzeroinferior
 20613 \let\oneinferior\textoneinferior
 20614 \let\twoinferior\texttwoinferior
 20615 \let\threeinferior\textthreeinferior
 20616 \let\fourinferior\textfourinferior
 20617 \let\fiveinferior\textfiveinferior
 20618 \let\sixinferior\textsixinferior
 20619 \let\seveninferior\textseveninferior
 20620 \let\eightinferior\texteightinferior
 20621 \let\nineinferior\textnineinferior
 20622 \let\plusinferior\textplusinferior
 20623 \let\minusinferior\textminusinferior
 20624 \let>equalsinferior\textequalsinferior

20625 \let\parenleftinferior\textparenleftinferior
 20626 \let\parenrightinferior\textparenrightinferior
 20627 \let\ainferior\textainferior
 20628 \let\einferior\texteinferior
 20629 \let\oinferior\textoinferior
 20630 \let\xinferior\textxinferior
 20631 \let\schwainferior\textschwainferior
 20632 \let\hinferior\texthinferior
 20633 \let\kinferior\textkinferior
 20634 \let\linferior\textlinferior
 20635 \let\minferior\textminferior
 20636 \let\ninferior\textninferior
 20637 \let\pinferior\textpinferior
 20638 \let\sinferior\textsinferior
 20639 \let\tinferior\texttinferior
 20640 \let\Deleatur\textDeleatur
 20641 \let\hslash\texthslash
 20642 \let\Im\textIm
 20643 \let\ell\textell
 20644 \let\wp\textwp
 20645 \let\Re\textRe
 20646 \let\mho\textmho
 20647 \let\riota\textriota
 20648 \let\Finv\textFinv
 20649 \let\aleph\textaleph
 20650 \let\beth\textbeth
 20651 \let\gimel\textgimel
 20652 \let\daleth\textdaleth
 20653 \let\xfax\textfax
 20654 \let\Game\textGame
 20655 \let\leftarrow\textleftarrow
 20656 \let\uparrow\textuparrow
 20657 \let\rightarrow\textrightarrow
 20658 \let\downarrow\textdownarrow
 20659 \let\leftrightarrow\textleftrightarrow
 20660 \let\updownarrow\textupdownarrow
 20661 \let\nwarrow\textnwarrow
 20662 \let\nearrow\textnearrow
 20663 \let\searrow\textsearrow
 20664 \let\swarrow\textswarrow
 20665 \let\nleftarrow\textnleftarrow
 20666 \let\nrightarrow\textnrightarrow
 20667 \let\twoheadleftarrow\texttwoheadleftarrow
 20668 \let\ntwoheadleftarrow\textntwoheadleftarrow
 20669 \let\twoheaduparrow\texttwoheaduparrow
 20670 \let\twoheadrightarrow\texttwoheadrightarrow
 20671 \let\ntwoheadrightarrow\textntwoheadrightarrow
 20672 \let\twoheaddownarrow\texttwoheaddownarrow
 20673 \let\leftarrowtail\textleftarrowtail
 20674 \let\rightarrowtail\textrightarrowtail
 20675 \let\mapsto\textmapsto
 20676 \let\hookleftarrow\texthookleftarrow
 20677 \let\hookrightarrow\texthookrightarrow
 20678 \let\looparrowleft\textlooparrowleft
 20679 \let\looparrowright\textlooparrowright
 20680 \let\leftrightharrow\textleftrightharrow
 20681 \let\lightning\textlightning

20682 $\backslash\text{dlsh}\backslash\text{tex}\text{dlsh}$
 20683 $\backslash\text{let}\backslash\text{curvearrowleft}\backslash\text{tex}\text{curvearrowleft}$
 20684 $\backslash\text{let}\backslash\text{curvearrowright}\backslash\text{tex}\text{curvearrowright}$
 20685 $\backslash\text{let}\backslash\text{leftharpoonup}\backslash\text{tex}\text{leftharpoonup}$
 20686 $\backslash\text{let}\backslash\text{leftharpoondown}\backslash\text{tex}\text{leftharpoondown}$
 20687 $\backslash\text{let}\backslash\text{upharpoonright}\backslash\text{tex}\text{upharpoonright}$
 20688 $\backslash\text{let}\backslash\text{upharpoonleft}\backslash\text{tex}\text{upharpoonleft}$
 20689 $\backslash\text{let}\backslash\text{rightharpoonup}\backslash\text{tex}\text{rightharpoonup}$
 20690 $\backslash\text{let}\backslash\text{rightharpoondown}\backslash\text{tex}\text{rightharpoondown}$
 20691 $\backslash\text{let}\backslash\text{downharpoonright}\backslash\text{tex}\text{downharpoonright}$
 20692 $\backslash\text{let}\backslash\text{downharpoonleft}\backslash\text{tex}\text{downharpoonleft}$
 20693 $\backslash\text{let}\backslash\text{rightleftarrows}\backslash\text{tex}\text{rightleftarrows}$
 20694 $\backslash\text{let}\backslash\text{updownarrows}\backslash\text{tex}\text{updownarrows}$
 20695 $\backslash\text{let}\backslash\text{leftrightarrows}\backslash\text{tex}\text{leftrightarrows}$
 20696 $\backslash\text{let}\backslash\text{leftleftarrows}\backslash\text{tex}\text{leftleftarrows}$
 20697 $\backslash\text{let}\backslash\text{upuparrows}\backslash\text{tex}\text{upuparrows}$
 20698 $\backslash\text{let}\backslash\text{rightrightarrows}\backslash\text{tex}\text{rightrightarrows}$
 20699 $\backslash\text{let}\backslash\text{downdownarrows}\backslash\text{tex}\text{downdownarrows}$
 20700 $\backslash\text{let}\backslash\text{leftrightharpoons}\backslash\text{tex}\text{leftrightharpoons}$
 20701 $\backslash\text{let}\backslash\text{rightleftharpoons}\backslash\text{tex}\text{rightleftharpoons}$
 20702 $\backslash\text{let}\backslash\text{nLeftarrow}\backslash\text{tex}\text{nLeftarrow}$
 20703 $\backslash\text{let}\backslash\text{nLeftrightarrow}\backslash\text{tex}\text{nLeftrightarrow}$
 20704 $\backslash\text{let}\backslash\text{nRrightarrow}\backslash\text{tex}\text{nRrightarrow}$
 20705 $\backslash\text{let}\backslash\text{Leftarrow}\backslash\text{tex}\text{Leftarrow}$
 20706 $\backslash\text{let}\backslash\text{Uparrow}\backslash\text{tex}\text{Uparrow}$
 20707 $\backslash\text{let}\backslash\text{Rrightarrow}\backslash\text{tex}\text{Rrightarrow}$
 20708 $\backslash\text{let}\backslash\text{Downarrow}\backslash\text{tex}\text{Downarrow}$
 20709 $\backslash\text{let}\backslash\text{Leftrightarrow}\backslash\text{tex}\text{Leftrightarrow}$
 20710 $\backslash\text{let}\backslash\text{Updownarrow}\backslash\text{tex}\text{Updownarrow}$
 20711 $\backslash\text{let}\backslash\text{Nwarrow}\backslash\text{tex}\text{Nwarrow}$
 20712 $\backslash\text{let}\backslash\text{Nearrow}\backslash\text{tex}\text{Nearrow}$
 20713 $\backslash\text{let}\backslash\text{Searrow}\backslash\text{tex}\text{Searrow}$
 20714 $\backslash\text{let}\backslash\text{Swarrow}\backslash\text{tex}\text{Swarrow}$
 20715 $\backslash\text{let}\backslash\text{Lleftarrow}\backslash\text{tex}\text{Lleftarrow}$
 20716 $\backslash\text{let}\backslash\text{Rrightarrow}\backslash\text{tex}\text{Rrightarrow}$
 20717 $\backslash\text{let}\backslash\text{leftsquigarrow}\backslash\text{tex}\text{leftsquigarrow}$
 20718 $\backslash\text{let}\backslash\text{rightsquigarrow}\backslash\text{tex}\text{rightsquigarrow}$
 20719 $\backslash\text{let}\backslash\text{dashleftarrow}\backslash\text{tex}\text{dashleftarrow}$
 20720 $\backslash\text{let}\backslash\text{dasheduparrow}\backslash\text{tex}\text{dasheduparrow}$
 20721 $\backslash\text{let}\backslash\text{dashrightarrow}\backslash\text{tex}\text{dashrightarrow}$
 20722 $\backslash\text{let}\backslash\text{dasheddownarrow}\backslash\text{tex}\text{dasheddownarrow}$
 20723 $\backslash\text{let}\backslash\text{pointer}\backslash\text{tex}\text{pointer}$
 20724 $\backslash\text{let}\backslash\text{downuparrows}\backslash\text{tex}\text{downuparrows}$
 20725 $\backslash\text{let}\backslash\text{leftarrowtriangle}\backslash\text{tex}\text{leftarrowtriangle}$
 20726 $\backslash\text{let}\backslash\text{rightarrowtriangle}\backslash\text{tex}\text{rightarrowtriangle}$
 20727 $\backslash\text{let}\backslash\text{leftrightarrowtriangle}\backslash\text{tex}\text{leftrightarrowtriangle}$
 20728 $\backslash\text{let}\backslash\text{forall}\backslash\text{tex}\text{forall}$
 20729 $\backslash\text{let}\backslash\text{complement}\backslash\text{tex}\text{complement}$
 20730 $\backslash\text{let}\backslash\text{partial}\backslash\text{tex}\text{partial}$
 20731 $\backslash\text{let}\backslash\text{exists}\backslash\text{tex}\text{exists}$
 20732 $\backslash\text{let}\backslash\text{nexists}\backslash\text{tex}\text{nexists}$
 20733 $\backslash\text{let}\backslash\text{emptyset}\backslash\text{tex}\text{emptyset}$
 20734 $\backslash\text{let}\backslash\text{triangle}\backslash\text{tex}\text{triangle}$
 20735 $\backslash\text{let}\backslash\text{nabla}\backslash\text{tex}\text{nabla}$
 20736 $\backslash\text{let}\backslash\text{in}\backslash\text{tex}\text{in}$
 20737 $\backslash\text{let}\backslash\text{notin}\backslash\text{tex}\text{notin}$
 20738 $\backslash\text{let}\backslash\text{smallin}\backslash\text{tex}\text{smallin}$

20739 $\backslash\text{ni}$
 20740 $\backslash\text{notowner}$
 20741 $\backslash\text{smallowns}$
 20742 $\backslash\text{prod}$
 20743 $\backslash\text{amalg}$
 20744 $\backslash\text{sum}$
 20745 $\backslash\text{mp}$
 20746 $\backslash\text{dotplus}$
 20747 $\backslash\text{Divides}$
 20748 $\backslash\text{DividesNot}$
 20749 $\backslash\text{setminus}$
 20750 $\backslash\text{ast}$
 20751 $\backslash\text{circ}$
 20752 $\backslash\text{surd}$
 20753 $\backslash\text{propto}$
 20754 $\backslash\text{infty}$
 20755 $\backslash\text{angle}$
 20756 $\backslash\text{measuredangle}$
 20757 $\backslash\text{sphericalangle}$
 20758 $\backslash\text{mid}$
 20759 $\backslash\text{nmid}$
 20760 $\backslash\text{parallel}$
 20761 $\backslash\text{nparallel}$
 20762 $\backslash\text{wedge}$
 20763 $\backslash\text{owedge}$
 20764 $\backslash\text{vee}$
 20765 $\backslash\text{ovee}$
 20766 $\backslash\text{cap}$
 20767 $\backslash\text{cup}$
 20768 $\backslash\text{int}$
 20769 $\backslash\text{iint}$
 20770 $\backslash\text{iiint}$
 20771 $\backslash\text{ooint}$
 20772 $\backslash\text{oiint}$
 20773 $\backslash\text{oointclockwise}$
 20774 $\backslash\text{oointctrlockwise}$
 20775 $\backslash\text{therefore}$
 20776 $\backslash\text{because}$
 20777 $\backslash\text{vdotdot}$
 20778 $\backslash\text{sqaredots}$
 20779 $\backslash\text{dotminus}$
 20780 $\backslash\text{eqcolon}$
 20781 $\backslash\text{sim}$
 20782 $\backslash\text{backsim}$
 20783 $\backslash\text{nbacksim}$
 20784 $\backslash\text{wr}$
 20785 $\backslash\text{nsim}$
 20786 $\backslash\text{eqsim}$
 20787 $\backslash\text{neqsim}$
 20788 $\backslash\text{simeq}$
 20789 $\backslash\text{nsimeq}$
 20790 $\backslash\text{cong}$
 20791 $\backslash\text{ncong}$
 20792 $\backslash\text{approx}$
 20793 $\backslash\text{napprox}$
 20794 $\backslash\text{approxeq}$
 20795 $\backslash\text{napproxeq}$

20796 \let\triplesim\texttriplesim
 20797 \let\ntriplesim\textntriplesim
 20798 \let\backcong\textbackcong
 20799 \let\backcong\textnbackcong
 20800 \let\asymp\textasymp
 20801 \let\nasymp\textnasymp
 20802 \let\Bumpeq\textBumpeq
 20803 \let\NBumpeq\textNBumpeq
 20804 \let\bumpeq\textbumpeq
 20805 \let\Nbumpeq\textNbumpeq
 20806 \let\doteq\textdoteq
 20807 \let\ndoteq\textndoteq
 20808 \let\doteqdot\textdoteqdot
 20809 \let\NDoteq\textNDoteq
 20810 \let\fallingdoteq\textfallingdoteq
 20811 \let\Nfallingdoteq\textNfallingdoteq
 20812 \let\risingdoteq\textrisingdoteq
 20813 \let\Nrisingdoteq\textNrisingdoteq
 20814 \let\colonequals\textcolonequals
 20815 \let\equalscolon\textequalscolon
 20816 \let\eqcirc\texteqcirc
 20817 \let\neqcirc\textneqcirc
 20818 \let\circeq\textcirceq
 20819 \let\ncirceq\textncirceq
 20820 \let\hateq\texthateq
 20821 \let\Nhateq\textNhateq
 20822 \let\triangleeq\texttriangleeq
 20823 \let\neq\textneq
 20824 \let\ne\textne
 20825 \let\equiv\textequiv
 20826 \let\nequiv\textnequiv
 20827 \let\leq\textleq
 20828 \let\le\textle
 20829 \let\geq\textgeq
 20830 \let\ge\textge
 20831 \let\leqq\textleqq
 20832 \let\Nleqq\textNleqq
 20833 \let\geqq\textgeqq
 20834 \let\Ngeqq\textNgeqq
 20835 \let\lneqq\textlneqq
 20836 \let\gneqq\textgneqq
 20837 \let\ll\textll
 20838 \let\nll\textnll
 20839 \let\gg\textgg
 20840 \let\ngg\textngg
 20841 \let\between\textbetween
 20842 \let\nless\textnless
 20843 \let\ngtr\textngtr
 20844 \let\lneq\textlneq
 20845 \let\ngeq\textngeq
 20846 \let\lesssim\textlessim
 20847 \let\gtrsim\textgtrsim
 20848 \let\nlessim\textnlessim
 20849 \let\ngtrsim\textngtrsim
 20850 \let\lessgtr\textlessgtr
 20851 \let\gtrless\textgtrless
 20852 \let\ngtrless\textngtrless

20853 \let\nlessgtr\textnlessgtr
 20854 \let\prec\textprec
 20855 \let\succ\textsucc
 20856 \let\preccurlyeq\textpreccurlyeq
 20857 \let\succcurlyeq\textsucccurlyeq
 20858 \let\precsim\textprecsim
 20859 \let\nprecsim\textnprecsim
 20860 \let\succsim\textsuccsim
 20861 \let\nsuccsim\textnsuccsim
 20862 \let\nprec\textnprec
 20863 \let\nsucc\textnsucc
 20864 \let\subset\textsubset
 20865 \let\supset\textsupset
 20866 \let\nsubset\textnsubset
 20867 \let\nsupset\textnsupset
 20868 \let\subseteq\textsubseteq
 20869 \let\supseteq\textsupseteq
 20870 \let\nsubseteq\textnsubseteq
 20871 \let\nsupseteq\textnsupseteq
 20872 \let\subsetneq\textsubsetneq
 20873 \let\supsetneq\textsupsetneq
 20874 \let\cupdot\textcupdot
 20875 \let\cupplus\textcupplus
 20876 \let\sqsubset\textsqssubset
 20877 \let\nsqsubset\textnsqsubset
 20878 \let\sqsupset\textsqsupset
 20879 \let\nsqsupset\textnsqsupset
 20880 \let\sqsubseteq\textsqssubseq
 20881 \let\nsqsubseq\textnsqsubseq
 20882 \let\sqsupseteq\textsqsupseq
 20883 \let\nsqsupseq\textnsqsupseq
 20884 \let\sqcap\textsqqcap
 20885 \let\sqqcup\textsqqcup
 20886 \let\oplus\textoplus
 20887 \let\ominus\textominus
 20888 \let\otimes\textotimes
 20889 \let\oslash\textoslash
 20890 \let\odot\textodot
 20891 \let\circledcirc\textcircledcirc
 20892 \let\circledast\textcircledast
 20893 \let\circleddash\textcircleddash
 20894 \let\boxplus\textboxplus
 20895 \let\boxminus\textboxminus
 20896 \let\boxtimes\textboxtimes
 20897 \let\boxdot\textboxdot
 20898 \let\vdash\textvdash
 20899 \let\dashv\textdashv
 20900 \let\ndashv\textndashv
 20901 \let\top\texttop
 20902 \let\ndownvdash\textndownvdash
 20903 \let\bot\textbot
 20904 \let\nupvdash\textnupvdash
 20905 \let\vdash\textvdash
 20906 \let\VDash\textVDash
 20907 \let\Vdash\textVdash
 20908 \let\NVdash\textNVdash
 20909 \let\VDash\textVDash

20910 $\backslash\text{nvdash}\backslash\text{textnvdash}$
 20911 $\backslash\text{nvDash}\backslash\text{textnvDash}$
 20912 $\backslash\text{nVdash}\backslash\text{textnVdash}$
 20913 $\backslash\text{nVDash}\backslash\text{textnVDash}$
 20914 $\backslash\text{lhs}\backslash\text{textrhs}$
 20915 $\backslash\text{rhd}\backslash\text{textrhd}$
 20916 $\backslash\text{unlhd}\backslash\text{textunlhd}$
 20917 $\backslash\text{unrhd}\backslash\text{textunrhd}$
 20918 $\backslash\text{multimapdotbothA}\backslash\text{textmultimapdotbothA}$
 20919 $\backslash\text{multimapdotbothB}\backslash\text{textmultimapdotbothB}$
 20920 $\backslash\text{multimap}\backslash\text{textmultimap}$
 20921 $\backslash\text{veebar}\backslash\text{textveebar}$
 20922 $\backslash\text{barwedge}\backslash\text{textbarwedge}$
 20923 $\backslash\text{star}\backslash\text{textstar}$
 20924 $\backslash\text{divideontimes}\backslash\text{textdivideontimes}$
 20925 $\backslash\text{bowtie}\backslash\text{textbowtie}$
 20926 $\backslash\text{ltimes}\backslash\text{texltimes}$
 20927 $\backslash\text{rtimes}\backslash\text{textrtimes}$
 20928 $\backslash\text{leftthreetimes}\backslash\text{textleftthreetimes}$
 20929 $\backslash\text{rightthreetimes}\backslash\text{textrightthreetimes}$
 20930 $\backslash\text{backsimeq}\backslash\text{textbacksimeq}$
 20931 $\backslash\text{nbacksimeq}\backslash\text{textnbacksimeq}$
 20932 $\backslash\text{curlyvee}\backslash\text{textcurlyvee}$
 20933 $\backslash\text{curlywedge}\backslash\text{textcurlywedge}$
 20934 $\backslash\text{Subset}\backslash\text{textSubset}$
 20935 $\backslash\text{nSubset}\backslash\text{textnSubset}$
 20936 $\backslash\text{Supset}\backslash\text{textSupset}$
 20937 $\backslash\text{nSupset}\backslash\text{textnSupset}$
 20938 $\backslash\text{Cap}\backslash\text{textCap}$
 20939 $\backslash\text{Cup}\backslash\text{textCup}$
 20940 $\backslash\text{pitchfork}\backslash\text{textpitchfork}$
 20941 $\backslash\text{lessdot}\backslash\text{textlessdot}$
 20942 $\backslash\text{gtrdot}\backslash\text{textgtrdot}$
 20943 $\backslash\text{lll}\backslash\text{texlll}$
 20944 $\backslash\text{ggg}\backslash\text{textggg}$
 20945 $\backslash\text{lesseqgtr}\backslash\text{textlesseqgtr}$
 20946 $\backslash\text{gtreqless}\backslash\text{textgtreqless}$
 20947 $\backslash\text{curlyeqprec}\backslash\text{textcurlyeqprec}$
 20948 $\backslash\text{ncurlyeqprec}\backslash\text{textncurlyeqprec}$
 20949 $\backslash\text{curlyeqsucc}\backslash\text{textcurlyeqsucc}$
 20950 $\backslash\text{ncurlyeqsucc}\backslash\text{textncurlyeqsucc}$
 20951 $\backslash\text{npreccurlyeq}\backslash\text{textnpreccurlyeq}$
 20952 $\backslash\text{nsucccurlyeq}\backslash\text{textnsucccurlyeq}$
 20953 $\backslash\text{nqsubseteq}\backslash\text{textnqsubseteq}$
 20954 $\backslash\text{nqsupseteq}\backslash\text{textnqsupseteq}$
 20955 $\backslash\text{sqsubsetneq}\backslash\text{textsqssubsetneq}$
 20956 $\backslash\text{sqsupsetneq}\backslash\text{textsqsupsetneq}$
 20957 $\backslash\text{lnsim}\backslash\text{textlnsim}$
 20958 $\backslash\text{gnsim}\backslash\text{textgnsim}$
 20959 $\backslash\text{precnsim}\backslash\text{textprecnsim}$
 20960 $\backslash\text{succnsim}\backslash\text{textsuccnsim}$
 20961 $\backslash\text{ntriangleleft}\backslash\text{textntriangleleft}$
 20962 $\backslash\text{ntriangleright}\backslash\text{textntriangleright}$
 20963 $\backslash\text{ntrianglelefteq}\backslash\text{textntrianglelefteq}$
 20964 $\backslash\text{ntrianglerighteq}\backslash\text{textntrianglerighteq}$
 20965 $\backslash\text{vdots}\backslash\text{textvdots}$
 20966 $\backslash\text{cdots}\backslash\text{textcdots}$

20967 \let\udots\textudots
 20968 \let\ddots\textddots
 20969 \let\barin\textbarin
 20970 \let\diameter\textdiameter
 20971 \let\backneg\textbackneg
 20972 \let\wasylozenge\textwasylozenge
 20973 \let\invbackneg\textinvbackneg
 20974 \let\clock\textclock
 20975 \let\ulcorner\textulcorner
 20976 \let\urcorner\texturcorner
 20977 \let\llcorner\textllcorner
 20978 \let\lrcorner\textlrcorner
 20979 \let\frown\textfrown
 20980 \let\smile\textsmile
 20981 \let\Keyboard\textKeyboard
 20982 \let\langle\textlangle
 20983 \let\rangle\textrangle
 20984 \let\APLinv\textAPLinv
 20985 \let\Tumbler\textTumbler
 20986 \let\notslash\textnotslash
 20987 \let\notbackslash\textnotbackslash
 20988 \let\boxbackslash\textboxbackslash
 20989 \let\APLleftarrowbox\textAPLleftarrowbox
 20990 \let\APLrightarrowbox\textAPLrightarrowbox
 20991 \let\APLuparrowbox\textAPLuparrowbox
 20992 \let\APLdownarrowbox\textAPLdownarrowbox
 20993 \let\APLinput\textAPLinput
 20994 \let\Request\textRequest
 20995 \let\Beam\textBeam
 20996 \let\hexagon\texthexagon
 20997 \let\APLbox\textAPLbox
 20998 \let\ForwardToIndex\textForwardToIndex
 20999 \let\RewindToIndex\textRewindToIndex
 21000 \let\bbslash\textbbslash
 21001 \let\CircledA\textCircledA
 21002 \let\CleaningF\textCleaningF
 21003 \let\CleaningFF\textCleaningFF
 21004 \let\CleaningP\textCleaningP
 21005 \let\CleaningPP\textCleaningPP
 21006 \let\CuttingLine\textCuttingLine
 21007 \let\UParrow\textUParrow
 21008 \let\bigtriangleup\textbigtriangleup
 21009 \let\Forward\textForward
 21010 \let\triangleright\texttriangleright
 21011 \let\RHD\textRHD
 21012 \let\DOWNarrow\textDOWNarrow
 21013 \let\bigtriangledown\textbigtriangledown
 21014 \let\Rewind\textRewind
 21015 \let\triangleleft\texttriangleleft
 21016 \let\LHD\textLHD
 21017 \let\diamond\textdiamond
 21018 \let\lozenge\textlozenge
 21019 \let\LEFTCIRCLE\textLEFTCIRCLE
 21020 \let\RIGHTCIRCLE\textRIGHTCIRCLE
 21021 \let\openbullet\textopenbullet
 21022 \let\boxbar\textboxbar
 21023 \let\bigcircle\textbigcircle

21024 \let\Cloud\textCloud
 21025 \let\FiveStar\textFiveStar
 21026 \let\FiveStarOpen\textFiveStarOpen
 21027 \let\Phone\textPhone
 21028 \let\boxempty\textboxempty
 21029 \let\Checkedbox\textCheckedbox
 21030 \let\Crossedbox\textCrossedbox
 21031 \let\Coffeecup\textCoffeecup
 21032 \let\HandCuffLeft\textHandCuffLeft
 21033 \let\HandCuffRight\textHandCuffRight
 21034 \let\HandLeft\textHandLeft
 21035 \let\HandRight\textHandRight
 21036 \let\Radioactivity\textRadioactivity
 21037 \let\Biohazard\textBiohazard
 21038 \let\Ankh\textAnkh
 21039 \let\YinYang\textYinYang
 21040 \let\frownie\textfrownie
 21041 \let\smiley\textsmiley
 21042 \let\blacksmiley\textblacksmiley
 21043 \let\sun\textsun
 21044 \let\leftmoon\textleftmoon
 21045 \let\rightmoon\textrightmoon
 21046 \let\mercury\textmercury
 21047 \let\earth\textearth
 21048 \let\male\textmale
 21049 \let\jupiter\textjupiter
 21050 \let\saturn\textsaturn
 21051 \let\uranus\texturanus
 21052 \let\neptune\textneptune
 21053 \let\pluto\textpluto
 21054 \let\aries\textaries
 21055 \let\taurus\texttaurus
 21056 \let\gemini\textgemini
 21057 \let\cancer\textcancer
 21058 \let\leo\textleo
 21059 \let\virgo\textvirgo
 21060 \let\libra\textlibra
 21061 \let\scorpio\textscorpio
 21062 \let\sagittarius\textsagittarius
 21063 \let\capricornus\textcapricornus
 21064 \let\aquarius\textaquarius
 21065 \let\pisces\textpisces
 21066 \let\quarternote\textquarternote
 21067 \let\twonotes\texttwonotes
 21068 \let\sixteenthnote\textsixteenthnote
 21069 \let\flat\textflat
 21070 \let\natural\textnatural
 21071 \let\sharp\textsharp
 21072 \let\recycle\textrecycle
 21073 \let\Wheelchair\textWheelchair
 21074 \let\Flag\textFlag
 21075 \let\MineSign\textMineSign
 21076 \let\ds\textds
 21077 \let\dsmedical\textdsmedical
 21078 \let\dsjuridical\textdsjuridical
 21079 \let\dschemical\textdschemical
 21080 \let\dsbiological\textdsbiological

21081 \let\dscommercial\textdscommercial
 21082 \let\manstar\textmanstar
 21083 \let\danger\textdanger
 21084 \let\FemaleFemale\textFemaleFemale
 21085 \let\MaleMale\textMaleMale
 21086 \let\FemaleMale\textFemaleMale
 21087 \let\Hermaphrodite\textHermaphrodite
 21088 \let\Neutral\textNeutral
 21089 \let\hexstar\texthexstar
 21090 \let\SunCload\textSunCload
 21091 \let\Rain\textRain
 21092 \let\noway\textnoway
 21093 \let\Mountain\textMountain
 21094 \let\Tent\textTent
 21095 \let\ScissorRight\textScissorRight
 21096 \let\ScissorRightBrokenTop\textScissorRightBrokenTop
 21097 \let\ScissorHollowRight\textScissorHollowRight
 21098 \let\PhoneHandset\textPhoneHandset
 21099 \let\Tape\textTape
 21100 \let\Plane\textPlane
 21101 \let\Envelope\textEnvelope
 21102 \let\Peace\textPeace
 21103 \let\WritingHand\textWritingHand
 21104 \let\PencilRightDown\textPencilRightDown
 21105 \let\PencilRight\textPencilRight
 21106 \let\PencilRightUp\textPencilRightUp
 21107 \let\NibRight\textNibRight
 21108 \let\NibSolidRight\textNibSolidRight
 21109 \let\Checkmark\textCheckmark
 21110 \let\CheckmarkBold\textCheckmarkBold
 21111 \let\XSolid\textXSolid
 21112 \let\XSolidBold\textXSolidBold
 21113 \let\XSolidBrush\textXSolidBrush
 21114 \let\PlusOutline\textPlusOutline
 21115 \let\Plus\textPlus
 21116 \let\PlusThinCenterOpen\textPlusThinCenterOpen
 21117 \let\PlusCenterOpen\textPlusCenterOpen
 21118 \let\Cross\textCross
 21119 \let\CrossOpenShadow\textCrossOpenShadow
 21120 \let\CrossOutline\textCrossOutline
 21121 \let\CrossMaltese\textCrossMaltese
 21122 \let\DavidStar\textDavidStar
 21123 \let\FourAsterisk\textFourAsterisk
 21124 \let\JackStar\textJackStar
 21125 \let\JackStarBold\textJackStarBold
 21126 \let\ClowerTips\textClowerTips
 21127 \let\FourStar\textFourStar
 21128 \let\FourStarOpen\textFourStarOpen
 21129 \let\FiveStarOpenCircled\textFiveStarOpenCircled
 21130 \let\FiveStarCenterOpen\textFiveStarCenterOpen
 21131 \let\FiveStarOpenDotted\textFiveStarOpenDotted
 21132 \let\FiveStarOutline\textFiveStarOutline
 21133 \let\FiveStarOutlineHeavy\textFiveStarOutlineHeavy
 21134 \let\FiveStarConvex\textFiveStarConvex
 21135 \let\FiveStarShadow\textFiveStarShadow
 21136 \let\AsteriskBold\textAsteriskBold
 21137 \let\AsteriskCenterOpen\textAsteriskCenterOpen

21138 \let\EightStarTaper\textEightStarTaper
 21139 \let\EightStarConvex\textEightStarConvex
 21140 \let\SixStar\textSixStar
 21141 \let\EightStar\textEightStar
 21142 \let\EightStarBold\textEightStarBold
 21143 \let\TwelveStar\textTwelveStar
 21144 \let\SixteenStarLight\textSixteenStarLight
 21145 \let\SixFlowerPetalRemoved\textSixFlowerPetalRemoved
 21146 \let\SixFlowerOpenCenter\textSixFlowerOpenCenter
 21147 \let\Asterisk\textAsterisk
 21148 \let\SixFlowerAlternate\textSixFlowerAlternate
 21149 \let\FiveFlowerPetal\textFiveFlowerPetal
 21150 \let\FiveFlowerOpen\textFiveFlowerOpen
 21151 \let\EightFlowerPetal\textEightFlowerPetal
 21152 \let\SunshineOpenCircled\textSunshineOpenCircled
 21153 \let\SixFlowerAltPetal\textSixFlowerAltPetal
 21154 \let\SnowflakeChevron\textSnowflakeChevron
 21155 \let\Snowflake\textSnowflake
 21156 \let\SnowflakeChevronBold\textSnowflakeChevronBold
 21157 \let\Sparkle\textSparkle
 21158 \let\SparkleBold\textSparkleBold
 21159 \let\AsteriskRoundedEnds\textAsteriskRoundedEnds
 21160 \let\EightFlowerPetalRemoved\textEightFlowerPetalRemoved
 21161 \let\EightAsterisk\textEightAsterisk
 21162 \let\CircleShadow\textCircleShadow
 21163 \let\SquareShadowBottomRight\textSquareShadowBottomRight
 21164 \let\SquareTopRight\textSquareTopRight
 21165 \let\SquareCastShadowBottomRight\textSquareCastShadowBottomRight
 21166 \let\SquareCastShadowTopRight\textSquareCastShadowTopRight
 21167 \let\DiamandSolid\textDiamandSolid
 21168 \let\RectangleThin\textRectangleThin
 21169 \let\Rectangle\textRectangle
 21170 \let\RectangleBold\textRectangleBold
 21171 \let\perp\textperp
 21172 \let\notperp\textnotperp
 21173 \let\veedot\textveedot
 21174 \let\wedgedot\textwedgedot
 21175 \let\leftspoon\textleftspoon
 21176 \let\lbrackdbl\textlbrackdbl
 21177 \let\rbrackdbl\textrbrackdbl
 21178 \let\circlearrowleft\textcirclearrowleft
 21179 \let\circlearrowright\textcirclearrowright
 21180 \let\longleftarrow\textlongleftarrow
 21181 \let\longrightarrow\textlongrightarrow
 21182 \let\longleftrightarrow\textlongleftrightarrow
 21183 \let\Longleftarrow\textLongleftarrow
 21184 \let\Longrightarrow\textLongrightarrow
 21185 \let\Longleftrightarrow\textLongleftrightarrow
 21186 \let\longmapsto\textlongmapsto
 21187 \let\Longmapsfrom\textLongmapsfrom
 21188 \let\Longmapsto\textLongmapsto
 21189 \let\nwsearrow\textnwsearrow
 21190 \let\neswarrow\textneswarrow
 21191 \let\lhooknwarrow\textlhooknwarrow
 21192 \let\rhooknearrow\texthooknearrow
 21193 \let\lhooksearrow\textlhooksearrow
 21194 \let\rhookswarrow\texthookswarrow

21195 \let\leadsto\textleadsto
 21196 \let\rcurvearrowne\textrcurvearrowne
 21197 \let\lcurvearrowse\textlcurvearrowse
 21198 \let\lcurvearrowsw\textlcurvearrowsw
 21199 \let\rcurvearrowse\textrcurvearrowse
 21200 \let\lcurvearrowdown\textlcurvearrowdown
 21201 \let\rcurvearrowdown\textrcurvearrowdown
 21202 \let\rcurvearrowleft\textrcurvearrowleft
 21203 \let\rcurvearrowright\textrcurvearrowright
 21204 \let\leftrightharpoon\textleftrightharpoon
 21205 \let\rightleftharpoon\textrightleftharpoon
 21206 \let\updownharpoonrightleft\textupdownharpoonrightleft
 21207 \let\updownharpoonleftright\textupdownharpoonleftright
 21208 \let\leftleftharpoons\textleftleftharpoons
 21209 \let\upupharpoons\textupupharpoons
 21210 \let\righttrightharpoons\textrighttrightharpoons
 21211 \let\downdownharpoons\textdowndownharpoons
 21212 \let\leftbarharpoon\textleftbarharpoon
 21213 \let\barleftharpoon\textbarleftharpoon
 21214 \let\rightbarharpoon\textrightbarharpoon
 21215 \let\barrightharpoon\textbarrightharpoon
 21216 \let\updownharpoons\textupdownharpoons
 21217 \let\downupharpoons\textdownupharpoons
 21218 \let\moo\textmoo
 21219 \let\llparenthesis\textllparenthesis
 21220 \let\rrparenthesis\textrrparenthesis
 21221 \let\invdiameter\textinvdiameter
 21222 \let\obar\textobar
 21223 \let\obslash\textobslash
 21224 \let\obot\textobot
 21225 \let\NoChemicalCleaning\textNoChemicalCleaning
 21226 \let\olessthan\textolessthan
 21227 \let\ogreaterthan\textogreaterthan
 21228 \let\boxslash\textboxslash
 21229 \let\boxbslash\textboxbslash
 21230 \let\boxast\textboxast
 21231 \let\boxcircle\textboxcircle
 21232 \let\boxbox\textboxbox
 21233 \let\Valve\textValve
 21234 \let\multimapboth\textmultimapboth
 21235 \let\shuffle\textshuffle
 21236 \let\uplus\textuplus
 21237 \let\bigdoublewedge\textbigdoublewedge
 21238 \let\bigdoublevee\textbigdoublevee
 21239 \let\Join\textJoin
 21240 \let\fatsemi\textfatsemi
 21241 \let\circplus\textcircplus
 21242 \let\minusdot\textminusdot
 21243 \let\dottimes\textdottimes
 21244 \let\dtimes\textdtimes
 21245 \let\odiv\textodiv
 21246 \let\invneg\textinvneg
 21247 \let\sqdoublecap\textsdoublecap
 21248 \let\capdot\textcapdot
 21249 \let\sqdoublecup\textsdoublecup
 21250 \let\doublewedge\textdoublewedge
 21251 \let\doublevee\textdoublevee

21252 \let\doublebarwedge\textdoublebarwedge
 21253 \let\veedoublebar\textveedoublebar
 21254 \let\eqdot\texteqdot
 21255 \let\neqdot\textneqdot
 21256 \let\coloncolonequals\textcoloncolonequals
 21257 \let\leqslant\textleqslant
 21258 \let\leqslant\textleqslant
 21259 \let\geqslant\textgeqslant
 21260 \let\ngeqslant\textngeqslant
 21261 \let\lessapprox\textlessapprox
 21262 \let\lessapprox\textlessapprox
 21263 \let\gtrapprox\textgtrapprox
 21264 \let\ngtrapprox\textngtrapprox
 21265 \let\lneq\textlneq
 21266 \let\gneq\textgneq
 21267 \let\lnapprox\textlnapprox
 21268 \let\gnapprox\textgnapprox
 21269 \let\lesseqqgtr\textlesseqqgtr
 21270 \let\gtreqqless\textgtreqqless
 21271 \let\eqslantless\texteqslantless
 21272 \let\eqslantgtr\texteqslantgtr
 21273 \let\leftslice\textleftslice
 21274 \let\rightslice\textrightslice
 21275 \let\preceq\textpreceq
 21276 \let\preceq\textpreceq
 21277 \let\succeq\textsucceq
 21278 \let\succeq\textsucceq
 21279 \let\precneq\textprecneq
 21280 \let\succneq\textsuccneq
 21281 \let\preceqq\textpreceqq
 21282 \let\preceqq\textpreceqq
 21283 \let\succeqq\textsucceqq
 21284 \let\succeqq\textsucceqq
 21285 \let\precneqq\textprecneqq
 21286 \let\succneqq\textsuccneqq
 21287 \let\precapprox\textprecapprox
 21288 \let\precapprox\textprecapprox
 21289 \let\succapprox\textsuccapprox
 21290 \let\succapprox\textsuccapprox
 21291 \let\precnapprox\textprecnapprox
 21292 \let\succnapprox\textsuccnapprox
 21293 \let\subseteqq\textsubseteqq
 21294 \let\subseteqq\textsubseteqq
 21295 \let\supseteqq\textsupseteqq
 21296 \let\supseteqq\textsupseteqq
 21297 \let\dashV\textdashV
 21298 \let\ndashV\textndashV
 21299 \let\Dashv\textDashv
 21300 \let\ndashv\textndashv
 21301 \let\DashV\textDashV
 21302 \let\ndashV\textndashV
 21303 \let\downmodels\textdownmodels
 21304 \let\ndownmodels\textndownmodels
 21305 \let\upmodels\textupmodels
 21306 \let\nupmodels\textnupmodels
 21307 \let\upspoon\textupspoon
 21308 \let\interleave\textinterleave

21309 \let\slash\textslash
 21310 \let\pentagon\textpentagon
 21311 \let\varhexagon\textvarhexagon
 21312 \let\jinferior\textjinferior
 21313 \let\slashdiv\textslashdiv
 21314 \let\fivedots\textfivedots
 21315 \let\oo\textoo
 21316 \let\GaPa\textGaPa
 21317 \let\HaPa\textHaPa
 21318 \let\ViPa\textViPa
 21319 \let\AcPa\textAcPa
 21320 \let\SePa\textSePa
 21321 \let\ZwPa\textZwPa
 21322 \let\fullnote\textfullnote
 21323 \let\halfnote\texthalfnote
 21324 \let\Vier\textVier
 21325 \let\Acht\textAcht
 21326 \let\Sech\textSech
 21327 \let\Zwdr\textZwdr
 21328 \let\Mundus\textMundus
 21329 \let\Moon\textMoon
 21330 \let\ManFace\textManFace
 21331 \let\WomanFace\textWomanFace
 21332 \let\Fax\textFax
 21333 \let\Fire\textFire
 21334 \let\Bicycle\textBicycle
 21335 \let\Gentsroom\textGentsroom
 21336 \let\Ladiesroom\textLadiesroom
 21337 \let\ccnc\textccnc
 21338 \let\ccsa\textccsa
 21339 \let\Info\textInfo
 21340 \let\CESign\textCESign
 21341 \let\neg\textneg
 21342 \let\times\texttimes
 21343 \let\div\textdiv
 21344 \let\pm\textpm
 21345 \let\cdot\textcdot
 21346 }% \psdmapshortnames
 21347 \newcommand*{\psdaliasnames}{%
 21348 \let\epsdice\HyPsd@DieFace
 21349 \let\fcdice\HyPsd@DieFace
 21350 \let\MoonPha\HyPsd@MoonPha
 21351 \let\mathdollar\textdollar
 21352 \let\EyesDollar\textdollar
 21353 \let\binampersand\textampersand
 21354 \let\with\textampersand
 21355 \let\mathunderscore\textunderscore
 21356 \let\textvertline\textbar
 21357 \let\mathsterling\textsterling
 21358 \let\pounds\textsterling
 21359 \let\brokenvert\textbrokenbar
 21360 \let\mathsection\textsection
 21361 \let\S\textsection
 21362 \let\mathparagraph\textparagraph
 21363 \let\MultiplicationDot\textperiodcentered
 21364 \let\Squaredot\textperiodcentered
 21365 \let\vartimes\textmultiply

21366 \let\MVMultiplication\textmultiply
 21367 \let\eth\dh
 21368 \let\crossd\textcrd
 21369 \let\textbard\textcrd
 21370 \let\bard\textcrd
 21371 \let\textcrh\texthbar
 21372 \let\crossh\texthbar
 21373 \let\planck\texthbar
 21374 \let\eng\ng
 21375 \let\engma\ng
 21376 \let\crossb\textcrb
 21377 \let\textbarb\textcrb
 21378 \let\barb\textcrb
 21379 \let\Florin\textflorin
 21380 \let\hv\texthvl
 21381 \let\hausak\textthk
 21382 \let\crossnilambda\textcrlambda
 21383 \let\barlambda\textcrlambda
 21384 \let\lambdabar\textcrlambda
 21385 \let\lambdaslash\textcrlambda
 21386 \let\textnrleg\textPUnrleg
 21387 \let\textpipevar\textpipe
 21388 \let\textdoublepipevar\textdoublepipe
 21389 \let\textdoublebarpipevar\textdoublebarpipe
 21390 \let\textcrg\textgslash
 21391 \let\textdblig\textPUdblig
 21392 \let\textqplig\textPUqplig
 21393 \let\textcentoldstyle\textslashc
 21394 \let\textbarc\textslashc
 21395 \let\inva\textturna
 21396 \let\vara\textscripta
 21397 \let\invscripta\textturnscripta
 21398 \let\rotvara\textturnscripta
 21399 \let\hookb\texthtb
 21400 \let\hausab\texthtb
 21401 \let\varopeno\textopeno
 21402 \let\curlyc\textctc
 21403 \let\taild\textrtaild
 21404 \let\hookd\texthtd
 21405 \let\hausad\texthtd
 21406 \let\er\textrhohookswa
 21407 \let\epsi\textniepsilon
 21408 \let\hookrepsilon\textrhohookrepsilon
 21409 \let\closedrepsilon\textcloserepsilon
 21410 \let\barj\textbardotlessj
 21411 \let\hookg\texthtg
 21412 \let\varg\textscriptg
 21413 \let\vod\textipagamma
 21414 \let\invh\textturnh
 21415 \let\udesc\textturnh
 21416 \let\hookh\texthth
 21417 \let\voicedh\texthth
 21418 \let\hookheng\texththeng
 21419 \let\ibar\textbari
 21420 \let\vari\textniiota
 21421 \let\tildel\textltilde
 21422 \let\latfric\textbeltl

21423 \let\tail\textrtail
 21424 \let\lz\textlyoghlig
 21425 \let\inv\textturnm
 21426 \let\rotr\textturnm
 21427 \let\legm\textturnmrleg
 21428 \let\labdentainas\textltailm
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 21465 \let\textctjvar\textctj
 21466 \let\textturnsck\textturnk
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 21468 \let\tesh\textteshlig
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 21470 \let\hardsign\cyrhrdsn
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 21575 \let\doublecup\textCup
 21576 \let\varsubsetneq\textsubsetneq
 21577 \let\varsupsetneq\textsupsetneq
 21578 \let\lessclosed\textntriangleleft
 21579 \let\ngtrclosed\textntriangleright
 21580 \let\Clocklogo\textclock
 21581 \let\ClockLogo\textclock
 21582 \let\baro\textstmaryrdbaro
 21583 \let\varparallel\textbbslash
 21584 \let\CleaningA\textCircledA
 21585 \let\Kutline\textCuttingLine
 21586 \let\CutLine\textCuttingLine
 21587 \let\Cutline\textCuttingLine
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 21589 \let\APLup\textbigtriangleup
 21590 \let\Bleech\textbigtriangleup
 21591 \let\MoveDown\textDOWNarrow
 21592 \let\APLdown\textbigtriangledown
 21593 \let\Diamond\textdiamond

21594 \let\varbigcirc\textbigcircle
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 21604 \let\Radiation\textRadioactivity
 21605 \let\Yinyang\textYinYang
 21606 \let\YingYang\textYinYang
 21607 \let\Yingyang\textYinYang
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 21644 \let\Recycling\textrecycle
 21645 \let\VarFlag\textFlag
 21646 \let\textxswup\textdsmilitary
 21647 \let\textuncrfemale\textPUuncrfemale
 21648 \let\Football\textSoccerBall
 21649 \let\CutLeft\textScissorRightBrokenBottom
 21650 \let\Cutright\textScissorRightBrokenBottom

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21652 \let\Leftscissors\textScissorRight
21653 \let\Letter\textEnvelope
21654 \let\Writinghand\textWritingHand
21655 \let\checkmark\textCheckmark
21656 \let\davidstar\textDavidStar
21657 \let\llbracket\textlbrackdbl
21658 \let\rrbracket\textrrackdbl
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21660 \let\Righttorque\textlcurvearrowdown
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21662 \let\Lefttorque\textrcurvearrowdown
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21664 \let\circledbslash\textobslash
21665 \let\obackslash\textobslash
21666 \let\varobslash\textobslash
21667 \let\odplus\textobot
21668 \let\varolessthan\textolessthan
21669 \let\varogreaterthan\textogreaterthan
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21679 \let\leftModels\textDashV
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21681 \let\textheng\textPUheng
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21683 \let\textscf\textPUscf
21684 \let\texttaolig\textPUaolig
21685 \let\Ganz\textfullnote
21686 \let\Halb\texthalfnote
21687 \let\Womanface\textWomanFace
21688 \let\Faxmachine\textFax
21689 \let\CEsign\textCESign
21690 }% \psdaliasnames
21691 </psdextra>

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