

Hypertext marks in L^AT_EX

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2012/10/11 v6.83h

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@pdfwindow
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@verbosetrue
440 \let\Hy@debugfalse\Hy@verbosefalse
441 \newif\ifHy@pdfwindowui
442 \newif\ifHy@pdfdisplaydoctitle
443 \newif\ifHy@pdfa
```

Defaults for the switches are now set.

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



```

447 \Hy@bookmarkstrue
448 \Hy@breaklinksfalse
449 \Hy@pdfcenterwindowfalse
450 \Hy@CJKbookmarksfalse
451 \Hy@destlabelfalse
452 \Hy@pdfescapeformfalse
453 \Hy@hyperfiguresfalse
454 \Hy@pdffitwindowfalse
455 \Hy@hyperfootnotesttrue
456 \Hy@hyperindextrue
457 \Hy@hypertextnamestrue
458 \Hy@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 \LaTeX :

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

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

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

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

```

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

```

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

```

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

```

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

```

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

```

6.2.3 Postprocessing

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

```

723 \ifx#1\@empty
724 \else

```

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

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

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

```

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

```

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

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

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

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

```

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

`\HyPsd@CheckCatcodes` should no have removed the tokens with catcode 3, 4, 7, and 8. Because a parameter token (6) would cause to many errors before, there should now be only tokens with catcodes 11 or 12. So I think there is no need for a safety step like:

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

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

```

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

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

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

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

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

```

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

```

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

```

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

```

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

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

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

```

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

```

Ligatures. \TeX forms ligatures in its stomach, but the PDF strings are treated only by \TeX 's mouth. The `PDFDocEncoding` contains some ligatures, but the

current version 3 of the AcrobatReader lacks the `fi` and `fl` glyphs, and the Linux version lacks the `emdash` and `endash` glyphs. So the necessary code is provided here, but currently disabled, hoping that version 4 of the AcrobatReader is better. To break the ligatures the user can use an empty group, because it leads to an insertion of an `\HyPsd@empty`. If this ligature code will be enabled some day, then the italic correction should also break the ligatures. Currently this occurs only, if package `xspace` is loaded.

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

```

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

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

```

782 \let\HyPsd@empty\@empty
```

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

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

```

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

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

With Unicode the spaces are replaced by their octal sequences.

```

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

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

```

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

Try conversion back to PDFDocEncoding.

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

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

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

`\Hy@pdfstringdef`

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

6.3 Encodings

6.3.1 XeTeX

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

```

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

```



```

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

```

6.3.2 Workaround for package linguex

```

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

```

6.3.3 Catcodes saving and restoring for .def files

\Hy@SaveCatcodeSettings

```

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

```

```

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

```

`\Hy@RestoreCatcodeSettings`

```

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

```

6.3.4 PD1 encoding

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

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

```

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

```

6.3.5 PU encoding

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

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

```

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

```

```

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

```

`\HyPsd@LoadExtra`

```

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

```

6.4 Additional user commands

6.4.1 `\texorpdfstring`

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

```

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

```

6.4.2 Hooks for `\pdfstringdef`

`\pdfstringdefPreHook` Default definition of the hooks for `\pdfstringdef`. The construct `\@ifundefined` 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}{f}{f}%
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\extrho\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 `\@typesetprotect` ($=\relax$).

```

\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 unmathcted `\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@AppendItalcrr\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}{hypertexnames}[true]{%
2938   \Hy@boolkey{hypertexnames}{#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\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\tx@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   \endgroup
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\@gobbletwo
3950 \let\GenericWarning\@gobbletwo
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@unicodfalse
4000   \pdfstringdef\@pdfcreationdate{#1}%
4001   \endgroup
4002 }
4003 \define@key{Hyp}{pdfmoddate}{%
4004   \begingroup
4005   \Hy@unicodfalse
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}{pdfinkmargin}{\setpdfinkmargin{#1}}
4155 \let\setpdfinkmargin\@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@stoppeearlytrue
4329   \expandafter\Hy@MaybeStopNow
4330 \fi
4331 \Hy@stoppeearlyfalse

```

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

```

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@activetrue
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{hpdfTEX}%
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\bgrouph\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@activetrue
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\}\}%
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}\#3}%
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}\#3}%
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           %
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{}{%
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@hiddenttrue{%
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 \ifHy@texht
6219   \def\Hy@temp#1{%
6220     \define@key{Field}{#1}{%
6221       \Field@addtoks{#1}{##1}%
6222     }%
6223   }%
6224 \else
6225   \def\Hy@temp#1{%
6226     \define@key{Field}{#1}{%
6227       \Hy@WarnHTMLFieldOption{#1}%
6228     }%
6229   }%
6230 \fi
6231 \Hy@temp{ondblclick}
6232 \Hy@temp{onmousedown}
6233 \Hy@temp{onmouseup}
6234 \Hy@temp{onmouseover}
6235 \Hy@temp{onmousemove}
6236 \Hy@temp{onmouseout}

```



```

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

6259 \DeclareRobustCommand\TextField{%
6260   \@ifnextchar[{\@TextField}{\@TextField[]}%
6261 }
6262 \DeclareRobustCommand\ChoiceMenu{%
6263   \@ifnextchar[{\@ChoiceMenu}{\@ChoiceMenu[]}%
6264 }
6265 \DeclareRobustCommand\CheckBox{%
6266   \@ifnextchar[{\@CheckBox}{\@CheckBox[]}%
6267 }
6268 \DeclareRobustCommand\PushButton{%
6269   \@ifnextchar[{\@PushButton}{\@PushButton[]}%
6270 }
6271 \DeclareRobustCommand\Gauge{%
6272   \@ifnextchar[{\@Gauge}{\@Gauge[]}%
6273 }
6274 \DeclareRobustCommand\Submit{%
6275   \@ifnextchar[{\@Submit}{\@Submit[]}%
6276 }
6277 \DeclareRobustCommand\Reset{%
6278   \@ifnextchar[{\@Reset}{\@Reset[]}%
6279 }
6280 \def\LayoutTextField#1#2{% label, field
6281   #1 #2%
6282 }
6283 \def\LayoutChoiceField#1#2{% label, field
6284   #1 #2%
6285 }
6286 \def\LayoutCheckField#1#2{% label, field
6287   #1 #2%
6288 }
6289 \def\LayoutPushButtonField#1{% button
6290   #1%
6291 }
6292 \def\MakeRadioField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
6293 \def\MakeCheckField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}

```

```

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

```

Default options for the types of \ChoiceMenu.

```

6326 \def\DefaultOptionsofListBox{print}
6327 \def\DefaultOptionsofComboBox{print,edit,sort}
6328 \def\DefaultOptionsofPopdownBox{print}
6329 \def\DefaultOptionsofRadio{print,notoggletooff}

```

21 Setup

```

6330 \ifHy@hyperfigures
6331   \Hy@Info{Hyper figures ON}%
6332 \else
6333   \Hy@Info{Hyper figures OFF}%
6334 \fi
6335 \ifHy@nesting
6336   \Hy@Info{Link nesting ON}%
6337 \else
6338   \Hy@Info{Link nesting OFF}%
6339 \fi
6340 \ifHy@hyperindex
6341   \Hy@Info{Hyper index ON}%
6342 \else
6343   \Hy@Info{Hyper index OFF}%
6344 \fi
6345 \ifHy@backref

```

```

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

```

22 Low-level utility macros

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

```

6365 \edef\hyper@hash{\string#}
6366 \edef\hyper@tilde{\string~}
6367 \edef\hyper@quote{\string"}

```

Support \label before \begin{document}.

```

6368 \def\@currentHref{Doc-Start}
6369 \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.

```

6370 \Hy@AtBeginDocument{%
6371 \Hy@pdfstringtrue
6372 \PDF@SetupDoc
6373 \let\PDF@SetupDoc\@empty
6374 \Hy@DisableOption{pdfpagescrop}%
6375 \Hy@DisableOption{pdfpagemode}%
6376 \Hy@DisableOption{pdfnonfullscreenpagemode}%
6377 \Hy@DisableOption{pdfdirection}%
6378 \Hy@DisableOption{pdfviewarea}%
6379 \Hy@DisableOption{pdfviewclip}%
6380 \Hy@DisableOption{pdfprintarea}%
6381 \Hy@DisableOption{pdfprintclip}%
6382 \Hy@DisableOption{pdfprintscaling}%
6383 \Hy@DisableOption{pdfduplex}%
6384 \Hy@DisableOption{pdfpicktraybypdfsize}%
6385 \Hy@DisableOption{pdfprintpagerange}%
6386 \Hy@DisableOption{pdfnumcopies}%
6387 \Hy@DisableOption{pdfstartview}%
6388 \Hy@DisableOption{pdfstartpage}%
6389 \Hy@DisableOption{pdftoolbar}%
6390 \Hy@DisableOption{pdfmenubar}%
6391 \Hy@DisableOption{pdfwindowui}%
6392 \Hy@DisableOption{pdffitwindow}%
6393 \Hy@DisableOption{pdfcenterwindow}%

```

```

6394 \Hy@DisableOption{pdfdisplaydoctitle}%
6395 \Hy@DisableOption{pdfpagelayout}%
6396 \Hy@DisableOption{pdflang}%
6397 \Hy@DisableOption{baseurl}%
6398 \ifHy@texht\else\hyper@anchorstart{Doc-Start}\hyper@anchorend\fi
6399 \Hy@pdfstringfalse
6400 }

Ignore star from referencing macros:
6401 \LetLtxMacro\NoHy@OrgRef\ref
6402 \DeclareRobustCommand*{\ref}{%
6403 \ifstar\NoHy@OrgRef\NoHy@OrgRef
6404 }
6405 \LetLtxMacro\NoHy@OrgPageRef\pageref
6406 \DeclareRobustCommand*{\pageref}{%
6407 \ifstar\NoHy@OrgPageRef\NoHy@OrgPageRef
6408 }

```

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.

```

6409 \def\NoHyper{%
6410 \def\hyper@link@[##1]##2##3##4{##4\Hy@xspace@end}%
6411 \def\hyper@@anchor##1##2{##2\Hy@xspace@end}%
6412 \global\let\hyper@livelink\hyper@link
6413 \gdef\hyper@link##1##2##3{##3\Hy@xspace@end}%
6414 \let\hyper@anchor\ltx@gobble
6415 \let\hyper@anchorstart\ltx@gobble
6416 \def\hyper@anchorend{\Hy@xspace@end}%
6417 \let\hyper@linkstart\ltx@gobbletwo
6418 \def\hyper@linkend{\Hy@xspace@end}%
6419 \def\hyper@linkurl##1##2{##1\Hy@xspace@end}%
6420 \def\hyper@linkfile##1##2##3{##1\Hy@xspace@end}%
6421 \let\Hy@backout\@gobble
6422 }
6423 \def\stop@hyper{%
6424 \def\hyper@link@[##1]##2##3##4{##4\Hy@xspace@end}%
6425 \let\Hy@backout\@gobble
6426 \let\hyper@@anchor\ltx@gobble
6427 \def\hyper@link##1##2##3{##3\Hy@xspace@end}%
6428 \let\hyper@anchor\ltx@gobble
6429 \let\hyper@anchorstart\ltx@gobble
6430 \def\hyper@anchorend{\Hy@xspace@end}%
6431 \let\hyper@linkstart\ltx@gobbletwo
6432 \def\hyper@linkend{\Hy@xspace@end}%
6433 \def\hyper@linkurl##1##2{##1\Hy@xspace@end}%
6434 \def\hyper@linkfile##1##2##3{##1\Hy@xspace@end}%
6435 }
6436 \def\endNoHyper{%
6437 \global\let\hyper@link\hyper@livelink
6438 }
6439 \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:

```
6440 \*nohyperref
6441 \RequirePackage{letltxmacro}[2008/06/13]
6442 \let\hyper@@anchor\@gobble
6443 \def\hyper@link#1#2#3{#3}%
6444 \let\hyper@anchorstart\@gobble
6445 \let\hyper@anchorend\@empty
6446 \let\hyper@linkstart\@gobbletwo
6447 \let\hyper@linkend\@empty
6448 \def\hyper@linkurl#1#2{#1}%
6449 \def\hyper@linkfile#1#2#3{#1}%
6450 \def\hyper@link@{#1}#2#3{#1}%
6451 \let\PDF@SetupDoc\@empty
6452 \let\PDF@FinishDoc\@empty
6453 \def\nohyperpage#1{#1}
```

Some top-level commands:

```
6454 \def\Acrobatmenu#1#2{\leavevmode#2}
6455 \let\pdfstringdefDisableCommands\@gobbletwo
6456 \let\texorpdfstring\@firstoftwo
6457 \let\pdfbookmark\@undefined
6458 \newcommand\pdfbookmark[3]{}
6459 \let\phantomsection\@empty
6460 \let\hypersetup\@gobble
6461 \let\hyperbaseurl\@gobble
6462 \newcommand*{\href}[3]{}
6463 \let\hyperdef\@gobbletwo
6464 \let\hyperlink\@gobble
6465 \let\hypertarget\@gobble
6466 \def\hyperref{%
6467   \@ifnextchar{\@gobbleopt{\expandafter\@gobbletwo\@gobble}%
6468 }
6469 \long\def\@gobbleopt[#1]{}
6470 \let\hyperpage\@empty
```

Ignore star from referencing macros:

```
6471 \LetLtxMacro\NoHy@OrgRef\ref
6472 \DeclareRobustCommand*\ref{%
6473   \@ifstar\NoHy@OrgRef\NoHy@OrgRef
6474 }
6475 \LetLtxMacro\NoHy@OrgPageRef\pageref
6476 \DeclareRobustCommand*\pageref{%
6477   \@ifstar\NoHy@OrgPageRef\NoHy@OrgPageRef
6478 }
6479 \</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}`

```
6480 \*package\
6481 \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.

```
6482 \if@files\
6483 \ifHy@typexml\
6484 \immediate\closeout\@mainaux\
6485 \immediate\openout\@mainaux\jobname.aux\relax\
6486 \immediate\write\@auxout{<relaxxml>\relax}%\
6487 \fi\
6488 \immediate\write\@auxout{%\
6489 \string\providecommand\string\HyperFirstAtBeginDocument{%\
6490 \string\AtBeginDocument}^^J%\
6491 \string\HyperFirstAtBeginDocument{%\
6492 \string\ifx\string\hyper@anchor\string\@undefined^^J%\
6493 \string\global\string\let\string\oldcontentsline\string\contentsline^^J%\
6494 \string\gdef\string\contentsline%\
6495 \string#1\string#2\string#3\string#4{%\
6496 \string\oldcontentsline%\
6497 {\string#1}{\string#2}{\string#3}}^^J%\
6498 \string\global\string\let\string\oldnewlabel\string\newlabel^^J%\
6499 \string\gdef\string\newlabel\string#1\string#2{%\
6500 \string\newlabelxx{\string#1}\string#2}^^J%\
6501 \string\gdef\string\newlabelxx%\
6502 \string#1\string#2\string#3\string#4\string#5\string#6{%\
6503 \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.

```
6504 \string\AtEndDocument{%\
6505 \string\ifx\string\hyper@anchor\string\@undefined^^J%\
6506 \string\let\string\contentsline\string\oldcontentsline^^J%\
6507 \string\let\string\newlabel\string\oldnewlabel^^J%\
6508 \string\fi%\
6509 }^^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.

```
6510 \string\fi%\
6511 }^^J%\
6512 \string\global\string\let\string\hyper@last\relax^^J%\
6513 \string\gdef\string\HyperFirstAtBeginDocument\string#1{\string#1}%\
6514 }%\
6515 \fi\
6516 \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.

```
6517 \ifx\hyper@last\@undefined\
6518 \def\@starttoc#1{%\
6519 \begingroup\
6520 \makeatletter
```

```

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

```

26 Title strings

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

```

6537 \ifHy@pdfusetitle
6538 \let\HyOrg@title\title
6539 \let\HyOrg@author\author
6540 \def\title{\@ifnextchar{\Hy@scanopttitle}{\Hy@scantitle}}%
6541 \def\Hy@scanopttitle[#1]{%
6542 \gdef\Hy@title{#1}%
6543 \HyOrg@title{#1}%
6544 }%
6545 \def\Hy@scantitle#1{%
6546 \gdef\Hy@title{#1}%
6547 \HyOrg@title{#1}%
6548 }%
6549 \def\author{\@ifnextchar{\Hy@scanoptauthor}{\Hy@scanauthor}}%
6550 \def\Hy@scanoptauthor[#1]{%
6551 \gdef\Hy@author{#1}%
6552 \HyOrg@author{#1}%
6553 }%
6554 \def\Hy@scanauthor#1{%
6555 \gdef\Hy@author{#1}%
6556 \HyOrg@author{#1}%
6557 }%

```

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

```

6558 \begingroup
6559 \def\process@me#1\@nil#2{%
6560 \expandafter\let\expandafter\x\csname @#2\endcsname
6561 \edef\y{\expandafter\strip@prefix\meaning\x}%
6562 \def\c##1#1##2\@nil{%
6563 \ifx\\##1\\%
6564 \else
6565 \expandafter\gdef\csname Hy@#2\expandafter\endcsname
6566 \expandafter{\x}%
6567 \fi

```

```

6568 }%
6569 \expandafter\c\y\relax#1\@nil
6570 }%
6571 \expandafter\process@me\string\@latex@\@nil{title}%
6572 \expandafter\process@me\string\@latex@\@nil{author}%
6573 \endgroup
6574 \fi
6575 \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.

```

6576 \def\Hy@UseMaketitleString#1{%
6577 \ltx@ifundefined{Hy@#1}{-}%
6578 \begingroup
6579 \let\Hy@saved@hook\pdfstringdefPreHook
6580 \pdfstringdefDisableCommands{%
6581 \expandafter\let\expandafter\\\csname Hy@newline@#1\endcsname
6582 \let\newline\\%
6583 }%
6584 \expandafter\ifx\csname @pdf#1\endcsname\@empty
6585 \expandafter\pdfstringdef\csname @pdf#1\endcsname{%
6586 \csname Hy@#1\endcsname\@empty
6587 }%
6588 \fi
6589 \global\let\pdfstringdefPreHook\Hy@saved@hook
6590 \endgroup
6591 }%
6592 }
6593 \def\Hy@newline@title#1{ #1}
6594 \def\Hy@newline@author#1{, #1}
6595 \def\Hy@UseMaketitleInfos{%
6596 \Hy@UseMaketitleString{title}%
6597 \Hy@UseMaketitleString{author}%
6598 }

```

27 Page numbers

This stuff is done by Heiko Oberdiek.

28 Every page

```

6599 \RequirePackage{atbegshi}[2007/09/09]
6600 \let\Hy@EveryPageHook\ltx@empty
6601 \let\Hy@EveryPageBoxHook\ltx@empty
6602 \let\Hy@FirstPageHook\ltx@empty
6603 \AtBeginShipout{%
6604 \Hy@EveryPageHook
6605 \ifx\Hy@EveryPageBoxHook\ltx@empty

```



```

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

```

28.1 PDF /PageLabels

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

```

6628 \ifHy@pdfpagelabels
6629   \begingroup\expandafter\expandafter\expandafter\endgroup
6630   \expandafter\ifx\csname thepage\endcsname\relax
6631     \Hy@pdfpagelabelsfalse
6632     \Hy@WarningNoLine{%
6633       Option ‘pdfpagelabels’ is turned off\MessageBreak
6634       because \string\thepage\space is undefined%
6635     }%
6636     \csname fi\endcsname
6637     \csname iffalse\expandafter\endcsname
6638   \fi

```

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

```

6639 \def\thispdfpagelabel#1{%
6640   \gdef\HyPL@thisLabel{#1}%
6641 }%
6642 \global\let\HyPL@thisLabel\relax

```

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

```

6643 \let\HyPL@Labels\ltx@empty

```

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

```

6644 \newcount\Hy@abspage
6645 \Hy@abspage=0 %

```

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

```

6646 \def\HyPL@LastType{init}%
6647 \def\HyPL@LastNumber{0}%
6648 \let\HyPL@LastPrefix\ltx@empty

```

Definitions for the PDF names of the L^AT_EX pendants.

```

6649 \def\HyPL@arabic{D}%
6650 \def\HyPL@Roman{R}%
6651 \def\HyPL@roman{r}%
6652 \def\HyPL@Alph{A}%
6653 \def\HyPL@alph{a}%

6654 \let\HyPL@SlidesSetPage\ltx@empty
6655 \ltx@ifclassloaded{slides}{%
6656   \def\HyPL@SlidesSetPage{%
6657     \advance\c@page\ltx@one
6658     \ifnum\value{page}>\ltx@one
6659       \protected@edef\HyPL@SlidesOptionalPage{%
6660         \Hy@SlidesFormatOptionalPage{thepage}%
6661       }%
6662     \else
6663       \let\HyPL@SlidesOptionalPage\ltx@empty
6664     \fi
6665     \advance\c@page-\ltx@one
6666     \def\HyPL@page{%
6667       \csname the\Hy@SlidesPage\endcsname
6668       \HyPL@SlidesOptionalPage
6669     }%
6670   }%
6671 }{}%
```

`\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.

```

6672 \def\HyPL@EveryPage{%
6673   \begingroup
6674   \ifx\HyPL@thisLabel\relax
6675     \let\HyPL@page\thepage
6676     \HyPL@SlidesSetPage
6677   \else
6678     \let\HyPL@page\HyPL@thisLabel
6679     \global\let\HyPL@thisLabel\relax
6680   \fi
6681   \let\HyPL@Type\relax
6682   \ifnum\c@page>0 %
6683     \ifx\HyPL@SlidesSetPage\ltx@empty
6684       \expandafter\HyPL@CheckThePage\HyPL@page\@nil
6685     \fi
6686   \fi
6687   \let\Hy@temp Y%
6688   \ifx\HyPL@Type\HyPL@LastType
6689   \else
6690     \let\Hy@temp N%
6691   \fi
6692   \ifx\HyPL@Type\relax
6693     \pdfstringdef\HyPL@Prefix{\HyPL@page}%
6694   \else
6695     \pdfstringdef\HyPL@Prefix\HyPL@Prefix
6696   \fi
6697   \ifx\HyPL@Prefix\HyPL@LastPrefix
6698   \else
6699     \let\Hy@temp N%
6700   \fi
6701   \if Y\Hy@temp
```

```

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

```

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

```

6732 \def\HyPL@CheckThePage#1\@nil{%
6733 \HyPL@@CheckThePage{#1}#1\csname\endcsname\c@page\@nil
6734 }%

```

`\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`.

```

6735 \def\HyPL@@CheckThePage#1#2\csname#3\endcsname\c@page#4\@nil{%
6736 \def\Hy@tempa{#4}%
6737 \def\Hy@tempb{\csname\endcsname\c@page}%
6738 \ifx\Hy@tempa\Hy@tempb
6739 \expandafter\ifx\csname HyPL#3\endcsname\relax
6740 \else
6741 \def\HyPL@Type{#3}%
6742 \def\HyPL@Prefix{#2}%
6743 \fi
6744 \else
6745 \begingroup
6746 \let\Hy@next\endgroup
6747 \let\HyPL@found\@undefined
6748 \def\arabic{\HyPL@Format{arabic}}%
6749 \def\Roman{\HyPL@Format{Roman}}%
6750 \def\roman{\HyPL@Format{roman}}%

```

```

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

```

`\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`.

```

6764 \def\HyPL@Format#1#2{%
6765 \ifx\HyPL@found\@undefined
6766 \expandafter\ifx\csname c@#2\endcsname\c@page
6767 \expandafter\noexpand\csname HyPL@found\endcsname{#1}%
6768 \else
6769 \expandafter\noexpand\csname#1\endcsname{#2}%
6770 \fi
6771 \else
6772 \expandafter\noexpand\csname#1\endcsname{#2}%
6773 \fi
6774 }%

```

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

```

6775 \def\HyPL@@@CheckThePage#1\HyPL@found#2#3\@nil{%
6776 \def\Hy@tempa{#3}%
6777 \def\Hy@tempb{\HyPL@found\relax}%
6778 \ifx\Hy@tempa\Hy@tempb
6779 \def\HyPL@Type{#2}%
6780 \def\HyPL@Prefix{#1}%
6781 \fi
6782 }%

```

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

```

6783 \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`.

```

6784 \def\HyPL@Useless{0<</S/D>>}%
6785 \@onelevel@sanitize\HyPL@Useless

```

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

```

6786 \def\HyPL@SetPageLabels{%
6787 \@onelevel@sanitize\HyPL@Labels
6788 \ifx\HyPL@Labels\@empty
6789 \else
6790 \ifx\HyPL@Labels\HyPL@Useless

```

```

6791 \else
6792 \Hy@PutCatalog{/PageLabels<</Nums{\HyPL@Labels}>>}%
6793 \fi
6794 \fi
6795 }%

6796 \g@addto@macro\Hy@EveryPageHook{\HyPL@EveryPage}%
6797 \fi

Option ‘pdfpagelabels’ has been used and is now disabled.
6798 \Hy@DisableOption{pdfpagelabels}
6799 \end{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
6800 \ifpdf
6801 \pdf@ifdraftmode{%
6802 \let\Hy@PutCatalog\ltx@gobble
6803 }{%
6804 \let\Hy@PutCatalog\pdfcatalog
6805 }
6806 \end{ifpdf}

```

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.

```

6807 \ifvtex
6808 \providecommand*\XR@ext{pdf}
6809 \edef\Hy@VTeXversion{%
6810 \ifx\VTeXversion\@undefined
6811 \z@
6812 \else
6813 \ifx\VTeXversion\relax
6814 \z@
6815 \else
6816 \VTeXversion
6817 \fi
6818 \fi
6819 }
6820 \begin{group}
6821 \ifnum\Hy@VTeXversion<660 %
6822 \gdef\Hy@PutCatalog#1{%
6823 \Hy@WarningNoLine{%
6824 VTeX 6.59g or above required for pdfpagelabels%
6825 }%
6826 }%
6827 \else
6828 \gdef\Hy@PutCatalog#1{%
6829 \Hy@vt@PutCatalog#1/PageLabels<<>>\@nil
6830 }%
6831 \gdef\Hy@vt@PutCatalog#1/PageLabels<<#2>>#3\@nil{%

```

```

6832 \ifx\|#2\%
6833 \else
6834 \immediate\special{!pdfpagelabels #2}%
6835 \fi
6836 }%
6837 \fi
6838 \endgroup
6839 \</vtex>

6840 \< *pdftex | vtex>

```

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

```

6841 \ifHy@pdfpagelabels
6842 \def\HyPL@StorePageLabel#1{%
6843 \toks@\expandafter{\HyPL@Labels}%
6844 \xdef\HyPL@Labels{%
6845 \the\toks@
6846 \the\Hy@abspage<<#1>>%
6847 }%
6848 }%

```

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.

```

6849 \RequirePackage{atveryend}[2009/12/07]%
6850 \AtVeryEndDocument{%
6851 \HyPL@SetPageLabels
6852 }%

6853 \fi
6854 \</pdftex | vtex>

```

28.1.2 xetex

```

6855 \< *xetex>
6856 \HyPsd@LoadUnicode
6857 \Hy@unicodetrue
6858 \ifx\HyPsd@pdfencoding\HyPsd@pdfencoding@unicode
6859 \else
6860 \let\HyPsd@pdfencoding\HyPsd@pdfencoding@auto
6861 \fi
6862 \HyPsd@LoadStringEnc
6863 \define@key{Hyp}{unicode}[true]{%
6864 \Hy@boolkey{unicode}{#1}%
6865 \ifHy@unicode
6866 \else
6867 \Hy@Warning{%
6868 XeTeX driver only supports 'unicode=true'. Ignoring\MessageBreak
6869 option setting 'unicode=false'%
6870 }%
6871 \Hy@unicodetrue
6872 \fi
6873 }
6874 \define@key{Hyp}{pdfencoding}{%
6875 \edef\HyPsd@temp{#1}%
6876 \ifx\HyPsd@temp\HyPsd@pdfencoding@unicode
6877 \let\HyPsd@pdfencoding\HyPsd@temp
6878 \else

```

```

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

```

28.1.3 pdfmarkbase, dvipdfm, xetex

```

6892 \<pdfmarkbase>
6893 \begingroup
6894 \@ifundefined{headerps@out}{\}%
6895 \toks@\expandafter{\Hy@FirstPageHook}%
6896 \xdef\Hy@FirstPageHook{%
6897 \noexpand\headerps@out{%
6898 systemdict /pdfmark known%
6899 {%
6900 userdict /?pdfmark systemdict /exec get put%
6901 }{%
6902 userdict /?pdfmark systemdict /pop get put %
6903 userdict /pdfmark systemdict /cleartomark get put%
6904 }%
6905 ifelse%
6906 }%
6907 \the\toks@
6908 }%
6909 }%
6910 \endgroup
6911 \</pdfmarkbase>

\Hy@PutCatalog
6912 \<dvipdfm | xetex>\def\Hy@PutCatalog#1{\@pdfm@mark{docview <<#1>>}}
6913 \<pdfmarkbase>
6914 \def\Hy@PutCatalog#1{%
6915 \pdfmark{pdfmark=/PUT,Raw={\string{Catalog\string} <<#1>>}}%
6916 }
6917 \</pdfmarkbase>

6918 \<pdfmarkbase | dvipdfm | xetex>
6919 \ifHy@pdfpagelabels

```

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

```

6920 \def\HyPL@StorePageLabel#1{%
6921 \if@filesw
6922 \begingroup
6923 \edef\Hy@tempa{\the\Hy@abspage<<#1>>}%
6924 \immediate\write\@mainaux{%
6925 \string\HyPL@Entry{\Hy@tempa}%
6926 }%
6927 \endgroup
6928 \fi
6929 }%

```

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.

```

6930 \Hy@AtBeginDocument{%
6931   \if@filesw
6932     \immediate\write\@mainaux{%
6933       \string\providecommand\string*\string\HyPL@Entry[1]{}%
6934     }%
6935   \fi
6936   \ifx\HyPL@Labels\@empty
6937     \Hy@WarningNoLine{Rerun to get /PageLabels entry}%
6938   \else
6939     \HyPL@SetPageLabels
6940   \fi
6941   \let\HyPL@Entry\@gobble
6942 }%
```

`\HyPL@Entry`

```

6943 \def\HyPL@Entry#1{%
6944   \expandafter\gdef\expandafter\HyPL@Labels\expandafter{%
6945     \HyPL@Labels
6946     #1%
6947   }%
6948 }%

6949 \fi
6950 </pdfmarkbase | dvipdfm | xetex>

6951 <*package>

6952 \ifx\MaybeStopEarly\relax
6953 \else
6954   \Hy@stoppedearlytrue
6955   \expandafter\MaybeStopEarly
6956 \fi
6957 \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

```

6958 \def\Hy@CounterExists#1{%
6959   \begingroup\expandafter\expandafter\expandafter\endgroup
6960   \expandafter\ifx\csname c@#1\endcsname\relax
6961     \expandafter\@gobble
6962   \else
6963     \begingroup\expandafter\expandafter\expandafter\endgroup
6964     \expandafter\ifx\csname the#1\endcsname\relax
6965       \expandafter\expandafter\expandafter\@gobble
6966     \else
6967       \expandafter\expandafter\expandafter\@firstofone
6968     \fi
6969   \fi
6970 }
6971 \Hy@CounterExists{section}{%
6972   \providecommand\theHequation{\theHsection.\arabic{equation}}}%
6973 }
6974 \Hy@CounterExists{part}{%
6975   \providecommand\theHpart{\arabic{part}}}%
6976 }
6977 \ltx@ifundefined{thechapter}{%
6978   \providecommand\theHsection   {\arabic{section}}}%
6979   \providecommand\theHfigure    {\arabic{figure}}}%
6980   \providecommand\theHtable     {\arabic{table}}}%
6981 }{%
6982   \providecommand\theHchapter   {\arabic{chapter}}}%
6983   \providecommand\theHfigure    {\theHchapter.\arabic{figure}}}%
6984   \providecommand\theHtable     {\theHchapter.\arabic{table}}}%
6985   \providecommand\theHsection   {\theHchapter.\arabic{section}}}%
6986 }
6987 \providecommand\theHsubsection {\theHsection.\arabic{subsection}}
6988 \providecommand\theHsubsubsection{\theHsubsection.\arabic{subsubsection}}
6989 \providecommand\theHparagraph  {\theHsubsubsection.\arabic{paragraph}}
6990 \providecommand\theHsubparagraph {\theHparagraph.\arabic{subparagraph}}
6991 \providecommand\theHtheorem    {\theHsection.\arabic{theorem}}
6992 \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.

6993 \let\H@item\item
6994 \newcounter{Item}
6995 \def\theHItem{\arabic{Item}}
6996 \def\item{%
6997   \@hyper@itemfalse
6998   \if@nmbrlist\@hyper@itemtrue\fi
6999   \H@item
7000 }

7001 \providecommand\theHenumi   {\theHItem}
7002 \providecommand\theHenumii  {\theHItem}
7003 \providecommand\theHenumiii {\theHItem}
7004 \providecommand\theHenumiv  {\theHItem}
7005 \providecommand\theHHfootnote {\arabic{Hfootnote}}
7006 \providecommand\theHmpfootnote{\arabic{mpfootnote}}
7007 \@ifundefined{theHHmpfootnote}{%
7008   \let\theHHmpfootnote\theHHfootnote
7009 }{}

```

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.

```
7010 \let\H@refstepcounter\refstepcounter
7011 \edef\name@of@eq{equation}%
7012 \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.

```
7013 \newif\if@hyper@item
7014 \newif\if@skiphyperref
7015 \@hyper@itemfalse
7016 \@skiphyperreffalse
7017 \def\refstepcounter#1{%
7018   \ifHy@pdfstring
7019   \else
7020     \H@refstepcounter{#1}%
7021     \edef\This@name{#1}%
7022     \ifx\This@name\name@of@slide
7023     \else
7024       \if@skiphyperref
7025       \else
7026         \if@hyper@item
7027         \stepcounter{Item}%
7028         \hyper@refstepcounter{Item}%
7029         \@hyper@itemfalse
7030       \else
7031         \hyper@refstepcounter{#1}%
7032       \fi
7033     \fi
7034   \fi
7035 \fi
7036 }
7037 \let\Hy@saved@refstepcounter\refstepcounter
```

AMS¹TeX processes all equations twice; we want to make sure that the hyper stuff is not executed twice, so we use the AMS `\ifmeasuring@`, initialized if AMS math is not used.

```
7038 \@ifpackageloaded{amsmath}{-}{\newif\ifmeasuring@\measuring@false}
```

`\hyper@refstepcounter`

```
7039 \def\hyper@refstepcounter#1{%
7040   \edef\This@name{#1}%
7041   \ifx\This@name\name@of@eq
7042     \@ifundefined{theHequation}{%
7043       \make@stripped@name{\theequation}%
7044       \let\theHequation\newname
7045     }{}%
7046   \fi
7047   \HyCnt@ProvideTheHCounter{#1}%
7048   \hyper@makecurrent{#1}%
7049   \ifmeasuring@
7050   \else
7051     \Hy@raisedlink{%
7052       \hyper@anchorstart{\@currentHref}\hyper@anchorend
7053     }%
7054   \fi
7055 }
```

```

7054 \fi
7055 }

```

`\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.

```

7056 \def\HyCnt@ProvideTheHCounter#1{%
7057   \@ifundefined{theH#1}{%
7058     \expandafter\def\csname theH#1\endcsname{%
7059       \def\Hy@temp{\@elt{#1}}%
7060       \ltx@onelevel@sanitize\Hy@temp
7061       \let\HyOrg@elt\@elt
7062       \edef\@elt{%
7063         \noexpand\HyCnt@LookForParentCounter
7064         \expandafter\noexpand\csname theH#1\endcsname
7065       }%
7066       \cl@ckpt
7067       \let\@elt\HyOrg@elt
7068       \expandafter
7069       \ltx@LocalAppendToMacro\csname theH#1\expandafter\endcsname
7070       \expandafter{%
7071         \expandafter\@arabic\csname c@#1\endcsname
7072       }%
7073     }{%
7074   }

```

`\Hy@LookForParentCounter`

```

7075 \def\HyCnt@LookForParentCounter#1#2{%
7076   \expandafter\let\expandafter\Hy@temp@A\csname cl@#2\endcsname
7077   \ltx@ifundefined{cl@#2}{%
7078   }{%
7079     \ltx@onelevel@sanitize\Hy@temp@A
7080     \edef\Hy@temp@A{%
7081       \noexpand\in@{\Hy@temp}{\Hy@temp@A}%
7082     }\Hy@temp@A
7083     \ifin@
7084       \ltx@ifundefined{theH#2}{%
7085         \expandafter\ltx@LocalAppendToMacro\expandafter#1%
7086         \expandafter{%
7087           \expandafter\@arabic\csname c@#2\endcsname.%
7088         }%
7089       }{%
7090         \expandafter\ltx@LocalAppendToMacro\expandafter#1%
7091         \expandafter{%
7092           \csname theH#2\endcsname.%
7093         }%
7094       }%
7095     \fi
7096   }%
7097 }

```

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.

```

7098 \begingroup\expandafter\expandafter\expandafter\endgroup
7099 \expandafter\ifx\csname chapter\endcsname\relax
7100 \def\Hy@chapterstring{section}%
7101 \else
7102 \def\Hy@chapterstring{chapter}%
7103 \fi
7104 \def\Hy@appendixstring{appendix}
7105 \def\Hy@chapapp{\Hy@chapterstring}
7106 \ltx@ifundefined{appendix}{%
7107 }{%
7108 \let\HyOrg@appendix\appendix
7109 \def\Hy@AlphNoErr#1{%
7110 \ifnum\value{#1}>26 %
7111 Alph\number\value{#1}%
7112 \else
7113 \ifnum\value{#1}<1 %
7114 Alph\number\value{#1}%
7115 \else
7116 \Alph{#1}%
7117 \fi
7118 \fi
7119 }%
7120 \def\appendix{%
7121 \ltx@ifundefined{chapter}{%
7122 \gdef\theHsection{\Hy@AlphNoErr{section}}}%
7123 }{%
7124 \gdef\theHchapter{\Hy@AlphNoErr{chapter}}}%
7125 }%
7126 \xdef\Hy@chapapp{\Hy@appendixstring}%
7127 \HyOrg@appendix
7128 }%
7129 }

```

\Hy@Test@alph

```

7130 \def\Hy@Test@alph#1{%
7131 \ifcase#1\or
7132 a\or b\or c\or d\or e\or f\or g\or h\or i\or j\or
7133 k\or l\or m\or n\or o\or p\or q\or r\or s\or t\or
7134 u\or v\or w\or x\or y\or z%
7135 \else
7136 \@ctrerr
7137 \fi
7138 }

```

\Hy@Test@Alph

```

7139 \def\Hy@Test@Alph#1{%
7140 \ifcase#1\or
7141 A\or B\or C\or D\or E\or F\or G\or H\or I\or J\or
7142 K\or L\or M\or N\or O\or P\or Q\or R\or S\or T\or
7143 U\or V\or W\or X\or Y\or Z%
7144 \else
7145 \@ctrerr
7146 \fi

```

7147 }

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

```
7148 \def\hyper@makecurrent#1{%
7149   \begingroup
7150   \Hy@safe@activetrue
7151   \edef\Hy@param{#1}%
7152   \ifx\Hy@param\Hy@chapterstring
7153     \let\Hy@param\Hy@chapapp
7154   \fi
7155   \ifHy@hypertextnames
7156     \let\@number\@firstofone
7157     \def\@fnsymbol##1{fnsymbol\number##1}%
7158     \def\@arabic##1{\number##1}%
7159     \ifx\@alph\Hy@Test@alph
7160       \else
7161         \def\@alph{alph\number}%
7162       \fi
7163     \ifx\@Alph\Hy@Test@Alph
7164       \else
7165         \def\@Alph{Alph\number}%
7166       \fi
7167     \ifHy@naturalnames
7168       \let\textlatin\@firstofone
7169       \xdef\HyperGlobalCurrentHref{\csname the#1\endcsname}%
7170     \else
7171       \xdef\HyperGlobalCurrentHref{%
7172         \csname
7173           the%
7174           \expandafter\ifx\csname theH#1\endcsname\relax\else H\fi
7175           #1%
7176         \endcsname
7177       }%
7178     \fi
7179     \xdef\HyperGlobalCurrentHref{%
7180       \Hy@param.\expandafter\strip@prefix\meaning\HyperGlobalCurrentHref
7181     }%
7182   \else
7183     \Hy@GlobalStepCount\Hy@linkcounter
7184     \xdef\HyperGlobalCurrentHref{\Hy@param.\the\Hy@linkcounter}%
7185   \fi
7186 \endgroup
7187 \let\HyperLocalCurrentHref\HyperGlobalCurrentHref
7188 \ifHy@localanchorname
7189   \let\@currentHref\HyperLocalCurrentHref
7190 \else
7191   \global\let\@currentHref\HyperGlobalCurrentHref
7192 \fi
7193 }
```

\Hy@MakeCurrentHref

```
7194 \def\Hy@MakeCurrentHref#1{%
7195   \edef\HyperLocalCurrentHref{#1}%
7196   \@onelevel@sanitize\HyperLocalCurrentHref
7197   \global\let\HyperGlobalCurrentHref\HyperLocalCurrentHref
7198   \let\HyperLocalCurrentHref\HyperGlobalCurrentHref
7199 }
```

```

7199 \ifHy@localanchorname
7200   \let\@currentHref\HyperLocalCurrentHref
7201 \else
7202   \global\let\@currentHref\HyperGlobalCurrentHref
7203 \fi
7204 }

```

`\Hy@MakeCurrentHrefAuto`

```

7205 \def\Hy@MakeCurrentHrefAuto#1{%
7206   \Hy@GlobalStepCount\Hy@linkcounter
7207   \Hy@MakeCurrentHref{#1.\the\Hy@linkcounter}%
7208 }

```

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

```

7209 \def\@currentHlabel{\@currentHref}

7210 \@ifpackageloaded{fancyvrb}{%
7211   \@ifpackagelater{fancyvrb}{1998/05/20}{-}{%
7212     \def\FV@StepLineNo{%
7213       \FV@SetLineNo
7214       \def\FV@StepLineNo{\H@refstepcounter{FancyVerbLine}}%
7215       \FV@StepLineNo
7216     }%
7217   }%
7218 }{}

```

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`

```

7219 \Hy@AtBeginDocument{%
7220   \@ifclassloaded{revtex4}{%
7221     \@namedef{ver@lastpage.sty}{1994/06/25}%
7222   }{}%
7223   \@ifpackageloaded{lastpage}{%
7224     \ifHy@pageanchor
7225     \else
7226       \Hy@WarningNoLine{%
7227         The \string\pageref{LastPage} link doesn't work\MessageBreak
7228         with disabled option 'pageanchor'%
7229       }%
7230     \fi
7231     \def\lastpage@putlabel{%
7232       \addtocounter{page}{-1}%
7233       \if@files
7234         \begingroup
7235         \let\@number\@firstofone
7236         \ifHy@pageanchor
7237           \ifHy@hypertextnames

```

```

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

```

7283 \def\hypergetref#1{\getrefbykeydefault{#1}{}}
7284 \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:

```

7285 \@ifpackageloaded{titlesec}{%
7286   \def\ttl@Hy@steplink#1{%
7287     \Hy@MakeCurrentHrefAuto{#1*}%
7288     \edef\ttl@Hy@saveanchor{%
7289       \noexpand\Hy@raisedlink{%
7290         \noexpand\hyper@anchorstart{\@currentHref}%
7291         \noexpand\hyper@anchorend
7292       \def\noexpand\ttl@Hy@SavedCurrentHref{\@currentHref}%
7293       \noexpand\ttl@Hy@PatchSaveWrite
7294     }%
7295   }%
7296 }%
7297 \def\ttl@Hy@PatchSaveWrite{%
7298   \begingroup
7299   \toks@{\expandafter\ttl@savewrite}%
7300   \edef\x{\endgroup
7301     \def\noexpand\ttl@savewrite{%
7302       \let\noexpand\@currentHref
7303       \noexpand\ttl@Hy@SavedCurrentHref
7304       \the\toks@
7305     }%
7306   }%
7307   \x
7308 }%
7309 \def\ttl@Hy@refstepcounter#1{%
7310   \let\ttl@b\Hy@raisedlink
7311   \def\Hy@raisedlink##1{%
7312     \def\ttl@Hy@saveanchor{\Hy@raisedlink{##1}}%
7313   }%
7314   \refstepcounter{#1}%
7315   \let\Hy@raisedlink\ttl@b
7316 }%
7317 }{}

```

Package titletoc support:

```

7318 \@ifpackageloaded{titletoc}{%
7319   \def\ttl@gobblecontents#1#2#3#4{\ignorespaces}%
7320 }{}

```

33 Package varioref support

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

```

7321 \def\Hy@varioref@undefined{??}{?}{-}{-}
7322 \@ifpackageloaded{varioref}{%
7323   \def\vref@pagenum#1#2{%
7324     \@ifundefined{r@#2}{%
7325       \expandafter\let\csname r@#2\endcsname\Hy@varioref@undefined
7326     }{}%
7327     \edef#1{\getpagerefnumber{#2}}%
7328   }%
7329 }{}

```


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

```

7330 \def\Hy@varioref@refstepcounter#1{%
7331   \stepcounter{#1}%
7332   \protected@edef\@currentlabel{%
7333     \csname p@#1\expandafter\endcsname\csname the#1\endcsname
7334   }%
7335 }
7336 \AtBeginDocument{%
7337   \ifx\refstepcounter\Hy@varioref@refstepcounter
7338     \let\H@refstepcounter\refstepcounter
7339     \let\refstepcounter\Hy@saved@refstepcounter
7340   \fi
7341 }
```

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

```

7342 \@ifpackageloaded{longtable}{%
7343   \begingroup
7344   \def\y{\LT@array}%
7345   \@ifundefined{scr@LT@array}{%
7346     \@ifundefined{adl@LT@array}{\def\y{\adl@LT@array}}{%
7347   }}{\def\y{\scr@LT@array}}%
7348   \long\def\x\refstepcounter#1#2\@sharp#3#4\@nil{%
7349     \expandafter\endgroup
7350     \expandafter\def\y[##1]##2{%
7351       \H@refstepcounter{#1}%
7352       \hyper@makecurrent{table}%
7353       \let\Hy@LT@currentHref\@currentHref
7354       #2\@sharp###4%
7355     }%
7356   }%
7357   \expandafter\expandafter\expandafter\x\y[{#1}]{#2}\@nil
```

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

```

7358 \begingroup
7359 \def\x#1\ifvoid\LT@foot#2\fi#3\@nil{%
7360   \endgroup
7361   \def\LT@start{%
7362     #1%
7363     \ifvoid\LT@foot#2\fi
7364     \let\@currentHref\Hy@LT@currentHref
7365     \Hy@raisedlink{%
7366       \hyper@anchorstart{\@currentHref}\hyper@anchorend
7367     }%
7368     #3%
7369   }%
7370 }%
7371 \expandafter\x\LT@start\@nil
7372 }
```

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.

```

7373 \let\new@refstepcounter\refstepcounter
7374 \let\H@equation\equation
7375 \let\H@endequation\endequation

7376 \@ifpackageloaded{amsmath}{%
7377   \long\def\Hy@temp{%
7378     \incr@eqnum
7379     \mathdisplay@push
7380     \st@rredfalse \global\@eqnswtrue
7381     \mathdisplay{equation}%
7382   }%
7383   \ifx\Hy@temp\equation
7384     \expandafter\ifx\csname if@fleqn\expandafter\endcsname
7385       \csname iftrue\endcsname
7386   \else
7387     \long\def\equation{%
7388       \mathdisplay@push
7389       \st@rredfalse \global\@eqnswtrue
7390       \mathdisplay{equation}%
7391       \incr@eqnum
7392     }%
7393   \fi
7394 \fi
7395 }{%
7396 \def\equation{%
7397   \let\refstepcounter\H@refstepcounter
7398   \H@equation
7399   \@ifundefined{theHequation}{%
7400     \make@stripped@name{\theequation}%
7401     \let\theHequation\newname
7402   }{%
7403     \hyper@makecurrent{equation}%

```

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

```

7404   \mathopen{%
7405     \Hy@raisedlink{\hyper@anchorstart{\@currentHref}}%
7406   }%
7407   \let\refstepcounter\new@refstepcounter
7408 }%
7409 \def\endequation{%
7410   \ifx\Hy@raisedlink\ltx@empty
7411     \hyper@anchorend
7412   \else
7413     \mathclose{\Hy@raisedlink{\hyper@anchorend}}%
7414   \fi
7415   \H@endequation
7416 }%
7417 }

```

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.

```

7418 \newif\if@eqnstar
7419 \@eqnstarfalse
7420 \let\H@eqnarray\eqnarray
7421 \let\H@endeqnarray\endeqnarray
7422 \def\eqnarray{%
7423   \let\Hy@reserved@a\relax
7424   \def\@currentHref{}%
7425   \H@eqnarray
7426   \if@eqnstar
7427   \else
7428     \ifx\\ \@currentHref\\%
7429     \else
7430       \ifundefined{theHequation}{%
7431         \make@stripped@name{\theequation}%
7432         \let\theHequation\newname
7433       }{}%
7434       \hyper@makecurrent{equation}%
7435       \mathopen{%
7436         \Hy@raisedlink{%
7437           \hyper@anchorstart{\@currentHref}\hyper@anchorend
7438         }%
7439       }%
7440     \fi
7441   \fi
7442 }
7443 \def\endeqnarray{%
7444   \H@endeqnarray
7445 }

```

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.

```

7446 \@namedef{eqnarray*}{%
7447   \def\@eqncr{\nonumber\@seqncr}\@eqnstartrue\eqnarray
7448 }
7449 \@namedef{endeqnarray*}{%
7450   \nonumber\endeqnarray\@eqnstarfalse
7451 }

```

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

```

7452 \ltx@ifundefined{subeqnarray}{}{}%
7453 \let\H@subeqnarray\subeqnarray
7454 \let\H@endsubeqnarray\endsubeqnarray
7455 \def\subeqnarray{%
7456   \let\Hy@reserved@a\relax
7457   \H@subeqnarray
7458   \@ifundefined{theHequation}{%
7459     \make@stripped@name{\theequation}%
7460     \let\theHequation\newname
7461   }{}%
7462   \hyper@makecurrent{equation}%
7463   \hyper@anchorstart{\@currentHref}\hyper@anchorend
7464 }%
7465 \def\endsubeqnarray{%

```

```

7466 \H@endsubeqnarray
7467 }%
7468 \providecommand\theHsubequation{\theHequation\alph{subequation}}%
7469 }

```

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

```

7470 \def\make@stripped@name#1{%
7471 \begingroup
7472 \escapechar\m@ne
7473 \global\let\newname\@empty
7474 \protected@edef\Hy@tempa{#1}%
7475 \edef\@tempb{%
7476 \noexpand\@tfor\noexpand\Hy@tempa:=%
7477 \expandafter\strip@prefix\meaning\Hy@tempa
7478 }%
7479 \@tempb\do{%
7480 \if{\Hy@tempa\else
7481 \if}\Hy@tempa\else
7482 \xdef\newname{\newname\Hy@tempa}%
7483 \fi
7484 \fi
7485 }%
7486 \endgroup
7487 }

```

Support for amsmath's subequations:

```

7488 \begingroup\expandafter\expandafter\expandafter\endgroup
7489 \expandafter\ifx\csname subequations\endcsname\relax
7490 \else
7491 \let\HyOrg@subequations\subequations
7492 \def\subequations{%
7493 \stepcounter{equation}%
7494 \protected@edef\theHparentequation{%
7495 \ifundefined{theHequation}\theequation\theHequation
7496 }%
7497 \addtocounter{equation}{-1}%
7498 \HyOrg@subequations
7499 \def\theHequation{\theHparentequation\alph{equation}}%
7500 \ignorespaces
7501 }%
7502 \fi

```

Support for package `amsthm` (Daniel Müllner):

```

7503 \@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

7504 \def\Hy@temp#1#2#3{%
7505 \ifhmode\unskip\unskip\par\fi
7506 \normalfont
7507 \trivlist
7508 \let\thmheadnl\relax
7509 \let\thm@swap\@gobble
7510 \let\thm@indent\indent % indent
7511 \thm@headfont{\scshape}% heading font small caps

```

```

7512 \thm@notefont{\fontseries\mddefault\upshape}%
7513 \thm@headpunct{.}% add period after heading
7514 \thm@headsep 5\p@ plus\p@ minus\p@\relax
7515 \thm@space@setup
7516 #1% style overrides
7517 \@topsep \thm@preskip % used by thm head
7518 \@topsepadd \thm@postskip % used by \@endparenv
7519 \def\@tempa{#2}\ifx\@empty\@tempa
7520 \def\@tempa{\@oparg{\@begintheorem{#3}{}}{}}%
7521 \else
7522 \refstepcounter{#2}%
7523 \def\@tempa{%
7524 \@oparg{\@begintheorem{#3}{\csname the#2\endcsname}}{}}%
7525 }%
7526 \fi
7527 \@tempa
7528 }%
7529 \ifx\Hy@temp\@thm
7530 \def\@thm#1#2#3{%
7531 \ifhmode
7532 \unskip\unskip\par
7533 \fi
7534 \normalfont
7535 \trivlist
7536 \let\thmheadnl\relax
7537 \let\thm@swap\@gobble
7538 \let\thm@indent\indent % indent
7539 \thm@headfont{\scshape}% heading font small caps
7540 \thm@notefont{\fontseries\mddefault\upshape}%
7541 \thm@headpunct{.}% add period after heading
7542 \thm@headsep 5\p@ plus\p@ minus\p@\relax
7543 \thm@space@setup
7544 #1% style overrides
7545 \@topsep \thm@preskip % used by thm head
7546 \@topsepadd \thm@postskip % used by \@endparenv
7547 \def\dth@counter{#2}%
7548 \ifx\@empty\dth@counter
7549 \def\@tempa{%
7550 \@oparg{\@begintheorem{#3}{}}{}}%
7551 }%
7552 \else
7553 \H@refstepcounter{#2}%
7554 \hyper@makecurrent{#2}%
7555 \let\Hy@dth@currentHref\@currentHref
7556 \def\@tempa{%
7557 \@oparg{\@begintheorem{#3}{\csname the#2\endcsname}}{}}%
7558 }%
7559 \fi
7560 \@tempa
7561 }%
7562 \else
7563 \def\@thm#1#2#3{%
7564 \ifhmode
7565 \unskip\unskip\par
7566 \fi
7567 \normalfont
7568 \trivlist

```

```

7569 \let\thmheadnl\relax
7570 \let\thm@swap\@gobble
7571 \thm@notefont{\fontseries\mddefault\upshape}%
7572 \thm@headpunct{.}% add period after heading
7573 \thm@headsep 5\p@ plus\p@ minus\p@\relax
7574 \thm@space@setup
7575 #1% style overrides
7576 \@topsep \thm@preskip % used by thm head
7577 \@topsepadd \thm@postskip % used by \@endparenv
7578 \def\dth@counter{#2}%
7579 \ifx\@empty\dth@counter
7580 \def\@tempa{%
7581 \@oparg{\@begintheorem{#3}{}}{}%
7582 }%
7583 \else
7584 \H@refstepcounter{#2}%
7585 \hyper@makecurrent{#2}%
7586 \let\Hy@dth@currentHref\@currentHref
7587 \def\@tempa{%
7588 \@oparg{\@begintheorem{#3}{\csname the#2\endcsname}}{}%
7589 }%
7590 \fi
7591 \@tempa
7592 }%
7593 \fi
7594 \dth@everypar={%
7595 \@minipagefalse
7596 \global\@newlistfalse
7597 \@noperitemfalse
7598 \if@inlabel
7599 \global\@inlabelfalse
7600 \begingroup
7601 \setbox\z@\lastbox
7602 \ifvoid\z@
7603 \kern-\itemindent
7604 \fi
7605 \endgroup
7606 \ifx\@empty\dth@counter
7607 \else
7608 \Hy@raisedlink{%
7609 \hyper@anchorstart{%
7610 \ifundefined{Hy@dth@currentHref}%
7611 \@currentHref\Hy@dth@currentHref
7612 }\hyper@anchorend
7613 }%
7614 \fi
7615 \unhbox\@labels
7616 \fi
7617 \if@nobreak
7618 \@nobreakfalse \clubpenalty\@M
7619 \else
7620 \clubpenalty\@clubpenalty \everypar{}%
7621 \fi
7622 }%
7623 }{}

```

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.

```

7624 \ifHy@hyperfootnotes
7625   \newcounter{Hfootnote}%
7626   \let\H@@@footnotetext\@footnotetext
7627   \let\H@@@footnotemark\@footnotemark
7628   \def\@xfootnotenext[#1]{%
7629     \begingroup
7630       \csname c@\@mpfn\endcsname #1\relax
7631       \unrestored@protected@xdef\@thefnmark{\thempfn}%
7632     \endgroup
7633     \ifx\@footnotetext\@mpfootnotetext
7634       \expandafter\H@@@mpfootnotetext
7635     \else
7636       \expandafter\H@@@footnotetext
7637     \fi
7638   }%
7639   \def\@xfootnotemark[#1]{%
7640     \begingroup
7641       \c@footnote #1\relax
7642       \unrestored@protected@xdef\@thefnmark{\thefootnote}%
7643     \endgroup
7644     \H@@@footnotemark
7645   }%
7646   \let\H@@@mpfootnotetext\@mpfootnotetext
7647   \long\def\@mpfootnotetext#1{%
7648     \H@@@mpfootnotetext{%
7649       \ifHy@nesting
7650         \expandafter\ltx@firstoftwo
7651       \else
7652         \expandafter\ltx@secondoftwo
7653       \fi
7654     }%
7655     \expandafter\hyper@@@anchor\expandafter{%
7656       \Hy@footnote@currentHref
7657     }{#1}%
7658   }{%
7659     \Hy@raisedlink{%
7660       \expandafter\hyper@@@anchor\expandafter{%
7661         \Hy@footnote@currentHref
7662       }{\relax}%
7663     }#1%
7664   }%
7665   }%
7666 }%
7667 \long\def\@footnotetext#1{%
7668   \H@@@footnotetext{%
7669     \ifHy@nesting
7670       \expandafter\ltx@firstoftwo
7671     \else
7672       \expandafter\ltx@secondoftwo
7673     \fi

```

```

7674 {%
7675   \expandafter\hyper@@anchor\expandafter{%
7676     \Hy@footnote@currentHref
7677   }{#1}%
7678 }{%
7679   \Hy@raisedlink{%
7680     \expandafter\hyper@@anchor\expandafter{%
7681       \Hy@footnote@currentHref
7682     }\relax}%
7683 }%
7684 \let\@currentHref\Hy@footnote@currentHref
7685 \let\@currentlabelname\@empty
7686 #1%
7687 }%
7688 }%
7689 }%

```

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.

```

7690 \def\@footnotemark{%
7691   \leavevmode
7692   \ifhmode\edef\@x@sf{\the\spacefactor}\nobreak\fi
7693   \stepcounter{Hfootnote}%
7694   \global\let\Hy@saved@currentHref\@currentHref
7695   \hyper@makecurrent{Hfootnote}%
7696   \global\let\Hy@footnote@currentHref\@currentHref
7697   \global\let\@currentHref\Hy@saved@currentHref
7698   \hyper@linkstart{link}{\Hy@footnote@currentHref}%
7699   \@makefnmark
7700   \hyper@linkend
7701   \ifhmode\spacefactor\@x@sf\fi
7702   \relax
7703 }%

```

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

```

7704 \@ifpackageloaded{tabularx}{%
7705   \let\HyOrg@TX@endtabularx\TX@endtabularx
7706   \def\Hy@tabularx@hook{%
7707     \let\@footnotetext\H@@footnotetext
7708     \let\@footnotemark\H@@footnotemark
7709     \let\@mpfootnotetext\H@@mpfootnotetext
7710   }%
7711   \begingroup
7712     \toks@\expandafter{\TX@endtabularx}%
7713     \xdef\Hy@gtemp{%
7714       \noexpand\Hy@tabularx@hook
7715       \the\toks@
7716     }%
7717   \endgroup
7718   \let\TX@endtabularx\Hy@gtemp
7719 }{}%

```

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

```

7720 \ifpackageloaded{longtable}{%
7721   \CheckCommand*{\LT@p@ftntext}[1]{%
7722     \edef\@tempa{%
7723       \the\LT@p@ftn
7724       \noexpand\footnotetext[\the\c@footnote]%
7725     }%
7726     \global\LT@p@ftn\expandafter{\@tempa{#1}}%
7727   }%
7728   \long\def\LT@p@ftntext#1{%
7729     \edef\@tempa{%
7730       \the\LT@p@ftn
7731       \begingroup
7732         \noexpand\c@footnote=\the\c@footnote\relax
7733         \noexpand\protected@xdef\noexpand\@thefnmark{%
7734           \noexpand\thempfn
7735         }%
7736         \noexpand\Hy@LT@footnotetext{%
7737           \Hy@footnote@currentHref
7738         }%
7739       }%
7740       \global\LT@p@ftn\expandafter{%
7741         \@tempa{#1}%
7742       }\endgroup
7743     }%
7744   }%
7745   \long\def\Hy@LT@footnotetext#1#2{%
7746     \H@C@footnotetext{%
7747       \ifHy@nesting
7748         \hyper@@anchor{#1}{#2}%
7749       \else
7750         \Hy@raisedlink{%
7751           \hyper@@anchor{#1}{\relax}%
7752         }%
7753         \def\@currentHref{#1}%
7754         \let\@currentlabelname\@empty
7755         #2%
7756       \fi
7757     }%
7758   }%
7759 }{}%
```

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

```

7760 \ifpackageloaded{fancyvrb}{%
7761   \def\V@C@footnotetext{%
7762     \insert\footins\bgroup
7763     \csname reset@font\endcsname
7764     \footnotesize
7765     \interlinepenalty\interfootnotelinepenalty
7766     \splittopskip\footnotesep
7767     \splitmaxdepth\dp\strutbox
7768     \floatingpenalty \@MM
7769     \hsize\columnwidth
7770     \@parboxrestore
7771     \edef\@currentlabel{\csname p@footnote\endcsname\@thefnmark}%
7772     \@makefnmark{}%
7773     \rule{\z@}{\footnotesep}%

```

```

7774 \bgroup
7775 \aftergroup\V@@@footnotetext
7776 \Hy@raisedlink{%
7777   \expandafter\hyper@@anchor\expandafter{%
7778     \Hy@footnote@currentHref
7779   }\relax}%
7780 }%
7781 \let\@currentHref\Hy@footnote@currentHref
7782 \let\@currentlabelname\@empty
7783 \ignorespaces
7784 }%
7785 }{}%

```

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

```

7786 \def\Hy@temp#1{%
7787   \begingroup
7788     \unrestored@protected@xdef\@thefnmark{\ref{#1}}%
7789   \endgroup
7790   \@footnotemark
7791 }%
7792 \ifx\Hy@temp\footref
7793   \def\footref#1{%
7794     \begingroup
7795       \unrestored@protected@xdef\@thefnmark{\ref{#1}}%
7796     \endgroup
7797     \H@@@footnotemark
7798   }%
7799 \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.

```

7800 \let\HyOrg@maketitle\maketitle
7801 \def\maketitle{%
7802   \let\Hy@saved@footnotemark\@footnotemark
7803   \let\Hy@saved@footnotetext\@footnotetext
7804   \let\@footnotemark\H@@@footnotemark
7805   \let\@footnotetext\H@@@footnotetext
7806   \@ifnextchar[\Hy@maketitle@optarg{% ]
7807     \HyOrg@maketitle
7808     \Hy@maketitle@end
7809   }%
7810 }%
7811 \def\Hy@maketitle@optarg[#1]{%
7812   \HyOrg@maketitle[{#1}]%
7813   \Hy@maketitle@end
7814 }%
7815 \def\Hy@maketitle@end{%
7816   \ifx\@footnotemark\H@@@footnotemark
7817     \let\@footnotemark\Hy@saved@footnotemark
7818   \fi
7819   \ifx\@footnotetext\H@@@footnotetext
7820     \let\@footnotetext\Hy@saved@footnotetext
7821   \fi
7822 }%

```

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

```

7823 \def\realfootnote{%
7824   \ifnextchar[\@xfootnote{%
7825     \stepcounter{\@mpfn}%
7826     \protected@xdef\@thefnmark{\thempfn}%
7827     \H@@footnotemark\H@@footnotetext
7828   }%
7829 }%

7830 \fi
7831 \Hy@DisableOption{hyperfootnotes}

7832 \</package>
7833 \< *check>
7834 \checklatex
7835 \checkcommand\def\@xfootnotenext[#1]{%
7836   \begingroup
7837   \csname c@\@mpfn\endcsname #1\relax
7838   \unrestored@protected@xdef\@thefnmark{\thempfn}%
7839 \endgroup
7840 \@footnotetext
7841 }
7842 \checkcommand\def\@xfootnotemark[#1]{%
7843   \begingroup
7844   \c@footnote #1\relax
7845   \unrestored@protected@xdef\@thefnmark{\thefootnote}%
7846 \endgroup
7847 \@footnotemark
7848 }
7849 \checkcommand\def\@footnotemark{%
7850   \leavevmode
7851   \ifhmode\edef\@x@sf{\the\spacefactor}\nobreak\fi
7852   \@makefnmark
7853   \ifhmode\spacefactor\@x@sf\fi
7854   \relax
7855 }
7856 \</check>
7857 \< *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.

```

7858 \def\caption{%
7859   \ifx\@capytype\@undefined
7860     \@latex@error{\noexpand\caption outside float}\@ehd
7861     \expandafter\@gobble
7862   \else
7863     \H@refstepcounter\@capytype
7864     \let\Hy@tempa\@caption
7865     \@ifundefined{float@caption}{%
7866       }{%
7867         \expandafter\ifx\csname @float@c@\@capytype\endcsname
7868           \float@caption
7869         \let\Hy@tempa\Hy@float@caption
7870       }
7871     }%
7872     \expandafter\@firstofone

```

```

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

```

If we cannot have nesting, the anchor is empty.

```

7904 \ifHy@nesting
7905 \expandafter\hyper@@@anchor\expandafter{\@currentHref}{#3}%
7906 \else
7907 \Hy@raisedlink{%
7908 \expandafter\hyper@@@anchor\expandafter{%
7909 \@currentHref
7910 }{\relax}%
7911 }%
7912 #3%
7913 \fi
7914 }%
7915 \fi
7916 \par
7917 \endgroup
7918 }

```

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’.

```

7919 \let\Hy@float@caption\@caption
7920 \newcommand{\HyNew@float@makebox}[1]{%
7921 \HyOrg@float@makebox{%
7922 #1\relax

```

```

7923 \ifx\Hy@float@currentHref\@undefined
7924 \else
7925 \expandafter\hyper@anchor\expandafter{%
7926 \Hy@float@currentHref
7927 }{\relax}%
7928 \global\let\Hy@float@currentHref\@undefined
7929 \fi
7930 }%
7931 }%
7932 \@ifpackageloaded{float}{%
7933 \def\Hy@float@caption{%
7934 \ifx\Hy@float@currentHref\@undefined
7935 \hyper@makecurrent{\@cuptype}%
7936 \global\let\Hy@float@currentHref\@currentHref
7937 \else
7938 \let\@currentHref\Hy@float@currentHref
7939 \fi
7940 \float@caption
7941 }%
7942 \let\HyOrg@float@makebox\float@makebox
7943 \let\float@makebox\HyNew@float@makebox
7944 }{}

7945 \</package>
7946 \< *check>
7947 \checklatex[1999/06/01 - 2000/06/01]
7948 \checkcommand\def\caption{%
7949 \ifx\@cuptype\@undefined
7950 \@latex@error{\noexpand\caption outside float}\@ehd
7951 \expandafter\@gobble
7952 \else
7953 \refstepcounter\@cuptype
7954 \expandafter\@firstofone
7955 \fi
7956 {\@dblarg{\@caption\@cuptype}}}%
7957 }
7958 \checkcommand\long\def\@caption#1[#2]#3{%
7959 \par
7960 \addcontentsline{\csname ext@#1\endcsname}{#1}{%
7961 \protect\numberline{\csname the#1\endcsname}{\ignorespaces #2}%
7962 }%
7963 \begingroup
7964 \@parboxrestore
7965 \if@minipage
7966 \@setminipage
7967 \fi
7968 \normalsize
7969 \@makecaption{\csname fnum@#1\endcsname}{\ignorespaces #3}\par
7970 \endgroup
7971 }
7972 \</check>
7973 \< *package>

```

38 Bibliographic references

This is not very robust, since many styles redefine these things. The package used to redefine `\@citex` and the like; then we tried adding the `hyperref` call explicitly

into the .aux file. Now we redefine `\bibcite`; this still breaks some citation packages so we have to work around them. But this remains extremely dangerous. Any or all of *achemso* and *drftcite* may break.

However, lets make an attempt to get *natbib* right, because thats a powerful, important package. Patrick Daly (daly@linmpi.mpg.de) has provided hooks for us, so all we need to do is activate them.

```

7974 \def\hyper@natlinkstart#1{%
7975   \Hy@backout{#1}%
7976   \hyper@linkstart{cite}{cite.#1}%
7977   \def\hyper@nat@current{#1}%
7978 }
7979 \def\hyper@natlinkend{%
7980   \hyper@linkend
7981 }
7982 \def\hyper@natlinkbreak#1#2{%
7983   \hyper@linkend#1\hyper@linkstart{cite}{cite.#2}%
7984 }
7985 \def\hyper@natanchorstart#1{%
7986   \Hy@raisedlink{\hyper@anchorstart{cite.#1}}%
7987 }
7988 \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.

```

7989 \ltx@ifundefined{NAT@parse}{%
7990   \providecommand*\@extra@binfo{}%
7991   \providecommand*\@extra@b@citeb{}%
7992   \def\bibcite#1#2{%
7993     \@newl@bel{b}{#1\@extra@binfo}{%
7994       \hyper@link{cite}{cite.#1\@extra@b@citeb}{#2}%
7995     }%
7996   }%
7997   \gdef\@extra@binfo{}%

```

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

```

7998 \let\Hy@bibcite\bibcite
7999 \begingroup
8000   \@ifundefined{bbl@cite@choice}{}{%
8001     \g@addto@macro\bbl@cite@choice{%
8002       \let\bibcite\Hy@bibcite
8003     }%
8004   }%
8005 \endgroup

```

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

```

8006 \providecommand*\@BIBLABEL{\@biblabel}%
8007 \def\@bibitem[#1]#2{%
8008   \@skiphyperrreftrue
8009   \H@item[%
8010     \ifx\Hy@raisedlink\@empty
8011       \hyper@anchorstart{cite.#2\@extra@b@citeb}%
8012       \@BIBLABEL{#1}%
8013       \hyper@anchorend
8014     \else
8015       \Hy@raisedlink{%

```

```

8016     \hyper@anchorstart{cite.#2\@extra@b@citeb}\hyper@anchorend
8017     }%
8018     \@BIBLABEL{#1}%
8019     \fi
8020     \hfill
8021     ]%
8022     \@skiphyperreffalse
8023     \if@filesw
8024     \begingroup
8025     \let\protect\noexpand
8026     \immediate\write\@auxout{%
8027     \string\bibcite{#2}{#1}%
8028     }%
8029     \endgroup
8030     \fi
8031     \ignorespaces
8032     }%

```

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

```

8033 \def\@bibitem#1{%
8034   \@skiphyperrefftrue\H@item\@skiphyperreffalse
8035   \Hy@raisedlink{%
8036     \hyper@anchorstart{cite.#1\@extra@b@citeb}\relax\hyper@anchorend
8037   }%
8038   \if@filesw
8039   \begingroup
8040   \let\protect\noexpand
8041   \immediate\write\@auxout{%
8042     \string\bibcite{#1}{\the\value{\@listctr}}}%
8043   }%
8044   \endgroup
8045   \fi
8046   \ignorespaces
8047   }%
8048 }{}

8049 \</package>
8050 \<*check>
8051 \checklatex
8052 \checkcommand\def\@lbibitem[#1]#2{%
8053   \item[\@biblabel{#1}\hfill]%
8054   \if@filesw
8055   {%
8056     \let\protect\noexpand
8057     \immediate\write\@auxout{%
8058       \string\bibcite{#2}{#1}%
8059     }%
8060   }%
8061   \fi
8062   \ignorespaces
8063 }
8064 \checkcommand\def\@bibitem#1{%
8065   \item
8066   \if@filesw
8067   \immediate\write\@auxout{%
8068     \string\bibcite{#1}{\the\value{\@listctr}}}%
8069   }%

```

```

8070 \fi
8071 \ignorespaces
8072 }
8073 </check>
8074 <*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.

```

8075 \ifclassloaded{revtex}{%
8076 \Hy@Info{*** compatibility with revtex **** }%
8077 \def\revtex@checking#1#2{%
8078 \expandafter\let\expandafter\T@temp\csname b@#1\endcsname
8079 \expandafter\def\csname b@#1\endcsname{#2}%
8080 \@SetMaxRnhefLabel{#1}%
8081 \expandafter\let\csname b@#1\endcsname\T@temp
8082 }%

```

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

```

8083 \@ifundefined{CITE}{\def\CITE{\@cite}}{}%
8084 \providecommand*{\@extra@b@citeb}{}%
8085 \def\CITEX[#1]#2{%
8086 \let\@citea\@empty
8087 \leavevmode
8088 \unskip
8089 $\{
8090 \scriptstyle
8091 \@CITE{
8092 \@for\@citeb:=#2\do{
8093 \@citea
8094 \def\@citea{,\penalty\@m\ }
8095 \edef\@citeb{\expandafter\@firstofone\@citeb}%
8096 \if@filesw
8097 \immediate\write\@auxout{\string\citation{\@citeb}}%
8098 \fi
8099 \@ifundefined{b@\@citeb\extra@b@citeb}{%
8100 \mbox{\reset@font\bfseries ?}%
8101 \G@refundefinedtrue
8102 \@latex@warning{%
8103 Citation ‘\@citeb’ on page \thepage \space undefined%
8104 }%
8105 }%
8106 {\csname b@\@citeb\@extra@b@citeb\endcsname}%
8107 }%
8108 }%
8109 }{#1}%
8110 }$%
8111 }%

```

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.

```

8112 \def\@citex[#1]#2{%
8113 \let\@citea\@empty
8114 \@cite{
8115 \@for\@citeb:=#2\do{
8116 \@citea
8117 \def\@citea{,\penalty\@m\ }%

```



```

8118 \edef\@citeb{\expandafter\@firstofone\@citeb}%
8119 \if@filesw
8120 \immediate\write\@auxout{\string\citation{\@citeb}}}%
8121 \fi
8122 \ifundefined{b@\@citeb\@extra@b@citeb}{%
8123 \mbox{\reset@font\bfseries ?}%
8124 \G@refundefinedtrue
8125 \@latex@warning{%
8126 Citation '\@citeb' on page \thepage \space undefined%
8127 }%
8128 }{%
8129 \hbox{\csname b@\@citeb\@extra@b@citeb\endcsname}%
8130 }%
8131 }%
8132 }{#1}%
8133 }%
8134 }{}

```

38.1 Package harvard

Override Peter Williams' Harvard package; we have to a) make each of the citation types into a link; b) make each citation write a backref entry, and c) kick off a backreference section for each bibliography entry.

The redefinitions have to be deferred to `\begin{document}`, because if `harvard.sty` is loaded and `html.sty` is present and detects pdfTeX, then `hyperref` is already loaded at the begin of `harvard.sty`, and the `\newcommand` macros causes error messages.

```

8135 \ifpackageloaded{harvard}{%
8136 \Hy@AtBeginDocument{%
8137 \Hy@Info{*** compatibility with harvard **** }%
8138 \Hy@raiselinksfalse
8139 \def\harvardcite#1#2#3#4{%
8140 \global\@namedef{HAR@fn@#1}{\hyper@link[cite]{}{cite.#1}{#2}}%
8141 \global\@namedef{HAR@an@#1}{\hyper@link[cite]{}{cite.#1}{#3}}%
8142 \global\@namedef{HAR@yr@#1}{\hyper@link[cite]{}{cite.#1}{#4}}%
8143 \global\@namedef{HAR@df@#1}{\csname HAR@fn@#1\endcsname}%
8144 }%
8145 \def\HAR@citetoaux#1{%
8146 \if@filesw\immediate\write\@auxout{\string\citation{#1}}\fi%
8147 \ifHy@backref
8148 \ifx\@empty\@currentlabel
8149 \else
8150 \@bsphack
8151 \if@filesw
8152 \protected@write\@auxout{}{%
8153 \string\@writefile{brf}{%
8154 \string\backcite{#1}{%
8155 {\thepage}{\@currentlabel}{\@currentHref}%
8156 }%
8157 }%
8158 }%
8159 \fi
8160 \@esphack
8161 \fi
8162 \fi
8163 }%

```

```

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

```

\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:

```

8189 \long\def\HAR@checkcitations#1#2#3#4{%
8190   \def\HAR@tempa{\hyper@@link[cite]{}{cite.#1}{#2}}%
8191   \expandafter\ifx\csname HAR@fn@#1\endcsname\HAR@tempa
8192     \def\HAR@tempa{\hyper@@link[cite]{}{cite.#1}{#3}}%
8193     \expandafter\ifx\csname HAR@an@#1\endcsname\HAR@tempa
8194       \def\HAR@tempa{\hyper@@link[cite]{}{cite.#1}{#4}}%
8195       \expandafter\ifx\csname HAR@yr@#1\endcsname\HAR@tempa
8196       \else
8197         \@tempswatrue
8198       \fi
8199     \else
8200       \@tempswatrue
8201     \fi
8202   \else
8203     \@tempswatrue
8204   \fi
8205 }%
8206 }%
8207 }{}

```

38.2 Package chicago

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

```

8208 \@ifpackageloaded{chicago}{%

```

\citeN

```

8209 \def\citeN{%

```

```

8210 \def\@citeseppen{-1000}%
8211 \def\@cite##1##2{##1}%
8212 \def\citeauthoryear##1##2##3{##1 (##3\@cite@opt)}%
8213 \@citedata@opt
8214 }%

\shortciteN
8215 \def\shortciteN{%
8216 \def\@citeseppen{-1000}%
8217 \def\@cite##1##2{##1}%
8218 \def\citeauthoryear##1##2##3{##2 (##3\@cite@opt)}%
8219 \@citedata@opt
8220 }%

\@citedata@opt
8221 \def\@citedata@opt{%
8222 \let\@cite@opt\@empty
8223 \@ifnextchar [{%
8224 \@tempswatrue
8225 \@citedatax@opt
8226 }{%
8227 \@tempswafalse
8228 \@citedatax[]%
8229 }%
8230 }%

\@citedatax@opt
8231 \def\@citedatax@opt[#1]{%
8232 \def\@cite@opt{, #1}%
8233 \@citedatax[{#1}]%
8234 }%

8235 }{}

```

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.

```

8236 \ltx@ifclassloaded{slides}{%
8237 \def\Hy@SlidesFormatOptionalPage#1{(#1)}%
8238 \def\Hy@PageAnchorSlidesPlain{%
8239 \advance\c@page\ltx@one
8240 \edef\Hy@TempPageAnchor{%
8241 \noexpand\hyper@@anchor{%
8242 page.\the\c@slide.\the\c@overlay.\the\c@note%
8243 \ifnum\c@page=\ltx@one
8244 \else
8245 .\the\c@page
8246 \fi
8247 }%
8248 }%
8249 \advance\c@page-\ltx@one

```

```

8250 }%
8251 \def\Hy@PageAnchorSlide{%
8252   \advance\c@page\ltx@one
8253   \ifnum\c@page>\ltx@one
8254     \ltx@ifundefined{theHpage}{%
8255       \protected@edef\Hy@TheSlideOptionalPage{%
8256         \Hy@SlidesFormatOptionalPage{theHpage}%
8257       }%
8258     }{%
8259       \protected@edef\Hy@TheSlideOptionalPage{%
8260         \Hy@SlidesFormatOptionalPage{theHpage}%
8261       }%
8262     }%
8263   \else
8264     \def\Hy@TheSlideOptionalPage{}%
8265   \fi
8266   \advance\c@page-\ltx@one
8267   \pdfstringdef\@the@H@page{%
8268     \csname
8269       the%
8270       \ltx@ifundefined{theH\Hy@SlidesPage}{H}%
8271       \Hy@SlidesPage
8272     \endcsname
8273     \Hy@TheSlideOptionalPage
8274   }%
8275   \ltx@gobblethree
8276 }%
8277 \def\Hy@SlidesPage{slide}%
8278 \g@addto@macro\slide{%
8279   \def\Hy@SlidesPage{slide}%
8280 }%
8281 \g@addto@macro\overlay{%
8282   \def\Hy@SlidesPage{overlay}%
8283 }%
8284 \g@addto@macro\note{%
8285   \def\Hy@SlidesPage{note}%
8286 }%
8287 }{%
8288   \def\Hy@PageAnchorSlidesPlain{}%
8289   \def\Hy@PageAnchorSlide{}%
8290 }
8291 \def\Hy@EveryPageAnchor{%
8292   \Hy@DistillerDestFix
8293   \ifHy@pageanchor
8294     \ifHy@hypertextnames
8295       \ifHy@plainpages
8296         \def\Hy@TempPageAnchor{\hyper@@anchor{page.\the\c@page}}%
8297         \Hy@PageAnchorSlidesPlain
8298       \else
8299         \begingroup
8300           \let\@number\@firstofone
8301           \Hy@unicodedefalse
8302           \Hy@PageAnchorSlide
8303           \pdfstringdef\@the@H@page{\the@H@page}%
8304         \endgroup
8305         \EdefUnescapeString\@the@H@page{\@the@H@page}%
8306         \def\Hy@TempPageAnchor{\hyper@@anchor{page.\@the@H@page}}%

```

```

8307 \fi
8308 \else
8309 \Hy@GlobalStepCount\Hy@pagecounter
8310 \def\Hy@TempPageAnchor{%
8311 \hyper@@anchor{page.\the\Hy@pagecounter}%
8312 }%
8313 \fi
8314 \vbox to 0pt{%
8315 \kern\voffset
8316 \kern\topmargin
8317 \kern-1bp\relax
8318 \hbox to 0pt{%
8319 \kern\hoffset
8320 \kern\ifodd\value{page}%
8321 \oddsidemargin
8322 \else
8323 \evensidemargin
8324 \fi
8325 \kern-1bp\relax
8326 \Hy@TempPageAnchor\relax
8327 \hss
8328 }%
8329 \vss
8330 }%
8331 \fi
8332 }
8333 \g@addto@macro\Hy@EveryPageBoxHook{%
8334 \Hy@EveryPageAnchor
8335 }

```

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.

```

8336 \def\addcontentsline#1#2#3{% toc extension, type, tag
8337 \begingroup
8338 \let\label\@gobble
8339 \ifx\@currentHref\@empty
8340 \Hy@Warning{%
8341 No destination for bookmark of \string\addcontentsline,%
8342 \MessageBreak destination is added%
8343 }%
8344 \phantomsection
8345 \fi
8346 \expandafter\ifx\csname toplevel@#2\endcsname\relax
8347 \begingroup
8348 \def\Hy@tempa{#1}%
8349 \ifx\Hy@tempa\Hy@bookmarkstype
8350 \Hy@WarningNoLine{%
8351 bookmark level for unknown #2 defaults to 0%
8352 }%
8353 \else
8354 \Hy@Info{bookmark level for unknown #2 defaults to 0}%
8355 \fi
8356 \endgroup

```

```

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

```

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

```

8386 \def\contentsline#1#2#3#4{%
8387 \begingroup
8388 \Hy@safe@activestrue
8389 \edef\x{\endgroup
8390 \def\noexpand\Hy@tocdestname{#4}%
8391 }\x
8392 \ifx\Hy@tocdestname\ltx@empty
8393 \csname l@#1\endcsname{#2}{#3}%
8394 \else
8395 \ifcase\Hy@linktoc % none
8396 \csname l@#1\endcsname{#2}{#3}%
8397 \or % section
8398 \csname l@#1\endcsname{%
8399 \hyper@linkstart{link}{\Hy@tocdestname}{#2}\hyper@linkend
8400 }{#3}%
8401 \or % page
8402 \def\Hy@temp{#3}%
8403 \ifx\Hy@temp\ltx@empty
8404 \csname l@#1\endcsname{#2}{#3}%
8405 \else
8406 \csname l@#1\endcsname{{#2}}{%
8407 \hyper@linkstart{link}{\Hy@tocdestname}{#3}\hyper@linkend
8408 }%
8409 \fi
8410 \else % all

```

```

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

8426 \end{package}
8427 \end{check}
8428 \checklatex
8429 \checkcommand\def\addcontentsline#1#2#3{%
8430 \addtocontents{#1}{\protect\contentsline{#2}{#3}{\thepage}}}%
8431 }
8432 \checkcommand\def\contentsline#1{\csname l@#1\endcsname}
8433 \end{check}
8434 \end{package}

```

41 New counters

The whole theorem business makes up new counters on the fly; we are going to intercept this. Sigh. Do it at the level where new counters are defined.

```

8435 \let\H@definecounter\@definecounter
8436 \def\@definecounter#1{%
8437 \H@definecounter{#1}%
8438 \expandafter\gdef\csname theH#1\endcsname{\arabic{#1}}%
8439 }

```

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.

```

8440 \let\H@newctr\@newctr
8441 \def\@newctr#1[#2]{%
8442 \H@newctr#1{#2}%
8443 \expandafter\gdef\csname theH#1\endcsname{%
8444 \csname the\@ifundefined{theH#2}{H}{#2}\endcsname.\arabic{#1}}%
8445 }%
8446 }

```

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.

```

8447 \@ifpackageloaded{amsmath}{%

```

```

8448 \def\Hy@make@anchor{%
8449   \Hy@MakeCurrentHrefAuto{AMS}%
8450   \Hy@raisedlink{\hyper@anchorstart{\@currentHref}\hyper@anchorend}%
8451 }%
8452 \def\Hy@make@df@tag@@#1{%
8453   \gdef\df@tag{%
8454     \maketag@@@{\Hy@make@anchor#1}%
8455     \def\@currentlabel{#1}%
8456   }%
8457 }%
8458 \def\Hy@make@df@tag@@@#1{%
8459   \gdef\df@tag{%
8460     \tagform@{\Hy@make@anchor#1}%
8461     \toks@{\Exp{\p@equation{#1}}}%
8462     \edef\@currentlabel{the\toks@}%
8463   }%
8464 }%
8465 \let\HyOrg@make@df@tag@@\make@df@tag@@
8466 \let\HyOrg@make@df@tag@@@\make@df@tag@@@
8467 \let\make@df@tag@@\Hy@make@df@tag@@
8468 \let\make@df@tag@@@\Hy@make@df@tag@@@
8469 }{}

```

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

```

8470 \@ifpackagewith{hyperref}{pdftex}{%
8471   \let\H@seteqlabel\@seteqlabel
8472   \def\@seteqlabel#1{%
8473     \H@seteqlabel{#1}%
8474     \xdef\@currentHref{AMS.\the\Hy@linkcounter}%
8475     \Hy@raisedlink{%
8476       \hyper@anchorstart{\@currentHref}\hyper@anchorend
8477     }%
8478   }%
8479 }{}

```

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.

```

8480 \let\HyOrg@addtoreset\@addtoreset
8481 \def\@addtoreset#1#2{%
8482   \HyOrg@addtoreset{#1}{#2}%
8483   \expandafter\xdef\csname theH#1\endcsname{%
8484     \expandafter\noexpand
8485     \csname the\@ifundefined{theH#2}{H#2}\endcsname

```



```

8486 .\noexpand\the\noexpand\value{#1}%
8487 }%
8488 }

```

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

```

8489 \</package>
8490 \<*check>
8491 \checkpackage{amsmath}[1999/12/14 - 2000/06/06]
8492 \checkcommand\newcommand{\numberwithin}[3][\arabic]{%
8493   \@ifundefined{c@#2}{\@nocounterr{#2}}{%
8494     \@ifundefined{c@#3}{\@nocnterr{#3}}{%
8495       \@addtoreset{#2}{#3}%
8496       \@xp\xdef\csname the#2\endcsname{%
8497         \@xp\@nx\csname the#3\endcsname.\@nx#1{#2}%
8498       }%
8499     }%
8500   }%
8501 }%
8502 \</check>
8503 \<*package>
8504 \@ifpackageloaded{amsmath}{%
8505   \@ifpackagelater{amsmath}{1999/12/14}{%
8506     \renewcommand*\numberwithin[3][\arabic]{%
8507       \@ifundefined{c@#2}{\@nocounterr{#2}}{%
8508         \@ifundefined{c@#3}{\@nocnterr{#3}}{%
8509           \HyOrg@addtoreset{#2}{#3}%
8510           \@xp\xdef\csname the#2\endcsname{%
8511             \@xp\@nx\csname the#3\endcsname.\@nx#1{#2}%
8512           }%
8513           \@xp\xdef\csname theH#2\endcsname{%
8514             \@xp\@nx
8515             \csname the\@ifundefined{theH#3}{H#3\endcsname
8516               .\@nx#1{#2}%
8517             }%
8518           }%
8519         }%
8520       }%
8521     }%
8522     \Hy@WarningNoLine{%
8523       \string\numberwithin\space of package ‘amsmath’ %
8524       only fixed\MessageBreak
8525       for version 2000/06/06 v2.12 or newer%
8526     }%
8527   }%
8528 }{}

```

43 Included figures

Simply intercept the low level graphics package macro.

```

8529 \ifHy@hyperfigures
8530   \let\Hy@Gin@setfile\Gin@setfile
8531   \def\Gin@setfile#1#2#3{%
8532     \hyperimage{#3}{\Hy@Gin@setfile{#1}{#2}{#3}}%
8533   }%
8534 \fi

```

8535 \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.

```

8536 \ifHy@hyperindex
8537   \def\HyInd@ParenLeft{({}%
8538   \def\HyInd@ParenRight{)}}%
8539   \def\hyperindexformat#1#2{%
8540     \let\HyOrg@hyperpage\hyperpage
8541     \let\hyperpage\@firstofone
8542     #1{\HyOrg@hyperpage{#2}}}%
8543   \let\hyperpage\HyOrg@hyperpage
8544 }%
8545 \Hy@nextfalse
8546 \@ifpackageloaded{multind}{\Hy@nexttrue}{}%
8547 \@ifpackageloaded{index}{\Hy@nexttrue}{}%
8548 \@ifpackageloaded{amsmidx}{\Hy@nexttrue}{}%
8549 \begingroup
8550   \lccode'\|=\expandafter'\HyInd@EncapChar\relax
8551   \lccode'\|/\|=\|\\relax
8552 \lowercase{\endgroup
8553   \ifHy@next
8554     \let\HyInd@org@wrindex\@wrindex
8555     \def\@wrindex#1#2{\HyInd@@wrindex{#1}#2|\\}%
8556     \def\HyInd@@wrindex#1#2|#3|#4\\{%
8557       \ifx\\#3\\%
8558         \HyInd@org@wrindex{#1}{#2|hyperpage}%
8559       \else
8560         \HyInd@@@wrindex{#1}{#2}#3\\%
8561       \fi
8562     }%
8563     \def\HyInd@@@wrindex#1#2#3#4\\{%
8564       \def\Hy@temp@A{#3}%
8565       \ifcase0\ifx\Hy@temp@A\HyInd@ParenLeft 1\fi
8566         \ifx\Hy@temp@A\HyInd@ParenRight 1\fi
8567       \relax
8568       \HyInd@org@wrindex{#1}{%
8569         #2|hyperindexformat{/#3#4}%
8570       }%
8571     \else
8572       \ifx\\#4\\%
8573         \ifx\Hy@temp@A\HyInd@ParenRight
8574           \HyInd@org@wrindex{#1}{#2|#3}%
8575         \else
8576           \HyInd@org@wrindex{#1}{#2|#3hyperpage}%
8577         \fi

```

```

8578     \else
8579         \HyInd@org@wrindex{#1}{%
8580             #2|#3hyperindexformat{/#4}%
8581         }%
8582     \fi
8583 \fi
8584 }%
8585 \else
8586     \def\@wrindex#1{\@wrindex#1||\}%
8587     \def\@wrindex#1|#2|#3\{\%
8588         \if@filesw
8589             \ifx\#2\%
8590                 \protected@write\@indexfile{\%
8591                     \string\indexentry{#1|hyperpage}{\thepage}%
8592                 }%
8593             \else
8594                 \HyInd@@@wrindex{#1}#2\%
8595             \fi
8596         \fi
8597     \endgroup
8598     \@esphack
8599 }%
8600 \def\HyInd@@@wrindex#1#2#3\{\%
8601     \def\Hy@temp@A{#2}%
8602     \ifcase0\ifx\Hy@temp@A\HyInd@ParenLeft 1\fi
8603         \ifx\Hy@temp@A\HyInd@ParenRight 1\fi
8604         \relax
8605     \protected@write\@indexfile{\%
8606         \string\indexentry{%
8607             #1|hyperindexformat{/#2#3}%
8608         }{\thepage}%
8609     }%
8610 \else
8611     \ifx\#3\%
8612         \ifx\Hy@temp@A\HyInd@ParenRight
8613             \protected@write\@indexfile{\%
8614                 \string\indexentry{#1|#2}{\thepage}%
8615             }%
8616         \else
8617             \protected@write\@indexfile{\%
8618                 \string\indexentry{#1|#2hyperpage}{\thepage}%
8619             }%
8620         \fi
8621     \else
8622         \protected@write\@indexfile{\%
8623             \string\indexentry{%
8624                 #1|#2hyperindexformat{/#3}%
8625             }{\thepage}%
8626         }%
8627     \fi
8628 \fi
8629 }%
8630 \fi
8631 }%
8632 \fi
8633 \Hy@DisableOption{hyperindex}
8634 \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.

```
8635 \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.

```
8636 \def\hyperpage#1{%
8637   \HyInd@hyperpage#1\nohyperpage{}\@nil
8638 }
8639 \def\HyInd@hyperpage#1\nohyperpage#2#3\@nil{%
8640   \HyInd@@hyperpage{#1}%
8641   #2%
8642   \def\Hy@temp{#3}%
8643   \ifx\Hy@temp\@empty
8644   \else
8645     \ltx@ReturnAfterFi{%
8646       \HyInd@hyperpage#3\@nil
8647     }%
8648   \fi
8649 }
8650 \def\HyInd@@hyperpage#1{\@hyperpage#1----\}
8651 \def\@hyperpage#1--#2--#3\{\%
8652   \ifx\#2\%
8653     \@commahyperpage{#1}%
8654   \else
8655     \HyInd@pagelink{#1}--\HyInd@pagelink{#2}%
8656   \fi
8657 }
8658 \def\@commahyperpage#1{\@commahyperpage#1, \}
8659 \def\@commahyperpage#1, #2,#3\{\%
8660   \ifx\#2\%
8661     \HyInd@pagelink{#1}%
8662   \else
8663     \HyInd@pagelink{#1}, \HyInd@pagelink{#2}%
8664   \fi
8665 }
```

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

```
8666 \def\HyInd@pagelink#1{%
8667   \begingroup
8668   \toks@={}%
8669   \HyInd@removespaces#1 \@nil
8670   \endgroup
8671 }
8672 \def\HyInd@removespaces#1 #2\@nil{%
8673   \toks@=\expandafter{\the\toks@#1}%
8674   \ifx\#2\%
8675     \edef\x{\the\toks@}%
8676     \ifx\x\@empty
8677     \else
8678       \hyperlink{page.\the\toks@}{\the\toks@}%
8679     \fi
8680   \else
8681     \ltx@ReturnAfterFi{%
8682       \HyInd@removespaces#2\@nil
8683     }%
```

```

8684 \fi
8685 }

```

45 Compatibility with foiltex

```

8686 \@ifclassloaded{foils}{%
8687 \providecommand*\ext@table{lot}%
8688 \providecommand*\ext@figure{lof}%
8689 }{}

```

46 Compatibility with seminar slide package

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

```

8690 \@ifclassloaded{seminar}{%
8691 \Hy@seminarslidestrue
8692 \providecommand\theHslide{\arabic{slide}}%
8693 }{%
8694 \Hy@seminarslidesfalse
8695 }
8696 \@ifpackageloaded{slidesec}{%
8697 \providecommand\theHslidesection {\arabic{slidesection}}%
8698 \providecommand\theHslidesubsection{%
8699 \theHslidesection.\arabic{slidesubsection}}%
8700 }%
8701 \def\slide@heading[#1]#2{%
8702 \H@refstepcounter{slidesection}%
8703 \@addtoreset{slidesubsection}{slidesection}%
8704 \addtocontents{los}{%
8705 \protect\l@slide{\the\c@slidesection}{\ignorespaces#1}%
8706 {\@SCTR}{\slideheading.\theslidesection}}%
8707 }%
8708 \def\Hy@tempa{#2}%
8709 \ifx\Hy@tempa\@empty
8710 \else
8711 {%
8712 \edef\@currentlabel{%
8713 \csname p@slidesection\endcsname\theslidesection
8714 }%
8715 \makeslideheading{#2}%
8716 }%
8717 \fi
8718 \gdef\theslideheading{#1}%
8719 \gdef\theslidesubheading{}%
8720 \ifHy@bookmarksnumbered
8721 \def\Hy@slidetitle{\theslidesection\space #1}%
8722 \else
8723 \def\Hy@slidetitle{#1}%
8724 \fi
8725 \ifHy@hypertextnames
8726 \ifHy@naturalnames
8727 \hyper@@anchor{slideheading.\theslidesection}{\relax}%
8728 \Hy@writebookmark
8729 {\theslidesection}%
8730 {\Hy@slidetitle}%
8731 {slideheading.\theslidesection}%

```

```

8732         {1}%
8733         {toc}%
8734     \else
8735         \hyper@@anchor{slideheading.\theHslidesection}{\relax}%
8736         \Hy@writebookmark
8737             {\theslidesection}%
8738             {\Hy@slidetitle}%
8739             {slideheading.\theHslidesection}%
8740             {1}%
8741             {toc}%
8742     \fi
8743 \else
8744     \Hy@GlobalStepCount\Hy@linkcounter
8745     \hyper@@anchor{slideheading.\the\Hy@linkcounter}{\relax}%
8746     \Hy@writebookmark
8747         {\theslidesection}%
8748         {\Hy@slidetitle}%
8749         {slideheading.\the\Hy@linkcounter}%
8750         {1}%
8751         {toc}%
8752 \fi
8753 }%
8754 \def\slide@subheading[#1]#2{%
8755     \H@refstepcounter{slidesubsection}%
8756     \addtocontents{los}{%
8757         \protect\l@subslide{\the\c@slidesubsection}{\ignorespaces#1}%
8758         {\@SCTR}{slideheading.\theslidesubsection}%
8759     }%
8760     \def\Hy@tempa{#2}%
8761     \ifx\Hy@tempa\@empty
8762     \else
8763         {%
8764             \edef\@currentlabel{%
8765                 \csname p@slidesubsection\endcsname\theslidesubsection
8766             }%
8767             \makeslidesubheading{#2}%
8768         }%
8769     \fi
8770     \gdef\theslidesubheading{#1}%
8771     \ifHy@bookmarksnumbered
8772         \def\Hy@slidetitle{\theslidesubsection\space #1}%
8773     \else
8774         \def\Hy@slidetitle{#1}%
8775     \fi
8776     \ifHy@hypertextnames
8777     \ifHy@naturalnames
8778         \hyper@@anchor{slideheading.\theslidesubsection}{\relax}%
8779         \Hy@writebookmark
8780             {\theslidesubsection}%
8781             {\Hy@slidetitle}%
8782             {slideheading.\theslidesubsection}%
8783             {2}%
8784             {toc}%
8785     \else
8786         \hyper@@anchor{slideheading.\theHslidesubsection}{\relax}%
8787         \Hy@writebookmark
8788             {\theslidesubsection}%

```

```

8789      {\Hy@slidetitle}%
8790      {slideheading.\theHslidesubsection}%
8791      {2}%
8792      {toc}%
8793  \fi
8794  \else
8795    \Hy@GlobalStepCount\Hy@linkcounter
8796    \hyper@@anchor{slideheading.\the\Hy@linkcounter}{\relax}%
8797    \Hy@writebookmark
8798    {\theslidesubsection}%
8799    {\Hy@slidetitle}%
8800    {slideheading.\the\Hy@linkcounter}%
8801    {1}%
8802    {toc}%
8803  \fi
8804 }%
8805 \providecommand*{\listslidenam}{List of Slides}%
8806 \def\listofslides{%
8807   \section*{%
8808     \listslidenam
8809     \@mkboth{%
8810       \expandafter\MakeUppercase\listslidenam
8811     }{%
8812       \expandafter\MakeUppercase\listslidenam
8813     }%
8814   }%
8815   \def\l@slide##1##2##3##4{%
8816     \slide@undottedcline{%
8817       \slidenumberline{##3}{\hyperlink{##4}{##2}}%
8818     }{%
8819     }%
8820     \let\l@subslide\l@slide
8821     \@startlos
8822   }%
8823   \def\slide@contents{%
8824     \def\l@slide##1##2##3##4{%
8825       \slide@ccline{\slidenumberline{##3}{\hyperlink{##4}{##2}}}{##3}%
8826     }%
8827     \let\l@subslide\@gobblefour
8828     \@startlos
8829   }%
8830   \def\Slide@contents{%
8831     \def\l@slide##1##2##3##4{%
8832       \ifcase\lslide@flag
8833         \message{##1 ** \the\c@slidesection}%
8834         \ifnum##1>\c@slidesection
8835           \def\lslide@flag{1}%
8836           {%
8837             \large
8838             \slide@ccline{%
8839               \slidenumberline{$\Rightarrow\bullet$}%
8840               {\hyperlink{##4}{##2}}%
8841             }{##3}%
8842           }%
8843         \else
8844           {%
8845             \large

```

```

8846         \slide@cline{%
8847         \slidenumberline{$\surd\;\bullet$}%
8848         {\hyperlink{##4}{##2}}}%
8849     }{##3}%
8850 }%
8851 \fi
8852 \or
8853 \def\lslide@flag{2}%
8854 {%
8855     \large
8856     \slide@cline{%
8857     \slidenumberline{$\bullet$}%
8858     {\hyperlink{##4}{##2}}}%
8859     }{##3}%
8860 }%
8861 \or
8862 {%
8863     \large
8864     \slide@cline{%
8865     \slidenumberline{$\bullet$}%
8866     {\hyperlink{##4}{##2}}}%
8867     }{##3}%
8868 }%
8869 \fi
8870 }%
8871 \def\l@subslide##1##2##3##4{%
8872     \ifnum\lslide@flag=1 %
8873     \@undottedtocline{2}{3.8em}{3.2em}{\hyperlink{##4}{##2}}{}%
8874     \fi
8875 }%
8876 \def\lslide@flag{0}%
8877 \@startlos
8878 }%
8879 }{}

```

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.)

```

8880 \ifHy@texht
8881   \expandafter\endinput
8882 \fi
8883 \let\real@setref\@setref
8884 \def\@setref#1#2#3{% csname, extract group, refname
8885   \ifx#1\relax
8886     \protect\G@refundefinedtrue
8887     \nfss@text{\reset@font\bfseries ??}%
8888     \@latex@warning{%
8889       Reference ‘#3’ on page \thepage \space undefined%
8890     }%
8891   \else
8892     \expandafter\Hy@setref@link#1\@empty\@empty\@nil{#2}%
8893   \fi
8894 }

```

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

```

8895 \def\Hy@setref@link#1#2#3#4#5#6\@nil#7{%
8896   \begingroup

```



```

8897 \toks0={\hyper@@link{#5}{#4}}%
8898 \toks1=\expandafter{#7{#1}{#2}{#3}{#4}{#5}}%
8899 \edef\x{\endgroup
8900 \the\toks0 {\the\toks1 }%
8901 }%
8902 \x
8903 }
8904 \def\@pagesetref#1#2#3{% csname, extract macro, ref
8905 \ifx#1\relax
8906 \protect\G@refundefinedtrue
8907 \nfss@text{\reset@font\bfseries ??}%
8908 \@latex@warning{%
8909 Reference ‘#3’ on page \thepage \space undefined%
8910 }%
8911 \else
8912 \protect\hyper@@link
8913 {\expandafter\@fifthoffive#1}%
8914 {page.\expandafter\@secondoffive#1}%
8915 {\expandafter\@secondoffive#1}%
8916 \fi
8917 }

8918 \</package>
8919 \<*check>
8920 \checklatex
8921 \checkcommand\def\@setref#1#2#3{%
8922 \ifx#1\relax
8923 \protect\G@refundefinedtrue
8924 \nfss@text{\reset@font\bfseries ??}%
8925 \@latex@warning{%
8926 Reference ‘#3’ on page \thepage\space undefined%
8927 }%
8928 \else
8929 \expandafter#2#1\null
8930 \fi
8931 }
8932 \</check>
8933 \<*package>

```

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

```

8934 \def\HyRef@StarSetRef#1{%
8935 \begingroup
8936 \Hy@safe@activetrue
8937 \edef\x{#1}%
8938 \@onelevel@sanitize\x
8939 \edef\x{\endgroup
8940 \noexpand\HyRef@@StarSetRef
8941 \expandafter\noexpand\csname r@\x\endcsname{\x}}%
8942 }%
8943 \x
8944 }
8945 \def\HyRef@@StarSetRef#1#2#3{%
8946 \ifx#1\@undefined
8947 \let#1\relax
8948 \fi
8949 \real@setref#1#3{#2}%
8950 }

```

```

8951 \def\@refstar#1{%
8952   \HyRef@StarSetRef{#1}\@firstoffive
8953 }
8954 \def\@pagerefstar#1{%
8955   \HyRef@StarSetRef{#1}\@secondoffive
8956 }
8957 \def\@namerefstar#1{%
8958   \HyRef@StarSetRef{#1}\@thirdoffive
8959 }
8960 \Hy@AtBeginDocument{%
8961   \@ifpackageloaded{varioref}{%
8962     \def\@Refstar#1{%
8963       \HyRef@StarSetRef{#1}\HyRef@MakeUppercaseFirstOfFive
8964     }%
8965     \def\HyRef@MakeUppercaseFirstOfFive#1#2#3#4#5{%
8966       \MakeUppercase#1%
8967     }%
8968     \DeclareRobustCommand*{\Ref}{%
8969       \@ifstar\@Refstar\HyRef@Ref
8970     }%
8971     \def\HyRef@Ref#1{%
8972       \hyperref[{#1}]{\Ref*{#1}}%
8973     }%
8974     \def\Vr@f#1{%
8975       \leavevmode\unskip\vref@space
8976       \hyperref[{#1}]{%
8977         \Ref*{#1}%
8978         \let\vref@space\nobreakspace
8979         \@vpageref[\unskip]{#1}%
8980       }%
8981     }%
8982     \def\vr@f#1{%
8983       \leavevmode\unskip\vref@space
8984       \begingroup
8985       \let\T@pageref\@pagerefstar
8986       \hyperref[{#1}]{%
8987         \ref*{#1}%
8988         \vpageref[\unskip]{#1}%
8989       }%
8990       \endgroup
8991     }%
8992   }{%
8993 }
8994 \DeclareRobustCommand*{\autopageref}{%
8995   \@ifstar{%
8996     \HyRef@autopagerefname\pageref*%
8997   }\HyRef@autopageref
8998 }
8999 \def\HyRef@autopageref#1{%
9000   \hyperref[{#1}]{\HyRef@autopagerefname\pageref*{#1}}%
9001 }
9002 \def\HyRef@autopagerefname{%
9003   \ltx@ifundefined{pageautorefname}{%
9004     \ltx@ifundefined{pagename}{%
9005       \Hy@Warning{No autoref name for 'page'}%
9006     }{%
9007       \pagename\nobreakspace

```

```

9008 }%
9009 }{%
9010 \pageautorefname\nobreakspace
9011 }%
9012 }

```

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

```

9013 \DeclareRobustCommand*{\autoref}{%
9014 \leavevmode
9015 \@ifstar{\HyRef@autoref@gobbletwo}{\HyRef@autoref\hyper@@link}%
9016 }
9017 \def\HyRef@autoref#1#2{%
9018 \begingroup
9019 \Hy@safe@activestrue
9020 \expandafter\HyRef@autosetref\csname r@#2\endcsname{#2}{#1}%
9021 \endgroup
9022 }
9023 \def\HyRef@autosetref#1#2#3{% link command, csname, refname
9024 \HyRef@ShowKeysRef{#2}%
9025 \ifcase 0\ifx#1\relax 1\fi\ifx#1\Hy@varioref@undefined 1\fi\relax
9026 \edef\HyRef@thisref{%
9027 \expandafter\@fourthoffive#1\@empty\@empty\@empty
9028 }%
9029 \expandafter\HyRef@testreftype\HyRef@thisref.\.%
9030 \Hy@safe@activesfalse
9031 #3{%
9032 \expandafter\@fifthoffive#1\@empty\@empty\@empty
9033 }{%
9034 \expandafter\@fourthoffive#1\@empty\@empty\@empty
9035 }{%
9036 \HyRef@currentHtag
9037 \expandafter\@firstoffive#1\@empty\@empty\@empty
9038 \null
9039 }%
9040 \else
9041 \protect\G@refundefinedtrue
9042 \nfss@text{\reset@font\bfseries ??}%
9043 \@latex@warning{%
9044 Reference ‘#2’ on page \thepage\space undefined%
9045 }%
9046 \fi
9047 }
9048 \def\HyRef@testreftype#1.#2\.%
9049 \ltx@ifundefined{#1autorefname}{%
9050 \ltx@ifundefined{#1name}{%
9051 \HyRef@StripStar#1\*\@nil{#1}%
9052 \ltx@ifundefined{\HyRef@name autorefname}{%
9053 \ltx@ifundefined{\HyRef@name name}{%
9054 \def\HyRef@currentHtag{%
9055 \Hy@Warning{No autoref name for ‘#1’}%
9056 }{%
9057 \edef\HyRef@currentHtag{%
9058 \expandafter\noexpand\csname\HyRef@name name\endcsname
9059 \noexpand~%
9060 }%
9061 }%
9062 }{%

```

```

9063 \edef\HyRef@currentHtag{%
9064 \expandafter\noexpand
9065 \csname\HyRef@name\autorefname\endcsname
9066 \noexpand~%
9067 }%
9068 }%
9069 }{%
9070 \edef\HyRef@currentHtag{%
9071 \expandafter\noexpand\csname#1name\endcsname
9072 \noexpand~%
9073 }%
9074 }%
9075 }{%
9076 \edef\HyRef@currentHtag{%
9077 \expandafter\noexpand\csname#1\autorefname\endcsname
9078 \noexpand~%
9079 }%
9080 }%
9081 }
9082 \def\HyRef@StripStar#1*\#2\@nil#3{%
9083 \def\HyRef@name{#2}%
9084 \ifx\HyRef@name\HyRef@CaseStar
9085 \def\HyRef@name{#1}%
9086 \else
9087 \def\HyRef@name{#3}%
9088 \fi
9089 }
9090 \def\HyRef@CaseStar{*\\}
9091 \def\HyRef@currentHtag{

```

Support for package showkeys.

\HyRef@ShowKeysRef

```

9092 \let\HyRef@ShowKeysRef\@gobble
9093 \def\HyRef@ShowKeysInit{%
9094 \begingroup\expandafter\expandafter\expandafter\endgroup
9095 \expandafter\ifx\csname SK@@label\endcsname\relax
9096 \else
9097 \ifx\SK@ref\@empty
9098 \else
9099 \def\HyRef@ShowKeysRef{%
9100 \SK@\SK@\ref
9101 }%
9102 \fi
9103 \fi
9104 }
9105 \@ifpackageloaded{showkeys}{%
9106 \HyRef@ShowKeysInit
9107 }{%
9108 \Hy@AtBeginDocument{%
9109 \@ifpackageloaded{showkeys}{%
9110 \HyRef@ShowKeysInit
9111 }{}%
9112 }%
9113 }

```

Defaults for the names that \autoref uses.

```

9114 \providecommand*{\AMSautorefname{\equationautorefname}

```

```

9115 \providecommand*\Hfootnoteautorefname{\footnoteautorefname}
9116 \providecommand*\Itemautorefname{\itemautorefname}
9117 \providecommand*\itemautorefname{item}
9118 \providecommand*\equationautorefname{Equation}
9119 \providecommand*\footnoteautorefname{footnote}
9120 \providecommand*\itemautorefname{item}
9121 \providecommand*\figureautorefname{Figure}
9122 \providecommand*\tableautorefname{Table}
9123 \providecommand*\partautorefname{Part}
9124 \providecommand*\appendixautorefname{Appendix}
9125 \providecommand*\chapterautorefname{chapter}
9126 \providecommand*\sectionautorefname{section}
9127 \providecommand*\subsectionautorefname{subsection}
9128 \providecommand*\subsubsectionautorefname{subsubsection}
9129 \providecommand*\paragraphautorefname{paragraph}
9130 \providecommand*\subparagraphautorefname{subparagraph}
9131 \providecommand*\FancyVerbLineautorefname{line}
9132 \providecommand*\theoremautorefname{Theorem}
9133 \providecommand*\pageautorefname{page}
9134 \end{package}

```

47 Configuration files

47.1 PS/PDF strings

Some drivers write PS or PDF strings. These strings are delimited by parentheses, therefore a lonely unmatched parenthesis must be avoided to avoid PS or PDF syntax errors. Also the backslash character itself has to be protected.

`\Hy@pstringdef` Therefore such strings should be passed through `\Hy@pstringdef`. The first argument holds a macro for the result, the second argument is the string that needs protecting. Since version 1.30.0 pdf_T_EX offers `\pdfescapestring`.

```

9135 (*pdfTeX | dvipdfm | xetex | vtex | pdfmarkbase | dviwindo)
9136 \begingroup\expandafter\expandafter\expandafter\endgroup
9137 \expandafter\ifx\csname pdf@escapestring\endcsname\relax
9138   \begingroup
9139     \catcode'\|=0 %
9140     \@makeother\| %
9141     |@firstofone{|endgroup
9142     |def|Hy@pstringdef#1#2{%
9143       |begingroup
9144         |edef~{|string~}%
9145         |xdef|Hy@gtemp{#2}%
9146       |endgroup
9147       |let#1|Hy@gtemp
9148       |@onelevel@sanitize#1%
9149       |edef#1{|expandafter|Hy@ExchangeBackslash#1\|@nil}%
9150       |edef#1{|expandafter|Hy@ExchangeLeftParenthesis#1(|@nil}%
9151       |edef#1{|expandafter|Hy@ExchangeRightParenthesis#1)|@nil}%
9152     }%
9153     |def|Hy@ExchangeBackslash#1/#2|@nil{%
9154       #1%
9155       |ifx|\#2|\| %
9156       |else
9157         \| %
9158       |ltx@ReturnAfterFi{%

```

```

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

```

47.2 pdfTeX

```

9194 (*pdfTeX)
9195 \providecommand*\XR@ext}{pdf}
9196 \Hy@setbreaklinks{true}
9197 \def\HyPat@ObjRef{%
9198   [0-9]*[1-9][0-9]* 0 R%
9199 }

```

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

```

9200 \let\Hy@pdfminorversion\relax
9201 \begingroup\expandafter\expandafter\expandafter\endgroup
9202 \expandafter\ifx\csname pdfminorversion\endcsname\relax
9203   \begingroup\expandafter\expandafter\expandafter\endgroup
9204   \expandafter\ifx\csname pdfoptionpdfminorversion\endcsname\relax

```

```

9205 \else
9206   \def\Hy@pdfminorversion{\pdfoptionpdfminorversion}%
9207 \fi
9208 \else
9209   \def\Hy@pdfminorversion{\pdfminorversion}%
9210 \fi
9211 \@ifundefined{Hy@pdfminorversion}{%
9212   \PackageInfo{hyperref}{%
9213     PDF version is not set, because pdfTeX is too old (<1.10a)%
9214   }%
9215 }{%
9216   \ifHy@ocgcolorlinks
9217     \ifnum\Hy@pdfminorversion<5 %
9218       \kvsetkeys{Hyp}{pdfversion=1.5}%
9219     \fi
9220   \fi
9221   \ifHy@setpdfversion
9222     \ifnum\Hy@pdfversion<5 %
9223       \ltx@ifundefined{pdfobjcompresslevel}{%
9224         }{%
9225           \ifHy@verbose
9226             \Hy@InfoNoLine{%
9227               PDF object streams are disabled, because they are%
9228               \MessageBreak
9229               not supported in requested PDF version %
9230               1.\Hy@pdfversion
9231             }%
9232           \fi
9233           \pdfobjcompresslevel=\ltx@zero
9234         }%
9235       \fi
9236       \ifnum\Hy@pdfminorversion=\Hy@pdfversion\relax
9237     \else
9238       \let\Hy@temp\ltx@empty
9239       \def\Hy@temp@A#1#2{%
9240         \ifnum#1>\ltx@zero
9241           \edef\Hy@temp{%
9242             \Hy@temp
9243             \space\space
9244             \the#1\space #2%
9245             \ifnum#1=\ltx@one\else s\fi
9246             \MessageBreak
9247           }%
9248         \fi
9249       }%
9250       \Hy@temp@A\pdflastobj{PDF object}%
9251       \Hy@temp@A\pdflastxform{form XObject}%
9252       \Hy@temp@A\pdflastximage{image XObject}%
9253       \Hy@temp@A\pdflastannot{annotation}%
9254       \ltx@ifundefined{pdflastlink}{%
9255         }{%
9256           \Hy@temp@A\pdflastlink{link}%
9257         }%
9258       \ifx\Hy@temp\ltx@empty
9259         \Hy@pdfminorversion=\Hy@pdfversion\relax
9260       \else
9261         \let\Hy@temp@A\ltx@empty

```

```

9262 \ifnum\Hy@pdfversion=4 %
9263 \IfFileExists{pdf14.sty}{%
9264 \def\Hy@temp@A{%
9265 \MessageBreak
9266 Or \string\RequirePackage{pdf14} can be used%
9267 \MessageBreak
9268 before \string\documentclass\space as shortcut%
9269 }%
9270 }{}%
9271 \fi
9272 \Hy@WarningNoLine{%
9273 The PDF version number could not be set,\MessageBreak
9274 because some PDF objects are already written:%
9275 \MessageBreak
9276 \Hy@temp
9277 The version should be set as early as possible:%
9278 \MessageBreak
9279 \space\space
9280 \expandafter\string\Hy@pdfminorversion=\Hy@pdfversion
9281 \string\relax
9282 \ifnum\Hy@pdfversion<5 %
9283 \ltx@ifundefined{pdfobjcompresslevel}{%
9284 }{%
9285 \MessageBreak
9286 \space\space
9287 \string\pdfobjcompresslevel=0\string\relax
9288 }%
9289 \fi
9290 \Hy@temp@A
9291 }%
9292 \fi
9293 \fi
9294 \PackageInfo{hyperref}{%
9295 \expandafter\string\Hy@pdfminorversion
9296 :=\number\Hy@pdfversion\space
9297 }%
9298 \fi
9299 \edef\Hy@pdfversion{\number\Hy@pdfminorversion}%
9300 }
9301 \Hy@DisableOption{pdfversion}%
9302 \ifHy@ocgcolorlinks
9303 \pdf@ifdraftmode{}{%
9304 \immediate\pdfobj{%
9305 <<%
9306 /Type/OCG%
9307 /Name(View)%
9308 /Usage<<%
9309 /Print<<%
9310 /PrintState/OFF%
9311 >>%
9312 /View<<%
9313 /ViewState/ON%
9314 >>%
9315 >>%
9316 >>%
9317 }%
9318 \edef\OBJ@OCG@view{\the\pdflastobj\space 0 R}%

```



```

9319 \immediate\pdfobj{%
9320   <<%
9321     /Type/OCG%
9322     /Name(Print)%
9323     /Usage<<%
9324       /Print<<%
9325         /PrintState/ON%
9326       >>%
9327     /View<<%
9328       /ViewState/OFF%
9329     >>%
9330   >>%
9331 >>%
9332 }%
9333 \edef\OBJ@OCG@print{\the\pdfflastobj\space 0 R}%
9334 \immediate\pdfobj{%
9335   [%
9336     \OBJ@OCG@view\space\OBJ@OCG@print
9337   ]%
9338 }%
9339 \edef\OBJ@OCGs{\the\pdfflastobj\space 0 R}%
9340 \pdfcatalog{%
9341   /OCProperties<<%
9342     /OCGs \OBJ@OCGs
9343   /D<<%
9344     /OFF[\OBJ@OCG@print]%
9345   /AS[%
9346     <<%
9347       /Event/View%
9348       /OCGs \OBJ@OCGs
9349       /Category[/View]%
9350     >>%
9351     <<%
9352       /Event/Print%
9353       /OCGs \OBJ@OCGs
9354       /Category[/Print]%
9355     >>%
9356     <<%
9357       /Event/Export%
9358       /OCGs \OBJ@OCGs
9359       /Category[/Print]%
9360     >>%
9361   ]%
9362   >>%
9363 >>%
9364 }%
9365 \begingroup
9366 \edef\x{\endgroup
9367   \pdfpageresources{%
9368     \the\pdfpageresources
9369     /Properties<<%
9370       /OCView \OBJ@OCG@view
9371       /OCPrint \OBJ@OCG@print
9372     >>%
9373   }%
9374 }%
9375 \x

```

```

9376 }%
9377 \Hy@AtBeginDocument{%
9378   \def\Hy@colorlink#1{%
9379     \begingroup
9380     \ifHy@ocgcolorlinks
9381       \def\Hy@ocgcolor{#1}%
9382       \setbox0=\hbox\bgroup\color@begingroup
9383     \else
9384       \HyColor@UseColor#1%
9385     \fi
9386   }%
9387   \def\Hy@endcolorlink{%
9388     \ifHy@ocgcolorlinks
9389       \color@endgroup\egroup
9390     \mbox{%
9391       \pdfliteral page{/OC/OCPrint BDC}%
9392       \rlap{\copy0}%
9393       \pdfliteral page{EMC/OC/OCView BDC}%
9394     \begingroup
9395       \expandafter\HyColor@UseColor\Hy@ocgcolor
9396     \box0 %
9397     \endgroup
9398     \pdfliteral page{EMC}%
9399   }%
9400   \fi
9401 \endgroup
9402 }%
9403 }%
9404 \else
9405 \Hy@DisableOption{ocgcolorlinks}%
9406 \fi

```

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

```

9407 \def\setpdfinkmargin#1{\pdfinkmargin#1}
9408 \ifx\pdfstartlink\@undefined% less than version 14
9409   \let\pdfstartlink\pdfannotlink
9410   \let\pdfinkmargin\@tempdima
9411   \let\pdfxform\pdfform
9412   \let\pdfastxform\pdfastform
9413   \let\pdfrefxform\pdfrefform
9414 \else
9415   \pdfinkmargin1pt %
9416 \fi

```

First set up the default linking

```

9417 \providecommand*\@pdfview{XYZ}

```

First define the anchors:

```

9418 \Hy@WrapperDef\new@pdfink#1{%
9419   \ifhmode
9420     \@savsf\spacefactor
9421   \fi
9422   \Hy@SaveLastskip
9423   \Hy@VerboseAnchor{#1}%
9424   \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
9425   \Hy@DestName\Hy@pstringDest\@pdfview
9426   \Hy@RestoreLastskip
9427   \ifhmode
9428     \spacefactor\@savsf

```

```

9429 \fi
9430 }
9431 \let\pdf@endanchor\@empty

```

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

```

9432 \def\Hy@DestName#1#2{%
9433   \pdfdest name{#1}#2\relax
9434 }

```

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.

```

9435 \providecommand*\@pdfborder{0 0 1}
9436 \providecommand*\@pdfborderstyle{}
9437 \def\Hy@undefinedname{UNDEFINED}
9438 \def\find@pdflink#1#2{%
9439   \leavevmode
9440   \protected@edef\Hy@testname{#2}%
9441   \ifx\Hy@testname\@empty
9442     \Hy@Warning{%
9443       Empty destination name,\MessageBreak
9444       using '\Hy@undefinedname'%
9445     }%
9446     \let\Hy@testname\Hy@undefinedname
9447   \else
9448     \Hy@pstringdef\Hy@testname{%
9449       \expandafter\HyperDestNameFilter\expandafter{\Hy@testname}%
9450     }%
9451   \fi
9452   \Hy@StartlinkName{%
9453     \ifHy@pdfa /F 4\fi
9454     \Hy@setpdfborder
9455     \ifx\@pdfhighlight\@empty
9456       \else
9457         /H\@pdfhighlight
9458       \fi
9459       \ifx\CurrentBorderColor\relax
9460       \else
9461         /C[\CurrentBorderColor]%
9462       \fi
9463     }\Hy@testname
9464     \expandafter\Hy@colorlink\csname @#1color\endcsname
9465   }
9466   \def\Hy@StartlinkName#1#2{%
9467     \pdfstartlink attr{#1}goto name{#2}\relax
9468   }
9469   \def\close@pdflink{%
9470     \Hy@endcolorlink
9471     \Hy@VerboseLinkStop
9472     \pdfendlink
9473   }
9474   \def\hyper@anchor#1{%
9475     \new@pdflink{#1}\anchor@spot\pdf@endanchor
9476   }
9477   \def\hyper@anchorstart#1{%

```

```

9478 \new@pdfink{#1}%
9479 \Hy@activeanchortrue
9480 }
9481 \def\hyper@anchorend{%
9482 \pdf@endanchor
9483 \Hy@activeanchorfalse
9484 }
9485 \def\hyper@linkstart#1#2{%
9486 \Hy@VerboseLinkStart{#1}{#2}%
9487 \ltx@ifundefined{#@1bordercolor}{%
9488 \let\CurrentBorderColor\relax
9489 }{%
9490 \edef\CurrentBorderColor{\csname @#1bordercolor\endcsname}%
9491 }%
9492 \find@pdfink{#1}{#2}%
9493 }
9494 \def\hyper@linkend{\close@pdfink}
9495 \def\hyper@link#1#2#3{%
9496 \Hy@VerboseLinkStart{#1}{#2}%
9497 \ltx@ifundefined{#@1bordercolor}{%
9498 \let\CurrentBorderColor\relax
9499 }{%
9500 \edef\CurrentBorderColor{\csname @#1bordercolor\endcsname}%
9501 }%
9502 \find@pdfink{#1}{#2}#3\Hy@xspace@end
9503 \close@pdfink
9504 }
9505 \let\CurrentBorderColor\@linkbordercolor
9506 \def\hyper@linkurl#1#2{%
9507 \begingroup
9508 \Hy@pstringdef\Hy@pstringURI{#2}%
9509 \hyper@chars
9510 \leavevmode
9511 \pdfstartlink
9512 attr{%
9513 \Hy@setpdfborder
9514 \ifx\@pdfhighlight\@empty
9515 \else
9516 /H\@pdfhighlight
9517 \fi
9518 \ifx\@urlbordercolor\relax
9519 \else
9520 /C[\@urlbordercolor]%
9521 \fi
9522 }%
9523 user{%
9524 /Subtype/Link%
9525 \ifHy@pdfa /F 4\fi
9526 /A<<%
9527 /Type/Action%
9528 /S/URI%
9529 /URI(\Hy@pstringURI)%
9530 \ifHy@href@ismap
9531 /IsMap true%
9532 \fi
9533 \Hy@href@nextactionraw
9534 >>%

```

```

9535 }%
9536 \relax
9537 \Hy@colorlink\@urlcolor#1\Hy@xspace@end
9538 \close@pdflink
9539 \endgroup
9540 }
9541 \def\hyper@linkfile#1#2#3{% anchor text, filename, linkname
9542 \begingroup
9543 \def\Hy@pstringF{#2}%
9544 \Hy@CleanupFile\Hy@pstringF
9545 \Hy@pstringdef\Hy@pstringF\Hy@pstringF
9546 \Hy@pstringdef\Hy@pstringD{#3}%
9547 \Hy@MakeRemoteAction
9548 \leavevmode
9549 \pdfstartlink
9550 attr{%
9551 \Hy@setpdfborder
9552 \ifx\@pdfhighlight\@empty
9553 \else
9554 /H\@pdfhighlight
9555 \fi
9556 \ifx\@filebordercolor\relax
9557 \else
9558 /C[\@filebordercolor]%
9559 \fi
9560 }%
9561 user {%
9562 /Subtype/Link%
9563 \ifHy@pdfa /F 4\fi
9564 /A<<%
9565 /F(\Hy@pstringF)%
9566 /S/GoToR%
9567 \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}

```

```

9568 \ifx\#3\%
9569 /D[\Hy@href@page\@pdfremotestartview]%
9570 \else
9571 /D(\Hy@pstringD)%
9572 \fi
9573 \Hy@href@nextactionraw
9574 >>%
9575 }%
9576 \relax
9577 \Hy@colorlink\@filecolor#1\Hy@xspace@end
9578 \close@pdflink
9579 \endgroup

```

```

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

```

\@pdfproducer

```

9617 \ifx\@pdfproducer\relax
9618 \begingroup\expandafter\expandafter\expandafter\endgroup
9619 \expandafter\ifx\csname luatexversion\endcsname\relax
9620 \def\@pdfproducer{pdfTeX}%
9621 \ifx\TeXversion\@undefined
9622 \else
9623 \ifx\TeXversion\relax
9624 \else
9625 \ifnum\TeXversion>0 %
9626 \def\@pdfproducer{pdfTeX}%
9627 \fi
9628 \fi
9629 \fi
9630 \ifx\pdfTeXversion\@undefined
9631 \else
9632 \ifnum\pdfTeXversion<100 %
9633 \edef\@pdfproducer{%
9634 \@pdfproducer

```

```

9635     \the\pdftexversion.\pdftexrevision
9636   }%
9637 \else
9638   \ifnum\pdftexversion<130 %
9639     \edef\@pdfproducer{%
9640       \@pdfproducer-%
9641       \expandafter\@car\the\pdftexversion\@empty\@nil.%
9642       \expandafter\@cdr\the\pdftexversion\@empty\@nil
9643       \pdftexrevision
9644     }%
9645   \else
9646     \ifnum\pdftexversion<140 %
9647     \else
9648       \def\@pdfproducer{pdfTeX}%
9649     \fi
9650     \edef\@pdfproducer{%
9651       \@pdfproducer-%
9652       \expandafter\@car\the\pdftexversion\@empty\@nil.%
9653       \expandafter\@cdr\the\pdftexversion\@empty\@nil.%
9654       \pdftexrevision
9655     }%
9656   \fi
9657 \fi
9658 \fi
9659 \else
9660   \begingroup
9661     \count@=\luatexversion
9662     \divide\count@ by 100 %
9663     \edef\x{\the\count@}%
9664     \count@=-\x\relax
9665     \multiply\count@ by 100 %
9666     \advance\count@ by \luatexversion
9667     \edef\x{\endgroup
9668       \def\noexpand\@pdfproducer{%
9669         LuaTeX-\x.\the\count@.\luatexrevision
9670       }%
9671     }%
9672   \x
9673 \fi
9674 \fi

```

\PDF@SetupDox

```

9675 \def\PDF@SetupDoc{%
9676   \ifx\@pdfpagescrop\@empty
9677   \else
9678     \edef\process@me{%
9679       \pdfpagesattr=%
9680       /CropBox[\@pdfpagescrop]%
9681       \expandafter\ifx\expandafter\\\the\pdfpagesattr\\%
9682     \else
9683       ^^J\the\pdfpagesattr
9684     \fi
9685   }%
9686   }%
9687   \process@me
9688 \fi
9689 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
9690 \pdfcatalog{%

```

```

9691 /PageMode/\@pdfpagemode
9692 \ifx\@baseurl\@empty
9693 \else
9694 /URI<</Base(\Hy@pstringB)>>%
9695 \fi
9696 }%
9697 \ifx\@pdfstartpage\@empty
9698 \else
9699 \ifx\@pdfstartview\@empty
9700 \else
9701 openaction goto page\@pdfstartpage{\@pdfstartview}%
9702 \fi
9703 \fi
9704 \edef\Hy@temp{%
9705 \ifHy@pdftoolbar\else /HideToolbar true\fi
9706 \ifHy@pdfmenubar\else /HideMenubar true\fi
9707 \ifHy@pdfwindowui\else /HideWindowUI true\fi
9708 \ifHy@pdfwindow /FitWindow true\fi
9709 \ifHy@pdfcenterwindow /CenterWindow true\fi
9710 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
9711 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
9712 \Hy@UseNameKey{Direction}\@pdfdirection
9713 \Hy@UseNameKey{ViewArea}\@pdfviewarea
9714 \Hy@UseNameKey{ViewClip}\@pdfviewclip
9715 \Hy@UseNameKey{PrintArea}\@pdfprintarea
9716 \Hy@UseNameKey{PrintClip}\@pdfprintclip
9717 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
9718 \Hy@UseNameKey{Duplex}\@pdfduplex
9719 \ifx\@pdfpicktraybypdfsize\@empty
9720 \else
9721 /PickTrayByPDFSize \@pdfpicktraybypdfsize
9722 \fi
9723 \ifx\@pdfprintpagerange\@empty
9724 \else
9725 /PrintPageRange[\@pdfprintpagerange]%
9726 \fi
9727 \ifx\@pdfnumcopies\@empty
9728 \else
9729 /NumCopies \@pdfnumcopies
9730 \fi
9731 }%
9732 \pdfcatalog{%
9733 \ifx\Hy@temp\@empty
9734 \else
9735 /ViewerPreferences<<\Hy@temp>>%
9736 \fi
9737 \Hy@UseNameKey{PageLayout}\@pdfpagelayout
9738 \ifx\@pdflang\@empty
9739 \else
9740 /Lang(\@pdflang)%
9741 \fi
9742 }%
9743 }

```

\PDF@FinishDoc

```

9744 \def\PDF@FinishDoc{%
9745 \pdf@ifdraftmode{}{%
9746 \Hy@UseMaketitleInfos

```



```

9747 \HyInfo@GenerateAddons
9748 \pdfinfo{%
9749   /Author(\@pdfauthor)%
9750   /Title(\@pdftitle)%
9751   /Subject(\@pdfsubject)%
9752   /Creator(\@pdfcreator)%
9753   \ifx\@pdfcreationdate\@empty
9754   \else
9755     /CreationDate(\@pdfcreationdate)%
9756   \fi
9757   \ifx\@pdfmoddate\@empty
9758   \else
9759     /ModDate(\@pdfmoddate)%
9760   \fi
9761   \ifx\@pdfproducer\relax
9762   \else
9763     /Producer(\@pdfproducer)%
9764   \fi
9765   /Keywords(\@pdfkeywords)%
9766   \ifx\@pdftrapped\@empty
9767   \else
9768     /Trapped/\@pdftrapped
9769   \fi
9770   \HyInfo@Addons
9771 }%
9772 }%
9773 \Hy@DisableOption{pdfauthor}%
9774 \Hy@DisableOption{pdftitle}%
9775 \Hy@DisableOption{pdfsubject}%
9776 \Hy@DisableOption{pdfcreator}%
9777 \Hy@DisableOption{pdfcreationdate}%
9778 \Hy@DisableOption{pdfmoddate}%
9779 \Hy@DisableOption{pdfproducer}%
9780 \Hy@DisableOption{pdfkeywords}%
9781 \Hy@DisableOption{pdftrapped}%
9782 \Hy@DisableOption{pdfinfo}%
9783 }

```

`\hyper@pagetransition` `\@pdfpagetransition` is initialized with `\relax`. So it indicates, if option `pdfpage-`
`transition` is used. First previous `/Trans` entries are removed. If a new `/Trans`
key exists, it is appended to `\pdfpageattr`.

```

9784 \def\hyper@pagetransition{%
9785   \ifx\@pdfpagetransition\relax
9786   \else
9787     \expandafter\Hy@RemoveTransPageAttr
9788     \the\pdfpageattr^^J/Trans{>>\END
9789     \ifx\@pdfpagetransition\@empty
9790     \else
9791       \edef\@processme{%
9792         \global\pdfpageattr{%
9793           \the\pdfpageattr
9794             ^^J/Trans << /S /\@pdfpagetransition\space >>%
9795         }%
9796       }%
9797       \@processme
9798     \fi
9799   \fi

```

9800 }

`\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.

```
9801 \gdef\Hy@RemoveTransPageAttr#1^^J/Trans#2#3>>>#4\END{%
9802   \ifx\#2\%
9803     \global\pdfpageattr{#1}%
9804   \else
9805     \Hy@RemoveTransPageAttr#1#4\END
9806   \fi
9807 }
```

`\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`.

```
9808 \def\hyper@pageduration{%
9809   \ifx\@pdfpageduration\relax
9810   \else
9811     \expandafter
9812     \Hy@RemoveDurPageAttr\the\pdfpageattr^^J/Dur{} \END
9813     \ifx\@pdfpageduration\@empty
9814     \else
9815       \edef\@processme{%
9816         \global\pdfpageattr{%
9817           \the\pdfpageattr
9818             ^^J/Dur \@pdfpageduration\space
9819         }%
9820       }%
9821       \@processme
9822     \fi
9823   \fi
9824 }
```

`\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.

```
9825 \gdef\Hy@RemoveDurPageAttr#1^^J/Dur#2#3 #4\END{%
9826   \ifx\#2\%
9827     \global\pdfpageattr{#1}%
9828   \else
9829     \Hy@RemoveDurPageAttr#1#4\END
9830   \fi
9831 }
```

`\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).

```
9832 \def\hyper@pagehidden{%
9833   \ifHy@useHidKey
9834   \expandafter
9835   \Hy@RemoveHidPageAttr\the\pdfpageattr^^J/Hid{} \END
9836   \ifHy@pdfpagehidden
```

```

9837 \edef\@processme{%
9838 \global\pdfpageattr{%
9839 \the\pdfpageattr
9840 ^^J/Hid true % SPACE
9841 }%
9842 }%
9843 \@processme
9844 \fi
9845 \fi
9846 }

```

`\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.

```

9847 \gdef\Hy@RemoveHidPageAttr#1^^J/Hid#2#3 #4\END{%
9848 \ifx\#2\%
9849 \global\pdfpageattr{#1}%
9850 \else
9851 \Hy@RemoveHidPageAttr#1#4\END
9852 \fi
9853 }

9854 \pdf@ifdraftmode{}{%
9855 \g@addto@macro\Hy@EveryPageHook{%
9856 \hyper@pagetransition
9857 \hyper@pageduration
9858 \hyper@pagehidden
9859 }%
9860 }

```

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

```

9861 </pdfTeX>
9862 <*pdfTeX | xetex>
9863 \Hy@AtBeginDocument{%
9864 \ifHy@setpagesize
9865 \expandafter\@firstofone
9866 \else
9867 \expandafter\@gobble
9868 \fi
9869 {%
9870 \@ifclassloaded{seminar}{%
9871 <*pdfTeX>
9872 \setlength{\pdfhorigin}{1truein}%
9873 \setlength{\pdfvorigin}{1truein}%
9874 </pdfTeX>
9875 \ifportrait
9876 \ifdim\paperwidth=\z@
9877 \else
9878 \setlength{\pdfpagewidth}{\strip@pt\paperwidth truept}%
9879 \fi
9880 \ifdim\paperheight=\z@
9881 \else
9882 \setlength{\pdfpageheight}{\strip@pt\paperheight truept}%
9883 \fi
9884 \else
9885 \ifdim\paperheight=\z@

```

```

9886     \else
9887     \setlength{\pdfpagewidth}{\strip@pt\paperheight truept}%
9888     \fi
9889     \ifdim\paperwidth=\z@
9890     \else
9891     \setlength{\pdfpageheight}{\strip@pt\paperwidth truept}%
9892     \fi
9893     \fi
9894   }{%
9895     \ltx@ifundefined{stockwidth}{%
9896     \ifdim\paperwidth>\z@
9897     \setlength{\pdfpagewidth}{\paperwidth}%
9898     \fi
9899     \ifdim\paperheight>\z@
9900     \setlength{\pdfpageheight}{\paperheight}%
9901     \fi
9902   }{%
9903     \ifdim\stockwidth>\z@
9904     \setlength{\pdfpagewidth}{\stockwidth}%
9905     \fi
9906     \ifdim\stockheight>\z@
9907     \setlength{\pdfpageheight}{\stockheight}%
9908     \fi
9909   }%
9910 }%
9911 }%
9912 \Hy@DisableOption{setpagesize}%
9913 }
9914 \pdfTeX|xetex
9915 \pdfTeX
9916 \def\Acrobatmenu#1#2{%
9917 \Hy@Acrobatmenu{#1}{#2}{%
9918 \leavevmode
9919 \EdefEscapeName\Hy@temp@menu{#1}%
9920 \pdfstartlink
9921 attr{%
9922 \Hy@setpdfborder
9923 \ifx\@pdfhighlight\@empty
9924 \else
9925 /H\@pdfhighlight
9926 \fi
9927 \ifx\@menubordercolor\relax
9928 \else
9929 /C[\@menubordercolor]%
9930 \fi
9931 }%
9932 user{%
9933 /Subtype/Link%
9934 \ifHy@pdfa /F 4\fi
9935 /A<<%
9936 /S/Named%
9937 /N/\Hy@temp@menu
9938 \Hy@href@nextactionraw
9939 >>%
9940 }%
9941 \relax
9942 \Hy@colorlink\@menucolor#2%

```

```

9943   \close@pdfink
9944 }%
9945 }

```

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.

```

9946 \def\Hy@FixNotFirstPage{%
9947   \gdef\Hy@FixNotFirstPage{%
9948     \setbox\AtBeginShipoutBox=\hbox{%
9949       \copy\AtBeginShipoutBox
9950     }%
9951   }%
9952 }
9953 \ltx@ifpackagelater{atbegshi}{2011/10/05}{%
9954 }{%
9955   \AtBeginShipout{\Hy@FixNotFirstPage}%
9956 }
9957 \</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 TeX file — the TeX commands between the two ends of a pair form an *anchor* in the document. In the case of an *href* command, the *anchor* is to be highlighted in the *dvi* viewer, and when clicked on will cause the scene to shift to the destination specified by *href_string*. The *anchor* associated with a *name* command represents a possible location to which other hypertext links

may refer, either as local references (of the form `href="#name_string"` with the *name_string* identical to the one in the name command) or as part of a URL (of the form `URL#name_string`). Here *href_string* is a valid URL or local identifier, while *name_string* could be any string at all: the only caveat is that `"` characters should be escaped with a backslash (`\`), and if it looks like a URL name it may cause problems.

```

9958 \*hypertext
9959 \providecommand*\XR@ext}{dvi}
9960 \let\PDF@FinishDoc\ltx@empty
9961 \def\PDF@SetupDoc{%
9962   \ifx\@baseurl\@empty
9963     \else
9964       \special{html:<base href="\@baseurl">}%
9965     \fi
9966 }
9967 \Hy@WrapperDef\hyper@anchor#1{%
9968   \Hy@SaveLastskip
9969   \Hy@VerboseAnchor{#1}%
9970   \begingroup
9971     \let\protect=\string
9972     \hyper@chars
9973     \special{html:<a name=%
9974       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
9975   \endgroup
9976   \Hy@activeanchortrue
9977   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
9978   \special{html:</a>}%
9979   \Hy@activeanchorfalse
9980   \Hy@RestoreLastskip
9981 }
9982 \Hy@WrapperDef\hyper@anchorstart#1{%
9983   \Hy@SaveLastskip
9984   \Hy@VerboseAnchor{#1}%
9985   \begingroup
9986     \hyper@chars
9987     \special{html:<a name=%
9988       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
9989   \endgroup
9990   \Hy@activeanchortrue
9991 }
9992 \def\hyper@anchorend{%
9993   \special{html:</a>}%
9994   \Hy@activeanchorfalse
9995   \Hy@RestoreLastskip
9996 }
9997 \def\@urltype{url}
9998 \def\hyper@linkstart#1#2{%
9999   \Hy@VerboseLinkStart{#1}{#2}%
10000 \expandafter\Hy@colorlink\csname @#1color\endcsname
10001 \def\Hy@tempa{#1}%
10002 \ifx\Hy@tempa\@urltype
10003   \special{html:<a href=\hyper@quote#2\hyper@quote>}%
10004 \else
10005   \begingroup
10006     \hyper@chars
10007     \special{html:<a href=%
10008       \hyper@quote\#HyperDestNameFilter{#2}\hyper@quote>}%

```

```

10009 \endgroup
10010 \fi
10011 }
10012 \def\hyper@linkend{%
10013 \special{html:</a>}}%
10014 \Hy@endcolorlink
10015 }
10016 \def\hyper@linkfile#1#2#3{%
10017 \hyper@linkurl{#1}{\Hy@linkfileprefix#2\ifx\\#3\\\else\##3\fi}%
10018 }
10019 \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.

```

10020 \leavevmode
10021 \ifHy@raiselinks
10022 \Hy@SaveSpaceFactor
10023 \Hy@SaveSavedSpaceFactor
10024 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
10025 \Hy@RestoreSavedSpaceFactor
10026 \@linkdim\dp\@tempboxa
10027 \lower\@linkdim\hbox{%
10028 \hyper@chars
10029 \special{html:<a href=\hyper@quote#2\hyper@quote>}}%
10030 }%
10031 \Hy@colorlink\@urlcolor
10032 \Hy@RestoreSpaceFactor
10033 #1%
10034 \Hy@SaveSpaceFactor
10035 \@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).

```

10036 \advance\@linkdim by -6.5\p@
10037 \raise\@linkdim\hbox{\special{html:</a>}}%
10038 \Hy@endcolorlink
10039 \Hy@RestoreSpaceFactor
10040 \else
10041 \begingroup
10042 \hyper@chars
10043 \special{html:<a href=\hyper@quote#2\hyper@quote>}}%
10044 \Hy@colorlink\@urlcolor#1\Hy@xspace@end
10045 \special{html:</a>}}%
10046 \Hy@endcolorlink
10047 \endgroup
10048 \fi
10049 }

```

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

```

10050 \def\hyper@link#1#2#3{%
10051 \Hy@VerboseLinkStart{#1}{#2}%
10052 \hyper@linkurl{#3}{\# \Hy@HyperDestNameFilter{#2}}}%
10053 }
10054 \def\hyper@image#1#2{%
10055 \begingroup
10056 \hyper@chars

```

```

10057 \special{html:<img src=\hyper@quote#1\hyper@quote>}}%
10058 \endgroup
10059 }
10060 </hypertex>
10061 <*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.

```

10062 \providecommand*\XR@ext}{dvi}
10063 \providecommand*\wwwbrowser{c:\string\netscape\string\netscape}
10064 \Hy@WrapperDef\hyper@anchor#1{%
10065   \Hy@SaveLastskip
10066   \Hy@VerboseAnchor{#1}%
10067   \begingroup
10068     \let\protect=\string
10069     \special{mark: #1}%
10070   \endgroup
10071   \Hy@activeanchortrue
10072   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
10073   \Hy@activeanchorfalse
10074   \Hy@RestoreLastskip
10075 }
10076 \Hy@WrapperDef\hyper@anchorstart#1{%
10077   \Hy@SaveLastskip
10078   \Hy@VerboseAnchor{#1}%
10079   \special{mark: #1}%
10080   \Hy@activeanchortrue
10081 }
10082 \def\hyper@anchorend{%
10083   \Hy@activeanchorfalse
10084   \Hy@RestoreLastskip
10085 }
10086 \def\hyper@linkstart#1#2{%
10087   \Hy@VerboseLinkStart{#1}{#2}%
10088   \expandafter\Hy@colorlink\csname @#1color\endcsname
10089   \special{button: %
10090     10000000 %
10091     \number\baselineskip\space
10092     #2%
10093   }%
10094 }
10095 \def\hyper@linkend{%
10096   \Hy@endcolorlink
10097 }
10098 \def\hyper@link#1#2#3{%

```



```

10099 \Hy@VerboseLinkStart{#1}{#2}%
10100 \leavevmode
10101 \ifHy@raiselinks
10102   \Hy@SaveSpaceFactor
10103   \Hy@SaveSavedSpaceFactor
10104   \sbox\@tempboxa{\Hy@RestoreSpaceFactor#3}%
10105   \Hy@RestoreSavedSpaceFactor
10106   \@linkdim\dp\@tempboxa
10107   \lower\@linkdim\hbox{%
10108     \special{button: %
10109       \number\wd\@tempboxa\space
10110       \number\ht\@tempboxa\space
10111       #2%
10112     }%
10113     \expandafter\Hy@colorlink\csname @#1color\endcsname
10114     \Hy@RestoreSpaceFactor
10115     #3\Hy@xspace@end
10116     \Hy@SaveSpaceFactor
10117     \Hy@endcolorlink
10118   }%
10119   \@linkdim\ht\@tempboxa
10120   \advance\@linkdim by -6.5\p@
10121   \raise\@linkdim\hbox{}%
10122   \Hy@RestoreSpaceFactor
10123 \else
10124   \special{button: %
10125     \number\wd\@tempboxa\space
10126     \number\ht\@tempboxa\space
10127     #2%
10128   }%
10129   \expandafter\Hy@colorlink\csname @#1color\endcsname
10130   #3\Hy@xspace@end
10131   \Hy@endcolorlink
10132 \fi
10133 }
10134 \def\hyper@linkurl#1#2{%
10135   \begingroup
10136   \hyper@chars
10137   \leavevmode
10138   \ifHy@raiselinks
10139     \Hy@SaveSpaceFactor
10140     \Hy@SaveSavedSpaceFactor
10141     \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
10142     \Hy@RestoreSavedSpaceFactor
10143     \@linkdim\dp\@tempboxa
10144     \lower\@linkdim\hbox{%
10145       \special{button: %
10146         \number\wd\@tempboxa\space
10147         \number\ht\@tempboxa\space
10148         launch: \wwwbrowser\space
10149         #2%
10150       }%
10151       \Hy@colorlink\@urlcolor
10152       \Hy@RestoreSpaceFactor
10153       #1\Hy@xspace@end
10154       \Hy@SaveSpaceFactor
10155       \Hy@endcolorlink

```

```

10156 }%
10157 \@linkdim\ht\@tempboxa
10158 \advance\@linkdim by -6.5\p@
10159 \raise\@linkdim\hbox{}%
10160 \Hy@RestoreSpaceFactor
10161 \else
10162 \special{button: %
10163 \number\wd\@tempboxa\space
10164 \number\ht\@tempboxa\space
10165 launch: \wwwbrowser\space
10166 #2%
10167 }%
10168 \Hy@colorlink\@urlcolor
10169 #1\Hy@xspace@end
10170 \Hy@endcolorlink
10171 \fi
10172 \endgroup
10173 }
10174 \def\hyper@linkfile#1#2#3{%
10175 \begingroup
10176 \hyper@chars
10177 \leavevmode
10178 \ifHy@raiselinks
10179 \Hy@SaveSpaceFactor
10180 \Hy@SaveSavedSpaceFactor
10181 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
10182 \Hy@RestoreSavedSpaceFactor
10183 \@linkdim\dp\@tempboxa
10184 \lower\@linkdim\hbox{%
10185 \special{button: %
10186 \number\wd\@tempboxa\space
10187 \number\ht\@tempboxa\space
10188 #3,%
10189 file: #2%
10190 }%
10191 \Hy@colorlink\@filecolor
10192 \Hy@RestoreSpaceFactor
10193 #1\Hy@xspace@end
10194 \Hy@SaveSpaceFactor
10195 \Hy@endcolorlink
10196 }%
10197 \@linkdim\ht\@tempboxa
10198 \advance\@linkdim by -6.5\p@
10199 \raise\@linkdim\hbox{}%
10200 \Hy@RestoreSpaceFactor
10201 \else
10202 \special{button: %
10203 \number\wd\@tempboxa\space
10204 \number\ht\@tempboxa\space
10205 #3,%
10206 file: #2%
10207 }%
10208 \Hy@colorlink\@filecolor
10209 #1\Hy@xspace@end
10210 \Hy@endcolorlink
10211 \fi
10212 \endgroup

```

```

10213 }
10214 \ifx\@pdfproducer\relax
10215 \def\@pdfproducer{dviwindo + Distiller}%
10216 \fi
10217 \HyInfo@AddonUnsupportedtrue
10218 \def\PDF@FinishDoc{%
10219 \Hy@UseMaketitleInfos
10220 \HyInfo@TrappedUnsupported
10221 \special{PDF: Keywords \@pdfkeywords}%
10222 \special{PDF: Title \@pdftitle}%
10223 \special{PDF: Creator \@pdfcreator}%
10224 \ifx\@pdfcreationdate\@empty
10225 \else
10226 \special{PDF: CreationDate \@pdfcreationdate}%
10227 \fi
10228 \ifx\@pdfmoddate\@empty
10229 \else
10230 \special{PDF: ModDate \@pdfmoddate}%
10231 \fi
10232 \special{PDF: Author \@pdfauthor}%
10233 \ifx\@pdfproducer\relax
10234 \else
10235 \special{PDF: Producer \@pdfproducer}%
10236 \fi
10237 \special{PDF: Subject \@pdfsubject}%
10238 \Hy@DisableOption{pdfauthor}%
10239 \Hy@DisableOption{pdftitle}%
10240 \Hy@DisableOption{pdfsubject}%
10241 \Hy@DisableOption{pdfcreator}%
10242 \Hy@DisableOption{pdfcreationdate}%
10243 \Hy@DisableOption{pdfmoddate}%
10244 \Hy@DisableOption{pdfproducer}%
10245 \Hy@DisableOption{pdfkeywords}%
10246 \Hy@DisableOption{pdftrapped}%
10247 \Hy@DisableOption{pdfinfo}%
10248 }
10249 \def\PDF@SetupDoc{%
10250 \ifx\@baseurl\@empty
10251 \else
10252 \special{PDF: Base \@baseurl}%
10253 \fi
10254 \ifx\@pdfpagescrop\@empty\else
10255 \special{PDF: BBox \@pdfpagescrop}%
10256 \fi
10257 \def\Hy@temp{}%
10258 \ifx\@pdfstartpage\@empty
10259 \else
10260 \ifx\@pdfstartview\@empty
10261 \else
10262 \edef\Hy@temp{%
10263 ,Page=\@pdfstartpage
10264 ,View=\@pdfstartview
10265 }%
10266 \fi
10267 \fi
10268 \edef\Hy@temp{%
10269 \noexpand\pdfmark{%

```

```

10270     pdfmark=/DOCVIEW,%
10271     PageMode=/\@pdfpagemode
10272     \Hy@temp
10273 }%
10274 }%
10275 \Hy@temp
10276 \ifx\@pdfpagescrop\@empty
10277 \else
10278   \pdfmark{pdfmark=/PAGES,CropBox=\@pdfpagescrop}%
10279 \fi
10280 \edef\Hy@temp{%
10281   \ifHy@pdftoolbar\else /HideToolbar true\fi
10282   \ifHy@pdfmenubar\else /HideMenubar true\fi
10283   \ifHy@pdfwindowui\else /HideWindowUI true\fi
10284   \ifHy@pdfwindow /FitWindow true\fi
10285   \ifHy@pdfcenterwindow /CenterWindow true\fi
10286   \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
10287   \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
10288   \Hy@UseNameKey{Direction}\@pdfdirection
10289   \Hy@UseNameKey{ViewArea}\@pdfviewarea
10290   \Hy@UseNameKey{ViewClip}\@pdfviewclip
10291   \Hy@UseNameKey{PrintArea}\@pdfprintarea
10292   \Hy@UseNameKey{PrintClip}\@pdfprintclip
10293   \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
10294   \Hy@UseNameKey{Duplex}\@pdfduplex
10295   \ifx\@pdfpicktraybypdfsize\@empty
10296   \else
10297     /PickTrayByPDFSize \@pdfpicktraybypdfsize
10298   \fi
10299   \ifx\@pdfprintpagerange\@empty
10300   \else
10301     /PrintPageRange[\@pdfprintpagerange]%
10302   \fi
10303   \ifx\@pdfnumcopies\@empty
10304   \else
10305     /NumCopies \@pdfnumcopies
10306   \fi
10307 }%
10308 \pdfmark{pdfmark=/PUT,%
10309   Raw={%
10310     \string{Catalog\string}<<%
10311     \ifx\Hy@temp\@empty
10312     \else
10313       /ViewerPreferences<<\Hy@temp>>%
10314     \fi
10315     \Hy@UseNameKey{PageLayout}\@pdfpagelayout
10316     \ifx\@pdflang\@empty
10317     \else
10318       /Lang(\@pdflang)%
10319     \fi
10320     >>%
10321   }%
10322 }%
10323 }
10324 </dviwindo>
10325 <*\dviipdfm | xetex>

```

47.5 dvipdfm/xetex dvi to PDF converter

Provided by Mark Wicks (mwicks@kettering.edu)

```
10326 \providecommand*\XR@ext}{pdf}
10327 \Hy@setbreaklinks{true}
10328 \def\HyPat@ObjRef{%
10329   @[\ ]+}%
10330 }
10331 \newsavebox{\pdfm@box}
10332 \def\@pdfm@mark#1{\special{pdf:#1}}
10333 \Hy@WrapperDef\@pdfm@dest#1{%
10334   \Hy@SaveLastskip
10335   \Hy@VerboseAnchor{#1}%
10336   \begingroup
10337     \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
10338     \def\x{XYZ}%
10339     \ifx\x\@pdfview
10340       \def\x{XYZ @xpos @ypos null}%
10341     \else
10342       \def\x{FitH}%
10343       \ifx\x\@pdfview
10344         \def\x{FitH @ypos}%
10345       \else
10346         \def\x{FitBH}%
10347         \ifx\x\@pdfview
10348           \def\x{FitBH @ypos}%
10349         \else
10350           \def\x{FitV}%
10351           \ifx\x\@pdfview
10352             \def\x{FitV @xpos}%
10353           \else
10354             \def\x{FitBV}%
10355             \ifx\x\@pdfview
10356               \def\x{FitBV @xpos}%
10357             \else
10358               \def\x{Fit}%
10359               \ifx\x\@pdfview
10360                 \let\x\@pdfview
10361               \else
10362                 \def\x{FitB}%
10363                 \ifx\x\@pdfview
10364                   \let\x\@pdfview
10365                 \else
10366                   \def\x{FitR}%
10367                   \ifx\x\@pdfview
10368                     \Hy@Warning{'pdfview=FitR' is not supported}%
10369                     \def\x{XYZ @xpos @ypos null}%
10370                   \else
10371                     \@onelevel@sanitize\@pdfview
10372                     \Hy@Warning{%
10373                       Unknown value '\@pdfview' for pdfview%
10374                     }%
10375                     \def\x{XYZ @xpos @ypos null}%
10376                   \fi
10377                 \fi
10378               \fi
10379             \fi
```

```

10380      \fi
10381      \fi
10382      \fi
10383      \fi
10384      \@pdfm@mark{dest (\Hy@pstringDest) [@thispage /\x]}%
10385 \endgroup
10386 \Hy@RestoreLastskip
10387 }
10388 \providecommand*\@pdfview{XYZ}
10389 \providecommand*\@pdfborder{0 0 1}
10390 \providecommand*\@pdfborderstyle{}
10391 \def\hyper@anchor#1{%
10392   \@pdfm@dest{#1}%
10393 }
10394 \def\hyper@anchorstart#1{%
10395   \Hy@activeanchortrue
10396   \@pdfm@dest{#1}%
10397 }
10398 \def\hyper@anchorend{%
10399   \Hy@activeanchorfalse
10400 }
10401 \newcounter{Hy@AnnotLevel}
10402 \ifHy@ocgcolorlinks
10403   \def\OBJ@OCG@view{@OCG@view}%
10404   \@pdfm@mark{%
10405     obj \OBJ@OCG@view <<%
10406       /Type/OCG%
10407       /Name(View)%
10408       /Usage<<%
10409       /Print<<%
10410       /PrintState/OFF%
10411       >>%
10412       /View<<%
10413       /ViewState/ON%
10414       >>%
10415       >>%
10416       >>%
10417   }%
10418   \@pdfm@mark{close \OBJ@OCG@view}%
10419   \def\OBJ@OCG@print{@OCG@print}%
10420   \@pdfm@mark{%
10421     obj \OBJ@OCG@print <<%
10422       /Type/OCG%
10423       /Name(Print)%
10424       /Usage<<%
10425       /Print<<%
10426       /PrintState/ON%
10427       >>%
10428       /View<<%
10429       /ViewState/OFF%
10430       >>%
10431       >>%
10432       >>%
10433   }%
10434   \@pdfm@mark{close \OBJ@OCG@print}%
10435   \def\OBJ@OCGs{@OCGs}%
10436   \@pdfm@mark{%

```

```

10437   obj \OBJ@OCGs [%
10438       \OBJ@OCG@view\space\OBJ@OCG@print
10439   ]%
10440 }%
10441 \@pdfm@mark{close \OBJ@OCGs}%
10442 \@pdfm@mark{%
10443   put @catalog <<%
10444     /OCProperties<<%
10445     /OCGs \OBJ@OCGs
10446     /D<<%
10447     /OFF[\OBJ@OCG@print]%
10448     /AS[%
10449       <<%
10450         /Event/View%
10451         /OCGs \OBJ@OCGs
10452         /Category[/View]%
10453       >>%
10454       <<%
10455         /Event/Print%
10456         /OCGs \OBJ@OCGs
10457         /Category[/Print]%
10458       >>%
10459       <<%
10460         /Event/Export%
10461         /OCGs \OBJ@OCGs
10462         /Category[/Print]%
10463       >>%
10464     ]%
10465     >>%
10466     >>%
10467     >>%
10468 }%
10469 \AtBeginShipout{%
10470   \setbox\AtBeginShipoutBox=\hbox{%
10471     \copy\AtBeginShipoutBox
10472     \@pdfm@mark{%
10473       put @resources <<%
10474         /Properties<<%
10475         /OCView \OBJ@OCG@view
10476         /OCPrint \OBJ@OCG@print
10477       >>%
10478       >>%
10479     }%
10480   }%
10481 }%
10482 \Hy@AtBeginDocument{%
10483   \def\Hy@colorlink#1{%
10484     \begingroup
10485     \ifHy@ocgcolorlinks
10486       \def\Hy@ocgcolor{#1}%
10487       \setbox0=\hbox\bgroup\color@begingroup
10488     \else
10489       \HyColor@UseColor#1%
10490     \fi
10491   }%
10492   \def\Hy@endcolorlink{%
10493     \ifHy@ocgcolorlinks

```

```

10494 \color@endgroup\egroup
10495 \mbox{%
10496 \@pdfm@mark{content /OC/OCPrint BDC}%
10497 \rlap{\copy0}%
10498 \@pdfm@mark{content EMC/OC/OCView BDC}%
10499 \begingroup
10500 \expandafter\HyColor@UseColor\Hy@ocgcolor
10501 \box0 %
10502 \endgroup
10503 \@pdfm@mark{content EMC}%
10504 }%
10505 \fi
10506 \endgroup
10507 }%
10508 }%
10509 \else
10510 \Hy@DisableOption{ocgcolorlinks}%
10511 \fi

10512 \def\Hy@BeginAnnot#1{%
10513 \stepcounter{Hy@AnnotLevel}%
10514 \ifnum\value{Hy@AnnotLevel}=\@ne
10515 #1%
10516 \fi
10517 }
10518 \def\Hy@endAnnot{%
10519 \ifnum\value{Hy@AnnotLevel}=\@ne
10520 \Hy@endcolorlink
10521 \@pdfm@mark{eann}%
10522 \fi
10523 \addtocounter{Hy@AnnotLevel}\m@ne
10524 }

10525 \def\Hy@undefinedname{UNDEFINED}
10526 \def\hyper@linkstart#1#2{%
10527 \Hy@VerboseLinkStart{#1}{#2}%
10528 \leavevmode
10529 \Hy@BeginAnnot{%
10530 \protected@edef\Hy@testname{#2}%
10531 \ifx\Hy@testname\@empty
10532 \Hy@Warning{%
10533 Empty destination name,\MessageBreak
10534 using '\Hy@undefinedname'%
10535 }%
10536 \let\Hy@testname\Hy@undefinedname
10537 \else
10538 \Hy@pstringdef\Hy@testname{%
10539 \expandafter\HyperDestNameFilter\expandafter{%
10540 \Hy@testname
10541 }%
10542 }%
10543 \fi
10544 \@pdfm@mark{%
10545 bann<<%
10546 /Type/Annot%
10547 /Subtype/Link%
10548 \ifHy@pdfa /F 4\fi
10549 \Hy@setpdfborder
10550 \expandafter\ifx\cstate @#1bordercolor\endcstate\relax

```



```

10551     \else
10552     /C[\csname @#1bordercolor\endcsname]%
10553     \fi
10554     /A<<%
10555     /S/GoTo%
10556     /D(\Hy@testname)%
10557     \Hy@href@nextactionraw
10558     >>%
10559     >>%
10560     }%
10561     \expandafter\Hy@colorlink\csname @#1color\endcsname
10562     }%
10563 }
10564 \def\hyper@linkend{\Hy@EndAnnot}%
10565 \def\hyper@link#1#2#3{%
10566   \hyper@linkstart{#1}{#2}#3\Hy@xspace@end\hyper@linkend
10567 }
10568 \def\hyper@linkfile#1#2#3{%
10569   \leavevmode
10570   \Hy@BeginAnnot{%
10571     \def\Hy@pstringF{#2}%
10572     \Hy@CleanupFile\Hy@pstringF
10573     \Hy@pstringdef\Hy@pstringF\Hy@pstringF
10574     \Hy@pstringdef\Hy@pstringD{#3}%
10575     \Hy@MakeRemoteAction
10576     \@pdfm@mark{%
10577       bann<<%
10578       /Type/Annot%
10579       /Subtype/Link%
10580       \ifHy@pdfa /F 4\fi
10581       \Hy@setpdfborder
10582       \ifx\@filebordercolor\relax
10583       \else
10584         /C[\@filebordercolor]%
10585       \fi
10586       /A<<%
10587       /S/GoToR%
10588       /F(\Hy@pstringF)%
10589       /D%
10590       \ifx\#3\%
10591         [\Hy@href@page\@pdfremotestartview]%
10592       \else
10593         (\Hy@pstringD)%
10594       \fi
10595       \Hy@SetNewWindow
10596       \Hy@href@nextactionraw
10597       >>%
10598       >>%
10599     }%
10600     \Hy@colorlink\@filecolor
10601   }%
10602   #1\Hy@xspace@end
10603   \Hy@EndAnnot
10604 }
10605 \def\@hyper@launch run:#1\#2#3{% filename, anchor text linkname
10606   \leavevmode
10607   \Hy@BeginAnnot{%

```

```

10608 \Hy@pstringdef\Hy@pstringF{#1}%
10609 \Hy@pstringdef\Hy@pstringP{#3}%
10610 \@pdfm@mark{%
10611   bann<<%
10612   /Type/Annot%
10613   /Subtype/Link%
10614   \ifHy@pdfa /F 4\fi
10615   \Hy@setpdfborder
10616   \ifx\@runbordercolor\relax
10617   \else
10618     /C[\@runbordercolor]%
10619   \fi
10620   /A<<%
10621   /F(\Hy@pstringF)%
10622   /S/Launch%
10623   \Hy@SetNewWindow
10624   \ifx\#3\%
10625   \else
10626     /Win<</P(\Hy@pstringP)/F(\Hy@pstringF)>>%
10627   \fi
10628   \Hy@href@nextactionraw
10629   >>%
10630   >>%
10631   }%
10632   \Hy@colorlink\@runcolor
10633 }%
10634 #2\Hy@xspace@end
10635 \Hy@endAnnot
10636 }
10637 \def\hyper@linkurl#1#2{%
10638 \leavevmode
10639 \Hy@BeginAnnot{%
10640 \Hy@pstringdef\Hy@pstringURI{#2}%
10641 \@pdfm@mark{%
10642   bann<<%
10643   /Type/Annot%
10644   /Subtype/Link%
10645   \ifHy@pdfa /F 4\fi
10646   \Hy@setpdfborder
10647   \ifx\@urlbordercolor\relax
10648   \else
10649     /C[\@urlbordercolor]%
10650   \fi
10651   /A<<%
10652   /S/URI%
10653   /URI(\Hy@pstringURI)%
10654   \ifHy@href@ismap
10655     /IsMap true%
10656   \fi
10657   \Hy@href@nextactionraw
10658   >>%
10659   >>%
10660   }%
10661   \Hy@colorlink\@urlcolor
10662 }%
10663 #1\Hy@xspace@end
10664 \Hy@endAnnot

```

```

10665 }
10666 \def\Acrobatmenu#1#2{%
10667   \Hy@Acrobatmenu{#1}{#2}{%
10668     \Hy@BeginAnnot{%
10669       \EdefEscapeName\Hy@temp@menu{#1}%
10670       \@pdfm@mark{%
10671         bann<<%
10672         /Type/Annot%
10673         /Subtype/Link%
10674         \ifHy@pdfa /F 4\fi
10675         \Hy@setpdfborder
10676         \ifx\@menubordercolor\relax
10677           \else
10678             /C[\@menubordercolor]%
10679           \fi
10680         /A<<%
10681         /S/Named%
10682         /N/\Hy@temp@menu
10683         \Hy@href@nextactionraw
10684         >>%
10685         >>%
10686       }%
10687       \Hy@colorlink\@menucolor
10688     }%
10689     #2\Hy@xspace@end
10690   \Hy@endAnnot
10691 }%
10692 }
10693 \ifx\@pdfproducer\relax
10694 \def\@pdfproducer{dvipdfm}%

```

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

```

10695 \begingroup\expandafter\expandafter\expandafter\endgroup
10696 \expandafter\ifx\csname XeTeXversion\endcsname\relax
10697   \else
10698     \edef\@pdfproducer{XeTeX \the\XeTeXversion\XeTeXrevision}%
10699   \fi
10700 \fi
10701 \def\PDF@FinishDoc{%
10702   \Hy@UseMaketitleInfos
10703   \HyInfo@GenerateAddons
10704   \@pdfm@mark{%
10705     docinfo<<%
10706     /Title(\@pdftitle)%
10707     /Subject(\@pdfsubject)%
10708     /Creator(\@pdfcreator)%
10709     \ifx\@pdfcreationdate\@empty
10710       \else
10711         /CreationDate(\@pdfcreationdate)%
10712       \fi
10713     \ifx\@pdfmoddate\@empty
10714       \else
10715         /ModDate(\@pdfmoddate)%
10716       \fi
10717     /Author(\@pdfauthor)%
10718     \ifx\@pdfproducer\relax
10719       \else
10720         /Producer(\@pdfproducer)%

```

```

10721 \fi
10722 /Keywords(\@pdfkeywords)%
10723 \ifx\@pdftrapped\@empty
10724 \else
10725 /Trapped/\@pdftrapped
10726 \fi
10727 \HyInfo@Addons
10728 >>%
10729 }%
10730 \Hy@DisableOption{pdfauthor}%
10731 \Hy@DisableOption{pdftitle}%
10732 \Hy@DisableOption{pdfsubject}%
10733 \Hy@DisableOption{pdfcreator}%
10734 \Hy@DisableOption{pdfcreationdate}%
10735 \Hy@DisableOption{pdfmoddate}%
10736 \Hy@DisableOption{pdfproducer}%
10737 \Hy@DisableOption{pdfkeywords}%
10738 \Hy@DisableOption{pdftrapped}%
10739 \Hy@DisableOption{pdfinfo}%
10740 }

10741 \def\PDF@SetupDoc{%
10742 \edef\Hy@temp{%
10743 \ifHy@pdftoolbar\else /HideToolbar true\fi
10744 \ifHy@pdfmenubar\else /HideMenubar true\fi
10745 \ifHy@pdfwindowui\else /HideWindowUI true\fi
10746 \ifHy@pdfwindow /FitWindow true\fi
10747 \ifHy@pdfcenterwindow /CenterWindow true\fi
10748 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
10749 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
10750 \Hy@UseNameKey{Direction}\@pdfdirection
10751 \Hy@UseNameKey{ViewArea}\@pdfviewarea
10752 \Hy@UseNameKey{ViewClip}\@pdfviewclip
10753 \Hy@UseNameKey{PrintArea}\@pdfprintarea
10754 \Hy@UseNameKey{PrintClip}\@pdfprintclip
10755 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
10756 \Hy@UseNameKey{Duplex}\@pdfduplex
10757 \ifx\@pdfpicktraybypdfsize\@empty
10758 \else
10759 /PickTrayByPDFSize \@pdfpicktraybypdfsize
10760 \fi
10761 \ifx\@pdfprintpagerange\@empty
10762 \else
10763 /PrintPageRange[\@pdfprintpagerange]%
10764 \fi
10765 \ifx\@pdfnumcopies\@empty
10766 \else
10767 /NumCopies \@pdfnumcopies
10768 \fi
10769 }%
10770 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
10771 \@pdfm@mark{%
10772 docview<<%
10773 \ifx\@pdfstartpage\@empty
10774 \else
10775 \ifx\@pdfstartview\@empty
10776 \else
10777 /OpenAction[@page\@pdfstartpage\@pdfstartview]%

```

```

10778     \fi
10779     \fi
10780     \ifx\@baseurl\@empty
10781     \else
10782       /URI<</Base(\Hy@pstringB)>>>%
10783     \fi
10784     /PageMode/\@pdfpagemode
10785     \ifx\Hy@temp\@empty
10786     \else
10787       /ViewerPreferences<<\Hy@temp>>>%
10788     \fi
10789     \Hy@UseNameKey{PageLayout}\@pdfpagelayout
10790     \ifx\@pdflang\@empty
10791     \else
10792       /Lang(\@pdflang)%
10793     \fi
10794     >>%
10795   }%
10796   \ifx\@pdfpagescrop\@empty
10797   \else
10798     \@pdfm@mark{put @pages <</CropBox[\@pdfpagescrop]>>>%
10799   \fi
10800 }
10801 </dvipdfm | xetex>
10802 < *dvipdfm | xetex>

```

\hyper@pagetransition

```

10803 \def\hyper@pagetransition{%
10804   \ifx\@pdfpagetransition\relax
10805   \else
10806     \ifx\@pdfpagetransition\@empty
10807     \else
10808       \special{pdf:put @thispage %
10809         <</Trans<</S/\@pdfpagetransition>>>>%
10810       }%
10811     \fi
10812   \fi
10813 }

```

\hyper@pageduration

```

10814 \def\hyper@pageduration{%
10815   \ifx\@pdfpageduration\relax
10816   \else
10817     \ifx\@pdfpageduration\@empty
10818     \else
10819       \special{pdf:put @thispage %
10820         <</Dur \@pdfpageduration>>>%
10821       }%
10822     \fi
10823   \fi
10824 }

```

\hyper@pagehidden

```

10825 \def\hyper@pagehidden{%
10826   \ifHy@useHidKey
10827     \special{pdf:put @thispage %
10828       <</Hid \ifHy@pdfpagehidden true\else false\fi>>>%

```

```

10829 }%
10830 \fi
10831 }

10832 \g@addto@macro\Hy@EveryPageBoxHook{%
10833   \hyper@pagetransition
10834   \hyper@pageduration
10835   \hyper@pagehidden
10836 }

10837 </dvipdfm | xetex>

```

XeTeX uses pdfTeX's method `\pdfpagewidth` and `\pdfpageheight` for setting the paper size.

```

10838 < *dvipdfm>
10839 \AtBeginShipoutFirst{%
10840   \ifHy@setpagesize
10841     \begingroup
10842     \@ifundefined{stockwidth}{%
10843       \ifdim\paperwidth>\z@
10844         \ifdim\paperheight>\z@
10845           \special{papersize=\the\paperwidth,\the\paperheight}%
10846         \fi
10847       \fi
10848     }{%
10849       \ifdim\stockwidth>\z@
10850         \ifdim\stockheight>\z@
10851           \special{papersize=\the\stockwidth,\the\stockheight}%
10852         \fi
10853       \fi
10854     }%
10855   \endgroup
10856 \fi
10857 \Hy@DisableOption{setpagesize}%
10858 }
10859 </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.

```

10860 < *vtexhtml>
10861 \providecommand*\XR@ext}{htm}
10862 \RequirePackage{vtexhtml}
10863 \newif\if@Localurl
10864 \let\PDF@FinishDoc\ltx@empty
10865 \def\PDF@SetupDoc{%
10866   \ifx\@baseurl\@empty
10867     \else
10868       \special{!direct <base href="\@baseurl">}%
10869     \fi
10870 }
10871 \def\@urltype{url}
10872 \def\hyper@link#1#2#3{%
10873   \Hy@VerboseLinkStart{#1}{#2}%
10874   \leavevmode
10875   \special{!direct <a href=%
10876     \hyper@quote\hyper@hash\HyperDestNameFilter{#2}\hyper@quote>}%

```

```

10877 #3\Hy@xspace@end
10878 \special{!direct </a>}%
10879 }
10880 \def\hyper@linkurl#1#2{%
10881 \begingroup
10882 \hyper@chars
10883 \leavevmode
10884 \MathBSuppress=1\relax
10885 \special{!direct <a href=%
10886 \hyper@quote\HyperDestNameFilter{#2}\hyper@quote>}%
10887 #1\Hy@xspace@end
10888 \MathBSuppress=0\relax
10889 \special{!direct </a>}%
10890 \endgroup
10891 }
10892 \def\hyper@linkfile#1#2#3{%
10893 \hyper@linkurl{#1}{\Hy@linkfileprefix#2\ifx\\#3\\\else\##3\fi}%
10894 }
10895 \def\hyper@linkstart#1#2{%
10896 \Hy@VerboseLinkStart{#1}{#2}%
10897 \def\Hy@tempa{#1}\ifx\Hy@tempa\@urltype
10898 \@Localurltrue
10899 \special{!direct <a href=\hyper@quote#2\hyper@quote>}%
10900 \else
10901 \@Localurlfalse
10902 \begingroup
10903 \hyper@chars
10904 \special{!aref \HyperDestNameFilter{#2}}%
10905 \endgroup
10906 \fi
10907 }
10908 \def\hyper@linkend{%
10909 \if@Localurl
10910 \special{!endaref}%
10911 \else
10912 \special{!direct </a>}%
10913 \fi
10914 }
10915 \Hy@WrapperDef\hyper@anchorstart#1{%
10916 \Hy@SaveLastskip
10917 \Hy@VerboseAnchor{#1}%
10918 \begingroup
10919 \hyper@chars
10920 \special{!aname #1}%
10921 \special{!direct <a name=%
10922 \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
10923 \endgroup
10924 \Hy@activeanchortrue
10925 }
10926 \def\hyper@anchorend{%
10927 \special{!direct </a>}%
10928 \Hy@activeanchorfalse
10929 \Hy@RestoreLastskip
10930 }
10931 \Hy@WrapperDef\hyper@anchor#1{%
10932 \Hy@SaveLastskip
10933 \Hy@VerboseAnchor{#1}%

```

```

10934 \begingroup
10935 \let\protect=\string
10936 \hyper@chars
10937 \leavevmode
10938 \special{!aname #1}%
10939 \special{!direct <a name=%
10940 \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}}%
10941 \endgroup
10942 \Hy@activeanchortrue
10943 \bgroup\anchor@spot\egroup
10944 \special{!direct </a>}}%
10945 \Hy@activeanchorfalse
10946 \Hy@RestoreLastskip
10947 }
10948 \def\@Form[#1]{%
10949 \Hy@Message{Sorry, TeXpider does not yet support FORMs}%
10950 }
10951 \let\@endForm\ltx@empty
10952 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
10953 \Hy@Message{Sorry, TeXpider does not yet support FORM gauges}%
10954 }
10955 \def\@TextField[#1]#2{% parameters, label
10956 \Hy@Message{Sorry, TeXpider does not yet support FORM text fields}%
10957 }
10958 \def\@CheckBox[#1]#2{% parameters, label
10959 \Hy@Message{Sorry, TeXpider does not yet support FORM checkboxes}%
10960 }
10961 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
10962 \Hy@Message{Sorry, TeXpider does not yet support FORM choice menus}%
10963 }
10964 \def\@PushButton[#1]#2{% parameters, label
10965 \Hy@Message{Sorry, TeXpider does not yet support FORM pushbuttons}%
10966 }
10967 \def\@Reset[#1]#2{%
10968 \Hy@Message{Sorry, TeXpider does not yet support FORMs}%
10969 }
10970 \def\@Submit[#1]#2{%
10971 \Hy@Message{Sorry, TeXpider does not yet support FORMs}%
10972 }
10973 </vtexhtml>
10974 <*vtex>

```

VTeX version 6.68 supports `\mediawidth` and `\mediaheight`. The `\ifx` construct is better than a `\csname`, because it avoids the definition and the hash table entry of a previous undefined macro.

```

10975 \ifx\mediaheight\@undefined
10976 \else
10977 \ifx\mediaheight\relax
10978 \else
10979 \ifHy@setpagesize
10980 \providecommand*\VTeXInitMediaSize{%
10981 \ltx@ifundefined{stockwidth}{%
10982 \ifdim\paperheight>0pt %
10983 \setlength\mediaheight\paperheight
10984 \fi
10985 \ifdim\paperheight>0pt %
10986 \setlength\mediawidth\paperwidth

```



```

10987         \fi
10988     }{%
10989         \ifdim\stockheight>0pt %
10990             \setlength\mediaheight\stockheight
10991         \fi
10992         \ifdim\stockwidth>0pt %
10993             \setlength\mediawidth\stockwidth
10994         \fi
10995     }%
10996 }%
10997 \Hy@AtBeginDocument{\VTeXInitMediaSize}%
10998 \fi
10999 \Hy@DisableOption{setpagesize}%
11000 \fi
11001 \fi

```

Older versions of VTeX require xyz in lower case.

```

11002 \providecommand*\@pdfview{xyz}
11003 \providecommand*\@pdfborder{0 0 1}
11004 \providecommand*\@pdfborderstyle{}
11005 \let\CurrentBorderColor\@linkbordercolor
11006 \Hy@WrapperDef\hyper@anchor#1{%
11007     \Hy@SaveLastskip
11008     \Hy@VerboseAnchor{#1}%
11009     \begingroup
11010         \let\protect=\string
11011         \hyper@chars
11012         \special{!aname \HyperDestNameFilter{#1};\@pdfview}%
11013     \endgroup
11014     \Hy@activeanchortrue
11015     \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
11016     \Hy@activeanchorfalse
11017     \Hy@RestoreLastskip
11018 }
11019 \Hy@WrapperDef\hyper@anchorstart#1{%
11020     \Hy@SaveLastskip
11021     \Hy@VerboseAnchor{#1}%
11022     \begingroup
11023         \hyper@chars
11024         \special{!aname \HyperDestNameFilter{#1};\@pdfview}%
11025     \endgroup
11026     \Hy@activeanchortrue
11027 }
11028 \def\hyper@anchorend{%
11029     \Hy@activeanchorfalse
11030     \Hy@RestoreLastskip
11031 }
11032 \def\@urltype{url}
11033 \def\Hy@undefinedname{UNDEFINED}
11034 \def\hyper@linkstart#1#2{%
11035     \Hy@VerboseLinkStart{#1}{#2}%
11036     \Hy@pstringdef\Hy@pstringURI{#2}%
11037     \expandafter\Hy@colorlink\csname @#1color\endcsname
11038     \ltx@ifundefined{#1bordercolor}{%
11039         \let\CurrentBorderColor\relax
11040     }{%
11041         \edef\CurrentBorderColor{%
11042             \csname @#1bordercolor\endcsname

```

```

11043 }%
11044 }%
11045 \def\Hy@tempa{#1}%
11046 \ifx\Hy@tempa\@urltype
11047 \special{!%
11048   aref <u=/Type/Action/S/URI/URI(\Hy@pstringURI)%
11049   \ifHy@href@ismap
11050     /IsMap true%
11051   \fi
11052   \Hy@href@nextactionraw
11053   >;%
11054   a=<%
11055   \ifHy@pdfa /F 4\fi
11056   \Hy@setpdfborder
11057   \ifx\CurrentBorderColor\relax
11058   \else
11059     /C [\CurrentBorderColor]%
11060   \fi
11061   >%
11062 }%
11063 \else
11064 \protected@edef\Hy@testname{#2}%
11065 \ifx\Hy@testname\@empty
11066 \Hy@Warning{%
11067   Empty destination name,\MessageBreak
11068   using '\Hy@undefinedname'%
11069 }%
11070 \let\Hy@testname\Hy@undefinedname
11071 \fi
11072 \special{!%
11073   aref \expandafter\HyperDestNameFilter
11074   \expandafter{\Hy@testname};%
11075   a=<%
11076   \ifHy@pdfa /F 4\fi
11077   \Hy@setpdfborder
11078   \ifx\CurrentBorderColor\relax
11079   \else
11080     /C [\CurrentBorderColor]%
11081   \fi
11082   >%
11083 }%
11084 \fi
11085 }
11086 \def\hyper@linkend{%
11087 \special{!endaref}%
11088 \Hy@endcolorlink
11089 }
11090 \def\hyper@linkfile#1#2#3{%
11091 \leavevmode
11092 \def\Hy@pstringF{#2}%
11093 \Hy@CleanupFile\Hy@pstringF
11094 \special{!%
11095   aref <%
11096   \ifnum\Hy@VTeXversion>753 \ifHy@pdfnewwindow n\fi\fi
11097   f=\Hy@pstringF>#3;%
11098   a=<%
11099   \ifHy@pdfa /F 4\fi

```

```

11100 \Hy@setpdfborder
11101 \ifx\@filebordercolor\relax
11102 \else
11103 /C [\@filebordercolor]%
11104 \fi
11105 >%
11106 }%
11107 \Hy@colorlink\@filecolor
11108 #1\Hy@xspace@end
11109 \Hy@endcolorlink
11110 \special{!endaref}%
11111 }
11112 \def\hyper@linkurl#1#2{%
11113 \begingroup
11114 \Hy@pstringdef\Hy@pstringURI{#2}%
11115 \hyper@chars
11116 \leavevmode
11117 \special{!%
11118 aref <u=/Type/Action/S/URI/URI(\Hy@pstringURI)%
11119 \ifHy@href@ismap
11120 /IsMap true%
11121 \fi
11122 \Hy@href@nextactionraw
11123 >;%
11124 a=<%
11125 \ifHy@pdfa /F 4\fi
11126 \Hy@setpdfborder
11127 \ifx\@urlbordercolor\relax
11128 \else
11129 /C [\@urlbordercolor]%
11130 \fi
11131 >%
11132 }%
11133 \Hy@colorlink\@urlcolor
11134 #1\Hy@xspace@end
11135 \Hy@endcolorlink
11136 \special{!endaref}%
11137 \endgroup
11138 }
11139 \def\hyper@link#1#2#3{%
11140 \Hy@VerboseLinkStart{#1}{#2}%
11141 \ltx@ifundefined{@#1bordercolor}{%
11142 \let\CurrentBorderColor\relax
11143 }{%
11144 \edef\CurrentBorderColor{\csname @#1bordercolor\endcsname}%
11145 }%
11146 \leavevmode
11147 \protected@edef\Hy@testname{#2}%
11148 \ifx\Hy@testname\@empty
11149 \Hy@Warning{%
11150 Empty destination name,\MessageBreak
11151 using '\Hy@undefinedname'%
11152 }%
11153 \let\Hy@testname\Hy@undefinedname
11154 \fi
11155 \special{!%
11156 aref \expandafter\HyperDestNameFilter

```

```

11157     \expandafter{\Hy@testname};%
11158 a=<%
11159     \ifHy@pdfa /F 4\fi
11160     \Hy@setpdfborder
11161     \ifx\CurrentBorderColor\relax
11162     \else
11163     /C [\CurrentBorderColor]%
11164     \fi
11165 >%
11166 }%
11167 \expandafter
11168 \Hy@colorlink\csname @#1color\endcsname
11169 #3\Hy@xspace@end
11170 \Hy@endcolorlink
11171 \special{!endaref}%
11172 }
11173 \def\hyper@image#1#2{%
11174 \hyper@linkurl{#2}{#1}%
11175 }
11176 \def\@hyper@launch run:#1\#2#3{%
11177 \Hy@pstringdef\Hy@pstringF{#1}%
11178 \Hy@pstringdef\Hy@pstringP{#3}%
11179 \leavevmode
11180 \special{!aref %
11181 <u=%
11182 /Type/Action%
11183 /S/Launch%
11184 /F(\Hy@pstringF)%
11185 \Hy@SetNewWindow
11186 \ifx\#3\%
11187 \else
11188 /Win<</F(\Hy@pstringF)/P(\Hy@pstringP)>>%
11189 \fi
11190 \Hy@href@nextactionraw
11191 >,%
11192 a=<%
11193 \ifHy@pdfa /F 4\fi
11194 \Hy@setpdfborder
11195 \ifx\@runbordercolor\relax
11196 \else
11197 /C[\@runbordercolor]%
11198 \fi
11199 >%
11200 }%
11201 \Hy@colorlink\@runcolor
11202 #2\Hy@xspace@end
11203 \Hy@endcolorlink
11204 \special{!endaref}%
11205 }
11206 \def\Acrobatmenu#1#2{%
11207 \EdefEscapeName\Hy@temp@menu{#1}%
11208 \Hy@Acrobatmenu{#1}{#2}{%
11209 \special{!%
11210 aref <u=/S /Named /N /\Hy@temp@menu>;%
11211 a=<%
11212 \ifHy@pdfa /F 4\fi
11213 \Hy@setpdfborder

```

```

11214 \ifx\@menubordercolor\relax
11215 \else
11216 /C[\@menubordercolor]%
11217 \fi
11218 >%
11219 }%
11220 \Hy@colorlink\@menucolor
11221 #2\Hy@xspace@end
11222 \Hy@endcolorlink
11223 \special{!endaref}%
11224 }%
11225 }

```

The following code (transition effects) is made by Alex Kostin.

The code below makes sense for V_T_EX 7.02 or later.

Please never use `\ifundefined{VTeXversion}{..}{..}` *globally*.

```

11226 \ifnum\Hy@VTeXversion<702 %
11227 \else
11228 \def\hyper@pagetransition{%
11229 \ifx\@pdfpagetransition\relax
11230 \else
11231 \ifx\@pdfpagetransition\@empty

```

Standard incantation.

1. Does an old entry have to be deleted? 2. If 1=yes, how to delete?

```

11232 \else
11233 \hvtex@parse@trans\@pdfpagetransition
11234 \fi
11235 \fi
11236 }%

```

I have to write an “honest” parser to convert raw PDF code into V_T_EX `\special`. (AVK)

Syntax of V_T_EX `\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:

```

11237 \def\hvtex@trans@effect@Blinds{\def\hvtex@trans@code{B}}%
11238 \def\hvtex@trans@effect@Box{\def\hvtex@trans@code{X}}%
11239 \def\hvtex@trans@effect@Dissolve{\def\hvtex@trans@code{D}}%
11240 \def\hvtex@trans@effect@Glitter{\def\hvtex@trans@code{G}}%
11241 \def\hvtex@trans@effect@Split{\def\hvtex@trans@code{S}}%
11242 \def\hvtex@trans@effect@Wipe{\def\hvtex@trans@code{W}}%
11243 \def\hvtex@trans@effect@R{\def\hvtex@trans@code{R}}%

```

Optional parameters:

```
11244 \def\hvtex@par@dimension{/Dm}%
11245 \def\hvtex@par@direction{/Di}%
11246 \def\hvtex@par@duration{/D}%
11247 \def\hvtex@par@motion{/M}%
```

Tokenizer:

```
11248 \def\hvtex@gettoken{%
11249   \expandafter\hvtex@gettoken@\hvtex@buffer\@nil
11250 }%
```

Notice that tokens in the input buffer must be space delimited.

```
11251 \def\hvtex@gettoken@#1 #2\@nil{%
11252   \edef\hvtex@token{#1}%
11253   \edef\hvtex@buffer{#2}%
11254 }%
11255 \def\hvtex@parse@trans#1{%
```

Initializing code:

```
11256 \let\hvtex@trans@code\@empty
11257 \let\hvtex@param@dimension\@empty
11258 \let\hvtex@param@direction\@empty
11259 \let\hvtex@param@duration\@empty
11260 \let\hvtex@param@motion\@empty
11261 \edef\hvtex@buffer{#1\space}%
```

First token is the PDF transition name without escape.

```
11262 \hvtex@gettoken
11263 \ifx\hvtex@token\@empty
```

Leading space(s)?

```
11264 \ifx\hvtex@buffer\@empty
```

The buffer is empty, nothing to do.

```
11265 \else
11266   \hvtex@gettoken
11267 \fi
11268 \fi
11269 \csname hvtex@trans@effect@\hvtex@token\endcsname
```

Now is time to parse optional parameters.

```
11270 \hvtex@trans@params
11271 }%
```

Reentrant macro to parse optional parameters.

```
11272 \def\hvtex@trans@params{%
11273   \ifx\hvtex@buffer\@empty
11274   \else
11275     \hvtex@gettoken
11276     \let\hvtex@trans@par\hvtex@token
11277     \ifx\hvtex@buffer\@empty
11278     \else
11279       \hvtex@gettoken
11280       \ifx\hvtex@trans@par\hvtex@par@duration
```

/D is the effect duration in seconds. V_TE_X special takes it in milliseconds.

```
11281       \let\hvtex@param@duration\hvtex@token
11282     \else \ifx\hvtex@trans@par\hvtex@par@motion
```

/M can be either /I or /O

```
11283      \expandafter\edef\expandafter\hvtex@param@motion
11284      \expandafter{\expandafter\@gobble\hvtex@token}%
11285      \else \ifx\hvtex@trans@par\hvtex@par@dimension
```

/Dm can be either /H or /V

```
11286      \expandafter\edef\expandafter\hvtex@param@dimension
11287      \expandafter{\expandafter\@gobble\hvtex@token}%
11288      \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).

```
11289      \let\hvtex@param@direction\hvtex@token
11290      \fi\fi\fi\fi
11291      \fi
11292      \fi
11293      \ifx\hvtex@buffer\@empty
11294      \let\next\hvtex@produce@trans
11295      \else
11296      \let\next\hvtex@trans@params
11297      \fi
11298      \next
11299  }%
```

Merge <transition_effect> and issue the special when possible. Too lazy to validate optional parameters.

```
11300 \def\hvtex@produce@trans{%
11301   \let\vtex@trans@special\@empty
11302   \if S\hvtex@trans@code
11303     \edef\vtex@trans@special{\hvtex@trans@code
11304       \hvtex@param@dimension\hvtex@param@motion}%
11305   \else\if B\hvtex@trans@code
11306     \edef\vtex@trans@special{%
11307       \hvtex@trans@code\hvtex@param@dimension
11308     }%
11309   \else\if X\hvtex@trans@code
11310     \edef\vtex@trans@special{%
11311       \hvtex@trans@code\hvtex@param@motion
11312     }%
11313   \else\if W\hvtex@trans@code
11314     \edef\vtex@trans@special{%
11315       \hvtex@trans@code\hvtex@param@direction
11316     }%
11317   \else\if D\hvtex@trans@code
11318     \let\vtex@trans@special\hvtex@trans@code
11319   \else\if R\hvtex@trans@code
11320     \let\vtex@trans@special\hvtex@trans@code
11321   \else\if G\hvtex@trans@code
11322     \edef\vtex@trans@special{%
11323       \hvtex@trans@code\hvtex@param@direction
11324     }%
11325   \fi\fi\fi\fi\fi\fi
11326   \ifx\vtex@trans@special\@empty
11327   \else
11328     \ifx\hvtex@param@duration\@empty
11329     \else
11330       \setlength{\dimen@}{\hvtex@param@duration\p@}%
```

I'm not guilty of possible overflow.

```

11331 \multiply\dimen@\@m
11332 \edef\vtex@trans@special{%
11333 \vtex@trans@special,\strip@pt\dimen@
11334 }%
11335 \fi

```

And all the mess is just for this.

```

11336 \special{!trans \vtex@trans@special}%
11337 \fi
11338 }%

11339 \def\hyper@pageduration{%
11340 \ifx\@pdfpageduration\relax
11341 \else
11342 \ifx\@pdfpageduration\@empty
11343 \special{!duration-}%
11344 \else
11345 \special{!duration \@pdfpageduration}%
11346 \fi
11347 \fi
11348 }%

11349 \def\hyper@pagehidden{%
11350 \ifHy@useHidKey
11351 \special{!hidden\ifHy@pdfpagehidden +\else -\fi}%
11352 \fi
11353 }%

11354 \g@addto@macro\Hy@EveryPageBoxHook{%
11355 \hyper@pagetransition
11356 \hyper@pageduration
11357 \hyper@pagehidden
11358 }%
11359 \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

```

11360 \ifx\@pdfproducer\relax
11361 \def\@pdfproducer{VTeX}%
11362 \ifnum\Hy@VTeXversion>\z@
11363 \count@\VTeXversion
11364 \divide\count@ 100 %
11365 \edef\@pdfproducer{\@pdfproducer\space v\the\count@}%
11366 \multiply\count@ -100 %
11367 \advance\count@\VTeXversion
11368 \edef\@pdfproducer{%
11369 \@pdfproducer
11370 .\ifnum\count@<10 0\fi\the\count@
11371 \ifx\VTeXOS\@undefined\else
11372 \ifnum\VTeXOS>0 %
11373 \ifnum\VTeXOS<6 %
11374 \space%

```



```

11375         \ifcase\VTeXOS
11376         \or Windows\or Linux\or OS/2\or MacOS\or MacOS/X%
11377         \fi
11378         )%
11379     \fi
11380 \fi
11381 \fi
11382 ,\space
11383 \ifnum\OpMode=\@one PDF\else PS\fi
11384 \space backend%
11385 \ifx\gexmode\@undefined\else
11386 \ifnum\gexmode>\z@\space with GeX\fi
11387 \fi
11388 }%
11389 \fi
11390 \fi

```

Current `!pdfinfo` key syntax:

Key	Field	Type
a	Author	String
b	CropBox	String
c	Creator	String
k	Keywords	String
l	PageLayout	PS
p	PageMode	PS
r	Producer	String
s	Subject	String
t	Title	String
u	URI	PS
v	ViewPreferences	PS

Note: PS objects that are dicts are in `<<..>>` (yuck; no choice).

```

11391 \def\PDF@SetupDoc{%
11392 \ifx\@pdfpagescrop\@empty
11393 \else
11394 \special{!pdfinfo b=<\@pdfpagescrop>}%
11395 \fi
11396 \ifx\@pdfstartpage\@empty
11397 \else
11398 \ifx\@pdfstartview\@empty
11399 \else
11400 \special{!onopen Page\@pdfstartpage}%
11401 \fi
11402 \fi
11403 \special{!pdfinfo p=</\@pdfpagemode>}%
11404 \ifx\@baseurl\@empty
11405 \else
11406 \special{!pdfinfo u=<<</Base (\@baseurl)>>>}%
11407 \fi
11408 \special{!pdfinfo v=<<<%
11409 \ifHy@pdftoolbar\else /HideToolbar true\fi
11410 \ifHy@pdfmenubar\else /HideMenubar true\fi
11411 \ifHy@pdfwindowui\else /HideWindowUI true\fi
11412 \ifHy@pdffitwindow /FitWindow true\fi
11413 \ifHy@pdfcenterwindow /CenterWindow true\fi
11414 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
11415 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
11416 \Hy@UseNameKey{Direction}\@pdfdirection

```

```

11417 \Hy@UseNameKey{ViewArea}\@pdfviewarea
11418 \Hy@UseNameKey{ViewClip}\@pdfviewclip
11419 \Hy@UseNameKey{PrintArea}\@pdfprintarea
11420 \Hy@UseNameKey{PrintClip}\@pdfprintclip
11421 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
11422 \Hy@UseNameKey{Duplex}\@pdfduplex
11423 \ifx\@pdfpicktraybypdfsize\@empty
11424 \else
11425 /PickTrayByPDFSize \@pdfpicktraybypdfsize
11426 \fi
11427 \ifx\@pdfprintpagerange\@empty
11428 \else
11429 /PrintPageRange[\@pdfprintpagerange]%
11430 \fi
11431 \ifx\@pdfnumcopies\@empty
11432 \else
11433 /NumCopies \@pdfnumcopies
11434 \fi
11435 >>>}%
11436 \ifx\@pdfpagelayout\@empty
11437 \else
11438 \special{!pdfinfo l=</\@pdfpagelayout\space>}%
11439 \fi
11440 }%
11441 \HyInfo@AddonUnsupportedtrue
11442 \define@key{Hyp}{pdfcreationdate}{%
11443 \Hy@Warning{%
11444 VTeX does not support pdfcreationdate.\MessageBreak
11445 Therefore its setting is ignored%
11446 }%
11447 }
11448 \define@key{Hyp}{pdfmoddate}{%
11449 \Hy@Warning{%
11450 VTeX does not support pdfmoddate.\MessageBreak
11451 Therefore its setting is ignored%
11452 }%
11453 }
11454 \def\PDF@FinishDoc{%
11455 \Hy@UseMaketitleInfos
11456 \HyInfo@TrappedUnsupported
11457 \special{!pdfinfo a=<\@pdfauthor>}%
11458 \special{!pdfinfo t=<\@pdftitle>}%
11459 \special{!pdfinfo s=<\@pdfsubject>}%
11460 \special{!pdfinfo c=<\@pdfcreator>}%
11461 \ifx\@pdfproducer\relax
11462 \else
11463 \special{!pdfinfo r=<\@pdfproducer>}%
11464 \fi
11465 \special{!pdfinfo k=<\@pdfkeywords>}%
11466 \Hy@DisableOption{pdfauthor}%
11467 \Hy@DisableOption{pdftitle}%
11468 \Hy@DisableOption{pdfsubject}%
11469 \Hy@DisableOption{pdfcreator}%
11470 \Hy@DisableOption{pdfcreationdate}%
11471 \Hy@DisableOption{pdfmoddate}%
11472 \Hy@DisableOption{pdfproducer}%
11473 \Hy@DisableOption{pdfkeywords}%

```

```

11474 \Hy@DisableOption{pdftrapped}%
11475 \Hy@DisableOption{pdfinfo}%
11476 }
11477 </vtex>

```

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.

```

11478 <dviwindo>\def\literalps@out#1{\special{ps:#1}}%
11479 <package>\providecommand*{\Hy@DistillerDestFix}{%
11480 <*pdfmark | dviwindo>
11481 \def\Hy@DistillerDestFix{%
11482 \begingroup
11483 \let\x\literalps@out

```

The fix has to be passed unchanged through GeX, if VTeX in PostScript mode with GeX is used.

```

11484 \ifnum \@ifundefined{OpMode}{0}{%
11485 \ifundefined{gexmode}{0}{%
11486 \ifnum\gexmode>0 \OpMode\else 0\fi
11487 }>1 %
11488 \def\x##1{%
11489 \immediate\special{!=##1}%
11490 }%
11491 \fi
11492 \x{%
11493 /product where{%
11494 pop %
11495 product(Distiller)search{%
11496 pop pop pop %
11497 version(.)search{%
11498 exch pop exch pop%
11499 (3011)eq{%
11500 gsave %
11501 newpath 0 0 moveto closepath clip%
11502 /Courier findfont 10 scalefont setfont %
11503 72 72 moveto(.)show %
11504 grestore%
11505 }if%
11506 }{pop}ifelse%
11507 }{pop}ifelse%
11508 }if%
11509 }%
11510 \endgroup
11511 }
11512 </pdfmark | dviwindo>

```

47.8 Direct pdfmark support

Drivers that load `pdfmark.def` have to provide the correct macro definitions of

<code>\@pdfproducer</code>	for document information
<code>\literalps@out</code>	PostScript output
<code>\headerps@out</code>	PostScript output that goes in the header area

and the correct definitions of the following PostScript procedures:

<code>H.S</code>	start of anchor, link or rect
<code>#1 H.A</code>	end of anchor, argument=baselineskip in pt
<code>#1 H.L</code>	end of link, argument=baselineskip in pt
<code>H.R</code>	end of rect
<code>H.B</code>	raw rect code

```
11513 (*pdfmark)
11514 \Hy@breaklinks@unsupported
11515 \def\HyPat@ObjRef{%
11516   \[~{}]+\}%
11517 }
11518 \Hy@WrapperDef\hyper@anchor#1{%
11519   \Hy@SaveLastskip
11520   \Hy@VerboseAnchor{#1}%
11521   \begingroup
11522     \pdfmark[\anchor@spot]{%
11523       pdfmark=/DEST,%
11524       linktype=anchor,%
11525       View=/\@pdfview \@pdfviewparams,%
11526       DestAnchor={#1}%
11527     }%
11528   \endgroup
11529   \Hy@RestoreLastskip
11530 }
11531 \ltx@ifundefined{hyper@anchorstart}{-}{\endinput}
11532 \Hy@WrapperDef\hyper@anchorstart#1{%
11533   \Hy@SaveLastskip
11534   \Hy@VerboseAnchor{#1}%
11535   \literalps@out{H.S}%
11536   \Hy@AllowHyphens
11537   \xdef\hyper@currentanchor{#1}%
11538   \Hy@activeanchortrue
11539 }
11540 \def\hyper@anchorend{%
11541   \literalps@out{\strip@pt@and@otherjunk\baselineskip\space H.A}%
11542   \pdfmark{%
11543     pdfmark=/DEST,%
11544     linktype=anchor,%
11545     View=/\@pdfview \@pdfviewparams,%
11546     DestAnchor=\hyper@currentanchor,%
11547   }%
11548   \Hy@activeanchorfalse
11549   \Hy@RestoreLastskip
11550 }
11551 \def\hyper@linkstart#1#2{%
11552   \Hy@VerboseLinkStart{#1}{#2}%
11553   \ifHy@breaklinks
11554     \else
11555     \leavevmode
```

```

11556 \ifmmode
11557   \def\Hy@LinkMath{$}%
11558 \else
11559   \let\Hy@LinkMath\ltx@empty
11560 \fi
11561 \Hy@SaveSpaceFactor
11562 \hbox\bgroup
11563 \Hy@RestoreSpaceFactor
11564 \Hy@LinkMath
11565 \fi
11566 \expandafter\Hy@colorlink\csname @#1color\endcsname
11567 \literalps@out{H.S}%
11568 \Hy@AllowHyphens
11569 \xdef\hyper@currentanchor{#2}%
11570 \gdef\hyper@currentlinktype{#1}%
11571 }
11572 \def\hyper@linkend{%
11573   \literalps@out{\strip@pt@and@otherjunk\baselineskip\space H.L}%
11574   \ltx@ifundefined{@\hyper@currentlinktype bordercolor}{%
11575     \let\Hy@tempcolor\relax
11576   }{%
11577     \edef\Hy@tempcolor{%
11578       \csname @\hyper@currentlinktype bordercolor\endcsname
11579     }%
11580   }%
11581   \pdfmark{%
11582     pdfmark=/ANN,%
11583     linktype=link,%
11584     Subtype=/Link,%
11585     PDFAFlags=4,%
11586     Dest=\hyper@currentanchor,%
11587     AcroHighlight=\@pdfhighlight,%
11588     Border=\@pdfborder,%
11589     BorderStyle=\@pdfborderstyle,%
11590     Color=\Hy@tempcolor,%
11591     Raw=H.B%
11592   }%
11593   \Hy@endcolorlink
11594   \ifHy@breaklinks
11595   \else
11596     \Hy@LinkMath
11597     \Hy@SaveSpaceFactor
11598     \egroup
11599     \Hy@RestoreSpaceFactor
11600   \fi
11601 }

```

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.

```

11602 \begingroup
11603 \catcode'P=12 %
11604 \catcode'T=12 %
11605 \lowercase{\endgroup
11606 \gdef\rem@ptetc#1.#2PT#3!{#1\ifnum#2>\z@.#2\fi}%
11607 }
11608 \def\strip@pt@and@otherjunk#1{\expandafter\rem@ptetc\the#1!}

```

\hyper@pagetransition

```
11609 \def\hyper@pagetransition{%
11610 \ifx\@pdfpagetransition\relax
11611 \else
11612 \ifx\@pdfpagetransition\@empty
11613 % 1. Does an old entry have to be deleted?
11614 % 2. If 1=yes, how to delete?
11615 \else
11616 \pdfmark{%
11617 pdfmark=/PUT,%
11618 Raw={%
11619 \string{ThisPage\string}%
11620 <</Trans << /S /\@pdfpagetransition\space >> >>%
11621 }%
11622 }%
11623 \fi
11624 \fi
11625 }
```

\hyper@pageduration

```
11626 \def\hyper@pageduration{%
11627 \ifx\@pdfpageduration\relax
11628 \else
11629 \ifx\@pdfpageduration\@empty
11630 % 1. Does an old entry have to be deleted?
11631 % 2. If 1=yes, how to delete?
11632 \else
11633 \pdfmark{%
11634 pdfmark=/PUT,%
11635 Raw={%
11636 \string{ThisPage\string}%
11637 <</Dur \@pdfpageduration>>%
11638 }%
11639 }%
11640 \fi
11641 \fi
11642 }
```

\hyper@pagehidden

```
11643 \def\hyper@pagehidden{%
11644 \ifHy@useHidKey
11645 \pdfmark{%
11646 pdfmark=/PUT,%
11647 Raw={%
11648 \string{ThisPage\string}%
11649 <</Hid \ifHy@pdfpagehidden true\else false\fi>>%
11650 }%
11651 }%
11652 \fi
11653 }

11654 \g@addto@macro\Hy@EveryPageBoxHook{%
11655 \hyper@pagetransition
11656 \hyper@pageduration
11657 \hyper@pagehidden
11658 }

11659 \def\hyper@image#1#2{%
```

```

11660 \hyper@linkurl{#2}{#1}%
11661 }
11662 \def\Hy@undefinedname{UNDEFINED}
11663 \def\hyper@link#1#2#3{%
11664 \Hy@VerboseLinkStart{#1}{#2}%
11665 \ltx@ifundefined{#1bordercolor}{%
11666 \let\Hy@tempcolor\relax
11667 }{%
11668 \edef\Hy@tempcolor{\csname @#1bordercolor\endcsname}%
11669 }%
11670 \begingroup
11671 \protected@edef\Hy@testname{#2}%
11672 \ifx\Hy@testname\@empty
11673 \Hy@Warning{%
11674 Empty destination name,\MessageBreak
11675 using '\Hy@undefinedname'%
11676 }%
11677 \let\Hy@testname\Hy@undefinedname
11678 \fi
11679 \pdfmark[{#3}]{%
11680 Color=\Hy@tempcolor,%
11681 linktype={#1},%
11682 AcroHighlight=\@pdfhighlight,%
11683 Border=\@pdfborder,%
11684 BorderStyle=\@pdfborderstyle,%
11685 pdfmark=/ANN,%
11686 Subtype=/Link,%
11687 PDFAFlags=4,%
11688 Dest=\Hy@testname
11689 }%
11690 \endgroup
11691 }
11692 \newtoks\pdf@docset
11693 \def\PDF@FinishDoc{%
11694 \Hy@UseMaketitleInfos
11695 \Hy@Info@GenerateAddons
11696 \let\Hy@temp\@empty
11697 \ifx\@pdfcreationdate\@empty
11698 \else
11699 \def\Hy@temp{CreationDate=\@pdfcreationdate,}%
11700 \fi
11701 \ifx\@pdfmoddate\@empty
11702 \else
11703 \expandafter\def\expandafter\Hy@temp\expandafter{%
11704 \Hy@temp
11705 ModDate=\@pdfmoddate,%
11706 }%
11707 \fi
11708 \ifx\@pdfproducer\relax
11709 \else
11710 \expandafter\def\expandafter\Hy@temp\expandafter{%
11711 \Hy@temp
11712 Producer=\@pdfproducer,%
11713 }%
11714 \fi
11715 \expandafter
11716 \pdfmark\expandafter{%

```

```

11717 \Hy@temp
11718 pdfmark=/DOCINFO,%
11719 Title=\@pdftitle,%
11720 Subject=\@pdfsubject,%
11721 Creator=\@pdfcreator,%
11722 Author=\@pdfauthor,%
11723 Keywords=\@pdfkeywords,%
11724 Trapped=\@pdftrapped
11725 }%
11726 \ifx\HyInfo@Addons\@empty
11727 \else
11728 \pdfmark{%
11729 pdfmark=/DOCINFO,%
11730 Raw={\HyInfo@Addons}%
11731 }%
11732 \fi
11733 \Hy@DisableOption{pdfauthor}%
11734 \Hy@DisableOption{pdftitle}%
11735 \Hy@DisableOption{pdfsubject}%
11736 \Hy@DisableOption{pdfcreator}%
11737 \Hy@DisableOption{pdfcreationdate}%
11738 \Hy@DisableOption{pdfmoddate}%
11739 \Hy@DisableOption{pdfproducer}%
11740 \Hy@DisableOption{pdfkeywords}%
11741 \Hy@DisableOption{pdftrapped}%
11742 \Hy@DisableOption{pdfinfo}%
11743 }
11744 \def\PDF@SetupDoc{%
11745 \def\Hy@temp{}%
11746 \ifx\@pdfstartpage\@empty
11747 \else
11748 \ifx\@pdfstartview\@empty
11749 \else
11750 \edef\Hy@temp{%
11751 ,Page=\@pdfstartpage
11752 ,View=\@pdfstartview
11753 }%
11754 \fi
11755 \fi
11756 \edef\Hy@temp{%
11757 \noexpand\pdfmark{%
11758 pdfmark=/DOCVIEW,%
11759 PageMode=/\@pdfpagemode
11760 \Hy@temp
11761 }%
11762 }%
11763 \Hy@temp
11764 \ifx\@pdfpagescrop\@empty
11765 \else
11766 \pdfmark{pdfmark=/PAGES,CropBox=\@pdfpagescrop}%
11767 \fi
11768 \edef\Hy@temp{%
11769 \ifHy@pdftoolbar\else /HideToolbar true\fi
11770 \ifHy@pdfmenubar\else /HideMenubar true\fi
11771 \ifHy@pdfwindowui\else /HideWindowUI true\fi
11772 \ifHy@pdfwindow /FitWindow true\fi
11773 \ifHy@pdfcenterwindow /CenterWindow true\fi

```



```

11774 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
11775 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
11776 \Hy@UseNameKey{Direction}\@pdfdirection
11777 \Hy@UseNameKey{ViewArea}\@pdfviewarea
11778 \Hy@UseNameKey{ViewClip}\@pdfviewclip
11779 \Hy@UseNameKey{PrintArea}\@pdfprintarea
11780 \Hy@UseNameKey{PrintClip}\@pdfprintclip
11781 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
11782 \Hy@UseNameKey{Duplex}\@pdfduplex
11783 \ifx\@pdfpicktraybypdfsize\@empty
11784 \else
11785 /PickTrayByPDFSize \@pdfpicktraybypdfsize
11786 \fi
11787 \ifx\@pdfprintpagerange\@empty
11788 \else
11789 /PrintPageRange[\@pdfprintpagerange]%
11790 \fi
11791 \ifx\@pdfnumcopies\@empty
11792 \else
11793 /NumCopies \@pdfnumcopies
11794 \fi
11795 }%
11796 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
11797 \pdfmark{%
11798 pdfmark=/PUT,%
11799 Raw={%
11800 \string{Catalog\string}<<%
11801 \ifx\Hy@temp\@empty
11802 \else
11803 /ViewerPreferences<<\Hy@temp>>%
11804 \fi
11805 \Hy@UseNameKey{PageLayout}\@pdfpagelayout
11806 \ifx\@pdflang\@empty
11807 \else
11808 /Lang(\@pdflang)%
11809 \fi
11810 \ifx\@baseurl\@empty
11811 \else
11812 /URI<</Base(\Hy@pstringB)>>%
11813 \fi
11814 >>%
11815 }%
11816 }%
11817 }
11818 \pdfmark>
11819 \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.

```

11820 \newif\ifHy@pdfmarkerror
11821 \def\pdfmark{\@ifnextchar{\pdfmark@}{\pdfmark@[]}}
11822 \def\pdfmark@[#1]#2{%
11823 \Hy@pdfmarkerrorfalse

```

```

11824 \edef\@processme{\noexpand\pdf@toks={\the\pdf@defaulttoks}}%
11825 \@processme
11826 \let\pdf@type\relax
11827 \kvsetkeys{PDF}{#2}%
11828 \ifHy@pdfmarkerror
11829 \else
11830 \ifx\pdf@type\relax
11831 \Hy@WarningNoLine{no pdfmark type specified in #2!!}%
11832 \ifx\#1\%
11833 \else
11834 \pdf@rect{#1}%
11835 \fi
11836 \else
11837 \ifx\#1\%
11838 \literalps@out{%
11839 [\the\pdf@toks\space\pdf@type\space pdfmark%
11840 ]%
11841 \else
11842 \ltx@ifundefined{@\pdf@linktype color}{%
11843 \Hy@colorlink\@linkcolor
11844 }{%
11845 \expandafter\Hy@colorlink
11846 \csname @\pdf@linktype color\endcsname
11847 }%
11848 \pdf@rect{#1}%
11849 \literalps@out{%
11850 [\the\pdf@toks\space\pdf@type\space pdfmark%
11851 ]%
11852 \Hy@endcolorlink
11853 \fi
11854 \fi
11855 \fi
11856 }

```

The complicated bit is working out the right enclosing rectangle of some piece of T_EX text, needed by the /Rect key. This solution originates with Toby Thain (toby@netspace.net.au).

For the case breaklinks is enabled, I have added two hooks, the first one for package setouterhbox, it provides a hopefully better method without setting the text twice.

```
\usepackage[hyperref]{setouterhbox}
```

With the second hook, also you can set the text twice, e.g.:

```

\long\def\Hy@setouterhbox#1#2{\long\def\my@temp{#2}}
\def\Hy@breaklinksunhbox#1{\my@temp}

```

```

11857 \newsavebox{\pdf@box}
11858 \providecommand*{\Hy@setouterhbox}{\sbox}
11859 \providecommand*{\Hy@breaklinksunhbox}{\unhbox}
11860 \def\Hy@DEST{/DEST}
11861 \def\pdf@rect#1{%
11862 \begingroup
11863 \chardef\x=1 %
11864 \def\Hy@temp{#1}%
11865 \ifx\Hy@temp\ltx@empty
11866 \chardef\x=0 %
11867 \else

```

```

11868 \def\y{\anchor@spot}%
11869 \ifx\Hy@temp\y
11870 \def\y{\relax}%
11871 \ifx\anchor@spot\y
11872 \chardef\x=0 %
11873 \fi
11874 \fi
11875 \fi
11876 \expandafter\endgroup
11877 \ifcase\x
11878 \literalps@out{H.S}%
11879 \literalps@out{H.R}%
11880 \else
11881 \leavevmode
11882 \Hy@SaveSpaceFactor
11883 \ifmmode
11884 \def\Hy@LinkMath{$}%
11885 \else
11886 \let\Hy@LinkMath\ltx@empty
11887 \fi
11888 \ifHy@breaklinks
11889 \Hy@setouterhbox\pdf@box{%
11890 \Hy@RestoreSpaceFactor
11891 \Hy@LinkMath
11892 \Hy@AllowHyphens#1\Hy@xspace@end
11893 \Hy@LinkMath
11894 \Hy@SaveSpaceFactor
11895 }%
11896 \else
11897 \sbox\pdf@box{%
11898 \Hy@RestoreSpaceFactor
11899 \Hy@LinkMath
11900 #1\Hy@xspace@end
11901 \Hy@LinkMath
11902 \Hy@SaveSpaceFactor
11903 }%
11904 \fi
11905 \dimen@ht\pdf@box
11906 \ifdim\dp\pdf@box=\z@
11907 \literalps@out{H.S}%
11908 \else
11909 \lower\dp\pdf@box\hbox{\literalps@out{H.S}}%
11910 \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...).

```

11911 \ifHy@breaklinks
11912 \ifhmode
11913 \Hy@breaklinksunhbox\pdf@box
11914 \else
11915 \box\pdf@box
11916 \fi
11917 \else
11918 \expandafter\box\pdf@box
11919 \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

11920 \ifdim\dimen@=\z@
11921 \literalps@out{H.R.}%
11922 \else
11923 \raise\dimen@\hbox{\literalps@out{H.R.}}%
11924 \fi
11925 \Hy@RestoreSpaceFactor
11926 \fi
11927 \ifx\pdf@type\Hy@DEST
11928 \else
11929 \pdf@addtoksx{H.B}%
11930 \fi
11931 }

```

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.

```

11932 \newtoks\pdf@toks
11933 \newtoks\pdf@defaulttoks
11934 \pdf@defaulttoks={}
11935 \def\pdf@addtoks#1#2{%
11936 \edef\@processme{\pdf@toks{\the\pdf@toks/#2 #1}}%
11937 \@processme
11938 }
11939 \def\pdf@addtoksx#1{%
11940 \edef\@processme{\pdf@toks{\the\pdf@toks\space #1}}%
11941 \@processme
11942 }
11943 \def\PDFdefaults#1{%
11944 \pdf@defaulttoks={#1}%
11945 }

```

This is the list of allowed keys. See the Acrobat manual for an explanation.

```

11946 % what is the type of pdfmark?
11947 \define@key{PDF}{pdfmark}{\def\pdf@type{#1}}
11948 % what is the link type?
11949 \define@key{PDF}{linktype}{\def\pdf@linktype{#1}}
11950 \def\pdf@linktype{link}
11951 % parameter is a stream of PDF
11952 \define@key{PDF}{Raw}{\pdf@addtoksx{#1}}
11953 % parameter is a name
11954 \define@key{PDF}{Action}{\pdf@addtoks{#1}{Action}}
11955 % parameter is a array
11956 \define@key{PDF}{Border}{%
11957 \edef\Hy@temp{#1}%
11958 \ifx\Hy@temp@empty
11959 \else
11960 \pdf@addtoks{[#1]\Hy@BorderArrayPatch}{Border}% hash-ok
11961 \fi
11962 }
11963 \let\Hy@BorderArrayPatch@empty
11964 % parameter is a dictionary
11965 \define@key{PDF}{BorderStyle}{%
11966 \edef\Hy@temp{#1}%
11967 \ifx\Hy@temp@empty
11968 \else

```

```

11969 \pdf@addtoks{<<#1>>}{BS}%
11970 \fi
11971 }
11972 % parameter is a array
11973 \define@key{PDF}{Color}{%
11974 \ifx\relax#1\relax
11975 \else
11976 \pdf@addtoks{[#1]}{Color}% hash-ok
11977 \fi
11978 }
11979 % parameter is a string
11980 \define@key{PDF}{Contents}{\pdf@addtoks{(#1)}{Contents}}
11981 % parameter is a integer
11982 \define@key{PDF}{Count}{\pdf@addtoks{#1}{Count}}
11983 % parameter is a array
11984 \define@key{PDF}{CropBox}{\pdf@addtoks{[#1]}{CropBox}}% hash-ok
11985 % parameter is a string
11986 \define@key{PDF}{DOSFile}{\pdf@addtoks{(#1)}{DOSFile}}
11987 % parameter is a string or file
11988 \define@key{PDF}{DataSource}{\pdf@addtoks{(#1)}{DataSource}}
11989 % parameter is a destination
11990 \define@key{PDF}{Dest}{%
11991 \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
11992 \ifx\Hy@pstringDest\@empty
11993 \Hy@pdfmarkerrortrue
11994 \Hy@Warning{Destination with empty name ignored}%
11995 \else
11996 \pdf@addtoks{(\Hy@pstringDest) cvn}{Dest}%
11997 \fi
11998 }
11999 \define@key{PDF}{DestAnchor}{%
12000 \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
12001 \ifx\Hy@pstringDest\@empty
12002 \Hy@pdfmarkerrortrue
12003 \Hy@Warning{Destination with empty name ignored}%
12004 \else
12005 \pdf@addtoks{(\Hy@pstringDest) cvn}{Dest}%
12006 \fi
12007 }
12008 % parameter is a string
12009 \define@key{PDF}{Dir}{\pdf@addtoks{(#1)}{Dir}}
12010 % parameter is a string
12011 \define@key{PDF}{File}{\pdf@addtoks{(#1)}{File}}
12012 % parameter is a int
12013 \define@key{PDF}{Flags}{\pdf@addtoks{#1}{Flags}}
12014 \define@key{PDF}{PDFAFlags}{%
12015 \ifHy@pdfa
12016 \pdf@addtoks{#1}{F}%
12017 \fi
12018 }
12019 % parameter is a name
12020 \define@key{PDF}{AcroHighlight}{%
12021 \begingroup
12022 \edef\x{#1}%
12023 \expandafter\endgroup\ifx\x\@empty
12024 \else
12025 \pdf@addtoks{#1}{H}%

```

```

12026 \fi
12027 }
12028 % parameter is a string
12029 \define@key{PDF}{ID}{\pdf@addtoks{[#1]}{ID}}% hash-ok
12030 % parameter is a string
12031 \define@key{PDF}{MacFile}{\pdf@addtoks{(#1)}{MacFile}}
12032 % parameter is a string
12033 \define@key{PDF}{ModDate}{\pdf@addtoks{(#1)}{ModDate}}
12034 % parameter is a string
12035 \define@key{PDF}{Op}{\pdf@addtoks{(#1)}{Op}}
12036 % parameter is a Boolean
12037 \define@key{PDF}{Open}{\pdf@addtoks{#1}{Open}}
12038 % parameter is a integer or name
12039 \define@key{PDF}{Page}{\pdf@addtoks{#1}{Page}}
12040 % parameter is a name
12041 \define@key{PDF}{PageMode}{\pdf@addtoks{#1}{PageMode}}
12042 % parameter is a string
12043 \define@key{PDF}{Params}{\pdf@addtoks{(#1)}{Params}}
12044 % parameter is a array
12045 \define@key{PDF}{Rect}{\pdf@addtoks{[#1]}{Rect}}% hash-ok
12046 % parameter is a integer
12047 \define@key{PDF}{SrcPg}{\pdf@addtoks{#1}{SrcPg}}
12048 % parameter is a name
12049 \define@key{PDF}{Subtype}{\pdf@addtoks{#1}{Subtype}}
12050 % parameter is a string
12051 \define@key{PDF}{Title}{\pdf@addtoks{(#1)}{Title}}
12052 % parameter is a string
12053 \define@key{PDF}{Unix}{\pdf@addtoks{(#1)}{Unix}}
12054 % parameter is a string
12055 \define@key{PDF}{UnixFile}{\pdf@addtoks{(#1)}{UnixFile}}
12056 % parameter is an array
12057 \define@key{PDF}{View}{\pdf@addtoks{[#1]}{View}}% hash-ok
12058 % parameter is a string
12059 \define@key{PDF}{WinFile}{\pdf@addtoks{(#1)}{WinFile}}

```

These are the keys used in the DOCINFO section.

```

12060 \define@key{PDF}{Author}{\pdf@addtoks{(#1)}{Author}}
12061 \define@key{PDF}{Creator}{\pdf@addtoks{(#1)}{Creator}}
12062 \define@key{PDF}{CreationDate}{\pdf@addtoks{(#1)}{CreationDate}}
12063 \define@key{PDF}{ModDate}{\pdf@addtoks{(#1)}{ModDate}}
12064 \define@key{PDF}{Producer}{\pdf@addtoks{(#1)}{Producer}}
12065 \define@key{PDF}{Subject}{\pdf@addtoks{(#1)}{Subject}}
12066 \define@key{PDF}{Keywords}{\pdf@addtoks{(#1)}{Keywords}}
12067 \define@key{PDF}{ModDate}{\pdf@addtoks{(#1)}{ModDate}}
12068 \define@key{PDF}{Base}{\pdf@addtoks{(#1)}{Base}}
12069 \define@key{PDF}{URI}{\pdf@addtoks{#1}{URI}}
12070 \define@key{PDF}{Trapped}{%
12071 \edef\Hy@temp{#1}%
12072 \ifx\Hy@temp\@empty
12073 \else
12074 \pdf@addtoks{/#1}{Trapped}%
12075 \fi
12076 }
12077
12078 </pdfmarkbase>
12079 <*pdfmark>
12080 \def\Acrobatmenu#1#2{%
12081 \EdefEscapeName\Hy@temp@menu{#1}%

```

```

12082 \Hy@Acrobatmenu{#1}{#2}{%
12083 \pdfmark[{#2}]{%
12084   linktype=menu,%
12085   pdfmark=/ANN,%
12086   AcroHighlight=\@pdfhighlight,%
12087   Border=\@pdfborder,%
12088   BorderStyle=\@pdfborderstyle,%
12089   Color=\@menubordercolor,%
12090   Action={<</Subtype/Named/N/\Hy@temp@menu>>},%
12091   Subtype=/Link,%
12092   PDFAFlags=4%
12093 }%
12094 }%
12095 }

```

And now for some useful examples:

```

12096 \def\PDFNextPage{\@ifnextchar{\PDFNextPage@}{\PDFNextPage@[]}}
12097 \def\PDFNextPage@[#1]#2{%
12098 \pdfmark[{#2}]{%
12099   #1,%
12100   Border=\@pdfborder,%
12101   BorderStyle=\@pdfborderstyle,%
12102   Color=.2 .1 .5,%
12103   pdfmark=/ANN,%
12104   Subtype=/Link,%
12105   PDFAFlags=4,%
12106   Page=/Next%
12107 }%
12108 }
12109 \def\PDFPreviousPage{%
12110 \@ifnextchar{\PDFPreviousPage@}{\PDFPreviousPage@[]}%
12111 }
12112 \def\PDFPreviousPage@[#1]#2{%
12113 \pdfmark[{#2}]{%
12114   #1,%
12115   Border=\@pdfborder,%
12116   BorderStyle=\@pdfborderstyle,%
12117   Color=.4 .4 .1,%
12118   pdfmark=/ANN,%
12119   Subtype=/Link,%
12120   PDFAFlags=4,%
12121   Page=/Prev%
12122 }%
12123 }
12124 \def\PDFOpen#1{%
12125 \pdfmark{#1,pdfmark=/DOCVIEW}%
12126 }

```

This will only work if you use Distiller 2.1 or higher.

```

12127 \def\hyper@linkurl#1#2{%
12128 \begingroup
12129 \Hy@pstringdef\Hy@pstringURI{#2}%
12130 \hyper@chars
12131 \leavevmode
12132 \pdfmark[{#1}]{%
12133   pdfmark=/ANN,%
12134   linktype=url,%
12135   AcroHighlight=\@pdfhighlight,%

```

```

12136 Border=\@pdfborder,%
12137 BorderStyle=\@pdfborderstyle,%
12138 Color=\@urlbordercolor,%
12139 Action={<<%
12140   /Subtype/URI%
12141   /URI(\Hy@pstringURI)%
12142   \ifHy@href@ismap
12143     /IsMap true%
12144   \fi
12145 >>},%
12146 Subtype=/Link,%
12147 PDFAFlags=4%
12148 }%
12149 \endgroup
12150 }
12151 \def\hyper@linkfile#1#2#3{%
12152   \begingroup
12153   \def\Hy@pstringF{#2}%
12154   \Hy@CleanupFile\Hy@pstringF
12155   \Hy@pstringdef\Hy@pstringF\Hy@pstringF
12156   \Hy@pstringdef\Hy@pstringD{#3}%
12157   \Hy@MakeRemoteAction
12158   \leavevmode
12159   \pdfmark[{#1}]{%
12160     pdfmark=/ANN,%
12161     Subtype=/Link,%
12162     PDFAFlags=4,%
12163     AcroHighlight=\@pdfhighlight,%
12164     Border=\@pdfborder,%
12165     BorderStyle=\@pdfborderstyle,%
12166     linktype=file,%
12167     Color=\@filebordercolor,%
12168     Action={%
12169       <<%
12170       /S/GoToR%
12171       \Hy@SetNewWindow
12172       /F(\Hy@pstringF)%
12173       /D%
12174       \ifx\#3\%
12175         [\Hy@href@page\@pdfremotestartview]%
12176       \else
12177         (\Hy@pstringD)cvn%
12178       \fi
12179       \Hy@href@nextactionraw
12180       >>%
12181     }%
12182   }%
12183   \endgroup
12184 }
12185 \def\@hyper@launch run:#1\#2#3{%
12186   \begingroup
12187   \Hy@pstringdef\Hy@pstringF{#1}%
12188   \Hy@pstringdef\Hy@pstringP{#3}%
12189   \leavevmode
12190   \pdfmark[{#2}]{%
12191     pdfmark=/ANN,%
12192     Subtype=/Link,%

```



```

12193   PDFAFlags=4,%
12194   AcroHighlight=\@pdfhighlight,%
12195   Border=\@pdfborder,%
12196   BorderStyle=\@pdfborderstyle,%
12197   linktype=run,%
12198   Color=\@runbordercolor,%
12199   Action={%
12200     <<%
12201       /S/Launch%
12202       \Hy@SetNewWindow
12203       /F(\Hy@pstringF)%
12204       \ifx\#3\%
12205       \else
12206         /Win<</P(\Hy@pstringP)/F(\Hy@pstringF)>>%
12207       \fi
12208       \Hy@href@nextactionraw
12209     >>%
12210   }%
12211 }%
12212 \endgroup
12213 }
12214 </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.

```

12215 (*dvips)
12216 \providecommand*\XR@ext\{pdf}
12217 \let\Hy@raisedlink\ltx@empty
12218 \def\literalps@out#1{\special{ps:SDict begin #1 end}}%
12219 \def\headerps@out#1{\special{! #1}}%
12220 \input{pdfmark.def}%
12221 \ifx\@pdfproducer\relax
12222   \def\@pdfproducer{dvips + Distiller}%
12223 \fi
12224 \providecommand*\@pdfborder{0 0 1}
12225 \providecommand*\@pdfborderstyle{}
12226 \providecommand*\@pdfview{XYZ}
12227 \providecommand*\@pdfviewparams{ H.V}
12228 \def\Hy@BorderArrayPatch{BorderArrayPatch}
12229 \g@addto@macro\Hy@FirstPageHook{%
12230   \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.

```
12231 /DvipsToPDF{72.27 mul Resolution div} def%
12232 /PDFToDvips{72.27 div Resolution mul} def%
12233 /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.

```
12234 /BorderArrayPatch{%
12235   [exch{%
12236     dup dup type/integertype eq exch type/realtype eq or%
12237     {BPToDvips}if%
12238   }forall]%
12239 }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.

```
12240 /HyperBorder {1 PDFToDvips} def%
12241 /H.V {pdf@hoff pdf@voff null} def%
12242 /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

```
12243 /H.S {%
12244   currentpoint %
12245   HyperBorder add /pdf@lly exch def %
12246   dup DvipsToPDF 72 add /pdf@hoff exch def %
12247   HyperBorder sub /pdf@llx exch def%
12248 } 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`

```
12249 /H.L {%
12250   2 sub dup%
12251   /HyperBasePt exch def %
12252   PDFToDvips /HyperBaseDvips exch def %
12253   currentpoint %
12254   HyperBaseDvips sub /pdf@ury exch def%
12255   /pdf@urx exch def%
12256 } def%
12257 /H.A {%
12258   H.L %
12259 % |pdf@voff| = the distance from the top of the page to a point
12260 % |\baselineskip| above the current point in PDF coordinates
12261   currentpoint exch pop %
12262   vsize 72 sub exch DvipsToPDF %
12263   HyperBasePt sub % baseline skip
12264   sub /pdf@voff exch def%
12265 } def%
12266 /H.R {%
```

```

12267     currentpoint %
12268     HyperBorder sub /pdf@ury exch def %
12269     HyperBorder add /pdf@urx exch def %
12270 % | /pdf@voff| = the distance from the top of the page to the current point, in
12271 % PDF coordinates
12272     currentpoint exch pop vsize 72 sub %
12273     exch DvipsToPDF sub /pdf@voff exch def%
12274 } def%
12275 }%
12276 }
12277 \AtBeginShipoutFirst{%
12278   \ifHy@setpagesize
12279     \begingroup
12280       \@ifundefined{stockwidth}{%
12281         \ifdim\paperwidth>\z@
12282           \ifdim\paperheight>\z@
12283             \special{papersize=\the\paperwidth,\the\paperheight}%
12284           \fi
12285         \fi
12286       }{%
12287         \ifdim\stockwidth>\z@
12288           \ifdim\stockheight>\z@
12289             \special{papersize=\the\stockwidth,\the\stockheight}%
12290           \fi
12291         \fi
12292       }%
12293     \endgroup
12294   \fi
12295   \Hy@DisableOption{setpagesize}%
12296 }
12297 </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.

```

12298 < *vtexpdfmark>
12299 \providecommand*\XR@ext}{pdf}
12300 \let\Hy@raisedlink\ltx@empty
12301 \def\literalps@out#1{\special{pS:#1}}%
12302 \def\headerps@out#1{\immediate\special{pS:#1}}%
12303 \input{pdfmark.def}%
12304 \ifx\@pdfproducer\relax
12305   \ifnum\OpMode=\@one
12306     \def\@pdfproducer{VTeX}%
12307   \else
12308     \def\@pdfproducer{VTeX + Distiller}%
12309   \fi
12310 \fi
12311 \providecommand*\@pdfborder{0 0 1}
12312 \providecommand*\@pdfborderstyle{}
12313 \providecommand*\@pdfview{XYZ}
12314 \providecommand*\@pdfviewparams{ H.V}
12315 \g@addto@macro\Hy@FirstPageHook{%

```

```

12316 \headerps@out{%
12317 /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.

```

12318 /HyperBorder {1} def%
12319 /H.V {pdf@hoff pdf@voff null} def%
12320 /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: $\text{pdf@lly} = Y_c - \text{HyperBorder}$, $\text{pdf@hoff} = X_c + 72$, $\text{pdf@llx} = X_c - \text{HyperBorder}$

```

12321 /H.S {%
12322   currentpoint %
12323   HyperBorder sub%
12324   /pdf@lly exch def %
12325   dup 72 add /pdf@hoff exch def %
12326   HyperBorder sub%
12327   /pdf@llx exch def%
12328 } def%

```

The x and y coordinates of the current point, minus the `\baselineskip`: $\text{pdf@ury} = Y_c + \text{HyperBasePt} + \text{HyperBorder}$, $\text{pdf@urx} = X_c + \text{HyperBorder}$

```

12329 /H.L {%
12330   2 sub%
12331   /HyperBasePt exch def %
12332   currentpoint %
12333   HyperBasePt add HyperBorder add%
12334   /pdf@ury exch def %
12335   HyperBorder add%
12336   /pdf@urx exch def%
12337 } def%
12338 /H.A {%
12339   H.L %
12340   currentpoint exch pop %
12341   vsize 72 sub exch %
12342   HyperBasePt add add%
12343   /pdf@voff exch def%
12344 } def%

```

$\text{pdf@ury} = Y_c + \text{HyperBorder}$, $\text{pdf@urx} = X_c + \text{HyperBorder}$

```

12345 /H.R {%
12346   currentpoint %
12347   HyperBorder add%
12348   /pdf@ury exch def %
12349   HyperBorder add%
12350   /pdf@urx exch def %
12351   currentpoint exch pop vsize 72 sub add%
12352   /pdf@voff exch def%
12353 } def%
12354 }%
12355 }
12356 </vtxpdfmark>

```

47.11 Textures

```

12357 (*textures)
12358 \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.

```
12359 \begingroup
12360 \obeylines %
12361 \gdef\Hy@ps@CR{\noexpand
12362 }%
12363 \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`.

```
12364 \def\literalps@out#1{%
12365 \special{postscript 0 0 transform}%
12366 \special{rawpostscript itransform moveto\Hy@ps@CR #1}%
12367 }%
12368 %
```

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.

```
12369 \def\headerps@out#1{%
12370 \special{%
12371 prepostscript TeXdict begin\Hy@ps@CR
12372 #1\Hy@ps@CR
12373 end%
12374 }%
12375 }%
12376 %
```

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.

```
12377 \g@addto@macro\Hy@FirstPageHook{%
12378 \headerps@out{%
12379 /betterpdfmark {%
12380 systemdict begin %
12381 dup /BP eq%
12382 {cleartomark gsave nulldevice []%
12383 {dup /EP eq%
12384 {cleartomark cleartomark grestore}%
12385 {cleartomark}%
12386 ifelse%
```

```

12387     }ifelse %
12388     end%
12389   }def\Hy@ps@CR
12390   ___pdfmark___ not{/pdfmark /betterpdfmark load def}if%
12391 }% end of \headerps@out
12392 }% end of \AtBeginShipoutFirst
12393 %
12394 \input{pdfmark.def}%
12395 %
12396 \ifx\@pdfproducer\relax
12397   \def\@pdfproducer{Textures + Distiller}%
12398 \fi
12399 \providecommand*\@pdfborder{0 0 1}
12400 \providecommand*\@pdfborderstyle{}
12401 \providecommand*\@pdfview{XYZ}
12402 \providecommand*\@pdfviewparams{ H.V}
12403 %

```

These are called at the start and end of unboxed links; their job is to leave available PS variables called `pdf@llx` `pdf@lly` `pdf@urx` `pdf@ury`, which are the coordinates of the bounding rectangle of the link, and `pdf@hoff` `pdf@voff` which are the PDF page offsets. The `Rect` pair are called at the LL and UR corners of a box known to \TeX .

```

12404 \Hy@AtBeginDocument{%
12405   \headerps@out{%

```

`Textures` lives in normal points, I think. So conversion from one coordinate system to another involves doing nothing.

```

12406   /vsize {\Hy@pageheight} def%
12407   /DvipsToPDF {} def%
12408   /PDFToDvips {} def%
12409   /BPToDvips {} def%
12410   /HyperBorder { 1 PDFToDvips } def\Hy@ps@CR
12411   /H.V {pdf@hoff pdf@voff null} def\Hy@ps@CR
12412   /H.B {/Rect[pdf@llx pdf@lly pdf@urx pdf@ury]} def\Hy@ps@CR
12413   /H.S {%
12414     currentpoint %
12415     HyperBorder add /pdf@lly exch def %
12416     dup DvipsToPDF 72 add /pdf@hoff exch def %
12417     HyperBorder sub /pdf@llx exch def%
12418   } def\Hy@ps@CR
12419   /H.L {%
12420     2 sub %
12421     PDFToDvips /HyperBase exch def %
12422     currentpoint %
12423     HyperBase sub /pdf@ury exch def%
12424     /pdf@urx exch def%
12425   } def\Hy@ps@CR
12426   /H.A {%
12427     H.L %
12428     currentpoint exch pop %
12429     vsize 72 sub exch DvipsToPDF %
12430     HyperBase sub % baseline skip
12431     sub /pdf@voff exch def%
12432   } def\Hy@ps@CR
12433   /H.R {%
12434     currentpoint %
12435     HyperBorder sub /pdf@ury exch def %

```

```

12436   HyperBorder add /pdf@urx exch def %
12437   currentpoint exch pop vsize 72 sub %
12438   exch DvipsToPDF sub /pdf@voff exch def%
12439   } def\Hy@ps@CR
12440 }%
12441 }

12442 \Hy@AtBeginDocument{%
12443   \ifHy@colorlinks
12444     \headerps@out{/PDFBorder{/Border [0 0 0]}def}%
12445   \fi
12446 }

```

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.

```

12447 \expandafter\let\expandafter\keepPDF@SetupDoc
12448   \csname PDF@SetupDoc\endcsname
12449 \def\PDF@SetupDoc{%
12450   \ifx\@baseurl\@empty
12451     \else
12452       \special{html:<base href="\@baseurl">}%
12453     \fi
12454   \keepPDF@SetupDoc
12455 }

12456 \Hy@WrapperDef\hyper@anchor#1{%
12457   \Hy@SaveLastskip
12458   \Hy@VerboseAnchor{#1}%
12459   \begingroup
12460     \let\protect=\string
12461     \special{html:<a name=%
12462       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
12463   \endgroup
12464   \Hy@activeanchortrue
12465   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
12466   \special{html:</a>}%
12467   \Hy@activeanchorfalse
12468   \Hy@RestoreLastskip
12469 }

12470 \Hy@WrapperDef\hyper@anchorstart#1{%
12471   \Hy@SaveLastskip
12472   \Hy@VerboseAnchor{#1}%
12473   \begingroup
12474     \hyper@chars
12475     \special{html:<a name=%
12476       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
12477   \endgroup
12478   \Hy@activeanchortrue
12479 }

12480 \def\hyper@anchorend{%
12481   \special{html:</a>}%
12482   \Hy@activeanchorfalse
12483   \Hy@RestoreLastskip
12484 }

12485 \def\@urltype{url}
12486 \def\hyper@linkstart#1#2{%
12487   \Hy@VerboseLinkStart{#1}{#2}%
12488   \expandafter\Hy@colorlink\csname @#1color\endcsname

```

```

12489 \def\Hy@tempa{#1}%
12490 \ifx\Hy@tempa\@urltype
12491   \special{html:<a href=\hyper@quote#2\hyper@quote>}%
12492 \else
12493   \begingroup
12494     \hyper@chars
12495     \special{%
12496       html:<a href=
12497         \hyper@quote\#\HyperDestNameFilter{#2}\hyper@quote>%
12498     }%
12499   \endgroup
12500 \fi
12501 }
12502 \def\hyper@linkend{%
12503   \special{html:</a>}%
12504   \Hy@endcolorlink
12505 }
12506 \def\hyper@linkfile#1#2#3{%
12507   \hyper@linkurl{#1}{%
12508     \Hy@linkfileprefix#2\ifx\#3\\\else\#3\fi
12509   }%
12510 }
12511 \def\hyper@linkurl#1#2{%
12512   \leavevmode
12513   \ifHy@raiselinks
12514     \Hy@SaveSpaceFactor
12515     \Hy@SaveSavedSpaceFactor
12516     \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
12517     \Hy@RestoreSavedSpaceFactor
12518     \@linkdim\dp\@tempboxa
12519     \lower\@linkdim\hbox{%
12520       \hyper@chars
12521       \special{html:<a href=\hyper@quote#2\hyper@quote>}%
12522     }%
12523     \Hy@colorlink\@urlcolor
12524     \Hy@RestoreSpaceFactor
12525     #1\Hy@xspace@end
12526     \Hy@SaveSpaceFactor
12527     \@linkdim\ht\@tempboxa
12528     \advance\@linkdim by -6.5\p@
12529     \raise\@linkdim\hbox{\special{html:</a>}}%
12530   \Hy@endcolorlink
12531   \Hy@RestoreSpaceFactor
12532 \else
12533   \begingroup
12534     \hyper@chars
12535     \special{html:<a href=\hyper@quote#2\hyper@quote>}%
12536     \Hy@colorlink\@urlcolor#1\Hy@xspace@end
12537     \special{html:</a>}%
12538     \Hy@endcolorlink
12539   \endgroup
12540 \fi
12541 }

```

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

```

12542 \def\hyper@link#1#2#3{%
12543   \Hy@VerboseLinkStart{#1}{#2}%
12544   \hyper@linkurl{#3}{\#\HyperDestNameFilter{#2}}%

```



```

12545 }
12546 \def\hyper@image#1#2{%
12547   \begingroup
12548     \hyper@chars
12549     \special{html:<img src=\hyper@quote#1\hyper@quote>}%
12550   \endgroup
12551 }
12552 </textures>

```

47.12 dvipsone

```

12553 % \subsection{dvipsone driver}
12554 % Over-ride the default setup macro in pdfmark driver to use Y\&Y
12555 % | \special| commands.
12556 (*dvipsone)
12557 \providecommand*\XR@ext}{pdf}
12558 \let\Hy@raisedlink\ltx@empty
12559 \providecommand*\@pdfborder{0 0 1}
12560 \providecommand*\@pdfborderstyle{}
12561 \def\literalps@out#1{\special{ps:#1}}%
12562 \def\headerps@out#1{\special{headertext=#1}}%
12563 \input{pdfmark.def}%
12564 \ifx\@pdfproducer\relax
12565   \def\@pdfproducer{dvipsone + Distiller}%
12566 \fi
12567 \HyInfo@AddonUnsupportedtrue
12568 \def\PDF@FinishDoc{%
12569   \Hy@UseMaketitleInfos
12570   \HyInfo@TrappedUnsupported
12571   \special{PDF: Keywords \@pdfkeywords}%
12572   \special{PDF: Title \@pdftitle}%
12573   \special{PDF: Creator \@pdfcreator}%
12574   \ifx\@pdfcreationdate\@empty
12575     \else
12576       \special{PDF: CreationDate \@pdfcreationdate}%
12577     \fi
12578   \ifx\@pdfmoddate\@empty
12579     \else
12580       \special{PDF: ModDate \@pdfmoddate}%
12581     \fi
12582   \special{PDF: Author \@pdfauthor}%
12583   \ifx\@pdfproducer\relax
12584     \else
12585       \special{PDF: Producer \@pdfproducer}%
12586     \fi
12587   \special{PDF: Subject \@pdfsubject}%
12588   \Hy@DisableOption{pdfauthor}%
12589   \Hy@DisableOption{pdftitle}%
12590   \Hy@DisableOption{pdfsubject}%
12591   \Hy@DisableOption{pdfcreator}%
12592   \Hy@DisableOption{pdfcreationdate}%
12593   \Hy@DisableOption{pdfmoddate}%
12594   \Hy@DisableOption{pdfproducer}%
12595   \Hy@DisableOption{pdfkeywords}%
12596   \Hy@DisableOption{pdftrapped}%
12597   \Hy@DisableOption{pdfinfo}%
12598 }

```

```

12599 \def\PDF@SetupDoc{%
12600   \def\Hy@temp{}%
12601   \ifx\@pdfstartpage\@empty
12602   \else
12603     \ifx\@pdfstartview\@empty
12604     \else
12605       \edef\Hy@temp{%
12606         ,Page=\@pdfstartpage
12607         ,View=\@pdfstartview
12608       }%
12609     \fi
12610   \fi
12611   \edef\Hy@temp{%
12612     \noexpand\pdfmark{%
12613       pdfmark=/DOCVIEW,%
12614       PageMode=/\@pdfpagemode
12615     }\Hy@temp
12616   }%
12617 }%
12618 \Hy@temp
12619 \ifx\@pdfpagescrop\@empty
12620 \else
12621   \pdfmark{pdfmark=/PAGES,CropBox=\@pdfpagescrop}%
12622 \fi
12623 \edef\Hy@temp{%
12624   \ifHy@pdftoolbar\else /HideToolbar true\fi
12625   \ifHy@pdfmenubar\else /HideMenubar true\fi
12626   \ifHy@pdfwindowui\else /HideWindowUI true\fi
12627   \ifHy@pdffitwindow /FitWindow true\fi
12628   \ifHy@pdfcenterwindow /CenterWindow true\fi
12629   \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
12630   \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
12631   \Hy@UseNameKey{Direction}\@pdfdirection
12632   \Hy@UseNameKey{ViewArea}\@pdfviewarea
12633   \Hy@UseNameKey{ViewClip}\@pdfviewclip
12634   \Hy@UseNameKey{PrintArea}\@pdfprintarea
12635   \Hy@UseNameKey{PrintClip}\@pdfprintclip
12636   \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
12637   \Hy@UseNameKey{Duplex}\@pdfduplex
12638   \ifx\@pdfpicktraybypdfsize\@empty
12639   \else
12640     /PickTrayByPDFSize \@pdfpicktraybypdfsize
12641   \fi
12642   \ifx\@pdfprintpagerange\@empty
12643   \else
12644     /PrintPageRange[\@pdfprintpagerange]%
12645   \fi
12646   \ifx\@pdfnumcopies\@empty
12647   \else
12648     /NumCopies \@pdfnumcopies
12649   \fi
12650 }%
12651 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
12652 \pdfmark{%
12653   pdfmark=/PUT,%
12654   Raw={%
12655     \string{Catalog\string}<<%

```

```

12656 \ifx\Hy@temp\@empty
12657 \else
12658 /ViewerPreferences<<\Hy@temp>>%
12659 \fi
12660 \Hy@UseNameKey{PageLayout}\@pdfpagelayout
12661 \ifx\@pdflang\@empty
12662 \else
12663 /Lang(\@pdflang)%
12664 \fi
12665 \ifx\@baseurl\@empty
12666 \else
12667 /URI<</Base(\Hy@pstringB)>>%
12668 \fi
12669 >>%
12670 }%
12671 }%
12672 }
12673 \providecommand*\@pdfview{XYZ}
12674 \providecommand*\@pdfviewparams{ %
12675 gsave revscl currentpoint grestore %
12676 72 add exch pop null exch null%
12677 }
12678 \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 .

```

12679 \g@addto@macro\Hy@FirstPageHook{%
12680 \headerps@out{%

```

dvipsone lives in scaled points; does this mean 65536 or 65781?

```

12681 /DvipsToPDF { 65781 div } def%
12682 /PDFToDvips { 65781 mul } def%
12683 /BPToDvips{65781 mul}def%
12684 /HyperBorder { 1 PDFToDvips } def%
12685 /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.

```

12686 /BorderArrayPatch{%
12687 [exch{%
12688 dup dup type/integertype eq exch type/realtype eq or%
12689 {BPToDvips}if%
12690 }forall]%
12691 }def%
12692 /H.S {%
12693 currentpoint %
12694 HyperBorder add /pdf@lly exch def %
12695 dup DvipsToPDF 72 add /pdf@hoff exch def %
12696 HyperBorder sub /pdf@llx exch def%
12697 } def%
12698 /H.L {%
12699 2 sub %
12700 PDFToDvips /HyperBase exch def %
12701 currentpoint %
12702 HyperBase sub /pdf@ury exch def%

```

```

12703    /pdf@urx exch def%
12704    } def%
12705    /H.A {%
12706        H.L %
12707        currentpoint exch pop %
12708        HyperBase sub % baseline skip
12709        DvipsToPDF /pdf@voff exch def%
12710    } def%
12711    /H.R {%
12712        currentpoint %
12713        HyperBorder sub /pdf@ury exch def %
12714        HyperBorder add /pdf@urx exch def %
12715        currentpoint exch pop DvipsToPDF /pdf@voff exch def%
12716    } def%
12717    }%
12718 }
12719 </dvipsone>

```

47.13 TeX4ht

```

12720 <*tex4ht>
12721 \providecommand*\XR@ext>{html}
12722 \let\Hy@raisedlink\ltx@empty
12723 \@ifpackageloaded{tex4ht}{%
12724     \Hy@InfoNoLine{tex4ht is already loaded}%
12725 }{%
12726     \RequirePackage[hTeX4ht]{tex4ht}%
12727 }
12728 \hyperlinkfileprefix{}
12729 \let\PDF@FinishDoc\ltx@empty
12730 \def\PDF@SetupDoc{%
12731     \ifx\@baseurl\@empty
12732     \else
12733         \special{t4ht=<base href="\@baseurl">}%
12734     \fi
12735 }
12736 \Hy@WrapperDef\hyper@anchor#1{%
12737     \Hy@SaveLastskip
12738     \Hy@VerboseAnchor{#1}%
12739     \begingroup
12740         \let\protect=\string
12741         \special{t4ht=<a name=%
12742             \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
12743     \endgroup
12744     \Hy@activeanchortrue
12745     \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
12746     \special{t4ht=</a>}%
12747     \Hy@activeanchorfalse
12748     \Hy@RestoreLastskip
12749 }
12750 \Hy@WrapperDef\hyper@anchorstart#1{%
12751     \Hy@SaveLastskip
12752     \Hy@VerboseAnchor{#1}%
12753     \begingroup
12754         \hyper@chars\special{t4ht=<a name=%
12755             \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
12756     \endgroup
12757     \Hy@activeanchortrue

```

```

12758 }
12759 \def\hyper@anchorend{%
12760   \special{t4ht=</a>}%
12761   \Hy@activeanchorfalse
12762   \Hy@RestoreLastskip
12763 }
12764 \def\@urltype{url}
12765 \def\hyper@linkstart#1#2{%
12766   \Hy@VerboseLinkStart{#1}{#2}%
12767   \expandafter\Hy@colorlink\csname @#1color\endcsname
12768   \def\Hy@tempa{#1}%
12769   \ifx\Hy@tempa\@urltype
12770     \special{t4ht=<a href=\hyper@quote#2\hyper@quote>}%
12771     \else
12772       \begingroup
12773         \hyper@chars
12774         \special{t4ht=<a href=%
12775           \hyper@quote\#\HyperDestNameFilter{#2}\hyper@quote>}%
12776         \endgroup
12777       \fi
12778 }
12779 \def\hyper@linkend{%
12780   \special{t4ht=</a>}%
12781   \Hy@endcolorlink
12782 }
12783 \def\hyper@linkfile#1#2#3{%
12784   \hyper@linkurl{#1}{\Hy@linkfileprefix#2\ifx\\#3\\\else\##3\fi}%
12785 }
12786 \def\hyper@linkurl#1#2{%
12787   \leavevmode
12788   \ifHy@raiselinks
12789     \Hy@SaveSpaceFactor
12790     \Hy@SaveSavedSpaceFactor
12791     \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
12792     \Hy@RestoreSavedSpaceFactor
12793     \@linkdim\dp\@tempboxa
12794     \lower\@linkdim\hbox{%
12795       \begingroup
12796         \hyper@chars
12797         \special{%
12798           t4ht=<a href=\hyper@quote#2\hyper@quote>%
12799         }%
12800       \endgroup
12801     }%
12802     \Hy@colorlink\@urlcolor
12803     \Hy@RestoreSpaceFactor
12804     #1\Hy@xspace@end
12805     \Hy@SaveSpaceFactor
12806     \Hy@endcolorlink
12807     \@linkdim\ht\@tempboxa
12808     \advance\@linkdim by -6.5\p@
12809     \raise\@linkdim\hbox{\special{t4ht=</a>}}%
12810     \Hy@RestoreSpaceFactor
12811   \else
12812     \begingroup
12813       \hyper@chars
12814       \special{t4ht=<a href=\hyper@quote#2\hyper@quote>}%

```

```

12815 \Hy@colorlink\@urlcolor
12816 #1\Hy@xspace@end
12817 \Hy@endcolorlink
12818 \special{t4ht=</a>}%
12819 \endgroup
12820 \fi
12821 }

Poor implementation of \hyper@link without considering #1.
12822 \def\hyper@link#1#2#3{%
12823 \Hy@VerboseLinkStart{#1}{#2}%
12824 \hyper@linkurl{#3}{\#\HyperDestNameFilter{#2}}%
12825 }
12826 \def\hyper@image#1#2{%
12827 \begingroup
12828 \hyper@chars
12829 \special{t4ht=<img src=\hyper@quote#1\hyper@quote>}%
12830 \endgroup
12831 }
12832 \let\autoref\ref
12833 \ifx \rEFLiNK \UnDef
12834 \def\rEFLiNK #1#2{#2}%
12835 \fi
12836 \let\backref\ltx@gobble

Fix for tex4ht.
12837 \AtBeginDocument{%
12838 \expandafter
12839 \let\expandafter\Hy@OrgMakeLabel\csname Make:Label\endcsname
12840 \expandafter\def\csname Make:Label\endcsname#1#2{%
12841 \ifhmode
12842 \Hy@SaveSpaceFactor
12843 \else
12844 \global\Hy@SavedSpaceFactor=1000 %
12845 \fi
12846 \Hy@OrgMakeLabel{#1}{%
12847 \Hy@RestoreSpaceFactor
12848 #2\Hy@xspace@end%
12849 \Hy@SaveSpaceFactor
12850 }%
12851 \Hy@RestoreSpaceFactor
12852 }%
12853 }
12854 </tex4ht>
12855 <*tex4htcfg>
12856 \IfFileExists{jobname.cfg}{\endinput}{}
12857 \Preamble{html}
12858 \begin{document}%
12859 \EndPreamble
12860 \def\TeX{TeX}
12861 \def\OMEGA{Omega}
12862 \def\LaTeX{LaTeX}
12863 \def\LaTeXe{LaTeX2e}
12864 \def\TeX{e-TeX}
12865 \def\MF{Metafont}
12866 \def\MP{MetaPost}
12867 </tex4htcfg>

```

48 Driver-specific form support

48.1 pdfmarks

```
12868 (*pdfmark)
12869 \long\def\@Form[#1]{%
12870 \g@addto@macro\Hy@FirstPageHook{%
12871 \headerps@out{%
12872 [%
12873 /_objdef{pdfDocEncoding}%
12874 /type/dict%
12875 /OBJ pdfmark%
12876 [%
12877 {pdfDocEncoding}%
12878 <<%
12879 /Type/Encoding%
12880 /Differences[%
12881 24/breve/caron/circumflex/dotaccent/hungarumlaut/ogonek/ring%
12882 /tilde %
12883 39/quotesingle %
12884 96/grave %
12885 128/bullet/dagger/daggerdbl/ellipsis/emdash/endash/florin%
12886 /fraction/guilsinglleft/guilsinglright/minus/perthousand%
12887 /quotedblbase/quotedblleft/quotedblright/quoteleft%
12888 /quoteright/quotesinglbase/trademark/fi/fl/Lslash/OE/Scaron%
12889 /Ydieresis/Zcaron/dotlessi/lslash/oe/scaron/zcaron %
12890 164/currency %
12891 166/brokenbar %
12892 168/dieresis/copyright/ordfeminine %
12893 172/logicalnot/.notdef/registered/macron/degree/plusminus%
12894 /twosuperior/threesuperior/acute/mu %
12895 183/periodcentered/cedilla/onesuperior/ordmasculine %
12896 188/onequarter/onehalf/threequarters %
12897 192/Agrave/Aacute/Acircumflex/Atilde/Adieresis/Aring/AE%
12898 /Ccedilla/Egrave/Eacute/Ecircumflex/Edieresis/Igrave%
12899 /Iacute/Icircumflex/Idieresis/Eth/Ntilde/Ograve/Oacute%
12900 /Ocircumflex/Otilde/Odieresis/multiply/Oslash/Ugrave%
12901 /Uacute/Ucircumflex/Udieresis/Yacute/Thorn/germandbls%
12902 /agrave/aacute/acircumflex/atilde/adieresis/aring/ae%
12903 /ccedilla/egrave/eacute/ecircumflex/edieresis/igrave%
12904 /iacute/icircumflex/idieresis/eth/ntilde/ograde/oacute%
12905 /ocircumflex/otilde/odieresis/divide/oslash/ugrave/uacute%
12906 /ucircumflex/udieresis/yacute/thorn/ydieresis%
12907 ]%
12908 >>%
12909 /PUT pdfmark%
12910 [%
12911 /_objdef{ZaDb}%
12912 /type/dict%
12913 /OBJ pdfmark%
12914 [%
12915 {ZaDb}%
12916 <<%
12917 /Type/Font%
12918 /Subtype/Type1%
12919 /Name/ZaDb%
12920 /BaseFont/ZapfDingbats%
12921 >>%
```

```

12922 /PUT pdfmark%
12923 [%
12924   /__objdef{Helv}%
12925   /type/dict%
12926 /OBJ pdfmark%
12927 [%
12928   {Helv}%
12929   <<%
12930     /Type/Font%
12931     /Subtype/Type1%
12932     /Name/Helv%
12933     /BaseFont/Helvetica%
12934     /Encoding{pdfDocEncoding}%
12935   >>%
12936 /PUT pdfmark%
12937 [%
12938   /__objdef{aform}%
12939   /type/dict%
12940 /OBJ pdfmark%
12941 [%
12942   /__objdef{afields}%
12943   /type/array%
12944 /OBJ pdfmark%
12945 {%
12946   [%
12947     /BBox[0 0 100 100]%
12948     /__objdef{Check}%
12949 /BP pdfmark %
12950   1 0 0 setrgbcolor%
12951   /ZapfDingbats 80 selectfont %
12952   20 20 moveto%
12953   (4)show%
12954 [/EP pdfmark%
12955 [%
12956   /BBox[0 0 100 100]%
12957   /__objdef{Cross}%
12958 /BP pdfmark %
12959   1 0 0 setrgbcolor%
12960   /ZapfDingbats 80 selectfont %
12961   20 20 moveto%
12962   (8)show%
12963 [/EP pdfmark%
12964 [%
12965   /BBox[0 0 250 100]%
12966   /__objdef{Submit}%
12967 /BP pdfmark %
12968   0.6 setgray %
12969   0 0 250 100 rectfill %
12970   1 setgray %
12971   2 2 moveto %
12972   2 98 lineto %
12973   248 98 lineto %
12974   246 96 lineto %
12975   4 96 lineto %
12976   4 4 lineto %
12977   fill %
12978   0.34 setgray %

```



```

12979 248 98 moveto %
12980 248 2 lineto %
12981 2 2 lineto %
12982 4 4 lineto %
12983 246 4 lineto %
12984 246 96 lineto %
12985 fill%
12986 /Helvetica 76 selectfont %
12987 0 setgray %
12988 8 22.5 moveto%
12989 (Submit)show%
12990 [/EP pdfmark%
12991 [%
12992 /BBox[0 0 250 100]%
12993 /_objdef{SubmitP}%
12994 /BP pdfmark %
12995 0.6 setgray %
12996 0 0 250 100 rectfill %
12997 0.34 setgray %
12998 2 2 moveto %
12999 2 98 lineto %
13000 248 98 lineto %
13001 246 96 lineto %
13002 4 96 lineto %
13003 4 4 lineto %
13004 fill %
13005 1 setgray %
13006 248 98 moveto %
13007 248 2 lineto %
13008 2 2 lineto %
13009 4 4 lineto %
13010 246 4 lineto %
13011 246 96 lineto %
13012 fill%
13013 /Helvetica 76 selectfont %
13014 0 setgray %
13015 10 20.5 moveto%
13016 (Submit)show%
13017 [/EP pdfmark%
13018 } ?pdfmark%
13019 [%
13020 {aform}%
13021 <<%
13022 /Fields{afields}%
13023 /DR<<%
13024 /Font<<%
13025 /ZaDb{ZaDb}%
13026 /Helv{Helv}%
13027 >>%
13028 >>%
13029 /DA(/Helv 10 Tf 0 g)%
13030 /CO{corder}%
13031 \ifHy@pdfa
13032 \else
13033 \ifHyField@NeedAppearances
13034 /NeedAppearances true%
13035 \fi

```

```

13036 \fi
13037 >>%
13038 /PUT pdfmark%
13039 [%
13040 {Catalog}%
13041 <<%
13042 /AcroForm{aform}%
13043 >>%
13044 /PUT pdfmark%
13045 [%
13046 /_objdef{corder}%
13047 /type/array%
13048 /OBJ pdfmark% dps
13049 }}%
13050 \kvsetkeys{Form}{#1}%
13051 }
13052 \let\@endForm\tx@empty
13053 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
13054 \Hy@Message{Sorry, pdfmark drivers do not support FORM gauges}%
13055 }
13056 \edef\Fld@pageobjref{/P\string{ThisPage\string}}
13057 \def\@TextField[#1]#2{% parameters, label
13058 \def\Fld@name{#2}%
13059 \let\Fld@default\tx@empty
13060 \let\Fld@value\@empty
13061 \def\Fld@width{\DefaultWidthofText}%
13062 \def\Fld@height{%
13063 \ifFld@multiline
13064 \DefaultHeightofTextMultiline
13065 \else
13066 \DefaultHeightofText
13067 \fi
13068 }%
13069 \begingroup
13070 \expandafter\HyField@SetKeys\expandafter{%
13071 \DefaultOptionsofText,#1%
13072 }%
13073 \HyField@FlagsText
13074 \ifFld@hidden\def\Fld@width{1sp}\fi
13075 \ifx\Fld@value\@empty\def\Fld@value{\Fld@default}\fi
13076 \LayoutTextField{#2}{%
13077 \leavevmode
13078 \Hy@escapeform\PDFForm@Text
13079 \pdfmark[\MakeTextField{\Fld@width}{\Fld@height}]{%
13080 pdfmark=/ANN,Raw={\PDFForm@Text}%
13081 }%
13082 }%
13083 \endgroup
13084 }
13085 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13086 \def\Fld@name{#2}%
13087 \let\Fld@default\relax
13088 \let\Fld@value\relax
13089 \def\Fld@width{\DefaultWidthofChoiceMenu}%
13090 \def\Fld@height{\DefaultHeightofChoiceMenu}%
13091 \begingroup
13092 \Fld@menulength=0 %

```

```

13093 \@tempdima\z@
13094 \@for\@curropt:=#3\do{%
13095   \expandafter\Fld@checkequals\@curropt==\\%
13096   \Hy@StepCount\Fld@menulength
13097   \settowidth{\@tempdimb}{\@currDisplay}%
13098   \ifdim\@tempdimb>\@tempdima\@tempdima\@tempdimb\fi
13099 }%
13100 \advance\@tempdima by 15\p@
13101 \begingroup
13102   \HyField@SetKeys{#1}%
13103 \edef\x{\endgroup
13104   \noexpand\expandafter
13105   \noexpand\HyField@SetKeys
13106   \noexpand\expandafter{%
13107     \expandafter\noexpand\csname DefaultOptionsof%
13108       \ifFld@radio
13109         Radio%
13110       \else
13111         \ifFld@combo
13112         \ifFld@popdown
13113         PopdownBox%
13114       \else
13115         ComboBox%
13116       \fi
13117     \else
13118       ListBox%
13119     \fi
13120   \fi
13121   \endcsname
13122 }%
13123 }\x
13124 \HyField@SetKeys{#1}%
13125 \ifFld@hidden\def\Fld@width{1sp}\fi
13126 \ifx\Fld@value\relax
13127   \let\Fld@value\Fld@default
13128 \fi
13129 \LayoutChoiceField{#2}{%
13130   \ifFld@radio
13131     \HyField@FlagsRadioButton
13132     \@@Radio{#3}%
13133   \else
13134     \begingroup
13135     \HyField@FlagsChoice
13136     \ifdim\Fld@width<\@tempdima
13137       \ifdim\@tempdima<1cm\@tempdima1cm\fi
13138     \edef\Fld@width{\the\@tempdima}%
13139     \fi
13140     \ifFld@combo
13141     \else
13142       \@tempdima=\the\Fld@menulength\Fld@charsize
13143       \advance\@tempdima by \Fld@borderwidth bp %
13144       \advance\@tempdima by \Fld@borderwidth bp %
13145     \edef\Fld@height{\the\@tempdima}%
13146     \fi
13147     \@@ListBox{#3}%
13148   \endgroup
13149 \fi

```

```

13150 }%
13151 \endgroup
13152 }
13153 \def\@@Radio#1{%
13154 \Fld@listcount=0 %
13155 \EdefEscapeName\Fld@default{\Fld@default}%
13156 \@for\@curropt:=#1\do{%
13157 \expandafter\Fld@checkequals\@curropt==\%
13158 \EdefEscapeName\@currValue{\@currValue}%
13159 \Hy@StepCount\Fld@listcount
13160 \@currDisplay\space
13161 \Hy@escapeform\PDFForm@Radio
13162 \pdfmark[\MakeRadioField{\Fld@width}{\Fld@height}]{%
13163 pdfmark=/ANN,%
13164 Raw={%
13165 \PDFForm@Radio /AP <</N <</\@currValue\space {Check}>> >>%
13166 }%
13167 } % deliberate space between radio buttons
13168 }%
13169 }
13170 \newcount\Fld@listcount
13171 \def\@@Listbox#1{%
13172 \HyField@PDFChoices{#1}%
13173 \Hy@escapeform\PDFForm@List
13174 \pdfmark[\MakeChoiceField{\Fld@width}{\Fld@height}]{%
13175 pdfmark=/ANN,Raw={\PDFForm@List}%
13176 }%
13177 }
13178 \def\@PushButton[#1]#2{% parameters, label
13179 \def\Fld@name{#2}%
13180 \begingroup
13181 \expandafter\HyField@SetKeys\expandafter{%
13182 \DefaultOptionsofPushButton,#1%
13183 }%
13184 \ifHy@pdfa
13185 \Hy@Error{%
13186 PDF/A: Push button with JavaScript is prohibited%
13187 }\@ehc
13188 \LayoutPushButtonField{%
13189 \leavevmode
13190 \MakeButtonField{#2}%
13191 }%
13192 \else
13193 \HyField@FlagsPushButton
13194 \ifFld@hidden\def\Fld@width{1sp}\fi
13195 \LayoutPushButtonField{%
13196 \leavevmode
13197 \Hy@escapeform\PDFForm@Push
13198 \pdfmark[\MakeButtonField{#2}]{%
13199 pdfmark=/ANN,Raw={\PDFForm@Push}%
13200 }%
13201 }%
13202 \fi
13203 \endgroup
13204 }
13205 \def\@Submit[#1]#2{%
13206 \def\Fld@width{\DefaultWidthofSubmit}%

```

```

13207 \def\Fld@height{\DefaultHeightofSubmit}%
13208 \begingroup
13209 \expandafter\HyField@SetKeys\expandafter{%
13210 \DefaultOptionsofSubmit,#1%
13211 }%
13212 \HyField@FlagsPushButton
13213 \HyField@FlagsSubmit
13214 \ifFld@hidden\def\Fld@width{1sp}\fi
13215 \Hy@escapeform\PDFForm@Submit
13216 \pdfmark[\MakeButtonField{#2}]{%
13217 pdfmark=/ANN,%
13218 Raw={\PDFForm@Submit /AP << /N {Submit} /D {SubmitP} >>}%
13219 }%
13220 \endgroup
13221 }
13222 \def\@Reset[#1]#2{%
13223 \def\Fld@width{\DefaultWidthofReset}%
13224 \def\Fld@height{\DefaultHeightofReset}%
13225 \begingroup
13226 \expandafter\HyField@SetKeys\expandafter{%
13227 \DefaultOptionsofReset,#1%
13228 }%
13229 \leavevmode
13230 \ifHy@pdfa
13231 \Hy@Error{%
13232 PDF/A: Reset action is prohibited%
13233 }\@ehc
13234 \MakeButtonField{#2}%
13235 \else
13236 \HyField@FlagsPushButton
13237 \ifFld@hidden\def\Fld@width{1sp}\fi
13238 \Hy@escapeform\PDFForm@Reset
13239 \pdfmark[\MakeButtonField{#2}]{%
13240 pdfmark=/ANN,Raw={\PDFForm@Reset}%
13241 }%
13242 \fi
13243 \endgroup
13244 }%
13245 \def\@CheckBox[#1]#2{% parameters, label
13246 \def\Fld@name{#2}%
13247 \def\Fld@default{0}%
13248 \begingroup
13249 \def\Fld@width{\DefaultWidthofCheckBox}%
13250 \def\Fld@height{\DefaultHeightofCheckBox}%
13251 \expandafter\HyField@SetKeys\expandafter{%
13252 \DefaultOptionsofCheckBox,#1%
13253 }%
13254 \HyField@FlagsCheckBox
13255 \ifFld@hidden\def\Fld@width{1sp}\fi
13256 \LayoutCheckField{#2}{%
13257 \leavevmode
13258 \Hy@escapeform\PDFForm@Check
13259 \pdfmark[\MakeCheckField{\Fld@width}{\Fld@height}]{%
13260 pdfmark=/ANN,Raw={\PDFForm@Check}%
13261 }%
13262 }%
13263 \endgroup

```

```

13264 }
13265 </pdfmark>

```

48.2 HyperTeX

```

13266 <*hypertex>
13267 \def\@Form[#1]{%
13268   \Hy@Message{Sorry, HyperTeX does not support FORMs}%
13269 }
13270 \let\@endForm\ltx@empty
13271 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
13272   \Hy@Message{Sorry, HyperTeX does not support FORM gauges}%
13273 }
13274 \def\@TextField[#1]#2{% parameters, label
13275   \Hy@Message{Sorry, HyperTeX does not support FORM text fields}%
13276 }
13277 \def\@CheckBox[#1]#2{% parameters, label
13278   \Hy@Message{Sorry, HyperTeX does not support FORM checkboxes}%
13279 }
13280 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13281   \Hy@Message{Sorry, HyperTeX does not support FORM choice menus}%
13282 }
13283 \def\@PushButton[#1]#2{% parameters, label
13284   \Hy@Message{Sorry, HyperTeX does not support FORM pushbuttons}%
13285 }
13286 \def\@Reset[#1]#2{%
13287   \Hy@Message{Sorry, HyperTeX does not support FORMs}%
13288 }
13289 \def\@Submit[#1]#2{%
13290   \Hy@Message{Sorry, HyperTeX does not support FORMs}%
13291 }
13292 </hypertex>

```

48.3 TeX4ht

```

13293 <*tex4ht>
13294 \def\@Form[#1]{%
13295   \kvsetkeys{Form}{#1}%
13296   \HCode{<form action="\Form@action" method="\Form@method">}%
13297 }
13298 \def\@endForm{\HCode{</form>}}
13299 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
13300   \Hy@Message{Sorry, TeX4ht does not support gauges}%
13301 }
13302 \def\@TextField[#1]#2{% parameters, label
13303   \let\Hy@reserved@a\@empty
13304   \def\Fld@name{#2}%
13305   \let\Fld@default\ltx@empty
13306   \bgroup
13307     \Field@toks={ }%
13308     \kvsetkeys{Field}{#1}%
13309     \HCode{<label for="\Fld@name">#2</label>}%
13310     \ifFld@password
13311       \@@PasswordField
13312     \else
13313       \@@TextField
13314     \fi
13315   \egroup
13316 }

```

```

13317 \def\@@PasswordField{%
13318   \HCode{%
13319     <input type="password" %
13320       id="\Fld@name" %
13321       name="\Fld@name" %
13322       \ifFld@hidden type="hidden" \fi
13323       value="\Fld@default" %
13324       \the\Field@toks
13325     >%
13326   }%
13327 }
13328 \def\@@TextField{%
13329   \ifFld@multiline
13330     \HCode{<textarea %
13331       \ifFld@readonly readonly \fi
13332       id="\Fld@name" %
13333       name="\Fld@name" %
13334       \ifFld@hidden type="hidden" \fi
13335       \the\Field@toks>%
13336     }%
13337     \Fld@default
13338     \HCode{</textarea>}%
13339   \else
13340     \HCode{<input type="text" %
13341       \ifFld@readonly readonly \fi
13342       id="\Fld@name" %
13343       name="\Fld@name" %
13344       \ifFld@hidden type="hidden" \fi
13345       value="\Fld@default" %
13346       \the\Field@toks>%
13347     }%
13348   \fi
13349 }
13350 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13351   \def\Fld@name{#2}%
13352   \let\Fld@default\ltx@empty
13353   \let\Hy@reserved@a\relax
13354   \begingroup
13355     \expandafter\Fld@findlength#3\\%
13356     \Field@toks={ }%
13357     \kvsetkeys{Field}{#1}%
13358     #2%
13359     \ifFld@radio
13360       \expandafter\@@Radio#3\\%
13361     \else
13362       \expandafter\@@Menu#3\\%
13363     \fi
13364   \endgroup
13365 }
13366 \def\Fld@findlength#1\\{%
13367   \Fld@menulength=0 %
13368   \@for\@currupt:=#1\do{\Hy@StepCount\Fld@menulength}%
13369 }
13370 \def\@@Menu#1\\{%
13371   \HCode{<select size="\the\Fld@menulength" %
13372     name="\Fld@name" %
13373     \the\Field@toks>%

```

```

13374 }%
13375 \@for\@curropt:=#1\do{%
13376   \expandafter\Fld@ckekequals\@curropt==\\%
13377   \HCode{<option %
13378     \ifx\@curropt\Fld@default selected \fi
13379     value="\@currValue">\@currDisplay</option>%
13380   }%
13381 }%
13382 \HCode{</select>}%
13383 }
13384 \def\@@Radio#1\\{%
13385   \@for\@curropt:=#1\do{%
13386     \expandafter\Fld@ckekequals\@curropt==\\%
13387     \HCode{<input type="radio" %
13388       \ifx\@curropt\Fld@default checked \fi
13389       name="\Fld@name" %
13390       value="\@currValue" %
13391       \the\Fld@toks>%
13392     }%
13393     \@currDisplay
13394   }%
13395 }
13396 \def\@PushButton[#1]#2{% parameters, label
13397   \def\Fld@name{#2}%
13398   \bgroup
13399   \Field@toks={ }%
13400   \kvsetkeys{Field}{#1}%
13401   \HCode{<input type="button" %
13402     name="\Fld@name" %
13403     value="#2" %
13404     \the\Fld@toks>%
13405   }%
13406   \HCode{</button>}%
13407   \egroup
13408 }
13409 \def\@Submit[#1]#2{%
13410   \HCode{<button type="submit">#2</button>}%
13411 }
13412 \def\@Reset[#1]#2{%
13413   \HCode{<button type="reset">#2</button>}%
13414 }
13415 \def\@CheckBox[#1]#2{% parameters, label
13416   \let\Hy@reserved@a\@empty
13417   \def\Fld@name{#2}%
13418   \def\Fld@default{0}%
13419   \bgroup
13420   \Field@toks={ }%
13421   \kvsetkeys{Field}{#1}%
13422   \HCode{<input type="checkbox" %
13423     \ifFld@checked checked \fi
13424     \ifFld@disabled disabled \fi
13425     \ifFld@readonly readonly \fi
13426     name="\Fld@name" %
13427     \ifFld@hidden type="hidden" \fi
13428     value="\Fld@default" %
13429     \the\Fld@toks>%
13430   #2%

```



```

13431 }%
13432 \egroup
13433 }
13434 </tex4ht>

```

48.4 pdfTeX

```

13435 (*pdfTeX)
13436 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
13437 \Hy@Message{Sorry, pdfTeX does not support FORM gauges}%
13438 }
13439 \def\MakeFieldObject#1#2{\sbox0{#1}%
13440 \immediate\pdfxform0 %
13441 \expandafter\edef\csname #2Object\endcsname{%
13442 \the\pdfastxform\space 0 R%
13443 }%
13444 % \hbox to Opt{\hskip-\maxdimen{\pdfrefxform \the\pdfastxform}}}%
13445 }%
13446 \let\HyField@afields\ltx@empty
13447 \begingroup\expandafter\expandafter\expandafter\endgroup
13448 \expandafter\ifx\csname pdfastlink\endcsname\relax
13449 \let\HyField@AddToFields\relax
13450 \PackageInfo{hyperref}{%
13451 You need pdfTeX 1.40.0 for setting the /Fields entry.%
13452 \MessageBreak
13453 Adobe Reader/Acrobat accepts an empty /Field array,%
13454 \MessageBreak
13455 but other PDF viewers might complain%
13456 }%
13457 \else
13458 \let\HyField@AuxAddToFields\ltx@gobble
13459 \def\HyField@AfterAuxOpen{\Hy@AtBeginDocument}%
13460 \Hy@AtBeginDocument{%
13461 \if@filesw
13462 \immediate\write\@mainaux{%
13463 \string\providecommand\string\HyField@AuxAddToFields[1]{}%
13464 }%
13465 \fi
13466 \let\HyField@AfterAuxOpen\@firstofone
13467 \def\HyField@AuxAddToFields#1{%
13468 \xdef\HyField@afields{%
13469 \ifx\HyField@afields\@empty
13470 \else
13471 \HyField@afields
13472 \space
13473 \fi
13474 #1 0 R%
13475 }%
13476 }%
13477 }%
13478 \def\HyField@AddToFields{%
13479 \expandafter\HyField@@AddToFields\expandafter{%
13480 \the\pdfastlink
13481 }%
13482 }%
13483 \def\HyField@@AddToFields#1{%
13484 \HyField@AfterAuxOpen{%
13485 \if@filesw

```

```

13486     \write\@mainaux{%
13487     \string\HyField@AuxAddToFields{#1}%
13488     }%
13489     \fi
13490 }%
13491 }%
13492 \fi
13493 \def\@Form[#1]{%
13494   \@ifundefined{textcolor}{\let\textcolor\@gobble}{}%
13495   \kvsetkeys{Form}{#1}%
13496   \pdf@ifdraftmode{}{%
13497     \Hy@FormObjects
13498     \ifnum\pdfTeXversion>13 %
13499       \pdfrefobj\OBJ@pdfdocencoding
13500       \pdfrefobj\OBJ@ZaDb
13501       \pdfrefobj\OBJ@Helv
13502     \fi
13503     \AtVeryEndDocument{%
13504       \immediate\pdfobj{%
13505         <<%
13506         /Fields[\HyField@afields]%
13507         /DR<<%
13508         /Font<<%
13509           /ZaDb \OBJ@ZaDb\space 0 R%
13510           /Helv \OBJ@Helv\space 0 R%
13511         >>%
13512         >>%
13513         /DA(/Helv 10 Tf 0 g)%
13514         \ifHy@pdfa
13515         \else
13516           \ifHyField@NeedAppearances
13517           /NeedAppearances true%
13518         \fi
13519         \fi
13520         >>%
13521       }%
13522       \edef\OBJ@acroform{\the\pdflastobj}%
13523       \pdfcatalog{/AcroForm \OBJ@acroform\space 0 R}%
13524     }%
13525   }%
13526   \MakeFieldObject{%

```

Same as \ding{123} of package pifont.

```

13527   \beginngroup
13528   \fontfamily{pzd}%
13529   \fontencoding{U}%
13530   \fontseries{m}%
13531   \fontshape{n}%
13532   \selectfont
13533   \char123 %
13534   \endgroup
13535 }{Ding}%
13536 \MakeFieldObject{%
13537   \fbox{\textcolor{yellow}{\textsf{Submit}}}%
13538 }{Submit}%
13539 \MakeFieldObject{%
13540   \fbox{\textcolor{yellow}{\textsf{SubmitP}}}%
13541 }{SubmitP}%

```

```

13542 }
13543 \let\@endForm\ltx@empty
13544 \let\HyAnn@AbsPageLabel\ltx@empty
13545 \let\Fld@pageobjref\ltx@empty
13546 \ltx@ifundefined{pdfpageref}{%
13547 }{%
13548 \ltx@ifpackageloaded{zref-abspage}{%
13549 \newcount\HyAnn@Count
13550 \HyAnn@Count=\ltx@zero
13551 \def\HyAnn@AbsPageLabel{%
13552 \global\advance\HyAnn@Count by\ltx@one
13553 \zref@labelbyprops{HyAnn@\the\HyAnn@Count}{abspage}%
13554 \zref@refused{HyAnn@\the\HyAnn@Count}%
13555 }%
13556 \def\Fld@pageobjref{%
13557 \zref@ifrefundefined{HyAnn@\the\HyAnn@Count}{%
13558 }{%
13559 \zref@ifrefcontainsprop{HyAnn@\the\HyAnn@Count}{abspage}{%
13560 /P \pdfpageref
13561 \zref@extractdefault{HyAnn@\the\HyAnn@Count}{abspage}{1} %
13562 \space 0 R%
13563 }{%
13564 }%
13565 }%
13566 }%
13567 }{%
13568 }%
13569 }

13570 \def\@TextField[#1]#2{% parameters, label
13571 \def\Fld@name{#2}%
13572 \let\Fld@default\ltx@empty
13573 \let\Fld@value\@empty
13574 \def\Fld@width{\DefaultWidthofText}%
13575 \def\Fld@height{%
13576 \ifFld@multiline
13577 \DefaultHeightofTextMultiline
13578 \else
13579 \DefaultHeightofText
13580 \fi
13581 }%
13582 \begingroup
13583 \expandafter\HyField@SetKeys\expandafter{%
13584 \DefaultOptionsofText,#1%
13585 }%
13586 \PDFForm@Name
13587 \HyField@FlagsText
13588 \ifFld@hidden\def\Fld@width{1sp}\fi
13589 \ifx\Fld@value\@empty\def\Fld@value{\Fld@default}\fi
13590 \LayoutTextField{#2}{%
13591 \leavevmode
13592 \HyAnn@AbsPageLabel
13593 \Hy@escapeform\PDFForm@Text
13594 \pdfstartlink user {\PDFForm@Text}\relax
13595 \MakeTextField{\Fld@width}{\Fld@height}\pdfendlink
13596 \HyField@AddToFields
13597 }%
13598 \endgroup

```

```

13599 }
13600 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13601   \def\Fld@name{#2}%
13602   \let\Fld@default\relax
13603   \let\Fld@value\relax
13604   \def\Fld@width{\DefaultWidthofChoiceMenu}%
13605   \def\Fld@height{\DefaultHeightofChoiceMenu}%
13606   \begingroup
13607     \Fld@menulength=0 %
13608     \@tempdima\z@
13609     \@for\@curropt:=#3\do{%
13610       \expandafter\Fld@checkequals\@curropt==\\%
13611       \Hy@StepCount\Fld@menulength
13612       \settowidth{\@tempdimb}{\@currDisplay}%
13613       \ifdim\@tempdimb>\@tempdima\@tempdima\@tempdimb\fi
13614     }%
13615     \advance\@tempdima by 15\p@
13616     \begingroup
13617       \HyField@SetKeys{#1}%
13618     \edef\x{\endgroup
13619       \noexpand\expandafter
13620       \noexpand\HyField@SetKeys
13621       \noexpand\expandafter{%
13622         \expandafter\noexpand\csname DefaultOptionsof%
13623           \ifFld@radio
13624             Radio%
13625           \else
13626             \ifFld@combo
13627               \ifFld@popdown
13628                 PopdownBox%
13629               \else
13630                 ComboBox%
13631               \fi
13632             \else
13633               ListBox%
13634             \fi
13635           \fi
13636         \endcsname
13637       }%
13638     }\x
13639     \HyField@SetKeys{#1}%
13640     \PDFForm@Name
13641     \ifFld@hidden\def\Fld@width{1sp}\fi
13642     \ifx\Fld@value\relax
13643       \let\Fld@value\Fld@default
13644     \fi
13645     \LayoutChoiceField{#2}{%
13646       \ifFld@radio
13647         \HyField@FlagsRadioButton
13648         \@@Radio{#3}%
13649       \else
13650         \begingroup
13651         \HyField@FlagsChoice
13652         \ifdim\Fld@width<\@tempdima
13653           \ifdim\@tempdima<1cm\@tempdima1cm\fi
13654         \edef\Fld@width{\the\@tempdima}%
13655         \fi

```

```

13656     \ifFld@combo
13657     \else
13658         \@tempdima=\the\Fld@menulength\Fld@charsize
13659         \advance\@tempdima by \Fld@borderwidth bp %
13660         \advance\@tempdima by \Fld@borderwidth bp %
13661         \edef\Fld@height{\the\@tempdima}%
13662     \fi
13663     \@@ListBox{#3}%
13664 \endgroup
13665 \fi
13666 }%
13667 \endgroup
13668 }
13669 \def\@@Radio#1{%
13670 \Fld@listcount=0 %
13671 \EdefEscapeName\Fld@default{\Fld@default}%
13672 \@for\@curropt:=#1\do{%
13673     \expandafter\Fld@checkequals\@curropt==\%
13674     \EdefEscapeName\@currValue{\@currValue}%
13675     \Hy@StepCount\Fld@listcount
13676     \@currDisplay\space
13677     \leavevmode
13678     \HyAnn@AbsPageLabel
13679     \Hy@escapeform\PDFForm@Radio
13680     \pdfstartlink user {%
13681         \PDFForm@Radio
13682         /AP<<%
13683         /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.

```

13684     /\@currValue\space \DingObject
13685     >>%
13686     >>%
13687 }%
13688 \relax
13689 \MakeRadioField{\Fld@width}{\Fld@height}\pdfendlink
13690 \ifnum\Fld@listcount=1 %
13691     \HyField@AddToFields
13692 \fi
13693 \space % deliberate space between radio buttons
13694 }%
13695 }
13696 \newcount\Fld@listcount
13697 \def\@@ListBox#1{%
13698 \HyField@PDFChoices{#1}%
13699 \leavevmode
13700 \HyAnn@AbsPageLabel
13701 \Hy@escapeform\PDFForm@List
13702 \pdfstartlink user {\PDFForm@List}\relax
13703 \MakeChoiceField{\Fld@width}{\Fld@height}%
13704 \pdfendlink
13705 \HyField@AddToFields
13706 }
13707 \def\@PushButton[#1]#2{% parameters, label
13708 \def\Fld@name{#2}%
13709 \begingroup

```

```

13710 \expandafter\HyField@SetKeys\expandafter{%
13711 \DefaultOptionsofPushButton,#1%
13712 }%
13713 \PDFForm@Name
13714 \ifHy@pdfa
13715 \Hy@Error{%
13716 PDF/A: Push button with JavaScript is prohibited%
13717 } \@ehc
13718 \LayoutPushButtonField{%
13719 \leavevmode
13720 \MakeButtonField{#2}%
13721 }%
13722 \else
13723 \HyField@FlagsPushButton
13724 \ifFld@hidden\def\Fld@width{1sp}\fi
13725 \LayoutPushButtonField{%
13726 \leavevmode
13727 \HyAnn@AbsPageLabel
13728 \Hy@escapeform\PDFForm@Push
13729 \pdfstartlink user {\PDFForm@Push}\relax
13730 \MakeButtonField{#2}%
13731 \pdfendlink
13732 \HyField@AddToFields
13733 }%
13734 \fi
13735 \endgroup
13736 }
13737 \def\@Submit[#1]#2{%
13738 \def\Fld@width{\DefaultWidthofSubmit}%
13739 \def\Fld@height{\DefaultHeightofSubmit}%
13740 \begingroup
13741 \expandafter\HyField@SetKeys\expandafter{%
13742 \DefaultOptionsofSubmit,#1%
13743 }%
13744 \HyField@FlagsPushButton
13745 \HyField@FlagsSubmit
13746 \ifFld@hidden\def\Fld@width{1sp}\fi
13747 \leavevmode
13748 \HyAnn@AbsPageLabel
13749 \Hy@escapeform\PDFForm@Submit
13750 \pdfstartlink user {%
13751 \PDFForm@Submit
13752 /AP<</N \SubmitObject/D \SubmitPObject>>%
13753 }%
13754 \relax
13755 \MakeButtonField{#2}%
13756 \pdfendlink
13757 \HyField@AddToFields
13758 \endgroup
13759 }
13760 \def\@Reset[#1]#2{%
13761 \def\Fld@width{\DefaultWidthofReset}%
13762 \def\Fld@height{\DefaultHeightofReset}%
13763 \begingroup
13764 \expandafter\HyField@SetKeys\expandafter{%
13765 \DefaultOptionsofReset,#1%
13766 }%

```

```

13767 \leavevmode
13768 \ifHy@pdfa
13769 \Hy@Error{%
13770 PDF/A: Reset action is prohibited%
13771 } \@ehc
13772 \MakeButtonField{#2}%
13773 \else
13774 \HyField@FlagsPushButton
13775 \ifFld@hidden\def\Fld@width{1sp}\fi
13776 \HyAnn@AbsPageLabel
13777 \Hy@escapeform\PDFForm@Reset
13778 \pdfstartlink user {\PDFForm@Reset}\relax
13779 \MakeButtonField{#2}%
13780 \pdfendlink
13781 \HyField@AddToFields
13782 \fi
13783 \endgroup
13784 }
13785 \def\@CheckBox[#1]#2{% parameters, label
13786 \def\Fld@name{#2}%
13787 \def\Fld@default{0}%
13788 \begingroup
13789 \def\Fld@width{\DefaultWidthofCheckBox}%
13790 \def\Fld@height{\DefaultHeightofCheckBox}%
13791 \expandafter\HyField@SetKeys\expandafter{%
13792 \DefaultOptionsofCheckBox,#1%
13793 }%
13794 \PDFForm@Name
13795 \HyField@FlagsCheckBox
13796 \ifFld@hidden\def\Fld@width{1sp}\fi
13797 \LayoutCheckField{#2}{%
13798 \leavevmode
13799 \HyAnn@AbsPageLabel
13800 \Hy@escapeform\PDFForm@Check
13801 \pdfstartlink user {\PDFForm@Check}\relax
13802 \MakeCheckField{Fld@width}{Fld@height}%
13803 \pdfendlink
13804 \HyField@AddToFields
13805 }%
13806 \endgroup
13807 }
13808 \def\Hy@FormObjects{%
13809 \pdfobj {%
13810 <<%
13811 /Type/Encoding%
13812 /Differences[%
13813 24/breve/caron/circumflex/dotaccent/hungarumlaut/ogonek%
13814 /ring/tilde %
13815 39/quotesingle %
13816 96/grave %
13817 128/bullet/dagger/daggerdbl/ellipsis/emdash/endash/florin%
13818 /fraction/guilsinglleft/guilsinglright/minus/perthousand%
13819 /quotedblbase/quotedblleft/quotedblright/quoteleft%
13820 /quoteright/quotesinglbase/trademark/fi/fi/Lslash/OE%
13821 /Scaron/Ydieresis/Zcaron/dotlessi/lslash/oe/scaron/zcaron %
13822 164/currency %
13823 166/brokenbar %

```

```

13824      168/dieresis/copyright/ordfeminine %
13825      172/logicalnot/.notdef/registered/macron/degree/plusminus%
13826      /twosuperior/threesuperior/acute/mu %
13827      183/periodcentered/cedilla/onesuperior/ordmasculine %
13828      188/onequarter/onehalf/threequarters %
13829      192/Agrave/Aacute/Acircumflex/Atilde/Adieresis/Aring/AE%
13830      /Ccedilla/Egrave/Eacute/Ecircumflex/Edieresis/Igrave%
13831      /Iacute/Icircumflex/Idieresis/Eth/Ntilde/Ograve/Oacute%
13832      /Ocircumflex/Otilde/Odieresis/multiply/Oslash/Ugrave%
13833      /Uacute/Ucircumflex/Udieresis/Yacute/Thorn/germandbls%
13834      /agrave/aacute/acircumflex/atilde/adieresis/aring/ae%
13835      /ccedilla/egrave/eacute/ecircumflex/edieresis/igrave%
13836      /iacute/icircumflex/idieresis/eth/ntilde/ograde/oacute%
13837      /ocircumflex/otilde/odieresis/divide/oslash/ugrave%
13838      /uacute/ucircumflex/udieresis/yacute/thorn/ydieresis%
13839      ]%
13840      >>%
13841      }%
13842      \xdef\OBJ@pdfdocencoding{\the\pdflastobj}%
13843      \pdfobj{%
13844      <<%
13845      /Type/Font%
13846      /Subtype/Type1%
13847      /Name/ZaDb%
13848      /BaseFont/ZapfDingbats%
13849      >>%
13850      }%
13851      \xdef\OBJ@ZaDb{\the\pdflastobj}%
13852      \pdfobj{%
13853      <<%
13854      /Type/Font%
13855      /Subtype/Type1%
13856      /Name/Helv%
13857      /BaseFont/Helvetica%
13858      /Encoding \OBJ@pdfdocencoding\space 0 R%
13859      >>%
13860      }%
13861      \xdef\OBJ@Helv{\the\pdflastobj}%
13862      \global\let\Hy@FormObjects\relax
13863      }
13864      </pdfTeX>

```

48.5 dvipdfm, xetex

D. P. Story adapted the pdf_TE_X forms part for dvipdfm, of which version 0.12.7b or higher is required because of a bug.

```
13865 <*dvipdfm | xetex>
```

\@Gauge

```

13866 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
13867   \Hy@Message{Sorry, dvipdfm/XeTeX does not support FORM gauges}%
13868 }

```

\@Form

```

13869 \def\@Form[#1]{%
13870   \@ifundefined{textcolor}{\let\textcolor\@gobble}{}%
13871   \kvsetkeys{Form}{#1}%
13872   \Hy@FormObjects

```



```

13873 \@pdfm@mark{obj @afields []}%
13874 \@pdfm@mark{obj @corder []}%
13875 \@pdfm@mark{%
13876   obj @aform <<%
13877   /Fields @afields%
13878   /DR<<%
13879   /Font<<%
13880   /ZaDb @OBJZaDb%
13881   /Helv @OBJHelv%
13882   >>%
13883   >>%
13884   /DA(/Helv 10 Tf 0 g)%
13885   /CO @corder%
13886   \ifHy@pdfa
13887   \else
13888     \ifHyField@NeedAppearances
13889       /NeedAppearances true%
13890     \fi
13891   \fi
13892   >>%
13893 }%
13894 \@pdfm@mark{put @catalog <</AcroForm @aform>>}%
13895 }

```

\@endForm

```

13896 \let\@endForm\ltx@empty

```

\dvipdfm@setdim \dvipdfm@setdim sets dimensions for ann using \pdfm@box.

```

13897 \def\dvipdfm@setdim{%
13898   height \the\ht\pdfm@box\space
13899   width \the\wd\pdfm@box\space
13900   depth \the\dp\pdfm@box\space
13901 }

```

\HyField@AnnotCount

```

13902 \newcount\HyField@AnnotCount
13903 \HyField@AnnotCount=\z@

```

\HyField@AdvanceAnnotCount

```

13904 \def\HyField@AdvanceAnnotCount{%
13905   \global\advance\HyField@AnnotCount\@ne
13906 }

```

\HyField@TheAnnotCount

```

13907 \def\HyField@TheAnnotCount{%
13908   \the\HyField@AnnotCount
13909 }

```

\Fld@pageobjref

```

13910 \def\Fld@pageobjref{/P @thispage}%

```

\@TextField

```

13911 \def\@TextField[#1]#2{% parameters, label
13912   \def\Fld@name{#2}%
13913   \let\Fld@default\ltx@empty
13914   \let\Fld@value\@empty

```

```

13915 \def\Fld@width{\DefaultWidthofText}%
13916 \def\Fld@height{%
13917   \ifFld@multiline
13918     \DefaultHeightofTextMultiline
13919   \else
13920     \DefaultHeightofText
13921   \fi
13922 }%
13923 \begingroup
13924   \expandafter\HyField@SetKeys\expandafter{%
13925     \DefaultOptionsofText,#1%
13926   }%
13927   \PDFForm@Name
13928   \HyField@FlagsText
13929   \ifFld@hidden\def\Fld@width{1sp}\fi
13930   \ifx\Fld@value\empty\def\Fld@value{\Fld@default}\fi
13931   \setbox\pdfm@box=\hbox{%
13932     \MakeTextField{\Fld@width}{\Fld@height}%
13933   }%
13934   \HyField@AdvanceAnnotCount
13935   \LayoutTextField{#2}{%
13936     \leavevmode
13937     \Hy@escapeform\PDFForm@Text
13938     \@pdfm@mark{%
13939       ann @text\HyField@TheAnnotCount\space
13940       \dvi pdfm@setdim << \PDFForm@Text >>%
13941     }%
13942   }%
13943   \unhbox\pdfm@box
13944   \@pdfm@mark{put @afields @text\HyField@TheAnnotCount}%
13945   % record in @afields array
13946 \endgroup
13947 }

```

\@ChoiceMenu

```

13948 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13949   \def\Fld@name{#2}%
13950   \let\Fld@default\relax
13951   \let\Fld@value\relax
13952   \def\Fld@width{\DefaultWidthofChoiceMenu}%
13953   \def\Fld@height{\DefaultHeightofChoiceMenu}%
13954   \begingroup
13955     \Fld@menulength=0 %
13956     \@tempdima\z@
13957     \@for\@curropt:=#3\do{%
13958       \expandafter\Fld@checkequals\@curropt==\\%
13959       \Hy@StepCount\Fld@menulength
13960       \settowidth{\@tempdimb}{\@currDisplay}%
13961       \ifdim\@tempdimb>\@tempdima\@tempdima\@tempdimb\fi
13962     }%
13963     \advance\@tempdima by 15\p@
13964     \begingroup
13965       \HyField@SetKeys{#1}%
13966     \edef\x{\endgroup
13967       \noexpand\expandafter
13968       \noexpand\HyField@SetKeys
13969       \noexpand\expandafter{%
13970         \expandafter\noexpand\curname DefaultOptionsof%

```

```

13971      \ifFld@radio
13972      Radio%
13973      \else
13974      \ifFld@combo
13975      \ifFld@popdown
13976      PopdownBox%
13977      \else
13978      ComboBox%
13979      \fi
13980      \else
13981      ListBox%
13982      \fi
13983      \fi
13984      \endcsname
13985      }%
13986  }\x
13987  \HyField@SetKeys{#1}%
13988  \PDFForm@Name
13989  \ifFld@hidden\def\Fld@width{1sp}\fi
13990  \ifx\Fld@value\relax
13991      \let\Fld@value\Fld@default
13992  \fi
13993  \LayoutChoiceField{#2}{%
13994      \ifFld@radio
13995      \HyField@FlagsRadioButton
13996      \@@Radio{#3}%
13997      \else
13998      \begingroup
13999      \HyField@FlagsChoice
14000      \ifdim\Fld@width<\@tempdima
14001      \ifdim\@tempdima<1cm\@tempdima1cm\fi
14002      \edef\Fld@width{\the\@tempdima}%
14003      \fi
14004      \ifFld@combo
14005      \else
14006      \@tempdima=\the\Fld@menulength\Fld@charsize
14007      \advance\@tempdima by \Fld@borderwidth bp %
14008      \advance\@tempdima by \Fld@borderwidth bp %
14009      \edef\Fld@height{\the\@tempdima}%
14010      \fi
14011      \@@ListBox{#3}%
14012      \endgroup
14013      \fi
14014      }%
14015  \endgroup
14016  }

```

\@@Radio

```

14017 \def\@@Radio#1{%
14018   \Fld@listcount=0 %
14019   \EdefEscapeName\Fld@default{\Fld@default}%
14020   \setbox\pdfm@box=\hbox{%
14021     \MakeRadioField{\Fld@width}{\Fld@height}%
14022   }%
14023   \@for\@curropt:=#1\do{%
14024     \expandafter\Fld@checkequals\@curropt==\\%
14025     \EdefEscapeName\@currValue{\@currValue}%
14026     \Hy@StepCount\Fld@listcount

```

```

14027 \currDisplay\space
14028 \leavevmode
14029 \Hy@escapeform\PDFForm@Radio
14030 \ifnum\Fld@listcount=1 %
14031 \HyField@AdvanceAnnotCount
14032 \fi
14033 \@pdfm@mark{%
14034 ann %
14035 \ifnum\Fld@listcount=1 %
14036 @radio\HyField@TheAnnotCount%
14037 \space
14038 \fi
14039 \dvipdfm@setdim
14040 <<%
14041 \PDFForm@Radio
14042 /AP<</N<</\@currValue /null>>>>%
14043 >>%
14044 }%
14045 \unhcopy\pdfm@box\space% deliberate space between radio buttons
14046 \ifnum\Fld@listcount=1 %
14047 \@pdfm@mark{%
14048 put @afields @radio\HyField@TheAnnotCount
14049 }%
14050 \fi
14051 }%
14052 }

```

\Fld@listcount

```

14053 \newcount\Fld@listcount

```

\@@ListBox

```

14054 \def\@@ListBox#1{%
14055 \HyField@PDFChoices{#1}%
14056 \setbox\pdfm@box=\hbox{%
14057 \MakeChoiceField{\Fld@width}{\Fld@height}%
14058 }%
14059 \leavevmode
14060 \Hy@escapeform\PDFForm@List
14061 \HyField@AdvanceAnnotCount
14062 \@pdfm@mark{%
14063 ann @list\HyField@TheAnnotCount\space
14064 \dvipdfm@setdim
14065 <<\PDFForm@List>>%
14066 }%
14067 \unhbox\pdfm@box
14068 \@pdfm@mark{put @afields @list\HyField@TheAnnotCount}%
14069 }

```

\@PushButton

```

14070 \def\@PushButton[#1]#2{% parameters, label
14071 \def\Fld@name{#2}%
14072 \begingroup
14073 \expandafter\HyField@SetKeys\expandafter{%
14074 \DefaultOptionsofPushButton,#1%
14075 }%
14076 \PDFForm@Name
14077 \ifHy@pdfa

```

```

14078 \Hy@Error{%
14079   PDF/A: Push button with JavaScript is prohibited%
14080 }%\@ehc
14081 \LayoutPushButtonField{%
14082   \leavevmode
14083   \MakeButtonField{#2}%
14084 }%
14085 \else
14086   \setbox\pdfm@box=\hbox{\MakeButtonField{#2}}%
14087   \HyField@FlagsPushButton
14088   \ifFld@hidden\def\Fld@width{1sp}\fi
14089   \HyField@AdvanceAnnotCount
14090   \LayoutPushButtonField{%
14091     \leavevmode
14092     \Hy@escapeform\PDFForm@Push
14093     \@pdfm@mark{%
14094       ann @push\HyField@TheAnnotCount\space
14095       \dvipdfm@setdim
14096       <<\PDFForm@Push>>%
14097     }%
14098   }%
14099   \unhbox\pdfm@box
14100   \@pdfm@mark{put @afields @push\HyField@TheAnnotCount}%
14101 \fi
14102 \endgroup
14103 }

```

\@Submit

```

14104 \def\@Submit[#1]#2{%
14105   \def\Fld@width{\DefaultWidthofSubmit}%
14106   \def\Fld@height{\DefaultHeightofSubmit}%
14107   \begingroup
14108     \expandafter\HyField@SetKeys\expandafter{%
14109       \DefaultOptionsofSubmit,#1%
14110     }%
14111     \HyField@FlagsPushButton
14112     \HyField@FlagsSubmit
14113     \ifFld@hidden\def\Fld@width{1sp}\fi
14114     \setbox\pdfm@box=\hbox{\MakeButtonField{#2}}%
14115     \leavevmode
14116     \Hy@escapeform\PDFForm@Submit
14117     \HyField@AdvanceAnnotCount
14118     \@pdfm@mark{%
14119       ann @submit\HyField@TheAnnotCount\space
14120       \dvipdfm@setdim
14121       <<\PDFForm@Submit>>%
14122     }%
14123     \unhbox\pdfm@box%
14124     \@pdfm@mark{put @afields @submit\HyField@TheAnnotCount}%
14125   \endgroup
14126 }

```

\@Reset

```

14127 \def\@Reset[#1]#2{%
14128   \def\Fld@width{\DefaultWidthofReset}%
14129   \def\Fld@height{\DefaultHeightofReset}%
14130   \begingroup

```

```

14131 \expandafter\HyField@SetKeys\expandafter{%
14132 \DefaultOptionsofReset,#1%
14133 }%
14134 \leavevmode
14135 \ifHy@pdfa
14136 \Hy@Error{%
14137 PDF/A: Reset action is prohibited%
14138 }\@ehc
14139 \MakeButtonField{#2}%
14140 \else
14141 \HyField@FlagsPushButton
14142 \ifFld@hidden\def\Fld@width{1sp}\fi
14143 \setbox\pdfm@box=\hbox{\MakeButtonField{#2}}%
14144 \Hy@escapeform\PDFForm@Reset
14145 \HyField@AdvanceAnnotCount
14146 \@pdfm@mark{%
14147 ann @reset\HyField@TheAnnotCount\space
14148 \dvipdfm@setdim
14149 <<\PDFForm@Reset>>%
14150 }%
14151 \unhbox\pdfm@box
14152 \@pdfm@mark{put @afields @reset\HyField@TheAnnotCount}%
14153 \fi
14154 \endgroup
14155 }

```

\@CheckBox

```

14156 \def\@CheckBox[#1]#2{% parameters, label
14157 \def\Fld@name{#2}%
14158 \def\Fld@default{0}%
14159 \begingroup
14160 \def\Fld@width{\DefaultWidthofCheckBox}%
14161 \def\Fld@height{\DefaultHeightofCheckBox}%
14162 \expandafter\HyField@SetKeys\expandafter{%
14163 \DefaultOptionsofCheckBox,#1%
14164 }%
14165 \PDFForm@Name
14166 \HyField@FlagsCheckBox
14167 \ifFld@hidden\def\Fld@width{1sp}\fi
14168 \setbox\pdfm@box=\hbox{%
14169 \MakeCheckField{\Fld@width}{\Fld@height}%
14170 }%
14171 \HyField@AdvanceAnnotCount
14172 \LayoutCheckField{#2}%
14173 \leavevmode
14174 \Hy@escapeform\PDFForm@Check
14175 \@pdfm@mark{%
14176 ann @check\HyField@TheAnnotCount\space
14177 \dvipdfm@setdim
14178 <<\PDFForm@Check>>%
14179 }%
14180 \unhbox\pdfm@box
14181 \@pdfm@mark{put @afields @check\HyField@TheAnnotCount}%
14182 }%
14183 \endgroup
14184 }

14185 \def\Hy@FormObjects{%

```

```

14186 \@pdfm@mark{obj @OBJpdfdocencoding%
14187 <<%
14188 /Type/Encoding%
14189 /Differences[%
14190 24/breve/caron/circumflex/dotaccent/hungarumlaut/ogonek/ring/tilde %
14191 39/quotesingle %
14192 96/grave %
14193 128/bullet/dagger/daggerdbl/ellipsis/emdash/endash/florin%
14194 /fraction/guilsinglleft/guilsinglright/minus/perthousand%
14195 /quotedblbase/quotedblleft/quotedblright/quoteleft/quoteright%
14196 /quotesinglbase/trademark/fi/fl/Lslash/OE/Scaron/Ydieresis%
14197 /Zcaron/dotlessi/lslash/oe/scaron/zcaron %
14198 164/currency %
14199 166/brokenbar %
14200 168/dieresis/copyright/ordfeminine %
14201 172/logicalnot/.notdef/registered/macron/degree/plusminus%
14202 /twosuperior/threesuperior/acute/mu %
14203 183/periodcentered/cedilla/onesuperior/ordmasculine %
14204 188/onequarter/onehalf/threequarters %
14205 192/Agrave/Aacute/Acircumflex/Atilde/Adieresis/Aring/AE%
14206 /Ccedilla/Egrave/Eacute/Ecircumflex/Edieresis/Igrave/Iacute%
14207 /Icircumflex/Idieresis/Eth/Ntilde/Ograve/Oacute/Ocircumflex%
14208 /Otilde/Odieresis/multiply/Oslash/Ugrave/Uacute/Ucircumflex%
14209 /Udieresis/Yacute/Thorn/germandbls/agrave/aacute/acircumflex%
14210 /atilde/adieresis/aring/ae/ccedilla/egrave/eacute%
14211 /ecircumflex/edieresis/igrave/iacute/icircumflex/idieresis%
14212 /eth/ntilde/ograve/oacute/ocircumflex/otilde/odieresis%
14213 /divide/oslash/ugrave/uacute/ucircumflex/udieresis/yacute%
14214 /thorn/ydieresis%
14215 ]%
14216 >>%
14217 }%
14218 \@pdfm@mark{obj @OBJZaDb%
14219 <<%
14220 /Type/Font%
14221 /Subtype/Type1%
14222 /Name/ZaDb%
14223 /BaseFont/ZapfDingbats%
14224 >>%
14225 }%
14226 \@pdfm@mark{obj @OBJHelv%
14227 <<%
14228 /Type/Font%
14229 /Subtype/Type1%
14230 /Name/Helv%
14231 /BaseFont/Helvetica%
14232 /Encoding @OBJpdfdocencoding%
14233 >>%
14234 }%
14235 \global\let\Hy@FormObjects\relax
14236 }
14237 </dvipdfm | xetex>

```

48.6 Common forms part

```
14238 (*pdfform)
```

\Fld@pageobjref

```
14239 \providecommand*{\Fld@pageobjref}{}
```

\Hy@escapestring

```
14240 \begingroup\expandafter\expandafter\expandafter\endgroup
14241 \expandafter\ifx\csname pdf@escapestring\endcsname\relax
14242   \let\Hy@escapestring\@firstofone
14243   \def\Hy@escapeform#1{%
14244     \ifHy@pdfescapeform
14245       \def\Hy@escapestring##1{%
14246         \noexpand\Hy@escapestring{\noexpand##1}%
14247       }%
14248       \edef\Hy@temp{#1}%
14249       \expandafter\Hy@@@escapeform\Hy@temp\Hy@escapestring{}\@nil
14250       \def\Hy@escapestring##1{%
14251         \@ifundefined{Hy@esc@\string##1}{%
14252           ##1%
14253           \ThisShouldNotHappen
14254         }{%
14255           \csname Hy@esc@\string##1\endcsname
14256         }%
14257       }%
14258     \else
14259       \let\Hy@escapestring\@firstofone
14260     \fi
14261   }%
14262   \def\Hy@@@escapeform#1\Hy@escapestring#2#3\@nil{%
14263     \ifx\#3\%
14264       \else
14265         \expandafter
14266         \Hy@pstringdef\csname Hy@esc@\string#2\endcsname{#2}%
14267         \ltx@ReturnAfterFi{%
14268           \Hy@@@escapeform#3\@nil
14269         }%
14270       \fi
14271     }%
14272   \else
14273     \def\Hy@escapeform#1{%
14274       \ifHy@pdfescapeform
14275         \let\Hy@escapestring\pdfescapestring
14276       \else
14277         \let\Hy@escapestring\@firstofone
14278       \fi
14279     }%
14280     \Hy@escapeform{}%
14281   \fi
```

\PDFForm@Name

```
14282 \def\PDFForm@Name{%
14283   \PDFForm@@Name\Fld@name
14284   \ifx\Fld@altname\relax
14285     \else
14286     \PDFForm@@Name\Fld@altname
14287   \fi
14288   \ifx\Fld@mappingname\relax
14289     \else
14290     \PDFForm@@Name\Fld@mappingname
```



```

14291 \fi
14292 }

```

\PDFForm@@Name

```

14293 \def\PDFForm@@Name#1{%
14294 \begingroup
14295 \ifnum\Hy@pdfversion<5 % implementation note 117, PDF spec 1.7
14296 \ifHy@unicode
14297 \Hy@unicodetrue
14298 \fi
14299 \fi
14300 \HyPsd@XeTeXBigCharstrue
14301 \pdfstringdef\Hy@gtemp#1%
14302 \endgroup
14303 \let#1\Hy@gtemp
14304 }

```

\Fld@additionalactions

```

14305 \def\Fld@@additionalactions{%
K input (keystroke) format
14306 \ifx\Fld@keystroke@code\@empty
14307 \else
14308 /K<</S/JavaScript/JS(\Hy@escapestring{\Fld@keystroke@code})>>%
14309 \fi
F display format
14310 \ifx\Fld@format@code\@empty
14311 \else
14312 /F<</S/JavaScript/JS(\Hy@escapestring{\Fld@format@code})>>%
14313 \fi
V validation
14314 \ifx\Fld@validate@code\@empty
14315 \else
14316 /V<</S/JavaScript/JS(\Hy@escapestring{\Fld@validate@code})>>%
14317 \fi
C calculation
14318 \ifx\Fld@calculate@code\@empty
14319 \else
14320 /C<</S/JavaScript/JS(\Hy@escapestring{\Fld@calculate@code})>>%
14321 \fi
Fo receiving the input focus
14322 \ifx\Fld@onfocus@code\@empty
14323 \else
14324 /Fo<</S/JavaScript/JS(\Hy@escapestring{\Fld@onfocus@code})>>%
14325 \fi
Bl loosing the input focus (blurred)
14326 \ifx\Fld@onblur@code\@empty
14327 \else
14328 /Bl<</S/JavaScript/JS(\Hy@escapestring{\Fld@onblur@code})>>%
14329 \fi
D pressing the mouse button (down)
14330 \ifx\Fld@onmousedown@code\@empty
14331 \else
14332 /D<</S/JavaScript/JS(\Hy@escapestring{\Fld@onmousedown@code})>>%
14333 \fi

```

U releasing the mouse button (up)

```
14334 \ifx\Fld@onmouseup@code\@empty
14335 \else
14336 /U<</S/JavaScript/JS(\Hy@escapestring{\Fld@onmouseup@code})>>%
14337 \fi
```

E cursor enters the annotation's active area.

```
14338 \ifx\Fld@onenter@code\@empty
14339 \else
14340 /E<</S/JavaScript/JS(\Hy@escapestring{\Fld@onenter@code})>>%
14341 \fi
```

X cursor exits the annotation's active area.

```
14342 \ifx\Fld@onexit@code\@empty
14343 \else
14344 /X<</S/JavaScript/JS(\Hy@escapestring{\Fld@onexit@code})>>%
14345 \fi
14346 }
14347 \def\Fld@additionalactions{%
14348 \if\Fld@@additionalactions-%
14349 \else
14350 \ifHy@pdfa
14351 \else
14352 /AA<<\Fld@@additionalactions>>%
14353 \fi
14354 \fi
14355 }
```

\Fld@annotnames

```
14356 \def\Fld@annotnames{%
14357 /T(\Fld@name)%
14358 \ifx\Fld@altname\relax
14359 \else
14360 /TU(\Fld@altname)%
14361 \fi
14362 \ifx\Fld@mappingname\relax
14363 \else
14364 /TM(\Fld@mappingname)%
14365 \fi
14366 }
```

\PDFForm@Check

```
14367 \def\PDFForm@Check{%
14368 /Subtype/Widget%
14369 \Fld@annotflags
14370 \Fld@pageobjref
14371 \Fld@annotnames
14372 /FT/Btn%
14373 \Fld@flags
14374 /Q \Fld@align
14375 /BS<</W \Fld@borderwidth /S/\Fld@borderstyle>>%
14376 /MK<<%
14377 \ifnum\Fld@rotation=z@
14378 \else
14379 /R \Fld@rotation
14380 \fi
14381 \ifx\Fld@bordercolor\relax
14382 \else
```

```

14383     /BC[\Fld@bordercolor]%
14384     \fi
14385     \ifx\Fld@bcolor\relax
14386     \else
14387     /BG[\Fld@bcolor]%
14388     \fi
14389     /CA(\Hy@escapestring{\Fld@cbsymbol})%
14390 >>%
14391 /DA(/ZaDb \strip@pt\Fld@charsize\space Tf%
14392     \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
14393 /H/P%
14394 \ifFld@checked /V/Yes/AS/Yes\else /V/Off/AS/Off\fi
14395 \Fld@additionalactions
14396 }

```

\PDFForm@Push

```

14397 \ifHy@pdfa
14398 \else
14399 \def\PDFForm@Push{%
14400     /Subtype/Widget%
14401     \Fld@annotflags
14402     \Fld@pageobjref
14403     \Fld@annotnames
14404     /FT/Btn%
14405     \Fld@flags
14406     /H/P%
14407     /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14408     \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14409         \ifx\Fld@bordercolor\relax\else 1\fi
14410         \space
14411     \else
14412     /MK<<%
14413         \ifnum\Fld@rotation=\z@
14414         \else
14415         /R \Fld@rotation
14416         \fi
14417         \ifx\Fld@bordercolor\relax
14418         \else
14419         /BC[\Fld@bordercolor]%
14420         \fi
14421     >>%
14422     \fi
14423     /A<</S/JavaScript/JS(\Hy@escapestring{\Fld@onclick@code})>>%
14424     \Fld@additionalactions
14425 }%
14426 \fi

```

\PDFForm@List

```

14427 \def\PDFForm@List{%
14428     /Subtype/Widget%
14429     \Fld@annotflags
14430     \Fld@pageobjref
14431     \Fld@annotnames
14432     /FT/Ch%
14433     \Fld@flags
14434     /Q \Fld@align
14435     /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%

```

```

14436 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14437 \ifx\Fld@bordercolor\relax\else 1\fi
14438 \ifx\Fld@bcolor\relax \else 1\fi
14439 \space
14440 \else
14441 /MK<<%
14442 \ifnum\Fld@rotation=\z@
14443 \else
14444 /R \Fld@rotation
14445 \fi
14446 \ifx\Fld@bordercolor\relax
14447 \else
14448 /BC[\Fld@bordercolor]%
14449 \fi
14450 \ifx\Fld@bcolor\relax
14451 \else
14452 /BG[\Fld@bcolor]%
14453 \fi
14454 >>%
14455 \fi
14456 /DA(/Helv \strip@pt\Fld@charsize\space Tf%
14457 \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
14458 \Fld@choices
14459 \Fld@additionalactions
14460 }

```

\PDFForm@Radio

```

14461 \def\PDFForm@Radio{%
14462 /Subtype/Widget%
14463 \Fld@annotflags
14464 \Fld@pageobjref
14465 \Fld@annotnames
14466 /FT/Btn%
14467 \Fld@flags
14468 /H/P%
14469 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14470 /MK<<%
14471 \ifnum\Fld@rotation=\z@
14472 \else
14473 /R \Fld@rotation
14474 \fi
14475 \ifx\Fld@bordercolor\relax
14476 \else
14477 /BC[\Fld@bordercolor]%
14478 \fi
14479 \ifx\Fld@bcolor\relax
14480 \else
14481 /BG[\Fld@bcolor]%
14482 \fi
14483 /CA(\Hy@escapestring{\Fld@radiosymbol})%
14484 >>%
14485 /DA(/ZaDb \strip@pt\Fld@charsize\space Tf%
14486 \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
14487 \ifx\@currValue\Fld@default
14488 /V/\Fld@default
14489 /DV/\Fld@default
14490 \else
14491 /V/Off%

```

```

14492 /DV/Off%
14493 \fi
14494 \Fld@additionalactions
14495 }

```

\PDFForm@Text

```

14496 \def\PDFForm@Text{%
14497 /Subtype/Widget%
14498 \Fld@annotflags
14499 \Fld@pageobjref
14500 \Fld@annotnames
14501 /FT/Tx%
14502 \Fld@flags
14503 /Q \Fld@align
14504 /BS<</W \Fld@borderwidth\space /S /\Fld@borderstyle>>%
14505 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14506 \ifx\Fld@bordercolor\relax\else 1\fi
14507 \ifx\Fld@bcolor\relax \else 1\fi
14508 \space
14509 \else
14510 /MK<<%
14511 \ifnum\Fld@rotation=\z@
14512 \else
14513 /R \Fld@rotation
14514 \fi
14515 \ifx\Fld@bordercolor\relax
14516 \else
14517 /BC[\Fld@bordercolor]%
14518 \fi
14519 \ifx\Fld@bcolor\relax
14520 \else
14521 /BG[\Fld@bcolor]%
14522 \fi
14523 >>%
14524 \fi
14525 /DA(/Helv \strip@pt\Fld@charsize\space Tf%
14526 \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
14527 /DV(\Hy@escapestring{\Fld@default})%
14528 /V(\Hy@escapestring{\Fld@value})%
14529 \Fld@additionalactions
14530 \ifnum\Fld@maxlen>\z@/MaxLen \Fld@maxlen \fi
14531 }

```

\PDFForm@Submit

```

14532 \def\PDFForm@Submit{%
14533 /Subtype/Widget%
14534 \Fld@annotflags
14535 \Fld@pageobjref
14536 \Fld@annotnames
14537 /FT/Btn%
14538 \Fld@flags
14539 /H/P%
14540 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14541 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14542 \ifx\Fld@bordercolor\relax\else 1\fi
14543 \space
14544 \else

```

```

14545 /MK<<%
14546   \ifnum\Fld@rotation=\z@
14547   \else
14548     /R \Fld@rotation
14549   \fi
14550   \ifx\Fld@bordercolor\relax
14551   \else
14552     /BC[\Fld@bordercolor]%
14553   \fi
14554 >>%
14555 \fi
14556 /A<<%
14557 /S/SubmitForm%
14558 /F<<%
14559 /FS/URL%
14560 /F(\Hy@escapestring{\Form@action})%
14561 >>%
14562 \Fld@submitflags
14563 >>%
14564 \Fld@additionalactions
14565 }

```

\PDFForm@Reset

```

14566 \ifHy@pdfa
14567 \else
14568   \def\PDFForm@Reset{%
14569     /Subtype/Widget%
14570     \Fld@annotflags
14571     \Fld@pageobjref
14572     \Fld@annotnames
14573     /FT/Btn%
14574     \Fld@flags
14575     /H/P%
14576     /DA(/Helv \strip@pt\Fld@charsize\space Tf 0 0 1 rg)%
14577     \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14578       \ifx\Fld@bordercolor\relax\else 1\fi
14579       \space
14580     \else
14581       /MK<<%
14582       \ifnum\Fld@rotation=\z@
14583       \else
14584         /R \Fld@rotation
14585       \fi
14586       \ifx\Fld@bordercolor\relax
14587       \else
14588         /BC[\Fld@bordercolor]%
14589       \fi
14590 % /CA (Clear)
14591 % /AC (Done)
14592 >>%
14593 \fi
14594 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14595 /A<</S/ResetForm>>%
14596 \Fld@additionalactions
14597 }%
14598 \fi
14599 </pdfform>

```

```
14600 \<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 \LaTeX 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`

```
14601 \def\phantomsection{%
14602   \Hy@MakeCurrentHrefAuto{section*}%
14603   \Hy@raisedlink{\hyper@anchorstart{\@currentHref}\hyper@anchorend}%
14604 }
14605 \</package>
```

49.1 Bookmarks

```
14606 \<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 $\varepsilon\text{-TeX}$, the order of the `\BOOKMARK` commands written to the `\@outlinefile` could appear wrong, because of mis-feature of $\varepsilon\text{-TeX}$'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.

```
14607 \def\Hy@writebookmark#1#2#3#4#5{%
14608   % section number, text, label, level, file
14609   \ifx\WriteBookmarks\relax%
14610     \else
14611       \ifnum#4>\Hy@bookmarksdepth\relax
14612       \else
14613         \@@writetorep{#1}{#2}{#3}{#4}{#5}%
14614       \fi
14615     \fi
14616 }
14617 \def\Hy@currentbookmarklevel{0}
14618 \def\Hy@numberline#1{#1}
14619 \def\@@writetorep#1#2#3#4#5{%
14620   \begingroup
14621   \edef\Hy@tempa{#5}%
14622   \ifx\Hy@tempa\Hy@bookmarkstype
14623     \edef\Hy@level{#4}%
```

```

14624 \ifx\Hy@levelcheck Y%
14625 \@tempcnta\Hy@level\relax
14626 \advance\@tempcnta by -1 %
14627 \ifnum\Hy@currentbookmarklevel<\@tempcnta
14628 \advance\@tempcnta by -\Hy@currentbookmarklevel\relax
14629 \advance\@tempcnta by 1 %
14630 \Hy@Warning{%
14631 Difference (\the\@tempcnta) between bookmark levels is %
14632 greater \MessageBreak than one, level fixed%
14633 }%
14634 \@tempcnta\Hy@currentbookmarklevel
14635 \advance\@tempcnta by 1 %
14636 \edef\Hy@level{\the\@tempcnta}%
14637 \fi
14638 \else
14639 \global\let\Hy@levelcheck Y%
14640 \fi
14641 \global\let\Hy@currentbookmarklevel\Hy@level
14642 \@tempcnta\Hy@level\relax
14643 \expandafter\xdef\csname Parent\Hy@level\endcsname{#3}%
14644 \advance\@tempcnta by -1 %
14645 \edef\Hy@tempa{#3}%
14646 \edef\Hy@tempb{\csname Parent\the\@tempcnta\endcsname}%
14647 \ifx\Hy@tempa\Hy@tempb
14648 \Hy@Warning{%
14649 The anchor of a bookmark and its parent's must not%
14650 \MessageBreak be the same. Added a new anchor%
14651 }%
14652 \phantomsection
14653 \fi
14654 \ifHy@bookmarksnumbered
14655 \let\numberline\Hy@numberline
14656 \let\booknumberline\Hy@numberline
14657 \let\partnumberline\Hy@numberline
14658 \let\chapternumberline\Hy@numberline
14659 \else
14660 \let\numberline\@gobble
14661 \let\booknumberline\@gobble
14662 \let\partnumberline\@gobble
14663 \let\chapternumberline\@gobble
14664 \fi
14665 \HyPsd@XeTeXBigCharstrue
14666 \pdfstringdef\Hy@tempa{#2}%
14667 \HyPsd@SanitizeForOutFile\Hy@tempa
14668 \if@filesw
14669 \stepcounter{bookmark@seq@number}%
14670 \@ifundefined{@outlinefile}{%
14671 }{%
14672 \protected@write{@outlinefile}{%
14673 \protect\BOOKMARK
14674 [\Hy@level][\@bookmarkopenstatus{\Hy@level}]{#3}%
14675 {\Hy@tempa}{\Hy@tempb}%
14676 \@percentchar\space\thebookmark@seq@number
14677 }%
14678 }%
14679 \fi
14680 \fi

```



```

14681 \endgroup
14682 }
14683 \newcounter{bookmark@seq@number}

14684 \begingroup
14685 \lccode'('= '{%
14686 \lccode'('= }%
14687 \lccode'1=\z@
14688 \lccode'2=\z@
14689 \lccode'3=\z@
14690 \lccode'5=\z@
14691 \lccode'7=\z@
14692 \lccode'\#=\z@
14693 \lccode'\'=\z@
14694 \lccode'\{=\z@
14695 \lccode'\}=\z@
14696 \lowercase{%
14697 \endgroup
14698 \def\HyPsd@SanitizeForOutFile#1{%
14699   \@onelevel@sanitize\Hy@tempa
14700   \escapechar'\%
14701   \edef\Hy@tempa{%
14702     \expandafter\HyPsd@SanitizeOut@BraceLeft\Hy@tempa(\@nil
14703   }%
14704   \edef\Hy@tempa{%
14705     \expandafter\HyPsd@SanitizeOut@BraceRight\Hy@tempa)\@nil
14706   }%
14707 }%
14708 \def\HyPsd@SanitizeOut@BraceLeft#1(#2\@nil{%
14709   #1%
14710   \ifx\#2\%
14711     \expandafter\ltx@gobble
14712   \else
14713     \expandafter\ltx@firstofone
14714   \fi
14715   {%
14716     \string\173%
14717     \HyPsd@SanitizeOut@BraceLeft#2\@nil
14718   }%
14719 }%
14720 \def\HyPsd@SanitizeOut@BraceRight#1)#2\@nil{%
14721   #1%
14722   \ifx\#2\%
14723     \expandafter\ltx@gobble
14724   \else
14725     \expandafter\ltx@firstofone
14726   \fi
14727   {%
14728     \string\175%
14729     \HyPsd@SanitizeOut@BraceRight#2\@nil
14730   }%
14731 }%
14732 }

```

In the call of `\BOOKMARK` the braces around `#4` are omitted, because it is not likely, that the level number contains `]`.

```

14733 \newcommand{\currentpdfbookmark}{%
14734   \pdfbookmark[\Hy@currentbookmarklevel]%
14735 }

```

```

14736 \newcommand{\subpdfbookmark}{%
14737   \@tempcnta\Hy@currentbookmarklevel
14738   \Hy@StepCount\@tempcnta
14739   \expandafter\pdfbookmark\expandafter[\the\@tempcnta]%
14740 }
14741 \newcommand{\belowpdfbookmark}[2]{%
14742   \@tempcnta\Hy@currentbookmarklevel
14743   \Hy@StepCount\@tempcnta
14744   \expandafter\pdfbookmark\expandafter[\the\@tempcnta]{#1}{#2}%
14745   \advance\@tempcnta by -1 %
14746   \xdef\Hy@currentbookmarklevel{\the\@tempcnta}%
14747 }

```

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.

```

14748 \renewcommand\pdfbookmark[3][0]{%
14749   \Hy@writebookmark{#2}{#3.#1}{#1}{toc}%
14750   \hyper@anchorstart{#3.#1}\hyper@anchorend
14751 }
14752 \def\BOOKMARK{%
14753   \@ifnextchar[\@BOOKMARK]{\@@BOOKMARK[1][-]}%
14754 }
14755 \def\@BOOKMARK[#1]{%
14756   \@ifnextchar[\@@BOOKMARK[{#1}]{\@@BOOKMARK[{#1}][-]}%
14757 }

```

The macros for calculating structure of outlines are derived from those by Petr Olsak used in the `texinfo` macros.

49.1.1 Rerun warning

`\Hy@OutlineRerunCheck`

```

14758 \RequirePackage{rerunfilecheck}[2009/12/10]
14759 \def\Hy@OutlineRerunCheck{%
14760   \RerunFileCheck{\jobname.out}{%
14761     \immediate\closeout\@outlinefile
14762   }{%
14763     Rerun to get outlines right\MessageBreak
14764     or use package 'bookmark'%
14765   }%
14766 }

```

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.

```

14767 <*vtex>
14768 \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.

```

14769 \begingroup
14770   \catcode'\'=12 %

```

```

14771 \ifnum\Hy@VTeXversion<650 %
14772 \catcode'\'=12 %
14773 \gdef\hv@pdf@char#1#2#3{%
14774 \char
14775 \ifcase'#1#2#3 %
14776 "00\or"01\or"02\or"03\or"04\or"05\or"06\or"07%
14777 \or"08\or"09\or"0A\or"0B\or"0C\or"0D\or"0E\or"0F%
14778 \or"10\or"11\or"12\or"13\or"14\or"15\or"16\or"17%
14779 \or"18\or"19\or"1A\or"1B\or"1C\or"1D\or"1E\or"1F%
14780 \or"20\or"21\or"22\or"23\or"24\or"25\or"26\or"27%
14781 \or"28\or"29\or"2A\or"2B\or"2C\or"2D\or"2E\or"2F%
14782 \or"30\or"31\or"32\or"33\or"34\or"35\or"36\or"37%
14783 \or"38\or"39\or"3A\or"3B\or"3C\or"3D\or"3E\or"3F%
14784 \or"40\or"41\or"42\or"43\or"44\or"45\or"46\or"47%
14785 \or"48\or"49\or"4A\or"4B\or"4C\or"4D\or"4E\or"4F%
14786 \or"50\or"51\or"52\or"53\or"54\or"55\or"56\or"57%
14787 \or"58\or"59\or"5A\or"5B\or"5C\or"5D\or"5E\or"5F%
14788 \or"60\or"61\or"62\or"63\or"64\or"65\or"66\or"67%
14789 \or"68\or"69\or"6A\or"6B\or"6C\or"6D\or"6E\or"6F%
14790 \or"70\or"71\or"72\or"73\or"74\or"75\or"76\or"77%
14791 \or"78\or"79\or"7A\or"7B\or"7C\or"7D\or"7E\or"7F%
14792 \or"80\or"81\or"82\or"83\or"84\or"85\or"86\or"87%
14793 \or"88\or"89\or"8A\or"8B\or"8C\or"8D\or"8E\or"8F%
14794 \or"90\or"91\or"92\or"93\or"94\or"95\or"96\or"97%
14795 \or"98\or"99\or"9A\or"9B\or"9C\or"9D\or"9E\or"9F%
14796 \or"A0\or"A1\or"A2\or"A3\or"A4\or"A5\or"A6\or"A7%
14797 \or"A8\or"A9\or"AA\or"AB\or"AC\or"AD\or"AE\or"AF%
14798 \or"B0\or"B1\or"B2\or"B3\or"B4\or"B5\or"B6\or"B7%
14799 \or"B8\or"B9\or"BA\or"BB\or"BC\or"BD\or"BE\or"BF%
14800 \or"C0\or"C1\or"C2\or"C3\or"C4\or"C5\or"C6\or"C7%
14801 \or"C8\or"C9\or"CA\or"CB\or"CC\or"CD\or"CE\or"CF%
14802 \or"D0\or"D1\or"D2\or"D3\or"D4\or"D5\or"D6\or"D7%
14803 \or"D8\or"D9\or"DA\or"DB\or"DC\or"DD\or"DE\or"DF%
14804 \or"E0\or"E1\or"E2\or"E3\or"E4\or"E5\or"E6\or"E7%
14805 \or"E8\or"E9\or"EA\or"EB\or"EC\or"ED\or"EE\or"EF%
14806 \or"F0\or"F1\or"F2\or"F3\or"F4\or"F5\or"F6\or"F7%
14807 \or"F8\or"F9\or"FA\or"FB\or"FC\or"FD\or"FE\or"FF%
14808 \fi
14809 }%
14810 \else
14811 \gdef\hv@pdf@char{\char'}%
14812 \fi
14813 \endgroup

```

\@@BOOKMARK

```

14814 \def\@@BOOKMARK[#1][#2]#3#4#5{%
14815 \expandafter\edef\csname @count@#3\endcsname{%
14816 \the\@serial@counter
14817 }%
14818 \edef\@mycount{\the\@serial@counter}%
14819 \Hy@StepCount\@serial@counter
14820 \edef\@parcount{%
14821 \expandafter\ifx\csname @count@#5\endcsname\relax
14822 0%
14823 \else
14824 \csname @count@#5\endcsname
14825 \fi
14826 }%

```

```

14827 \immediate\special{%
14828 !outline \HyperDestNameFilter{#3};p=\@parcount,i=\@mycount,%
14829 s=\ifx#2-c\else o\fi,t=#4%
14830 }%
14831 }%

```

\ReadBookmarks

```

14832 \def\ReadBookmarks{%
14833 \begingroup
14834 \def\0{\hv@pdf@char 0}%
14835 \def\1{\hv@pdf@char 1}%
14836 \def\2{\hv@pdf@char 2}%
14837 \def\3{\hv@pdf@char 3}%
14838 \def\({}%
14839 \def\)}%
14840 \def\do##1{%
14841 \ifnum\catcode'##1=\active
14842 \@makeother##1%
14843 \else
14844 \ifnum\catcode'##1=6 %
14845 \@makeother##1%
14846 \fi
14847 \fi
14848 }%
14849 \dospecials
14850 \Hy@safe@activetrue
14851 \InputIfFileExists{jobname.out}{-}{-}%
14852 \endgroup
14853 \ifx\WriteBookmarks\relax
14854 \else
14855 \if@filesw
14856 \newwrite\@outlinefile
14857 \Hy@OutlineRerunCheck
14858 \immediate\openout\@outlinefile=jobname.out\relax
14859 \ifHy@typexml
14860 \immediate\write\@outlinefile{<relaxxml>\relax}%
14861 \fi
14862 \fi
14863 \fi
14864 }

14865 </vtex>
14866 (*!vtex)
14867 \def\ReadBookmarks{%
14868 \pdf@ifdraftmode{-}{-}%
14869 \begingroup
14870 \def\do##1{%
14871 \ifnum\catcode'##1=\active
14872 \@makeother##1%
14873 \else
14874 \ifnum\catcode'##1=6 %
14875 \@makeother##1%
14876 \fi
14877 \fi
14878 }%
14879 \dospecials
14880 \Hy@safe@activetrue

```

```

14881 \escapechar='\\%
14882 \def\@@BOOKMARK[##1][##2]##3##4##5{%
14883 \calc@bm@number{##5}%
14884 }%
14885 \InputIfFileExists{\jobname.out}{-}{-}%
14886 \ifx\WriteBookmarks\relax
14887 \global\let\WriteBookmarks\relax
14888 \fi
14889 \def\@@BOOKMARK[##1][##2]##3##4##5{%
14890 \def\Hy@temp{##4}%
14891 \*pdfTeX)
14892 \Hy@pstringdef\Hy@pstringName{\HyperDestNameFilter{##3}}%
14893 \Hy@OutlineName{}\Hy@pstringName{%
14894 ##2\check@bm@number{##3}%
14895 }{%
14896 \expandafter\strip@prefix\meaning\Hy@temp
14897 }%
14898 \*pdfTeX)
14899 \*pdfmark)
14900 \pdfmark{%
14901 pdfmark=/OUT,%
14902 Count={##2\check@bm@number{##3}},%
14903 Dest={##3},%
14904 Title=\expandafter\strip@prefix\meaning\Hy@temp
14905 }%
14906 \*pdfmark)
14907 \*dvipdfm|xetex)
14908 \Hy@pstringdef\Hy@pstringName{\HyperDestNameFilter{##3}}%
14909 \@pdfm@mark{%
14910 outline \ifHy@DvipdfmxOutlineOpen
14911 [%
14912 \ifnum##21>\z@
14913 \else
14914 -%
14915 \fi
14916 ] %
14917 \fi
14918 ##1<<%
14919 /Title(\expandafter\strip@prefix\meaning\Hy@temp)%
14920 /A<<%
14921 /S/GoTo%
14922 /D(\Hy@pstringName)%
14923 >>%
14924 >>%
14925 }%
14926 \*dvipdfm|xetex)
14927 }%
14928 \begingroup
14929 \def\WriteBookmarks{0}%
14930 \InputIfFileExists{\jobname.out}{-}{-}%
14931 \endgroup
14932 %{\escapechar\m@ne\InputIfFileExists{\jobname.out}{-}{-}}%
14933 \endgroup
14934 }%
14935 \ifx\WriteBookmarks\relax
14936 \else
14937 \if@files

```

```

14938 \newwrite\@outlinefile
14939 \Hy@OutlineRerunCheck
14940 \immediate\openout\@outlinefile=\jobname.out\relax
14941 \ifHy@typexml
14942 \immediate\write\@outlinefile{<relaxxml>\relax}%
14943 \fi
14944 \fi
14945 \fi
14946 }
14947 <*/pdfTex>
14948 \def\Hy@OutlineName#1#2#3#4{%
14949 \pdfoutline goto name{#2}count#3{#4}%
14950 }
14951 </pdfTex>
14952 \def\check@bm@number#1{%
14953 \expandafter\ifx\csname B_#1\endcsname\relax
14954 0%
14955 \else
14956 \csname B_#1\endcsname
14957 \fi
14958 }
14959 \def\calc@bm@number#1{%
14960 \@tempcnta=\check@bm@number{#1}\relax
14961 \advance\@tempcnta by 1 %
14962 \expandafter\xdef\csname B_#1\endcsname{the\@tempcnta}%
14963 }
14964 </!vTex>

14965 \ifHy@implicit
14966 \else
14967 \expandafter\endinput
14968 \fi

14969 </outlines>
14970 <*/outlines | hypertex>

14971 \newlength\Hy@SectionHShift
14972 \def\Hy@SectionAnchorHref#1{%
14973 \ifx\protect\@typeset@protect
14974 \Hy@@@SectionAnchor{#1}%
14975 \fi
14976 }
14977 \DeclareRobustCommand*{\Hy@@@SectionAnchor}[1]{%
14978 \leavevmode
14979 \hbox to 0pt{%
14980 \kern-\Hy@SectionHShift
14981 \Hy@raisedlink{%
14982 \hyper@anchorstart{#1}\hyper@anchorend
14983 }%
14984 \hss
14985 }%
14986 }
14987 \let\H@old@ssect\@ssect
14988 \def\@ssect#1#2#3#4#5{%
14989 \Hy@MakeCurrentHrefAuto{section*}%
14990 \setlength{\Hy@SectionHShift}{#1}%
14991 \begingroup
14992 \toks@{\H@old@ssect{#1}{#2}{#3}{#4}}%
14993 \toks\tw@\expandafter{%

```

```

14994 \expandafter\Hy@sectionAnchorHref\expandafter{\@currentHref}%
14995 #5%
14996 }%
14997 \edef\x{\endgroup
14998 \the\toks@{\the\toks\tw@}}%
14999 }\x
15000 }
15001 \let\H@old@chapter\@chapter
15002 \def\@chapter#1{%
15003 \begingroup
15004 \let\@mkboth\@gobbletwo
15005 \Hy@MakeCurrentHrefAuto{\Hy@chapapp*}%
15006 \Hy@raisedlink{%
15007 \hyper@anchorstart{\@currentHref}\hyper@anchorend
15008 }%
15009 \endgroup
15010 \H@old@chapter{#1}%
15011 }

```

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:

```

15012 \ltx@ifundefined{@chapter}{-}{%
15013 \let\Hy@org@chapter\@chapter
15014 \def\@chapter{%
15015 \def\Hy@next{%
15016 \Hy@MakeCurrentHrefAuto{\Hy@chapapp*}%
15017 \Hy@raisedlink{%
15018 \hyper@anchorstart{\@currentHref}\hyper@anchorend
15019 }%
15020 }%
15021 \ifnum\c@secnumdepth>\m@ne
15022 \ltx@ifundefined{if@mainmatter}%
15023 \iftrue{csname if@mainmatter\endcsname}%
15024 \let\Hy@next\relax
15025 \fi
15026 \fi
15027 \Hy@next
15028 \Hy@org@chapter
15029 }%
15030 }

15031 \let\H@old@part\@part
15032 \begingroup\expandafter\expandafter\expandafter\endgroup
15033 \expandafter\ifx\csname chapter\endcsname\relax
15034 \let\Hy@secnum@part\z@
15035 \else
15036 \let\Hy@secnum@part\m@ne
15037 \fi
15038 \def\@part{%
15039 \ifnum\Hy@secnum@part>\c@secnumdepth
15040 \phantomsection
15041 \fi
15042 \H@old@part
15043 }

15044 \let\H@old@spart\@spart
15045 \def\@spart#1{%
15046 \Hy@MakeCurrentHrefAuto{part*}%

```

```

15047 \Hy@raisedlink{%
15048   \hyper@anchorstart{\@currentHref}\hyper@anchorend
15049 }%
15050 \H@old@spart{#1}%
15051 }
15052 \let\H@old@sect\@sect
15053 \def\@sect#1#2#3#4#5#6[#7]#8{%
15054   \ifnum #2>\c@secnumdepth
15055     \expandafter\@firstoftwo
15056   \else
15057     \expandafter\@secondoftwo
15058   \fi
15059   {%
15060     \Hy@MakeCurrentHrefAuto{section*}%
15061     \setlength{\Hy@SectionHShift}{#3}%
15062     \begingroup
15063       \toks@{\H@old@sect{#1}{#2}{#3}{#4}{#5}{#6}{#7}}%
15064       \toks\tw@\expandafter{%
15065         \expandafter\Hy@SectionAnchorHref\expandafter{\@currentHref}%
15066         #8%
15067       }%
15068       \edef\x{\endgroup
15069         \the\toks@{\the\toks\tw@}%
15070       }\x
15071     }{%
15072       \H@old@sect{#1}{#2}{#3}{#4}{#5}{#6}{#7}{#8}%
15073     }%
15074   }

15075 </outlines | hypertex>
15076 <*outlines>

15077 \expandafter\def\csname Parent-4\endcsname{}
15078 \expandafter\def\csname Parent-3\endcsname{}
15079 \expandafter\def\csname Parent-2\endcsname{}
15080 \expandafter\def\csname Parent-1\endcsname{}
15081 \expandafter\def\csname Parent0\endcsname{}
15082 \expandafter\def\csname Parent1\endcsname{}
15083 \expandafter\def\csname Parent2\endcsname{}
15084 \expandafter\def\csname Parent3\endcsname{}
15085 \expandafter\def\csname Parent4\endcsname{}

15086 </outlines>

```

50 Compatibility with koma-script classes

```
15087 <*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.

```

15088 \def\Hy@tempa{%
15089   \def\@addchap[##1]##2{%
15090     \typeout{##2}%
15091     \if@twoside
15092       \@mkboth{##1}{}%
15093     \else
15094       \@mkboth{}{##1}%

```



```

15095 \fi
15096 \addtocontents{lof}{\protect\addvspace{10\p@}}%
15097 \addtocontents{lot}{\protect\addvspace{10\p@}}%
15098 \Hy@MakeCurrentHrefAuto{\Hy@chapapp}%
15099 \Hy@raisedlink{%
15100   \hyper@anchorstart{\@currentHref}\hyper@anchorend
15101 }%
15102 \if@twocolumn
15103   \@topnewpage[\@makeschapterhead{##2}]%
15104 \else
15105   \@makeschapterhead{##2}%
15106   \@afterheading
15107 \fi
15108 \addcontentsline{toc}{chapter}{##1}%
15109 }%
15110 }
15111 \@ifclassloaded{scrbook}{%
15112   \@ifclasslater{scrbook}{2001/01/01}{%
15113     \let\Hy@tempa\@empty
15114   }{%
15115 }%
15116 \@ifclassloaded{scrreprt}{%
15117   \@ifclasslater{scrreprt}{2001/01/01}{%
15118     \let\Hy@tempa\@empty
15119   }{%
15120 }%
15121   \let\Hy@tempa\@empty
15122 }%
15123 }%
15124 \Hy@tempa
15125 </outlines | hypertext>

```

51 Encoding definition files for encodings of PDF strings

This was contributed by Heiko Oberdiek.

51.1 PD1 encoding

```

15126 <*pd1enc>
15127 \DeclareFontEncoding{PD1}{}{}

Accents
15128 \DeclareTextAccent{'}{PD1}{\textasciigrave}
15129 \DeclareTextAccent{'~}{PD1}{\textacute}
15130 \DeclareTextAccent{^}{PD1}{\textasciicircum}
15131 \DeclareTextAccent{~}{PD1}{\texttilde}
15132 \DeclareTextAccent{¨}{PD1}{\textasciidieresis}
15133 \DeclareTextAccent{r}{PD1}{\textring}
15134 \DeclareTextAccent{v}{PD1}{\textasciicaron}
15135 \DeclareTextAccent{.}{PD1}{\textdotaccent}
15136 \DeclareTextAccent{c}{PD1}{\textcedilla}
15137 \DeclareTextAccent{=}{PD1}{\textasciimacron}
15138 \DeclareTextAccent{b}{PD1}{\textmacronbelow}
15139 \DeclareTextAccent{d}{PD1}{\textdotbelow}
15140 \DeclareTextCompositeCommand{'}{PD1}{\@empty}{\textasciigrave}
15141 \DeclareTextCompositeCommand{'~}{PD1}{\@empty}{\textacute}

```

```

15142 \DeclareTextCompositeCommand{\^}{PD1}{\@empty}{\textasciicircum}
15143 \DeclareTextCompositeCommand{\~}{PD1}{\@empty}{\texttilde}
15144 \DeclareTextCompositeCommand{\"}{PD1}{\@empty}{\textasciidieresis}
15145 \DeclareTextCompositeCommand{\r}{PD1}{\@empty}{\textring}
15146 \DeclareTextCompositeCommand{\v}{PD1}{\@empty}{\textasciicaron}
15147 \DeclareTextCompositeCommand{\.}{PD1}{\@empty}{\textdotaccent}
15148 \DeclareTextCompositeCommand{\c}{PD1}{\@empty}{\textcedilla}
15149 \DeclareTextCompositeCommand{\=}{PD1}{\@empty}{\textasciimacron}
15150 \DeclareTextCompositeCommand{\b}{PD1}{\@empty}{\textmacronbelow}
15151 \DeclareTextCompositeCommand{\d}{PD1}{\@empty}{\textdotbelow}
15152 \DeclareTextCompositeCommand{\'}{PD1}{\ }{\textasciigrave}
15153 \DeclareTextCompositeCommand{\'}{PD1}{\ }{\textacute}
15154 \DeclareTextCompositeCommand{\^}{PD1}{\ }{\textasciicircum}
15155 \DeclareTextCompositeCommand{\~}{PD1}{\ }{\texttilde}
15156 \DeclareTextCompositeCommand{\"}{PD1}{\ }{\textasciidieresis}
15157 \DeclareTextCompositeCommand{\r}{PD1}{\ }{\textring}
15158 \DeclareTextCompositeCommand{\v}{PD1}{\ }{\textasciicaron}
15159 \DeclareTextCompositeCommand{\.}{PD1}{\ }{\textdotaccent}
15160 \DeclareTextCompositeCommand{\c}{PD1}{\ }{\textcedilla}
15161 \DeclareTextCompositeCommand{\=}{PD1}{\ }{\textasciimacron}
15162 \DeclareTextCompositeCommand{\b}{PD1}{\ }{\textmacronbelow}
15163 \DeclareTextCompositeCommand{\d}{PD1}{\ }{\textdotbelow}
15164 \DeclareTextCommand{\k}{PD1}[1]{\TextSymbolUnavailable{\k{#1}}}{#1}
15165 \DeclareTextCommand{\t}{PD1}[1]{\TextSymbolUnavailable{\t{#1}}}{#1}
15166 \DeclareTextCommand{\newtie}{PD1}[1]{%
15167   \TextSymbolUnavailable{\newtie{#1}}}{#1}%
15168 }

```

Special white space escape characters not for use in bookmarks but for other PDF strings.

```

15169 % U+0009 (CHARACTER TABULATION)
15170 \DeclareTextCommand{\textHT}{PD1}{\011}% U+0009
15171 % U+000A (LINE FEED)
15172 \DeclareTextCommand{\textLF}{PD1}{\012}% U+000A
15173 % U+000D (CARRIAGE RETURN)
15174 \DeclareTextCommand{\textCR}{PD1}{\015}% U+000D

```

Accent glyph names

```

15175 % U+02D8 BREVE; breve
15176 \DeclareTextCommand{\textasciibreve}{PD1}{\030}% U+02D8
15177 % U+02C7 CARON; caron
15178 \DeclareTextCommand{\textasciicaron}{PD1}{\031}% U+02C7
15179 % U+02C6 MODIFIER LETTER CIRCUMFLEX ACCENT; circumflex
15180 \DeclareTextCommand{\textcircumflex}{PD1}{\032}% U+02C6
15181 % U+02D9 DOT ABOVE; dotaccent
15182 \DeclareTextCommand{\textdotaccent}{PD1}{\033}% U+02D9
15183 % U+02DD DOUBLE ACUTE ACCENT; hungarumlaut
15184 \DeclareTextCommand{\texthungarumlaut}{PD1}{\034}% U+02DD
15185 % U+02DB OGONEK; ogonek
15186 \DeclareTextCommand{\textogonek}{PD1}{\035}% U+02DB
15187 % U+02DA RING ABOVE; ring
15188 \DeclareTextCommand{\textring}{PD1}{\036}% U+02DA
15189 % U+02DC SMALL TILDE; ilde, *tilde
15190 \DeclareTextCommand{\texttilde}{PD1}{\037}% U+02DC

```

\040: U+0020 SPACE; *space, spacehackarabic

\041: U+0021 EXCLAMATION MARK; exclam

15191 % U+0022 QUOTATION MARK; quotedbl

15192 \DeclareTextCommand{\textquotedbl}{PD1}{"}% \042 U+0022

15193 % U+0023 NUMBER SIGN; numbersign
 15194 \DeclareTextCommand{\textnumbersign}{PD1}{\043}% U+0023
 15195 % U+0024 DOLLAR SIGN; dollar
 15196 \DeclareTextCommand{\textdollar}{PD1}{\044}% U+0024
 15197 % U+0025 PERCENT SIGN; percent
 15198 \DeclareTextCommand{\textpercent}{PD1}{\045}% U+0025
 15199 % U+0026 AMPERSAND; ampersand
 15200 \DeclareTextCommand{\textampersand}{PD1}{\046}% U+0026
 \047: U+0027 APOSTROPHE; quotesingle

 15201 % U+0028 LEFT PARENTHESIS; parenleft
 15202 \DeclareTextCommand{\textparenleft}{PD1}{\string\{}% \050 U+0028
 15203 % U+0029 RIGHT PARENTHESIS; parenright
 15204 \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
 15205 % U+002E FULL STOP; period
 15206 \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
 15207 % U+003C LESS-THAN SIGN; less
 15208 \DeclareTextCommand{\textless}{PD1}{<}% \074 U+003C
 \075: U+003D EQUALS SIGN; equal
 15209 % U+003E GREATER-THAN SIGN; greater
 15210 \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
 15211 % U+005C REVERSE SOLIDUS; backslash
 15212 \DeclareTextCommand{\textbackslash}{PD1}{\134}% U+005C
 15213 % "U+2216 SET MINUS" simulated by "U+005C REVERSE SOLIDUS"
 15214 \DeclareTextCommand{\textsetminus}{PD1}{\textbackslash}
 \135: U+005D RIGHT SQUARE BRACKET; bracketright
 15215 % U+005E CIRCUMFLEX ACCENT; asciicircum
 15216 \DeclareTextCommand{\textasciicircum}{PD1}{\136}% U+005E
 15217 % U+005F LOW LINE; underscore
 15218 \DeclareTextCommand{\textunderscore}{PD1}{\137}% U+005F
 15219 \DeclareTextCommand{\textmacronbelow}{PD1}{\137}% U+005F
 15220 % U+0060 GRAVE ACCENT; grave
 15221 \DeclareTextCommand{\textasciigrave}{PD1}{\140}% U+0060
 \141: U+0061 LATIN SMALL LETTER A; a
 ...
 \150: U+0068 LATIN SMALL LETTER H; h

15222 % U+0069 LATIN SMALL LETTER I; i
 15223 \DeclareTextCompositeCommand{\.}{PD1}{i}{i}% \151 U+0069
 \152: U+006A LATIN SMALL LETTER J; j
 ...
 \172: U+007A LATIN SMALL LETTER Z; z
 15224 % U+007B LEFT CURLY BRACKET; braceleft
 15225 \DeclareTextCommand{\textbraceleft}{PD1}{\173}% U+007B
 15226 % U+007C VERTICAL LINE; *bar, verticalbar
 15227 \DeclareTextCommand{\textbar}{PD1}{|}% U+007C
 15228 % U+007D RIGHT CURLY BRACKET; braceright
 15229 \DeclareTextCommand{\textbraceright}{PD1}{\175}% U+007D
 15230 % U+007E TILDE; asciitilde
 15231 \DeclareTextCommand{\textasciitilde}{PD1}{\176}% U+007E
 Slot \177 (0x7F) is undefined in PDFDocEncoding.
 15232 % U+2022 BULLET; bullet
 15233 \DeclareTextCommand{\textbullet}{PD1}{\200}% U+2022
 15234 % U+2020 DAGGER; dagger
 15235 \DeclareTextCommand{\textdagger}{PD1}{\201}% U+2020
 15236 % U+2021 DOUBLE DAGGER; daggerdbl; ddagger (LaTeX)
 15237 \DeclareTextCommand{\textdaggerdbl}{PD1}{\202}% U+2021
 15238 \DeclareTextCommand{\textddagger}{PD1}{\textddagger}
 15239 % U+2026 HORIZONTAL ELLIPSIS; ellipsis
 15240 \DeclareTextCommand{\textellipsis}{PD1}{\203}% U+2026
 15241 % U+2014 EM DASH; emdash
 15242 \DeclareTextCommand{\textemdash}{PD1}{\204}% U+2014
 15243 % U+2013 EN DASH; endash
 15244 \DeclareTextCommand{\textendash}{PD1}{\205}% U+2013
 15245 % U+0192 LATIN SMALL LETTER F WITH HOOK; florin
 15246 \DeclareTextCommand{\textflorin}{PD1}{\206}% U+0192
 15247 % U+2044 FRACTION SLASH; fraction
 15248 \DeclareTextCommand{\textfractionsolidus}{PD1}{\207}% U+2044
 15249 % U+2039 SINGLE LEFT-POINTING ANGLE QUOTATION MARK; guil-
 lingleft
 15250 \DeclareTextCommand{\guilsingleft}{PD1}{\210}% U+2039
 15251 % U+203A SINGLE RIGHT-POINTING ANGLE QUOTATION MARK; guils-
 ingright
 15252 \DeclareTextCommand{\guilsingright}{PD1}{\211}% U+203A
 15253 % U+2212 MINUS SIGN; minus
 15254 \DeclareTextCommand{\textminus}{PD1}{\212}% U+2212
 15255 % U+2030 PER MILLE SIGN; perthousand
 15256 \DeclareTextCommand{\textperthousand}{PD1}{\213}% U+2030
 15257 % U+201E DOUBLE LOW-9 QUOTATION MARK; quotedblbase
 15258 \DeclareTextCommand{\quotedblbase}{PD1}{\214}% U+201E
 15259 % U+201C LEFT DOUBLE QUOTATION MARK; quotedblleft
 15260 \DeclareTextCommand{\textquotedblleft}{PD1}{\215}% U+201C
 15261 % U+201D RIGHT DOUBLE QUOTATION MARK; quotedblright
 15262 \DeclareTextCommand{\textquotedblright}{PD1}{\216}% U+201D
 15263 % U+2018 LEFT SINGLE QUOTATION MARK; quoteleft
 15264 \DeclareTextCommand{\textquoteleft}{PD1}{\217}% U+2018
 15265 % U+2019 RIGHT SINGLE QUOTATION MARK; quoteright
 15266 \DeclareTextCommand{\textquoteright}{PD1}{\220}% U+2019
 15267 % U+201A SINGLE LOW-9 QUOTATION MARK; quotesinglbase
 15268 \DeclareTextCommand{\quotesinglbase}{PD1}{\221}% U+201A
 15269 % U+2122 TRADE MARK SIGN; trademark
 15270 \DeclareTextCommand{\texttrademark}{PD1}{\222}% U+2122
 15271 % U+FB01 LATIN SMALL LIGATURE FI; fi
 15272 \DeclareTextCommand{\textfi}{PD1}{\223}% U+FB01

15273 % U+FB02 LATIN SMALL LIGATURE FL; fl
 15274 \DeclareTextCommand{\textfl}{PD1}{\224}% U+FB02
 15275 % U+0141 LATIN CAPITAL LETTER L WITH STROKE; Lslash
 15276 \DeclareTextCommand{\L}{PD1}{\225}% U+0141
 15277 % U+0152 LATIN CAPITAL LIGATURE OE; OE
 15278 \DeclareTextCommand{\OE}{PD1}{\226}% U+0152
 15279 % U+0160 LATIN CAPITAL LETTER S WITH CARON; Scaron
 15280 \DeclareTextCompositeCommand{\v}{PD1}{S}{\227}% U+0160
 15281 % U+0178 LATIN CAPITAL LETTER Y WITH DIAERESIS; Ydieresis
 15282 \DeclareTextCompositeCommand{\”}{PD1}{Y}{\230}% U+0178
 15283 \DeclareTextCommand{\IJ}{PD1}{IJ}% ligature U+0049 U+004A
 15284 % U+017D LATIN CAPITAL LETTER Z WITH CARON; Zcaron
 15285 \DeclareTextCompositeCommand{\v}{PD1}{Z}{\231}% U+017D
 15286 % U+0131 LATIN SMALL LETTER DOTLESS I; dotlessi
 15287 \DeclareTextCommand{\i}{PD1}{\232}% U+0131
 15288 % U+0142 LATIN SMALL LETTER L WITH STROKE; lslash
 15289 \DeclareTextCommand{\l}{PD1}{\233}% U+0142
 15290 % U+0153 LATIN SMALL LIGATURE OE; oe
 15291 \DeclareTextCommand{\oe}{PD1}{\234}% U+0153
 15292 % U+0161 LATIN SMALL LETTER S WITH CARON; scaron
 15293 \DeclareTextCompositeCommand{\v}{PD1}{s}{\235}% U+0161
 15294 % U+017E LATIN SMALL LETTER Z WITH CARON; zcaron
 15295 \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.
 15296 % U+20AC EURO SIGN; *Euro, euro
 15297 \DeclareTextCommand{\texteuro}{PD1}{\240}% U+20AC
 15298 % U+00A1 INVERTED EXCLAMATION MARK; exclamdown
 15299 \DeclareTextCommand{\textexclamdown}{PD1}{\241}% U+00A1
 15300 % U+00A2 CENT SIGN; cent
 15301 \DeclareTextCommand{\textcent}{PD1}{\242}% U+00A2
 15302 % U+00A3 POUND SIGN; sterling
 15303 \DeclareTextCommand{\textsterling}{PD1}{\243}% U+00A3
 15304 % U+00A4 CURRENCY SIGN; currency
 15305 \DeclareTextCommand{\textcurrency}{PD1}{\244}% U+00A4
 15306 % U+00A5 YEN SIGN; yen
 15307 \DeclareTextCommand{\textyen}{PD1}{\245}% U+00A5
 15308 % U+00A6 BROKEN BAR; brokenbar
 15309 \DeclareTextCommand{\textbrokenbar}{PD1}{\246}% U+00A6
 15310 % U+00A7 SECTION SIGN; section
 15311 \DeclareTextCommand{\textsection}{PD1}{\247}% U+00A7
 15312 % U+00A8 DIAERESIS; dieresis
 15313 \DeclareTextCommand{\textasciidieresis}{PD1}{\250}% U+00A8
 15314 % U+00A9 COPYRIGHT SIGN; copyright
 15315 \DeclareTextCommand{\textcopyright}{PD1}{\251}% U+00A9
 15316 % U+00AA FEMININE ORDINAL INDICATOR; ordfeminine
 15317 \DeclareTextCommand{\textordfeminine}{PD1}{\252}% U+00AA
 15318 % U+00AB LEFT-POINTING DOUBLE ANGLE QUOTATION MARK; guille-
 motleft
 15319 \DeclareTextCommand{\guillemotleft}{PD1}{\253}% U+00AB
 15320 % U+00AC NOT SIGN; logicalnot
 15321 \DeclareTextCommand{\textlogicalnot}{PD1}{\254}% U+00AC
 15322 \DeclareTextCommand{\textlnot}{PD1}{\254}% logical not
 No glyph \255 in PDFDocEncoding.
 15323 % U+00AE REGISTERED SIGN; registered
 15324 \DeclareTextCommand{\textregistered}{PD1}{\256}% U+00AE
 15325 % U+00AF MACRON; *macron, overscore

15326 \DeclareTextCommand{\textasciimacron}{PD1}{\257}% U+00AF
15327 % U+00B0 DEGREE SIGN; degree
15328 \DeclareTextCommand{\textdegree}{PD1}{\260}% U+00B0
15329 % U+00B1 PLUS-MINUS SIGN; plusminus
15330 \DeclareTextCommand{\textplusminus}{PD1}{\261}% U+00B1
15331 % U+00B2 SUPERSCRIPT TWO; twosuperior
15332 \DeclareTextCommand{\texttwosuperior}{PD1}{\262}%* U+00B2
15333 % U+00B3 SUPERSCRIPT THREE; threesuperior
15334 \DeclareTextCommand{\textthreesuperior}{PD1}{\263}%* U+00B3
15335 % U+00B4 ACUTE ACCENT; acute
15336 \DeclareTextCommand{\textacute}{PD1}{\264}% U+00B4
15337 % U+00B5 MICRO SIGN; mu, mu1
15338 \DeclareTextCommand{\textmu}{PD1}{\265}% U+00B5
15339 % U+00B6 PILCROW SIGN; paragraph
15340 \DeclareTextCommand{\textparagraph}{PD1}{\266}% U+00B6
15341 % U+00B7 MIDDLE DOT; middot, *periodcentered
15342 \DeclareTextCommand{\textperiodcentered}{PD1}{\267}% U+00B7
15343 % U+00B8 CEDILLA; cedilla
15344 \DeclareTextCommand{\textcedilla}{PD1}{\270}% U+00B8
15345 % U+00B9 SUPERSCRIPT ONE; onesuperior
15346 \DeclareTextCommand{\textonesuperior}{PD1}{\271}%* U+00B9
15347 % U+00BA MASCULINE ORDINAL INDICATOR; ordmasculine
15348 \DeclareTextCommand{\textordmasculine}{PD1}{\272}% U+00BA
15349 % U+00BB RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK; guille-
motright
15350 \DeclareTextCommand{\guillemotright}{PD1}{\273}% U+00BB
15351 % U+00BC VULGAR FRACTION ONE QUARTER; onequarter
15352 \DeclareTextCommand{\textonequarter}{PD1}{\274}% U+00BC
15353 % U+00BD VULGAR FRACTION ONE HALF; onehalf
15354 \DeclareTextCommand{\textonehalf}{PD1}{\275}% U+00BD
15355 % U+00BE VULGAR FRACTION THREE QUARTERS; threequarters
15356 \DeclareTextCommand{\textthreequarters}{PD1}{\276}% U+00BE
15357 % U+00BF INVERTED QUESTION MARK; questiondown
15358 \DeclareTextCommand{\textquestiondown}{PD1}{\277}% U+00BF
15359 % U+00C0 LATIN CAPITAL LETTER A WITH GRAVE; Agrave
15360 \DeclareTextCompositeCommand{\`}{PD1}{A}{\300}% U+00C0
15361 % U+00C1 LATIN CAPITAL LETTER A WITH ACUTE; Aacute
15362 \DeclareTextCompositeCommand{\'}{PD1}{A}{\301}% U+00C1
15363 % U+00C2 LATIN CAPITAL LETTER A WITH CIRCUMFLEX; Acircumflex
15364 \DeclareTextCompositeCommand{\^}{PD1}{A}{\302}% U+00C2
15365 % U+00C3 LATIN CAPITAL LETTER A WITH TILDE; Atilde
15366 \DeclareTextCompositeCommand{\~}{PD1}{A}{\303}% U+00C3
15367 % U+00C4 LATIN CAPITAL LETTER A WITH DIAERESIS; Adieresis
15368 \DeclareTextCompositeCommand{\"}{PD1}{A}{\304}% U+00C4
15369 % U+00C5 LATIN CAPITAL LETTER A WITH RING ABOVE; Aring
15370 \DeclareTextCompositeCommand{\r}{PD1}{A}{\305}% U+00C5
15371 % U+00C6 LATIN CAPITAL LETTER AE; AE
15372 \DeclareTextCommand{\AE}{PD1}{\306}% U+00C6
15373 % U+00C7 LATIN CAPITAL LETTER C WITH CEDILLA; Ccedilla
15374 \DeclareTextCompositeCommand{\c}{PD1}{C}{\307}% U+00C7
15375 % U+00C8 LATIN CAPITAL LETTER E WITH GRAVE; Egrave
15376 \DeclareTextCompositeCommand{\`}{PD1}{E}{\310}% U+00C8
15377 % U+00C9 LATIN CAPITAL LETTER E WITH ACUTE; Eacute
15378 \DeclareTextCompositeCommand{\'}{PD1}{E}{\311}% U+00C9
15379 % U+00CA LATIN CAPITAL LETTER E WITH CIRCUMFLEX; Ecircumflex
15380 \DeclareTextCompositeCommand{\^}{PD1}{E}{\312}% U+00CA
15381 % U+00CB LATIN CAPITAL LETTER E WITH DIAERESIS; Edieresis

15382 \DeclareTextCompositeCommand{"}{PD1}{E}{\313}% U+00CB
15383 % U+00CC LATIN CAPITAL LETTER I WITH GRAVE; Igrave
15384 \DeclareTextCompositeCommand{'}{PD1}{I}{\314}% U+00CC
15385 % U+00CD LATIN CAPITAL LETTER I WITH ACUTE; Iacute
15386 \DeclareTextCompositeCommand{'}{PD1}{I}{\315}% U+00CD
15387 % U+00CE LATIN CAPITAL LETTER I WITH CIRCUMFLEX; Icircumflex
15388 \DeclareTextCompositeCommand{^}{PD1}{I}{\316}% U+00CE
15389 % U+00CF LATIN CAPITAL LETTER I WITH DIAERESIS; Idieresis
15390 \DeclareTextCompositeCommand{"}{PD1}{I}{\317}% U+00CF
15391 % U+00D0 LATIN CAPITAL LETTER ETH; Eth
15392 \DeclareTextCommand{\DH}{PD1}{\320}% U+00D0
15393 \DeclareTextCommand{\DJ}{PD1}{\320}% U+00D0
15394 % U+00D1 LATIN CAPITAL LETTER N WITH TILDE; Ntilde
15395 \DeclareTextCompositeCommand{~}{PD1}{N}{\321}% U+00D1
15396 % U+00D2 LATIN CAPITAL LETTER O WITH GRAVE; Ograve
15397 \DeclareTextCompositeCommand{'}{PD1}{O}{\322}% U+00D2
15398 % U+00D3 LATIN CAPITAL LETTER O WITH ACUTE; Oacute
15399 \DeclareTextCompositeCommand{'}{PD1}{O}{\323}% U+00D3
15400 % U+00D4 LATIN CAPITAL LETTER O WITH CIRCUMFLEX; Ocircumflex
15401 \DeclareTextCompositeCommand{^}{PD1}{O}{\324}% U+00D4
15402 % U+00D5 LATIN CAPITAL LETTER O WITH TILDE; Otilde
15403 \DeclareTextCompositeCommand{~}{PD1}{O}{\325}% U+00D5
15404 % U+00D6 LATIN CAPITAL LETTER O WITH DIAERESIS; Odieresis
15405 \DeclareTextCompositeCommand{"}{PD1}{O}{\326}% U+00D6
15406 % U+00D7 MULTIPLICATION SIGN; multiply
15407 \DeclareTextCommand{\textmultiply}{PD1}{\327}% U+00D7
15408 % U+00D8 LATIN CAPITAL LETTER O WITH STROKE; Oslash
15409 \DeclareTextCommand{\O}{PD1}{\330}% U+00D8
15410 % U+00D9 LATIN CAPITAL LETTER U WITH GRAVE; Ugrave
15411 \DeclareTextCompositeCommand{'}{PD1}{U}{\331}% U+00D9
15412 % U+00DA LATIN CAPITAL LETTER U WITH ACUTE; Uacute
15413 \DeclareTextCompositeCommand{'}{PD1}{U}{\332}% U+00DA
15414 % U+00DB LATIN CAPITAL LETTER U WITH CIRCUMFLEX; Ucircumflex
15415 \DeclareTextCompositeCommand{^}{PD1}{U}{\333}% U+00DB
15416 % U+00DC LATIN CAPITAL LETTER U WITH DIAERESIS; Udieresis
15417 \DeclareTextCompositeCommand{"}{PD1}{U}{\334}% U+00DC
15418 % U+00DD LATIN CAPITAL LETTER Y WITH ACUTE; Yacute
15419 \DeclareTextCompositeCommand{'}{PD1}{Y}{\335}% U+00DD
15420 % U+00DE LATIN CAPITAL LETTER THORN; Thorn; \TH, \Thorn (wasysym)
15421 \DeclareTextCommand{\TH}{PD1}{\336}% U+00DE
15422 \DeclareTextCommand{\textThorn}{PD1}{\336}%* U+00DE
15423 % U+00DF LATIN SMALL LETTER SHARP S; germandbls
15424 \DeclareTextCommand{\ss}{PD1}{\337}% U+00DF
15425 % U+00E0 LATIN SMALL LETTER A WITH GRAVE; agrave
15426 \DeclareTextCompositeCommand{'}{PD1}{a}{\340}% U+00E0
15427 % U+00E1 LATIN SMALL LETTER A WITH ACUTE; aacute
15428 \DeclareTextCompositeCommand{'}{PD1}{a}{\341}% U+00E1
15429 % U+00E2 LATIN SMALL LETTER A WITH CIRCUMFLEX; acircumflex
15430 \DeclareTextCompositeCommand{^}{PD1}{a}{\342}% U+00E2
15431 % U+00E3 LATIN SMALL LETTER A WITH TILDE; atilde
15432 \DeclareTextCompositeCommand{~}{PD1}{a}{\343}% U+00E3
15433 % U+00E4 LATIN SMALL LETTER A WITH DIAERESIS; adieresis
15434 \DeclareTextCompositeCommand{"}{PD1}{a}{\344}% U+00E4
15435 % U+00E5 LATIN SMALL LETTER A WITH RING ABOVE; aring
15436 \DeclareTextCompositeCommand{\r}{PD1}{a}{\345}% U+00E5
15437 % U+00E6 LATIN SMALL LETTER AE; ae
15438 \DeclareTextCommand{\ae}{PD1}{\346}% U+00E6

15439 % U+00E7 LATIN SMALL LETTER C WITH CEDILLA; ccedilla
15440 \DeclareTextCompositeCommand{\c}{PD1}{c}{\347}% U+00E7
15441 % U+00E8 LATIN SMALL LETTER E WITH GRAVE; egrave
15442 \DeclareTextCompositeCommand{\`}{PD1}{e}{\350}% U+00E8
15443 % U+00E9 LATIN SMALL LETTER E WITH ACUTE; eacute
15444 \DeclareTextCompositeCommand{\'}{PD1}{e}{\351}% U+00E9
15445 % U+00EA LATIN SMALL LETTER E WITH CIRCUMFLEX; ecircumflex
15446 \DeclareTextCompositeCommand{\^}{PD1}{e}{\352}% U+00EA
15447 % U+00EB LATIN SMALL LETTER E WITH DIAERESIS; edieresis
15448 \DeclareTextCompositeCommand{\"}{PD1}{e}{\353}% U+00EB
15449 % U+00EC LATIN SMALL LETTER I WITH GRAVE; igrave
15450 \DeclareTextCompositeCommand{\`}{PD1}{i}{\354}% U+00EC
15451 \DeclareTextCompositeCommand{\'}{PD1}{i}{\354}% U+00EC
15452 % U+00ED LATIN SMALL LETTER I WITH ACUTE; iacute
15453 \DeclareTextCompositeCommand{\`}{PD1}{i}{\355}% U+00ED
15454 \DeclareTextCompositeCommand{\'}{PD1}{i}{\355}% U+00ED
15455 % U+00EE LATIN SMALL LETTER I WITH CIRCUMFLEX; icircumflex
15456 \DeclareTextCompositeCommand{\^}{PD1}{i}{\356}% U+00EE
15457 \DeclareTextCompositeCommand{\^}{PD1}{i}{\356}% U+00EE
15458 % U+00EF LATIN SMALL LETTER I WITH DIAERESIS; idieresis
15459 \DeclareTextCompositeCommand{\"}{PD1}{i}{\357}% U+00EF
15460 \DeclareTextCompositeCommand{\"}{PD1}{i}{\357}% U+00EF
15461 % U+00F0 LATIN SMALL LETTER ETH; eth
15462 \DeclareTextCommand{\dh}{PD1}{\360}% U+00F0
15463 % U+00F1 LATIN SMALL LETTER N WITH TILDE; ntilde
15464 \DeclareTextCompositeCommand{\~}{PD1}{n}{\361}% U+00F1
15465 % U+00F2 LATIN SMALL LETTER O WITH GRAVE; ograve
15466 \DeclareTextCompositeCommand{\`}{PD1}{o}{\362}% U+00F2
15467 % U+00F3 LATIN SMALL LETTER O WITH ACUTE; oacute
15468 \DeclareTextCompositeCommand{\'}{PD1}{o}{\363}% U+00F3
15469 % U+00F4 LATIN SMALL LETTER O WITH CIRCUMFLEX; ocircumflex
15470 \DeclareTextCompositeCommand{\^}{PD1}{o}{\364}% U+00F4
15471 % U+00F5 LATIN SMALL LETTER O WITH TILDE; otilde
15472 \DeclareTextCompositeCommand{\~}{PD1}{o}{\365}% U+00F5
15473 % U+00F6 LATIN SMALL LETTER O WITH DIAERESIS; odieresis
15474 \DeclareTextCompositeCommand{\"}{PD1}{o}{\366}% U+00F6
15475 % U+00F7 DIVISION SIGN; divide
15476 \DeclareTextCommand{\textdivide}{PD1}{\367}% U+00F7
15477 % U+00F8 LATIN SMALL LETTER O WITH STROKE; oslash
15478 \DeclareTextCommand{\o}{PD1}{\370}% U+00F8
15479 % U+00F9 LATIN SMALL LETTER U WITH GRAVE; ugrave
15480 \DeclareTextCompositeCommand{\`}{PD1}{u}{\371}% U+00F9
15481 % U+00FA LATIN SMALL LETTER U WITH ACUTE; uacute
15482 \DeclareTextCompositeCommand{\'}{PD1}{u}{\372}% U+00FA
15483 % U+00FB LATIN SMALL LETTER U WITH CIRCUMFLEX; ucircumflex
15484 \DeclareTextCompositeCommand{\^}{PD1}{u}{\373}% U+00FB
15485 % U+00FC LATIN SMALL LETTER U WITH DIAERESIS; udieresis
15486 \DeclareTextCompositeCommand{\"}{PD1}{u}{\374}% U+00FC
15487 % U+00FD LATIN SMALL LETTER Y WITH ACUTE; yacute
15488 \DeclareTextCompositeCommand{\'}{PD1}{y}{\375}% U+00FD
15489 % U+00FE LATIN SMALL LETTER THORN; thorn; \th, \thorn (wasysym)
15490 \DeclareTextCommand{\th}{PD1}{\376}% U+00FE
15491 \DeclareTextCommand{\textthorn}{PD1}{\376}%* U+00FE
15492 % U+00FF LATIN SMALL LETTER Y WITH DIAERESIS; ydieresis
15493 \DeclareTextCompositeCommand{\"}{PD1}{y}{\377}% U+00FF
15494 \DeclareTextCommand{\ij}{PD1}{ij}% ligature U+0069 U+006A

Glyphs that consist of several characters.


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15495 \DeclareTextCommand{\SS}{PD1}{SS}%
15496 \DeclareTextCommand{\textcelsius}{PD1}{\textdegree C}%
Aliases (german.sty)
15497 \DeclareTextCommand{\textglqq}{PD1}{\quotedblbase}%
15498 \DeclareTextCommand{\textgrqq}{PD1}{\textquotedblleft}%
15499 \DeclareTextCommand{\textglq}{PD1}{\quotesinglbase}%
15500 \DeclareTextCommand{\textgrq}{PD1}{\textquoteleft}%
15501 \DeclareTextCommand{\textflqq}{PD1}{\guillemotleft}%
15502 \DeclareTextCommand{\textfrqq}{PD1}{\guillemotright}%
15503 \DeclareTextCommand{\textflq}{PD1}{\guilsinglleft}%
15504 \DeclareTextCommand{\textfrq}{PD1}{\guilsinglright}%
Aliases (math names)
15505 \DeclareTextCommand{\textneg}{PD1}{\textlogicalnot}%
15506 \DeclareTextCommand{\texttimes}{PD1}{\textmultiply}%
15507 \DeclareTextCommand{\textdiv}{PD1}{\textdivide}%
15508 \DeclareTextCommand{\textpm}{PD1}{\textplusminus}%
15509 \DeclareTextCommand{\textcdot}{PD1}{\textperiodcentered}%
15510 \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).
15511 \DeclareTextCompositeCommand{\k}{PD1}{a}{a}% aogonek
15512 \DeclareTextCompositeCommand{\'}{PD1}{c}{c}% cacute
15513 \DeclareTextCompositeCommand{\k}{PD1}{e}{e}% eogonek
15514 \DeclareTextCompositeCommand{\'}{PD1}{n}{n}% nacute
15515 \DeclareTextCompositeCommand{\'}{PD1}{s}{s}% sacute
15516 \DeclareTextCompositeCommand{\'}{PD1}{z}{z}% zacute
15517 \DeclareTextCompositeCommand{\.}{PD1}{z}{z}% zdot
15518 \DeclareTextCompositeCommand{\k}{PD1}{A}{A}% Aogonek
15519 \DeclareTextCompositeCommand{\'}{PD1}{C}{C}% Cacute
15520 \DeclareTextCompositeCommand{\k}{PD1}{E}{E}% Eogonek
15521 \DeclareTextCompositeCommand{\'}{PD1}{N}{N}% Nacute
15522 \DeclareTextCompositeCommand{\'}{PD1}{S}{S}% Sacute
15523 \DeclareTextCompositeCommand{\'}{PD1}{Z}{Z}% Zacute
15524 \DeclareTextCompositeCommand{\.}{PD1}{Z}{Z}% Zdot
15525 \end{pd1enc}

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51.2 PU encoding

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15526 (*puenc)
15527 \DeclareFontEncoding{PU}{}{}

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51.2.1 NFSS2 accents

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15528 % U+0300 COMBINING GRAVE ACCENT; gravecmb, *gravecomb
15529 \DeclareTextCommand{\`}{PU}[1]{\#1\83\000}% U+0300
15530 % U+0301 COMBINING ACUTE ACCENT; acutecmb, *acutecomb
15531 \DeclareTextCommand{\'}{PU}[1]{\#1\83\001}% U+0301
15532 % U+0302 COMBINING CIRCUMFLEX ACCENT; circumflexcmb
15533 \DeclareTextCommand{\^}{PU}[1]{\#1\83\002}% U+0302
15534 % U+0303 COMBINING TILDE; tildecmb, *tildecmb
15535 \DeclareTextCommand{\~}{PU}[1]{\#1\83\003}% U+0303
15536 % U+0304 COMBINING MACRON; macroncmb
15537 \DeclareTextCommand{\=}{PU}[1]{\#1\83\004}% U+0304
15538 % U+0306 COMBINING BREVE; brevecmb
15539 \DeclareTextCommand{\u}{PU}[1]{\#1\83\006}% U+0306
15540 \DeclareTextCommand{\U}{PU}[1]{\#1\83\006}% U+0306

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15541 % U+0307 COMBINING DOT ABOVE; dotaccentcmb
 15542 \DeclareTextCommand{\.}{PU}[1]{#1\83\007}% U+0307
 15543 % U+0308 COMBINING DIAERESIS; dieresiscmb
 15544 \DeclareTextCommand{\"}{PU}[1]{#1\83\010}% U+0308
 15545 % U+030A COMBINING RING ABOVE; ringcmb
 15546 \DeclareTextCommand{\r}{PU}[1]{#1\83\012}% U+030A
 15547 % U+030B COMBINING DOUBLE ACUTE ACCENT; hungarumlautcmb
 15548 \DeclareTextCommand{\H}{PU}[1]{#1\83\013}% U+030B
 15549 % U+030C COMBINING CARON; caroncmb
 15550 \DeclareTextCommand{\v}{PU}[1]{#1\83\014}% U+030C
 15551 % U+030F COMBINING DOUBLE GRAVE ACCENT; dblgravecmb
 15552 \DeclareTextCommand{\G}{PU}[1]{#1\83\017}% U+030F
 15553 \DeclareTextCommand{\C}{PU}[1]{#1\83\017}% U+030F
 15554 % U+0311 COMBINING INVERTED BREVE; breveinvertedcmb
 15555 \DeclareTextCommand{\textinvbreve}{PU}[1]{#1\83\021}% U+0311
 15556 % U+0323 COMBINING DOT BELOW; dotbelowcmb, *dotbelowcmb
 15557 \DeclareTextCommand{\d}{PU}[1]{#1\83\043}% U+0323
 15558 % U+0324 COMBINING DIAERESIS BELOW; dieresisbelowcmb; \textsubum-
 laut (tipa)
 15559 \DeclareTextCommand{\textsubumlaut}{PU}[1]{#1\83\044}% U+0324
 15560 % U+0325 COMBINING RING BELOW; ringbelowcmb; \textsubring (tipa)
 15561 \DeclareTextCommand{\textsubring}{PU}[1]{#1\83\045}% U+0325
 15562 % U+0327 COMBINING CEDILLA; cedillacmb
 15563 \DeclareTextCommand{\c}{PU}[1]{#1\83\047}% U+0327
 15564 % U+0328 COMBINING OGONEK; ogonekcmb
 15565 \DeclareTextCommand{\k}{PU}[1]{#1\83\050}% U+0328
 15566 % U+032D COMBINING CIRCUMFLEX ACCENT BELOW;
 15567 % \textsubcircum (tipa)
 15568 \DeclareTextCommand{\textsubcircum}{PU}[1]{#1\83\055}% U+032D
 15569 % U+032E COMBINING BREVE BELOW; brevebelowcmb
 15570 \DeclareTextCommand{\textsubbreve}{PU}[1]{#1\83\056}% U+032E
 15571 % U+0330 COMBINING TILDE BELOW; tildebelowcmb; \textsubtilde (tipa)
 15572 \DeclareTextCommand{\textsubtilde}{PU}[1]{#1\83\060}% U+0330
 15573 % U+0331 COMBINING MACRON BELOW; macronbelowcmb
 15574 \DeclareTextCommand{\b}{PU}[1]{#1\83\061}% U+0331
 15575 % U+0361 COMBINING DOUBLE INVERTED BREVE; breveinverteddou-
 blecmb
 15576 \DeclareTextCommand{\t}{PU}[1]{#1\83\141}% U+0361
 15577 % U+20DD COMBINING ENCLOSING CIRCLE
 15578 \DeclareTextCommand{\textcircled}{PU}[1]{#1\9040\335}% U+20DD

Double accents.

15579 \DeclareTextCommand{\textacutemacron}{PU}[1]{#1\83\001\83\004}% U+0301 U+0304
 15580 \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.

15581 \DeclareTextCompositeCommand{\'}{PU}{\@empty}{\textasciigrave}%
 15582 \DeclareTextCompositeCommand{\'}{PU}{\@empty}{\textacute}%
 15583 \DeclareTextCompositeCommand{\`}{PU}{\@empty}{\textasciicircum}%
 15584 \DeclareTextCompositeCommand{\~}{PU}{\@empty}{\texttilde}%
 15585 \DeclareTextCompositeCommand{\"}{PU}{\@empty}{\textasciidieresis}%
 15586 \DeclareTextCompositeCommand{\r}{PU}{\@empty}{\textring}%
 15587 \DeclareTextCompositeCommand{\v}{PU}{\@empty}{\textasciicaron}%
 15588 \DeclareTextCompositeCommand{\.}{PU}{\@empty}{\textdotaccent}%
 15589 \DeclareTextCompositeCommand{\c}{PU}{\@empty}{\textcedilla}%
 15590 \DeclareTextCompositeCommand{\u}{PU}{\@empty}{\textasciibreve}%
 15591 \DeclareTextCompositeCommand{\G}{PU}{\@empty}{\textdoublegrave}%
 15592 \DeclareTextCompositeCommand{\=}{PU}{\@empty}{\textasciimacron}%

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15593 \DeclareTextCompositeCommand{\H}{PU}{\@empty}{\texthungarumlaut}%
15594 \DeclareTextCompositeCommand{\k}{PU}{\@empty}{\textogonek}%
15595 \DeclareTextCompositeCommand{\textinvbreve}{PU}{\@empty}{\{\ \83\021\}}% U+0311
15596 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{\@empty}{\{\ \83\044\}}% U+0324
15597 \DeclareTextCompositeCommand{\textsubring}{PU}{\@empty}{\textringlow}%
15598 \DeclareTextCompositeCommand{\textsubcircum}{PU}{\@empty}{\textcircum-
low}%
15599 \DeclareTextCompositeCommand{\textsubbreve}{PU}{\@empty}{\{\ \83\056\}}% U+032E
15600 \DeclareTextCompositeCommand{\textsubtilde}{PU}{\@empty}{\texttildebelow}%
15601 \DeclareTextCompositeCommand{\b}{PU}{\@empty}{\textmacronbelow}%
15602 \DeclareTextCompositeCommand{\d}{PU}{\@empty}{\textdotbelow}%
15603 \DeclareTextCompositeCommand{\t}{PU}{\@empty}{\texttie}%
15604 \DeclareTextCompositeCommand{\newtie}{PU}{\@empty}{\textnewtie}%
15605 \DeclareTextCompositeCommand{\textcircled}{PU}{\@empty}{\textbigcircle}%
15606 \DeclareTextCompositeCommand{\textacutemacron}{PU}{\@empty}{\{\ \83\001\83\004\}}% U+0301 U
15607 \DeclareTextCompositeCommand{\textgravemacron}{PU}{\@empty}{\{\ \83\000\83\004\}}% U+0300 U
15608 \DeclareTextCompositeCommand{\'}{PU}{\ }{\textasciigrave}%
15609 \DeclareTextCompositeCommand{\'}{PU}{\ }{\textacute}%
15610 \DeclareTextCompositeCommand{\^}{PU}{\ }{\textasciicircum}%
15611 \DeclareTextCompositeCommand{\~}{PU}{\ }{\texttilde}%
15612 \DeclareTextCompositeCommand{\"}{PU}{\ }{\textasciidieresis}%
15613 \DeclareTextCompositeCommand{\r}{PU}{\ }{\textring}%
15614 \DeclareTextCompositeCommand{\v}{PU}{\ }{\textasciicaron}%
15615 \DeclareTextCompositeCommand{\.}{PU}{\ }{\textdotaccent}%
15616 \DeclareTextCompositeCommand{\c}{PU}{\ }{\textcedilla}%
15617 \DeclareTextCompositeCommand{\u}{PU}{\ }{\textasciibreve}%
15618 \DeclareTextCompositeCommand{\G}{PU}{\ }{\textdoublegrave}%
15619 \DeclareTextCompositeCommand{\=}{PU}{\ }{\textasciimacron}%
15620 \DeclareTextCompositeCommand{\H}{PU}{\ }{\texthungarumlaut}%
15621 \DeclareTextCompositeCommand{\k}{PU}{\ }{\textogonek}%
15622 \DeclareTextCompositeCommand{\textinvbreve}{PU}{\ }{\{\ \83\021\}}% U+0311
15623 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{\ }{\{\ \83\044\}}% U+0324
15624 \DeclareTextCompositeCommand{\textsubring}{PU}{\ }{\textringlow}%
15625 \DeclareTextCompositeCommand{\textsubcircum}{PU}{\ }{\textcircumlow}%
15626 \DeclareTextCompositeCommand{\textsubbreve}{PU}{\ }{\{\ \83\056\}}% U+032E
15627 \DeclareTextCompositeCommand{\textsubtilde}{PU}{\ }{\texttildebelow}%
15628 \DeclareTextCompositeCommand{\b}{PU}{\ }{\textmacronbelow}%
15629 \DeclareTextCompositeCommand{\d}{PU}{\ }{\textdotbelow}%
15630 \DeclareTextCompositeCommand{\t}{PU}{\ }{\texttie}%
15631 \DeclareTextCompositeCommand{\newtie}{PU}{\ }{\textnewtie}%
15632 \DeclareTextCompositeCommand{\textcircled}{PU}{\ }{\textbigcircle}%
15633 \DeclareTextCompositeCommand{\textacutemacron}{PU}{\ }{\{\ \83\001\83\004\}}% U+0301 U+0304
15634 \DeclareTextCompositeCommand{\textgravemacron}{PU}{\ }{\{\ \83\000\83\004\}}% U+0300 U+0304

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Accents for capitals (see encoding TS1)

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15635 \DeclareTextCommand{\capitalcedilla}{PU}[1]{\c{#1}}%
15636 \DeclareTextCommand{\capitalogonek}{PU}[1]{\k{#1}}%
15637 \DeclareTextCommand{\capitalgrave}{PU}[1]{\'{#1}}%
15638 \DeclareTextCommand{\capitalacute}{PU}[1]{\'{#1}}%
15639 \DeclareTextCommand{\capitalcircumflex}{PU}[1]{\^{#1}}%
15640 \DeclareTextCommand{\capitaltilde}{PU}[1]{\~{#1}}%
15641 \DeclareTextCommand{\capitaldieresis}{PU}[1]{\"{#1}}%
15642 \DeclareTextCommand{\capitalhungarumlaut}{PU}[1]{\H{#1}}%
15643 \DeclareTextCommand{\capitalring}{PU}[1]{\r{#1}}%
15644 \DeclareTextCommand{\capitalcaron}{PU}[1]{\v{#1}}%
15645 \DeclareTextCommand{\capitalbreve}{PU}[1]{\u{#1}}%
15646 \DeclareTextCommand{\capitalmacron}{PU}[1]{\={#1}}%
15647 \DeclareTextCommand{\capitaldotaccent}{PU}[1]{\.{#1}}%

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15648 \DeclareTextCommand{\capitaltie}{PU}[1]{\t{#1}}%
 15649 \DeclareTextCommand{\capitalnewtie}{PU}[1]{\newtie{#1}}%

51.2.2 Basic Latin: U+0000 to U+007F

Special white space escape characters.

15650 % U+0009 (CHARACTER TABULATION)
 15651 \DeclareTextCommand{\textHT}{PU}{\80\011}% U+0009
 15652 % U+000A (LINE FEED)
 15653 \DeclareTextCommand{\textLF}{PU}{\80\012}% U+000A
 15654 % U+000D (CARRIAGE RETURN)
 15655 \DeclareTextCommand{\textCR}{PU}{\80\015}% U+000D
 \80\040: U+0020 SPACE; space, spacehackarabic
 \80\041: U+0021 EXCLAMATION MARK; exclam
 15656 % U+0022 QUOTATION MARK; quotedbl
 15657 \DeclareTextCommand{\textquotedbl}{PU}{"}% \80\042 U+0022
 15658 % U+0023 NUMBER SIGN; numbersign
 15659 \DeclareTextCommand{\textnumbersign}{PU}{\80\043}% U+0023
 15660 % U+0024 DOLLAR SIGN; dollar
 15661 \DeclareTextCommand{\textdollar}{PU}{\80\044}% U+0024
 15662 %* \textdollar -> \mathdollar
 15663 %* \textdollar -> \EyesDollar (marvosym)
 15664 % U+0025 PERCENT SIGN; percent
 15665 \DeclareTextCommand{\textpercent}{PU}{\80\045}% U+0025
 15666 % U+0026 AMPERSAND; ampersand
 15667 \DeclareTextCommand{\textampersand}{PU}{\80\046}% U+0026
 15668 %* \textampersand -> \binampersand (stmaryrd)
 15669 %* \textampersand -> \with (cml)
 15670 % U+0027 APOSTROPHE; quotesingle
 15671 \DeclareTextCommand{\textquotesingle}{PU}{\80\047}% U+0027
 15672 % U+0028 LEFT PARENTHESIS; parenleft
 15673 \DeclareTextCommand{\textparenleft}{PU}{\80\050}% U+0028
 15674 % U+0029 RIGHT PARENTHESIS; parenright
 15675 \DeclareTextCommand{\textparenright}{PU}{\80\051}% U+0029
 15676 % U+002A ASTERISK; asterisk; (?)
 15677 \DeclareTextCommand{\textasteriskcentered}{PU}{\80\052}% U+002A
 15678 % U+002B PLUS SIGN; plus; \MVPlus (marvosym)
 15679 \DeclareTextCommand{\textMVPlus}{PU}{\80\053}%* U+002B
 15680 % U+002C COMMA; comma; \MVComma (marvosym)
 15681 \DeclareTextCommand{\textMVComma}{PU}{\80\054}%* U+002C
 15682 % U+002D HYPHEN-MINUS; hyphen; \MVMinus (marvosym)
 15683 \DeclareTextCommand{\textMVMinus}{PU}{\80\055}%* U+002D
 15684 % U+002E FULL STOP; period; \MVPeriod (marvosym)
 15685 \DeclareTextCommand{\textMVPeriod}{PU}{\80\056}%* U+002E
 15686 % U+002F SOLIDUS; slash; \MVDivision (marvosym)
 15687 \DeclareTextCommand{\textMVDivision}{PU}{\80\057}%* U+002F
 15688 % U+0030 DIGIT ZERO; zero; \MVZero (marvosym)
 15689 \DeclareTextCommand{\textMVZero}{PU}{\80\060}%* U+0030
 15690 % U+0031 DIGIT ONE; one; \MVOne (marvosym)
 15691 \DeclareTextCommand{\textMVOne}{PU}{\80\061}%* U+0031
 15692 % U+0032 DIGIT TWO; two; \MVTwo (marvosym)
 15693 \DeclareTextCommand{\textMVTwo}{PU}{\80\062}%* U+0032
 15694 % U+0033 DIGIT THREE; three; \MVThree (marvosym)
 15695 \DeclareTextCommand{\textMVThree}{PU}{\80\063}%* U+0033
 15696 % U+0034 DIGIT FOUR; four; \MVFour (marvosym)
 15697 \DeclareTextCommand{\textMVFour}{PU}{\80\064}%* U+0034
 15698 % U+0035 DIGIT FIVE; five; \MVFive (marvosym)
 15699 \DeclareTextCommand{\textMVFive}{PU}{\80\065}%* U+0035

15700 % U+0036 DIGIT SIX; six; \MVSix (marvosym)
 15701 \DeclareTextCommand{\textMVSix}{PU}{\80\066}%* U+0036
 15702 % U+0037 DIGIT SEVEN; seven; \MVSeven (marvosym)
 15703 \DeclareTextCommand{\textMVSeven}{PU}{\80\067}%* U+0037
 15704 % U+0038 DIGIT EIGHT; eight; \MVEight (marvosym)
 15705 \DeclareTextCommand{\textMVEight}{PU}{\80\070}%* U+0038
 15706 % U+0039 DIGIT NINE; nine; \MVNine (marvosym)
 15707 \DeclareTextCommand{\textMVNine}{PU}{\80\071}%* U+0039
 \80\072: U+003A COLON; colon
 \80\073: U+003B SEMICOLON; semicolon
 15708 % U+003C LESS-THAN SIGN; less
 15709 \DeclareTextCommand{\textless}{PU}{<}% \80\074 U+003C
 \80\075: U+003D EQUALS SIGN; equal
 15710 % U+003E GREATER-THAN SIGN; greater
 15711 \DeclareTextCommand{\textgreater}{PU}{>}% \80\076 U+003E
 \80\077: U+003F QUESTION MARK; question
 15712 % U+0040 COMMERCIAL AT; at; \MVAt (marvosym)
 15713 \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
 15714 % U+005C REVERSE SOLIDUS; backslash
 15715 \DeclareTextCommand{\textbackslash}{PU}{\80\134}% U+005C
 \80\135: U+005D RIGHT SQUARE BRACKET; bracketright
 15716 % U+005E CIRCUMFLEX ACCENT; asciicircum
 15717 \DeclareTextCommand{\textasciicircum}{PU}{\80\136}% U+005E
 15718 % U+005F LOW LINE; underscore
 15719 \DeclareTextCommand{\textunderscore}{PU}{\80\137}% U+005F
 15720 %* \textunderscore -> \mathunderscore (LaTeX)
 15721 % U+0060 GRAVE ACCENT; grave
 15722 \DeclareTextCommand{\textasciigrave}{PU}{\80\140}% U+0060
 \80\141: U+0061 LATIN SMALL LETTER A; a
 ...
 \80\150: U+0068 LATIN SMALL LETTER H; h
 15723 % U+0069 LATIN SMALL LETTER I; i
 15724 \DeclareTextCompositeCommand{\.}{PU}{i}{i}% \80\151 U+0069
 15725 \DeclareTextCompositeCommand{\.}{PU}{i}{i}% \80\151 U+0069
 \80\152: U+006A LATIN SMALL LETTER J; j
 ...
 \80\172: U+007A LATIN SMALL LETTER Z; z
 15726 % U+007B LEFT CURLY BRACKET; braceleft
 15727 \DeclareTextCommand{\textbraceleft}{PU}{\80\173}% U+007B
 15728 % U+007C VERTICAL LINE; *bar, verticalbar
 15729 \DeclareTextCommand{\textbar}{PU}{|}% \80\174 U+007C
 15730 %* \textbar -> \textvertline (tipa)
 15731 % U+007D RIGHT CURLY BRACKET; braceright
 15732 \DeclareTextCommand{\textbraceright}{PU}{\80\175}% U+007D
 15733 % U+007E TILDE; asciitilde
 15734 \DeclareTextCommand{\textasciitilde}{PU}{\80\176}% U+007E

51.2.3 Latin-1 Supplement: U+0080 to U+00FF

\80\240: U+00A0 NO-BREAK SPACE; nbspace, nonbreakingspace
15735 % U+00A1 INVERTED EXCLAMATION MARK; exclamdown
15736 \DeclareTextCommand{\textexclamdown}{PU}{\80\241}% U+00A1
15737 % U+00A2 CENT SIGN; cent
15738 \DeclareTextCommand{\textcent}{PU}{\80\242}% U+00A2
15739 % U+00A3 POUND SIGN; sterling
15740 \DeclareTextCommand{\textsterling}{PU}{\80\243}% U+00A3
15741 %* \textsterling -> \mathsterling (LaTeX)
15742 %* \textsterling -> \pounds (LaTeX)
15743 % U+00A4 CURRENCY SIGN; currency
15744 \DeclareTextCommand{\textcurrency}{PU}{\80\244}% U+00A4
15745 % U+00A5 YEN SIGN; yen
15746 \DeclareTextCommand{\textyen}{PU}{\80\245}% U+00A5
15747 % U+00A6 BROKEN BAR; brokenbar
15748 \DeclareTextCommand{\textbrokenbar}{PU}{\80\246}% U+00A6
15749 %* \textbrokenbar -> \brokenvert (wasysym)
15750 % U+00A7 SECTION SIGN; section
15751 \DeclareTextCommand{\textsection}{PU}{\80\247}% U+00A7
15752 %* \textsection -> \mathsection (LaTeX)
15753 %* \textsection -> \S (LaTeX)
15754 % U+00A8 DIAERESIS; dieresis
15755 \DeclareTextCommand{\textasciidieresis}{PU}{\80\250}% U+00A8
15756 % U+00A9 COPYRIGHT SIGN; copyright
15757 \DeclareTextCommand{\textcopyright}{PU}{\80\251}%* U+00A9
15758 % U+00AA FEMININE ORDINAL INDICATOR; ordfeminine
15759 \DeclareTextCommand{\textordfeminine}{PU}{\80\252}% U+00AA
15760 % U+00AB LEFT-POINTING DOUBLE ANGLE QUOTATION MARK; guillemotleft
15761 \DeclareTextCommand{\guillemotleft}{PU}{\80\253}% U+00AB
15762 % U+00AC NOT SIGN; logicalnot
15763 \DeclareTextCommand{\textlogicalnot}{PU}{\80\254}% U+00AC
15764 \DeclareTextCommand{\textlnot}{PU}{\80\254}% U+00AC
\\80\255: U+00AD SOFT HYPHEN; sfthyphen, softthyphen
15765 % U+00AE REGISTERED SIGN; registered
15766 \DeclareTextCommand{\textregistered}{PU}{\80\256}% U+00AE
15767 % U+00AF MACRON; *macron, overscore
15768 \DeclareTextCommand{\textasciimacron}{PU}{\80\257}% U+00AF
15769 % U+00B0 DEGREE SIGN; degree
15770 \DeclareTextCommand{\textdegree}{PU}{\80\260}% U+00B0
15771 % U+00B1 PLUS-MINUS SIGN; plusminus
15772 \DeclareTextCommand{\textplusminus}{PU}{\80\261}% U+00B1
15773 % U+00B2 SUPERSCRIPT TWO; twosuperior
15774 \DeclareTextCommand{\texttwosuperior}{PU}{\80\262}%* U+00B2
15775 % U+00B3 SUPERSCRIPT THREE; threesuperior
15776 \DeclareTextCommand{\textthreesuperior}{PU}{\80\263}%* U+00B3
15777 % U+00B4 ACUTE ACCENT; acute
15778 \DeclareTextCommand{\textacute}{PU}{\80\264}% U+00B4
15779 \DeclareTextCommand{\textasciiacute}{PU}{\80\264}% U+00B4
15780 % U+00B5 MICRO SIGN; mu, mul
15781 \DeclareTextCommand{\textmu}{PU}{\80\265}% U+00B5
15782 % U+00B6 PILCROW SIGN; paragraph
15783 \DeclareTextCommand{\textparagraph}{PU}{\80\266}% U+00B6
15784 %* \textparagraph -> \mathparagraph (LaTeX)
15785 % U+00B7 MIDDLE DOT; middot, *periodcentered
15786 \DeclareTextCommand{\textperiodcentered}{PU}{\80\267}% U+00B7

15787 %* \textperiodcentered -> \MultiplicationDot (marvosym)
15788 %* \textperiodcentered -> \Squaredot (marvosym)
15789 % U+00B8 CEDILLA; cedilla
15790 \DeclareTextCommand{\textcedilla}{PU}{\80\270}% U+00B8
15791 % U+00B9 SUPERSCRIPT ONE; onesuperior
15792 \DeclareTextCommand{\textonesuperior}{PU}{\80\271}%* U+00B9
15793 % U+00BA MASCULINE ORDINAL INDICATOR; ordmasculine
15794 \DeclareTextCommand{\textordmasculine}{PU}{\80\272}% U+00BA
15795 % U+00BB RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK; guille-
motright
15796 \DeclareTextCommand{\guillemotright}{PU}{\80\273}% U+00BB
15797 % U+00BC VULGAR FRACTION ONE QUARTER; onequarter
15798 \DeclareTextCommand{\textonequarter}{PU}{\80\274}% U+00BC
15799 % U+00BD VULGAR FRACTION ONE HALF; onehalf
15800 \DeclareTextCommand{\textonehalf}{PU}{\80\275}% U+00BD
15801 % U+00BE VULGAR FRACTION THREE QUARTERS; threequarters
15802 \DeclareTextCommand{\textthreequarters}{PU}{\80\276}% U+00BE
15803 % U+00BF INVERTED QUESTION MARK; questiondown
15804 \DeclareTextCommand{\textquestiondown}{PU}{\80\277}% U+00BF
15805 % U+00C0 LATIN CAPITAL LETTER A WITH GRAVE; Agrave
15806 \DeclareTextCompositeCommand{\`}{PU}{A}{\80\300}% U+00C0
15807 % U+00C1 LATIN CAPITAL LETTER A WITH ACUTE; Aacute
15808 \DeclareTextCompositeCommand{\'}{PU}{A}{\80\301}% U+00C1
15809 % U+00C2 LATIN CAPITAL LETTER A WITH CIRCUMFLEX; Acircumflex
15810 \DeclareTextCompositeCommand{\^}{PU}{A}{\80\302}% U+00C2
15811 % U+00C3 LATIN CAPITAL LETTER A WITH TILDE; Atilde
15812 \DeclareTextCompositeCommand{\~}{PU}{A}{\80\303}% U+00C3
15813 % U+00C4 LATIN CAPITAL LETTER A WITH DIAERESIS; Adieresis
15814 \DeclareTextCompositeCommand{\"}{PU}{A}{\80\304}% U+00C4
15815 % U+00C5 LATIN CAPITAL LETTER A WITH RING ABOVE; Aring
15816 \DeclareTextCompositeCommand{\r}{PU}{A}{\80\305}% U+00C5
15817 % U+00C6 LATIN CAPITAL LETTER AE; AE
15818 \DeclareTextCommand{\AE}{PU}{\80\306}% U+00C6
15819 % U+00C7 LATIN CAPITAL LETTER C WITH CEDILLA; Ccedilla
15820 \DeclareTextCompositeCommand{\c}{PU}{C}{\80\307}% U+00C7
15821 % U+00C8 LATIN CAPITAL LETTER E WITH GRAVE; Egrave
15822 \DeclareTextCompositeCommand{\`}{PU}{E}{\80\310}% U+00C8
15823 % U+00C9 LATIN CAPITAL LETTER E WITH ACUTE; Eacute
15824 \DeclareTextCompositeCommand{\'}{PU}{E}{\80\311}% U+00C9
15825 % U+00CA LATIN CAPITAL LETTER E WITH CIRCUMFLEX; Ecircumflex
15826 \DeclareTextCompositeCommand{\^}{PU}{E}{\80\312}% U+00CA
15827 % U+00CB LATIN CAPITAL LETTER E WITH DIAERESIS; Edieresis
15828 \DeclareTextCompositeCommand{\"}{PU}{E}{\80\313}% U+00CB
15829 % U+00CC LATIN CAPITAL LETTER I WITH GRAVE; Igrave
15830 \DeclareTextCompositeCommand{\`}{PU}{I}{\80\314}% U+00CC
15831 % U+00CD LATIN CAPITAL LETTER I WITH ACUTE; Iacute
15832 \DeclareTextCompositeCommand{\'}{PU}{I}{\80\315}% U+00CD
15833 % U+00CE LATIN CAPITAL LETTER I WITH CIRCUMFLEX; Icircumflex
15834 \DeclareTextCompositeCommand{\^}{PU}{I}{\80\316}% U+00CE
15835 % U+00CF LATIN CAPITAL LETTER I WITH DIAERESIS; Idieresis
15836 \DeclareTextCompositeCommand{\"}{PU}{I}{\80\317}% U+00CF
15837 % U+00D0 LATIN CAPITAL LETTER ETH; Eth
15838 \DeclareTextCommand{\DH}{PU}{\80\320}% U+00D0
15839 % U+00D1 LATIN CAPITAL LETTER N WITH TILDE; Ntilde
15840 \DeclareTextCompositeCommand{\~}{PU}{N}{\80\321}% U+00D1
15841 % U+00D2 LATIN CAPITAL LETTER O WITH GRAVE; Ograve
15842 \DeclareTextCompositeCommand{\`}{PU}{O}{\80\322}% U+00D2

15843 % U+00D3 LATIN CAPITAL LETTER O WITH ACUTE; Oacute
15844 \DeclareTextCompositeCommand{\'}{PU}{O}{\80\323}% U+00D3
15845 % U+00D4 LATIN CAPITAL LETTER O WITH CIRCUMFLEX; Ocircumflex
15846 \DeclareTextCompositeCommand{\~}{PU}{O}{\80\324}% U+00D4
15847 % U+00D5 LATIN CAPITAL LETTER O WITH TILDE; Otilde
15848 \DeclareTextCompositeCommand{\~}{PU}{O}{\80\325}% U+00D5
15849 % U+00D6 LATIN CAPITAL LETTER O WITH DIAERESIS; Odieresis
15850 \DeclareTextCompositeCommand{\"}{PU}{O}{\80\326}% U+00D6
15851 % U+00D7 MULTIPLICATION SIGN; multiply
15852 \DeclareTextCommand{\textmultiply}{PU}{\80\327}% U+00D7
15853 %* \textmultiply -> \vartimes (stmaryrd)
15854 %* \textmultiply -> \MVMultiplication (marvosym)
15855 % U+00D8 LATIN CAPITAL LETTER O WITH STROKE; Oslash
15856 \DeclareTextCommand{\O}{PU}{\80\330}% U+00D8
15857 % U+00D9 LATIN CAPITAL LETTER U WITH GRAVE; Ugrave
15858 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\331}% U+00D9
15859 % U+00DA LATIN CAPITAL LETTER U WITH ACUTE; Uacute
15860 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\332}% U+00DA
15861 % U+00DB LATIN CAPITAL LETTER U WITH CIRCUMFLEX; Ucircumflex
15862 \DeclareTextCompositeCommand{\~}{PU}{U}{\80\333}% U+00DB
15863 % U+00DC LATIN CAPITAL LETTER U WITH DIAERESIS; Udieresis
15864 \DeclareTextCompositeCommand{\"}{PU}{U}{\80\334}% U+00DC
15865 % U+00DD LATIN CAPITAL LETTER Y WITH ACUTE; Yacute
15866 \DeclareTextCompositeCommand{\'}{PU}{Y}{\80\335}% U+00DD
15867 % U+00DE LATIN CAPITAL LETTER THORN; Thorn; \TH, \Thorn (wasysym)
15868 \DeclareTextCommand{\TH}{PU}{\80\336}% U+00DE
15869 \DeclareTextCommand{\textThorn}{PU}{\80\336}%* U+00DE
15870 % U+00DF LATIN SMALL LETTER SHARP S; germandbls
15871 \DeclareTextCommand{\ss}{PU}{\80\337}% U+00DF
15872 % U+00E0 LATIN SMALL LETTER A WITH GRAVE; agrave
15873 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\340}% U+00E0
15874 % U+00E1 LATIN SMALL LETTER A WITH ACUTE; aacute
15875 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\341}% U+00E1
15876 % U+00E2 LATIN SMALL LETTER A WITH CIRCUMFLEX; acircumflex
15877 \DeclareTextCompositeCommand{\~}{PU}{a}{\80\342}% U+00E2
15878 % U+00E3 LATIN SMALL LETTER A WITH TILDE; atilde
15879 \DeclareTextCompositeCommand{\~}{PU}{a}{\80\343}% U+00E3
15880 % U+00E4 LATIN SMALL LETTER A WITH DIAERESIS; adieresis
15881 \DeclareTextCompositeCommand{\"}{PU}{a}{\80\344}% U+00E4
15882 % U+00E5 LATIN SMALL LETTER A WITH RING ABOVE; aring
15883 \DeclareTextCompositeCommand{\r}{PU}{a}{\80\345}% U+00E5
15884 % U+00E6 LATIN SMALL LETTER AE; ae
15885 \DeclareTextCommand{\ae}{PU}{\80\346}% U+00E6
15886 % U+00E7 LATIN SMALL LETTER C WITH CEDILLA; ccedilla
15887 \DeclareTextCompositeCommand{\c}{PU}{c}{\80\347}% U+00E7
15888 % U+00E8 LATIN SMALL LETTER E WITH GRAVE; egrave
15889 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\350}% U+00E8
15890 % U+00E9 LATIN SMALL LETTER E WITH ACUTE; eacute
15891 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\351}% U+00E9
15892 % U+00EA LATIN SMALL LETTER E WITH CIRCUMFLEX; ecircumflex
15893 \DeclareTextCompositeCommand{\~}{PU}{e}{\80\352}% U+00EA
15894 % U+00EB LATIN SMALL LETTER E WITH DIAERESIS; edieresis
15895 \DeclareTextCompositeCommand{\"}{PU}{e}{\80\353}% U+00EB
15896 % U+00EC LATIN SMALL LETTER I WITH GRAVE; igrave
15897 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\354}% U+00EC
15898 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\354}% U+00EC
15899 % U+00ED LATIN SMALL LETTER I WITH ACUTE; iacute

15900 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\355}% U+00ED
15901 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\355}% U+00ED
15902 % U+00EE LATIN SMALL LETTER I WITH CIRCUMFLEX; icircumflex
15903 \DeclareTextCompositeCommand{\~}{PU}{i}{\80\356}% U+00EE
15904 \DeclareTextCompositeCommand{\~}{PU}{i}{\80\356}% U+00EE
15905 % U+00EF LATIN SMALL LETTER I WITH DIAERESIS; idieresis
15906 \DeclareTextCompositeCommand{\"}{PU}{i}{\80\357}% U+00EF
15907 \DeclareTextCompositeCommand{\"}{PU}{i}{\80\357}% U+00EF
15908 % U+00F0 LATIN SMALL LETTER ETH; eth
15909 \DeclareTextCommand{\dh}{PU}{\80\360}% U+00F0
15910 %* \dh -> \eth (wsuipa, phonetic)
15911 % U+00F1 LATIN SMALL LETTER N WITH TILDE; ntilde
15912 \DeclareTextCompositeCommand{\~}{PU}{n}{\80\361}% U+00F1
15913 % U+00F2 LATIN SMALL LETTER O WITH GRAVE; ograve
15914 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\362}% U+00F2
15915 % U+00F3 LATIN SMALL LETTER O WITH ACUTE; oacute
15916 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\363}% U+00F3
15917 % U+00F4 LATIN SMALL LETTER O WITH CIRCUMFLEX; ocircumflex
15918 \DeclareTextCompositeCommand{\~}{PU}{o}{\80\364}% U+00F4
15919 % U+00F5 LATIN SMALL LETTER O WITH TILDE; otilde
15920 \DeclareTextCompositeCommand{\~}{PU}{o}{\80\365}% U+00F5
15921 % U+00F6 LATIN SMALL LETTER O WITH DIAERESIS; odieresis
15922 \DeclareTextCompositeCommand{\"}{PU}{o}{\80\366}% U+00F6
15923 % U+00F7 DIVISION SIGN; divide
15924 \DeclareTextCommand{\textdivide}{PU}{\80\367}% U+00F7
15925 % U+00F8 LATIN SMALL LETTER O WITH STROKE; oslash
15926 \DeclareTextCommand{\o}{PU}{\80\370}% U+00F8
15927 % U+00F9 LATIN SMALL LETTER U WITH GRAVE; ugrave
15928 \DeclareTextCompositeCommand{\'}{PU}{u}{\80\371}% U+00F9
15929 % U+00FA LATIN SMALL LETTER U WITH ACUTE; uacute
15930 \DeclareTextCompositeCommand{\'}{PU}{u}{\80\372}% U+00FA
15931 % U+00FB LATIN SMALL LETTER U WITH CIRCUMFLEX; ucircumflex
15932 \DeclareTextCompositeCommand{\~}{PU}{u}{\80\373}% U+00FB
15933 % U+00FC LATIN SMALL LETTER U WITH DIAERESIS; udieresis
15934 \DeclareTextCompositeCommand{\"}{PU}{u}{\80\374}% U+00FC
15935 % U+00FD LATIN SMALL LETTER Y WITH ACUTE; yacute
15936 \DeclareTextCompositeCommand{\'}{PU}{y}{\80\375}% U+00FD
15937 % U+00FE LATIN SMALL LETTER THORN; thorn;
15938 % \th, \thorn (wasysym), \textthorn (tipa)
15939 \DeclareTextCommand{\th}{PU}{\80\376}% U+00FE
15940 \DeclareTextCommand{\textthorn}{PU}{\80\376}%* U+00FE
15941 % U+00FF LATIN SMALL LETTER Y WITH DIAERESIS; ydieresis
15942 \DeclareTextCompositeCommand{\"}{PU}{y}{\80\377}% U+00FF

51.2.4 Latin Extended-A: U+0080 to U+017F

15943 % U+0100 LATIN CAPITAL LETTER A WITH MACRON; Amacron
15944 \DeclareTextCompositeCommand{\=}{PU}{A}{\81\000}% U+0100
15945 % U+0101 LATIN SMALL LETTER A WITH MACRON; amacron
15946 \DeclareTextCompositeCommand{\=}{PU}{a}{\81\001}% U+0101
15947 % U+0102 LATIN CAPITAL LETTER A WITH BREVE; Abreve
15948 \DeclareTextCompositeCommand{\u}{PU}{A}{\81\002}% U+0102
15949 % U+0103 LATIN SMALL LETTER A WITH BREVE; abreve
15950 \DeclareTextCompositeCommand{\u}{PU}{a}{\81\003}% U+0103
15951 % U+0104 LATIN CAPITAL LETTER A WITH OGONEK; Aogonek
15952 \DeclareTextCompositeCommand{\k}{PU}{A}{\81\004}% U+0104
15953 % U+0105 LATIN SMALL LETTER A WITH OGONEK; aogonek

15954 \DeclareTextCompositeCommand{\k}{PU}{a}{\81\005}% U+0105
15955 % U+0106 LATIN CAPITAL LETTER C WITH ACUTE; Cacute
15956 \DeclareTextCompositeCommand{\'}{PU}{C}{\81\006}% U+0106
15957 % U+0107 LATIN SMALL LETTER C WITH ACUTE; cacute
15958 \DeclareTextCompositeCommand{\`}{PU}{c}{\81\007}% U+0107
15959 % U+0108 LATIN CAPITAL LETTER C WITH CIRCUMFLEX; Ccircumflex
15960 \DeclareTextCompositeCommand{\^}{PU}{C}{\81\010}% U+0108
15961 % U+0109 LATIN SMALL LETTER C WITH CIRCUMFLEX; ccircumflex
15962 \DeclareTextCompositeCommand{\`}{PU}{c}{\81\011}% U+0109
15963 % U+010A LATIN CAPITAL LETTER C WITH DOT ABOVE; Cdot, Cdotac-
cent
15964 \DeclareTextCompositeCommand{\.}{PU}{C}{\81\012}% U+010A
15965 % U+010B LATIN SMALL LETTER C WITH DOT ABOVE; cdot, cdotaccent
15966 \DeclareTextCompositeCommand{\.}{PU}{c}{\81\013}% U+010B
15967 % U+010C LATIN CAPITAL LETTER C WITH CARON; Ccaron
15968 \DeclareTextCompositeCommand{\v}{PU}{C}{\81\014}% U+010C
15969 % U+010D LATIN SMALL LETTER C WITH CARON; ccaron
15970 \DeclareTextCompositeCommand{\v}{PU}{c}{\81\015}% U+010D
15971 % U+010E LATIN CAPITAL LETTER D WITH CARON; Dcaron
15972 \DeclareTextCompositeCommand{\v}{PU}{D}{\81\016}% U+010E
15973 % U+010F LATIN SMALL LETTER D WITH CARON; dcaron
15974 \DeclareTextCompositeCommand{\v}{PU}{d}{\81\017}% U+010F
15975 % U+0110 LATIN CAPITAL LETTER D WITH STROKE; Dcroat, Dslash
15976 \DeclareTextCommand{\DJ}{PU}{\81\020}% U+0110
15977 % U+0111 LATIN SMALL LETTER D WITH STROKE; dcroat, dmacron;
15978 % \textcrd (tipa)
15979 \DeclareTextCommand{\dj}{PU}{\81\021}% U+0111
15980 \DeclareTextCommand{\textcrd}{PU}{\81\021}% U+0111
15981 %* \textcrd -> \crossd (wsuipa)
15982 % An alternate glyph with the stroke through the bowl:
15983 %* \textcrd -> \textbard (tipa)
15984 %* \textcrd -> \bard (wsuipa)
15985 % U+0112 LATIN CAPITAL LETTER E WITH MACRON; Emacron
15986 \DeclareTextCompositeCommand{\=}{PU}{E}{\81\022}% U+0112
15987 % U+0113 LATIN SMALL LETTER E WITH MACRON; emacron
15988 \DeclareTextCompositeCommand{\=}{PU}{e}{\81\023}% U+0113
15989 % U+0114 LATIN CAPITAL LETTER E WITH BREVE; Ebreve
15990 \DeclareTextCompositeCommand{\u}{PU}{E}{\81\024}% U+0114
15991 % U+0115 LATIN SMALL LETTER E WITH BREVE; ebreve
15992 \DeclareTextCompositeCommand{\u}{PU}{e}{\81\025}% U+0115
15993 % U+0116 LATIN CAPITAL LETTER E WITH DOT ABOVE; Edot, Edotaccent
15994 \DeclareTextCompositeCommand{\.}{PU}{E}{\81\026}% U+0116
15995 % U+0117 LATIN SMALL LETTER E WITH DOT ABOVE; edot, edotaccent
15996 \DeclareTextCompositeCommand{\.}{PU}{e}{\81\027}% U+0117
15997 % U+0118 LATIN CAPITAL LETTER E WITH OGONEK; Eogonek
15998 \DeclareTextCompositeCommand{\k}{PU}{E}{\81\030}% U+0118
15999 % U+0119 LATIN SMALL LETTER E WITH OGONEK; eogonek
16000 \DeclareTextCompositeCommand{\k}{PU}{e}{\81\031}% U+0119
16001 % U+011A LATIN CAPITAL LETTER E WITH CARON; Ecaron
16002 \DeclareTextCompositeCommand{\v}{PU}{E}{\81\032}% U+011A
16003 % U+011B LATIN SMALL LETTER E WITH CARON; ecaron
16004 \DeclareTextCompositeCommand{\v}{PU}{e}{\81\033}% U+011B
16005 % U+011C LATIN CAPITAL LETTER G WITH CIRCUMFLEX; Gcircumflex
16006 \DeclareTextCompositeCommand{\^}{PU}{G}{\81\034}% U+011C
16007 % U+011D LATIN SMALL LETTER G WITH CIRCUMFLEX; gcircumflex
16008 \DeclareTextCompositeCommand{\^}{PU}{g}{\81\035}% U+011D
16009 % U+011E LATIN CAPITAL LETTER G WITH BREVE; Gbreve

16010 \DeclareTextCompositeCommand{\u}{PU}{G}{\81\036}% U+011E
16011 % U+011F LATIN SMALL LETTER G WITH BREVE; gbreve
16012 \DeclareTextCompositeCommand{\u}{PU}{g}{\81\037}% U+011F
16013 % U+0120 LATIN CAPITAL LETTER G WITH DOT ABOVE; Gdot, Gdotaccent
16014 \DeclareTextCompositeCommand{\.}{PU}{G}{\81\040}% U+0120
16015 % U+0121 LATIN SMALL LETTER G WITH DOT ABOVE; gdot, gdotaccent
16016 \DeclareTextCompositeCommand{\.}{PU}{g}{\81\041}% U+0121
16017 % U+0122 LATIN CAPITAL LETTER G WITH CEDILLA; Gcedilla, Gcommaaccent
16018 \DeclareTextCompositeCommand{\c}{PU}{G}{\81\042}% U+0122
16019 % U+0123 LATIN SMALL LETTER G WITH CEDILLA; gcedilla, gcommaaccent
16020 \DeclareTextCompositeCommand{\c}{PU}{g}{\81\043}% U+0123
16021 % U+0124 LATIN CAPITAL LETTER H WITH CIRCUMFLEX; Hcircumflex
16022 \DeclareTextCompositeCommand{\^}{PU}{H}{\81\044}% U+0124
16023 % U+0125 LATIN SMALL LETTER H WITH CIRCUMFLEX; hcircumflex
16024 \DeclareTextCompositeCommand{\^}{PU}{h}{\81\045}% U+0125
16025 % U+0126 LATIN CAPITAL LETTER H WITH STROKE; Hbar
16026 \DeclareTextCommand{\textHslash}{PU}{\81\046}% U+0126
16027 % U+0127 LATIN SMALL LETTER H WITH STROKE; hbar; \hbar (AmS)
16028 \DeclareTextCommand{\textthbar}{PU}{\81\047}%* U+0127
16029 %* \textthbar -> \textcrh (tipa)
16030 %* \textthbar -> \crossh (wsuipa)
16031 %* \textthbar -> \planck (phonetic)
16032 % U+0128 LATIN CAPITAL LETTER I WITH TILDE; Itilde
16033 \DeclareTextCompositeCommand{\~}{PU}{I}{\81\050}% U+0128
16034 % U+0129 LATIN SMALL LETTER I WITH TILDE; itilde
16035 \DeclareTextCompositeCommand{\~}{PU}{i}{\81\051}% U+0129
16036 \DeclareTextCompositeCommand{\~}{PU}{\i}{\81\051}% U+0129
16037 % U+012A LATIN CAPITAL LETTER I WITH MACRON; Imacron
16038 \DeclareTextCompositeCommand{\=}{PU}{I}{\81\052}% U+012A
16039 % U+012B LATIN SMALL LETTER I WITH MACRON; imacron
16040 \DeclareTextCompositeCommand{\=}{PU}{i}{\81\053}% U+012B
16041 \DeclareTextCompositeCommand{\=}{PU}{\i}{\81\053}% U+012B
16042 % U+012C LATIN CAPITAL LETTER I WITH BREVE; Ibreve
16043 \DeclareTextCompositeCommand{\u}{PU}{I}{\81\054}% U+012C
16044 % U+012D LATIN SMALL LETTER I WITH BREVE; ibreve
16045 \DeclareTextCompositeCommand{\u}{PU}{i}{\81\055}% U+012D
16046 \DeclareTextCompositeCommand{\u}{PU}{\i}{\81\055}% U+012D
16047 % U+012E LATIN CAPITAL LETTER I WITH OGONEK; Iogonek
16048 \DeclareTextCompositeCommand{\k}{PU}{I}{\81\056}% U+012E
16049 % U+012F LATIN SMALL LETTER I WITH OGONEK; iogonek
16050 \DeclareTextCompositeCommand{\k}{PU}{i}{\81\057}% U+012F
16051 \DeclareTextCompositeCommand{\k}{PU}{\i}{\81\057}% U+012F
16052 % U+0130 LATIN CAPITAL LETTER I WITH DOT ABOVE; Idot, Idotaccent
16053 \DeclareTextCompositeCommand{\.}{PU}{I}{\81\060}% U+0130
16054 % U+0131 LATIN SMALL LETTER DOTLESS I; dotlessi
16055 \DeclareTextCommand{\i}{PU}{\81\061}% U+0131
16056 % U+0132 LATIN CAPITAL LIGATURE IJ; IJ
16057 \DeclareTextCommand{\IJ}{PU}{\81\062}% U+0132
16058 % U+0133 LATIN SMALL LIGATURE IJ; ij
16059 \DeclareTextCommand{\ij}{PU}{\81\063}% U+0133
16060 % U+0134 LATIN CAPITAL LETTER J WITH CIRCUMFLEX; Jcircumflex
16061 \DeclareTextCompositeCommand{\^}{PU}{J}{\81\064}% U+0134
16062 % U+0135 LATIN SMALL LETTER J WITH CIRCUMFLEX; jcircumflex
16063 \DeclareTextCompositeCommand{\^}{PU}{j}{\81\065}% U+0135
16064 \DeclareTextCompositeCommand{\^}{PU}{\j}{\81\065}% U+0135

16065 % U+0136 LATIN CAPITAL LETTER K WITH CEDILLA; Kcedilla, Kcommaaccent
16066 \DeclareTextCompositeCommand{\c}{PU}{K}{\81\066}% U+0136
16067 % U+0137 LATIN SMALL LETTER K WITH CEDILLA; kcedilla, kcommaaccent
16068 \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`.

16069 % U+0138 LATIN SMALL LETTER KRA; kgreenlandic
16070 \DeclareTextCommand{\textkra}{PU}{\81\070}% U+0138
16071 % U+0139 LATIN CAPITAL LETTER L WITH ACUTE; Lacute
16072 \DeclareTextCompositeCommand{\'}{PU}{L}{\81\071}% U+0139
16073 % U+013A LATIN SMALL LETTER L WITH ACUTE; lacute
16074 \DeclareTextCompositeCommand{\'}{PU}{l}{\81\072}% U+013A
16075 % U+013B LATIN CAPITAL LETTER L WITH CEDILLA; Lcedilla, Lcommaaccent
16076 \DeclareTextCompositeCommand{\c}{PU}{L}{\81\073}% U+013B
16077 % U+013C LATIN SMALL LETTER L WITH CEDILLA; lcedilla, lcommaaccent
16078 \DeclareTextCompositeCommand{\c}{PU}{l}{\81\074}% U+013C
16079 % U+013D LATIN CAPITAL LETTER L WITH CARON; Lcaron
16080 \DeclareTextCompositeCommand{\v}{PU}{L}{\81\075}% U+013D
16081 % U+013E LATIN SMALL LETTER L WITH CARON; lcaron
16082 \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`.

16083 % U+013F LATIN CAPITAL LETTER L WITH MIDDLE DOT; Ldot, Ldotaccent
16084 \DeclareTextCompositeCommand{\.}{PU}{L}{\81\077}% U+013F
16085 % U+0140 LATIN SMALL LETTER L WITH MIDDLE DOT; ldot, ldotaccent
16086 \DeclareTextCompositeCommand{\.}{PU}{l}{\81\100}% U+0140
16087 % U+0141 LATIN CAPITAL LETTER L WITH STROKE; Lslash
16088 \DeclareTextCommand{\L}{PU}{\81\101}% U+0141
16089 % U+0142 LATIN SMALL LETTER L WITH STROKE; lslash
16090 \DeclareTextCommand{\l}{PU}{\81\102}% U+0142
16091 % U+0143 LATIN CAPITAL LETTER N WITH ACUTE; Nacute
16092 \DeclareTextCompositeCommand{\'}{PU}{N}{\81\103}% U+0143
16093 % U+0144 LATIN SMALL LETTER N WITH ACUTE; nacute
16094 \DeclareTextCompositeCommand{\'}{PU}{n}{\81\104}% U+0144
16095 % U+0145 LATIN CAPITAL LETTER N WITH CEDILLA; Ncedilla, Ncommaaccent
16096 \DeclareTextCompositeCommand{\c}{PU}{N}{\81\105}% U+0145
16097 % U+0146 LATIN SMALL LETTER N WITH CEDILLA; ncedilla, ncommaaccent
16098 \DeclareTextCompositeCommand{\c}{PU}{n}{\81\106}% U+0146
16099 % U+0147 LATIN CAPITAL LETTER N WITH CARON; Ncaron
16100 \DeclareTextCompositeCommand{\v}{PU}{N}{\81\107}% U+0147
16101 % U+0148 LATIN SMALL LETTER N WITH CARON; ncaron
16102 \DeclareTextCompositeCommand{\v}{PU}{n}{\81\110}% U+0148
16103 % U+0149 LATIN SMALL LETTER N PRECEDED BY APOSTROPHE; napostrophe, quoterightn
16104 \DeclareTextCommand{\textnapostrophe}{PU}{\81\111}% U+0149
16105 % U+014A LATIN CAPITAL LETTER ENG; Eng
16106 \DeclareTextCommand{\NG}{PU}{\81\112}% U+014A
16107 % U+014B LATIN SMALL LETTER ENG; eng
16108 \DeclareTextCommand{\ng}{PU}{\81\113}% U+014B
16109 %* \ng -> \eng (wsuipa)

16110 %* \ng -> \engma (phonetic)
 16111 % U+014C LATIN CAPITAL LETTER O WITH MACRON; Omacron
 16112 \DeclareTextCompositeCommand{\=}{PU}{O}{\81\114}% U+014C
 16113 % U+014D LATIN SMALL LETTER O WITH MACRON; omacron
 16114 \DeclareTextCompositeCommand{\=}{PU}{o}{\81\115}% U+014D
 16115 % U+014E LATIN CAPITAL LETTER O WITH BREVE; Obreve
 16116 \DeclareTextCompositeCommand{\u}{PU}{O}{\81\116}% U+014E
 16117 % U+014F LATIN SMALL LETTER O WITH BREVE; obreve
 16118 \DeclareTextCompositeCommand{\u}{PU}{o}{\81\117}% U+014F
 16119 % U+0150 LATIN CAPITAL LETTER O WITH DOUBLE ACUTE; Odblac-
 cute, Ohungarumlaut
 16120 \DeclareTextCompositeCommand{\H}{PU}{O}{\81\120}% U+0150
 16121 % U+0151 LATIN SMALL LETTER O WITH DOUBLE ACUTE; odbla-
 cute, ohungarumlaut
 16122 \DeclareTextCompositeCommand{\H}{PU}{o}{\81\121}% U+0151
 16123 % U+0152 LATIN CAPITAL LIGATURE OE; OE
 16124 \DeclareTextCommand{\OE}{PU}{\81\122}% U+0152
 16125 % U+0153 LATIN SMALL LIGATURE OE; oe
 16126 \DeclareTextCommand{\oe}{PU}{\81\123}% U+0153
 16127 % U+0154 LATIN CAPITAL LETTER R WITH ACUTE; Racute
 16128 \DeclareTextCompositeCommand{\'}{PU}{R}{\81\124}% U+0154
 16129 % U+0155 LATIN SMALL LETTER R WITH ACUTE; racute
 16130 \DeclareTextCompositeCommand{\'}{PU}{r}{\81\125}% U+0155
 16131 % U+0156 LATIN CAPITAL LETTER R WITH CEDILLA; Rcedilla, Rcommaac-
 cent
 16132 \DeclareTextCompositeCommand{\c}{PU}{R}{\81\126}% U+0156
 16133 % U+0157 LATIN SMALL LETTER R WITH CEDILLA; rcedilla, rcommaaccent
 16134 \DeclareTextCompositeCommand{\c}{PU}{r}{\81\127}% U+0157
 16135 % U+0158 LATIN CAPITAL LETTER R WITH CARON; Rcaron
 16136 \DeclareTextCompositeCommand{\v}{PU}{R}{\81\130}% U+0158
 16137 % U+0159 LATIN SMALL LETTER R WITH CARON; rcaron
 16138 \DeclareTextCompositeCommand{\v}{PU}{r}{\81\131}% U+0159
 16139 % U+015A LATIN CAPITAL LETTER S WITH ACUTE; Sacute
 16140 \DeclareTextCompositeCommand{\'}{PU}{S}{\81\132}% U+015A
 16141 % U+015B LATIN SMALL LETTER S WITH ACUTE; sacute
 16142 \DeclareTextCompositeCommand{\'}{PU}{s}{\81\133}% U+015B
 16143 % U+015C LATIN CAPITAL LETTER S WITH CIRCUMFLEX; Scircumflex
 16144 \DeclareTextCompositeCommand{\^}{PU}{S}{\81\134}% U+015C
 16145 % U+015D LATIN SMALL LETTER S WITH CIRCUMFLEX; scircumflex
 16146 \DeclareTextCompositeCommand{\^}{PU}{s}{\81\135}% U+015D
 16147 % U+015E LATIN CAPITAL LETTER S WITH CEDILLA; Scedilla
 16148 \DeclareTextCompositeCommand{\c}{PU}{S}{\81\136}% U+015E
 16149 % U+015F LATIN SMALL LETTER S WITH CEDILLA; scedilla
 16150 \DeclareTextCompositeCommand{\c}{PU}{s}{\81\137}% U+015F
 16151 % U+0160 LATIN CAPITAL LETTER S WITH CARON; Scaron
 16152 \DeclareTextCompositeCommand{\v}{PU}{S}{\81\140}% U+0160
 16153 % U+0161 LATIN SMALL LETTER S WITH CARON; scaron
 16154 \DeclareTextCompositeCommand{\v}{PU}{s}{\81\141}% U+0161
 16155 % U+0162 LATIN CAPITAL LETTER T WITH CEDILLA; Tcedilla, Tcommaac-
 cent
 16156 \DeclareTextCompositeCommand{\c}{PU}{T}{\81\142}% U+0162
 16157 % U+0163 LATIN SMALL LETTER T WITH CEDILLA; tcedilla, tcommaaccent
 16158 \DeclareTextCompositeCommand{\c}{PU}{t}{\81\143}% U+0163
 16159 % U+0164 LATIN CAPITAL LETTER T WITH CARON; Tcaron
 16160 \DeclareTextCompositeCommand{\v}{PU}{T}{\81\144}% U+0164
 16161 % U+0165 LATIN SMALL LETTER T WITH CARON; tcaron
 16162 \DeclareTextCompositeCommand{\v}{PU}{t}{\81\145}% U+0165

16163 % U+0166 LATIN CAPITAL LETTER T WITH STROKE; Tbar
16164 \DeclareTextCommand{\textTslash}{PU}{\81\146}% U+0166
16165 % U+0167 LATIN SMALL LETTER T WITH STROKE; tbar
16166 \DeclareTextCommand{\texttslash}{PU}{\81\147}% U+0167
16167 % U+0168 LATIN CAPITAL LETTER U WITH TILDE; Utilde
16168 \DeclareTextCompositeCommand{\~}{PU}{U}{\81\150}% U+0168
16169 % U+0169 LATIN SMALL LETTER U WITH TILDE; utilde
16170 \DeclareTextCompositeCommand{\~}{PU}{u}{\81\151}% U+0169
16171 % U+016A LATIN CAPITAL LETTER U WITH MACRON; Umacron
16172 \DeclareTextCompositeCommand{\=}{PU}{U}{\81\152}% U+016A
16173 % U+016B LATIN SMALL LETTER U WITH MACRON; umacron
16174 \DeclareTextCompositeCommand{\=}{PU}{u}{\81\153}% U+016B
16175 % U+016C LATIN CAPITAL LETTER U WITH BREVE; Ubreve
16176 \DeclareTextCompositeCommand{\u}{PU}{U}{\81\154}% U+016C
16177 % U+016D LATIN SMALL LETTER U WITH BREVE; ubreve
16178 \DeclareTextCompositeCommand{\u}{PU}{u}{\81\155}% U+016D
16179 % U+016E LATIN CAPITAL LETTER U WITH RING ABOVE; Uring
16180 \DeclareTextCompositeCommand{\r}{PU}{U}{\81\156}% U+016E
16181 % U+016F LATIN SMALL LETTER U WITH RING ABOVE; uring
16182 \DeclareTextCompositeCommand{\r}{PU}{u}{\81\157}% U+016F
16183 % U+0170 LATIN CAPITAL LETTER U WITH DOUBLE ACUTE; Udblacute, Uhungarumlaut
16184 \DeclareTextCompositeCommand{\H}{PU}{U}{\81\160}% U+0170
16185 % U+0171 LATIN SMALL LETTER U WITH DOUBLE ACUTE; udblacute, uhungarumlaut
16186 \DeclareTextCompositeCommand{\H}{PU}{u}{\81\161}% U+0171
16187 % U+0172 LATIN CAPITAL LETTER U WITH OGONEK; Uogonek
16188 \DeclareTextCompositeCommand{\k}{PU}{U}{\81\162}% U+0172
16189 % U+0173 LATIN SMALL LETTER U WITH OGONEK; uogonek
16190 \DeclareTextCompositeCommand{\k}{PU}{u}{\81\163}% U+0173
16191 % U+0174 LATIN CAPITAL LETTER W WITH CIRCUMFLEX; Wcircumflex
16192 \DeclareTextCompositeCommand{\^}{PU}{W}{\81\164}% U+0174
16193 % U+0175 LATIN SMALL LETTER W WITH CIRCUMFLEX; wcircumflex
16194 \DeclareTextCompositeCommand{\^}{PU}{w}{\81\165}% U+0175
16195 % U+0176 LATIN CAPITAL LETTER Y WITH CIRCUMFLEX; Ycircumflex
16196 \DeclareTextCompositeCommand{\^}{PU}{Y}{\81\166}% U+0176
16197 % U+0177 LATIN SMALL LETTER Y WITH CIRCUMFLEX; ycircumflex
16198 \DeclareTextCompositeCommand{\^}{PU}{y}{\81\167}% U+0177
16199 % U+0178 LATIN CAPITAL LETTER Y WITH DIAERESIS; Ydieresis
16200 \DeclareTextCompositeCommand{\"}{PU}{Y}{\81\170}% U+0178
16201 % U+0179 LATIN CAPITAL LETTER Z WITH ACUTE; Zacute
16202 \DeclareTextCompositeCommand{\'}{PU}{Z}{\81\171}% U+0179
16203 % U+017A LATIN SMALL LETTER Z WITH ACUTE; zacute
16204 \DeclareTextCompositeCommand{\'}{PU}{z}{\81\172}% U+017A
16205 % U+017B LATIN CAPITAL LETTER Z WITH DOT ABOVE; Zdot, Zdotaccent
16206 \DeclareTextCompositeCommand{\.}{PU}{Z}{\81\173}% U+017B
16207 % U+017C LATIN SMALL LETTER Z WITH DOT ABOVE; zdot, zdotaccent
16208 \DeclareTextCompositeCommand{\.}{PU}{z}{\81\174}% U+017C
16209 % U+017D LATIN CAPITAL LETTER Z WITH CARON; Zcaron
16210 \DeclareTextCompositeCommand{\v}{PU}{Z}{\81\175}% U+017D
16211 % U+017E LATIN SMALL LETTER Z WITH CARON; zcaron
16212 \DeclareTextCompositeCommand{\v}{PU}{z}{\81\176}% U+017E
16213 % U+017F LATIN SMALL LETTER LONG S; longs, slong
16214 \DeclareTextCommand{\textlongS}{PU}{\81\177}% U+017F

51.2.5 Latin Extended-B: U+0180 to U+024F

16215 % U+0180 LATIN SMALL LETTER B WITH STROKE; bstroke; \textcrb (tipa)

16216 \DeclareTextCommand{\textcrb}{PU}{\81\200}% U+0180
16217 %* \textcrb -> \crossb (wsuipa)
16218 % An alternate glyph with the stroke through the bowl:
16219 %* \textcrb -> \textbarb (tipa)
16220 %* \textcrb -> \barb (wsuipa)
16221 % U+0181 LATIN CAPITAL LETTER B WITH HOOK; Bhook; \hausab (phonetic)
16222 \DeclareTextCommand{\texthausab}{PU}{\81\201}%* U+0181
16223 % U+0188 LATIN SMALL LETTER C WITH HOOK; chook; \texthtc (tipa)
16224 \DeclareTextCommand{\texthtc}{PU}{\81\210}% U+0188
16225 % U+018A LATIN CAPITAL LETTER D WITH HOOK; Dhook; \hausad (phonetic)
16226 \DeclareTextCommand{\texthausad}{PU}{\81\212}%* U+018A
16227 % U+018E LATIN CAPITAL LETTER REVERSED E; Ereversed
16228 \DeclareTextCommand{\textEreversed}{PU}{\81\216}% U+018E
16229 \DeclareTextCommand{\textrevE}{PU}{\81\216}% U+018E
16230 % U+0192 LATIN SMALL LETTER F WITH HOOK; florin
16231 \DeclareTextCommand{\textflorin}{PU}{\81\222}% U+0192
16232 %* \textflorin -> \Florin (marvosym)
16233 % U+0195 LATIN SMALL LETTER HV; hv; \texthvlig (tipa)
16234 \DeclareTextCommand{\texthvlig}{PU}{\81\225}% U+0195
16235 %* \texthvlig -> \hv (wsuipa)
16236 % U+0198 LATIN CAPITAL LETTER K WITH HOOK; Khook; \hausak (phonetic)
16237 \DeclareTextCommand{\texthausak}{PU}{\81\230}%* U+0198
16238 % U+0199 LATIN SMALL LETTER K WITH HOOK; khook; \texthtk (tipa)
16239 \DeclareTextCommand{\texthtk}{PU}{\81\231}% U+0199
16240 %* \texthtk -> \hausak (phonetic)
16241 % U+019A LATIN SMALL LETTER L WITH BAR; lbar;
16242 % \textbarl (tipa), \barl (wsuipa)
16243 \DeclareTextCommand{\textbarl}{PU}{\81\232}%* U+019A
16244 % U+019B LATIN SMALL LETTER LAMBDA WITH STROKE/
16245 % LATIN SMALL LETTER BARRED LAMBDA; lambdastroke;
16246 % \textcrlambda (tipa)
16247 \DeclareTextCommand{\textcrlambda}{PU}{\81\233}% U+019B
16248 %* \textcrlambda -> \crossnilambda (wsuipa)
16249 %* \textcrlambda -> \barlambd (phonetic)
16250 %* \textcrlambda -> \lambdabar (txfonts/pxfonts)
16251 %* \textcrlambda -> \lambdash (txfonts/pxfonts)
16252 % U+019E LATIN SMALL LETTER N WITH LONG RIGHT LEG; nlegright-long;
16253 % \textnrleg (tipx)
16254 \DeclareTextCommand{\textPUnrleg}{PU}{\81\236}% U+019E
16255 %* \textPUnrleg -> \textnrleg (tipx)
16256 % U+01A5 LATIN SMALL LETTER P WITH HOOK; phook; \texthtp (tipa)
16257 \DeclareTextCommand{\texthtp}{PU}{\81\245}% U+01A5
16258 % U+01AB LATIN SMALL LETTER T WITH PALATAL HOOK; tpalatalhook;
16259 % \textlhookt (tipa)
16260 \DeclareTextCommand{\textlhookt}{PU}{\81\253}% U+01AB
16261 % U+01AD LATIN SMALL LETTER T WITH HOOK; thook; \texthtt (tipa)
16262 \DeclareTextCommand{\texthtt}{PU}{\81\255}% U+01AD
16263 % U+01B9 LATIN SMALL LETTER EZH REVERSED/
16264 % LATIN SMALL LETTER REVERSED YOGH; \textrevyogh (tipa)
16265 \DeclareTextCommand{\textrevyogh}{PU}{\81\271}% U+01B9
16266 % U+01BB LATIN LETTER TWO WITH STROKE; twostroke; \textcrtwo (tipa)
16267 \DeclareTextCommand{\textcrtwo}{PU}{\81\273}% U+01BB
16268 % U+01BE LATIN LETTER INVERTED GLOTTAL STOP WITH STROKE;

16269 % glottalinvertedstroke; \textcrinvglotstop (tipa)
16270 \DeclareTextCommand{\textcrinvglotstop}{PU}{\81\276}% U+01BE
16271 % U+01BF LATIN LETTER WYNN; wynn; \textwynn (tipa)
16272 \DeclareTextCommand{\textwynn}{PU}{\81\277}% U+01BF
16273 % U+01C0 LATIN LETTER DENTAL CLICK/LATIN LETTER PIPE; clickden-
tal;
16274 % \textpipe (tipa)
16275 \DeclareTextCommand{\textpipe}{PU}{\81\300}% U+01C0
16276 %* \textpipe -> \textpipevar (tipx)
16277 % U+01C1 LATIN LETTER LATERAL CLICK/LATIN LETTER
DOUBLE PIPE; clicklateral; \textdoublepipe (tipa)
16279 \DeclareTextCommand{\textdoublepipe}{PU}{\81\301}% U+01C1
16280 %* \textdoublepipe -> \textdoublepipevar (tipx)
16281 % U+01C2 LATIN LETTER ALVEOLAR CLICK/LATIN LETTER PIPE DOU-
BLE BAR;
16282 % clickalveolar; \textdoublebarpipe (tipa)
16283 \DeclareTextCommand{\textdoublebarpipe}{PU}{\81\302}% U+01C2
16284 %* \textdoublebarpipe -> \textdoublebarpipevar (tipx)
16285 % U+01CD LATIN CAPITAL LETTER A WITH CARON; Acaron
16286 \DeclareTextCompositeCommand{\v}{PU}{A}{\81\315}% U+01CD
16287 % U+01CE LATIN SMALL LETTER A WITH CARON; acarón
16288 \DeclareTextCompositeCommand{\v}{PU}{a}{\81\316}% U+01CE
16289 % U+01CF LATIN CAPITAL LETTER I WITH CARON; Icaron
16290 \DeclareTextCompositeCommand{\v}{PU}{I}{\81\317}% U+01CF
16291 % U+01D0 LATIN SMALL LETTER I WITH CARON; icarón
16292 \DeclareTextCompositeCommand{\v}{PU}{i}{\81\320}% U+01D0
16293 \DeclareTextCompositeCommand{\v}{PU}{i}{\81\320}% U+01D0
16294 % U+01D1 LATIN CAPITAL LETTER O WITH CARON; Ocaron
16295 \DeclareTextCompositeCommand{\v}{PU}{O}{\81\321}% U+01D1
16296 % U+01D2 LATIN SMALL LETTER O WITH CARON; ocarón
16297 \DeclareTextCompositeCommand{\v}{PU}{o}{\81\322}% U+01D2
16298 % U+01D3 LATIN CAPITAL LETTER U WITH CARON; Ucaron
16299 \DeclareTextCompositeCommand{\v}{PU}{U}{\81\323}% U+01D3
16300 % U+01D4 LATIN SMALL LETTER U WITH CARON; ucarón
16301 \DeclareTextCompositeCommand{\v}{PU}{u}{\81\324}% U+01D4
16302 % U+01DD LATIN SMALL LETTER TURNED E; eturned; \inve (wasysym)
16303 \DeclareTextCommand{\textinve}{PU}{\81\335}%* U+01DD
16304 % U+01E4 LATIN CAPITAL LETTER G WITH STROKE; Gstroke
16305 \DeclareTextCommand{\textGslash}{PU}{\81\344}% U+01E4
16306 % U+01E5 LATIN SMALL LETTER G WITH STROKE; gstroke
16307 \DeclareTextCommand{\textgslash}{PU}{\81\345}% U+01E5
16308 %* \textgslash -> \textcrg (tipa)
16309 % U+01E6 LATIN CAPITAL LETTER G WITH CARON; Gcaron
16310 \DeclareTextCompositeCommand{\v}{PU}{G}{\81\346}% U+01E6
16311 % U+01E7 LATIN SMALL LETTER G WITH CARON; gcarón
16312 \DeclareTextCompositeCommand{\v}{PU}{g}{\81\347}% U+01E7
16313 % U+01E8 LATIN CAPITAL LETTER K WITH CARON; Kcaron
16314 \DeclareTextCompositeCommand{\v}{PU}{K}{\81\350}% U+01E8
16315 % U+01E9 LATIN SMALL LETTER K WITH CARON; kcarón
16316 \DeclareTextCompositeCommand{\v}{PU}{k}{\81\351}% U+01E9
16317 % U+01EA LATIN CAPITAL LETTER O WITH OGONEK; Oogonek
16318 \DeclareTextCompositeCommand{\k}{PU}{O}{\81\352}% U+01EA
16319 % U+01EB LATIN SMALL LETTER O WITH OGONEK; oogonek
16320 \DeclareTextCompositeCommand{\k}{PU}{o}{\81\353}% U+01EB
16321 % U+01F0 LATIN SMALL LETTER J WITH CARON; jcarón
16322 \DeclareTextCompositeCommand{\v}{PU}{j}{\81\360}% U+01F0
16323 \DeclareTextCompositeCommand{\v}{PU}{j}{\81\360}% U+01F0

16324 % U+01F4 LATIN CAPITAL LETTER G WITH ACUTE; Gacute
16325 \DeclareTextCompositeCommand{\'}{PU}{G}{\81\364}% U+01F4
16326 % U+01F5 LATIN SMALL LETTER G WITH ACUTE; gacute
16327 \DeclareTextCompositeCommand{\'}{PU}{g}{\81\365}% U+01F5
16328 % U+01F8 LATIN CAPITAL LETTER N WITH GRAVE
16329 \DeclareTextCompositeCommand{\'}{PU}{N}{\81\370}% U+01F8
16330 % U+01F9 LATIN SMALL LETTER N WITH GRAVE
16331 \DeclareTextCompositeCommand{\'}{PU}{n}{\81\371}% U+01F9
16332 % U+01FC LATIN CAPITAL LETTER AE WITH ACUTE; AEacute
16333 \DeclareTextCompositeCommand{\'}{PU}{\AE}{\81\374}% U+01FC
16334 % U+01FD LATIN SMALL LETTER AE WITH ACUTE; aeacute
16335 \DeclareTextCompositeCommand{\'}{PU}{\ae}{\81\375}% U+01FD
16336 % U+01FE LATIN CAPITAL LETTER O WITH STROKE AND ACUTE;
16337 % *Oslashacute, Ostrokeacut
16338 \DeclareTextCompositeCommand{\'}{PU}{\O}{\81\376}% U+01FE
16339 % U+01FF LATIN SMALL LETTER O WITH STROKE AND ACUTE;
16340 % *oslashacute, ostrokeacute
16341 \DeclareTextCompositeCommand{\'}{PU}{\o}{\81\377}% U+01FF
16342 % U+0200 LATIN CAPITAL LETTER A WITH DOUBLE GRAVE; Adblgrave
16343 \DeclareTextCompositeCommand{\G}{PU}{A}{\82\000}% U+0200
16344 % U+0201 LATIN SMALL LETTER A WITH DOUBLE GRAVE; adblgrave
16345 \DeclareTextCompositeCommand{\G}{PU}{a}{\82\001}% U+0201
16346 % U+0204 LATIN CAPITAL LETTER E WITH DOUBLE GRAVE; Edblgrave
16347 \DeclareTextCompositeCommand{\G}{PU}{E}{\82\004}% U+0204
16348 % U+0205 LATIN SMALL LETTER E WITH DOUBLE GRAVE; edblgrave
16349 \DeclareTextCompositeCommand{\G}{PU}{e}{\82\005}% U+0205
16350 % U+0206 LATIN CAPITAL LETTER E WITH INVERTED BREVE; Einvert-
edbreve
16351 \DeclareTextCompositeCommand{\textinvbreve}{PU}{E}{\82\006}% U+0206
16352 % U+0207 LATIN SMALL LETTER E WITH INVERTED BREVE; einverted-
breve
16353 \DeclareTextCompositeCommand{\textinvbreve}{PU}{e}{\82\007}% U+0207
16354 % U+0208 LATIN CAPITAL LETTER I WITH DOUBLE GRAVE; Idblgrave
16355 \DeclareTextCompositeCommand{\G}{PU}{I}{\82\010}% U+0208
16356 % U+0209 LATIN SMALL LETTER I WITH DOUBLE GRAVE; idblgrave
16357 \DeclareTextCompositeCommand{\G}{PU}{i}{\82\011}% U+0209
16358 \DeclareTextCompositeCommand{\G}{PU}{i}{\82\011}% U+0209
16359 % U+020A LATIN CAPITAL LETTER I WITH INVERTED BREVE; iinverted-
breve
16360 \DeclareTextCompositeCommand{\textinvbreve}{PU}{I}{\82\012}% U+020A
16361 % U+020B LATIN SMALL LETTER I WITH INVERTED BREVE; iinverted-
breve
16362 \DeclareTextCompositeCommand{\textinvbreve}{PU}{i}{\82\013}% U+020B
16363 \DeclareTextCompositeCommand{\textinvbreve}{PU}{i}{\82\013}% U+020B
16364 % U+020C LATIN CAPITAL LETTER O WITH DOUBLE GRAVE; Odblgrave
16365 \DeclareTextCompositeCommand{\G}{PU}{O}{\82\014}% U+020C
16366 % U+020D LATIN SMALL LETTER O WITH DOUBLE GRAVE; odblgrave
16367 \DeclareTextCompositeCommand{\G}{PU}{o}{\82\015}% U+020D
16368 % U+020E LATIN CAPITAL LETTER O WITH INVERTED BREVE; Oinvert-
edbreve
16369 \DeclareTextCompositeCommand{\textinvbreve}{PU}{O}{\82\016}% U+020E
16370 % U+020F LATIN SMALL LETTER O WITH INVERTED BREVE; oinvert-
breve
16371 \DeclareTextCompositeCommand{\textinvbreve}{PU}{o}{\82\017}% U+020F
16372 % U+0210 LATIN CAPITAL LETTER R WITH DOUBLE GRAVE; Rdblgrave
16373 \DeclareTextCompositeCommand{\G}{PU}{R}{\82\020}% U+0210
16374 % U+0211 LATIN SMALL LETTER R WITH DOUBLE GRAVE; rdblgrave

16375 \DeclareTextCompositeCommand{\G}{PU}{r}{\82\021}% U+0211
 16376 % U+0214 LATIN CAPITAL LETTER U WITH DOUBLE GRAVE; Udblgrave
 16377 \DeclareTextCompositeCommand{\G}{PU}{U}{\82\024}% U+0214
 16378 % U+0215 LATIN SMALL LETTER U WITH DOUBLE GRAVE; udblgrave
 16379 \DeclareTextCompositeCommand{\G}{PU}{u}{\82\025}% U+0215
 16380 % U+0216 LATIN CAPITAL LETTER U WITH INVERTED BREVE; Uinvert-
 edbreve
 16381 \DeclareTextCompositeCommand{\textinvbreve}{PU}{U}{\82\026}% U+0216
 16382 % U+0217 LATIN SMALL LETTER U WITH INVERTED BREVE; uinverted-
 breve
 16383 \DeclareTextCompositeCommand{\textinvbreve}{PU}{u}{\82\027}% U+0217
 16384 % U+021E LATIN CAPITAL LETTER H WITH CARON
 16385 \DeclareTextCompositeCommand{\v}{PU}{H}{\82\036}% U+021E
 16386 % U+021F LATIN SMALL LETTER H WITH CARON
 16387 \DeclareTextCompositeCommand{\v}{PU}{h}{\82\037}% U+021F
 16388 % U+0221 LATIN SMALL LETTER D WITH CURL; \textctd (tipa)
 16389 \DeclareTextCommand{\textctd}{PU}{\82\041}% U+0221
 16390 % U+0225 LATIN SMALL LETTER Z WITH HOOK; \textcommatailz (tipa)
 16391 \DeclareTextCommand{\textcommatailz}{PU}{\82\045}% U+0225
 16392 % U+0226 LATIN CAPITAL LETTER A WITH DOT ABOVE
 16393 \DeclareTextCompositeCommand{\.}{PU}{A}{\82\046}% U+0226
 16394 % U+0227 LATIN SMALL LETTER A WITH DOT ABOVE
 16395 \DeclareTextCompositeCommand{\.}{PU}{a}{\82\047}% U+0227
 16396 % U+0228 LATIN CAPITAL LETTER E WITH CEDILLA
 16397 \DeclareTextCompositeCommand{\c}{PU}{E}{\82\050}% U+0228
 16398 % U+0229 LATIN SMALL LETTER E WITH CEDILLA
 16399 \DeclareTextCompositeCommand{\c}{PU}{e}{\82\051}% U+0229
 16400 % U+022E LATIN CAPITAL LETTER O WITH DOT ABOVE
 16401 \DeclareTextCompositeCommand{\.}{PU}{O}{\82\056}% U+022E
 16402 % U+022F LATIN SMALL LETTER O WITH DOT ABOVE
 16403 \DeclareTextCompositeCommand{\.}{PU}{o}{\82\057}% U+022F
 16404 % U+0232 LATIN CAPITAL LETTER Y WITH MACRON
 16405 \DeclareTextCompositeCommand{\=}{PU}{Y}{\82\062}% U+0232
 16406 % U+0233 LATIN SMALL LETTER Y WITH MACRON
 16407 \DeclareTextCompositeCommand{\=}{PU}{y}{\82\063}% U+0233
 16408 % U+0235 LATIN SMALL LETTER N WITH CURL; \textctn (tipa)
 16409 \DeclareTextCommand{\textctn}{PU}{\82\065}% U+0235
 16410 % U+0236 LATIN SMALL LETTER T WITH CURL; \textctt (tipa)
 16411 \DeclareTextCommand{\textctt}{PU}{\82\066}% U+0236
 16412 % U+0237 LATIN SMALL LETTER DOTLESS J
 16413 \DeclareTextCommand{\j}{PU}{\82\067}% U+0237
 16414 % U+0238 LATIN SMALL LETTER DB DIGRAPH; \textdblig (tipx)
 16415 \DeclareTextCommand{\textPUdblig}{PU}{\82\070}% U+0238
 16416 %* \textPUdblig -> \textdblig (tipx)
 16417 % U+0239 LATIN SMALL LETTER QP DIGRAPH; \textqplig (tipx)
 16418 \DeclareTextCommand{\textPUqplig}{PU}{\82\071}% U+0239
 16419 %* \textPUqplig -> \textqplig (tipx)
 16420 % U+023C LATIN SMALL LETTER C WITH STROKE; \slashc (wsuipa)
 16421 \DeclareTextCommand{\textslashc}{PU}{\82\074}%* U+023C
 16422 %* \textslashc -> \textcentoldstyle (textcomp)
 16423 % With bar instead of stroke:
 16424 %* \textslashc -> \textbarc (tipa)

51.2.6 IPA Extensions: U+0250 to U+02AF

16425 % U+0250 LATIN SMALL LETTER TURNED A; aturned; \textturna (tipa)
 16426 \DeclareTextCommand{\textturna}{PU}{\82\120}% U+0250
 16427 %* \textturna -> \inva (wasysym)

16428 % U+0251 LATIN SMALL LETTER ALPHA/LATIN SMALL LETTER
 16429 % SCRIPT A; ascript; \textscripta (tipa), \scripta (wsuipa)
 16430 \DeclareTextCommand{\textscripta}{PU}{\82\121}%* U+0251
 16431 %* \textscripta -> \vara (phonetic)
 16432 % U+0252 LATIN SMALL LETTER TURNED ALPHA; ascriptturned;
 16433 % \textturnscripta (tipa)
 16434 \DeclareTextCommand{\textturnscripta}{PU}{\82\122}% U+0252
 16435 %* \textturnscripta -> \invscripta (wsuipa)
 16436 %* \textturnscripta -> \rotvara (phonetic)
 16437 % U+0253 LATIN CAPITAL LETTER B WITH HOOK; bhook; \texthtb (tipa)
 16438 \DeclareTextCommand{\texthtb}{PU}{\82\123}% U+0253
 16439 %* \texthtb -> \hookb (wsuipa)
 16440 %* \texthtb -> \hausab (phonetic)
 16441 % U+0254 LATIN SMALL LETTER OPEN O; oopen;
 16442 % \textopeno (tipa), \openo (wasysym)
 16443 \DeclareTextCommand{\textopeno}{PU}{\82\124}%* U+0254
 16444 %* \textopeno -> \varopeno (phonetic)
 16445 % U+0255 LATIN SMALL LETTER C WITH CURL; ccurl; \textctc (tipa)
 16446 \DeclareTextCommand{\textctc}{PU}{\82\125}% U+0255
 16447 %* \textctc -> \curlyc (wsuipa)
 16448 % U+0256 LATIN SMALL LETTER D WITH TAIL; dtail; \textrtaild (tipa)
 16449 \DeclareTextCommand{\textrtaild}{PU}{\82\126}%* U+0256
 16450 %* \textrtaild -> \taild (wsuipa)
 16451 % U+0257 LATIN SMALL LETTER D WITH HOOK; dhook; \texthtd (tipa)
 16452 \DeclareTextCommand{\texthtd}{PU}{\82\127}% U+0257
 16453 %* \texthtd -> \hookd (wsuipa)
 16454 %* \texthtd -> \hausad (phonetic)
 16455 % U+0258 LATIN SMALL LETTER REVERSED E; ereversed;
 16456 % \textreve (tipa), \reve (wsuipa)
 16457 \DeclareTextCommand{\textreve}{PU}{\82\130}%* U+0258
 16458 % U+0259 LATIN SMALL LETTER SCHWA; schwa;
 16459 % \textschwa (tipa), \schwa (wsuipa, phonetic)
 16460 \DeclareTextCommand{\textschwa}{PU}{\82\131}%* U+0259
 16461 % U+025A LATIN SMALL LETTER SCHWA WITH HOOK; schwahook;
 16462 % \textrhookschwa (tipa)
 16463 \DeclareTextCommand{\textrhookschwa}{PU}{\82\132}% U+025A
 16464 %* \textrhookschwa -> \er (wsuipa)
 16465 % U+025B LATIN SMALL LETTER OPEN E/LATIN SMALL LETTER EP-
 SILON; eopen;
 16466 % \niepsilon (wsuipa)
 16467 \DeclareTextCommand{\textniepsilon}{PU}{\82\133}%* U+025B
 16468 %* \textniepsilon -> \epsi (phonetic)
 16469 % U+025C LATIN SMALL LETTER REVERSED OPEN E; eopenreversed;
 16470 % \textrevepsilon (tipa), \revepsilon (wsuipa)
 16471 \DeclareTextCommand{\textrevepsilon}{PU}{\82\134}%* U+025C
 16472 % U+025D LATIN SMALL LETTER REVERSED OPEN E WITH HOOK; eopen-
 reversedhook;
 16473 % \textrhookrevepsilon (tipa)
 16474 \DeclareTextCommand{\textrhookrevepsilon}{PU}{\82\135}%* U+025D
 16475 %* \textrhookrevepsilon -> \hookrevepsilon (wsuipa)
 16476 % U+025E LATIN SMALL LETTER CLOSED REVERSED OPEN E; eopenre-
 versedclosed;
 16477 % \textcloserevepsilon (tipa)
 16478 \DeclareTextCommand{\textcloserevepsilon}{PU}{\82\136}% U+025E
 16479 %* \textcloserevepsilon -> \closedrevepsilon (wsuipa)
 16480 % U+025F LATIN SMALL LETTER DOTLESS J WITH STROKE; jdot-
 lessstroke;

16481 % \textbardotlessj (tipa)
16482 \DeclareTextCommand{\textbardotlessj}{PU}{\82\137}% U+025F
16483 %* \textbardotlessj -> \barj (phonetic)
16484 % U+0260 LATIN SMALL LETTER G WITH HOOK; ghook; \texthtg (tipa)
16485 \DeclareTextCommand{\texthtg}{PU}{\82\140}% U+0260
16486 %* \texthtg -> \hookg (wsuipa)
16487 % U+0261 LATIN SMALL LETTER SCRIPT G; gscript;
16488 % \textscriptg (tipa), \scriptg (wsuipa)
16489 \DeclareTextCommand{\textscriptg}{PU}{\82\141}%* U+0261
16490 %* \textscriptg -> \varg (phonetic)
16491 % U+0262 LATIN LETTER SMALL CAPITAL G; \textscg (tipa), \scg (wsuipa)
16492 \DeclareTextCommand{\textscg}{PU}{\82\142}%* U+0262
16493 % U+0263 LATIN SMALL LETTER GAMMA; gammalatinssmall;
16494 % \ipagamma (wsuipa), \vod (phonetic)
16495 \DeclareTextCommand{\textipagamma}{PU}{\82\143}%* U+0263
16496 %* \textipagamma -> \vod (pnonetic)
16497 % U+0264 LATIN SMALL LETTER RAMS HORN; ramshorn;
16498 % \babygamma (wsuipa)
16499 \DeclareTextCommand{\textbabygamma}{PU}{\82\144}%* U+0264
16500 % U+0265 LATIN SMALL LETTER TURNED H; hturned; \textturnh (tipa)
16501 \DeclareTextCommand{\textturnh}{PU}{\82\145}% U+0265
16502 %* \textturnh -> \invh (wsuipa)
16503 %* \textturnh -> \udesc (phonetic)
16504 % U+0266 LATIN SMALL LETTER H WITH HOOK; hhook; \texthth (tipa)
16505 \DeclareTextCommand{\texthth}{PU}{\82\146}% U+0266
16506 %* \texthth -> \hookh (wsuipa)
16507 %* \texthth -> \voicedh (phonetic)
16508 % U+0267 LATIN SMALL LETTER HENG WITH HOOK; henghook; \texththeng (tipa)
16509 \DeclareTextCommand{\texththeng}{PU}{\82\147}% U+0267
16510 %* \texththeng -> \hookheng (wsuipa)
16511 % U+0268 LATIN SMALL LETTER I WITH STROKE;
16512 % \textbari (tipa), \bari (wsuipa)
16513 \DeclareTextCommand{\textbari}{PU}{\82\150}%* U+0268
16514 %* \textbari -> \ibar (phonetic)
16515 % U+0269 LATIN SMALL LETTER IOTA; iotalatin; \nniota (wsuipa)
16516 \DeclareTextCommand{\textnniota}{PU}{\82\151}%* U+0269
16517 %* \textnniota -> \vari (phonetic)
16518 % U+026A LATIN LETTER SMALL CAPITAL I; \textsci (tipa), \sci (wsuipa)
16519 \DeclareTextCommand{\textsci}{PU}{\82\152}%* U+026A
16520 % U+026B LATIN SMALL LETTER L WITH MIDDLE TILDE; lmiddletilde;
16521 % \textltilde (tipa)
16522 \DeclareTextCommand{\textltilde}{PU}{\82\153}% U+026B
16523 %* \textltilde -> \tildel (wsuipa)
16524 % U+026C LATIN SMALL LETTER L WITH BELT; lbelt; \textbeltl (tipa)
16525 \DeclareTextCommand{\textbeltl}{PU}{\82\154}% U+026C
16526 %* \textbeltl -> \latfric (wsuipa)
16527 % U+026D LATIN SMALL LETTER L WITH RETROFLEX HOOK;
16528 % \hookretroflex; \textrtaill (tipa)
16529 \DeclareTextCommand{\textrtaill}{PU}{\82\155}% U+026D
16530 %* \textrtaill -> \taill (wsuipa)
16531 % U+026E LATIN SMALL LETTER LEZH; lezh; \textlyoghlig (tipa)
16532 \DeclareTextCommand{\textlyoghlig}{PU}{\82\156}% U+026E
16533 %* \textlyoghlig -> \lz (wsuipa)
16534 % U+026F LATIN SMALL LETTER TURNED M; mturned; \textturnm (tipa)
16535 \DeclareTextCommand{\textturnm}{PU}{\82\157}% U+026F
16536 %* \textturnm -> \invm (wsuipa)

16537 %* \textturnm -> \rotm (phonetic)
 16538 % U+0270 LATIN SMALL LETTER TURNED M WITH LONG LEG; mlongleg-
 turned;
 16539 % \textturnmrleg (tipa)
 16540 \DeclareTextCommand{\textturnmrleg}{PU}{\82\160}% U+0270
 16541 %* \textturnmrleg -> \legm (wsuipa)
 16542 % U+0271 LATIN SMALL LETTER M WITH HOOK; mhook; \textltailm (tipa)
 16543 \DeclareTextCommand{\textltailm}{PU}{\82\161}% U+0271
 16544 %* \textltailm -> \labdentalnas (wsuipa)
 16545 %* \textltailm -> \emgma (phonetic)
 16546 % U+0272 LATIN SMALL LETTER N WITH LEFT HOOK; nhookleft; \textl-
 tailn (tipa)
 16547 \DeclareTextCommand{\textltailn}{PU}{\82\162}% U+0272
 16548 %* \textltailn -> \nj (wsuipa)
 16549 %* \textltailn -> \enya (phonetic)
 16550 % U+0273 LATIN SMALL LETTER N WITH RETROFLEX HOOK;
 16551 % nhookretroflex; \textrtailn (tipa)
 16552 \DeclareTextCommand{\textrtailn}{PU}{\82\163}% U+0273
 16553 %* \textrtailn -> \tailn (wsuipa)
 16554 % U+0274 LATIN LETTER SMALL CAPITAL N; \textscn (tipa), \scn (wsuipa)
 16555 \DeclareTextCommand{\textscn}{PU}{\82\164}% U+0274
 16556 % U+0275 LATIN CAPITAL LETTER O WITH MIDDLE TILDE/
 16557 % LATIN CAPITAL LETTER BARRED O; obarred;
 16558 % \textbaro (tipa), \baro (wsuipa)
 16559 % But \baro from stmaryrd is different!
 16560 \DeclareTextCommand{\textbaro}{PU}{\82\165}% U+0275
 16561 % U+0276 LATIN LETTER SMALL CAPITAL OE; \textscelig (tipa)
 16562 \DeclareTextCommand{\textscelig}{PU}{\82\166}% U+0276
 16563 % U+0277 LATIN SMALL LETTER CLOSED OMEGA; omegalatinclosed;
 16564 % \textcloseomega (tipa)
 16565 \DeclareTextCommand{\textcloseomega}{PU}{\82\167}% U+0277
 16566 %* \textcloseomega -> \closedniomega (wsuipa)
 16567 %* \textcloseomega -> \varomega (phonetic)
 16568 % U+0278 LATIN SMALL LETTER PHI; philatin; \nippi (wsuipa)
 16569 \DeclareTextCommand{\textnippi}{PU}{\82\170}% U+0278
 16570 % U+0279 LATIN SMALL LETTER TURNED R; rturned; \textturnr (tipa)
 16571 \DeclareTextCommand{\textturnr}{PU}{\82\171}% U+0279
 16572 %* \textturnr -> \invr (wsuipa)
 16573 %* \textturnr -> \rotr (phonetic)
 16574 % U+027A LATIN SMALL LETTER TURNED R WITH LONG LEG;
 16575 % rlonglegturned; \textturnlongleg (tipa)
 16576 \DeclareTextCommand{\textturnlongleg}{PU}{\82\172}% U+027A
 16577 %* \textturnlongleg -> \invleg (wsuipa)
 16578 % U+027B LATIN SMALL LETTER TURNED R WITH HOOK; rhookturned;
 16579 % \textturnrrtail (tipa)
 16580 \DeclareTextCommand{\textturnrrtail}{PU}{\82\173}% U+027B
 16581 %* \textturnrrtail -> \tailinvr (wsuipa)
 16582 % U+027C LATIN SMALL LETTER R WITH LONG LEG; rlongleg; \textlon-
 glegr (tipa)
 16583 \DeclareTextCommand{\textlongleg}{PU}{\82\174}% U+027C
 16584 %* \textlongleg -> \leg (wsuipa)
 16585 % U+027D LATIN SMALL LETTER R WITH TAIL; rhook; \textrtailr (tipa)
 16586 \DeclareTextCommand{\textrtailr}{PU}{\82\175}% U+027D
 16587 %* \textrtailr -> \tailr (wsuipa)
 16588 % U+027E LATIN SMALL LETTER R WITH FISHHOOK; rfishhook;
 16589 % \textfishhook (tipa)
 16590 \DeclareTextCommand{\textfishhook}{PU}{\82\176}% U+027E

16591 %* \textfishhookr -> \flapr (wsuipa)
16592 %* \textfishhookr -> \flap (phonetic)
16593 % U+027F LATIN SMALL LETTER REVERSED R WITH FISHHOOK; rfishhookreversed;
16594 % \textlhtlongi (tipa)
16595 \DeclareTextCommand{\textlhtlongi}{PU}{\82\177}% U+027F
16596 % U+0280 LATIN LETTER SMALL CAPITAL R; \textscr (tipa), \scr (wsuipa)
16597 \DeclareTextCommand{\textscr}{PU}{\82\200}%* U+0280
16598 % U+0281 LATIN LETTER SMALL CAPITAL INVERTED R; Rsmallinverted;
16599 % \textinvscr (tipa), \invscr (wsuipa)
16600 \DeclareTextCommand{\textinvscr}{PU}{\82\201}%* U+0281
16601 % U+0282 LATIN SMALL LETTER S WITH HOOK; shook; \textrtails (tipa)
16602 \DeclareTextCommand{\textrtails}{PU}{\82\202}% U+0282
16603 %* \textrtails -> \tails (wsuipa)
16604 % U+0283 LATIN SMALL LETTER ESH; esh; \textesh (tipa), \esh (wsuipa)
16605 \DeclareTextCommand{\textesh}{PU}{\82\203}%* U+0283
16606 % U+0284 LATIN SMALL LETTER DOTLESS J WITH STROKE AND HOOK;
16607 % dotlessjstrokehook; \texthtbardotlessj (tipa)
16608 \DeclareTextCommand{\texthtbardotlessj}{PU}{\82\204}% U+0284
16609 % U+0285 LATIN SMALL LETTER SQUAT REVERSED ESH; eshsquatreversed;
16610 % \textvibyi (tipa)
16611 \DeclareTextCommand{\textvibyi}{PU}{\82\205}% U+0285
16612 % U+0286 LATIN SMALL LETTER ESH WITH CURL; eshcurl; \textctesh (tipa)
16613 \DeclareTextCommand{\textctesh}{PU}{\82\206}% U+0286
16614 %* \textctesh -> \curlyesh (wsuipa)
16615 % U+0287 LATIN SMALL LETTER TURNED T; tturned; \textturnt (tipa)
16616 \DeclareTextCommand{\textturnt}{PU}{\82\207}% U+0287
16617 %* \textturnt -> \clickt (wsuipa)
16618 % U+0288 LATIN SMALL LETTER T WITH RETROFLEX HOOK; retroflexhook;
16619 % \texttrtailt (tipa)
16620 \DeclareTextCommand{\texttrtailt}{PU}{\82\210}% U+0288
16621 %* \texttrtailt -> \tailt (wsuipa)
16622 % U+0289 LATIN SMALL LETTER U BAR; ubar;
16623 % \textbaru (tipa), \baru (wsuipa)
16624 \DeclareTextCommand{\textbaru}{PU}{\82\211}%* U+0289
16625 %* \textbaru -> \ubar (phonetic)
16626 % U+028A LATIN SMALL LETTER UPSILON; \niupsilon (wsuipa)
16627 \DeclareTextCommand{\textniupsilon}{PU}{\82\212}%* U+028A
16628 %* \textniupsilon -> \rotOmega (phonetic)
16629 % U+028B LATIN SMALL LETTER V WITH HOOK/LATIN SMALL LETTER SCRIPT V;
16630 % vhook; \textscriptv (tipa), \scriptv (wsuipa)
16631 \DeclareTextCommand{\textscriptv}{PU}{\82\213}%* U+028B
16632 % U+028C LATIN SMALL LETTER TURNED V; vturned; \textturnv (tipa)
16633 \DeclareTextCommand{\textturnv}{PU}{\82\214}%* U+028C
16634 %* \textturnv -> \invv (wsuipa)
16635 %* \textturnv -> \pwedge (phonetic)
16636 % U+028D LATIN SMALL LETTER TURNED W; wturned; \textturnw (tipa)
16637 \DeclareTextCommand{\textturnw}{PU}{\82\215}%* U+028D
16638 %* \textturnw -> \invw (wsuipa)
16639 %* \textturnw -> \rotw (phonetic)
16640 % U+028E LATIN SMALL LETTER TURNED Y; yturned; \textturny (tipa)
16641 \DeclareTextCommand{\textturny}{PU}{\82\216}%* U+028E
16642 %* \textturny -> \invy (wsuipa)
16643 %* \textturny -> \roty (phonetic)

16644 % U+028F LATIN LETTER SMALL CAPITAL Y; \textscy (tipa), \scy (wsuipa)
16645 \DeclareTextCommand{\textscy}{PU}{\82\217}%* U+028F
16646 % U+0290 LATIN SMALL LETTER Z WITH RETROFLEX HOOK; zretroflex-hook;
16647 % \textrtailz (tipa)
16648 \DeclareTextCommand{\textrtailz}{PU}{\82\220}% U+0290
16649 %* \textrtailz -> \tailz (wsuipa)
16650 % U+0291 LATIN SMALL LETTER Z WITH CURL; zcurl; \textctz (tipa)
16651 \DeclareTextCommand{\textctz}{PU}{\82\221}% U+0291
16652 %* \textctz -> \curlyz (wsuipa)
16653 % U+0292 LATIN SMALL LETTER EZH/LATIN SMALL LETTER YOGH; ezh;
16654 % \textyogh (tipa), \yogh (wsuipa)
16655 \DeclareTextCommand{\textyogh}{PU}{\82\222}%* U+0292
16656 % U+0293 LATIN SMALL LETTER EZH WITH CURL/LATIN SMALL LETTER YOGH CURL;
16657 % ezhcurl; \textctyogh (tipa)
16658 \DeclareTextCommand{\textctyogh}{PU}{\82\223}% U+0293
16659 %* \textctyogh -> \curlyyogh (wsuipa)
16660 % U+0294 LATIN LETTER GLOTTAL STOP; glottalstop;
16661 % \textglotstop (tipa), \glotstop (wsuipa)
16662 \DeclareTextCommand{\textglotstop}{PU}{\82\224}%* U+0294
16663 %* \textglotstop -> \ejective (wsuipa)
16664 %* \textglotstop -> \glottal (phonetic)
16665 % U+0295 LATIN LETTER PHARYNGEAL VOICED FRICATIVE/
16666 % LATIN LETTER REVERSED GLOTTAL STOP; glottalstopreversed;
16667 % \textrevglotstop (tipa), \revglotstop (wsuipa)
16668 \DeclareTextCommand{\textrevglotstop}{PU}{\82\225}%* U+0295
16669 %* \textrevglotstop -> \reveject (wsuipa)
16670 % U+0296 LATIN LETTER INVERTED GLOTTAL STOP; glottalstopinverted;
16671 % \textinvglotstop (tipa), \invglotstop (wsuipa)
16672 \DeclareTextCommand{\textinvglotstop}{PU}{\82\226}%* U+0296
16673 % U+0297 LATIN LETTER STRETCHED C; cstretched; \textstretchc (tipa)
16674 \DeclareTextCommand{\textstretchc}{PU}{\82\227}% U+0297
16675 %* \textstretchc -> \clickc (wsuipa)
16676 %* \textstretchc -> \textstretchcvar (tipx)
16677 % U+0298 LATIN LETTER BILABIAL CLICK; bilabialclick;
16678 % \textbullseye (tipa)
16679 \DeclareTextCommand{\textbullseye}{PU}{\82\230}% U+0298
16680 %* \textbullseye -> \clickb (wsuipa)
16681 %* \textbullseye -> \textObullseye (tipx)
16682 % U+0299 LATIN LETTER SMALL CAPITAL B; \textscb (tipa)
16683 \DeclareTextCommand{\textscb}{PU}{\82\231}% U+0299
16684 % U+029A LATIN SMALL LETTER CLOSED OPEN E; eopenclosed;
16685 % \textcloseepsilon (tipa)
16686 \DeclareTextCommand{\textcloseepsilon}{PU}{\82\232}% U+029A
16687 % U+029B LATIN LETTER SMALL CAPITAL G WITH HOOK; Gsmallhook;
16688 % \texthtscg (tipa)
16689 \DeclareTextCommand{\texthtscg}{PU}{\82\233}% U+029B
16690 % U+029C LATIN LETTER SMALL CAPITAL H; \textsch (tipa)
16691 \DeclareTextCommand{\textsch}{PU}{\82\234}% U+029C
16692 % U+029D LATIN SMALL LETTER J WITH CROSSED-TAIL; jcrossetail;
16693 \DeclareTextCommand{\textctj}{PU}{\82\235}% U+029D
16694 %* \textctj -> \textctjvar (tipx)
16695 % U+029E LATIN SMALL LETTER TURNED K; kturned; \textturnk (tipa)
16696 \DeclareTextCommand{\textturnk}{PU}{\82\236}% U+029E
16697 %* \textturnk -> \textturnsck (tipx)

16698 % U+029F LATIN LETTER SMALL CAPITAL L; \textscL (tipa)
 16699 \DeclareTextCommand{\textscL}{PU}{\82\237}% U+029F
 16700 % U+02A0 LATIN SMALL LETTER Q WITH HOOK; qhook; \texthtq (tipa)
 16701 \DeclareTextCommand{\texthtq}{PU}{\82\240}% U+02A0
 16702 % U+02A1 LATIN LETTER GLOTTAL STOP WITH STROKE; glottalstop-stroke;
 16703 % \textbarglotstop (tipa)
 16704 \DeclareTextCommand{\textbarglotstop}{PU}{\82\241}% U+02A1
 16705 % U+02A2 LATIN LETTER REVERSED GLOTTAL STOP WITH STROKE/
 16706 % LATIN LETTER REVERSED GLOTTAL STOP BAR; glottalstopstrokereversed;
 16707 % \textbarrevglotstop (tipa)
 16708 \DeclareTextCommand{\textbarrevglotstop}{PU}{\82\242}% U+02A2
 16709 % U+02A3 LATIN SMALL LETTER DZ DIGRAPH; dzaltone; \textdzlig (tipa)
 16710 \DeclareTextCommand{\textdzlig}{PU}{\82\243}% U+02A3
 16711 %* \textdzlig -> \dz (wsupipa)
 16712 % U+02A4 LATIN SMALL LETTER DEZH DIGRAPH; dezh; \textdyoghlig (tipa)
 16713 \DeclareTextCommand{\textdyoghlig}{PU}{\82\244}% U+02A4
 16714 % U+02A5 LATIN SMALL LETTER DZ DIGRAPH WITH CURL; dzcurl;
 16715 % \textdctzlig (tipa)
 16716 \DeclareTextCommand{\textdctzlig}{PU}{\82\245}% U+02A5
 16717 % U+02A6 LATIN SMALL LETTER TS DIGRAPH; ts; \texttslig (tipa)
 16718 \DeclareTextCommand{\texttslig}{PU}{\82\246}% U+02A6
 16719 % U+02A7 LATIN SMALL LETTER TESH DIGRAPH; tesh; \textteshlig (tipa)
 16720 \DeclareTextCommand{\textteshlig}{PU}{\82\247}% U+02A7
 16721 %* \textteshlig -> \tesh (wsuipa)
 16722 % U+02A8 LATIN SMALL LETTER TC DIGRAPH WITH CURL; tccurl;
 16723 % \texttctclig (tipa)
 16724 \DeclareTextCommand{\texttctclig}{PU}{\82\250}% U+02A8
 16725 % U+02AE LATIN SMALL LETTER TURNED H WITH FISHHOOK;
 16726 % \textlhtlongy (tipa)
 16727 \DeclareTextCommand{\textlhtlongy}{PU}{\82\256}% U+02AE
 16728 % U+02AF LATIN SMALL LETTER TURNED H WITH FISHHOOK AND TAIL;
 16729 % \textvibyy (tipa)
 16730 \DeclareTextCommand{\textvibyy}{PU}{\82\257}% U+02AF

51.2.7 Spacing Modifier Letters: U+02B0 to U+02FF

16731 % U+02BD MODIFIER LETTER REVERSED COMMA;
 16732 % commareversedmod, afi64937; \textrevapostrophe (tipa)
 16733 \DeclareTextCommand{\textrevapostrophe}{PU}{\82\275}% U+02BD
 16734 % U+02C0 MODIFIER LETTER GLOTTAL STOP; glottalstopmod;
 16735 % \textraiseglotstop (tipa)
 16736 \DeclareTextCommand{\textraiseglotstop}{PU}{\82\300}% U+02C0
 16737 % U+02C2 MODIFIER LETTER LEFT ARROWHEAD; arrowheadleftmod;
 16738 % \textlptr (tipa)
 16739 \DeclareTextCommand{\textlptr}{PU}{\82\302}% U+02C2
 16740 % U+02C3 MODIFIER LETTER RIGHT ARROWHEAD; arrowheadrightmod;
 16741 % \textrptr (tipa)
 16742 \DeclareTextCommand{\textrptr}{PU}{\82\303}% U+02C3
 16743 % U+02C7 CARON; caron
 16744 \DeclareTextCommand{\textasciicaron}{PU}{\82\307}% U+02C7
 16745 % U+02C8 MODIFIER LETTER VERTICAL LINE; verticallinemod;
 16746 % \textprimstress (tipa)
 16747 \DeclareTextCommand{\textprimstress}{PU}{\82\310}% U+02C8
 16748 % U+02CC MODIFIER LETTER LOW VERTICAL LINE; verticallinelowmod;
 16749 % \textsecstress (tipa)

16750 \DeclareTextCommand{\textsecstress}{PU}{\82\314}% U+02CC
 16751 % U+02D0 MODIFIER LETTER TRIANGULAR COLON; colontriangularmod;
 16752 % \textlengthmark (tipa)
 16753 \DeclareTextCommand{\textlengthmark}{PU}{\82\320}% U+02D0
 16754 % U+02D1 MODIFIER LETTER HALF TRIANGULAR COLON; colontriangularhalfmod;
 16755 % \texthalflength (tipa)
 16756 \DeclareTextCommand{\texthalflength}{PU}{\82\321}% U+02D1
 16757 % U+02D8 BREVE; breve
 16758 \DeclareTextCommand{\textasciibreve}{PU}{\82\330}% U+02D8
 16759 % U+02D9 DOT ABOVE; dotaccent
 16760 \DeclareTextCommand{\textdotaccent}{PU}{\82\331}% U+02D9
 16761 % U+02DA RING ABOVE; ring
 16762 \DeclareTextCommand{\textring}{PU}{\82\332}% U+02DA
 16763 % U+02DB OGONEK; ogonek
 16764 \DeclareTextCommand{\textogonek}{PU}{\82\333}% U+02DB
 16765 % U+02DC SMALL TILDE; ilde, *tilde
 16766 \DeclareTextCommand{\texttilde}{PU}{\82\334}% U+02DC
 16767 % U+02DD DOUBLE ACUTE ACCENT; hungarumlaut
 16768 \DeclareTextCommand{\texthungarumlaut}{PU}{\82\335}% U+02DD
 16769 \DeclareTextCommand{\textacutedbl}{PU}{\82\335}% U+02DD
 16770 % U+02F3 MODIFIER LETTER LOW RING
 16771 \DeclareTextCommand{\textringlow}{PU}{\82\363}% U+02F3
 16772 % U+02F5 MODIFIER LETTER MIDDLE DOUBLE GRAVE ACCENT
 16773 \DeclareTextCommand{\textgravedbl}{PU}{\82\365}% U+02F5
 16774 % U+02F7 MODIFIER LETTER LOW TILDE
 16775 \DeclareTextCommand{\texttildelow}{PU}{\82\367}% U+02F7
 16776 % U+02F9 MODIFIER LETTER BEGIN HIGH TONE; \textopencorner (tipa)
 16777 \DeclareTextCommand{\textopencorner}{PU}{\82\371}% U+02F9
 16778 % U+02FA MODIFIER LETTER END HIGH TONE; \textcorner (tipa)
 16779 \DeclareTextCommand{\textcorner}{PU}{\82\372}% U+02FA

51.2.8 Combining Diacritical Marks: U+0300 to U+036F

16780 % U+030F COMBINING DOUBLE GRAVE ACCENT; dblgravecmb
 16781 \DeclareTextCommand{\textdoublegrave}{PU}{\83\017}% U+030F
 16782 % U+0311 COMBINING INVERTED BREVE; breveinvertedcmb
 16783 \DeclareTextCommand{\textnewtie}{PU}{\83\021}% U+0311
 16784 % U+0323 COMBINING DOT BELOW; dotbelowcmb, *dotbelowcmb
 16785 \DeclareTextCommand{\textdotbelow}{PU}{\83\043}% U+0323
 16786 % U+0331 COMBINING MACRON BELOW; macronbelowcmb
 16787 \DeclareTextCommand{\textmacronbelow}{PU}{\83\061}% U+0331
 16788 % U+0361 COMBINING DOUBLE INVERTED BREVE; breveinverteddoublecmb
 16789 \DeclareTextCommand{\texttie}{PU}{\83\141}% U+0361

51.2.9 Greek and Coptic: U+0370 to U+03FF

16790 % U+0374 GREEK NUMERAL SIGN; numeralsigngreek
 16791 \DeclareTextCommand{\textnumeralsigngreek}{PU}{\83\164}% U+0374
 16792 % U+0375 GREEK LOWER NUMERAL SIGN; numeralsignlowergreek
 16793 \DeclareTextCommand{\textnumeralsignlowergreek}{PU}{\83\165}% U+0375
 16794 % U+0386 GREEK CAPITAL LETTER ALPHA WITH TONOS; Alphatonos
 16795 \DeclareTextCompositeCommand{\'}{PU}{\textAlpha}{\83\206}% U+0386
 16796 % U+0388 GREEK CAPITAL LETTER EPSILON WITH TONOS; Epsilontonos
 16797 \DeclareTextCompositeCommand{\'}{PU}{\textEpsilon}{\83\210}% U+0388
 16798 % U+0389 GREEK CAPITAL LETTER ETA WITH TONOS; Etatonos
 16799 \DeclareTextCompositeCommand{\'}{PU}{\textEta}{\83\211}% U+0389
 16800 % U+038A GREEK CAPITAL LETTER IOTA WITH TONOS; Iotatonos

16801 \DeclareTextCompositeCommand{\'}{PU}{\textIota}{\83\212}% U+038A
16802 % U+038C GREEK CAPITAL LETTER OMICRON WITH TONOS; Omicrontonos
16803 \DeclareTextCompositeCommand{\'}{PU}{\textOmicron}{\83\214}% U+038C
16804 % U+038E GREEK CAPITAL LETTER UPSILON WITH TONOS; Upsilonontonos
16805 \DeclareTextCompositeCommand{\'}{PU}{\textUpsilon}{\83\216}% U+038E
16806 % U+038F GREEK CAPITAL LETTER OMEGA WITH TONOS; Omegatonos
16807 \DeclareTextCompositeCommand{\'}{PU}{\textOmega}{\83\217}% U+038F
16808 % U+0390 GREEK SMALL LETTER IOTA WITH DIALYTIKA AND TONOS;
16809 % iotadieresisistonos
16810 \DeclareTextCompositeCommand{\'}{PU}{\textIotadieresis}{\83\220}% U+0390
16811 % U+0391 GREEK CAPITAL LETTER ALPHA; Alpha
16812 \DeclareTextCommand{\textAlpha}{PU}{\83\221}% U+0391
16813 % U+0392 GREEK CAPITAL LETTER BETA; Beta
16814 \DeclareTextCommand{\textBeta}{PU}{\83\222}% U+0392
16815 % U+0393 GREEK CAPITAL LETTER GAMMA; Gamma; \Gamma (LaTeX)
16816 \DeclareTextCommand{\textGamma}{PU}{\83\223}%* U+0393
16817 % U+0394 GREEK CAPITAL LETTER DELTA; Deltagreek, *Delta; \Delta (LaTeX)
16818 \DeclareTextCommand{\textDelta}{PU}{\83\224}%* U+0394
16819 % U+0395 GREEK CAPITAL LETTER EPSILON; Epsilon
16820 \DeclareTextCommand{\textEpsilon}{PU}{\83\225}% U+0395
16821 % U+0396 GREEK CAPITAL LETTER ZETA; Zeta
16822 \DeclareTextCommand{\textZeta}{PU}{\83\226}% U+0396
16823 % U+0397 GREEK CAPITAL LETTER ETA; Eta
16824 \DeclareTextCommand{\textEta}{PU}{\83\227}% U+0397
16825 % U+0398 GREEK CAPITAL LETTER THETA; Theta; \Theta (LaTeX)
16826 \DeclareTextCommand{\textTheta}{PU}{\83\230}%* U+0398
16827 % U+0399 GREEK CAPITAL LETTER IOTA; Iota
16828 \DeclareTextCommand{\textIota}{PU}{\83\231}% U+0399
16829 % U+039A GREEK CAPITAL LETTER KAPPA; Kappa
16830 \DeclareTextCommand{\textKappa}{PU}{\83\232}% U+039A
16831 % U+039B GREEK CAPITAL LETTER LAMDA; Lambda; \Lambda (LaTeX)
16832 \DeclareTextCommand{\textLambda}{PU}{\83\233}%* U+039B
16833 % U+039C GREEK CAPITAL LETTER MU; Mu
16834 \DeclareTextCommand{\textMu}{PU}{\83\234}% U+039C
16835 % U+039D GREEK CAPITAL LETTER NU; Nu
16836 \DeclareTextCommand{\textNu}{PU}{\83\235}% U+039D
16837 % U+039E GREEK CAPITAL LETTER XI; Xi; \Xi (LaTeX)
16838 \DeclareTextCommand{\textXi}{PU}{\83\236}%* U+039E
16839 % U+039F GREEK CAPITAL LETTER OMICRON; Omicron
16840 \DeclareTextCommand{\textOmicron}{PU}{\83\237}% U+039F
16841 % U+03A0 GREEK CAPITAL LETTER PI; Pi
16842 \DeclareTextCommand{\textPi}{PU}{\83\240}%* U+03A0
16843 % U+03A1 GREEK CAPITAL LETTER RHO; Rho
16844 \DeclareTextCommand{\textRho}{PU}{\83\241}% U+03A1
16845 % U+03A3 GREEK CAPITAL LETTER SIGMA; Sigma; \Sigma (LaTeX)
16846 \DeclareTextCommand{\textSigma}{PU}{\83\243}%* U+03A3
16847 % U+03A4 GREEK CAPITAL LETTER TAU; Tau
16848 \DeclareTextCommand{\textTau}{PU}{\83\244}% U+03A4
16849 % U+03A5 GREEK CAPITAL LETTER UPSILON; Upsilon; \Upsilon (LaTeX)
16850 \DeclareTextCommand{\textUpsilon}{PU}{\83\245}%* U+03A5
16851 % U+03A6 GREEK CAPITAL LETTER PHI; Phi; \Phi (LaTeX)
16852 \DeclareTextCommand{\textPhi}{PU}{\83\246}%* U+03A6
16853 % U+03A7 GREEK CAPITAL LETTER CHI; Chi
16854 \DeclareTextCommand{\textChi}{PU}{\83\247}% U+03A7
16855 % U+03A8 GREEK CAPITAL LETTER PSI; Psi; \Psi (LaTeX)

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16856 \DeclareTextCommand{\textPsi}{PU}{\83\250}%* U+03A8
16857 % U+03A9 GREEK CAPITAL LETTER OMEGA; Omegagreek, *Omega;
16858 % \Omega (LaTeX)
16859 \DeclareTextCommand{\textOmega}{PU}{\83\251}%* U+03A9
16860 % U+03AA GREEK CAPITAL LETTER IOTA WITH DIALYTIKA; Iotadieresis
16861 \DeclareTextCommand{\textIotadieresis}{PU}{\83\252}% U+03AA
16862 \DeclareTextCompositeCommand{"}{PU}{\textIota}{\83\252}% U+03AA
16863 % U+03AB GREEK CAPITAL LETTER UPSILON WITH DIALYTIKA; Up-
silondieresis
16864 \DeclareTextCompositeCommand{"}{PU}{\textUpsilon}{\83\253}% U+03AB
16865 % U+03AC GREEK SMALL LETTER ALPHA WITH TONOS; alphanos
16866 \DeclareTextCompositeCommand{'}{PU}{\textalpha}{\83\254}%* U+03AC
16867 % U+03AD GREEK SMALL LETTER EPSILON WITH TONOS; epsilonos
16868 \DeclareTextCompositeCommand{'}{PU}{\textepsilon}{\83\255}% U+03AD
16869 % U+03AE GREEK SMALL LETTER ETA WITH TONOS; etanos
16870 \DeclareTextCompositeCommand{'}{PU}{\texteta}{\83\256}% U+03AE
16871 % U+03AF GREEK SMALL LETTER IOTA WITH TONOS; iotonos
16872 \DeclareTextCompositeCommand{'}{PU}{\textiota}{\83\257}% U+03AF
16873 % U+03B0 GREEK SMALL LETTER UPSILON WITH DIALYTIKA
16874 % AND TONOS; upsilondieresis
16875 \DeclareTextCompositeCommand{"}{PU}{\textupsilon}{\83\260}% U+03B0
16876 % U+03B1 GREEK SMALL LETTER ALPHA; alpha; \alpha (LaTeX)
16877 \DeclareTextCommand{\textalpha}{PU}{\83\261}%* U+03B1
16878 % U+03B2 GREEK SMALL LETTER BETA; beta; \beta (LaTeX)
16879 \DeclareTextCommand{\textbeta}{PU}{\83\262}%* U+03B2
16880 % U+03B3 GREEK SMALL LETTER GAMMA; gamma; \gamma (LaTeX)
16881 \DeclareTextCommand{\textgamma}{PU}{\83\263}%* U+03B3
16882 % U+03B4 GREEK SMALL LETTER DELTA; delta; \delta (LaTeX)
16883 \DeclareTextCommand{\textdelta}{PU}{\83\264}%* U+03B4
16884 % U+03B5 GREEK SMALL LETTER EPSILON; epsilon; \epsilon (LaTeX)
16885 \DeclareTextCommand{\textepsilon}{PU}{\83\265}%* U+03B5
16886 % U+03B6 GREEK SMALL LETTER ZETA; zeta; \zeta (LaTeX)
16887 \DeclareTextCommand{\textzeta}{PU}{\83\266}%* U+03B6
16888 % U+03B7 GREEK SMALL LETTER ETA; eta; \eta (LaTeX)
16889 \DeclareTextCommand{\texteta}{PU}{\83\267}%* U+03B7
16890 % U+03B8 GREEK SMALL LETTER THETA; theta; \theta (LaTeX)
16891 \DeclareTextCommand{\texttheta}{PU}{\83\270}%* U+03B8
16892 % U+03B9 GREEK SMALL LETTER IOTA; iota; \iota (LaTeX)
16893 \DeclareTextCommand{\textiota}{PU}{\83\271}%* U+03B9
16894 % U+03BA GREEK SMALL LETTER KAPPA; kappa; \kappa (LaTeX)
16895 \DeclareTextCommand{\textkappa}{PU}{\83\272}%* U+03BA
16896 % U+03BB GREEK SMALL LETTER LAMDA; lambda; \lambda (LaTeX)
16897 \DeclareTextCommand{\textlambda}{PU}{\83\273}%* U+03BB
16898 % U+03BC GREEK SMALL LETTER MU; mugreek, *mu; \mu (LaTeX)
16899 \DeclareTextCommand{\textmugreek}{PU}{\83\274}%* U+03BC
16900 % U+03BD GREEK SMALL LETTER NU; nu; \nu (LaTeX)
16901 \DeclareTextCommand{\textnu}{PU}{\83\275}%* U+03BD
16902 % U+03BE GREEK SMALL LETTER XI; xi; \xi (LaTeX)
16903 \DeclareTextCommand{\textxi}{PU}{\83\276}%* U+03BE
16904 % U+03BF GREEK SMALL LETTER OMICRON; omicron
16905 \DeclareTextCommand{\textomicron}{PU}{\83\277}% U+03BF
16906 % U+03C0 GREEK SMALL LETTER PI; pi; \pi (LaTeX)
16907 \DeclareTextCommand{\textpi}{PU}{\83\300}%* U+03C0
16908 % U+03C1 GREEK SMALL LETTER RHO; rho; \rho (LaTeX)
16909 \DeclareTextCommand{\textrho}{PU}{\83\301}%* U+03C1
16910 % U+03C2 GREEK SMALL LETTER FINAL SIGMA; *sigma1, sigmafinal
16911 \DeclareTextCommand{\textvarsigma}{PU}{\83\302}%* U+03C2

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16912 % U+03C3 GREEK SMALL LETTER SIGMA; sigma; \sigma (LaTeX)
16913 \DeclareTextCommand{\textsigma}{PU}{\83\303}%* U+03C3
16914 % U+03C4 GREEK SMALL LETTER TAU; tau; \tau (LaTeX)
16915 \DeclareTextCommand{\texttau}{PU}{\83\304}%* U+03C4
16916 % U+03C5 GREEK SMALL LETTER UPSILON; upsilon; \upsilon (LaTeX)
16917 \DeclareTextCommand{\textupsilon}{PU}{\83\305}%* U+03C5
16918 % U+03C6 GREEK SMALL LETTER PHI; phi; \phi (LaTeX)
16919 \DeclareTextCommand{\textphi}{PU}{\83\306}%* U+03C6
16920 % U+03C7 GREEK SMALL LETTER CHI; chi; \chi (LaTeX)
16921 \DeclareTextCommand{\textchi}{PU}{\83\307}%* U+03C7
16922 % U+03C8 GREEK SMALL LETTER PSI; psi; \psi (LaTeX)
16923 \DeclareTextCommand{\textpsi}{PU}{\83\310}%* U+03C8
16924 % U+03C9 GREEK SMALL LETTER OMEGA; omega; \omega (LaTeX)
16925 \DeclareTextCommand{\textomega}{PU}{\83\311}%* U+03C9
16926 % U+03CA GREEK SMALL LETTER IOTA WITH DIALYTIKA; iotadieresis
16927 \DeclareTextCompositeCommand{"}{PU}{\textiota}{\83\312}% U+03CA
16928 % U+03CB GREEK SMALL LETTER UPSILON WITH DIALYTIKA; up-
      silondieresis
16929 \DeclareTextCompositeCommand{"}{PU}{\textupsilon}{\83\313}% U+03CB
16930 % U+03CC GREEK SMALL LETTER OMICRON WITH TONOS; omicrontonos
16931 \DeclareTextCompositeCommand{'}{PU}{\textomicron}{\83\314}% U+03CC
16932 % U+03CD GREEK SMALL LETTER UPSILON WITH TONOS; upsilontonos
16933 \DeclareTextCommand{\textupsilonacute}{PU}{\83\315}% U+03CD
16934 \DeclareTextCompositeCommand{'}{PU}{\textupsilon}{\83\315}% U+03CD
16935 % U+03CE GREEK SMALL LETTER OMEGA WITH TONOS; omegatonos
16936 \DeclareTextCompositeCommand{'}{PU}{\textomega}{\83\316}% U+03CE
16937 % U+03DA GREEK LETTER STIGMA; Stigmagreek
16938 \DeclareTextCommand{\textStigmagreek}{PU}{\83\332}% U+03DA
16939 % U+03DB GREEK SMALL LETTER STIGMA
16940 \DeclareTextCommand{\textstigmagreek}{PU}{\83\333}% U+03DB
16941 % U+03DC GREEK LETTER DIGAMMA; Digammagreek
16942 \DeclareTextCommand{\textDigammagreek}{PU}{\83\334}% U+03DC
16943 % U+03DD GREEK SMALL LETTER DIGAMMA
16944 \DeclareTextCommand{\textdigammagreek}{PU}{\83\335}% U+03DD
16945 %* \textdigammagreek -> \digamma (AmS)
16946 % U+03DE GREEK LETTER KOPPA; Koppagreek
16947 \DeclareTextCommand{\textKoppagreek}{PU}{\83\336}% U+03DE
16948 % U+03DF GREEK SMALL LETTER KOPPA
16949 \DeclareTextCommand{\textkoppagreek}{PU}{\83\337}% U+03DF
16950 % U+03E0 GREEK LETTER SAMPI; Sampigreek
16951 \DeclareTextCommand{\textSampigreek}{PU}{\83\340}% U+03E0
16952 % U+03E1 GREEK SMALL LETTER SAMPI
16953 \DeclareTextCommand{\textsampigreek}{PU}{\83\341}% U+03E1
16954 % U+03F6 GREEK REVERSED LUNATE EPSILON SYMBOL;
16955 % \backepsilon (AmS)
16956 \DeclareTextCommand{\textbackepsilon}{PU}{\83\366}% U+03F6

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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.

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16957 % U+0400 CYRILLIC CAPITAL LETTER IE WITH GRAVE
16958 \DeclareTextCompositeCommand{'}{PU}{\CYRE}{\84\000}% U+0400
16959 % U+0401 CYRILLIC CAPITAL LETTER IO; Iocyrillic, *afii10023
16960 \DeclareTextCommand{\CYRYO}{PU}{\84\001}% U+0401
16961 \DeclareTextCompositeCommand{"}{PU}{\CYRE}{\84\001}% U+0401
16962 % U+0402 CYRILLIC CAPITAL LETTER DJE; Djecyrillic, *afii10051
16963 \DeclareTextCommand{\CYRDJE}{PU}{\84\002}% U+0402

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16964 % U+0403 CYRILLIC CAPITAL LETTER GJE; Gjecyrillic, *afii10052
16965 \DeclareTextCompositeCommand{\'}{PU}{\CYRG}{\84\003}% U+0403
16966 % U+0404 CYRILLIC CAPITAL LETTER UKRAINIAN IE; Ecyrillic, *afii10053
16967 \DeclareTextCommand{\CYRIE}{PU}{\84\004}% U+0404
16968 % U+0405 CYRILLIC CAPITAL LETTER DZE; Dzecyrillic, *afii10054
16969 \DeclareTextCommand{\CYRDZE}{PU}{\84\005}% U+0405
16970 % U+0406 CYRILLIC CAPITAL LETTER BYELORUSSIAN-UKRAINIAN I;
16971 % Icyrillic, *afii10055
16972 \DeclareTextCommand{\CYRII}{PU}{\84\006}% U+0406
16973 % U+0407 CYRILLIC CAPITAL LETTER YI; Yicyrillic, *afii10056
16974 \DeclareTextCommand{\CYRYI}{PU}{\84\007}% U+0407
16975 \DeclareTextCompositeCommand{\"}{PU}{\CYRII}{\84\007}% U+0407
16976 % U+0408 CYRILLIC CAPITAL LETTER JE; Jecyrillic, *afii10057
16977 \DeclareTextCommand{\CYRJE}{PU}{\84\010}% U+0408
16978 % U+0409 CYRILLIC CAPITAL LETTER LJE; Ljecyrillic, *afii10058
16979 \DeclareTextCommand{\CYRLJE}{PU}{\84\011}% U+0409
16980 % U+040A CYRILLIC CAPITAL LETTER NJE; Njecyrillic, *afii10059
16981 \DeclareTextCommand{\CYRNJE}{PU}{\84\012}% U+040A
16982 % U+040B CYRILLIC CAPITAL LETTER TSHE; Tshecyrillic, *afii10060
16983 \DeclareTextCommand{\CYRTSHE}{PU}{\84\013}% U+040B
16984 % U+040C CYRILLIC CAPITAL LETTER KJE; Kjecyrillic, *afii10061
16985 \DeclareTextCompositeCommand{\'}{PU}{\CYRK}{\84\014}% U+040C
16986 % U+040D CYRILLIC CAPITAL LETTER I WITH GRAVE
16987 \DeclareTextCompositeCommand{\'}{PU}{\CYRI}{\84\015}% U+040D
16988 % U+040E CYRILLIC CAPITAL LETTER SHORT U; Ushortcyrillic, *afii10062
16989 \DeclareTextCommand{\CYRUSHRT}{PU}{\84\016}% U+040E
16990 \DeclareTextCompositeCommand{\U}{PU}{\CYRU}{\84\016}% U+040E
16991 % U+040F CYRILLIC CAPITAL LETTER DZHE; Dzhecyrillic, *afii10145
16992 \DeclareTextCommand{\CYRDZHE}{PU}{\84\017}% U+040F
16993 % U+0410 CYRILLIC CAPITAL LETTER A; Acyrillic, *afii10017
16994 \DeclareTextCommand{\CYRA}{PU}{\84\020}% U+0410
16995 % U+0411 CYRILLIC CAPITAL LETTER BE; Becyrillic, *afii10018
16996 \DeclareTextCommand{\CYRB}{PU}{\84\021}% U+0411
16997 % U+0412 CYRILLIC CAPITAL LETTER VE; Vecyrillic, *afii10019
16998 \DeclareTextCommand{\CYRV}{PU}{\84\022}% U+0412
16999 % U+0413 CYRILLIC CAPITAL LETTER GHE; Gecyrillic, *afii10020
17000 \DeclareTextCommand{\CYRG}{PU}{\84\023}% U+0413
17001 % U+0414 CYRILLIC CAPITAL LETTER DE; Decyrillic, *afii10021
17002 \DeclareTextCommand{\CYRD}{PU}{\84\024}% U+0414
17003 % U+0415 CYRILLIC CAPITAL LETTER IE; Iecyrillic, *afii10022
17004 \DeclareTextCommand{\CYRE}{PU}{\84\025}% U+0415
17005 % U+0416 CYRILLIC CAPITAL LETTER ZHE; Zhecyrillic, *afii10024
17006 \DeclareTextCommand{\CYRZH}{PU}{\84\026}% U+0416
17007 % U+0417 CYRILLIC CAPITAL LETTER ZE; Zecyrillic, *afii10025
17008 \DeclareTextCommand{\CYRZ}{PU}{\84\027}% U+0417
17009 % U+0418 CYRILLIC CAPITAL LETTER I; Iicyrillic, *afii10026
17010 \DeclareTextCommand{\CYRI}{PU}{\84\030}% U+0418
17011 % U+0419 CYRILLIC CAPITAL LETTER SHORT I; Iishortcyrillic, *afii10027
17012 \DeclareTextCommand{\CYRISHRT}{PU}{\84\031}% U+0419
17013 \DeclareTextCompositeCommand{\U}{PU}{\CYRI}{\84\031}% U+0419
17014 % U+041A CYRILLIC CAPITAL LETTER KA; Kacyrillic, *afii10028
17015 \DeclareTextCommand{\CYRK}{PU}{\84\032}% U+041A
17016 % U+041B CYRILLIC CAPITAL LETTER EL; Elcyrillic, *afii10029
17017 \DeclareTextCommand{\CYRL}{PU}{\84\033}% U+041B
17018 % U+041C CYRILLIC CAPITAL LETTER EM; Emcyrillic, *afii10030
17019 \DeclareTextCommand{\CYRM}{PU}{\84\034}% U+041C
17020 % U+041D CYRILLIC CAPITAL LETTER EN; Encyrillic, *afii10031

17021 \DeclareTextCommand{\CYRN}{PU}{\84\035}% U+041D
17022 % U+041E CYRILLIC CAPITAL LETTER O; Ocyrillic, *afii10032
17023 \DeclareTextCommand{\CYRO}{PU}{\84\036}% U+041E
17024 % U+041F CYRILLIC CAPITAL LETTER PE; Pecyrillic, *afii10033
17025 \DeclareTextCommand{\CYRP}{PU}{\84\037}% U+041F
17026 % U+0420 CYRILLIC CAPITAL LETTER ER; Ercyrillic, *afii10034
17027 \DeclareTextCommand{\CYRR}{PU}{\84\040}% U+0420
17028 % U+0421 CYRILLIC CAPITAL LETTER ES; Escyrillic, *afii10035
17029 \DeclareTextCommand{\CYRS}{PU}{\84\041}% U+0421
17030 % U+0422 CYRILLIC CAPITAL LETTER TE; Tecyrillic, *afii10036
17031 \DeclareTextCommand{\CYRT}{PU}{\84\042}% U+0422
17032 % U+0423 CYRILLIC CAPITAL LETTER U; Ucyrillic, *afii10037
17033 \DeclareTextCommand{\CYRU}{PU}{\84\043}% U+0423
17034 % U+0424 CYRILLIC CAPITAL LETTER EF; Efcyrillic, *afii10038
17035 \DeclareTextCommand{\CYRF}{PU}{\84\044}% U+0424
17036 % U+0425 CYRILLIC CAPITAL LETTER HA; Khacyrillic, *afii10039
17037 \DeclareTextCommand{\CYRH}{PU}{\84\045}% U+0425
17038 % U+0426 CYRILLIC CAPITAL LETTER TSE; Tsecyrillic, *afii10040
17039 \DeclareTextCommand{\CYRC}{PU}{\84\046}% U+0426
17040 % U+0427 CYRILLIC CAPITAL LETTER CHE; Checyrillic, *afii10041
17041 \DeclareTextCommand{\CYRCH}{PU}{\84\047}% U+0427
17042 % U+0428 CYRILLIC CAPITAL LETTER SHA; Shacyrillic, *afii10042
17043 \DeclareTextCommand{\CYRSH}{PU}{\84\050}% U+0428
17044 % U+0429 CYRILLIC CAPITAL LETTER SHCHA; Shchacyrillic, *afii10043
17045 \DeclareTextCommand{\CYRSHCH}{PU}{\84\051}% U+0429
17046 % U+042A CYRILLIC CAPITAL LETTER HARD SIGN;
17047 % Hardsigncyrillic, *afii10044
17048 \DeclareTextCommand{\CYRHRDSN}{PU}{\84\052}% U+042A
17049 % U+042B CYRILLIC CAPITAL LETTER YERU; Yericyrillic, *afii10045
17050 \DeclareTextCommand{\CYRERY}{PU}{\84\053}% U+042B
17051 % U+042C CYRILLIC CAPITAL LETTER SOFT SIGN;
17052 % Softsigncyrillic, *afii10046
17053 \DeclareTextCommand{\CYRSFTSN}{PU}{\84\054}% U+042C
17054 % U+042D CYRILLIC CAPITAL LETTER E; Eversedcyrillic, *afii10047
17055 \DeclareTextCommand{\CYREREV}{PU}{\84\055}% U+042D
17056 % U+042E CYRILLIC CAPITAL LETTER YU; IUcyrillic, *afii10048
17057 \DeclareTextCommand{\CYRYU}{PU}{\84\056}% U+042E
17058 % U+042F CYRILLIC CAPITAL LETTER YA; IAcyrillic, *afii10049
17059 \DeclareTextCommand{\CYRYA}{PU}{\84\057}% U+042F
17060 % U+0430 CYRILLIC SMALL LETTER A; acyrillic, *afii10065
17061 \DeclareTextCommand{\cyra}{PU}{\84\060}% U+0430
17062 % U+0431 CYRILLIC SMALL LETTER BE; *afii10066, becyrillic
17063 \DeclareTextCommand{\cyrb}{PU}{\84\061}% U+0431
17064 % U+0432 CYRILLIC SMALL LETTER VE; *afii10067, vecyrillic
17065 \DeclareTextCommand{\cyrv}{PU}{\84\062}% U+0432
17066 % U+0433 CYRILLIC SMALL LETTER GHE; *afii10068, gecyrillic
17067 \DeclareTextCommand{\cyrg}{PU}{\84\063}% U+0433
17068 % U+0434 CYRILLIC SMALL LETTER DE; *afii10069, decyrillic
17069 \DeclareTextCommand{\cyrd}{PU}{\84\064}% U+0434
17070 % U+0435 CYRILLIC SMALL LETTER IE; *afii10070, iecyrillic
17071 \DeclareTextCommand{\cyre}{PU}{\84\065}% U+0435
17072 % U+0436 CYRILLIC SMALL LETTER ZHE; *afii10072, zhacyrillic
17073 \DeclareTextCommand{\cyrzh}{PU}{\84\066}% U+0436
17074 % U+0437 CYRILLIC SMALL LETTER ZE; *afii10073, zecyrillic
17075 \DeclareTextCommand{\cyrz}{PU}{\84\067}% U+0437
17076 % U+0438 CYRILLIC SMALL LETTER I; *afii10074, iicyrillic
17077 \DeclareTextCommand{\cyri}{PU}{\84\070}% U+0438

17078 % U+0439 CYRILLIC SMALL LETTER SHORT I; *afii10075, iishortcyrillic
17079 \DeclareTextCommand{\cyrishrt}{PU}{\84\071}% U+0439
17080 \DeclareTextCompositeCommand{\U}{PU}{\cyr}{\84\071}% U+0439
17081 % U+043A CYRILLIC SMALL LETTER KA; *afii10076, kacyrillic
17082 \DeclareTextCommand{\cyrk}{PU}{\84\072}% U+043A
17083 % U+043B CYRILLIC SMALL LETTER EL; *afii10077, elcyrillic
17084 \DeclareTextCommand{\cyr}{PU}{\84\073}% U+043B
17085 % U+043C CYRILLIC SMALL LETTER EM; *afii10078, emcyrillic
17086 \DeclareTextCommand{\cyr}{PU}{\84\074}% U+043C
17087 % U+043D CYRILLIC SMALL LETTER EN; *afii10079, encyrillic
17088 \DeclareTextCommand{\cyrn}{PU}{\84\075}% U+043D
17089 % U+043E CYRILLIC SMALL LETTER O; *afii10080, ocyrillic
17090 \DeclareTextCommand{\cyro}{PU}{\84\076}% U+043E
17091 % U+043F CYRILLIC SMALL LETTER PE; *afii10081, pecyrillic
17092 \DeclareTextCommand{\cyrp}{PU}{\84\077}% U+043F
17093 % U+0440 CYRILLIC SMALL LETTER ER; *afii10082, ercyrillic
17094 \DeclareTextCommand{\cyrr}{PU}{\84\100}% U+0440
17095 % U+0441 CYRILLIC SMALL LETTER ES; *afii10083, escyrillic
17096 \DeclareTextCommand{\cyrs}{PU}{\84\101}% U+0441
17097 % U+0442 CYRILLIC SMALL LETTER TE; *afii10084, tecyrillic
17098 \DeclareTextCommand{\cyrt}{PU}{\84\102}% U+0442
17099 % U+0443 CYRILLIC SMALL LETTER U; *afii10085, ucyrillic
17100 \DeclareTextCommand{\cyru}{PU}{\84\103}% U+0443
17101 % U+0444 CYRILLIC SMALL LETTER EF; *afii10086, efcyrillic
17102 \DeclareTextCommand{\cyrf}{PU}{\84\104}% U+0444
17103 % U+0445 CYRILLIC SMALL LETTER HA; *afii10087, khacyrillic
17104 \DeclareTextCommand{\cyrh}{PU}{\84\105}% U+0445
17105 % U+0446 CYRILLIC SMALL LETTER TSE; *afii10088, tsecyrillic
17106 \DeclareTextCommand{\cyrc}{PU}{\84\106}% U+0446
17107 % U+0447 CYRILLIC SMALL LETTER CHE; *afii10089, checyrillic
17108 \DeclareTextCommand{\cyrch}{PU}{\84\107}% U+0447
17109 % U+0448 CYRILLIC SMALL LETTER SHA; *afii10090, shacyrillic
17110 \DeclareTextCommand{\cyrsh}{PU}{\84\110}% U+0448
17111 % U+0449 CYRILLIC SMALL LETTER SHCHA; *afii10091, shchacyrillic
17112 \DeclareTextCommand{\cyrshch}{PU}{\84\111}% U+0449
17113 % U+044A CYRILLIC SMALL LETTER HARD SIGN; *afii10092, hardsigncyrillic
17114 \DeclareTextCommand{\cyrhrdsn}{PU}{\84\112}% U+044A
17115 %* \cyrhrdsn -> \hardsign (tipa)
17116 % U+044B CYRILLIC SMALL LETTER YERU; *afii10093, yericyrillic
17117 \DeclareTextCommand{\cyrery}{PU}{\84\113}% U+044B
17118 % U+044C CYRILLIC SMALL LETTER SOFT SIGN; *afii10094, softsigncyrillic
17119 \DeclareTextCommand{\cyrsftsn}{PU}{\84\114}% U+044C
17120 %* \cyrsftsn -> \softsign (tipa)
17121 % U+044D CYRILLIC SMALL LETTER E; *afii10095, ereversedcyrillic
17122 \DeclareTextCommand{\cyrerev}{PU}{\84\115}% U+044D
17123 % U+044E CYRILLIC SMALL LETTER YU; *afii10096, iucyrillic
17124 \DeclareTextCommand{\cyryu}{PU}{\84\116}% U+044E
17125 % U+044F CYRILLIC SMALL LETTER YA; *afii10097, iacyrillic
17126 \DeclareTextCommand{\cyrya}{PU}{\84\117}% U+044F
17127 % U+0450 CYRILLIC SMALL LETTER IE WITH GRAVE
17128 \DeclareTextCompositeCommand{\'}{PU}{\cyre}{\84\120}% U+0450
17129 % U+0451 CYRILLIC SMALL LETTER IO; *afii10071, iocyrillic
17130 \DeclareTextCommand{\cyryo}{PU}{\84\121}% U+0451
17131 \DeclareTextCompositeCommand{\"}{PU}{\cyre}{\84\121}% U+0451
17132 % U+0452 CYRILLIC SMALL LETTER DJE; *afii10099, djecyrillic
17133 \DeclareTextCommand{\cyrdje}{PU}{\84\122}% U+0452

17134 % U+0453 CYRILLIC SMALL LETTER GJE; *afii10100, gjecyrillic
17135 \DeclareTextCompositeCommand{\'}{PU}{\cyr}{\84\123}% U+0453
17136 % U+0454 CYRILLIC SMALL LETTER UKRAINIAN IE; *afii10101, ecyrillic
17137 \DeclareTextCommand{\cyrie}{PU}{\84\124}% U+0454
17138 % U+0455 CYRILLIC SMALL LETTER DZE; *afii10102, dzecyrillic
17139 \DeclareTextCommand{\cyrdze}{PU}{\84\125}% U+0455
17140 % U+0456 CYRILLIC SMALL LETTER BYELORUSSIAN-UKRAINIAN I;
17141 % *afii10103, icyrillic
17142 \DeclareTextCommand{\cyrii}{PU}{\84\126}% U+0456
17143 % U+0457 CYRILLIC SMALL LETTER YI; *afii10104, yicyrillic
17144 \DeclareTextCommand{\cyryi}{PU}{\84\127}% U+0457
17145 \DeclareTextCompositeCommand{\"}{PU}{\cyrii}{\84\127}% U+0457
17146 % U+0458 CYRILLIC SMALL LETTER JE; *afii10105, jecyrillic
17147 \DeclareTextCommand{\cyrje}{PU}{\84\130}% U+0458
17148 % U+0459 CYRILLIC SMALL LETTER LJE; *afii10106, ljecyrillic
17149 \DeclareTextCommand{\cyrkje}{PU}{\84\131}% U+0459
17150 % U+045A CYRILLIC SMALL LETTER NJE; *afii10107, njecyrillic
17151 \DeclareTextCommand{\cyrnje}{PU}{\84\132}% U+045A
17152 % U+045B CYRILLIC SMALL LETTER TSHE; *afii10108, tshecyrillic
17153 \DeclareTextCommand{\cyrtshe}{PU}{\84\133}% U+045B
17154 % U+045C CYRILLIC SMALL LETTER KJE; *afii10109, kjecyrillic
17155 \DeclareTextCompositeCommand{\'}{PU}{\cyrk}{\84\134}% U+045C
17156 % U+045D CYRILLIC SMALL LETTER I WITH GRAVE
17157 \DeclareTextCompositeCommand{\'}{PU}{\cyri}{\84\135}% U+045D
17158 % U+045E CYRILLIC SMALL LETTER SHORT U; *afii10110, ushortcyrillic
17159 \DeclareTextCommand{\cyrushrt}{PU}{\84\136}% U+045E
17160 \DeclareTextCompositeCommand{\U}{PU}{\curu}{\84\136}% U+045E
17161 % U+045F CYRILLIC SMALL LETTER DZHE; *afii10193, dzhecyrillic
17162 \DeclareTextCommand{\cyrdzhe}{PU}{\84\137}% U+045F
17163 % U+0460 CYRILLIC CAPITAL LETTER OMEGA; Omegacyrillic
17164 \DeclareTextCommand{\CYROMEGA}{PU}{\84\140}% U+0460
17165 % U+0461 CYRILLIC SMALL LETTER OMEGA; omegacyrillic
17166 \DeclareTextCommand{\cyromega}{PU}{\84\141}% U+0461
17167 % U+0462 CYRILLIC CAPITAL LETTER YAT; Yatcyrillic, *afii10146
17168 \DeclareTextCommand{\CYRYAT}{PU}{\84\142}% U+0462
17169 % U+0463 CYRILLIC SMALL LETTER YAT; *afii10194, yatcyrillic
17170 \DeclareTextCommand{\cyryat}{PU}{\84\143}% U+0463
17171 % U+0464 CYRILLIC CAPITAL LETTER IOTIFIED E; Eiotifiedcyrillic
17172 \DeclareTextCommand{\CYRIOTE}{PU}{\84\144}% U+0464
17173 % U+0465 CYRILLIC SMALL LETTER IOTIFIED E; eiotifiedcyrillic
17174 \DeclareTextCommand{\cyriote}{PU}{\84\145}% U+0465
17175 % U+0466 CYRILLIC CAPITAL LETTER LITTLE YUS; Yuslitlecyrillic
17176 \DeclareTextCommand{\CYRLYUS}{PU}{\84\146}% U+0466
17177 % U+0467 CYRILLIC SMALL LETTER LITTLE YUS; yuslitlecyrillic
17178 \DeclareTextCommand{\cyrlyus}{PU}{\84\147}% U+0467
17179 % U+0468 CYRILLIC CAPITAL LETTER IOTIFIED LITTLE YUS; Yuslitlei-
otifiedcyrillic
17180 \DeclareTextCommand{\CYRIOTLYUS}{PU}{\84\150}% U+0468
17181 % U+0469 CYRILLIC SMALL LETTER IOTIFIED LITTLE YUS; yuslitlei-
otifiedcyrillic
17182 \DeclareTextCommand{\cyriotlyus}{PU}{\84\151}% U+0469
17183 % U+046A CYRILLIC CAPITAL LETTER BIG YUS; Yusbigcyrillic
17184 \DeclareTextCommand{\CYRBYUS}{PU}{\84\152}% U+046A
17185 % U+046B CYRILLIC SMALL LETTER BIG YUS; yusbigcyrillic
17186 \DeclareTextCommand{\cyrbyus}{PU}{\84\153}% U+046B
17187 % U+046C CYRILLIC CAPITAL LETTER IOTIFIED BIG YUS; Yusbigiotified-
cyrillic

17188 \DeclareTextCommand{\CYRIOTBYUS}{PU}{\84\154}% U+046C
 17189 % U+046D CYRILLIC SMALL LETTER IOTIFIED BIG YUS; yusbigiotified-cyrillic
 17190 \DeclareTextCommand{\cyriotbyus}{PU}{\84\155}% U+046D
 17191 % U+046E CYRILLIC CAPITAL LETTER KSI; Ksicyrillic
 17192 \DeclareTextCommand{\CYRKSI}{PU}{\84\156}% U+046E
 17193 % U+046F CYRILLIC SMALL LETTER KSI; ksicyrillic
 17194 \DeclareTextCommand{\cyrksi}{PU}{\84\157}% U+046F
 17195 % U+0470 CYRILLIC CAPITAL LETTER PSI; Psicyrillic
 17196 \DeclareTextCommand{\CYRPSI}{PU}{\84\160}% U+0470
 17197 % U+0471 CYRILLIC SMALL LETTER PSI; psicyrillic
 17198 \DeclareTextCommand{\cyrpsi}{PU}{\84\161}% U+0471
 17199 % U+0472 CYRILLIC CAPITAL LETTER FITA; Fitacyrillic, *afi10147
 17200 \DeclareTextCommand{\CYRFITA}{PU}{\84\162}% U+0472
 17201 % U+0473 CYRILLIC SMALL LETTER FITA; *afi10195, fitacyrillic
 17202 \DeclareTextCommand{\cyrfita}{PU}{\84\163}% U+0473
 17203 % U+0474 CYRILLIC CAPITAL LETTER IZHITSA; Izhitsacyrillic, *afi10148
 17204 \DeclareTextCommand{\CYRIZH}{PU}{\84\164}% U+0474
 17205 % U+0475 CYRILLIC SMALL LETTER IZHITSA; *afi10196, izhitsacyrillic
 17206 \DeclareTextCommand{\cyrizh}{PU}{\84\165}% U+0475
 17207 % U+0476 CYRILLIC CAPITAL LETTER IZHITSA WITH DOUBLE
 17208 % GRAVE ACCENT; Izhitsadblgravecyrillic
 17209 \DeclareTextCompositeCommand{\C}{PU}{\CYRIZH}{\84\166}% U+0476
 17210 % U+0477 CYRILLIC SMALL LETTER IZHITSA WITH DOUBLE
 17211 % GRAVE ACCENT; izhitsadblgravecyrillic
 17212 \DeclareTextCompositeCommand{\C}{PU}{\cyrizh}{\84\167}% U+0477
 17213 % U+0478 CYRILLIC CAPITAL LETTER UK; Ukcyrillic
 17214 \DeclareTextCommand{\CYRUK}{PU}{\84\170}% U+0478
 17215 % U+0479 CYRILLIC SMALL LETTER UK; ukcyrillic
 17216 \DeclareTextCommand{\cyruk}{PU}{\84\171}% U+0479
 17217 % U+047A CYRILLIC CAPITAL LETTER ROUND OMEGA; Omegaroundcyrillic
 17218 \DeclareTextCommand{\CYROMEGARND}{PU}{\84\172}% U+047A
 17219 % U+047B CYRILLIC SMALL LETTER ROUND OMEGA; omegaroundcyrillic
 17220 \DeclareTextCommand{\cyromegarnd}{PU}{\84\173}% U+047B
 17221 % U+047C CYRILLIC CAPITAL LETTER OMEGA WITH TITLO; Omegatitlocyrillic
 17222 \DeclareTextCommand{\CYROMEGATITLO}{PU}{\84\174}% U+047C
 17223 % U+047D CYRILLIC SMALL LETTER OMEGA WITH TITLO; omegatitlocyrillic
 17224 \DeclareTextCommand{\cyromegatitlo}{PU}{\84\175}% U+047D
 17225 % U+047E CYRILLIC CAPITAL LETTER OT; Otcyrillic
 17226 \DeclareTextCommand{\CYROT}{PU}{\84\176}% U+047E
 17227 % U+047F CYRILLIC SMALL LETTER OT; otcyrillic
 17228 \DeclareTextCommand{\cyrot}{PU}{\84\177}% U+047F
 17229 % U+0480 CYRILLIC CAPITAL LETTER KOPPA; Koppacyrillic
 17230 \DeclareTextCommand{\CYRKOPPA}{PU}{\84\200}% U+0480
 17231 % U+0481 CYRILLIC SMALL LETTER KOPPA; koppacyrillic
 17232 \DeclareTextCommand{\cyrkoppa}{PU}{\84\201}% U+0481
 17233 % U+0482 CYRILLIC THOUSANDS SIGN; thousandcyrillic
 17234 \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
17235 % U+048A CYRILLIC CAPITAL LETTER SHORT I WITH TAIL
17236 \DeclareTextCommand{\CYRISHRTDSC}{PU}{\84\212}% U+048A
17237 % U+048B CYRILLIC SMALL LETTER SHORT I WITH TAIL
17238 \DeclareTextCommand{\cyrishrtdsc}{PU}{\84\213}% U+048B
17239 % U+048C CYRILLIC CAPITAL LETTER SEMISOFT SIGN
17240 \DeclareTextCommand{\CYRSEMISFTSN}{PU}{\84\214}% U+048C
17241 % U+048D CYRILLIC SMALL LETTER SEMISOFT SIGN
17242 \DeclareTextCommand{\cyrsemisftsn}{PU}{\84\215}% U+048D
17243 % U+048E CYRILLIC CAPITAL LETTER ER WITH TICK
17244 \DeclareTextCommand{\CYRRTICK}{PU}{\84\216}% U+048E
17245 % U+048F CYRILLIC SMALL LETTER ER WITH TICK
17246 \DeclareTextCommand{\cyrrtick}{PU}{\84\217}% U+048F
17247 % U+0490 CYRILLIC CAPITAL LETTER GHE WITH UPTURN; Gheupturn-
cyrillic, *afii10050
17248 \DeclareTextCommand{\CYRGUP}{PU}{\84\220}% U+0490
17249 % U+0491 CYRILLIC SMALL LETTER GHE WITH UPTURN; *afii10098, ghe-
upturncyrillic
17250 \DeclareTextCommand{\cyrgup}{PU}{\84\221}% U+0491
17251 % U+0492 CYRILLIC CAPITAL LETTER GHE WITH STROKE; Ghestroke-
cyrillic
17252 \DeclareTextCommand{\CYRGHCRS}{PU}{\84\222}% U+0492
17253 % U+0493 CYRILLIC SMALL LETTER GHE WITH STROKE; ghestrokecyrillic
17254 \DeclareTextCommand{\cyrghcrs}{PU}{\84\223}% U+0493
17255 % U+0494 CYRILLIC CAPITAL LETTER GHE WITH MIDDLE HOOK;
17256 % Ghemiddlehookcyrillic
17257 \DeclareTextCommand{\CYRGHK}{PU}{\84\224}% U+0494
17258 % U+0495 CYRILLIC SMALL LETTER GHE WITH MIDDLE HOOK;
17259 % ghemiddlehookcyrillic
17260 \DeclareTextCommand{\cyrghk}{PU}{\84\225}% U+0495
17261 % U+0496 CYRILLIC CAPITAL LETTER ZHE WITH DESCENDER;
17262 % Zhedescendercyrillic
17263 \DeclareTextCommand{\CYRZHDSC}{PU}{\84\226}% U+0496
17264 % U+0497 CYRILLIC SMALL LETTER ZHE WITH DESCENDER;
17265 % zhedescendercyrillic
17266 \DeclareTextCommand{\cyrzhdsc}{PU}{\84\227}% U+0497
17267 % U+0498 CYRILLIC CAPITAL LETTER ZE WITH DESCENDER; Zedescen-
dercyrillic
17268 \DeclareTextCommand{\CYRZDSC}{PU}{\84\230}% U+0498
17269 \DeclareTextCompositeCommand{\c}{PU}{\CYRZ}{\84\230}% U+0498
17270 % U+0499 CYRILLIC SMALL LETTER ZE WITH DESCENDER; zedescender-
cyrillic
17271 \DeclareTextCommand{\cyrzdsc}{PU}{\84\231}% U+0499
17272 \DeclareTextCompositeCommand{\c}{PU}{\cyrz}{\84\231}% U+0499
17273 % U+049A CYRILLIC CAPITAL LETTER KA WITH DESCENDER; Kadescen-
dercyrillic
17274 \DeclareTextCommand{\CYRKDSC}{PU}{\84\232}% U+049A
17275 % U+049B CYRILLIC SMALL LETTER KA WITH DESCENDER; kadescen-
dercyrillic
17276 \DeclareTextCommand{\cyrkdsc}{PU}{\84\233}% U+049B
17277 % U+049C CYRILLIC CAPITAL LETTER KA WITH VERTICAL STROKE;
17278 % Kavertikalstrokecyrillic
17279 \DeclareTextCommand{\CYRKVCRS}{PU}{\84\234}% U+049C
17280 % U+049D CYRILLIC SMALL LETTER KA WITH VERTICAL STROKE;

17281 % kavertikalstrokecyrillic
 17282 \DeclareTextCommand{\cyrkvcrs}{PU}{\84\235}% U+049D
 17283 % U+049E CYRILLIC CAPITAL LETTER KA WITH STROKE; Kastrokecyrillic
 17284 \DeclareTextCommand{\CYRKHCRS}{PU}{\84\236}% U+049E
 17285 % U+049F CYRILLIC SMALL LETTER KA WITH STROKE; kastrokecyrillic
 17286 \DeclareTextCommand{\cyrkhcrs}{PU}{\84\237}% U+049F
 17287 % U+04A0 CYRILLIC CAPITAL LETTER BASHKIR KA; Kabashkircyrillic
 17288 \DeclareTextCommand{\CYRKBEAK}{PU}{\84\240}% U+04A0
 17289 % U+04A1 CYRILLIC SMALL LETTER BASHKIR KA; kabashkircyrillic
 17290 \DeclareTextCommand{\cyrkbeak}{PU}{\84\241}% U+04A1
 17291 % U+04A2 CYRILLIC CAPITAL LETTER EN WITH DESCENDER; Endescendercyrillic
 17292 \DeclareTextCommand{\CYRNDSC}{PU}{\84\242}% U+04A2
 17293 % U+04A3 CYRILLIC SMALL LETTER EN WITH DESCENDER; endescendercyrillic
 17294 \DeclareTextCommand{\cyrndsc}{PU}{\84\243}% U+04A3
 17295 % U+04A4 CYRILLIC CAPITAL LIGATURE EN GHE; Enghecyrillic
 17296 \DeclareTextCommand{\CYRNG}{PU}{\84\244}% U+04A4
 17297 % U+04A5 CYRILLIC SMALL LIGATURE EN GHE; enghecyrillic
 17298 \DeclareTextCommand{\cyrng}{PU}{\84\245}% U+04A5
 17299 % U+04A6 CYRILLIC CAPITAL LETTER PE WITH MIDDLE HOOK; Pemiddlehookcyrillic
 17300 \DeclareTextCommand{\CYRPHK}{PU}{\84\246}% U+04A6
 17301 % U+04A7 CYRILLIC SMALL LETTER PE WITH MIDDLE HOOK; pemiddlehookcyrillic
 17302 \DeclareTextCommand{\cyrphk}{PU}{\84\247}% U+04A7
 17303 % U+04A8 CYRILLIC CAPITAL LETTER ABKHASIAN HA; Haabkhasiancyrillic
 17304 \DeclareTextCommand{\CYRABHHA}{PU}{\84\250}% U+04A8
 17305 % U+04A9 CYRILLIC SMALL LETTER ABKHASIAN HA; haabkhasiancyrillic
 17306 \DeclareTextCommand{\cyrabhha}{PU}{\84\251}% U+04A9
 17307 % U+04AA CYRILLIC CAPITAL LETTER ES WITH DESCENDER; Esdescendercyrillic
 17308 \DeclareTextCommand{\CYRSDSC}{PU}{\84\252}% U+04AA
 17309 \DeclareTextCompositeCommand{\CYRSDSC}{PU}{\CYRS}{\84\252}% U+04AA
 17310 % U+04AB CYRILLIC SMALL LETTER ES WITH DESCENDER; esdescendercyrillic
 17311 \DeclareTextCommand{\cyrsdsc}{PU}{\84\253}% U+04AB
 17312 \DeclareTextCompositeCommand{\k}{PU}{\cyr}{\84\253}% U+04AB
 17313 % U+04AC CYRILLIC CAPITAL LETTER TE WITH DESCENDER; Tedescendercyrillic
 17314 \DeclareTextCommand{\CYRTDSC}{PU}{\84\254}% U+04AC
 17315 % U+04AD CYRILLIC SMALL LETTER TE WITH DESCENDER; tedescendercyrillic
 17316 \DeclareTextCommand{\cyrtdsc}{PU}{\84\255}% U+04AD
 17317 % U+04AE CYRILLIC CAPITAL LETTER STRAIGHT U; Ustraightcyrillic
 17318 \DeclareTextCommand{\CYRY}{PU}{\84\256}% U+04AE
 17319 % U+04AF CYRILLIC SMALL LETTER STRAIGHT U; ustraightcyrillic
 17320 \DeclareTextCommand{\cyry}{PU}{\84\257}% U+04AF
 17321 % U+04B0 CYRILLIC CAPITAL LETTER STRAIGHT U WITH STROKE; Ustraightstrokecyrillic
 17322 \DeclareTextCommand{\CYRYHCRS}{PU}{\84\260}% U+04B0
 17323 % U+04B1 CYRILLIC SMALL LETTER STRAIGHT U WITH STROKE; usstraightstrokecyrillic
 17324 \DeclareTextCommand{\cyryhcrs}{PU}{\84\261}% U+04B1
 17325 % U+04B2 CYRILLIC CAPITAL LETTER HA WITH DESCENDER; Hadesendercyrillic

17326 \DeclareTextCommand{\CYRHDSC}{PU}{\84\262}% U+04B2
 17327 % U+04B3 CYRILLIC SMALL LETTER HA WITH DESCENDER; hadescendercyrillic
 17328 \DeclareTextCommand{\cyrhdsc}{PU}{\84\263}% U+04B3
 17329 % U+04B4 CYRILLIC CAPITAL LIGATURE TE TSE; Tetsecyrillic
 17330 \DeclareTextCommand{\CYRTETSE}{PU}{\84\264}% U+04B4
 17331 % U+04B5 CYRILLIC SMALL LIGATURE TE TSE; tetsecyrillic
 17332 \DeclareTextCommand{\cyrtetse}{PU}{\84\265}% U+04B5
 17333 % U+04B6 CYRILLIC CAPITAL LETTER CHE WITH DESCENDER;
 17334 % Chedescendercyrillic
 17335 \DeclareTextCommand{\CYRCHRDSC}{PU}{\84\266}% U+04B6
 17336 % U+04B7 CYRILLIC SMALL LETTER CHE WITH DESCENDER; chedescendercyrillic
 17337 \DeclareTextCommand{\cyrchrdsc}{PU}{\84\267}% U+04B7
 17338 % U+04B8 CYRILLIC CAPITAL LETTER CHE WITH VERTICAL STROKE;
 17339 % Cheverticalstrokecyrillic
 17340 \DeclareTextCommand{\CYRCHVCRS}{PU}{\84\270}% U+04B8
 17341 % U+04B9 CYRILLIC SMALL LETTER CHE WITH VERTICAL STROKE;
 17342 % cheverticalstrokecyrillic
 17343 \DeclareTextCommand{\cyrchvcrs}{PU}{\84\271}% U+04B9
 17344 % U+04BA CYRILLIC CAPITAL LETTER SHHA; Shhacyrillic
 17345 \DeclareTextCommand{\CYRSHHA}{PU}{\84\272}% U+04BA
 17346 % U+04BB CYRILLIC SMALL LETTER SHHA; shhacyrillic
 17347 \DeclareTextCommand{\cyrshha}{PU}{\84\273}% U+04BB
 17348 % U+04BC CYRILLIC CAPITAL LETTER ABKHASIAN CHE; Cheabkhasiancyrillic
 17349 \DeclareTextCommand{\CYRABHCH}{PU}{\84\274}% U+04BC
 17350 % U+04BD CYRILLIC SMALL LETTER ABKHASIAN CHE; cheabkhasiancyrillic
 17351 \DeclareTextCommand{\cyrabhch}{PU}{\84\275}% U+04BD
 17352 % U+04BE CYRILLIC CAPITAL LETTER ABKHASIAN CHE WITH DESCENDER; Chedescenderabkhasiancyrillic
 17353 \DeclareTextCommand{\CYRABHCHDSC}{PU}{\84\276}% U+04BE
 17354 \DeclareTextCompositeCommand{\k}{PU}{\CYRABHCH}{\84\276}% U+04BE
 17355 % U+04BF CYRILLIC SMALL LETTER ABKHASIAN CHE WITH DESCENDER; chedescenderabkhasiancyrillic
 17356 \DeclareTextCommand{\cyrabhchdsc}{PU}{\84\277}% U+04BF
 17357 \DeclareTextCompositeCommand{\k}{PU}{\cyrabhch}{\84\277}% U+04BF
 17358 % U+04C0 CYRILLIC LETTER PALOCHKA; palochkacyrillic
 17359 \DeclareTextCommand{\CYRpalochka}{PU}{\84\300}% U+04C0
 17360 % U+04C1 CYRILLIC CAPITAL LETTER ZHE WITH BREVE; Zhebrevecyrillic
 17361 \DeclareTextCompositeCommand{\U}{PU}{\CYRZH}{\84\301}% U+04C1
 17362 % U+04C2 CYRILLIC SMALL LETTER ZHE WITH BREVE; zhebrevecyrillic
 17363 \DeclareTextCompositeCommand{\U}{PU}{\cyrzh}{\84\302}% U+04C2
 17364 % U+04C3 CYRILLIC CAPITAL LETTER KA WITH HOOK; Kahookcyrillic
 17365 \DeclareTextCommand{\CYRKHK}{PU}{\84\303}% U+04C3
 17366 % U+04C4 CYRILLIC SMALL LETTER KA WITH HOOK; kahookcyrillic
 17367 \DeclareTextCommand{\cyrkhk}{PU}{\84\304}% U+04C4
 17368 % U+04C5 CYRILLIC CAPITAL LETTER EL WITH TAIL
 17369 \DeclareTextCommand{\CYRLDSC}{PU}{\84\305}% U+04C5
 17370 % U+04C6 CYRILLIC SMALL LETTER EL WITH TAIL
 17371 \DeclareTextCommand{\cyrldsc}{PU}{\84\306}% U+04C6
 17372 % U+04C7 CYRILLIC CAPITAL LETTER EN WITH HOOK; Enhookcyrillic
 17373 \DeclareTextCommand{\CYRNHK}{PU}{\84\307}% U+04C7
 17374 % U+04C8 CYRILLIC SMALL LETTER EN WITH HOOK; enhookcyrillic
 17375 \DeclareTextCommand{\cyrnhk}{PU}{\84\310}% U+04C8

17376 % U+04CB CYRILLIC CAPITAL LETTER KHAKASSIAN CHE; Chekhakas-
 siancyrillic
 17377 \DeclareTextCommand{\CYRCHLDSC}{PU}{\84\313}% U+04CB
 17378 % U+04CC CYRILLIC SMALL LETTER KHAKASSIAN CHE; chekhakassian-
 cyrillic
 17379 \DeclareTextCommand{\cyrchldsc}{PU}{\84\314}% U+04CC
 17380 % U+04CD CYRILLIC CAPITAL LETTER EM WITH TAIL
 17381 \DeclareTextCommand{\CYRMDSC}{PU}{\84\315}% U+04CD
 17382 % U+04CE CYRILLIC SMALL LETTER EM WITH TAIL
 17383 \DeclareTextCommand{\cyrmdsc}{PU}{\84\316}% U+04CE
 \84\317: U+04CF CYRILLIC SMALL LETTER PALOCHKA
 17384 % U+04D0 CYRILLIC CAPITAL LETTER A WITH BREVE; Abrevecyrillic
 17385 \DeclareTextCompositeCommand{\U}{PU}{\CYRA}{\84\320}% U+04D0
 17386 % U+04D1 CYRILLIC SMALL LETTER A WITH BREVE; abrevecyrillic
 17387 \DeclareTextCompositeCommand{\U}{PU}{\cyra}{\84\321}% U+04D1
 17388 % U+04D2 CYRILLIC CAPITAL LETTER A WITH DIAERESIS; Adieresiscyril-
 lic
 17389 \DeclareTextCompositeCommand{\"}{PU}{\CYRA}{\84\322}% U+04D2
 17390 % U+04D3 CYRILLIC SMALL LETTER A WITH DIAERESIS; adieresiscyrillic
 17391 \DeclareTextCompositeCommand{\"}{PU}{\cyra}{\84\323}% U+04D3
 17392 % U+04D4 CYRILLIC CAPITAL LIGATURE A IE; Aiecyrillic
 17393 \DeclareTextCommand{\CYRAE}{PU}{\84\324}% U+04D4
 17394 % U+04D5 CYRILLIC SMALL LIGATURE A IE; aiecyrillic
 17395 \DeclareTextCommand{\cyrae}{PU}{\84\325}% U+04D5
 17396 % U+04D6 CYRILLIC CAPITAL LETTER IE WITH BREVE; Iebrevocyrillic
 17397 \DeclareTextCompositeCommand{\U}{PU}{\CYRE}{\84\326}% U+04D6
 17398 % U+04D7 CYRILLIC SMALL LETTER IE WITH BREVE; iebrevocyrillic
 17399 \DeclareTextCompositeCommand{\U}{PU}{\cyre}{\84\327}% U+04D7
 17400 % U+04D8 CYRILLIC CAPITAL LETTER SCHWA; Schwacyrillic
 17401 \DeclareTextCommand{\CYRSCHWA}{PU}{\84\330}% U+04D8
 17402 % U+04D9 CYRILLIC SMALL LETTER SCHWA; *afii10846, schwacyrillic
 17403 \DeclareTextCommand{\cyrschwa}{PU}{\84\331}% U+04D9
 17404 % U+04DA CYRILLIC CAPITAL LETTER SCHWA WITH DIAERESIS;
 17405 % Schwadieresiscyrillic
 17406 \DeclareTextCompositeCommand{\"}{PU}{\CYRSCHWA}{\84\332}% U+04DA
 17407 % U+04DB CYRILLIC SMALL LETTER SCHWA WITH DIAERESIS;
 17408 % schwadieresiscyrillic
 17409 \DeclareTextCompositeCommand{\"}{PU}{\cyrschwa}{\84\333}% U+04DB
 17410 % U+04DC CYRILLIC CAPITAL LETTER ZHE WITH DIAERESIS; Zhediere-
 siscyrillic
 17411 \DeclareTextCompositeCommand{\"}{PU}{\CYRZH}{\84\334}% U+04DC
 17412 % U+04DD CYRILLIC SMALL LETTER ZHE WITH DIAERESIS; zhedieresis-
 cyrillic
 17413 \DeclareTextCompositeCommand{\"}{PU}{\cyrzh}{\84\335}% U+04DD
 17414 % U+04DE CYRILLIC CAPITAL LETTER ZE WITH DIAERESIS; Zedieresis-
 cyrillic
 17415 \DeclareTextCompositeCommand{\"}{PU}{\CYRZ}{\84\336}% U+04DE
 17416 % U+04DF CYRILLIC SMALL LETTER ZE WITH DIAERESIS; zedieresiscyril-
 lic
 17417 \DeclareTextCompositeCommand{\"}{PU}{\cyrz}{\84\337}% U+04DF
 17418 % U+04E0 CYRILLIC CAPITAL LETTER ABKHASIAN DZE; Dzeabkhasian-
 cyrillic
 17419 \DeclareTextCommand{\CYRABHDZE}{PU}{\84\340}% U+04E0
 17420 % U+04E1 CYRILLIC SMALL LETTER ABKHASIAN DZE; dzeabkhasiancyril-
 lic
 17421 \DeclareTextCommand{\cyrabhdze}{PU}{\84\341}% U+04E1
 17422 % U+04E2 CYRILLIC CAPITAL LETTER I WITH MACRON; Imacroncyrillic

17423 \DeclareTextCompositeCommand{=} {PU}{\CYRI}{\84\342}% U+04E2
17424 % U+04E3 CYRILLIC SMALL LETTER I WITH MACRON; imacroncyrillic
17425 \DeclareTextCompositeCommand{=} {PU}{\cyri}{\84\343}% U+04E3
17426 % U+04E4 CYRILLIC CAPITAL LETTER I WITH DIAERESIS; Idieresiscyrillic
17427 \DeclareTextCompositeCommand{=} {PU}{\CYRI}{\84\344}% U+04E4
17428 % U+04E5 CYRILLIC SMALL LETTER I WITH DIAERESIS; idieresiscyrillic
17429 \DeclareTextCompositeCommand{=} {PU}{\cyri}{\84\345}% U+04E5
17430 % U+04E6 CYRILLIC CAPITAL LETTER O WITH DIAERESIS; Odieresiscyrillic
17431 \DeclareTextCompositeCommand{=} {PU}{\CYRO}{\84\346}% U+04E6
17432 % U+04E7 CYRILLIC SMALL LETTER O WITH DIAERESIS; odieresiscyrillic
17433 \DeclareTextCompositeCommand{=} {PU}{\cyro}{\84\347}% U+04E7
17434 % U+04E8 CYRILLIC CAPITAL LETTER BARRED O; Obarredcyrillic
17435 \DeclareTextCompositeCommand{\CYROTLD}{PU}{\84\350}% U+04E8
17436 % U+04E9 CYRILLIC SMALL LETTER BARRED O; obarredcyrillic
17437 \DeclareTextCommand{\cyrotld}{PU}{\84\351}% U+04E9
17438 % U+04EA CYRILLIC CAPITAL LETTER BARRED O WITH DIAERESIS;
17439 % Obarreddieresiscyrillic
17440 \DeclareTextCompositeCommand{=} {PU}{\CYROTLD}{\84\352}% U+04EA
17441 % U+04EB CYRILLIC SMALL LETTER BARRED O WITH DIAERESIS;
17442 % obarreddieresiscyrillic
17443 \DeclareTextCompositeCommand{=} {PU}{\cyrotld}{\84\353}% U+04EB
17444 % U+04EC CYRILLIC CAPITAL LETTER E WITH DIAERESIS
17445 \DeclareTextCompositeCommand{=} {PU}{\CYREREV}{\84\354}% U+04EC
17446 % U+04ED CYRILLIC SMALL LETTER E WITH DIAERESIS
17447 \DeclareTextCompositeCommand{=} {PU}{\cyreref}{\84\355}% U+04ED
17448 % U+04EE CYRILLIC CAPITAL LETTER U WITH MACRON; Umacroncyrillic
17449 \DeclareTextCompositeCommand{=} {PU}{\CYRU}{\84\356}% U+04EE
17450 % U+04EF CYRILLIC SMALL LETTER U WITH MACRON; umacroncyrillic
17451 \DeclareTextCompositeCommand{=} {PU}{\cyru}{\84\357}% U+04EF
17452 % U+04F0 CYRILLIC CAPITAL LETTER U WITH DIAERESIS; Udieresiscyrillic
17453 \DeclareTextCompositeCommand{=} {PU}{\CYRU}{\84\360}% U+04F0
17454 % U+04F1 CYRILLIC SMALL LETTER U WITH DIAERESIS; udieresiscyrillic
17455 \DeclareTextCompositeCommand{=} {PU}{\cyru}{\84\361}% U+04F1
17456 % U+04F2 CYRILLIC CAPITAL LETTER U WITH DOUBLE ACUTE; Uhun-
garumlautcyrillic
17457 \DeclareTextCompositeCommand{\H}{PU}{\CYRU}{\84\362}% U+04F2
17458 % U+04F3 CYRILLIC SMALL LETTER U WITH DOUBLE ACUTE; uhun-
garumlautcyrillic
17459 \DeclareTextCompositeCommand{\H}{PU}{\cyru}{\84\363}% U+04F3
17460 % U+04F4 CYRILLIC CAPITAL LETTER CHE WITH DIAERESIS; Chediere-
siscyrillic
17461 \DeclareTextCompositeCommand{=} {PU}{\CYRCH}{\84\364}% U+04F4
17462 % U+04F5 CYRILLIC SMALL LETTER CHE WITH DIAERESIS; chediere-
siscyrillic
17463 \DeclareTextCompositeCommand{=} {PU}{\cyrch}{\84\365}% U+04F5
17464 % U+04F6 CYRILLIC CAPITAL LETTER GHE WITH DESCENDER
17465 \DeclareTextCommand{\CYRGDSC}{PU}{\84\366}% U+04F6
17466 % U+04F7 CYRILLIC SMALL LETTER GHE WITH DESCENDER
17467 \DeclareTextCommand{\cyrgdsc}{PU}{\84\367}% U+04F7
17468 % U+04F8 CYRILLIC CAPITAL LETTER YERU WITH DIAERESIS; Yerudiere-
siscyrillic
17469 \DeclareTextCompositeCommand{=} {PU}{\CYRERY}{\84\370}% U+04F8
17470 % U+04F9 CYRILLIC SMALL LETTER YERU WITH DIAERESIS; yerudiere-
siscyrillic
17471 \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

17472 % U+04FC CYRILLIC CAPITAL LETTER HA WITH HOOK

17473 \DeclareTextCommand{\CYRHHK}{PU}{\84\374}% U+04FC

17474 % U+04FD CYRILLIC SMALL LETTER HA WITH HOOK

17475 \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`.

17476 % U+05C3 HEBREW PUNCTUATION SOF PASUQ

17477 \DeclareTextCommand{\sofpasuq}{PU}{\85\303}% U+05C3

17478 % U+05D0 HEBREW LETTER ALEF

17479 \DeclareTextCommand{\hebalef}{PU}{\85\320}% U+05D0

17480 % U+05D1 HEBREW LETTER BET

17481 \DeclareTextCommand{\hebbet}{PU}{\85\321}% U+05D1

17482 % U+05D2 HEBREW LETTER GIMEL

17483 \DeclareTextCommand{\hebgimel}{PU}{\85\322}% U+05D2

17484 % U+05D3 HEBREW LETTER DALET

17485 \DeclareTextCommand{\hebdalet}{PU}{\85\323}% U+05D3

17486 % U+05D4 HEBREW LETTER HE

17487 \DeclareTextCommand{\hebhe}{PU}{\85\324}% U+05D4

17488 % U+05D5 HEBREW LETTER VAV

17489 \DeclareTextCommand{\hebvav}{PU}{\85\325}% U+05D5

17490 % U+05D6 HEBREW LETTER ZAYIN

17491 \DeclareTextCommand{\hebzayin}{PU}{\85\326}% U+05D6

17492 % U+05D7 HEBREW LETTER HET

17493 \DeclareTextCommand{\hebhet}{PU}{\85\327}% U+05D7

17494 % U+05D8 HEBREW LETTER TET

17495 \DeclareTextCommand{\hebtet}{PU}{\85\330}% U+05D8

17496 % U+05D9 HEBREW LETTER YOD

17497 \DeclareTextCommand{\hebyod}{PU}{\85\331}% U+05D9

17498 % U+05DA HEBREW LETTER FINAL KAF

17499 \DeclareTextCommand{\hebfinalkaf}{PU}{\85\332}% U+05DA

17500 % U+05DB HEBREW LETTER KAF

17501 \DeclareTextCommand{\hebkafe}{PU}{\85\333}% U+05DB

17502 % U+05DC HEBREW LETTER LAMED

17503 \DeclareTextCommand{\heblamed}{PU}{\85\334}% U+05DC

17504 % U+05DD HEBREW LETTER FINAL MEM

17505 \DeclareTextCommand{\hebfinalmem}{PU}{\85\335}% U+05DD

17506 % U+05DE HEBREW LETTER MEM

17507 \DeclareTextCommand{\hebmem}{PU}{\85\336}% U+05DE

17508 % U+05DF HEBREW LETTER FINAL NUN

17509 \DeclareTextCommand{\hebfinalnun}{PU}{\85\337}% U+05DF

17510 % U+05E0 HEBREW LETTER NUN

17511 \DeclareTextCommand{\hebnun}{PU}{\85\340}% U+05E0

17512 % U+05E1 HEBREW LETTER SAMEKH

17513 \DeclareTextCommand{\hebsamekh}{PU}{\85\341}% U+05E1

17514 % U+05E2 HEBREW LETTER AYIN

17515 \DeclareTextCommand{\hebayin}{PU}{\85\342}% U+05E2

17516 % U+05E3 HEBREW LETTER FINAL PE

17517 \DeclareTextCommand{\hebfinalpe}{PU}{\85\343}% U+05E3

17518 % U+05E4 HEBREW LETTER PE
 17519 \DeclareTextCommand{\hebpe}{PU}{\85\344}% U+05E4
 17520 % U+05E5 HEBREW LETTER FINAL TSADI
 17521 \DeclareTextCommand{\hebfinaltsadi}{PU}{\85\345}% U+05E5
 17522 % U+05E6 HEBREW LETTER TSADI
 17523 \DeclareTextCommand{\hebtsadi}{PU}{\85\346}% U+05E6
 17524 % U+05E7 HEBREW LETTER QOF
 17525 \DeclareTextCommand{\hebqof}{PU}{\85\347}% U+05E7
 17526 % U+05E8 HEBREW LETTER RESH
 17527 \DeclareTextCommand{\hebresh}{PU}{\85\350}% U+05E8
 17528 % U+05E9 HEBREW LETTER SHIN
 17529 \DeclareTextCommand{\hebshin}{PU}{\85\351}% U+05E9
 17530 %* \hebshin -> \hebsin (he8)
 17531 % U+05EA HEBREW LETTER TAV
 17532 \DeclareTextCommand{\hebtav}{PU}{\85\352}% U+05EA
 17533 % U+05F0 HEBREW LIGATURE YIDDISH DOUBLE VAV
 17534 \DeclareTextCommand{\doublevav}{PU}{\85\360}% U+05F0
 17535 % U+05F1 HEBREW LIGATURE YIDDISH VAV YOD
 17536 \DeclareTextCommand{\vavyod}{PU}{\85\361}% U+05F1
 17537 % U+05F2 HEBREW LIGATURE YIDDISH DOUBLE YOD
 17538 \DeclareTextCommand{\doubleyod}{PU}{\85\362}% U+05F2

51.2.12 Thai: U+0E00 to U+0E7F

17539 % U+0E3F THAI CURRENCY SYMBOL BAHT; bahtthai
 17540 \DeclareTextCommand{\textbaht}{PU}{\9016\077}% U+0E3F

51.2.13 Phonetic Extensions: U+1D00 to U+1D7F

17541 % U+1D00 LATIN LETTER SMALL CAPITAL A; \textsca (tipa)
 17542 \DeclareTextCommand{\textsca}{PU}{\9035\000}% U+1D00
 17543 % U+1D05 LATIN LETTER SMALL CAPITAL D; \scd (wsuipa)
 17544 \DeclareTextCommand{\textscd}{PU}{\9035\005}%* U+1D05
 17545 % U+1D07 LATIN LETTER SMALL CAPITAL E; \textsce (tipa)
 17546 \DeclareTextCommand{\textsce}{PU}{\9035\007}% U+1D07
 17547 % U+1D0A LATIN LETTER SMALL CAPITAL J; \textscj (tipa)
 17548 \DeclareTextCommand{\textscj}{PU}{\9035\012}% U+1D0A
 17549 % U+1D0B LATIN LETTER SMALL CAPITAL K; \textस्क (tipx)
 17550 \DeclareTextCommand{\textPUस्क}{PU}{\9035\013}% U+1D0B
 17551 %* \textPUस्क -> \textस्क (tipx)
 17552 % U+1D0D LATIN LETTER SMALL CAPITAL M; \textscm (tipx)
 17553 \DeclareTextCommand{\textPUscm}{PU}{\9035\015}% U+1D0D
 17554 %* \textPUscm -> \textscm (tipx)
 17555 % U+1D18 LATIN LETTER SMALL CAPITAL P; \textscp (tipx)
 17556 \DeclareTextCommand{\textPUscp}{PU}{\9035\030}% U+1D18
 17557 %* \textPUscp -> \textscp (tipx)
 17558 % U+1D19 LATIN LETTER SMALL CAPITAL REVERSED R; \textrevscr (tipx)
 17559 \DeclareTextCommand{\textPUrevscr}{PU}{\9035\031}% U+1D19
 17560 %* \textPUrevscr -> \textrevscr (tipx)
 17561 % U+1D1C LATIN LETTER SMALL CAPITAL U; \textscu (tipa), \scu (wsuipa)
 17562 \DeclareTextCommand{\textscu}{PU}{\9035\034}%* U+1D1C
 17563 % U+1D62 LATIN SUBSCRIPT SMALL LETTER I
 17564 \DeclareTextCommand{\textiinferior}{PU}{\9035\142}%* U+1D62
 17565 % U+1D63 LATIN SUBSCRIPT SMALL LETTER R
 17566 \DeclareTextCommand{\textrininferior}{PU}{\9035\143}%* U+1D63
 17567 % U+1D64 LATIN SUBSCRIPT SMALL LETTER U
 17568 \DeclareTextCommand{\textuinferior}{PU}{\9035\144}%* U+1D64
 17569 % U+1D65 LATIN SUBSCRIPT SMALL LETTER V

17570 \DeclareTextCommand{\textvinferior}{PU}{\9035\145}%* U+1D65
 17571 % U+1D66 GREEK SUBSCRIPT SMALL LETTER BETA
 17572 \DeclareTextCommand{\textbetainferior}{PU}{\9035\146}%* U+1D66
 17573 % U+1D67 GREEK SUBSCRIPT SMALL LETTER GAMMA
 17574 \DeclareTextCommand{\textgammainferior}{PU}{\9035\147}%* U+1D67
 17575 % U+1D68 GREEK SUBSCRIPT SMALL LETTER RHO
 17576 \DeclareTextCommand{\textrhoinferior}{PU}{\9035\150}%* U+1D68
 17577 % U+1D69 GREEK SUBSCRIPT SMALL LETTER PHI
 17578 \DeclareTextCommand{\textphiinferior}{PU}{\9035\151}%* U+1D69
 17579 % U+1D6A GREEK SUBSCRIPT SMALL LETTER CHI
 17580 \DeclareTextCommand{\textchiinferior}{PU}{\9035\152}%* U+1D6A
 17581 % U+1D7B LATIN SMALL CAPITAL LETTER I WITH STROKE;
 17582 % \barsci (wsuipa)
 17583 \DeclareTextCommand{\textbarsci}{PU}{\9035\173}%* U+1D7B
 17584 % U+1D7D LATIN SMALL LETTER P WITH STROKE; \barp (wsuipa)
 17585 \DeclareTextCommand{\textbarp}{PU}{\9035\175}%* U+1D7D
 17586 % U+1D7E LATIN SMALL CAPITAL LETTER U WITH STROKE;
 17587 % \barscu (wsuipa)
 17588 \DeclareTextCommand{\textbarscu}{PU}{\9035\176}%* U+1D7E

51.2.14 Phonetic Extensions Supplement: U+1D80 to U+1DBF

17589 % U+1D8F LATIN SMALL LETTER A WITH RETROFLEX HOOK; \tex-
 trhooka (tipx)
 17590 \DeclareTextCommand{\textPURhooka}{PU}{\9035\217}% U+1D8F
 17591 %* \textPURhooka -> \textrhooka (tipx)
 17592 % U+1D91 LATIN SMALL LETTER D WITH HOOK AND TAIL; \texthtr-
 taild (tipa)
 17593 \DeclareTextCommand{\texthtrtaild}{PU}{\9035\221}%* U+1D91
 17594 % U+1D92 LATIN SMALL LETTER E WITH RETROFLEX HOOK; \tex-
 trhooke (tipx)
 17595 \DeclareTextCommand{\textPURhooke}{PU}{\9035\222}% U+1D92
 17596 %* \textPURhooke -> \textrhooke (tipx)
 17597 % U+1D93 LATIN SMALL LETTER OPEN E WITH RETROFLEX HOOK;
 17598 % \textrhookepsilon (tipx)
 17599 \DeclareTextCommand{\textPURhookepsilon}{PU}{\9035\223}% U+1D93
 17600 %* \textPURhookepsilon -> \textrhookepsilon (tipx)
 17601 % U+1D97 LATIN SMALL LETTER OPEN O WITH RETROFLEX HOOK;
 17602 % \textrhookopeno (tipx)
 17603 \DeclareTextCommand{\textPURhookopeno}{PU}{\9035\227}% U+1D97
 17604 %* \textPURhookopeno -> \textrhookopeno (tipx)

51.2.15 Latin Extended Additional: U+1E00 to U+1EFF

17605 % U+1E00 LATIN CAPITAL LETTER A WITH RING BELOW; Aringbelow
 17606 \DeclareTextCompositeCommand{\textsubring}{PU}{A}{\9036\000}% U+1E00
 17607 % U+1E01 LATIN SMALL LETTER A WITH RING BELOW; aringbelow
 17608 \DeclareTextCompositeCommand{\textsubring}{PU}{a}{\9036\001}% U+1E01
 17609 % U+1E02 LATIN CAPITAL LETTER B WITH DOT ABOVE; Bdotaccent
 17610 \DeclareTextCompositeCommand{.}{PU}{B}{\9036\002}% U+1E02
 17611 % U+1E03 LATIN SMALL LETTER B WITH DOT ABOVE; bdotaccent
 17612 \DeclareTextCompositeCommand{.}{PU}{b}{\9036\003}% U+1E03
 17613 % U+1E04 LATIN CAPITAL LETTER B WITH DOT BELOW; Bdotbelow
 17614 \DeclareTextCompositeCommand{\d}{PU}{B}{\9036\004}% U+1E04
 17615 % U+1E05 LATIN SMALL LETTER B WITH DOT BELOW; bdotbelow
 17616 \DeclareTextCompositeCommand{\d}{PU}{b}{\9036\005}% U+1E05
 17617 % U+1E06 LATIN CAPITAL LETTER B WITH LINE BELOW; Blinebelow
 17618 \DeclareTextCompositeCommand{\b}{PU}{B}{\9036\006}% U+1E06
 17619 % U+1E07 LATIN SMALL LETTER B WITH LINE BELOW; blinebelow

17620 \DeclareTextCompositeCommand{\b}{PU}{b}{\9036\007}% U+1E07
17621 % U+1E0A LATIN CAPITAL LETTER D WITH DOT ABOVE; Ddotaccent
17622 \DeclareTextCompositeCommand{\.}{PU}{D}{\9036\012}% U+1E0A
17623 % U+1E0B LATIN SMALL LETTER D WITH DOT ABOVE; ddotaccent
17624 \DeclareTextCompositeCommand{\.}{PU}{d}{\9036\013}% U+1E0B
17625 % U+1E0C LATIN CAPITAL LETTER D WITH DOT BELOW; Ddotbelow
17626 \DeclareTextCompositeCommand{\d}{PU}{D}{\9036\014}% U+1E0C
17627 % U+1E0D LATIN SMALL LETTER D WITH DOT BELOW; ddotbelow
17628 \DeclareTextCompositeCommand{\d}{PU}{d}{\9036\015}% U+1E0D
17629 % U+1E0E LATIN CAPITAL LETTER D WITH LINE BELOW; Dlinebelow
17630 \DeclareTextCompositeCommand{\b}{PU}{D}{\9036\016}% U+1E0E
17631 % U+1E0F LATIN SMALL LETTER D WITH LINE BELOW; dlinebelow
17632 \DeclareTextCompositeCommand{\b}{PU}{d}{\9036\017}% U+1E0F
17633 % U+1E10 LATIN CAPITAL LETTER D WITH CEDILLA; Dcedilla
17634 \DeclareTextCompositeCommand{\c}{PU}{D}{\9036\020}% U+1E10
17635 % U+1E11 LATIN SMALL LETTER D WITH CEDILLA; dcedilla
17636 \DeclareTextCompositeCommand{\c}{PU}{d}{\9036\021}% U+1E11
17637 % U+1E12 LATIN CAPITAL LETTER D WITH CIRCUMFLEX BELOW; Dcir-
cumflexbelow
17638 \DeclareTextCompositeCommand{\textsubcircum}{PU}{D}{\9036\022}% U+1E12
17639 % U+1E13 LATIN SMALL LETTER D WITH CIRCUMFLEX BELOW; dcir-
cumflexbelow
17640 \DeclareTextCompositeCommand{\textsubcircum}{PU}{d}{\9036\023}% U+1E13
17641 % U+1E14 LATIN CAPITAL LETTER E WITH MACRON AND GRAVE;
17642 % Emacrongrave
17643 \DeclareTextCompositeCommand{\textgravemacron}{PU}{E}{\9036\024}% U+1E14
17644 % U+1E15 LATIN SMALL LETTER E WITH MACRON AND GRAVE;
17645 % emacrongrave
17646 \DeclareTextCompositeCommand{\textgravemacron}{PU}{e}{\9036\025}% U+1E15
17647 % U+1E16 LATIN CAPITAL LETTER E WITH MACRON AND ACUTE;
17648 % Emacronacute
17649 \DeclareTextCompositeCommand{\textacutemacron}{PU}{E}{\9036\026}% U+1E16
17650 % U+1E17 LATIN SMALL LETTER E WITH MACRON AND ACUTE;
17651 % emacronacute
17652 \DeclareTextCompositeCommand{\textacutemacron}{PU}{e}{\9036\027}% U+1E17
17653 % U+1E18 LATIN CAPITAL LETTER E WITH CIRCUMFLEX BELOW; Ecir-
cumflexbelow
17654 \DeclareTextCompositeCommand{\textsubcircum}{PU}{E}{\9036\030}% U+1E18
17655 % U+1E19 LATIN SMALL LETTER E WITH CIRCUMFLEX BELOW; ecir-
cumflexbelow
17656 \DeclareTextCompositeCommand{\textsubcircum}{PU}{e}{\9036\031}% U+1E19
17657 % U+1E1A LATIN CAPITAL LETTER E WITH TILDE BELOW; Etildebelow
17658 \DeclareTextCompositeCommand{\textsubtilde}{PU}{E}{\9036\032}% U+1E1A
17659 % U+1E1B LATIN SMALL LETTER E WITH TILDE BELOW; etildebelow
17660 \DeclareTextCompositeCommand{\textsubtilde}{PU}{e}{\9036\033}% U+1E1B
17661 % U+1E1E LATIN CAPITAL LETTER F WITH DOT ABOVE; Fdotaccent
17662 \DeclareTextCompositeCommand{\.}{PU}{F}{\9036\036}% U+1E1E
17663 % U+1E1F LATIN SMALL LETTER F WITH DOT ABOVE; fdotaccent
17664 \DeclareTextCompositeCommand{\.}{PU}{f}{\9036\037}% U+1E1F
17665 % U+1E20 LATIN CAPITAL LETTER G WITH MACRON; Gmacron
17666 \DeclareTextCompositeCommand{\=}{PU}{G}{\9036\040}% U+1E20
17667 % U+1E21 LATIN SMALL LETTER G WITH MACRON; gmacron
17668 \DeclareTextCompositeCommand{\=}{PU}{g}{\9036\041}% U+1E21
17669 % U+1E22 LATIN CAPITAL LETTER H WITH DOT ABOVE; Hdotaccent
17670 \DeclareTextCompositeCommand{\.}{PU}{H}{\9036\042}% U+1E22
17671 % U+1E23 LATIN SMALL LETTER H WITH DOT ABOVE; hdotaccent
17672 \DeclareTextCompositeCommand{\.}{PU}{h}{\9036\043}% U+1E23

17673 % U+1E24 LATIN CAPITAL LETTER H WITH DOT BELOW; Hdotbelow
17674 \DeclareTextCompositeCommand{\d}{PU}{H}{\9036\044}% U+1E24
17675 % U+1E25 LATIN SMALL LETTER H WITH DOT BELOW; hdotbelow
17676 \DeclareTextCompositeCommand{\d}{PU}{h}{\9036\045}% U+1E25
17677 % U+1E26 LATIN CAPITAL LETTER H WITH DIAERESIS; Hdieresis
17678 \DeclareTextCompositeCommand{"}{PU}{H}{\9036\046}% U+1E26
17679 % U+1E27 LATIN SMALL LETTER H WITH DIAERESIS; hdieresis
17680 \DeclareTextCompositeCommand{"}{PU}{h}{\9036\047}% U+1E27
17681 % U+1E28 LATIN CAPITAL LETTER H WITH CEDILLA; Hcedilla
17682 \DeclareTextCompositeCommand{\c}{PU}{H}{\9036\050}% U+1E28
17683 % U+1E29 LATIN SMALL LETTER H WITH CEDILLA; hcedilla
17684 \DeclareTextCompositeCommand{\c}{PU}{h}{\9036\051}% U+1E29
17685 % U+1E2A LATIN CAPITAL LETTER H WITH BREVE BELOW; Hbrevebelow
17686 \DeclareTextCompositeCommand{\textsubbreve}{PU}{H}{\9036\052}% U+1E2A
17687 % U+1E2B LATIN SMALL LETTER H WITH BREVE BELOW; hbrevebelow
17688 \DeclareTextCompositeCommand{\textsubbreve}{PU}{h}{\9036\053}% U+1E2B
17689 % U+1E2C LATIN CAPITAL LETTER I WITH TILDE BELOW; Itildebelow
17690 \DeclareTextCompositeCommand{\textsubtilde}{PU}{I}{\9036\054}% U+1E2C
17691 % U+1E2D LATIN SMALL LETTER I WITH TILDE BELOW; itildebelow
17692 \DeclareTextCompositeCommand{\textsubtilde}{PU}{i}{\9036\055}% U+1E2D
17693 % U+1E30 LATIN CAPITAL LETTER K WITH ACUTE; Kacute
17694 \DeclareTextCompositeCommand{\'}{PU}{K}{\9036\060}% U+1E30
17695 % U+1E31 LATIN SMALL LETTER K WITH ACUTE; kacute
17696 \DeclareTextCompositeCommand{\'}{PU}{k}{\9036\061}% U+1E31
17697 % U+1E32 LATIN CAPITAL LETTER K WITH DOT BELOW; Kdotbelow
17698 \DeclareTextCompositeCommand{\d}{PU}{K}{\9036\062}% U+1E32
17699 % U+1E33 LATIN SMALL LETTER K WITH DOT BELOW; kdotbelow
17700 \DeclareTextCompositeCommand{\d}{PU}{k}{\9036\063}% U+1E33
17701 % U+1E34 LATIN CAPITAL LETTER K WITH LINE BELOW; Klinebelow
17702 \DeclareTextCompositeCommand{\b}{PU}{K}{\9036\064}% U+1E34
17703 % U+1E35 LATIN SMALL LETTER K WITH LINE BELOW; klinebelow
17704 \DeclareTextCompositeCommand{\b}{PU}{k}{\9036\065}% U+1E35
17705 % U+1E36 LATIN CAPITAL LETTER L WITH DOT BELOW; Ldotbelow
17706 \DeclareTextCompositeCommand{\d}{PU}{L}{\9036\066}% U+1E36
17707 % U+1E37 LATIN SMALL LETTER L WITH DOT BELOW; ldotbelow
17708 \DeclareTextCompositeCommand{\d}{PU}{l}{\9036\067}% U+1E37
17709 % U+1E3A LATIN CAPITAL LETTER L WITH LINE BELOW; Llinebelow
17710 \DeclareTextCompositeCommand{\b}{PU}{L}{\9036\072}% U+1E3A
17711 % U+1E3B LATIN SMALL LETTER L WITH LINE BELOW; llinebelow
17712 \DeclareTextCompositeCommand{\b}{PU}{l}{\9036\073}% U+1E3B
17713 % U+1E3C LATIN CAPITAL LETTER L WITH CIRCUMFLEX BELOW; Lcir-
cumflexbelow
17714 \DeclareTextCompositeCommand{\textsubcircum}{PU}{L}{\9036\074}% U+1E3C
17715 % U+1E3D LATIN SMALL LETTER L WITH CIRCUMFLEX BELOW; lcir-
cumflexbelow
17716 \DeclareTextCompositeCommand{\textsubcircum}{PU}{l}{\9036\075}% U+1E3D
17717 % U+1E3E LATIN CAPITAL LETTER M WITH ACUTE; Macute
17718 \DeclareTextCompositeCommand{\'}{PU}{M}{\9036\076}% U+1E3E
17719 % U+1E3F LATIN SMALL LETTER M WITH ACUTE; macute
17720 \DeclareTextCompositeCommand{\'}{PU}{m}{\9036\077}% U+1E3F
17721 % U+1E40 LATIN CAPITAL LETTER M WITH DOT ABOVE; Mdotaccent
17722 \DeclareTextCompositeCommand{\.}{PU}{M}{\9036\100}% U+1E40
17723 % U+1E41 LATIN SMALL LETTER M WITH DOT ABOVE; mdotaccent
17724 \DeclareTextCompositeCommand{\.}{PU}{m}{\9036\101}% U+1E41
17725 % U+1E42 LATIN CAPITAL LETTER M WITH DOT BELOW; Mdotbelow
17726 \DeclareTextCompositeCommand{\d}{PU}{M}{\9036\102}% U+1E42
17727 % U+1E43 LATIN SMALL LETTER M WITH DOT BELOW; mdotbelow

17728 \DeclareTextCompositeCommand{\d}{PU}{m}{\9036\103}% U+1E43
17729 % U+1E44 LATIN CAPITAL LETTER N WITH DOT ABOVE; Ndotaccent
17730 \DeclareTextCompositeCommand{\.}{PU}{N}{\9036\104}% U+1E44
17731 % U+1E45 LATIN SMALL LETTER N WITH DOT ABOVE; ndotaccent
17732 \DeclareTextCompositeCommand{\.}{PU}{n}{\9036\105}% U+1E45
17733 % U+1E46 LATIN CAPITAL LETTER N WITH DOT BELOW; Ndotbelow
17734 \DeclareTextCompositeCommand{\d}{PU}{N}{\9036\106}% U+1E46
17735 % U+1E47 LATIN SMALL LETTER N WITH DOT BELOW; ndotbelow
17736 \DeclareTextCompositeCommand{\d}{PU}{n}{\9036\107}% U+1E47
17737 % U+1E48 LATIN CAPITAL LETTER N WITH LINE BELOW; Nlinebelow
17738 \DeclareTextCompositeCommand{\b}{PU}{N}{\9036\110}% U+1E48
17739 % U+1E49 LATIN SMALL LETTER N WITH LINE BELOW; nlinebelow
17740 \DeclareTextCompositeCommand{\b}{PU}{n}{\9036\111}% U+1E49
17741 % U+1E4A LATIN CAPITAL LETTER N WITH CIRCUMFLEX BELOW; Ncir-
cumflexbelow
17742 \DeclareTextCompositeCommand{\textsubcircum}{PU}{N}{\9036\112}% U+1E4A
17743 % U+1E4B LATIN SMALL LETTER N WITH CIRCUMFLEX BELOW; ncir-
cumflexbelow
17744 \DeclareTextCompositeCommand{\textsubcircum}{PU}{n}{\9036\113}% U+1E4B
17745 % U+1E50 LATIN CAPITAL LETTER O WITH MACRON AND GRAVE;
17746 % Omacrongrave
17747 \DeclareTextCompositeCommand{\textgravemacron}{PU}{O}{\9036\120}% U+1E50
17748 % U+1E51 LATIN SMALL LETTER O WITH MACRON AND GRAVE;
17749 % omacrongrave
17750 \DeclareTextCompositeCommand{\textgravemacron}{PU}{o}{\9036\121}% U+1E51
17751 % U+1E52 LATIN CAPITAL LETTER O WITH MACRON AND ACUTE;
17752 % Omacronacute
17753 \DeclareTextCompositeCommand{\textacutemacron}{PU}{O}{\9036\122}% U+1E52
17754 % U+1E53 LATIN SMALL LETTER O WITH MACRON AND ACUTE;
17755 % omacronacute
17756 \DeclareTextCompositeCommand{\textacutemacron}{PU}{o}{\9036\123}% U+1E53
17757 % U+1E54 LATIN CAPITAL LETTER P WITH ACUTE; Pacute
17758 \DeclareTextCompositeCommand{\'}{PU}{P}{\9036\124}% U+1E54
17759 % U+1E55 LATIN SMALL LETTER P WITH ACUTE; pacute
17760 \DeclareTextCompositeCommand{\'}{PU}{p}{\9036\125}% U+1E55
17761 % U+1E56 LATIN CAPITAL LETTER P WITH DOT ABOVE; Pdotaccent
17762 \DeclareTextCompositeCommand{\.}{PU}{P}{\9036\126}% U+1E56
17763 % U+1E57 LATIN SMALL LETTER P WITH DOT ABOVE; pdotaccent
17764 \DeclareTextCompositeCommand{\.}{PU}{p}{\9036\127}% U+1E57
17765 % U+1E58 LATIN CAPITAL LETTER R WITH DOT ABOVE; Rdotaccent
17766 \DeclareTextCompositeCommand{\.}{PU}{R}{\9036\130}% U+1E58
17767 % U+1E59 LATIN SMALL LETTER R WITH DOT ABOVE; rdotaccent
17768 \DeclareTextCompositeCommand{\.}{PU}{r}{\9036\131}% U+1E59
17769 % U+1E5A LATIN CAPITAL LETTER R WITH DOT BELOW; Rdotbelow
17770 \DeclareTextCompositeCommand{\d}{PU}{R}{\9036\132}% U+1E5A
17771 % U+1E5B LATIN SMALL LETTER R WITH DOT BELOW; rdotbelow
17772 \DeclareTextCompositeCommand{\d}{PU}{r}{\9036\133}% U+1E5B
17773 % U+1E5E LATIN CAPITAL LETTER R WITH LINE BELOW; Rlinebelow
17774 \DeclareTextCompositeCommand{\b}{PU}{R}{\9036\136}% U+1E5E
17775 % U+1E5F LATIN SMALL LETTER R WITH LINE BELOW; rlinebelow
17776 \DeclareTextCompositeCommand{\b}{PU}{r}{\9036\137}% U+1E5F
17777 % U+1E60 LATIN CAPITAL LETTER S WITH DOT ABOVE; Sdotaccent
17778 \DeclareTextCompositeCommand{\.}{PU}{S}{\9036\140}% U+1E60
17779 % U+1E61 LATIN SMALL LETTER S WITH DOT ABOVE; sdotaccent
17780 \DeclareTextCompositeCommand{\.}{PU}{s}{\9036\141}% U+1E61
17781 % U+1E62 LATIN CAPITAL LETTER S WITH DOT BELOW; Sdotbelow
17782 \DeclareTextCompositeCommand{\d}{PU}{S}{\9036\142}% U+1E62

17783 % U+1E63 LATIN SMALL LETTER S WITH DOT BELOW; sdotbelow
17784 \DeclareTextCompositeCommand{\d}{PU}{s}{\9036\143}% U+1E63
17785 % U+1E6A LATIN CAPITAL LETTER T WITH DOT ABOVE; Tdotaccent
17786 \DeclareTextCompositeCommand{\.}{PU}{T}{\9036\152}% U+1E6A
17787 % U+1E6B LATIN SMALL LETTER T WITH DOT ABOVE; tdotaccent
17788 \DeclareTextCompositeCommand{\.}{PU}{t}{\9036\153}% U+1E6B
17789 % U+1E6C LATIN CAPITAL LETTER T WITH DOT BELOW; Tdotbelow
17790 \DeclareTextCompositeCommand{\d}{PU}{T}{\9036\154}% U+1E6C
17791 % U+1E6D LATIN SMALL LETTER T WITH DOT BELOW; tdotbelow
17792 \DeclareTextCompositeCommand{\d}{PU}{t}{\9036\155}% U+1E6D
17793 % U+1E6E LATIN CAPITAL LETTER T WITH LINE BELOW; Tlinebelow
17794 \DeclareTextCompositeCommand{\b}{PU}{T}{\9036\156}% U+1E6E
17795 % U+1E6F LATIN SMALL LETTER T WITH LINE BELOW; tlinebelow
17796 \DeclareTextCompositeCommand{\b}{PU}{t}{\9036\157}% U+1E6F
17797 % U+1E70 LATIN CAPITAL LETTER T WITH CIRCUMFLEX BELOW; Tcir-
cumflexbelow
17798 \DeclareTextCompositeCommand{\textsubcircum}{PU}{T}{\9036\160}% U+1E70
17799 % U+1E71 LATIN SMALL LETTER T WITH CIRCUMFLEX BELOW; tcir-
cumflexbelow
17800 \DeclareTextCompositeCommand{\textsubcircum}{PU}{t}{\9036\161}% U+1E71
17801 % U+1E72 LATIN CAPITAL LETTER U WITH DIAERESIS BELOW; Udiere-
sisbelow
17802 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{U}{\9036\162}% U+1E72
17803 % U+1E73 LATIN SMALL LETTER U WITH DIAERESIS BELOW; udiere-
sisbelow
17804 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{u}{\9036\163}% U+1E73
17805 % U+1E74 LATIN CAPITAL LETTER U WITH TILDE BELOW; Utildebelow
17806 \DeclareTextCompositeCommand{\textsubtilde}{PU}{U}{\9036\164}% U+1E74
17807 % U+1E75 LATIN SMALL LETTER U WITH TILDE BELOW; utildebelow
17808 \DeclareTextCompositeCommand{\textsubtilde}{PU}{u}{\9036\165}% U+1E75
17809 % U+1E76 LATIN CAPITAL LETTER U WITH CIRCUMFLEX BELOW; Ucir-
cumflexbelow
17810 \DeclareTextCompositeCommand{\textsubcircum}{PU}{U}{\9036\166}% U+1E76
17811 % U+1E77 LATIN SMALL LETTER U WITH CIRCUMFLEX BELOW; ucir-
cumflexbelow
17812 \DeclareTextCompositeCommand{\textsubcircum}{PU}{u}{\9036\167}% U+1E77
17813 % U+1E7C LATIN CAPITAL LETTER V WITH TILDE; Vtilde
17814 \DeclareTextCompositeCommand{\~}{PU}{V}{\9036\174}% U+1E7C
17815 % U+1E7D LATIN SMALL LETTER V WITH TILDE; vtilde
17816 \DeclareTextCompositeCommand{\~}{PU}{v}{\9036\175}% U+1E7D
17817 % U+1E7E LATIN CAPITAL LETTER V WITH DOT BELOW; Vdotbelow
17818 \DeclareTextCompositeCommand{\d}{PU}{V}{\9036\176}% U+1E7E
17819 % U+1E7F LATIN SMALL LETTER V WITH DOT BELOW; vdotbelow
17820 \DeclareTextCompositeCommand{\d}{PU}{v}{\9036\177}% U+1E7F
17821 % U+1E80 LATIN CAPITAL LETTER W WITH GRAVE; Wgrave
17822 \DeclareTextCompositeCommand{\`}{PU}{W}{\9036\200}% U+1E80
17823 % U+1E81 LATIN SMALL LETTER W WITH GRAVE; wgrave
17824 \DeclareTextCompositeCommand{\`}{PU}{w}{\9036\201}% U+1E81
17825 % U+1E82 LATIN CAPITAL LETTER W WITH ACUTE; Wacute
17826 \DeclareTextCompositeCommand{\'}{PU}{W}{\9036\202}% U+1E82
17827 % U+1E83 LATIN SMALL LETTER W WITH ACUTE; wacute
17828 \DeclareTextCompositeCommand{\'}{PU}{w}{\9036\203}% U+1E83
17829 % U+1E84 LATIN CAPITAL LETTER W WITH DIAERESIS; Wdieresis
17830 \DeclareTextCompositeCommand{\"}{PU}{W}{\9036\204}% U+1E84
17831 % U+1E85 LATIN SMALL LETTER W WITH DIAERESIS; wdieresis
17832 \DeclareTextCompositeCommand{\"}{PU}{w}{\9036\205}% U+1E85
17833 % U+1E86 LATIN CAPITAL LETTER W WITH DOT ABOVE; Wdotaccent

17834 \DeclareTextCompositeCommand{\.}{PU}{W}{\9036\206}% U+1E86
17835 % U+1E87 LATIN SMALL LETTER W WITH DOT ABOVE; wdotaccent
17836 \DeclareTextCompositeCommand{\.}{PU}{w}{\9036\207}% U+1E87
17837 % U+1E88 LATIN CAPITAL LETTER W WITH DOT BELOW; wdotbelow
17838 \DeclareTextCompositeCommand{\d}{PU}{W}{\9036\210}% U+1E88
17839 % U+1E89 LATIN SMALL LETTER W WITH DOT BELOW; wdotbelow
17840 \DeclareTextCompositeCommand{\d}{PU}{w}{\9036\211}% U+1E89
17841 % U+1E8A LATIN CAPITAL LETTER X WITH DOT ABOVE; Xdotaccent
17842 \DeclareTextCompositeCommand{\.}{PU}{X}{\9036\212}% U+1E8A
17843 % U+1E8B LATIN SMALL LETTER X WITH DOT ABOVE; xdotaccent
17844 \DeclareTextCompositeCommand{\.}{PU}{x}{\9036\213}% U+1E8B
17845 % U+1E8C LATIN CAPITAL LETTER X WITH DIAERESIS; Xdieresis
17846 \DeclareTextCompositeCommand{¨}{PU}{X}{\9036\214}% U+1E8C
17847 % U+1E8D LATIN SMALL LETTER X WITH DIAERESIS; xdieresis
17848 \DeclareTextCompositeCommand{¨}{PU}{x}{\9036\215}% U+1E8D
17849 % U+1E8E LATIN CAPITAL LETTER Y WITH DOT ABOVE; Ydotaccent
17850 \DeclareTextCompositeCommand{\.}{PU}{Y}{\9036\216}% U+1E8E
17851 % U+1E8F LATIN SMALL LETTER Y WITH DOT ABOVE; ydotaccent
17852 \DeclareTextCompositeCommand{\.}{PU}{y}{\9036\217}% U+1E8F
17853 % U+1E90 LATIN CAPITAL LETTER Z WITH CIRCUMFLEX; Zcircumflex
17854 \DeclareTextCompositeCommand{^}{PU}{Z}{\9036\220}% U+1E90
17855 % U+1E91 LATIN SMALL LETTER Z WITH CIRCUMFLEX; zcircumflex
17856 \DeclareTextCompositeCommand{^}{PU}{z}{\9036\221}% U+1E91
17857 % U+1E92 LATIN CAPITAL LETTER Z WITH DOT BELOW; Zdotbelow
17858 \DeclareTextCompositeCommand{\d}{PU}{Z}{\9036\222}% U+1E92
17859 % U+1E93 LATIN SMALL LETTER Z WITH DOT BELOW; zdotbelow
17860 \DeclareTextCompositeCommand{\d}{PU}{z}{\9036\223}% U+1E93
17861 % U+1E94 LATIN CAPITAL LETTER Z WITH LINE BELOW; Zlinebelow
17862 \DeclareTextCompositeCommand{\b}{PU}{Z}{\9036\224}% U+1E94
17863 % U+1E95 LATIN SMALL LETTER Z WITH LINE BELOW; zlinebelow
17864 \DeclareTextCompositeCommand{\b}{PU}{z}{\9036\225}% U+1E95
17865 % U+1E96 LATIN SMALL LETTER H WITH LINE BELOW; hlinebelow
17866 \DeclareTextCompositeCommand{\b}{PU}{h}{\9036\226}% U+1E96
17867 % U+1E97 LATIN SMALL LETTER T WITH DIAERESIS; tdieresis
17868 \DeclareTextCompositeCommand{¨}{PU}{t}{\9036\227}% U+1E97
17869 % U+1E98 LATIN SMALL LETTER W WITH RING ABOVE; wring
17870 \DeclareTextCompositeCommand{\r}{PU}{w}{\9036\230}% U+1E98
17871 % U+1E99 LATIN SMALL LETTER Y WITH RING ABOVE; yring
17872 \DeclareTextCompositeCommand{\r}{PU}{y}{\9036\231}% U+1E99
17873 % U+1E9B LATIN SMALL LETTER LONG S WITH DOT ABOVE; slongdotaccent
17874 \DeclareTextCompositeCommand{\.}{PU}{\textlongs}{\9036\233}% U+1E9B
17875 % U+1EA0 LATIN CAPITAL LETTER A WITH DOT BELOW; Adotbelow
17876 \DeclareTextCompositeCommand{\d}{PU}{A}{\9036\240}% U+1EA0
17877 % U+1EA1 LATIN SMALL LETTER A WITH DOT BELOW; adotbelow
17878 \DeclareTextCompositeCommand{\d}{PU}{a}{\9036\241}% U+1EA1
17879 % U+1EB8 LATIN CAPITAL LETTER E WITH DOT BELOW; Edotbelow
17880 \DeclareTextCompositeCommand{\d}{PU}{E}{\9036\270}% U+1EB8
17881 % U+1EB9 LATIN SMALL LETTER E WITH DOT BELOW; edotbelow
17882 \DeclareTextCompositeCommand{\d}{PU}{e}{\9036\271}% U+1EB9
17883 % U+1EBC LATIN CAPITAL LETTER E WITH TILDE; Etilde
17884 \DeclareTextCompositeCommand{~}{PU}{E}{\9036\274}% U+1EBC
17885 % U+1EBD LATIN SMALL LETTER E WITH TILDE; etilde
17886 \DeclareTextCompositeCommand{~}{PU}{e}{\9036\275}% U+1EBD
17887 % U+1ECA LATIN CAPITAL LETTER I WITH DOT BELOW; Idotbelow
17888 \DeclareTextCompositeCommand{\d}{PU}{I}{\9036\312}% U+1ECA
17889 % U+1ECB LATIN SMALL LETTER I WITH DOT BELOW; idotbelow

17890 \DeclareTextCompositeCommand{\d}{PU}{i}{\9036\313}% U+1ECB
 17891 % U+1ECC LATIN CAPITAL LETTER O WITH DOT BELOW; Odotbelow
 17892 \DeclareTextCompositeCommand{\d}{PU}{O}{\9036\314}% U+1ECC
 17893 % U+1ECD LATIN SMALL LETTER O WITH DOT BELOW; odotbelow
 17894 \DeclareTextCompositeCommand{\d}{PU}{o}{\9036\315}% U+1ECD
 17895 % U+1EE4 LATIN CAPITAL LETTER U WITH DOT BELOW; Udotbelow
 17896 \DeclareTextCompositeCommand{\d}{PU}{U}{\9036\344}% U+1EE4
 17897 % U+1EE5 LATIN SMALL LETTER U WITH DOT BELOW; udotbelow
 17898 \DeclareTextCompositeCommand{\d}{PU}{u}{\9036\345}% U+1EE5
 17899 % U+1EF2 LATIN CAPITAL LETTER Y WITH GRAVE; Ygrave
 17900 \DeclareTextCompositeCommand{\'}{PU}{Y}{\9036\362}% U+1EF2
 17901 % U+1EF3 LATIN SMALL LETTER Y WITH GRAVE; ygrave
 17902 \DeclareTextCompositeCommand{\'}{PU}{y}{\9036\363}% U+1EF3
 17903 % U+1EF4 LATIN CAPITAL LETTER Y WITH DOT BELOW; Ydotbelow
 17904 \DeclareTextCompositeCommand{\d}{PU}{Y}{\9036\364}% U+1EF4
 17905 % U+1EF5 LATIN SMALL LETTER Y WITH DOT BELOW; ydotbelow
 17906 \DeclareTextCompositeCommand{\d}{PU}{y}{\9036\365}% U+1EF5
 17907 % U+1EF8 LATIN CAPITAL LETTER Y WITH TILDE; Ytilde
 17908 \DeclareTextCompositeCommand{\~}{PU}{Y}{\9036\370}% U+1EF8
 17909 % U+1EF9 LATIN SMALL LETTER Y WITH TILDE; ytilde
 17910 \DeclareTextCompositeCommand{\~}{PU}{y}{\9036\371}% U+1EF9

51.2.16 General Punctuation: U+2000 to U+206F

17911 % U+200C ZERO WIDTH NON-JOINER; *afi61664, zerowidthnonjoiner
 17912 \DeclareTextCommand{\textcompwordmark}{PU}{\9040\014}% U+200C
 17913 % U+2013 EN DASH; endash
 17914 \DeclareTextCommand{\textendash}{PU}{\9040\023}% U+2013
 17915 % U+2014 EM DASH; emdash
 17916 \DeclareTextCommand{\textemdash}{PU}{\9040\024}% U+2014
 17917 % U+2016 DOUBLE VERTICAL LINE; dblverticalbar
 17918 \DeclareTextCommand{\textbardbl}{PU}{\9040\026}% U+2016
 17919 %* \textbardbl -> \textdoublevertline (tipa)
 17920 % U+2018 LEFT SINGLE QUOTATION MARK; quoteleft
 17921 \DeclareTextCommand{\textquoteleft}{PU}{\9040\030}% U+2018
 17922 % U+2019 RIGHT SINGLE QUOTATION MARK; quoteright
 17923 \DeclareTextCommand{\textquoteright}{PU}{\9040\031}% U+2019
 17924 % U+201A SINGLE LOW-9 QUOTATION MARK; quotesinglbase
 17925 \DeclareTextCommand{\quotesinglbase}{PU}{\9040\032}% U+201A
 17926 % U+201C LEFT DOUBLE QUOTATION MARK; quotedblleft
 17927 \DeclareTextCommand{\textquotedblleft}{PU}{\9040\034}% U+201C
 17928 % U+201D RIGHT DOUBLE QUOTATION MARK; quotedblright
 17929 \DeclareTextCommand{\textquotedblright}{PU}{\9040\035}% U+201D
 17930 % U+201E DOUBLE LOW-9 QUOTATION MARK; quotedblbase
 17931 \DeclareTextCommand{\quotedblbase}{PU}{\9040\036}% U+201E
 17932 % U+2020 DAGGER; dagger
 17933 \DeclareTextCommand{\textdagger}{PU}{\9040\040}%* U+2020
 17934 %* \textdagger -> \dag (LaTeX)
 17935 % U+2021 DOUBLE DAGGER; daggerdbl; \ddagger (LaTeX)
 17936 \DeclareTextCommand{\textdaggerdbl}{PU}{\9040\041}% U+2021
 17937 %* \textdaggerdbl -> \ddagger (LaTeX)
 17938 %* \textdaggerdbl -> \ddag (LaTeX)
 17939 % U+2022 BULLET; bullet
 17940 \DeclareTextCommand{\textbullet}{PU}{\9040\042}%* U+2022
 17941 % U+2025 TWO DOT LEADER; \hdotfor (MnSymbol)
 17942 \DeclareTextCommand{\texthdotfor}{PU}{\9040\045}%* U+2025
 17943 % U+2026 HORIZONTAL ELLIPSIS; ellipsis
 17944 \DeclareTextCommand{\textellipsis}{PU}{\9040\046}% U+2026

17945 %* \textellipsis -> \mathellipsis
 17946 % U+2030 PER MILLE SIGN; perthousand
 17947 \DeclareTextCommand{\textperthousand}{PU}{\9040\060}% U+2030
 17948 % U+2031 PER TEN THOUSAND SIGN
 17949 \DeclareTextCommand{\textpertenthousand}{PU}{\9040\061}% U+2031
 17950 % U+2032 PRIME; minute; \prime (MnSymbol)
 17951 \DeclareTextCommand{\textprime}{PU}{\9040\062}%* U+2032
 17952 % U+2033 DOUBLE PRIME; \second (mathabx)
 17953 \DeclareTextCommand{\textsecond}{PU}{\9040\063}%* U+2033
 17954 % U+2034 TRIPLE PRIME; \third (mathabx)
 17955 \DeclareTextCommand{\texttthird}{PU}{\9040\064}%* U+2034
 17956 % U+2035 REVERSED PRIME; \backprime (AmsS)
 17957 \DeclareTextCommand{\textbackprime}{PU}{\9040\065}%* U+2035
 17958 % U+2039 SINGLE LEFT-POINTING ANGLE QUOTATION MARK; guil-
 ingleft
 17959 \DeclareTextCommand{\guilsingleft}{PU}{\9040\071}% U+2039
 17960 % U+203A SINGLE RIGHT-POINTING ANGLE QUOTATION MARK; guil-
 ingright
 17961 \DeclareTextCommand{\guilsingright}{PU}{\9040\072}% U+203A
 17962 % U+203B REFERENCE MARK; referencemark
 17963 \DeclareTextCommand{\textreferencemark}{PU}{\9040\073}% U+203B
 17964 % U+203D INTERROBANG
 17965 \DeclareTextCommand{\textinterrobang}{PU}{\9040\075}% U+203D
 17966 % U+2044 FRACTION SLASH; fraction
 17967 \DeclareTextCommand{\textfractionsolidus}{PU}{\9040\104}% U+2044
 17968 % U+2045 LEFT SQUARE BRACKET WITH QUILL
 17969 \DeclareTextCommand{\textlquill}{PU}{\9040\105}% U+2045
 17970 % U+2046 RIGHT SQUARE BRACKET WITH QUILL
 17971 \DeclareTextCommand{\textrquill}{PU}{\9040\106}% U+2046
 17972 % U+2052 COMMERCIAL MINUS SIGN
 17973 \DeclareTextCommand{\textdiscount}{PU}{\9040\122}% U+2052
 17974 % U+2056 THREE DOT PUNCTUATION; \lefttherefore (MnSymbol)
 17975 \DeclareTextCommand{\textlefttherefore}{PU}{\9040\126}%* U+2056
 17976 % U+2057 QUADRUPLE PRIME; \fourth (mathabx)
 17977 \DeclareTextCommand{\textfourth}{PU}{\9040\127}%* U+2057
 17978 % U+2058 FOUR DOT PUNCTUATION; \diamonddots (MnSymbol)
 17979 \DeclareTextCommand{\textdiamonddots}{PU}{\9040\130}%* U+2058

51.2.17 Superscripts and Subscripts: U+2070 to U+209F

17980 % U+2070 SUPERSCRIPT ZERO; zerosuperior
 17981 \DeclareTextCommand{\textzerosuperior}{PU}{\9040\160}%* U+2070
 17982 % U+2071 SUPERSCRIPT LATIN SMALL LETTER I
 17983 \DeclareTextCommand{\textisuperior}{PU}{\9040\161}%* U+2071
 17984 % U+2074 SUPERSCRIPT FOUR; foursuperior
 17985 \DeclareTextCommand{\textfoursuperior}{PU}{\9040\164}%* U+2074
 17986 % U+2075 SUPERSCRIPT FIVE; fivesuperior
 17987 \DeclareTextCommand{\textfivesuperior}{PU}{\9040\165}%* U+2075
 17988 % U+2076 SUPERSCRIPT SIX; sixsuperior
 17989 \DeclareTextCommand{\textsixsuperior}{PU}{\9040\166}%* U+2076
 17990 % U+2077 SUPERSCRIPT SEVEN; sevensuperior
 17991 \DeclareTextCommand{\textsevensuperior}{PU}{\9040\167}%* U+2077
 17992 % U+2078 SUPERSCRIPT EIGHT; eightsuperior
 17993 \DeclareTextCommand{\texteightsuperior}{PU}{\9040\170}%* U+2078
 17994 % U+2079 SUPERSCRIPT NINE; ninesuperior
 17995 \DeclareTextCommand{\textninesuperior}{PU}{\9040\171}%* U+2079
 17996 % U+207A SUPERSCRIPT PLUS SIGN; plussuperior
 17997 \DeclareTextCommand{\textplussuperior}{PU}{\9040\172}%* U+207A

17998 % U+207B SUPERScript MINUS
 17999 \DeclareTextCommand{\textminussuperior}{PU}{\9040\173}%* U+207B
 18000 % U+207C SUPERScript EQUALS SIGN; equalsuperior
 18001 \DeclareTextCommand{\textequalsuperior}{PU}{\9040\174}%* U+207C
 18002 % U+207D SUPERScript LEFT PARENTHESIS; parenleftsuperior
 18003 \DeclareTextCommand{\textparenleftsuperior}{PU}{\9040\175}%* U+207D
 18004 % U+207E SUPERScript RIGHT PARENTHESIS; parenrightsuperior
 18005 \DeclareTextCommand{\textparenrightsuperior}{PU}{\9040\176}%* U+207E
 18006 % U+207F SUPERScript LATIN SMALL LETTER N; nsuperior
 18007 \DeclareTextCommand{\textnsuperior}{PU}{\9040\177}%* U+207F
 18008 % U+2080 SUBSCRIPT ZERO; zeroinferior
 18009 \DeclareTextCommand{\textzeroinferior}{PU}{\9040\200}%* U+2080
 18010 % U+2081 SUBSCRIPT ONE; oneinferior
 18011 \DeclareTextCommand{\textoneinferior}{PU}{\9040\201}%* U+2081
 18012 % U+2082 SUBSCRIPT TWO; twoinferior
 18013 \DeclareTextCommand{\texttwoinferior}{PU}{\9040\202}%* U+2082
 18014 % U+2083 SUBSCRIPT THREE; threeinferior
 18015 \DeclareTextCommand{\textthreeinferior}{PU}{\9040\203}%* U+2083
 18016 % U+2084 SUBSCRIPT FOUR; fourinferior
 18017 \DeclareTextCommand{\textfourinferior}{PU}{\9040\204}%* U+2084
 18018 % U+2085 SUBSCRIPT FIVE; fiveinferior
 18019 \DeclareTextCommand{\textfiveinferior}{PU}{\9040\205}%* U+2085
 18020 % U+2086 SUBSCRIPT SIX; sixinferior
 18021 \DeclareTextCommand{\textsixinferior}{PU}{\9040\206}%* U+2086
 18022 % U+2087 SUBSCRIPT SEVEN; seveninferior
 18023 \DeclareTextCommand{\textseveninferior}{PU}{\9040\207}%* U+2087
 18024 % U+2088 SUBSCRIPT EIGHT; eightinferior
 18025 \DeclareTextCommand{\texteightinferior}{PU}{\9040\210}%* U+2088
 18026 % U+2089 SUBSCRIPT NINE; nineinferior
 18027 \DeclareTextCommand{\textnineinferior}{PU}{\9040\211}%* U+2089
 18028 % U+208A SUBSCRIPT PLUS SIGN
 18029 \DeclareTextCommand{\textplusinferior}{PU}{\9040\212}%* U+208A
 18030 % U+208B SUBSCRIPT MINUS
 18031 \DeclareTextCommand{\textminusinferior}{PU}{\9040\213}%* U+208B
 18032 % U+208C SUBSCRIPT EQUALS SIGN
 18033 \DeclareTextCommand{\textequalsinferior}{PU}{\9040\214}%* U+208C
 18034 % U+208D SUBSCRIPT LEFT PARENTHESIS; parenleftinferior
 18035 \DeclareTextCommand{\textparenleftinferior}{PU}{\9040\215}%* U+208D
 18036 % U+208E SUBSCRIPT RIGHT PARENTHESIS; parenrightinferior
 18037 \DeclareTextCommand{\textparenrightinferior}{PU}{\9040\216}%* U+208E
 18038 % U+2090 LATIN SUBSCRIPT SMALL LETTER A
 18039 \DeclareTextCommand{\textainferior}{PU}{\9040\220}%* U+2090
 18040 % U+2091 LATIN SUBSCRIPT SMALL LETTER E
 18041 \DeclareTextCommand{\texteinferior}{PU}{\9040\221}%* U+2091
 18042 % U+2092 LATIN SUBSCRIPT SMALL LETTER O
 18043 \DeclareTextCommand{\textoinferior}{PU}{\9040\222}%* U+2092
 18044 % U+2093 LATIN SUBSCRIPT SMALL LETTER X
 18045 \DeclareTextCommand{\textxinferior}{PU}{\9040\223}%* U+2093
 18046 % U+2094 LATIN SUBSCRIPT SMALL LETTER SCHWA
 18047 \DeclareTextCommand{\textschwainferior}{PU}{\9040\224}%* U+2094
 18048 % U+2095 LATIN SUBSCRIPT SMALL LETTER H
 18049 \DeclareTextCommand{\texthinferior}{PU}{\9040\225}%* U+2095
 18050 % U+2096 LATIN SUBSCRIPT SMALL LETTER K
 18051 \DeclareTextCommand{\textkinferior}{PU}{\9040\226}%* U+2096
 18052 % U+2097 LATIN SUBSCRIPT SMALL LETTER L
 18053 \DeclareTextCommand{\textlinferior}{PU}{\9040\227}%* U+2097
 18054 % U+2098 LATIN SUBSCRIPT SMALL LETTER M

18055 \DeclareTextCommand{\textminferior}{PU}{\9040\230}%* U+2098
 18056 % U+2099 LATIN SUBSCRIPT SMALL LETTER N
 18057 \DeclareTextCommand{\textninferior}{PU}{\9040\231}%* U+2099
 18058 % U+209A LATIN SUBSCRIPT SMALL LETTER P
 18059 \DeclareTextCommand{\textpinferior}{PU}{\9040\232}%* U+209A
 18060 % U+209B LATIN SUBSCRIPT SMALL LETTER S
 18061 \DeclareTextCommand{\textsinferior}{PU}{\9040\233}%* U+209B
 18062 % U+209C LATIN SUBSCRIPT SMALL LETTER T
 18063 \DeclareTextCommand{\texttinferior}{PU}{\9040\234}%* U+209C

51.2.18 Currency Symbols: U+20A0 to U+20CF

18064 % U+20A1 COLON SIGN; *colonmonetary, colonsign
 18065 \DeclareTextCommand{\textcolonmonetary}{PU}{\9040\241}% U+20A1
 18066 % U+20A4 LIRA SIGN; afii08941, *lira
 18067 \DeclareTextCommand{\textlira}{PU}{\9040\244}% U+20A4
 18068 % U+20A6 NAIRA SIGN
 18069 \DeclareTextCommand{\textnaira}{PU}{\9040\246}% U+20A6
 18070 % U+20A7 PESETA SIGN; peseta
 18071 \DeclareTextCommand{\textpeseta}{PU}{\9040\247}% U+20A7
 18072 % U+20A9 WON SIGN; won
 18073 \DeclareTextCommand{\textwon}{PU}{\9040\251}% U+20A9
 18074 % U+20AB DONG SIGN; dong
 18075 \DeclareTextCommand{\textdong}{PU}{\9040\253}% U+20AB
 18076 % U+20AC EURO SIGN; *Euro, euro
 18077 \DeclareTextCommand{\texteuro}{PU}{\9040\254}% U+20AC
 18078 %* \texteuro -> \EurDig (marvosym)
 18079 %* \texteuro -> \EURdig (marvosym)
 18080 %* \texteuro -> \EurHv (marvosym)
 18081 %* \texteuro -> \EURhv (marvosym)
 18082 %* \texteuro -> \EurCr (marvosym)
 18083 %* \texteuro -> \EURcr (marvosym)
 18084 %* \texteuro -> \EurTm (marvosym)
 18085 %* \texteuro -> \EURtm (marvosym)
 18086 %* \texteuro -> \Eur (marvosym)
 18087 % U+20B0 GERMAN PENNY SIGN; \Deleatur (marvosym)
 18088 \DeclareTextCommand{\textDeleatur}{PU}{\9040\260}%* U+20B0
 18089 %* \textDeleatur -> \Denarius (marvosym)
 18090 % U+20B1 PESO SIGN
 18091 \DeclareTextCommand{\textpeso}{PU}{\9040\261}% U+20B1
 18092 % U+20B2 GUARANI SIGN
 18093 \DeclareTextCommand{\textguarani}{PU}{\9040\262}% U+20B2

51.2.19 Letterlike Symbols: U+2100 to U+214F

18094 % U+2103 DEGREE CELSIUS; centigrade
 18095 \DeclareTextCommand{\textcelsius}{PU}{\9041\003}% U+2103
 18096 % U+210F PLANCK CONSTANT OVER TWO PI; \hslash (AmS)
 18097 \DeclareTextCommand{\texthslash}{PU}{\9041\017}%* U+210F
 18098 % U+2111 BLACK-LETTER CAPITAL I (=imaginary part); Ifraktur; \Im (LaTeX)
 18099 \DeclareTextCommand{\textIm}{PU}{\9041\021}%* U+2111
 18100 % U+2113 SCRIPT SMALL L (=ell, liter); afii61289, lsquare; \ell (LaTeX)
 18101 \DeclareTextCommand{\textell}{PU}{\9041\023}%* U+2113
 18102 % U+2116 NUMERO SIGN; *afii61352, numero
 18103 \DeclareTextCommand{\textnumero}{PU}{\9041\026}% U+2116
 18104 % U+2117 SOUND RECORDING COPYRIGHT
 18105 \DeclareTextCommand{\textcircledP}{PU}{\9041\027}% U+2117
 18106 % U+2118 SCRIPT CAPITAL P (=Weierstrass elliptic function);

18107 % weierstrass; \wp (LaTeX)
 18108 \DeclareTextCommand{\textwp}{PU}{\9041\030}%* U+2118
 18109 % U+211C BLACK-LETTER CAPITAL R (=real part); Rfraktur; \Re (LaTeX)
 18110 \DeclareTextCommand{\textRe}{PU}{\9041\034}%* U+211C
 18111 % U+211E PRESCRIPTION TAKE; prescription
 18112 \DeclareTextCommand{\textrecipe}{PU}{\9041\036}% U+211E
 18113 % U+2120 SERVICE MARK
 18114 \DeclareTextCommand{\textservicemark}{PU}{\9041\040}% U+2120
 18115 % U+2122 TRADE MARK SIGN; trademark
 18116 \DeclareTextCommand{\texttrademark}{PU}{\9041\042}% U+2122
 18117 % U+2126 OHM SIGN; Ohm, Omega
 18118 \DeclareTextCommand{\textohm}{PU}{\9041\046}% U+2126
 18119 % U+2127 INVERTED OHM SIGN
 18120 \DeclareTextCommand{\textmho}{PU}{\9041\047}%* U+2127
 18121 %* \textmho -> \agemO (wasysym)
 18122 % U+2129 TURNED GREEK SMALL LETTER IOTA; \riota (phonetic)
 18123 \DeclareTextCommand{\textriota}{PU}{\9041\051}%* U+2129
 18124 % U+212B ANGSTROM SIGN; angstrom
 18125 \DeclareTextCommand{\textangstrom}{PU}{\9041\053}% U+212B
 18126 % U+212E ESTIMATED SYMBOL; estimated
 18127 \DeclareTextCommand{\textestimated}{PU}{\9041\056}% U+212E
 18128 %* \textestimated -> \EstimatedSign (marvosym)
 18129 %* \textestimated -> \Ecommerce (marvosym)
 18130 % U+2132 TURNED CAPITAL F; \Finv (AmS)
 18131 \DeclareTextCommand{\textFinv}{PU}{\9041\062}%* U+2132
 18132 % U+2135 ALEF SYMBOL; aleph; \aleph (LaTeX)
 18133 \DeclareTextCommand{\textaleph}{PU}{\9041\065}%* U+2135
 18134 % U+2136 BET SYMBOL; \beth (AmS, MnSymbol)
 18135 \DeclareTextCommand{\textbeth}{PU}{\9041\066}%* U+2136
 18136 % U+2137 GIMEL SYMBOL; \gimel (AmS, MnSymbol)
 18137 \DeclareTextCommand{\textgimel}{PU}{\9041\067}%* U+2137
 18138 % U+2138 DALET SYMBOL; \daleth (AmS, MnSymbol)
 18139 \DeclareTextCommand{\textdaleth}{PU}{\9041\070}%* U+2138
 18140 % U+213B FACSIMILE SIGN; \fax (marvosym)
 18141 \DeclareTextCommand{\textfax}{PU}{\9041\073}%* U+213B
 18142 % U+2141 TURNED SANS-SERIF CAPITAL G (=game); \Game
 18143 \DeclareTextCommand{\textGame}{PU}{\9041\101}%* U+2141
 18144 % U+214B TURNED AMPERSAND; \invamp (txfonts/pxfonts)
 18145 \DeclareTextCommand{\textinvamp}{PU}{\9041\113}% U+214B
 18146 %* \textinvamp -> \bindnasrepma (stmaryrd)
 18147 %* \textinvamp -> \parr (cml)

51.2.20 Number Forms: U+2150 to U+218F

18148 % U+2150 VULGAR FRACTION ONE SEVENTH
 18149 \DeclareTextCommand{\textoneseventh}{PU}{\9041\120}% U+2150
 18150 % U+2151 VULGAR FRACTION ONE NINTH
 18151 \DeclareTextCommand{\textoneninth}{PU}{\9041\121}% U+2151
 18152 % U+2152 VULGAR FRACTION ONE TENTH
 18153 \DeclareTextCommand{\textonetenth}{PU}{\9041\122}% U+2152
 18154 % U+2153 VULGAR FRACTION ONE THIRD; onethird
 18155 \DeclareTextCommand{\textonethird}{PU}{\9041\123}% U+2153
 18156 % U+2154 VULGAR FRACTION TWO THIRDS; twothirds
 18157 \DeclareTextCommand{\texttwothirds}{PU}{\9041\124}% U+2154
 18158 % U+2155 VULGAR FRACTION ONE FIFTH
 18159 \DeclareTextCommand{\textonefifth}{PU}{\9041\125}% U+2155
 18160 % U+2156 VULGAR FRACTION TWO FIFTHS
 18161 \DeclareTextCommand{\texttwofifths}{PU}{\9041\126}% U+2156

18162 % U+2157 VULGAR FRACTION THREE FIFTHS
 18163 \DeclareTextCommand{\textthreefifths}{PU}{\9041\127}% U+2157
 18164 % U+2158 VULGAR FRACTION FOUR FIFTHS
 18165 \DeclareTextCommand{\textfourfifths}{PU}{\9041\130}% U+2158
 18166 % U+2159 VULGAR FRACTION ONE SIXTH
 18167 \DeclareTextCommand{\textonesixth}{PU}{\9041\131}% U+2159
 18168 % U+215A VULGAR FRACTION FIVE SIXTHS
 18169 \DeclareTextCommand{\textfivesixths}{PU}{\9041\132}% U+215A
 18170 % U+215B VULGAR FRACTION ONE EIGHTH; oneeighth
 18171 \DeclareTextCommand{\textoneeighth}{PU}{\9041\133}% U+215B
 18172 % U+215C VULGAR FRACTION THREE EIGHTHS; threeeighths
 18173 \DeclareTextCommand{\textthreeeighths}{PU}{\9041\134}% U+215C
 18174 % U+215D VULGAR FRACTION FIVE EIGHTHS; fiveeighths
 18175 \DeclareTextCommand{\textfiveeighths}{PU}{\9041\135}% U+215D
 18176 % U+215E VULGAR FRACTION SEVEN EIGHTHS; seveneighths
 18177 \DeclareTextCommand{\textseveneighths}{PU}{\9041\136}% U+215E
 18178 % U+2184 LATIN SMALL LETTER REVERSED C
 18179 \DeclareTextCommand{\textrevc}{PU}{\9041\204}% U+2184
 18180 % U+2189 VULGAR FRACTION ZERO THIRDS
 18181 \DeclareTextCommand{\textzer thirds}{PU}{\9041\211}% U+2189

51.2.21 Arrows: U+2190 to U+21FF

18182 % U+2190 LEFTWARDS ARROW; arrowleft
 18183 \DeclareTextCommand{\textleftarrow}{PU}{\9041\220}%* U+2190
 18184 % U+2191 UPWARDS ARROW; arrowup
 18185 \DeclareTextCommand{\textuparrow}{PU}{\9041\221}%* U+2191
 18186 % U+2192 RIGHTWARDS ARROW; arrowright
 18187 \DeclareTextCommand{\textrightarrow}{PU}{\9041\222}%* U+2192
 18188 %* \textrightarrow -> \MVRightArrow (marvosym)
 18189 %* \textrightarrow -> \MVRightarrow (marvosym)
 18190 % U+2193 DOWNWARDS ARROW; arrowdown
 18191 \DeclareTextCommand{\textdownarrow}{PU}{\9041\223}%* U+2193
 18192 %* \textdownarrow -> \MVArrowDown (marvosym)
 18193 %* \textdownarrow -> \Force (marvosym)
 18194 % U+2194 LEFT RIGHT ARROW; arrowboth; \leftrightarrow (LaTeX)
 18195 \DeclareTextCommand{\textleftrightarrow}{PU}{\9041\224}%* U+2194
 18196 % U+2195 UP DOWN ARROW; arrowupdn; \updownarrow (LaTeX)
 18197 \DeclareTextCommand{\textupdownarrow}{PU}{\9041\225}%* U+2195
 18198 % U+2196 NORTH WEST ARROW; arrowupleft; \nwarrow (LaTeX)
 18199 \DeclareTextCommand{\textnwarrow}{PU}{\9041\226}%* U+2196
 18200 % U+2197 NORTH EAST ARROW; arrowupright; \nearrow (LaTeX)
 18201 \DeclareTextCommand{\textnearrow}{PU}{\9041\227}%* U+2197
 18202 %* \textnearrow -> \textglobrise (tipa)
 18203 % U+2198 SOUTH EAST ARROW; arrowdownright; \searrow (LaTeX)
 18204 \DeclareTextCommand{\textsearrow}{PU}{\9041\230}%* U+2198
 18205 %* \textsearrow -> \textglobfall (tipa)
 18206 % U+2199 SOUTH WEST ARROW; arrowdownleft; \swarrow (LaTeX)
 18207 \DeclareTextCommand{\textswarrow}{PU}{\9041\231}%* U+2199
 18208 % U+219A LEFTWARDS ARROW WITH STROKE; \nleftarrow (AmS)
 18209 \DeclareTextCommand{\textnleftarrow}{PU}{\9041\232}%* U+219A
 18210 % U+219B RIGHTWARDS ARROW WITH STROKE; \nrightarrow (AmS)
 18211 \DeclareTextCommand{\textnrightarrow}{PU}{\9041\233}%* U+219B
 18212 % U+219E LEFTWARDS TWO HEADED ARROW; \twoheadleftarrow (AmS)
 18213 \DeclareTextCommand{\texttwoheadleftarrow}{PU}{\9041\236}%* U+219E
 18214 % \ntwoheadleftarrow (txfonts/pxfonts)
 18215 \DeclareTextCommand{\textntwoheadleftarrow}{PU}{\9041\236\83\070}%* U+219E U+0338
 18216 % U+219F UPWARDS TWO HEADED ARROW; \twoheaduparrow (MnSymbol)

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18217 \DeclareTextCommand{\texttwoheaduparrow}{PU}{\9041\237}%* U+219F
18218 % U+21A0 RIGHTWARDS TWO HEADED ARROW;
18219 % \twoheadrightarrow (AmS)
18220 \DeclareTextCommand{\texttwoheadrightarrow}{PU}{\9041\240}%* U+21A0
18221 % \ntwoheadrightarrow (txfonts/pxfonts)
18222 \DeclareTextCommand{\textntwoheadrightarrow}{PU}{\9041\240\83\070}%* U+21A0 U+0338
18223 % U+21A1 DOWNWARDS TWO HEADED ARROW; \twoheaddownarrow (Mn-
      Symbol)
18224 \DeclareTextCommand{\texttwoheaddownarrow}{PU}{\9041\241}%* U+21A1
18225 % U+21A2 LEFTWARDS ARROW WITH TAIL; \leftarrowtail (AmS)
18226 \DeclareTextCommand{\textleftarrowtail}{PU}{\9041\242}%* U+21A2
18227 % U+21A3 RIGHTWARDS ARROW WITH TAIL; \rightarrowtail (AmS)
18228 \DeclareTextCommand{\textrightarrowtail}{PU}{\9041\243}%* U+21A3
18229 % U+21A6 RIGHTWARDS ARROW FROM BAR; \mapsto (LaTeX)
18230 \DeclareTextCommand{\textmapsto}{PU}{\9041\246}%* U+21A6
18231 % U+21A9 LEFTWARDS ARROW WITH HOOK; \hookleftarrow (LaTeX)
18232 \DeclareTextCommand{\texthookleftarrow}{PU}{\9041\251}%* U+21A9
18233 % U+21AA RIGHTWARDS ARROW WITH HOOK; \hookrightarrow (LaTeX)
18234 \DeclareTextCommand{\texthookrightarrow}{PU}{\9041\252}%* U+21AA
18235 % U+21AB LEFTWARDS ARROW WITH LOOP; \looparrowleft (AmS)
18236 \DeclareTextCommand{\textlooparrowleft}{PU}{\9041\253}%* U+21AB
18237 % U+21AC RIGHTWARDS ARROW WITH LOOP; \looparrowright (AmS)
18238 \DeclareTextCommand{\textlooparrowright}{PU}{\9041\254}%* U+21AC
18239 % U+21AE LEFT RIGHT ARROW WITH STROKE; \leftrightarrows (AmS)
18240 \DeclareTextCommand{\textleftrightarrows}{PU}{\9041\256}%* U+21AE
18241 % U+21AF DOWNWARDS ZIGZAG ARROW; \lightning (stmaryrd)
18242 \DeclareTextCommand{\textlightning}{PU}{\9041\257}%* U+21AF
18243 %* \textlightning -> \Lightning (marvosym)
18244 % U+21B5 DOWNWARDS ARROW WITH CORNER LEFTWARDS;
18245 % \dls (mathabx)
18246 \DeclareTextCommand{\textdls}{PU}{\9041\265}%* U+21B5
18247 % U+21B6 ANTICLOCKWISE TOP SEMICIRCLE ARROW;
18248 % \curvearrowleft (AmS)
18249 \DeclareTextCommand{\textcurvearrowleft}{PU}{\9041\266}%* U+21B6
18250 % U+21B7 CLOCKWISE TOP SEMICIRCLE ARROW; \curvearrowright (AmS)
18251 \DeclareTextCommand{\textcurvearrowright}{PU}{\9041\267}%* U+21B7
18252 % U+21BC LEFTWARDS HARPOON WITH BARB UPWARDS; harpoonleft-
      barbup;
18253 % \leftharpoonup (LaTeX)
18254 \DeclareTextCommand{\textleftharpoonup}{PU}{\9041\274}%* U+21BC
18255 % U+21BD LEFTWARDS HARPOON WITH BARB DOWNWARDS;
18256 % \leftharpoondown (LaTeX)
18257 \DeclareTextCommand{\textleftharpoondown}{PU}{\9041\275}%* U+21BD
18258 % U+21BE UPWARDS HARPOON WITH BARB RIGHTWARDS;
18259 % \upharpoonright (AmS)
18260 \DeclareTextCommand{\textupharpoonright}{PU}{\9041\276}%* U+21BE
18261 % U+21BF UPWARDS HARPOON WITH BARB LEFTWARDS;
18262 % \upharpoonleft (AmS)
18263 \DeclareTextCommand{\textupharpoonleft}{PU}{\9041\277}%* U+21BF
18264 % U+21C0 RIGHTWARDS HARPOON WITH BARB UPWARDS; harpoonright-
      barbup
18265 % \rightharpoonup (LaTeX)
18266 \DeclareTextCommand{\textrightharpoonup}{PU}{\9041\300}%* U+21C0
18267 % U+21C1 RIGHTWARDS HARPOON WITH BARB DOWNWARDS;
18268 % \rightharpoondown (LaTeX)
18269 \DeclareTextCommand{\textrightharpoondown}{PU}{\9041\301}%* U+21C1
18270 % U+21C2 DOWNWARDS HARPOON WITH BARB RIGHTWARDS;

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18271 % \downharpoonright (AmS)
18272 \DeclareTextCommand{\textdownharpoonright}{PU}{\9041\302}%* U+21C2
18273 % U+21C3 DOWNWARDS HARPOON WITH BARB LEFTWARDS;
18274 % \downharpoonleft (AmS)
18275 \DeclareTextCommand{\textdownharpoonleft}{PU}{\9041\303}%* U+21C3
18276 % U+21C4 RIGHTWARDS ARROW OVER LEFTWARDS ARROW;
18277 % arrowrightoverleft; \rightleftarrows (MnSymbol)
18278 \DeclareTextCommand{\textrightleftarrows}{PU}{\9041\304}%* U+21C4
18279 % U+21C5 UPWARDS ARROW LEFTWARDS OF DOWNWARDS ARROW; arrowupleftofdown;
18280 % \updownarrows (MnSymbol)
18281 \DeclareTextCommand{\textupdownarrows}{PU}{\9041\305}%* U+21C5
18282 % U+21C6 LEFTWARDS ARROW OVER RIGHTWARDS ARROW; arrowleft-
      overright;
18283 % \leftrightharrows (AmS)
18284 \DeclareTextCommand{\textleftrightharrows}{PU}{\9041\306}%* U+21C6
18285 % U+21C7 LEFTWARDS PAIRED ARROWS; \leftleftarrows (AmS)
18286 \DeclareTextCommand{\textleftleftarrows}{PU}{\9041\307}%* U+21C7
18287 % U+21C8 UPWARDS PAIRED ARROWS; \upuparrows (AmS)
18288 \DeclareTextCommand{\textupuparrows}{PU}{\9041\310}%* U+21C8
18289 % U+21C9 RIGHTWARDS PAIRED ARROWS; \rightrightarrows (AmS)
18290 \DeclareTextCommand{\textrightarrows}{PU}{\9041\311}%* U+21C9
18291 % U+21CA DOWNWARDS PAIRED ARROWS; \downdownarrows (AmS)
18292 \DeclareTextCommand{\textdowndownarrows}{PU}{\9041\312}%* U+21CA
18293 % U+21CB LEFTWARDS HARPOON OVER RIGHTWARDS HARPOON;
18294 % \leftrightharpoons (AmS);
18295 \DeclareTextCommand{\textleftrightharpoons}{PU}{\9041\313}%* U+21CB
18296 % U+21CC RIGHTWARDS HARPOON OVER LEFTWARDS HARPOON;
18297 % \rightleftharpoons (LaTeX, AmS)
18298 \DeclareTextCommand{\textrightleftharpoons}{PU}{\9041\314}%* U+21CC
18299 % U+21CD LEFTWARDS DOUBLE ARROW WITH STROKE; arrowleftd-
      blstroke;
18300 % \nLeftarrow (AmS)
18301 \DeclareTextCommand{\textnLeftarrow}{PU}{\9041\315}%* U+21CD
18302 % U+21CE LEFT RIGHT DOUBLE ARROW WITH STROKE; \nLeftrightarrow (AmS)
18303 \DeclareTextCommand{\textnLeftrightarrow}{PU}{\9041\316}%* U+21CE
18304 % U+21CF RIGHTWARDS DOUBLE ARROW WITH STROKE; arrowrightd-
      blstroke;
18305 % \nRightarrow (AmS)
18306 \DeclareTextCommand{\textnRightarrow}{PU}{\9041\317}%* U+21CF
18307 % U+21D0 LEFTWARDS DOUBLE ARROW; arrowdblleft, arrowleftdbl;
18308 % \Leftarrow (LaTeX)
18309 \DeclareTextCommand{\textLeftarrow}{PU}{\9041\320}%* U+21D0
18310 % U+21D1 UPWARDS DOUBLE ARROW; arrowdblup; \Uparrow (LaTeX)
18311 \DeclareTextCommand{\textUparrow}{PU}{\9041\321}%* U+21D1
18312 % U+21D2 RIGHTWARDS DOUBLE ARROW; arrowdblright, dblarrowright;
18313 % \Rightarrow (LaTeX)
18314 \DeclareTextCommand{\textRightarrow}{PU}{\9041\322}%* U+21D2
18315 %* \textRightarrow -> \Conclusion (marvosym)
18316 % U+21D3 DOWNWARDS DOUBLE ARROW; arrowdbldown; \Downarrow (LaTeX)
18317 \DeclareTextCommand{\textDownarrow}{PU}{\9041\323}%* U+21D3
18318 % U+21D4 LEFT RIGHT DOUBLE ARROW; arrowdblboth;
18319 % \Leftrightarrow (LaTeX)
18320 \DeclareTextCommand{\textLeftrightarrow}{PU}{\9041\324}%* U+21D4
18321 %* \textLeftrightarrow -> \Equivalence (marvosym)

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18322 % U+21D5 UP DOWN DOUBLE ARROW; \Updownarrow (LaTeX)
 18323 \DeclareTextCommand{\textUpdownarrow}{PU}{\9041\325}%* U+21D5
 18324 % U+21D6 NORTH WEST DOUBLE ARROW; \Nwarrow (MnSymbol)
 18325 \DeclareTextCommand{\textNwarrow}{PU}{\9041\326}%* U+21D6
 18326 % U+21D7 NORTH EAST DOUBLE ARROW; \Nearrow (MnSymbol)
 18327 \DeclareTextCommand{\textNearrow}{PU}{\9041\327}%* U+21D7
 18328 % U+21D8 SOUTH EAST DOUBLE ARROW; \Searrow (MnSymbol)
 18329 \DeclareTextCommand{\textSearrow}{PU}{\9041\330}%* U+21D8
 18330 % U+21D9 SOUTH WEST DOUBLE ARROW; \Swarrow (MnSymbol)
 18331 \DeclareTextCommand{\textSwarrow}{PU}{\9041\331}%* U+21D9
 18332 % U+21DA LEFTWARDS TRIPLE ARROW; \Lleftarrow (AmS)
 18333 \DeclareTextCommand{\textLleftarrow}{PU}{\9041\332}%* U+21DA
 18334 % U+21DB RIGHTWARDS TRIPLE ARROW; \Rrightarrow (MnSymbol)
 18335 \DeclareTextCommand{\textRrightarrow}{PU}{\9041\333}%* U+21DB
 18336 % U+21DC LEFTWARDS SQUIGGLE ARROW; \leftsquigarrow (mathabx)
 18337 \DeclareTextCommand{\textleftsquigarrow}{PU}{\9041\334}%* U+21DC
 18338 % U+21DD RIGHTWARDS SQUIGGLE ARROW; \rightsquigarrow (mathabx)
 18339 \DeclareTextCommand{\textrightarrow}{PU}{\9041\335}%* U+21DD
 18340 % U+21E0 LEFTWARDS DASHED ARROW; \dashrightarrow;
 18341 % \dashleftarrow (AmS)
 18342 \DeclareTextCommand{\textdashrightarrow}{PU}{\9041\340}%* U+21E0
 18343 %* \dashrightarrow -> \dashedrightarrow (MnSymbol)
 18344 % U+21E1 UPWARDS DASHED ARROW; \dashup; \dasheduparrow (Mn-
 Symbol)
 18345 \DeclareTextCommand{\textdasheduparrow}{PU}{\9041\341}%* U+21E1
 18346 % U+21E2 RIGHTWARDS DASHED ARROW; \dashrightarrow;
 \dashrightarrow (AmS)
 18347 \DeclareTextCommand{\textdashrightarrow}{PU}{\9041\342}%* U+21E2
 18348 %* \dashrightarrow -> \dashedrightarrow (MnSymbol)
 18349 % U+21E3 DOWNWARDS DASHED ARROW; \dashrightarrow;
 \dashrightarrow (MnSymbol)
 18350 \DeclareTextCommand{\textdashedrightarrow}{PU}{\9041\343}%* U+21E3
 18351 % U+21E8 RIGHTWARDS WHITE ARROW; \pointer (wasysym)
 18352 \DeclareTextCommand{\textpointer}{PU}{\9041\350}%* U+21E8
 18353 % U+21F5 DOWNWARDS ARROW LEFTWARDS OF UPWARDS ARROW;
 18354 % \downuparrows (MnSymbol)
 18355 \DeclareTextCommand{\textdownuparrows}{PU}{\9041\365}%* U+21F5
 18356 % U+21FD LEFTWARDS OPEN-HEADED ARROW; \leftarrowtriangle (stmaryrd)
 18357 \DeclareTextCommand{\textleftarrowtriangle}{PU}{\9041\375}%* U+21FD
 18358 % U+21FE RIGHTWARDS OPEN-HEADED ARROW; \rightarrowtriangle (stmaryrd)
 18359 \DeclareTextCommand{\textrightarrowtriangle}{PU}{\9041\376}%* U+21FE
 18360 % U+21FF LEFT RIGHT OPEN-HEADED ARROW; \leftrightarrowtriangle-
 gle (stmaryrd)
 18361 \DeclareTextCommand{\textleftrightarrowtriangle}{PU}{\9041\377}%* U+21FF

51.2.22 Mathematical Operators: U+2200 to U+22FF

18362 % U+2200 FOR ALL; forall; \forall (LaTeX)
 18363 \DeclareTextCommand{\textforall}{PU}{\9042\000}%* U+2200
 18364 % U+2201 COMPLEMENT; \complement (AmS)
 18365 \DeclareTextCommand{\textcomplement}{PU}{\9042\001}%* U+2201
 18366 % U+2202 PARTIAL DIFFERENTIAL; partialdiff; \partial (LaTeX)
 18367 \DeclareTextCommand{\textpartial}{PU}{\9042\002}%* U+2202
 18368 % U+2203 THERE EXISTS; existential; \exists (LaTeX)
 18369 \DeclareTextCommand{\textexists}{PU}{\9042\003}%* U+2203
 18370 % U+2204 THERE DOES NOT EXIST; \nexists (AmS)
 18371 \DeclareTextCommand{\textnexists}{PU}{\9042\004}%* U+2204
 18372 % U+2205 EMPTY SET; emptyset; \emptyset (LaTeX), \varnothing (AmS)

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18373 \DeclareTextCommand{\textemptyset}{PU}{\9042\005}%* U+2205
18374 %* \textemptyset -> \varnothing (AmS)
18375 % U+2206 INCREMENT; increment, Delta; \triangle (LaTeX)
18376 \DeclareTextCommand{\texttriangle}{PU}{\9042\006}%* U+2206
18377 % U+2207 NABLA; nabla, gradient; \nabla (LaTeX)
18378 \DeclareTextCommand{\textnabla}{PU}{\9042\007}%* U+2207
18379 % U+2208 ELEMENT OF; element; \in (LaTeX)
18380 \DeclareTextCommand{\textin}{PU}{\9042\010}%* U+2208
18381 % U+2209 NOT AN ELEMENT OF; notelement, notelementof; \notin (LaTeX)
18382 \DeclareTextCommand{\textnotin}{PU}{\9042\011}%* U+2209
18383 % U+220A SMALL ELEMENT OF; \smallin (mathdesign)
18384 \DeclareTextCommand{\textsmallin}{PU}{\9042\012}%* U+220A
18385 % U+220B CONTAINS AS MEMBER; suchthat; \ni (LaTeX)
18386 \DeclareTextCommand{\textni}{PU}{\9042\013}%* U+220B
18387 %* \textni -> \owns (mathabx)
18388 % U+220C DOES NOT CONTAIN AS MEMBER; \notowner (mathabx)
18389 \DeclareTextCommand{\textnotowner}{PU}{\9042\014}%* U+220C
18390 %* \textnotowner -> \notni (txfonts/pxfonts)
18391 % U+220D SMALL CONTAINS AS MEMBER; \smallowns (mathdesign)
18392 \DeclareTextCommand{\textsmallowns}{PU}{\9042\015}%* U+220D
18393 % U+220F N-ARY PRODUCT; \prod (LaTeX)
18394 \DeclareTextCommand{\textprod}{PU}{\9042\017}%* U+220F
18395 % U+2210 N-ARY COPRODUCT; \amalg (LaTeX)
18396 \DeclareTextCommand{\textamalg}{PU}{\9042\020}%* U+2210
18397 % U+2211 N-ARY SUMMATION; summation; \sum (LaTeX)
18398 \DeclareTextCommand{\textsum}{PU}{\9042\021}%* U+2211
18399 % U+2212 MINUS SIGN; minus
18400 \DeclareTextCommand{\textminus}{PU}{\9042\022}% U+2212
18401 % U+2213 MINUS-OR-PLUS SIGN; minusplus; \mp (LaTeX)
18402 \DeclareTextCommand{\textmp}{PU}{\9042\023}%* U+2213
18403 % U+2214 DOT PLUS; \dotplus (AmS)
18404 \DeclareTextCommand{\textdotplus}{PU}{\9042\024}%* U+2214
18405 % U+2215 DIVISION SLASH; divisionslash; \Divides (marvosym)
18406 \DeclareTextCommand{\textDivides}{PU}{\9042\025}%* U+2215
18407 % \DividesNot (marvosym)
18408 \DeclareTextCommand{\textDividesNot}{PU}{\9042\025\9040\322}%* U+2215 U+20D2
18409 % U+2216 SET MINUS; \setminus (LaTeX)
18410 \DeclareTextCommand{\textsetminus}{PU}{\9042\026}%* U+2216
18411 % U+2217 ASTERISK OPERATOR; asteriskmath; \ast (LaTeX)
18412 \DeclareTextCommand{\textast}{PU}{\9042\027}%* U+2217
18413 % U+2218 RING OPERATOR; \circ (LaTeX)
18414 \DeclareTextCommand{\textcirc}{PU}{\9042\030}%* U+2218
18415 % U+2219 BULLET OPERATOR; bulletoperator; \bullet (LaTeX)
18416 \DeclareTextCommand{\textbulletoperator}{PU}{\9042\031}% U+2219
18417 % U+221A SQUARE ROOT; radical
18418 \DeclareTextCommand{\textsqrt}{PU}{\9042\032}%* U+221A
18419 % U+221D PROPORTIONAL TO; proportional; \propto (LaTeX)
18420 \DeclareTextCommand{\textpropto}{PU}{\9042\035}%* U+221D
18421 %* \textpropto -> \varprop (wasysym)
18422 % U+221E INFINITY; infinity; \infty (LaTeX)
18423 \DeclareTextCommand{\textinfty}{PU}{\9042\036}%* U+221E
18424 % U+2220 ANGLE; angle; \angle (LaTeX)
18425 \DeclareTextCommand{\textangle}{PU}{\9042\040}%* U+2220
18426 % U+2221 MEASURED ANGLE; \measuredangle (mathabx, MnSymbol)
18427 \DeclareTextCommand{\textmeasuredangle}{PU}{\9042\041}%* U+2221
18428 % U+2222 SPHERICAL ANGLE; \sphericalangle (AmS)
18429 \DeclareTextCommand{\textsphericalangle}{PU}{\9042\042}%* U+2222

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18430 %* \textsphericalangle -> \varangle (wasysym)
18431 %* \textsphericalangle -> \Anglesign (marvosym)
18432 %* \textsphericalangle -> \AngleSign (marvosym)
18433 % U+2223 DIVIDES; divides; \mid (LaTeX)
18434 \DeclareTextCommand{\textmid}{PU}{\9042\043}%* U+2223
18435 % U+2224 DOES NOT DIVIDE; \nmid (AmS)
18436 \DeclareTextCommand{\textnmid}{PU}{\9042\044}%* U+2224
18437 %* \textnmid -> \notdivides (mathabx)
18438 % U+2225 PARALLEL TO; parallel; \parallel (LaTeX)
18439 \DeclareTextCommand{\textparallel}{PU}{\9042\045}%* U+2225
18440 % U+2226 NOT PARALLEL TO; notparallel; \nparallel (AmS)
18441 \DeclareTextCommand{\textnparallel}{PU}{\9042\046}%* U+2226
18442 %* \textnparallel -> nUpdownline (MnSymbol)
18443 % U+2227 LOGICAL AND; logicaland; \wedge (LaTeX)
18444 \DeclareTextCommand{\textwedge}{PU}{\9042\047}%* U+2227
18445 % \owedge (stmaryrd)
18446 \DeclareTextCommand{\textowedge}{PU}{\9042\047\9040\335}%* U+2227 U+20DD
18447 %* \textowedge -> \varowedge (stmaryrd)
18448 % U+2228 LOGICAL OR; logicalor; \vee (LaTeX)
18449 \DeclareTextCommand{\textvee}{PU}{\9042\050}%* U+2228
18450 % \ovee (stmaryrd)
18451 \DeclareTextCommand{\textovee}{PU}{\9042\050\9040\335}%* U+2228 U+20DD
18452 %* \textovee -> \varovee (stmaryrd)
18453 % U+2229 INTERSECTION; intersection; \cap (LaTeX)
18454 \DeclareTextCommand{\textcap}{PU}{\9042\051}%* U+2229
18455 % U+222A UNION; union; \cup (LaTeX)
18456 \DeclareTextCommand{\textcup}{PU}{\9042\052}%* U+222A
18457 % U+222B INTEGRAL; integral; \int (LaTeX)
18458 \DeclareTextCommand{\textint}{PU}{\9042\053}%* U+222B
18459 %* \textint -> \varint (wasysym)
18460 % U+222C DOUBLE INTEGRAL; dblintegral; \iint (AmS)
18461 \DeclareTextCommand{\textiint}{PU}{\9042\054}%* U+222C
18462 % U+222D TRIPLE INTEGRAL; \iiint (AmS)
18463 \DeclareTextCommand{\textiiint}{PU}{\9042\055}%* U+222D
18464 % U+222E CONTOUR INTEGRAL; contourintegral; \oint (LaTeX)
18465 \DeclareTextCommand{\textoint}{PU}{\9042\056}%* U+222E
18466 %* \textoint -> \varoint (wasysym)
18467 % U+222F SURFACE INTEGRAL; \oiint (wasysym)
18468 \DeclareTextCommand{\textoiint}{PU}{\9042\057}%* U+222F
18469 % U+2232 CLOCKWISE CONTOUR INTEGRAL;
18470 % \ointclockwise (txfonts/pxfonts)
18471 \DeclareTextCommand{\textointclockwise}{PU}{\9042\062}%* U+2232
18472 % U+2233 ANTICLOCKWISE CONTOUR INTEGRAL; \ointctrclockwise (tx-
    fonts/pxfonts)
18473 \DeclareTextCommand{\textointctrclockwise}{PU}{\9042\063}%* U+2233
18474 % U+2234 THEREFORE; therefore; \therefore (AmS)
18475 \DeclareTextCommand{\texttherefore}{PU}{\9042\064}%* U+2234
18476 %* \texttherefore -> uptherefore (MnSymbol)
18477 % U+2235 BECAUSE; because; \because (AmS)
18478 \DeclareTextCommand{\textbecause}{PU}{\9042\065}%* U+2235
18479 %* \textbecause -> \downtherefore (MnSymbol)
18480 % U+2236 RATIO; \vdotdot (MnSymbol)
18481 \DeclareTextCommand{\textvdotdot}{PU}{\9042\066}%* U+2236
18482 % U+2237 PROPORTION; \squaredots (MnSymbol)
18483 \DeclareTextCommand{\textsquaredots}{PU}{\9042\067}%* U+2237
18484 % U+2238 DOT MINUS; \dotminus (MnSymbol)
18485 \DeclareTextCommand{\textdotminus}{PU}{\9042\070}%* U+2238

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18486 %* \textdotminus -> \textdotdiv (mathabx)
18487 % U+2239 EXCESS; \eqcolon (txfonts/pxfonts)
18488 \DeclareTextCommand{\texteqcolon}{PU}{\9042\071}%* U+2239
18489 % U+223C TILDE OPERATOR; similar; \sim (LaTeX)
18490 \DeclareTextCommand{\textsim}{PU}{\9042\074}%* U+223C
18491 %* \textsim -> \AC (wasysym)
18492 % U+223D REVERSED TILDE; reversedtilde; \backsim (AmS)
18493 \DeclareTextCommand{\textbacksim}{PU}{\9042\075}%* U+223D
18494 % \backsim (txfonts/pxfonts)
18495 \DeclareTextCommand{\textnbacksim}{PU}{\9042\075\83\070}%* U+223D U+0338
18496 % U+2240 WREATH PRODUCT; \wr (LaTeX)
18497 \DeclareTextCommand{\textwr}{PU}{\9042\100}%* U+2240
18498 %* \textwr -> \wreath (MnSymbol)
18499 % U+2241 NOT TILDE; \nsim (AmS)
18500 \DeclareTextCommand{\textnsim}{PU}{\9042\101}%* U+2241
18501 % U+2242 MINUS TILDE; \eqsim (MnSymbol)
18502 \DeclareTextCommand{\texteqsim}{PU}{\9042\102}%* U+2242
18503 % \neqsim (MnSymbol)
18504 \DeclareTextCommand{\textneqsim}{PU}{\9042\102\83\070}%* U+2242 U+0338
18505 % U+2243 ASYMPTOTICALLY EQUAL TO; asymptoticallyequal; \simeq (LaTeX)
18506 \DeclareTextCommand{\textsimeq}{PU}{\9042\103}%* U+2243
18507 % U+2244 NOT ASYMPTOTICALLY EQUAL TO; \nsimeq (txfonts/pxfonts)
18508 \DeclareTextCommand{\textnsimeq}{PU}{\9042\104}%* U+2244
18509 % U+2245 APPROXIMATELY EQUAL TO; approximatelyequal; \cong (LaTeX)
18510 \DeclareTextCommand{\textcong}{PU}{\9042\105}%* U+2245
18511 % U+2247 NEITHER APPROXIMATELY NOR ACTUALLY EQUAL TO;
18512 % \ncong (AmS)
18513 \DeclareTextCommand{\textncong}{PU}{\9042\107}%* U+2247
18514 % U+2248 ALMOST EQUAL TO; approxequal; \approx (LaTeX)
18515 \DeclareTextCommand{\textapprox}{PU}{\9042\110}%* U+2248
18516 % U+2249 NOT ALMOST EQUAL TO; \napprox (txfonts/pxfonts)
18517 \DeclareTextCommand{\textnapprox}{PU}{\9042\111}%* U+2249
18518 %* \textnapprox -> \nthickapprox (txfonts/pxfonts)
18519 % U+224A ALMOST EQUAL OR EQUAL TO; \approxeq (AmS)
18520 \DeclareTextCommand{\textapproxeq}{PU}{\9042\112}%* U+224A
18521 % \napproxeq (txfonts/pxfonts)
18522 \DeclareTextCommand{\textnapproxeq}{PU}{\9042\112\83\070}%* U+224A U+0338
18523 % U+224B TRIPLE TILDE; \triple sim (MnSymbol)
18524 \DeclareTextCommand{\texttriple sim}{PU}{\9042\113}%* U+224B
18525 %* \texttriple sim -> \VHF (wasysym)
18526 % \triple sim (MnSymbol)
18527 \DeclareTextCommand{\textntriple sim}{PU}{\9042\113\83\070}%* U+224B U+0338
18528 % U+224C ALL EQUAL TO; allequal; \backcong (MnSymbol)
18529 \DeclareTextCommand{\textbackcong}{PU}{\9042\114}%* U+224C
18530 % \backcong (MnSymbol)
18531 \DeclareTextCommand{\textnbackcong}{PU}{\9042\114\83\070}%* U+224C U+0338
18532 % U+224D EQUIVALENT TO; \asymp (LaTeX)
18533 \DeclareTextCommand{\textasymp}{PU}{\9042\115}%* U+224D
18534 % \nasymp (txfonts/pxfonts)
18535 \DeclareTextCommand{\textnasymp}{PU}{\9042\115\83\070}%* U+224D U+0338
18536 %* \textnasymp -> \notasym (mathabx)
18537 % U+224E GEOMETRICALLY EQUIVALENT TO; \Bumpeq (AmS)
18538 \DeclareTextCommand{\textBumpeq}{PU}{\9042\116}%* U+224E
18539 % \nBumpeq (txfonts/pxfonts)
18540 \DeclareTextCommand{\textnBumpeq}{PU}{\9042\116\83\070}%* U+224E U+0338
18541 % U+224F DIFFERENCE BETWEEN; \bumpeq (AmS)

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18542 \DeclareTextCommand{\textbumpeq}{PU}{\9042\117}%* U+224F
18543 % \bumpeq (txfonts/pxfonts)
18544 \DeclareTextCommand{\textnbumpeq}{PU}{\9042\117\83\070}%* U+224F U+0338
18545 % U+2250 APPROACHES THE LIMIT; approaches; \doteq (LaTeX)
18546 \DeclareTextCommand{\textdoteq}{PU}{\9042\120}%* U+2250
18547 % \doteq (MnSymbol)
18548 \DeclareTextCommand{\textndoteq}{PU}{\9042\120\83\070}%* U+2250 U+0338
18549 % U+2251 GEOMETRICALLY EQUAL TO; geometricallyequal;
18550 % \doteqdot (AmS)
18551 \DeclareTextCommand{\textdoteqdot}{PU}{\9042\121}%* U+2251
18552 %* \textdoteqdot -> \Doteq (MnSymbol)
18553 % \nDoteq (MnSymbol)
18554 \DeclareTextCommand{\textnDoteq}{PU}{\9042\121\83\070}%* U+2251 U+0338
18555 % U+2252 APPROXIMATELY EQUAL TO OR THE IMAGE OF; approx-
qualorimage;
18556 % \fallingdotseq (AmS)
18557 \DeclareTextCommand{\textfallingdoteq}{PU}{\9042\122}%* U+2252
18558 % \fallingdotseq (MnSymbol)
18559 \DeclareTextCommand{\textnfallingdoteq}{PU}{\9042\122\83\070}%* U+2252 U+0338
18560 % U+2253 IMAGE OF OR APPROXIMATELY EQUAL TO; imageorapproxi-
matelyequal;
18561 % \risingdotseq (AmS)
18562 \DeclareTextCommand{\textrisingdoteq}{PU}{\9042\123}%* U+2253
18563 % \nrisingdoteq (MnSymbol)
18564 \DeclareTextCommand{\textnrisingdoteq}{PU}{\9042\123\83\070}%* U+2253 U+0338
18565 % U+2254 COLON EQUALS; \colonequals (colonequals)
18566 \DeclareTextCommand{\textcolonequals}{PU}{\9042\124}%* U+2254
18567 % U+2255 EQUALS COLON; \equalscolon (colonequals)
18568 \DeclareTextCommand{\textequalscolon}{PU}{\9042\125}%* U+2255
18569 % U+2256 RING IN EQUAL TO; \eqcirc (AmS)
18570 \DeclareTextCommand{\texteqcirc}{PU}{\9042\126}%* U+2256
18571 % \neqcirc (MnSymbol)
18572 \DeclareTextCommand{\textneqcirc}{PU}{\9042\126\83\070}%* U+2256 U+0338
18573 % U+2257 RING EQUAL TO; \circeq (AmS)
18574 \DeclareTextCommand{\textcirceq}{PU}{\9042\127}%* U+2257
18575 % \ncirceq (MnSymbol)
18576 \DeclareTextCommand{\textncirceq}{PU}{\9042\127\83\070}%* U+2257 U+0338
18577 % U+2259 ESTIMATES; \hateq (MnSymbol)
18578 \DeclareTextCommand{\texthateq}{PU}{\9042\131}%* U+2259
18579 %* \texthateq -> \corresponds (mathabx)
18580 %* \texthateq -> \Corresponds (marvosym)
18581 % \nhateq (MnSymbol)
18582 \DeclareTextCommand{\textnhateq}{PU}{\9042\131\83\070}%* U+2259 U+0338
18583 % U+225C DELTA EQUAL TO; \triangleeq (AmS)
18584 \DeclareTextCommand{\texttriangleeq}{PU}{\9042\134}%* U+225C
18585 % U+2260 NOT EQUAL TO; notequal; \ne (LaTeX), \neq (LaTeX)
18586 \DeclareTextCommand{\textneq}{PU}{\9042\140}%* U+2260
18587 \DeclareTextCommand{\textne}{PU}{\9042\140}%* U+2260
18588 %* \textneq -> \nequal (MnSymbol)
18589 % U+2261 IDENTICAL TO; equivalence; \equiv (LaTeX)
18590 \DeclareTextCommand{\textequiv}{PU}{\9042\141}%* U+2261
18591 %* \textequiv -> \Congruent (marvosym)
18592 % U+2262 NOT IDENTICAL TO; notidentical; \nequiv (txfonts/pxfonts)
18593 \DeclareTextCommand{\textnequiv}{PU}{\9042\142}%* U+2262
18594 %* \textnequiv -> \NotCongruent (marvosym)
18595 %* \textnequiv -> \notequiv (mathabx)
18596 % U+2264 LESS-THAN OR EQUAL TO; lessequal; \le (LaTeX), \leq (LaTeX)

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18597 \DeclareTextCommand{\textleq}{PU}{\9042\144}%* U+2264
18598 \DeclareTextCommand{\textle}{PU}{\9042\144}%* U+2264
18599 %* \textleq -> \LessOrEqual (marvosym)
18600 % U+2265 GREATER-THAN OR EQUAL TO; greaterequal;
18601 % \ge (LaTeX), \geq (LaTeX)
18602 \DeclareTextCommand{\textgeq}{PU}{\9042\145}%* U+2265
18603 \DeclareTextCommand{\textge}{PU}{\9042\145}%* U+2265
18604 %* \textgeq -> \LargerOrEqual (marvosym)
18605 % U+2266 LESS-THAN OVER EQUAL TO; lessorequal; \leqq (AmS)
18606 \DeclareTextCommand{\textleqq}{PU}{\9042\146}%* U+2266
18607 % \nleqq (txfonts/pxfonts)
18608 \DeclareTextCommand{\textnleqq}{PU}{\9042\146\83\070}%* U+2266 U+0338
18609 % U+2267 GREATER-THAN OVER EQUAL TO; greaterorequal; \geqq (AmS)
18610 \DeclareTextCommand{\textgeqq}{PU}{\9042\147}%* U+2267
18611 % \ngeqq (txfonts/pxfonts)
18612 \DeclareTextCommand{\textngeqq}{PU}{\9042\147\83\070}%* U+2267 U+0338
18613 % U+2268 LESS-THAN BUT NOT EQUAL TO; \lneqq (AmS)
18614 \DeclareTextCommand{\textlneqq}{PU}{\9042\150}%* U+2268
18615 % U+2269 GREATER-THAN BUT NOT EQUAL TO; \gneqq (AmS)
18616 \DeclareTextCommand{\textgneqq}{PU}{\9042\151}%* U+2269
18617 % U+226A MUCH LESS-THAN; muchless; \ll (LaTeX)
18618 \DeclareTextCommand{\textll}{PU}{\9042\152}%* U+226A
18619 % \nll (txfonts/pxfonts)
18620 \DeclareTextCommand{\textnll}{PU}{\9042\152\83\070}%* U+226A U+0338
18621 % U+226B MUCH GREATER-THAN; muchgreater; \gg (LaTeX)
18622 \DeclareTextCommand{\textgg}{PU}{\9042\153}%* U+226B
18623 % \ngg (txfonts/pxfonts)
18624 \DeclareTextCommand{\textngg}{PU}{\9042\153\83\070}%* U+226B U+0338
18625 % U+226C BETWEEN; \between (AmS)
18626 \DeclareTextCommand{\textbetween}{PU}{\9042\154}%* U+226C
18627 % U+226E NOT LESS-THAN; notless; \nless (AmS)
18628 \DeclareTextCommand{\textnless}{PU}{\9042\156}%* U+226E
18629 % U+226F NOT GREATER-THAN; notgreater; \ngtr (AmS)
18630 \DeclareTextCommand{\textngtr}{PU}{\9042\157}%* U+226F
18631 % U+2270 NEITHER LESS-THAN NOR EQUAL TO; notlessnorequal;
18632 % \nleq (AmS)
18633 \DeclareTextCommand{\textnleq}{PU}{\9042\160}%* U+2270
18634 % U+2271 NEITHER GREATER-THAN NOR EQUAL TO; notgreaternorequal; \ngeq (AmS)
18635 \DeclareTextCommand{\textngeq}{PU}{\9042\161}%* U+2271
18636 % U+2272 LESS-THAN OR EQUIVALENT TO; lessorequivalent; \lesssim (AmS)
18637 \DeclareTextCommand{\textlessim}{PU}{\9042\162}%* U+2272
18638 %* \textlessim -> \apprle (wasysym)
18639 % U+2273 GREATER-THAN OR EQUIVALENT TO; greaterorequivalent; \gtrsim (AmS)
18640 \DeclareTextCommand{\textgtrsim}{PU}{\9042\163}%* U+2273
18641 %* \textgtrsim -> \apprge (wasysym)
18642 % U+2274 NEITHER LESS-THAN NOR EQUIVALENT TO; \nlessim (txfonts/pxfonts)
18643 \DeclareTextCommand{\textnlessim}{PU}{\9042\164}%* U+2274
18644 % U+2275 NEITHER GREATER-THAN NOR EQUIVALENT TO; \ngtrsim (txfonts/pxfonts)
18645 \DeclareTextCommand{\textngtrsim}{PU}{\9042\165}%* U+2275
18646 % U+2276 LESS-THAN OR GREATER-THAN; lessorgreater; \lessgtr (AmS)
18647 \DeclareTextCommand{\textlessgtr}{PU}{\9042\166}%* U+2276
18648 % U+2277 GREATER-THAN OR LESS-THAN; greaterorless; \gtrless (AmS)
18649 \DeclareTextCommand{\textgtrless}{PU}{\9042\167}%* U+2277

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18650 % U+2278 NEITHER LESS-THAN NOR GREATER-THAN; \ngtrless (tx-
      fonts/pxfonts)
18651 \DeclareTextCommand{\textngtrless}{PU}{\9042\170}%* U+2278
18652 % U+2279 NEITHER GREATER-THAN NOR LESS-THAN; \nlessgtr (tx-
      fonts/pxfonts)
18653 \DeclareTextCommand{\textnlessgtr}{PU}{\9042\171}%* U+2279
18654 % U+227A PRECEDES; precedes; \prec (LaTeX)
18655 \DeclareTextCommand{\textprec}{PU}{\9042\172}%* U+227A
18656 % U+227B SUCCEEDS; succeeds; \succ (LaTeX)
18657 \DeclareTextCommand{\textsucc}{PU}{\9042\173}%* U+227B
18658 % U+227C PRECEDES OR EQUAL TO; \preccurlyeq (AmS)
18659 \DeclareTextCommand{\textpreccurlyeq}{PU}{\9042\174}%* U+227C
18660 % U+227D SUCCEEDS OR EQUAL TO; \succcurlyeq (AmS)
18661 \DeclareTextCommand{\textsucccurlyeq}{PU}{\9042\175}%* U+227D
18662 % U+227E PRECEDES OR EQUIVALENT TO; \precsim (AmS)
18663 \DeclareTextCommand{\textprecsim}{PU}{\9042\176}%* U+227E
18664 % \nprecsim (txfonts/pxfonts)
18665 \DeclareTextCommand{\textnprecsim}{PU}{\9042\176\83\070}%* U+227E U+0338
18666 % U+227F SUCCEEDS OR EQUIVALENT TO; \succsim (AmS)
18667 \DeclareTextCommand{\textsuccsim}{PU}{\9042\177}%* U+227F
18668 % \nsuccsim (txfonts/pxfonts)
18669 \DeclareTextCommand{\textnsuccsim}{PU}{\9042\177\83\070}%* U+227F U+0338
18670 % U+2280 DOES NOT PRECEDE; notprecedes; \nprec (AmS)
18671 \DeclareTextCommand{\textnprec}{PU}{\9042\200}%* U+2280
18672 % U+2281 DOES NOT SUCCEED; notsucceeds; \nsucc (AmS)
18673 \DeclareTextCommand{\textnsucc}{PU}{\9042\201}%* U+2281
18674 % U+2282 SUBSET OF; propersubset; \subset (LaTeX)
18675 \DeclareTextCommand{\textsubset}{PU}{\9042\202}%* U+2282
18676 % U+2283 SUPERSET OF; propersuperset; \supset (LaTeX)
18677 \DeclareTextCommand{\textsupset}{PU}{\9042\203}%* U+2283
18678 % U+2284 NOT A SUBSET OF; notsubset; \nsubset (mathabx)
18679 \DeclareTextCommand{\textnsubset}{PU}{\9042\204}%* U+2284
18680 % U+2285 NOT A SUPERSET OF; notsuperset; \nsupset (mathabx)
18681 \DeclareTextCommand{\textnsupset}{PU}{\9042\205}%* U+2285
18682 % U+2286 SUBSET OF OR EQUAL TO; reflexsubset; \subseteq (LaTeX)
18683 \DeclareTextCommand{\textsubseteq}{PU}{\9042\206}%* U+2286
18684 % U+2287 SUPERSET OF OR EQUAL TO; reflexsuperset; \supseteq (LaTeX)
18685 \DeclareTextCommand{\textsupseteq}{PU}{\9042\207}%* U+2287
18686 % U+2288 NEITHER A SUBSET OF NOR EQUAL TO; \nsubseteq (AmS)
18687 \DeclareTextCommand{\textnsubseteq}{PU}{\9042\210}%* U+2288
18688 % U+2289 NEITHER A SUPERSET OF NOR EQUAL TO; \nsupseteq (AmS)
18689 \DeclareTextCommand{\textnsupseteq}{PU}{\9042\211}%* U+2289
18690 % U+228A SUBSET OF WITH NOT EQUAL TO; subsetnotequal; \subset-
      neq (AmS)
18691 \DeclareTextCommand{\textsubsetneq}{PU}{\9042\212}%* U+228A
18692 % U+228B SUPERSET OF WITH NOT EQUAL TO; supersetnotequal; \supset-
      neq (AmS)
18693 \DeclareTextCommand{\textsupsetneq}{PU}{\9042\213}%* U+228B
18694 % U+228D MULTISSET MULTIPLICATION; \cupdot (MnSymbol)
18695 \DeclareTextCommand{\textcupdot}{PU}{\9042\215}%* U+228D
18696 % U+228E MULTISSET UNION; \cupplus (MnSymbol)
18697 \DeclareTextCommand{\textcupplus}{PU}{\9042\216}%* U+228E
18698 % U+228F SQUARE IMAGE OF; \sqsubset (latexsym, ...)
18699 \DeclareTextCommand{\textsqsubset}{PU}{\9042\217}%* U+228F
18700 % \nsqsubset (txfonts/pxfonts)
18701 \DeclareTextCommand{\textnsqsubset}{PU}{\9042\217\83\070}%* U+228F U+0338
18702 % U+2290 SQUARE ORIGINAL OF; \sqsupset (latexsym, ...)

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18703 \DeclareTextCommand{\textsqsupset}{PU}{\9042\220}%* U+2290
18704 % \nsqsupset (txfonts/pxfonts)
18705 \DeclareTextCommand{\textnsqsupset}{PU}{\9042\220\83\070}%* U+2290 U+0338
18706 % U+2291 SQUARE IMAGE OF OR EQUAL TO; \sqsubseteq (LaTeX)
18707 \DeclareTextCommand{\textsqsubseteq}{PU}{\9042\221}%* U+2291
18708 % \nsqsubseteq (txfonts/pxfonts)
18709 \DeclareTextCommand{\textnsqsubseteq}{PU}{\9042\221\83\070}%* U+2291 U+0338
18710 % U+2292 SQUARE ORIGINAL OF OR EQUAL TO; \sqsupseteq (LaTeX)
18711 \DeclareTextCommand{\textsqsupseteq}{PU}{\9042\222}%* U+2292
18712 % \nsqsupseteq (txfonts/pxfonts)
18713 \DeclareTextCommand{\textnsqsupseteq}{PU}{\9042\222\83\070}%* U+2292 U+0338
18714 % U+2293 SQUARE CAP; \sqcap (LaTeX)
18715 \DeclareTextCommand{\textsqcap}{PU}{\9042\223}%* U+2293
18716 % U+2294 SQUARE CUP; \sqcup (LaTeX)
18717 \DeclareTextCommand{\textsqcup}{PU}{\9042\224}%* U+2294
18718 % U+2295 CIRCLED PLUS; circleplus; \oplus (LaTeX)
18719 \DeclareTextCommand{\textoplus}{PU}{\9042\225}%* U+2295
18720 %* \textoplus -> \varoplus (stmaryrd)
18721 % U+2296 CIRCLED MINUS; minuscircle; \ominus (LaTeX)
18722 \DeclareTextCommand{\textominus}{PU}{\9042\226}%* U+2296
18723 %* \textominus -> \varominus (stmaryrd)
18724 % U+2297 CIRCLED TIMES; circlemultiply; \otimes (LaTeX)
18725 \DeclareTextCommand{\textotimes}{PU}{\9042\227}%* U+2297
18726 %* \textotimes -> \varotimes (stmaryrd)
18727 % U+2298 CIRCLED DIVISION SLASH; \oslash (LaTeX)
18728 \DeclareTextCommand{\textoslash}{PU}{\9042\230}%* U+2298
18729 %* \textoslash -> \varoslash (stmaryrd)
18730 % U+2299 CIRCLED DOT OPERATOR; circle(d?)ot; \odot (LaTeX)
18731 \DeclareTextCommand{\textodot}{PU}{\9042\231}%* U+2299
18732 %* \textodot -> \varodot (stmaryrd)
18733 % U+229A CIRCLED RING OPERATOR; \circledcirc (AmS)
18734 \DeclareTextCommand{\textcircledcirc}{PU}{\9042\232}%* U+229A
18735 %* \textcircledcirc -> \ocirc (mathabx)
18736 %* \textcircledcirc -> \varocircle (stmaryrd)
18737 % U+229B CIRCLED ASTERISK OPERATOR; \circledast (AmS)
18738 \DeclareTextCommand{\textcircledast}{PU}{\9042\233}%* U+229B
18739 %* \textcircledast -> \varoast (stmaryrd)
18740 %* \textcircledast -> \oasterisk (mathabx)
18741 % U+229D CIRCLED DASH; \circleddash (AmS)
18742 \DeclareTextCommand{\textcircleddash}{PU}{\9042\235}%* U+229D
18743 % U+229E SQUARED PLUS; \boxplus (AmS)
18744 \DeclareTextCommand{\textboxplus}{PU}{\9042\236}%* U+229E
18745 % U+229F SQUARED MINUS; \boxminus (AmS)
18746 \DeclareTextCommand{\textboxminus}{PU}{\9042\237}%* U+229F
18747 % U+22A0 SQUARED TIMES; \boxtimes (AmS)
18748 \DeclareTextCommand{\textboxtimes}{PU}{\9042\240}%* U+22A0
18749 % U+22A1 SQUARED DOT OPERATOR; \boxdot (AmS)
18750 \DeclareTextCommand{\textboxdot}{PU}{\9042\241}%* U+22A1
18751 % U+22A2 RIGHT TACK; \vdash (LaTeX)
18752 \DeclareTextCommand{\textvdash}{PU}{\9042\242}%* U+22A2
18753 %* \textvdash -> \rightvdash (MnSymbol)
18754 % U+22A3 LEFT TACK; tackleft; \dashv (LaTeX)
18755 \DeclareTextCommand{\textdashv}{PU}{\9042\243}%* U+22A3
18756 %* \textdashv -> \leftvdash (MnSymbol)
18757 % \ndashv (mathabx)
18758 \DeclareTextCommand{\textndashv}{PU}{\9042\243\83\070}%* U+22A3 U+0338
18759 %* \textndashv -> \nleftvdash (MnSymbol)

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18760 % U+22A4 DOWN TACK (=top); tackdown; \top (LaTeX)
18761 \DeclareTextCommand{\texttop}{PU}{\9042\244}%* U+22A4
18762 %* \texttop -> \downvdash (MnSymbol)
18763 % \downvdash (MnSymbol)
18764 \DeclareTextCommand{\textndownvdash}{PU}{\9042\244\83\070}%* U+22A4 U+0338
18765 % U+22A5 UP TACK (=base, bottom); \bot (LaTeX)
18766 \DeclareTextCommand{\textbot}{PU}{\9042\245}%* U+22A5
18767 %* \textbot -> \upvdash (MnSymbol)
18768 % \upvdash (MnSymbol)
18769 \DeclareTextCommand{\textnupvdash}{PU}{\9042\245\83\070}%* U+22A5 U+0338
18770 %* \textnupvdash -> \nperp (MnSymbol)
18771 % U+22A8 TRUE; \vdash (AmS)
18772 \DeclareTextCommand{\textvDash}{PU}{\9042\250}%* U+22A8
18773 %* \textvDash -> \models (LaTeX)
18774 %* \textvDash -> \rightmodels (MnSymbol)
18775 % U+22A9 FORCES; \Vdash (AmS)
18776 \DeclareTextCommand{\textVdash}{PU}{\9042\251}%* U+22A9
18777 %* \textVdash -> \rightVdash (MnSymbol)
18778 % U+22AA TRIPLE VERTICAL BAR RIGHT TURNSTILE; \Vvdash (AmS)
18779 \DeclareTextCommand{\textVvdash}{PU}{\9042\252}%* U+22AA
18780 % \nVdash (mathabx)
18781 \DeclareTextCommand{\textnVdash}{PU}{\9042\252\83\070}%* U+22AA U+0338
18782 % U+22AB DOUBLE VERTICAL BAR DOUBLE RIGHT TURNSTILE;
18783 % \VDash (mathabx)
18784 \DeclareTextCommand{\textVDash}{PU}{\9042\253}%* U+22AB
18785 %* \textVDash -> \rightModels (MnSymbol)
18786 % U+22AC DOES NOT PROVE; \nvdash (AmS)
18787 \DeclareTextCommand{\textnvdash}{PU}{\9042\254}%* U+22AC
18788 %* \textnvdash -> \nrightvdash (MnSymbol)
18789 % U+22AD NOT TRUE; \nvDash (AmS)
18790 \DeclareTextCommand{\textnvDash}{PU}{\9042\255}%* U+22AD
18791 %* \textnvDash -> \nrightmodels (MnSymbol)
18792 %* \textnvDash -> \nmodels (MnSymbol)
18793 % U+22AE DOES NOT FORCE; \nVdash (txfonts/pxfonts)
18794 \DeclareTextCommand{\textnVdash}{PU}{\9042\256}%* U+22AE
18795 %* \textnVdash -> \nrightVdash (MnSymbol)
18796 % U+22AF NEGATED DOUBLE VERTICAL BAR DOUBLE RIGHT TURN-
      STILE; \nVDash (AmS)
18797 \DeclareTextCommand{\textnVDash}{PU}{\9042\257}%* U+22AF
18798 %* \textnVDash -> \nrightModels (MnSymbol)
18799 % U+22B2 NORMAL SUBGROUP OF; \lhd (latexsym, ...)
18800 \DeclareTextCommand{\textlhd}{PU}{\9042\262}%* U+22B2
18801 %* \textlhd -> \lessclosed (MnSymbol)
18802 % U+22B3 CONTAINS AS NORMAL SUBGROUP; \rhd (latexsym, ...)
18803 \DeclareTextCommand{\textrhd}{PU}{\9042\263}%* U+22B3
18804 %* \textrhd -> \gtrclosed (MnSymbol)
18805 % U+22B4 NORMAL SUBGROUP OF OR EQUAL TO; \unlhd (latexsym, ...)
18806 \DeclareTextCommand{\textunlhd}{PU}{\9042\264}%* U+22B4
18807 %* \textunlhd -> \leqclosed (MnSymbol)
18808 %* \textunlhd -> \trianglelefteq (MnSymbol)
18809 % U+22B5 CONTAINS AS NORMAL SUBGROUP OR EQUAL TO; \unrhd (la-
      texsym, ...)
18810 \DeclareTextCommand{\textunrhd}{PU}{\9042\265}%* U+22B5
18811 %* \textunrhd -> \geqclosed (MnSymbol)
18812 %* \textunrhd -> \trianglerighteq (MnSymbol)
18813 % U+22B6 ORIGINAL OF; \multimapdotbothA (txfonts/pxfonts)
18814 \DeclareTextCommand{\textmultimapdotbothA}{PU}{\9042\266}%* U+22B6

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18815 % U+22B7 IMAGE OF; \multimapdotbothB (txfonts/pxfonts)
18816 \DeclareTextCommand{\textmultimapdotbothB}{PU}{\9042\267}%* U+22B7
18817 % U+22B8 MULTIMAP; \multimap (AmS, txfonts/pxfonts)
18818 \DeclareTextCommand{\textmultimap}{PU}{\9042\270}%* U+22B8
18819 % U+22BB XOR; \veebar (AmS)
18820 \DeclareTextCommand{\textveebar}{PU}{\9042\273}%* U+22BB
18821 % U+22BC NAND; \barwedge (mathabx)
18822 \DeclareTextCommand{\textbarwedge}{PU}{\9042\274}%* U+22BC
18823 % U+22C6 STAR OPERATOR; \star (LaTeX)
18824 \DeclareTextCommand{\textstar}{PU}{\9042\306}%* U+22C6
18825 % U+22C7 DIVISION TIMES; \divideontimes (AmS)
18826 \DeclareTextCommand{\textdivideontimes}{PU}{\9042\307}%* U+22C7
18827 % U+22C8 BOWTIE; \bowtie (LaTeX)
18828 \DeclareTextCommand{\textbowtie}{PU}{\9042\310}%* U+22C8
18829 %* \textbowtie -> \Bowtie (wasysym)
18830 % U+22C9 LEFT NORMAL FACTOR SEMIDIRECT PRODUCT; \ltimes (AmS)
18831 \DeclareTextCommand{\textltimes}{PU}{\9042\311}%* U+22C9
18832 % U+22CA RIGHT NORMAL FACTOR SEMIDIRECT PRODUCT;
18833 % \rtimes (AmS)
18834 \DeclareTextCommand{\textrtimes}{PU}{\9042\312}%* U+22CA
18835 % U+22CB LEFT SEMIDIRECT PRODUCT; \leftthreetimes (AmS)
18836 \DeclareTextCommand{\textleftthreetimes}{PU}{\9042\313}%* U+22CB
18837 % U+22CC RIGHT SEMIDIRECT PRODUCT; \rightthreetimes (AmS)
18838 \DeclareTextCommand{\textrightthreetimes}{PU}{\9042\314}%* U+22CC
18839 % U+22CD REVERSED TILDE EQUALS; \backsimeq (AmS)
18840 \DeclareTextCommand{\textbacksimeq}{PU}{\9042\315}%* U+22CD
18841 % \nbacksimeq (txfonts/pxfonts)
18842 \DeclareTextCommand{\textnbacksimeq}{PU}{\9042\315\83\070}%* U+22CD U+0338
18843 % U+22CE CURLY LOGICAL OR; curlyor; \curlyvee (AmS)
18844 \DeclareTextCommand{\textcurlyvee}{PU}{\9042\316}%* U+22CE
18845 %* \textcurlyvee -> \varcurlyvee (stmaryrd)
18846 % U+22CF CURLY LOGICAL AND; curlyand; \curlywedge (AmS)
18847 \DeclareTextCommand{\textcurlywedge}{PU}{\9042\317}%* U+22CF
18848 %* \textcurlywedge -> \varcurlywedge (stmaryrd)
18849 % U+22D0 DOUBLE SUBSET; \Subset (AmS)
18850 \DeclareTextCommand{\textSubset}{PU}{\9042\320}%* U+22D0
18851 % \nSubset (txfonts/pxfonts)
18852 \DeclareTextCommand{\textnSubset}{PU}{\9042\320\83\070}%* U+22D0 U+0338
18853 % U+22D1 DOUBLE SUPERSET; \Supset (AmS)
18854 \DeclareTextCommand{\textSupset}{PU}{\9042\321}%* U+22D1
18855 % \nSupset (txfonts/pxfonts)
18856 \DeclareTextCommand{\textnSupset}{PU}{\9042\321\83\070}%* U+22D1 U+0338
18857 % U+22D2 DOUBLE INTERSECTION; \Cap (AmS)
18858 \DeclareTextCommand{\textCap}{PU}{\9042\322}%* U+22D2
18859 %* \textCap -> \doublecap (mathabx)
18860 % U+22D3 DOUBLE UNION; \Cup (AmS)
18861 \DeclareTextCommand{\textCup}{PU}{\9042\323}%* U+22D3
18862 %* \textCup -> \doublecup (mathabx)
18863 % U+22D4 PITCHFORK; \pitchfork (mathabx)
18864 \DeclareTextCommand{\textpitchfork}{PU}{\9042\324}%* U+22D4
18865 % U+22D6 LESS-THAN WITH DOT; \lessdot (AmS)
18866 \DeclareTextCommand{\textlessdot}{PU}{\9042\326}%* U+22D6
18867 % U+22D7 GREATER-THAN WITH DOT; \gtrdot (AmS)
18868 \DeclareTextCommand{\textgtrdot}{PU}{\9042\327}%* U+22D7
18869 % U+22D8 VERY MUCH LESS-THAN; \lll (AmS)
18870 \DeclareTextCommand{\textlll}{PU}{\9042\330}%* U+22D8
18871 % U+22D9 VERY MUCH GREATER-THAN; \ggg (AmS)


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18872 \DeclareTextCommand{\textggg}{PU}{\9042\331}%* U+22D9
18873 % U+22DA LESS-THAN EQUAL TO OR GREATER-THAN; lessequalorgreater;
18874 % \lesseqgtr (AmS)
18875 \DeclareTextCommand{\textlesseqgtr}{PU}{\9042\332}%* U+22DA
18876 % U+22DB GREATER-THAN EQUAL TO OR LESS-THAN; greaterequalorless;
18877 % \gtreqless (AmS)
18878 \DeclareTextCommand{\textgtreqless}{PU}{\9042\333}%* U+22DB
18879 % U+22DE EQUAL TO OR PRECEDES; \curlyeqprec (MnSymbol)
18880 \DeclareTextCommand{\textcurlyeqprec}{PU}{\9042\336}%* U+22DE
18881 % \ncurlyeqprec (mathabx)
18882 \DeclareTextCommand{\textncurlyeqprec}{PU}{\9042\336\83\070}%* U+22DE U+0338
18883 % U+22DF EQUAL TO OR SUCCEEDS; \curlyeqsucc (MnSymbol)
18884 \DeclareTextCommand{\textcurlyeqsucc}{PU}{\9042\337}%* U+22DF
18885 % \ncurlyeqsucc (mathabx)
18886 \DeclareTextCommand{\textncurlyeqsucc}{PU}{\9042\337\83\070}%* U+22DF U+0338
18887 % U+22E0 DOES NOT PRECEDE OR EQUAL; \npreccurlyeq (txfonts/pxfonts)
18888 \DeclareTextCommand{\textnpreccurlyeq}{PU}{\9042\340}%* U+22E0
18889 % U+22E1 DOES NOT SUCCEED OR EQUAL; \nsucccurlyeq (txfonts/pxfonts)
18890 \DeclareTextCommand{\textnsucccurlyeq}{PU}{\9042\341}%* U+22E1
18891 % U+22E2 NOT SQUARE IMAGE OF OR EQUAL TO; \nsqsubseteq (tx-
    fonts/pxfonts)
18892 \DeclareTextCommand{\textnqsubseteq}{PU}{\9042\342}%* U+22E2
18893 % U+22E3 NOT SQUARE ORIGINAL OF OR EQUAL TO; \nsqsupseteq (tx-
    fonts/pxfonts)
18894 \DeclareTextCommand{\textnqsupseteq}{PU}{\9042\343}%* U+22E3
18895 % U+22E4 SQUARE IMAGE OF OR NOT EQUAL TO; \sqsubsetneq (mathabx)
18896 \DeclareTextCommand{\textsqsubsetneq}{PU}{\9042\344}%* U+22E4
18897 % \textsqsubsetneq -> \varsqsubsetneq (mathabx)
18898 % U+22E5 SQUARE ORIGINAL OF OR NOT EQUAL TO; \sqsupsetneq (math-
    abx)
18899 \DeclareTextCommand{\textsqsupsetneq}{PU}{\9042\345}%* U+22E5
18900 % \textsqsupsetneq -> \varsqsupsetneq (mathabx)
18901 % U+22E6 LESS-THAN BUT NOT EQUIVALENT TO; \lnsim (AmS)
18902 \DeclareTextCommand{\textlnsim}{PU}{\9042\346}%* U+22E6
18903 % U+22E7 GREATER-THAN BUT NOT EQUIVALENT TO; \gnsim (AmS)
18904 \DeclareTextCommand{\textgnsim}{PU}{\9042\347}%* U+22E7
18905 % U+22E8 PRECEDES BUT NOT EQUIVALENT TO; \precnsim (AmS)
18906 \DeclareTextCommand{\textprecnsim}{PU}{\9042\350}%* U+22E8
18907 % U+22E9 SUCCEEDS BUT NOT EQUIVALENT TO; \succnsim (AmS)
18908 \DeclareTextCommand{\textsuccnsim}{PU}{\9042\351}%* U+22E9
18909 % U+22EA NOT NORMAL SUBGROUP OF; \ntriangleleft (AmS)
18910 \DeclareTextCommand{\textntriangleleft}{PU}{\9042\352}%* U+22EA
18911 % \textntriangleleft -> \nlessclosed (MnSymbol)
18912 % U+22EB DOES NOT CONTAIN AS NORMAL SUBGROUP; \ntriangleright
    lright (AmS)
18913 \DeclareTextCommand{\textntriangleright}{PU}{\9042\353}%* U+22EB
18914 % \textntriangleright -> \ngtrclosed (MnSymbol)
18915 % U+22EC NOT NORMAL SUBGROUP OF OR EQUAL TO;
18916 % \ntrianglelefteq (AmS)
18917 \DeclareTextCommand{\textntrianglelefteq}{PU}{\9042\354}%* U+22EC
18918 % U+22ED DOES NOT CONTAIN AS NORMAL SUBGROUP OR EQUAL;
18919 % \ntrianglerighteq (AmS)
18920 \DeclareTextCommand{\textntrianglerighteq}{PU}{\9042\355}%* U+22ED
18921 % \textntrianglerighteq -> \textngeqclosed
18922 % U+22EE VERTICAL ELLIPSIS; ellipsisvertical; \vdots (LaTeX)
18923 \DeclareTextCommand{\textvdots}{PU}{\9042\356}%* U+22EE
18924 % U+22EF MIDLINE HORIZONTAL ELLIPSIS; \cdots (LaTeX)

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18925 \DeclareTextCommand{\textcdots}{PU}{\9042\357}%* U+22EF
18926 % U+22F0 UP RIGHT DIAGONAL ELLIPSIS; \udots (MnSymbol)
18927 \DeclareTextCommand{\textudots}{PU}{\9042\360}%* U+22F0
18928 % U+22F1 DOWN RIGHT DIAGONAL ELLIPSIS; \ddots (LaTeX)
18929 \DeclareTextCommand{\textddots}{PU}{\9042\361}%* U+22F1
18930 % U+22F6 ELEMENT OF WITH OVERBAR; \barin (mathabx)
18931 \DeclareTextCommand{\textbarin}{PU}{\9042\366}%* U+22F6

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51.2.23 Miscellaneous Technical: U+2300 to U+23FF

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18932 % U+2300 DIAMETER SIGN; \diameter (mathabx,wasysym)
18933 \DeclareTextCommand{\textdiameter}{PU}{\9043\000}%* U+2300
18934 % U+2310 REVERSED NOT SIGN; \backneg (MnSymbol)
18935 \DeclareTextCommand{\textbackneg}{PU}{\9043\020}%* U+2310
18936 % U+2311 SQUARE LOZENGE; \wasylzenge (wasysym)
18937 \DeclareTextCommand{\textwasylzenge}{PU}{\9043\021}%* U+2311
18938 % U+2319 TURNED NOT SIGN; \invbackneg (MnSymbol)
18939 \DeclareTextCommand{\textinvbackneg}{PU}{\9043\031}%* U+2319
18940 % U+231A WATCH; \clock (wasysym)
18941 \DeclareTextCommand{\textclock}{PU}{\9043\032}%* U+231A
18942 %* \textclock -> \Clocklogo (marvosym)
18943 %* \textclock -> \ClockLogo (marvosym)
18944 % U+231C TOP LEFT CORNER; \ulcorner (AmS)
18945 \DeclareTextCommand{\textulcorner}{PU}{\9043\034}%* U+231C
18946 % U+231D TOP RIGHT CORNER; \urcorner (AmS)
18947 \DeclareTextCommand{\texturcorner}{PU}{\9043\035}%* U+231D
18948 % U+231E BOTTOM LEFT CORNER; \llcorner (AmS)
18949 \DeclareTextCommand{\textllcorner}{PU}{\9043\036}%* U+231E
18950 % U+231F BOTTOM RIGHT CORNER; \lrcorner (AmS)
18951 \DeclareTextCommand{\textlrcorner}{PU}{\9043\037}%* U+231F
18952 % U+2322 FROWN; \frown (LaTeX)
18953 \DeclareTextCommand{\textfrown}{PU}{\9043\042}%* U+2322
18954 % U+2323 SMILE; \smile (LaTeX)
18955 \DeclareTextCommand{\textsmile}{PU}{\9043\043}%* U+2323
18956 % U+2328 KEYBOARD; \Keyboard (marvosym)
18957 \DeclareTextCommand{\textKeyboard}{PU}{\9043\050}%* U+2328
18958 % U+2329 LEFT-POINTING ANGLE BRACKET; \angleleft; \angle (LaTeX)
18959 \DeclareTextCommand{\textlangle}{PU}{\9043\051}%* U+2329
18960 % U+232A RIGHT-POINTING ANGLE BRACKET; \angleright; \angle (LaTeX)
18961 \DeclareTextCommand{\textrangle}{PU}{\9043\052}%* U+232A
18962 % U+2339 APL FUNCTIONAL SYMBOL QUAD DIVIDE; \APLinv (wasysym)
18963 \DeclareTextCommand{\textAPLinv}{PU}{\9043\071}%* U+2339
18964 % U+233C APL FUNCTIONAL SYMBOL QUAD CIRCLE; \Tumbler (marvosym)
18965 \DeclareTextCommand{\textTumbler}{PU}{\9043\074}%* U+233C
18966 % U+233D APL FUNCTIONAL SYMBOL CIRCLE STILE; \baro (stmaryrd)
18967 \DeclareTextCommand{\textstmaryrdbaro}{PU}{\9043\075}%* U+233D
18968 %* \textstmaryrdbaro -> \baro (stmaryrd)
18969 % U+233F APL FUNCTIONAL SYMBOL SLASH BAR; \notslash (wasysym)
18970 \DeclareTextCommand{\textnotslash}{PU}{\9043\077}%* U+233F
18971 % U+2340 APL FUNCTIONAL SYMBOL BACKSLASH BAR;
18972 % \notbackslash (wasysym)
18973 \DeclareTextCommand{\textnotbackslash}{PU}{\9043\100}%* U+2340
18974 % U+2342 APL FUNCTIONAL SYMBOL QUAD BACKSLASH; \boxbackslash (mathabx)
18975 \DeclareTextCommand{\textboxbackslash}{PU}{\9043\102}%* U+2342
18976 % U+2347 APL FUNCTIONAL SYMBOL QUAD LEFTWARDS ARROW;
18977 % \APLleftarrowbox (wasysym)

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18978 \DeclareTextCommand{\textAPLleftarrowbox}{PU}{\9043\107}%* U+2347
 18979 % U+2348 APL FUNCTIONAL SYMBOL QUAD RIGHTWARDS ARROW;
 18980 % \APLrightrightarrowbox (wasysym)
 18981 \DeclareTextCommand{\textAPLrightarrowbox}{PU}{\9043\110}%* U+2348
 18982 % U+2350 APL FUNCTIONAL SYMBOL QUAD UPWARDS ARROW; \APLuparrowbox (wasysym)
 18983 \DeclareTextCommand{\textAPLuparrowbox}{PU}{\9043\120}%* U+2350
 18984 % U+2357 APL FUNCTIONAL SYMBOL QUAD DOWNWARDS ARROW;
 18985 % \APLdownarrowbox (wasysym)
 18986 \DeclareTextCommand{\textAPLdownarrowbox}{PU}{\9043\127}%* U+2357
 18987 % U+235E APL FUNCTIONAL SYMBOL QUOTE QUAD;
 18988 % \APLinput (wasysym)
 18989 \DeclareTextCommand{\textAPLinput}{PU}{\9043\136}%* U+235E
 18990 % U+2370 APL FUNCTIONAL SYMBOL QUAD QUESTION; \Request (china2e)
 18991 \DeclareTextCommand{\textRequest}{PU}{\9043\160}%* U+2370
 18992 % U+2393 DIRECT CURRENT SYMBOL FORM TWO; \Beam (marvosym)
 18993 \DeclareTextCommand{\textBeam}{PU}{\9043\223}%* U+2393
 18994 % U+2394 SOFTWARE-FUNCTION SYMBOL; \hexagon (wasysym)
 18995 \DeclareTextCommand{\texthexagon}{PU}{\9043\224}%* U+2394
 18996 % U+2395 APL FUNCTIONAL SYMBOL QUAD; \APLbox (wasysym)
 18997 \DeclareTextCommand{\textAPLbox}{PU}{\9043\225}%* U+2395
 18998 % U+23ED BLACK RIGHT-POINTING DOUBLE TRIANGLE WITH VERTICAL BAR;
 18999 % \ForwardToIndex (marvosym)
 19000 \DeclareTextCommand{\textForwardToIndex}{PU}{\9043\355}%* U+23ED
 19001 % U+23EE BLACK LEFT-POINTING DOUBLE TRIANGLE WITH VERTICAL BAR;
 19002 % \RewindToIndex (marvosym)
 19003 \DeclareTextCommand{\textRewindToIndex}{PU}{\9043\356}%* U+23EE

51.2.24 Control Pictures: U+2400 to U+243F

19004 % U+2422 BLANK SYMBOL
 19005 \DeclareTextCommand{\textblank}{PU}{\9044\042}% U+2422
 19006 % U+2423 OPEN BOX; blank
 19007 \DeclareTextCommand{\textvisiblespace}{PU}{\9044\043}% U+2423

51.2.25 Optical Character Recognition: U+2440 to U+245F

19008 % U+244A OCR DOUBLE BACKSLASH; \bbslash (stmaryrd)
 19009 \DeclareTextCommand{\textbbslash}{PU}{\9044\112}%* U+244A
 19010 %* \textbbslash -> \varparallelinv (txfonts/pxfonts)

51.2.26 Enclosed Alphanumerics: U+2460 to U+24FF

19011 % U+2460 CIRCLED DIGIT ONE; onecircle
 19012 \DeclareTextCompositeCommand{\textcircled}{PU}{1}{\9044\140}% U+2460
 19013 % U+2461 CIRCLED DIGIT TWO; twocircle
 19014 \DeclareTextCompositeCommand{\textcircled}{PU}{2}{\9044\141}% U+2461
 19015 % U+2462 CIRCLED DIGIT THREE; threecircle
 19016 \DeclareTextCompositeCommand{\textcircled}{PU}{3}{\9044\142}% U+2462
 19017 % U+2463 CIRCLED DIGIT FOUR; fourcircle
 19018 \DeclareTextCompositeCommand{\textcircled}{PU}{4}{\9044\143}% U+2463
 19019 % U+2464 CIRCLED DIGIT FIVE; fivecircle
 19020 \DeclareTextCompositeCommand{\textcircled}{PU}{5}{\9044\144}% U+2464
 19021 % U+2465 CIRCLED DIGIT SIX; sixcircle
 19022 \DeclareTextCompositeCommand{\textcircled}{PU}{6}{\9044\145}% U+2465
 19023 % U+2466 CIRCLED DIGIT SEVEN; sevendigit
 19024 \DeclareTextCompositeCommand{\textcircled}{PU}{7}{\9044\146}% U+2466
 19025 % U+2467 CIRCLED DIGIT EIGHT; eightcircle

19026 \DeclareTextCompositeCommand{\textcircled}{PU}{8}{\9044\147}% U+2467
 19027 % U+2468 CIRCLED DIGIT NINE; ninecircle
 19028 \DeclareTextCompositeCommand{\textcircled}{PU}{9}{\9044\150}% U+2468
 19029 % U+2469 CIRCLED NUMBER TEN; tencircle
 19030 \DeclareTextCompositeCommand{\textcircled}{PU}{10}{\9044\151}% U+2469
 19031 % U+246A CIRCLED NUMBER ELEVEN; elevencircle
 19032 \DeclareTextCompositeCommand{\textcircled}{PU}{11}{\9044\152}% U+246A
 19033 % U+246B CIRCLED NUMBER TWELVE; twelvecircle
 19034 \DeclareTextCompositeCommand{\textcircled}{PU}{12}{\9044\153}% U+246B
 19035 % U+246C CIRCLED NUMBER THIRTEEN; thirteencircle
 19036 \DeclareTextCompositeCommand{\textcircled}{PU}{13}{\9044\154}% U+246C
 19037 % U+246D CIRCLED NUMBER FOURTEEN; fourteencircle
 19038 \DeclareTextCompositeCommand{\textcircled}{PU}{14}{\9044\155}% U+246D
 19039 % U+246E CIRCLED NUMBER FIFTEEN; fifteencircle
 19040 \DeclareTextCompositeCommand{\textcircled}{PU}{15}{\9044\156}% U+246E
 19041 % U+246F CIRCLED NUMBER SIXTEEN; sixteencircle
 19042 \DeclareTextCompositeCommand{\textcircled}{PU}{16}{\9044\157}% U+246F
 19043 % U+2470 CIRCLED NUMBER SEVENTEEN; seventeencircle
 19044 \DeclareTextCompositeCommand{\textcircled}{PU}{17}{\9044\160}% U+2470
 19045 % U+2471 CIRCLED NUMBER EIGHTEEN; eighteencircle
 19046 \DeclareTextCompositeCommand{\textcircled}{PU}{18}{\9044\161}% U+2471
 19047 % U+2472 CIRCLED NUMBER NINETEEN; nineteencircle
 19048 \DeclareTextCompositeCommand{\textcircled}{PU}{19}{\9044\162}% U+2472
 19049 % U+2473 CIRCLED NUMBER TWENTY; twentycircle
 19050 \DeclareTextCompositeCommand{\textcircled}{PU}{20}{\9044\163}% U+2473
 19051 % U+24B6 CIRCLED LATIN CAPITAL LETTER A; Acircle
 19052 \DeclareTextCompositeCommand{\textcircled}{PU}{A}{\9044\266}% U+24B6
 19053 % \CircledA (marvosym)
 19054 \DeclareTextCommand{\textCircledA}{PU}{\9044\266}%* U+24B6
 19055 %* \textCircledA -> \CleaningA
 19056 % U+24B7 CIRCLED LATIN CAPITAL LETTER B; Bcircle
 19057 \DeclareTextCompositeCommand{\textcircled}{PU}{B}{\9044\267}% U+24B7
 19058 % U+24B8 CIRCLED LATIN CAPITAL LETTER C; Ccircle
 19059 \DeclareTextCompositeCommand{\textcircled}{PU}{C}{\9044\270}% U+24B8
 19060 % U+24B9 CIRCLED LATIN CAPITAL LETTER D; Dcircle
 19061 \DeclareTextCompositeCommand{\textcircled}{PU}{D}{\9044\271}% U+24B9
 19062 % U+24BA CIRCLED LATIN CAPITAL LETTER E; Ecircle
 19063 \DeclareTextCompositeCommand{\textcircled}{PU}{E}{\9044\272}% U+24BA
 19064 % U+24BB CIRCLED LATIN CAPITAL LETTER F; Fcircle
 19065 \DeclareTextCompositeCommand{\textcircled}{PU}{F}{\9044\273}% U+24BB
 19066 % \CleaningF (marvosym)
 19067 \DeclareTextCommand{\textCleaningF}{PU}{\9044\273}%* U+24BB
 19068 % \CleaningFF (marvosym)
 19069 \DeclareTextCommand{\textCleaningFF}{PU}{\9044\273\83\062}%* U+24BB U+0332
 19070 % U+24BC CIRCLED LATIN CAPITAL LETTER G; Gcircle
 19071 \DeclareTextCompositeCommand{\textcircled}{PU}{G}{\9044\274}% U+24BC
 19072 % U+24BD CIRCLED LATIN CAPITAL LETTER H; Hcircle
 19073 \DeclareTextCompositeCommand{\textcircled}{PU}{H}{\9044\275}% U+24BD
 19074 % U+24BE CIRCLED LATIN CAPITAL LETTER I; Icircle
 19075 \DeclareTextCompositeCommand{\textcircled}{PU}{I}{\9044\276}% U+24BE
 19076 % U+24BF CIRCLED LATIN CAPITAL LETTER J; Jcircle
 19077 \DeclareTextCompositeCommand{\textcircled}{PU}{J}{\9044\277}% U+24BF
 19078 % U+24C0 CIRCLED LATIN CAPITAL LETTER K; Kcircle
 19079 \DeclareTextCompositeCommand{\textcircled}{PU}{K}{\9044\300}% U+24C0
 19080 % U+24C1 CIRCLED LATIN CAPITAL LETTER L; Lcircle
 19081 \DeclareTextCompositeCommand{\textcircled}{PU}{L}{\9044\301}% U+24C1
 19082 % U+24C2 CIRCLED LATIN CAPITAL LETTER M; Mcircle

19083 \DeclareTextCompositeCommand{\textcircled}{PU}{M}{\9044\302}% U+24C2
 19084 % U+24C3 CIRCLED LATIN CAPITAL LETTER N; Ncircle
 19085 \DeclareTextCompositeCommand{\textcircled}{PU}{N}{\9044\303}% U+24C3
 19086 % U+24C4 CIRCLED LATIN CAPITAL LETTER O; Ocircle
 19087 \DeclareTextCompositeCommand{\textcircled}{PU}{O}{\9044\304}% U+24C4
 19088 % U+24C5 CIRCLED LATIN CAPITAL LETTER P; Pcircle
 19089 \DeclareTextCompositeCommand{\textcircled}{PU}{P}{\9044\305}% U+24C5
 19090 % \CleaningP (marvosym)
 19091 \DeclareTextCommand{\textCleaningP}{PU}{\9044\305}%* U+24C5
 19092 % \CleaningPP (marvosym)
 19093 \DeclareTextCommand{\textCleaningPP}{PU}{\9044\305\83\062}%* U+24C5 U+0332
 19094 % U+24C6 CIRCLED LATIN CAPITAL LETTER Q; Qcircle
 19095 \DeclareTextCompositeCommand{\textcircled}{PU}{Q}{\9044\306}% U+24C6
 19096 % U+24C7 CIRCLED LATIN CAPITAL LETTER R; Rcircle
 19097 \DeclareTextCompositeCommand{\textcircled}{PU}{R}{\9044\307}% U+24C7
 19098 % U+24C8 CIRCLED LATIN CAPITAL LETTER S; Scircle
 19099 \DeclareTextCompositeCommand{\textcircled}{PU}{S}{\9044\310}% U+24C8
 19100 % U+24C9 CIRCLED LATIN CAPITAL LETTER T; Tcircle
 19101 \DeclareTextCompositeCommand{\textcircled}{PU}{T}{\9044\311}% U+24C9
 19102 % U+24CA CIRCLED LATIN CAPITAL LETTER U; Ucircle
 19103 \DeclareTextCompositeCommand{\textcircled}{PU}{U}{\9044\312}% U+24CA
 19104 % U+24CB CIRCLED LATIN CAPITAL LETTER V; Vcircle
 19105 \DeclareTextCompositeCommand{\textcircled}{PU}{V}{\9044\313}% U+24CB
 19106 % U+24CC CIRCLED LATIN CAPITAL LETTER W; Wcircle
 19107 \DeclareTextCompositeCommand{\textcircled}{PU}{W}{\9044\314}% U+24CC
 19108 % U+24CD CIRCLED LATIN CAPITAL LETTER X; Xcircle
 19109 \DeclareTextCompositeCommand{\textcircled}{PU}{X}{\9044\315}% U+24CD
 19110 % U+24CE CIRCLED LATIN CAPITAL LETTER Y; Ycircle
 19111 \DeclareTextCompositeCommand{\textcircled}{PU}{Y}{\9044\316}% U+24CE
 19112 % U+24CF CIRCLED LATIN CAPITAL LETTER Z; Zcircle
 19113 \DeclareTextCompositeCommand{\textcircled}{PU}{Z}{\9044\317}% U+24CF
 19114 % U+24D0 CIRCLED LATIN SMALL LETTER A; acircle
 19115 \DeclareTextCompositeCommand{\textcircled}{PU}{a}{\9044\320}% U+24D0
 19116 % U+24D1 CIRCLED LATIN SMALL LETTER B; bcircle
 19117 \DeclareTextCompositeCommand{\textcircled}{PU}{b}{\9044\321}% U+24D1
 19118 % U+24D2 CIRCLED LATIN SMALL LETTER C; ccircle
 19119 \DeclareTextCompositeCommand{\textcircled}{PU}{c}{\9044\322}% U+24D2
 19120 % U+24D3 CIRCLED LATIN SMALL LETTER D; dcircle
 19121 \DeclareTextCompositeCommand{\textcircled}{PU}{d}{\9044\323}% U+24D3
 19122 % U+24D4 CIRCLED LATIN SMALL LETTER E; ecircle
 19123 \DeclareTextCompositeCommand{\textcircled}{PU}{e}{\9044\324}% U+24D4
 19124 % U+24D5 CIRCLED LATIN SMALL LETTER F; fcircle
 19125 \DeclareTextCompositeCommand{\textcircled}{PU}{f}{\9044\325}% U+24D5
 19126 % U+24D6 CIRCLED LATIN SMALL LETTER G; gcircle
 19127 \DeclareTextCompositeCommand{\textcircled}{PU}{g}{\9044\326}% U+24D6
 19128 % U+24D7 CIRCLED LATIN SMALL LETTER H; hcircle
 19129 \DeclareTextCompositeCommand{\textcircled}{PU}{h}{\9044\327}% U+24D7
 19130 % U+24D8 CIRCLED LATIN SMALL LETTER I; icircle
 19131 \DeclareTextCompositeCommand{\textcircled}{PU}{i}{\9044\330}% U+24D8
 19132 % U+24D9 CIRCLED LATIN SMALL LETTER J; jcircle
 19133 \DeclareTextCompositeCommand{\textcircled}{PU}{j}{\9044\331}% U+24D9
 19134 % U+24DA CIRCLED LATIN SMALL LETTER K; kcircle
 19135 \DeclareTextCompositeCommand{\textcircled}{PU}{k}{\9044\332}% U+24DA
 19136 % U+24DB CIRCLED LATIN SMALL LETTER L; lcircle
 19137 \DeclareTextCompositeCommand{\textcircled}{PU}{l}{\9044\333}% U+24DB
 19138 % U+24DC CIRCLED LATIN SMALL LETTER M; mcircle
 19139 \DeclareTextCompositeCommand{\textcircled}{PU}{m}{\9044\334}% U+24DC

19140 % U+24DD CIRCLED LATIN SMALL LETTER N; ncircle
 19141 \DeclareTextCompositeCommand{\textcircled}{PU}{n}{\9044\335}% U+24DD
 19142 % U+24DE CIRCLED LATIN SMALL LETTER O; ocircle
 19143 \DeclareTextCompositeCommand{\textcircled}{PU}{o}{\9044\336}% U+24DE
 19144 % U+24DF CIRCLED LATIN SMALL LETTER P; pcircle
 19145 \DeclareTextCompositeCommand{\textcircled}{PU}{p}{\9044\337}% U+24DF
 19146 % U+24E0 CIRCLED LATIN SMALL LETTER Q; qcircle
 19147 \DeclareTextCompositeCommand{\textcircled}{PU}{q}{\9044\340}% U+24E0
 19148 % U+24E1 CIRCLED LATIN SMALL LETTER R; rcircle
 19149 \DeclareTextCompositeCommand{\textcircled}{PU}{r}{\9044\341}% U+24E1
 19150 % U+24E2 CIRCLED LATIN SMALL LETTER S; scircle
 19151 \DeclareTextCompositeCommand{\textcircled}{PU}{s}{\9044\342}% U+24E2
 19152 % U+24E3 CIRCLED LATIN SMALL LETTER T; tcircle
 19153 \DeclareTextCompositeCommand{\textcircled}{PU}{t}{\9044\343}% U+24E3
 19154 % U+24E4 CIRCLED LATIN SMALL LETTER U; ucircle
 19155 \DeclareTextCompositeCommand{\textcircled}{PU}{u}{\9044\344}% U+24E4
 19156 % U+24E5 CIRCLED LATIN SMALL LETTER V; vcircle
 19157 \DeclareTextCompositeCommand{\textcircled}{PU}{v}{\9044\345}% U+24E5
 19158 % U+24E6 CIRCLED LATIN SMALL LETTER W; wcircle
 19159 \DeclareTextCompositeCommand{\textcircled}{PU}{w}{\9044\346}% U+24E6
 19160 % U+24E7 CIRCLED LATIN SMALL LETTER X; xcircle
 19161 \DeclareTextCompositeCommand{\textcircled}{PU}{x}{\9044\347}% U+24E7
 19162 % U+24E8 CIRCLED LATIN SMALL LETTER Y; ycircle
 19163 \DeclareTextCompositeCommand{\textcircled}{PU}{y}{\9044\350}% U+24E8
 19164 % U+24E9 CIRCLED LATIN SMALL LETTER Z; zcircle
 19165 \DeclareTextCompositeCommand{\textcircled}{PU}{z}{\9044\351}% U+24E9
 19166 % U+24EA CIRCLED DIGIT ZERO
 19167 \DeclareTextCompositeCommand{\textcircled}{PU}{0}{\9044\352}% U+24EA

51.2.27 Box Drawing: U+2500 to 257F

19168 % U+2504 BOX DRAWINGS LIGHT TRIPLE DASH HORIZONTAL; \Cutting-
 Line (marvosym)
 19169 \DeclareTextCommand{\textCuttingLine}{PU}{\9045\004}%* U+2504
 19170 %* \textCuttingLine -> \Kutline (marvosym)
 19171 %* \textCuttingLine -> \CutLine (marvosym)
 19172 %* \textCuttingLine -> \Cutline (marvosym)

51.2.28 Geometric Shapes: U+25A0 to U+25FF

19173 % U+25B2 BLACK UP-POINTING TRIANGLE; \UParrow (wasysym)
 19174 \DeclareTextCommand{\textUParrow}{PU}{\9045\262}%* U+25B2
 19175 %* \textUParrow -> \MoveUp (marvosym)
 19176 % U+25B3 WHITE UP-POINTING TRIANGLE; whiteuppointingtriangle;
 19177 % \bigtriangleup (LaTeX)
 19178 \DeclareTextCommand{\textbigtriangleup}{PU}{\9045\263}%* U+25B3
 19179 %* \textbigtriangleup -> \APLup (wasysym)
 19180 %* \textbigtriangleup -> \Bleech (marvosym)
 19181 % U+25B6 BLACK RIGHT-POINTING TRIANGLE; \Forward (marvosym)
 19182 \DeclareTextCommand{\textForward}{PU}{\9045\266}%* U+25B6
 19183 % U+25B7 WHITE RIGHT-POINTING TRIANGLE (= z notation range restric-
 tion);
 19184 % whiterightpointingtriangle; \triangleright (LaTeX)
 19185 \DeclareTextCommand{\texttrangleright}{PU}{\9045\267}%* U+25B7
 19186 % U+25BA BLACK RIGHT-POINTING POINTER; \RHD (wasysym)
 19187 \DeclareTextCommand{\textRHD}{PU}{\9045\272}%* U+25BA
 19188 % U+25BC BLACK DOWN-POINTING TRIANGLE; \DOWNarrow (wasysym)
 19189 \DeclareTextCommand{\textDOWNarrow}{PU}{\9045\274}%* U+25BC
 19190 %* \textDOWNarrow -> \MoveDown (marvosym)

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19191 % U+25BD WHITE DOWN-POINTING TRIANGLE; whitedownpointingtrian-
      gle;
19192 % \bigtriangledown (LaTeX)
19193 \DeclareTextCommand{\textbigtriangledown}{PU}{\9045\275}%* U+25BD
19194 %* \textbigtriangledown -> \APLdown (wasysym)
19195 % U+25C0 BLACK LEFT-POINTING TRIANGLE; \Rewind (marvosym)
19196 \DeclareTextCommand{\textRewind}{PU}{\9045\300}%* U+25C0
19197 % U+25C1 WHITE RIGHT-POINTING TRIANGLE (= z notation domain re-
      striction);
19198 % whiteleftpointingtriangle; \triangleleft (LaTeX)
19199 \DeclareTextCommand{\texttriangleleft}{PU}{\9045\301}%* U+25C1
19200 % U+25C4 BLACK LEFT-POINTING POINTER; \LHD (wasysym)
19201 \DeclareTextCommand{\textLHD}{PU}{\9045\304}%* U+25C4
19202 % U+25C7 WHITE DIAMOND; whitediamond; \diamond (LaTeX)
19203 \DeclareTextCommand{\textdiamond}{PU}{\9045\307}%* U+25C7
19204 %* \textdiamond -> \Diamond (wasysym)
19205 % U+25CA LOZENGE; lozenge; \lozenge (AmS)
19206 \DeclareTextCommand{\textlozenge}{PU}{\9045\312}%* U+25CA
19207 % U+25D6 LEFT HALF BLACK CIRCLE; \LEFTCIRCLE (wasysym)
19208 \DeclareTextCommand{\textLEFTCIRCLE}{PU}{\9045\326}%* U+25D6
19209 % U+25D7 RIGHT HALF BLACK CIRCLE; \RIGHTCIRCLE (wasysym)
19210 \DeclareTextCommand{\textRIGHTCIRCLE}{PU}{\9045\327}%* U+25D7
19211 % U+25E6 WHITE BULLET; *openbullet, whitebullet
19212 \DeclareTextCommand{\textopenbullet}{PU}{\9045\346}%* U+25E6
19213 % U+25EB WHITE SQUARE WITH VERTICAL BISECTING LINE;
19214 % \boxbar (stmaryrd)
19215 \DeclareTextCommand{\textboxbar}{PU}{\9045\353}%* U+25EB
19216 % U+25EF LARGE CIRCLE; largecircle
19217 \DeclareTextCommand{\textbigcircle}{PU}{\9045\357}%* U+25EF
19218 %* \textbigcircle -> \varbigcirc (stmaryrd)
19219 %

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51.2.29 Miscellaneous Symbols: U+2600 to U+26FF

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19220 % U+2601 CLOUD; \Cloud (ifsym)
19221 \DeclareTextCommand{\textCloud}{PU}{\9046\001}%* U+2601
19222 % U+2605 BLACK STAR; \FiveStar (bbding)
19223 \DeclareTextCommand{\textFiveStar}{PU}{\9046\005}%* U+2605
19224 % U+2606 WHITE STAR; \FiveStarOpen (bbding)
19225 \DeclareTextCommand{\textFiveStarOpen}{PU}{\9046\006}%* U+2606
19226 % U+260E BLACK TELEPHONE; telephoneblack; \Phone (bbding)
19227 \DeclareTextCommand{\textPhone}{PU}{\9046\016}%* U+260E
19228 %* \textPhone -> \Telefon (marvosym)
19229 % U+2610 BALLOT BOX; \boxempty (stmaryrd)
19230 \DeclareTextCommand{\textboxempty}{PU}{\9046\020}%* U+2610
19231 %* \textboxempty -> \Box (wasysym)
19232 % U+2611 BALLOT BOX WITH CHECK; \Checkedbox (marvosym)
19233 \DeclareTextCommand{\textCheckedbox}{PU}{\9046\021}%* U+2611
19234 %* \textCheckedbox -> \CheckedBox (marvosym)
19235 % U+2612 BALLOT BOX WITH X; \Crossedbox (marvosym)
19236 \DeclareTextCommand{\textCrossedbox}{PU}{\9046\022}%* U+2612
19237 %* \textCrossedbox -> \XBox (wasysym)
19238 %* \textCrossedbox -> \CrossedBox (marvosym)
19239 % U+2615 HOT BEVERAGE; \Coffeecup (marvosym)
19240 \DeclareTextCommand{\textCoffeecup}{PU}{\9046\025}%* U+2615
19241 % U+261A BLACK LEFT POINTING INDEX; \HandCuffLeft (bbding)
19242 \DeclareTextCommand{\textHandCuffLeft}{PU}{\9046\032}%* U+261A
19243 % U+261B BLACK RIGHT POINTING INDEX; \HandCuffRight (bbding)

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19244 \DeclareTextCommand{\textHandCuffRight}{PU}{\9046\033}%* U+261B
19245 % U+261C WHITE LEFT POINTING INDEX; \HandLeft (bding)
19246 \DeclareTextCommand{\textHandLeft}{PU}{\9046\034}%* U+261C
19247 %* \textHandLeft -> \rightpointleft (fourier)
19248 % U+261E WHITE RIGHT POINTING INDEX; \HandRight (bding)
19249 \DeclareTextCommand{\textHandRight}{PU}{\9046\036}%* U+261E
19250 %* \textHandRight -> \leftpointright (fourier)
19251 %* \textHandRight -> \PointingHand (marvosym)
19252 %* \textHandRight -> \Pointinghand (marvosym)
19253 % U+2622 RADIOACTIVE SIGN; \Radioactivity (marvosym)
19254 \DeclareTextCommand{\textRadioactivity}{PU}{\9046\042}%* U+2622
19255 %* \textRadioactivity -> \Radiation (ifsym)
19256 % U+2623 BIOHAZARD SIGN; \Biohazard (marvosym)
19257 \DeclareTextCommand{\textBiohazard}{PU}{\9046\043}%* U+2623
19258 % U+2625 ANKH; \Ankh (marvosym)
19259 \DeclareTextCommand{\textAnkh}{PU}{\9046\045}%* U+2625
19260 % U+262F YIN YANG; \YinYang (marvosym)
19261 \DeclareTextCommand{\textYinYang}{PU}{\9046\057}%* U+262F
19262 %* \textYinYang -> \Yinyang (marvosym)
19263 %* \textYinYang -> \YingYang (marvosym)
19264 %* \textYinYang -> \Yingyang (marvosym)
19265 % U+2639 WHITE FROWNING FACE; \frownie (wasysym)
19266 \DeclareTextCommand{\textfrownie}{PU}{\9046\071}%* U+2639
19267 %* \textfrownie -> \Frowny (marvosym)
19268 % U+263A WHITE SMILING FACE; \smiley (wasysym)
19269 \DeclareTextCommand{\textsmiley}{PU}{\9046\072}%* U+263A
19270 %* \textsmiley -> \Smiley (marvosym)
19271 % U+263B BLACK SMILING FACE; \blacksmiley (wasysym)
19272 \DeclareTextCommand{\textblacksmiley}{PU}{\9046\073}%* U+263B
19273 % U+263C WHITE SUN WITH RAYS; \sun (wasysym)
19274 \DeclareTextCommand{\textsun}{PU}{\9046\074}%* U+263C
19275 %* \textsun -> \Sun (marvosym)
19276 % U+263D FIRST QUARTER MOON; \leftmoon (wasysym, mathabx)
19277 \DeclareTextCommand{\textleftmoon}{PU}{\9046\075}%* U+263D
19278 % U+263E LAST QUARTER MOON; \rightmoon (wasysym, mathabx)
19279 \DeclareTextCommand{\textrightmoon}{PU}{\9046\076}%* U+263E
19280 % U+263F MERCURY; \mercury (wasysym)
19281 \DeclareTextCommand{\textmercury}{PU}{\9046\077}%* U+263F
19282 %* \textmercury -> \Mercury (marvosym)
19283 % U+2640 FEMALE SIGN; female; \female (wasysym)
19284 \DeclareTextCommand{\textPUfemale}{PU}{\9046\100}% U+2640
19285 %* \textPUfemale -> \textfemale (tipx)
19286 %* \textPUfemale -> \female (wasysym)
19287 %* \textPUfemale -> \venus (wasysym)
19288 %* \textPUfemale -> \Venus (marvosym)
19289 %* \textPUfemale -> \Female (marvosym)
19290 % U+2641 EARTH; \earth (wasysym)
19291 \DeclareTextCommand{\textearth}{PU}{\9046\101}%* U+2641
19292 %* \textearth -> \Earth (marvosym)
19293 % U+2642 MALE SIGN; male, mars; \male (wasysym)
19294 \DeclareTextCommand{\textmale}{PU}{\9046\102}%* U+2642
19295 %* \textmale -> \mars (wasysym)
19296 %* \textmale -> \Mars (marvosym)
19297 %* \textmale -> \Male (marvosym)
19298 % U+2643 JUPITER; \jupiter (wasysym)
19299 \DeclareTextCommand{\textjupiter}{PU}{\9046\103}%* U+2643
19300 %* \textjupiter -> \Jupiter (marvosym)


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19301 % U+2644 SATURN; \saturn (wasysym)
19302 \DeclareTextCommand{\textsaturn}{PU}{\9046\104}%* U+2644
19303 %* \textsaturn -> \Saturn (marvosym)
19304 % U+2645 URANUS; \uranus (wasysym)
19305 \DeclareTextCommand{\texturanus}{PU}{\9046\105}%* U+2645
19306 %* \texturanus -> \Uranus (marvosym)
19307 % U+2646 NEPTUNE; \neptune (wasysym)
19308 \DeclareTextCommand{\textneptune}{PU}{\9046\106}%* U+2646
19309 %* \textneptune -> \Neptune (marvosym)
19310 % U+2647 PLUTO; \pluto (wasysym)
19311 \DeclareTextCommand{\textpluto}{PU}{\9046\107}%* U+2647
19312 %* \textpluto -> \Pluto (marvosym)
19313 % U+2648 ARIES; \aries (wasysym)
19314 \DeclareTextCommand{\textaries}{PU}{\9046\110}%* U+2648
19315 %* \textaries -> \Aries (marvosym)
19316 % U+2649 TAURUS; \taurus (wasysym)
19317 \DeclareTextCommand{\texttaurus}{PU}{\9046\111}%* U+2649
19318 %* \texttaurus -> \Taurus (marvosym)
19319 % U+264A GEMINI; \gemini (wasysym)
19320 \DeclareTextCommand{\textgemini}{PU}{\9046\112}%* U+264A
19321 %* \textgemini -> \Gemini (marvosym)
19322 % U+264B CANCER; \cancer (wasysym)
19323 \DeclareTextCommand{\textcancer}{PU}{\9046\113}%* U+264B
19324 %* \textcancer -> \Cancer (marvosym)
19325 % U+264C LEO; \leo (wasysym)
19326 \DeclareTextCommand{\textleo}{PU}{\9046\114}%* U+264C
19327 %* \textleo -> \Leo (marvosym)
19328 % U+264D VIRGO; \virgo (wasysym)
19329 \DeclareTextCommand{\textvirgo}{PU}{\9046\115}%* U+264D
19330 %* \textvirgo -> \Virgo (marvosym)
19331 % U+264E LIBRA; \libra (wasysym)
19332 \DeclareTextCommand{\textlibra}{PU}{\9046\116}%* U+264E
19333 %* \textlibra -> \Libra (marvosym)
19334 % U+264F SCORPIO; \scorpio (wasysym)
19335 \DeclareTextCommand{\textscorpio}{PU}{\9046\117}%* U+264F
19336 %* \textscorpio -> \Scorpio (marvosym)
19337 % U+2650 SAGITTARIUS; \sagittarius (wasysym)
19338 \DeclareTextCommand{\textsagittarius}{PU}{\9046\120}%* U+2650
19339 %* \textsagittarius -> \Sagittarius (marvosym)
19340 % U+2651 CAPRICORN; \capricornus (wasysym)
19341 \DeclareTextCommand{\textcapricornus}{PU}{\9046\121}%* U+2651
19342 %* \textcapricornus -> \Capricorn (marvosym)
19343 % U+2652 AQUARIUS; \aquarius (wasysym)
19344 \DeclareTextCommand{\textaquarius}{PU}{\9046\122}%* U+2652
19345 %* \textaquarius -> \Aquarius (marvosym)
19346 % U+2653 PISCES; \pisces (wasysym)
19347 \DeclareTextCommand{\textpisces}{PU}{\9046\123}%* U+2653
19348 %* \textpisces -> \Pisces (marvosym)
19349 % U+2660 BLACK SPADE SUIT; spade, spadesuitblack; \spadesuit (LaTeX)
19350 \DeclareTextCommand{\textspadesuitblack}{PU}{\9046\140}% U+2660
19351 %* \textspadesuitblack -> \spadesuit (MnSymbol)
19352 % U+2661 WHITE HEART SUIT; heartsuitwhite; \heartsuit (LaTeX)
19353 \DeclareTextCommand{\textheartsuitwhite}{PU}{\9046\141}% U+2661
19354 %* \textheartsuitwhite -> \Heart (marvosym)
19355 %* \textheartsuitwhite -> \heartsuit (MnSymbol)
19356 % U+2662 WHITE DIAMOND SUIT; diamondsuitwhite; \diamondsuit (LaTeX)
19357 \DeclareTextCommand{\textdiamondsuitwhite}{PU}{\9046\142}% U+2662

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19358 %* \textdiamondsuitwhite -> \diamondsuit (MnSymbol)
 19359 % U+2663 BLACK CLUB SUIT; club, clubsuitblack; \clubsuit (LaTeX)
 19360 \DeclareTextCommand{\textclubsuitblack}{PU}{\9046\143}% U+2663
 19361 %* \textclubsuitblack -> \clubsuit (MnSymbol)
 19362 % U+2664 WHITE SPADE SUIT; spadesuitwhite
 19363 \DeclareTextCommand{\textspadesuitwhite}{PU}{\9046\144}% U+2664
 19364 % U+2665 BLACK HEART SUIT; heartsuitblack, heart
 19365 \DeclareTextCommand{\textheartsuitblack}{PU}{\9046\145}% U+2665
 19366 % U+2666 BLACK DIAMOND SUIT; diamond
 19367 \DeclareTextCommand{\textdiamondsuitblack}{PU}{\9046\146}% U+2666
 19368 % U+2667 WHITE CLUB SUIT; clubsuitwhite
 19369 \DeclareTextCommand{\textclubsuitwhite}{PU}{\9046\147}% U+2667
 19370 % U+2669 QUARTER NOTE; quarternote; \quarternote (wasysym, arev)
 19371 \DeclareTextCommand{\textquarternote}{PU}{\9046\151}%* U+2669
 19372 % U+266A EIGHTH NOTE; musicalnote; \textmusicalnote (textcomp)
 19373 \DeclareTextCommand{\textmusicalnote}{PU}{\9046\152}% U+266A
 19374 %* \textmusicalnote -> \eighthnote (wasysym, arev)
 19375 % U+266B BEAMED EIGHTH NOTES; eighthnotebeamed; \twonotes (wasysym)
 19376 \DeclareTextCommand{\texttwonotes}{PU}{\9046\153}%* U+266B
 19377 % U+266C BEAMED SIXTEENTH NOTES; beamedsixteenthnotes; \sixteenth-
 note (arev)
 19378 \DeclareTextCommand{\textsixteenthnote}{PU}{\9046\154}%* U+266C
 19379 % U+266D MUSIC FLAT SIGN; musicflatsign; \flat (LaTeX)
 19380 \DeclareTextCommand{\textflat}{PU}{\9046\155}%* U+266D
 19381 % U+266E MUSIC NATURAL SIGN; \natural (LaTeX)
 19382 \DeclareTextCommand{\textnatural}{PU}{\9046\156}%* U+266E
 19383 % U+266F MUSIC SHARP SIGN; musicsharpsign; \sharp (LaTeX)
 19384 \DeclareTextCommand{\textsharp}{PU}{\9046\157}%* U+266F
 19385 % U+2672 UNIVERSAL RECYCLING SYMBOL; \recycle (recycle)
 19386 \DeclareTextCommand{\textrecycle}{PU}{\9046\162}%* U+2672
 19387 %* \textrecycle -> \Recycling (marvosym)
 19388 % U+267F WHEELCHAIR SYMBOL; \Wheelchair (marvosym)
 19389 \DeclareTextCommand{\textWheelchair}{PU}{\9046\177}%* U+267F
 19390 % U+2691 BLACK FLAG; \Flag (ifsym)
 19391 \DeclareTextCommand{\textFlag}{PU}{\9046\221}%* U+2691
 19392 %* \textFlag -> \VarFlag (ifsym)
 19393 % U+2692 HAMMER AND PICK; \MineSign (marvosym)
 19394 \DeclareTextCommand{\textMineSign}{PU}{\9046\222}%* U+2692
 19395 % U+2694 CROSSED SWORDS; \dsmilitary (dictsym)
 19396 \DeclareTextCommand{\textdsmilitary}{PU}{\9046\224}%* U+2694
 19397 %* \textdsmilitary -> \textxswup (fourier)
 19398 % U+2695 STAFF OF AESCULAPIUS; \dsmedical (dictsym)
 19399 \DeclareTextCommand{\textdsmedical}{PU}{\9046\225}%* U+2695
 19400 % U+2696 SCALES; \dsjuridical (dictsym)
 19401 \DeclareTextCommand{\textdsjuridical}{PU}{\9046\226}%* U+2696
 19402 % U+2697 ALEMBIC; \dschemical (dictsym)
 19403 \DeclareTextCommand{\textdschemical}{PU}{\9046\227}%* U+2697
 19404 % U+2698 FLOWER; \dsbiological (dictsym)
 19405 \DeclareTextCommand{\textdsbiological}{PU}{\9046\230}%* U+2698
 19406 % U+269A STAFF OF HERMES; \dscommercial (dictsym)
 19407 \DeclareTextCommand{\textdscommercial}{PU}{\9046\232}%* U+269A
 19408 % U+269D OUTLINED WHITE STAR; \manstar (manfnt)
 19409 \DeclareTextCommand{\textmanstar}{PU}{\9046\235}%* U+269D
 19410 % U+26A0 WARNING SIGN; \danger (fourier)
 19411 \DeclareTextCommand{\textdanger}{PU}{\9046\240}%* U+26A0
 19412 % U+26A2 DOUBLED FEMALE SIGN; \FemaleFemale (marvosym)
 19413 \DeclareTextCommand{\textFemaleFemale}{PU}{\9046\242}%* U+26A2

19414 % U+26A3 DOUBLED MALE SIGN; \MaleMale (marvosym)
 19415 \DeclareTextCommand{\textMaleMale}{PU}{\9046\243}%* U+26A3
 19416 % U+26A4 INTERLOCKED FEMALE AND MALE SIGN; \FemaleMale (marvosym)
 19417 \DeclareTextCommand{\textFemaleMale}{PU}{\9046\244}%* U+26A4
 19418 % U+26A5 MALE AND FEMALE SIGN; \Hermaphrodite (marvosym)
 19419 \DeclareTextCommand{\textHermaphrodite}{PU}{\9046\245}%* U+26A5
 19420 % U+26AA MEDIUM WHITE CIRCLE; \Neural (marvosym)
 19421 \DeclareTextCommand{\textNeutral}{PU}{\9046\252}%* U+26AA
 19422 % U+26AD MARRIAGE SYMBOL
 19423 \DeclareTextCommand{\textmarried}{PU}{\9046\255}% U+26AD
 19424 % U+26AE DIVORCE SYMBOL
 19425 \DeclareTextCommand{\textdivorced}{PU}{\9046\256}% U+26AE
 19426 % U+26B2 NEUTER; \textuncrfemale (tipx)
 19427 \DeclareTextCommand{\textPUuncrfemale}{PU}{\9046\262}% U+26B2
 19428 %* \textPUuncrfemale -> \textuncrfemale (tipx)
 19429 % U+26B9 SEXTILE; \hexstar (wasysym)
 19430 \DeclareTextCommand{\texthexstar}{PU}{\9046\271}%* U+26B9
 19431 % U+26BD SOCCER BALL; \Football (marvosym)
 19432 \DeclareTextCommand{\textSoccerBall}{PU}{\9046\275}% U+26BD
 19433 %* \textSoccerBall -> \Football (marvosym)
 19434 % U+26C5 SUN BEHIND CLOUD; \SunCloud (ifsym)
 19435 \DeclareTextCommand{\textSunCloud}{PU}{\9046\305}%* U+26C5
 19436 % U+26C6 RAIN; \Rain (ifsym)
 19437 \DeclareTextCommand{\textRain}{PU}{\9046\306}%* U+26C6
 19438 % U+26D4 NO ENTRY; \noway (fourier)
 19439 \DeclareTextCommand{\textnoway}{PU}{\9046\324}%* U+26D4
 19440 % U+26F0 MOUNTAIN; \Mountain (ifsym)
 19441 \DeclareTextCommand{\textMountain}{PU}{\9046\360}%* U+26F0
 19442 % U+26FA TENT; \Tent (ifsym)
 19443 \DeclareTextCommand{\textTent}{PU}{\9046\372}%* U+26FA

51.2.30 Dingbats: U+2700 to U+27BF

19444 % U+2701 UPPER BLADE SCISSORS; \ScissorRightBrokenBottom (bbding)
 19445 \DeclareTextCommand{\textScissorRightBrokenBottom}{PU}{\9047\001}% U+2701
 19446 %* \textScissorRightBrokenBottom -> \CutLeft (marvosym)
 19447 %* \textScissorRightBrokenBottom -> \Cutright (marvosym)
 19448 % U+2702 BLACK SCISSORS; \ScissorRight (bbding)
 19449 \DeclareTextCommand{\textScissorRight}{PU}{\9047\002}%* U+2702
 19450 %* \textScissorRight -> \RightScissors (marvosym)
 19451 %* \textScissorRight -> \Leftscissors (marvosym)
 19452 % U+2703 LOWER BLADE SCISSORS; \ScissorRightBrokenTop (bbding)
 19453 \DeclareTextCommand{\textScissorRightBrokenTop}{PU}{\9047\003}%* U+2703
 19454 % U+2704 WHITE SCISSORS; \ScissorHollowRight (bbding)
 19455 \DeclareTextCommand{\textScissorHollowRight}{PU}{\9047\004}%* U+2704
 19456 % U+2706 TELEPHONE LOCATION SIGN; \PhoneHandset (bbding)
 19457 \DeclareTextCommand{\textPhoneHandset}{PU}{\9047\006}%* U+2706
 19458 % U+2707 TAPE DRIVE; \Tape (bbding)
 19459 \DeclareTextCommand{\textTape}{PU}{\9047\007}%* U+2707
 19460 % U+2708 AIRPLANE; \Plane (bbding)
 19461 \DeclareTextCommand{\textPlane}{PU}{\9047\010}%* U+2708
 19462 % U+2709 ENVELOPE; \Envelope (bbding),
 19463 \DeclareTextCommand{\textEnvelope}{PU}{\9047\011}%* U+2709
 19464 %* \textEnvelope -> \Letter (marvosym)
 19465 % U+270C VICTORY HAND; \Peace (bbding)
 19466 \DeclareTextCommand{\textPeace}{PU}{\9047\014}%* U+270C
 19467 % U+270D WRITING HAND; \WritingHand (marvosym)

19468 \DeclareTextCommand{\textWritingHand}{PU}{\9047\015}%* U+270D
19469 %* \textWritingHand -> \Writinghand (marvosym)
19470 % U+270E LOWER RIGHT PENCIL; \PencilRightDown (bbding)
19471 \DeclareTextCommand{\textPencilRightDown}{PU}{\9047\016}%* U+270E
19472 % U+270F PENCIL; \PencilRight (bbding)
19473 \DeclareTextCommand{\textPencilRight}{PU}{\9047\017}%* U+270F
19474 % U+2710 UPPER RIGHT PENCIL; \PencilRightUp (bbding)
19475 \DeclareTextCommand{\textPencilRightUp}{PU}{\9047\020}%* U+2710
19476 % U+2711 WHITE NIB; \NibRight (bbding)
19477 \DeclareTextCommand{\textNibRight}{PU}{\9047\021}%* U+2711
19478 % U+2712 BLACK NIB; \NibSolidRight (bbding)
19479 \DeclareTextCommand{\textNibSolidRight}{PU}{\9047\022}%* U+2712
19480 % U+2713 CHECK MARK; checkmark; \Checkmark (bbding)
19481 \DeclareTextCommand{\textCheckmark}{PU}{\9047\023}%* U+2713
19482 %* \textCheckmark -> \checkmark (MnSymbol)
19483 % U+2714 HEAVY CHECK MARK; \CheckmarkBold (bbding)
19484 \DeclareTextCommand{\textCheckmarkBold}{PU}{\9047\024}%* U+2714
19485 % U+2715 MULTIPLICATION X; \XSolid (bbding)
19486 \DeclareTextCommand{\textXSolid}{PU}{\9047\025}%* U+2715
19487 % U+2716 HEAVY MULTIPLICATION X; \XSolidBold (bbding)
19488 \DeclareTextCommand{\textXSolidBold}{PU}{\9047\026}%* U+2716
19489 % U+2717 BALLOT X; \XSolidBrush (bbding)
19490 \DeclareTextCommand{\textXSolidBrush}{PU}{\9047\027}%* U+2717
19491 % U+2719 OUTLINED GREEK CROSS; \PlusOutline (bbding)
19492 \DeclareTextCommand{\textPlusOutline}{PU}{\9047\031}%* U+2719
19493 % U+271A HEAVY GREEK CROSS; \Plus (bbding)
19494 \DeclareTextCommand{\textPlus}{PU}{\9047\032}%* U+271A
19495 % U+271B OPEN CENTRE CROSS; \PlusThinCenterOpen (bbding)
19496 \DeclareTextCommand{\textPlusThinCenterOpen}{PU}{\9047\033}%* U+271B
19497 % U+271C HEAVY OPEN CENTRE CROSS; \PlusCenterOpen (bbding)
19498 \DeclareTextCommand{\textPlusCenterOpen}{PU}{\9047\034}%* U+271C
19499 % U+271D LATIN CROSS; \Cross (bbding)
19500 \DeclareTextCommand{\textCross}{PU}{\9047\035}%* U+271D
19501 % U+271E SHADOWED WHITE LATIN CROSS; \CrossOpenShadow (bbding)
19502 \DeclareTextCommand{\textCrossOpenShadow}{PU}{\9047\036}%* U+271E
19503 % U+271F OUTLINED LATIN CROSS; \CrossOutline (bbding)
19504 \DeclareTextCommand{\textCrossOutline}{PU}{\9047\037}%* U+271F
19505 % U+2720 MALTESE CROSS; \CrossMaltese (bbding)
19506 \DeclareTextCommand{\textCrossMaltese}{PU}{\9047\040}%* U+2720
19507 % U+2721 STAR OF DAVID; \DavidStar (bbding)
19508 \DeclareTextCommand{\textDavidStar}{PU}{\9047\041}%* U+2721
19509 %* \textDavidStar -> \davidstar (wasysym)
19510 % U+2722 FOUR TEARDROP-SPOKED ASTERISK; \FourAsterisk (bbding)
19511 \DeclareTextCommand{\textFourAsterisk}{PU}{\9047\042}%* U+2722
19512 % U+2723 FOUR BALLOON-SPOKED ASTERISK; \JackStar (bbding)
19513 \DeclareTextCommand{\textJackStar}{PU}{\9047\043}%* U+2723
19514 % U+2724 HEAVY FOUR BALLOON-SPOKED ASTERISK; \JackStarBold (bbding)
19515 \DeclareTextCommand{\textJackStarBold}{PU}{\9047\044}%* U+2724
19516 % U+2725 FOUR CLUB-SPOKED ASTERISK; \CrossClowerTips (bbding)
19517 \DeclareTextCommand{\textClowerTips}{PU}{\9047\045}%* U+2725
19518 % U+2726 BLACK FOUR POINTED STAR; \FourStar (bbding)
19519 \DeclareTextCommand{\textFourStar}{PU}{\9047\046}%* U+2726
19520 % U+2727 WHITE FOUR POINTED STAR; \FourStarOpen (bbding)
19521 \DeclareTextCommand{\textFourStarOpen}{PU}{\9047\047}%* U+2727
19522 % U+272A CIRCLED WHITE STAR; \FiveStarOpenCircled (bbding)
19523 \DeclareTextCommand{\textFiveStarOpenCircled}{PU}{\9047\052}%* U+272A

19524 % U+272B OPEN CENTRE BLACK STAR; \FiveStarCenterOpen (bding)
 19525 \DeclareTextCommand{\textFiveStarCenterOpen}{PU}{\9047\053}%* U+272B
 19526 % U+272C BLACK CENTRE WHITE STAR; \FiveStarOpenDotted (bding)
 19527 \DeclareTextCommand{\textFiveStarOpenDotted}{PU}{\9047\054}%* U+272C
 19528 % U+272D OUTLINED BLACK STAR; \FiveStarOutline (bding)
 19529 \DeclareTextCommand{\textFiveStarOutline}{PU}{\9047\055}%* U+272D
 19530 % U+272E HEAVY OUTLINED BLACK STAR; \FiveStarOutlineHeavy (bding)
 19531 \DeclareTextCommand{\textFiveStarOutlineHeavy}{PU}{\9047\056}%* U+272E
 19532 % U+272F PINWHEEL STAR; \FiveStarConvex (bding)
 19533 \DeclareTextCommand{\textFiveStarConvex}{PU}{\9047\057}%* U+272F
 19534 % U+2730 SHADOWED WHITE STAR; \FiveStarShadow (bding)
 19535 \DeclareTextCommand{\textFiveStarShadow}{PU}{\9047\060}%* U+2730
 19536 % U+2731 HEAVY ASTERISK; \AsteriskBold (bding)
 19537 \DeclareTextCommand{\textAsteriskBold}{PU}{\9047\061}%* U+2731
 19538 % U+2732 OPEN CENTRE ASTERISK; \AsteriskCenterOpen (bding)
 19539 \DeclareTextCommand{\textAsteriskCenterOpen}{PU}{\9047\062}%* U+2732
 19540 % U+2734 EIGHT POINTED BLACK STAR; \EightStarTaper (bding)
 19541 \DeclareTextCommand{\textEightStarTaper}{PU}{\9047\064}%* U+2734
 19542 % U+2735 EIGHT POINTED PINWHEEL STAR; \EightStarConvex (bding)
 19543 \DeclareTextCommand{\textEightStarConvex}{PU}{\9047\065}%* U+2735
 19544 % U+2736 SIX POINTED BLACK STAR; \SixStar (bding)
 19545 \DeclareTextCommand{\textSixStar}{PU}{\9047\066}%* U+2736
 19546 % U+2737 EIGHT POINTED RECTILINEAR BLACK STAR; \EightStar (bding)
 19547 \DeclareTextCommand{\textEightStar}{PU}{\9047\067}%* U+2737
 19548 % U+2738 HEAVY EIGHT POINTED RECTILINEAR BLACK STAR; \EightStarBold (bding)
 19549 \DeclareTextCommand{\textEightStarBold}{PU}{\9047\070}%* U+2738
 19550 % U+2739 TWELVE POINTED BLACK STAR; \TwelveStar (bding)
 19551 \DeclareTextCommand{\textTwelveStar}{PU}{\9047\071}%* U+2739
 19552 % U+273A SIXTEEN POINTED ASTERISK; \SixteenStarLight (bding)
 19553 \DeclareTextCommand{\textSixteenStarLight}{PU}{\9047\072}%* U+273A
 19554 % U+273B TEARDROP-SPOKED ASTERISK; \SixFlowerPetalRemoved (bding)
 19555 \DeclareTextCommand{\textSixFlowerPetalRemoved}{PU}{\9047\073}%* U+273B
 19556 % U+273C OPEN CENTRE TEARDROP-SPOKED ASTERISK;
 19557 % \SixFlowerOpenCenter (bding)
 19558 \DeclareTextCommand{\textSixFlowerOpenCenter}{PU}{\9047\074}%* U+273C
 19559 % U+273D HEAVY TEARDROP-SPOKED ASTERISK; \Asterisk (bding)
 19560 \DeclareTextCommand{\textAsterisk}{PU}{\9047\075}%* U+273D
 19561 % U+273E SIX PETALLED BLACK AND WHITE FLORETTE; \SixFlowerAlternate (bding)
 19562 \DeclareTextCommand{\textSixFlowerAlternate}{PU}{\9047\076}%* U+273E
 19563 % U+273F BLACK FLORETTE; \FiveFlowerPetal (bding)
 19564 \DeclareTextCommand{\textFiveFlowerPetal}{PU}{\9047\077}%* U+273F
 19565 % U+2740 WHITE FLORETTE; \FiveFlowerOpen (bding)
 19566 \DeclareTextCommand{\textFiveFlowerOpen}{PU}{\9047\100}%* U+2740
 19567 % U+2741 EIGHT PETALLED OUTLINED BLACK FLORETTE; \EightFlowerPetal (bding)
 19568 \DeclareTextCommand{\textEightFlowerPetal}{PU}{\9047\101}%* U+2741
 19569 % U+2742 CIRCLED OPEN CENTRE EIGHT POINTED STAR; \SunshineOpenCircled (bding)
 19570 \DeclareTextCommand{\textSunshineOpenCircled}{PU}{\9047\102}%* U+2742
 19571 % U+2743 HEAVY TEARDROP-SPOKED PINWHEEL ASTERISK; \SixFlowerAltPetal (bding)
 19572 \DeclareTextCommand{\textSixFlowerAltPetal}{PU}{\9047\103}%* U+2743
 19573 % U+2744 SNOWFLAKE; \SnowflakeChevron (bding)

19574 \DeclareTextCommand{\textSnowflakeChevron}{PU}{\9047\104}%* U+2744
 19575 % U+2745 TIGHT TRIFOLIATE SNOWFLAKE; \Snowflake (bding)
 19576 \DeclareTextCommand{\textSnowflake}{PU}{\9047\105}%* U+2745
 19577 % U+2746 HEAVY CHEVRON SNOWFLAKE; \SnowflakeChevronBold (bding)
 19578 \DeclareTextCommand{\textSnowflakeChevronBold}{PU}{\9047\106}%* U+2746
 19579 % U+2747 SPARKLE; \Sparkle (bding)
 19580 \DeclareTextCommand{\textSparkle}{PU}{\9047\107}%* U+2747
 19581 % U+2748 HEAVY SPARKLE; \SparkleBold (bding)
 19582 \DeclareTextCommand{\textSparkleBold}{PU}{\9047\110}%* U+2748
 19583 % U+2749 BALLOON-SPOKED ASTERISK; \AsteriskRoundedEnds (bding)
 19584 \DeclareTextCommand{\textAsteriskRoundedEnds}{PU}{\9047\111}%* U+2749
 19585 % U+274A EIGHT TEARDROP-SPOKED PROPELLER ASTERISK;
 19586 % \EightFlowerPetalRemoved (bding)
 19587 \DeclareTextCommand{\textEightFlowerPetalRemoved}{PU}{\9047\112}%* U+274A
 19588 % U+274B HEAVY EIGHT TEARDROP-SPOKED PROPELLER ASTERISK;
 19589 % \EightAsterisk (bding)
 19590 \DeclareTextCommand{\textEightAsterisk}{PU}{\9047\113}%* U+274B
 19591 % U+274D SHADOWED WHITE CIRCLE; \CircleShadow (bding)
 19592 \DeclareTextCommand{\textCircleShadow}{PU}{\9047\115}%* U+274D
 19593 % U+274F LOWER RIGHT DROP-SHADOWED WHITE SQUARE;
 19594 % \SquareShadowBottomRight (bding)
 19595 \DeclareTextCommand{\textSquareShadowBottomRight}{PU}{\9047\117}%* U+274F
 19596 % U+2750 UPPER RIGHT DROP-SHADOWED WHITE SQUARE;
 19597 % \SquareShadowTopRight (bding)
 19598 \DeclareTextCommand{\textSquareTopRight}{PU}{\9047\120}%* U+2750
 19599 % U+2751 LOWER RIGHT SHADOWED WHITE SQUARE;
 19600 % \SquareCastShadowBottomRight (bding)
 19601 \DeclareTextCommand{\textSquareCastShadowBottomRight}{PU}{\9047\121}%* U+2751
 19602 % U+2752 UPPER RIGHT SHADOWED WHITE SQUARE;
 19603 % \SquareCastShadowTopRight (bding)
 19604 \DeclareTextCommand{\textSquareCastShadowTopRight}{PU}{\9047\122}%* U+2752
 19605 % U+2756 BLACK DIAMOND MINUS WHITE X; \OrnamentDiamandSolid (b-
 ding)
 19606 \DeclareTextCommand{\textDiamandSolid}{PU}{\9047\126}%* U+2756
 19607 % U+2758 LIGHT VERTICAL BAR; \RectangleThin (bding)
 19608 \DeclareTextCommand{\textRectangleThin}{PU}{\9047\130}%* U+2758
 19609 % U+2759 MEDIUM VERTICAL BAR; \Rectangle (bding)
 19610 \DeclareTextCommand{\textRectangle}{PU}{\9047\131}%* U+2759
 19611 % U+275A HEAVY VERTICAL BAR; \RectangleBold (bding)
 19612 \DeclareTextCommand{\textRectangleBold}{PU}{\9047\132}%* U+275A

51.2.31 Miscellaneous Mathematical Symbols-A: U+27C0 to U+27EF

19613 % U+27C2 PERPENDICULAR; perpendicular; \perp (LaTeX)
 19614 \DeclareTextCommand{\textperp}{PU}{\9047\302}%* U+27C2
 19615 % \notperp (mathabx)
 19616 \DeclareTextCommand{\textnotperp}{PU}{\9047\302\83\070}%* U+27C2 U+0338
 19617 % U+27C7 OR WITH DOT INSIDE; \veedot (MnSymbol)
 19618 \DeclareTextCommand{\textveedot}{PU}{\9047\307}%* U+27C7
 19619 % U+27D1 AND WITH DOT; \wedgedot (MnSymbol)
 19620 \DeclareTextCommand{\textwedgedot}{PU}{\9047\321}%* U+27D1
 19621 % U+27DC LEFT MULTIMAP; \leftspoon (MnSymbol)
 19622 \DeclareTextCommand{\textleftspoon}{PU}{\9047\334}%* U+27DC
 19623 % U+27E6 MATHEMATICAL LEFT WHITE SQUARE BRACKET
 19624 \DeclareTextCommand{\textlbrackdbl}{PU}{\9047\346}%* U+27E6
 19625 %* \textlbrackdbl -> \llbracket (stmaryrd)
 19626 % U+27E7 MATHEMATICAL RIGHT WHITE SQUARE BRACKET
 19627 \DeclareTextCommand{\textrbrackdbl}{PU}{\9047\347}%* U+27E7

19628 %* \textrbrackdbl -> \rrbracket (stmaryrd)

51.2.32 Supplemental Arrows-A: U+27F0 to U+27FF

19629 % U+27F2 ANTICLOCKWISE GAPPED CIRCLE ARROW;
19630 % \circlearrowleft (AmS)
19631 \DeclareTextCommand{\textcirclearrowleft}{PU}{\9047\362}%* U+27F2
19632 % U+27F3 CLOCKWISE GAPPED CIRCLE ARROW; \circlearrowright (AmS)
19633 \DeclareTextCommand{\textcirclearrowright}{PU}{\9047\363}%* U+27F3
19634 % U+27F5 LONG LEFTWARDS ARROW; \longleftarrow (AmS)
19635 \DeclareTextCommand{\textlongleftarrow}{PU}{\9047\365}%* U+27F5
19636 % U+27F6 LONG RIGHTWARDS ARROW; \longrightarrow (AmS)
19637 \DeclareTextCommand{\textlongrightarrow}{PU}{\9047\366}%* U+27F6
19638 % U+27F7 LONG LEFT RIGHT ARROW; \longlefttrightarrow (AmS)
19639 \DeclareTextCommand{\textlonglefttrightarrow}{PU}{\9047\367}%* U+27F7
19640 % U+27F8 LONG LEFTWARDS DOUBLE ARROW; \Longleftarrow (AmS)
19641 \DeclareTextCommand{\textLongleftarrow}{PU}{\9047\370}%* U+27F8
19642 % U+27F9 LONG RIGHTWARDS DOUBLE ARROW; \Longrightarrow (AmS)
19643 \DeclareTextCommand{\textLongrightarrow}{PU}{\9047\371}%* U+27F9
19644 % U+27FA LONG LEFT RIGHT DOUBLE ARROW; \Longlefttrightarrow (AmS)
19645 \DeclareTextCommand{\textLonglefttrightarrow}{PU}{\9047\372}%* U+27FA
19646 % U+27FC LONG RIGHTWARDS ARROW FROM BAR; \longmapsto (AmS)
19647 \DeclareTextCommand{\textlongmapsto}{PU}{\9047\374}%* U+27FC
19648 % U+27FD LONG LEFTWARDS DOUBLE ARROW FROM BAR; \Longmaps-
from (stmaryrd)
19649 \DeclareTextCommand{\textLongmapsfrom}{PU}{\9047\375}%* U+27FD
19650 % U+27FE LONG RIGHTWARDS DOUBLE ARROW FROM BAR; \Longmap-
sto (stmaryrd)
19651 \DeclareTextCommand{\textLongmapsto}{PU}{\9047\376}%* U+27FE

51.2.33 Supplemental Arrows-B: U+2900 to U+297F

19652 % U+2921 NORTH WEST AND SOUTH EAST ARROW; \nwsearrow (MnSym-
bol)
19653 \DeclareTextCommand{\textnwsearrow}{PU}{\9051\041}%* U+2921
19654 % U+2922 NORTH EAST AND SOUTH WEST ARROW; \neswarrow (MnSym-
bol)
19655 \DeclareTextCommand{\textneswarrow}{PU}{\9051\042}%* U+2922
19656 % U+2923 NORTH WEST ARROW WITH HOOK; \hooknwarrow (MnSymbol)
19657 \DeclareTextCommand{\textlhooknwarrow}{PU}{\9051\043}%* U+2923
19658 % U+2924 NORTH EAST ARROW WITH HOOK; \rhooknearrow (MnSymbol)
19659 \DeclareTextCommand{\textrhooknearrow}{PU}{\9051\044}%* U+2924
19660 % U+2925 SOUTH EAST ARROW WITH HOOK; \hooksearrow (MnSymbol)
19661 \DeclareTextCommand{\textlhooksearrow}{PU}{\9051\045}%* U+2925
19662 % U+2926 SOUTH WEST ARROW WITH HOOK; \rhookswarrow (MnSymbol)
19663 \DeclareTextCommand{\textrhookswarrow}{PU}{\9051\046}%* U+2926
19664 % U+2933 WAVE ARROW POINTING DIRECTLY RIGHT; \leadsto (wasysym)
19665 \DeclareTextCommand{\textleadsto}{PU}{\9051\063}%* U+2933
19666 % U+2934 ARROW POINTING RIGHTWARDS THEN CURVING UPWARDS;
19667 % \rcurvearrowne (MnSymbol)
19668 \DeclareTextCommand{\textrcurvearrowne}{PU}{\9051\064}%* U+2934
19669 % U+2935 ARROW POINTING RIGHTWARDS THEN CURVING DOWN-
WARDS;
19670 % \lcurvearrowse (MnSymbol)
19671 \DeclareTextCommand{\textlcurvearrowse}{PU}{\9051\065}%* U+2935
19672 % U+2936 ARROW POINTING DOWNWARDS THEN CURVING LEFT-
WARDS;
19673 % \lcurvearrowsw (MnSymbol)
19674 \DeclareTextCommand{\textlcurvearrowsw}{PU}{\9051\066}%* U+2936

19675 % U+2937 ARROW POINTING DOWNWARDS THEN CURVING RIGHT-
 WARDS;
 19676 % \rcurvearrowse (MnSymbol)
 19677 \DeclareTextCommand{\texttrcurvearrowse}{PU}{\9051\067}%* U+2937
 19678 % U+2938 RIGHT-SIDE ARC CLOCKWISE ARROW; \lcurvearrowdown (Mn-
 Symbol)
 19679 \DeclareTextCommand{\textlcurvearrowdown}{PU}{\9051\070}%* U+2938
 19680 %* \textlcurvearrowdown -> \RightTorque (marvosym)
 19681 %* \textlcurvearrowdown -> \Righttorque (marvosym)
 19682 % U+2939 LEFT-SIDE ARC ANTICLOCKWISE ARROW;
 19683 % \rcurvearrowdown (MnSymbol)
 19684 \DeclareTextCommand{\texttrcurvearrowdown}{PU}{\9051\071}%* U+2939
 19685 %* \texttrcurvearrowdown -> \LeftTorque (marvosym)
 19686 %* \texttrcurvearrowdown -> \Lefttorque (marvosym)
 19687 % U+293A TOP ARC ANTICLOCKWISE ARROW; \rcurvearrowleft (MnSym-
 bol)
 19688 \DeclareTextCommand{\texttrcurvearrowleft}{PU}{\9051\072}%* U+293A
 19689 % U+293B BOTTOM ARC ANTICLOCKWISE ARROW;
 19690 % \rcurvearrowright (MnSymbol)
 19691 \DeclareTextCommand{\texttrcurvearrowright}{PU}{\9051\073}%* U+293B
 19692 % U+294A LEFT BARB UP RIGHT BARB DOWN HARPOON; \leftrighthar-
 poon (mathabx)
 19693 \DeclareTextCommand{\textleftrightharpoon}{PU}{\9051\112}%* U+294A
 19694 % U+294B LEFT BARB DOWN RIGHT BARB UP HARPOON; \rightlefthar-
 poon (mathabx)
 19695 \DeclareTextCommand{\textrightleftharpoon}{PU}{\9051\113}%* U+294B
 19696 % U+294C UP BARB RIGHT DOWN BARB LEFT HARPOON;
 19697 % \updownharpoonrightleft (MnSymbol)
 19698 \DeclareTextCommand{\textupdownharpoonrightleft}{PU}{\9051\114}%* U+294C
 19699 % U+294D UP BARB LEFT DOWN BARB RIGHT HARPOON;
 19700 % \updownharpoonleftright (MnSymbol)
 19701 \DeclareTextCommand{\textupdownharpoonleftright}{PU}{\9051\115}%* U+294D
 19702 % U+2962 LEFTWARDS HARPOON WITH BARB UP ABOVE LEFTWARDS
 19703 % HARPOON WITH BARB DOWN; \leftleftharpoons (mathabx)
 19704 \DeclareTextCommand{\textleftleftharpoons}{PU}{\9051\142}%* U+2962
 19705 % U+2963 UPWARDS HARPOON WITH BARB LEFT BESIDE UPWARDS
 19706 % HARPOON WITH BARB RIGHT; \upupharpoons (mathabx)
 19707 \DeclareTextCommand{\textupupharpoons}{PU}{\9051\143}%* U+2963
 19708 % U+2964 RIGHTWARDS HARPOON WITH BARB UP ABOVE RIGHT-
 WARDS HARPOON
 19709 % WITH BARB DOWN; \rightrightarpoons (mathabx)
 19710 \DeclareTextCommand{\textrightarpoons}{PU}{\9051\144}%* U+2964
 19711 % U+2965 DOWNWARDS HARPOON WITH BARB LEFT BESIDE DOWN-
 WARDS HARPOON
 19712 % WITH BARB RIGHT; \downdownharpoons (mathabx)
 19713 \DeclareTextCommand{\textdowndownharpoons}{PU}{\9051\145}%* U+2965
 19714 % U+296A LEFTWARDS HARPOON WITH BARB UP ABOVE LONG DASH;
 19715 % \leftbarharpoon (mathabx)
 19716 \DeclareTextCommand{\textleftbarharpoon}{PU}{\9051\152}%* U+296A
 19717 % U+296B LEFTWARDS HARPOON WITH BARB DOWN BELOW
 19718 % LONG DASH; \barleftharpoon (mathabx)
 19719 \DeclareTextCommand{\textbarleftharpoon}{PU}{\9051\153}%* U+296B
 19720 % U+296C RIGHTWARDS HARPOON WITH BARB UP ABOVE
 19721 % LONG DASH; \rightbarharpoon (mathabx)
 19722 \DeclareTextCommand{\textrightbarharpoon}{PU}{\9051\154}%* U+296C
 19723 % U+296D RIGHTWARDS HARPOON WITH BARB DOWN BELOW
 19724 % LONG DASH; \barrightharpoon (mathabx)

19725 \DeclareTextCommand{\textbarrightharpoon}{PU}{\9051\155}%* U+296D
 19726 % U+296E UPWARDS HARPOON WITH BARB LEFT BESIDE DOWN-
 WARDS HARPOON
 19727 % WITH BARB RIGHT; \updownharpoons (mathabx)
 19728 \DeclareTextCommand{\textupdownharpoons}{PU}{\9051\156}%* U+296E
 19729 % U+296F DOWNWARDS HARPOON WITH BARB LEFT BESIDE UP-
 WARDS HARPOON
 19730 % WITH BARB RIGHT; \downupharpoons (mathabx)
 19731 \DeclareTextCommand{\textdownupharpoons}{PU}{\9051\157}%* U+296F
 19732 % U+297F DOWN FISH TAIL
 19733 \DeclareTextCommand{\textmoo}{PU}{\9051\177\83\066}%* U+297F U+0336

51.2.34 Miscellaneous Mathematical Symbols-B: U+2980 to U+29FF

19734 % U+2987 Z NOTATION LEFT IMAGE BRACKET; \llparenthesis (stmaryrd)
 19735 \DeclareTextCommand{\textllparenthesis}{PU}{\9051\207}%* U+2987
 19736 % U+2988 Z NOTATION RIGHT IMAGE BRACKET; \rrparenthesis (stmaryrd)
 19737 \DeclareTextCommand{\textrrparenthesis}{PU}{\9051\210}%* U+2988
 19738 % U+29B0 REVERSED EMPTY SET; \invdiameter (wasysym)
 19739 \DeclareTextCommand{\textinvdiameter}{PU}{\9051\260}%* U+29B0
 19740 % U+29B6 CIRCLED VERTICAL BAR; \obar (stmaryrd)
 19741 \DeclareTextCommand{\textobar}{PU}{\9051\266}%* U+29B6
 19742 %* \textobar -> \textvarobar (stmaryrd)
 19743 % U+29B8 CIRCLED REVERSE SOLIDUS; \obslash (stmaryrd)
 19744 \DeclareTextCommand{\textobslash}{PU}{\9051\270}%* U+29B8
 19745 %* \textobslash -> \circledbslash (txfonts/pxfonts)
 19746 %* \textobslash -> \obackslash (mathabx)
 19747 %* \textobslash -> \varobslash (stmaryrd)
 19748 % U+29BA CIRCLE DIVIDED BY HORIZONTAL BAR AND TOP HALF
 19749 % DIVIDED BY VERTICAL BAR; \obot (mathabx)
 19750 \DeclareTextCommand{\textobot}{PU}{\9051\272}%* U+29BA
 19751 %* \textobot -> \odplus (ulsy)
 19752 % U+29BB CIRCLE WITH SUPERIMPOSED X; \NoChemicalCleaning (mar-
 vosym)
 19753 \DeclareTextCommand{\textNoChemicalCleaning}{PU}{\9051\273}%* U+29BB
 19754 % U+29C0 CIRCLED LESS-THAN; \olessthan (stmaryrd)
 19755 \DeclareTextCommand{\textolessthan}{PU}{\9051\300}%* U+29C0
 19756 %* \textolessthan -> \varolessthan (stmaryrd)
 19757 % U+29C1 CIRCLED GREATER-THAN; \ogreaterthan (stmaryrd)
 19758 \DeclareTextCommand{\textogreaterthan}{PU}{\9051\301}%* U+29C1
 19759 %* \textogreaterthan -> \varogreaterthan (stmaryrd)
 19760 % U+29C4 SQUARED RISING DIAGONAL SLASH; \boxslash (mathabx, stmaryrd)
 19761 \DeclareTextCommand{\textboxslash}{PU}{\9051\304}%* U+29C4
 19762 % U+29C5 SQUARED FALLING DIAGONAL SLASH; \boxbslash (stmaryrd)
 19763 \DeclareTextCommand{\textboxbslash}{PU}{\9051\305}%* U+29C5
 19764 % U+29C6 SQUARED ASTERISK; \boxast (stmaryrd)
 19765 \DeclareTextCommand{\textboxast}{PU}{\9051\306}%* U+29C6
 19766 % U+29C7 SQUARED SMALL CIRCLE; \boxcircle (stmaryrd)
 19767 \DeclareTextCommand{\textboxcircle}{PU}{\9051\307}%* U+29C7
 19768 % U+29C8 SQUARED SQUARE; \boxbox (stmaryrd)
 19769 \DeclareTextCommand{\textboxbox}{PU}{\9051\310}%* U+29C8
 19770 % U+29D3 BLACK BOWTIE; \Valve (marvosym)
 19771 \DeclareTextCommand{\textValve}{PU}{\9051\323}%* U+29D3
 19772 % U+29DF DOUBLE-ENDED MULTIMAP; \multimapboth (txfonts/pxfonts)
 19773 \DeclareTextCommand{\textmultimapboth}{PU}{\9051\337}%* U+29DF
 19774 % U+29E2 SHUFFLE PRODUCT; \shuffle (shuffle)
 19775 \DeclareTextCommand{\textshuffle}{PU}{\9051\342}%* U+29E2

51.2.35 Supplemental Mathematical Operators: U+2A00 to U+2AFF

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19776 % U+2A04 N-ARY UNION OPERATOR WITH PLUS; \uplus (LaTeX)
19777 \DeclareTextCommand{\textuplus}{PU}{\9052\004}%* U+2A04
19778 % U+2A07 TWO LOGICAL AND OPERATOR; \bigdoublewedge (MnSymbol)
19779 \DeclareTextCommand{\textbigdoublewedge}{PU}{\9052\007}%* U+2A07
19780 % U+2A08 TWO LOGICAL OR OPERATOR; \bigdoublevee (MnSymbol)
19781 \DeclareTextCommand{\textbigdoublevee}{PU}{\9052\010}%* U+2A08
19782 % U+2A1D JOIN; \Join (latexsym, amsfonts, amssymb, mathabx, txfonts,
19783 %   pxfonts, wasysym)
19784 \DeclareTextCommand{\textJoin}{PU}{\9052\035}%* U+2A1D
19785 % U+2A1F Z NOTATION SCHEMA COMPOSITION; \fatsemi (stmaryrd)
19786 \DeclareTextCommand{\textfatsemi}{PU}{\9052\037}%* U+2A1F
19787 % U+2A22 PLUS SIGN WITH SMALL CIRCLE ABOVE; \circplus (mathabx)
19788 \DeclareTextCommand{\textcircplus}{PU}{\9052\042}%* U+2A22
19789 % U+2A2A MINUS SIGN WITH DOT BELOW; \minusdot (MnSymbol)
19790 \DeclareTextCommand{\textminusdot}{PU}{\9052\052}%* U+2A2A
19791 %* \textminusdot -> \divdot (mathabx)
19792 % U+2A30 MULTIPLICATION SIGN WITH DOT ABOVE; \dottimes (math-
19793 %   abx)
19793 \DeclareTextCommand{\textdotimes}{PU}{\9052\060}%* U+2A30
19794 % U+2A32 SEMIDIRECT PRODUCT WITH BOTTOM CLOSED;
19795 %   \dtimes (mathdesign)
19796 \DeclareTextCommand{\textdtimes}{PU}{\9052\062}%* U+2A32
19797 % U+2A38 CIRCLED DIVISION SIGN; \odiv (mathabx)
19798 \DeclareTextCommand{\textodiv}{PU}{\9052\070}%* U+2A38
19799 % U+2A3C INTERIOR PRODUCT; \invneg (MnSymbol)
19800 \DeclareTextCommand{\textinvneg}{PU}{\9052\074}%* U+2A3C
19801 % U+2A4E DOUBLE SQUARE INTERSECTION; \sqdoublecap (mathabx)
19802 \DeclareTextCommand{\textsqdoublecap}{PU}{\9052\116}%* U+2A4E
19803 %* \textsqdoublecap -> \doublesqcap (MnSymbol)
19804 % U+2A40 INTERSECTION WITH DOT; \capdot (MnSymbol)
19805 \DeclareTextCommand{\textcapdot}{PU}{\9052\100}%* U+2A40
19806 % U+2A4F DOUBLE SQUARE UNION; \sqdoublecup (mathabx)
19807 \DeclareTextCommand{\textsqdoublecup}{PU}{\9052\117}%* U+2A4F
19808 %* \textsqdoublecup -> \doublesqcup (MnSymbol)
19809 % U+2A55 TWO INTERSECTING LOGICAL AND; \doublewedge (MnSymbol)
19810 \DeclareTextCommand{\textdoublewedge}{PU}{\9052\125}%* U+2A55
19811 % U+2A56 TWO INTERSECTING LOGICAL OR; \doublevee (MnSymbol)
19812 \DeclareTextCommand{\textdoublevee}{PU}{\9052\126}%* U+2A56
19813 %* \textdoublevee -> \merge (stmaryrd)
19814 % U+2A5E LOGICAL AND WITH DOUBLE OVERBAR;
19815 %   \doublebarwedge (AmS)
19816 \DeclareTextCommand{\textdoublebarwedge}{PU}{\9052\136}%* U+2A5E
19817 % U+2A63 LOGICAL OR WITH DOUBLE UNDERBAR;
19818 %   \veedoublebar (mahtabx)
19819 \DeclareTextCommand{\textveedoublebar}{PU}{\9052\143}%* U+2A63
19820 % U+2A66 EQUALS SIGN WITH DOT BELOW; \eqdot (MnSymbol)
19821 \DeclareTextCommand{\texteqdot}{PU}{\9052\146}%* U+2A66
19822 % \neqdot (MnSymbol)
19823 \DeclareTextCommand{\textneqdot}{PU}{\9052\146\83\070}%* U+2A66 U+0338
19824 % U+2A74 DOUBLE COLON EQUAL; \coloncolonequals (colonequals)
19825 \DeclareTextCommand{\textcoloncolonequals}{PU}{\9052\164}%* U+2A74
19826 % U+2A7D LESS-THAN OR SLANTED EQUAL TO; \leqslant (AmS)
19827 \DeclareTextCommand{\textleqslant}{PU}{\9052\175}%* U+2A7D
19828 % \nleqslant (txfonts/pxfonts)
19829 \DeclareTextCommand{\textnleqslant}{PU}{\9052\175\83\070}%* U+2A7D U+0338
19830 % U+2A7E GREATER-THAN OR SLANTED EQUAL TO; \geqslant (AmS)

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19831 \DeclareTextCommand{\textgeqslant}{PU}{\9052\176}%* U+2A7E
19832 % \ngeqslant (txfonts/pxfonts)
19833 \DeclareTextCommand{\textngeqslant}{PU}{\9052\176\83\070}%* U+2A7E U+0338
19834 % U+2A85 LESS-THAN OR APPROXIMATE; \lessapprox (AmS)
19835 \DeclareTextCommand{\textlessapprox}{PU}{\9052\205}%* U+2A85
19836 % \nlessapprox (txfonts/pxfonts)
19837 \DeclareTextCommand{\textnlessapprox}{PU}{\9052\205\83\070}%* U+2A85 U+0338
19838 % U+2A86 GREATER-THAN OR APPROXIMATE; \gtrapprox (AmS)
19839 \DeclareTextCommand{\textgtrapprox}{PU}{\9052\206}%* U+2A86
19840 % \ngtrapprox (txfonts/pxfonts)
19841 \DeclareTextCommand{\textngtrapprox}{PU}{\9052\206\83\070}%* U+2A86 U+0338
19842 % U+2A87 LESS-THAN AND SINGLE-LINE NOT EQUAL TO; \lneq (AmS)
19843 \DeclareTextCommand{\textlneq}{PU}{\9052\207}%* U+2A87
19844 % U+2A88 GREATER-THAN AND SINGLE-LINE NOT EQUAL TO;
19845 % \gneq (AmS)
19846 \DeclareTextCommand{\textgneq}{PU}{\9052\210}%* U+2A88
19847 % U+2A89 LESS-THAN AND NOT APPROXIMATE; \lnapprox (AmS)
19848 \DeclareTextCommand{\textlnapprox}{PU}{\9052\211}%* U+2A89
19849 % U+2A8A GREATER-THAN AND NOT APPROXIMATE; \gnapprox (AmS)
19850 \DeclareTextCommand{\textgnapprox}{PU}{\9052\212}%* U+2A8A
19851 % U+2A8B LESS-THAN ABOVE DOUBLE-LINE EQUAL ABOVE GREATER-THAN;
19852 % \lesseqgtr (AmS)
19853 \DeclareTextCommand{\textlesseqgtr}{PU}{\9052\213}%* U+2A8B
19854 % U+2A8C GREATER-THAN ABOVE DOUBLE-LINE EQUAL ABOVE LESS-THAN;
19855 % \gtreqless (AmS)
19856 \DeclareTextCommand{\textgtreqless}{PU}{\9052\214}%* U+2A8C
19857 % U+2A95 SLANTED EQUAL TO OR LESS-THAN; \eqslantless (AmS)
19858 \DeclareTextCommand{\texteqslantless}{PU}{\9052\225}%* U+2A95
19859 % U+2A96 SLANTED EQUAL TO OR GREATER-THAN; \eqslantgtr (AmS)
19860 \DeclareTextCommand{\texteqslantgtr}{PU}{\9052\226}%* U+2A96
19861 % U+2AA6 LESS-THAN CLOSED BY CURVE; \leftslice (stmaryrd)
19862 \DeclareTextCommand{\textleftslice}{PU}{\9052\246}%* U+2AA6
19863 % U+2AA7 GREATER-THAN CLOSED BY CURVE; \rightslice (stmaryrd)
19864 \DeclareTextCommand{\textright slice}{PU}{\9052\247}%* U+2AA7
19865 % U+2AAF PRECEDES ABOVE SINGLE-LINE EQUALS SIGN; \preceq (Mn-
Symbol)
19866 \DeclareTextCommand{\textpreceq}{PU}{\9052\257}%* U+2AAF
19867 % \npreceq (txfonts/pxfonts)
19868 \DeclareTextCommand{\textnpreceq}{PU}{\9052\257\83\070}%* U+2AAF U+0338
19869 % U+2AB0 SUCCEEDS ABOVE SINGLE-LINE EQUALS SIGN; \succeq (Mn-
Symbol)
19870 \DeclareTextCommand{\textsucceq}{PU}{\9052\260}%* U+2AB0
19871 % \nsucceq (txfonts/pxfonts)
19872 \DeclareTextCommand{\textnsucceq}{PU}{\9052\260\83\070}%* U+2AB0 U+0338
19873 % U+2AB1 PRECEDES ABOVE SINGLE-LINE NOT EQUAL TO; \prec-
neq (mathabx)
19874 \DeclareTextCommand{\textprecneq}{PU}{\9052\261}%* U+2AB1
19875 % U+2AB2 SUCCEEDS ABOVE SINGLE-LINE NOT EQUAL TO; \succ-
neq (mathabx)
19876 \DeclareTextCommand{\textsuccneq}{PU}{\9052\262}%* U+2AB2
19877 % U+2AB3 PRECEDES ABOVE EQUALS SIGN; \preceqq (txfonts/pxfonts)
19878 \DeclareTextCommand{\textpreceqq}{PU}{\9052\263}%* U+2AB3
19879 % \npreceqq (txfonts/pxfonts)
19880 \DeclareTextCommand{\textnpreceqq}{PU}{\9052\263\83\070}%* U+2AB3 U+0338
19881 % U+2AB4 SUCCEEDS ABOVE EQUALS SIGN; \succeqq (txfonts/pxfonts)
19882 \DeclareTextCommand{\textsucceqq}{PU}{\9052\264}%* U+2AB4
19883 % \nsucceqq (txfonts/pxfonts)

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19884 \DeclareTextCommand{\textnsucceqq}{PU}{\9052\264\83\070}%* U+2AB4 U+0338
19885 % U+2AB5 PRECEDES ABOVE NOT EQUAL TO; \precneqq (txfonts/pxfonts)
19886 \DeclareTextCommand{\textprecneqq}{PU}{\9052\265}%* U+2AB5
19887 % U+2AB6 SUCCEEDS ABOVE NOT EQUAL TO; \succeqq (txfonts/pxfonts)
19888 \DeclareTextCommand{\textsucceqq}{PU}{\9052\266}%* U+2AB6
19889 % U+2AB7 PRECEDES ABOVE ALMOST EQUAL TO; \precapprox (AmS)
19890 \DeclareTextCommand{\textprecapprox}{PU}{\9052\267}%* U+2AB7
19891 % \nprecapprox (txfonts/pxfonts)
19892 \DeclareTextCommand{\textnprecapprox}{PU}{\9052\267\83\070}%* U+2AB7 U+0338
19893 % U+2AB8 SUCCEEDS ABOVE ALMOST EQUAL TO; \succapprox (AmS)
19894 \DeclareTextCommand{\textsuccapprox}{PU}{\9052\270}%* U+2AB8
19895 % \nsuccapprox (txfonts/pxfonts)
19896 \DeclareTextCommand{\textnsuccapprox}{PU}{\9052\270\83\070}%* U+2AB8 U+0338
19897 % U+2AB9 PRECEDES ABOVE NOT ALMOST EQUAL TO; \precnap-
      prox (AmS)
19898 \DeclareTextCommand{\textprecnapprox}{PU}{\9052\271}%* U+2AB9
19899 % U+2ABA SUCCEEDS ABOVE NOT ALMOST EQUAL TO; \succnap-
      prox (AmS)
19900 \DeclareTextCommand{\textsuccnapprox}{PU}{\9052\272}%* U+2ABA
19901 % U+2AC5 SUBSET OF ABOVE EQUALS SIGN; \subseteqq (AmS)
19902 \DeclareTextCommand{\textsubseteqq}{PU}{\9052\305}%* U+2AC5
19903 % \nsubseteqq (txfonts/pxfonts, mathabx)
19904 \DeclareTextCommand{\textnsubseteqq}{PU}{\9052\305\83\070}%* U+2AC5 U+0338
19905 % U+2AC6 SUPERSET OF ABOVE EQUALS SIGN; \supseteqq (AmS)
19906 \DeclareTextCommand{\textsupseteqq}{PU}{\9052\306}%* U+2AC6
19907 % \nsupseteqq (mathabx)
19908 \DeclareTextCommand{\textnsupseteqq}{PU}{\9052\306\83\070}%* U+2AC6 U+0338
19909 % U+2AE3 DOUBLE VERTICAL BAR LEFT TURNSTILE
19910 \DeclareTextCommand{\textdashV}{PU}{\9052\343}%* U+2AE3
19911 %* \textdashV -> \leftVdash (MnSymbol)
19912 % \ndashV (mathabx)
19913 \DeclareTextCommand{\textndashV}{PU}{\9052\343\83\070}%* U+2AE3 U+0338
19914 %* \textndashV -> \nleftVdash (MnSymbol)
19915 % U+2AE4 VERTICAL BAR DOUBLE LEFT TURNSTILE; \Dashv (mathabx)
19916 \DeclareTextCommand{\textDashv}{PU}{\9052\344}%* U+2AE4
19917 %* \textDashv -> \leftmodels (MnSymbol)
19918 % \nDashv (mathabx)
19919 \DeclareTextCommand{\textnDashv}{PU}{\9052\344\83\070}%* U+2AE4 U+0338
19920 %* \textnDashv -> \nleftmodels (MnSymbol)
19921 % U+2AE5 DOUBLE VERTICAL BAR DOUBLE LEFT TURNSTILE;
19922 % \DashV (mathabx)
19923 \DeclareTextCommand{\textDashV}{PU}{\9052\345}%* U+2AE5
19924 %* \textDashV -> \leftModels (MnSymbol)
19925 % \nDashV (mathabx)
19926 \DeclareTextCommand{\textnDashV}{PU}{\9052\345\83\070}%* U+2AE5 U+0338
19927 %* \textnDashV -> \nleftModels (MnSymbol)
19928 % U+2AEA DOUBLE DOWN TACK; \downmodels (MnSymbol)
19929 \DeclareTextCommand{\textdownmodels}{PU}{\9052\352}%* U+2AEA
19930 % \ndownmodels (MnSymbol)
19931 \DeclareTextCommand{\textndownmodels}{PU}{\9052\352\83\070}%* U+2AEA U+0338
19932 % U+2AEB DOUBLE UP TACK; \upmodels (MnSymbol)
19933 \DeclareTextCommand{\textupmodels}{PU}{\9052\353}%* U+2AEB
19934 % \nupmodels (MnSymbol)
19935 \DeclareTextCommand{\textnupmodels}{PU}{\9052\353\83\070}%* U+2AEB U+0338
19936 % U+2AEF VERTICAL LINE WITH CIRCLE ABOVE; \upspoon (MnSymbol)
19937 \DeclareTextCommand{\textupspoon}{PU}{\9052\357}%* U+2AEF
19938 % U+2AF4 TRIPLE VERTICAL BAR BINARY RELATION;

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19939 % \interleave (stmaryrd)
 19940 \DeclareTextCommand{\textinterleave}{PU}{\9052\364}%* U+2AF4
 19941 % U+2AFD DOUBLE SOLIDUS OPERATOR; \sslash (stmaryrd)
 19942 \DeclareTextCommand{\textsslash}{PU}{\9052\375}%* U+2AFD
 19943 %* \textsslash -> \varparallel (txfonts\pxfonts)

51.2.36 Miscellaneous Symbols and Arrows: U+2B00 to U+2BFF

19944 % U+2B20 WHITE PENTAGON; \pentagon (wasysym)
 19945 \DeclareTextCommand{\textpentagon}{PU}{\9053\040}%* U+2B20
 19946 % U+2B21 WHITE HEXAGON; \varhexagon (wasysym)
 19947 \DeclareTextCommand{\textvarhexagon}{PU}{\9053\041}%* U+2B21

51.2.37 Latin Extended-C: U+2C60 to U+2C7F

19948 % U+2C7C LATIN SUBSCRIPT SMALL LETTER J
 19949 \DeclareTextCommand{\textjinferior}{PU}{\9054\174}%* U+2C7C

51.2.38 Supplemental Punctuation: U+2E00 to U+2E7F

19950 % U+2E13 DOTTED OBELOS; \slashdiv (MnSymbol)
 19951 \DeclareTextCommand{\textslashdiv}{PU}{\9056\023}%* U+2E13
 19952 % U+2E18 INVERTED INTERROBANG; \textinterrobangdown (textcomp)
 19953 \DeclareTextCommand{\textinterrobangdown}{PU}{\9056\030}% U+2E18
 19954 % U+2E2D FIVE DOT MARK; \fivedots (MnSymbol)
 19955 \DeclareTextCommand{\textfivedots}{PU}{\9056\055}%* U+2E2D

51.2.39 Modifier Tone Letters: U+A700 to U+A71F

19956 % U+A71B MODIFIER LETTER RAISED UP ARROW; \textupstep (tipa)
 19957 \DeclareTextCommand{\textupstep}{PU}{\9247\033}% U+A71B
 19958 % U+A71C MODIFIER LETTER RAISED DOWN ARROW;
 19959 % \textdownstep (tipa)
 19960 \DeclareTextCommand{\textdownstep}{PU}{\9247\034}% U+A71C

51.2.40 Latin Extended-D: U+A720 to U+A7FF

19961 % U+A727 LATIN SMALL LETTER HENG; \textheng (tipx)
 19962 \DeclareTextCommand{\textPUheng}{PU}{\9247\047}% U+A727
 19963 %* \textPUheng -> \textheng (tipx)
 19964 % U+A72C LATIN CAPITAL LETTER CUATRILLO; \textlhookfour (tipx)
 19965 \DeclareTextCommand{\textPULhookfour}{PU}{\9247\054}% U+A72C
 19966 %* \textPULhookfour -> \textlhookfour (tipx)
 19967 % U+A730 LATIN LETTER SMALL CAPITAL F; \textscf (tipx)
 19968 \DeclareTextCommand{\textPUscf}{PU}{\9247\060}% U+A730
 19969 %* \textPUscf -> \textscf (tipx)
 19970 % U+A735 LATIN SMALL LETTER AO; \textao lig (tipx)
 19971 \DeclareTextCommand{\textPUaolig}{PU}{\9247\065}% U+A735
 19972 %* \textPUaolig -> \textao lig (tipx)
 19973 % U+A74F LATIN SMALL LETTER OO; \oo (wsuipa)
 19974 \DeclareTextCommand{\textoo}{PU}{\9247\117}%* U+A74F
 19975 % U+A788 MODIFIER LETTER LOW CIRCUMFLEX ACCENT
 19976 \DeclareTextCommand{\textcircumlowlow}{PU}{\9247\210}% U+A788

51.2.41 Alphabetic Presentation Forms: U+FB00 to U+FB4F

19977 % U+FB01 LATIN SMALL LIGATURE FI; fi
 19978 \DeclareTextCommand{\textfi}{PU}{\9373\001}% U+FB01
 19979 % U+FB02 LATIN SMALL LIGATURE FL; fl
 19980 \DeclareTextCommand{\textfl}{PU}{\9373\002}% U+FB02

51.2.42 Musical Symbols: U+1D100 to U+1D1FF

19981 % U+1D13B MUSICAL SYMBOL WHOLE REST; \GaPa (harmony)

19982 \DeclareTextCommand{\textGaPa}{PU}{\9330\064\9335\073}%* U+1D13B
 19983 % U+1D13C MUSICAL SYMBOL HALF REST; \HaPa (harmony)
 19984 \DeclareTextCommand{\textHaPa}{PU}{\9330\064\9335\074}%* U+1D13C
 19985 % U+1D13D MUSICAL SYMBOL QUARTER REST; \ViPa (harmony)
 19986 \DeclareTextCommand{\textViPa}{PU}{\9330\064\9335\075}%* U+1D13D
 19987 % U+1D13E MUSICAL SYMBOL EIGHTH REST; \AcPa (harmony)
 19988 \DeclareTextCommand{\textAcPa}{PU}{\9330\064\9335\076}%* U+1D13E
 19989 % U+1D13F MUSICAL SYMBOL SIXTEENTH REST; \SePa (harmony)
 19990 \DeclareTextCommand{\textSePa}{PU}{\9330\064\9335\077}%* U+1D13F
 19991 % U+1D140 MUSICAL SYMBOL THIRTY-SECOND REST; \ZwPa (harmony)
 19992 \DeclareTextCommand{\textZwPa}{PU}{\9330\064\9335\100}%* U+1D140
 19993 % U+1D15D MUSICAL SYMBOL WHOLE NOTE; \fullnote (wasysym)
 19994 \DeclareTextCommand{\textfullnote}{PU}{\9330\064\9335\135}%* U+1D15D
 19995 %* \textfullnote -> \Ganz (harmony)
 19996 % U+1D15E MUSICAL SYMBOL HALF NOTE; \halfnote (wasysym)
 19997 \DeclareTextCommand{\texthalfnote}{PU}{\9330\064\9335\136}%* U+1D15E
 19998 %* \texthalfnote -> \Halb (harmony)
 19999 % U+1D15F MUSICAL SYMBOL QUARTER NOTE; \Vier (harmony)
 20000 \DeclareTextCommand{\textVier}{PU}{\9330\064\9335\137}%* U+1D15F
 20001 % U+1D160 MUSICAL SYMBOL EIGHTH NOTE; \Acht (harmony)
 20002 \DeclareTextCommand{\textAcht}{PU}{\9330\064\9335\140}%* U+1D160
 20003 % U+1D161 MUSICAL SYMBOL SIXTEENTH NOTE; \Sech (harmony)
 20004 \DeclareTextCommand{\textSech}{PU}{\9330\064\9335\141}%* U+1D161
 20005 % U+1D162 MUSICAL SYMBOL THIRTY-SECOND NOTE; \Zwdr (harmony)
 20006 \DeclareTextCommand{\textZwdr}{PU}{\9330\064\9335\142}%* U+1D162

51.2.43 Miscellaneous Symbols and Pictographs: U+1F300 to U+1F5FF

20007 % U+1F30D EARTH GLOBE EUROPE-AFRICA; \Mundus (marvosym)
 20008 \DeclareTextCommand{\textMundus}{PU}{\9330\074\9337\015}%* U+1F30D
 20009 % U+1F319 CRESCENT MOON; \Moon (marvosym)
 20010 \DeclareTextCommand{\textMoon}{PU}{\9330\074\9337\031}%* U+1F319
 20011 % U+1F468 MAN; \ManFace (marvosym)
 20012 \DeclareTextCommand{\textManFace}{PU}{\9330\075\9334\150}%* U+1F468
 20013 % U+1F469 WOMAN; \WomanFace (marvosym)
 20014 \DeclareTextCommand{\textWomanFace}{PU}{\9330\075\9334\151}%* U+1F469
 20015 %* \textWomanFace -> \Womanface (marvosym)
 20016 % U+1F4E0 FAX MACHINE; \Fax (marvosym)
 20017 \DeclareTextCommand{\textFax}{PU}{\9330\075\9334\340}%* U+1F4E0
 20018 %* \textFax -> \Faxmachine (marvosym)
 20019 % U+1F525 FIRE; \Fire (ifsym)
 20020 \DeclareTextCommand{\textFire}{PU}{\9330\075\9335\045}%* U+1F525

51.2.44 Transport and Map Symbols: U+1F680 to U+1F6FF

20021 % U+1F6B2 BICYCLE; \Bicycle (marvosym)
 20022 \DeclareTextCommand{\textBicycle}{PU}{\9330\075\9336\262}%* U+1F6B2
 20023 % U+1F6B9 MENS SYMBOL; \Gentsroom (marvosym)
 20024 \DeclareTextCommand{\textGentsroom}{PU}{\9330\075\9336\271}%* U+1F6B9
 20025 % U+1F6BA WOMENS SYMBOL; \Ladiesroom (marvosym)
 20026 \DeclareTextCommand{\textLadiesroom}{PU}{\9330\075\9336\272}%* U+1F6BA

51.2.45 Miscellaneous

20027 \DeclareTextCommand{\SS}{PU}{SS}%
 20028 % \textcopyleft (textcomp)
 20029 \DeclareTextCommand{\textcopyleft}{PU}{\9041\204\9040\335}% U+2184 U+20DD
 20030 % \ccnc (ccllicenses)
 20031 \DeclareTextCommand{\textccnc}{PU}{\80\044\9040\340}%* U+0024 U+20E0
 20032 % \ccnd (ccllicenses)

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20033 \DeclareTextCommand{\textccnd}{PU}{=\9040\335}%* U+003D U+20DD
20034 % \ccsa (ccllicenses)
20035 \DeclareTextCommand{\textccsa}{PU}{\9047\362\9040\335}%* U+27F2 U+20DD
20036 % \Info (marvosym, china2e)
20037 \DeclareTextCommand{\textInfo}{PU}{\9330\065\9334\042\9040\336}%* U+1D422 U+20DE
20038 % \CESign (marvosym)
20039 \DeclareTextCommand{\textCESign}{PU}{\80\103\80\105}%* U+0043 U+0045
20040 %* \textCESign -> \CEsign (marvosym)

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51.2.46 Aliases

Aliases (german.sty)

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20041 \DeclareTextCommand{\textglqq}{PU}{\quotedblbase}%
20042 \DeclareTextCommand{\textgrqq}{PU}{\textquotedblleft}%
20043 \DeclareTextCommand{\textglq}{PU}{\quotesinglbase}%
20044 \DeclareTextCommand{\textgrq}{PU}{\textquoteleft}%
20045 \DeclareTextCommand{\textflqq}{PU}{\guillemotleft}%
20046 \DeclareTextCommand{\textfrqq}{PU}{\guillemotright}%
20047 \DeclareTextCommand{\textflq}{PU}{\guilsinglleft}%
20048 \DeclareTextCommand{\textfrq}{PU}{\guilsinglright}%

```

Aliases (math names)

```

20049 \DeclareTextCommand{\textneg}{PU}{\textlogicalnot}%*
20050 \DeclareTextCommand{\texttimes}{PU}{\textmultiply}%*
20051 \DeclareTextCommand{\textdiv}{PU}{\textdivide}%*
20052 \DeclareTextCommand{\textpm}{PU}{\textplusminus}%*
20053 \DeclareTextCommand{\textcdot}{PU}{\textperiodcentered}%*
20054 \</puenc>

```

51.3 PU encoding, additions for VnTeX

This file is provided by Han The Thanh.

```

20055 \< *puvnenc>
20056 \DeclareTextCommand{\abreve}{PU}{\81\003}% U+0103
20057 \DeclareTextCommand{\acircumflex}{PU}{\80\342}% U+00E2
20058 \DeclareTextCommand{\ecircumflex}{PU}{\80\352}% U+00EA
20059 \DeclareTextCommand{\ocircumflex}{PU}{\80\364}% U+00F4
20060 \DeclareTextCommand{\ohorn}{PU}{\81\241}% U+01A1
20061 \DeclareTextCommand{\uhorn}{PU}{\81\260}% U+01B0
20062 \DeclareTextCommand{\ABREVE}{PU}{\81\002}% U+0102
20063 \DeclareTextCommand{\ACIRCUMFLEX}{PU}{\80\302}% U+00C2
20064 \DeclareTextCommand{\ECIRCUMFLEX}{PU}{\80\312}% U+00CA
20065 \DeclareTextCommand{\OCIRCUMFLEX}{PU}{\80\324}% U+00D4
20066 \DeclareTextCommand{\OHORN}{PU}{\81\240}% U+01A0
20067 \DeclareTextCommand{\UHORN}{PU}{\81\257}% U+01AF
20068 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\341}% U+00E1
20069 \DeclareTextCompositeCommand{\d}{PU}{a}{\9036\241}% U+1EA1
20070 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\340}% U+00E0
20071 \DeclareTextCompositeCommand{\h}{PU}{a}{\9036\243}% U+1EA3
20072 \DeclareTextCompositeCommand{\~}{PU}{a}{\80\343}% U+00E3
20073 \DeclareTextCompositeCommand{\'}{PU}{\abreve}{\9036\257}% U+1EAF
20074 \DeclareTextCompositeCommand{\d}{PU}{\abreve}{\9036\267}% U+1EB7
20075 \DeclareTextCompositeCommand{\'}{PU}{\abreve}{\9036\261}% U+1EB1
20076 \DeclareTextCompositeCommand{\h}{PU}{\abreve}{\9036\263}% U+1EB3
20077 \DeclareTextCompositeCommand{\~}{PU}{\abreve}{\9036\265}% U+1EB5
20078 \DeclareTextCompositeCommand{\'}{PU}{\acircumflex}{\9036\245}% U+1EA5

```

20079 \DeclareTextCompositeCommand{\d}{PU}{\acircumflex}{\9036\255}% U+1EAD
 20080 \DeclareTextCompositeCommand{\'}{PU}{\acircumflex}{\9036\247}% U+1EA7
 20081 \DeclareTextCompositeCommand{\h}{PU}{\acircumflex}{\9036\251}% U+1EA9
 20082 \DeclareTextCompositeCommand{\~}{PU}{\acircumflex}{\9036\253}% U+1EAB
 20083 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\351}% U+00E9
 20084 \DeclareTextCompositeCommand{\d}{PU}{e}{\9036\271}% U+1EB9
 20085 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\350}% U+00E8
 20086 \DeclareTextCompositeCommand{\h}{PU}{e}{\9036\273}% U+1EBB
 20087 \DeclareTextCompositeCommand{\~}{PU}{e}{\9036\275}% U+1EBD
 20088 \DeclareTextCompositeCommand{\'}{PU}{\ecircumflex}{\9036\277}% U+1EBF
 20089 \DeclareTextCompositeCommand{\d}{PU}{\ecircumflex}{\9036\307}% U+1EC7
 20090 \DeclareTextCompositeCommand{\'}{PU}{\ecircumflex}{\9036\301}% U+1EC1
 20091 \DeclareTextCompositeCommand{\h}{PU}{\ecircumflex}{\9036\303}% U+1EC3
 20092 \DeclareTextCompositeCommand{\~}{PU}{\ecircumflex}{\9036\305}% U+1EC5
 20093 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\355}% U+00ED
 20094 \DeclareTextCompositeCommand{\d}{PU}{i}{\9036\313}% U+1ECB
 20095 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\354}% U+00EC
 20096 \DeclareTextCompositeCommand{\h}{PU}{i}{\9036\311}% U+1EC9
 20097 \DeclareTextCompositeCommand{\~}{PU}{i}{\81\051}% U+0129
 20098 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\363}% U+00F3
 20099 \DeclareTextCompositeCommand{\d}{PU}{o}{\9036\315}% U+1ECD
 20100 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\362}% U+00F2
 20101 \DeclareTextCompositeCommand{\h}{PU}{o}{\9036\317}% U+1ECF
 20102 \DeclareTextCompositeCommand{\~}{PU}{o}{\80\365}% U+00F5
 20103 \DeclareTextCompositeCommand{\'}{PU}{\ocircumflex}{\9036\321}% U+1ED1
 20104 \DeclareTextCompositeCommand{\d}{PU}{\ocircumflex}{\9036\331}% U+1ED9
 20105 \DeclareTextCompositeCommand{\'}{PU}{\ocircumflex}{\9036\323}% U+1ED3
 20106 \DeclareTextCompositeCommand{\h}{PU}{\ocircumflex}{\9036\325}% U+1ED5
 20107 \DeclareTextCompositeCommand{\~}{PU}{\ocircumflex}{\9036\327}% U+1ED7
 20108 \DeclareTextCompositeCommand{\'}{PU}{\ohorn}{\9036\333}% U+1EDB
 20109 \DeclareTextCompositeCommand{\d}{PU}{\ohorn}{\9036\343}% U+1EE3
 20110 \DeclareTextCompositeCommand{\'}{PU}{\ohorn}{\9036\335}% U+1EDD
 20111 \DeclareTextCompositeCommand{\h}{PU}{\ohorn}{\9036\337}% U+1EDF
 20112 \DeclareTextCompositeCommand{\~}{PU}{\ohorn}{\9036\341}% U+1EE1
 20113 \DeclareTextCompositeCommand{\'}{PU}{u}{\80\372}% U+00FA
 20114 \DeclareTextCompositeCommand{\d}{PU}{u}{\9036\345}% U+1EE5
 20115 \DeclareTextCompositeCommand{\'}{PU}{u}{\80\371}% U+00F9
 20116 \DeclareTextCompositeCommand{\h}{PU}{u}{\9036\347}% U+1EE7
 20117 \DeclareTextCompositeCommand{\~}{PU}{u}{\81\151}% U+0169
 20118 \DeclareTextCompositeCommand{\'}{PU}{\uhorn}{\9036\351}% U+1EE9
 20119 \DeclareTextCompositeCommand{\d}{PU}{\uhorn}{\9036\361}% U+1EF1
 20120 \DeclareTextCompositeCommand{\'}{PU}{\uhorn}{\9036\353}% U+1EEB
 20121 \DeclareTextCompositeCommand{\h}{PU}{\uhorn}{\9036\355}% U+1EED
 20122 \DeclareTextCompositeCommand{\~}{PU}{\uhorn}{\9036\357}% U+1EEF
 20123 \DeclareTextCompositeCommand{\'}{PU}{y}{\80\375}% U+00FD
 20124 \DeclareTextCompositeCommand{\d}{PU}{y}{\9036\365}% U+1EF5
 20125 \DeclareTextCompositeCommand{\'}{PU}{y}{\9036\363}% U+1EF3
 20126 \DeclareTextCompositeCommand{\h}{PU}{y}{\9036\367}% U+1EF7
 20127 \DeclareTextCompositeCommand{\~}{PU}{y}{\9036\371}% U+1EF9
 20128 \DeclareTextCompositeCommand{\'}{PU}{A}{\80\301}% U+00C1
 20129 \DeclareTextCompositeCommand{\d}{PU}{A}{\9036\240}% U+1EA0
 20130 \DeclareTextCompositeCommand{\'}{PU}{A}{\80\300}% U+00C0
 20131 \DeclareTextCompositeCommand{\h}{PU}{A}{\9036\242}% U+1EA2
 20132 \DeclareTextCompositeCommand{\~}{PU}{A}{\80\303}% U+00C3
 20133 \DeclareTextCompositeCommand{\'}{PU}{\ABREVE}{\9036\256}% U+1EAE
 20134 \DeclareTextCompositeCommand{\d}{PU}{\ABREVE}{\9036\266}% U+1EB6
 20135 \DeclareTextCompositeCommand{\'}{PU}{\ABREVE}{\9036\260}% U+1EB0

20136 \DeclareTextCompositeCommand{\h}{PU}{\ABREVE}{\9036\262}% U+1EB2
 20137 \DeclareTextCompositeCommand{\~}{PU}{\ABREVE}{\9036\264}% U+1EB4
 20138 \DeclareTextCompositeCommand{\'}{PU}{\ACIRCUMFLEX}{\9036\244}% U+1EA4
 20139 \DeclareTextCompositeCommand{\d}{PU}{\ACIRCUMFLEX}{\9036\254}% U+1EA6
 20140 \DeclareTextCompositeCommand{\'}{PU}{\ACIRCUMFLEX}{\9036\246}% U+1EA8
 20141 \DeclareTextCompositeCommand{\h}{PU}{\ACIRCUMFLEX}{\9036\250}% U+1EA8
 20142 \DeclareTextCompositeCommand{\~}{PU}{\ACIRCUMFLEX}{\9036\252}% U+1EAA
 20143 \DeclareTextCompositeCommand{\'}{PU}{E}{\80\311}% U+00C9
 20144 \DeclareTextCompositeCommand{\d}{PU}{E}{\9036\270}% U+1EB8
 20145 \DeclareTextCompositeCommand{\'}{PU}{E}{\80\310}% U+00C8
 20146 \DeclareTextCompositeCommand{\h}{PU}{E}{\9036\272}% U+1EBA
 20147 \DeclareTextCompositeCommand{\~}{PU}{E}{\9036\274}% U+1EBC
 20148 \DeclareTextCompositeCommand{\'}{PU}{\ECIRCUMFLEX}{\9036\276}% U+1EBE
 20149 \DeclareTextCompositeCommand{\d}{PU}{\ECIRCUMFLEX}{\9036\306}% U+1EC6
 20150 \DeclareTextCompositeCommand{\'}{PU}{\ECIRCUMFLEX}{\9036\300}% U+1EC0
 20151 \DeclareTextCompositeCommand{\h}{PU}{\ECIRCUMFLEX}{\9036\302}% U+1EC2
 20152 \DeclareTextCompositeCommand{\~}{PU}{\ECIRCUMFLEX}{\9036\304}% U+1EC4
 20153 \DeclareTextCompositeCommand{\'}{PU}{I}{\80\315}% U+00CD
 20154 \DeclareTextCompositeCommand{\d}{PU}{I}{\9036\312}% U+1ECA
 20155 \DeclareTextCompositeCommand{\'}{PU}{I}{\80\314}% U+00CC
 20156 \DeclareTextCompositeCommand{\h}{PU}{I}{\9036\310}% U+1EC8
 20157 \DeclareTextCompositeCommand{\~}{PU}{I}{\81\050}% U+0128
 20158 \DeclareTextCompositeCommand{\'}{PU}{O}{\80\323}% U+00D3
 20159 \DeclareTextCompositeCommand{\d}{PU}{O}{\9036\314}% U+1ECC
 20160 \DeclareTextCompositeCommand{\'}{PU}{O}{\80\322}% U+00D2
 20161 \DeclareTextCompositeCommand{\h}{PU}{O}{\9036\316}% U+1ECE
 20162 \DeclareTextCompositeCommand{\~}{PU}{O}{\80\325}% U+00D5
 20163 \DeclareTextCompositeCommand{\'}{PU}{\OCIRCUMFLEX}{\9036\320}% U+1ED0
 20164 \DeclareTextCompositeCommand{\d}{PU}{\OCIRCUMFLEX}{\9036\330}% U+1ED8
 20165 \DeclareTextCompositeCommand{\'}{PU}{\OCIRCUMFLEX}{\9036\322}% U+1ED2
 20166 \DeclareTextCompositeCommand{\h}{PU}{\OCIRCUMFLEX}{\9036\324}% U+1ED4
 20167 \DeclareTextCompositeCommand{\~}{PU}{\OCIRCUMFLEX}{\9036\326}% U+1ED6
 20168 \DeclareTextCompositeCommand{\'}{PU}{\OHORN}{\9036\332}% U+1EDA
 20169 \DeclareTextCompositeCommand{\d}{PU}{\OHORN}{\9036\342}% U+1EE2
 20170 \DeclareTextCompositeCommand{\'}{PU}{\OHORN}{\9036\334}% U+1EDC
 20171 \DeclareTextCompositeCommand{\h}{PU}{\OHORN}{\9036\336}% U+1EDE
 20172 \DeclareTextCompositeCommand{\~}{PU}{\OHORN}{\9036\340}% U+1EE0
 20173 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\332}% U+00DA
 20174 \DeclareTextCompositeCommand{\d}{PU}{U}{\9036\344}% U+1EE4
 20175 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\331}% U+00D9
 20176 \DeclareTextCompositeCommand{\h}{PU}{U}{\9036\346}% U+1EE6
 20177 \DeclareTextCompositeCommand{\~}{PU}{U}{\81\150}% U+0168
 20178 \DeclareTextCompositeCommand{\'}{PU}{\UHORN}{\9036\350}% U+1EE8
 20179 \DeclareTextCompositeCommand{\d}{PU}{\UHORN}{\9036\360}% U+1EF0
 20180 \DeclareTextCompositeCommand{\'}{PU}{\UHORN}{\9036\352}% U+1EEA
 20181 \DeclareTextCompositeCommand{\h}{PU}{\UHORN}{\9036\354}% U+1EEC
 20182 \DeclareTextCompositeCommand{\~}{PU}{\UHORN}{\9036\356}% U+1EEE
 20183 \DeclareTextCompositeCommand{\'}{PU}{Y}{\80\335}% U+00DD
 20184 \DeclareTextCompositeCommand{\d}{PU}{Y}{\9036\364}% U+1EF4
 20185 \DeclareTextCompositeCommand{\'}{PU}{Y}{\9036\362}% U+1EF2
 20186 \DeclareTextCompositeCommand{\h}{PU}{Y}{\9036\366}% U+1EF6
 20187 \DeclareTextCompositeCommand{\~}{PU}{Y}{\9036\370}% U+1EF8
 20188 </puvnenc>

51.4 PU encoding, additions for Arabi

This file is provided and maintained by Youssef Jabri.

```
20189 (*puarenc)
20190 % U+0621;afii57409;ARABIC LETTER HAMZA
20191 \DeclareTextCommand{\hamza}{PU}{\86\041}% U+0621
20192 % U+0622;afii57410;ARABIC LETTER ALEF WITH MADDA ABOVE
20193 \DeclareTextCommand{\alefmadda}{PU}{\86\042}% U+0622
20194 % U+0623;afii57411;ARABIC LETTER ALEF WITH HAMZA ABOVE
20195 \DeclareTextCommand{\alefhamza}{PU}{\86\043}% U+0623
20196 % U+0624;afii57412;ARABIC LETTER WAW WITH HAMZA ABOVE
20197 \DeclareTextCommand{\wawhamza}{PU}{\86\044}% U+0624
20198 % U+0625;afii57413;ARABIC LETTER ALEF WITH HAMZA BELOW
20199 \DeclareTextCommand{\aleflowerhamza}{PU}{\86\045}% U+0625
20200 % U+0626;afii57414;ARABIC LETTER YEH WITH HAMZA ABOVE
20201 \DeclareTextCommand{\yahamza}{PU}{\86\046}% U+0626
20202 % U+0627;afii57415;ARABIC LETTER ALEF
20203 \DeclareTextCommand{\alef}{PU}{\86\047}% U+0627
20204 % U+0628;afii57416;ARABIC LETTER BEH
20205 \DeclareTextCommand{\baa}{PU}{\86\050}% U+0628
20206 % U+0629;afii57417;ARABIC LETTER TEH MARBUTA
20207 \DeclareTextCommand{\T}{PU}{\86\051}% U+0629
20208 % U+062A;afii57418;ARABIC LETTER TEH
20209 \DeclareTextCommand{\taa}{PU}{\86\052}% U+062A
20210 % U+062B;afii57419;ARABIC LETTER THEH
20211 \DeclareTextCommand{\thaa}{PU}{\86\053}% U+062B
20212 % U+062C;afii57420;ARABIC LETTER JEEM
20213 \DeclareTextCommand{\jeem}{PU}{\86\054}% U+062C
20214 % U+062D;afii57421;ARABIC LETTER HAH
20215 \DeclareTextCommand{\Haa}{PU}{\86\055}% U+062D
20216 % U+062E;afii57422;ARABIC LETTER KHAH
20217 \DeclareTextCommand{\kha}{PU}{\86\056}% U+062E
20218 % U+062F;afii57423;ARABIC LETTER DAL
20219 \DeclareTextCommand{\dal}{PU}{\86\057}% U+062F
20220 % U+0630;afii57424;ARABIC LETTER THAL
20221 \DeclareTextCommand{\dhal}{PU}{\86\060}% U+0630
20222 % U+0631;afii57425;ARABIC LETTER REH
20223 \DeclareTextCommand{\ra}{PU}{\86\061}% U+0631
20224 % U+0632;afii57426;ARABIC LETTER ZAIN
20225 \DeclareTextCommand{\zay}{PU}{\86\062}% U+0632
20226 % U+0633;afii57427;ARABIC LETTER SEEN
20227 \DeclareTextCommand{\seen}{PU}{\86\063}% U+0633
20228 % U+0634;afii57428;ARABIC LETTER SHEEN
20229 \DeclareTextCommand{\sheen}{PU}{\86\064}% U+0634
20230 % U+0635;afii57429;ARABIC LETTER SAD
20231 \DeclareTextCommand{\sad}{PU}{\86\065}% U+0635
20232 % U+0636;afii57430;ARABIC LETTER DAD
20233 \DeclareTextCommand{\dad}{PU}{\86\066}% U+0636
20234 % U+0637;afii57431;ARABIC LETTER TAH
20235 \DeclareTextCommand{\Ta}{PU}{\86\067}% U+0637
20236 % U+0638;afii57432;ARABIC LETTER ZAH
20237 \DeclareTextCommand{\za}{PU}{\86\070}% U+0638
20238 % U+0639;afii57433;ARABIC LETTER AIN
20239 \DeclareTextCommand{\ayn}{PU}{\86\071}% U+0639
20240 % U+063A;afii57434;ARABIC LETTER GHAIN
20241 \DeclareTextCommand{\ghayn}{PU}{\86\072}% U+063A
20242 % U+0640;afii57440;ARABIC TATWEEL
```

20243 \DeclareTextCommand{\tatweel}{PU}{\86\100}% U+0640
 20244 % U+0641;afii57441;ARABIC LETTER FEH
 20245 \DeclareTextCommand{\fa}{PU}{\86\101}% U+0641
 20246 % U+0642;afii57442;ARABIC LETTER QAF
 20247 \DeclareTextCommand{\qaf}{PU}{\86\102}% U+0642
 20248 % U+0643;afii57443;ARABIC LETTER KAF
 20249 \DeclareTextCommand{\kaf}{PU}{\86\103}% U+0643
 20250 % U+0644;afii57444;ARABIC LETTER LAM
 20251 \DeclareTextCommand{\lam}{PU}{\86\104}% U+0644
 20252 % U+0645;afii57445;ARABIC LETTER MEEM
 20253 \DeclareTextCommand{\meem}{PU}{\86\105}% U+0645
 20254 % U+0646;afii57446;ARABIC LETTER NOON
 20255 \DeclareTextCommand{\nun}{PU}{\86\106}% U+0646
 20256 % U+0647;afii57470;ARABIC LETTER HEH
 20257 \DeclareTextCommand{\ha}{PU}{\86\107}% U+0647
 20258 % U+0648;afii57448;ARABIC LETTER WAW
 20259 \DeclareTextCommand{\waw}{PU}{\86\110}% U+0648
 20260 % U+0649;afii57449;ARABIC LETTER ALEF MAKSURA
 20261 \DeclareTextCommand{\alefmaqsura}{PU}{\86\111}% U+0649
 20262 % U+064A;afii57450;ARABIC LETTER YEH
 20263 \DeclareTextCommand{\ya}{PU}{\86\112}% U+064A

 20264 % U+064B;afii57451;ARABIC FATHATAN
 20265 \DeclareTextCommand{\nasb}{PU}{\86\113}% U+064B
 20266 % U+064C;afii57452;ARABIC DAMMATAN
 20267 \DeclareTextCommand{\raff}{PU}{\86\114}% U+064C
 20268 % U+064D;afii57453;ARABIC KASRATAN
 20269 \DeclareTextCommand{\jarr}{PU}{\86\115}% U+064D
 20270 % U+064E;afii57454;ARABIC FATHA
 20271 \DeclareTextCommand{\fatha}{PU}{\86\116}% U+064E
 20272 % U+064F;afii57455;ARABIC DAMMA
 20273 \DeclareTextCommand{\damma}{PU}{\86\117}% U+064F
 20274 % U+0650;afii57456;ARABIC KASRA
 20275 \DeclareTextCommand{\kasra}{PU}{\86\120}% U+0650
 20276 % U+0651;afii57457;ARABIC SHADDA
 20277 \DeclareTextCommand{\shadda}{PU}{\86\121}% U+0651
 20278 % U+0652;afii57458;ARABIC SUKUN
 20279 \DeclareTextCommand{\sukun}{PU}{\86\122}% U+0652

 Farsi
 20280 % U+067E ARABIC LETTER PEH; afii57506
 20281 \DeclareTextCommand{\peh}{PU}{\86\176}% U+067E
 20282 % U+0686 ARABIC LETTER TCHEH; afii57507
 20283 \DeclareTextCommand{\tcheh}{PU}{\86\206}% U+0686
 20284 % U+0698 ARABIC LETTER JEH; afii57508
 20285 \DeclareTextCommand{\jeh}{PU}{\86\230}% U+0698
 20286 % U+06A9 ARABIC LETTER KEHEH
 20287 \DeclareTextCommand{\farsikaf}{PU}{\86\251}% U+06A9
 20288 % U+06AF ARABIC LETTER GAF; afii57509
 20289 \DeclareTextCommand{\gaf}{PU}{\86\257}% U+06AF
 20290 % U+06CC ARABIC LETTER FARSI YEH
 20291 \DeclareTextCommand{\farsiya}{PU}{\86\314}% U+06CC

 20292 % U+200C ZERO WIDTH NON-JOINER; afii61664
 20293 \DeclareTextCommand{\ZWNJ}{PU}{\9040\014}% U+200C
 20294 % U+200D ZERO WIDTH JOINER; afii301
 20295 \DeclareTextCommand{\noboundary}{PU}{\9040\015}% U+200D
 20296 (/puarenc)

20297 \psdextra
 20298 \Hy@VersionCheck{psdextra.def}
 20299 \newcommand*{\psdmapshortnames}{%
 20300 \let\MVPlus\textMVPlus
 20301 \let\MVComma\textMVComma
 20302 \let\MVMinus\textMVMinus
 20303 \let\MVPeriod\textMVPeriod
 20304 \let\MVDivision\textMVDivision
 20305 \let\MVZero\textMVZero
 20306 \let\MVOne\textMVOne
 20307 \let\MVTwo\textMVTwo
 20308 \let\MVThree\textMVThree
 20309 \let\MVFour\textMVFour
 20310 \let\MVFive\textMVFive
 20311 \let\MVSix\textMVSix
 20312 \let\MVSeven\textMVSeven
 20313 \let\MVEight\textMVEight
 20314 \let\MVNine\textMVNine
 20315 \let\MVAt\textMVAt
 20316 \let\copyright\textcopyright
 20317 \let\twosuperior\texttwosuperior
 20318 \let\threesuperior\textthreesuperior
 20319 \let\onesuperior\textonesuperior
 20320 \let\Thorn\textThorn
 20321 \let\thorn\textthorn
 20322 \let\hbar\texthbar
 20323 \let\hausA\texthausA
 20324 \let\hausD\texthausD
 20325 \let\hausK\texthausK
 20326 \let\barl\textbarl
 20327 \let\inve\textinve
 20328 \let\slashc\textslashc
 20329 \let\scripta\textscripta
 20330 \let\openo\textopeno
 20331 \let\rtaild\textrtaild
 20332 \let\reve\textreve
 20333 \let\schwa\textschwa
 20334 \let\niepsilon\textniepsilon
 20335 \let\revepsilon\textrevepsilon
 20336 \let\rhookrepsilon\texthookrepsilon
 20337 \let\scriptg\textscriptg
 20338 \let\scg\textscg
 20339 \let\ipagamma\textipagamma
 20340 \let\babygamma\textbabygamma
 20341 \let\bari\textbari
 20342 \let\niiota\textniiota
 20343 \let\sci\textsci
 20344 \let\scn\textscn
 20345 \let\niphi\textniphi
 20346 \let\longleg\textlongleg
 20347 \let\scr\textscr
 20348 \let\invscr\textinvscr
 20349 \let\esh\textesh
 20350 \let\baru\textbaru
 20351 \let\niupsilon\textniupsilon
 20352 \let\scriptv\textscriptv
 20353 \let\turnv\textturnv

20354 \let\turnw\textturnw
 20355 \let\turny\textturny
 20356 \let\scy\textscy
 20357 \let\yogh\textyogh
 20358 \let\glotstop\textglotstop
 20359 \let\revglotstop\textrevglotstop
 20360 \let\invglotstop\textinvglotstop
 20361 \let\Gamma\textGamma
 20362 \let\Delta\textDelta
 20363 \let\Theta\textTheta
 20364 \let\Lambda\textLambda
 20365 \let\Xi\textXi
 20366 \let\Pi\textPi
 20367 \let\Sigma\textSigma
 20368 \let\Upsilon\textUpsilon
 20369 \let\Phi\textPhi
 20370 \let\Psi\textPsi
 20371 \let\Omega\textOmega
 20372 \let\alpha\textalpha
 20373 \let\beta\textbeta
 20374 \let\gamma\textgamma
 20375 \let\delta\textdelta
 20376 \let\epsilon\textepsilon
 20377 \let\zeta\textzeta
 20378 \let\eta\texteta
 20379 \let\theta\texttheta
 20380 \let\iota\textiota
 20381 \let\kappa\textkappa
 20382 \let\lambda\textlambda
 20383 \let\mugreek\textmugreek
 20384 \let\nu\textnu
 20385 \let\xi\textxi
 20386 \let\pi\textpi
 20387 \let\rho\rho
 20388 \let\varsigma\textvarsigma
 20389 \let\sigma\textsigma
 20390 \let\tau\texttau
 20391 \let\upsilon\textupsilon
 20392 \let\phi\textphi
 20393 \let\chi\textchi
 20394 \let\psi\textpsi
 20395 \let\omega\textomega
 20396 \let\scd\textscd
 20397 \let\scu\textscu
 20398 \let\iinferior\textiinferior
 20399 \let\rinferior\extrinferior
 20400 \let\uiinferior\textuiinferior
 20401 \let\vinferior\textvinferior
 20402 \let\betainferior\textbetainferior
 20403 \let\gammainferior\textgammainferior
 20404 \let\rhoinferior\extrhoinferior
 20405 \let\phiinferior\textphiinferior
 20406 \let\chiinferior\textchiinferior
 20407 \let\barsci\textbarsci
 20408 \let\barp\textbarp
 20409 \let\barscu\textbarscu
 20410 \let\htrtaild\texthtrtaild

20411 \let\dagger\textdagger
 20412 \let\bullet\textbullet
 20413 \let\hdotfor\textthdotfor
 20414 \let\prime\textprime
 20415 \let\second\textsecond
 20416 \let\third\textthird
 20417 \let\backprime\textbackprime
 20418 \let\lefttherefore\textlefttherefore
 20419 \let\fourth\textfourth
 20420 \let\diamonddots\textdiamonddots
 20421 \let\zerosuperior\textzerosuperior
 20422 \let\isuperior\textisuperior
 20423 \let\foursuperior\textfoursuperior
 20424 \let\fivesuperior\textfivesuperior
 20425 \let\sixsuperior\textsixsuperior
 20426 \let\sevensuperior\textsevensuperior
 20427 \let\eightsuperior\texteightsuperior
 20428 \let\ninesuperior\textninesuperior
 20429 \let\plussuperior\textplussuperior
 20430 \let\minussuperior\textminussuperior
 20431 \let>equalsuperior\textequalsuperior
 20432 \let\parenleftsuperior\textparenleftsuperior
 20433 \let\parenrightsuperior\textparenrightsuperior
 20434 \let\nsuperior\textnsuperior
 20435 \let\zeroinferior\textzeroinferior
 20436 \let\oneinferior\textoneinferior
 20437 \let\twoinferior\texttwoinferior
 20438 \let\threeinferior\textthreeinferior
 20439 \let\fourinferior\textfourinferior
 20440 \let\fiveinferior\textfiveinferior
 20441 \let\sixinferior\textsixinferior
 20442 \let\seveninferior\textseveninferior
 20443 \let\eightinferior\texteightinferior
 20444 \let\nineinferior\textnineinferior
 20445 \let\plusinferior\textplusinferior
 20446 \let\minusinferior\textminusinferior
 20447 \let>equalsinferior\textequalsinferior
 20448 \let\parenleftinferior\textparenleftinferior
 20449 \let\parenrightinferior\textparenrightinferior
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 20451 \let\einferior\texteinferior
 20452 \let\oinferior\textoinferior
 20453 \let\xinferior\textxinferior
 20454 \let\schwainferior\textschwainferior
 20455 \let\hinferior\texthinferior
 20456 \let\kinferior\textkinferior
 20457 \let\linferior\textlinferior
 20458 \let\mininferior\textmininferior
 20459 \let\ninferior\textninferior
 20460 \let\pinferior\textpinferior
 20461 \let\sinferior\textsinferior
 20462 \let\tinferior\texttinferior
 20463 \let\Deleatur\textDeleatur
 20464 \let\hslash\texthslash
 20465 \let\Im\textIm
 20466 \let\ell\textell
 20467 \let\wp\textwp

20468 \let\Re\textRe
 20469 \let\mho\textmho
 20470 \let\riota\textriota
 20471 \let\Finv\textFinv
 20472 \let\aleph\textaleph
 20473 \let\beth\textbeth
 20474 \let\gimel\textgimel
 20475 \let\daleth\textdaleth
 20476 \let\xfax\textfax
 20477 \let\Game\textGame
 20478 \let\leftarrow\textleftarrow
 20479 \let\uparrow\textuparrow
 20480 \let\rightarrow\textrightarrow
 20481 \let\downarrow\textdownarrow
 20482 \let\leftrightarrow\textleftrightarrow
 20483 \let\updownarrow\textupdownarrow
 20484 \let\nwarrow\textnwarrow
 20485 \let\nearrow\textnearrow
 20486 \let\searrow\textsearrow
 20487 \let\swarrow\textswarrow
 20488 \let\nleftarrow\textnleftarrow
 20489 \let\nrightarrow\textnrightarrow
 20490 \let\twoheadleftarrow\texttwoheadleftarrow
 20491 \let\ntwoheadleftarrow\textntwoheadleftarrow
 20492 \let\twoheaduparrow\texttwoheaduparrow
 20493 \let\twoheadrightarrow\texttwoheadrightarrow
 20494 \let\ntwoheadrightarrow\textntwoheadrightarrow
 20495 \let\twoheaddownarrow\texttwoheaddownarrow
 20496 \let\leftarrowtail\textleftarrowtail
 20497 \let\rightarrowtail\textrightarrowtail
 20498 \let\mapsto\textmapsto
 20499 \let\hookleftarrow\texthookleftarrow
 20500 \let\hookrightarrow\texthookrightarrow
 20501 \let\looparrowleft\textlooparrowleft
 20502 \let\looparrowright\textlooparrowright
 20503 \let\leftrightharpoonup\textleftrightharpoonup
 20504 \let\lightning\textlightning
 20505 \let\dlsh\textdlsh
 20506 \let\curvearrowleft\textcurvearrowleft
 20507 \let\curvearrowright\textcurvearrowright
 20508 \let\leftharpoonup\textleftharpoonup
 20509 \let\leftharpoondown\textleftharpoondown
 20510 \let\upharpoonright\textupharpoonright
 20511 \let\upharpoonleft\textupharpoonleft
 20512 \let\rightharpoonup\textrightharpoonup
 20513 \let\rightharpoondown\textrightharpoondown
 20514 \let\downharpoonright\textdownharpoonright
 20515 \let\downharpoonleft\textdownharpoonleft
 20516 \let\rightleftarrows\textrightleftarrows
 20517 \let\updownarrows\textupdownarrows
 20518 \let\leftrightarrows\textleftrightarrows
 20519 \let\leftleftarrows\textleftleftarrows
 20520 \let\upuparrows\textupuparrows
 20521 \let\righttrightarrows\textrighttrightarrows
 20522 \let\downdownarrows\textdowndownarrows
 20523 \let\leftrightharpoons\textleftrightharpoons
 20524 \let\rightleftharpoons\textrightleftharpoons

20525 $\backslash\text{nLeftarrow}\backslash\text{texnLeftarrow}$
 20526 $\backslash\text{nLeftrightarrow}\backslash\text{texnLeftrightarrow}$
 20527 $\backslash\text{nRrightarrow}\backslash\text{texnRrightarrow}$
 20528 $\backslash\text{Leftarrow}\backslash\text{textLeftarrow}$
 20529 $\backslash\text{Uparrow}\backslash\text{textUparrow}$
 20530 $\backslash\text{Rrightarrow}\backslash\text{textRrightarrow}$
 20531 $\backslash\text{Downarrow}\backslash\text{textDownarrow}$
 20532 $\backslash\text{Leftrightarrow}\backslash\text{textLeftrightarrow}$
 20533 $\backslash\text{Updownarrow}\backslash\text{textUpdownarrow}$
 20534 $\backslash\text{Nwarrow}\backslash\text{textNwarrow}$
 20535 $\backslash\text{Nearrow}\backslash\text{textNearrow}$
 20536 $\backslash\text{Searrow}\backslash\text{textSearrow}$
 20537 $\backslash\text{Swarrow}\backslash\text{textSwarrow}$
 20538 $\backslash\text{Lleftarrow}\backslash\text{textLleftarrow}$
 20539 $\backslash\text{Rrightarrow}\backslash\text{textRrightarrow}$
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 20541 $\backslash\text{rightsquigarrow}\backslash\text{textrightsquigarrow}$
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 20543 $\backslash\text{dasheduparrow}\backslash\text{texdasheduparrow}$
 20544 $\backslash\text{dashrightarrow}\backslash\text{texdashrightarrow}$
 20545 $\backslash\text{dasheddownarrow}\backslash\text{texdasheddownarrow}$
 20546 $\backslash\text{pointer}\backslash\text{textpointer}$
 20547 $\backslash\text{downuparrows}\backslash\text{texdownuparrows}$
 20548 $\backslash\text{leftarrowtriangle}\backslash\text{textleftarrowtriangle}$
 20549 $\backslash\text{rightarrowtriangle}\backslash\text{textrightarrowtriangle}$
 20550 $\backslash\text{leftrightarrowtriangle}\backslash\text{textleftrightarrowtriangle}$
 20551 $\backslash\text{forall}\backslash\text{textforall}$
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 20554 $\backslash\text{exists}\backslash\text{textexists}$
 20555 $\backslash\text{nexists}\backslash\text{texnexists}$
 20556 $\backslash\text{emptyset}\backslash\text{textemptyset}$
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 20558 $\backslash\text{nabla}\backslash\text{texnabla}$
 20559 $\backslash\text{in}\backslash\text{textin}$
 20560 $\backslash\text{notin}\backslash\text{textnotin}$
 20561 $\backslash\text{smallin}\backslash\text{textsmallin}$
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 20563 $\backslash\text{notowner}\backslash\text{textnotowner}$
 20564 $\backslash\text{smallowns}\backslash\text{textsmallowns}$
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 20566 $\backslash\text{amalg}\backslash\text{textamalg}$
 20567 $\backslash\text{sum}\backslash\text{textsum}$
 20568 $\backslash\text{mp}\backslash\text{textmp}$
 20569 $\backslash\text{dotplus}\backslash\text{texdotplus}$
 20570 $\backslash\text{Divides}\backslash\text{textDivides}$
 20571 $\backslash\text{DividesNot}\backslash\text{textDividesNot}$
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 20573 $\backslash\text{ast}\backslash\text{textast}$
 20574 $\backslash\text{circ}\backslash\text{textcirc}$
 20575 $\backslash\text{surd}\backslash\text{textsurd}$
 20576 $\backslash\text{propto}\backslash\text{textpropto}$
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 20578 $\backslash\text{angle}\backslash\text{textangle}$
 20579 $\backslash\text{measuredangle}\backslash\text{textmeasuredangle}$
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 20581 $\backslash\text{mid}\backslash\text{textmid}$

20582 $\backslash\mathrm{let}\backslash\mathrm{nmid}\backslash\mathrm{textnmid}$
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 20586 $\backslash\mathrm{let}\backslash\mathrm{owedge}\backslash\mathrm{textowedge}$
 20587 $\backslash\mathrm{let}\backslash\mathrm{vee}\backslash\mathrm{textvee}$
 20588 $\backslash\mathrm{let}\backslash\mathrm{ovee}\backslash\mathrm{textovee}$
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 20592 $\backslash\mathrm{let}\backslash\mathrm{iint}\backslash\mathrm{textiint}$
 20593 $\backslash\mathrm{let}\backslash\mathrm{iiint}\backslash\mathrm{textiiint}$
 20594 $\backslash\mathrm{let}\backslash\mathrm{ooint}\backslash\mathrm{textoint}$
 20595 $\backslash\mathrm{let}\backslash\mathrm{ooint}\backslash\mathrm{textoiint}$
 20596 $\backslash\mathrm{let}\backslash\mathrm{oointclockwise}\backslash\mathrm{textointclockwise}$
 20597 $\backslash\mathrm{let}\backslash\mathrm{oointctr}\backslash\mathrm{textointctr}\backslash\mathrm{clockwise}$
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 20601 $\backslash\mathrm{let}\backslash\mathrm{sq}\backslash\mathrm{textsq}\backslash\mathrm{dotted}$
 20602 $\backslash\mathrm{let}\backslash\mathrm{dotminus}\backslash\mathrm{textdotminus}$
 20603 $\backslash\mathrm{let}\backslash\mathrm{eqcolon}\backslash\mathrm{texteqcolon}$
 20604 $\backslash\mathrm{let}\backslash\mathrm{sim}\backslash\mathrm{texts}\backslash\mathrm{sim}$
 20605 $\backslash\mathrm{let}\backslash\mathrm{backsim}\backslash\mathrm{textbacksim}$
 20606 $\backslash\mathrm{let}\backslash\mathrm{nbacksim}\backslash\mathrm{textnbacksim}$
 20607 $\backslash\mathrm{let}\backslash\mathrm{wr}\backslash\mathrm{textwr}$
 20608 $\backslash\mathrm{let}\backslash\mathrm{nsim}\backslash\mathrm{textnsim}$
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 20613 $\backslash\mathrm{let}\backslash\mathrm{cong}\backslash\mathrm{textcong}$
 20614 $\backslash\mathrm{let}\backslash\mathrm{ncong}\backslash\mathrm{textncong}$
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 20616 $\backslash\mathrm{let}\backslash\mathrm{napprox}\backslash\mathrm{textnapprox}$
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 20620 $\backslash\mathrm{let}\backslash\mathrm{ntriplesim}\backslash\mathrm{textntriplesim}$
 20621 $\backslash\mathrm{let}\backslash\mathrm{backcong}\backslash\mathrm{textbackcong}$
 20622 $\backslash\mathrm{let}\backslash\mathrm{nbackcong}\backslash\mathrm{textnbackcong}$
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 20631 $\backslash\mathrm{let}\backslash\mathrm{doteqdot}\backslash\mathrm{textdoteqdot}$
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 20636 $\backslash\mathrm{let}\backslash\mathrm{nrisingdoteq}\backslash\mathrm{textnrisingdoteq}$
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20639 $\backslash\mathrm{let}\backslash\mathrm{eqcirc}\backslash\mathrm{texteqcirc}$
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 20648 $\backslash\mathrm{let}\backslash\mathrm{equiv}\backslash\mathrm{textequiv}$
 20649 $\backslash\mathrm{let}\backslash\mathrm{nequiv}\backslash\mathrm{textnequiv}$
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 20679 $\backslash\mathrm{let}\backslash\mathrm{preccurlyeq}\backslash\mathrm{textpreccurlyeq}$
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 20682 $\backslash\mathrm{let}\backslash\mathrm{nprecsim}\backslash\mathrm{textnprecsim}$
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 20686 $\backslash\mathrm{let}\backslash\mathrm{nsucc}\backslash\mathrm{textnsucc}$
 20687 $\backslash\mathrm{let}\backslash\mathrm{subset}\backslash\mathrm{textsubset}$
 20688 $\backslash\mathrm{let}\backslash\mathrm{supset}\backslash\mathrm{textsupt}$
 20689 $\backslash\mathrm{let}\backslash\mathrm{subset}\backslash\mathrm{textsubset}$
 20690 $\backslash\mathrm{let}\backslash\mathrm{nsupset}\backslash\mathrm{textnsupset}$
 20691 $\backslash\mathrm{let}\backslash\mathrm{subsest}\backslash\mathrm{textsubsest}$
 20692 $\backslash\mathrm{let}\backslash\mathrm{supseteq}\backslash\mathrm{textsupseteq}$
 20693 $\backslash\mathrm{let}\backslash\mathrm{nsubseteq}\backslash\mathrm{textnsubseteq}$
 20694 $\backslash\mathrm{let}\backslash\mathrm{nsupseteq}\backslash\mathrm{textnsupseteq}$
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20696 $\backslash\text{let}\backslash\text{supsetneq}\backslash\text{textsupsetneq}$
 20697 $\backslash\text{let}\backslash\text{cupdot}\backslash\text{textcupdot}$
 20698 $\backslash\text{let}\backslash\text{cupplus}\backslash\text{textcupplus}$
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 20715 $\backslash\text{let}\backslash\text{circledast}\backslash\text{textcircledast}$
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 20742 $\backslash\text{let}\backslash\text{multimapdotbothB}\backslash\text{textmultimapdotbothB}$
 20743 $\backslash\text{let}\backslash\text{multimap}\backslash\text{textmultimap}$
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 20745 $\backslash\text{let}\backslash\text{barwedge}\backslash\text{textbarwedge}$
 20746 $\backslash\text{let}\backslash\text{star}\backslash\text{textstar}$
 20747 $\backslash\text{let}\backslash\text{divideontimes}\backslash\text{textdivideontimes}$
 20748 $\backslash\text{let}\backslash\text{bowtie}\backslash\text{textbowtie}$
 20749 $\backslash\text{let}\backslash\text{ltimes}\backslash\text{textltimes}$
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 20752 $\backslash\text{let}\backslash\text{rightthreetimes}\backslash\text{textrightthreetimes}$

20753 $\backslash\text{let}\backslash\text{backsimeq}\backslash\text{textbacksimeq}$
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 20758 $\backslash\text{let}\backslash\text{nSubset}\backslash\text{textnSubset}$
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 20781 $\backslash\text{let}\backslash\text{gnsim}\backslash\text{textgnsim}$
 20782 $\backslash\text{let}\backslash\text{precnsim}\backslash\text{textprecnsim}$
 20783 $\backslash\text{let}\backslash\text{succnsim}\backslash\text{textsuccnsim}$
 20784 $\backslash\text{let}\backslash\text{ntriangleleft}\backslash\text{textntriangleleft}$
 20785 $\backslash\text{let}\backslash\text{ntriangleright}\backslash\text{textntriangleright}$
 20786 $\backslash\text{let}\backslash\text{ntrianglelefteq}\backslash\text{textntrianglelefteq}$
 20787 $\backslash\text{let}\backslash\text{ntrianglerighteq}\backslash\text{textntrianglerighteq}$
 20788 $\backslash\text{let}\backslash\text{vdots}\backslash\text{textvdots}$
 20789 $\backslash\text{let}\backslash\text{cdots}\backslash\text{textcdots}$
 20790 $\backslash\text{let}\backslash\text{udots}\backslash\text{textudots}$
 20791 $\backslash\text{let}\backslash\text{ddots}\backslash\text{textddots}$
 20792 $\backslash\text{let}\backslash\text{barin}\backslash\text{textbarin}$
 20793 $\backslash\text{let}\backslash\text{diameter}\backslash\text{textdiameter}$
 20794 $\backslash\text{let}\backslash\text{backneg}\backslash\text{textbackneg}$
 20795 $\backslash\text{let}\backslash\text{wasylozenge}\backslash\text{textwasylozenge}$
 20796 $\backslash\text{let}\backslash\text{invbackneg}\backslash\text{textinvbackneg}$
 20797 $\backslash\text{let}\backslash\text{clock}\backslash\text{textclock}$
 20798 $\backslash\text{let}\backslash\text{ulcorner}\backslash\text{textulcorner}$
 20799 $\backslash\text{let}\backslash\text{urcorner}\backslash\text{texturcorner}$
 20800 $\backslash\text{let}\backslash\text{llcorner}\backslash\text{textllcorner}$
 20801 $\backslash\text{let}\backslash\text{lrcorner}\backslash\text{textlrcorner}$
 20802 $\backslash\text{let}\backslash\text{frown}\backslash\text{textfrown}$
 20803 $\backslash\text{let}\backslash\text{smile}\backslash\text{textsmile}$
 20804 $\backslash\text{let}\backslash\text{Keyboard}\backslash\text{textKeyboard}$
 20805 $\backslash\text{let}\backslash\text{langle}\backslash\text{textlangle}$
 20806 $\backslash\text{let}\backslash\text{rangle}\backslash\text{textrangle}$
 20807 $\backslash\text{let}\backslash\text{APLinv}\backslash\text{textAPLinv}$
 20808 $\backslash\text{let}\backslash\text{Tumbler}\backslash\text{textTumbler}$
 20809 $\backslash\text{let}\backslash\text{notslash}\backslash\text{textnotslash}$

20810 \let\notbackslash\textnotbackslash
 20811 \let\boxbackslash\textboxbackslash
 20812 \let\APLleftarrowbox\textAPLleftarrowbox
 20813 \let\APLrightarrowbox\textAPLrightarrowbox
 20814 \let\APLuparrowbox\textAPLuparrowbox
 20815 \let\APLdownarrowbox\textAPLdownarrowbox
 20816 \let\APLinput\textAPLinput
 20817 \let\Request\textRequest
 20818 \let\Beam\textBeam
 20819 \let\hexagon\texthexagon
 20820 \let\APLbox\textAPLbox
 20821 \let\ForwardToIndex\textForwardToIndex
 20822 \let\RewindToIndex\textRewindToIndex
 20823 \let\bbslash\textbbslash
 20824 \let\CircledA\textCircledA
 20825 \let\CleaningF\textCleaningF
 20826 \let\CleaningFF\textCleaningFF
 20827 \let\CleaningP\textCleaningP
 20828 \let\CleaningPP\textCleaningPP
 20829 \let\CuttingLine\textCuttingLine
 20830 \let\UParrow\textUParrow
 20831 \let\bigtriangleup\textbigtriangleup
 20832 \let\Forward\textForward
 20833 \let\triangleright\texttriangleright
 20834 \let\RHD\textRHD
 20835 \let\DOWNarrow\textDOWNarrow
 20836 \let\bigtriangledown\textbigtriangledown
 20837 \let\Rewind\textRewind
 20838 \let\triangleleft\texttriangleleft
 20839 \let\LHD\textLHD
 20840 \let\diamond\textdiamond
 20841 \let\lozenge\textlozenge
 20842 \let\LEFTCIRCLE\textLEFTCIRCLE
 20843 \let\RIGHTCIRCLE\textRIGHTCIRCLE
 20844 \let\openbullet\textopenbullet
 20845 \let\boxbar\textboxbar
 20846 \let\bigcircle\textbigcircle
 20847 \let\Cloud\textCloud
 20848 \let\FiveStar\textFiveStar
 20849 \let\FiveStarOpen\textFiveStarOpen
 20850 \let\Phone\textPhone
 20851 \let\boxempty\textboxempty
 20852 \let\Checkedbox\textCheckedbox
 20853 \let\Crossedbox\textCrossedbox
 20854 \let\Coffeecup\textCoffeecup
 20855 \let\HandCuffLeft\textHandCuffLeft
 20856 \let\HandCuffRight\textHandCuffRight
 20857 \let\HandLeft\textHandLeft
 20858 \let\HandRight\textHandRight
 20859 \let\Radioactivity\textRadioactivity
 20860 \let\Biohazard\textBiohazard
 20861 \let\Ankh\textAnkh
 20862 \let\YinYang\textYinYang
 20863 \let\frownie\textfrownie
 20864 \let\smiley\textsmiley
 20865 \let\blacksmiley\textblacksmiley
 20866 \let\sun\textsun

20867 \let\leftmoon\textleftmoon
 20868 \let\rightmoon\textrightmoon
 20869 \let\mercury\textmercury
 20870 \let\earth\textearth
 20871 \let\male\textmale
 20872 \let\jupiter\textjupiter
 20873 \let\saturn\textsaturn
 20874 \let\uranus\texturanus
 20875 \let\neptune\textneptune
 20876 \let\pluto\textpluto
 20877 \let\aries\textaries
 20878 \let\taurus\texttaurus
 20879 \let\gemini\textgemini
 20880 \let\cancer\textcancer
 20881 \let\leo\textleo
 20882 \let\virgo\textvirgo
 20883 \let\libra\textlibra
 20884 \let\scorpio\textscorpio
 20885 \let\sagittarius\textsagittarius
 20886 \let\capricornus\textcapricornus
 20887 \let\aquarius\textaquarius
 20888 \let\pisces\textpisces
 20889 \let\quaternote\textquaternote
 20890 \let\twonotes\texttwonotes
 20891 \let\sixteenthnote\textsixteenthnote
 20892 \let\flat\textflat
 20893 \let\natural\textnatural
 20894 \let\sharp\textsharp
 20895 \let\recycle\textrecycle
 20896 \let\Wheelchair\textWheelchair
 20897 \let\Flag\textFlag
 20898 \let\MineSign\textMineSign
 20899 \let\ds\textds
 20900 \let\dsmedical\textdsmedical
 20901 \let\dsjuridical\textdsjuridical
 20902 \let\dschemical\textdschemical
 20903 \let\dsbiological\textdsbiological
 20904 \let\dscommercial\textdscommercial
 20905 \let\manstar\textmanstar
 20906 \let\danger\textdanger
 20907 \let\FemaleFemale\textFemaleFemale
 20908 \let\MaleMale\textMaleMale
 20909 \let\FemaleMale\textFemaleMale
 20910 \let\Hermaphrodite\textHermaphrodite
 20911 \let\Neutral\textNeutral
 20912 \let\hexstar\texthexstar
 20913 \let\SunCloud\textSunCloud
 20914 \let\Rain\textRain
 20915 \let\noway\textnoway
 20916 \let\Mountain\textMountain
 20917 \let\Tent\textTent
 20918 \let\ScissorRight\textScissorRight
 20919 \let\ScissorRightBrokenTop\textScissorRightBrokenTop
 20920 \let\ScissorHollowRight\textScissorHollowRight
 20921 \let\PhoneHandset\textPhoneHandset
 20922 \let\Tape\textTape
 20923 \let\Plane\textPlane

20924 \let\Envelope\textEnvelope
 20925 \let\Peace\textPeace
 20926 \let\WritingHand\textWritingHand
 20927 \let\PencilRightDown\textPencilRightDown
 20928 \let\PencilRight\textPencilRight
 20929 \let\PencilRightUp\textPencilRightUp
 20930 \let\NibRight\textNibRight
 20931 \let\NibSolidRight\textNibSolidRight
 20932 \let\Checkmark\textCheckmark
 20933 \let\CheckmarkBold\textCheckmarkBold
 20934 \let\XSolid\textXSolid
 20935 \let\XSolidBold\textXSolidBold
 20936 \let\XSolidBrush\textXSolidBrush
 20937 \let\PlusOutline\textPlusOutline
 20938 \let\Plus\textPlus
 20939 \let\PlusThinCenterOpen\textPlusThinCenterOpen
 20940 \let\PlusCenterOpen\textPlusCenterOpen
 20941 \let\Cross\textCross
 20942 \let\CrossOpenShadow\textCrossOpenShadow
 20943 \let\CrossOutline\textCrossOutline
 20944 \let\CrossMaltese\textCrossMaltese
 20945 \let\DavidStar\textDavidStar
 20946 \let\FourAsterisk\textFourAsterisk
 20947 \let\JackStar\textJackStar
 20948 \let\JackStarBold\textJackStarBold
 20949 \let\ClowerTips\textClowerTips
 20950 \let\FourStar\textFourStar
 20951 \let\FourStarOpen\textFourStarOpen
 20952 \let\FiveStarOpenCircled\textFiveStarOpenCircled
 20953 \let\FiveStarCenterOpen\textFiveStarCenterOpen
 20954 \let\FiveStarOpenDotted\textFiveStarOpenDotted
 20955 \let\FiveStarOutline\textFiveStarOutline
 20956 \let\FiveStarOutlineHeavy\textFiveStarOutlineHeavy
 20957 \let\FiveStarConvex\textFiveStarConvex
 20958 \let\FiveStarShadow\textFiveStarShadow
 20959 \let\AsteriskBold\textAsteriskBold
 20960 \let\AsteriskCenterOpen\textAsteriskCenterOpen
 20961 \let\EightStarTaper\textEightStarTaper
 20962 \let\EightStarConvex\textEightStarConvex
 20963 \let\SixStar\textSixStar
 20964 \let\EightStar\textEightStar
 20965 \let\EightStarBold\textEightStarBold
 20966 \let\TwelveStar\textTwelveStar
 20967 \let\SixteenStarLight\textSixteenStarLight
 20968 \let\SixFlowerPetalRemoved\textSixFlowerPetalRemoved
 20969 \let\SixFlowerOpenCenter\textSixFlowerOpenCenter
 20970 \let\Asterisk\textAsterisk
 20971 \let\SixFlowerAlternate\textSixFlowerAlternate
 20972 \let\FiveFlowerPetal\textFiveFlowerPetal
 20973 \let\FiveFlowerOpen\textFiveFlowerOpen
 20974 \let\EightFlowerPetal\textEightFlowerPetal
 20975 \let\SunshineOpenCircled\textSunshineOpenCircled
 20976 \let\SixFlowerAltPetal\textSixFlowerAltPetal
 20977 \let\SnowflakeChevron\textSnowflakeChevron
 20978 \let\Snowflake\textSnowflake
 20979 \let\SnowflakeChevronBold\textSnowflakeChevronBold
 20980 \let\Sparkle\textSparkle

20981 \let\SparkleBold\textSparkleBold
 20982 \let\AsteriskRoundedEnds\textAsteriskRoundedEnds
 20983 \let\EightFlowerPetalRemoved\textEightFlowerPetalRemoved
 20984 \let\EightAsterisk\textEightAsterisk
 20985 \let\CircleShadow\textCircleShadow
 20986 \let\SquareShadowBottomRight\textSquareShadowBottomRight
 20987 \let\SquareTopRight\textSquareTopRight
 20988 \let\SquareCastShadowBottomRight\textSquareCastShadowBottomRight
 20989 \let\SquareCastShadowTopRight\textSquareCastShadowTopRight
 20990 \let\DiamondSolid\textDiamondSolid
 20991 \let\RectangleThin\textRectangleThin
 20992 \let\Rectangle\textRectangle
 20993 \let\RectangleBold\textRectangleBold
 20994 \let\perp\textperp
 20995 \let\notperp\textnotperp
 20996 \let\veedot\textveedot
 20997 \let\wedgedot\textwedgedot
 20998 \let\leftspoon\textleftspoon
 20999 \let\lbrackdbl\textlbrackdbl
 21000 \let\rbrackdbl\textrbrackdbl
 21001 \let\circlearrowleft\textcirclearrowleft
 21002 \let\circlearrowright\textcirclearrowright
 21003 \let\longleftarrow\textlongleftarrow
 21004 \let\longrightarrow\textlongrightarrow
 21005 \let\longleftarrow\textlongleftarrow
 21006 \let\Longleftarrow\textLongleftarrow
 21007 \let\Longrightarrow\textLongrightarrow
 21008 \let\Longleftarrow\textLongleftarrow
 21009 \let\longmapsto\textlongmapsto
 21010 \let\Longmapsfrom\textLongmapsfrom
 21011 \let\Longmapsto\textLongmapsto
 21012 \let\nwsearrow\textnwsearrow
 21013 \let\neswarrow\textneswarrow
 21014 \let\lhooknarrow\textlhooknarrow
 21015 \let\rhooknarrow\texthooknarrow
 21016 \let\lhooksearrow\texthooksearrow
 21017 \let\rhooksearrow\texthooksearrow
 21018 \let\leadsto\textleadsto
 21019 \let\rcurvearrowne\textrcurvearrowne
 21020 \let\lcurvearrowse\textlcurvearrowse
 21021 \let\lcurvearrowsw\textlcurvearrowsw
 21022 \let\rcurvearrowse\textrcurvearrowse
 21023 \let\lcurvearrowdown\textlcurvearrowdown
 21024 \let\rcurvearrowdown\textrcurvearrowdown
 21025 \let\rcurvearrowleft\textrcurvearrowleft
 21026 \let\rcurvearrowright\textrcurvearrowright
 21027 \let\leftrightharpoon\textleftrightharpoon
 21028 \let\rightleftharpoon\textrightleftharpoon
 21029 \let\updownharpoonrightleft\textupdownharpoonrightleft
 21030 \let\updownharpoonleftright\textupdownharpoonleftright
 21031 \let\leftleftharpoons\textleftleftharpoons
 21032 \let\upupharpoons\textupupharpoons
 21033 \let\rightleftharpoons\textrightleftharpoons
 21034 \let\downdownharpoons\textdowndownharpoons
 21035 \let\leftbarharpoon\textleftbarharpoon
 21036 \let\barleftharpoon\textbarleftharpoon
 21037 \let\rightbarharpoon\textrightbarharpoon

21038 $\backslash\text{let}\backslash\text{barrightharpoon}\backslash\text{textbarrightharpoon}$
 21039 $\backslash\text{let}\backslash\text{updownharpoons}\backslash\text{textupdownharpoons}$
 21040 $\backslash\text{let}\backslash\text{downupharpoons}\backslash\text{textdownupharpoons}$
 21041 $\backslash\text{let}\backslash\text{moo}\backslash\text{textmoo}$
 21042 $\backslash\text{let}\backslash\text{llparenthesis}\backslash\text{textllparenthesis}$
 21043 $\backslash\text{let}\backslash\text{rrparenthesis}\backslash\text{textrrparenthesis}$
 21044 $\backslash\text{let}\backslash\text{invdiameter}\backslash\text{textinvdiameter}$
 21045 $\backslash\text{let}\backslash\text{obar}\backslash\text{textobar}$
 21046 $\backslash\text{let}\backslash\text{obslash}\backslash\text{textobslash}$
 21047 $\backslash\text{let}\backslash\text{obot}\backslash\text{textobot}$
 21048 $\backslash\text{let}\backslash\text{NoChemicalCleaning}\backslash\text{textNoChemicalCleaning}$
 21049 $\backslash\text{let}\backslash\text{olessthan}\backslash\text{textolessthan}$
 21050 $\backslash\text{let}\backslash\text{ogreaterthan}\backslash\text{textogreaterthan}$
 21051 $\backslash\text{let}\backslash\text{boxslash}\backslash\text{textboxslash}$
 21052 $\backslash\text{let}\backslash\text{boxbslash}\backslash\text{textboxbslash}$
 21053 $\backslash\text{let}\backslash\text{boxast}\backslash\text{textboxast}$
 21054 $\backslash\text{let}\backslash\text{boxcircle}\backslash\text{textboxcircle}$
 21055 $\backslash\text{let}\backslash\text{boxbox}\backslash\text{textboxbox}$
 21056 $\backslash\text{let}\backslash\text{Valve}\backslash\text{textValve}$
 21057 $\backslash\text{let}\backslash\text{multimapboth}\backslash\text{textmultimapboth}$
 21058 $\backslash\text{let}\backslash\text{shuffle}\backslash\text{textshuffle}$
 21059 $\backslash\text{let}\backslash\text{uplus}\backslash\text{textuplus}$
 21060 $\backslash\text{let}\backslash\text{bigdoublewedge}\backslash\text{textbigdoublewedge}$
 21061 $\backslash\text{let}\backslash\text{bigdoublevee}\backslash\text{textbigdoublevee}$
 21062 $\backslash\text{let}\backslash\text{Join}\backslash\text{textJoin}$
 21063 $\backslash\text{let}\backslash\text{fatsemi}\backslash\text{textfatsemi}$
 21064 $\backslash\text{let}\backslash\text{circplus}\backslash\text{textcircplus}$
 21065 $\backslash\text{let}\backslash\text{minusdot}\backslash\text{textminusdot}$
 21066 $\backslash\text{let}\backslash\text{dotimes}\backslash\text{textdotimes}$
 21067 $\backslash\text{let}\backslash\text{dtimes}\backslash\text{textdtimes}$
 21068 $\backslash\text{let}\backslash\text{odiv}\backslash\text{textodiv}$
 21069 $\backslash\text{let}\backslash\text{invneg}\backslash\text{textinvneg}$
 21070 $\backslash\text{let}\backslash\text{sqdoublecap}\backslash\text{textsdoublecap}$
 21071 $\backslash\text{let}\backslash\text{capdot}\backslash\text{textcapdot}$
 21072 $\backslash\text{let}\backslash\text{sqdoublecup}\backslash\text{textsdoublecup}$
 21073 $\backslash\text{let}\backslash\text{doublewedge}\backslash\text{texdoublewedge}$
 21074 $\backslash\text{let}\backslash\text{doublevee}\backslash\text{texdoublevee}$
 21075 $\backslash\text{let}\backslash\text{doublebarwedge}\backslash\text{texdoublebarwedge}$
 21076 $\backslash\text{let}\backslash\text{veedoublebar}\backslash\text{textveedoublebar}$
 21077 $\backslash\text{let}\backslash\text{eqdot}\backslash\text{texreqdot}$
 21078 $\backslash\text{let}\backslash\text{neqdot}\backslash\text{texneqdot}$
 21079 $\backslash\text{let}\backslash\text{coloncolonequals}\backslash\text{textcoloncolonequals}$
 21080 $\backslash\text{let}\backslash\text{leqslant}\backslash\text{textleqslant}$
 21081 $\backslash\text{let}\backslash\text{nleqslant}\backslash\text{texnleqslant}$
 21082 $\backslash\text{let}\backslash\text{geqslant}\backslash\text{textgeqslant}$
 21083 $\backslash\text{let}\backslash\text{ngeqslant}\backslash\text{texngeqslant}$
 21084 $\backslash\text{let}\backslash\text{lessapprox}\backslash\text{textlessapprox}$
 21085 $\backslash\text{let}\backslash\text{nlessapprox}\backslash\text{texnlessapprox}$
 21086 $\backslash\text{let}\backslash\text{gtrapprox}\backslash\text{textgtrapprox}$
 21087 $\backslash\text{let}\backslash\text{ngtrapprox}\backslash\text{texngtrapprox}$
 21088 $\backslash\text{let}\backslash\text{lneq}\backslash\text{texlneq}$
 21089 $\backslash\text{let}\backslash\text{gneq}\backslash\text{texgneq}$
 21090 $\backslash\text{let}\backslash\text{lnapprox}\backslash\text{texlnapprox}$
 21091 $\backslash\text{let}\backslash\text{gnapprox}\backslash\text{texgnapprox}$
 21092 $\backslash\text{let}\backslash\text{lesseqqgtr}\backslash\text{textlesseqqgtr}$
 21093 $\backslash\text{let}\backslash\text{gtreqqless}\backslash\text{textgtreqqless}$
 21094 $\backslash\text{let}\backslash\text{eqslantless}\backslash\text{texeqslantless}$

21095 \let\eqslantgtr\texteqslantgtr
 21096 \let\leftslice\textleftslice
 21097 \let\rightslice\textrightslice
 21098 \let\preceq\textpreceq
 21099 \let\npreceq\textnpreceq
 21100 \let\succeq\textsucceq
 21101 \let\nsucceq\textnsucceq
 21102 \let\precneq\textprecneq
 21103 \let\succneq\textsuccneq
 21104 \let\preceqq\textpreceqq
 21105 \let\npreceqq\textnpreceqq
 21106 \let\succeqq\textsucceqq
 21107 \let\nsucceqq\textnsucceqq
 21108 \let\precneqq\textprecneqq
 21109 \let\succneqq\textsuccneqq
 21110 \let\precapprox\textprecapprox
 21111 \let\nprecapprox\textnprecapprox
 21112 \let\succapprox\textsuccapprox
 21113 \let\nsuccapprox\textnsuccapprox
 21114 \let\precnapprox\textprecnapprox
 21115 \let\succnapprox\textsuccnapprox
 21116 \let\subseteqq\textsubseteqq
 21117 \let\nsubseteqq\textnsubseteqq
 21118 \let\supseteqq\textsupseteqq
 21119 \let\nsupseteqq\textnsupseteqq
 21120 \let\dashV\textdashV
 21121 \let\ndashV\textndashV
 21122 \let\Dashv\textDashv
 21123 \let\ndashv\textndashv
 21124 \let\DashV\textDashV
 21125 \let\ndashV\textndashV
 21126 \let\downmodels\textdownmodels
 21127 \let\ndownmodels\textndownmodels
 21128 \let\upmodels\textupmodels
 21129 \let\nupmodels\textnupmodels
 21130 \let\upspoon\textupspoon
 21131 \let\interleave\textinterleave
 21132 \let\slash\textslash
 21133 \let\pentagon\textpentagon
 21134 \let\varhexagon\textvarhexagon
 21135 \let\jinferior\textjinferior
 21136 \let\slashdiv\textslashdiv
 21137 \let\fivedots\textfivedots
 21138 \let\oo\textoo
 21139 \let\GaPa\textGaPa
 21140 \let\HaPa\textHaPa
 21141 \let\ViPa\textViPa
 21142 \let\AcPa\textAcPa
 21143 \let\SePa\textSePa
 21144 \let\ZwPa\textZwPa
 21145 \let\fullnote\textfullnote
 21146 \let\halfnote\texthalfnote
 21147 \let\Vier\textVier
 21148 \let\Acht\textAcht
 21149 \let\Sech\textSech
 21150 \let\Zwdr\textZwdr
 21151 \let\Mundus\textMundus

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21152 \let\Moon\textMoon
21153 \let\ManFace\textManFace
21154 \let\WomanFace\textWomanFace
21155 \let\Fax\textFax
21156 \let\Fire\textFire
21157 \let\Bicycle\textBicycle
21158 \let\Gentsroom\textGentsroom
21159 \let\Ladiesroom\textLadiesroom
21160 \let\ccnc\textccnc
21161 \let\ccsa\textccsa
21162 \let\Info\textInfo
21163 \let\CESign\textCESign
21164 \let\neg\textneg
21165 \let\times\texttimes
21166 \let\div\textdiv
21167 \let\pm\textpm
21168 \let\cdot\textcdot
21169 }% \psdmapshortnames
21170 \newcommand*{\psdaliasnames}{%
21171 \let\epsdice\HyPsd@DieFace
21172 \let\fcdice\HyPsd@DieFace
21173 \let\MoonPha\HyPsd@MoonPha
21174 \let\mathdollar\textdollar
21175 \let\EyesDollar\textdollar
21176 \let\binampersand\textampersand
21177 \let\with\textampersand
21178 \let\mathunderscore\textunderscore
21179 \let\textvertline\textbar
21180 \let\mathsterling\textsterling
21181 \let\pounds\textsterling
21182 \let\brokenvert\textbrokenbar
21183 \let\mathsection\textsection
21184 \let\S\textsection
21185 \let\mathparagraph\textparagraph
21186 \let\MultiplicationDot\textperiodcentered
21187 \let\Squaredot\textperiodcentered
21188 \let\vartimes\textmultiply
21189 \let\MVMultiplication\textmultiply
21190 \let\eth\dh
21191 \let\crossd\textcrd
21192 \let\textbard\textcrd
21193 \let\bard\textcrd
21194 \let\textcrh\textthbar
21195 \let\crossh\textthbar
21196 \let\planck\textthbar
21197 \let\eng\ng
21198 \let\engma\ng
21199 \let\crossb\textcrb
21200 \let\textbarb\textcrb
21201 \let\barb\textcrb
21202 \let\Florin\textflorin
21203 \let\hv\texthvlig
21204 \let\hausak\textthk
21205 \let\crossnilambda\textcrlambda
21206 \let\barlambda\textcrlambda
21207 \let\lambdabar\textcrlambda
21208 \let\lambdaslash\textcrlambda

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21209 \let\textnrleg\textPUnrleg
 21210 \let\textpipevar\textpipe
 21211 \let\textdoublepipevar\textdoublepipe
 21212 \let\textdoublebarpipevar\textdoublebarpipe
 21213 \let\textcrg\textgslash
 21214 \let\textdblig\textPUdblig
 21215 \let\textqplig\textPUqplig
 21216 \let\textcentoldstyle\textslashc
 21217 \let\textbarc\textslashc
 21218 \let\inva\textturna
 21219 \let\vara\textscripta
 21220 \let\invscripta\textturnscripta
 21221 \let\rotvara\textturnscripta
 21222 \let\hookb\texthtb
 21223 \let\hausab\texthtb
 21224 \let\varopeno\textopeno
 21225 \let\curlyc\textctc
 21226 \let\taild\textrtaild
 21227 \let\hookd\texthtd
 21228 \let\hausad\texthtd
 21229 \let\er\textrhookschwa
 21230 \let\epsi\textniepsilon
 21231 \let\hookrepsilon\texthookrepsilon
 21232 \let\closedrepsilon\textcloserepsilon
 21233 \let\barj\textbardotlessj
 21234 \let\hookg\texthtg
 21235 \let\varg\textscriptg
 21236 \let\vod\textipagamma
 21237 \let\invh\textturnh
 21238 \let\udesc\textturnh
 21239 \let\hookh\texthth
 21240 \let\voicedh\texthth
 21241 \let\hookheng\texththeng
 21242 \let\ibar\textbari
 21243 \let\vari\textniiota
 21244 \let\tildel\textltilde
 21245 \let\latfric\textbeltl
 21246 \let\tail\textrtail
 21247 \let\lz\textlyoghlig
 21248 \let\invm\textturnm
 21249 \let\rotm\textturnm
 21250 \let\legm\textturnmrleg
 21251 \let\labdentalsnas\textltailm
 21252 \let\emgma\textltailm
 21253 \let\nj\textltailn
 21254 \let\enya\textltailn
 21255 \let\tailn\textrtailn
 21256 \let\closedniomega\textcloseomega
 21257 \let\varomega\textcloseomega
 21258 \let\invr\textturnr
 21259 \let\rotr\textturnr
 21260 \let\invlegr\textturnlonglegr
 21261 \let\tailinvr\textturnrrtail
 21262 \let\legr\textlonglegr
 21263 \let\tailr\textrtailr
 21264 \let\flapr\textfishhookr
 21265 \let\flap\textfishhookr

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 21492 \let\varogreaterthan\textogreaterthan
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21496 \let\merge\textdoublevee
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