

Hypertext marks in L^AT_EX

Sebastian Rahtz

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

Heiko Oberdiek (maintainer)

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

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1 Documentation overview for hyperref

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

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

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


[ChangeLog](#) This file records the version history (also available as text file).

[Options](#) This file provides a short option summary.

[Bookmark talk, slides](#) Slides for the talk “PDF information and navigation elements with hyperref, pdfTeX and thumbpdf” at EuroT_EX 1999.

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

Source code documentation:

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

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

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

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3 File hycheck.tex

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

```
1 <*check>
2 \documentclass{article}
3 \makeatletter
```

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

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

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

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

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

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

`\HyC@checkPackage`

```
18 \def\HyC@checkPackage{%
19   \typeout{}%
20   \begingroup
21   \edef\x{\endgroup
22     \noexpand\RequirePackage{\HyC@package}%
23     \ifx\HyC@date\@empty\relax\else\HyC@date\fi%
24   }%
25   \x
26   \typeout{}%
27   \typeout{%
28     * Package '\HyC@package'%
29     \ifx\HyC@date\@empty
30       \else
31         \space\HyC@date
32       \fi
33   }%
34   \@ifundefined{ver@\HyC@package.sty}{%
35   }{%
36     \typeout{%
37       \space\space Loaded: '\HyC@package' %
38       \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}[2010/10/25]
236 \RequirePackage{ifpdf}[2006/02/20]
237 \RequirePackage{pdftexcmds}[2009/04/10]
238 \@ifpackagelater{pdftexcmds}{2010/11/04}{%}{%
239 \ltx@ifundefined{pdfdraftmode}{%
240 \let\pdf@ifdraftmode\ltx@secondoftwo
241 }{%
242 \ifpdf
243 \def\pdf@ifdraftmode{%
244 \ifnum\pdfdraftmode=\ltx@one
245 \expandafter\ltx@firstoftwo
246 \else
247 \expandafter\ltx@secondoftwo
248 \fi
249 }%
250 \else
251 \let\pdf@ifdraftmode\ltx@secondoftwo
252 \fi
253 }%
254 }

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

```

```

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

```

4.2 Version check

\Hy@VersionChecked

```

276 \chardef\Hy@VersionChecked=0 %

```

\Hy@VersionCheck

```

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

```

\Hy@@VersionCheck

```
311 \def\Hy@@VersionCheck #1#2 #3 #4\@nil{%
312   \def#1{#2 #3}%
313 }
```

4.3 Checks with regular expressions

```
314 \ltx@ifundefined{pdfmatch}{}%
315   \let\Hy@Match\ltx@gobblefour
316 }{%
317   \def\Hy@Match#1#2{%
318     \begingroup
319     \edef\~{\ltx@backslashchar\string~}%
320     \edef\.{\ltx@backslashchar.}%
321     \edef\[\{\ltx@backslashchar[]}%
322     \edef\${\ltx@backslashchar$}%
323     \edef\(\{\ltx@backslashchar(}%
324     \edef\)\{\ltx@backslashchar)}%
325     \edef\|\{\ltx@backslashchar|}%
326     \edef\*\{\ltx@backslashchar*}%
327     \edef\+\{\ltx@backslashchar+}%
328     \edef\?\{\ltx@backslashchar?}%
329     \edef\{\{\ltx@backslashchar\ltx@leftbracechar}%
330     \edef\}\{\ltx@rightbracechar}%
331     \edef\\{\ltx@backslashchar\ltx@backslashchar}%
332     \let\ \ltx@space
333     \ifcase\pdfmatch{#2}{#1} %
334       \endgroup
335       \expandafter\ltx@secondoftwo
336     \or
337       \endgroup
338       \expandafter\ltx@firstoftwo
339     \else
340       \Hy@Warning{%
341         Internal error: Wrong pattern!\MessageBreak
342         --> #2 <--\MessageBreak
343         Pattern check ignored%
344       }%
345       \endgroup
346       \expandafter\ltx@firstoftwo
347     \fi
348   }%
349   \ltx@ifpackagelater{ltxcmds}{2010/09/11}{}{}%
350   \begingroup
351     \lccode'0=\{\relax
352   \lowercase{\endgroup
353     \def\ltx@leftbracechar{0}%
354   }%
355   \begingroup
356     \lccode'0=\}\relax
357   \lowercase{\endgroup
358     \def\ltx@rightbracechar{0}%
359   }%
360 }%
361 }
```

4.4 Compatibility with format dumps

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

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

```
362 \@ifundefined{AfterBeginDocument}{%
363   \def\AfterBeginDocument{\AtBeginDocument}%
364 }{}%
```

`\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.

```
365 \def\Hy@AtBeginDocument{%
366   \ltx@LocalAppendToMacro\Hy@AtBeginDocumentHook
367 }
```

`\Hy@AtEndOfPackage`

```
368 \def\Hy@AtEndOfPackage{%
369   \ltx@LocalAppendToMacro\Hy@AtEndOfPackageHook
370 }
```

`\Hy@AtBeginDocumentHook`

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

`\Hy@AtEndOfPackageHook`

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

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

```
373 \AtEndOfPackage{%
374   \Hy@AtEndOfPackageHook
375   \let\Hy@AtEndOfPackageHook\@undefined
376   \AfterBeginDocument{%
377     \Hy@AtBeginDocumentHook}%
378   \let\Hy@AtBeginDocumentHook\@undefined
379   }%
380 }
```

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

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

4.5 Switches

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

```

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

```

Defaults for the switches are now set.

```

433 \Hy@backreffalse
434 \Hy@bookmarksnumberedfalse
435 \Hy@bookmarksopenfalse
436 \Hy@bookmarksstrue
437 \Hy@breaklinksfalse
438 \Hy@pdfcenterwindowfalse
439 \Hy@CJKbookmarksfalse
440 \Hy@destlabelfalse
441 \Hy@pdfescapeformfalse
442 \Hy@hyperfiguresfalse
443 \Hy@pdffitwindowfalse
444 \Hy@hyperfootnotetrue
445 \Hy@hyperindextrue

```



```

446 \Hy@hypertextnamestrue
447 \Hy@implicitttrue
448 \Hy@linktocpagefalse
449 \Hy@localanchornamefalse
450 \Hy@pdfmenubartrue
451 \Hy@naturalnamesfalse
452 \Hy@nestingfalse
453 \Hy@pdfnewwindowsetfalse
454 \Hy@pdfnewwindowfalse
455 \Hy@pageanchortrue
456 \Hy@pdfpagelabelstrue
457 \Hy@pdfpagehiddenfalse
458 \Hy@pdfstringfalse
459 \Hy@plainpagesfalse
460 \Hy@raiselinksfalse
461 \Hy@setpagesizetrue
462 \Hy@texhtfalse
463 \Hy@psdextrafalse
464 \Hy@pdftoolbartrue
465 \Hy@typexmlfalse
466 \Hy@unicodefalse
467 \Hy@pdfusetitlefalse
468 \Hy@verbosefalse
469 \Hy@pdfwindowuitrue
470 \Hy@pdfdisplaydoctitlefalse
471 \Hy@pdfafalse

```

5 Common help macros

\Hy@StepCount

```

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

```

\Hy@GlobalStepCount

```

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

```

```

474 \newdimen\@linkdim
475 \let\Hy@driver\ltx@empty
476 \let\MaybeStopEarly\relax
477 \newcount\Hy@linkcounter
478 \newcount\Hy@pagecounter
479 \Hy@linkcounter0
480 \Hy@pagecounter0

```

5.1 Macros for recursions

```

481 \let\Hy@ReturnEnd\@empty
482 \long\def\Hy@ReturnAfterFiFiEnd#1\fi#2\Hy@ReturnEnd{\fi\fi#1}
483 \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.

\Hy@safe@activesfalse

```

484 \def\Hy@safe@activetrue{\csname @safe@activetrue\endcsname}
485 \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`

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

```

511 \setlength{\dimen@}{#1}%
512 \setlength{\dimen@}{0.99626401\dimen@}%
513 \edef\x{%
514   \toks@{%
515     \the\toks@
516     \strip@pt\dimen@
517   }%
518 } \x
519 \HyCal@scan#2\@nil
520 }%
521 \else
522 \def\hypercalcbp#1{%
523   \strip@pt\dimexpr 0.99626401\dimexpr(#1)\relax\relax
524 }%
525 \def\hypercalcbpdef{\def}%
526 \fi

```

6 Dealing with PDF strings

The PDF string stuff done by Heiko Oberdiek.

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

6.1 Description of PDF strings

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

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

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

6.2 Definition of `\pdfstringdef`

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

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

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

1. Preprocessing. Here the expansion is prepared. The encoding is set and many commands are redefined, so that they work appropriate.

2. Expansion. The \TeX string is expanded the first time to get a PDF string.
3. Postprocessing. The result of the expansion is checked and converted to the final form.

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

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

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

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

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

```
528 \begingroup
```

6.2.1 Preprocessing

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

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

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

```
529 \escapechar'\%
```

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

```
530 \edef\0{\string\0}%
531 \edef\1{\string\1}%
532 \edef\2{\string\2}%
533 \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.

```
534 \ifHy@unicode
535 \edef\8{\string\8}%
536 \edef\9{\string\9}%
```

```

537 \fontencoding{PU}%
538 \HyPsd@UTFviii
539 \def\ifpdfstringunicode##1##2{##1}%
540 \else
541 \fontencoding{PD1}%
542 \def\ifpdfstringunicode##1##2{##2}%
543 \fi
544 \let\utf@viii@undeferr\HyPsd@utf@viii@undeferr
545 \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).

```

546 \@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).

```

547 \let\@inmathwarn\HyPsd@inmathwarn

```

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

```

548 \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.

```

549 \let\{\textbraceleft
550 \let\}\textbraceright
551 \let\\\textbackslash
552 \let\#\textnumbersign
553 \let\$\textdollar
554 \let\%\textpercent
555 \let\&\textampersand
556 % \let\~\textasciitilde
557 \let\_ \textunderscore
558 \let\P\textparagraph
559 \let\ldots\textellipsis
560 \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.

```
561 \def\{\pdfstringdefWarn\}%
562 \def\newline{\pdfstringdefWarn\newline}%
```

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

```
563 \def\TeX{\TeX}%
564 \def\LaTeX{\LaTeX}%
565 \def\LaTeXe{%
566   \LaTeX2%
567   \ifHy@unicode\textepsilon\else e\fi
568 }%
569 \def\eTeX{%
570   \ifHy@unicode\textepsilon\else e\fi
571   -\TeX%
572 }%
573 \def\SliTeX{\SliTeX}%
574 \def\MF{Metafont}%
575 \def\MP{Metapost}%
```

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

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

```

609 \let\footnotesize\@empty
610 \let\huge\@empty
611 \let\large\@empty
612 \let\normalsize\@empty
613 \let\scriptsize\@empty
614 \let\small\@empty
615 \let\tiny\@empty
616 \let\mathversion\@gobble
617 \let\phantom\@gobble
618 \let\vphantom\@gobble
619 \let\hphantom\@gobble

```

Package pifont.

```

620 \let\ding\HyPsd@ding
621 \let\Cube\HyPsd@DieFace
622 %* \HyPsd@DieFace -> \epsdice (epsdice)
623 %* \HyPsd@DieFace -> \fcdice (hhcount)

```

Environments.

```

624 \def\begin#1{\csname#1\endcsname}%
625 \def\end#1{\csname end#1\endcsname}%

```

Package color.

```

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

```

Upper- and lowercase.

```

627 \def\MakeUppercase{\MakeUppercaseUnsupportedInPdfStrings}%
628 \def\MakeLowercase{\MakeLowercaseUnsupportedInPdfStrings}%

```

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

```

629 \ifHy@psdextra
630 \ifHy@unicode
631 \csname psdmapshortnames\endcsname
632 \csname psdaliasnames\endcsname
633 \fi
634 \fi

```

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

```

635 \let\foreignlanguage\@secondoftwo
636 \let\textlatin\@firstofone
637 \ltx@ifundefined{language@group}{\}%
638 \csname HyPsd@babel@language@group\endcsname
639 }%
640 \HyPsd@GreekPatch
641 \HyPsd@SpanishPatch
642 \HyPsd@RussianPatch
643 \HyPsd@BabelPatch
644 \let\@safe@activetrue\relax
645 \let\@safe@activesfalse\relax

```

Disable `\cyr`, used in `russianb.ldf`.
646 `\let\cyr\relax`
Redefine `\es@roman`, used in `spanish.ldf`.
647 `\let\es@roman\@Roman`

Package `german`.

648 `\let\glqq\textglqq`
649 `\let\grqq\textgrqq`
650 `\let\glq\textglq`
651 `\let\grq\textgrq`
652 `\let\flqq\textflqq`
653 `\let\frqq\textfrqq`
654 `\let\flq\textflq`
655 `\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}`
656 `\let\if@mid@expandable\@firstoftwo`

AMS classes.

657 `\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.

658 `\let\hspace\HyPsd@hspace`

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

659 `\let\label\@gobble`
660 `\let\index\@gobble`
661 `\let\glossary\@gobble`
662 `\let\href\HyPsd@href`
663 `\let\@mkboth\@gobbletwo`

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

664 `\let\ref\HyPsd@ref`
665 `\let\pageref\HyPsd@pageref`
666 `\let\nameref\HyPsd@nameref`
667 `\let\autoref\HyPsd@autoref`

Miscellaneous commands.

668 `\let\leavevmode\@empty`
669 `\let\mbox\@empty`

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

670 `\def\halign{\pdfstringdefWarn\halign\@gobble}%`
671 `\let\ignorespaces\HyPsd@ignorespaces`
672 `\let\Hy@SectionAnchorHref\@gobble`
673 `\let\ensuremath\@firstofone`

Patch for cjk bookmarks.

```
674 \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 `\pdfstringdefPreHook`.

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`).

```
675 \Hy@pdfstringtrue
676 \pdfstringdefPreHook
```

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

```
677 \HyPsd@LetUnexpandableSpace\space
678 \HyPsd@LetUnexpandableSpace\ %
679 \HyPsd@LetUnexpandableSpace-%
680 \HyPsd@LetUnexpandableSpace\nobreakspace
```

Package xspace.

```
681 \ltx@ifundefined{@xspace}{%
682 \let\xspace\HyPsd@ITALCORR
683 }{%
684 \let\xspace\HyPsd@XSPACE
685 }%
686 \let\/\HyPsd@ITALCORR
687 \let\bgroup\/%
688 \let\egroup\/%
```

Redefinitions of miscellaneous commands. Hyphenation does not make sense.

```
689 \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 expandable 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:

```
690 \def\@ifnextchar{\HyPsd@ifnextchar\@ifnextchar}%
691 \def\kernel@ifnextchar{\HyPsd@ifnextchar\kernel@ifnextchar}%
692 \def\new@ifnextchar{\HyPsd@ifnextchar\new@ifnextchar}%
693 \let\@protected@testopt\HyPsd@protected@testopt
```

Support for package 'args':

```
694 \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).

```
695 \begingroup
696 \let\GenericError\@gobblefour
697 \let\GenericWarning\@gobbletwo
698 \let\GenericInfo\@gobbletwo
```

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

```
699 \ifx\nofrenchguillemets\@undefined
700 \else
701 \nofrenchguillemets
702 \fi
```

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

```
703 \let\Hy@temp\xdef
```

```

704 \let\def\HyPsd@DefCommand
705 \let\gdef\HyPsd@DefCommand
706 \let\edef\HyPsd@DefCommand
707 \let\xdef\HyPsd@DefCommand
708 \let\futurelet\HyPsd@LetCommand
709 \let\let\HyPsd@LetCommand
710 \Hy@temp#1{#2}%
711 \endgroup

```

6.2.3 Postprocessing

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

```

712 \ifx#1\@empty
713 \else

```

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

- T_EX 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 T_EX'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 a marker for the xspace support.
- T_EX silently removes the outermost 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.

```

714 \HyPsd@ProtectSpaces#1%
715 \let\HyPsd@String\@empty
716 \expandafter\HyPsd@RemoveBraces\expandafter{#1|}%
717 \global\let#1\HyPsd@String

```

Check tokens. After removing the spaces and the grouping characters the string now should only consist 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.

```

718 \let\HyPsd@SPACEOPTI\relax
719 {%
720 \let\HyPsd@String\@empty
721 \expandafter\HyPsd@CheckCatcodes#1\HyPsd@End
722 \global\let#1\HyPsd@String
723 }%
724 \expandafter\HyPsd@RemoveMask\expandafter
725 |\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.

```

726 \expandafter
727 \HyPsd@Subst\expandafter{\HyPsd@GLYPHERR}{\relax}#1%
728 \let\HyPsd@String\@empty
729 \expandafter\HyPsd@GlyphProcess#1\relax\@empty
730 \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.

```
731 \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.lda` can produce an additional space before `\guillemotright`, because `\lastskip` and `\unskip` do not work. Therefore it is removed here.

```

732 \ifHy@unicode
733 \expandafter\HyPsd@StringSubst\csname 80\040\endcsname
734 \HyPsd@SPACEOPTI#1%
735 \edef\Hy@temp@A{\HyPsd@SPACEOPTI\HyPsd@SPACEOPTI\80\273}%
736 \expandafter\HyPsd@Subst\expandafter{\Hy@temp@A}%
737 {\HyPsd@SPACEOPTI\80\273}#1%
738 \else
739 \HyPsd@StringSubst{\040}\HyPsd@SPACEOPTI#1%
740 \expandafter\HyPsd@Subst\expandafter{%
741 \expandafter\HyPsd@SPACEOPTI\expandafter\HyPsd@SPACEOPTI
742 \string\273}{\HyPsd@SPACEOPTI\273}#1%
743 \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.

```

744 \ifHy@unicode
745 \HyPsd@StringSubst{\)}{\80\051}#1%
746 \HyPsd@Subst){\80\051}#1%
747 \let\HyPsd@empty\relax
748 \expandafter\HyPsd@StringSubst\csname 80\051\endcsname
749 {\HyPsd@empty\80\051}#1%
750 \else
751 \HyPsd@StringSubst{\)}{\051}#1%
752 \HyPsd@Subst){\051}#1%
753 \let\HyPsd@empty\relax
754 \HyPsd@StringSubst{\051}{\HyPsd@empty\string\)}#1%
755 \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`.

```

756 \expandafter\HyPsd@Subst\expandafter{\}/\HyPsd@empty#1%
757 \ltx@ifundefined{@xspace}{%
758 }{%
759 \let\HyPsd@xspace\relax
760 \expandafter\HyPsd@Subst\expandafter
761 {\HyPsd@XSPACE}\HyPsd@xspace#1%
762 \let\HyPsd@xspace\HyPsd@doxspace
763 }%
764 \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.

```

765 \HyPsd@Subst{---}\textemdash#1%
766 \HyPsd@Subst{--}\textendash#1%

```

```

767 %    \HyPsd@Subst{fi}\textfi#1%
768 %    \HyPsd@Subst{fi}\textfi#1%
769 \HyPsd@Subst{!}\textexclamdown#1%
770 \HyPsd@Subst{?}\textquestiondown#1%

```

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

```

771 \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.

```

772 \ifHy@unicode
773 \HyPsd@StringSubst\(\textparenleft#1%
774 \HyPsd@Subst(\textparenleft#1%
775 \else
776 \HyPsd@StringSubst\({\050}#1%
777 \HyPsd@Subst({\050}#1%
778 \HyPsd@StringSubst{\050}{\string\}#1%
779 \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.

```

780 \ifHy@unicode
781 \edef\HyPsd@SPACEOPTI{\80\040}%
782 \else
783 \let\HyPsd@SPACEOPTI\HyPsd@spaceopti
784 \fi
785 \xdef#1{#1\@empty}%
786 \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.

```

787 \endgroup
788 \begingroup
789 \ifHy@unicode
790 \HyPsd@ConvertToUnicode#1%

```

Try conversion back to `PDFDocEncoding`.

```

791 \ifx\HyPsd@pdfencoding\HyPsd@pdfencoding@auto
792 \ltx@ifundefined{StringEncodingConvertTest}{%
793 }{%
794 \EdefUnescapeString\HyPsd@temp#1%
795 \ifxetex
796 \let\HyPsd@UnescapedString\HyPsd@temp
797 \StringEncodingConvertTest\HyPsd@temp\HyPsd@temp
798 {\utf16be}{\asci-print}{%
799 \EdefEscapeString\HyPsd@temp\HyPsd@temp
800 \global\let#1\HyPsd@temp
801 \HyPsd@EscapeTeX#1%
802 \Hy@unicodedefalse

```

```

803     }{%
804     \HyPsd@ToBigChars#1%
805     }%
806   \else
807     \StringEncodingConvertTest\HyPsd@temp\HyPsd@temp
808       {utf16be}{pdfdoc}{%
809     \EdefEscapeString\HyPsd@temp\HyPsd@temp
810     \global\let#1\HyPsd@temp
811     \HyPsd@EscapeTeX#1%
812     \Hy@unicodedefalse
813     }{%}%
814   \fi
815   }%
816 \fi
817 \fi
818 \HyPsd@XeTeXBigCharsfalse

```

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

```

819   \pdfstringdefPostHook#1%
820 \endgroup
821 }

```

`\Hy@pdfstringdef`

```

822 \def\Hy@pdfstringdef#1#2{%
823   \pdfstringdef\Hy@gtemp{#2}%
824   \let#1\Hy@gtemp
825 }

```

6.3 Encodings

6.3.1 XeTeX

```

826 \edef\Hy@temp{\catcode0=\the\catcode0\relax}
827 \catcode\z@=12 %
828 \ifxetex
829   \expandafter\@firstofone
830 \else
831   \let\HyPsd@XeTeXBigCharstrue\@empty
832   \let\HyPsd@XeTeXBigCharsfalse\@empty
833   \expandafter\@gobble
834 \fi
835 {%
836   \newif\ifHyPsd@XeTeXBigChars
837   \def\HyPsd@XeTeXBigCharsfalse{%
838     \global\let\ifHyPsd@XeTeXBigChars\iffalse
839   }%
840   \def\HyPsd@XeTeXBigCharstrue{%
841     \global\let\ifHyPsd@XeTeXBigChars\iftrue
842   }%
843   \def\HyPsd@ToBigChars#1{%
844     \ifHyPsd@XeTeXBigChars
845       \EdefEscapeHex\HyPsd@UnescapedString{%
846         \expandafter\@gobbletwo\HyPsd@UnescapedString
847       }%
848     \begingroup
849     \toks@{}%

```

```

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

```

6.3.2 Workaround for package linguex

```

899 \@ifpackageloaded{linguex}{%
900 \let\HyLinguex@OrgB\b
901 \let\HyLinguex@OrgC\c
902 \let\HyLinguex@OrgD\d
903 \def\HyLinguex@Restore{%
904 \let\b\HyLinguex@OrgB

```



```

905 \let\c\HyLinguex@OrgC
906 \let\d\HyLinguex@OrgD
907 }%
908 \Hy@AtEndOfPackage{%
909 \pdfstringdefDisableCommands{%
910 \ltx@ifundefined{oldb}{\let\b\oldb}%
911 \ltx@ifundefined{oldc}{\let\c\oldc}%
912 \ltx@ifundefined{oldd}{\let\d\oldd}%
913 }%
914 }%
915 }{%
916 \let\HyLinguex@Restore\relax
917 }%

```

6.3.3 PD1 encoding

The PD1 encoding implements the PDFDocEncoding for use with \LaTeX 2 ϵ 's NFSS. Because the informational strings are not set by \TeX '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 \TeX does not process it anyway. So use CM.

```

918 \@ifundefined{T@PD1}{%
919 \input{pd1enc.def}%
920 \HyLinguex@Restore
921 }{}
922 \DeclareFontFamily{PD1}{pdf}{}
923 \DeclareFontShape{PD1}{pdf}{m}{n}{<-> cmr10 }{}
924 \DeclareFontSubstitution{PD1}{pdf}{m}{n}

```

6.3.4 PU encoding

The PU encoding implements the Unicode encoding for use with \LaTeX '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`.

```

925 \def\HyPsd@LoadUnicode{%
926 \@ifundefined{T@PU}{%
927 \input{puenc.def}%
928 \HyLinguex@Restore
929 }{}%
930 \DeclareFontFamily{PU}{pdf}{}%
931 \DeclareFontShape{PU}{pdf}{m}{n}{<-> cmr10 }{}%
932 \DeclareFontSubstitution{PU}{pdf}{m}{n}%
933 \ifHy@psdextra
934 \edef\Hy@atrestore{\catcode64=\the\catcode64\relax}% @
935 \makeatletter
936 \input{psdextra.def}%
937 \Hy@atrestore
938 \fi
939 \let\HyPsd@LoadUnicode\relax
940 }

```

6.4 Additional user commands

6.4.1 `\texorpdfstring`

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

```

941 \def\texorpdfstring{%
942   \ifHy@pdfstring
943     \expandafter\@secondoftwo
944   \else
945     \expandafter\@firstoftwo
946   \fi
947 }
```

6.4.2 Hooks for `\pdfstringdef`

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

```

948 \@ifundefined{pdfstringdefPreHook}{%
949   \let\pdfstringdefPreHook\@empty
950 }{}
951 \@ifundefined{pdfstringdefPostHook}{%
952   \let\pdfstringdefPostHook\@gobble
953 }{}
```

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

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

```

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

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

```

954 \def\pdfstringdefDisableCommands{%
955   \begingroup
956     \makeatletter
957     \HyPsd@DisableCommands
958 }
```

`\HyPsd@DisableCommands`

```

959 \long\def\HyPsd@DisableCommands#1{%
960   \ltx@GlobalAppendToMacro\pdfstringdefPreHook{#1}%
961   \endgroup
962 }
```

`\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`.

```
963 \def\pdfstringdefWarn#1{%
964   \expandafter\noexpand\csname<>-string#1\endcsname
965 }
```

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.

```
966 \begingroup
967   \catcode0=12 %
968   \def\x{\endgroup
969     \def\HyPsd@ignorespaces{%
970       \romannumeral\expandafter'\expandafter^^@%
971       \romannumeral'^^@%
972     }%
973   }%
974   \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`.

```
975 \def\HyPsd@BabelPatch{%
976   \let\HyOrg@languageshorthands\languageshorthands
977   \let\languageshorthands\HyPsd@LanguageShorthands
978 }
979 \begingroup\expandafter\expandafter\expandafter\endgroup
980 \expandafter\ifx\csname pdf@strcmp\endcsname\relax
981   \let\HyPsd@langshort@system\@empty
982   \def\HyPsd@LanguageShorthands#1{%
983     \expandafter\ifx\csname HyPsd@langshort@#1\endcsname
984       \HyPsd@langshort@system
985     \expandafter\@gobble
986   \else
```

```

987 \expandafter\@firstofone
988 \fi
989 {%
990 \HyOrg@languageshorthands{#1}%
991 }%
992 }%
993 \else
994 \def\HyPsd@LanguageShorthands#1{%
995 \ifnum\pdf@strcmp{#1}{system}=\z@
996 \expandafter\@gobble
997 \else
998 \expandafter\@firstofone
999 \fi
1000 {%
1001 \HyOrg@languageshorthands{#1}%
1002 }%
1003 }%
1004 \fi
1005 \def\Hy@temp{%
1006 \ifpackageloaded{babel}{%
1007 \@ifpackagelater{babel}{2008/03/16}{%
1008 \let\Hy@temp\@empty
1009 }{%
1010 \def\HyPsd@BabelPatch{%
1011 \let\HyOrg@languageshorthands\languageshorthands
1012 }%
1013 }%
1014 }{}%
1015 }
1016 \Hy@temp
1017 \expandafter\Hy@AtBeginDocument\expandafter{\Hy@temp}
1018 \newif\ifHy@next

Nothing to do for english.
1019 \ltx@ifundefined{danish@sh@}{}{}%
1020 \def\HyPsd@babel@danish{%
1021 \declare@shorthand{danish}{"}{}%
1022 \declare@shorthand{danish}{"}~{}-%
1023 }%
1024 }
1025 \ltx@ifundefined{dutch@sh@}{}{}%
1026 \def\HyPsd@babel@dutch{%
1027 \declare@shorthand{dutch}{"}{}%
1028 \declare@shorthand{dutch}{"}~{}-%
1029 }%
1030 }
1031 \ltx@ifundefined{finnish@sh@}{}{}%
1032 \def\HyPsd@babel@finnish{%
1033 \declare@shorthand{finnish}{"}{}%
1034 }%
1035 }
1036 \ltx@ifundefined{french@sh@}{}{}%
1037 \def\HyPsd@babel@frenchb{%
1038 \def\guill@spacing{ }%
1039 }%
1040 }
1041 \ltx@ifundefined{german@sh@}{}{}%

```

```

1042 \def\HyPsd@babel@german{%
1043   \declare@shorthand{german}{"}{f}%
1044   \declare@shorthand{german}{"}{|}%
1045   \declare@shorthand{german}{"}{~}{-}%
1046 }%
1047 }
1048 \ltx@ifundefined{macedonian@sh@"}@sel}{%
1049 \def\HyPsd@babel@macedonian{%
1050   \declare@shorthand{macedonian}{"}{|}%
1051   \declare@shorthand{macedonian}{"}{~}{-}%
1052 }%
1053 }
1054 \ltx@ifundefined{ngerman@sh@"}@sel}{%
1055 \def\HyPsd@babel@ngerman{%
1056   \declare@shorthand{ngerman}{"}{|}%
1057   \declare@shorthand{ngerman}{"}{~}{-}%
1058 }%
1059 }
1060 \ltx@ifundefined{portuges@sh@"}@sel}{%
1061 \def\HyPsd@babel@portuges{%
1062   \declare@shorthand{portuges}{"}{|}%
1063 }%
1064 }
1065 \ltx@ifundefined{russian@sh@"}@sel}{%
1066 \def\HyPsd@babel@russian{%
1067   \declare@shorthand{russian}{"}{|}%
1068   \declare@shorthand{russian}{"}{~}{-}%
1069 }%
1070 }
1071 \ltx@ifundefined{slovene@sh@"}@sel}{%
1072 \def\HyPsd@babel@slovene{%
1073   \declare@shorthand{slovene}{"}{|}%
1074 }%
1075 }

```

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

```

1076 \ltx@ifundefined{spanish@sh@>@sel}{%
1077 \def\HyPsd@babel@spanish{%
1078   \declare@shorthand{spanish}{<<}{\guillemotleft}%
1079   \declare@shorthand{spanish}{>>}{\guillemotright}%
1080   \declare@shorthand{spanish}{"}{=}{-}%
1081   \declare@shorthand{spanish}{"}{~}{-}%
1082   \declare@shorthand{spanish}{"}{!}{\textexclamdown}%
1083   \declare@shorthand{spanish}{"}{?}{\textquestiondown}%
1084 }%
1085 }
1086 \ltx@ifundefined{swedish@sh@"}@sel}{%
1087 \def\HyPsd@babel@swedish{%
1088   \declare@shorthand{swedish}{"}{|}%
1089   \declare@shorthand{swedish}{"}{~}{-}%
1090 }%
1091 }
1092 \ltx@ifundefined{ukrainian@sh@"}@sel}{%
1093 \def\HyPsd@babel@ukrainian{%
1094   \declare@shorthand{ukrainian}{"}{|}%
1095   \declare@shorthand{ukrainian}{"}{~}{-}%
1096 }%
1097 }

```

```

1098 \ltx@ifundefined{usorbian@sh@"@sel}{%}{%
1099 \def\HyPsd@babel@usorbian{%
1100 \declare@shorthand{usorbian}{"}f}{f}%
1101 \declare@shorthand{usorbian}{"}|}{%}{%
1102 }%
1103 }

1104 \ltx@ifundefined{greek@sh@\string~@sel}{%
1105 \let\HyPsd@GreekPatch\@empty
1106 }{%
1107 \def\HyPsd@GreekPatch{%
1108 \let\greeknumeral\HyPsd@greeknumeral
1109 \let\Greeknumeral\HyPsd@Greeknumeral
1110 }%
1111 }

1112 \def\HyPsd@greeknumeral#1{%
1113 \HyPsd@GreekNum\@firsttwo{#1}%
1114 }

1115 \def\HyPsd@Greeknumeral#1{%
1116 \HyPsd@GreekNum\@secondtwo{#1}%
1117 }

1118 \def\HyPsd@GreekNum#1#2{%
1119 \ifHy@unicode
1120 \ifnum#2<\@ne
1121 \@arabic{#2}%
1122 \else
1123 \ifnum#2<1000000 %
1124 \HyPsd@@GreekNum#1{#2}%
1125 \else
1126 \@arabic{#2}%
1127 \fi
1128 \fi
1129 \else
1130 \@arabic{#2}%
1131 \fi
1132 }

1133 \def\HyPsd@@GreekNum#1#2{%
1134 \ifnum#2<\@m
1135 \ifnum#2<10 %
1136 \expandafter\HyPsd@GreekNumI
1137 \expandafter\@gobble\expandafter#1\number#2%
1138 \else
1139 \ifnum#2<100 %
1140 \expandafter\HyPsd@GreekNumII
1141 \expandafter\@gobble\expandafter#1\number#2%
1142 \else
1143 \expandafter\HyPsd@GreekNumIII
1144 \expandafter\@gobble\expandafter#1\number#2%
1145 \fi
1146 \fi
1147 \ifnum#2>\z@
1148 \textnumeralsigngreek
1149 \fi
1150 \else
1151 \ifnum#2<\@M
1152 \expandafter\HyPsd@GreekNumIV\expandafter#1\number#2%
1153 \else
1154 \ifnum#2<100000 %

```

```

1155     \expandafter\HyPsd@GreekNumV\expandafter#1\number#2%
1156   \else
1157     \expandafter\HyPsd@GreekNumVI\expandafter#1\number#2%
1158   \fi
1159 \fi
1160 \fi
1161 }
1162 \def\HyPsd@GreekNumI#1#2#3{%
1163   #1{%
1164     \ifnum#3>\z@
1165       \textnumeralsignlowergreek
1166     \fi
1167   }%
1168   \expandafter#2%
1169   \ifcase#3 %
1170     {}{}%
1171     \or\textalpha\textAlpha
1172     \or\textbeta\textBeta
1173     \or\textgamma\textGamma
1174     \or\textdelta\textDelta
1175     \or\textepsilon\textEpsilon
1176     \or\textstigmagreek\textStigmagreek
1177     \or\textzeta\textZeta
1178     \or\texteta\textEta
1179     \or\texttheta\textTheta
1180   \else
1181     {}{}%
1182   \fi
1183 }
1184 \def\HyPsd@GreekNumII#1#2#3#4{%
1185   #1{%
1186     \ifnum#3>\z@
1187       \textnumeralsignlowergreek
1188     \fi
1189   }%
1190   \expandafter#2%
1191   \ifcase#3 %
1192     {}{}%
1193     \or\textiota\textIota
1194     \or\textkappa\textKappa
1195     \or\textlambda\textLambda
1196     \or\textmu\textMu
1197     \or\textnu\textNu
1198     \or\textxi\textXi
1199     \or\textomicron\textOmicron
1200     \or\textpi\textPi
1201     \or\textkoppagreek\textKoppagreek
1202   \else
1203     {}{}%
1204   \fi
1205   \HyPsd@GreekNumI#1#2#4%
1206 }
1207 \def\HyPsd@GreekNumIII#1#2#3#4#5{%
1208   #1{%
1209     \ifnum#3>\z@
1210       \textnumeralsignlowergreek
1211     \fi

```

```

1212 }%
1213 \expandafter#2%
1214 \ifcase#3 %
1215 {}{}%
1216 \or\textrho\textRho
1217 \or\textsigma\textSigma
1218 \or\texttau\textTau
1219 \or\textupsilon\textUpsilon
1220 \or\textphi\textPhi
1221 \or\textchi\textChi
1222 \or\textpsi\textPsi
1223 \or\textomega\textOmega
1224 \or\textsampigreek\textSampigreek
1225 \else
1226 {}{}%
1227 \fi
1228 \HyPsd@GreekNumII#1#2#4#5%
1229 }
1230 \def\HyPsd@GreekNumIV#1#2#3#4#5{%
1231 \HyPsd@GreekNumI\@firstofone#1#2%
1232 \HyPsd@@@GreekNum#1{#3#4#5}%
1233 }
1234 \def\HyPsd@GreekNumV#1#2#3#4#5#6{%
1235 \HyPsd@GreekNumII\@firstofone#1#2#3%
1236 \HyPsd@@@GreekNum#1{#4#5#6}%
1237 }
1238 \def\HyPsd@GreekNumVI#1#2#3#4#5#6#7{%
1239 \HyPsd@GreekNumIII\@firstofone#1#2#3#4%
1240 \HyPsd@@@GreekNum#1{#5#6#7}%
1241 }
1242 \def\HyPsd@SpanishPatch{%
1243 \ltx@ifundefined{es@save@dot}{%
1244 }{%
1245 \let\.\es@save@dot
1246 }%
1247 }

```

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

```

1248 \def\HyPsd@RussianPatch{%
1249 \ltx@ifundefined{russian@sh@"@-@}{%
1250 }{%
1251 \@namedef{russian@sh@"@-@}{-}%
1252 }%
1253 }

```

6.5.3 CJK patch

```

1254 \RequirePackage{intcalc}[2007/09/27]

\HyPsd@CJKhook

1255 \def\HyPsd@CJKhook{%
1256 \ltx@ifpackageloaded{CJK}{%
1257 \let\CJK@kern\relax
1258 \let\CJKkern\relax
1259 \let\CJK@CJK\relax
1260 \ifHy@CJKbookmarks
1261 \HyPsd@CJKhook@bookmarks

```



```

1262 \fi
1263 \HyPsd@CJKhook@unicode
1264 }{}%
1265 }

```

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 ($\geq 0x40$).

```

1266 \begingroup
1267 \catcode"7F=\active
1268 \toks@{%
1269 \let\CJK@ignorespaces\empty
1270 \def\CJK@char#1{\@gobbletwo}%
1271 \let\CJK@charx\@gobblefour
1272 \let\CJK@punctchar\@gobblefour
1273 \def\CJK@punctcharx#1{\@gobblefour}%
1274 \catcode"7F=\active
1275 \def^^7f#1^^7f#2^^7f{%
1276 \string #1\HyPsd@DecimalToOctal{#2}%
1277 }%
1278 % ... ?
1279 \ifHy@unicode
1280 \def\Hy@cjkpu{\80}%
1281 \else
1282 \let\Hy@cjkpu\@empty
1283 \fi
1284 \HyPsd@CJKActiveChars
1285 }%
1286 \count@=127 %
1287 \@whilenum\count@<255 \do{%
1288 \advance\count@ by 1 %
1289 \lccode'\-=\count@
1290 \lowercase{%
1291 \toks@\expandafter{\the\toks@ ~}%
1292 }%
1293 }%
1294 \toks@\expandafter{\the\toks@ !}%
1295 \xdef\HyPsd@CJKhook@bookmarks{%
1296 \the\toks@
1297 }%
1298 \endgroup

```

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

```

1299 \def\HyPsd@CJKActiveChars#1{%
1300 \ifx#1!%
1301 \let\HyPsd@CJKActiveChars\relax
1302 \else

```

```

1303 \edef#1{\noexpand\Hy@cjkpu\string#1}%
1304 \fi
1305 \HyPsd@CJKActiveChars
1306 }

```

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

```

1307 \def\HyPsd@DecimalToOctal#1{%
1308 \ifcase #1 %
1309 \000\or \001\or \002\or \003\or \004\or \005\or \006\or \007%
1310 \or \010\or \011\or \012\or \013\or \014\or \015\or \016\or \017%
1311 \or \020\or \021\or \022\or \023\or \024\or \025\or \026\or \027%
1312 \or \030\or \031\or \032\or \033\or \034\or \035\or \036\or \037%
1313 \or \040\or \041\or \042\or \043\or \044\or \045\or \046\or \047%
1314 \or \050\or \051\or \052\or \053\or \054\or \055\or \056\or \057%
1315 \or 0\or 1\or 2\or 3\or 4\or 5\or 6\or 7%
1316 \or 8\or 9\or \072\or \073\or \074\or \075\or \076\or \077%
1317 \or @\or A\or B\or C\or D\or E\or F\or G%
1318 \or H\or I\or J\or K\or L\or M\or N\or O%
1319 \or P\or Q\or R\or S\or T\or U\or V\or W%
1320 \or X\or Y\or Z\or \133\or \134\or \135\or \136\or \137%
1321 \or \140\or a\or b\or c\or d\or e\or f\or g%
1322 \or h\or i\or j\or k\or l\or m\or n\or o%
1323 \or p\or q\or r\or s\or t\or u\or v\or w%
1324 \or x\or y\or z\or \173\or \174\or \175\or \176\or \177%
1325 \or \200\or \201\or \202\or \203\or \204\or \205\or \206\or \207%
1326 \or \210\or \211\or \212\or \213\or \214\or \215\or \216\or \217%
1327 \or \220\or \221\or \222\or \223\or \224\or \225\or \226\or \227%
1328 \or \230\or \231\or \232\or \233\or \234\or \235\or \236\or \237%
1329 \or \240\or \241\or \242\or \243\or \244\or \245\or \246\or \247%
1330 \or \250\or \251\or \252\or \253\or \254\or \255\or \256\or \257%
1331 \or \260\or \261\or \262\or \263\or \264\or \265\or \266\or \267%
1332 \or \270\or \271\or \272\or \273\or \274\or \275\or \276\or \277%
1333 \or \300\or \301\or \302\or \303\or \304\or \305\or \306\or \307%
1334 \or \310\or \311\or \312\or \313\or \314\or \315\or \316\or \317%
1335 \or \320\or \321\or \322\or \323\or \324\or \325\or \326\or \327%
1336 \or \330\or \331\or \332\or \333\or \334\or \335\or \336\or \337%
1337 \or \340\or \341\or \342\or \343\or \344\or \345\or \346\or \347%
1338 \or \350\or \351\or \352\or \353\or \354\or \355\or \356\or \357%
1339 \or \360\or \361\or \362\or \363\or \364\or \365\or \366\or \367%
1340 \or \370\or \371\or \372\or \373\or \374\or \375\or \376\or \377%
1341 \fi
1342 }

```

6.5.5 CJK unicode

\HyPsd@CJKhook@unicode

```

1343 \def\HyPsd@CJKhook@unicode{%
1344 \let\Unicode\HyPsd@CJK@Unicode
1345 \let\CJKnumber\HyPsd@CJKnumber
1346 \let\CJKdigits\HyPsd@CJKdigits
1347 }

```

\HyPsd@CJK@Unicode

```

1348 \def\HyPsd@CJK@Unicode#1#2{%
1349 \ifnum#1<256 %
1350 \HyPsd@DecimalToOctalFirst{#1}%
1351 \HyPsd@DecimalToOctalSecond{#2}%

```

```

1352 \else
1353 \933%
1354 \expandafter\expandafter\expandafter\HyPsd@HighA
1355 \intcalcDiv{#1}{4}!%
1356 \933%
1357 \ifcase\intcalcMod{#1}{4} %
1358 4\or 5\or 6\or 7%
1359 \fi
1360 \HyPsd@DecimalToOctalSecond{#2}%
1361 \fi
1362 }

1363 \def\HyPsd@HighA#1!{%
1364 \expandafter\expandafter\expandafter\HyPsd@HighB
1365 \IntCalcDiv#1!64!!%
1366 \expandafter\expandafter\expandafter\HyPsd@HighD
1367 \IntCalcMod#1!64!!%
1368 }
1369 \def\HyPsd@HighB#1!{%
1370 \expandafter\expandafter\expandafter\HyPsd@HighC
1371 \IntCalcDec#1!!%
1372 }
1373 \def\HyPsd@HighC#1!{%
1374 \IntCalcDiv#1!4!%
1375 \@backslashchar
1376 \IntCalcMod#1!4!%
1377 }
1378 \def\HyPsd@HighD#1!{%
1379 \ifcase\IntCalcDiv#1!8! %
1380 0\or 1\or 2\or 3\or 4\or 5\or 6\or 7%
1381 \fi
1382 \ifcase\IntCalcMod#1!8! %
1383 0\or 1\or 2\or 3\or 4\or 5\or 6\or 7%
1384 \fi
1385 }
1386 \def\HyPsd@DecimalToOctalFirst#1{%
1387 \9%
1388 \ifcase#1 %
1389 000\or 001\or 002\or 003\or 004\or 005\or 006\or 007%
1390 \or 010\or 011\or 012\or 013\or 014\or 015\or 016\or 017%
1391 \or 020\or 021\or 022\or 023\or 024\or 025\or 026\or 027%
1392 \or 030\or 031\or 032\or 033\or 034\or 035\or 036\or 037%
1393 \or 040\or 041\or 042\or 043\or 044\or 045\or 046\or 047%
1394 \or 050\or 051\or 052\or 053\or 054\or 055\or 056\or 057%
1395 \or 060\or 061\or 062\or 063\or 064\or 065\or 066\or 067%
1396 \or 070\or 071\or 072\or 073\or 074\or 075\or 076\or 077%
1397 \or 100\or 101\or 102\or 103\or 104\or 105\or 106\or 107%
1398 \or 120\or 111\or 112\or 113\or 114\or 115\or 116\or 117%
1399 \or 120\or 121\or 122\or 123\or 124\or 125\or 126\or 127%
1400 \or 130\or 131\or 132\or 133\or 134\or 135\or 136\or 137%
1401 \or 140\or 141\or 142\or 143\or 144\or 145\or 146\or 147%
1402 \or 150\or 151\or 152\or 153\or 154\or 155\or 156\or 157%
1403 \or 160\or 161\or 162\or 163\or 164\or 165\or 166\or 167%
1404 \or 170\or 171\or 172\or 173\or 174\or 175\or 176\or 177%
1405 \or 200\or 201\or 202\or 203\or 204\or 205\or 206\or 207%
1406 \or 210\or 211\or 212\or 213\or 214\or 215\or 216\or 217%
1407 \or 220\or 221\or 222\or 223\or 224\or 225\or 226\or 227%
1408 \or 230\or 231\or 232\or 233\or 234\or 235\or 236\or 237%

```

```

1409 \or 240\or 241\or 242\or 243\or 244\or 245\or 246\or 247%
1410 \or 250\or 251\or 252\or 253\or 254\or 255\or 256\or 257%
1411 \or 260\or 261\or 262\or 263\or 264\or 265\or 266\or 267%
1412 \or 270\or 271\or 272\or 273\or 274\or 275\or 276\or 277%
1413 \or 300\or 301\or 302\or 303\or 304\or 305\or 306\or 307%
1414 \or 310\or 311\or 312\or 313\or 314\or 315\or 316\or 317%
1415 \or 320\or 321\or 322\or 323\or 324\or 325\or 326\or 327%
1416 \or 330\or 331\or 332\or 333\or 334\or 335\or 336\or 337%
1417 \or 340\or 341\or 342\or 343\or 344\or 345\or 346\or 347%
1418 \or 350\or 351\or 352\or 353\or 354\or 355\or 356\or 357%
1419 \or 360\or 361\or 362\or 363\or 364\or 365\or 366\or 367%
1420 \or 370\or 371\or 372\or 373\or 374\or 375\or 376\or 377%
1421 \fi
1422 }
1423 \def\HyPsd@DecimalToOctalSecond#1{%
1424 \ifcase #1 %
1425 \000\or \001\or \002\or \003\or \004\or \005\or \006\or \007%
1426 \or \010\or \011\or \012\or \013\or \014\or \015\or \016\or \017%
1427 \or \020\or \021\or \022\or \023\or \024\or \025\or \026\or \027%
1428 \or \030\or \031\or \032\or \033\or \034\or \035\or \036\or \037%
1429 \or \040\or \041\or \042\or \043\or \044\or \045\or \046\or \047%
1430 \or \050\or \051\or \052\or \053\or \054\or \055\or \056\or \057%
1431 \or \060\or \061\or \062\or \063\or \064\or \065\or \066\or \067%
1432 \or \070\or \071\or \072\or \073\or \074\or \075\or \076\or \077%
1433 \or \100\or \101\or \102\or \103\or \104\or \105\or \106\or \107%
1434 \or \110\or \111\or \112\or \113\or \114\or \115\or \116\or \117%
1435 \or \120\or \121\or \122\or \123\or \124\or \125\or \126\or \127%
1436 \or \130\or \131\or \132\or \133\or \134\or \135\or \136\or \137%
1437 \or \140\or \141\or \142\or \143\or \144\or \145\or \146\or \147%
1438 \or \150\or \151\or \152\or \153\or \154\or \155\or \156\or \157%
1439 \or \160\or \161\or \162\or \163\or \164\or \165\or \166\or \167%
1440 \or \170\or \171\or \172\or \173\or \174\or \175\or \176\or \177%
1441 \or \200\or \201\or \202\or \203\or \204\or \205\or \206\or \207%
1442 \or \210\or \211\or \212\or \213\or \214\or \215\or \216\or \217%
1443 \or \220\or \221\or \222\or \223\or \224\or \225\or \226\or \227%
1444 \or \230\or \231\or \232\or \233\or \234\or \235\or \236\or \237%
1445 \or \240\or \241\or \242\or \243\or \244\or \245\or \246\or \247%
1446 \or \250\or \251\or \252\or \253\or \254\or \255\or \256\or \257%
1447 \or \260\or \261\or \262\or \263\or \264\or \265\or \266\or \267%
1448 \or \270\or \271\or \272\or \273\or \274\or \275\or \276\or \277%
1449 \or \300\or \301\or \302\or \303\or \304\or \305\or \306\or \307%
1450 \or \310\or \311\or \312\or \313\or \314\or \315\or \316\or \317%
1451 \or \320\or \321\or \322\or \323\or \324\or \325\or \326\or \327%
1452 \or \330\or \331\or \332\or \333\or \334\or \335\or \336\or \337%
1453 \or \340\or \341\or \342\or \343\or \344\or \345\or \346\or \347%
1454 \or \350\or \351\or \352\or \353\or \354\or \355\or \356\or \357%
1455 \or \360\or \361\or \362\or \363\or \364\or \365\or \366\or \367%
1456 \or \370\or \371\or \372\or \373\or \374\or \375\or \376\or \377%
1457 \fi
1458 }
1459 \def\HyPsd@CJKNumber#1{%
1460 \ifnum#1<\z@
1461 \CJK@minus
1462 \expandafter\HyPsd@@@CJKNumber\expandafter{\number-\number#1}%
1463 \else
1464 \expandafter\HyPsd@@@CJKNumber\expandafter{\number#1}%
1465 \fi

```

```

1466 }
1467 \def\HyPsd@@CJKnumber#1{%
1468   \ifcase#1 %
1469     \CJK@zero\or\CJK@one\or\CJK@two\or\CJK@three\or\CJK@four\or
1470     \CJK@five\or\CJK@six\or\CJK@seven\or\CJK@eight\or\CJK@nine\or
1471     \CJK@ten\or\CJK@ten\CJK@one\or\CJK@ten\CJK@two\or
1472     \CJK@ten\CJK@three\or\CJK@ten\CJK@four\or\CJK@ten\CJK@five\or
1473     \CJK@ten\CJK@six\or\CJK@ten\CJK@seven\or\CJK@ten\CJK@eight\or
1474     \CJK@ten\CJK@nine
1475   \else
1476     \ifnum#1<10000 %
1477       \HyPsd@CJKnumberFour#1!\@empty{20}%
1478       \@empty
1479     \else
1480       \ifnum#1<100000000 %
1481         \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1482         \IntCalcDiv#1!10000!%
1483         !\{20}%
1484         \CJK@tenthousand
1485         \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1486         \IntCalcMod#1!10000!%
1487         !\CJK@zero{10}%
1488         \@empty
1489       \else
1490         \expandafter\HyPsd@CJKnumberLarge
1491         \number\IntCalcDiv#1!100000000!\expandafter!%
1492         \number\IntCalcMod#1!100000000!!%
1493       \fi
1494     \fi
1495   \fi
1496 }
1497 \def\HyPsd@CJKnumberLarge#1!#2!{%
1498   \HyPsd@CJKnumberFour#1!\{20}%
1499   \CJK@hundredmillion
1500   \ifnum#2=\z@
1501     \else
1502       \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1503       \IntCalcDiv#2!10000!%
1504       !\CJK@zero{10}%
1505       \CJK@tenthousand
1506       \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1507       \IntCalcMod#2!10000!%
1508       !\CJK@zero{10}%
1509       \@empty
1510     \fi
1511 }
1512 \def\HyPsd@CJKnumberFour#1!#2#3{%
1513   \ifnum#1=\z@
1514     \expandafter\@gobble
1515   \else
1516     \ifnum#1<1000 %
1517       #2%
1518       \HyPsd@CJKnumberThree#1!\{#3}%
1519     \else
1520       \HyPsd@@CJKnumber{\IntCalcDiv#1!1000!}%
1521       \CJK@thousand
1522       \expandafter\expandafter\expandafter\HyPsd@CJKnumberThree

```

```

1523     \IntCalcMod#1!1000!%
1524     !\CJK@zero{10}%
1525   \fi
1526 \fi
1527 }
1528 \def\HyPsd@CJKnumberThree#1!#2#3{%
1529   \ifnum#1=\z@
1530   \else
1531     \ifnum#1<100 %
1532       #2%
1533       \HyPsd@CJKnumberTwo#1!#{#3}%
1534     \else
1535       \HyPsd@@@CJKnumber{\IntCalcDiv#1!100!}%
1536       \CJK@hundred
1537       \expandafter\expandafter\expandafter\HyPsd@CJKnumberTwo
1538       \IntCalcMod#1!100!%
1539       !\CJK@zero{10}%
1540     \fi
1541   \fi
1542 }
1543 \def\HyPsd@CJKnumberTwo#1!#2#3{%
1544   \ifnum#1=\z@
1545   \else
1546     \ifnum#1<#3 %
1547       #2%
1548       \HyPsd@@@CJKnumber{#1}%
1549     \else
1550       \HyPsd@@@CJKnumber{\IntCalcDiv#1!10!}%
1551       \CJK@ten
1552       \ifnum\IntCalcMod#1!10!=\z@
1553       \else
1554         \HyPsd@@@CJKnumber{\IntCalcMod#1!10!}%
1555       \fi
1556     \fi
1557   \fi
1558 }
1559 \def\HyPsd@CJKdigits#1{%
1560   \ifx*#1\relax
1561     \expandafter\HyPsd@@@CJKdigits\expandafter\CJK@zero
1562   \else
1563     \HyPsd@@@CJKdigits\CJK@null{#1}%
1564   \fi
1565 }
1566 \def\HyPsd@@@CJKdigits#1#2{%
1567   \ifx\#2\%
1568   \else
1569     \HyPsd@@@@CJKdigits#1#2\@nil
1570   \fi
1571 }%
1572 \def\HyPsd@@@@CJKdigits#1#2#3\@nil{%
1573   \HyPsd@CJKdigit#1{#2}%
1574   \ifx\#3\%
1575     \expandafter\@gobble
1576   \else
1577     \expandafter\@firstofone
1578   \fi
1579   {%

```

```

1580 \HyPsd@@@CJKdigits#1#3\@nil
1581 }%
1582 }
1583 \def\HyPsd@CJKdigit#1#2{%
1584 \ifcase#2 %
1585 #1\or
1586 \CJK@one\or\CJK@two\or\CJK@three\or\CJK@four\or
1587 \CJK@five\or\CJK@six\or\CJK@seven\or\CJK@eight\or\CJK@nine
1588 \fi
1589 }

```

6.5.6 \@inmathwarn-Patch

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

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

```

\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}

1590 \def\HyPsd@inmathwarn#1#2{%
1591 \ifx#2\expandafter

```

```

1592 \expandafter\ifx\csname\cf@encoding\string#1\endcsname\relax
1593 \HyPsd@GLYPHERR
1594 \expandafter\@gobble\string#1%
1595 >%
1596 \expandafter\expandafter\expandafter\HyPsd@EndWithElse
1597 \else
1598 \expandafter\expandafter\expandafter\HyPsd@GobbleFiFi
1599 \fi
1600 \else
1601 \expandafter#2%
1602 \fi
1603 }
1604 \def\HyPsd@GobbleFiFi#1\fi#2\fi{}
1605 \def\HyPsd@EndWithElse#1\else{\else}

```

\HyPsd@add@accent

```

1606 \def\HyPsd@add@accent#1#2{%
1607 \HyPsd@GLYPHERR\expandafter\@gobble\string#1+\string#2>%
1608 #2%
1609 }%

```

6.5.7 Unexpandable spaces

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

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

These properties are used in \HyPsd@CheckCatcodes.

```

1610 \def\HyPsd@LetUnexpandableSpace#1{%
1611 \expandafter\futurelet\expandafter#1\expandafter\@gobble\space\relax
1612 }

```

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

```

1613 \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.

```

1614 \edef\HyPsd@XSPACE{\string#\string X}
1615 \edef\HyPsd@ITALCORR{\string#\string I}
1616 \edef\HyPsd@GLYPHERR{\string#\string G}

```

6.5.9 \hspace fix

\HyPsd@hspace

```

1617 \def\HyPsd@hspace#1{\HyPsd@@hspace#1*END}

```


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

```
1618 \def\HyPsd@@hspace#1*#2\END{%
1619   \ifx\|#2\|
1620     \HyPsd@hspacetest{#1}%
1621   \else
1622     \expandafter\HyPsd@hspacetest
1623   \fi
1624 }
```

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

```
1625 \def\HyPsd@hspacetest#1{\ifdim#1>\z@\space\fi}
```

6.5.10 Fix for AMS classes

```
1626 \ltx@ifundefined{tocsection}{%
1627   \let\HyPsd@AMSclassfix\relax
1628 }{%
1629   \def\HyPsd@AMSclassfix{%
1630     \let\tocpart\HyPsd@tocsection
1631     \let\tocchapter\HyPsd@tocsection
1632     \let\tocappendix\HyPsd@tocsection
1633     \let\tocsection\HyPsd@tocsection
1634     \let\tocsubsection\HyPsd@tocsection
1635     \let\tocsubsubsection\HyPsd@tocsection
1636     \let\tocparagraph\HyPsd@tocsection
1637   }%
1638   \def\HyPsd@tocsection#1#2#3{%
1639     \if @#2@\else\if @#1@\else#1 \fi#2. \fi
1640     #3%
1641   }%
1642 }
```

6.5.11 Reference commands

`\HyPsd@href`

```
1643 \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.

```
1644 \def\HyPsd@ref#1{\HyPsd@@ref#1*\END}%
```

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

```
1645 \def\HyPsd@@ref#1*#2\END{%
1646   \ifx\|#2\|
1647     \HyPsd@@@ref{#1}%
1648   \else
1649     \expandafter\HyPsd@@@ref
1650   \fi
1651 }
```

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

```
1652 \def\HyPsd@@@ref#1{%
1653   \expandafter\ifx\csname r@#1\endcsname\relax
1654     ??%
1655   \else
1656     \expandafter\expandafter\expandafter
```

```

1657 \car\csname r@#1\endcsname\@nil
1658 \fi
1659 }

```

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

```

1660 \def\HyPsd@pageref#1{\HyPsd@@pageref#1*\END}

```

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

```

1661 \def\HyPsd@@pageref#1*#2\END{%
1662 \ifx\#2\%
1663 \HyPsd@@@pageref{#1}%
1664 \else
1665 \expandafter\HyPsd@@@pageref
1666 \fi
1667 }

```

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

```

1668 \def\HyPsd@@@pageref#1{%
1669 \expandafter\ifx\csname r@#1\endcsname\relax
1670 ??%
1671 \else
1672 \expandafter\expandafter\expandafter\expandafter
1673 \expandafter\expandafter\expandafter\@car
1674 \expandafter\expandafter\expandafter\@gobble
1675 \csname r@#1\endcsname{}\@nil
1676 \fi
1677 }

```

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

```

1678 \def\HyPsd@nameref#1{\HyPsd@@nameref#1*\END}

```

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

```

1679 \def\HyPsd@@nameref#1*#2\END{%
1680 \ifx\#2\%
1681 \HyPsd@@@nameref{#1}%
1682 \else
1683 \expandafter\HyPsd@@@nameref
1684 \fi
1685 }

```

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

```

1686 \def\HyPsd@@@nameref#1{%
1687 \expandafter\ifx\csname r@#1\endcsname\relax
1688 ??%
1689 \else
1690 \expandafter\expandafter\expandafter\expandafter
1691 \expandafter\expandafter\expandafter\@car
1692 \expandafter\expandafter\expandafter\@gobbletwo
1693 \csname r@#1\endcsname{}\@nil
1694 \fi
1695 }

```

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

```

1696 \def\HyPsd@autoref#1{\HyPsd@@autoref#1*\END}

```

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

```
1697 \def\HyPsd@@autoref#1*#2\END{%
1698   \ifx\#2\%
1699     \HyPsd@@@autoref{#1}%
1700   \else
1701     \expandafter\HyPsd@@@autoref
1702   \fi
1703 }
```

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

```
1704 \def\HyPsd@@@autoref#1{%
1705   \expandafter\ifx\csname r@#1\endcsname\relax
1706     ??%
1707   \else
1708     \expandafter\expandafter\expandafter\HyPsd@autorefname
1709       \csname r@#1\endcsname{}{}{}{}\@nil
1710     \expandafter\expandafter\expandafter
1711       \@car\csname r@#1\endcsname\@nil
1712   \fi
1713 }
```

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

```
1714 \def\HyPsd@autorefname#1#2#3#4#5\@nil{%
1715   \ifx\#4\%
1716   \else
1717     \HyPsd@@autorefname#4.\@nil
1718   \fi
1719 }
```

`\HyPsd@@@autorefname`

```
1720 \def\HyPsd@@@autorefname#1.#2\@nil{%
1721   \ltx@ifundefined{#1autorefname}{%
1722     \ltx@ifundefined{#1name}{%
1723       }{%
1724         \csname#1name\endcsname\space
1725       }%
1726     }{%
1727       \csname#1autorefname\endcsname\space
1728     }%
1729 }
```

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

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

```

\HyPsd@DefCommand
\HyPsd@LetCommand 1730 \begingroup
1731 \def\x#1#2{%
1732 \endgroup
1733 \let#1\def
1734 \def\HyPsd@DefCommand##1##2###{%
1735 #1%
1736 \expandafter\noexpand
1737 \csname\expandafter\@gobble\string##1\@empty\endcsname
1738 \@gobble
1739 }%
1740 \let#2\let
1741 \def\HyPsd@@LetCommand##1{%
1742 \expandafter\ifx\csname##1\expandafter\endcsname
1743 \csname iftrue\endcsname
1744 \pdfstringdefWarn\let
1745 \expandafter\@gobble
1746 \else
1747 \expandafter\ifx\csname##1\expandafter\endcsname
1748 \csname iffalse\endcsname
1749 \pdfstringdefWarn\let
1750 \expandafter\expandafter\expandafter\@gobble
1751 \else
1752 #2%
1753 \expandafter\noexpand
1754 \csname##1\expandafter\expandafter\expandafter\endcsname
1755 \fi
1756 \fi
1757 }%
1758 }%
1759 \expandafter\x\csname <def>-command\expandafter\endcsname
1760 \csname <let>-command\endcsname
1761 \def\HyPsd@LetCommand#1{%
1762 \expandafter\expandafter\expandafter\HyPsd@@LetCommand
1763 \expandafter\expandafter\expandafter{%
1764 \expandafter\@gobble\string#1\@empty
1765 }%
1766 }

```

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).

```
1767 \def\HyPsd@ifnextchar#1{%
1768   \pdfstringdefWarn#1%
1769   \expandafter\@gobbletwo\@gobble
1770 }
```

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`.

```
1771 \def\HyPsd@protected@testopt#1{%
1772   \pdfstringdefWarn#1%
1773   \@gobbletwo
1774 }
```

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:

```
1775 \def\HyPsd@Warning#1{%
1776   \begingroup
1777   \let\space\ltx@space
1778   \Hy@Warning{#1}%
1779   \endgroup
1780 }
```

6.6.2 Protecting spaces

```
1781 \RequirePackage{etexcmds}[2007/09/09]
1782 \ifetex@unexpanded
1783   \expandafter\@secondoftwo
1784 \else
1785   \expandafter\@firstoftwo
1786 \fi
1787 {%
```

`\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`.

```

1788 \def\HyPsd@ProtectSpaces#1{%
1789   \iftrue
1790     \expandafter\HyPsd@@ProtectSpacesFi
1791     \expandafter|\expandafter\@empty#1| \HyPsd@End#1%
1792   \fi
1793 }%
```

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

```

1794 \def\HyPsd@@ProtectSpacesFi#1 #2\HyPsd@End#3\fi{%
1795   \fi
1796   \ifx\scrollmode#2\scrollmode
1797     \HyPsd@RemoveMask#1\HyPsd@End#3%
1798   \else
1799     \gdef#3{#1\HyPsd@UnexpandableSpace#2}%
1800     \expandafter\HyPsd@@ProtectSpacesFi#3\HyPsd@End#3%
1801   \fi
1802 }%
```

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.

```

1803 \def\HyPsd@RemoveMask|#1|\HyPsd@End#2{%
1804   \toks@\expandafter{#1}%
1805   \xdef#2{\the\toks@}%
1806 }%

1807 }{%
1808   \let\HyPsd@fi\fi
1809   \def\HyPsd@ProtectSpaces#1{%
1810     \xdef#1{%
1811       \iftrue
1812         \expandafter\HyPsd@@ProtectSpacesFi
1813         \expandafter|\expandafter\@empty#1| %
1814       \HyPsd@fi
1815     }%
1816     \expandafter\HyPsd@RemoveMask#1\HyPsd@End#1%
1817   }%
1818   \def\HyPsd@@ProtectSpacesFi#1 #2\HyPsd@fi{%
1819     \fi
1820     \etex@unexpanded{#1}%
1821     \ifx\scrollmode#2\scrollmode
1822     \else
1823       \HyPsd@@ProtectSpacesFi\HyPsd@UnexpandableSpace#2%
1824     \HyPsd@fi
1825   }%
1826   \def\HyPsd@RemoveMask|#1|\HyPsd@End#2{%
1827     \xdef#2{\etex@unexpanded\expandafter{#1}}%
1828   }%
1829 }
```

6.6.3 Remove grouping braces

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

```
1830 \def\HyPsd@RemoveBraces#1{%
1831   \ifx\scrollmode#1\scrollmode
1832   \else
1833     \HyPsd@@RemoveBracesFi#1\HyPsd@end{#1}%
1834   \fi
1835 }
```

`\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`.

```
1836 \def\HyPsd@@RemoveBracesFi#1#2\HyPsd@end#3\fi{%
1837   \fi
1838   \def\Hy@temp@A{#1#2}%
1839   \def\Hy@temp@B{#3}%
1840   \ifx\Hy@temp@A\Hy@temp@B
1841     \expandafter\def\expandafter\HyPsd@String\expandafter{%
1842       \HyPsd@String#1%
1843     }%
1844     \ifx\scrollmode#2\scrollmode
1845     \else
1846       \Hy@ReturnAfterFiFiEnd{%
1847         \HyPsd@RemoveBraces{#2}%
1848       }%
1849     \fi
1850   \else
1851     \def\Hy@temp@A{#1}%
1852     \HyPsd@AppendItalcorr\HyPsd@String
1853     \ifx\Hy@temp@A\@empty
1854       \Hy@ReturnAfterElseFiFiEnd{%
1855         \HyPsd@RemoveBraces{#2}%
1856       }%
1857     \else
1858       \HyPsd@ProtectSpaces\Hy@temp@A
1859       \HyPsd@AppendItalcorr\Hy@temp@A
1860       \Hy@ReturnAfterFiFiEnd{%
1861         \expandafter\HyPsd@RemoveBraces\expandafter
1862           {\Hy@temp@A#2}%
1863       }%
1864     \fi
1865   \fi
1866   \Hy@ReturnEnd
1867 }
```

`\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`.

```

1868 \def\HyPsd@AppendItalcorr#1{%
1869   \expandafter\HyPsd@@AppendItalcorr\expandafter{\/#1}%
1870 }
1871 \def\HyPsd@@AppendItalcorr#1#2{%
1872   \expandafter\def\expandafter#2\expandafter{#2#1}%
1873 }

```

6.6.4 Catcode check

Check catcodes.

`\HyPsd@CheckCatcodes` Because `\ifcat` expands its arguments, this is prevented by `\noexpand`. In case of command tokens and active characters `\ifcat` now sees a `\relax`. After protecting spaces and removing braces `#1` should be a single token, no group of several tokens, nor an empty group. (So the `\expandafter\relax` between `\ifcat` and `\noexpand` is only for safety and it should be possible to remove it.)

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

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`.

```

1874 \catcode'\Q=\active
1875 \let Q\ltx@empty
1876 \def\HyPsd@CheckCatcodes#1#2\HyPsd@End{%
1877   \global\let\HyPsd@Rest\relax
1878   \ifcat\relax\noexpand#1\relax
1879     \ifx#1\protect
1880       \else
1881         \ifx#1\penalty
1882           \setbox\z@=\hbox{%
1883             \afterassignment\HyPsd@AfterCountRemove
1884             \count@=#2\HyPsd@End
1885           }%
1886         \else
1887           \ifx#1\kern
1888             \setbox\z@=\hbox{%
1889               \afterassignment\HyPsd@AfterDimenRemove
1890               \dimen@=#2\HyPsd@End
1891             }%
1892           \else
1893             \ifx#1\hskip
1894               \setbox\z@=\hbox{%
1895                 \afterassignment\HyPsd@AfterSkipRemove
1896                 \skip@=#2\HyPsd@End
1897               }%
1898             \else
1899               \HyPsd@CatcodeWarning{#1}%
1900             \fi
1901           \fi
1902         \fi
1903       \fi
1904     \else
1905       \ifcat\noexpand#1\noexpandQ% active character
1906       \expandafter\expandafter\expandafter\def

```



```

1907 \expandafter\expandafter\expandafter\HyPsd@String
1908 \expandafter\expandafter\expandafter{%
1909 \expandafter\HyPsd@String\string#1%
1910 }%
1911 \else
1912 \ifcat#1A% letter
1913 \expandafter\def\expandafter\HyPsd@String\expandafter{%
1914 \HyPsd@String#1%
1915 }%
1916 \else
1917 \ifcat#1 % SPACE
1918 \expandafter\def\expandafter\HyPsd@String\expandafter{%
1919 \HyPsd@String\HyPsd@SPACEOPTI
1920 }%
1921 \else
1922 \ifcat$#1%
1923 \HyPsd@CatcodeWarning{math shift}%
1924 \else
1925 \ifcat&#1%
1926 \HyPsd@CatcodeWarning{alignment tab}%
1927 \else
1928 \ifcat^#1%
1929 \HyPsd@CatcodeWarning{superscript}%
1930 \else
1931 \ifcat_#1%
1932 \HyPsd@CatcodeWarning{subscript}%
1933 \else
1934 \expandafter\def\expandafter\HyPsd@String\expandafter{%
1935 \HyPsd@String#1%
1936 }%
1937 \fi
1938 \fi
1939 \fi
1940 \fi
1941 \fi
1942 \fi
1943 \fi
1944 \fi
1945 \ifx\HyPsd@Rest\relax
1946 \ifx\scrollmode#2\scrollmode
1947 \else
1948 \Hy@ReturnAfterFiFiEnd{%
1949 \HyPsd@CheckCatcodes#2\HyPsd@End
1950 }%
1951 \fi
1952 \else
1953 \ifx\HyPsd@Rest\@empty
1954 \else
1955 \Hy@ReturnAfterFiFiEnd{%
1956 \expandafter\HyPsd@CheckCatcodes\HyPsd@Rest\HyPsd@End
1957 }%
1958 \fi
1959 \fi
1960 \Hy@ReturnEnd
1961 }
1962 \catcode'\Q=11 %

```

Remove counts, dimens, skips.

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

```

1963 \def\HyPsd@AfterCountRemove#1\HyPsd@end{%
1964   \gdef\HyPsd@Rest{#1}%
1965 }

```

`\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.

```

1966 \def\HyPsd@AfterDimenRemove#1\HyPsd@end{%
1967   \ifdim\ifx\HyPsd@String\@empty\z@\else\dimen@>1ex %
1968     \HyPsd@ReplaceSpaceWarning{\string\kern\space\the\dimen@}%
1969     \gdef\HyPsd@Rest{\HyPsd@UnexpandableSpace #1}%
1970   \else
1971     \ifdim\dimen@=\z@
1972       \else
1973         \HyPsd@RemoveSpaceWarning{\string\kern\space\the\dimen@}%
1974       \fi
1975     \gdef\HyPsd@Rest{#1}%
1976   \fi
1977 }

```

`\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).

```

1978 \def\HyPsd@AfterSkipRemove#1\HyPsd@end{%
1979   \ifdim\ifx\HyPsd@String\@empty\z@\else\skip@>1ex %
1980     \HyPsd@ReplaceSpaceWarning{\string\hskip\space\the\skip@}%
1981     \gdef\HyPsd@Rest{\HyPsd@UnexpandableSpace #1}%
1982   \else
1983     \ifdim\skip@=\z@
1984       \else
1985         \HyPsd@RemoveSpaceWarning{\string\kern\space\the\skip@}%
1986       \fi
1987     \gdef\HyPsd@Rest{#1}%
1988   \fi
1989 }

```

Catcode warnings.

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

```

1990 \def\HyPsd@CatcodeWarning#1{%
1991   \HyPsd@Warning{%
1992     Token not allowed in a PDF string (%
1993     \ifHy@unicode
1994       Unicode%
1995     \else
1996       PDFDocEncoding%
1997     \fi
1998   ):%
1999   \MessageBreak removing '\HyPsd@RemoveCmdPrefix#1'%
2000 }%
2001 }
2002 \begingroup
2003 \catcode'\|=0 %
2004 \catcode'\|=12 %

```

```

2005 |gdef|HyPsd@RemoveCmdPrefix#1{%
2006   |expandafter|HyPsd@@RemoveCmdPrefix
2007   |string#1|@empty\<>-|@empty|@empty
2008 }%
2009 |gdef|HyPsd@@RemoveCmdPrefix#1\<>-#2|@empty#3|@empty{#1#2}%
2010 |endgroup

```

\HyPsd@RemoveSpaceWarning

```

2011 \def\HyPsd@RemoveSpaceWarning#1{%
2012   \HyPsd@Warning{%
2013     Token not allowed in a PDF string (%)
2014     \ifHy@unicode
2015       Unicode%
2016     \else
2017       PDFDocEncoding%
2018     \fi
2019   }:%
2020   \MessageBreak #1\MessageBreak
2021   removed%
2022 }%
2023 }

```

\HyPsd@ReplaceSpaceWarning

```

2024 \def\HyPsd@ReplaceSpaceWarning#1{%
2025   \HyPsd@Warning{%
2026     Token not allowed in a PDF string (%)
2027     \ifHy@unicode
2028       Unicode%
2029     \else
2030       PDFDocEncoding%
2031     \fi
2032   }:%
2033   \MessageBreak #1\MessageBreak
2034   replaced by space%
2035 }%
2036 }

```

6.6.5 Check for wrong glyphs

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

```

2037 \def\HyPsd@GlyphProcess#1\relax#2\@empty{%
2038   \expandafter\def\expandafter\HyPsd@String\expandafter{%
2039     \HyPsd@String#1%
2040   }%
2041   \ifx\|#2\%
2042   \else
2043     \ltx@ReturnAfterFi{%
2044       \HyPsd@GlyphProcessWarning#2\@empty
2045     }%
2046   \fi
2047 }
2048 \def\HyPsd@GlyphProcessWarning#1>#2\@empty{%
2049   \HyPsd@@GlyphProcessWarning#1++>%
2050   \HyPsd@GlyphProcess#2\@empty
2051 }
2052 \def\HyPsd@@GlyphProcessWarning#1+#2+#3>{%

```

```

2053 \ifx\|#2\%
2054 \HyPsd@Warning{%
2055   Glyph not defined in %
2056   P\ifHy@unicode U\else D1\fi\space encoding,\MessageBreak
2057   removing '@backslashchar#1'%
2058 }%
2059 \else
2060 \HyPsd@Warning{%
2061   Composite letter '@backslashchar#1+#2'\MessageBreak
2062   not defined in P\ifHy@unicode U\else D1\fi\space encoding,%
2063   \MessageBreak
2064   removing '@backslashchar#1'%
2065 }%
2066 \fi
2067 }

```

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`.

```

2068 \def\HyPsd@spaceopti#1{ % first space
2069 \ifx\HyPsd@spaceopti#1%
2070 \040%
2071 \else
2072 #1%
2073 \fi
2074 }%

```

6.6.6 Replacing tokens

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

```

#1 Exact the tokens that should be replaced.
#2 The replacement (don't need to be expanded).
#3 Command with the string.
2075 \def\HyPsd@Subst#1#2#3{%
2076 \def\HyPsd@@ReplaceFi##1#1##2\END\fi{%
2077 \fi
2078 ##1%
2079 \ifx\scrollmode##2\scrollmode
2080 \else
2081 #2%
2082 \HyPsd@@ReplaceFi##2\END
2083 \fi
2084 }%
2085 \xdef#3{%
2086 \iftrue
2087 \expandafter\HyPsd@@ReplaceFi#3#1\END
2088 \fi
2089 }%
2090 }

```

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

```

2091 \def\HyPsd@StringSubst#1{%
2092   \expandafter\HyPsd@Subst\expandafter{\string#1}%
2093 }

```

\HyPsd@EscapeTeX

```

2094 \begingroup
2095   \lccode'\!='\%%
2096   \lccode'\|='\%%
2097   \lccode'\(=\{\%
2098   \lccode'\)=\}%
2099   \lccode'0=\ltx@zero
2100   \lccode'1=\ltx@zero
2101   \lccode'3=\ltx@zero
2102   \lccode'4=\ltx@zero
2103   \lccode'5=\ltx@zero
2104   \lccode'7=\ltx@zero
2105 \lowercase{\endgroup
2106 \def\HyPsd@EscapeTeX#1{%
2107   \HyPsd@Subst!{|045}#1%
2108   \HyPsd@Subst({|173}#1%
2109   \HyPsd@Subst){|175}#1%
2110 }%
2111 }

```

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.

```

2112 \def\HyPsd@doxspace#1{%
2113   \ifx#1\relax\else
2114     \ifx#1.\else
2115       \ifx#1:\else
2116         \ifx#1,\else
2117           \ifx#1;\else
2118             \ifx#1!\else
2119               \ifx#1?\else
2120                 \ifx#1/\else
2121                   \ifx#1-\else
2122                     \ifx#1'\else
2123                       \HyPsd@SPACEOPTI
2124                     \fi
2125                   \fi
2126                 \fi
2127               \fi
2128             \fi
2129           \fi
2130         \fi
2131       \fi
2132     \fi
2133   \fi
2134   #1%
2135 }%

```

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.

```
2136 \begingroup
2137 \catcode'\|=0 %
2138 \catcode'\|=12 %
```

\HyPsd@ConvertToUnicode

```
2139 |gdef|HyPsd@ConvertToUnicode#1{%
2140 |xdef#1{%
2141 |expandafter|HyPsd@DoConvert#1|@empty|@empty|@empty
2142 }%
2143 |ifx#1|@empty
2144 |else
2145 |xdef#1{%
2146 \376\377%
2147 #1%
2148 }%
2149 |fi
2150 }%
```

\HyPsd@DoConvert

```
2151 |gdef|HyPsd@DoConvert#1{%
2152 |ifx#1|@empty
2153 |else
2154 |ltx@ReturnAfterFi{%
2155 |ifx#1\%%
2156 \%%
2157 |expandafter|HyPsd@DoEscape
2158 |else
2159 |HyPsd@Char{#1}%
2160 |expandafter|HyPsd@DoConvert
2161 |fi
2162 }%
2163 |fi
2164 }%
```

\HyPsd@DoEscape

```
2165 |gdef|HyPsd@DoEscape#1{%
2166 |ifx#19%
2167 |expandafter|HyPsd@GetTwoBytes
2168 |else
2169 |ltx@ReturnAfterFi{%
2170 |ifx#18%
2171 00%
2172 |expandafter|HyPsd@GetTwoBytes
2173 |else
2174 #1%
2175 |expandafter|HyPsd@GetOneByte
2176 |fi
2177 }%
2178 |fi
2179 }%
```

\HyPsd@GetTwoBytes

```

2180 |gdef|HyPsd@GetTwoBytes#1\#2#3#4{%
2181   #1\#2#3#4%
2182   |HyPsd@DoConvert
2183 }%

```

\HyPsd@GetOneByte

```

2184 |gdef|HyPsd@GetOneByte#1#2{%
2185   #1#2%
2186   |HyPsd@DoConvert
2187 }%
2188 |endgroup

```

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

```

2189 \def\HyPsd@GetNextTwoTokens#1#2#3\END#4{%
2190   \xdef#4{#4#1#2}%
2191   \HyPsd@@ConvertToUnicode#3\END#4%
2192 }

```

\HyPsd@Char

```

2193 \begingroup
2194 \catcode0=9 %
2195 \catcode'\^=7 %
2196 \catcode'\^^=12 %
2197 \def\x{~~~~0000}%
2198 \expandafter\endgroup
2199 \ifx\x\@empty
2200 \def\HyPsd@Char#1{%
2201   \ifnum'#1<128 %
2202     \@backslashchar 000#1%
2203   \else
2204     \ifnum'#1<65536 %
2205       \expandafter\HyPsd@CharTwoByte\number'#1!%
2206     \else
2207       \expandafter\expandafter\expandafter\HyPsd@CharSurrogate
2208       \intcalcSub{'#1}{65536}!%
2209     \fi
2210   \fi
2211 }%
2212 \def\HyPsd@CharTwoByte#1!{%
2213   \expandafter\expandafter\expandafter\HyPsd@CharOctByte
2214   \IntCalcDiv#1!256!!%
2215   \expandafter\expandafter\expandafter\HyPsd@CharOctByte
2216   \IntCalcMod#1!256!!%
2217 }%
2218 \def\HyPsd@CharOctByte#1!{%
2219   \@backslashchar
2220   \IntCalcDiv#1!64!%
2221   \intcalcDiv{\IntCalcMod#1!64!}{8}%
2222   \IntCalcMod#1!8!%
2223 }%
2224 \def\HyPsd@CharSurrogate#1!{%
2225   \@backslashchar 33%
2226   \IntCalcDiv#1!262144!%
2227   \expandafter\expandafter\expandafter\HyPsd@CharOctByte
2228   \intcalcDiv{\IntCalcMod#1!262144!}{1024}!%
2229   \@backslashchar 33%

```

```

2230 \expandafter\expandafter\expandafter\IntCalcAdd
2231 \intcalcDiv{\IntCalcMod#1!1024!}{256}!4!%
2232 \expandafter\expandafter\expandafter\HyPsd@CharOctByte
2233 \IntCalcMod#1!256!!%
2234 }%
2235 \else
2236 \def\HyPsd@Char#1{%
2237 \@backslashchar 000#1%
2238 }%
2239 \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`

```

2240 \begingroup\expandafter\expandafter\expandafter\endgroup
2241 \expandafter\ifx\csname numexpr\endcsname\relax
2242 \let\HyPsd@UTFviii\relax
2243 \else
2244 \begingroup
2245 \lccode'\~='^f4\relax
2246 \lowercase{\endgroup
2247 \def\HyPsd@UTFviii{%
2248 \let\UTFviii@two@octets\HyPsd@UTFviii@two
2249 \let\UTFviii@three@octets\HyPsd@UTFviii@three
2250 \let\UTFviii@four@octets\HyPsd@UTFviii@four
2251 \ifx~\HyPsd@UTFviii@ccxliv@undef
2252 \let~\HyPsd@UTFviii@ccxliv@def
2253 \fi
2254 \let\unichar\HyPsd@unichar
2255 }%
2256 }%
2257 \def\HyPsd@UTFviii@ccxliv@undef{\@inpencl@undefined@{utf8}}%
2258 \edef\HyPsd@UTFviii@ccxliv@def{%
2259 \noexpand\UTFviii@four@octets\string ^f4%
2260 }%

```

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.

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

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

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

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

$$(5)$$


```

2261 \def\HyPsd@UTFviii@two#1#2{%
2262   \expandafter\HyPsd@UTFviii@@two
2263   \number\dimexpr.25\dimexpr'#1sp\expandafter\relax\expandafter|
2264   \number'#1\expandafter|
2265   \number\dimexpr.125\dimexpr'#2sp\expandafter\relax\expandafter|
2266   \number'#2 \@nil
2267 }%
2268 \def\HyPsd@UTFviii@@two#1|#2|#3|#4\@nil{%
2269   \expandafter\8
2270   \number\numexpr #1-48\expandafter\relax
2271   \csname\number\numexpr #2-4*#1\relax\expandafter\endcsname
2272   \number\numexpr #3-8*
2273   \number\dimexpr.125\dimexpr'#3sp\relax\relax\expandafter\relax
2274   \number\numexpr #4-8*#3\relax
2275 }%

```

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

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

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

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

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

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

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

$$(12)$$

```

2276 \def\HyPsd@UTFviii@three#1#2#3{%
2277   \expandafter\HyPsd@UTFviii@@three
2278   \number\dimexpr.25\dimexpr'#1sp\expandafter\relax\expandafter|
2279   \number'#1\expandafter|
2280   \number\ifnum\numexpr'#2-128\relax <32 0\else 1\fi\expandafter|
2281   \number\dimexpr.25\dimexpr'#2sp\expandafter\relax\expandafter|
2282   \number'#2\expandafter|
2283   \number\dimexpr.125\dimexpr'#3sp\expandafter\relax\expandafter|
2284   \number'#3 \@nil
2285 }%
2286 \def\HyPsd@UTFviii@@three#1|#2|#3|#4|#5|#6|#7\@nil{%
2287   \expandafter\9
2288   \number\numexpr #1-56\expandafter\relax
2289   \number\numexpr 2*(#2-4*#1)+#3\expandafter\relax
2290   \number\numexpr #4 - 32 -\ifcase#3 0\else 8\fi\expandafter\relax
2291   \csname\number\numexpr #5-4*#4\relax\expandafter\endcsname
2292   \number\numexpr #6-16\expandafter\relax
2293   \number\numexpr #7-8*#6\relax
2294 }%

```

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

```

```

2295 \def\HyPsd@UTFviii@four#1#2{%
2296   \expandafter\HyPsd@@@UTFviii@four\number

```

```

2297 \numexpr-1+('#1-240)*4+\dimexpr.0625\dimexpr'#2sp-128sp%
2298 \expandafter|\number
2299 \numexpr'#2-16*\dimexpr.0625\dimexpr'#2sp| %
2300 }%
2301 \def\HyPsd@@@UTFviii@four#1|#2|#3{%
2302 \933\number\dimexpr.25\dimexpr#1sp\relax\relax
2303 \csname\number\dimexpr#1-4*\dimexpr.25\dimexpr#1sp\endcsname
2304 \ifodd#2 %
2305 \number\dimexpr(#2-1)/2\relax
2306 \else
2307 \number\dimexpr#2/2\relax
2308 \fi
2309 \number\dimexpr\ifodd#2 4+\fi
2310 \dimexpr.0625\dimexpr'#3sp-128sp\relax\relax\relax
2311 \933%
2312 \expandafter\HyPsd@@@UTFviii@four\number
2313 \numexpr'#3-16*\dimexpr.0625\dimexpr'#3sp| %
2314 }%
2315 \def\HyPsd@@@UTFviii@four#1|#2{%
2316 \number\dimexpr4+\dimexpr.25\dimexpr#1sp\relax\relax\relax
2317 \csname\number\dimexpr#1-4*\dimexpr.25\dimexpr#1sp\endcsname
2318 \number\dimexpr.125\dimexpr'#2sp-128sp\relax\relax
2319 \number\dimexpr'#2-8*\dimexpr.125\dimexpr'#2sp\relax\relax\relax
2320 }%

```

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

```

2321 \def\HyPsd@unichar#1{%
2322 \ifHy@unicode
2323 \ifnum#1>"10FFFF %
2324 \HyPsd@UnicodeReplacementCharacter % illegal
2325 \else
2326 \ifnum#1>"FFFF %

```

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

```

2327 \expandafter\HyPsd@unichar\expandafter{%
2328 \number\dimexpr 55296+%
2329 \dimexpr.0009765625\dimexpr\number#1sp-\p@
2330 \relax\relax\relax
2331 }%

```

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

```

2332 \expandafter\HyPsd@unichar\expandafter{%
2333 \number\dimexpr#1-9216%
2334 -1024*\dimexpr.0009765625\dimexpr\number#1sp-\p@
2335 \relax\relax\relax
2336 }%
2337 \else
2338 \ifnum#1>"7FFF %
2339 \9%
2340 \expandafter\HyPsd@unichar@first@byte\expandafter{%
2341 \number
2342 \dimexpr.00390625\dimexpr\number#1sp\relax\relax
2343 }%
2344 \else
2345 \8%
2346 \number\dimexpr.00390625\dimexpr\number#1sp\relax\relax
2347 \fi

```

```

2348 \expandafter\HyPsd@unichar@second@byte\expandafter{%
2349 \number
2350 \numexpr#1-256*\number
2351 \dimexpr.00390625\dimexpr\number#1sp\relax\relax\relax
2352 }%
2353 \fi
2354 \fi
2355 \else
2356 .% unsupported (Unicode -> PDF Doc Encoding)
2357 \fi
2358 }%
2359 \def\HyPsd@UnicodeReplacementCharacter{9377\375}%
2360 \def\HyPsd@unichar@first@byte#1{%
2361 \number\dimexpr.015625\dimexpr#1sp\relax\relax
2362 \expandafter\HyPsd@unichar@octtwo\expandafter{%
2363 \number
2364 \numexpr#1-64*\number\dimexpr.015625\dimexpr#1sp%
2365 \relax\relax\relax
2366 }%
2367 }%
2368 \def\HyPsd@unichar@second@byte#1{%
2369 \csname\number\dimexpr.015625\dimexpr#1sp\relax\relax\endcsname
2370 \expandafter\HyPsd@unichar@octtwo\expandafter{%
2371 \number
2372 \numexpr#1-64*\number\dimexpr.015625\dimexpr#1sp%
2373 \relax\relax\relax
2374 }%
2375 }%
2376 \def\HyPsd@unichar@octtwo#1{%
2377 \number\dimexpr.125\dimexpr#1sp\relax\relax
2378 \number\dimexpr#1-8*\number\dimexpr.125\dimexpr#1sp%
2379 \relax\relax\relax
2380 }%
2381 \fi

```

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

```

2382 \def\HyPsd@utf@viii@undeferr#1#2#3#4#5#6{%
2383 \ifx\@gobble#1%
2384 \else
2385 [Please insert \textbackslash PrerenderUnicode%
2386 \textbraceleft#1\textbraceright\space
2387 into preamble]%
2388 \fi
2389 }%

```

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.

```

2390 \def\HyPsd@DieFace#1{%
2391   \ifHy@unicode
2392     \ifnum#1<1 %
2393       \HyPsd@UnicodeReplacementCharacter
2394     \else
2395       \ifnum#1>6 %
2396         \9046\205%
2397         \expandafter\expandafter\expandafter
2398         \HyPsd@DieFaceLarge\intcalcSub{#1}{6}!%
2399       \else
2400         \9046\20\intcalcDec{#1}%
2401       \fi
2402     \fi
2403   \else
2404     .% Die faces are not part of PDFDocEncoding
2405   \fi
2406 }

```

\HyPsd@DieFaceLarge

```

2407 \def\HyPsd@DieFaceLarge#1!{%
2408   \ifnum#1>6 %
2409     \expandafter\ltx@firstoftwo
2410   \else
2411     \expandafter\ltx@secondoftwo
2412   \fi
2413   {%
2414     \9046\205%
2415     \expandafter\expandafter\expandafter
2416     \HyPsd@DieFaceLarge\IntCalcSub#1!6!!%
2417   }{%
2418     \9046\20\IntCalcDec#1!%
2419   }%
2420 }

```

6.6.11 Support for moon phases of package china2e

```

2421 \def\HyPsd@MoonPha#1{%
2422   \ifcase\intcalcNum{#1} %
2423     \HyPsd@UnicodeReplacementCharacter
2424   \or % 1
2425   % U+1F31A NEW MOON WITH FACE; \MoonPha{1} (china2e)
2426   \9330\074\9337\032%
2427   \or % 2
2428   \HyPsd@UnicodeReplacementCharacter
2429   \or % 3
2430   % U+1F31D FULL MOON WITH FACE; \MoonPha{3} (china2e)
2431   \9330\074\9337\035%
2432   \or % 4
2433   % U+1F31C LAST QUARTER MOON WITH FACE; \MoonPha{4} (china2e)
2434   \9330\074\9337\034%
2435   \else
2436     \HyPsd@UnicodeReplacementCharacter
2437   \fi
2438 }
2439 %* \HyPsd@MoonPha -> \MoonPha

```

6.6.12 Support for package pifont

\HyPsd@ding

```

2440 \def\HyPsd@ding#1{%
2441   \ifHy@unicode
2442     \ifnum#1<32 %
2443       \HyPsd@UnicodeReplacementCharacter
2444     \else
2445       \ifnum#1>254 %
2446         \HyPsd@UnicodeReplacementCharacter
2447       \else
2448         \ifnum#1<127 %
2449           \expandafter\expandafter\expandafter
2450             \HyPsd@@ding\intcalcNum{#1}!%
2451         \else
2452           \ifnum#1>160 %
2453             \expandafter\expandafter\expandafter
2454               \HyPsd@@ding\intcalcNum{#1}!%
2455           \else
2456             \HyPsd@UnicodeReplacementCharacter
2457           \fi
2458         \fi
2459       \fi
2460     \fi
2461   \else
2462     .% Dingbats are not part of PDFDocEncoding
2463   \fi
2464 }
```

\HyPsd@@ding

```

2465 \def\HyPsd@@ding#1!{%
2466   \ltx@ifundefined{HyPsd@ding@#1}{%
2467     \ifnum#1<127 %
2468       \9047%
2469       \HyPsd@DecimalToOctalSecond{\IntCalcSub#1!32!}%
2470     \else
2471       \ifnum#1<168 %
2472         \9047\14\IntCalcSub#1!160!%
2473       \else
2474         \ifnum#1>181 %
2475           \9047\HyPsd@DecimalToOctalSecond{\IntCalcSub#1!64!}%
2476         \else
2477           % 172..181 -> U+2460..U+2469
2478           \9044\HyPsd@DecimalToOctalSecond{\IntCalcSub#1!76!}%
2479         \fi
2480       \fi
2481     \fi
2482   }{%
2483     \csname HyPsd@ding@#1\endcsname
2484   }%
2485 }

2486 \@namedef{HyPsd@ding@32}{\space}
2487 % U+260E BLACK TELEPHONE
2488 \@namedef{HyPsd@ding@37}{\9046\016}% U+260E
2489 % U+261B BLACK RIGHT POINTING INDEX
2490 \@namedef{HyPsd@ding@42}{\9046\033}% U+261B
2491 % U+261E WHITE RIGHT POINTING INDEX
```

```

2492 \@namedef{HyPsd@ding@43}{\9046\036}% U+261E
2493 % U+2605 BLACK STAR
2494 \@namedef{HyPsd@ding@72}{\9046\005}% U+2605
2495 % U+25CF BLACK CIRCLE
2496 \@namedef{HyPsd@ding@108}{\9045\317}% U+25CF
2497 % U+25A0 BLACK SQUARE
2498 \@namedef{HyPsd@ding@110}{\9045\240}% U+25A0
2499 % U+25B2 BLACK UP-POINTING TRIANGLE
2500 \@namedef{HyPsd@ding@115}{\9045\262}% U+25B2
2501 % U+25BC BLACK DOWN-POINTING TRIANGLE
2502 \@namedef{HyPsd@ding@116}{\9045\274}% U+25BC
2503 % U+25C6 BLACK DIAMOND
2504 \@namedef{HyPsd@ding@117}{\9045\306}% U+25C6
2505 % U+25D7 RIGHT HALF BLACK CIRCLE
2506 \@namedef{HyPsd@ding@119}{\9045\327}% U+25D7
2507 \@namedef{HyPsd@ding@168}{\textclubsuitblack}%
2508 \@namedef{HyPsd@ding@169}{\textdiamondsuitblack}%
2509 \@namedef{HyPsd@ding@170}{\textheartsuitblack}%
2510 \@namedef{HyPsd@ding@171}{\textspadesuitblack}%
2511 \@namedef{HyPsd@ding@213}{\textrightarrow}%
2512 \@namedef{HyPsd@ding@214}{\textleftarrow}%
2513 \@namedef{HyPsd@ding@215}{\textupdownarrow}%
2514 \@namedef{HyPsd@ding@240}{\HyPsd@UnicodeReplacementCharacter}

```

7 Support of other packages

7.1 Class memoir

```

2515 \@ifclassloaded{memoir}{%
2516 \Hy@AtEndOfPackage{\RequirePackage{memhfixc}}%
2517 }{}

```

7.2 Package subfigure

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

```

2518 \@ifpackageloaded{subfigure}{%
2519 \ltx@ifundefined{sub@label}{%
2520 \Hy@hypertextnamesfalse
2521 }{%
2522 \renewcommand*{\sub@label}[1]{%
2523 \@bsphack
2524 \subfig@oldlabel{#1}%
2525 \if@filesw
2526 \begingroup
2527 \edef\@currentlabstr{%
2528 \expandafter\strip@prefix\meaning\@currentlabelname
2529 }%
2530 \protected@write\@auxout{}{%
2531 \string\newlabel{sub@#1}{%
2532 {\@nameuse{@@thesub\@capytype}}%
2533 {\thepage}%
2534 {%
2535 \expandafter\strip@period\@currentlabstr
2536 \relax.\relax\@@@%
2537 }%
2538 {\@currentHref}%
2539 }%

```

```

2540         }%
2541     }%
2542     \endgroup
2543     \fi
2544     \@esphack
2545 }%
2546 \@ifpackagelater{subfigure}{2002/03/26}{ }{%
2547     \providecommand*{\toclevel@subfigure}{1}%
2548     \providecommand*{\toclevel@subtable}{1}%
2549 }%
2550 }%
2551 }{}

```

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:

```

2552 \ltx@ifundefined{XR@addURL}{ }%
2553 }{}

```

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.

```

2554 \def\xr@addURL#1{\xr@dURL#1{}{}{}\\}%
2555 \def\xr@dURL#1#2#3#4#5\\{%
2556     {#1}{#2}%
2557     \if!#4!%
2558     \else
2559         {#3}{#4}{\xr@URL}%
2560     \fi
2561 }%
2562 }

2563 \def\Hy@true{true}
2564 \def\Hy@false{false}

```

Providing dummy definitions.

```

2565 \let\literalps@out\@gobble
2566 \newcommand\pdfbookmark[3]{}
2567 \def\Acrobatmenu#1#2{\leavevmode#2}
2568 \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

```

2569 \let\HyperRaiseLinkHook\@empty
2570 \def\HyperRaiseLinkDefault{\baselineskip}

```

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

```

2571 \newcount\Hy@SavedSpaceFactor
2572 \def\Hy@SaveSpaceFactor{%
2573   \global\Hy@SavedSpaceFactor=\ifhmode\spacefactor\else\z@\fi
2574 }
2575 \def\Hy@RestoreSpaceFactor{%
2576   \relax
2577   \ifhmode
2578     \ifnum\Hy@SavedSpaceFactor>\z@
2579       \spacefactor=\Hy@SavedSpaceFactor
2580     \fi
2581   \fi
2582 }
2583 \def\Hy@SaveSavedSpaceFactor{%
2584   \edef\Hy@RestoreSavedSpaceFactor{%
2585     \global\Hy@SavedSpaceFactor=\the\Hy@SavedSpaceFactor\relax
2586   }%
2587 }
2588 \def\Hy@raisedlink#1{%
2589   \ifvmode
2590     #1%
2591   \else
2592     \Hy@SaveSpaceFactor
2593     \penalty\@M
2594     \smash{%
2595       \begingroup
2596         \let\HyperRaiseLinkLength\@tempdima
2597         \setlength\HyperRaiseLinkLength\HyperRaiseLinkDefault
2598         \HyperRaiseLinkHook
2599       \expandafter\endgroup
2600       \expandafter\raise\the\HyperRaiseLinkLength\hbox{%
2601         \Hy@RestoreSpaceFactor
2602         #1%
2603         \Hy@SaveSpaceFactor
2604       }%
2605     }%
2606     \Hy@RestoreSpaceFactor
2607   \fi
2608 }

```

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

```

2609 \def\Hy@SaveLastskip{%
2610   \let\Hy@RestoreLastskip\relax
2611   \ifvmode
2612     \ifdim\lastskip=\z@
2613       \let\Hy@RestoreLastskip\nobreak
2614     \else
2615       \begingroup
2616         \skip@=-\lastskip
2617       \edef\x{%
2618         \endgroup
2619         \def\noexpand\Hy@RestoreLastskip{%
2620           \noexpand\ifvmode
2621             \noexpand\nobreak
2622             \vskip\the\skip@
2623             \vskip\the\lastskip\relax
2624           \noexpand\fi

```



```

2625     }%
2626     }%
2627     \x
2628     \fi
2629 \else
2630 \ifhmode
2631 \ifdim\lastskip=\z@
2632 \let\Hy@RestoreLastskip\nobreak
2633 \else
2634 \begingroup
2635 \skip@=-\lastskip
2636 \edef\x{%
2637 \endgroup
2638 \def\noexpand\Hy@RestoreLastskip{%
2639 \noexpand\ifhmode
2640 \noexpand\nobreak
2641 \hskip\the\skip@
2642 \hskip\the\lastskip\relax
2643 \noexpand\fi
2644 }%
2645 }%
2646 \x
2647 \fi
2648 \fi
2649 \fi
2650 }%

```

9 Options

```

2651 \SetupKeyvalOptions{%
2652 family=Hyp,%
2653 prefix=HyOpt%
2654 }

```

9.1 Help macros

`\IfHyperBooleanExists`

```

2655 \def\IfHyperBooleanExists#1{%
2656 \ltx@ifundefined{Hy@#1false}\ltx@secondoftwo{%
2657 \ltx@ifundefined{KV@Hyp@#1@default}\ltx@secondoftwo\ltx@firstoftwo
2658 }%
2659 }

```

```

2660 \@namedef{KV@Hyp@stoppeearly@default}{ }

```

`\IfHyperBoolean`

```

2661 \def\IfHyperBoolean#1{%
2662 \IfHyperBooleanExists{#1}{%
2663 \csname ifHy@#1\endcsname
2664 \expandafter\ltx@firstoftwo
2665 \else
2666 \expandafter\ltx@secondoftwo
2667 \fi
2668 }\ltx@secondoftwo
2669 }

```

`\Hy@boolkey`

```

2670 \def\Hy@boolkey#1#2{%
2671   \edef\Hy@tempa{#2}%
2672   \lowercase\expandafter{%
2673     \expandafter\def\expandafter\Hy@tempa\expandafter{\Hy@tempa}%
2674   }%
2675   \ifx\Hy@tempa\@empty
2676     \let\Hy@tempa\Hy@true
2677   \fi
2678   \ifx\Hy@tempa\Hy@true
2679   \else
2680     \ifx\Hy@tempa\Hy@false
2681     \else
2682       \let\Hy@tempa\relax
2683     \fi
2684   \fi
2685   \ifx\Hy@tempa\relax
2686     \Hy@WarnOptionValue{#2}{#1}{‘true’ or ‘false’}%
2687   \else
2688     \Hy@Info{Option ‘#1’ set ‘\Hy@tempa’}%
2689     \csname Hy@#1\Hy@tempa\endcsname
2690   \fi
2691 }

```

\Hy@WarnOptionValue

```

2692 \def\Hy@WarnOptionValue#1#2#3{%
2693   \Hy@Warning{%
2694     Unexpected value ‘#1’\MessageBreak
2695     of option ‘#2’ instead of\MessageBreak
2696     #3%
2697   }%
2698 }

```

\Hy@DisableOption

```

2699 \def\Hy@DisableOption#1{%
2700   \ltx@ifundefined{KV@Hyp@#1@default}{%
2701     \define@key{Hyp}{#1}%
2702   }{%
2703     \define@key{Hyp}{#1}[]%
2704   }%
2705   {\Hy@WarnOptionDisabled{#1}}%
2706 }

```

\Hy@WarnOptionDisabled

```

2707 \def\Hy@WarnOptionDisabled#1{%
2708   \Hy@Warning{%
2709     Option ‘#1’ has already been used,\MessageBreak
2710     setting the option has no effect%
2711   }%
2712 }

```

\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.

```

2713 \def\Hy@CheckOptionValue#1#2#3{%
2714   \begingroup
2715   \edef\x{#1}%
2716   \@onelevel@sanitize\x

```

```

2717 \let\y=y%
2718 \def\do##1##2{%
2719 \def\z{##1}%
2720 \@onelevel@sanitize\z
2721 \ifx\x\z
2722 \let\y=n%
2723 \let\do\@gobbletwo
2724 \fi
2725 }%
2726 #3%
2727 \ifx\y y%
2728 \def\do##1##2{%
2729 * '##1'%
2730 \ifx\\##2\\\else\space(##2)\fi
2731 \MessageBreak
2732 }%
2733 \Hy@Warning{%
2734 Values of option '#2':\MessageBreak
2735 #3%
2736 * An empty value disables the option.\MessageBreak
2737 Unknown value '\x'%
2738 }%
2739 \fi
2740 \endgroup
2741 }

```

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

```

2742 \def\Hy@DefNameKey#1{%
2743 \expandafter\Hy@@DefNameKey\csname @#1\endcsname{#1}%
2744 }

```

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

```

2745 \def\Hy@@DefNameKey#1#2#3{%
2746 \define@key{Hyp}{#2}{%
2747 \edef#1{##1}%
2748 \ifx#1\@empty
2749 \else
2750 \Hy@CheckOptionValue{##1}{#2}{#3}%
2751 \fi
2752 }%
2753 \let#1\@empty
2754 }

```

`\Hy@UseNameKey`

```

2755 \def\Hy@UseNameKey#1#2{%
2756 \ifx#2\@empty
2757 \else
2758 /#1/#2%
2759 \fi
2760 }

```

9.2 Defining the options

```

2761 \define@key{Hyp}{implicit}[true]{%
2762   \Hy@boolkey{implicit}{#1}%
2763 }
2764 \define@key{Hyp}{draft}[true]{%
2765   \Hy@boolkey{draft}{#1}%
2766 }
2767 \define@key{Hyp}{final}[true]{%
2768   \Hy@boolkey{final}{#1}%
2769 }
2770 \let\KV@Hyp@nolinks\KV@Hyp@draft
2771 \def\Hy@ObsoletePaperOption#1{%
2772   \Hy@WarningNoLine{%
2773     Option ‘#1’ is no longer used%
2774   }%
2775   \define@key{Hyp}{#1}[true]{}%
2776 }
2777 \def\Hy@temp#1{%
2778   \define@key{Hyp}{#1}[true]{%
2779     \Hy@ObsoletePaperOption{#1}%
2780   }%
2781 }
2782 \Hy@temp{a4paper}
2783 \Hy@temp{a5paper}
2784 \Hy@temp{b5paper}
2785 \Hy@temp{letterpaper}
2786 \Hy@temp{legalpaper}
2787 \Hy@temp{executivepaper}
2788 \define@key{Hyp}{setpagesize}[true]{%
2789   \Hy@boolkey{setpagesize}{#1}%
2790 }
2791 \define@key{Hyp}{debug}[true]{%
2792   \Hy@boolkey{debug}{#1}%
2793 }
2794 \define@key{Hyp}{linktocpage}[true]{%
2795   \Hy@boolkey{linktocpage}{#1}%
2796   \ifHy@linktocpage
2797     \let\Hy@linktoc\Hy@linktoc@page
2798   \else
2799     \let\Hy@linktoc\Hy@linktoc@section
2800   \fi
2801 }
2802 \chardef\Hy@linktoc@none=0 %
2803 \chardef\Hy@linktoc@section=1 %
2804 \chardef\Hy@linktoc@page=2 %
2805 \chardef\Hy@linktoc@all=3 %
2806 \ifHy@linktocpage
2807   \let\Hy@linktoc\Hy@linktoc@page
2808 \else
2809   \let\Hy@linktoc\Hy@linktoc@section
2810 \fi
2811 \define@key{Hyp}{linktoc}{%
2812   \@ifundefined{Hy@linktoc@#1}{%
2813     \Hy@Warning{%
2814       Unexpected value ‘#1’ of\MessageBreak
2815       option ‘linktoc’ instead of ‘none’,\MessageBreak
2816       ‘section’, ‘page’ or ‘all’%
2817     }%

```

```

2818 }{%
2819   \expandafter\let\expandafter\Hy@linktoc
2820   \csname Hy@linktoc@#1\endcsname
2821 }%
2822 }
2823 \define@key{Hyp}{extension}{\def\XR@ext{#1}}
2824 \let\XR@ext\relax
2825 \define@key{Hyp}{verbose}[true]{%
2826   \Hy@boolkey{verbose}{#1}%
2827 }
2828 \define@key{Hyp}{typexml}[true]{%
2829   \Hy@boolkey{typexml}{#1}%
2830 }

```

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.

```

2831 \define@key{Hyp}{raiselinks}[true]{%
2832   \Hy@boolkey{raiselinks}{#1}%
2833 }

```

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

```

2834 \def\Hy@setbreaklinks#1{%
2835   \csname breaklinks#1\endcsname
2836 }
2837 \def\Hy@breaklinks@unsupported{%
2838   \ifx\Hy@setbreaklinks\@gobble
2839     \ifHy@breaklinks
2840       \Hy@WarningNoLine{%
2841         You have enabled option 'breaklinks'.\MessageBreak
2842         But driver '\Hy@driver.def' does not support this.\MessageBreak
2843         Expect trouble with the link areas of broken links%
2844       }%
2845     \fi
2846   \fi
2847 }
2848 \define@key{Hyp}{breaklinks}[true]{%
2849   \Hy@boolkey{breaklinks}{#1}%
2850   \let\Hy@setbreaklinks\@gobble
2851 }
2852 \define@key{Hyp}{localanchorname}[true]{%
2853   \Hy@boolkey{localanchorname}{#1}%
2854 }

```

Determines whether an automatic anchor is put on each page

```

2855 \define@key{Hyp}{pageanchor}[true]{%
2856   \Hy@boolkey{pageanchor}{#1}%
2857 }

```

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.

```

2858 \define@key{Hyp}{plainpages}[true]{%
2859   \Hy@boolkey{plainpages}{#1}%
2860 }

```

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

```

2861 \define@key{Hyp}{naturalnames}[true]{%

```

```

2862 \Hy@boolkey{naturalnames}{#1}%
2863 }

```

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

```

2864 \define@key{Hyp}{hypertexnames}[true]{%
2865   \Hy@boolkey{hypertexnames}{#1}%
2866 }

```

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

```

2867 \define@key{Hyp}{nesting}[true]{%
2868   \Hy@boolkey{nesting}{#1}%
2869 }

```

```

2870 \define@key{Hyp}{destlabel}[true]{%
2871   \Hy@boolkey{destlabel}{#1}%
2872 }

```

```

2873 \define@key{Hyp}{unicode}[true]{%
2874   \Hy@boolkey{unicode}{#1}%
2875   \ifHy@unicode
2876     \def\HyPsd@pdfencoding{unicode}%
2877     \HyPsd@LoadUnicode
2878   \else
2879     \def\HyPsd@pdfencoding{pdfdoc}%
2880   \fi
2881 }

```

```

2882 \Hy@AtBeginDocument{%
2883   \ifx\HyPsd@LoadUnicode\relax
2884   \else
2885     \def\HyPsd@LoadUnicode{%
2886       \Hy@Error{%
2887         Unicode support for bookmarks is not available.\MessageBreak
2888         Activate unicode support by using one of the options\MessageBreak
2889         'unicode', 'pdfencoding=unicode', 'pdfencoding=auto'\MessageBreak
2890         in the preamble%
2891       }\@ehc
2892       \global\let\HyPsd@LoadUnicode\relax
2893       \global\Hy@unicodedefalse
2894       \global\let\Hy@unicodetrue\Hy@unicodedefalse
2895     }%
2896   \fi
2897 }

```

```

2898 \define@key{Hyp}{pdfencoding}{%
2899   \edef\HyPsd@temp{#1}%
2900   \ifx\HyPsd@temp\HyPsd@pdfencoding@pdfdoc
2901     \let\HyPsd@pdfencoding\HyPsd@temp
2902     \Hy@unicodedefalse
2903   \else
2904     \ifcase\ifx\HyPsd@temp\HyPsd@pdfencoding@unicode
2905       \z@
2906     \else
2907       \ifx\HyPsd@temp\HyPsd@pdfencoding@auto
2908         \z@
2909       \else
2910         \@ne
2911       \fi
2912     \fi
2913     \let\HyPsd@pdfencoding\HyPsd@temp

```

```

2914 \hypersetup{unicode}%
2915 \ifHy@unicode
2916 \def\HyPsd@pdfencoding{#1}%
2917 \ifx\HyPsd@pdfencoding\HyPsd@pdfencoding@auto
2918 \HyPsd@LoadStringEnc
2919 \fi
2920 \else
2921 \Hy@Warning{Cannot switch to unicode bookmarks}%
2922 \let\HyPsd@pdfencoding\HyPsd@pdfencoding@pdfdoc
2923 \fi
2924 \else
2925 \@onelevel@sanitize\HyPsd@temp
2926 \Hy@Warning{%
2927 Values of option 'pdfencoding':\MessageBreak
2928 'pdfdoc', 'unicode', 'auto'.\MessageBreak
2929 Ignoring unknown value '\HyPsd@temp'%
2930 }%
2931 \fi
2932 \fi
2933 }
2934 \def\HyPsd@pdfencoding@auto{auto}
2935 \def\HyPsd@pdfencoding@pdfdoc{pdfdoc}
2936 \def\HyPsd@pdfencoding@unicode{unicode}
2937 \let\HyPsd@pdfencoding\HyPsd@pdfencoding@pdfdoc
2938 \def\HyPsd@LoadStringEnc{%
2939 \RequirePackage{stringenc}[2009/12/15]%
2940 \let\HyPsd@LoadStringEnc\relax
2941 }
2942 \Hy@AtBeginDocument{%
2943 \@ifpackageloaded{stringenc}{%
2944 \let\HyPsd@LoadStringEnc\relax
2945 }{%
2946 \def\HyPsd@LoadStringEnc{%
2947 \Hy@WarningNoLine{%
2948 Missing package 'stringenc'. Use 'pdfencoding=auto'\MessageBreak
2949 in the preamble or load the package there%
2950 }%
2951 }%
2952 }%
2953 }
2954 \define@key{Hyp}{psdextra}[true]{%
2955 \Hy@boolkey{psdextra}{#1}%
2956 }
2957 \def\hypersetup{\kvsetkeys{Hyp}}
2958 \newif\ifHy@setpdfversion
2959 \define@key{Hyp}{pdfversion}{%
2960 \@ifundefined{Hy@pdfversion@#1}{%
2961 \PackageWarning{hyperref}{%
2962 Unsupported PDF version '#1'.\MessageBreak
2963 Valid values: 1.2 until 1.9%
2964 }%
2965 }{%
2966 \Hy@setpdfversiontrue
2967 \edef\Hy@pdfversion{\@nameuse{Hy@pdfversion@#1}}%
2968 }%
2969 }

```

```

2970 \@namedef{Hy@pdfversion@1.2}{2}%
2971 \@namedef{Hy@pdfversion@1.3}{3}%
2972 \@namedef{Hy@pdfversion@1.4}{4}%
2973 \@namedef{Hy@pdfversion@1.5}{5}%
2974 \@namedef{Hy@pdfversion@1.6}{6}%
2975 \@namedef{Hy@pdfversion@1.7}{7}%
2976 \@namedef{Hy@pdfversion@1.8}{8}%
2977 \@namedef{Hy@pdfversion@1.9}{9}%
2978 \def\Hy@pdfversion{2}

```

10 Options for different drivers

```

2979 \newif\ifHy@DviMode
2980 \let\Hy@DviErrMsg\ltx@empty
2981 \ifpdf
2982   \def\Hy@DviErrMsg{pdfTeX or LuaTeX is running in PDF mode}%
2983 \else
2984   \ifxetex
2985     \def\Hy@DviErrMsg{XeTeX is running}%
2986   \else
2987     \ifvtex
2988       \ifvtexdvi
2989         \Hy@DviModetrue
2990       \else
2991         \def\Hy@DviErrMsg{VTeX is running, but not in DVI mode}%
2992       \fi
2993     \else
2994       \Hy@DviModetrue
2995     \fi
2996   \fi
2997 \fi
2998 \def\HyOpt@CheckDvi#1{%
2999   \ifHy@DviMode
3000     \expandafter\ltx@firstofone
3001   \else
3002     \Hy@Error{%
3003       Wrong DVI mode driver option ‘#1’,\MessageBreak
3004       because \Hy@DviErrMsg
3005     }\@ehc
3006     \expandafter\ltx@gobble
3007   \fi
3008 }
3009 \DeclareVoidOption{tex4ht}{%
3010   \Hy@texhttrue
3011   \kvsetkeys{Hyp}{colorlinks=true}%
3012   \def\BeforeTeXIVht{\RequirePackage{color}}%
3013   \def\Hy@driver{htex4ht}%
3014   \def\MaybeStopEarly{%
3015     \Hy@Message{Stopped early}%
3016     \Hy@AtBeginDocument{%
3017       \PDF@FinishDoc
3018       \gdef\PDF@FinishDoc{}%
3019     }%
3020   \endinput
3021 }%
3022 }
3023 \DeclareVoidOption{pdftex}{%

```



```

3024 \ifpdf
3025   \def\Hy@driver{hpdftex}%
3026 \else
3027   \Hy@Error{%
3028     Wrong driver option 'pdftex',\MessageBreak
3029     because pdfTeX in PDF mode is not detected%
3030   }\@ehc
3031 \fi
3032 }
3033 \DeclareVoidOption{nativepdf}{%
3034   \HyOpt@CheckDvi{nativepdf}{%
3035     \def\Hy@driver{hdvips}%
3036   }%
3037 }
3038 \DeclareVoidOption{dvipdfm}{%
3039   \HyOpt@CheckDvi{dvipdfm}{%
3040     \def\Hy@driver{hdvipdfm}%
3041   }%
3042 }
3043 \DeclareVoidOption{dvipdfmx}{%
3044   \HyOpt@CheckDvi{dvipdfmx}{%
3045     \def\Hy@driver{hdvipdfm}%
3046   }%
3047 }
3048 \define@key{Hyp}{dvipdfmx-outline-open}[true]{%
3049   \expandafter\ifx\csname if#1\expandafter\endcsname
3050     \csname iftrue\endcsname
3051     \chardef\SpecialDvipdfmxOutlineOpen\@ne
3052   \else
3053     \chardef\SpecialDvipdfmxOutlineOpen\z@
3054   \fi
3055 }
3056 \DeclareVoidOption{xetex}{%
3057   \ifxetex
3058     \def\Hy@driver{hxetex}%
3059   \else
3060     \Hy@Error{%
3061       Wrong driver option 'xetex',\MessageBreak
3062       because XeTeX is not detected%
3063     }\@ehc
3064   \fi
3065 }
3066 \DeclareVoidOption{pdfmark}{%
3067   \HyOpt@CheckDvi{pdfmark}{%
3068     \def\Hy@driver{hdvips}%
3069   }%
3070 }
3071 \DeclareVoidOption{dvips}{%
3072   \HyOpt@CheckDvi{dvips}{%
3073     \def\Hy@driver{hdvips}%
3074   }%
3075 }
3076 \DeclareVoidOption{hypertex}{%
3077   \HyOpt@CheckDvi{hypertex}{%
3078     \def\Hy@driver{hypertex}%
3079   }%
3080 }

```

```

3081 \let\Hy@MaybeStopNow\relax
3082 \DeclareVoidOption{vtex}{%
3083   \ifvtex
3084     \ifnum 0\ifnum\OpMode<1 1\fi \ifnum\OpMode>3 1\fi =0 %
3085     \def\Hy@driver{hvtex}%
3086   \else
3087     \ifnum\OpMode=10\relax
3088     \def\Hy@driver{hvtexhtm}%
3089     \def\MaybeStopEarly{%
3090       \Hy@Message{Stopped early}%
3091       \Hy@AtBeginDocument{%
3092         \PDF@FinishDoc
3093         \gdef\PDF@FinishDoc{}}%
3094       }%
3095     \endinput
3096   }%
3097   \else
3098     \Hy@Error{%
3099       Wrong driver option 'vtex',\MessageBreak
3100       because of wrong OpMode (\the\OpMode)%
3101     }\@ehc
3102   \fi
3103 \fi
3104 \else
3105   \Hy@Error{%
3106     Wrong driver option 'vtex',\MessageBreak
3107     because VTeX is not running%
3108   }\@ehc
3109 \fi
3110 }
3111 \DeclareVoidOption{vtexpdfmark}{%
3112   \ifvtex
3113     \ifnum 0\ifnum\OpMode<1 1\fi \ifnum\OpMode>3 1\fi =0 %
3114     \def\Hy@driver{hvtexmrk}%
3115   \else
3116     \Hy@Error{%
3117       Wrong driver option 'vtexpdfmark',\MessageBreak
3118       because of wrong OpMode (\the\OpMode)%
3119     }\@ehc
3120   \fi
3121   \else
3122     \Hy@Error{%
3123       Wrong driver option 'vtexpdfmark',\MessageBreak
3124       because VTeX is not running%
3125     }\@ehc
3126   \fi
3127 }
3128 \DeclareVoidOption{dviwindo}{%
3129   \HyOpt@CheckDvi{dviwindo}{%
3130     \def\Hy@driver{hdviwind}%
3131     \kvsetkeys{Hyp}{colorlinks}%
3132     \PassOptionsToPackage{dviwindo}{color}%
3133   }%
3134 }
3135 \DeclareVoidOption{dvipsone}{%
3136   \HyOpt@CheckDvi{dvipsone}{%
3137     \def\Hy@driver{hdvipson}%

```

```

3138 }%
3139 }
3140 \DeclareVoidOption{textures}{%
3141   \HyOpt@CheckDvi{textures}{%
3142     \def\Hy@driver{htexture}%
3143   }%
3144 }
3145 \DeclareVoidOption{latex2html}{%
3146   \HyOpt@CheckDvi{latex2html}{%
3147     \Hy@AtBeginDocument{\@@latextohtmlX}%
3148   }%
3149 }

```

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

```

3150 \DeclareVoidOption{ps2pdf}{%
3151   \HyOpt@CheckDvi{ps2pdf}{%
3152     \def\Hy@driver{hdvips}%
3153   }%
3154 }
3155 \let\HyOpt@DriverFallback\ltx@empty
3156 \define@key{Hyp}{driverfallback}{%
3157   \ifHy@DviMode
3158     \def\HyOpt@DriverFallback{#1}%
3159     \Hy@Match\HyOpt@DriverFallback{%
3160       ~(|dvipdfm|dvipdfmx|dvips|dvipsone|dviwindo|hypertex|ps2pdf|
3161       latex2html|tex4ht)$%
3162     }{}{%
3163       \let\HyOpt@DriverFallback\ltx@empty
3164     }%
3165   \fi
3166 }

```

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.

```

3167 \define@key{Hyp}{hyperfigures}[true]{%
3168   \Hy@boolkey{hyperfigures}{#1}%
3169 }

```

The automatic footnote linking can be disabled by option hyperfootnotes.

```

3170 \define@key{Hyp}{hyperfootnotes}[true]{%
3171   \Hy@boolkey{hyperfootnotes}{#1}%
3172 }

```

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

```

3173 \def\back@none{none}
3174 \def\back@section{section}
3175 \def\back@page{page}
3176 \def\back@slide{slide}
3177 \define@key{Hyp}{backref}[section]{%
3178   \lowercase{\def\Hy@tempa{#1}}%
3179   \ifx\Hy@tempa\@empty
3180     \let\Hy@tempa\back@section
3181   \fi
3182   \ifx\Hy@tempa\Hy>false
3183     \let\Hy@tempa\back@none
3184   \fi

```

```

3185 \ifx\Hy@tempa\back@slide
3186 \let\Hy@tempa\back@section
3187 \fi
3188 \ifx\Hy@tempa\back@page
3189 \PassOptionsToPackage{hyperpageref}{backref}%
3190 \Hy@backreftrue
3191 \else
3192 \ifx\Hy@tempa\back@section
3193 \PassOptionsToPackage{hyperref}{backref}%
3194 \Hy@backreftrue
3195 \else
3196 \ifx\Hy@tempa\back@none
3197 \Hy@backreffalse
3198 \else
3199 \Hy@WarnOptionValue{#1}{backref}{%
3200 'section', 'slide', 'page', 'none',\MessageBreak
3201 or 'false'}%
3202 \fi
3203 \fi
3204 \fi
3205 }
3206 \define@key{Hyp}{pagebackref}[true]{%
3207 \edef\Hy@tempa{#1}%
3208 \lowercase\expandafter{%
3209 \expandafter\def\expandafter\Hy@tempa\expandafter{\Hy@tempa}%
3210 }%
3211 \ifx\Hy@tempa\@empty
3212 \let\Hy@tempa\Hy@true
3213 \fi
3214 \ifx\Hy@tempa\Hy@true
3215 \PassOptionsToPackage{hyperpageref}{backref}%
3216 \Hy@backreftrue
3217 \else
3218 \ifx\Hy@tempa\Hy@false
3219 \Hy@backreffalse
3220 \else
3221 \Hy@WarnOptionValue{#1}{pagebackref}{'true' or 'false'}%
3222 \fi
3223 \fi
3224 }

```

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

```

3225 \define@key{Hyp}{hyperindex}[true]{%
3226 \Hy@boolkey{hyperindex}{#1}%
3227 }

```

Configuration of encap char.

```

3228 \define@key{Hyp}{encap}[|]{%
3229 \def\HyInd@EncapChar{#1}%
3230 }

```

12 Language options

The \autoref feature depends on the language.

```

3231 \def\HyLang@afrikaans{%
3232 \def\equationautorefname{Vergelyking}%

```

```

3233 \def\footnoteautorefname{Voetnota}%
3234 \def\itemautorefname{Item}%
3235 \def\figureautorefname{Figuur}%
3236 \def\tableautorefname{Tabel}%
3237 \def\partautorefname{Deel}%
3238 \def\appendixautorefname{Bylae}%
3239 \def\chapterautorefname{Hoofstuk}%
3240 \def\sectionautorefname{Afdeling}%
3241 \def\subsectionautorefname{Subafdeling}%
3242 \def\subsubsectionautorefname{Subsubafdeling}%
3243 \def\paragraphautorefname{Paragraaf}%
3244 \def\subparagraphautorefname{Subparagraaf}%
3245 \def\FancyVerbLineautorefname{Lyn}%
3246 \def\theoremautorefname{Teorema}%
3247 \def\pageautorefname{Bladsy}%
3248 }
3249 \def\HyLang@english{%
3250 \def\equationautorefname{Equation}%
3251 \def\footnoteautorefname{footnote}%
3252 \def\itemautorefname{item}%
3253 \def\figureautorefname{Figure}%
3254 \def\tableautorefname{Table}%
3255 \def\partautorefname{Part}%
3256 \def\appendixautorefname{Appendix}%
3257 \def\chapterautorefname{chapter}%
3258 \def\sectionautorefname{section}%
3259 \def\subsectionautorefname{subsection}%
3260 \def\subsubsectionautorefname{subsubsection}%
3261 \def\paragraphautorefname{paragraph}%
3262 \def\subparagraphautorefname{subparagraph}%
3263 \def\FancyVerbLineautorefname{line}%
3264 \def\theoremautorefname{Theorem}%
3265 \def\pageautorefname{page}%
3266 }
3267 \def\HyLang@french{%
3268 \def\equationautorefname{'Equation}%
3269 \def\footnoteautorefname{note}%
3270 \def\itemautorefname{item}%
3271 \def\figureautorefname{Figure}%
3272 \def\tableautorefname{Tableau}%
3273 \def\partautorefname{Partie}%
3274 \def\appendixautorefname{Appendice}%
3275 \def\chapterautorefname{chapitre}%
3276 \def\sectionautorefname{section}%
3277 \def\subsectionautorefname{sous-section}%
3278 \def\subsubsectionautorefname{sous-sous-section}%
3279 \def\paragraphautorefname{paragraphe}%
3280 \def\subparagraphautorefname{sous-paragraphe}%
3281 \def\FancyVerbLineautorefname{ligne}%
3282 \def\theoremautorefname{Th'eor'eme}%
3283 \def\pageautorefname{page}%
3284 }
3285 \def\HyLang@german{%
3286 \def\equationautorefname{Gleichung}%
3287 \def\footnoteautorefname{Fu'ss note}%
3288 \def\itemautorefname{Punkt}%
3289 \def\figureautorefname{Abbildung}%

```

```

3290 \def\tableautorefname{Tabelle}%
3291 \def\partautorefname{Teil}%
3292 \def\appendixautorefname{Anhang}%
3293 \def\chapterautorefname{Kapitel}%
3294 \def\sectionautorefname{Abschnitt}%
3295 \def\subsectionautorefname{Unterabschnitt}%
3296 \def\subsubsectionautorefname{Unterunterabschnitt}%
3297 \def\paragraphautorefname{Absatz}%
3298 \def\subparagraphautorefname{Unterabsatz}%
3299 \def\FancyVerbLineautorefname{Zeile}%
3300 \def\theoremautorefname{Theorem}%
3301 \def\pageautorefname{Seite}%
3302 }
3303 \def\HyLang@italian{%
3304 \def\equationautorefname{Equazione}%
3305 \def\footnoteautorefname{nota}%
3306 \def\itemautorefname{punto}%
3307 \def\figureautorefname{Figura}%
3308 \def\tableautorefname{Tabella}%
3309 \def\partautorefname{Parte}%
3310 \def\appendixautorefname{Appendice}%
3311 \def\chapterautorefname{Capitolo}%
3312 \def\sectionautorefname{sezione}%
3313 \def\subsectionautorefname{sottosezione}%
3314 \def\subsubsectionautorefname{sottosottosezione}%
3315 \def\paragraphautorefname{paragrafo}%
3316 \def\subparagraphautorefname{sottoparagrafo}%
3317 \def\FancyVerbLineautorefname{linea}%
3318 \def\theoremautorefname{Teorema}%
3319 \def\pageautorefname{Pag.\@}%
3320 }
3321 \def\HyLang@magyar{%
3322 \def\equationautorefname{Egyenlet}%
3323 \def\footnoteautorefname{l'abjegyzet}%
3324 \def\itemautorefname{Elem}%
3325 \def\figureautorefname{'Abra}%
3326 \def\tableautorefname{T\abl'azat}%
3327 \def\partautorefname{R'esz}%
3328 \def\appendixautorefname{F\"uggel'ek}%
3329 \def\chapterautorefname{fejezet}%
3330 \def\sectionautorefname{szakasz}%
3331 \def\subsectionautorefname{alszakasz}%
3332 \def\subsubsectionautorefname{alalszakasz}%
3333 \def\paragraphautorefname{bekezd'es}%
3334 \def\subparagraphautorefname{albekezd'es}%
3335 \def\FancyVerbLineautorefname{sor}%
3336 \def\theoremautorefname{T'etel}%
3337 \def\pageautorefname{oldal}%
3338 }
3339 \def\HyLang@portuges{%
3340 \def\equationautorefname{Equa\c c\~ao}%
3341 \def\footnoteautorefname{Nota de rodap'e}%
3342 \def\itemautorefname{Item}%
3343 \def\figureautorefname{Figura}%
3344 \def\tableautorefname{Tabela}%
3345 \def\partautorefname{Parte}%
3346 \def\appendixautorefname{Ap\^endice}%

```

```

3347 \def\chapterautorefname{Cap\`itulo}%
3348 \def\sectionautorefname{Se\c c\~ao}%
3349 \def\subsectionautorefname{Subse\c c\~ao}%
3350 \def\subsubsectionautorefname{Subsubse\c c\~ao}%
3351 \def\paragraphautorefname{par\`agrafo}%
3352 \def\subparagraphautorefname{subpar\`agrafo}%
3353 \def\FancyVerbLineautorefname{linha}%
3354 \def\theoremautorefname{Teorema}%
3355 \def\pageautorefname{P\`agina}%
3356 }

```

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`.

```

3357 \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`?

```

3358 \def\equationautorefname{\cyr\cyrv\cyrery\cyr.}%

```

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`.

```

3359 % \def\equationautorefname{%
3360 %   \cyr\cyrv\cyrery\cyr\cyra\cyrzh\cyre\cyrn\cyri\cyre
3361 % }%

```

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

```

3362 \def\footnoteautorefname{%
3363   \cyr\cyrp\cyro\cyrd\cyrs\cyrt\cyr. \cyrp\cyr\cyri\cyr. %
3364 }%

```

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}`”

```

3365 % \def\footnoteautorefname{%
3366 %   \cyr\cyrp\cyro\cyrd\cyrs\cyrt\cyr\cyro\cyrch\cyrn\cyro\cyre\ %
3367 %   \cyrp\cyr\cyri\cyr\cyr\cyre\cyrch\cyra\cyrn\cyri\cyre
3368 % }%

```

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

```

3369 % \def\Nomfootnoteautorefname{\cyr\cyrs\cyrn\cyro\cyrs\cyrk\cyra}%
3370 % \def\Accfootnoteautorefname{\cyr\cyrs\cyrn\cyro\cyrs\cyrk\cyr.}%

```

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.

```

3371 \def\itemautorefname{\cyr\cyrp.}%
3372 % \def\itemautorefname{\cyr\cyrp\cyru\cyrn\cyrk\cyrt}%

```

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

```
3373 \def\figureautorefname{\cyr\cyrr\cyri\cyrs.}%
3374 \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.

```
3375 \def\partautorefname{\cyr\cyrch.}%
3376 \def\chapterautorefname{\cyr\cyrg\cyrl.}%
3377 \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.

```
3378 \def\appendixautorefname{\cyr\cyrp\cyrr\cyri\cyrl.}%
3379 % \def\appendixautorefname{%
3380 %   \cyr\cyrp\cyrr\cyri\cyrl\cyro\cyrrzh\cyre\cyrn\cyri\cyre
3381 % }%
```

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.

```
3382 \def\subsectionautorefname{\cyr\cyrr\cyra\cyrz\cyrd.}%
3383 \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.

```
3384 \def\paragraphautorefname{\cyr\cyrp.}%
3385 \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.

```
3386 % \def\paragraphautorefname{\cyr\cyrp\cyru\cyrn\cyrk\cyrt}%
3387 % \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.

```
3388 \def\FancyVerbLineautorefname{\cyr\cyrs\cyrt\cyrr.}%
```

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

```
3389 % \def\NomFancyVerbLineautorefname{\cyr\cyrs\cyrt\cyrr\cyro\cyrk\cyra}%
3390 % \def\AccFancyVerbLineautorefname{\cyr\cyrs\cyrt\cyrr\cyro\cyrk\cyru}%
```

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

```
3391 % \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 ...

```
3392 \def\theoremautorefname{\cyr\cyrt\cyre\cyro\cyrr.}%
```

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

```
3393 % \def\Nomtheoremautorefname{\cyr\cyrt\cyre\cyro\cyrr\cyre\cyrm\cyra}%
3394 % \def\Acctheoremautorefname{\cyr\cyrt\cyre\cyro\cyrr\cyre\cyrm\cyru}%
```


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

```

3395 \def\pageautorefname{\cyr\cyr.s.}%
3396 }

3397 \def\HyLang@spanish{%
3398 \def\equationautorefname{Ecuaci'on}%
3399 \def\footnoteautorefname{Nota a pie de p'agina}%
3400 \def\itemautorefname{Elemento}%
3401 \def\figureautorefname{Figura}%
3402 \def\tableautorefname{Tabla}%
3403 \def\partautorefname{Parte}%
3404 \def\appendixautorefname{Ap'endice}%
3405 \def\chapterautorefname{Cap'itulo}%
3406 \def\sectionautorefname{Secci'on}%
3407 \def\subsectionautorefname{Subsecci'on}%
3408 \def\subsubsectionautorefname{Subsubsecci'on}%
3409 \def\paragraphautorefname{P'arrafo}%
3410 \def\subparagraphautorefname{Subp'arrafo}%
3411 \def\FancyVerbLineautorefname{L'inea}%
3412 \def\theoremautorefname{Teorema}%
3413 \def\pageautorefname{P'agina}%
3414 }

3415 \def\HyLang@vietnamese{%
3416 \def\equationautorefname{Ph\uhorn{}\ohorn{}ng tr'inh}%
3417 \def\footnoteautorefname{Ch'u th'ich}%
3418 \def\itemautorefname{m\d{u}c}%
3419 \def\figureautorefname{H'inh}%
3420 \def\tableautorefname{B'h{a}ng}%
3421 \def\partautorefname{Ph'\acircumflex{}n}%
3422 \def\appendixautorefname{Ph\d{u}l\d{u}c}%
3423 \def\chapterautorefname{ch\uhorn{}\ohorn{}ng}%
3424 \def\sectionautorefname{m\d{u}c}%
3425 \def\subsectionautorefname{m\d{u}c}%
3426 \def\subsubsectionautorefname{m\d{u}c}%
3427 \def\paragraphautorefname{\dj{}o\d{a}n}%
3428 \def\subparagraphautorefname{\dj{}o\d{a}n}%
3429 \def\FancyVerbLineautorefname{d'ong}%
3430 \def\theoremautorefname{DJ{}\d{i}nh l'y}%
3431 \def\pageautorefname{Trang}%
3432 }

```

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

```

3433 \def\HyLang@addto#1#2{%
3434 #2%
3435 \@temptokena{#2}%
3436 \ifx#1\relax
3437 \let#1\@empty
3438 \fi
3439 \ifx#1\@undefined
3440 \edef#1{\the\@temptokena}%
3441 \else
3442 \toks@\expandafter{#1}%
3443 \edef#1{\the\toks@\the\@temptokena}%
3444 \fi
3445 \@temptokena{}\toks@\@temptokena
3446 }

3447 \def\HyLang@DeclareLang#1#2#3{%

```

```

3448 \@ifpackagewith{babel}{#1}{%
3449   \expandafter\HyLang@addto
3450     \csname extras#1\expandafter\endcsname
3451     \csname HyLang@#2\endcsname
3452   \begingroup
3453     \edef\x{\endgroup
3454       #3%
3455     }%
3456   \x
3457   \@namedef{HyLang@#1@done}{}%
3458 }{}%
3459 \begingroup
3460   \edef\x##1##2{%
3461     \noexpand\ifx##2\relax
3462       \errmessage{No definitions for language #2' found!}%
3463     \noexpand\fi
3464   \endgroup
3465   \noexpand\define@key{Hyp}{#1}[]{}%
3466   \noexpand\@ifundefined{HyLang@#1@done}{%
3467     \noexpand\HyLang@addto{\noexpand##1}{\noexpand##2}%
3468     #3%
3469     \noexpand\@namedef{HyLang@#1@done}{}%
3470   }{}%
3471   }%
3472 }%
3473 \expandafter\x\csname extras#1\expandafter\endcsname
3474       \csname HyLang@#2\endcsname
3475 }
3476 \HyLang@DeclareLang{english}{english}{}
3477 \HyLang@DeclareLang{UKenglish}{english}{}
3478 \HyLang@DeclareLang{british}{english}{}
3479 \HyLang@DeclareLang{USenglish}{english}{}
3480 \HyLang@DeclareLang{american}{english}{}
3481 \HyLang@DeclareLang{german}{german}{}
3482 \HyLang@DeclareLang{austrian}{german}{}
3483 \HyLang@DeclareLang{ngerman}{german}{}
3484 \HyLang@DeclareLang{naustrian}{german}{}
3485 \HyLang@DeclareLang{russian}{russian}{\noexpand\hypersetup{unicode}}
3486 \HyLang@DeclareLang{brazil}{portuges}{}
3487 \HyLang@DeclareLang{brazilian}{portuges}{}
3488 \HyLang@DeclareLang{portuguese}{portuges}{}
3489 \HyLang@DeclareLang{spanish}{spanish}{}
3490 \HyLang@DeclareLang{afrikaans}{afrikaans}{}
3491 \HyLang@DeclareLang{french}{french}{}
3492 \HyLang@DeclareLang{frenchb}{french}{}
3493 \HyLang@DeclareLang{français}{french}{}
3494 \HyLang@DeclareLang{acadian}{french}{}
3495 \HyLang@DeclareLang{canadien}{french}{}
3496 \HyLang@DeclareLang{italian}{italian}{}
3497 \HyLang@DeclareLang{magyar}{magyar}{}
3498 \HyLang@DeclareLang{hungarian}{magyar}{}

```

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

```

3499 \DeclareVoidOption{vietnamese}{%
3500   \HyLang@addto\extrasvietnamese\HyLang@vietnamese
3501   \Hy@AtEndOfPackage{%
3502     \@ifundefined{T@PU}{}{}%
3503     \input{puvnc.def}%

```

```

3504 }%
3505 }%
3506 }
3507 \DeclareVoidOption{vietnam}{%
3508   \HyLang@addto\extrasvietnam\HyLang@vietnamese
3509   \Hy@AtEndOfPackage{%
3510     \ifundefined{T@PU}{}%
3511     \input{puvnenc.def}%
3512   }%
3513 }%
3514 }

```

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

```

3515 \DeclareVoidOption{arabic}{%
3516   \Hy@AtEndOfPackage{%
3517     \ifundefined{T@PU}{}%
3518     \input{puarenc.def}%
3519   }%
3520 }%
3521 }

```

13 Options to change appearance of links

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

```

3522 \define@key{Hyp}{colorlinks}[true]{%
3523   \Hy@boolkey{colorlinks}{#1}%
3524 }
3525 \DeclareVoidOption{hidelinks}{%
3526   \Hy@colorlinksfalse
3527   \Hy@ocgcolorlinksfalse
3528   \Hy@frenchlinksfalse
3529   \def\Hy@colorlink##1{\begingroup}%
3530   \def\Hy@endcolorlink{\endgroup}%
3531   \def\@pdfborder{0 0 0}%
3532   \let\@pdfborderstyle\ltx@empty
3533 }
3534 \define@key{Hyp}{ocgcolorlinks}[true]{%
3535   \Hy@boolkey{ocgcolorlinks}{#1}%
3536 }
3537 \Hy@AtBeginDocument{%
3538   \begingroup
3539   \@ifundefined{OBJ@OCG@view}{%
3540     \ifHy@ocgcolorlinks
3541       \Hy@Warning{%
3542         Driver does not support ‘ocgcolorlinks’,\MessageBreak
3543         using ‘colorlinks’ instead%
3544       }%
3545     \fi
3546   }{}%
3547   \endgroup
3548 }
3549 \define@key{Hyp}{frenchlinks}[true]{%
3550   \Hy@boolkey{frenchlinks}{#1}%
3551 }

```

14 Bookmarking

```

3552 \begingroup\expandafter\expandafter\expandafter\endgroup
3553 \expandafter\ifx\csname chapter\endcsname\relax
3554   \def\toclevel@part{0}%
3555 \else
3556   \def\toclevel@part{-1}%
3557 \fi
3558 \def\toclevel@chapter{0}
3559 \def\toclevel@section{1}
3560 \def\toclevel@subsection{2}
3561 \def\toclevel@subsubsection{3}
3562 \def\toclevel@paragraph{4}
3563 \def\toclevel@subparagraph{5}
3564 \def\toclevel@figure{0}
3565 \def\toclevel@table{0}
3566 \@ifpackageloaded{listings}{%
3567   \providecommand*\theHlstlisting{\thelstlisting}%
3568   \providecommand*\toclevel@lstlisting{0}%
3569 }{}
3570 \@ifpackageloaded{listing}{%
3571   \providecommand*\theHlisting{\thelisting}%
3572   \providecommand*\toclevel@listing{0}%
3573 }{}

3574 \define@key{Hyp}{bookmarks}[true]{%
3575   \Hy@boolkey{bookmarks}{#1}%
3576 }

3577 \define@key{Hyp}{bookmarksopen}[true]{%
3578   \Hy@boolkey{bookmarksopen}{#1}%
3579 }

```

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.

```

3580 \let\Hy@bookmarksdepth\c@tocdepth
3581 \define@key{Hyp}{bookmarksdepth}[]{}%
3582 \begingroup
3583   \edef\x{#1}%
3584   \ifx\x\empty
3585     \global\let\Hy@bookmarksdepth\c@tocdepth
3586   \else
3587     \@ifundefined{toclevel@\x}{%
3588       \@onelevel@sanitize\x
3589       \edef\y{\expandafter\@car\x\@nil}%
3590       \ifcase 0\expandafter\ifx\y-1\fi
3591         \expandafter\ifnum\expandafter\y>47 %
3592         \expandafter\ifnum\expandafter\y<58 1\fi\fi\relax
3593       \Hy@Warning{Unknown document division name (\x)}%
3594     \else
3595       \setbox\z@=\hbox{%

```

```

3596         \count@=\x
3597         \xdef\Hy@bookmarksdepth{\the\count@}%
3598     }%
3599     \fi
3600 }{%
3601     \setbox\z@=\hbox{%
3602         \count@=\csname toplevel@\x\endcsname
3603         \xdef\Hy@bookmarksdepth{\the\count@}%
3604     }%
3605 }%
3606 \fi
3607 \endgroup
3608 }

```

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

```

3609 \define@key{Hyp}{bookmarksopenlevel}{%
3610     \def\@bookmarksopenlevel{#1}%
3611 }
3612 \def\@bookmarksopenlevel{\maxdimen}
3613 % ‘bookmarkstype’ to specify which ‘toc’ file to mimic
3614 \define@key{Hyp}{bookmarkstype}{%
3615     \def\Hy@bookmarkstype{#1}%
3616 }
3617 \def\Hy@bookmarkstype{toc}

```

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

```

3618 \define@key{Hyp}{bookmarksnumbered}[true]{%
3619     \Hy@boolkey{bookmarksnumbered}{#1}%
3620 }

```

Option CJKbookmarks enables the patch for CJK bookmarks.

```

3621 \define@key{Hyp}{CJKbookmarks}[true]{%
3622     \Hy@boolkey{CJKbookmarks}{#1}%
3623 }
3624 \def\Hy@temp#1{%
3625     \expandafter\Hy@@temp\csname @#1color\endcsname{#1}%
3626 }
3627 \def\Hy@@temp#1#2#3{%
3628     \define@key{Hyp}{#2color}{%
3629         \HyColor@HyperrefColor{##1}#1%
3630     }%
3631     \def#1{#3}%
3632 }
3633 \Hy@temp{link}{red}
3634 \Hy@temp{anchor}{black}
3635 \Hy@temp{cite}{green}
3636 \Hy@temp{file}{cyan}
3637 \Hy@temp{url}{magenta}
3638 \Hy@temp{menu}{red}
3639 \Hy@temp{run}{\@filecolor}
3640 \define@key{Hyp}{pagecolor}{%
3641     \Hy@WarningPageColor
3642 }
3643 \def\Hy@WarningPageColor{%
3644     \Hy@WarningNoLine{Option ‘pagecolor’ is not available anymore}%
3645     \global\let\Hy@WarningPageColor\relax
3646 }

```

```

3647 \define@key{Hyp}{allcolors}{%
3648   \HyColor@HyperrefColor{#1}\@linkcolor
3649   \HyColor@HyperrefColor{#1}\@anchorcolor
3650   \HyColor@HyperrefColor{#1}\@citecolor
3651   \HyColor@HyperrefColor{#1}\@filecolor
3652   \HyColor@HyperrefColor{#1}\@urlcolor
3653   \HyColor@HyperrefColor{#1}\@menucolor
3654   \HyColor@HyperrefColor{#1}\@runcolor
3655 }

3656 \def\hyperbaseurl#1{\def\@baseurl{#1}}
3657 \define@key{Hyp}{baseurl}{\hyperbaseurl{#1}}
3658 \let\@baseurl\@empty
3659 \def\hyperlinkfileprefix#1{\def\Hy@linkfileprefix{#1}}
3660 \define@key{Hyp}{linkfileprefix}{\hyperlinkfileprefix{#1}}
3661 \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.

```

3662 \let\@pdfpagetransition\relax
3663 \define@key{Hyp}{pdfpagetransition}{%
3664   \def\@pdfpagetransition{#1}%
3665 }

```

`\@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.

```

3666 \let\@pdfpageduration\relax
3667 \define@key{Hyp}{pdfpageduration}{%
3668   \def\@pdfpageduration{#1}%
3669   \Hy@Match\@pdfpageduration{%
3670     ^([0-9]+\.[0-9]*|[0-9]*\.[0-9]+)$%
3671   }{%
3672     \Hy@Warning{%
3673       Invalid value '\@pdfpageduration'\MessageBreak
3674       of option 'pdfpageduration'\MessageBreak
3675       is replaced by an empty value%
3676     }%
3677     \let\@pdfpageduration\ltx@empty
3678   }%
3679 }

```

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.

```

3680 \newif\ifHy@useHidKey
3681 \Hy@useHidKeyfalse
3682 \define@key{Hyp}{pdfpagehidden}[true]{%
3683   \Hy@boolkey{pdfpagehidden}{#1}%
3684   \ifHy@pdfpagehidden
3685     \global\Hy@useHidKeytrue
3686   \fi
3687 }

```

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).

```

3688 \def\Hy@ColorList{cite,file,link,menu,run,url}
3689 \@for\Hy@temp:=\Hy@ColorList\do{%
3690   \edef\Hy@temp{%
3691     \noexpand\define@key{Hyp}{\Hy@temp bordercolor}{%
3692       \noexpand\HyColor@HyperrefBorderColor
3693       {##1}%
3694       \expandafter\noexpand\csname @\Hy@temp bordercolor\endcsname
3695       {hyperref}%
3696       {\Hy@temp bordercolor}%
3697     }%
3698   }%
3699   \Hy@temp
3700 }
3701 \define@key{Hyp}{pagebordercolor}{%
3702   \Hy@WarningPageBorderColor
3703 }
3704 \def\Hy@WarningPageBorderColor{%
3705   \Hy@WarningNoLine{Option 'pagebordercolor' is not available anymore}%
3706   \global\let\Hy@WarningPageBorderColor\relax
3707 }
3708 \define@key{Hyp}{allbordercolors}{%
3709   \def\Hy@temp##1##2{%
3710     \HyColor@HyperrefBorderColor{#1}##1{hyperref}{##2bordercolor}%
3711   }%
3712   \Hy@temp\@citebordercolor{cite}%
3713   \Hy@temp\@filebordercolor{file}%
3714   \Hy@temp\@linkbordercolor{link}%
3715   \Hy@temp\@menubordercolor{menu}%
3716   \Hy@temp\@runbordercolor{run}%
3717   \Hy@temp\@urlbordercolor{url}%
3718 }
3719 \define@key{Hyp}{pdfhighlight}{\def\@pdfhighlight{#1}}
3720 \Hy@DefNameKey{pdfhighlight}{%
3721   \do{/I}{Invert}%
3722   \do{/N}{None}%
3723   \do{/O}{Outline}%
3724   \do{/P}{Push}%
3725 }
3726 \define@key{Hyp}{pdfborder}{%
3727   \let\Hy@temp\@pdfborder
3728   \def\@pdfborder{#1}%
3729   \Hy@Match\@pdfborder{%
3730     ~\HyPat@NonNegativeReal/ %
3731     \HyPat@NonNegativeReal/ %
3732     \HyPat@NonNegativeReal/%
3733     ( ?\[ \HyPat@NonNegativeReal/( \HyPat@NonNegativeReal/)*] )? $ %
3734   }{%
3735     \Hy@Warning{%

```

```

3736     Invalid value '@pdfborder'\MessageBreak
3737     for option 'pdfborder'\MessageBreak
3738     Option setting is ignored%
3739 }%
3740 \let\@pdfborder\Hy@temp
3741 }%
3742 }
3743 \define@key{Hyp}{pdfborderstyle}{%
3744 \let\Hy@temp\@pdfborderstyle
3745 \def\@pdfborderstyle{#1}%
3746 \Hy@Match\@pdfborderstyle{%
3747 ~%
3748 ( */Type */Border%
3749 | */W +\HyPat@NonNegativeReal/%
3750 | */S */[SDBIU]%
3751 | */D *\[ *(\HyPat@NonNegativeReal/( \HyPat@NonNegativeReal/))?)?}%
3752 )* *$%
3753 }{}{%
3754 \Hy@Warning{%
3755     Invalid value '@pdfborderstyle'\MessageBreak
3756     for option 'pdfborderstyle'\MessageBreak
3757     Option setting is ignored%
3758 }%
3759 \let\@pdfborderstyle\Hy@temp
3760 }%
3761 }
3762 \def\Hy@setpdfborder{%
3763 \ifx\@pdfborder\@empty
3764 \else
3765 /Border[\@pdfborder]%
3766 \fi
3767 \ifx\@pdfborderstyle\@empty
3768 \else
3769 /BS<<\@pdfborderstyle>>%
3770 \fi
3771 }
3772 \Hy@DefNameKey{pdfpagemode}{%
3773 \do{UseNone}{}%
3774 \do{UseOutlines}{}%
3775 \do{UseThumbs}{}%
3776 \do{FullScreen}{}%
3777 \do{UseOC}{PDF 1.5}%
3778 \do{UseAttachments}{PDF 1.6}%
3779 }
3780 \Hy@DefNameKey{pdfnonfullscreenpagemode}{%
3781 \do{UseNone}{}%
3782 \do{UseOutlines}{}%
3783 \do{UseThumbs}{}%
3784 \do{FullScreen}{}%
3785 \do{UseOC}{PDF 1.5}%
3786 \do{UseAttachments}{PDF 1.6}%
3787 }
3788 \Hy@DefNameKey{pdfdirection}{%
3789 \do{L2R}{Left to right}%
3790 \do{R2L}{Right to left}%
3791 }
3792 \Hy@DefNameKey{pdfviewarea}{%

```



```

3793 \do{MediaBox}{}%
3794 \do{CropBox}{}%
3795 \do{BleedBox}{}%
3796 \do{TrimBox}{}%
3797 \do{ArtBox}{}%
3798 }
3799 \Hy@DefNameKey{pdfviewclip}{%
3800 \do{MediaBox}{}%
3801 \do{CropBox}{}%
3802 \do{BleedBox}{}%
3803 \do{TrimBox}{}%
3804 \do{ArtBox}{}%
3805 }
3806 \Hy@DefNameKey{pdfprintarea}{%
3807 \do{MediaBox}{}%
3808 \do{CropBox}{}%
3809 \do{BleedBox}{}%
3810 \do{TrimBox}{}%
3811 \do{ArtBox}{}%
3812 }
3813 \Hy@DefNameKey{pdfprintclip}{%
3814 \do{MediaBox}{}%
3815 \do{CropBox}{}%
3816 \do{BleedBox}{}%
3817 \do{TrimBox}{}%
3818 \do{ArtBox}{}%
3819 }
3820 \Hy@DefNameKey{pdfprintscaling}{%
3821 \do{AppDefault}{}%
3822 \do{None}{}%
3823 }
3824 \Hy@DefNameKey{pdfduplex}{%
3825 \do{Simplex}{}%
3826 \do{DuplexFlipShortEdge}{}%
3827 \do{DuplexFlipLongEdge}{}%
3828 }
3829 \Hy@DefNameKey{pdfpicktraybypdfsize}{%
3830 \do{true}{}%
3831 \do{false}{}%
3832 }
3833 \define@key{Hyp}{pdfprintpagerange}{%
3834 \def\@pdfprintpagerange{#1}%
3835 }
3836 \Hy@DefNameKey{pdfnumcopies}{%
3837 \do{2}{two copies}%
3838 \do{3}{three copies}%
3839 \do{4}{four copies}%
3840 \do{5}{five copies}%
3841 }
3842 \define@key{Hyp}{pdfusetitle}[true]{%
3843 \Hy@boolkey{pdfusetitle}{#1}%
3844 }
3845 \def\HyXeTeX@CheckUnicode{%
3846 \ifxetex
3847 \ifHy@unicode
3848 \else
3849 \Hy@WarningNoLine{%

```

```

3850     XeTeX driver only supports unicode.\MessageBreak
3851     Enabling option 'unicode'%
3852 }%
3853 \kvsetkeys{Hyp}{unicode}%
3854 \fi
3855 \else
3856 \let\HyXeTeX@CheckUnicode\relax
3857 \fi
3858 }
3859 \def\HyPsd@PrerenderUnicode#1{%
3860 \begingroup
3861 \expandafter\ifx\csname PrerenderUnicode\endcsname\relax
3862 \else
3863 \sbox0{%
3864 \let\GenericInfo\@gobbletwo
3865 \let\GenericWarning\@gobbletwo
3866 \let\GenericError\@gobblefour
3867 \PrerenderUnicode{#1}%
3868 }%
3869 \fi
3870 \endgroup
3871 }
3872 \define@key{Hyp}{pdftitle}{%
3873 \HyXeTeX@CheckUnicode
3874 \HyPsd@XeTeXBigCharstrue
3875 \HyPsd@PrerenderUnicode{#1}%
3876 \pdfstringdef\@pdftitle{#1}%
3877 }
3878 \define@key{Hyp}{pdfauthor}{%
3879 \HyXeTeX@CheckUnicode
3880 \HyPsd@XeTeXBigCharstrue
3881 \HyPsd@PrerenderUnicode{#1}%
3882 \pdfstringdef\@pdfauthor{#1}%
3883 }
3884 \define@key{Hyp}{pdfproducer}{%
3885 \HyXeTeX@CheckUnicode
3886 \HyPsd@XeTeXBigCharstrue
3887 \HyPsd@PrerenderUnicode{#1}%
3888 \pdfstringdef\@pdfproducer{#1}%
3889 \ifxetex
3890 \Hy@Warning{%
3891 pdfproducer: %
3892 xdvipdfmx will use its own setting\MessageBreak
3893 instead of the value given%
3894 }%
3895 \else
3896 \def\Hy@temp{hdvipdfm}%
3897 \ifx\Hy@driver\Hy@temp
3898 \Hy@Warning{%
3899 pdfproducer: %
3900 dvipdfm(x) will use its own setting\MessageBreak
3901 instead of the value given%
3902 }%
3903 \fi
3904 \fi
3905 }
3906 \define@key{Hyp}{pdfcreator}{%

```

```

3907 \HyXeTeX@CheckUnicode
3908 \HyPsd@XeTeXBigCharstrue
3909 \HyPsd@PrerenderUnicode{#1}%
3910 \pdfstringdef\@pdfcreator{#1}%
3911 }
3912 \define@key{Hyp}{pdfcreationdate}{%
3913 \begingroup
3914 \Hy@unicodedefalse
3915 \pdfstringdef\@pdfcreationdate{#1}%
3916 \endgroup
3917 }
3918 \define@key{Hyp}{pdfmoddate}{%
3919 \begingroup
3920 \Hy@unicodedefalse
3921 \pdfstringdef\@pdfmoddate{#1}%
3922 \endgroup
3923 }
3924 \define@key{Hyp}{pdfsubject}{%
3925 \HyXeTeX@CheckUnicode
3926 \HyPsd@XeTeXBigCharstrue
3927 \HyPsd@PrerenderUnicode{#1}%
3928 \pdfstringdef\@pdfsubject{#1}%
3929 }
3930 \define@key{Hyp}{pdfkeywords}{%
3931 \HyXeTeX@CheckUnicode
3932 \HyPsd@XeTeXBigCharstrue
3933 \HyPsd@PrerenderUnicode{#1}%
3934 \pdfstringdef\@pdfkeywords{#1}%
3935 }
3936 \define@key{Hyp}{pdftrapped}{%
3937 \lowercase{\edef\Hy@temp{#1}}%
3938 \ifx\Hy@temp\HyInfo@trapped@true
3939 \def\@pdftrapped{True}%
3940 \else
3941 \ifx\Hy@temp\HyInfo@trapped@false
3942 \def\@pdftrapped{False}%
3943 \else
3944 \ifx\Hy@temp\HyInfo@trapped@unknown
3945 \def\@pdftrapped{Unknown}%
3946 \else
3947 \ifx\Hy@temp\@empty
3948 \else
3949 \Hy@Warning{%
3950 Unsupported value '#1'\MessageBreak
3951 for option 'pdftrapped'%
3952 }%
3953 \fi
3954 \def\@pdftrapped{}}%
3955 \fi
3956 \fi
3957 \fi
3958 }
3959 \def\HyInfo@trapped@true{true}
3960 \def\HyInfo@trapped@false{false}
3961 \def\HyInfo@trapped@unknown{unknown}
3962 \def\HyInfo@TrappedUnsupported{%
3963 \ifx\@pdftrapped\@empty

```

```

3964 \else
3965   \Hy@WarningNoLine{'pdftrapped' is not supported by this driver}%
3966   \gdef\HyInfo@TrappedUnsupported{}%
3967 \fi
3968 }
3969 \define@key{Hyp}{pdfinfo}{%
3970   \kvsetkeys{pdfinfo}{#1}%
3971 }
3972 \def\Hy@temp#1{%
3973   \lowercase{\Hy@temp@A{#1}}{#1}%
3974 }
3975 \def\Hy@temp@A#1#2{%
3976   \define@key{pdfinfo}{#2}{%
3977     \hypersetup{pdf#1={##1}}%
3978   }%
3979 }
3980 \Hy@temp{Title}
3981 \Hy@temp{Author}
3982 \Hy@temp{Keywords}
3983 \Hy@temp{Subject}
3984 \Hy@temp{Creator}
3985 \Hy@temp{Producer}
3986 \Hy@temp{CreationDate}
3987 \Hy@temp{ModDate}
3988 \Hy@temp{Trapped}
3989 \newif\ifHyInfo@AddonUnsupported
3990 \kv@set@family@handler{pdfinfo}{%
3991   \HyInfo@AddonHandler{#1}{#2}%
3992 }
3993 \let\HyInfo@do\relax
3994 \def\HyInfo@AddonHandler#1#2{%
3995   \ifx\kv@value\relax
3996     \Hy@Warning{%
3997       Option 'pdfinfo': ignoring key '\kv@key' without value%
3998     }%
3999   \else
4000     \EdefEscapeName\HyInfo@KeyEscaped{\kv@key}%
4001     \EdefUnescapeName\HyInfo@Key{\HyInfo@KeyEscaped}%
4002     \expandafter\ifx\csname KV@pdfinfo@\HyInfo@Key\endcsname\relax
4003       \ifHyInfo@AddonUnsupported
4004         \Hy@Warning{%
4005           This driver does not support additional\MessageBreak
4006           information entries, therefore\MessageBreak
4007           '\kv@key' is ignored%
4008         }%
4009       \else
4010         \define@key{pdfinfo}{\HyInfo@Key}{%
4011           \HyXeTeX@CheckUnicode
4012           \HyPsd@XeTeXBigCharstrue
4013           \HyPsd@PrerenderUnicode{##1}%
4014           \pdfstringdef\HyInfo@Value{##1}%
4015           \expandafter\let\csname HyInfo@Value@\HyInfo@Key\endcsname
4016             \HyInfo@Value
4017         }%
4018       \edef\HyInfo@AddonList{%
4019         \HyInfo@AddonList
4020         \HyInfo@do{\HyInfo@Key}%

```

```

4021     }%
4022     \kv@parse@normalized{%
4023       \HyInfo@Key={#2}%
4024     }{%
4025       \kv@processor@default{pdfinfo}%
4026     }%
4027   \fi
4028 \else
4029   \kv@parse@normalized{%
4030     \HyInfo@Key={#2}%
4031   }{%
4032     \kv@processor@default{pdfinfo}%
4033   }%
4034 \fi
4035 \fi
4036 }
4037 \def\HyInfo@GenerateAddons{%
4038   \ifHyInfo@AddonUnsupported
4039     \def\HyInfo@Addons{}%
4040   \else
4041     \begingroup
4042     \toks@{}%
4043     \def\HyInfo@do##1{%
4044       \EdefEscapeName\HyInfo@Key{##1}%
4045       \edef\x{%
4046         \toks@{%
4047           \the\toks@
4048           /\HyInfo@Key(\csname HyInfo@Value@##1\endcsname)%
4049         }%
4050       }%
4051       \x
4052     }%
4053     \HyInfo@AddonList
4054     \edef\x{\endgroup
4055       \def\noexpand\HyInfo@Addons{\the\toks@}%
4056     }%
4057     \x
4058   \fi
4059 }
4060 \let\HyInfo@AddonList\ltx@empty
4061 \define@key{Hyp}{pdfview}{\calculate@pdfview#1 \\\}
4062 \define@key{Hyp}{pdfinkmargin}{\setpdfinkmargin{#1}}
4063 \let\setpdfinkmargin\@gobble
4064 \def\calculate@pdfview#1 #2\{\%
4065   \def\@pdfview{#1}%
4066   \ifx\#2\%
4067     \def\@pdfviewparams{ -32768}%
4068   \else
4069     \def\@pdfviewparams{ #2}%
4070   \fi
4071 }
4072 \begingroup\expandafter\expandafter\expandafter\endgroup
4073 \expandafter\ifx\csname numexpr\endcsname\relax
4074   \def\Hy@number#1{%
4075     \expandafter\@firstofone\expandafter{\number#1}%
4076   }%
4077 \else

```

```

4078 \def\Hy@number#1{%
4079 \the\numexpr#1\relax
4080 }%
4081 \fi
4082 \define@key{Hyp}{pdfstartpage}{%
4083 \ifx\#1\%
4084 \let\@pdfstartpage\ltx@empty
4085 \else
4086 \edef\@pdfstartpage{\Hy@number{#1}}%
4087 \fi
4088 }%
4089 \define@key{Hyp}{pdfstartview}{%
4090 \ifx\#1\%
4091 \let\@pdfstartview\ltx@empty
4092 \else
4093 \hypercalcbpdef\@pdfstartview{/#1}%
4094 \fi
4095 }
4096 \def\HyPat@NonNegativeReal/{%
4097 \ *([0-9]+\.[0-9]*|[0-9]*\.[0-9]+) *%
4098 }
4099 \define@key{Hyp}{pdfremotestartview}{%
4100 \ifx\#1\%
4101 \def\@pdfremotestartview{/Fit}%
4102 \else
4103 \hypercalcbpdef\@pdfremotestartview{#1}%
4104 \edef\@pdfremotestartview{\@pdfremotestartview}%
4105 \Hy@Match\@pdfremotestartview{%
4106 ^{XYZ} -?(null|\HyPat@NonNegativeReal/) %
4107 -?(null|\HyPat@NonNegativeReal/) %
4108 (null|\HyPat@NonNegativeReal/)|%
4109 Fit(|B| %
4110 (H|V|BH|BV) (null|\HyPat@NonNegativeReal/)|%
4111 R \HyPat@NonNegativeReal/ \HyPat@NonNegativeReal/ %
4112 \HyPat@NonNegativeReal/ \HyPat@NonNegativeReal/%
4113 )}$%
4114 }{}{%
4115 \Hy@Warning{%
4116 Invalid value '\@pdfremotestartview'\MessageBreak
4117 of 'pdfremotestartview'\MessageBreak
4118 is replaced by 'Fit'%
4119 }%
4120 \let\@pdfremotestartview\@empty
4121 }%
4122 \ifx\@pdfremotestartview\@empty
4123 \def\@pdfremotestartview{/Fit}%
4124 \else
4125 \edef\@pdfremotestartview{/ \@pdfremotestartview}%
4126 \fi
4127 \fi
4128 }
4129 \define@key{Hyp}{pdfpagescrop}{\edef\@pdfpagescrop{#1}}
4130 \define@key{Hyp}{pdftoolbar}[true]{%
4131 \Hy@boolkey{pdftoolbar}{#1}%
4132 }
4133 \define@key{Hyp}{pdfmenubar}[true]{%
4134 \Hy@boolkey{pdfmenubar}{#1}%

```

```

4135 }
4136 \define@key{Hyp}{pdfwindowui}[true]{%
4137   \Hy@boolkey{pdfwindowui}{#1}%
4138 }
4139 \define@key{Hyp}{pdffitwindow}[true]{%
4140   \Hy@boolkey{pdffitwindow}{#1}%
4141 }
4142 \define@key{Hyp}{pdfcenterwindow}[true]{%
4143   \Hy@boolkey{pdfcenterwindow}{#1}%
4144 }
4145 \define@key{Hyp}{pdfdisplaydoctitle}[true]{%
4146   \Hy@boolkey{pdfdisplaydoctitle}{#1}%
4147 }
4148 \define@key{Hyp}{pdfa}[true]{%
4149   \Hy@boolkey{pdfa}{#1}%
4150 }
4151 \define@key{Hyp}{pdfnewwindow}[true]{%
4152   \def\Hy@temp{#1}%
4153   \ifx\Hy@temp\@empty
4154     \Hy@pdfnewwindowsetfalse
4155   \else
4156     \Hy@pdfnewwindowsettrue
4157     \Hy@boolkey{pdfnewwindow}{#1}%
4158   \fi
4159 }
4160 \def\Hy@SetNewWindow{%
4161   \ifHy@pdfnewwindowset
4162     /NewWindow %
4163     \ifHy@pdfnewwindow true\else false\fi
4164   \fi
4165 }
4166 \Hy@DefNameKey{pdfpagelayout}{%
4167   \do{SinglePage}{}%
4168   \do{OneColumn}{}%
4169   \do{TwoColumnLeft}{}%
4170   \do{TwoColumnRight}{}%
4171   \do{TwoPageLeft}{PDF 1.5}%
4172   \do{TwoPageRight}{PDF 1.5}%
4173 }
4174 \define@key{Hyp}{pdflang}{%
4175   \def\@pdflang{#1}%
4176 }
4177 \define@key{Hyp}{pdfpagelabels}[true]{%
4178   \Hy@boolkey{pdfpagelabels}{#1}%
4179 }
4180 \define@key{Hyp}{pdfescapeform}[true]{%
4181   \Hy@boolkey{pdfescapeform}{#1}%
4182 }

```

Default values:

```

4183 \def\@linkbordercolor{1 0 0}
4184 \def\@urlbordercolor{0 1 1}
4185 \def\@menubordercolor{1 0 0}
4186 \def\@filebordercolor{0 .5 .5}
4187 \def\@runbordercolor{0 .7 .7}
4188 \def\@citebordercolor{0 1 0}
4189 \def\@pdfhighlight{/I}
4190 \let\@pdftitle\ltx@empty

```

```

4191 \let\@pdfauthor\ltx@empty
4192 \let\@pdfproducer\relax
4193 \def\@pdfcreator{LaTeX with hyperref package}
4194 \let\@pdfcreationdate\ltx@empty
4195 \let\@pdfmoddate\ltx@empty
4196 \let\@pdfsubject\ltx@empty
4197 \let\@pdfkeywords\ltx@empty
4198 \let\@pdftrapped\ltx@empty
4199 \let\@pdfpagescrop\ltx@empty
4200 \def\@pdfstartview{/Fit}
4201 \def\@pdfremotestartview{/Fit}
4202 \def\@pdfstartpage{1}
4203 \let\@pdfprintpagerange\ltx@empty
4204 \let\@pdflang\ltx@empty
4205 \let\PDF@SetupDoc\@empty
4206 \let\PDF@FinishDoc\@empty
4207 \let\phantomsection\@empty
4208 \let\special@paper\@empty
4209 \def\HyperDestNameFilter#1{#1}
4210 \Hy@AtBeginDocument{%
4211   \begingroup
4212     \edef\x{\@ifundefined{stockheight}\paperheight\stockheight}%
4213     \dimen@=\x\relax
4214     \ifdim\dimen@>\z@
4215       \else
4216         \dimen@=11in\relax
4217         \Hy@WarningNoLine{%
4218           Height of page (\expandafter\string\x) %
4219           is invalid (\the\x),\MessageBreak
4220           using 11in%
4221         }%
4222       \fi
4223       \dimen@=0.99626401\dimen@
4224       \xdef\Hy@pageheight{\strip@pt\dimen@}%
4225     \endgroup
4226 }
4227 \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.

```

4228 \let\hyper@normalise\ExecuteOptions
4229 \let\ExecuteOptions\hypersetup
4230 \Hy@RestoreCatcodes
4231 \InputIfFileExists{hyperref.cfg}{-}{-}
4232 \Hy@SetCatcodes
4233 \let\ExecuteOptions\hyper@normalise
4234 \ifx\Hy@MaybeStopNow\relax
4235 \else
4236   \Hy@stoppedearlytrue
4237   \expandafter\Hy@MaybeStopNow
4238 \fi
4239 \Hy@stoppedearlyfalse

```

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

```

4240 \SetupKeyvalOptions{family=Hyp}
4241 \DeclareLocalOptions{%

```



```

4242 a4paper,a5paper,b5paper,letterpaper,legalpaper,executivepaper%
4243 }

```

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

```

4244 \@ifpackageloaded{tex4ht}{%
4245   \@ifpackagewith{hyperref}{tex4ht}{-}{%
4246     \PassOptionsToPackage{tex4ht}{hyperref}%
4247   }%
4248 }{}

```

```

4249 \let\ReadBookmarks\relax
4250 \ProcessKeyvalOptions{Hyp}

```

After processing options.

15.1 Package xspace support

```

4251 \def\Hy@xspace@end{}
4252 \ltx@ifundefined{xspaceaddexceptions}{%
4253   \Hy@AtBeginDocument{%
4254     \ltx@ifundefined{xspaceaddexceptions}{%
4255       }{%
4256         \def\Hy@xspace@end{%
4257           \ltx@gobble{end for xspace}%
4258         }%
4259         \xspaceaddexceptions{%
4260           \Hy@xspace@end,\hyper@linkend,\hyper@anchorend
4261         }%
4262       }%
4263     }%
4264   }{}%
4265   \def\Hy@xspace@end{%
4266     \ltx@gobble{end for xspace}%
4267   }%
4268   \xspaceaddexceptions{\Hy@xspace@end,\hyper@linkend,\hyper@anchorend}%
4269 }

```

15.2 Option draft

```

4270 \Hy@AtBeginDocument{%
4271   \ifHy@draft
4272     \let\hyper@@anchor\@gobble
4273     \gdef\hyper@link#1#2#3{#3\Hy@xspace@end}%
4274     \def\hyper@anchorstart#1#2{#2\Hy@xspace@end}%
4275     \def\hyper@anchorend{\Hy@xspace@end}%
4276     \let\hyper@linkstart\@gobbletwo
4277     \def\hyper@linkend{\Hy@xspace@end}%
4278     \def\hyper@linkurl#1#2{#1\Hy@xspace@end}%
4279     \def\hyper@linkfile#1#2#3{#1\Hy@xspace@end}%
4280     \def\hyper@link@[#1]#2#3#4{#4\Hy@xspace@end}%
4281     \def\Acrobatmenu#1#2{\leavevmode#2\Hy@xspace@end}%
4282     \let\PDF@SetupDoc\@empty
4283     \let\PDF@FinishDoc\@empty
4284     \let\@fifthoffive\@secondoftwo
4285     \let\@secondoffive\@secondoftwo
4286     \let\ReadBookmarks\relax
4287     \let\WriteBookmarks\relax
4288     \Hy@WarningNoLine{Draft mode on}%
4289   \fi

```

```

4290 \Hy@DisableOption{draft}%
4291 \Hy@DisableOption{nolinks}%
4292 \Hy@DisableOption{final}%
4293 }

```

15.3 PDF/A

```

4294 \Hy@DisableOption{pdfa}
4295 \ifHy@pdfa
4296 \kvsetkeys{Hyp}{pdfversion=1.4}%
4297 \Hy@DisableOption{pdfversion}%
4298 \def\Hy@Acrobatmenu#1#2{%
4299 \leavevmode
4300 \begingroup
4301 \edef\x{#1}%
4302 \@onelevel@sanitize\x
4303 \ifx\x\Hy@NextPage
4304 \let\y=Y%
4305 \else
4306 \ifx\x\Hy@PrevPage
4307 \let\y=Y%
4308 \else
4309 \ifx\x\Hy@FirstPage
4310 \let\y=Y%
4311 \else
4312 \ifx\x\Hy@LastPage
4313 \let\y=Y%
4314 \else
4315 \let\y=N%
4316 \fi
4317 \fi
4318 \fi
4319 \fi
4320 \expandafter\endgroup
4321 \ifx\y Y%
4322 \else
4323 \Hy@Error{%
4324 PDF/A: Named action ‘#1’ is not permitted%
4325 }\@ehc
4326 {#2}%
4327 \expandafter\@gobble
4328 \fi
4329 }%
4330 \def\Hy@temp#1{%
4331 \expandafter\def\csname Hy@#1\endcsname{#1}%
4332 \expandafter\@onelevel@sanitize\csname Hy@#1\endcsname
4333 }%
4334 \Hy@temp{NextPage}%
4335 \Hy@temp{PrevPage}%
4336 \Hy@temp{FirstPage}%
4337 \Hy@temp{LastPage}%
4338 \else
4339 \def\Hy@Acrobatmenu#1#2{\leavevmode}%
4340 \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.

```
4341 \Hy@nextfalse
4342 \ltx@ifundefined{spanish@sh@"@sel}{\Hy@nexttrue}
4343 \ltx@ifundefined{galician@sh@"@sel}{\Hy@nexttrue}
4344 \ltx@ifundefined{estonian@sh@"@sel}{\Hy@nexttrue}
4345 \ifHy@next
4346 \let\texttilde\~%
4347 \fi

4348 \def\Hy@wrapper@babel#1#2{%
4349 \begingroup
4350 \Hy@safe@activetrue
4351 \set@display@protect
4352 \edef\x{#2}%
4353 \@onelevel@sanitize\x
4354 \toks@{#1}%
4355 \edef\x{\endgroup\the\toks@{\x}}%
4356 \x
4357 }
4358 \def\Hy@WrapperDef#1{%
4359 \begingroup
4360 \escapechar=\m@ne
4361 \xdef\Hy@gtemp{%
4362 \expandafter\noexpand\csname HyWrap@\string#1\endcsname
4363 }%
4364 \endgroup
4365 \edef#1{%
4366 \noexpand\Hy@wrapper@babel
4367 \expandafter\noexpand\Hy@gtemp
4368 }%
4369 \expandafter\def\Hy@gtemp
4370 }

4371 \ifHy@hyperfigures
4372 \Hy@Info{Hyper figures ON}%
4373 \else
4374 \Hy@Info{Hyper figures OFF}%
4375 \fi
4376 \ifHy@nesting
4377 \Hy@Info{Link nesting ON}%
4378 \else
4379 \Hy@Info{Link nesting OFF}%
4380 \fi
4381 \ifHy@hyperindex
4382 \Hy@Info{Hyper index ON}%
4383 \else
4384 \Hy@Info{Hyper index OFF}%
4385 \fi
4386 \ifHy@plainpages
4387 \Hy@Info{Plain pages ON}%
4388 \else
4389 \Hy@Info{Plain pages OFF}%
4390 \fi
4391 \ifHy@backref
4392 \Hy@Info{Backreferencing ON}%
4393 \else
4394 \Hy@Info{Backreferencing OFF}%
4395 \fi
4396 \ifHy@typexml
```

```

4397 \Hy@AtEndOfPackage{%
4398   \RequirePackage{color}%
4399   \RequirePackage{nameref}[2012/07/28]%
4400 }%
4401 \fi
4402 \Hy@DisableOption{typexml}
4403 \ifHy@implicit
4404   \Hy@InfoNoLine{Implicit mode ON; LaTeX internals redefined}%
4405 \else
4406   \Hy@InfoNoLine{Implicit mode OFF; no redefinition of LaTeX internals}%
4407   \def\MaybeStopEarly{%
4408     \Hy@Message{Stopped early}}%
4409   \Hy@AtBeginDocument{%
4410     \PDF@FinishDoc
4411     \gdef\PDF@FinishDoc{}%
4412   }%
4413   \endinput
4414 }%
4415 \Hy@AtBeginDocument{%
4416   \let\autoref\ref
4417   \let\autopageref\pageref
4418   \ifx\@pdfpagemode\@empty
4419     \gdef\@pdfpagemode{UseNone}%
4420   \fi
4421   \global\Hy@backreffalse
4422 }%
4423 \Hy@AtEndOfPackage{%
4424   \global\let\ReadBookmarks\relax
4425   \global\let\WriteBookmarks\relax
4426 }%
4427 \fi
4428 \Hy@DisableOption{implicit}

```

15.4.1 Driver loading

```

4429 \Hy@AtEndOfPackage{%
4430   \ifpackageloaded{tex4ht}{%
4431     \def\Hy@driver{htex4ht}%
4432     \Hy@texhttrue
4433   }{}%

```

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.

```

4434   \ifx\Hy@driver\@empty
4435   \else
4436     \def\Hy@temp{hpdftex}%
4437     \ifpdf
4438       \ifx\Hy@driver\Hy@temp
4439       \else
4440         \Hy@WarningNoLine{%
4441           Wrong driver ‘\Hy@driver.def’;\MessageBreak
4442           pdfTeX is running in PDF mode.\MessageBreak
4443           Forcing driver ‘\Hy@temp.def’%
4444         }%
4445         \let\Hy@driver\Hy@temp
4446       \fi
4447     \else
4448       \ifx\Hy@driver\Hy@temp

```

```

4449 \Hy@WarningNoLine{%
4450 Wrong driver '\Hy@driver.def';\MessageBreak
4451 pdfTeX is not running in PDF mode.\MessageBreak
4452 Using default driver%
4453 }%
4454 \let\Hy@driver\@empty
4455 \fi
4456 \fi
4457 \fi
4458 \ifHy@texht
4459 \else
4460 \ifx\Hy@driver\@empty
4461 \else
4462 \def\Hy@temp{hxtex}%
4463 \ifxetex
4464 \ifx\Hy@driver\Hy@temp
4465 \else
4466 \Hy@WarningNoLine{%
4467 Wrong driver '\Hy@driver.def';\MessageBreak
4468 XeTeX is running.\MessageBreak
4469 Forcing driver '\Hy@temp.def' for XeTeX%
4470 }%
4471 \let\Hy@driver\Hy@temp
4472 \fi
4473 \fi
4474 \fi
4475 \fi
4476 \ifx\Hy@driver\@empty
4477 \else
4478 \def\Hy@temp{hvtexhtm}%
4479 \ifvtexhtml
4480 \ifx\Hy@driver\Hy@temp
4481 \else
4482 \Hy@WarningNoLine{%
4483 Wrong driver '\Hy@driver.def';\MessageBreak
4484 VTeX is running in HTML mode.\MessageBreak
4485 Forcing driver '\Hy@temp.def'%
4486 }%
4487 \let\Hy@driver\Hy@temp
4488 \fi
4489 \else
4490 \ifx\Hy@driver\Hy@temp
4491 \Hy@WarningNoLine{%
4492 Wrong driver '\Hy@driver.def';\MessageBreak
4493 VTeX is not running in HTML mode.\MessageBreak
4494 Using default driver%
4495 }%
4496 \let\Hy@driver\@empty
4497 \fi
4498 \fi
4499 \fi

```

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

```

4500 \def\HyOpt@DriverType{%
4501 \ifx\Hy@driver\@empty
4502 \def\HyOpt@DriverType{ (autodetected)}%
4503 \providecommand*{\Hy@defaultdriver}{hypertex}%
4504 \ifpdf

```

```

4505 \def\Hy@driver{hpdftex}%
4506 \else
4507 \ifxetex
4508 \def\Hy@driver{hxtex}%
4509 \else
4510 \ifvtexhtml
4511 \def\Hy@driver{hvtexhtm}%
4512 \def\MaybeStopEarly{%
4513 \Hy@Message{Stopped early}%
4514 \Hy@AtBeginDocument{%
4515 \PDF@FinishDoc
4516 \gdef\PDF@FinishDoc{}}%
4517 }%
4518 \endinput
4519 }%
4520 \else
4521 \ifvtexpdf
4522 \def\Hy@driver{hvtex}%
4523 \else
4524 \ifvtexps
4525 \def\Hy@driver{hvtex}%
4526 \else
4527 \ifx\HyOpt@DriverFallback\ltx@empty
4528 \let\Hy@driver\Hy@defaultdriver
4529 \def\HyOpt@DriverType{ (default)}%
4530 \else
4531 \begingroup
4532 \toks@{\expandafter{\HyOpt@DriverFallback}%
4533 \edef\x{\endgroup
4534 \noexpand\kvsetkeys{Hyp}{\the\toks@}%
4535 }%
4536 \x
4537 \ifx\Hy@driver\ltx@empty
4538 \let\Hy@driver\Hy@defaultdriver
4539 \def\HyOpt@DriverType{ (default)}%
4540 \else
4541 \def\HyOpt@DriverType{ (fallback)}%
4542 \fi
4543 \fi
4544 \fi
4545 \fi
4546 \fi
4547 \fi
4548 \fi
4549 \ifx\Hy@driver\Hy@defaultdriver
4550 \def\Hy@temp{hdvwind}%
4551 \ifx\Hy@temp\Hy@driver
4552 \kvsetkeys{Hyp}{colorlinks}%
4553 \PassOptionsToPackage{dviwindo}{color}%
4554 \fi
4555 \fi
4556 \fi
4557 \Hy@Message{Driver\HyOpt@DriverType: \Hy@driver}%
4558 \chardef\Hy@VersionChecked=0 %
4559 \input{\Hy@driver.def}%
4560 \ifcase\Hy@VersionChecked
4561 \Hy@VersionCheck{\Hy@driver.def}%

```

```

4562 \fi
4563 \let\@unprocessedoptions\relax
4564 \Hy@RestoreCatcodes
4565 \Hy@DisableOption{tex4ht}%
4566 \Hy@DisableOption{pdftex}%
4567 \Hy@DisableOption{nativepdf}%
4568 \Hy@DisableOption{dvipdfm}%
4569 \Hy@DisableOption{dvipdfmx}%
4570 \Hy@DisableOption{dvipdfmx-outline-open}%
4571 \Hy@DisableOption{pdfmark}%
4572 \Hy@DisableOption{dvips}%
4573 \Hy@DisableOption{hypertex}%
4574 \Hy@DisableOption{vtex}%
4575 \Hy@DisableOption{vtexpdfmark}%
4576 \Hy@DisableOption{dviwindo}%
4577 \Hy@DisableOption{dvipsone}%
4578 \Hy@DisableOption{textures}%
4579 \Hy@DisableOption{latex2html}%
4580 \Hy@DisableOption{ps2pdf}%
4581 \Hy@DisableOption{xetex}%
4582 \Hy@DisableOption{pdfversion}%
4583 }

```

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.

```

4584 \newif\ifHy@DvipdfmxOutlineOpen
4585 \ifxetex
4586   \ifdim\number\XeTeXversion\XeTeXrevision in<0.9995in %
4587   \else
4588     \chardef\SpecialDvipdfmxOutlineOpen\@ne
4589     \Hy@DvipdfmxOutlineOpenttrue
4590   \fi
4591 \fi
4592 \begingroup\expandafter\expandafter\expandafter\endgroup
4593 \expandafter\ifx\csname SpecialDvipdfmxOutlineOpen\endcsname\relax
4594 \else
4595   \ifnum\SpecialDvipdfmxOutlineOpen>\z@
4596     \Hy@DvipdfmxOutlineOpenttrue
4597   \fi
4598 \fi

```

15.4.2 Bookmarks

```

4599 \def\WriteBookmarks{0}
4600 \def\@bookmarkopenstatus#1{%
4601   \ifHy@bookmarksopen

```

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

```

4602   \ifnum#1<\expandafter\@firstofone\expandafter
4603     {\number\@bookmarkopenlevel} % explicit space
4604   \else
4605     -%
4606   \fi
4607 \else
4608   -%
4609 \fi
4610 }

```

```

4611 \ifHy@bookmarks
4612 \Hy@Info{Bookmarks ON}%
4613 \ifx\@pdfpagemode\@empty
4614 \def\@pdfpagemode{UseOutlines}%
4615 \fi
4616 \else
4617 \let\@bookmarkopenstatus\ltx@gobble
4618 \Hy@Info{Bookmarks OFF}%
4619 \Hy@AtEndOfPackage{%
4620 \global\let\ReadBookmarks\relax
4621 \global\let\WriteBookmarks\relax
4622 }%
4623 \ifx\@pdfpagemode\@empty
4624 \def\@pdfpagemode{UseNone}%
4625 \fi
4626 \fi
4627 \Hy@DisableOption{bookmarks}

Add wrapper for setting standard catcodes (babel's shorthands).
4628 \def\Hy@CatcodeWrapper#1{%
4629 \let\Hy@endWrap\ltx@empty
4630 \def\TMP@EnsureCode##1##2{%
4631 \edef\Hy@endWrap{%
4632 \Hy@endWrap
4633 \catcode##1 \the\catcode##1\relax
4634 }%
4635 \catcode##1 ##2\relax
4636 }%
4637 \TMP@EnsureCode{10}{12}% ^^J
4638 \TMP@EnsureCode{33}{12}% !
4639 \TMP@EnsureCode{34}{12}% "
4640 \TMP@EnsureCode{36}{3}% $ (math)
4641 \TMP@EnsureCode{38}{4}% & (alignment)
4642 \TMP@EnsureCode{39}{12}% '
4643 \TMP@EnsureCode{40}{12}% (
4644 \TMP@EnsureCode{41}{12}% )
4645 \TMP@EnsureCode{42}{12}% *
4646 \TMP@EnsureCode{43}{12}% +
4647 \TMP@EnsureCode{44}{12}% ,
4648 \TMP@EnsureCode{45}{12}% -
4649 \TMP@EnsureCode{46}{12}% .
4650 \TMP@EnsureCode{47}{12}% /
4651 \TMP@EnsureCode{58}{12}% :
4652 \TMP@EnsureCode{59}{12}% ;
4653 \TMP@EnsureCode{60}{12}% <
4654 \TMP@EnsureCode{61}{12}% =
4655 \TMP@EnsureCode{62}{12}% >
4656 \TMP@EnsureCode{63}{12}% ?
4657 \TMP@EnsureCode{91}{12}% [
4658 \TMP@EnsureCode{93}{12}% ]
4659 \TMP@EnsureCode{94}{7}% ^ (superscript)
4660 \TMP@EnsureCode{95}{8}% _ (subscript)
4661 \TMP@EnsureCode{96}{12}% '
4662 \TMP@EnsureCode{124}{12}% |
4663 \TMP@EnsureCode{126}{13}% ~ (active)
4664 #1\relax
4665 \Hy@endWrap
4666 }

```


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

```

4667 \Hy@AtBeginDocument{%
4668   \ifHy@ocgcolorlinks
4669     \kvsetkeys{Hyp}{colorlinks}%
4670     \ifHy@pdfa
4671       \Hy@Warning{%
4672         PDF/A: Optional Content Groups are prohibited,\MessageBreak
4673         using 'colorlinks' instead of 'ocgcolorlinks'%
4674       }%
4675     \Hy@ocgcolorlinksfalse
4676   \fi
4677 \fi
4678 \ifHy@ocgcolorlinks
4679 \else
4680   \Hy@DisableOption{ocgcolorlinks}%
4681 \fi
4682 \ifHy@colorlinks
4683   \def\@pdfborder{0 0 0}%
4684   \let\@pdfborderstyle\@empty
4685   \ifHy@typexml
4686   \else
4687     \Hy@CatcodeWrapper{%
4688       \RequirePackage{color}%
4689     }%
4690   \fi
4691   \def\Hy@colorlink#1{%
4692     \begingroup
4693     \HyColor@UseColor#1%
4694   }%
4695   \def\Hy@endcolorlink{\endgroup}%
4696   \Hy@Info{Link coloring ON}%
4697 \else
4698   \ifHy@frenchlinks
4699     \def\Hy@colorlink#1{\begingroup\fontshape{sc}\selectfont}%
4700     \def\Hy@endcolorlink{\endgroup}%
4701     \Hy@Info{French linking ON}%
4702   \else
4703     \def\Hy@colorlink#1{\begingroup}%
4704     \def\Hy@endcolorlink{\endgroup}%
4705     \Hy@Info{Link coloring OFF}%
4706   \fi
4707 \fi
4708 \Hy@DisableOption{colorlinks}%
4709 \Hy@DisableOption{frenchlinks}%
4710 \ifHy@texht
4711   \long\def\@firstoffive#1#2#3#4#5{#1}%
4712   \long\def\@secondoffive#1#2#3#4#5{#2}%
4713   \long\def\@thirdoffive#1#2#3#4#5{#3}%
4714   \long\def\@fourthoffive#1#2#3#4#5{#4}%
4715   \long\def\@fifthoffive#1#2#3#4#5{#5}%
4716   \providecommand*\@safe@activetrue{}%
4717   \providecommand*\@safe@activesfalse{}%
4718   \def\T@ref#1{%
4719     \Hy@safe@activetrue
4720     \expandafter\@setref\csname r@#1\endcsname\@firstoffive{#1}%

```

```

4721 \Hy@safe@activesfalse
4722 }%
4723 \def\T@pageref#1{%
4724 \Hy@safe@activetrue
4725 \expandafter\@setref\csname r@#1\endcsname\@secondoffive{#1}%
4726 \Hy@safe@activesfalse
4727 }%
4728 \else
4729 \ifHy@typexml
4730 \else
4731 \Hy@CatcodeWrapper{%
4732 \RequirePackage{nameref}[2012/07/28]%
4733 }%
4734 \fi
4735 \fi
4736 \DeclareRobustCommand\ref{%
4737 \@ifstar\@refstar\T@ref
4738 }%
4739 \DeclareRobustCommand\pageref{%
4740 \@ifstar\@pagerefstar\T@pageref
4741 }%
4742 % \@ifclassloaded{memoir}{%
4743 % \ltx@ifundefined{@mem@titlerefno link}\ltx@secondoftwo{%
4744 % \ltx@ifundefined{@mem@titleref}\ltx@secondoftwo\ltx@firstoftwo
4745 % }%
4746 % }\ltx@secondoftwo
4747 % {%
4748 % \DeclareRobustCommand*{\nameref}{%
4749 % \@ifstar\@mem@titlerefno link\@mem@titleref
4750 % }%
4751 % }{%
4752 \DeclareRobustCommand*{\nameref}{%
4753 \@ifstar\@namerefstar\T@nameref
4754 }%
4755 % }%
4756 }
4757 \Hy@AtBeginDocument{%
4758 \ifHy@texht
4759 \else
4760 \Hy@CatcodeWrapper\ReadBookmarks
4761 \fi
4762 }
4763 \ifHy@backref
4764 \RequirePackage{backref}%
4765 \else
4766 \let\Hy@backout\@gobble
4767 \fi
4768 \Hy@DisableOption{backref}
4769 \Hy@DisableOption{pagebackref}
4770 \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`.

```

4771 \begingroup
4772 \endlinechar=-1 %
4773 \catcode'\^^A=14 %
4774 \catcode'\^^M\active
4775 \catcode'\%\active
4776 \catcode'\#\active
4777 \catcode'\_\active
4778 \catcode'\$\active
4779 \catcode'\&\active
4780 \gdef\hyper@normalise{^^A
4781 \begingroup
4782 \catcode'\^^M\active
4783 \def^^M{ }^^A
4784 \catcode'\%\active
4785 \let%\@percentchar
4786 \let%\@percentchar
4787 \catcode'\#\active
4788 \def#{\hyper@hash}^^A
4789 \def\#{\hyper@hash}^^A
4790 \@makeother\&^^A
4791 \edef&{\string&}^^A
4792 \edef\&{\string&}^^A
4793 \edef\textunderscore{\string_}^^A
4794 \let\_ \textunderscore
4795 \catcode'\_\active
4796 \let\_ \textunderscore
4797 \let~\hyper@tilde
4798 \let\~\hyper@tilde
4799 \let\textasciitilde\hyper@tilde
4800 \let\\ \@backslashchar
4801 \edef${\string$}^^A
4802 \Hy@safe@activetrue
4803 \hyper@n@rmalise
4804 }^^A
4805 \catcode'\#=6 ^^A
4806 \gdef\Hy@ActiveCarriageReturn{^^M}^^A
4807 \gdef\hyper@n@rmalise#1#2{^^A
4808 \def\Hy@tempa{#2}^^A
4809 \ifx\Hy@tempa\Hy@ActiveCarriageReturn
4810 \ltx@ReturnAfterElseFi{^^A
4811 \hyper@@normalise{#1}^^A
4812 }^^A
4813 \else
4814 \ltx@ReturnAfterFi{^^A
4815 \hyper@@normalise{#1}{#2}^^A
4816 }^^A
4817 \fi
4818 }^^A
4819 \gdef\hyper@@normalise#1#2{^^A
4820 \edef\Hy@tempa{^^A
4821 \endgroup
4822 \noexpand#1{\Hy@RemovePercentCr#2%\^^M\@nil}^^A
4823 }^^A
4824 \Hy@tempa

```

```

4825 }^^A
4826 \gdef\Hy@RemovePercentCr#1%^^M#2\@nil{^^A
4827   #1^^A
4828   \ifx\limits#2\limits
4829   \else
4830     \ltx@ReturnAfterFi{^^A
4831       \Hy@RemovePercentCr #2\@nil
4832     }^^A
4833   \fi
4834 }^^A
4835 \endgroup
4836 \providecommand*\hyper@chars{%
4837   \let\#\hyper@hash
4838   \let\%\@percentchar
4839   \Hy@safe@activetrue
4840 }

4841 \def\hyperlink#1#2{%
4842   \hyper@@link{}\{#1\}{#2}%
4843 }

4844 \def\Hy@VerboseLinkStart#1#2{%
4845   \ifHy@verbose
4846     \begingroup
4847       \Hy@safe@activetrue
4848       \xdef\Hy@VerboseGlobalTemp{(#1) '#2'}%
4849       \Hy@Info{Reference \Hy@VerboseGlobalTemp}%
4850       \xdef\Hy@VerboseGlobalTemp{%
4851         \Hy@VerboseGlobalTemp, %
4852         line \the\inputlineno
4853       }%
4854     \endgroup
4855     \let\Hy@VerboseLinkInfo\Hy@VerboseGlobalTemp
4856     \@onelevel@sanitize\Hy@VerboseLinkInfo
4857   \fi
4858 }

4859 \def\Hy@VerboseLinkInfo{<VerboseLinkInfo>}
4860 \def\Hy@VerboseLinkStop{%
4861   \ifHy@verbose
4862     \begingroup
4863     \edef\x{\endgroup
4864       \write\m@ne{%
4865         Package 'hyperref' Info: %
4866         End of reference \Hy@VerboseLinkInfo.%
4867       }%
4868     }%
4869   \x
4870   \fi
4871 }

4872 \def\Hy@VerboseAnchor#1{%
4873   \ifHy@verbose
4874     \begingroup
4875     \Hy@safe@activetrue
4876     \Hy@Info{Anchor '\HyperDestNameFilter{#1}'}%
4877   \endgroup
4878   \fi
4879 }

```

```

4880 \def\Hy@AllowHyphens{%
4881   \relax
4882   \ifhmode
4883     \penalty\@M
4884     \hskip\z@skip
4885   \fi
4886 }

4887 \DeclareRobustCommand*\href{[1][]{%
4888   \begingroup
4889   \setkeys{href}{#1}%
4890   \@ifnextchar\bgroup\Hy@href{\hyper@normalise\href@}%
4891 }
4892 \def\Hy@href#{%
4893   \hyper@normalise\href@
4894 }
4895 \begingroup
4896 \catcode'\$=6 %
4897 \catcode'\#=12 %
4898 \gdef\href@\$1{\expandafter\href@split$1##\}%
4899 \gdef\href@split$1##$2##$3\\$4{%
4900   \hyper@@link{$1}{$2}{$3}{$4}%
4901   \endgroup
4902 }%
4903 \endgroup

```

Option ‘page’.

```

4904 \define@key{href}{page}{%
4905   \def\Hy@href@page{#1}%
4906 }
4907 \let\Hy@href@page\@empty
4908 \newcount\c@Hy@tempcnt
4909 \def\theHy@tempcnt{\the\c@Hy@tempcnt}
4910 \def\Hy@MakeRemoteAction{%
4911   \ifx\Hy@href@page\@empty
4912     \def\Hy@href@page{0}%
4913   \else
4914     \setcounter{Hy@tempcnt}{\Hy@href@page}%
4915     \ifnum\c@Hy@tempcnt<\@ne
4916       \Hy@Warning{%
4917         Invalid page number (\theHy@tempcnt)\MessageBreak
4918         for remote PDF file.\MessageBreak
4919         Using page 1%
4920       }%
4921       \def\Hy@href@page{0}%
4922     \else
4923       \global\advance\c@Hy@tempcnt\m@ne
4924       \edef\Hy@href@page{\theHy@tempcnt}%
4925     \fi
4926   \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.

```

4927 \ifx\Hy@href@nextactionraw\@empty
4928 \else
4929   \Hy@pdfnewwindowsettrue
4930   \Hy@pdfnewwindowtrue
4931 \fi
4932 }

```

Option ‘pdfremotestartview’.

```
4933 \define@key{href}{pdfremotestartview}{%
4934   \setkeys{Hyp}{pdfremotestartview={#1}}%
4935 }
```

Option ‘pdfnewwindow’.

```
4936 \let\KV@href@pdfnewwindow\KV@Hyp@pdfnewwindow
4937 \let\KV@href@pdfnewwindow@default\KV@Hyp@pdfnewwindow@default
```

Option ‘ismap’.

```
4938 \newif\ifHy@href@ismap
4939 \define@key{href}{ismap}[true]{%
4940   \ltx@ifundefined{Hy@href@ismap#1}{%
4941     \Hy@Error{%
4942       Invalid value (#1) for key ‘ismap’.\MessageBreak
4943       Permitted values are ‘true’ or ‘false’.\MessageBreak
4944       Ignoring ‘ismap’%
4945     }\@ehc
4946   }{%
4947     \csname Hy@href@ismap#1\endcsname
4948   }%
4949 }
```

Option ‘nextactionraw’.

```
4950 \let\Hy@href@nextactionraw\@empty
4951 \define@key{href}{nextactionraw}{%
4952   \edef\Hy@href@nextactionraw{#1}%
4953   \ifx\Hy@href@nextactionraw\@empty
4954     \else
4955       \Hy@Match\Hy@href@nextactionraw{%
4956         ^(\HyPat@ObjRef/|<<.*[/S[/].+>>|%
4957         \[( ?\HyPat@ObjRef/|<<.*[/S[/].+>>)+ ?])$%
4958       }{%
4959         \Hy@Warning{Invalid value for ‘nextactionraw’:\MessageBreak
4960           \Hy@href@nextactionraw\MessageBreak
4961           The action is discarded%
4962         }%
4963       }%
4964       \ifx\Hy@href@nextactionraw\@empty
4965         \else
4966           \edef\Hy@href@nextactionraw{/Next \Hy@href@nextactionraw}%
4967         \fi
4968       \fi
4969 }
4970 \def\HyPat@ObjRef/{.+}
```

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

```
4971 \RequirePackage{url}
4972 \let\HyOrg@url\url
4973 \def\Hurl{\begingroup \Url}
4974 \DeclareRobustCommand*\nolinkurl{\hyper@normalise\nolinkurl@}
4975 \def\nolinkurl@#1{\Hurl{#1}}
4976 \DeclareRobustCommand*\url{\hyper@normalise\url@}
4977 \def\url@#1{\hyper@linkurl{\Hurl{#1}}{#1}}
4978 \DeclareRobustCommand*\hyperimage{\hyper@normalise\hyper@image}
4979 \providecommand\hyper@image[2]{#2}
4980 \def\hypertarget#1#2{%
4981   \ifHy@nesting
```

```

4982 \hyper@@anchor{#1}{#2}%
4983 \else
4984 \hyper@@anchor{#1}{\relax}#2%
4985 \fi
4986 }

```

`\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 L^AT_EX label which can be used in a short form of `\hyperref` later, to avoid remembering the name and category.

```

4987 \DeclareRobustCommand*\hyperref{%
4988 \ifnextchar[{\Hy@babelnormalise\label@hyperref}\@hyperref
4989 }
4990 \def\Hy@babelnormalise#1[#2]{%
4991 \begingroup
4992 \Hy@safe@activestru
4993 \edef\Hy@tempa{%
4994 \endgroup
4995 \noexpand#1[#2]}%
4996 }%
4997 \Hy@tempa
4998 }
4999 \def\@hyperref{\hyper@normalise\@hyperref}
5000 \def\@hyperref#1#2#3{%
5001 \edef\ref@one{\ifx\#2\#2\else#2.\fi#3}%
5002 \expandafter\tryhyper@link\ref@one\{#1}%
5003 }
5004 \def\tryhyper@link#1\#2{%
5005 \hyper@@link{#2}{#1}%
5006 }

5007 \def\hyperdef{\ifnextchar[{\label@hyperdef}\@hyperdef}
5008 \def\@hyperdef#1#2#3{%, category, name, text
5009 \ifx\#1\%
5010 \def\Hy@AnchorName{#2}%
5011 \else
5012 \def\Hy@AnchorName{#1.#2}%
5013 \fi
5014 \ifHy@nesting
5015 \expandafter\hyper@@anchor\expandafter{\Hy@AnchorName}{#3}%
5016 \else
5017 \expandafter\hyper@@anchor\expandafter{\Hy@AnchorName}{\relax}#3%
5018 \fi
5019 }

```

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

```

5020 \def\label@hyperref[#1]{%
5021 \expandafter\label@@hyperref\csname r@#1\endcsname{#1}%
5022 }%
5023 \def\label@@hyperref#1#2#3{%
5024 \ifx#1\relax
5025 \protect\G@refundefinedtrue
5026 \@latex@warning{%
5027 Hyper reference ‘#2’ on page \thepage \space undefined%

```

```

5028 }%
5029 \begingroup
5030   #3%
5031 \endgroup
5032 \else
5033   \hyper@@link{\expandafter\@fifthoffive#1}%
5034   {\expandafter\@fourthoffive#1\@empty\@empty}{#3}%
5035 \fi
5036 }
5037 \def\label@hyperdef[#1]#2#3#4{% label name, category, name,
5038                               % anchor text
5039   \@bsphack
5040   \ifx\#2\%
5041     \def\Hy@AnchorName{#3}%
5042   \else
5043     \def\Hy@AnchorName{#2.#3}%
5044   \fi
5045   \if@filesw
5046     \protected@write\@auxout{}{%
5047       \string\newlabel{#1}{\{ }\{ }\{ }\Hy@AnchorName\} }%
5048     }%
5049   \fi
5050   \@esphack
5051   \ifHy@nesting
5052     \expandafter\hyper@@@anchor\expandafter{\Hy@AnchorName}{#4}%
5053   \else
5054     \expandafter\hyper@@@anchor\expandafter{\Hy@AnchorName}{\relax}{#4}%
5055   \fi
5056 }

```

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.

```

5057 \def\hyper@@link{\let\Hy@reserved@a\relax
5058   \ifnextchar{\hyper@link@}{\hyper@link@[link]}%
5059 }
5060 \def\hyper@link@[#1]#2#3#4{%
5061   \begingroup
5062     \protected@edef\Hy@tempa{#2}%
5063     \Hy@safe@activetrue
5064     \edef\x{#3}%
5065     \ifx\Hy@tempa\@empty
5066       \toks0{\hyper@link{#1}}%
5067     \else
5068       \toks0{\expandafter\hyper@readexternallink#2\{#1}}%
5069     \fi
5070     \toks2{%
5071       \Hy@safe@activesfalse
5072       #4%
5073     }%
5074     \edef\Hy@tempa{\the\toks2}%
5075     \edef\x{\endgroup
5076       \ifx\Hy@tempa\@empty

```



```

5077 \noexpand\Hy@Warning{Suppressing empty link}%
5078 \else
5079 \the\toks0 {\x}{\the\toks2}%%
5080 \fi
5081 }%
5082 \x
5083 }

```

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.

```

5084 \def\hyper@readexternallink#1\#2#3#4{%
5085 \begingroup
5086 \let\\\relax
5087 \expandafter\endgroup
5088 \expandafter\@hyper@readexternallink#1\#{2}{#3}{#4}%
5089 }
5090 \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.

```

5091 \@hyper@readexternallink{#2}{#3}{#4}#1::\#{1}%
5092 }

```

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

```

5093 \def\@pdftempwordfile{file}%
5094 \def\@pdftempwordrun{run}%
5095 \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:

```

5096 \ifx\#6\%
5097 \@hyper@linkfile file:#7\#{3}{#2}{#7}%
5098 \else
5099 \ifx\#4\%
5100 \@hyper@linkfile file:#7\#{3}{#2}{#7}%
5101 \else

```

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

```

5102 \def\@pdftempa{#4}%
5103 \ifx\@pdftempa\@pdftempwordfile
5104 \@hyper@linkfile#7\#{3}{#2}{#7}%
5105 \else

```

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

```
5106 \ifx\@pdftempa\@pdftempwordrun
5107 \ifHy@pdfa
5108 \Hy@Error{%
5109 PDF/A: Launch action is prohibited%
5110 }\@ehc
5111 \begingroup
5112 \leavevmode
5113 #2%
5114 \endgroup
5115 \else
5116 \@hyper@launch#7\{\#3\}{#2}%
5117 \fi
5118 \else
```

otherwise its a URL

```
5119 \hyper@linkurl{\#3\}{#7\ifx\#2\else\hyper@hash#2\fi}%
5120 \fi
5121 \fi
5122 \fi
5123 \fi
5124 }
```

By default, turn run: into file:

```
5125 \def\@hyper@launch run:#1\#2#3{% filename, anchor text, linkname
5126 \hyper@linkurl{\#2\}{%
5127 \Hy@linkfileprefix
5128 #1%
5129 \ifx\#3\%
5130 \else
5131 \hyper@hash
5132 #3%
5133 \fi
5134 }%
5135 }
```

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

```
5136 \def\@hyper@linkfile file:#1\#2#3#4{%
5137 %file url,link string, name, original uri
5138 \filename@parse{\#1}%
5139 \ifx\filename@ext\relax
5140 \edef\filename@ext{\XR@ext}%
5141 \fi
5142 \def\use@file{\filename@area\filename@base.\filename@ext}%
5143 \Hy@IfStringEndsWith\filename@ext\XR@ext{%
5144 \hyper@linkfile{\#2\}{\use@file}{\#3}%
5145 }{%
5146 \ifx\@baseurl\@empty
5147 \hyper@linkurl{\#2\}{%
5148 #4\ifx\#3\else\hyper@hash#3\fi
5149 }%
5150 \else
5151 \hyper@linkurl{\#2\}{\use@file\ifx\#3\else\hyper@hash#3\fi}%
5152 \fi
5153 }%
5154 }
5155 \def\Hy@IfStringEndsWith#1#2{%
```

```

5156 \begingroup
5157 \edef\x{#1}%
5158 \@onelevel@sanitize\x
5159 \edef\x{.\x}%
5160 \edef\y{#2}%
5161 \@onelevel@sanitize\y
5162 \edef\y{.\y}%
5163 \expandafter\def\expandafter\z\expandafter##\expandafter1\y##2\@nil{%
5164 \endgroup
5165 \ifx\relax##2\relax
5166 \expandafter\ltx@secondoftwo
5167 \else
5168 \expandafter\ltx@firstoftwo
5169 \fi
5170 }%
5171 \expandafter\expandafter\expandafter\z\expandafter\x\y\@nil
5172 }

5173 \def\Hy@StringLocalhost{localhost}
5174 \@onelevel@sanitize\Hy@StringLocalhost
5175 \def\Hy@CleanupFile#1{%
5176 \edef#1{#1}%
5177 \expandafter\Hy@@CleanupFile#1\hbox{//\hbox\@nil{#1}%
5178 }
5179 \def\Hy@@CleanupFile#1//#2/#3\hbox#4\@nil#5{%
5180 \begingroup
5181 \toks@{\endgroup}%
5182 \def\x{#1}%
5183 \ifx\x\@empty
5184 \def\x{#2}%
5185 \ifx\x\@empty
5186 \toks@{\endgroup\def#5{/#3}}%
5187 \else
5188 \@onelevel@sanitize\x
5189 \ifx\x\Hy@StringLocalhost
5190 \toks@{\endgroup\def#5{/#3}}%
5191 \fi
5192 \fi
5193 \fi
5194 \the\toks@
5195 }

```

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.

```

5196 \long\def\hyper@@anchor#1#2{\@hyper@@anchor#1\relax#2\relax}
5197 \long\def\@hyper@@anchor#1\relax#2#3\relax{%
5198 \ifx\#1\%
5199 #2\Hy@Warning{Ignoring empty anchor}%
5200 \else
5201 \def\anchor@spot{#2#3}%
5202 \let\put@me@back\@empty
5203 \ifx\relax#2\relax
5204 \else

```

```

5205 \ifHy@nesting
5206 \else
5207 \ifcat a\noexpand#2\relax
5208 \else
5209 \ifcat 0\noexpand#2 \relax
5210 \else
5211 % \typeout{Anchor start is not alphanumeric %
5212 % on input line\the\inputlineno%
5213 % }%
5214 \let\anchor@spot\@empty
5215 \def\put@me@back{#2#3}%
5216 \fi
5217 \fi
5218 \fi
5219 \fi
5220 \ifHy@activeanchor
5221 \anchor@spot
5222 \else
5223 \hyper@anchor{#1}%
5224 \fi
5225 \expandafter\put@me@back
5226 \fi
5227 \let\anchor@spot\@empty
5228 }
5229 \let\anchor@spot\ltx@empty

```

18 Option ‘destlabel’

```

5230 \ifHy@destlabel

```

```

\hyper@newdestlabel

```

```

5231 \def\hyper@newdestlabel#1#2{%
5232 \begingroup
5233 \Hy@safe@activetrue
5234 \edef\x{\endgroup
5235 \noexpand\@newl@bel{HyDL}{#1}{#2}%
5236 }%
5237 \x
5238 }%

```

```

\hyper@destlabel@hook

```

```

5239 \providecommand*\hyper@destlabel@hook{}%

```

```

\Hy@DestRename

```

```

5240 \newcommand*\Hy@DestRename}[2]{%
5241 \ltx@ifundefined{HyDL!#1}{%
5242 \begingroup
5243 \Hy@safe@activetrue
5244 \edef\dest@name{#1}%
5245 \edef\label@name{#2}%
5246 \hyper@destlabel@hook
5247 \Hy@IsNotEmpty{dest@name}{%
5248 \Hy@IsNotEmpty{label@name}{%
5249 \global\expandafter
5250 \let\csname HyDL!#1\endcsname\ltx@empty
5251 \if@files
5252 \protected@write\@auxout{}{%

```

```

5253         \string\hyper@newdestlabel
5254         {#1}%
5255         {\label@name}%
5256     }%
5257     \fi
5258 }%
5259 }%
5260 \endgroup
5261 }{}%
5262 }%

```

\HyperDestRename

```

5263 \newcommand*{\HyperDestRename}[2]{%
5264     \AtBeginDocument{%
5265         \Hy@DestRename{#1}{#2}%
5266     }%
5267 }%
5268 \AtBeginDocument{%
5269     \let\HyperDestRename\Hy@DestRename
5270 }%

```

\Hy@IsNotEmpty

```

5271 \def\Hy@IsNotEmpty#1{%
5272     \ltx@ifundefined{#1}\ltx@gobble{%
5273         \expandafter\ifx\csname#1\endcsname\ltx@empty
5274         \expandafter\ltx@gobble
5275     \else
5276         \expandafter\ltx@firstofone
5277     \fi
5278 }%
5279 }%

5280 \ltx@GlobalAppendToMacro\label@hook{%
5281     \HyperDestRename\@currentHref\label@name
5282 }%

```

\HyperDestLabelReplace

```

5283 \def\HyperDestLabelReplace#1{%
5284     \ltx@ifundefined{HyDL@#1}{%
5285         #1%
5286     }{%
5287         \csname HyDL@#1\endcsname
5288     }%
5289 }%

```

\HyperDestNameFilter

```

5290 \let\HyperDestNameFilter\HyperDestLabelReplace

5291 \else

```

\hyper@newdestlabel

```

5292 \let\hyper@newdestlabel\ltx@gobbletwo

```

\HyperDestLabelReplace

```

5293 \let\HyperDestLabelReplace\ltx@firstofone

```

\HyperDestRename

@gobbletwo

5294 \fi

5295 \Hy@DisableOption{destlabel}

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

5296 \AddLineBeginAux{%

5297 \string\providecommand\string\hyper@newdestlabel[2]{}%

5298 }

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.

5299 \let\htmladdimg\hyperimage

5300 \def\htmladdnormallink#1#2{\href{#2}{#1}}

5301 \def\htmladdnormallinkfoot#1#2{\href{#2}{#1}\footnote{#2}}

5302 \def\htmlref#1#2{% anchor text, label

5303 \label@hyperref[{#2}]{#1}%

5304 }

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.

5305 \def\@@latextohtmlX{%

5306 \let\hhyperref\hyperref

5307 \def\hyperref##1##2##3##4{% anchor text for HTML

5308 % text to print before label in print

5309 % label

5310 % post-label text in print

5311 ##2\ref{##4}##3%

5312 }%

5313 }

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.

5314 \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
 5315 \def\HyField@NewFlag#1#2{%
 5316 \lowercase{\HyField@NewOption{#2}}%
 5317 \lowercase{\HyField@NewBitsetFlag{#2}}{#2}{#1}%
 5318 }

\HyField@NewFlagOnly
 5319 \def\HyField@NewFlagOnly#1#2{%
 5320 \lowercase{\HyField@NewBitsetFlag{#2}}{#2}{#1}%
 5321 }

\HyField@NewOption #1: option name
 5322 \def\HyField@NewOption#1{%
 5323 \expandafter\newif\csname ifFld@#1\endcsname
 5324 \define@key{Field}{#1}[true]{%
 5325 \lowercase{\Field@boolkey{##1}}{#1}%
 5326 }%
 5327 }

\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
 5328 \def\HyField@NewBitsetFlag#1#2#3#4{%
 5329 \begingroup
 5330 \count@=#4\relax
 5331 \advance\count@\m@ne
 5332 \def\x##1{%
 5333 \endgroup
 5334 \expandafter\def\csname HyField@#3@#1\endcsname{##1}%
 5335 \expandafter\ifx\csname HyField@#3@#1\endcsname\relax
 5336 \expandafter\edef\csname HyField@#3@#1\endcsname{%
 5337 (\number#4) #2%
 5338 }%
 5339 \else
 5340 \expandafter\edef\csname HyField@#3@#1\endcsname{%
 5341 \csname HyField@#3@#1\endcsname
 5342 /#2%
 5343 }%
 5344 \fi
 5345 }%
 5346 \expandafter\x\expandafter{\the\count@}%
 5347 }

\HyField@UseFlag The bit set is HyField@#1
 5348 \def\HyField@UseFlag#1#2{%
 5349 \lowercase{\HyField@@UseFlag{#2}}{#1}%
 5350 }

\HyField@@UseFlag

```

5351 \def\HyField@@UseFlag#1#2{%
5352   \bitsetSetValue{HyField@#2}{%
5353     \csname HyField@#2@#1\endcsname
5354   }{%
5355     \csname ifFld@#1\endcsname 1\else 0\fi
5356   }%
5357 }
```

\HyField@SetFlag The bit set is HyField@#1

```

5358 \def\HyField@SetFlag#1#2{%
5359   \lowercase{\HyField@@SetFlag{#2}}{#1}%
5360 }
```

\HyField@@SetFlag

```

5361 \def\HyField@@SetFlag#1#2{%
5362   \bitsetSetValue{HyField@#2}{%
5363     \csname HyField@#2@#1\endcsname
5364   }{1}%
5365 }
```

\HyField@PrintFlags

```

5366 \def\HyField@PrintFlags#1#2{%
5367   \ifHy@verbose
5368     \begingroup
5369     \let\Hy@temp\@empty
5370     \let\MessageBreak\relax
5371     \expandafter\@for\expandafter\x\expandafter:\expandafter=%
5372     \bitsetGetSetBitList{HyField@#1}\do{%
5373       \edef\Hy@temp{%
5374         \Hy@temp
5375         \csname HyField@#1@\x\endcsname\MessageBreak
5376       }%
5377     }%
5378   \edef\x{\endgroup
5379     \noexpand\Hy@Info{%
5380       Field flags: %
5381       \expandafter\ifx\@car#1\@nil S\else/\fi
5382       #1 %
5383       \bitsetGetDec{HyField@#1} %
5384       (0x\bitsetGetHex{HyField@#1}{32})\MessageBreak
5385       \Hy@temp
5386       for #2%
5387     }%
5388   }\x
5389   \fi
5390 }
```

20.1.1 Declarations of field flags

“Table 8.70 Field flags common to all field types”

```

5391 \HyField@NewFlag{Ff}{ReadOnly}{1}
5392 \HyField@NewFlag{Ff}{Required}{2}
5393 \HyField@NewFlag{Ff}{NoExport}{3}
```

“Table 8.75 Field flags specific to button fields”

```

5394 \HyField@NewFlag{Ff}{NoToggleToOff}{15}
```



```

5395 \HyField@NewFlag{Ff}{Radio}{16}
5396 \HyField@NewFlag{Ff}{Pushbutton}{17}
5397 \HyField@NewFlag{Ff}{RadiosInUnison}{26}

```

“Table 8.77 Field flags specific to text fields”

```

5398 \HyField@NewFlag{Ff}{Multiline}{13}
5399 \HyField@NewFlag{Ff}{Password}{14}
5400 \HyField@NewFlag{Ff}{FileSelect}{21}% PDF 1.4
5401 \HyField@NewFlag{Ff}{DoNotSpellCheck}{23}% PDF 1.4
5402 \HyField@NewFlag{Ff}{DoNotScroll}{24}% PDF 1.4
5403 \HyField@NewFlag{Ff}{Comb}{25}% PDF 1.4
5404 \HyField@NewFlag{Ff}{RichText}{26}% PDF 1.5

```

“Table 8.79 field flags specific to choice fields”

```

5405 \HyField@NewFlag{Ff}{Combo}{18}
5406 \HyField@NewFlag{Ff}{Edit}{19}
5407 \HyField@NewFlag{Ff}{Sort}{20}
5408 \HyField@NewFlag{Ff}{MultiSelect}{22}% PDF 1.4
5409 % \HyField@NewFlag{Ff}{DoNotSpellCheck}{23}% PDF 1.4
5410 \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.

```

5411 \newif\ifFld@popdown
5412 \define@key{Field}{popdown}[true]{%
5413   \lowercase{\Field@boolkey{#1}}{popdown}%
5414 }

```

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.

```

5415 \HyField@NewFlag{F}{Invisible}{1}
5416 \HyField@NewFlag{F}{Hidden}{2}% PDF 1.2
5417 \HyField@NewFlag{F}{Print}{3}% PDF 1.2
5418 \HyField@NewFlag{F}{NoZoom}{4}% PDF 1.2
5419 \HyField@NewFlag{F}{NoRotate}{5}% PDF 1.3
5420 \HyField@NewFlag{F}{NoView}{6}% PDF 1.3
5421 \HyField@NewFlag{F}{Locked}{8}% PDF 1.4
5422 \HyField@NewFlag{F}{ToggleNoView}{9}% PDF 1.5
5423 \HyField@NewFlag{F}{LockedContents}{10}% PDF 1.7

5424 \ifHy@pdfa
5425   \def\HyField@PDFAFldWarning#1#2{%
5426     \Hy@Warning{%
5427       PDF/A: Annotation flag ‘#1’ must\MessageBreak
5428       be set to ‘#2’%
5429     }%
5430   }%
5431   \Fld@invisiblefalse
5432   \def\Fld@invisibletrue{%
5433     \HyField@PDFAFldWarning{invisible}{false}%
5434   }%
5435   \Fld@hiddenfalse
5436   \def\Fld@hiddentrue{%
5437     \HyField@PDFAFldWarning{hidden}{false}%
5438   }%

```

```

5439 \Fld@printtrue
5440 \def\Fld@printfalse{%
5441   \HyField@PDFAFIagWarning{print}{true}%
5442 }%
5443 \Fld@nozoomtrue
5444 \def\Fld@nozoomfalse{%
5445   \HyField@PDFAFIagWarning{nozoom}{true}%
5446 }%
5447 \Fld@norotatetrue
5448 \def\Fld@norotatefalse{%
5449   \HyField@PDFAFIagWarning{norotate}{true}%
5450 }%
5451 \Fld@noviewfalse
5452 \def\Fld@noviewtrue{%
5453   \HyField@PDFAFIagWarning{noview}{false}%
5454 }%
5455 \fi

```

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

```

5456 \HyField@NewFlag{Submit}{IncludeNoValueFields}{2}
5457 \HyField@NewFlagOnly{Submit}{ExportFormat}{3}
5458 \HyField@NewFlag{Submit}{GetMethod}{4}
5459 \HyField@NewFlag{Submit}{SubmitCoordinates}{5}
5460 \HyField@NewFlagOnly{Submit}{XFDF}{6}
5461 \HyField@NewFlag{Submit}{IncludeAppendSaves}{7}
5462 \HyField@NewFlag{Submit}{IncludeAnnotations}{8}
5463 \HyField@NewFlagOnly{Submit}{SubmitPDF}{9}
5464 \HyField@NewFlag{Submit}{CanonicalFormat}{10}
5465 \HyField@NewFlag{Submit}{ExclNonUserAnnots}{11}
5466 \HyField@NewFlag{Submit}{ExclFKey}{12}
5467 \HyField@NewFlag{Submit}{EmbedForm}{14}

5468 \define@key{Field}{export}{%
5469   \lowercase{\def\Hy@temp{#1}}%
5470   \@ifundefined{Fld@export@\Hy@temp}{%
5471     \@onelevel@sanitize\Hy@temp
5472     \Hy@Error{%
5473       Unknown export format '\Hy@temp'.\MessageBreak
5474       Known formats are 'FDF', 'HTML', 'XFDF', and 'PDF'%
5475     }}\ehc
5476 }{%
5477   \let\Fld@export\Hy@temp
5478 }%
5479 }

5480 \def\Fld@export{fdf}
5481 \@namedef{Fld@export@fdf}{0}%
5482 \@namedef{Fld@export@html}{1}%
5483 \@namedef{Fld@export@xfdf}{2}%
5484 \@namedef{Fld@export@pdf}{3}%

```

20.1.2 Set submit flags

\HyField@FlagsSubmit

```

5485 \def\HyField@FlagsSubmit{%
5486   \bitsetReset{HyField@Submit}%
5487   \ifcase\@nameuse{Fld@export@\Fld@export} %
5488   % FDF

```

```

5489 \HyField@UseFlag{Submit}{IncludeNoValueFields}%
5490 \HyField@UseFlag{Submit}{SubmitCoordinates}%
5491 \HyField@UseFlag{Submit}{IncludeAppendSaves}%
5492 \HyField@UseFlag{Submit}{IncludeAnnotations}%
5493 \HyField@UseFlag{Submit}{CanonicalFormat}%
5494 \HyField@UseFlag{Submit}{ExclNonUserAnnots}%
5495 \HyField@UseFlag{Submit}{ExclFKey}%
5496 \HyField@UseFlag{Submit}{EmbedForm}%
5497 \or % HTML
5498 \HyField@SetFlag{Submit}{ExportFormat}%
5499 \HyField@UseFlag{Submit}{IncludeNoValueFields}%
5500 \HyField@UseFlag{Submit}{GetMethod}%
5501 \HyField@UseFlag{Submit}{SubmitCoordinates}%
5502 \HyField@UseFlag{Submit}{CanonicalFormat}%
5503 \or % XFDF
5504 \HyField@SetFlag{Submit}{XFDF}%
5505 \HyField@UseFlag{Submit}{IncludeNoValueFields}%
5506 \HyField@UseFlag{Submit}{SubmitCoordinates}%
5507 \HyField@UseFlag{Submit}{CanonicalFormat}%
5508 \or % PDF
5509 \HyField@SetFlag{Submit}{SubmitPDF}%
5510 \HyField@UseFlag{Submit}{GetMethod}%
5511 \fi
5512 \HyField@PrintFlags{Submit}{submit button field}%
5513 \bitsetIsEmpty{HyField@Submit}{%
5514 \let\Fld@submitflags\ltx@empty
5515 }{%
5516 \edef\Fld@submitflags{/Flags \bitsetGetDec{HyField@Submit}}%
5517 }%
5518 }

```

20.1.3 Set annot flags in fields

\HyField@FlagsAnnot

```

5519 \def\HyField@FlagsAnnot#1{%
5520 \bitsetReset{HyField@F}%
5521 \HyField@UseFlag{F}{Invisible}%
5522 \HyField@UseFlag{F}{Hidden}%
5523 \HyField@UseFlag{F}{Print}%
5524 \HyField@UseFlag{F}{NoZoom}%
5525 \HyField@UseFlag{F}{NoRotate}%
5526 \HyField@UseFlag{F}{NoView}%
5527 \HyField@UseFlag{F}{Locked}%
5528 \HyField@UseFlag{F}{ToggleNoView}%
5529 \HyField@UseFlag{F}{LockedContents}%
5530 \HyField@PrintFlags{F}{#1}%
5531 \bitsetIsEmpty{HyField@F}{%
5532 \let\Fld@annotflags\ltx@empty
5533 }{%
5534 \edef\Fld@annotflags{/F \bitsetGetDec{HyField@F}}%
5535 }%
5536 }

```

20.1.4 Pushbutton field

\HyField@FlagsPushButton

```

5537 \def\HyField@FlagsPushButton{%

```

```

5538 \HyField@FlagsAnnot{push button field}%
5539 \bitsetReset{HyField@Ff}%
5540 \HyField@UseFlag{Ff}{ReadOnly}%
5541 \HyField@UseFlag{Ff}{Required}%
5542 \HyField@UseFlag{Ff}{NoExport}%
5543 \HyField@SetFlag{Ff}{Pushbutton}%
5544 \HyField@PrintFlags{Ff}{push button field}%
5545 \bitsetIsEmpty{HyField@Ff}{%
5546   \let\Fld@flags\ltx@empty
5547 }{%
5548   \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5549 }%
5550 }

```

20.1.5 Check box field

\HyField@FlagsCheckBox

```

5551 \def\HyField@FlagsCheckBox{%
5552   \HyField@FlagsAnnot{check box field}%
5553   \bitsetReset{HyField@Ff}%
5554   \HyField@UseFlag{Ff}{ReadOnly}%
5555   \HyField@UseFlag{Ff}{Required}%
5556   \HyField@UseFlag{Ff}{NoExport}%
5557   \HyField@PrintFlags{Ff}{check box field}%
5558   \bitsetIsEmpty{HyField@Ff}{%
5559     \let\Fld@flags\ltx@empty
5560   }{%
5561     \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5562   }%
5563 }

```

20.1.6 Radio button field

\HyField@FlagsRadioButton

```

5564 \def\HyField@FlagsRadioButton{%
5565   \HyField@FlagsAnnot{radio button field}%
5566   \bitsetReset{HyField@Ff}%
5567   \HyField@UseFlag{Ff}{ReadOnly}%
5568   \HyField@UseFlag{Ff}{Required}%
5569   \HyField@UseFlag{Ff}{NoExport}%
5570   \HyField@UseFlag{Ff}{NoToggleToOff}%
5571   \HyField@SetFlag{Ff}{Radio}%
5572   \HyField@UseFlag{Ff}{RadiosInUnison}%
5573   \HyField@PrintFlags{Ff}{radio button field}%
5574   \bitsetIsEmpty{HyField@Ff}{%
5575     \let\Fld@flags\ltx@empty
5576   }{%
5577     \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5578   }%
5579 }

```

20.1.7 Text fields

\HyField@FlagsText

```

5580 \def\HyField@FlagsText{%
5581   \HyField@FlagsAnnot{text field}%
5582   \bitsetReset{HyField@Ff}%

```

```

5583 \HyField@UseFlag{Ff}{ReadOnly}%
5584 \HyField@UseFlag{Ff}{Required}%
5585 \HyField@UseFlag{Ff}{NoExport}%
5586 \HyField@UseFlag{Ff}{Multiline}%
5587 \HyField@UseFlag{Ff}{Password}%
5588 \HyField@UseFlag{Ff}{FileSelect}%
5589 \HyField@UseFlag{Ff}{DoNotSpellCheck}%
5590 \HyField@UseFlag{Ff}{DoNotScroll}%
5591 \ifFld@comb
5592 \ifcase0\ifFld@multiline
5593 \else\ifFld@password
5594 \else\ifFld@fileselect
5595 \else 1\fi\fi\fi\relax
5596 \Hy@Error{%
5597     Field option 'comb' cannot used together with\MessageBreak
5598     'multiline', 'password', or 'fileselect'%
5599 } \@ehc
5600 \else
5601 \HyField@UseFlag{Ff}{Comb}%
5602 \fi
5603 \fi
5604 \HyField@UseFlag{Ff}{RichText}%
5605 \HyField@PrintFlags{Ff}{text field}%
5606 \bitsetIsEmpty{HyField@Ff}{%
5607 \let\Fld@flags\ltx@empty
5608 }{%
5609 \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5610 }%
5611 }

```

20.1.8 Choice fields

\HyField@FlagsChoice

```

5612 \def\HyField@FlagsChoice{%
5613 \HyField@FlagsAnnot{choice field}%
5614 \bitsetReset{HyField@Ff}%
5615 \HyField@UseFlag{Ff}{ReadOnly}%
5616 \HyField@UseFlag{Ff}{Required}%
5617 \HyField@UseFlag{Ff}{NoExport}%
5618 \HyField@UseFlag{Ff}{Combo}%
5619 \ifFld@combo
5620 \HyField@UseFlag{Ff}{Edit}%
5621 \fi
5622 \HyField@UseFlag{Ff}{Sort}%
5623 \HyField@UseFlag{Ff}{MultiSelect}%
5624 \ifFld@combo
5625 \ifFld@edit
5626 \HyField@UseFlag{Ff}{DoNotSpellCheck}%
5627 \fi
5628 \fi
5629 \HyField@UseFlag{Ff}{CommitOnSelChange}%
5630 \HyField@PrintFlags{Ff}{choice field}%
5631 \bitsetIsEmpty{HyField@Ff}{%
5632 \let\Fld@flags\ltx@empty
5633 }{%
5634 \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5635 }%

```

5636 }

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`.

```
5637 \def\HyField@PDFChoices#1{%
5638   \begingroup
5639   \global\let\Fld@choices\ltx@empty
5640   \let\HyTmp@optlist\ltx@empty
5641   \let\HyTmp@optitem\relax
5642   \count@=0 %
5643   \kv@parse{#1}{%
5644     \Hy@pdfstringdef\kv@key\kv@key
5645     \ifx\kv@value\relax
5646       \ifnum\Hy@pdfversion<3 % implementation note 122, PDF spec 1.7
5647         \xdef\Fld@choices{\Fld@choices(\kv@key)(\kv@key)}%
5648       \else
5649         \xdef\Fld@choices{\Fld@choices(\kv@key)}%
5650       \fi
5651     \else
5652       \Hy@pdfstringdef\kv@value\kv@value
5653       \xdef\Fld@choices{\Fld@choices(\kv@value)(\kv@key)}%
5654     \fi
5655   \edef\HyTmp@optlist{%
5656     \HyTmp@optlist
5657     \HyTmp@optitem{\the\count@}{\kv@key}0%
5658   }%
5659   \advance\count@ by 1 %
5660   \@gobbletwo
5661 }%
5662 \xdef\Fld@choices{/Opt[\Fld@choices]}%
5663 \ifFld@multiselect
5664   \HyField@@PDFChoices{DV}\Fld@default
5665   \HyField@@PDFChoices{V}\Fld@value
5666 \else
5667   \ifx\Fld@default\relax
5668   \else
5669     \pdfstringdef\Hy@gtemp\Fld@default
5670     \xdef\Fld@choices{\Fld@choices/DV(\Hy@gtemp)}%
5671   \fi
5672   \ifx\Fld@value\relax
5673   \else
5674     \pdfstringdef\Hy@gtemp\Fld@value
5675     \xdef\Fld@choices{\Fld@choices/V(\Hy@gtemp)}%
5676   \fi
5677 \fi
5678 \endgroup
5679 }
```

`\HyField@@PDFChoices`

```
5680 \def\HyField@@PDFChoices#1#2{%
5681   \ifx#2\relax
5682   \else
5683     \count@=0 %
```

```

5684 \def\HyTmp@optitem##1##2##3{%
5685 \def\HyTmp@key{##2}%
5686 \ifx\HyTmp@key\Hy@gtemp
5687 \expandafter\def\expandafter\HyTmp@optlist\expandafter{%
5688 \HyTmp@optlist
5689 \HyTmp@optitem{##1}{##2}1%
5690 }%
5691 \let\HyTmp@found=Y%
5692 \else
5693 \expandafter\def\expandafter\HyTmp@optlist\expandafter{%
5694 \HyTmp@optlist
5695 \HyTmp@optitem{##1}{##2}##3%
5696 }%
5697 \fi
5698 }%
5699 \expandafter\comma@parse\expandafter{#2}{%
5700 \pdfstringdef\Hy@gtemp\comma@entry
5701 \let\HyTmp@found=N %
5702 \expandafter\let\expandafter\HyTmp@optlist\expandafter\@empty
5703 \HyTmp@optlist
5704 \ifx\HyTmp@found Y%
5705 \advance\count@ by 1 %
5706 \else
5707 \@onelevel@sanitize\comma@entry
5708 \PackageWarning{hyperref}{%
5709 \string\ChoiceBox: Ignoring value '\comma@entry',%
5710 \MessageBreak
5711 it cannot be found in the choices%
5712 }%
5713 \fi
5714 \@gobble
5715 }%
5716 \def\HyTmp@optitem##1##2##3{%
5717 \ifnum##3=1 %
5718 (##2)%
5719 \fi
5720 }%
5721 \ifcase\count@
5722 \or
5723 \xdef\Fld@choices{\Fld@choices/#1\HyTmp@optlist}%
5724 \else
5725 \xdef\Fld@choices{\Fld@choices/#1[\HyTmp@optlist]}%
5726 \ifx#1V%
5727 \def\HyTmp@optitem##1##2##3{%
5728 \ifnum##3=1 %
5729 \@firstofone{ ##1}%
5730 \fi
5731 }%
5732 \edef\HyTmp@optlist{\HyTmp@optlist}%
5733 \xdef\Fld@choices{%
5734 \Fld@choices
5735 /I[\expandafter\@firstofone\HyTmp@optlist]%
5736 }%
5737 \fi
5738 \fi
5739 \fi
5740 }

```

20.3 Forms

\HyField@SetKeys

```

5741 \def\HyField@SetKeys{%
5742   \kvsetkeys{Field}%
5743 }

5744 \newif\ifFld@checked
5745 \newif\ifFld@disabled
5746 \Fld@checkedfalse
5747 \Fld@disabledfalse
5748 \newcount\Fld@menulength
5749 \newdimen\Fld@Width
5750 \newdimen\Fld@charsize
5751 \Fld@charsize=10\p@
5752 \def\Fld@maxlen{0}
5753 \def\Fld@align{0}
5754 \def\Fld@color{0 0 0 rg}
5755 \def\Fld@bcolor{1 1 1}
5756 \def\Fld@bordercolor{1 0 0}
5757 \def\Fld@bordersep{1\p@}
5758 \def\Fld@borderwidth{1}
5759 \def\Fld@borderstyle{S}
5760 \def\Fld@cbsymbol{4}
5761 \def\Fld@radiosymbol{H}
5762 \def\Fld@rotation{0}
5763 \def\Form{\@ifnextchar[{\@Form}{\@Form[]}}
5764 \def\endForm{\@endForm}
5765 \newif\ifForm@html
5766 \Form@htmlfalse
5767 \def\Form@boolkey#1#2{%
5768   \csname Form@#2\ifx\relax#1\relax true\else#1\fi\endcsname
5769 }
5770 \define@key{Form}{action}{%
5771   \hyper@normalise\Hy@DefFormAction{#1}%
5772 }
5773 \def\Hy@DefFormAction{\def\Form@action}
5774 \def\enc@html{html}
5775 \define@key{Form}{encoding}{%
5776   \def\Hy@tempa{#1}%
5777   \ifx\Hy@tempa\enc@html
5778     \Form@htmltrue
5779     \def\Fld@export{html}%
5780   \else
5781     \Hy@Warning{%
5782       Form 'encoding' key with \MessageBreak
5783       unknown value '#1'%
5784     }%
5785     \Form@htmlfalse
5786   \fi
5787 }
5788 \define@key{Form}{method}{%
5789   \lowercase{\def\Hy@temp{#1}}%
5790   \@ifundefined{Form@method@\Hy@temp}{%
5791     \@onelevel@sanitize\Hy@temp
5792     \Hy@Error{%
5793       Unknown method '\Hy@temp'.\MessageBreak
5794       Known values are 'post' and 'get'%

```



```

5795   }\@ehc
5796   }{%
5797   \let\Form@method\Hy@temp
5798   \ifcase\@nameuse{Form@method@\Hy@temp} %
5799   \Fld@getmethodfalse
5800   \else
5801   \Fld@getmethodtrue
5802   \fi
5803   }%
5804 }
5805 \def\Form@method{
5806 \@namedef{Form@method@post}{0}
5807 \@namedef{Form@method@get}{1}

5808 \newif\ifHyField@NeedAppearances
5809 \def\HyField@NeedAppearancesfalse{%
5810 \global\let\ifHyField@NeedAppearances\iffalse
5811 }
5812 \def\HyField@NeedAppearancetrue{%
5813 \global\let\ifHyField@NeedAppearances\iftrue
5814 }
5815 \HyField@NeedAppearancetrue
5816 \define@key{Form}{NeedAppearances}[true]{%
5817 \edef\Hy@tempa{#1}%
5818 \ifx\Hy@tempa\Hy@true
5819 \HyField@NeedAppearancetrue
5820 \else
5821 \ifx\Hy@tempa\Hy@false
5822 \HyField@NeedAppearancesfalse
5823 \else
5824 \Hy@Error{%
5825 Unexpected value '\Hy@tempa'\MessageBreak
5826 of option 'NeedAppearances' instead of\MessageBreak
5827 'true' or 'false'%
5828 }\@ehc
5829 \fi
5830 \fi
5831 }
5832 \def\Field@boolkey#1#2{%
5833 \csname Fld@#2\ifx\relax#1\relax true\else#1\fi\endcsname
5834 }
5835 \ifHy@texht
5836 \newtoks\Field@toks
5837 \Field@toks={ }%
5838 \def\Field@addtoks#1#2{%
5839 \edef\@processme{\Field@toks{the\Field@toks\space #1="#2"}}}%
5840 \@processme
5841 }%
5842 \else
5843 \def\Hy@WarnHTMLFieldOption#1{%
5844 \Hy@Warning{%
5845 HTML field option '#1'\MessageBreak
5846 is ignored%
5847 }%
5848 }%
5849 \fi
5850 \def\Fld@checkequals#1=#2=#3\\{%
5851 \def\@currDisplay{#1}%

```

```

5852 \ifx\|#2\%
5853 \def\@currValue{#1}%
5854 \else
5855 \def\@currValue{#2}%
5856 \fi
5857 }
5858 \define@key{Field}{loc}{%
5859 \def\Fld@loc{#1}%
5860 }
5861 \define@key{Field}{checked}[true]{%
5862 \lowercase{\Field@boolkey{#1}}{checked}%
5863 }
5864 \define@key{Field}{disabled}[true]{%
5865 \lowercase{\Field@boolkey{#1}}{disabled}%
5866 }
5867 \ifHy@texht
5868 \define@key{Field}{accesskey}{%
5869 \Field@addtoks{accesskey}{#1}%
5870 }%
5871 \define@key{Field}{tabkey}{%
5872 \Field@addtoks{tabkey}{#1}%
5873 }%
5874 \else
5875 \define@key{Field}{accesskey}{%
5876 \Hy@WarnHTMLFieldOption{accesskey}%
5877 }%
5878 \define@key{Field}{tabkey}{%
5879 \Hy@WarnHTMLFieldOption{tabkey}%
5880 }%
5881 \fi
5882 \define@key{Field}{name}{%
5883 \def\Fld@name{#1}%
5884 }
5885 \let\Fld@altname\relax
5886 \define@key{Field}{altname}{%
5887 \def\Fld@altname{#1}%
5888 }
5889 \let\Fld@mappingname\relax
5890 \define@key{Field}{mappingname}{%
5891 \def\Fld@mappingname{#1}%
5892 }
5893 \define@key{Field}{width}{%
5894 \def\Fld@width{#1}%
5895 \Field@Width#1\setbox0=\hbox{m}%
5896 }
5897 \define@key{Field}{maxlen}{%
5898 \def\Fld@maxlen{#1}%
5899 }
5900 \define@key{Field}{menulength}{%
5901 \Fld@menulength=#1\relax
5902 }
5903 \define@key{Field}{height}{%
5904 \def\Fld@height{#1}%
5905 }
5906 \define@key{Field}{charsize}{%
5907 \setlength{\Fld@charsize}{#1}%
5908 }

```

```

5909 \define@key{Field}{borderwidth}{%
5910   \Hy@defaultbp\Fld@borderwidth{#1}%
5911 }
5912 \def\Hy@defaultbp#1#2{%
5913   \begingroup
5914   \afterassignment\Hy@defaultbpAux
5915   \dimen@=#2bp\relax{#1}{#2}%
5916 }
5917 \begingroup\expandafter\expandafter\expandafter\endgroup
5918 \expandafter\ifx\csname dimexpr\endcsname\relax
5919   \def\Hy@defaultbpAux#1\relax#2#3{%
5920     \ifx!#1!%
5921       \endgroup
5922       \def#2{#3}%
5923     \else
5924       \dimen@=.99626\dimen@
5925       \edef\x{\endgroup
5926         \def\noexpand#2{%
5927           \strip@pt\dimen@
5928         }%
5929       }\x
5930       \fi
5931     }%
5932   \else
5933     \def\Hy@defaultbpAux#1\relax#2#3{%
5934       \ifx!#1!%
5935         \endgroup
5936         \def#2{#3}%
5937       \else
5938         \edef\x{\endgroup
5939           \def\noexpand#2{%
5940             \strip@pt\dimexpr\dimen@*800/803\relax
5941           }%
5942         }\x
5943         \fi
5944       }%
5945     \fi
5946 \define@key{Field}{borderstyle}{%
5947   \let\Hy@temp\Fld@borderstyle
5948   \def\Fld@borderstyle{#1}%
5949   \Hy@Match\Fld@borderstyle{%
5950     ^[SDBIU]$%
5951   }{ }{%
5952     \Hy@Warning{%
5953       Invalid value ‘\@pdfborderstyle’\MessageBreak
5954       for option ‘pdfborderstyle’. Valid values:\MessageBreak
5955       \space\space S (Solid), D (Dashed), B (Beveled),\MessageBreak
5956       \space\space I (Inset), U (Underline)\MessageBreak
5957       Option setting is ignored%
5958     }%
5959     \let\Fld@borderstyle\Hy@temp
5960   }%
5961 }
5962 \define@key{Field}{bordersep}{%
5963   \def\Fld@bordersep{#1}%
5964 }
5965 \define@key{Field}{default}{%

```

```

5966 \def\Fld@default{#1}%
5967 }
5968 \define@key{Field}{align}{%
5969 \def\Fld@align{#1}%
5970 }
5971 \define@key{Field}{value}{%
5972 \def\Fld@value{#1}%
5973 }
5974 \define@key{Field}{checkboxsymbol}{%
5975 \Fld@DingDef\Fld@cbsymbol{#1}%
5976 }
5977 \define@key{Field}{radiosymbol}{%
5978 \Fld@DingDef\Fld@radiosymbol{#1}%
5979 }
5980 \def\Fld@DingDef#1#2{%
5981 \let\Fld@temp\ltx@empty
5982 \Fld@@DingDef#2\ding{}\@nil
5983 \let#1\Fld@temp
5984 }
5985 \def\Fld@@DingDef#1\ding#2#3\@nil{%
5986 \expandafter\def\expandafter\Fld@temp\expandafter{%
5987 \Fld@temp
5988 #1%
5989 }%
5990 \ifx\#3\%
5991 \expandafter\@gobble
5992 \else
5993 \begingroup
5994 \lccode'0=#2\relax
5995 \lowercase{\endgroup
5996 \expandafter\def\expandafter\Fld@temp\expandafter{%
5997 \Fld@temp
5998 0%
5999 }%
6000 }%
6001 \expandafter\@firstofone
6002 \fi
6003 {%
6004 \Fld@@DingDef#3\@nil
6005 }%
6006 }

6007 \define@key{Field}{rotation}{%
6008 \def\Fld@rotation{#1}%
6009 }

6010 \define@key{Field}{backgroundcolor}{%
6011 \HyColor@FieldBColor{#1}\Fld@bcolor{hyperref}{backgroundcolor}%
6012 }
6013 \define@key{Field}{bordercolor}{%
6014 \HyColor@FieldBColor{#1}\Fld@bordercolor{hyperref}{bordercolor}%
6015 }
6016 \define@key{Field}{color}{%
6017 \HyColor@FieldColor{#1}\Fld@color{hyperref}{color}%
6018 }

6019 \let\Fld@onclick@code\ltx@empty
6020 \let\Fld@format@code\ltx@empty
6021 \let\Fld@validate@code\ltx@empty

```

```

6022 \let\Fld@calculate@code\ltx@empty
6023 \let\Fld@keystroke@code\ltx@empty
6024 \let\Fld@onfocus@code\ltx@empty
6025 \let\Fld@onblur@code\ltx@empty
6026 \let\Fld@onmousedown@code\ltx@empty
6027 \let\Fld@onmouseup@code\ltx@empty
6028 \let\Fld@onenter@code\ltx@empty
6029 \let\Fld@onexit@code\ltx@empty
6030 \def\Hy@temp#1{%
6031   \expandafter\Hy@@temp\csname Fld@#1@code\endcsname{#1}%
6032 }
6033 \def\Hy@@temp#1#2{%
6034   \ifHy@pdfa
6035     \define@key{Field}{#2}{%
6036       \Hy@Error{%
6037         PDF/A: Additional action '#2' is prohibited%
6038       }\@ehc
6039     }%
6040   \else
6041     \define@key{Field}{#2}{%
6042       \def#1{##1}%
6043     }%
6044   \fi
6045 }
6046 \Hy@temp{keystroke}
6047 \Hy@temp{format}
6048 \Hy@temp{validate}
6049 \Hy@temp{calculate}
6050 \Hy@temp{onfocus}
6051 \Hy@temp{onblur}
6052 \Hy@temp{onenter}
6053 \Hy@temp{onexit}
6054 \ifHy@texht
6055   \def\Hy@temp#1{%
6056     \define@key{Field}{#1}{%
6057       \Field@addtoks{#1}{##1}%
6058     }%
6059   }%
6060 \else
6061   \def\Hy@temp#1{%
6062     \define@key{Field}{#1}{%
6063       \Hy@WarnHTMLFieldOption{#1}%
6064     }%
6065   }%
6066 \fi
6067 \Hy@temp{ondblclick}
6068 \Hy@temp{onmousedown}
6069 \Hy@temp{onmouseup}
6070 \Hy@temp{onmouseover}
6071 \Hy@temp{onmousemove}
6072 \Hy@temp{onmouseout}
6073 \Hy@temp{onkeydown}
6074 \Hy@temp{onkeyup}
6075 \Hy@temp{onselect}
6076 \Hy@temp{onchange}
6077 \Hy@temp{onkeypress}
6078 \ifHy@texht

```

```

6079 \define@key{Field}{onclick}{%
6080 \Field@addtoks{onclick}{#1}%
6081 }%
6082 \else
6083 \ifHy@pdfa
6084 \define@key{Field}{onclick}{%
6085 \Hy@Error{%
6086 PDF/A: Action 'onclick' is prohibited%
6087 }\@ehc
6088 }%
6089 \else
6090 \define@key{Field}{onclick}{%
6091 \def\Fld@onclick@code{#1}%
6092 }%
6093 \fi
6094 \fi

6095 \DeclareRobustCommand\TextField{%
6096 \@ifnextchar[{\@TextField}{\@TextField[]}%
6097 }
6098 \DeclareRobustCommand\ChoiceMenu{%
6099 \@ifnextchar[{\@ChoiceMenu}{\@ChoiceMenu[]}%
6100 }
6101 \DeclareRobustCommand\CheckBox{%
6102 \@ifnextchar[{\@CheckBox}{\@CheckBox[]}%
6103 }
6104 \DeclareRobustCommand\PushButton{%
6105 \@ifnextchar[{\@PushButton}{\@PushButton[]}%
6106 }
6107 \DeclareRobustCommand\Gauge{%
6108 \@ifnextchar[{\@Gauge}{\@Gauge[]}%
6109 }
6110 \DeclareRobustCommand\Submit{%
6111 \@ifnextchar[{\@Submit}{\@Submit[]}%
6112 }
6113 \DeclareRobustCommand\Reset{%
6114 \@ifnextchar[{\@Reset}{\@Reset[]}%
6115 }
6116 \def\LayoutTextField#1#2{% label, field
6117 #1 #2%
6118 }
6119 \def\LayoutChoiceField#1#2{% label, field
6120 #1 #2%
6121 }
6122 \def\LayoutCheckField#1#2{% label, field
6123 #1 #2%
6124 }
6125 \def\LayoutPushButtonField#1{% button
6126 #1%
6127 }
6128 \def\MakeRadioField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
6129 \def\MakeCheckField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
6130 \def\MakeTextField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
6131 \def\MakeChoiceField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
6132 \def\MakeButtonField#1{%
6133 \sbox0{%
6134 \hskip\Fld@borderwidth bp#1\hskip\Fld@borderwidth bp%
6135 }%

```

```

6136 \@tempdima\ht0 %
6137 \advance\@tempdima by \Fld@borderwidth bp %
6138 \advance\@tempdima by \Fld@borderwidth bp %
6139 \ht0\@tempdima
6140 \@tempdima\dp0 %
6141 \advance\@tempdima by \Fld@borderwidth bp %
6142 \advance\@tempdima by \Fld@borderwidth bp %
6143 \dp0\@tempdima
6144 \box0\relax
6145 }
6146 \def\DefaultHeightofSubmit{14pt}
6147 \def\DefaultWidthofSubmit{2cm}
6148 \def\DefaultHeightofReset{14pt}
6149 \def\DefaultWidthofReset{2cm}
6150 \def\DefaultHeightofCheckBox{\baselineskip}
6151 \def\DefaultWidthofCheckBox{\baselineskip}
6152 \def\DefaultHeightofChoiceMenu{\baselineskip}
6153 \def\DefaultWidthofChoiceMenu{\baselineskip}
6154 \def\DefaultHeightofText{\baselineskip}
6155 \def\DefaultHeightofTextMultiline{4\baselineskip}
6156 \def\DefaultWidthofText{3cm}
6157 \def\DefaultOptionsofSubmit{print,name=Submit,noexport}
6158 \def\DefaultOptionsofReset{print,name=Reset,noexport}
6159 \def\DefaultOptionsofPushButton{print}
6160 \def\DefaultOptionsofCheckBox{print}
6161 \def\DefaultOptionsofText{print}

```

Default options for the types of \ChoiceMenu.

```

6162 \def\DefaultOptionsofListBox{print}
6163 \def\DefaultOptionsofComboBox{print,edit,sort}
6164 \def\DefaultOptionsofPopdownBox{print}
6165 \def\DefaultOptionsofRadio{print,notoggletooff}

```

21 Setup

```

6166 \ifHy@hyperfigures
6167 \Hy@Info{Hyper figures ON}%
6168 \else
6169 \Hy@Info{Hyper figures OFF}%
6170 \fi
6171 \ifHy@nesting
6172 \Hy@Info{Link nesting ON}%
6173 \else
6174 \Hy@Info{Link nesting OFF}%
6175 \fi
6176 \ifHy@hyperindex
6177 \Hy@Info{Hyper index ON}%
6178 \else
6179 \Hy@Info{Hyper index OFF}%
6180 \fi
6181 \ifHy@backref
6182 \Hy@Info{backreferencing ON}%
6183 \else
6184 \Hy@Info{backreferencing OFF}%
6185 \fi
6186 \ifHy@colorlinks
6187 \Hy@Info{Link coloring ON}%

```

```

6188 \else
6189 \Hy@Info{Link coloring OFF}%
6190 \fi
6191 \ifHy@ocgcolorlinks
6192 \Hy@Info{Link coloring with OCG ON}%
6193 \else
6194 \Hy@Info{Link coloring with OCG OFF}%
6195 \fi
6196 \ifHy@pdfa
6197 \Hy@Info{PDF/A mode ON}%
6198 \else
6199 \Hy@Info{PDF/A mode OFF}%
6200 \fi

```

22 Low-level utility macros

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

```

6201 \edef\hyper@hash{\string#}
6202 \edef\hyper@tilde{\string~}
6203 \edef\hyper@quote{\string"}

```

Support \label before \begin{document}.

```

6204 \def\@currentHref{Doc-Start}
6205 \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.

```

6206 \Hy@AtBeginDocument{%
6207 \Hy@pdfstringtrue
6208 \PDF@SetupDoc
6209 \let\PDF@SetupDoc\@empty
6210 \Hy@DisableOption{pdfpagescrop}%
6211 \Hy@DisableOption{pdfpagemode}%
6212 \Hy@DisableOption{pdfnonfullscreenpagemode}%
6213 \Hy@DisableOption{pdfdirection}%
6214 \Hy@DisableOption{pdfviewarea}%
6215 \Hy@DisableOption{pdfviewclip}%
6216 \Hy@DisableOption{pdfprintarea}%
6217 \Hy@DisableOption{pdfprintclip}%
6218 \Hy@DisableOption{pdfprintscaling}%
6219 \Hy@DisableOption{pdfduplex}%
6220 \Hy@DisableOption{pdfpicktraybypdfsize}%
6221 \Hy@DisableOption{pdfprintpagerange}%
6222 \Hy@DisableOption{pdfnumcopies}%
6223 \Hy@DisableOption{pdfstartview}%
6224 \Hy@DisableOption{pdfstartpage}%
6225 \Hy@DisableOption{pdftoolbar}%
6226 \Hy@DisableOption{pdfmenubar}%
6227 \Hy@DisableOption{pdfwindowui}%
6228 \Hy@DisableOption{pdfitwindow}%
6229 \Hy@DisableOption{pdfcenterwindow}%
6230 \Hy@DisableOption{pdfdisplaydoctitle}%
6231 \Hy@DisableOption{pdfpagelayout}%
6232 \Hy@DisableOption{pdflang}%
6233 \Hy@DisableOption{baseurl}%
6234 \ifHy@texht\else\hyper@anchorstart{Doc-Start}\hyper@anchorend\fi
6235 \Hy@pdfstringfalse

```



```

6236 }
      Ignore star from referencing macros:
6237 \LetLtxMacro\NoHy@OrgRef\ref
6238 \DeclareRobustCommand*{\ref}{%
6239   \@ifstar\NoHy@OrgRef\NoHy@OrgRef
6240 }
6241 \LetLtxMacro\NoHy@OrgPageRef\pageref
6242 \DeclareRobustCommand*{\pageref}{%
6243   \@ifstar\NoHy@OrgPageRef\NoHy@OrgPageRef
6244 }

```

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.

```

6245 \def\NoHyper{%
6246   \def\hyper@link@[##1]##2##3##4{##4\Hy@xspace@end}%
6247   \def\hyper@@anchor##1##2{##2\Hy@xspace@end}%
6248   \global\let\hyper@livelink\hyper@link
6249   \gdef\hyper@link##1##2##3{##3\Hy@xspace@end}%
6250   \let\hyper@anchor\ltx@gobble
6251   \let\hyper@anchorstart\ltx@gobble
6252   \def\hyper@anchorend{\Hy@xspace@end}%
6253   \let\hyper@linkstart\ltx@gobbletwo
6254   \def\hyper@linkend{\Hy@xspace@end}%
6255   \def\hyper@linkurl##1##2{##1\Hy@xspace@end}%
6256   \def\hyper@linkfile##1##2##3{##1\Hy@xspace@end}%
6257   \let\Hy@backout\@gobble
6258 }
6259 \def\stop@hyper{%
6260   \def\hyper@link@[##1]##2##3##4{##4\Hy@xspace@end}%
6261   \let\Hy@backout\@gobble
6262   \let\hyper@@anchor\ltx@gobble
6263   \def\hyper@link##1##2##3{##3\Hy@xspace@end}%
6264   \let\hyper@anchor\ltx@gobble
6265   \let\hyper@anchorstart\ltx@gobble
6266   \def\hyper@anchorend{\Hy@xspace@end}%
6267   \let\hyper@linkstart\ltx@gobbletwo
6268   \def\hyper@linkend{\Hy@xspace@end}%
6269   \def\hyper@linkurl##1##2{##1\Hy@xspace@end}%
6270   \def\hyper@linkfile##1##2##3{##1\Hy@xspace@end}%
6271 }
6272 \def\endNoHyper{%
6273   \global\let\hyper@link\hyper@livelink
6274 }
6275 \</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 com-

mands, 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:

```
6276 \nohyperref
6277 \RequirePackage{letltxmacro}[2008/06/13]
6278 \let\hyper@@anchor\@gobble
6279 \def\hyper@link#1#2#3{#3}%
6280 \let\hyper@anchorstart\@gobble
6281 \let\hyper@anchorend\@empty
6282 \let\hyper@linkstart\@gobbletwo
6283 \let\hyper@linkend\@empty
6284 \def\hyper@linkurl#1#2{#1}%
6285 \def\hyper@linkfile#1#2#3{#1}%
6286 \def\hyper@link@{#1}#2#3{#1}%
6287 \let\PDF@SetupDoc\@empty
6288 \let\PDF@FinishDoc\@empty
6289 \def\nohyperpage#1{#1}
```

Some top-level commands:

```
6290 \def\Acrobatmenu#1#2{\leavevmode#2}
6291 \let\pdfstringdefDisableCommands\@gobbletwo
6292 \let\texpdfstring\@firstoftwo
6293 \let\pdfbookmark\@undefined
6294 \newcommand\pdfbookmark[3]{}
6295 \let\phantomsection\@empty
6296 \let\hypersetup\@gobble
6297 \let\hyperbaseurl\@gobble
6298 \newcommand*\href[3]{}
6299 \let\hyperdef\@gobbletwo
6300 \let\hyperlink\@gobble
6301 \let\hypertarget\@gobble
6302 \def\hyperref{%
6303   \ifnextchar\@gobbleopt{\expandafter\@gobbletwo\@gobble}%
6304 }
6305 \long\def\@gobbleopt[#1]{}
6306 \let\hyperpage\@empty
```

Ignore star from referencing macros:

```
6307 \LetLtxMacro\NoHy@OrgRef\ref
6308 \DeclareRobustCommand*\ref{%
6309   \ifstar\NoHy@OrgRef\NoHy@OrgRef
6310 }
6311 \LetLtxMacro\NoHy@OrgPageRef\pageref
6312 \DeclareRobustCommand*\pageref{%
6313   \ifstar\NoHy@OrgPageRef\NoHy@OrgPageRef
6314 }
6315 \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}`

```
6316 \package
6317 \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.

```

6318 \if@filesw
6319 \ifHy@typexml
6320 \immediate\closeout\@mainaux
6321 \immediate\openout\@mainaux\jobname.aux\relax
6322 \immediate\write\@auxout{<relaxxml>\relax}%
6323 \fi
6324 \immediate\write\@auxout{%
6325 \string\providecommand\string\HyperFirstAtBeginDocument{%
6326 \string\AtBeginDocument}^^J%
6327 \string\HyperFirstAtBeginDocument{%
6328 \string\ifx\string\hyper@anchor\string\@undefined^^J%
6329 \string\global\string\let\string\oldcontentsline\string\contentsline^^J%
6330 \string\gdef\string\contentsline%
6331 \string#1\string#2\string#3\string#4{%
6332 \string\oldcontentsline%
6333 {\string#1}{\string#2}{\string#3}}^^J%
6334 \string\global\string\let\string\oldnewlabel\string\newlabel^^J%
6335 \string\gdef\string\newlabel\string#1\string#2{%
6336 \string\newlabelxx{\string#1}\string#2}^^J%
6337 \string\gdef\string\newlabelxx%
6338 \string#1\string#2\string#3\string#4\string#5\string#6{%
6339 \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.

```

6340 \string\AtEndDocument{%
6341 \string\ifx\string\hyper@anchor\string\@undefined^^J%
6342 \string\let\string\contentsline\string\oldcontentsline^^J%
6343 \string\let\string\newlabel\string\oldnewlabel^^J%
6344 \string\fi%
6345 }^^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.

```

6346 \string\fi%
6347 }^^J%
6348 \string\global\string\let\string\hyper@last\relax^^J%
6349 \string\gdef\string\HyperFirstAtBeginDocument\string#1{\string#1}%
6350 }%
6351 \fi
6352 \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.

```

6353 \ifx\hyper@last\@undefined
6354 \def\@starttoc#1{%
6355 \begingroup
6356 \makeatletter
6357 \IfFileExists{\jobname.#1}{%
6358 \Hy@WarningNoLine{%
6359 old #1 file detected, not used; run LaTeX again%
6360 }%
6361 }{}%

```

```

6362 \if@filesw
6363 \expandafter\newwrite\csname tf@#1\endcsname
6364 \immediate\openout\csname tf@#1\endcsname \jobname.#1\relax
6365 \fi
6366 \@nobreakfalse
6367 \endgroup
6368 }%
6369 \def\newlabel#1#2{\@newl@bel r{#1}{#2}{-}{-}{-}}%
6370 \fi
6371 }

```

26 Title strings

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

```

6372 \ifHy@pdfusetitle
6373 \let\HyOrg@title\title
6374 \let\HyOrg@author\author
6375 \def\title{\@ifnextchar{\Hy@scanopttitle}{\Hy@scantitle}}%
6376 \def\Hy@scanopttitle[#1]{%
6377 \gdef\Hy@title{#1}%
6378 \HyOrg@title{#1}%
6379 }%
6380 \def\Hy@scantitle#1{%
6381 \gdef\Hy@title{#1}%
6382 \HyOrg@title{#1}%
6383 }%
6384 \def\author{\@ifnextchar{\Hy@scanoptauthor}{\Hy@scanauthor}}%
6385 \def\Hy@scanoptauthor[#1]{%
6386 \gdef\Hy@author{#1}%
6387 \HyOrg@author{#1}%
6388 }%
6389 \def\Hy@scanauthor#1{%
6390 \gdef\Hy@author{#1}%
6391 \HyOrg@author{#1}%
6392 }%

```

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

```

6393 \begingroup
6394 \def\process@me#1\@nil#2{%
6395 \expandafter\let\expandafter\x\csname @#2\endcsname
6396 \edef\y{\expandafter\strip@prefix\meaning\x}%
6397 \def\c##1##2\@nil{%
6398 \ifx\\##1\\%
6399 \else
6400 \expandafter\gdef\csname Hy@#2\expandafter\endcsname
6401 \expandafter{\x}%
6402 \fi
6403 }%
6404 \expandafter\c\y\relax#1\@nil
6405 }%
6406 \expandafter\process@me\string\@latex@\@nil{title}%
6407 \expandafter\process@me\string\@latex@\@nil{author}%
6408 \endgroup

```

```

6409 \fi
6410 \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.

```

6411 \def\Hy@UseMaketitleString#1{%
6412   \ltx@ifundefined{Hy@#1}{-}{%
6413     \begingroup
6414     \let\Hy@saved@hook\pdfstringdefPreHook
6415     \pdfstringdefDisableCommands{%
6416       \expandafter\let\expandafter\\ \csname Hy@newline@#1\endcsname
6417       \let\newline\\%
6418     }%
6419     \expandafter\ifx\csname @pdf#1\endcsname\@empty
6420     \expandafter\pdfstringdef\csname @pdf#1\endcsname{%
6421       \csname Hy@#1\endcsname\@empty
6422     }%
6423     \fi
6424     \global\let\pdfstringdefPreHook\Hy@saved@hook
6425   \endgroup
6426 }%
6427 }
6428 \def\Hy@newline@title#1{ #1}
6429 \def\Hy@newline@author#1{, #1}
6430 \def\Hy@UseMaketitleInfos{%
6431   \Hy@UseMaketitleString{title}%
6432   \Hy@UseMaketitleString{author}%
6433 }

```

27 Page numbers

This stuff is done by Heiko Oberdiek.

28 Every page

```

6434 \RequirePackage{atbegshi}[2007/09/09]
6435 \let\Hy@EveryPageHook\ltx@empty
6436 \let\Hy@EveryPageBoxHook\ltx@empty
6437 \let\Hy@FirstPageHook\ltx@empty
6438 \AtBeginShipout{%
6439   \Hy@EveryPageHook
6440   \ifx\Hy@EveryPageBoxHook\ltx@empty
6441   \else
6442     \setbox\AtBeginShipoutBox=\vbox{%
6443       \offinterlineskip
6444       \Hy@EveryPageBoxHook
6445       \box\AtBeginShipoutBox
6446     }%

```

```

6447 \fi
6448 }
6449 \ltx@iffileloaded{hpdfTeX.def}{%
6450 \AtBeginShipout{%
6451 \Hy@FirstPageHook
6452 \global\let\Hy@FirstPageHook\ltx@empty
6453 }%
6454 }{%
6455 \AtBeginShipoutFirst{%
6456 \Hy@FirstPageHook
6457 }%
6458 }
6459 \g@addto@macro\Hy@FirstPageHook{%
6460 \PDF@FinishDoc
6461 \global\let\PDF@FinishDoc\ltx@empty
6462 }

```

28.1 PDF /PageLabels

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

```

6463 \ifHy@pdfpagelabels
6464 \begingroup\expandafter\expandafter\expandafter\endgroup
6465 \expandafter\ifx\csname thepage\endcsname\relax
6466 \Hy@pdfpagelabelsfalse
6467 \Hy@WarningNoLine{%
6468 Option 'pdfpagelabels' is turned off\MessageBreak
6469 because \string\thepage\space is undefined%
6470 }%
6471 \csname fi\endcsname
6472 \csname iffalse\expandafter\endcsname
6473 \fi

```

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

```

6474 \def\thispdfpagelabel#1{%
6475 \gdef\HyPL@thisLabel{#1}%
6476 }%
6477 \global\let\HyPL@thisLabel\relax

```

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

```

6478 \let\HyPL@Labels\ltx@empty

```

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

```

6479 \newcount\Hy@abspage
6480 \Hy@abspage=0 %

```

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

```

6481 \def\HyPL@LastType{init}%
6482 \def\HyPL@LastNumber{0}%
6483 \let\HyPL@LastPrefix\ltx@empty

```

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

```

6484 \def\HyPL@arabic{D}%
6485 \def\HyPL@Roman{R}%
6486 \def\HyPL@roman{r}%
6487 \def\HyPL@Alph{A}%
6488 \def\HyPL@alph{a}%

```

```

6489 \let\HyPL@SlidesSetPage\ltx@empty
6490 \ltx@ifclassloaded{slides}{%
6491   \def\HyPL@SlidesSetPage{%
6492     \advance\c@page\ltx@one
6493     \ifnum\value{page}>\ltx@one
6494       \protected@edef\HyPL@SlidesOptionalPage{%
6495         \Hy@SlidesFormatOptionalPage{thepage}%
6496       }%
6497     \else
6498       \let\HyPL@SlidesOptionalPage\ltx@empty
6499     \fi
6500     \advance\c@page-\ltx@one
6501     \def\HyPL@page{%
6502       \csname the\Hy@SlidesPage\endcsname
6503       \HyPL@SlidesOptionalPage
6504     }%
6505   }%
6506 }{}%

```

\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.

```

6507 \def\HyPL@EveryPage{%
6508   \begingroup
6509   \ifx\HyPL@thisLabel\relax
6510     \let\HyPL@page\thepage
6511     \HyPL@SlidesSetPage
6512   \else
6513     \let\HyPL@page\HyPL@thisLabel
6514     \global\let\HyPL@thisLabel\relax
6515   \fi
6516   \let\HyPL@Type\relax
6517   \ifnum\c@page>0 %
6518     \ifx\HyPL@SlidesSetPage\ltx@empty
6519       \expandafter\HyPL@CheckThePage\HyPL@page\@nil
6520     \fi
6521   \fi
6522   \let\Hy@temp Y%
6523   \ifx\HyPL@Type\HyPL@LastType
6524     \else
6525       \let\Hy@temp N%
6526     \fi
6527   \ifx\HyPL@Type\relax
6528     \pdfstringdef\HyPL@Prefix{\HyPL@page}%
6529   \else
6530     \pdfstringdef\HyPL@Prefix\HyPL@Prefix
6531   \fi
6532   \ifx\HyPL@Prefix\HyPL@LastPrefix
6533     \else
6534       \let\Hy@temp N%
6535     \fi
6536   \if Y\Hy@temp
6537     \advance\c@page by -1 %
6538     \ifnum\HyPL@LastNumber=\the\c@page\relax
6539     \else
6540       \let\Hy@temp N%
6541     \fi
6542     \Hy@StepCount\c@page

```

```

6543 \fi
6544 \if N\Hy@temp
6545 \ifx\HyPL@Type\relax
6546 \HyPL@StorePageLabel{/P(\HyPL@Prefix)}%
6547 \else
6548 \HyPL@StorePageLabel{%
6549 \ifx\HyPL@Prefix\@empty
6550 \else
6551 /P(\HyPL@Prefix)%
6552 \fi
6553 /S/\csname HyPL\HyPL@Type\endcsname
6554 \ifnum\the\c@page=1 %
6555 \else
6556 \space/St \the\c@page
6557 \fi
6558 }%
6559 \fi
6560 \fi
6561 \xdef\HyPL@LastNumber{\the\c@page}%
6562 \global\let\HyPL@LastType\HyPL@Type
6563 \global\let\HyPL@LastPrefix\HyPL@Prefix
6564 \endgroup
6565 \Hy@GlobalStepCount\Hy@abspage
6566 }%

```

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

```

6567 \def\HyPL@CheckThePage#1\@nil{%
6568 \HyPL@@CheckThePage{#1}#1\csname\endcsname\c@page\@nil
6569 }%

```

\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.

```

6570 \def\HyPL@@CheckThePage#1#2\csname#3\endcsname\c@page#4\@nil{%
6571 \def\Hy@tempa{#4}%
6572 \def\Hy@tempb{\csname\endcsname\c@page}%
6573 \ifx\Hy@tempa\Hy@tempb
6574 \expandafter\ifx\csname HyPL#3\endcsname\relax
6575 \else
6576 \def\HyPL@Type{#3}%
6577 \def\HyPL@Prefix{#2}%
6578 \fi
6579 \else
6580 \begingroup
6581 \let\Hy@next\endgroup
6582 \let\HyPL@found\@undefined
6583 \def\arabic{\HyPL@Format{arabic}}%
6584 \def\Roman{\HyPL@Format{Roman}}%
6585 \def\roman{\HyPL@Format{roman}}%
6586 \def\Alph{\HyPL@Format{Alph}}%
6587 \def\alph{\HyPL@Format{alph}}%
6588 \protected@edef\Hy@temp{#1}%
6589 \ifx\HyPL@found\relax
6590 \toks@{\expandafter\Hy@temp}%
6591 \edef\Hy@next{\endgroup

```



```

6592         \noexpand\HyPL@@@CheckThePage\the\toks@
6593         \noexpand\HyPL@found\relax\noexpand\@nil
6594     }%
6595     \fi
6596     \Hy@next
6597     \fi
6598 }%

```

\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**.

```

6599 \def\HyPL@Format#1#2{%
6600     \ifx\HyPL@found\@undefined
6601         \expandafter\ifx\csname c@#2\endcsname\c@page
6602             \expandafter\noexpand\csname HyPL@found\endcsname{#1}%
6603         \else
6604             \expandafter\noexpand\csname#1\endcsname{#2}%
6605         \fi
6606     \else
6607         \expandafter\noexpand\csname#1\endcsname{#2}%
6608     \fi
6609 }%

```

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

```

6610 \def\HyPL@@@CheckThePage#1\HyPL@found#2#3\@nil{%
6611     \def\Hy@tempa{#3}%
6612     \def\Hy@tempb{\HyPL@found\relax}%
6613     \ifx\Hy@tempa\Hy@tempb
6614         \def\HyPL@Type{#2}%
6615         \def\HyPL@Prefix{#1}%
6616     \fi
6617 }%

```

\HyPL@storePageLabel Dummy for drivers that does not support **/PageLabel**.

```

6618 \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**.

```

6619 \def\HyPL@Useless{0<</S/D>>}%
6620 \@onelevel@sanitize\HyPL@Useless

```

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

```

6621 \def\HyPL@SetPageLabels{%
6622     \@onelevel@sanitize\HyPL@Labels
6623     \ifx\HyPL@Labels\@empty
6624     \else
6625         \ifx\HyPL@Labels\HyPL@Useless
6626         \else
6627             \Hy@PutCatalog{/PageLabels<</Nums[\HyPL@Labels]>>}%
6628         \fi
6629     \fi
6630 }%

```

```

6631 \g@addto@macro\Hy@EveryPageHook{\HyPL@EveryPage}%
6632 \fi

```

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

```

6633 \Hy@DisableOption{pdfpagelabels}
6634 \</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`

```

6635 \< *pdftex>
6636 \pdf@ifdraftmode{%
6637 \let\Hy@PutCatalog\ltx@gobble
6638 }{%
6639 \let\Hy@PutCatalog\pdfcatalog
6640 }
6641 \< /pdftex>

```

The code for VTeX is more complicate, because it does not allow the direct access to the `/Catalog` object. The command scans its argument and looks for a `/PageLabels` entry.

VTeX 6.59g is the first version, that implements `\special{!pdfpagelabels...}`. For this version `\VTeXversion` reports 660.

```

6642 \< *vtex>
6643 \providecommand*\XR@ext}{pdf}
6644 \edef\Hy@VTeXversion{%
6645 \ifx\VTeXversion\@undefined
6646 \z@
6647 \else
6648 \ifx\VTeXversion\relax
6649 \z@
6650 \else
6651 \VTeXversion
6652 \fi
6653 \fi
6654 }
6655 \begingroup
6656 \ifnum\Hy@VTeXversion<660 %
6657 \gdef\Hy@PutCatalog#1{%
6658 \Hy@WarningNoLine{%
6659 VTeX 6.59g or above required for pdfpagelabels%
6660 }%
6661 }%
6662 \else
6663 \gdef\Hy@PutCatalog#1{%
6664 \Hy@vt@PutCatalog#1/PageLabels<<>>\@nil
6665 }%
6666 \gdef\Hy@vt@PutCatalog#1/PageLabels<<#2>>#3\@nil{%
6667 \ifx\#2\%
6668 \else
6669 \immediate\special{!pdfpagelabels #2}%
6670 \fi
6671 }%
6672 \fi

```

```

6673 \endgroup
6674 \</vtx>

6675 \<*pdftex | vtx>

```

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

```

6676 \ifHy@pdfpagelabels
6677   \def\HyPL@StorePageLabel#1{%
6678     \toks@{\expandafter{\HyPL@Labels}}%
6679     \xdef\HyPL@Labels{%
6680       \the\toks@
6681       \the\Hy@abspage<<#1>>%
6682     }%
6683   }%

```

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.

```

6684 \RequirePackage{atveryend}[2009/12/07]%
6685 \AtVeryEndDocument{%
6686   \HyPL@SetPageLabels
6687 }%

6688 \fi
6689 \</pdftex | vtx>

```

28.1.2 xetex

```

6690 \<*xetex>
6691 \HyPsd@LoadUnicode
6692 \Hy@unicodetrue
6693 \ifx\HyPsd@pdfencoding\HyPsd@pdfencoding@unicode
6694 \else
6695   \let\HyPsd@pdfencoding\HyPsd@pdfencoding@auto
6696 \fi
6697 \HyPsd@LoadStringEnc
6698 \define@key{Hyp}{unicode}[true]{%
6699   \Hy@boolkey{unicode}{#1}%
6700   \ifHy@unicode
6701   \else
6702     \Hy@Warning{%
6703       XeTeX driver only supports 'unicode=true'. Ignoring\MessageBreak
6704       option setting 'unicode=false'%
6705     }%
6706   \Hy@unicodetrue
6707 \fi
6708 }
6709 \define@key{Hyp}{pdfencoding}{%
6710   \edef\HyPsd@temp{#1}%
6711   \ifx\HyPsd@temp\HyPsd@pdfencoding@unicode
6712     \let\HyPsd@pdfencoding\HyPsd@temp
6713   \else
6714     \ifx\HyPsd@temp\HyPsd@pdfencoding@auto
6715       \let\HyPsd@pdfencoding\HyPsd@temp
6716     \else
6717       \Hy@Warning{%
6718         XeTeX driver only supports\MessageBreak
6719         'pdfencoding=unicode|auto'. Ignoring option\MessageBreak

```

```

6720     setting 'pdfencoding=\HyPsd@temp'%
6721   }%
6722   \fi
6723 \fi
6724 }
6725 \let\HyXeTeX@CheckUnicode\relax
6726 \</xetex>

```

28.1.3 pdfmarkbase, dvipdfm, xetex

```

6727 \<*pdfmarkbase>
6728 \begingroup
6729   \@ifundefined{headerps@out}{-}{%
6730     \toks@\expandafter{\Hy@FirstPageHook}%
6731     \xdef\Hy@FirstPageHook{%
6732       \noexpand\headerps@out{%
6733         systemdict /pdfmark known%
6734         {%
6735           userdict /?pdfmark systemdict /exec get put%
6736         }{%
6737           userdict /?pdfmark systemdict /pop get put %
6738           userdict /pdfmark systemdict /cleartomark get put%
6739         }%
6740         ifelse%
6741       }%
6742     \the\toks@
6743   }%
6744 }%
6745 \endgroup
6746 \</pdfmarkbase>

```

\Hy@PutCatalog

```

6747 \<dvipdfm | xetex>\def\Hy@PutCatalog#1{\@pdfm@mark{docview << #1 >>}}
6748 \<*pdfmarkbase>
6749 \def\Hy@PutCatalog#1{%
6750   \pdfmark{pdfmark=/PUT,Raw={\string{Catalog\string} << #1 >>}}%
6751 }
6752 \</pdfmarkbase>

6753 \<*pdfmarkbase | dvipdfm | xetex>
6754 \ifHy@pdfpagelabels

```

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

```

6755 \def\HyPL@StorePageLabel#1{%
6756   \if@filesw
6757     \begingroup
6758       \edef\Hy@tempa{\the\Hy@abspage<<#1>>}%
6759       \immediate\write\@mainaux{%
6760         \string\HyPL@Entry{\Hy@tempa}%
6761       }%
6762     \endgroup
6763   \fi
6764 }%

```

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.

```

6765 \Hy@AtBeginDocument{%

```

```

6766 \if@filesw
6767 \immediate\write\@mainaux{%
6768 \string\providecommand\string*\string\HyPL@Entry[1]{}%
6769 }%
6770 \fi
6771 \ifx\HyPL@Labels\@empty
6772 \Hy@WarningNoLine{Rerun to get /PageLabels entry}%
6773 \else
6774 \HyPL@SetPageLabels
6775 \fi
6776 \let\HyPL@Entry\@gobble
6777 }%

\HyPL@Entry

6778 \def\HyPL@Entry#1{%
6779 \expandafter\gdef\expandafter\HyPL@Labels\expandafter{%
6780 \HyPL@Labels
6781 #1%
6782 }%
6783 }%

6784 \fi
6785 </pdfmarkbase | dvipdfm | xetex>
6786 <*package>
6787 \ifx\MaybeStopEarly\relax
6788 \else
6789 \Hy@stoppedearlytrue
6790 \expandafter\MaybeStopEarly
6791 \fi
6792 \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

```

6793 \def\Hy@CounterExists#1{%
6794 \begingroup\expandafter\expandafter\expandafter\endgroup
6795 \expandafter\ifx\csname c@#1\endcsname\relax

```

```

6796 \expandafter\@gobble
6797 \else
6798 \begingroup\expandafter\expandafter\expandafter\endgroup
6799 \expandafter\ifx\csname the#1\endcsname\relax
6800 \expandafter\expandafter\expandafter\@gobble
6801 \else
6802 \expandafter\expandafter\expandafter\@firstofone
6803 \fi
6804 \fi
6805 }
6806 \Hy@CounterExists{section}{%
6807 \providecommand\theHequation{\theHsection.\arabic{equation}}}%
6808 }
6809 \Hy@CounterExists{part}{%
6810 \providecommand\theHpart{\arabic{part}}}%
6811 }
6812 \ltx@ifundefined{thechapter}{%
6813 \providecommand\theHsection {\arabic{section}}}%
6814 \providecommand\theHfigure {\arabic{figure}}}%
6815 \providecommand\theHtable {\arabic{table}}}%
6816 }{%
6817 \providecommand\theHchapter {\arabic{chapter}}}%
6818 \providecommand\theHfigure {\theHchapter.\arabic{figure}}}%
6819 \providecommand\theHtable {\theHchapter.\arabic{table}}}%
6820 \providecommand\theHsection {\theHchapter.\arabic{section}}}%
6821 }
6822 \providecommand\theHsubsection {\theHsection.\arabic{subsection}}
6823 \providecommand\theHsubsubsection{\theHsubsection.\arabic{subsubsection}}
6824 \providecommand\theHparagraph {\theHsubsubsection.\arabic{paragraph}}
6825 \providecommand\theHsubparagraph {\theHparagraph.\arabic{subparagraph}}
6826 \providecommand\theHtheorem {\theHsection.\arabic{theorem}}
6827 \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.

```

6828 \let\H@item\item
6829 \newcounter{Item}
6830 \def\theHItem{\arabic{Item}}
6831 \def\item{%
6832 \@hyper@itemfalse
6833 \if@nmbbrlist\@hyper@itemtrue\fi
6834 \H@item
6835 }
6836 \providecommand\theHenumi {\theHItem}
6837 \providecommand\theHenumii {\theHItem}
6838 \providecommand\theHenumiii {\theHItem}
6839 \providecommand\theHenumiv {\theHItem}
6840 \providecommand\theHHfootnote {\arabic{Hfootnote}}
6841 \providecommand\theHmpfootnote{\arabic{mpfootnote}}
6842 \@ifundefined{theHHmpfootnote}{%
6843 \let\theHHmpfootnote\theHHfootnote
6844 }{}

```

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.

```
6845 \let\H@refstepcounter\refstepcounter
6846 \edef\name@of@eq{equation}%
6847 \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.

```
6848 \newif\if@hyper@item
6849 \newif\if@skiphyperref
6850 \@hyper@itemfalse
6851 \@skiphyperreffalse
6852 \def\refstepcounter#1{%
6853   \ifHy@pdfstring
6854   \else
6855     \H@refstepcounter{#1}%
6856     \edef\This@name{#1}%
6857     \ifx\This@name\name@of@slide
6858     \else
6859       \if@skiphyperref
6860       \else
6861         \if@hyper@item
6862         \stepcounter{Item}%
6863         \hyper@refstepcounter{Item}%
6864         \@hyper@itemfalse
6865       \else
6866         \hyper@refstepcounter{#1}%
6867       \fi
6868     \fi
6869   \fi
6870 \fi
6871 }
6872 \let\Hy@saved@refstepcounter\refstepcounter
```

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

```
6873 \@ifpackageloaded{amsmath}{-}{\newif\ifmeasuring@\measuring@false}
```

`\hyper@refstepcounter`

```
6874 \def\hyper@refstepcounter#1{%
6875   \edef\This@name{#1}%
6876   \ifx\This@name\name@of@eq
6877   \@ifundefined{theHequation}{%
6878     \make@stripped@name{\theequation}%
6879     \let\theHequation\newname
6880   }{}%
6881   \fi
6882   \HyCnt@ProvideTheHCounter{#1}%
6883   \hyper@makecurrent{#1}%
6884   \ifmeasuring@
6885   \else
6886     \Hy@raisedlink{%
6887       \hyper@anchorstart{\@currentHref}\hyper@anchorend
6888     }%
6889   \fi
6890 }
```

`\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.

```

6891 \def\HyCnt@ProvideTheHCounter#1{%
6892   \@ifundefined{theH#1}{%
6893     \expandafter\def\csname theH#1\endcsname{%
6894       \def\Hy@temp{\@elt{#1}}%
6895       \ltx@onelevel@sanitize\Hy@temp
6896       \let\HyOrg@elt\@elt
6897       \edef\@elt{%
6898         \noexpand\HyCnt@LookForParentCounter
6899         \expandafter\noexpand\csname theH#1\endcsname
6900       }%
6901       \cl@ckpt
6902       \let\@elt\HyOrg@elt
6903       \expandafter
6904       \ltx@LocalAppendToMacro\csname theH#1\endcsname
6905       \expandafter{%
6906         \expandafter\@arabic\csname c@#1\endcsname
6907       }%
6908     }{}%
6909   }

```

`\Hy@LookForParentCounter`

```

6910 \def\HyCnt@LookForParentCounter#1#2{%
6911   \expandafter\let\expandafter\Hy@temp@A\csname cl@#2\endcsname
6912   \ltx@ifundefined{cl@#2}{%
6913     }{%
6914       \ltx@onelevel@sanitize\Hy@temp@A
6915       \edef\Hy@temp@A{%
6916         \noexpand\in@{\Hy@temp}{\Hy@temp@A}%
6917       }\Hy@temp@A
6918       \ifin@
6919         \ltx@ifundefined{theH#2}{%
6920           \expandafter\ltx@LocalAppendToMacro\expandafter#1%
6921           \expandafter{%
6922             \expandafter\@arabic\csname c@#2\endcsname.%
6923           }%
6924         }{%
6925           \expandafter\ltx@LocalAppendToMacro\expandafter#1%
6926           \expandafter{%
6927             \csname theH#2\endcsname.%
6928           }%
6929         }%
6930       \fi
6931     }%
6932   }

```

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`.

```

6933 \begingroup\expandafter\expandafter\expandafter\endgroup
6934 \expandafter\ifx\csname chapter\endcsname\relax
6935   \def\Hy@chapterstring{section}%
6936 \else
6937   \def\Hy@chapterstring{chapter}%
6938 \fi
6939 \def\Hy@appendixstring{appendix}
6940 \def\Hy@chapapp{\Hy@chapterstring}
6941 \ltx@ifundefined{appendix}{%
6942 }{%
6943   \let\HyOrg@appendix\appendix
6944   \def\Hy@AlphNoErr#1{%
6945     \ifnum\value{#1}>26 %
6946       Alph\number\value{#1}%
6947     \else
6948       \ifnum\value{#1}<1 %
6949         Alph\number\value{#1}%
6950       \else
6951         \Alph{#1}%
6952       \fi
6953     \fi
6954   }%
6955   \def\appendix{%
6956     \ltx@ifundefined{chapter}{%
6957       \gdef\theHsection{\Hy@AlphNoErr{section}}}%
6958     }{%
6959       \gdef\theHchapter{\Hy@AlphNoErr{chapter}}}%
6960     }%
6961     \xdef\Hy@chapapp{\Hy@appendixstring}%
6962     \HyOrg@appendix
6963   }%
6964 }

```

`\Hy@Test@alph`

```

6965 \def\Hy@Test@alph#1{%
6966   \ifcase#1\or
6967     a\or b\or c\or d\or e\or f\or g\or h\or i\or j\or
6968     k\or l\or m\or n\or o\or p\or q\or r\or s\or t\or
6969     u\or v\or w\or x\or y\or z%
6970   \else
6971     \@ctrerr
6972   \fi
6973 }

```

`\Hy@Test@Alph`

```

6974 \def\Hy@Test@Alph#1{%
6975   \ifcase#1\or
6976     A\or B\or C\or D\or E\or F\or G\or H\or I\or J\or
6977     K\or L\or M\or N\or O\or P\or Q\or R\or S\or T\or
6978     U\or V\or W\or X\or Y\or Z%
6979   \else
6980     \@ctrerr
6981   \fi
6982 }

```

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

```

6983 \def\hyper@makecurrent#1{%
6984   \begingroup
6985   \edef\Hy@param{#1}%
6986   \ifx\Hy@param\Hy@chapterstring
6987     \let\Hy@param\Hy@chapapp
6988   \fi
6989   \ifHy@hypertextnames
6990     \let\@number\@firstofone
6991     \def\@fnsymbol##1{fnsymbol\number##1}%
6992     \def\@arabic##1{\number##1}%
6993     \ifx\@alph\Hy@Test@alph
6994       \else
6995         \def\@alph{alph\number}%
6996       \fi
6997     \ifx\@Alph\Hy@Test@Alph
6998       \else
6999         \def\@Alph{Alph\number}%
7000       \fi
7001     \ifHy@naturalnames
7002       \let\textlatin\@firstofone
7003       \xdef\HyperGlobalCurrentHref{\csname the#1\endcsname}%
7004     \else
7005       \xdef\HyperGlobalCurrentHref{%
7006         \csname
7007           the%
7008           \expandafter\ifx\csname theH#1\endcsname\relax\else H\fi
7009           #1%
7010         \endcsname
7011       }%
7012     \fi
7013     \xdef\HyperGlobalCurrentHref{%
7014       \Hy@param.\expandafter\strip@prefix\meaning\HyperGlobalCurrentHref
7015     }%
7016   \else
7017     \Hy@GlobalStepCount\Hy@linkcounter
7018     \xdef\HyperGlobalCurrentHref{\Hy@param.the\Hy@linkcounter}%
7019   \fi
7020 \endgroup
7021 \let\HyperLocalCurrentHref\HyperGlobalCurrentHref
7022 \ifHy@localanchorname
7023   \let\@currentHref\HyperLocalCurrentHref
7024 \else
7025   \global\let\@currentHref\HyperGlobalCurrentHref
7026 \fi
7027 }
```

`\Hy@MakeCurrentHref`

```

7028 \def\Hy@MakeCurrentHref#1{%
7029   \edef\HyperLocalCurrentHref{#1}%
7030   \@onelevel@sanitize\HyperLocalCurrentHref
7031   \global\let\HyperGlobalCurrentHref\HyperLocalCurrentHref
7032   \let\HyperLocalCurrentHref\HyperGlobalCurrentHref
7033   \ifHy@localanchorname
7034     \let\@currentHref\HyperLocalCurrentHref
7035   \else
```

```

7036 \global\let\@currentHref\HyperGlobalCurrentHref
7037 \fi
7038 }

```

\Hy@MakeCurrentHrefAuto

```

7039 \def\Hy@MakeCurrentHrefAuto#1{%
7040 \Hy@GlobalStepCount\Hy@linkcounter
7041 \Hy@MakeCurrentHref{#1.\the\Hy@linkcounter}%
7042 }

```

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

```

7043 \def\@currentHlabel{\@currentHref}

7044 \@ifpackageloaded{fancyvrb}{%
7045 \ifpackagelater{fancyvrb}{1998/05/20}{%
7046 \def\FV@StepLineNo{%
7047 \FV@SetLineNo
7048 \def\FV@StepLineNo{\H@refstepcounter{FancyVerbLine}}%
7049 \FV@StepLineNo
7050 }%
7051 }%
7052 }{}

```

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

```

7053 \Hy@AtBeginDocument{%
7054 \ifclassloaded{revtex4}{%
7055 \namedef{ver@lastpage.sty}{1994/06/25}%
7056 }{}%
7057 \@ifpackageloaded{lastpage}{%
7058 \ifHy@pageanchor
7059 \else
7060 \Hy@WarningNoLine{%
7061 The \string\pageref{LastPage} link doesn't work\MessageBreak
7062 with disabled option 'pageanchor'%
7063 }%
7064 \fi
7065 \def\lastpage@putlabel{%
7066 \addtocounter{page}{-1}%
7067 \if@files
7068 \begingroup
7069 \let\@number\@firstofone
7070 \ifHy@pageanchor
7071 \ifHy@hypertextnames
7072 \ifHy@plainpages
7073 \def\Hy@temp{\arabic{page}}%
7074 \else

```

```

7075         \Hy@unicodedefalse
7076         \pdfstringdef\Hy@temp{\thepage}%
7077     \fi
7078 \else
7079     \def\Hy@temp{\the\Hy@pagecounter}%
7080 \fi
7081 \fi
7082 \immediate\write\@auxout{%
7083     \string\newlabel
7084     {LastPage}{\thepage}{\thepage}%
7085     \ifHy@pageanchor page.\Hy@temp\fi}{}}%
7086 }%
7087 \endgroup
7088 \fi
7089 \addtocounter{page}{1}%
7090 }%
7091 \@ifclassloaded{revtex4}{%
7092     \begingroup
7093     \toks@\expandafter{\lastpage@putlabel}%
7094     \edef\x{\endgroup
7095         \def\noexpand\lastpage@putlabel{%
7096             \noexpand\stepcounter{page}%
7097             \the\toks@
7098             \noexpand\addtocounter{page}\noexpand\m@ne
7099         }%
7100     }%
7101     \x
7102     }{}%
7103 }{}%
7104 }
7105 \</package>
7106 \*check>
7107 \checkpackage{lastpage}[1994/06/25]
7108 \checkcommand\def\lastpage@putlabel{%
7109     \addtocounter{page}{-1}%
7110     \immediate\write\@auxout{%
7111         \string\newlabel{LastPage}{\thepage}{\thepage}%
7112     }%
7113     \addtocounter{page}{1}%
7114 }
7115 \</check>
7116 \*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.

```

7117 \def\hypergetref#1{\getrefbykeydefault{#1}{}{??}}
7118 \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:

```

7119 \@ifpackageloaded{titlesec}{%
7120   \def\ttl@Hy@steplink#1{%
7121     \Hy@MakeCurrentHrefAuto{#1*}%
7122     \edef\ttl@Hy@saveanchor{%
7123       \noexpand\Hy@raisedlink{%
7124         \noexpand\hyper@anchorstart{\@currentHref}%
7125         \noexpand\hyper@anchorend
7126       \def\noexpand\ttl@Hy@SavedCurrentHref{\@currentHref}%
7127       \noexpand\ttl@Hy@PatchSaveWrite
7128     }%
7129   }%
7130 }%
7131 \def\ttl@Hy@PatchSaveWrite{%
7132   \begingroup
7133   \toks@{\expandafter{\ttl@savewrite}}%
7134   \edef\x{\endgroup
7135     \def\noexpand\ttl@savewrite{%
7136       \let\noexpand\@currentHref
7137       \noexpand\ttl@Hy@SavedCurrentHref
7138     \the\toks@
7139   }%
7140 }%
7141 \x
7142 }%
7143 \def\ttl@Hy@refstepcounter#1{%
7144   \let\ttl@b\Hy@raisedlink
7145   \def\Hy@raisedlink##1{%
7146     \def\ttl@Hy@saveanchor{\Hy@raisedlink{##1}}%
7147   }%
7148   \refstepcounter{#1}%
7149   \let\Hy@raisedlink\ttl@b
7150 }%
7151 }{}

Package titletoc support:
7152 \@ifpackageloaded{titletoc}{%
7153   \def\ttl@gobblecontents#1#2#3#4{\ignorespaces}%
7154 }{}

```

33 Package varioref support

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

```

7155 \def\Hy@varioref@undefined{???}{??}{-}{-}{-}
7156 \@ifpackageloaded{varioref}{%
7157   \def\vref@pagenum#1#2{%
7158     \@ifundefined{r@#2}{%
7159       \expandafter\let\csname r@#2\endcsname\Hy@varioref@undefined
7160     }{}%
7161     \edef#1{\getpagerefnumber{#2}}%
7162   }%
7163 }{}

```

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

```

7164 \def\Hy@varioref@refstepcounter#1{%
7165   \stepcounter{#1}%

```

```

7166 \protected@edef\@currentlabel{%
7167 \csname p@#1\expandafter\endcsname\csname the#1\endcsname
7168 }%
7169 }
7170 \AtBeginDocument{%
7171 \ifx\refstepcounter\Hy@varioref\refstepcounter
7172 \let\H@refstepcounter\refstepcounter
7173 \let\refstepcounter\Hy@saved@refstepcounter
7174 \fi
7175 }

```

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

```

7176 \@ifpackageloaded{longtable}{%
7177 \begingroup
7178 \def\y{\LT@array}%
7179 \@ifundefined{scr@LT@array}{%
7180 \@ifundefined{adl@LT@array}{\def\y{\adl@LT@array}}}%
7181 }\def\y{\scr@LT@array}}%
7182 \long\def\x\refstepcounter#1#2\@sharp#3#4\@nil{%
7183 \expandafter\endgroup
7184 \expandafter\def\y[##1]##2{%
7185 \H@refstepcounter{#1}%
7186 \hyper@makecurrent{table}%
7187 \let\Hy@LT@currentHref\@currentHref
7188 #2\@sharp###4%
7189 }%
7190 }%
7191 \expandafter\expandafter\expandafter\x\y[##1][##2]\@nil

```

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

```

7192 \begingroup
7193 \def\x#1\ifvoid\LT@foot#2\fi#3\@nil{%
7194 \endgroup
7195 \def\LT@start{%
7196 #1%
7197 \ifvoid\LT@foot#2\fi
7198 \let\@currentHref\Hy@LT@currentHref
7199 \Hy@raisedlink{%
7200 \hyper@anchorstart{\@currentHref}\hyper@anchorend
7201 }%
7202 #3%
7203 }%
7204 }%
7205 \expandafter\x\LT@start\@nil
7206 }{}

```

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.

```

7207 \let\new@refstepcounter\refstepcounter
7208 \let\H@equation\equation
7209 \let\H@endequation\endequation

7210 \ifpackageloaded{amsmath}{%
7211   \long\def\Hy@temp{%
7212     \incr@eqnum
7213     \mathdisplay@push
7214     \st@rredfalse \global\@eqnswtrue
7215     \mathdisplay{equation}%
7216   }%
7217   \ifx\Hy@temp\equation
7218     \expandafter\ifx\csname if@fleqn\expandafter\endcsname
7219       \csname iftrue\endcsname
7220   \else
7221     \long\def\equation{%
7222       \mathdisplay@push
7223       \st@rredfalse \global\@eqnswtrue
7224       \mathdisplay{equation}%
7225       \incr@eqnum
7226     }%
7227   \fi
7228 \fi
7229 }{%
7230 \def\equation{%
7231   \let\refstepcounter\H@refstepcounter
7232   \H@equation
7233   \@ifundefined{theHequation}{%
7234     \make@stripped@name{\theequation}%
7235     \let\theHequation\newname
7236   }{%
7237     \hyper@makecurrent{equation}%

```

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

```

7238   \mathopen{%
7239     \Hy@raisedlink{\hyper@anchorstart{\@currentHref}}%
7240   }%
7241   \let\refstepcounter\new@refstepcounter
7242 }%
7243 \def\endequation{%
7244   \ifx\Hy@raisedlink\ltx@empty
7245     \hyper@anchorend
7246   \else
7247     \mathclose{\Hy@raisedlink{\hyper@anchorend}}%
7248   \fi
7249   \H@endequation
7250 }%
7251 }

```

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.

```

7252 \newif\if@eqnstar
7253 \@eqnstarfalse
7254 \let\H@eqnarray\eqnarray
7255 \let\H@endeqnarray\endeqnarray
7256 \def\eqnarray{%
7257   \let\Hy@reserved@a\relax
7258   \def\@currentHref{%
7259     \H@eqnarray
7260     \if@eqnstar
7261     \else
7262       \ifx\@currentHref\%
7263       \else
7264         \ifundefined{theHequation}{%
7265           \make@stripped@name{\theequation}%
7266           \let\theHequation\newname
7267         }{%
7268           \hyper@makecurrent{equation}%
7269           \mathopen{%
7270             \Hy@raisedlink{%
7271               \hyper@anchorstart{\@currentHref}\hyper@anchorend
7272             }%
7273           }%
7274         \fi
7275       \fi
7276     }
7277   \def\endeqnarray{%
7278     \H@endeqnarray
7279   }

```

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.

```

7280 \@namedef{eqnarray*}{%
7281   \def\@eqncr{\nonumber\@seqncr}\@eqnstartrue\eqnarray
7282 }
7283 \@namedef{endeqnarray*}{%
7284   \nonumber\endeqnarray\@eqnstarfalse
7285 }

```

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

```

7286 \ltx@ifundefined{subeqnarray}{%
7287   \let\H@subeqnarray\subeqnarray
7288   \let\H@endsubeqnarray\endsubeqnarray
7289   \def\subeqnarray{%
7290     \let\Hy@reserved@a\relax
7291     \H@subeqnarray
7292     \@ifundefined{theHequation}{%
7293       \make@stripped@name{\theequation}%
7294       \let\theHequation\newname
7295     }{%
7296       \hyper@makecurrent{equation}%
7297       \hyper@anchorstart{\@currentHref}\hyper@anchorend
7298     }%
7299   \def\endsubeqnarray{%

```



```

7300 \H@endsubeqnarray
7301 }%
7302 \providecommand\theHsubequation{\theHequation\alph{subequation}}}%
7303 }

```

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

```

7304 \def\make@stripped@name#1{%
7305 \begingroup
7306 \escapechar\m@ne
7307 \global\let\newname\@empty
7308 \protected@edef\Hy@tempa{#1}%
7309 \edef\@tempb{%
7310 \noexpand\@tfor\noexpand\Hy@tempa:=%
7311 \expandafter\strip@prefix\meaning\Hy@tempa
7312 }%
7313 \@tempb\do{%
7314 \if{\Hy@tempa\else
7315 \if}\Hy@tempa\else
7316 \xdef\newname{\newname\Hy@tempa}%
7317 \fi
7318 \fi
7319 }%
7320 \endgroup
7321 }

```

Support for amsmath's subequations:

```

7322 \begingroup\expandafter\expandafter\expandafter\endgroup
7323 \expandafter\ifx\csname subequations\endcsname\relax
7324 \else
7325 \let\HyOrg@subequations\subequations
7326 \def\subequations{%
7327 \stepcounter{equation}%
7328 \protected@edef\theHparentequation{%
7329 \ifundefined{theHequation}\theequation\theHequation
7330 }%
7331 \addtocounter{equation}{-1}%
7332 \HyOrg@subequations
7333 \def\theHequation{\theHparentequation\alph{equation}}}%
7334 \ignorespaces
7335 }%
7336 \fi

```

Support for package `amsthm` (Daniel Müllner):

```

7337 \@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

7338 \def\Hy@temp#1#2#3{%
7339 \ifhmode\unskip\unskip\par\fi
7340 \normalfont
7341 \trivlist
7342 \let\thmheadnl\relax
7343 \let\thm@swap\@gobble
7344 \let\thm@indent\indent % indent
7345 \thm@headfont{\scshape}% heading font small caps

```

```

7346 \thm@notefont{\fontseries\mddefault\upshape}%
7347 \thm@headpunct{.}% add period after heading
7348 \thm@headsep 5\p@ plus\p@ minus\p@\relax
7349 \thm@space@setup
7350 #1% style overrides
7351 \@topsep \thm@preskip % used by thm head
7352 \@topsepadd \thm@postskip % used by \@endparenv
7353 \def\@tempa{#2}\ifx\@empty\@tempa
7354 \def\@tempa{\@oparg{\@begintheorem{#3}{}}{}}%
7355 \else
7356 \refstepcounter{#2}%
7357 \def\@tempa{%
7358 \@oparg{\@begintheorem{#3}{\csname the#2\endcsname}}{}}%
7359 }%
7360 \fi
7361 \@tempa
7362 }%
7363 \ifx\Hy@temp\@thm
7364 \def\@thm#1#2#3{%
7365 \ifhmode
7366 \unskip\unskip\par
7367 \fi
7368 \normalfont
7369 \trivlist
7370 \let\thmheadnl\relax
7371 \let\thm@swap\@gobble
7372 \let\thm@indent\indent % indent
7373 \thm@headfont{\scshape}% heading font small caps
7374 \thm@notefont{\fontseries\mddefault\upshape}%
7375 \thm@headpunct{.}% add period after heading
7376 \thm@headsep 5\p@ plus\p@ minus\p@\relax
7377 \thm@space@setup
7378 #1% style overrides
7379 \@topsep \thm@preskip % used by thm head
7380 \@topsepadd \thm@postskip % used by \@endparenv
7381 \def\dth@counter{#2}%
7382 \ifx\@empty\dth@counter
7383 \def\@tempa{%
7384 \@oparg{\@begintheorem{#3}{}}{}}%
7385 }%
7386 \else
7387 \H@refstepcounter{#2}%
7388 \hyper@makecurrent{#2}%
7389 \let\Hy@dth@currentHref\@currentHref
7390 \def\@tempa{%
7391 \@oparg{\@begintheorem{#3}{\csname the#2\endcsname}}{}}%
7392 }%
7393 \fi
7394 \@tempa
7395 }%
7396 \else
7397 \def\@thm#1#2#3{%
7398 \ifhmode
7399 \unskip\unskip\par
7400 \fi
7401 \normalfont
7402 \trivlist

```

```

7403 \let\thmheadnl\relax
7404 \let\thm@swap\@gobble
7405 \thm@notefont{\fontseries\mddefault\upshape}%
7406 \thm@headpunct{.}% add period after heading
7407 \thm@headsep 5\p@ plus\p@ minus\p@\relax
7408 \thm@space@setup
7409 #1% style overrides
7410 \@topsep \thm@preskip % used by thm head
7411 \@topsepadd \thm@postskip % used by \@endparenv
7412 \def\dth@counter{#2}%
7413 \ifx\@empty\dth@counter
7414 \def\@tempa{%
7415 \@oparg{\@begintheorem{#3}{}}}%
7416 }%
7417 \else
7418 \H@refstepcounter{#2}%
7419 \hyper@makecurrent{#2}%
7420 \let\Hy@dth@currentHref\@currentHref
7421 \def\@tempa{%
7422 \@oparg{\@begintheorem{#3}{\csname the#2\endcsname}}}%
7423 }%
7424 \fi
7425 \@tempa
7426 }%
7427 \fi
7428 \dth@everypar={%
7429 \@minipagefalse
7430 \global\@newlistfalse
7431 \@noperitemfalse
7432 \if@inlabel
7433 \global\@inlabelfalse
7434 \begingroup
7435 \setbox\z@\lastbox
7436 \ifvoid\z@
7437 \kern-\itemindent
7438 \fi
7439 \endgroup
7440 \ifx\@empty\dth@counter
7441 \else
7442 \Hy@raisedlink{%
7443 \hyper@anchorstart{%
7444 \ltx@ifundefined{Hy@dth@currentHref}%
7445 \@currentHref\Hy@dth@currentHref
7446 }\hyper@anchorend
7447 }%
7448 \fi
7449 \unhbox\@labels
7450 \fi
7451 \if@nobreak
7452 \@nobreakfalse \clubpenalty\@M
7453 \else
7454 \clubpenalty\@clubpenalty \everypar{}%
7455 \fi
7456 }%
7457 }{}

```

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.

```

7458 \ifHy@hyperfootnotes
7459   \newcounter{Hfootnote}%
7460   \let\H@@@footnotetext\@footnotetext
7461   \let\H@@@footnotemark\@footnotemark
7462   \def\@xfootnotenext[#1]{%
7463     \begingroup
7464       \csname c@\@mpfn\endcsname #1\relax
7465       \unrestored@protected@xdef\@thefnmark{\thempfn}%
7466     \endgroup
7467     \ifx\@footnotetext\@mpfootnotetext
7468       \expandafter\H@@@mpfootnotetext
7469     \else
7470       \expandafter\H@@@footnotetext
7471     \fi
7472   }%
7473   \def\@xfootnotemark[#1]{%
7474     \begingroup
7475       \c@footnote #1\relax
7476       \unrestored@protected@xdef\@thefnmark{\thefootnote}%
7477     \endgroup
7478     \H@@@footnotemark
7479   }%
7480   \let\H@@@mpfootnotetext\@mpfootnotetext
7481   \long\def\@mpfootnotetext#1{%
7482     \H@@@mpfootnotetext{%
7483       \ifHy@nesting
7484         \expandafter\ltx@firstoftwo
7485       \else
7486         \expandafter\ltx@secondoftwo
7487       \fi
7488     }%
7489     \expandafter\hyper@@@anchor\expandafter{%
7490       \Hy@footnote@currentHref
7491     }{#1}%
7492   }{%
7493     \Hy@raisedlink{%
7494       \expandafter\hyper@@@anchor\expandafter{%
7495         \Hy@footnote@currentHref
7496       }{\relax}%
7497     }#1%
7498   }%
7499   }%
7500 }%
7501 \long\def\@footnotetext#1{%
7502   \H@@@footnotetext{%
7503     \ifHy@nesting
7504       \expandafter\ltx@firstoftwo
7505     \else
7506       \expandafter\ltx@secondoftwo
7507     \fi

```

```

7508  {%
7509    \expandafter\hyper@@anchor\expandafter{%
7510      \Hy@footnote@currentHref
7511    }{#1}%
7512  }{%
7513    \Hy@raisedlink{%
7514      \expandafter\hyper@@anchor\expandafter{%
7515        \Hy@footnote@currentHref
7516      }\relax}%
7517    }%
7518    \let\@currentHref\Hy@footnote@currentHref
7519    \let\@currentlabelname\@empty
7520    #1%
7521  }%
7522 }%
7523 }%

```

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.

```

7524 \def\@footnotemark{%
7525   \leavevmode
7526   \ifhmode\edef\@x@sf{\the\spacefactor}\nobreak\fi
7527   \stepcounter{Hfootnote}%
7528   \global\let\Hy@saved@currentHref\@currentHref
7529   \hyper@makecurrent{Hfootnote}%
7530   \global\let\Hy@footnote@currentHref\@currentHref
7531   \global\let\@currentHref\Hy@saved@currentHref
7532   \hyper@linkstart{link}{\Hy@footnote@currentHref}%
7533   \@makefnmark
7534   \hyper@linkend
7535   \ifhmode\spacefactor\@x@sf\fi
7536   \relax
7537 }%

```

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

```

7538 \@ifpackageloaded{tabularx}{%
7539   \let\HyOrg@TX@endtabularx\TX@endtabularx
7540   \def\Hy@tabularx@hook{%
7541     \let\@footnotetext\H@@footnotetext
7542     \let\@footnotemark\H@@footnotemark
7543     \let\@mpfootnotetext\H@@mpfootnotetext
7544   }%
7545   \begingroup
7546     \toks@\expandafter{\TX@endtabularx}%
7547     \xdef\Hy@gtemp{%
7548       \noexpand\Hy@tabularx@hook
7549       \the\toks@
7550     }%
7551   \endgroup
7552   \let\TX@endtabularx\Hy@gtemp
7553 }{}%

```

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

```

7554 \ifpackageloaded{longtable}{%
7555   \CheckCommand*{\LT@p@ftntext}[1]{%
7556     \edef\@tempa{%
7557       \the\LT@p@ftn
7558       \noexpand\footnotetext[\the\c@footnote]%
7559     }%
7560     \global\LT@p@ftn\expandafter{\@tempa{#1}}%
7561   }%
7562   \long\def\LT@p@ftntext#1{%
7563     \edef\@tempa{%
7564       \the\LT@p@ftn
7565       \begingroup
7566         \noexpand\c@footnote=\the\c@footnote\relax
7567         \noexpand\protected@xdef\noexpand\@thefnmark{%
7568           \noexpand\thempfn
7569         }%
7570         \noexpand\Hy@LT@footnotetext{%
7571           \Hy@footnote@currentHref
7572         }%
7573       }%
7574       \global\LT@p@ftn\expandafter{%
7575         \@tempa{#1}%
7576       }\endgroup
7577     }%
7578   }%
7579   \long\def\Hy@LT@footnotetext#1#2{%
7580     \H@@@footnotetext{%
7581       \ifHy@nesting
7582         \hyper@@@anchor{#1}{#2}%
7583       \else
7584         \Hy@raisedlink{%
7585           \hyper@@@anchor{#1}{\relax}%
7586         }%
7587       \def\@currentHref{#1}%
7588       \let\@currentlabelname\@empty
7589       #2%
7590     }\fi
7591   }%
7592 }%
7593 }{}%
```

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

```

7594 \ifpackageloaded{fancyvrb}{%
7595   \def\V@@@footnotetext{%
7596     \insert\footins\bgroup
7597     \csname reset@font\endcsname
7598     \footnotesize
7599     \interlinepenalty\interfootnotelinepenalty
7600     \splittopskip\footnotesep
7601     \splitmaxdepth\dp\strutbox
7602     \floatingpenalty \@MM
7603     \hsize\columnwidth
7604     \@parboxrestore
7605     \edef\@currentlabel{\csname p@footnote\endcsname\@thefnmark}%
7606     \@makefnmark{}%
7607     \rule{\z@}{\footnotesep}%

```

```

7608 \bgroup
7609 \aftergroup\V@@@footnotetext
7610 \Hy@raisedlink{%
7611   \expandafter\hyper@@anchor\expandafter{%
7612     \Hy@footnote@currentHref
7613   }\relax}%
7614 }%
7615 \let\@currentHref\Hy@footnote@currentHref
7616 \let\@currentlabelname\@empty
7617 \ignorespaces
7618 }%
7619 }{}%

```

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

```

7620 \def\Hy@temp#1{%
7621   \begingroup
7622     \unrestored@protected@xdef\@thefnmark{\ref{#1}}%
7623   \endgroup
7624   \@footnotemark
7625 }%
7626 \ifx\Hy@temp\footref
7627   \def\footref#1{%
7628     \begingroup
7629       \unrestored@protected@xdef\@thefnmark{\ref{#1}}%
7630     \endgroup
7631     \H@@@footnotemark
7632   }%
7633 \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.

```

7634 \let\HyOrg@maketitle\maketitle
7635 \def\maketitle{%
7636   \let\Hy@saved@footnotemark\@footnotemark
7637   \let\Hy@saved@footnotetext\@footnotetext
7638   \let\@footnotemark\H@@@footnotemark
7639   \let\@footnotetext\H@@@footnotetext
7640   \@ifnextchar[\Hy@maketitle@optarg{% ]
7641     \HyOrg@maketitle
7642     \Hy@maketitle@end
7643   }%
7644 }%
7645 \def\Hy@maketitle@optarg[#1]{%
7646   \HyOrg@maketitle[{#1}]%
7647   \Hy@maketitle@end
7648 }%
7649 \def\Hy@maketitle@end{%
7650   \ifx\@footnotemark\H@@@footnotemark
7651     \let\@footnotemark\Hy@saved@footnotemark
7652   \fi
7653   \ifx\@footnotetext\H@@@footnotetext
7654     \let\@footnotetext\Hy@saved@footnotetext
7655   \fi
7656 }%

```

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

```

7657 \def\realfootnote{%
7658   \ifnextchar[\@xfootnote{%
7659     \stepcounter{\@mpfn}%
7660     \protected@xdef\@thefnmark{\thempfn}%
7661     \H@@footnotemark\H@@footnotetext
7662   }%
7663 }%

7664 \fi
7665 \Hy@DisableOption{hyperfootnotes}

7666 \</package>
7667 \<*check>
7668 \checklatex
7669 \checkcommand\def\@xfootnotenext[#1]{%
7670   \begingroup
7671     \csname c@\@mpfn\endcsname #1\relax
7672     \unrestored@protected@xdef\@thefnmark{\thempfn}%
7673   \endgroup
7674   \@footnotetext
7675 }
7676 \checkcommand\def\@xfootnotemark[#1]{%
7677   \begingroup
7678     \c@footnote #1\relax
7679     \unrestored@protected@xdef\@thefnmark{\thefootnote}%
7680   \endgroup
7681   \@footnotemark
7682 }
7683 \checkcommand\def\@footnotemark{%
7684   \leavevmode
7685   \ifhmode\edef\@x@sf{\the\spacefactor}\nobreak\fi
7686   \@makefnmark
7687   \ifhmode\spacefactor\@x@sf\fi
7688   \relax
7689 }
7690 \</check>
7691 \<*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.

```

7692 \def\caption{%
7693   \ifx\@capytype\@undefined
7694     \@latex@error{\noexpand\caption outside float}\@ehd
7695     \expandafter\@gobble
7696   \else
7697     \H@refstepcounter\@capytype
7698     \let\Hy@tempa\@caption
7699     \@ifundefined{float@caption}{%
7700       }{%
7701         \expandafter\ifx\csname @float@c@\@capytype\endcsname
7702           \float@caption
7703         \let\Hy@tempa\Hy@float@caption
7704       }
7705     }%
7706     \expandafter\@firstofone

```



```

7707 \fi
7708 {\@dblarg{\Hy@tempa\@captype}}%
7709 }
7710 \long\def\@caption#1[#2]#3{%
7711 \expandafter\ifx\csname if@capstart\expandafter\endcsname
7712 \csname iftrue\endcsname
7713 \global\let\@currentHref\hc@currentHref
7714 \else
7715 \hyper@makecurrent{\@captype}%
7716 \fi
7717 \@ifundefined{NR@gettitle}{%
7718 \def\@currentlabelname{#2}%
7719 }{%
7720 \NR@gettitle{#2}%
7721 }%
7722 \par\addcontentsline{\csname ext@#1\endcsname}{#1}{%
7723 \protect\numberline{\csname the#1\endcsname}{\ignorespaces #2}%
7724 }%
7725 \begingroup
7726 \@parboxrestore
7727 \if@minipage
7728 \setminipage
7729 \fi
7730 \normalsize
7731 \expandafter\ifx\csname if@capstart\expandafter\endcsname
7732 \csname iftrue\endcsname
7733 \global\@capstartfalse
7734 \@makecaption{\csname fnum@#1\endcsname}{\ignorespaces#3}%
7735 \else
7736 \@makecaption{\csname fnum@#1\endcsname}{%
7737 \ignorespaces

```

If we cannot have nesting, the anchor is empty.

```

7738 \ifHy@nesting
7739 \expandafter\hyper@@anchor\expandafter{\@currentHref}{#3}%
7740 \else
7741 \Hy@raisedlink{%
7742 \expandafter\hyper@@anchor\expandafter{%
7743 \@currentHref
7744 }{\relax}%
7745 }%
7746 #3%
7747 \fi
7748 }%
7749 \fi
7750 \par
7751 \endgroup
7752 }

```

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’.

```

7753 \let\Hy@float@caption\@caption
7754 \newcommand{\HyNew@float@makebox}[1]{%
7755 \HyOrg@float@makebox{%
7756 #1\relax

```

```

7757 \ifx\Hy@float@currentHref\@undefined
7758 \else
7759 \expandafter\hyper@anchor\expandafter{%
7760 \Hy@float@currentHref
7761 }{\relax}%
7762 \global\let\Hy@float@currentHref\@undefined
7763 \fi
7764 }%
7765 }%
7766 \@ifpackageloaded{float}{%
7767 \def\Hy@float@caption{%
7768 \ifx\Hy@float@currentHref\@undefined
7769 \hyper@makecurrent{\@capttype}%
7770 \global\let\Hy@float@currentHref\@currentHref
7771 \else
7772 \let\@currentHref\Hy@float@currentHref
7773 \fi
7774 \float@caption
7775 }%
7776 \let\HyOrg@float@makebox\float@makebox
7777 \let\float@makebox\HyNew@float@makebox
7778 }{}
7779 \</package>
7780 \< *check>
7781 \checklatex[1999/06/01 - 2000/06/01]
7782 \checkcommand\def\caption{%
7783 \ifx\@capttype\@undefined
7784 \@latex@error{\noexpand\caption outside float}\@ehd
7785 \expandafter\@gobble
7786 \else
7787 \refstepcounter\@capttype
7788 \expandafter\@firstofone
7789 \fi
7790 {\@dblarg{\@caption\@capttype}}%
7791 }
7792 \checkcommand\long\def\@caption#1[#2]#3{%
7793 \par
7794 \addcontentsline{\csname ext@#1\endcsname}{#1}{%
7795 \protect\numberline{\csname the#1\endcsname}{\ignorespaces #2}%
7796 }%
7797 \begingroup
7798 \@parboxrestore
7799 \if@minipage
7800 \setminipage
7801 \fi
7802 \normalsize
7803 \@makecaption{\csname fnum@#1\endcsname}{\ignorespaces #3}\par
7804 \endgroup
7805 }
7806 \</check>
7807 \< *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.

```

7808 \def\hyper@natlinkstart#1{%
7809   \Hy@backout{#1}%
7810   \hyper@linkstart{cite}{cite.#1}%
7811   \def\hyper@nat@current{#1}%
7812 }
7813 \def\hyper@natlinkend{%
7814   \hyper@linkend
7815 }
7816 \def\hyper@natlinkbreak#1#2{%
7817   \hyper@linkend#1\hyper@linkstart{cite}{cite.#2}%
7818 }
7819 \def\hyper@natanchorstart#1{%
7820   \Hy@raisedlink{\hyper@anchorstart{cite.#1}}%
7821 }
7822 \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.

```

7823 \ltx@ifundefined{NAT@parse}{%
7824   \providecommand*\@extra@binfo{}%
7825   \providecommand*\@extra@b@citeb{}%
7826   \def\bibcite#1#2{%
7827     \@newl@bel{b}{#1\@extra@binfo}{%
7828       \hyper@link{cite}{cite.#1\@extra@b@citeb}{#2}%
7829     }%
7830   }%
7831   \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.”.

```

7832 \let\Hy@bibcite\bibcite
7833 \begingroup
7834   \@ifundefined{bbl@cite@choice}{}{%
7835     \g@addto@macro\bbl@cite@choice{%
7836       \let\bibcite\Hy@bibcite
7837     }%
7838   }%
7839 \endgroup

```

`\@BIBLABEL` is working around a ‘feature’ of Rev_{TeX}.

```

7840 \providecommand*\@BIBLABEL{\@biblabel}%
7841 \def\@bibitem[#1]#2{%
7842   \@skiphyperrreftrue
7843   \H@item[%
7844     \ifx\Hy@raisedlink\@empty
7845       \hyper@anchorstart{cite.#2\@extra@b@citeb}%
7846       \@BIBLABEL{#1}%
7847     \hyper@anchorend
7848   \else
7849     \Hy@raisedlink{%

```

```

7850     \hyper@anchorstart{cite.#2\@extra@b@citeb}\hyper@anchorend
7851     }%
7852     \@BIBLABEL{#1}%
7853     \fi
7854     \hfill
7855     ]%
7856     \@skiphyperreffalse
7857     \if@filesw
7858     \begingroup
7859     \let\protect\noexpand
7860     \immediate\write\@auxout{%
7861     \string\bibcite{#2}{#1}%
7862     }%
7863     \endgroup
7864     \fi
7865     \ignorespaces
7866     }%

```

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

```

7867 \def\@bibitem#1{%
7868   \@skiphyperrefftrue\H@item\@skiphyperreffalse
7869   \Hy@raisedlink{%
7870     \hyper@anchorstart{cite.#1\@extra@b@citeb}\relax\hyper@anchorend
7871   }%
7872   \if@filesw
7873   \begingroup
7874   \let\protect\noexpand
7875   \immediate\write\@auxout{%
7876     \string\bibcite{#1}{\the\value{\@listctr}}}%
7877   }%
7878   \endgroup
7879   \fi
7880   \ignorespaces
7881   }%
7882 }{}

7883 \</package>
7884 \<*check>
7885 \checklatex
7886 \checkcommand\def\@lbibitem[#1]#2{%
7887   \item[\@biblabel{#1}\hfill]%
7888   \if@filesw
7889   {%
7890     \let\protect\noexpand
7891     \immediate\write\@auxout{%
7892       \string\bibcite{#2}{#1}%
7893     }%
7894   }%
7895   \fi
7896   \ignorespaces
7897 }
7898 \checkcommand\def\@bibitem#1{%
7899   \item
7900   \if@filesw
7901   \immediate\write\@auxout{%
7902     \string\bibcite{#1}{\the\value{\@listctr}}}%
7903   }%

```

```

7904 \fi
7905 \ignorespaces
7906 }
7907 </check>
7908 <*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.

```

7909 \ifclassloaded{revtex}{%
7910 \Hy@Info{*** compatibility with revtex **** }%
7911 \def\revtex@checking#1#2{%
7912 \expandafter\let\expandafter\T@temp\csname b@#1\endcsname
7913 \expandafter\def\csname b@#1\endcsname{#2}%
7914 \@SetMaxRnhefLabel{#1}%
7915 \expandafter\let\csname b@#1\endcsname\T@temp
7916 }%

```

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

```

7917 \@ifundefined{CITE}{\def\CITE{\@cite}}{}%
7918 \providecommand*\@extra@b@citeb{}%
7919 \def\CITE[#1]#2{%
7920 \let\@citea\@empty
7921 \leavevmode
7922 \unskip
7923 $\{ %
7924 \scriptstyle
7925 \@CITE{%
7926 \@for\@citeb:=#2\do{%
7927 \@citea
7928 \def\@citea{,\penalty\@m\ }%
7929 \edef\@citeb{\expandafter\@firstofone\@citeb}%
7930 \if@filesw
7931 \immediate\write\@auxout{\string\citation{\@citeb}}%
7932 \fi
7933 \@ifundefined{b@\@citeb\extra@b@citeb}{}%
7934 \mbox{\reset@font\bfseries ?}%
7935 \G@refundefinedtrue
7936 \@latex@warning{%
7937 Citation ‘\@citeb’ on page \thepage \space undefined%
7938 }%
7939 }%
7940 {\csname b@\@citeb\@extra@b@citeb\endcsname}%
7941 }%
7942 }%
7943 }{#1}%
7944 }$%
7945 }%

```

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.

```

7946 \def\@citex[#1]#2{%
7947 \let\@citea\@empty
7948 \@cite{%
7949 \@for\@citeb:=#2\do{%
7950 \@citea
7951 \def\@citea{,\penalty\@m\ }%

```

```

7952 \edef\@citeb{\expandafter\@firstofone\@citeb}%
7953 \if@filesw
7954 \immediate\write\@auxout{\string\citation{\@citeb}}}%
7955 \fi
7956 \ifundefined{b@\@citeb\@extra@b@citeb}{%
7957 \mbox{\reset@font\bfseries ?}%
7958 \G@refundefinedtrue
7959 \@latex@warning{%
7960 Citation '\@citeb' on page \thepage \space undefined%
7961 }%
7962 }{%
7963 \hbox{\csname b@\@citeb\@extra@b@citeb\endcsname}%
7964 }%
7965 }%
7966 }{#1}%
7967 }%
7968 }{}

```

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.

```

7969 \@ifpackageloaded{harvard}{%
7970 \Hy@AtBeginDocument{%
7971 \Hy@Info{*** compatibility with harvard **** }%
7972 \Hy@raiselinksfalse
7973 \def\harvardcite#1#2#3#4{%
7974 \global\@namedef{HAR@fn@#1}{\hyper@link[cite]{}{cite.#1}{#2}}%
7975 \global\@namedef{HAR@an@#1}{\hyper@link[cite]{}{cite.#1}{#3}}%
7976 \global\@namedef{HAR@yr@#1}{\hyper@link[cite]{}{cite.#1}{#4}}%
7977 \global\@namedef{HAR@df@#1}{\csname HAR@fn@#1\endcsname}%
7978 }%
7979 \def\HAR@citetoaux#1{%
7980 \if@filesw\immediate\write\@auxout{\string\citation{#1}}\fi%
7981 \ifHy@backref
7982 \ifx\@empty\@currentlabel
7983 \else
7984 \@bsphack
7985 \if@filesw
7986 \protected@write\@auxout{}{%
7987 \string\@writefile{brf}{%
7988 \string\backcite{#1}{%
7989 {\thepage}{\@currentlabel}{\@currentHref}%
7990 }%
7991 }%
7992 }%
7993 \fi
7994 \@esphack
7995 \fi
7996 \fi
7997 }%

```

```

7998 \def\harvarditem{%
7999 \ifnextchar[{\@harvarditem}{\@harvarditem[\null]}}%
8000 }%
8001 \def\@harvarditem[#1]#2#3#4#5\par{%
8002 \item[]%
8003 \hyper@anchorstart{cite.#4}\relax\hyper@anchorend
8004 \if@filesw
8005 \begingroup
8006 \def\protect##1{\string ##1\space}%
8007 \ifthenelse\equal{#1}{\null}}{%
8008 {\def\next{{#4}{#2}{#2}{#3}}}%
8009 {\def\next{{#4}{#2}{#1}{#3}}}%
8010 \immediate\write\@auxout{\string\harvardcite\codeof\next}%
8011 \endgroup
8012 \fi
8013 \protect\hspace*{-\labelwidth}%
8014 \protect\hspace*{-\labelsep}%
8015 \ignorespaces
8016 #5%
8017 \ifHy@backref
8018 \newblock
8019 \backref{\csname br@#4\endcsname}%
8020 \fi
8021 \par
8022 }%

```

\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:

```

8023 \long\def\HAR@checkcitations#1#2#3#4{%
8024 \def\HAR@tempa{\hyper@@link[cite]{}{cite.#1}{#2}}%
8025 \expandafter\ifx\csname HAR@fn@#1\endcsname\HAR@tempa
8026 \def\HAR@tempa{\hyper@@link[cite]{}{cite.#1}{#3}}%
8027 \expandafter\ifx\csname HAR@an@#1\endcsname\HAR@tempa
8028 \def\HAR@tempa{\hyper@@link[cite]{}{cite.#1}{#4}}%
8029 \expandafter\ifx\csname HAR@yr@#1\endcsname\HAR@tempa
8030 \else
8031 \@tempswatrue
8032 \fi
8033 \else
8034 \@tempswatrue
8035 \fi
8036 \else
8037 \@tempswatrue
8038 \fi
8039 }%
8040 }%
8041 }{}

```

38.2 Package chicago

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

```
8042 \@ifpackageloaded{chicago}{%
```

\citeN

```
8043 \def\citeN{%
```

```

8044 \def\@citeseppen{-1000}%
8045 \def\@cite##1##2{##1}%
8046 \def\citeauthoryear##1##2##3{##1 (##3\@cite@opt)}%
8047 \@citedata@opt
8048 }%

\shortciteN
8049 \def\shortciteN{%
8050 \def\@citeseppen{-1000}%
8051 \def\@cite##1##2{##1}%
8052 \def\citeauthoryear##1##2##3{##2 (##3\@cite@opt)}%
8053 \@citedata@opt
8054 }%

\@citedata@opt
8055 \def\@citedata@opt{%
8056 \let\@cite@opt\@empty
8057 \@ifnextchar [{%
8058 \@tempswatrue
8059 \@citedatax@opt
8060 }{%
8061 \@tempswafalse
8062 \@citedatax[]%
8063 }%
8064 }%

\@citedatax@opt
8065 \def\@citedatax@opt[#1]{%
8066 \def\@cite@opt{, #1}%
8067 \@citedatax[{#1}]%
8068 }%

8069 }{}

```

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.

```

8070 \ltx@ifclassloaded{slides}{%
8071 \def\Hy@SlidesFormatOptionalPage#1{(#1)}%
8072 \def\Hy@PageAnchorSlidesPlain{%
8073 \advance\c@page\ltx@one
8074 \edef\Hy@TempPageAnchor{%
8075 \noexpand\hyper@@@anchor{%
8076 page.\the\c@slide.\the\c@overlay.\the\c@note%
8077 \ifnum\c@page=\ltx@one
8078 \else
8079 .\the\c@page
8080 \fi
8081 }%
8082 }%
8083 \advance\c@page-\ltx@one

```



```

8084 }%
8085 \def\Hy@PageAnchorSlide{%
8086   \advance\c@page\ltx@one
8087   \ifnum\c@page>\ltx@one
8088     \ltx@ifundefined{theHpage}{%
8089       \protected@edef\Hy@TheSlideOptionalPage{%
8090         \Hy@SlidesFormatOptionalPage{thepage}%
8091       }%
8092     }{%
8093       \protected@edef\Hy@TheSlideOptionalPage{%
8094         \Hy@SlidesFormatOptionalPage{theHpage}%
8095       }%
8096     }%
8097   \else
8098     \def\Hy@TheSlideOptionalPage{}%
8099   \fi
8100   \advance\c@page-\ltx@one
8101   \pdfstringdef\@the@H@page{%
8102     \csname
8103       the%
8104       \ltx@ifundefined{theH\Hy@SlidesPage}{H}%
8105       \Hy@SlidesPage
8106     \endcsname
8107     \Hy@TheSlideOptionalPage
8108   }%
8109   \ltx@gobblethree
8110 }%
8111 \def\Hy@SlidesPage{slide}%
8112 \g@addto@macro\slide{%
8113   \def\Hy@SlidesPage{slide}%
8114 }%
8115 \g@addto@macro\overlay{%
8116   \def\Hy@SlidesPage{overlay}%
8117 }%
8118 \g@addto@macro\note{%
8119   \def\Hy@SlidesPage{note}%
8120 }%
8121 }{%
8122 \def\Hy@PageAnchorSlidesPlain{}%
8123 \def\Hy@PageAnchorSlide{}%
8124 }
8125 \def\Hy@EveryPageAnchor{%
8126   \Hy@DistillerDestFix
8127   \ifHy@pageanchor
8128     \ifHy@hypertextnames
8129       \ifHy@plainpages
8130         \def\Hy@TempPageAnchor{\hyper@@anchor{page.\the\c@page}}%
8131         \Hy@PageAnchorSlidesPlain
8132       \else
8133         \begingroup
8134           \let\@number\@firstofone
8135           \Hy@unicodedefalse
8136           \Hy@PageAnchorSlide
8137           \pdfstringdef\@the@H@page{\thepage}%
8138         \endgroup
8139         \EdefUnescapeString\@the@H@page{\@the@H@page}%
8140         \def\Hy@TempPageAnchor{\hyper@@anchor{page.\@the@H@page}}%

```

```

8141 \fi
8142 \else
8143 \Hy@GlobalStepCount\Hy@pagecounter
8144 \def\Hy@TempPageAnchor{%
8145 \hyper@@anchor{page.\the\Hy@pagecounter}%
8146 }%
8147 \fi
8148 \vbox to 0pt{%
8149 \kern\voffset
8150 \kern\topmargin
8151 \kern-1bp\relax
8152 \hbox to 0pt{%
8153 \kern\hoffset
8154 \kern\ifodd\value{page}%
8155 \oddsidemargin
8156 \else
8157 \evensidemargin
8158 \fi
8159 \kern-1bp\relax
8160 \Hy@TempPageAnchor\relax
8161 \hss
8162 }%
8163 \vss
8164 }%
8165 \fi
8166 }
8167 \g@addto@macro\Hy@EveryPageBoxHook{%
8168 \Hy@EveryPageAnchor
8169 }

```

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.

```

8170 \def\addcontentsline#1#2#3{% toc extension, type, tag
8171 \begingroup
8172 \let\label\@gobble
8173 \ifx\@currentHref\@empty
8174 \Hy@Warning{%
8175 No destination for bookmark of \string\addcontentsline,%
8176 \MessageBreak destination is added%
8177 }%
8178 \phantomsection
8179 \fi
8180 \expandafter\ifx\csname toplevel@#2\endcsname\relax
8181 \begingroup
8182 \def\Hy@tempa{#1}%
8183 \ifx\Hy@tempa\Hy@bookmarkstype
8184 \Hy@WarningNoLine{%
8185 bookmark level for unknown #2 defaults to 0%
8186 }%
8187 \else
8188 \Hy@Info{bookmark level for unknown #2 defaults to 0}%
8189 \fi
8190 \endgroup

```

```

8191 \expandafter\gdef\csname toplevel@#2\endcsname{0}%
8192 \fi
8193 \edef\Hy@toplevel{\csname toplevel@#2\endcsname}%
8194 \Hy@writebookmark{\csname the#2\endcsname}%
8195 {#3}%
8196 {\@currentHref}%
8197 {\Hy@toplevel}%
8198 {#1}%
8199 \ifHy@verbose
8200 \begingroup
8201 \def\Hy@tempa{#3}%
8202 \@onelevel@sanitize\Hy@tempa
8203 \let\temp@online\on@line
8204 \let\on@line\@empty
8205 \Hy@Info{%
8206 bookmark\temp@online:\MessageBreak
8207 thecounter {\csname the#2\endcsname}\MessageBreak
8208 text {\Hy@tempa}\MessageBreak
8209 reference {\@currentHref}\MessageBreak
8210 toplevel {\Hy@toplevel}\MessageBreak
8211 type {#1}%
8212 }%
8213 \endgroup
8214 \fi
8215 \addtocontents{#1}{%
8216 \protect\contentsline{#2}{#3}{\thepage}{\@currentHref}%
8217 }%
8218 \endgroup
8219 }
8220 \def\contentsline#1#2#3#4{%
8221 \ifx\#4\%
8222 \csname l@#1\endcsname{#2}{#3}%
8223 \else
8224 \ifcase\Hy@linktoc % none
8225 \csname l@#1\endcsname{#2}{#3}%
8226 \or % section
8227 \csname l@#1\endcsname{%
8228 \hyper@linkstart{link}{#4}{#2}\hyper@linkend
8229 }{#3}%
8230 \or % page
8231 \csname l@#1\endcsname{#2}{#3}%
8232 \hyper@linkstart{link}{#4}{#3}\hyper@linkend
8233 }%
8234 \else % all
8235 \csname l@#1\endcsname{%
8236 \hyper@linkstart{link}{#4}{#2}\hyper@linkend
8237 }{#3}%
8238 \hyper@linkstart{link}{#4}{#3}\hyper@linkend
8239 }%
8240 \fi
8241 \fi
8242 }
8243 \</package>
8244 \*check>
8245 \checklatex
8246 \checkcommand\def\addcontentsline#1#2#3{%
8247 \addtocontents{#1}{\protect\contentsline{#2}{#3}{\thepage}}%

```

```

8248 }
8249 \checkcommand\def\contentsline#1{\csname l@#1\endcsname}
8250 \</check>
8251 \*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.

```

8252 \let\H@definecounter\@definecounter
8253 \def\@definecounter#1{%
8254   \H@definecounter{#1}%
8255   \expandafter\gdef\csname theH#1\endcsname{\arabic{#1}}%
8256 }

```

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.

```

8257 \let\H@newctr\@newctr
8258 \def\@newctr#1[#2]{%
8259   \H@newctr#1{#2}%
8260   \expandafter\gdef\csname theH#1\endcsname{%
8261     \csname the\@ifundefined{theH#2}{H}{H}#2\endcsname.\arabic{#1}%
8262   }%
8263 }

```

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.

```

8264 \@ifpackageloaded{amsmath}{%
8265   \def\Hy@make@anchor{%
8266     \Hy@MakeCurrentHrefAuto{AMS}%
8267     \Hy@raisedlink{\hyper@anchorstart{\@currentHref}\hyper@anchorend}%
8268   }%
8269   \def\Hy@make@df@tag@@#1{%
8270     \gdef\df@tag{%
8271       \maketag@@@{\Hy@make@anchor#1}%
8272       \def\@currentlabel{#1}%
8273     }%
8274   }%
8275   \def\Hy@make@df@tag@@@#1{%
8276     \gdef\df@tag{%
8277       \tagform@{\Hy@make@anchor#1}%
8278       \toks@{\xp{p@equation{#1}}}%
8279       \edef\@currentlabel{\the\toks@}%
8280     }%
8281   }%
8282   \let\HyOrg@make@df@tag@@\make@df@tag@@
8283   \let\HyOrg@make@df@tag@@@ \make@df@tag@@@
8284   \let\make@df@tag@@\Hy@make@df@tag@@
8285   \let\make@df@tag@@@ \Hy@make@df@tag@@@

```

```
8286 }{}
```

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

```
8287 \ifpackagewith{hyperref}{pdftex}{%
8288   \let\H@seteqlabel\@seteqlabel
8289   \def\@seteqlabel#1{%
8290     \H@seteqlabel{#1}%
8291     \xdef\@currentHref{AMS.\the\Hy@linkcounter}%
8292     \Hy@raisedlink{%
8293       \hyper@anchorstart{\@currentHref}\hyper@anchorend
8294     }%
8295   }%
8296 }{}
```

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.

```
8297 \let\HyOrg@addtoreset\@addtoreset
8298 \def\@addtoreset#1#2{%
8299   \HyOrg@addtoreset{#1}{#2}%
8300   \expandafter\xdef\csname theH#1\endcsname{%
8301     \expandafter\noexpand
8302     \csname the\@ifundefined{theH#2}{H#2\endcsname
8303     .\noexpand\the\noexpand\value{#1}}%
8304   }%
8305 }
```

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

```
8306 \</package>
8307 \< *check>
8308 \checkpackage{amsmath}[1999/12/14 - 2000/06/06]
8309 \checkcommand\newcommand{\numberwithin}[3][\arabic]{%
8310   \@ifundefined{c@#2}{\@nocounterr{#2}}{%
8311     \@ifundefined{c@#3}{\@nocnterr{#3}}{%
8312       \@addtoreset{#2}{#3}%
8313       \@xp\xdef\csname the#2\endcsname{%
8314         \@xp\@nx\csname the#3\endcsname .\@nx#1{#2}%
8315       }%
8316     }%
8317   }%
8318 }%
8319 \</check>
8320 \< *package>
```

```

8321 \ifpackageloaded{amsmath}{%
8322   \ifpackagelater{amsmath}{1999/12/14}{%
8323     \renewcommand*{\numberwithin}{3}[\arabic]{%
8324       \@ifundefined{c@#2}{\@nocounterr{#2}}{%
8325         \@ifundefined{c@#3}{\@nocnterr{#3}}{%
8326           \HyOrg@addtoreset{#2}{#3}%
8327           \@xp\xdef\csname the#2\endcsname{%
8328             \@xp\@nx\csname the#3\endcsname .\@nx#1{#2}%
8329           }%
8330           \@xp\xdef\csname theH#2\endcsname{%
8331             \@xp\@nx
8332             \csname the\@ifundefined{theH#3}{H#3\endcsname
8333             .\@nx#1{#2}%
8334           }%
8335         }%
8336       }%
8337     }%
8338   }{%
8339     \Hy@WarningNoLine{%
8340       \string\numberwithin\space of package 'amsmath' %
8341       only fixed\MessageBreak
8342       for version 2000/06/06 v2.12 or newer%
8343     }%
8344   }%
8345 }{}

```

43 Included figures

Simply intercept the low level graphics package macro.

```

8346 \ifHy@hyperfigures
8347   \let\Hy@Gin@setfile\Gin@setfile
8348   \def\Gin@setfile#1#2#3{%
8349     \hyperimage{#3}{\Hy@Gin@setfile{#1}{#2}{#3}}%
8350   }%
8351 \fi
8352 \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.

```

8353 \ifHy@hyperindex
8354   \def\HyInd@ParenLeft{({}%
8355   \def\HyInd@ParenRight{)}}%
8356   \def\hyperindexformat#1#2{%
8357     \let\HyOrg@hyperpage\hyperpage
8358     \let\hyperpage\@firstofone

```

```

8359   #1{\HyOrg@hyperpage{#2}}%
8360   \let\hyperpage\HyOrg@hyperpage
8361 }%
8362 \Hy@nextfalse
8363 \@ifpackageloaded{multind}{\Hy@nexttrue}{}%
8364 \@ifpackageloaded{index}{\Hy@nexttrue}{}%
8365 \@ifpackageloaded{amsmidx}{\Hy@nexttrue}{}%
8366 \begingroup
8367   \lccode'\l=\expandafter'\HyInd@EncapChar\relax
8368   \lccode'\l/='\l\relax
8369 \lowercase{\endgroup
8370 \ifHy@next
8371   \let\HyInd@org@wrindex\@wrindex
8372   \def\@wrindex#1#2{\HyInd@C@wrindex{#1}#2||\}%
8373   \def\HyInd@C@wrindex#1#2|#3|#4\{%
8374     \ifx\|#3\%
8375       \HyInd@org@wrindex{#1}{#2|hyperpage}%
8376     \else
8377       \HyInd@C@C@wrindex{#1}{#2}#3\%
8378     \fi
8379   }%
8380   \def\HyInd@C@C@wrindex#1#2#3#4\{%
8381     \def\Hy@temp@A{#3}%
8382     \ifcase0\ifx\Hy@temp@A\HyInd@ParenLeft 1\fi
8383       \ifx\Hy@temp@A\HyInd@ParenRight 1\fi
8384       \relax
8385       \HyInd@org@wrindex{#1}{%
8386         #2|hyperindexformat{/#3#4}%
8387       }%
8388     \else
8389       \ifx\|#4\%
8390         \ifx\Hy@temp@A\HyInd@ParenRight
8391           \HyInd@org@wrindex{#1}{#2|#3}%
8392         \else
8393           \HyInd@org@wrindex{#1}{#2|#3hyperpage}%
8394         \fi
8395       \else
8396         \HyInd@org@wrindex{#1}{%
8397           #2|#3hyperindexformat{/#4}%
8398         }%
8399       \fi
8400     \fi
8401   }%
8402 \else
8403   \def\@wrindex#1{\@C@wrindex#1||\}%
8404   \def\@C@wrindex#1|#2|#3\{%
8405     \if@filesw
8406       \ifx\|#2\%
8407         \protected@write\@indexfile{}\{%
8408           \string\indexentry{#1|hyperpage}{\thepage}%
8409         }%
8410       \else
8411         \HyInd@C@C@wrindex{#1}#2\%
8412       \fi
8413     \fi
8414   \endgroup
8415 \@esphack

```

```

8416 }%
8417 \def\HyInd@@@wrindex#1#2#3\{%
8418 \def\Hy@temp@A{#2}%
8419 \ifcase0\ifx\Hy@temp@A\HyInd@ParenLeft 1\fi
8420 \ifx\Hy@temp@A\HyInd@ParenRight 1\fi
8421 \relax
8422 \protected@write\@indexfile{}\{%
8423 \string\indexentry{%
8424 #1|hyperindexformat{/#2#3}%
8425 }\the page}%
8426 }%
8427 \else
8428 \ifx\#3\%
8429 \ifx\Hy@temp@A\HyInd@ParenRight
8430 \protected@write\@indexfile{}\{%
8431 \string\indexentry{#1|#2|\the page}%
8432 }%
8433 \else
8434 \protected@write\@indexfile{}\{%
8435 \string\indexentry{#1|#2hyperpage}\the page}%
8436 }%
8437 \fi
8438 \else
8439 \protected@write\@indexfile{}\{%
8440 \string\indexentry{%
8441 #1|#2hyperindexformat{/#3}%
8442 }\the page}%
8443 }%
8444 \fi
8445 \fi
8446 }%
8447 \fi
8448 }%
8449 \fi
8450 \Hy@DisableOption{hyperindex}
8451 \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.

```

8452 \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.

```

8453 \def\hyperpage#1{%
8454 \HyInd@hyperpage#1\nohyperpage{}\@nil
8455 }
8456 \def\HyInd@hyperpage#1\nohyperpage#2#3\@nil{%
8457 \HyInd@@hyperpage{#1}%
8458 #2%
8459 \def\Hy@temp{#3}%
8460 \ifx\Hy@temp\@empty
8461 \else
8462 \ltx@ReturnAfterFi{%
8463 \HyInd@hyperpage#3\@nil
8464 }%
8465 \fi
8466 }

```



```

8467 \def\HyInd@@hyperpage#1{\@hyperpage#1---\}
8468 \def\@hyperpage#1--#2--#3\{\%
8469   \ifx\#2\%
8470     \@commahyperpage{#1}%
8471   \else
8472     \HyInd@pagelink{#1}--\HyInd@pagelink{#2}%
8473   \fi
8474 }
8475 \def\@commahyperpage#1{\@commahyperpage#1, \}
8476 \def\@commahyperpage#1, #2,#3\{\%
8477   \ifx\#2\%
8478     \HyInd@pagelink{#1}%
8479   \else
8480     \HyInd@pagelink{#1}, \HyInd@pagelink{#2}%
8481   \fi
8482 }

```

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

```

8483 \def\HyInd@pagelink#1{%
8484   \begingroup
8485   \toks@={}%
8486   \HyInd@removespaces#1 \@nil
8487   \endgroup
8488 }
8489 \def\HyInd@removespaces#1 #2\@nil{%
8490   \toks@=\expandafter{\the\toks@#1}%
8491   \ifx\#2\%
8492     \edef\x{\the\toks@}%
8493     \ifx\x\@empty
8494     \else
8495       \hyperlink{page.\the\toks@}{\the\toks@}%
8496     \fi
8497   \else
8498     \ltx@ReturnAfterFi{%
8499       \HyInd@removespaces#2\@nil
8500     }%
8501   \fi
8502 }

```

45 Compatibility with foiltex

```

8503 \@ifclassloaded{foils}{%
8504   \providecommand*\ext@table{lot}%
8505   \providecommand*\ext@figure{lof}%
8506 }{}

```

46 Compatibility with seminar slide package

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

```

8507 \@ifclassloaded{seminar}{%
8508   \Hy@seminarslidestrue
8509   \providecommand\theHslide{\arabic{slide}}%
8510 }{}%
8511 \Hy@seminarslidesfalse

```

```

8512 }
8513 \@ifpackageloaded{slidesec}{%
8514   \providecommand\theHslidesection {\arabic{slidesection}}%
8515   \providecommand\theHslidesubsection{%
8516     \theHslidesection.\arabic{slidesubsection}}%
8517 }%
8518 \def\slide@heading[#1]#2{%
8519   \H@refstepcounter{slidesection}%
8520   \@addtoreset{slidesubsection}{slidesection}%
8521   \addtocontents{los}{%
8522     \protect\l@slide{\the\c@slidesection}{\ignorespaces#1}%
8523     {\@SCTR}{slideheading.\theslidesection}}%
8524 }%
8525 \def\Hy@tempa{#2}%
8526 \ifx\Hy@tempa\@empty
8527 \else
8528   {%
8529     \edef\@currentlabel{%
8530       \csname p@slidesection\endcsname\theslidesection
8531     }%
8532     \makeslideheading{#2}%
8533   }%
8534 \fi
8535 \gdef\theslideheading{#1}%
8536 \gdef\theslidesubheading{}%
8537 \ifHy@bookmarksnumbered
8538   \def\Hy@slidetitle{\theslidesection\space #1}%
8539 \else
8540   \def\Hy@slidetitle{#1}%
8541 \fi
8542 \ifHy@hypertexnames
8543   \ifHy@naturalnames
8544     \hyper@@anchor{slideheading.\theslidesection}{\relax}%
8545     \Hy@writebookmark
8546       {\theslidesection}%
8547       {\Hy@slidetitle}%
8548       {slideheading.\theslidesection}%
8549       {1}%
8550       {toc}%
8551   \else
8552     \hyper@@anchor{slideheading.\theHslidesection}{\relax}%
8553     \Hy@writebookmark
8554       {\theslidesection}%
8555       {\Hy@slidetitle}%
8556       {slideheading.\theHslidesection}%
8557       {1}%
8558       {toc}%
8559   \fi
8560 \else
8561   \Hy@GlobalStepCount\Hy@linkcounter
8562   \hyper@@anchor{slideheading.\the\Hy@linkcounter}{\relax}%
8563   \Hy@writebookmark
8564     {\theslidesection}%
8565     {\Hy@slidetitle}%
8566     {slideheading.\the\Hy@linkcounter}%
8567     {1}%
8568     {toc}%

```

```

8569 \fi
8570 }%
8571 \def\slide@subheading[#1]#2{%
8572 \H@refstepcounter{slidesubsection}%
8573 \addtocontents{los}{%
8574 \protect\l@subslide{\the\c@slidesubsection}{\ignorespaces#1}%
8575 {\@SCTR}{slideheading.\theslidesubsection}%
8576 }%
8577 \def\Hy@tempa{#2}%
8578 \ifx\Hy@tempa\@empty
8579 \else
8580 {%
8581 \edef\@currentlabel{%
8582 \csname p@slidesubsection\endcsname\theslidesubsection
8583 }%
8584 \makeslidesubheading{#2}%
8585 }%
8586 \fi
8587 \gdef\theslidesubheading{#1}%
8588 \ifHy@bookmarksnumbered
8589 \def\Hy@slidetitle{\theslidesubsection\space #1}%
8590 \else
8591 \def\Hy@slidetitle{#1}%
8592 \fi
8593 \ifHy@hypertextnames
8594 \ifHy@naturalnames
8595 \hyper@@anchor{slideheading.\theslidesubsection}{\relax}%
8596 \Hy@writebookmark
8597 {\theslidesubsection}%
8598 {\Hy@slidetitle}%
8599 {slideheading.\theslidesubsection}%
8600 {2}%
8601 {toc}%
8602 \else
8603 \hyper@@anchor{slideheading.\theHslidesubsection}{\relax}%
8604 \Hy@writebookmark
8605 {\theslidesubsection}%
8606 {\Hy@slidetitle}%
8607 {slideheading.\theHslidesubsection}%
8608 {2}%
8609 {toc}%
8610 \fi
8611 \else
8612 \Hy@GlobalStepCount\Hy@linkcounter
8613 \hyper@@anchor{slideheading.\the\Hy@linkcounter}{\relax}%
8614 \Hy@writebookmark
8615 {\theslidesubsection}%
8616 {\Hy@slidetitle}%
8617 {slideheading.\the\Hy@linkcounter}%
8618 {1}%
8619 {toc}%
8620 \fi
8621 }%
8622 \providecommand*{\listslidenam}{List of Slides}%
8623 \def\listofslides{%
8624 \section*{%
8625 \listslidenam

```

```

8626 \mkboth{%
8627 \expandafter\MakeUppercase\listslide
8628 }{%
8629 \expandafter\MakeUppercase\listslide
8630 }%
8631 }%
8632 \def\l@slide##1##2##3##4{%
8633 \slide@undottedcline{%
8634 \slidenumberline{##3}{\hyperlink{##4}{##2}}%
8635 }{%}
8636 }%
8637 \let\l@subslide\l@slide
8638 \@startlos
8639 }%
8640 \def\slide@contents{%
8641 \def\l@slide##1##2##3##4{%
8642 \slide@cline{\slidenumberline{##3}{\hyperlink{##4}{##2}}}{##3}%
8643 }%
8644 \let\l@subslide\@gobblefour
8645 \@startlos
8646 }%
8647 \def\Slide@contents{%
8648 \def\l@slide##1##2##3##4{%
8649 \ifcase\lslide@flag
8650 \message{##1 ** \the\c@slidesection}%
8651 \ifnum##1>\c@slidesection
8652 \def\lslide@flag{1}%
8653 {%
8654 \large
8655 \slide@cline{%
8656 \slidenumberline{$\Rightarrow\bullet$}%
8657 {\hyperlink{##4}{##2}}%
8658 }{##3}%
8659 }%
8660 \else
8661 {%
8662 \large
8663 \slide@cline{%
8664 \slidenumberline{$\surd\;\bullet$}%
8665 {\hyperlink{##4}{##2}}%
8666 }{##3}%
8667 }%
8668 \fi
8669 \or
8670 \def\lslide@flag{2}%
8671 {%
8672 \large
8673 \slide@cline{%
8674 \slidenumberline{$\bullet$}%
8675 {\hyperlink{##4}{##2}}%
8676 }{##3}%
8677 }%
8678 \or
8679 {%
8680 \large
8681 \slide@cline{%
8682 \slidenumberline{$\bullet$}%

```

```

8683         {\hyperlink{##4}{##2}}%
8684     }{##3}%
8685 }%
8686 \fi
8687 }%
8688 \def\l@subslide##1##2##3##4{%
8689     \ifnum\lslide@flag=1 %
8690         \@undottedtocline{2}{3.8em}{3.2em}{\hyperlink{##4}{##2}}{}}%
8691     \fi
8692 }%
8693 \def\lslide@flag{0}%
8694 \@startlos
8695 }%
8696 }{}

```

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.)

```

8697 \ifHy@texht
8698     \expandafter\endinput
8699 \fi
8700 \let\real@setref\@setref
8701 \def\@setref#1#2#3{% csname, extract group, refname
8702     \ifx#1\relax
8703         \protect\G@refundefinedtrue
8704         \nfss@text{\reset@font\bfseries ??}%
8705         \@latex@warning{%
8706             Reference ‘#3’ on page \thepage \space undefined%
8707         }%
8708     \else
8709         \expandafter\Hy@setref@link#1\@empty\@empty\@nil{#2}%
8710     \fi
8711 }

```

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

```

8712 \def\Hy@setref@link#1#2#3#4#5#6\@nil#7{%
8713     \begingroup
8714     \toks0={\hyper@@link{#5}{#4}}%
8715     \toks1=\expandafter{#7{#1}{#2}{#3}{#4}{#5}}%
8716     \edef\x{\endgroup
8717         \the\toks0 {\the\toks1 }%
8718     }%
8719     \x
8720 }
8721 \def\@pagesetref#1#2#3{% csname, extract macro, ref
8722     \ifx#1\relax
8723         \protect\G@refundefinedtrue
8724         \nfss@text{\reset@font\bfseries ??}%
8725         \@latex@warning{%
8726             Reference ‘#3’ on page \thepage \space undefined%
8727         }%
8728     \else
8729         \protect\hyper@@link
8730         {\expandafter\@fifthoffive#1}%
8731         {page.\expandafter\@secondoffive#1}%
8732         {\expandafter\@secondoffive#1}%
8733     \fi

```

```

8734 }
8735 </package>
8736 <*check>
8737 \checklatex
8738 \checkcommand\def\@setref#1#2#3{%
8739   \ifx#1\relax
8740     \protect\G@refundefinedtrue
8741     \nfss@text{\reset@font\bfseries ??}%
8742     \@latex@warning{%
8743       Reference ‘#3’ on page \thepage\space undefined%
8744     }%
8745   \else
8746     \expandafter#2#1\null
8747   \fi
8748 }
8749 </check>
8750 <*package>

```

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

```

8751 \def\HyRef@StarSetRef#1{%
8752   \begingroup
8753   \Hy@safe@activestru
8754   \edef\x{#1}%
8755   \@onelevel@sanitize\x
8756   \edef\x{\endgroup
8757     \noexpand\HyRef@@StarSetRef
8758     \expandafter\noexpand\csname r@\x\endcsname{\x}%
8759   }%
8760   \x
8761 }
8762 \def\HyRef@@StarSetRef#1#2#3{%
8763   \ifx#1\@undefined
8764     \let#1\relax
8765   \fi
8766   \real@setref#1#3{#2}%
8767 }
8768 \def\@refstar#1{%
8769   \HyRef@StarSetRef{#1}\@firstoffive
8770 }
8771 \def\@pagerefstar#1{%
8772   \HyRef@StarSetRef{#1}\@secondoffive
8773 }
8774 \def\@namerefstar#1{%
8775   \HyRef@StarSetRef{#1}\@thirdoffive
8776 }
8777 \Hy@AtBeginDocument{%
8778   \@ifpackageloaded{varioref}{%
8779     \def\@Refstar#1{%
8780       \HyRef@StarSetRef{#1}\HyRef@MakeUppercaseFirstOfFive
8781     }%
8782     \def\HyRef@MakeUppercaseFirstOfFive#1#2#3#4#5{%
8783       \MakeUppercase#1%
8784     }%
8785     \DeclareRobustCommand*{\Ref}{%
8786       \@ifstar\@Refstar\HyRef@Ref
8787     }%

```

```

8788 \def\HyRef@Ref#1{%
8789 \hyperref[{#1}]{\Ref*{#1}}%
8790 }%
8791 \def\Vr@f#1{%
8792 \leavevmode\unskip\vref@space
8793 \hyperref[{#1}]{%
8794 \Ref*{#1}%
8795 \let\vref@space\nobreakspace
8796 \@vpageref[\unskip]{#1}%
8797 }%
8798 }%
8799 \def\vr@f#1{%
8800 \leavevmode\unskip\vref@space
8801 \begingroup
8802 \let\T@pageref\@pagerefstar
8803 \hyperref[{#1}]{%
8804 \ref*{#1}%
8805 \vpageref[\unskip]{#1}%
8806 }%
8807 \endgroup
8808 }%
8809 }{}%
8810 }
8811 \DeclareRobustCommand*\autopageref{%
8812 \@ifstar{%
8813 \HyRef@autopagerefname\pageref*%
8814 }\HyRef@autopageref
8815 }
8816 \def\HyRef@autopageref#1{%
8817 \hyperref[{#1}]{\HyRef@autopagerefname\pageref*{#1}}%
8818 }
8819 \def\HyRef@autopagerefname{%
8820 \ltx@ifundefined{pageautorefname}{%
8821 \ltx@ifundefined{pagename}{%
8822 \Hy@Warning{No autoref name for 'page'}%
8823 }{%
8824 \pagename\nobreakspace
8825 }%
8826 }{}%
8827 \pageautorefname\nobreakspace
8828 }%
8829 }

```

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

```

8830 \DeclareRobustCommand*\autoref{%
8831 \leavevmode
8832 \@ifstar{\HyRef@autoref@gobbletwo}{\HyRef@autoref\hyper@@link}%
8833 }
8834 \def\HyRef@autoref#1#2{%
8835 \begingroup
8836 \Hy@safe@activetrue
8837 \expandafter\HyRef@autosetref\csname r@#2\endcsname{#2}{#1}%
8838 \endgroup
8839 }
8840 \def\HyRef@autosetref#1#2#3{% link command, csname, refname
8841 \HyRef@ShowKeysRef{#2}%
8842 \ifcase 0\ifx#1\relax 1\fi\ifx#1\Hy@varioref@undefined 1\fi\relax

```

```

8843 \edef\HyRef@thisref{%
8844 \expandafter\@fourthoffive#1\@empty\@empty\@empty
8845 }%
8846 \expandafter\HyRef@testreftype\HyRef@thisref.\.%
8847 \Hy@safe@activesfalse
8848 #3{%
8849 \expandafter\@fifthoffive#1\@empty\@empty\@empty
8850 }{%
8851 \expandafter\@fourthoffive#1\@empty\@empty\@empty
8852 }{%
8853 \HyRef@currentHtag
8854 \expandafter\@firstoffive#1\@empty\@empty\@empty
8855 \null
8856 }%
8857 \else
8858 \protect\G@refundefinedtrue
8859 \nfss@text{\reset@font\bfseries ??}%
8860 \@latex@warning{%
8861 Reference ‘#2’ on page \thepage\space undefined%
8862 }%
8863 \fi
8864 }
8865 \def\HyRef@testreftype#1.#2\.{%
8866 \ltx@ifundefined{#1autorefname}{%
8867 \ltx@ifundefined{#1name}{%
8868 \HyRef@StripStar#1\*\*\@nil{#1}%
8869 \ltx@ifundefined{\HyRef@name autorefname}{%
8870 \ltx@ifundefined{\HyRef@name name}{%
8871 \def\HyRef@currentHtag{%
8872 \Hy@Warning{No autoref name for ‘#1’}%
8873 }{%
8874 \edef\HyRef@currentHtag{%
8875 \expandafter\noexpand\csname\HyRef@name name\endcsname
8876 \noexpand~%
8877 }%
8878 }%
8879 }{%
8880 \edef\HyRef@currentHtag{%
8881 \expandafter\noexpand
8882 \csname\HyRef@name autorefname\endcsname
8883 \noexpand~%
8884 }%
8885 }%
8886 }{%
8887 \edef\HyRef@currentHtag{%
8888 \expandafter\noexpand\csname#1name\endcsname
8889 \noexpand~%
8890 }%
8891 }%
8892 }{%
8893 \edef\HyRef@currentHtag{%
8894 \expandafter\noexpand\csname#1autorefname\endcsname
8895 \noexpand~%
8896 }%
8897 }%
8898 }
8899 \def\HyRef@StripStar#1*\#2\@nil#3{%

```



```

8900 \def\HyRef@name{#2}%
8901 \ifx\HyRef@name\HyRef@CaseStar
8902   \def\HyRef@name{#1}%
8903 \else
8904   \def\HyRef@name{#3}%
8905 \fi
8906 }
8907 \def\HyRef@CaseStar{*\\}
8908 \def\HyRef@currentHtag{}

```

Support for package `showkeys`.

`\HyRef@ShowKeysRef`

```

8909 \let\HyRef@ShowKeysRef@gobble
8910 \def\HyRef@ShowKeysInit{%
8911   \begingroup\expandafter\expandafter\expandafter\endgroup
8912   \expandafter\ifx\csname SK@@label\endcsname\relax
8913   \else
8914     \ifx\SK@ref\@empty
8915     \else
8916       \def\HyRef@ShowKeysRef{%
8917         \SK@\SK@@ref
8918       }%
8919     \fi
8920   \fi
8921 }
8922 \@ifpackageloaded{showkeys}{%
8923   \HyRef@ShowKeysInit
8924 }{%
8925   \Hy@AtBeginDocument{%
8926     \@ifpackageloaded{showkeys}{%
8927       \HyRef@ShowKeysInit
8928     }{}%
8929   }%
8930 }

```

Defaults for the names that `\autoref` uses.

```

8931 \providecommand*\AMSautorefname{\equationautorefname}
8932 \providecommand*\Hfootnoteautorefname{\footnoteautorefname}
8933 \providecommand*\Itemautorefname{\itemautorefname}
8934 \providecommand*\itemautorefname{item}
8935 \providecommand*\equationautorefname{Equation}
8936 \providecommand*\footnoteautorefname{footnote}
8937 \providecommand*\itemautorefname{item}
8938 \providecommand*\figureautorefname{Figure}
8939 \providecommand*\tableautorefname{Table}
8940 \providecommand*\partautorefname{Part}
8941 \providecommand*\appendixautorefname{Appendix}
8942 \providecommand*\chapterautorefname{chapter}
8943 \providecommand*\sectionautorefname{section}
8944 \providecommand*\subsectionautorefname{subsection}
8945 \providecommand*\subsubsectionautorefname{subsubsection}
8946 \providecommand*\paragraphautorefname{paragraph}
8947 \providecommand*\subparagraphautorefname{subparagraph}
8948 \providecommand*\FancyVerbLineautorefname{line}
8949 \providecommand*\theoremautorefname{Theorem}
8950 \providecommand*\pageautorefname{page}
8951 \</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 pdfTeX offers `\pdfescapestring`.

```
8952 <*pdfTeX | dvipdfm | xetex | vtex | pdfmarkbase | dviwindo>
8953 \begingroup\expandafter\expandafter\expandafter\endgroup
8954 \expandafter\ifx\csname pdf@escapestring\endcsname\relax
8955 \begingroup
8956 \catcode'\=0 %
8957 \@makeother\%
8958 |@firstofone{|endgroup
8959 |def|Hy@pstringdef#1#2{%
8960 |begingroup
8961 |edef~{|string~}%
8962 |xdef|Hy@gtemp{#2}%
8963 |endgroup
8964 |let#1|Hy@gtemp
8965 |@onelevel@sanitize#1%
8966 |edef#1{|expandafter|Hy@ExchangeBackslash#1|@nil}%
8967 |edef#1{|expandafter|Hy@ExchangeLeftParenthesis#1(|@nil}%
8968 |edef#1{|expandafter|Hy@ExchangeRightParenthesis#1)|@nil}%
8969 }%
8970 |def|Hy@ExchangeBackslash#1|#2|@nil{%
8971 #1%
8972 |ifx|\#2|\%
8973 |else
8974 \\\%
8975 |ltx@ReturnAfterFi{%
8976 |Hy@ExchangeBackslash#2|@nil
8977 }%
8978 |fi
8979 }%
8980 }%
8981 \def\Hy@ExchangeLeftParenthesis#1(#2\@nil{%
8982 #1%
8983 \ifx\#2\%
8984 \else
8985 \@backslashchar(%
8986 \ltx@ReturnAfterFi{%
8987 \Hy@ExchangeLeftParenthesis#2\@nil
8988 }%
8989 \fi
8990 }%
8991 \def\Hy@ExchangeRightParenthesis#1)#2\@nil{%
8992 #1%
8993 \ifx\#2\%
8994 \else
8995 \@backslashchar)%
8996 \ltx@ReturnAfterFi{%
8997 \Hy@ExchangeRightParenthesis#2\@nil
```

```

8998     }%
8999     \fi
9000 }%
9001 \else
9002 \def\Hy@pstringdef#1#2{%
9003 \begingroup
9004 \edef~{\string~}%
9005 \xdef\Hy@gtemp{\pdf@escapestring{#2}}%
9006 \endgroup
9007 \let#1\Hy@gtemp
9008 }%
9009 \fi
9010 </pdfTeX | dvipdfm | xetex | vtex | pdfmarkbase | dviwindo>

```

47.2 pdfTeX

```

9011 <{*pdfTeX>
9012 \providecommand*\XR@ext}{pdf}
9013 \Hy@setbreaklinks{true}
9014 \def\HyPat@ObjRef{%
9015 [0-9]*[1-9][0-9]* 0 R%
9016 }

```

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

```

9017 \let\Hy@pdfminorversion\relax
9018 \begingroup\expandafter\expandafter\expandafter\endgroup
9019 \expandafter\ifx\csname pdfminorversion\endcsname\relax
9020 \begingroup\expandafter\expandafter\expandafter\endgroup
9021 \expandafter\ifx\csname pdfoptionpdfminorversion\endcsname\relax
9022 \else
9023 \def\Hy@pdfminorversion{\pdfoptionpdfminorversion}%
9024 \fi
9025 \else
9026 \def\Hy@pdfminorversion{\pdfminorversion}%
9027 \fi
9028 \@ifundefined{Hy@pdfminorversion}{%
9029 \PackageInfo{hyperref}{%
9030 PDF version is not set, because pdfTeX is too old (<1.10a)%
9031 }%
9032 }{%
9033 \ifHy@ocgcolorlinks
9034 \ifnum\Hy@pdfminorversion<5 %
9035 \kvsetkeys{Hyp}{pdfversion=1.5}%
9036 \fi
9037 \fi
9038 \ifHy@setpdfversion
9039 \ifnum\Hy@pdfversion<5 %
9040 \ltx@ifundefined{pdfobjcompresslevel}{%
9041 }{%
9042 \ifHy@verbose
9043 \Hy@InfoNoLine{%

```

```

9044         PDF object streams are disabled, because they are%
9045         \MessageBreak
9046         not supported in requested PDF version %
9047         1.\Hy@pdfversion
9048     }%
9049 \fi
9050 \pdfobjcompresslevel=\ltx@zero
9051 }%
9052 \fi
9053 \ifnum\Hy@pdfminorversion=\Hy@pdfversion\relax
9054 \else
9055     \let\Hy@temp\ltx@empty
9056     \def\Hy@temp@A#1#2{%
9057         \ifnum#1>\ltx@zero
9058             \edef\Hy@temp{%
9059                 \Hy@temp
9060                 \space\space
9061                 \the#1\space #2%
9062                 \ifnum#1=\ltx@one\else s\fi
9063                 \MessageBreak
9064             }%
9065         \fi
9066     }%
9067     \Hy@temp@A\pdfastobj{PDF object}%
9068     \Hy@temp@A\pdfastxform{form XObject}%
9069     \Hy@temp@A\pdfastximage{image XObject}%
9070     \Hy@temp@A\pdfastannot{annotation}%
9071     \ltx@ifundefined{pdfastlink}{%
9072     }{%
9073         \Hy@temp@A\pdfastlink{link}%
9074     }%
9075     \ifx\Hy@temp\ltx@empty
9076         \Hy@pdfminorversion=\Hy@pdfversion\relax
9077     \else
9078         \let\Hy@temp@A\ltx@empty
9079         \ifnum\Hy@pdfversion=4 %
9080             \IfFileExists{pdf14.sty}{%
9081                 \def\Hy@temp@A{%
9082                     \MessageBreak
9083                     Or \string\RequirePackage{pdf14} can be used%
9084                     \MessageBreak
9085                     before \string\documentclass\space as shortcut%
9086                 }%
9087             }{}%
9088         \fi
9089         \Hy@WarningNoLine{%
9090             The PDF version number could not be set,\MessageBreak
9091             because some PDF objects are already written:%
9092             \MessageBreak
9093             \Hy@temp
9094             The version should be set as early as possible:%
9095             \MessageBreak
9096             \space\space
9097             \expandafter\string\Hy@pdfminorversion=\Hy@pdfversion
9098             \string\relax
9099             \ifnum\Hy@pdfversion<5 %
9100                 \ltx@ifundefined{pdfobjcompresslevel}{%

```

```

9101      }{%
9102      \MessageBreak
9103      \space\space
9104      \string\pdfobjcompresslevel=0\string\relax
9105      }%
9106      \fi
9107      \Hy@temp@A
9108      }%
9109      \fi
9110      \fi
9111      \PackageInfo{hyperref}{%
9112      \expandafter\string\Hy@pdfminorversion
9113      :=\number\Hy@pdfversion\space
9114      }%
9115      \fi
9116      \edef\Hy@pdfversion{\number\Hy@pdfminorversion}%
9117      }
9118      \Hy@DisableOption{pdfversion}%
9119      \ifHy@ocgcolorlinks
9120      \pdf@ifdraftmode{ }{%
9121      \immediate\pdfobj{%
9122      <<%
9123      /Type/OCG%
9124      /Name(View)%
9125      /Usage<<%
9126      /Print<<%
9127      /PrintState/OFF%
9128      >>%
9129      /View<<%
9130      /ViewState/ON%
9131      >>%
9132      >>%
9133      >>%
9134      }%
9135      \edef\OBJ@OCG@view{\the\pdfastobj\space 0 R}%
9136      \immediate\pdfobj{%
9137      <<%
9138      /Type/OCG%
9139      /Name(Print)%
9140      /Usage<<%
9141      /Print<<%
9142      /PrintState/ON%
9143      >>%
9144      /View<<%
9145      /ViewState/OFF%
9146      >>%
9147      >>%
9148      >>%
9149      }%
9150      \edef\OBJ@OCG@print{\the\pdfastobj\space 0 R}%
9151      \immediate\pdfobj{%
9152      [%
9153      \OBJ@OCG@view\space\OBJ@OCG@print
9154      ]%
9155      }%
9156      \edef\OBJ@OCGs{\the\pdfastobj\space 0 R}%
9157      \pdfcatalog{%

```

```

9158 /OCProperties<<%
9159 /OCGs \OBJ@OCGs
9160 /D<<%
9161 /OFF[\OBJ@OCG@print]%
9162 /AS[%
9163 <<%
9164 /Event/View%
9165 /OCGs \OBJ@OCGs
9166 /Category[/View]%
9167 >>%
9168 <<%
9169 /Event/Print%
9170 /OCGs \OBJ@OCGs
9171 /Category[/Print]%
9172 >>%
9173 <<%
9174 /Event/Export%
9175 /OCGs \OBJ@OCGs
9176 /Category[/Print]%
9177 >>%
9178 ]%
9179 >>%
9180 >>%
9181 }%
9182 \begingroup
9183 \edef\x{\endgroup
9184 \pdfpageresources{%
9185 /Properties<<%
9186 /OCView \OBJ@OCG@view
9187 /OCPrint \OBJ@OCG@print
9188 >>%
9189 }%
9190 }%
9191 \x
9192 }%
9193 \Hy@AtBeginDocument{%
9194 \def\Hy@colorlink#1{%
9195 \begingroup
9196 \ifHy@ocgcolorlinks
9197 \def\Hy@ocgcolor{#1}%
9198 \setbox0=\hbox\bgroup\color@begingroup
9199 \else
9200 \HyColor@UseColor#1%
9201 \fi
9202 }%
9203 \def\Hy@endcolorlink{%
9204 \ifHy@ocgcolorlinks
9205 \color@endgroup\egroup
9206 \mbox{%
9207 \pdfliteral page{/OC/OCPrint BDC}%
9208 \rlap{\copy0}%
9209 \pdfliteral page{EMC/OC/OCView BDC}%
9210 \begingroup
9211 \expandafter\HyColor@UseColor\Hy@ocgcolor
9212 \box0 %
9213 \endgroup
9214 \pdfliteral page{EMC}%

```

```

9215     }%
9216     \fi
9217     \endgroup
9218     }%
9219 }%
9220 \else
9221   \Hy@DisableOption{ocgcolorlinks}%
9222 \fi

```

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

```

9223 \def\setpdfinkmargin#1{\pdfinkmargin#1}
9224 \ifx\pdfstartlink\@undefined% less than version 14
9225   \let\pdfstartlink\pdfannotlink
9226   \let\pdfinkmargin\@tempdima
9227   \let\pdfxform\pdfform
9228   \let\pdflastxform\pdflastform
9229   \let\pdfrefxform\pdfrefform
9230 \else
9231   \pdfinkmargin1pt %
9232 \fi

```

First set up the default linking

```

9233 \providecommand*\@pdfview{XYZ}

```

First define the anchors:

```

9234 \Hy@WrapperDef\new@pdfink#1{%
9235   \ifhmode
9236     \@savsf\spacefactor
9237   \fi
9238   \Hy@SaveLastskip
9239   \Hy@VerboseAnchor{#1}%
9240   \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
9241   \Hy@DestName\Hy@pstringDest\@pdfview
9242   \Hy@RestoreLastskip
9243   \ifhmode
9244     \spacefactor\@savsf
9245   \fi
9246 }
9247 \let\pdf@endanchor\@empty

```

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

```

9248 \def\Hy@DestName#1#2{%
9249   \pdfdest name{#1}#2\relax
9250 }

```

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.

```

9251 \providecommand*\@pdfborder{0 0 1}
9252 \providecommand*\@pdfborderstyle{}
9253 \def\Hy@undefinedname{UNDEFINED}
9254 \def\find@pdfink#1#2{%
9255   \leavevmode
9256   \protected@edef\Hy@testname{#2}%
9257   \ifx\Hy@testname\@empty
9258     \Hy@Warning{%

```

```

9259     Empty destination name,\MessageBreak
9260     using '\Hy@undefinedname'%
9261 }%
9262 \let\Hy@testname\Hy@undefinedname
9263 \else
9264 \Hy@pstringdef\Hy@testname{%
9265 \expandafter\HyperDestNameFilter\expandafter{\Hy@testname}%
9266 }%
9267 \fi
9268 \Hy@StartlinkName{%
9269 \ifHy@pdfa /F 4\fi
9270 \Hy@setpdfborder
9271 \ifx\@pdfhighlight\@empty
9272 \else
9273 /H\@pdfhighlight
9274 \fi
9275 \ifx\CurrentBorderColor\relax
9276 \else
9277 /C[\CurrentBorderColor]%
9278 \fi
9279 }\Hy@testname
9280 \expandafter\Hy@colorlink\csname @#1color\endcsname
9281 }
9282 \def\Hy@StartlinkName#1#2{%
9283 \pdfstartlink attr{#1}goto name{#2}\relax
9284 }
9285 \def\close@pdfink{%
9286 \Hy@endcolorlink
9287 \Hy@VerboseLinkStop
9288 \pdfendlink
9289 }
9290 \def\hyper@anchor#1{%
9291 \new@pdfink{#1}\anchor@spot\pdf@endanchor
9292 }
9293 \def\hyper@anchorstart#1{%
9294 \new@pdfink{#1}%
9295 \Hy@activeanchortrue
9296 }
9297 \def\hyper@anchorend{%
9298 \pdf@endanchor
9299 \Hy@activeanchorfalse
9300 }
9301 \def\hyper@linkstart#1#2{%
9302 \Hy@VerboseLinkStart{#1}{#2}%
9303 \ltx@ifundefined{@#1bordercolor}{%
9304 \let\CurrentBorderColor\relax
9305 }{%
9306 \edef\CurrentBorderColor{\csname @#1bordercolor\endcsname}%
9307 }%
9308 \find@pdfink{#1}{#2}%
9309 }
9310 \def\hyper@linkend{\close@pdfink}
9311 \def\hyper@link#1#2#3{%
9312 \Hy@VerboseLinkStart{#1}{#2}%
9313 \ltx@ifundefined{@#1bordercolor}{%
9314 \let\CurrentBorderColor\relax
9315 }{%

```



```

9316 \edef\CurrentBorderColor{\csname @#1bordercolor\endcsname}%
9317 }%
9318 \find@pdflink{#1}{#2}#3\Hy@xspace@end
9319 \close@pdflink
9320 }
9321 \let\CurrentBorderColor\@linkbordercolor
9322 \def\hyper@linkurl#1#2{%
9323 \begingroup
9324 \Hy@pstringdef\Hy@pstringURI{#2}%
9325 \hyper@chars
9326 \leavevmode
9327 \pdfstartlink
9328 attr{%
9329 \Hy@setpdfborder
9330 \ifx\@pdfhighlight\@empty
9331 \else
9332 /H\@pdfhighlight
9333 \fi
9334 \ifx\@urlbordercolor\relax
9335 \else
9336 /C[\@urlbordercolor]%
9337 \fi
9338 }%
9339 user{%
9340 /Subtype/Link%
9341 \ifHy@pdfa /F 4\fi
9342 /A<<%
9343 /Type/Action%
9344 /S/URI%
9345 /URI(\Hy@pstringURI)%
9346 \ifHy@href@ismap
9347 /IsMap true%
9348 \fi
9349 \Hy@href@nextactionraw
9350 >>%
9351 }%
9352 \relax
9353 \Hy@colorlink\@urlcolor#1\Hy@xspace@end
9354 \close@pdflink
9355 \endgroup
9356 }
9357 \def\hyper@linkfile#1#2#3{% anchor text, filename, linkname
9358 \begingroup
9359 \def\Hy@pstringF{#2}%
9360 \Hy@CleanupFile\Hy@pstringF
9361 \Hy@pstringdef\Hy@pstringF\Hy@pstringF
9362 \Hy@pstringdef\Hy@pstringD{#3}%
9363 \Hy@MakeRemoteAction
9364 \leavevmode
9365 \pdfstartlink
9366 attr{%
9367 \Hy@setpdfborder
9368 \ifx\@pdfhighlight\@empty
9369 \else
9370 /H\@pdfhighlight
9371 \fi
9372 \ifx\@filebordercolor\relax

```

```

9373     \else
9374         /C[\@filebordercolor]%
9375     \fi
9376 }%
9377 user {%
9378     /Subtype/Link%
9379     \ifHy@pdfa /F 4\fi
9380     /A<<%
9381     /F(\Hy@pstringF)%
9382     /S/GoToR%
9383     \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}

```

```

9384     \ifx\#3\%
9385         /D[\Hy@href@page\@pdfremotestartview]%
9386     \else
9387         /D(\Hy@pstringD)%
9388     \fi
9389     \Hy@href@nextactionraw
9390     >>%
9391 }%
9392 \relax
9393 \Hy@colorlink\@filecolor#1\Hy@xspace@end
9394 \close@pdflink
9395 \endgroup
9396 }
9397 \def\@hyper@launch run:#1\#2#3{% filename, anchor text linkname
9398 \begingroup
9399     \Hy@pstringdef\Hy@pstringF{#1}%
9400     \Hy@pstringdef\Hy@pstringP{#3}%
9401     \leavevmode
9402     \pdfstartlink
9403     attr{%
9404         \Hy@setpdfborder
9405         \ifx\@pdfhighlight\@empty
9406         \else
9407             /H\@pdfhighlight
9408         \fi
9409         \ifx\@runbordercolor\relax
9410         \else
9411             /C[\@runbordercolor]%
9412         \fi
9413     }%
9414     user {%
9415         /Subtype/Link%
9416         \ifHy@pdfa /F 4\fi
9417         /A<<%

```

```

9418      /F(\Hy@pstringF)%
9419      /S/Launch%
9420      \Hy@SetNewWindow
9421      \ifx\|#3\|%
9422      \else
9423      /Win<</P(\Hy@pstringP)/F(\Hy@pstringF)>>%
9424      \fi
9425      \Hy@href@nextactionraw
9426      >>%
9427      }%
9428      \relax
9429      \Hy@colorlink\@runcolor#2\Hy@xspace@end
9430      \close@pdflink
9431      \endgroup
9432  }

```

\@pdfproducer

```

9433 \ifx\@pdfproducer\relax
9434 \begingroup\expandafter\expandafter\expandafter\endgroup
9435 \expandafter\ifx\csname luatexversion\endcsname\relax
9436 \def\@pdfproducer{pdfTeX}%
9437 \ifx\eTeXversion\@undefined
9438 \else
9439 \ifx\eTeXversion\relax
9440 \else
9441 \ifnum\eTeXversion>0 %
9442 \def\@pdfproducer{pdfTeX}%
9443 \fi
9444 \fi
9445 \fi
9446 \ifx\pdfTeXversion\@undefined
9447 \else
9448 \ifnum\pdfTeXversion<100 %
9449 \edef\@pdfproducer{%
9450 \@pdfproducer
9451 \the\pdfTeXversion.\pdfTeXrevision
9452 }%
9453 \else
9454 \ifnum\pdfTeXversion<130 %
9455 \edef\@pdfproducer{%
9456 \@pdfproducer-%
9457 \expandafter\@car\the\pdfTeXversion\@empty\@nil.%
9458 \expandafter\@cdr\the\pdfTeXversion\@empty\@nil
9459 \pdfTeXrevision
9460 }%
9461 \else
9462 \ifnum\pdfTeXversion<140 %
9463 \else
9464 \def\@pdfproducer{pdfTeX}%
9465 \fi
9466 \edef\@pdfproducer{%
9467 \@pdfproducer-%
9468 \expandafter\@car\the\pdfTeXversion\@empty\@nil.%
9469 \expandafter\@cdr\the\pdfTeXversion\@empty\@nil.%
9470 \pdfTeXrevision
9471 }%
9472 \fi

```

```

9473 \fi
9474 \fi
9475 \else
9476 \begingroup
9477 \count@=\luatexversion
9478 \divide\count@ by 100 %
9479 \edef\x{\the\count@}%
9480 \count@=-\x\relax
9481 \multiply\count@ by 100 %
9482 \advance\count@ by \luatexversion
9483 \edef\x{\endgroup
9484 \def\noexpand\@pdfproducer{%
9485 LuaTeX-\x.\the\count@.\luatexrevision
9486 }%
9487 }%
9488 \x
9489 \fi
9490 \fi

```

\PDF@SetupDox

```

9491 \def\PDF@SetupDoc{%
9492 \ifx\@pdfpagescrop\@empty
9493 \else
9494 \edef\process@me{%
9495 \pdfpagesattr={%
9496 /CropBox[\@pdfpagescrop]%
9497 \expandafter\ifx\expandafter\\\the\pdfpagesattr\\%
9498 \else
9499 ^^J\the\pdfpagesattr
9500 \fi
9501 }%
9502 }%
9503 \process@me
9504 \fi
9505 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
9506 \pdfcatalog{%
9507 /PageMode/\@pdfpagemode
9508 \ifx\@baseurl\@empty
9509 \else
9510 /URI<</Base(\Hy@pstringB)>>%
9511 \fi
9512 }%
9513 \ifx\@pdfstartpage\@empty
9514 \else
9515 \ifx\@pdfstartview\@empty
9516 \else
9517 openaction goto page\@pdfstartpage{\@pdfstartview}%
9518 \fi
9519 \fi
9520 \edef\Hy@temp{%
9521 \ifHy@pdftoolbar\else /HideToolbar true\fi
9522 \ifHy@pdfmenubar\else /HideMenubar true\fi
9523 \ifHy@pdfwindowui\else /HideWindowUI true\fi
9524 \ifHy@pdffitwindow /FitWindow true\fi
9525 \ifHy@pdfcenterwindow /CenterWindow true\fi
9526 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
9527 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
9528 \Hy@UseNameKey{Direction}\@pdfdirection

```

```

9529 \Hy@UseNameKey{ViewArea}\@pdfviewarea
9530 \Hy@UseNameKey{ViewClip}\@pdfviewclip
9531 \Hy@UseNameKey{PrintArea}\@pdfprintarea
9532 \Hy@UseNameKey{PrintClip}\@pdfprintclip
9533 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
9534 \Hy@UseNameKey{Duplex}\@pdfduplex
9535 \ifx\@pdfpicktraybypdfsize\@empty
9536 \else
9537 /PickTrayByPDFSize \@pdfpicktraybypdfsize
9538 \fi
9539 \ifx\@pdfprintpagerange\@empty
9540 \else
9541 /PrintPageRange[\@pdfprintpagerange]%
9542 \fi
9543 \ifx\@pdfnumcopies\@empty
9544 \else
9545 /NumCopies \@pdfnumcopies
9546 \fi
9547 }%
9548 \pdfcatalog{%
9549 \ifx\Hy@temp\@empty
9550 \else
9551 /ViewerPreferences<<\Hy@temp>>%
9552 \fi
9553 \Hy@UseNameKey{PageLayout}\@pdfpagelayout
9554 \ifx\@pdflang\@empty
9555 \else
9556 /Lang(\@pdflang)%
9557 \fi
9558 }%
9559 }

```

\PDF@FinishDoc

```

9560 \def\PDF@FinishDoc{%
9561 \pdf@ifdraftmode{}{%
9562 \Hy@UseMaketitleInfos
9563 \HyInfo@GenerateAddons
9564 \pdfinfo{%
9565 /Author(\@pdfauthor)%
9566 /Title(\@pdftitle)%
9567 /Subject(\@pdfsubject)%
9568 /Creator(\@pdfcreator)%
9569 \ifx\@pdfcreationdate\@empty
9570 \else
9571 /CreationDate(\@pdfcreationdate)%
9572 \fi
9573 \ifx\@pdfmoddate\@empty
9574 \else
9575 /ModDate(\@pdfmoddate)%
9576 \fi
9577 \ifx\@pdfproducer\relax
9578 \else
9579 /Producer(\@pdfproducer)%
9580 \fi
9581 /Keywords(\@pdfkeywords)%
9582 \ifx\@pdftrapped\@empty
9583 \else
9584 /Trapped/\@pdftrapped

```

```

9585 \fi
9586 \HyInfo@Addons
9587 }%
9588 }%
9589 \Hy@DisableOption{pdfauthor}%
9590 \Hy@DisableOption{pdftitle}%
9591 \Hy@DisableOption{pdfsubject}%
9592 \Hy@DisableOption{pdfcreator}%
9593 \Hy@DisableOption{pdfcreationdate}%
9594 \Hy@DisableOption{pdfmoddate}%
9595 \Hy@DisableOption{pdfproducer}%
9596 \Hy@DisableOption{pdfkeywords}%
9597 \Hy@DisableOption{pdftrapped}%
9598 \Hy@DisableOption{pdfinfo}%
9599 }

```

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

```

9600 \def\hyper@pagetransition{%
9601 \ifx\@pdfpagetransition\relax
9602 \else
9603 \expandafter\Hy@RemoveTransPageAttr
9604 \the\pdfpageattr^^J/Trans{}>>\END
9605 \ifx\@pdfpagetransition\@empty
9606 \else
9607 \edef\@processme{%
9608 \global\pdfpageattr{%
9609 \the\pdfpageattr
9610 ^^J/Trans << /S /\@pdfpagetransition\space >>%
9611 }%
9612 }%
9613 \@processme
9614 \fi
9615 \fi
9616 }

```

`\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.

```

9617 \gdef\Hy@RemoveTransPageAttr#1^^J/Trans#2#3>>#4\END{%
9618 \ifx\#2\%
9619 \global\pdfpageattr{#1}%
9620 \else
9621 \Hy@RemoveTransPageAttr#1#4\END
9622 \fi
9623 }

```

`\hyper@pageduration` `\@pdfpageduration` is initialized with `\relax`. So it indicates, if option `pdfpageduration` is used. First previous `/Dur` entries are removed. If a new `/Dur` key exists, it is appended to `\pdfpageattr`.

```

9624 \def\hyper@pageduration{%
9625 \ifx\@pdfpageduration\relax
9626 \else

```

```

9627 \expandafter
9628 \Hy@RemoveDurPageAttr\the\pdfpageattr^^J/Dur{} \END
9629 \ifx\@pdfpageduration\@empty
9630 \else
9631 \edef\@processme{%
9632 \global\pdfpageattr{%
9633 \the\pdfpageattr
9634 ^^J/Dur \@pdfpageduration\space
9635 }%
9636 }%
9637 \@processme
9638 \fi
9639 \fi
9640 }

```

`\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.

```

9641 \gdef\Hy@RemoveDurPageAttr#1^^J/Dur#2#3 #4\END{%
9642 \ifx\#2\%
9643 \global\pdfpageattr{#1}%
9644 \else
9645 \Hy@RemoveDurPageAttr#1#4\END
9646 \fi
9647 }

```

`\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).

```

9648 \def\hyper@pagehidden{%
9649 \ifHy@useHidKey
9650 \expandafter
9651 \Hy@RemoveHidPageAttr\the\pdfpageattr^^J/Hid{} \END
9652 \ifHy@pdfpagehidden
9653 \edef\@processme{%
9654 \global\pdfpageattr{%
9655 \the\pdfpageattr
9656 ^^J/Hid true % SPACE
9657 }%
9658 }%
9659 \@processme
9660 \fi
9661 \fi
9662 }

```

`\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.

```

9663 \gdef\Hy@RemoveHidPageAttr#1^^J/Hid#2#3 #4\END{%
9664 \ifx\#2\%
9665 \global\pdfpageattr{#1}%
9666 \else
9667 \Hy@RemoveHidPageAttr#1#4\END
9668 \fi
9669 }

```

```

9670 \pdf@ifdraftmode{}{%
9671   \g@addto@macro\Hy@EveryPageHook{%
9672     \hyper@pagetransition
9673     \hyper@pageduration
9674     \hyper@pagehidden
9675   }%
9676 }

```

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

```

9677 </pdfTeX>
9678 <*pdfTeX | xetex>
9679 \Hy@AtBeginDocument{%
9680   \ifHy@setpagesize
9681     \expandafter\@firstofone
9682   \else
9683     \expandafter\@gobble
9684   \fi
9685 }%
9686 \@ifclassloaded{seminar}{%
9687 <*pdfTeX>
9688   \setlength{\pdfhorigin}{1truein}%
9689   \setlength{\pdfvorigin}{1truein}%
9690 </pdfTeX>
9691   \ifportrait
9692     \ifdim\paperwidth=\z@
9693     \else
9694       \setlength{\pdfpagewidth}{\strip@pt\paperwidth truept}%
9695     \fi
9696     \ifdim\paperheight=\z@
9697     \else
9698       \setlength{\pdfpageheight}{\strip@pt\paperheight truept}%
9699     \fi
9700   \else
9701     \ifdim\paperheight=\z@
9702     \else
9703       \setlength{\pdfpagewidth}{\strip@pt\paperheight truept}%
9704     \fi
9705     \ifdim\paperwidth=\z@
9706     \else
9707       \setlength{\pdfpageheight}{\strip@pt\paperwidth truept}%
9708     \fi
9709   \fi
9710 }{%
9711   \ltx@ifundefined{stockwidth}{%
9712     \ifdim\paperwidth>\z@
9713     \setlength{\pdfpagewidth}{\paperwidth}%
9714   \fi
9715   \ifdim\paperheight>\z@
9716   \setlength{\pdfpageheight}{\paperheight}%
9717   \fi
9718 }{%
9719   \ifdim\stockwidth>\z@
9720   \setlength{\pdfpagewidth}{\stockwidth}%
9721   \fi
9722   \ifdim\stockheight>\z@
9723   \setlength{\pdfpageheight}{\stockheight}%
9724   \fi

```



```

9725 }%
9726 }%
9727 }%
9728 \Hy@DisableOption{setpagesize}%
9729 }
9730 </pdfTeX | xetex>
9731 <*pdfTeX>
9732 \def\Acrobatmenu#1#2{%
9733 \Hy@Acrobatmenu{#1}{#2}{%
9734 \leavevmode
9735 \EdefEscapeName\Hy@temp@menu{#1}%
9736 \pdfstartlink
9737 attr{%
9738 \Hy@setpdfborder
9739 \ifx\@pdfhighlight\@empty
9740 \else
9741 /H\@pdfhighlight
9742 \fi
9743 \ifx\@menubordercolor\relax
9744 \else
9745 /C[\@menubordercolor]%
9746 \fi
9747 }%
9748 user{%
9749 /Subtype/Link%
9750 \ifHy@pdfa /F 4\fi
9751 /A<<%
9752 /S/Named%
9753 /N/\Hy@temp@menu
9754 \Hy@href@nextactionraw
9755 >>%
9756 }%
9757 \relax
9758 \Hy@colorlink\@menucolor#2%
9759 \close@pdflink
9760 }%
9761 }

```

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.

```

9762 \def\Hy@FixNotFirstPage{%
9763 \gdef\Hy@FixNotFirstPage{%
9764 \setbox\AtBeginShipoutBox=\hbox{%
9765 \copy\AtBeginShipoutBox
9766 }%
9767 }%
9768 }

```

```

9769 \ltx@ifpackagelater{atbegshi}{2011/10/05}{%
9770 }{%
9771 \AtBeginShipout{\Hy@FixNotFirstPage}%
9772 }
9773 </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:<a href = "href_string">
name: html:<a name = "name_string">
end: html:</a>
image: html:<img src = "href_string">
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.

```

9774 <*hypertex>
9775 \providecommand*{\XR@ext}{dvi}
9776 \let\PDF@FinishDoc\ltx@empty
9777 \def\PDF@SetupDoc{%
9778 \ifx\@baseurl\@empty
9779 \else
9780 \special{html:<base href="\@baseurl">}%
9781 \fi
9782 }
9783 \Hy@WrapperDef\hyper@anchor#1{%
9784 \Hy@SaveLastskip
9785 \Hy@VerboseAnchor{#1}%
9786 \begingroup
9787 \let\protect=\string
9788 \hyper@chars
9789 \special{html:<a name=%

```

```

9790     \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
9791 \endgroup
9792 \Hy@activeanchortrue
9793 \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
9794 \special{html:</a>}%
9795 \Hy@activeanchorfalse
9796 \Hy@RestoreLastskip
9797 }
9798 \Hy@WrapperDef\hyper@anchorstart#1{%
9799 \Hy@SaveLastskip
9800 \Hy@VerboseAnchor{#1}%
9801 \begingroup
9802 \hyper@chars
9803 \special{html:<a name=%
9804     \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
9805 \endgroup
9806 \Hy@activeanchortrue
9807 }
9808 \def\hyper@anchorend{%
9809 \special{html:</a>}%
9810 \Hy@activeanchorfalse
9811 \Hy@RestoreLastskip
9812 }
9813 \def\@urltype{url}
9814 \def\hyper@linkstart#1#2{%
9815 \Hy@VerboseLinkStart{#1}{#2}%
9816 \expandafter\Hy@colorlink\csname @#1color\endcsname
9817 \def\Hy@tempa{#1}%
9818 \ifx\Hy@tempa\@urltype
9819 \special{html:<a href=\hyper@quote#2\hyper@quote>}%
9820 \else
9821 \begingroup
9822 \hyper@chars
9823 \special{html:<a href=%
9824     \hyper@quote\#\HyperDestNameFilter{#2}\hyper@quote>}%
9825 \endgroup
9826 \fi
9827 }
9828 \def\hyper@linkend{%
9829 \special{html:</a>}%
9830 \Hy@endcolorlink
9831 }
9832 \def\hyper@linkfile#1#2#3{%
9833 \hyper@linkurl{#1}{\Hy@linkfileprefix#2\ifx\\#3\\else\##3\fi}%
9834 }
9835 \def\hyper@linkurl#1#2{%

```

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

```

9836 \leavevmode
9837 \ifHy@raiselinks
9838 \Hy@SaveSpaceFactor
9839 \Hy@SaveSavedSpaceFactor
9840 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
9841 \Hy@RestoreSavedSpaceFactor
9842 \@linkdim\dp\@tempboxa
9843 \lower\@linkdim\hbox{%

```

```

9844 \hyper@chars
9845 \special{html:<a href=\hyper@quote#2\hyper@quote>}%
9846 }%
9847 \Hy@colorlink\@urlcolor
9848 \Hy@RestoreSpaceFactor
9849 #1%
9850 \Hy@SaveSpaceFactor
9851 \@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).

```

9852 \advance\@linkdim by -6.5\p@
9853 \raise\@linkdim\hbox{\special{html:</a>}}%
9854 \Hy@endcolorlink
9855 \Hy@RestoreSpaceFactor
9856 \else
9857 \begingroup
9858 \hyper@chars
9859 \special{html:<a href=\hyper@quote#2\hyper@quote>}%
9860 \Hy@colorlink\@urlcolor#1\Hy@xspace@end
9861 \special{html:</a>}}%
9862 \Hy@endcolorlink
9863 \endgroup
9864 \fi
9865 }

```

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

```

9866 \def\hyper@link#1#2#3{%
9867 \Hy@VerboseLinkStart{#1}{#2}%
9868 \hyper@linkurl{#3}{\#\HyperDestNameFilter{#2}}%
9869 }

9870 \def\hyper@image#1#2{%
9871 \begingroup
9872 \hyper@chars
9873 \special{html:<img src=\hyper@quote#1\hyper@quote>}%
9874 \endgroup
9875 }
9876 </hypertex>
9877 <*\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, L^AT_EX 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 1000000sp wide by \baselineskip high is used.

```

9878 \providecommand*\XR@ext}{dvi}
9879 \providecommand*\wwwbrowser{c:\string\netscape\string\netscape}

```

```

9880 \Hy@WrapperDef\hyper@anchor#1{%
9881   \Hy@SaveLastskip
9882   \Hy@VerboseAnchor{#1}%
9883   \begingroup
9884     \let\protect=\string
9885     \special{mark: #1}%
9886   \endgroup
9887   \Hy@activeanchortrue
9888   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
9889   \Hy@activeanchorfalse
9890   \Hy@RestoreLastskip
9891 }
9892 \Hy@WrapperDef\hyper@anchorstart#1{%
9893   \Hy@SaveLastskip
9894   \Hy@VerboseAnchor{#1}%
9895   \special{mark: #1}%
9896   \Hy@activeanchortrue
9897 }
9898 \def\hyper@anchorend{%
9899   \Hy@activeanchorfalse
9900   \Hy@RestoreLastskip
9901 }
9902 \def\hyper@linkstart#1#2{%
9903   \Hy@VerboseLinkStart{#1}{#2}%
9904   \expandafter\Hy@colorlink\csname @#1color\endcsname
9905   \special{button: %
9906     10000000 %
9907     \number\baselineskip\space
9908     #2%
9909   }%
9910 }
9911 \def\hyper@linkend{%
9912   \Hy@endcolorlink
9913 }
9914 \def\hyper@link#1#2#3{%
9915   \Hy@VerboseLinkStart{#1}{#2}%
9916   \leavevmode
9917   \ifHy@raiselinks
9918     \Hy@SaveSpaceFactor
9919     \Hy@SaveSavedSpaceFactor
9920     \sbox\@tempboxa{\Hy@RestoreSpaceFactor#3}%
9921     \Hy@RestoreSavedSpaceFactor
9922     \@linkdim\dp\@tempboxa
9923     \lower\@linkdim\hbox{%
9924       \special{button: %
9925         \number\wd\@tempboxa\space
9926         \number\ht\@tempboxa\space
9927         #2%
9928       }%
9929       \expandafter\Hy@colorlink\csname @#1color\endcsname
9930       \Hy@RestoreSpaceFactor
9931       #3\Hy@xspace@end
9932       \Hy@SaveSpaceFactor
9933       \Hy@endcolorlink
9934     }%
9935     \@linkdim\ht\@tempboxa
9936     \advance\@linkdim by -6.5\p@

```

```

9937 \raise\@linkdim\hbox{}%
9938 \Hy@RestoreSpaceFactor
9939 \else
9940 \special{button: %
9941 \number\wd\@tempboxa\space
9942 \number\ht\@tempboxa\space
9943 #2%
9944 }%
9945 \expandafter\Hy@colorlink\cname @#1color\endcsname
9946 #3\Hy@xspace@end
9947 \Hy@endcolorlink
9948 \fi
9949 }
9950 \def\hyper@linkurl#1#2{%
9951 \begingroup
9952 \hyper@chars
9953 \leavevmode
9954 \ifHy@raiselinks
9955 \Hy@SaveSpaceFactor
9956 \Hy@SaveSavedSpaceFactor
9957 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
9958 \Hy@RestoreSavedSpaceFactor
9959 \@linkdim\dp\@tempboxa
9960 \lower\@linkdim\hbox{%
9961 \special{button: %
9962 \number\wd\@tempboxa\space
9963 \number\ht\@tempboxa\space
9964 launch: \wwwbrowser\space
9965 #2%
9966 }%
9967 \Hy@colorlink\@urlcolor
9968 \Hy@RestoreSpaceFactor
9969 #1\Hy@xspace@end
9970 \Hy@SaveSpaceFactor
9971 \Hy@endcolorlink
9972 }%
9973 \@linkdim\ht\@tempboxa
9974 \advance\@linkdim by -6.5\p@
9975 \raise\@linkdim\hbox{}%
9976 \Hy@RestoreSpaceFactor
9977 \else
9978 \special{button: %
9979 \number\wd\@tempboxa\space
9980 \number\ht\@tempboxa\space
9981 launch: \wwwbrowser\space
9982 #2%
9983 }%
9984 \Hy@colorlink\@urlcolor
9985 #1\Hy@xspace@end
9986 \Hy@endcolorlink
9987 \fi
9988 \endgroup
9989 }
9990 \def\hyper@linkfile#1#2#3{%
9991 \begingroup
9992 \hyper@chars
9993 \leavevmode

```

```

9994 \ifHy@raiselinks
9995 \Hy@SaveSpaceFactor
9996 \Hy@SaveSavedSpaceFactor
9997 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
9998 \Hy@RestoreSavedSpaceFactor
9999 \@linkdim\dp\@tempboxa
10000 \lower\@linkdim\hbox{%
10001 \special{button: %
10002 \number\wd\@tempboxa\space
10003 \number\ht\@tempboxa\space
10004 #3,%
10005 file: #2%
10006 }%
10007 \Hy@colorlink\@filecolor
10008 \Hy@RestoreSpaceFactor
10009 #1\Hy@xspace@end
10010 \Hy@SaveSpaceFactor
10011 \Hy@endcolorlink
10012 }%
10013 \@linkdim\ht\@tempboxa
10014 \advance\@linkdim by -6.5\p@
10015 \raise\@linkdim\hbox{}%
10016 \Hy@RestoreSpaceFactor
10017 \else
10018 \special{button: %
10019 \number\wd\@tempboxa\space
10020 \number\ht\@tempboxa\space
10021 #3,%
10022 file: #2%
10023 }%
10024 \Hy@colorlink\@filecolor
10025 #1\Hy@xspace@end
10026 \Hy@endcolorlink
10027 \fi
10028 \endgroup
10029 }
10030 \ifx\@pdfproducer\relax
10031 \def\@pdfproducer{dviwindo + Distiller}%
10032 \fi
10033 \HyInfo@AddonUnsupportedtrue
10034 \def\PDF@FinishDoc{%
10035 \Hy@UseMaketitleInfos
10036 \HyInfo@TrappedUnsupported
10037 \special{PDF: Keywords \@pdfkeywords}%
10038 \special{PDF: Title \@pdftitle}%
10039 \special{PDF: Creator \@pdfcreator}%
10040 \ifx\@pdfcreationdate\@empty
10041 \else
10042 \special{PDF: CreationDate \@pdfcreationdate}%
10043 \fi
10044 \ifx\@pdfmoddate\@empty
10045 \else
10046 \special{PDF: ModDate \@pdfmoddate}%
10047 \fi
10048 \special{PDF: Author \@pdfauthor}%
10049 \ifx\@pdfproducer\relax
10050 \else

```

```

10051 \special{PDF: Producer \@pdfproducer}%
10052 \fi
10053 \special{PDF: Subject \@pdfsubject}%
10054 \Hy@DisableOption{pdfauthor}%
10055 \Hy@DisableOption{pdftitle}%
10056 \Hy@DisableOption{pdfsubject}%
10057 \Hy@DisableOption{pdfcreator}%
10058 \Hy@DisableOption{pdfcreationdate}%
10059 \Hy@DisableOption{pdfmoddate}%
10060 \Hy@DisableOption{pdfproducer}%
10061 \Hy@DisableOption{pdfkeywords}%
10062 \Hy@DisableOption{pdftrapped}%
10063 \Hy@DisableOption{pdfinfo}%
10064 }
10065 \def\PDF@SetupDoc{%
10066 \ifx\@baseurl\@empty
10067 \else
10068 \special{PDF: Base \@baseurl}%
10069 \fi
10070 \ifx\@pdfpagescrop\@empty\else
10071 \special{PDF: BBox \@pdfpagescrop}%
10072 \fi
10073 \def\Hy@temp{}%
10074 \ifx\@pdfstartpage\@empty
10075 \else
10076 \ifx\@pdfstartview\@empty
10077 \else
10078 \edef\Hy@temp{%
10079 ,Page=\@pdfstartpage
10080 ,View=\@pdfstartview
10081 }%
10082 \fi
10083 \fi
10084 \edef\Hy@temp{%
10085 \noexpand\pdfmark{%
10086 pdfmark=/DOCVIEW,%
10087 PageMode=/\@pdfpagemode
10088 \Hy@temp
10089 }%
10090 }%
10091 \Hy@temp
10092 \ifx\@pdfpagescrop\@empty
10093 \else
10094 \pdfmark{pdfmark=/PAGES,CropBox=\@pdfpagescrop}%
10095 \fi
10096 \edef\Hy@temp{%
10097 \ifHy@pdftoolbar\else /HideToolbar true\fi
10098 \ifHy@pdfmenubar\else /HideMenubar true\fi
10099 \ifHy@pdfwindowui\else /HideWindowUI true\fi
10100 \ifHy@pdfwindow /FitWindow true\fi
10101 \ifHy@pdfcenterwindow /CenterWindow true\fi
10102 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
10103 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
10104 \Hy@UseNameKey{Direction}\@pdfdirection
10105 \Hy@UseNameKey{ViewArea}\@pdfviewarea
10106 \Hy@UseNameKey{ViewClip}\@pdfviewclip
10107 \Hy@UseNameKey{PrintArea}\@pdfprintarea

```



```

10108 \Hy@UseNameKey{PrintClip}\@pdfprintclip
10109 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
10110 \Hy@UseNameKey{Duplex}\@pdfduplex
10111 \ifx\@pdfpicktraybypdfsize\@empty
10112 \else
10113 /PickTrayByPDFSize \@pdfpicktraybypdfsize
10114 \fi
10115 \ifx\@pdfprintpagerange\@empty
10116 \else
10117 /PrintPageRange[\@pdfprintpagerange]%
10118 \fi
10119 \ifx\@pdfnumcopies\@empty
10120 \else
10121 /NumCopies \@pdfnumcopies
10122 \fi
10123 }%
10124 \pdfmark{pdfmark=/PUT,%
10125 Raw={%
10126 \string{Catalog\string}<<%
10127 \ifx\Hy@temp\@empty
10128 \else
10129 /ViewerPreferences<<\Hy@temp>>%
10130 \fi
10131 \Hy@UseNameKey{PageLayout}\@pdfpagelayout
10132 \ifx\@pdflang\@empty
10133 \else
10134 /Lang(\@pdflang)%
10135 \fi
10136 >>%
10137 }%
10138 }%
10139 }
10140 </dviwindo>
10141 < *dvipdfm | xetex >

```

47.5 dvipdfm/xetex dvi to PDF converter

Provided by Mark Wicks (mwicks@kettering.edu)

```

10142 \providecommand*{\XR@ext}{pdf}
10143 \Hy@setbreaklinks{true}
10144 \def\HyPat@ObjRef{%
10145 @[\^ ]+}%
10146 }
10147 \newsavebox{\pdfm@box}
10148 \def\@pdfm@mark#1{\special{pdf:#1}}
10149 \Hy@WrapperDef\@pdfm@dest#1{%
10150 \Hy@SaveLastskip
10151 \Hy@VerboseAnchor{#1}%
10152 \begingroup
10153 \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
10154 \def\x{XYZ}%
10155 \ifx\x\@pdfview
10156 \def\x{XYZ @xpos @ypos null}%
10157 \else
10158 \def\x{FitH}%
10159 \ifx\x\@pdfview
10160 \def\x{FitH @ypos}%

```

```

10161 \else
10162 \def\x{FitBH}%
10163 \ifx\x\@pdfview
10164 \def\x{FitBH @ypos}%
10165 \else
10166 \def\x{FitV}%
10167 \ifx\x\@pdfview
10168 \def\x{FitV @xpos}%
10169 \else
10170 \def\x{FitBV}%
10171 \ifx\x\@pdfview
10172 \def\x{FitBV @xpos}%
10173 \else
10174 \def\x{Fit}%
10175 \ifx\x\@pdfview
10176 \let\x\@pdfview
10177 \else
10178 \def\x{FitB}%
10179 \ifx\x\@pdfview
10180 \let\x\@pdfview
10181 \else
10182 \def\x{FitR}%
10183 \ifx\x\@pdfview
10184 \Hy@Warning{'pdfview=FitR' is not supported}%
10185 \def\x{XYZ @xpos @ypos null}%
10186 \else
10187 \@onelevel@sanitize\@pdfview
10188 \Hy@Warning{%
10189   Unknown value '\@pdfview' for pdfview%
10190 }%
10191 \def\x{XYZ @xpos @ypos null}%
10192 \fi
10193 \fi
10194 \fi
10195 \fi
10196 \fi
10197 \fi
10198 \fi
10199 \fi
10200 \@pdfm@mark{dest (\Hy@pstringDest) [@thispage /\x]}%
10201 \endgroup
10202 \Hy@RestoreLastskip
10203 }
10204 \providecommand*\@pdfview{XYZ}
10205 \providecommand*\@pdfborder{0 0 1}
10206 \providecommand*\@pdfborderstyle{}
10207 \def\hyper@anchor#1{%
10208 \@pdfm@dest{#1}%
10209 }
10210 \def\hyper@anchorstart#1{%
10211 \Hy@activeanchortrue
10212 \@pdfm@dest{#1}%
10213 }
10214 \def\hyper@anchorend{%
10215 \Hy@activeanchorfalse
10216 }
10217 \newcounter{Hy@AnnotLevel}

```

```

10218 \ifHy@ocgcolorlinks
10219 \def\OBJ@OCG@view{@OCG@view}%
10220 \@pdfm@mark{%
10221   obj \OBJ@OCG@view <<%
10222   /Type/OCG%
10223   /Name(View)%
10224   /Usage<<%
10225   /Print<<%
10226   /PrintState/OFF%
10227   >>%
10228   /View<<%
10229   /ViewState/ON%
10230   >>%
10231   >>%
10232   >>%
10233 }%
10234 \@pdfm@mark{close \OBJ@OCG@view}%
10235 \def\OBJ@OCG@print{@OCG@print}%
10236 \@pdfm@mark{%
10237   obj \OBJ@OCG@print <<%
10238   /Type/OCG%
10239   /Name(Print)%
10240   /Usage<<%
10241   /Print<<%
10242   /PrintState/ON%
10243   >>%
10244   /View<<%
10245   /ViewState/OFF%
10246   >>%
10247   >>%
10248   >>%
10249 }%
10250 \@pdfm@mark{close \OBJ@OCG@print}%
10251 \def\OBJ@OCGs{@OCGs}%
10252 \@pdfm@mark{%
10253   obj \OBJ@OCGs [%
10254     \OBJ@OCG@view\space\OBJ@OCG@print
10255   ]%
10256 }%
10257 \@pdfm@mark{close \OBJ@OCGs}%
10258 \@pdfm@mark{%
10259   put @catalog <<%
10260   /OCProperties<<%
10261   /OCGs \OBJ@OCGs
10262   /D<<%
10263   /OFF[\OBJ@OCG@print]%
10264   /AS[%
10265     <<%
10266     /Event/View%
10267     /OCGs \OBJ@OCGs
10268     /Category[/View]%
10269     >>%
10270     <<%
10271     /Event/Print%
10272     /OCGs \OBJ@OCGs
10273     /Category[/Print]%
10274     >>%

```

```

10275      <<%
10276      /Event/Export%
10277      /OCGs \OBJ@OCGs
10278      /Category[/Print]%
10279      >>%
10280      ]%
10281      >>%
10282      >>%
10283      >>%
10284      }%
10285      \AtBeginShipout{%
10286      \setbox\AtBeginShipoutBox=\hbox{%
10287      \copy\AtBeginShipoutBox
10288      \@pdfm@mark{%
10289      put @resources <<%
10290      /Properties<<%
10291      /OCView \OBJ@OCG@view
10292      /OCPrint \OBJ@OCG@print
10293      >>%
10294      >>%
10295      }%
10296      }%
10297      }%
10298      \Hy@AtBeginDocument{%
10299      \def\Hy@colorlink#1{%
10300      \begingroup
10301      \ifHy@ocgcolorlinks
10302      \def\Hy@ocgcolor{#1}%
10303      \setbox0=\hbox\bgroup\color@begingroup
10304      \else
10305      \HyColor@UseColor#1%
10306      \fi
10307      }%
10308      \def\Hy@endcolorlink{%
10309      \ifHy@ocgcolorlinks
10310      \color@endgroup\egroup
10311      \mbox{%
10312      \@pdfm@mark{content /OC/OCPrint BDC}%
10313      \rlap{\copy0}%
10314      \@pdfm@mark{content EMC/OC/OCView BDC}%
10315      \begingroup
10316      \expandafter\HyColor@UseColor\Hy@ocgcolor
10317      \box0 %
10318      \endgroup
10319      \@pdfm@mark{content EMC}%
10320      }%
10321      \fi
10322      \endgroup
10323      }%
10324      }%
10325      \else
10326      \Hy@DisableOption{ocgcolorlinks}%
10327      \fi
10328      \def\Hy@BeginAnnot#1{%
10329      \stepcounter{Hy@AnnotLevel}%
10330      \ifnum\value{Hy@AnnotLevel}=\@ne
10331      #1%

```

```

10332 \fi
10333 }
10334 \def\Hy@endAnnot{%
10335 \ifnum\value{Hy@AnnotLevel}=\@ne
10336 \Hy@endcolorlink
10337 \@pdfm@mark{eann}%
10338 \fi
10339 \addtocounter{Hy@AnnotLevel}\m@ne
10340 }

10341 \def\Hy@undefinedname{UNDEFINED}
10342 \def\hyper@linkstart#1#2{%
10343 \Hy@VerboseLinkStart{#1}{#2}%
10344 \leavevmode
10345 \Hy@BeginAnnot{%
10346 \protected@edef\Hy@testname{#2}%
10347 \ifx\Hy@testname\@empty
10348 \Hy@Warning{%
10349 Empty destination name,\MessageBreak
10350 using '\Hy@undefinedname'%
10351 }%
10352 \let\Hy@testname\Hy@undefinedname
10353 \else
10354 \Hy@pstringdef\Hy@testname{%
10355 \expandafter\HyperDestNameFilter\expandafter{%
10356 \Hy@testname
10357 }%
10358 }%
10359 \fi
10360 \@pdfm@mark{%
10361 bann<<%
10362 /Type/Annot%
10363 /Subtype/Link%
10364 \ifHy@pdfa /F 4\fi
10365 \Hy@setpdfborder
10366 \expandafter\ifx\csname @#1bordercolor\endcsname\relax
10367 \else
10368 /C[\csname @#1bordercolor\endcsname]%
10369 \fi
10370 /A<<%
10371 /S/GoTo%
10372 /D(\Hy@testname)%
10373 \Hy@href@nextactionraw
10374 >>%
10375 >>%
10376 }%
10377 \expandafter\Hy@colorlink\csname @#1color\endcsname
10378 }%
10379 }
10380 \def\hyper@linkend{\Hy@endAnnot}%
10381 \def\hyper@link#1#2#3{%
10382 \hyper@linkstart{#1}{#2}#3\Hy@xspace@end\hyper@linkend
10383 }
10384 \def\hyper@linkfile#1#2#3{%
10385 \leavevmode
10386 \Hy@BeginAnnot{%
10387 \def\Hy@pstringF{#2}%
10388 \Hy@CleanupFile\Hy@pstringF

```

```

10389 \Hy@pstringdef\Hy@pstringF\Hy@pstringF
10390 \Hy@pstringdef\Hy@pstringD{#3}%
10391 \Hy@MakeRemoteAction
10392 \@pdfm@mark{%
10393   bann<<%
10394     /Type/Annot%
10395     /Subtype/Link%
10396     \ifHy@pdfa /F 4\fi
10397     \Hy@setpdfborder
10398     \ifx\@filebordercolor\relax
10399     \else
10400       /C[\@filebordercolor]%
10401     \fi
10402     /A<<%
10403     /S/GoToR%
10404     /F(\Hy@pstringF)%
10405     /D%
10406     \ifx\#3\%
10407       [\Hy@href@page\@pdfremotestartview]%
10408     \else
10409       (\Hy@pstringD)%
10410     \fi
10411     \Hy@SetNewWindow
10412     \Hy@href@nextactionraw
10413   >>%
10414 >>%
10415 }%
10416 \Hy@colorlink\@filecolor
10417 }%
10418 #1\Hy@xspace@end
10419 \Hy@EndAnnot
10420 }
10421 \def\@hyper@launch run:#1\#2#3{% filename, anchor text linkname
10422 \leavevmode
10423 \Hy@BeginAnnot{%
10424   \Hy@pstringdef\Hy@pstringF{#1}%
10425   \Hy@pstringdef\Hy@pstringP{#3}%
10426   \@pdfm@mark{%
10427     bann<<%
10428       /Type/Annot%
10429       /Subtype/Link%
10430       \ifHy@pdfa /F 4\fi
10431       \Hy@setpdfborder
10432       \ifx\@runbordercolor\relax
10433       \else
10434         /C[\@runbordercolor]%
10435       \fi
10436       /A<<%
10437       /F(\Hy@pstringF)%
10438       /S/Launch%
10439       \Hy@SetNewWindow
10440       \ifx\#3\%
10441       \else
10442         /Win<</P(\Hy@pstringP)/F(\Hy@pstringF)>>%
10443       \fi
10444       \Hy@href@nextactionraw
10445     >>%

```

```

10446     >>%
10447   }%
10448   \Hy@colorlink\@runcolor
10449 }%
10450 #2\Hy@xspace@end
10451 \Hy@EndAnnot
10452 }
10453 \def\hyper@linkurl#1#2{%
10454   \leavevmode
10455   \Hy@BeginAnnot{%
10456     \Hy@pstringdef\Hy@pstringURI{#2}%
10457     \@pdfm@mark{%
10458       bann<<%
10459         /Type/Annot%
10460         /Subtype/Link%
10461         \ifHy@pdfa /F 4\fi
10462         \Hy@setpdfborder
10463         \ifx\@urlbordercolor\relax
10464           \else
10465             /C[\@urlbordercolor]%
10466           \fi
10467         /A<<%
10468         /S/URI%
10469         /URI(\Hy@pstringURI)%
10470         \ifHy@href@ismap
10471           /IsMap true%
10472         \fi
10473         \Hy@href@nextactionraw
10474       >>%
10475     >>%
10476   }%
10477   \Hy@colorlink\@urlcolor
10478 }%
10479 #1\Hy@xspace@end
10480 \Hy@EndAnnot
10481 }
10482 \def\Acrobatmenu#1#2{%
10483   \Hy@Acrobatmenu{#1}{#2}{%
10484     \Hy@BeginAnnot{%
10485       \EdefEscapeName\Hy@temp@menu{#1}%
10486       \@pdfm@mark{%
10487         bann<<%
10488           /Type/Annot%
10489           /Subtype/Link%
10490           \ifHy@pdfa /F 4\fi
10491           \Hy@setpdfborder
10492           \ifx\@menubordercolor\relax
10493             \else
10494               /C[\@menubordercolor]%
10495             \fi
10496           /A<<%
10497           /S/Named%
10498           /N/\Hy@temp@menu
10499           \Hy@href@nextactionraw
10500         >>%
10501       >>%
10502     }%

```

```

10503 \Hy@colorlink\@menucolor
10504 }%
10505 #2\Hy@xspace@end
10506 \Hy@EndAnnot
10507 }%
10508 }
10509 \ifx\@pdfproducer\relax
10510 \def\@pdfproducer{dvipdfm}%

```

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

```

10511 \begingroup\expandafter\expandafter\expandafter\endgroup
10512 \expandafter\ifx\csname XeTeXversion\endcsname\relax
10513 \else
10514 \edef\@pdfproducer{XeTeX \the\XeTeXversion\XeTeXrevision}%
10515 \fi
10516 \fi
10517 \def\PDF@FinishDoc{%
10518 \Hy@UseMaketitleInfos
10519 \HyInfo@GenerateAddons
10520 \@pdfm@mark{%
10521 docinfo<<%
10522 /Title(\@pdftitle)%
10523 /Subject(\@pdfsubject)%
10524 /Creator(\@pdfcreator)%
10525 \ifx\@pdfcreationdate\@empty
10526 \else
10527 /CreationDate(\@pdfcreationdate)%
10528 \fi
10529 \ifx\@pdfmoddate\@empty
10530 \else
10531 /ModDate(\@pdfmoddate)%
10532 \fi
10533 /Author(\@pdfauthor)%
10534 \ifx\@pdfproducer\relax
10535 \else
10536 /Producer(\@pdfproducer)%
10537 \fi
10538 /Keywords(\@pdfkeywords)%
10539 \ifx\@pdftrapped\@empty
10540 \else
10541 /Trapped/\@pdftrapped
10542 \fi
10543 \HyInfo@Addons
10544 >>%
10545 }%
10546 \Hy@DisableOption{pdfauthor}%
10547 \Hy@DisableOption{pdftitle}%
10548 \Hy@DisableOption{pdfsubject}%
10549 \Hy@DisableOption{pdfcreator}%
10550 \Hy@DisableOption{pdfcreationdate}%
10551 \Hy@DisableOption{pdfmoddate}%
10552 \Hy@DisableOption{pdfproducer}%
10553 \Hy@DisableOption{pdfkeywords}%
10554 \Hy@DisableOption{pdftrapped}%
10555 \Hy@DisableOption{pdfinfo}%
10556 }
10557 \def\PDF@SetupDoc{%

```



```

10558 \edef\Hy@temp{%
10559   \ifHy@pdftoolbar\else /HideToolbar true\fi
10560   \ifHy@pdfmenubar\else /HideMenubar true\fi
10561   \ifHy@pdfwindowui\else /HideWindowUI true\fi
10562   \ifHy@pdfwindow /FitWindow true\fi
10563   \ifHy@pdfcenterwindow /CenterWindow true\fi
10564   \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
10565   \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
10566   \Hy@UseNameKey{Direction}\@pdfdirection
10567   \Hy@UseNameKey{ViewArea}\@pdfviewarea
10568   \Hy@UseNameKey{ViewClip}\@pdfviewclip
10569   \Hy@UseNameKey{PrintArea}\@pdfprintarea
10570   \Hy@UseNameKey{PrintClip}\@pdfprintclip
10571   \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
10572   \Hy@UseNameKey{Duplex}\@pdfduplex
10573   \ifx\@pdfpicktraybypdfsize\@empty
10574   \else
10575     /PickTrayByPDFSize \@pdfpicktraybypdfsize
10576   \fi
10577   \ifx\@pdfprintpagerange\@empty
10578   \else
10579     /PrintPageRange[\@pdfprintpagerange]%
10580   \fi
10581   \ifx\@pdfnumcopies\@empty
10582   \else
10583     /NumCopies \@pdfnumcopies
10584   \fi
10585 }%
10586 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
10587 \@pdfm@mark{%
10588   docview<<%
10589     \ifx\@pdfstartpage\@empty
10590     \else
10591       \ifx\@pdfstartview\@empty
10592       \else
10593         /OpenAction[@page\@pdfstartpage\@pdfstartview]%
10594       \fi
10595     \fi
10596     \ifx\@baseurl\@empty
10597     \else
10598       /URI<</Base(\Hy@pstringB)>>%
10599     \fi
10600     /PageMode/\@pdfpagemode
10601     \ifx\Hy@temp\@empty
10602     \else
10603       /ViewerPreferences<<\Hy@temp>>%
10604     \fi
10605     \Hy@UseNameKey{PageLayout}\@pdfpagelayout
10606     \ifx\@pdflang\@empty
10607     \else
10608       /Lang(\@pdflang)%
10609     \fi
10610   >>%
10611 }%
10612 \ifx\@pdfpagescrop\@empty
10613 \else
10614   \@pdfm@mark{put @pages <</CropBox[\@pdfpagescrop]>>%

```

```

10615 \fi
10616 }
10617 </dvipdfm | xetex>
10618 < *dvipdfm | xetex>

```

\hyper@pagetransition

```

10619 \def\hyper@pagetransition{%
10620 \ifx\@pdfpagetransition\relax
10621 \else
10622 \ifx\@pdfpagetransition\@empty
10623 \else
10624 \special{pdf:put @thispage %
10625 <</Trans<</S/\@pdfpagetransition>>>>%
10626 }%
10627 \fi
10628 \fi
10629 }

```

\hyper@pageduration

```

10630 \def\hyper@pageduration{%
10631 \ifx\@pdfpageduration\relax
10632 \else
10633 \ifx\@pdfpageduration\@empty
10634 \else
10635 \special{pdf:put @thispage %
10636 <</Dur \@pdfpageduration>>>%
10637 }%
10638 \fi
10639 \fi
10640 }

```

\hyper@pagehidden

```

10641 \def\hyper@pagehidden{%
10642 \ifHy@useHidKey
10643 \special{pdf:put @thispage %
10644 <</Hid \ifHy@pdfpagehidden true\else false\fi>>%
10645 }%
10646 \fi
10647 }

```

```

10648 \g@addto@macro\Hy@EveryPageBoxHook{%
10649 \hyper@pagetransition
10650 \hyper@pageduration
10651 \hyper@pagehidden
10652 }
10653 </dvipdfm | xetex>

```

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

```

10654 < *dvipdfm>
10655 \AtBeginShipoutFirst{%
10656 \ifHy@setpagesize
10657 \begingroup
10658 \@ifundefined{stockwidth}{%
10659 \ifdim\paperwidth>\z@
10660 \ifdim\paperheight>\z@
10661 \special{papersize=\the\paperwidth,\the\paperheight}%

```

```

10662     \fi
10663     \fi
10664   }{%
10665     \ifdim\stockwidth>\z@
10666     \ifdim\stockheight>\z@
10667       \special{papersize=\the\stockwidth,\the\stockheight}%
10668     \fi
10669   \fi
10670 }%
10671 \endgroup
10672 \fi
10673 \Hy@DisableOption{setpagesize}%
10674 }
10675 </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.

```

10676 <*vtexhtml>
10677 \providecommand*{\XR@ext}{htm}
10678 \RequirePackage{vtexhtml}
10679 \newif\if@Localurl
10680 \let\PDF@FinishDoc\ltx@empty
10681 \def\PDF@SetupDoc{%
10682   \ifx\@baseurl\@empty
10683   \else
10684     \special{!direct <base href="\@baseurl">}%
10685   \fi
10686 }
10687 \def\@urltype{url}
10688 \def\hyper@link#1#2#3{%
10689   \Hy@VerboseLinkStart{#1}{#2}%
10690   \leavevmode
10691   \special{!direct <a href=%
10692     \hyper@quote\hyper@hash\HyperDestNameFilter{#2}\hyper@quote>}%
10693   #3\Hy@xspace@end
10694   \special{!direct </a>}%
10695 }
10696 \def\hyper@linkurl#1#2{%
10697   \begingroup
10698     \hyper@chars
10699     \leavevmode
10700     \MathBSuppress=1\relax
10701     \special{!direct <a href=%
10702       \hyper@quote\HyperDestNameFilter{#2}\hyper@quote>}%
10703     #1\Hy@xspace@end
10704     \MathBSuppress=0\relax
10705     \special{!direct </a>}%
10706   \endgroup
10707 }
10708 \def\hyper@linkfile#1#2#3{%
10709   \hyper@linkurl{#1}{\Hy@linkfileprefix#2\ifx\\#3\\\else\\##3\fi}%
10710 }
10711 \def\hyper@linkstart#1#2{%
10712   \Hy@VerboseLinkStart{#1}{#2}%
10713   \def\Hy@tempa{#1}\ifx\Hy@tempa\@urltype

```

```

10714 \@@Localurltrue
10715 \special{!direct <a href=\hyper@quote#2\hyper@quote>}%
10716 \else
10717 \@@Localurlfalse
10718 \begingroup
10719 \hyper@chars
10720 \special{!aref \HyperDestNameFilter{#2}}%
10721 \endgroup
10722 \fi
10723 }
10724 \def\hyper@linkend{%
10725 \if@Localurl
10726 \special{!endaref}%
10727 \else
10728 \special{!direct </a>}%
10729 \fi
10730 }
10731 \Hy@WrapperDef\hyper@anchorstart#1{%
10732 \Hy@SaveLastskip
10733 \Hy@VerboseAnchor{#1}%
10734 \begingroup
10735 \hyper@chars
10736 \special{!aname #1}%
10737 \special{!direct <a name=%
10738 \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
10739 \endgroup
10740 \Hy@activeanchortrue
10741 }
10742 \def\hyper@anchorend{%
10743 \special{!direct </a>}%
10744 \Hy@activeanchorfalse
10745 \Hy@RestoreLastskip
10746 }
10747 \Hy@WrapperDef\hyper@anchor#1{%
10748 \Hy@SaveLastskip
10749 \Hy@VerboseAnchor{#1}%
10750 \begingroup
10751 \let\protect=\string
10752 \hyper@chars
10753 \leavevmode
10754 \special{!aname #1}%
10755 \special{!direct <a name=%
10756 \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
10757 \endgroup
10758 \Hy@activeanchortrue
10759 \bgroup\anchor@spot\egroup
10760 \special{!direct </a>}%
10761 \Hy@activeanchorfalse
10762 \Hy@RestoreLastskip
10763 }
10764 \def\@Form[#1]{%
10765 \Hy@Message{Sorry, TeXpider does not yet support FORMs}%
10766 }
10767 \let\@endForm\ltx@empty
10768 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
10769 \Hy@Message{Sorry, TeXpider does not yet support FORM gauges}%
10770 }

```

```

10771 \def\@TextField[#1]#2{% parameters, label
10772   \Hy@Message{Sorry, TeXpider does not yet support FORM text fields}%
10773 }
10774 \def\@CheckBox[#1]#2{% parameters, label
10775   \Hy@Message{Sorry, TeXpider does not yet support FORM checkboxes}%
10776 }
10777 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
10778   \Hy@Message{Sorry, TeXpider does not yet support FORM choice menus}%
10779 }
10780 \def\@PushButton[#1]#2{% parameters, label
10781   \Hy@Message{Sorry, TeXpider does not yet support FORM pushbuttons}%
10782 }
10783 \def\@Reset[#1]#2{%
10784   \Hy@Message{Sorry, TeXpider does not yet support FORMs}%
10785 }
10786 \def\@Submit[#1]#2{%
10787   \Hy@Message{Sorry, TeXpider does not yet support FORMs}%
10788 }
10789 \</vtexhtml>
10790 \*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.

```

10791 \ifx\mediaheight\@undefined
10792 \else
10793   \ifx\mediaheight\relax
10794   \else
10795     \ifHy@setpagesize
10796       \providecommand*\VTeXInitMediaSize{%
10797         \ltx@ifundefined{stockwidth}{%
10798           \ifdim\paperheight>0pt %
10799             \setlength\mediaheight\paperheight
10800           \fi
10801           \ifdim\paperheight>0pt %
10802             \setlength\mediawidth\paperwidth
10803           \fi
10804         }{%
10805           \ifdim\stockheight>0pt %
10806             \setlength\mediaheight\stockheight
10807           \fi
10808           \ifdim\stockwidth>0pt %
10809             \setlength\mediawidth\stockwidth
10810           \fi
10811         }%
10812       }%
10813     \Hy@AtBeginDocument{\VTeXInitMediaSize}%
10814   \fi
10815   \Hy@DisableOption{setpagesize}%
10816 \fi
10817 \fi

```

Older versions of VTeX require `xyz` in lower case.

```

10818 \providecommand*\@pdfview{xyz}
10819 \providecommand*\@pdfborder{0 0 1}
10820 \providecommand*\@pdfborderstyle{}
10821 \let\CurrentBorderColor\@linkbordercolor
10822 \Hy@WrapperDef\hyper@anchor#1{%

```

```

10823 \Hy@SaveLastskip
10824 \Hy@VerboseAnchor{#1}%
10825 \begingroup
10826 \let\protect=\string
10827 \hyper@chars
10828 \special{!aname \HyperDestNameFilter{#1};\@pdfview}%
10829 \endgroup
10830 \Hy@activeanchortrue
10831 \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
10832 \Hy@activeanchorfalse
10833 \Hy@RestoreLastskip
10834 }
10835 \Hy@WrapperDef\hyper@anchorstart#1{%
10836 \Hy@SaveLastskip
10837 \Hy@VerboseAnchor{#1}%
10838 \begingroup
10839 \hyper@chars
10840 \special{!aname \HyperDestNameFilter{#1};\@pdfview}%
10841 \endgroup
10842 \Hy@activeanchortrue
10843 }
10844 \def\hyper@anchorend{%
10845 \Hy@activeanchorfalse
10846 \Hy@RestoreLastskip
10847 }
10848 \def\@urltype{url}
10849 \def\Hy@undefinedname{UNDEFINED}
10850 \def\hyper@linkstart#1#2{%
10851 \Hy@VerboseLinkStart{#1}{#2}%
10852 \Hy@pstringdef\Hy@pstringURI{#2}%
10853 \expandafter\Hy@colorlink\csname @#1color\endcsname
10854 \ltx@ifundefined{#1bordercolor}{%
10855 \let\CurrentBorderColor\relax
10856 }{%
10857 \edef\CurrentBorderColor{%
10858 \csname @#1bordercolor\endcsname
10859 }%
10860 }%
10861 \def\Hy@tempa{#1}%
10862 \ifx\Hy@tempa\@urltype
10863 \special{!%
10864 aref <u=/Type/Action/S/URI/URI(\Hy@pstringURI)%
10865 \ifHy@href@ismap
10866 /IsMap true%
10867 \fi
10868 \Hy@href@nextactionraw
10869 >,%
10870 a=<%
10871 \ifHy@pdfa /F 4\fi
10872 \Hy@setpdfborder
10873 \ifx\CurrentBorderColor\relax
10874 \else
10875 /C [\CurrentBorderColor]%
10876 \fi
10877 >%
10878 }%
10879 \else

```

```

10880 \protected@edef\Hy@testname{#2}%
10881 \ifx\Hy@testname\@empty
10882 \Hy@Warning{%
10883   Empty destination name,\MessageBreak
10884   using '\Hy@undefinedname'%
10885 }%
10886 \let\Hy@testname\Hy@undefinedname
10887 \fi
10888 \special{!%
10889   aref \expandafter\HyperDestNameFilter
10890   \expandafter{\Hy@testname};%
10891   a=<%
10892   \ifHy@pdfa /F 4\fi
10893   \Hy@setpdfborder
10894   \ifx\CurrentBorderColor\relax
10895   \else
10896   /C [\CurrentBorderColor]%
10897   \fi
10898   >%
10899   }%
10900 \fi
10901 }
10902 \def\hyper@linkend{%
10903 \special{!endaref}%
10904 \Hy@endcolorlink
10905 }
10906 \def\hyper@linkfile#1#2#3{%
10907 \leavevmode
10908 \def\Hy@pstringF{#2}%
10909 \Hy@CleanupFile\Hy@pstringF
10910 \special{!%
10911   aref <%
10912   \ifnum\Hy@VTeXversion>753 \ifHy@pdfnewwindow n\fi\fi
10913   f=\Hy@pstringF>#3;%
10914   a=<%
10915   \ifHy@pdfa /F 4\fi
10916   \Hy@setpdfborder
10917   \ifx\@filebordercolor\relax
10918   \else
10919   /C [\@filebordercolor]%
10920   \fi
10921   >%
10922   }%
10923   \Hy@colorlink\@filecolor
10924   #1\Hy@xspace@end
10925   \Hy@endcolorlink
10926   \special{!endaref}%
10927 }
10928 \def\hyper@linkurl#1#2{%
10929 \begingroup
10930 \Hy@pstringdef\Hy@pstringURI{#2}%
10931 \hyper@chars
10932 \leavevmode
10933 \special{!%
10934   aref <u=/Type/Action/S/URI/URI(\Hy@pstringURI)%
10935   \ifHy@href@ismap
10936   /IsMap true%

```

```

10937     \fi
10938     \Hy@href@nextactionraw
10939     >,%
10940     a=<%
10941     \ifHy@pdfa /F 4\fi
10942     \Hy@setpdfborder
10943     \ifx\@urlbordercolor\relax
10944     \else
10945     /C [\@urlbordercolor]%
10946     \fi
10947     >%
10948     }%
10949     \Hy@colorlink\@urlcolor
10950     #1\Hy@xspace@end
10951     \Hy@endcolorlink
10952     \special{!endaref}%
10953 \endgroup
10954 }
10955 \def\hyper@link#1#2#3{%
10956 \Hy@VerboseLinkStart{#1}{#2}%
10957 \ltx@ifundefined{#1bordercolor}{%
10958 \let\CurrentBorderColor\relax
10959 }{%
10960 \edef\CurrentBorderColor{\csname @#1bordercolor\endcsname}%
10961 }%
10962 \leavevmode
10963 \protected@edef\Hy@testname{#2}%
10964 \ifx\Hy@testname\@empty
10965 \Hy@Warning{%
10966 Empty destination name,\MessageBreak
10967 using '\Hy@undefinedname'%
10968 }%
10969 \let\Hy@testname\Hy@undefinedname
10970 \fi
10971 \special{!%
10972 aref \expandafter\HyperDestNameFilter
10973 \expandafter{\Hy@testname};%
10974 a=<%
10975 \ifHy@pdfa /F 4\fi
10976 \Hy@setpdfborder
10977 \ifx\CurrentBorderColor\relax
10978 \else
10979 /C [\CurrentBorderColor]%
10980 \fi
10981 >%
10982 }%
10983 \expandafter
10984 \Hy@colorlink\csname @#1color\endcsname
10985 #3\Hy@xspace@end
10986 \Hy@endcolorlink
10987 \special{!endaref}%
10988 }
10989 \def\hyper@image#1#2{%
10990 \hyper@linkurl{#2}{#1}%
10991 }
10992 \def\@hyper@launch run:#1\\#2#3{%
10993 \Hy@pstringdef\Hy@pstringF{#1}%

```



```

10994 \Hy@pstringdef\Hy@pstringP{#3}%
10995 \leavevmode
10996 \special{!aref %
10997   <u=%
10998   /Type/Action%
10999   /S/Launch%
11000   /F(\Hy@pstringF)%
11001   \Hy@SetNewWindow
11002   \ifx\#3\%
11003   \else
11004     /Win<</F(\Hy@pstringF)/P(\Hy@pstringP)>>%
11005   \fi
11006   \Hy@href@nextactionraw
11007   >,%
11008   a=<%
11009   \ifHy@pdfa /F 4\fi
11010   \Hy@setpdfborder
11011   \ifx\@runbordercolor\relax
11012   \else
11013     /C[\@runbordercolor]%
11014   \fi
11015   >%
11016 }%
11017 \Hy@colorlink\@runcolor
11018 #2\Hy@xspace@end
11019 \Hy@endcolorlink
11020 \special{!endaref}%
11021 }
11022 \def\Acrobatmenu#1#2{%
11023   \EdefEscapeName\Hy@temp@menu{#1}%
11024   \Hy@Acrobatmenu{#1}{#2}{%
11025     \special{!%
11026       aref <u=/S /Named /N /\Hy@temp@menu>;%
11027       a=<%
11028       \ifHy@pdfa /F 4\fi
11029       \Hy@setpdfborder
11030       \ifx\@menubordercolor\relax
11031       \else
11032         /C[\@menubordercolor]%
11033       \fi
11034       >%
11035     }%
11036     \Hy@colorlink\@menucolor
11037     #2\Hy@xspace@end
11038     \Hy@endcolorlink
11039     \special{!endaref}%
11040   }%
11041 }

```

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

The code below makes sense for VTeX 7.02 or later.

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

```

11042 \ifnum\Hy@VTeXversion<702 %
11043 \else
11044   \def\hyper@pagetransition{%
11045     \ifx\@pdfpagetransition\relax
11046     \else
11047       \ifx\@pdfpagetransition\@empty

```

Standard incantation.

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

```
11048 \else
11049 \hvtex@parse@trans\@pdfpagetransition
11050 \fi
11051 \fi
11052 }%
```

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

Syntax of V_TE_X \special{!trans <transition_effect>}:

```
<transition_effect> ::= <transition_style>[,<transition_duration>]
<transition_style> ::= <Blinds_effect> | <Box_effect> |
                        <Dissolve_effect> | <Glitter_effect> |
                        <Split_effect> | <Wipe_effect>
<Blinds_effect> ::= B[<effect_dimension>]
<Box_effect> ::= X[<effect_motion>]
<Dissolve_effect> ::= D
<Glitter_effect> ::= G[<effect_direction>]
<Split_effect> ::= S[<effect_motion>][<effect_dimension>]
<Wipe_effect> ::= W[<effect_direction>]
<Replace_effect> ::= R
<effect_direction> ::= <number>
<effect_dimension> ::= H | V
<effect_motion> ::= I | O
<transition_duration> ::= <number>
```

Transition codes:

```
11053 \def\hvtex@trans@effect@Blinds{\def\hvtex@trans@code{B}}%
11054 \def\hvtex@trans@effect@Box{\def\hvtex@trans@code{X}}%
11055 \def\hvtex@trans@effect@Dissolve{\def\hvtex@trans@code{D}}%
11056 \def\hvtex@trans@effect@Glitter{\def\hvtex@trans@code{G}}%
11057 \def\hvtex@trans@effect@Split{\def\hvtex@trans@code{S}}%
11058 \def\hvtex@trans@effect@Wipe{\def\hvtex@trans@code{W}}%
11059 \def\hvtex@trans@effect@R{\def\hvtex@trans@code{R}}%
```

Optional parameters:

```
11060 \def\hvtex@par@dimension{/Dm}%
11061 \def\hvtex@par@direction{/Di}%
11062 \def\hvtex@par@duration{/D}%
11063 \def\hvtex@par@motion{/M}%
```

Tokenizer:

```
11064 \def\hvtex@gettoken{%
11065 \expandafter\hvtex@gettoken@\hvtex@buffer\@nil
11066 }%
```

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

```
11067 \def\hvtex@gettoken@#1 #2\@nil{%
11068 \edef\hvtex@token{#1}%
11069 \edef\hvtex@buffer{#2}%
11070 }%
11071 \def\hvtex@parse@trans#1{%
```

Initializing code:

```
11072 \let\hvtex@trans@code\@empty
11073 \let\hvtex@param@dimension\@empty
11074 \let\hvtex@param@direction\@empty
```

```

11075 \let\hvtex@param@duration\@empty
11076 \let\hvtex@param@motion\@empty
11077 \edef\hvtex@buffer{#1\space}%

```

First token is the PDF transition name without escape.

```

11078 \hvtex@gettoken
11079 \ifx\hvtex@token\@empty

```

Leading space(s)?

```

11080 \ifx\hvtex@buffer\@empty

```

The buffer is empty, nothing to do.

```

11081 \else
11082 \hvtex@gettoken
11083 \fi
11084 \fi
11085 \csname hvtex@trans@effect@\hvtex@token\endcsname

```

Now is time to parse optional parameters.

```

11086 \hvtex@trans@params
11087 }%

```

Reentrant macro to parse optional parameters.

```

11088 \def\hvtex@trans@params{%
11089 \ifx\hvtex@buffer\@empty
11090 \else
11091 \hvtex@gettoken
11092 \let\hvtex@trans@par\hvtex@token
11093 \ifx\hvtex@buffer\@empty
11094 \else
11095 \hvtex@gettoken
11096 \ifx\hvtex@trans@par\hvtex@par@duration

```

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

```

11097 \let\hvtex@param@duration\hvtex@token
11098 \else \ifx\hvtex@trans@par\hvtex@par@motion

```

/M can be either /I or /O

```

11099 \expandafter\edef\expandafter\hvtex@param@motion
11100 \expandafter{\expandafter\@gobble\hvtex@token}%
11101 \else \ifx\hvtex@trans@par\hvtex@par@dimension

```

/Dm can be either /H or /V

```

11102 \expandafter\edef\expandafter\hvtex@param@dimension
11103 \expandafter{\expandafter\@gobble\hvtex@token}%
11104 \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).

```

11105 \let\hvtex@param@direction\hvtex@token
11106 \fi\fi\fi\fi
11107 \fi
11108 \fi
11109 \ifx\hvtex@buffer\@empty
11110 \let\next\hvtex@produce@trans
11111 \else
11112 \let\next\hvtex@trans@params
11113 \fi
11114 \next
11115 }%

```

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

```

11116 \def\hvtex@produce@trans{%
11117 \let\vtex@trans@special\@empty
11118 \if S\hvtex@trans@code
11119 \edef\vtex@trans@special{\hvtex@trans@code
11120 \hvtex@param@dimension\hvtex@param@motion}%
11121 \else\if B\hvtex@trans@code
11122 \edef\vtex@trans@special{%
11123 \hvtex@trans@code\hvtex@param@dimension
11124 }%
11125 \else\if X\hvtex@trans@code
11126 \edef\vtex@trans@special{%
11127 \hvtex@trans@code\hvtex@param@motion
11128 }%
11129 \else\if W\hvtex@trans@code
11130 \edef\vtex@trans@special{%
11131 \hvtex@trans@code\hvtex@param@direction
11132 }%
11133 \else\if D\hvtex@trans@code
11134 \let\vtex@trans@special\hvtex@trans@code
11135 \else\if R\hvtex@trans@code
11136 \let\vtex@trans@special\hvtex@trans@code
11137 \else\if G\hvtex@trans@code
11138 \edef\vtex@trans@special{%
11139 \hvtex@trans@code\hvtex@param@direction
11140 }%
11141 \fi\fi\fi\fi\fi\fi
11142 \ifx\vtex@trans@special\@empty
11143 \else
11144 \ifx\hvtex@param@duration\@empty
11145 \else
11146 \setlength{\dimen@}{\hvtex@param@duration\p@}%

```

I'm not guilty of possible overflow.

```

11147 \multiply\dimen@\@m
11148 \edef\vtex@trans@special{%
11149 \vtex@trans@special,\strip@pt\dimen@
11150 }%
11151 \fi

```

And all the mess is just for this.

```

11152 \special{!trans \vtex@trans@special}%
11153 \fi
11154 }%

11155 \def\hyper@pageduration{%
11156 \ifx\@pdfpageduration\relax
11157 \else
11158 \ifx\@pdfpageduration\@empty
11159 \special{!duration-}%
11160 \else
11161 \special{!duration \@pdfpageduration}%
11162 \fi
11163 \fi
11164 }%
11165 \def\hyper@pagehidden{%
11166 \ifHy@useHidKey

```

```

11167 \special{!hidden\ifHy@pdfpagehidden +\else -\fi}%
11168 \fi
11169 }%
11170 \g@addto@macro\Hy@EveryPageBoxHook{%
11171 \hyper@pagetransition
11172 \hyper@pageduration
11173 \hyper@pagehidden
11174 }%
11175 \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

```

11176 \ifx\@pdfproducer\relax
11177 \def\@pdfproducer{VTeX}%
11178 \ifnum\Hy@VTeXversion>\z@
11179 \count@\VTeXversion
11180 \divide\count@ 100 %
11181 \edef\@pdfproducer{\@pdfproducer\space v\the\count@}%
11182 \multiply\count@ -100 %
11183 \advance\count@\VTeXversion
11184 \edef\@pdfproducer{%
11185 \@pdfproducer
11186 .\ifnum\count@<10 0\fi\the\count@
11187 \ifx\VTeXOS\@undefined\else
11188 \ifnum\VTeXOS>0 %
11189 \ifnum\VTeXOS<6 %
11190 \space(%
11191 \ifcase\VTeXOS
11192 \or Windows\or Linux\or OS/2\or MacOS\or MacOS/X%
11193 \fi
11194 )%
11195 \fi
11196 \fi
11197 \fi
11198 ,\space
11199 \ifnum\OpMode=\@ne PDF\else PS\fi
11200 \space backend%
11201 \ifx\gexmode\@undefined\else
11202 \ifnum\gexmode>\z@\space with GeX\fi
11203 \fi
11204 }%
11205 \fi
11206 \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).

```

11207 \def\PDF@SetupDoc{%
11208   \ifx\@pdfpagescrop\@empty
11209   \else
11210     \special{!pdfinfo b=<\@pdfpagescrop>}%
11211   \fi
11212   \ifx\@pdfstartpage\@empty
11213   \else
11214     \ifx\@pdfstartview\@empty
11215     \else
11216       \special{!onopen Page\@pdfstartpage}%
11217     \fi
11218   \fi
11219   \special{!pdfinfo p=</\@pdfpagemode>}%
11220   \ifx\@baseurl\@empty
11221   \else
11222     \special{!pdfinfo u=<<</Base (\@baseurl)>>>}%
11223   \fi
11224   \special{!pdfinfo v=<<<%
11225     \ifHy@pdftoolbar\else /HideToolbar true\fi
11226     \ifHy@pdfmenubar\else /HideMenubar true\fi
11227     \ifHy@pdfwindowui\else /HideWindowUI true\fi
11228     \ifHy@pdffitwindow /FitWindow true\fi
11229     \ifHy@pdfcenterwindow /CenterWindow true\fi
11230     \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
11231     \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
11232     \Hy@UseNameKey{Direction}\@pdfdirection
11233     \Hy@UseNameKey{ViewArea}\@pdfviewarea
11234     \Hy@UseNameKey{ViewClip}\@pdfviewclip
11235     \Hy@UseNameKey{PrintArea}\@pdfprintarea
11236     \Hy@UseNameKey{PrintClip}\@pdfprintclip
11237     \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
11238     \Hy@UseNameKey{Duplex}\@pdfduplex
11239     \ifx\@pdfpicktraybypdfsize\@empty
11240     \else
11241       /PickTrayByPDFSize \@pdfpicktraybypdfsize
11242     \fi
11243     \ifx\@pdfprintpagerange\@empty
11244     \else
11245       /PrintPageRange[\@pdfprintpagerange]%
11246     \fi
11247     \ifx\@pdfnumcopies\@empty
11248     \else
11249       /NumCopies \@pdfnumcopies

```

```

11250 \fi
11251 >>>}%
11252 \ifx\@pdfpagelayout\@empty
11253 \else
11254 \special{!pdfinfo l=</\@pdfpagelayout\space>}%
11255 \fi
11256 }%
11257 \HyInfo@AddonUnsupportedtrue
11258 \define@key{Hyp}{pdfcreationdate}{%
11259 \Hy@Warning{%
11260 VTeX does not support pdfcreationdate.\MessageBreak
11261 Therefore its setting is ignored%
11262 }%
11263 }
11264 \define@key{Hyp}{pdfmoddate}{%
11265 \Hy@Warning{%
11266 VTeX does not support pdfmoddate.\MessageBreak
11267 Therefore its setting is ignored%
11268 }%
11269 }
11270 \def\PDF@FinishDoc{%
11271 \Hy@UseMaketitleInfos
11272 \HyInfo@TrappedUnsupported
11273 \special{!pdfinfo a=<\@pdfauthor>}%
11274 \special{!pdfinfo t=<\@pdftitle>}%
11275 \special{!pdfinfo s=<\@pdfsubject>}%
11276 \special{!pdfinfo c=<\@pdfcreator>}%
11277 \ifx\@pdfproducer\relax
11278 \else
11279 \special{!pdfinfo r=<\@pdfproducer>}%
11280 \fi
11281 \special{!pdfinfo k=<\@pdfkeywords>}%
11282 \Hy@DisableOption{pdfauthor}%
11283 \Hy@DisableOption{pdftitle}%
11284 \Hy@DisableOption{pdfsubject}%
11285 \Hy@DisableOption{pdfcreator}%
11286 \Hy@DisableOption{pdfcreationdate}%
11287 \Hy@DisableOption{pdfmoddate}%
11288 \Hy@DisableOption{pdfproducer}%
11289 \Hy@DisableOption{pdfkeywords}%
11290 \Hy@DisableOption{pdftrapped}%
11291 \Hy@DisableOption{pdfinfo}%
11292 }
11293 </vtx>

```

47.7 Fix for Adobe bug number 466320

If a destination occurs at the very begin of a page, the destination is moved to the previous page by Adobe Distiller 5. As workaround Adobe suggests:

```

/showpage {
  //showpage
  clippath stroke erasepage
} bind def

```

But unfortunately this fix generates an empty page at the end of the document. Therefore another fix is used by writing some clipped text.

```

11294 <dviwindo>\def\literalps@out#1{\special{ps:#1}}%
11295 <package>\providecommand*{\Hy@DistillerDestFix}{%
11296 <*pdfmark | dviwindo>
11297 \def\Hy@DistillerDestFix{%
11298 \begingroup
11299 \let\x\literalps@out

```

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

```

11300 \ifnum \@ifundefined{OpMode}{0}{%
11301 \ifundefined{gexmode}{0}{%
11302 \ifnum\gexmode>0 \OpMode\else 0\fi
11303 }>1 %
11304 \def\x##1{%
11305 \immediate\special{!=##1}%
11306 }%
11307 \fi
11308 \x{%
11309 /product where{%
11310 pop %
11311 product(Distiller)search{%
11312 pop pop pop %
11313 version(.)search{%
11314 exch pop exch pop%
11315 (3011)eq{%
11316 gsave %
11317 newpath 0 0 moveto closepath clip%
11318 /Courier findfont 10 scalefont setfont %
11319 72 72 moveto(.)show %
11320 grestore%
11321 }if%
11322 }{pop}ifelse%
11323 }{pop}ifelse%
11324 }if%
11325 }%
11326 \endgroup
11327 }
11328 </pdfmark | dviwindo>

```

47.8 Direct pdfmark support

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

```

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

```

and the correct definitions of the following PostScript procedures:

```

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

```

```

11329 <*pdfmark>
11330 \Hy@breaklinks@unsupported
11331 \def\HyPat@ObjRef{%

```



```

11332 \[{}+}%
11333 }
11334 \Hy@WrapperDef\hyper@anchor#1{%
11335 \Hy@SaveLastskip
11336 \Hy@VerboseAnchor{#1}%
11337 \begingroup
11338 \pdfmark[\anchor@spot]{%
11339 pdfmark=/DEST,%
11340 linktype=anchor,%
11341 View=/\@pdfview \@pdfviewparams,%
11342 DestAnchor={#1}%
11343 }%
11344 \endgroup
11345 \Hy@RestoreLastskip
11346 }
11347 \ltx@ifundefined{hyper@anchorstart}{\endinput}
11348 \Hy@WrapperDef\hyper@anchorstart#1{%
11349 \Hy@SaveLastskip
11350 \Hy@VerboseAnchor{#1}%
11351 \literalps@out{H.S}%
11352 \Hy@AllowHyphens
11353 \xdef\hyper@currentanchor{#1}%
11354 \Hy@activeanchortrue
11355 }
11356 \def\hyper@anchorend{%
11357 \literalps@out{\strip@pt@and@otherjunk\baselineskip\space H.A}%
11358 \pdfmark{%
11359 pdfmark=/DEST,%
11360 linktype=anchor,%
11361 View=/\@pdfview \@pdfviewparams,%
11362 DestAnchor=\hyper@currentanchor,%
11363 }%
11364 \Hy@activeanchorfalse
11365 \Hy@RestoreLastskip
11366 }
11367 \def\hyper@linkstart#1#2{%
11368 \Hy@VerboseLinkStart{#1}{#2}%
11369 \ifHy@breaklinks
11370 \else
11371 \leavevmode
11372 \ifmmode
11373 \def\Hy@LinkMath{$}%
11374 \else
11375 \let\Hy@LinkMath\ltx@empty
11376 \fi
11377 \Hy@SaveSpaceFactor
11378 \hbox\bgroup
11379 \Hy@RestoreSpaceFactor
11380 \Hy@LinkMath
11381 \fi
11382 \expandafter\Hy@colorlink\csname @#1color\endcsname
11383 \literalps@out{H.S}%
11384 \Hy@AllowHyphens
11385 \xdef\hyper@currentanchor{#2}%
11386 \gdef\hyper@currentlinktype{#1}%
11387 }
11388 \def\hyper@linkend{%

```

```

11389 \literalps@out{\strip@pt@and@otherjunk\baselineskip\space H.L.}%
11390 \ltx@ifundefined{@\hyper@currentlinktype bordercolor}{%
11391   \let\Hy@tempcolor\relax
11392 }{%
11393   \edef\Hy@tempcolor{%
11394     \csname @\hyper@currentlinktype bordercolor\endcsname
11395   }%
11396 }%
11397 \pdfmark{%
11398   pdfmark=/ANN,%
11399   linktype=link,%
11400   Subtype=/Link,%
11401   PDFAFlags=4,%
11402   Dest=\hyper@currentanchor,%
11403   AcroHighlight=\@pdfhighlight,%
11404   Border=\@pdfborder,%
11405   BorderStyle=\@pdfborderstyle,%
11406   Color=\Hy@tempcolor,%
11407   Raw=H.B%
11408 }%
11409 \Hy@endcolorlink
11410 \ifHy@breaklinks
11411 \else
11412   \Hy@LinkMath
11413   \Hy@SaveSpaceFactor
11414   \egroup
11415   \Hy@RestoreSpaceFactor
11416 \fi
11417 }

```

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.

```

11418 \begingroup
11419   \catcode'P=12 %
11420   \catcode'T=12 %
11421   \lowercase{\endgroup
11422   \gdef\rem@ptetc#1.#2PT#3!{#1\ifnum#2>\z@.#2\fi}%
11423 }
11424 \def\strip@pt@and@otherjunk#1{\expandafter\rem@ptetc\the#1!}

```

`\hyper@pagetransition`

```

11425 \def\hyper@pagetransition{%
11426   \ifx\@pdfpagetransition\relax
11427   \else
11428     \ifx\@pdfpagetransition\@empty
11429       % 1. Does an old entry have to be deleted?
11430       % 2. If 1=yes, how to delete?
11431     \else
11432       \pdfmark{%
11433         pdfmark=/PUT,%
11434         Raw={%
11435           \string{ThisPage\string}%
11436           <</Trans << /S /\@pdfpagetransition\space >> >>%
11437         }%
11438       }%
11439     \fi

```

```

11440 \fi
11441 }

```

\hyper@pageduration

```

11442 \def\hyper@pageduration{%
11443 \ifx\@pdfpageduration\relax
11444 \else
11445 \ifx\@pdfpageduration\@empty
11446 % 1. Does an old entry have to be deleted?
11447 % 2. If 1=yes, how to delete?
11448 \else
11449 \pdfmark{%
11450 pdfmark=/PUT,%
11451 Raw={%
11452 \string{ThisPage\string}%
11453 <</Dur \@pdfpageduration>>%
11454 }%
11455 }%
11456 \fi
11457 \fi
11458 }

```

\hyper@pagehidden

```

11459 \def\hyper@pagehidden{%
11460 \ifHy@useHidKey
11461 \pdfmark{%
11462 pdfmark=/PUT,%
11463 Raw={%
11464 \string{ThisPage\string}%
11465 <</Hid \ifHy@pdfpagehidden true\else false\fi>>%
11466 }%
11467 }%
11468 \fi
11469 }

```

```

11470 \g@addto@macro\Hy@EveryPageBoxHook{%
11471 \hyper@pagetransition
11472 \hyper@pageduration
11473 \hyper@pagehidden
11474 }

```

```

11475 \def\hyper@image#1#2{%
11476 \hyper@linkurl{#2}{#1}%
11477 }
11478 \def\Hy@undefinedname{UNDEFINED}
11479 \def\hyper@link#1#2#3{%
11480 \Hy@VerboseLinkStart{#1}{#2}%
11481 \ltx@ifundefined{@#1bordercolor}{%
11482 \let\Hy@tempcolor\relax
11483 }{%
11484 \edef\Hy@tempcolor{\csname @#1bordercolor\endcsname}%
11485 }%
11486 \begingroup
11487 \protected@edef\Hy@testname{#2}%
11488 \ifx\Hy@testname\@empty
11489 \Hy@Warning{%
11490 Empty destination name,\MessageBreak
11491 using '\Hy@undefinedname'%

```

```

11492 }%
11493 \let\Hy@testname\Hy@undefinedname
11494 \fi
11495 \pdfmark[#{3}]{%
11496   Color=\Hy@tempcolor,%
11497   linktype={#1},%
11498   AcroHighlight=\@pdfhighlight,%
11499   Border=\@pdfborder,%
11500   BorderStyle=\@pdfborderstyle,%
11501   pdfmark=/ANN,%
11502   Subtype=/Link,%
11503   PDFAFlags=4,%
11504   Dest=\Hy@testname
11505 }%
11506 \endgroup
11507 }
11508 \newtoks\pdf@docset
11509 \def\PDF@FinishDoc{%
11510   \Hy@UseMaketitleInfos
11511   \HyInfo@GenerateAddons
11512   \let\Hy@temp\@empty
11513   \ifx\@pdfcreationdate\@empty
11514   \else
11515     \def\Hy@temp{CreationDate=\@pdfcreationdate,}%
11516   \fi
11517   \ifx\@pdfmoddate\@empty
11518   \else
11519     \expandafter\def\expandafter\Hy@temp\expandafter{%
11520       \Hy@temp
11521       ModDate=\@pdfmoddate,%
11522     }%
11523   \fi
11524   \ifx\@pdfproducer\relax
11525   \else
11526     \expandafter\def\expandafter\Hy@temp\expandafter{%
11527       \Hy@temp
11528       Producer=\@pdfproducer,%
11529     }%
11530   \fi
11531   \expandafter
11532   \pdfmark\expandafter{%
11533     \Hy@temp
11534     pdfmark=/DOCINFO,%
11535     Title=\@pdftitle,%
11536     Subject=\@pdfsubject,%
11537     Creator=\@pdfcreator,%
11538     Author=\@pdfauthor,%
11539     Keywords=\@pdfkeywords,%
11540     Trapped=\@pdftrapped
11541   }%
11542   \ifx\HyInfo@Addons\@empty
11543   \else
11544     \pdfmark{%
11545       pdfmark=/DOCINFO,%
11546       Raw={\HyInfo@Addons}%
11547     }%
11548   \fi

```

```

11549 \Hy@DisableOption{pdfauthor}%
11550 \Hy@DisableOption{pdftitle}%
11551 \Hy@DisableOption{pdfsubject}%
11552 \Hy@DisableOption{pdfcreator}%
11553 \Hy@DisableOption{pdfcreationdate}%
11554 \Hy@DisableOption{pdfmoddate}%
11555 \Hy@DisableOption{pdfproducer}%
11556 \Hy@DisableOption{pdfkeywords}%
11557 \Hy@DisableOption{pdftrapped}%
11558 \Hy@DisableOption{pdfinfo}%
11559 }
11560 \def\PDF@SetupDoc{%
11561 \def\Hy@temp{}%
11562 \ifx\@pdfstartpage\@empty
11563 \else
11564 \ifx\@pdfstartview\@empty
11565 \else
11566 \edef\Hy@temp{%
11567 ,Page=\@pdfstartpage
11568 ,View=\@pdfstartview
11569 }%
11570 \fi
11571 \fi
11572 \edef\Hy@temp{%
11573 \noexpand\pdfmark{%
11574 pdfmark=/DOCVIEW,%
11575 PageMode=/\@pdfpagemode
11576 \Hy@temp
11577 }%
11578 }%
11579 \Hy@temp
11580 \ifx\@pdfpagescrop\@empty
11581 \else
11582 \pdfmark{pdfmark=/PAGES,CropBox=\@pdfpagescrop}%
11583 \fi
11584 \edef\Hy@temp{%
11585 \ifHy@pdftoolbar\else /HideToolbar true\fi
11586 \ifHy@pdfmenubar\else /HideMenubar true\fi
11587 \ifHy@pdfwindowui\else /HideWindowUI true\fi
11588 \ifHy@pdffitwindow /FitWindow true\fi
11589 \ifHy@pdfcenterwindow /CenterWindow true\fi
11590 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
11591 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
11592 \Hy@UseNameKey{Direction}\@pdfdirection
11593 \Hy@UseNameKey{ViewArea}\@pdfviewarea
11594 \Hy@UseNameKey{ViewClip}\@pdfviewclip
11595 \Hy@UseNameKey{PrintArea}\@pdfprintarea
11596 \Hy@UseNameKey{PrintClip}\@pdfprintclip
11597 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
11598 \Hy@UseNameKey{Duplex}\@pdfduplex
11599 \ifx\@pdfpicktraybypdfsize\@empty
11600 \else
11601 /PickTrayByPDFSize \@pdfpicktraybypdfsize
11602 \fi
11603 \ifx\@pdfprintpagerange\@empty
11604 \else
11605 /PrintPageRange[\@pdfprintpagerange]%

```

```

11606 \fi
11607 \ifx\@pdfnumcopies\@empty
11608 \else
11609 /NumCopies \@pdfnumcopies
11610 \fi
11611 }%
11612 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
11613 \pdfmark{%
11614 pdfmark=/PUT,%
11615 Raw={%
11616 \string{Catalog\string}<<%
11617 \ifx\Hy@temp\@empty
11618 \else
11619 /ViewerPreferences<<\Hy@temp>>%
11620 \fi
11621 \Hy@UseNameKey{PageLayout}\@pdfpagelayout
11622 \ifx\@pdflang\@empty
11623 \else
11624 /Lang(\@pdflang)%
11625 \fi
11626 \ifx\@baseurl\@empty
11627 \else
11628 /URI<</Base(\Hy@pstringB)>>%
11629 \fi
11630 >>%
11631 }%
11632 }%
11633 }
11634 \pdfmark
11635 \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.

```

11636 \newif\ifHy@pdfmarkerror
11637 \def\pdfmark{\@ifnextchar[\pdfmark@]{\pdfmark@[]}}
11638 \def\pdfmark@[#1]#2{%
11639 \Hy@pdfmarkerrorfalse
11640 \edef\@processme{\noexpand\pdf@toks={\the\pdf@defaulttoks}}%
11641 \@processme
11642 \let\pdf@type\relax
11643 \kvsetkeys{PDF}{#2}%
11644 \ifHy@pdfmarkerror
11645 \else
11646 \ifx\pdf@type\relax
11647 \Hy@WarningNoLine{no pdfmark type specified in #2!!}%
11648 \ifx\\#1\\%
11649 \else
11650 \pdf@rect{#1}%
11651 \fi
11652 \else
11653 \ifx\\#1\\%
11654 \literalps@out{%
11655 [\the\pdf@toks\space\pdf@type\space pdfmark%

```

```

11656     }%
11657   \else
11658     \ltx@ifundefined{@\pdf@linktype color}{%
11659       \Hy@colorlink\@linkcolor
11660     }{%
11661       \expandafter\Hy@colorlink
11662         \csname @\pdf@linktype color\endcsname
11663     }%
11664     \pdf@rect{#1}%
11665     \literalps@out{%
11666       [\the\pdf@toks\space\pdf@type\space pdfmark%
11667     }%
11668     \Hy@endcolorlink
11669   \fi
11670 \fi
11671 \fi
11672 }

```

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}

```

```

11673 \newsavebox{\pdf@box}
11674 \providecommand*{\Hy@setouterhbox}{\sbox}
11675 \providecommand*{\Hy@breaklinksunhbox}{\unhbox}
11676 \def\Hy@DEST{/DEST}
11677 \def\pdf@rect#1{%
11678   \begingroup
11679   \chardef\x=1 %
11680   \def\Hy@temp{#1}%
11681   \ifx\Hy@temp\ltx@empty
11682     \chardef\x=0 %
11683   \else
11684     \def\y{\anchor@spot}%
11685     \ifx\Hy@temp\y
11686       \def\y{\relax}%
11687     \ifx\anchor@spot\y
11688       \chardef\x=0 %
11689     \fi
11690   \fi
11691   \fi
11692   \expandafter\endgroup
11693   \ifcase\x
11694     \literalps@out{H.S}%
11695     \literalps@out{H.R}%
11696   \else
11697     \leavevmode
11698     \Hy@SaveSpaceFactor
11699     \ifmmode

```

```

11700 \def\Hy@LinkMath{$}%
11701 \else
11702 \let\Hy@LinkMath\ltx@empty
11703 \fi
11704 \ifHy@breaklinks
11705 \Hy@setouterhbox\pdf@box{%
11706 \Hy@RestoreSpaceFactor
11707 \Hy@LinkMath
11708 \Hy@AllowHyphens#1\Hy@xspace@end
11709 \Hy@LinkMath
11710 \Hy@SaveSpaceFactor
11711 }%
11712 \else
11713 \sbox\pdf@box{%
11714 \Hy@RestoreSpaceFactor
11715 \Hy@LinkMath
11716 #1\Hy@xspace@end
11717 \Hy@LinkMath
11718 \Hy@SaveSpaceFactor
11719 }%
11720 \fi
11721 \dimen@ \ht\pdf@box
11722 \ifdim\dp\pdf@box=z@
11723 \literalps@out{H.S}%
11724 \else
11725 \lower\dp\pdf@box\hbox{\literalps@out{H.S}}%
11726 \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...).

```

11727 \ifHy@breaklinks
11728 \ifhmode
11729 \Hy@breaklinksunhbox\pdf@box
11730 \else
11731 \box\pdf@box
11732 \fi
11733 \else
11734 \expandafter\box\pdf@box
11735 \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

11736 \ifdim\dimen@=z@
11737 \literalps@out{H.R}%
11738 \else
11739 \raise\dimen@\hbox{\literalps@out{H.R}}%
11740 \fi
11741 \Hy@RestoreSpaceFactor
11742 \fi
11743 \ifx\pdf@type\Hy@DEST
11744 \else
11745 \pdf@addtoksx{H.B}%
11746 \fi
11747 }

```


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.

```

11748 \newtoks\pdf@toks
11749 \newtoks\pdf@defaulttoks
11750 \pdf@defaulttoks={}
11751 \def\pdf@addtoks#1#2{%
11752   \edef\@processme{\pdf@toks{\the\pdf@toks/#2 #1}}%
11753   \@processme
11754 }
11755 \def\pdf@addtoksx#1{%
11756   \edef\@processme{\pdf@toks{\the\pdf@toks\space #1}}%
11757   \@processme
11758 }
11759 \def\PDFdefaults#1{%
11760   \pdf@defaulttoks={#1}%
11761 }

```

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

```

11762 % what is the type of pdfmark?
11763 \define@key{PDF}{pdfmark}{\def\pdf@type{#1}}
11764 % what is the link type?
11765 \define@key{PDF}{linktype}{\def\pdf@linktype{#1}}
11766 \def\pdf@linktype{link}
11767 % parameter is a stream of PDF
11768 \define@key{PDF}{Raw}{\pdf@addtoksx{#1}}
11769 % parameter is a name
11770 \define@key{PDF}{Action}{\pdf@addtoks{#1}{Action}}
11771 % parameter is a array
11772 \define@key{PDF}{Border}{%
11773   \edef\Hy@temp{#1}%
11774   \ifx\Hy@temp\@empty
11775   \else
11776     \pdf@addtoks{[#1]\Hy@BorderArrayPatch}{Border}% hash-ok
11777   \fi
11778 }
11779 \let\Hy@BorderArrayPatch\@empty
11780 % parameter is a dictionary
11781 \define@key{PDF}{BorderStyle}{%
11782   \edef\Hy@temp{#1}%
11783   \ifx\Hy@temp\@empty
11784   \else
11785     \pdf@addtoks{<<#1>>}{BS}%
11786   \fi
11787 }
11788 % parameter is a array
11789 \define@key{PDF}{Color}{%
11790   \ifx\relax#1\relax
11791   \else
11792     \pdf@addtoks{[#1]}{Color}% hash-ok
11793   \fi
11794 }
11795 % parameter is a string
11796 \define@key{PDF}{Contents}{\pdf@addtoks{(#1)}{Contents}}
11797 % parameter is a integer
11798 \define@key{PDF}{Count}{\pdf@addtoks{#1}{Count}}
11799 % parameter is a array
11800 \define@key{PDF}{CropBox}{\pdf@addtoks{[#1]}{CropBox}}% hash-ok

```

```

11801 % parameter is a string
11802 \define@key{PDF}{DOSFile}{\pdf@addtoks{(#1)}{DOSFile}}
11803 % parameter is a string or file
11804 \define@key{PDF}{DataSource}{\pdf@addtoks{(#1)}{DataSource}}
11805 % parameter is a destination
11806 \define@key{PDF}{Dest}{%
11807   \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
11808   \ifx\Hy@pstringDest\@empty
11809     \Hy@pdfmarkerrortrue
11810     \Hy@Warning{Destination with empty name ignored}%
11811   \else
11812     \pdf@addtoks{(\Hy@pstringDest) cvn}{Dest}%
11813   \fi
11814 }
11815 \define@key{PDF}{DestAnchor}{%
11816   \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
11817   \ifx\Hy@pstringDest\@empty
11818     \Hy@pdfmarkerrortrue
11819     \Hy@Warning{Destination with empty name ignored}%
11820   \else
11821     \pdf@addtoks{(\Hy@pstringDest) cvn}{Dest}%
11822   \fi
11823 }
11824 % parameter is a string
11825 \define@key{PDF}{Dir}{\pdf@addtoks{(#1)}{Dir}}
11826 % parameter is a string
11827 \define@key{PDF}{File}{\pdf@addtoks{(#1)}{File}}
11828 % parameter is a int
11829 \define@key{PDF}{Flags}{\pdf@addtoks{#1}{Flags}}
11830 \define@key{PDF}{PDFAFlags}{%
11831   \ifHy@pdfa
11832     \pdf@addtoks{#1}{F}%
11833   \fi
11834 }
11835 % parameter is a name
11836 \define@key{PDF}{AcroHighlight}{%
11837   \begingroup
11838     \edef\x{#1}%
11839     \expandafter\endgroup\ifx\x\@empty
11840     \else
11841       \pdf@addtoks{#1}{H}%
11842     \fi
11843 }
11844 % parameter is a string
11845 \define@key{PDF}{ID}{\pdf@addtoks{[#1]}{ID}}% hash-ok
11846 % parameter is a string
11847 \define@key{PDF}{MacFile}{\pdf@addtoks{(#1)}{MacFile}}
11848 % parameter is a string
11849 \define@key{PDF}{ModDate}{\pdf@addtoks{(#1)}{ModDate}}
11850 % parameter is a string
11851 \define@key{PDF}{Op}{\pdf@addtoks{(#1)}{Op}}
11852 % parameter is a Boolean
11853 \define@key{PDF}{Open}{\pdf@addtoks{#1}{Open}}
11854 % parameter is a integer or name
11855 \define@key{PDF}{Page}{\pdf@addtoks{#1}{Page}}
11856 % parameter is a name
11857 \define@key{PDF}{PageMode}{\pdf@addtoks{#1}{PageMode}}

```

```

11858 % parameter is a string
11859 \define@key{PDF}{Params}{\pdf@addtoks{(#1)}{Params}}
11860 % parameter is a array
11861 \define@key{PDF}{Rect}{\pdf@addtoks{[#1]}{Rect}}% hash-ok
11862 % parameter is a integer
11863 \define@key{PDF}{SrcPg}{\pdf@addtoks{#1}{SrcPg}}
11864 % parameter is a name
11865 \define@key{PDF}{Subtype}{\pdf@addtoks{#1}{Subtype}}
11866 % parameter is a string
11867 \define@key{PDF}{Title}{\pdf@addtoks{(#1)}{Title}}
11868 % parameter is a string
11869 \define@key{PDF}{Unix}{\pdf@addtoks{(#1)}{Unix}}
11870 % parameter is a string
11871 \define@key{PDF}{UnixFile}{\pdf@addtoks{(#1)}{UnixFile}}
11872 % parameter is an array
11873 \define@key{PDF}{View}{\pdf@addtoks{[#1]}{View}}% hash-ok
11874 % parameter is a string
11875 \define@key{PDF}{WinFile}{\pdf@addtoks{(#1)}{WinFile}}

```

These are the keys used in the DOCINFO section.

```

11876 \define@key{PDF}{Author}{\pdf@addtoks{(#1)}{Author}}
11877 \define@key{PDF}{Creator}{\pdf@addtoks{(#1)}{Creator}}
11878 \define@key{PDF}{CreationDate}{\pdf@addtoks{(#1)}{CreationDate}}
11879 \define@key{PDF}{ModDate}{\pdf@addtoks{(#1)}{ModDate}}
11880 \define@key{PDF}{Producer}{\pdf@addtoks{(#1)}{Producer}}
11881 \define@key{PDF}{Subject}{\pdf@addtoks{(#1)}{Subject}}
11882 \define@key{PDF}{Keywords}{\pdf@addtoks{(#1)}{Keywords}}
11883 \define@key{PDF}{ModDate}{\pdf@addtoks{(#1)}{ModDate}}
11884 \define@key{PDF}{Base}{\pdf@addtoks{(#1)}{Base}}
11885 \define@key{PDF}{URI}{\pdf@addtoks{#1}{URI}}
11886 \define@key{PDF}{Trapped}{%
11887   \edef\Hy@temp{#1}%
11888   \ifx\Hy@temp\@empty
11889     \else
11890       \pdf@addtoks{/#1}{Trapped}%
11891     \fi
11892 }
11893
11894 </pdfmarkbase>
11895 <*pdfmark>
11896 \def\Acrobatmenu#1#2{%
11897   \EdefEscapeName\Hy@temp@menu{#1}%
11898   \Hy@Acrobatmenu{#1}{#2}{%
11899     \pdfmark[{#2}]{%
11900       linktype=menu,%
11901       pdfmark=/ANN,%
11902       AcroHighlight=\@pdfhighlight,%
11903       Border=\@pdfborder,%
11904       BorderStyle=\@pdfborderstyle,%
11905       Color=\@menubordercolor,%
11906       Action={<</Subtype/Named/N/\Hy@temp@menu>>},%
11907       Subtype=/Link,%
11908       PDFAFlags=4%
11909     }%
11910   }%
11911 }

```

And now for some useful examples:

```

11912 \def\PDFNextPage{\@ifnextchar{\PDFNextPage@}{\PDFNextPage@[]}}
11913 \def\PDFNextPage@[#1]#2{%
11914   \pdfmark[#2]{%
11915     #1,%
11916     Border=\@pdfborder,%
11917     BorderStyle=\@pdfborderstyle,%
11918     Color=.2 .1 .5,%
11919     pdfmark=/ANN,%
11920     Subtype=/Link,%
11921     PDFAFlags=4,%
11922     Page=/Next%
11923   }%
11924 }
11925 \def\PDFPreviousPage{%
11926   \@ifnextchar{\PDFPreviousPage@}{\PDFPreviousPage@[]}%
11927 }
11928 \def\PDFPreviousPage@[#1]#2{%
11929   \pdfmark[#2]{%
11930     #1,%
11931     Border=\@pdfborder,%
11932     BorderStyle=\@pdfborderstyle,%
11933     Color=.4 .4 .1,%
11934     pdfmark=/ANN,%
11935     Subtype=/Link,%
11936     PDFAFlags=4,%
11937     Page=/Prev%
11938   }%
11939 }
11940 \def\PDFOpen#1{%
11941   \pdfmark{#1,pdfmark=/DOCVIEW}%
11942 }

```

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

```

11943 \def\hyper@linkurl#1#2{%
11944   \begingroup
11945     \Hy@pstringdef\Hy@pstringURI{#2}%
11946     \hyper@chars
11947     \leavevmode
11948     \pdfmark[#1]{%
11949       pdfmark=/ANN,%
11950       linktype=url,%
11951       AcroHighlight=\@pdfhighlight,%
11952       Border=\@pdfborder,%
11953       BorderStyle=\@pdfborderstyle,%
11954       Color=\@urlbordercolor,%
11955       Action={<<%
11956         /Subtype/URI%
11957         /URI(\Hy@pstringURI)%
11958         \ifHy@href@ismap
11959           /IsMap true%
11960         \fi
11961       >>},%
11962       Subtype=/Link,%
11963       PDFAFlags=4%
11964     }%
11965   \endgroup
11966 }
11967 \def\hyper@linkfile#1#2#3{%

```

```

11968 \begingroup
11969 \def\Hy@pstringF{#2}%
11970 \Hy@CleanupFile\Hy@pstringF
11971 \Hy@pstringdef\Hy@pstringF\Hy@pstringF
11972 \Hy@pstringdef\Hy@pstringD{#3}%
11973 \Hy@MakeRemoteAction
11974 \leavevmode
11975 \pdfmark[{#1}]{%
11976 pdfmark=/ANN,%
11977 Subtype=/Link,%
11978 PDFAFlags=4,%
11979 AcroHighlight=\@pdfhighlight,%
11980 Border=\@pdfborder,%
11981 BorderStyle=\@pdfborderstyle,%
11982 linktype=file,%
11983 Color=\@filebordercolor,%
11984 Action={%
11985 <<%
11986 /S/GoToR%
11987 \Hy@SetNewWindow
11988 /F(\Hy@pstringF)%
11989 /D%
11990 \ifx\#3\%
11991 [\Hy@href@page\@pdfremotestartview]%
11992 \else
11993 (\Hy@pstringD)cvn%
11994 \fi
11995 \Hy@href@nextactionraw
11996 >>%
11997 }%
11998 }%
11999 \endgroup
12000 }
12001 \def\@hyper@launch run:#1\#2#3{%
12002 \begingroup
12003 \Hy@pstringdef\Hy@pstringF{#1}%
12004 \Hy@pstringdef\Hy@pstringP{#3}%
12005 \leavevmode
12006 \pdfmark[{#2}]{%
12007 pdfmark=/ANN,%
12008 Subtype=/Link,%
12009 PDFAFlags=4,%
12010 AcroHighlight=\@pdfhighlight,%
12011 Border=\@pdfborder,%
12012 BorderStyle=\@pdfborderstyle,%
12013 linktype=run,%
12014 Color=\@runbordercolor,%
12015 Action={%
12016 <<%
12017 /S/Launch%
12018 \Hy@SetNewWindow
12019 /F(\Hy@pstringF)%
12020 \ifx\#3\%
12021 \else
12022 /Win<</P(\Hy@pstringP)/F(\Hy@pstringF)>>%
12023 \fi
12024 \Hy@href@nextactionraw

```

```

12025      >>%
12026    }%
12027  }%
12028  \endgroup
12029 }
12030 </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.

```

12031 (*dvips)
12032 \providecommand*\XR@ext\pdf{
12033 \let\Hy@raisedlink\ltx@empty
12034 \def\literals@out#1{\special{ps:SDict begin #1 end}}%
12035 \def\headerps@out#1{\special{! #1}}%
12036 \input{pdfmark.def}%
12037 \ifx\@pdfproducer\relax
12038   \def\@pdfproducer{dvips + Distiller}%
12039 \fi
12040 \providecommand*\@pdfborder{0 0 1}
12041 \providecommand*\@pdfborderstyle{}
12042 \providecommand*\@pdfview{XYZ}
12043 \providecommand*\@pdfviewparams{ H.V}
12044 \def\Hy@BorderArrayPatch{BorderArrayPatch}

12045 \g@addto@macro\Hy@FirstPageHook{%
12046   \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.

```

12047   /DvipsToPDF{72.27 mul Resolution div} def%
12048   /PDFToDvips{72.27 div Resolution mul} def%
12049   /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.

```

12050   /BorderArrayPatch{%
12051     [exch{%
12052       dup dup type/integertype eq exch type/realtype eq or%
12053       {BPToDvips}if%

```

```

12054    }forall]%
12055    }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.

```

12056    /HyperBorder {1 PDFToDvips} def%
12057    /H.V {pdf@hoff pdf@voff null} def%
12058    /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

```

12059    /H.S {%
12060        currentpoint %
12061        HyperBorder add /pdf@lly exch def %
12062        dup DvipsToPDF 72 add /pdf@hoff exch def %
12063        HyperBorder sub /pdf@llx exch def%
12064    } def%

```

The calculation of upper left y is done without raising the point in \TeX , by simply adding on the current \backslash baselineskip to the current y . This is usually too much, so we remove a notional 2 points.

We have to see what the current baselineskip is, and convert it to the dvips coordinate system.

Argument: baselineskip in pt. The x and y coordinates of the current point, minus the baselineskip

```

12065    /H.L {%
12066        2 sub dup%
12067        /HyperBasePt exch def %
12068        PDFToDvips /HyperBaseDvips exch def %
12069        currentpoint %
12070        HyperBaseDvips sub /pdf@ury exch def%
12071        /pdf@urx exch def%
12072    } def%
12073    /H.A {%
12074        H.L %
12075    % | /pdf@voff| = the distance from the top of the page to a point
12076    % | \baselineskip| above the current point in PDF coordinates
12077        currentpoint exch pop %
12078        vsize 72 sub exch DvipsToPDF %
12079        HyperBasePt sub % baseline skip
12080        sub /pdf@voff exch def%
12081    } def%
12082    /H.R {%
12083        currentpoint %
12084        HyperBorder sub /pdf@ury exch def %
12085        HyperBorder add /pdf@urx exch def %
12086    % | /pdf@voff| = the distance from the top of the page to the current point, in
12087    % PDF coordinates
12088        currentpoint exch pop vsize 72 sub %
12089        exch DvipsToPDF sub /pdf@voff exch def%
12090    } def%
12091    }%
12092    }
12093    \AtBeginShipoutFirst{%
12094        \ifHy@setpagesize
12095            \begingroup
12096            \@ifundefined{stockwidth}{%
12097                \ifdim\paperwidth>\z@

```

```

12098      \ifdim\paperheight>\z@
12099      \special{papersize=\the\paperwidth,\the\paperheight}%
12100      \fi
12101      \fi
12102    }{%
12103      \ifdim\stockwidth>\z@
12104      \ifdim\stockheight>\z@
12105      \special{papersize=\the\stockwidth,\the\stockheight}%
12106      \fi
12107      \fi
12108    }%
12109  \endgroup
12110 \fi
12111 \Hy@DisableOption{setpagesize}%
12112 }
12113 </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.

```

12114 (*vtexpdfmark)
12115 \providecommand*\XR@ext}{pdf}
12116 \let\Hy@raisedlink\ltx@empty
12117 \def\litalps@out#1{\special{pS:#1}}%
12118 \def\headerps@out#1{\immediate\special{pS:#1}}%
12119 \input{pdfmark.def}%
12120 \ifx\@pdfproducer\relax
12121   \ifnum\OpMode=\@ne
12122     \def\@pdfproducer{VTeX}%
12123   \else
12124     \def\@pdfproducer{VTeX + Distiller}%
12125   \fi
12126 \fi
12127 \providecommand*\@pdfborder{0 0 1}
12128 \providecommand*\@pdfborderstyle{}
12129 \providecommand*\@pdfview{XYZ}
12130 \providecommand*\@pdfviewparams{ H.V}
12131 \g@addto@macro\Hy@FirstPageHook{%
12132   \headerps@out{%
12133     /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.

```

12134   /HyperBorder {1} def%
12135   /H.V {pdf@hoff pdf@voff null} def%
12136   /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: $\text{pdf@lly} = Y_c - \text{HyperBorder}$, $\text{pdf@hoff} = X_c + 72$, $\text{pdf@llx} = X_c - \text{HyperBorder}$

```

12137   /H.S {%
12138     currentpoint %
12139     HyperBorder sub%

```



```

12140    /pdf@lly exch def %
12141    dup 72 add /pdf@hoff exch def %
12142    HyperBorder sub%
12143    /pdf@llx exch def%
12144    } def%

```

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

```

12145    /H.L {%
12146        2 sub%
12147        /HyperBasePt exch def %
12148        currentpoint %
12149        HyperBasePt add HyperBorder add%
12150        /pdf@ury exch def %
12151        HyperBorder add%
12152        /pdf@urx exch def%
12153    } def%
12154    /H.A {%
12155        H.L %
12156        currentpoint exch pop %
12157        vsize 72 sub exch %
12158        HyperBasePt add add%
12159        /pdf@voff exch def%
12160    } def%

```

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

```

12161    /H.R {%
12162        currentpoint %
12163        HyperBorder add%
12164        /pdf@ury exch def %
12165        HyperBorder add%
12166        /pdf@urx exch def %
12167        currentpoint exch pop vsize 72 sub add%
12168        /pdf@voff exch def%
12169    } def%
12170    }%
12171 }
12172 </vtxpdfmark>

```

47.11 Textures

```

12173 <*textures>
12174 \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.

```

12175 \begingroup
12176   \obeylines %
12177   \gdef\Hy@ps@CR{\noexpand
12178   }%
12179 \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`.

```
12180 \def\literalps@out#1{%
12181   \special{postscript 0 0 transform}%
12182   \special{rawpostscript itransform moveto\Hy@ps@CR #1}%
12183 }%
12184 %
```

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.

```
12185 \def\headerps@out#1{%
12186   \special{%
12187     prepostscript TeXdict begin\Hy@ps@CR
12188       #1\Hy@ps@CR
12189     end%
12190   }%
12191 }%
12192 %
```

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.

```
12193 \g@addto@macro\Hy@FirstPageHook{%
12194   \headerps@out{%
12195     /betterpdfmark {%
12196       systemdict begin %
12197         dup /BP eq%
12198         {cleartomark gsave nulldevice []}%
12199         {dup /EP eq%
12200           {cleartomark cleartomark grestore}%
12201           {cleartomark}%
12202           ifelse%
12203         }ifelse %
12204       end%
12205     }def\Hy@ps@CR
12206     ___pdfmark___ not{/pdfmark /betterpdfmark load def}if%
12207   }% end of \headerps@out
12208 }% end of \AtBeginShipoutFirst
12209 %
12210 \input{pdfmark.def}%
12211 %
12212 \ifx\@pdfproducer\relax
12213   \def\@pdfproducer{Textures + Distiller}%
12214 \fi
12215 \providecommand*\@pdfborder{0 0 1}
12216 \providecommand*\@pdfborderstyle{}
12217 \providecommand*\@pdfview{XYZ}
```

```

12218 \providecommand*\@pdfviewparams{ H.V}
12219 %

```

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 .

```

12220 \Hy@AtBeginDocument{%
12221   \headerps@out{%

```

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

```

12222   /vsize {\Hy@pageheight} def%
12223   /DvipsToPDF {} def%
12224   /PDFToDvips {} def%
12225   /BPToDvips {} def%
12226   /HyperBorder { 1 PDFToDvips } def\Hy@ps@CR
12227   /H.V {pdf@hoff pdf@voff null} def\Hy@ps@CR
12228   /H.B {/Rect[pdf@llx pdf@lly pdf@urx pdf@ury]} def\Hy@ps@CR
12229   /H.S {%
12230     currentpoint %
12231     HyperBorder add /pdf@lly exch def %
12232     dup DvipsToPDF 72 add /pdf@hoff exch def %
12233     HyperBorder sub /pdf@llx exch def%
12234   } def\Hy@ps@CR
12235   /H.L {%
12236     2 sub %
12237     PDFToDvips /HyperBase exch def %
12238     currentpoint %
12239     HyperBase sub /pdf@ury exch def%
12240     /pdf@urx exch def%
12241   } def\Hy@ps@CR
12242   /H.A {%
12243     H.L %
12244     currentpoint exch pop %
12245     vsize 72 sub exch DvipsToPDF %
12246     HyperBase sub % baseline skip
12247     sub /pdf@voff exch def%
12248   } def\Hy@ps@CR
12249   /H.R {%
12250     currentpoint %
12251     HyperBorder sub /pdf@ury exch def %
12252     HyperBorder add /pdf@urx exch def %
12253     currentpoint exch pop vsize 72 sub %
12254     exch DvipsToPDF sub /pdf@voff exch def%
12255   } def\Hy@ps@CR
12256 }%
12257 }

12258 \Hy@AtBeginDocument{%
12259   \ifHy@colorlinks
12260     \headerps@out{/PDFBorder{/Border [0 0 0]}def}%
12261   \fi
12262 }

```

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.

```

12263 \expandafter\let\expandafter\keepPDF@SetupDoc
12264 \csname PDF@SetupDoc\endcsname
12265 \def\PDF@SetupDoc{%
12266   \ifx\@baseurl\@empty
12267   \else
12268     \special{html:<base href="\@baseurl">}%
12269   \fi
12270   \keepPDF@SetupDoc
12271 }
12272 \Hy@WrapperDef\hyper@anchor#1{%
12273   \Hy@SaveLastskip
12274   \Hy@VerboseAnchor{#1}%
12275   \begingroup
12276     \let\protect=\string
12277     \special{html:<a name=%
12278       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
12279   \endgroup
12280   \Hy@activeanchortrue
12281   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
12282   \special{html:</a>}%
12283   \Hy@activeanchorfalse
12284   \Hy@RestoreLastskip
12285 }
12286 \Hy@WrapperDef\hyper@anchorstart#1{%
12287   \Hy@SaveLastskip
12288   \Hy@VerboseAnchor{#1}%
12289   \begingroup
12290     \hyper@chars
12291     \special{html:<a name=%
12292       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
12293   \endgroup
12294   \Hy@activeanchortrue
12295 }
12296 \def\hyper@anchorend{%
12297   \special{html:</a>}%
12298   \Hy@activeanchorfalse
12299   \Hy@RestoreLastskip
12300 }
12301 \def\@urltype{url}
12302 \def\hyper@linkstart#1#2{%
12303   \Hy@VerboseLinkStart{#1}{#2}%
12304   \expandafter\Hy@colorlink\csname @#1color\endcsname
12305   \def\Hy@tempa{#1}%
12306   \ifx\Hy@tempa\@urltype
12307     \special{html:<a href=\hyper@quote#2\hyper@quote>}%
12308   \else
12309     \begingroup
12310       \hyper@chars
12311       \special{%
12312         html:<a href=%
12313           \hyper@quote\# \HyperDestNameFilter{#2}\hyper@quote>%
12314       }%
12315     \endgroup
12316   \fi
12317 }
12318 \def\hyper@linkend{%
12319   \special{html:</a>}%

```

```

12320 \Hy@endcolorlink
12321 }
12322 \def\hyper@linkfile#1#2#3{%
12323 \hyper@linkurl{#1}{%
12324 \Hy@linkfileprefix#2\ifx\#3\\\else\##3\fi
12325 }%
12326 }
12327 \def\hyper@linkurl#1#2{%
12328 \leavevmode
12329 \ifHy@raiselinks
12330 \Hy@SaveSpaceFactor
12331 \Hy@SaveSavedSpaceFactor
12332 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
12333 \Hy@RestoreSavedSpaceFactor
12334 \@linkdim\dp\@tempboxa
12335 \lower\@linkdim\hbox{%
12336 \hyper@chars
12337 \special{html:<a href=\hyper@quote#2\hyper@quote>}}%
12338 }%
12339 \Hy@colorlink\@urlcolor
12340 \Hy@RestoreSpaceFactor
12341 #1\Hy@xspace@end
12342 \Hy@SaveSpaceFactor
12343 \@linkdim\ht\@tempboxa
12344 \advance\@linkdim by -6.5\p@
12345 \raise\@linkdim\hbox{\special{html:</a>}}%
12346 \Hy@endcolorlink
12347 \Hy@RestoreSpaceFactor
12348 \else
12349 \begingroup
12350 \hyper@chars
12351 \special{html:<a href=\hyper@quote#2\hyper@quote>}}%
12352 \Hy@colorlink\@urlcolor#1\Hy@xspace@end
12353 \special{html:</a>}}%
12354 \Hy@endcolorlink
12355 \endgroup
12356 \fi
12357 }

```

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

```

12358 \def\hyper@link#1#2#3{%
12359 \Hy@VerboseLinkStart{#1}{#2}%
12360 \hyper@linkurl{#3}{\#HyperDestNameFilter{#2}}%
12361 }
12362 \def\hyper@image#1#2{%
12363 \begingroup
12364 \hyper@chars
12365 \special{html:<img src=\hyper@quote#1\hyper@quote>}}%
12366 \endgroup
12367 }
12368 </textures>

```

47.12 dvipsone

```

12369 % \subsection{dvipsone driver}
12370 % Over-ride the default setup macro in pdfmark driver to use Y\&Y
12371 % |\special| commands.
12372 (*dvipsone)

```

```

12373 \providecommand*\XR@ext}{pdf}
12374 \let\Hy@raisedlink\ltx@empty
12375 \providecommand*\@pdfborder{0 0 1}
12376 \providecommand*\@pdfborderstyle{}
12377 \def\literalps@out#1{\special{ps:#1}}%
12378 \def\headerps@out#1{\special{headertext=#1}}%
12379 \input{pdfmark.def}%
12380 \ifx\@pdfproducer\relax
12381   \def\@pdfproducer{dvipsone + Distiller}%
12382 \fi
12383 \HyInfo@AddonUnsupportedtrue
12384 \def\PDF@FinishDoc{%
12385   \Hy@UseMaketitleInfos
12386   \HyInfo@TrappedUnsupported
12387   \special{PDF: Keywords \@pdfkeywords}%
12388   \special{PDF: Title \@pdftitle}%
12389   \special{PDF: Creator \@pdfcreator}%
12390   \ifx\@pdfcreationdate\@empty
12391     \else
12392       \special{PDF: CreationDate \@pdfcreationdate}%
12393     \fi
12394   \ifx\@pdfmoddate\@empty
12395     \else
12396       \special{PDF: ModDate \@pdfmoddate}%
12397     \fi
12398   \special{PDF: Author \@pdfauthor}%
12399   \ifx\@pdfproducer\relax
12400     \else
12401       \special{PDF: Producer \@pdfproducer}%
12402     \fi
12403   \special{PDF: Subject \@pdfsubject}%
12404   \Hy@DisableOption{pdfauthor}%
12405   \Hy@DisableOption{pdftitle}%
12406   \Hy@DisableOption{pdfsubject}%
12407   \Hy@DisableOption{pdfcreator}%
12408   \Hy@DisableOption{pdfcreationdate}%
12409   \Hy@DisableOption{pdfmoddate}%
12410   \Hy@DisableOption{pdfproducer}%
12411   \Hy@DisableOption{pdfkeywords}%
12412   \Hy@DisableOption{pdftrapped}%
12413   \Hy@DisableOption{pdfinfo}%
12414 }
12415 \def\PDF@SetupDoc{%
12416   \def\Hy@temp{}%
12417   \ifx\@pdfstartpage\@empty
12418     \else
12419     \ifx\@pdfstartview\@empty
12420       \else
12421         \edef\Hy@temp{%
12422           ,Page=\@pdfstartpage
12423           ,View=\@pdfstartview
12424         }%
12425       \fi
12426     \fi
12427   \edef\Hy@temp{%
12428     \noexpand\pdfmark{%
12429       pdfmark=/DOCVIEW,%

```

```

12430     PageMode=/\@pdfpagemode
12431     \Hy@temp
12432 }%
12433 }%
12434 \Hy@temp
12435 \ifx\@pdfpagescrop\@empty
12436 \else
12437   \pdfmark{pdfmark=/PAGES,CropBox=\@pdfpagescrop}%
12438 \fi
12439 \edef\Hy@temp{%
12440   \ifHy@pdftoolbar\else /HideToolbar true\fi
12441   \ifHy@pdfmenubar\else /HideMenubar true\fi
12442   \ifHy@pdfwindowui\else /HideWindowUI true\fi
12443   \ifHy@pdfwindow /FitWindow true\fi
12444   \ifHy@pdfcenterwindow /CenterWindow true\fi
12445   \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
12446   \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
12447   \Hy@UseNameKey{Direction}\@pdfdirection
12448   \Hy@UseNameKey{ViewArea}\@pdfviewarea
12449   \Hy@UseNameKey{ViewClip}\@pdfviewclip
12450   \Hy@UseNameKey{PrintArea}\@pdfprintarea
12451   \Hy@UseNameKey{PrintClip}\@pdfprintclip
12452   \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
12453   \Hy@UseNameKey{Duplex}\@pdfduplex
12454   \ifx\@pdfpicktraybypdfsize\@empty
12455   \else
12456     /PickTrayByPDFSize \@pdfpicktraybypdfsize
12457   \fi
12458   \ifx\@pdfprintpagerange\@empty
12459   \else
12460     /PrintPageRange[\@pdfprintpagerange]%
12461   \fi
12462   \ifx\@pdfnumcopies\@empty
12463   \else
12464     /NumCopies \@pdfnumcopies
12465   \fi
12466 }%
12467 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
12468 \pdfmark{%
12469   pdfmark=/PUT,%
12470   Raw={%
12471     \string{Catalog\string}<<%
12472     \ifx\Hy@temp\@empty
12473     \else
12474       /ViewerPreferences<<\Hy@temp>>%
12475     \fi
12476     \Hy@UseNameKey{PageLayout}\@pdfpagelayout
12477     \ifx\@pdflang\@empty
12478     \else
12479       /Lang(\@pdflang)%
12480     \fi
12481     \ifx\@baseurl\@empty
12482     \else
12483       /URI<</Base(\Hy@pstringB)>>%
12484     \fi
12485     >>%
12486   }%

```

```

12487 }%
12488 }
12489 \providecommand*\@pdfview{XYZ}
12490 \providecommand*\@pdfviewparams{ %
12491   gsave revscl currentpoint grestore %
12492   72 add exch pop null exch null%
12493 }
12494 \def\Hy@BorderArrayPatch{BorderArrayPatch}

```

These are called at the start and end of unboxed links; their job is to leave available PS variables called `pdf@llx pdf@lly pdf@urx pdf@ury`, which are the coordinates of the bounding rectangle of the link, and `pdf@hoff pdf@voff` which are the PDF page offsets. These latter are currently not used in the dvipsone setup. The Rect pair are called at the LL and UR corners of a box known to T_EX.

```

12495 \g@addto@macro\Hy@FirstPageHook{%
12496   \headerps@out{%

```

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

```

12497   /DvipsToPDF { 65781 div } def%
12498   /PDFToDvips { 65781 mul } def%
12499   /BPToDvips{65781 mul}def%
12500   /HyperBorder { 1 PDFToDvips } def%
12501   /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.

```

12502   /BorderArrayPatch{%
12503     [exch{%
12504       dup dup type/integertype eq exch type/realtype eq or%
12505       {BPToDvips}if%
12506     }forall]%
12507   }def%
12508   /H.S {%
12509     currentpoint %
12510     HyperBorder add /pdf@lly exch def %
12511     dup DvipsToPDF 72 add /pdf@hoff exch def %
12512     HyperBorder sub /pdf@llx exch def%
12513   } def%
12514   /H.L {%
12515     2 sub %
12516     PDFToDvips /HyperBase exch def %
12517     currentpoint %
12518     HyperBase sub /pdf@ury exch def%
12519     /pdf@urx exch def%
12520   } def%
12521   /H.A {%
12522     H.L %
12523     currentpoint exch pop %
12524     HyperBase sub % baseline skip
12525     DvipsToPDF /pdf@voff exch def%
12526   } def%
12527   /H.R {%
12528     currentpoint %
12529     HyperBorder sub /pdf@ury exch def %
12530     HyperBorder add /pdf@urx exch def %
12531     currentpoint exch pop DvipsToPDF /pdf@voff exch def%
12532   } def%
12533 }%

```



```

12534 }
12535 </dvipsone>

```

47.13 TeX4ht

```

12536 <*tex4ht>
12537 \providecommand*{\XR@ext}{html}
12538 \let\Hy@raisedlink\ltx@empty
12539 \@ifpackageloaded{tex4ht}{%
12540   \Hy@InfoNoLine{tex4ht is already loaded}%
12541 }{%
12542   \RequirePackage[hTeX4ht]{tex4ht}%
12543 }
12544 \hyperlinkfileprefix{}
12545 \let\PDF@FinishDoc\ltx@empty
12546 \def\PDF@SetupDoc{%
12547   \ifx\@baseurl\@empty
12548     \else
12549       \special{t4ht=<base href="\@baseurl">}%
12550     \fi
12551 }
12552 \Hy@WrapperDef\hyper@anchor#1{%
12553   \Hy@SaveLastskip
12554   \Hy@VerboseAnchor{#1}%
12555   \begingroup
12556     \let\protect=\string
12557     \special{t4ht=<a name=%
12558       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
12559   \endgroup
12560   \Hy@Activeanchortrue
12561   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
12562   \special{t4ht=</a>}%
12563   \Hy@Activeanchorfalse
12564   \Hy@RestoreLastskip
12565 }
12566 \Hy@WrapperDef\hyper@anchorstart#1{%
12567   \Hy@SaveLastskip
12568   \Hy@VerboseAnchor{#1}%
12569   \begingroup
12570     \hyper@chars\special{t4ht=<a name=%
12571       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
12572   \endgroup
12573   \Hy@Activeanchortrue
12574 }
12575 \def\hyper@anchorend{%
12576   \special{t4ht=</a>}%
12577   \Hy@Activeanchorfalse
12578   \Hy@RestoreLastskip
12579 }
12580 \def\@urltype{url}
12581 \def\hyper@linkstart#1#2{%
12582   \Hy@VerboseLinkStart{#1}{#2}%
12583   \expandafter\Hy@colorlink\csname @#1color\endcsname
12584   \def\Hy@tempa{#1}%
12585   \ifx\Hy@tempa\@urltype
12586     \special{t4ht=<a href=\hyper@quote#2\hyper@quote>}%
12587   \else
12588     \begingroup

```

```

12589 \hyper@chars
12590 \special{t4ht=<a href=%
12591 \hyper@quote\#\HyperDestNameFilter{#2}\hyper@quote>}%
12592 \endgroup
12593 \fi
12594 }
12595 \def\hyper@linkend{%
12596 \special{t4ht=</a>}%
12597 \Hy@endcolorlink
12598 }
12599 \def\hyper@linkfile#1#2#3{%
12600 \hyper@linkurl{#1}{\Hy@linkfileprefix#2\ifx\#3\\\else\#3\fi}%
12601 }
12602 \def\hyper@linkurl#1#2{%
12603 \leavevmode
12604 \ifHy@raiselinks
12605 \Hy@SaveSpaceFactor
12606 \Hy@SaveSavedSpaceFactor
12607 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
12608 \Hy@RestoreSavedSpaceFactor
12609 \@linkdim\dp\@tempboxa
12610 \lower\@linkdim\hbox{%
12611 \begingroup
12612 \hyper@chars
12613 \special{%
12614 t4ht=<a href=\hyper@quote#2\hyper@quote>%
12615 }%
12616 \endgroup
12617 }%
12618 \Hy@colorlink\@urlcolor
12619 \Hy@RestoreSpaceFactor
12620 #1\Hy@xspace@end
12621 \Hy@SaveSpaceFactor
12622 \Hy@endcolorlink
12623 \@linkdim\ht\@tempboxa
12624 \advance\@linkdim by -6.5\p@
12625 \raise\@linkdim\hbox{\special{t4ht=</a>}}%
12626 \Hy@RestoreSpaceFactor
12627 \else
12628 \begingroup
12629 \hyper@chars
12630 \special{t4ht=<a href=\hyper@quote#2\hyper@quote>}%
12631 \Hy@colorlink\@urlcolor
12632 #1\Hy@xspace@end
12633 \Hy@endcolorlink
12634 \special{t4ht=</a>}%
12635 \endgroup
12636 \fi
12637 }

```

Poor implementation of \hyper@link without considering #1.

```

12638 \def\hyper@link#1#2#3{%
12639 \Hy@VerboseLinkStart{#1}{#2}%
12640 \hyper@linkurl{#3}{\#\HyperDestNameFilter{#2}}%
12641 }
12642 \def\hyper@image#1#2{%
12643 \begingroup
12644 \hyper@chars

```

```

12645 \special{t4ht=<img src=\hyper@quote#1\hyper@quote>}%
12646 \endgroup
12647 }
12648 \let\autoref\ref
12649 \ifx \rEfLiNK \UnDef
12650 \def\rEfLiNK #1#2{#2}%
12651 \fi
12652 \let\backref\ltx@gobble
12653 \AtBeginDocument{%
12654 \expandafter
12655 \let\expandafter\Hy@OrgMakeLabel\csname Make:Label\endcsname
12656 \expandafter\def\csname Make:Label\endcsname#1#2{%
12657 \ifhmode
12658 \Hy@SaveSpaceFactor
12659 \else
12660 \global\Hy@SavedSpaceFactor=1000 %
12661 \fi
12662 \Hy@OrgMakeLabel{#1}{%
12663 \Hy@RestoreSpaceFactor
12664 #2\Hy@xspace@end%
12665 \Hy@SaveSpaceFactor
12666 }%
12667 \Hy@RestoreSpaceFactor
12668 }%
12669 }
12670 </tex4ht>
12671 <*tex4htcfg>
12672 \IfFileExists{\jobname.cfg}{\endinput}{}
12673 \Preamble{html}
12674 \begin{document}%
12675 \EndPreamble
12676 \def\TeX{TeX}
12677 \def\OMEGA{Omega}
12678 \def\LaTeX{LaTeX}
12679 \def\LaTeXe{LaTeX2e}
12680 \def\eTeX{e-TeX}
12681 \def\MF{Metafont}
12682 \def\MP{MetaPost}
12683 </tex4htcfg>

```

48 Driver-specific form support

48.1 pdfmarks

```

12684 <*pdfmark>
12685 \long\def\@Form[#1]{%
12686 \g@addto@macro\Hy@FirstPageHook{%
12687 \headerps@out{%
12688 [%
12689 /_objdef{pdfDocEncoding}%
12690 /type/dict%
12691 /OBJ pdfmark%
12692 [%
12693 {pdfDocEncoding}%
12694 <<%
12695 /Type/Encoding%

```

12696 /Differences[%
12697 24/breve/caron/circumflex/dotaccent/hungarumlaut/ogonek/ring%
12698 /tilde %
12699 39/quotesingle %
12700 96/grave %
12701 128/bullet/dagger/daggerdbl/ellipsis/emdash/endash/florin%
12702 /fraction/guilsinglleft/guilsinglright/minus/perthousand%
12703 /quotedblbase/quotedblleft/quotedblright/quoteleft%
12704 /quoteright/quotesinglbase/trademark/fi/fl/Lslash/OE/Scaron%
12705 /Ydieresis/Zcaron/dotlessi/lslash/oe/scaron/zcaron %
12706 164/currency %
12707 166/brokenbar %
12708 168/dieresis/copyright/ordfeminine %
12709 172/logicalnot/.notdef/registered/macron/degree/plusminus%
12710 /twosuperior/threesuperior/acute/mu %
12711 183/periodcentered/cedilla/onesuperior/ordmasculine %
12712 188/onequarter/onehalf/threequarters %
12713 192/Agrave/Aacute/Acircumflex/Atilde/Adieresis/Aring/AE%
12714 /Ccedilla/Egrave/Eacute/Ecircumflex/Edieresis/Igrave%
12715 /Iacute/Icircumflex/Idieresis/Eth/Ntilde/Ograve/Oacute%
12716 /Ocircumflex/Otilde/Odieresis/multiply/Oslash/Ugrave%
12717 /Uacute/Ucircumflex/Udieresis/Yacute/Thorn/germandbls%
12718 /agrave/aacute/acircumflex/atilde/adieresis/aring/ae%
12719 /ccedilla/egrave/eacute/ecircumflex/edieresis/igrave%
12720 /iacute/icircumflex/idieresis/eth/ntilde/ograde/oacute%
12721 /ocircumflex/otilde/odieresis/divide/oslash/ugrave/uacute%
12722 /ucircumflex/udieresis/yacute/thorn/ydieresis%
12723]%
12724 >>%
12725 /PUT pdfmark%
12726 [%
12727 /_objdef{ZaDb}%
12728 /type/dict%
12729 /OBJ pdfmark%
12730 [%
12731 {ZaDb}%
12732 <<%
12733 /Type/Font%
12734 /Subtype/Type1%
12735 /Name/ZaDb%
12736 /BaseFont/ZapfDingbats%
12737 >>%
12738 /PUT pdfmark%
12739 [%
12740 /_objdef{Helv}%
12741 /type/dict%
12742 /OBJ pdfmark%
12743 [%
12744 {Helv}%
12745 <<%
12746 /Type/Font%
12747 /Subtype/Type1%
12748 /Name/Helv%
12749 /BaseFont/Helvetica%
12750 /Encoding{pdfDocEncoding}%
12751 >>%
12752 /PUT pdfmark%

```

12753 [%
12754   /__objdef{aform}%
12755   /type/dict%
12756 /OBJ pdfmark%
12757 [%
12758   /__objdef{afields}%
12759   /type/array%
12760 /OBJ pdfmark%
12761 {%
12762   [%
12763     /BBox[0 0 100 100]%
12764     /__objdef{Check}%
12765   /BP pdfmark %
12766   1 0 0 setrgbcolor%
12767   /ZapfDingbats 80 selectfont %
12768   20 20 moveto%
12769   (4)show%
12770 [/EP pdfmark%
12771 [%
12772   /BBox[0 0 100 100]%
12773   /__objdef{Cross}%
12774 /BP pdfmark %
12775   1 0 0 setrgbcolor%
12776   /ZapfDingbats 80 selectfont %
12777   20 20 moveto%
12778   (8)show%
12779 [/EP pdfmark%
12780 [%
12781   /BBox[0 0 250 100]%
12782   /__objdef{Submit}%
12783 /BP pdfmark %
12784   0.6 setgray %
12785   0 0 250 100 rectfill %
12786   1 setgray %
12787   2 2 moveto %
12788   2 98 lineto %
12789   248 98 lineto %
12790   246 96 lineto %
12791   4 96 lineto %
12792   4 4 lineto %
12793   fill %
12794   0.34 setgray %
12795   248 98 moveto %
12796   248 2 lineto %
12797   2 2 lineto %
12798   4 4 lineto %
12799   246 4 lineto %
12800   246 96 lineto %
12801   fill%
12802 /Helvetica 76 selectfont %
12803   0 setgray %
12804   8 22.5 moveto%
12805   (Submit)show%
12806 [/EP pdfmark%
12807 [%
12808   /BBox[0 0 250 100]%
12809   /__objdef{SubmitP}%

```

```

12810 /BP pdfmark %
12811 0.6 setgray %
12812 0 0 250 100 rectfill %
12813 0.34 setgray %
12814 2 2 moveto %
12815 2 98 lineto %
12816 248 98 lineto %
12817 246 96 lineto %
12818 4 96 lineto %
12819 4 4 lineto %
12820 fill %
12821 1 setgray %
12822 248 98 moveto %
12823 248 2 lineto %
12824 2 2 lineto %
12825 4 4 lineto %
12826 246 4 lineto %
12827 246 96 lineto %
12828 fill%
12829 /Helvetica 76 selectfont %
12830 0 setgray %
12831 10 20.5 moveto%
12832 (Submit)show%
12833 [/EP pdfmark%
12834 } ?pdfmark%
12835 [%
12836 {aform}%
12837 <<%
12838 /Fields{afields}%
12839 /DR<<%
12840 /Font<<%
12841 /ZaDb{ZaDb}%
12842 /Helv{Helv}%
12843 >>%
12844 >>%
12845 /DA(/Helv 10 Tf 0 g)%
12846 /CO{corder}%
12847 \ifHy@pdfa
12848 \else
12849 \ifHyField@NeedAppearances
12850 /NeedAppearances true%
12851 \fi
12852 \fi
12853 >>%
12854 /PUT pdfmark%
12855 [%
12856 {Catalog}%
12857 <<%
12858 /AcroForm{aform}%
12859 >>%
12860 /PUT pdfmark%
12861 [%
12862 /_objdef{corder}%
12863 /type/array%
12864 /OBJ pdfmark% dps
12865 }}%
12866 \kvsetkeys{Form}{#1}%

```

```

12867 }
12868 \let\@endForm\ltx@empty
12869 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
12870 \Hy@Message{Sorry, pdfmark drivers do not support FORM gauges}%
12871 }
12872 \def\@TextField[#1]#2{% parameters, label
12873 \def\Fld@name{#2}%
12874 \let\Fld@default\ltx@empty
12875 \let\Fld@value\@empty
12876 \def\Fld@width{\DefaultWidthofText}%
12877 \def\Fld@height{%
12878 \ifFld@multiline
12879 \DefaultHeightofTextMultiline
12880 \else
12881 \DefaultHeightofText
12882 \fi
12883 }%
12884 \begingroup
12885 \expandafter\HyField@SetKeys\expandafter{%
12886 \DefaultOptionsofText,#1%
12887 }%
12888 \HyField@FlagsText
12889 \ifFld@hidden\def\Fld@width{1sp}\fi
12890 \ifx\Fld@value\@empty\def\Fld@value{\Fld@default}\fi
12891 \LayoutTextField{#2}{%
12892 \leavevmode
12893 \Hy@escapeform\PDFForm@Text
12894 \pdfmark[\MakeTextField{\Fld@width}{\Fld@height}]{%
12895 pdfmark=/ANN,Raw={\PDFForm@Text}%
12896 }%
12897 }%
12898 \endgroup
12899 }
12900 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
12901 \def\Fld@name{#2}%
12902 \let\Fld@default\relax
12903 \let\Fld@value\relax
12904 \def\Fld@width{\DefaultWidthofChoiceMenu}%
12905 \def\Fld@height{\DefaultHeightofChoiceMenu}%
12906 \begingroup
12907 \Fld@menulength=0 %
12908 \@tempdima\z@
12909 \@for\@curropt:=#3\do{%
12910 \expandafter\Fld@checkequals\@curropt==\%
12911 \Hy@StepCount\Fld@menulength
12912 \settowidth{\@tempdimb}{\@currDisplay}%
12913 \ifdim\@tempdimb>\@tempdima\@tempdima\@tempdimb\fi
12914 }%
12915 \advance\@tempdima by 15\p@
12916 \begingroup
12917 \HyField@SetKeys{#1}%
12918 \edef\x{\endgroup
12919 \noexpand\expandafter
12920 \noexpand\HyField@SetKeys
12921 \noexpand\expandafter{%
12922 \expandafter\noexpand\curname DefaultOptionsof%
12923 \ifFld@radio

```

```

12924         Radio%
12925     \else
12926         \ifFld@combo
12927         \ifFld@popdown
12928             PopdownBox%
12929         \else
12930             ComboBox%
12931         \fi
12932     \else
12933         ListBox%
12934     \fi
12935 \fi
12936 \endcsname
12937 }%
12938 }\x
12939 \HyField@SetKeys{#1}%
12940 \ifFld@hidden\def\Fld@width{1sp}\fi
12941 \ifx\Fld@value\relax
12942     \let\Fld@value\Fld@default
12943 \fi
12944 \LayoutChoiceField{#2}{%
12945     \ifFld@radio
12946         \HyField@FlagsRadioButton
12947         \@@Radio{#3}%
12948     \else
12949         \begingroup
12950             \HyField@FlagsChoice
12951             \ifdim\Fld@width<\@tempdima
12952                 \ifdim\@tempdima<1cm\@tempdima1cm\fi
12953                 \edef\Fld@width{\the\@tempdima}%
12954             \fi
12955             \ifFld@combo
12956             \else
12957                 \@tempdima=\the\Fld@menulength\Fld@charsize
12958                 \advance\@tempdima by \Fld@borderwidth bp %
12959                 \advance\@tempdima by \Fld@borderwidth bp %
12960                 \edef\Fld@height{\the\@tempdima}%
12961             \fi
12962             \@@ListBox{#3}%
12963         \endgroup
12964     \fi
12965 }%
12966 \endgroup
12967 }
12968 \def\@@Radio#1{%
12969     \Fld@listcount=0 %
12970     \EdefEscapeName\Fld@default{\Fld@default}%
12971     \@for\@curropt:=#1\do{%
12972         \expandafter\Fld@checkequals\@curropt==\%
12973         \EdefEscapeName\@currValue{\@currValue}%
12974         \Hy@StepCount\Fld@listcount
12975         \@currDisplay\space
12976         \Hy@escapeform\PDFForm@Radio
12977         \pdfmark[\MakeRadioField{\Fld@width}{\Fld@height}]{%
12978             pdfmark=/ANN,%
12979             Raw={%
12980                 \PDFForm@Radio /AP <</N <</\@currValue\space {Check}>> >>%

```



```

12981     }%
12982   } % deliberate space between radio buttons
12983 }%
12984 }
12985 \newcount\Fld@listcount
12986 \def\@@ListBox#1{%
12987   \HyField@PDFChoices{#1}%
12988   \Hy@escapeform\PDFForm@List
12989   \pdfmark[\MakeChoiceField{\Fld@width}{\Fld@height}]{%
12990     pdfmark=/ANN,Raw={\PDFForm@List}%
12991   }%
12992 }
12993 \def\@PushButton[#1]#2{% parameters, label
12994   \def\Fld@name{#2}%
12995   \begingroup
12996     \expandafter\HyField@SetKeys\expandafter{%
12997       \DefaultOptionsofPushButton,#1%
12998     }%
12999     \ifHy@pdfa
13000       \Hy@Error{%
13001         PDF/A: Push button with JavaScript is prohibited%
13002       }\@ehc
13003       \LayoutPushButtonField{%
13004         \leavevmode
13005         \MakeButtonField{#2}%
13006       }%
13007     \else
13008       \HyField@FlagsPushButton
13009       \ifFld@hidden\def\Fld@width{1sp}\fi
13010       \LayoutPushButtonField{%
13011         \leavevmode
13012         \Hy@escapeform\PDFForm@Push
13013         \pdfmark[\MakeButtonField{#2}]{%
13014           pdfmark=/ANN,Raw={\PDFForm@Push}%
13015         }%
13016       }%
13017     \fi
13018   \endgroup
13019 }
13020 \def\@Submit[#1]#2{%
13021   \def\Fld@width{\DefaultWidthofSubmit}%
13022   \def\Fld@height{\DefaultHeightofSubmit}%
13023   \begingroup
13024     \expandafter\HyField@SetKeys\expandafter{%
13025       \DefaultOptionsofSubmit,#1%
13026     }%
13027     \HyField@FlagsPushButton
13028     \HyField@FlagsSubmit
13029     \ifFld@hidden\def\Fld@width{1sp}\fi
13030     \Hy@escapeform\PDFForm@Submit
13031     \pdfmark[\MakeButtonField{#2}]{%
13032       pdfmark=/ANN,%
13033       Raw={\PDFForm@Submit /AP << /N {Submit} /D {SubmitP} >>}%
13034     }%
13035   \endgroup
13036 }
13037 \def\@Reset[#1]#2{%

```

```

13038 \def\Fld@width{\DefaultWidthofReset}%
13039 \def\Fld@height{\DefaultHeightofReset}%
13040 \begingroup
13041 \expandafter\HyField@SetKeys\expandafter{%
13042   \DefaultOptionsofReset,#1%
13043 }%
13044 \leavevmode
13045 \ifHy@pdfa
13046   \Hy@Error{%
13047     PDF/A: Reset action is prohibited%
13048   }\@ehc
13049   \MakeButtonField{#2}%
13050 \else
13051   \HyField@FlagsPushButton
13052   \ifFld@hidden\def\Fld@width{1sp}\fi
13053   \Hy@escapeform\PDFForm@Reset
13054   \pdfmark[\MakeButtonField{#2}]{%
13055     pdfmark=/ANN,Raw={\PDFForm@Reset}%
13056   }%
13057 \fi
13058 \endgroup
13059 }%
13060 \def\@CheckBox[#1]#2{% parameters, label
13061   \def\Fld@name{#2}%
13062   \def\Fld@default{0}%
13063   \begingroup
13064   \def\Fld@width{\DefaultWidthofCheckBox}%
13065   \def\Fld@height{\DefaultHeightofCheckBox}%
13066   \expandafter\HyField@SetKeys\expandafter{%
13067     \DefaultOptionsofCheckBox,#1%
13068   }%
13069   \HyField@FlagsCheckBox
13070   \ifFld@hidden\def\Fld@width{1sp}\fi
13071   \LayoutCheckField{#2}{%
13072     \leavevmode
13073     \Hy@escapeform\PDFForm@Check
13074     \pdfmark[\MakeCheckField{\Fld@width}{\Fld@height}]{%
13075       pdfmark=/ANN,Raw={\PDFForm@Check}%
13076     }%
13077   }%
13078 \endgroup
13079 }
13080 \</pdfmark>

```

48.2 HyperTeX

```

13081 \<*hypertex>
13082 \def\@Form[#1]{%
13083   \Hy@Message{Sorry, HyperTeX does not support FORMs}%
13084 }
13085 \let\@endForm\ltx@empty
13086 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
13087   \Hy@Message{Sorry, HyperTeX does not support FORM gauges}%
13088 }
13089 \def\@TextField[#1]#2{% parameters, label
13090   \Hy@Message{Sorry, HyperTeX does not support FORM text fields}%
13091 }
13092 \def\@CheckBox[#1]#2{% parameters, label

```

```

13093 \Hy@Message{Sorry, HyperTeX does not support FORM checkboxes}%
13094 }
13095 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13096 \Hy@Message{Sorry, HyperTeX does not support FORM choice menus}%
13097 }
13098 \def\@PushButton[#1]#2{% parameters, label
13099 \Hy@Message{Sorry, HyperTeX does not support FORM pushbuttons}%
13100 }
13101 \def\@Reset[#1]#2{%
13102 \Hy@Message{Sorry, HyperTeX does not support FORMs}%
13103 }
13104 \def\@Submit[#1]#2{%
13105 \Hy@Message{Sorry, HyperTeX does not support FORMs}%
13106 }
13107 </hypertex>

```

48.3 TeX4ht

```

13108 (*tex4ht)
13109 \def\@Form[#1]{%
13110 \kvsetkeys{Form}{#1}%
13111 \HCode{<form action="\Form@action" method="\Form@method">}%
13112 }
13113 \def\@endForm{\HCode{</form>}}
13114 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
13115 \Hy@Message{Sorry, TeX4ht does not support gauges}%
13116 }
13117 \def\@TextField[#1]#2{% parameters, label
13118 \let\Hy@reserved@a\@empty
13119 \def\Fld@name{#2}%
13120 \let\Fld@default\ltx@empty
13121 \bgroup
13122 \Field@toks={ }%
13123 \kvsetkeys{Field}{#1}%
13124 \HCode{<label for="\Fld@name">#2</label>}%
13125 \ifFld@password
13126 \@@PasswordField
13127 \else
13128 \@@TextField
13129 \fi
13130 \egroup
13131 }
13132 \def\@@PasswordField{%
13133 \HCode{%
13134 <input type="password" %
13135 id="\Fld@name" %
13136 name="\Fld@name" %
13137 \ifFld@hidden type="hidden" \fi
13138 value="\Fld@default" %
13139 \the\Field@toks
13140 >%
13141 }%
13142 }
13143 \def\@@TextField{%
13144 \ifFld@multiline
13145 \HCode{<textarea %
13146 \ifFld@readonly readonly \fi
13147 id="\Fld@name" %

```

```

13148     name="\Fld@name" %
13149     \ifFld@hidden type="hidden" \fi
13150     \the\Field@toks>%
13151 }%
13152 \Fld@default
13153 \HCode{</textarea>}%
13154 \else
13155 \HCode{<input type="textbox" %
13156 \ifFld@readonly readonly \fi
13157 id="\Fld@name" %
13158 name="\Fld@name" %
13159 \ifFld@hidden type="hidden" \fi
13160 value="\Fld@default" %
13161 \the\Field@toks>%
13162 }%
13163 \fi
13164 }
13165 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13166 \def\Fld@name{#2}%
13167 \let\Fld@default\ltx@empty
13168 \let\Hy@reserved@a\relax
13169 \begingroup
13170 \expandafter\Fld@findlength#3\\%
13171 \Field@toks={ }%
13172 \kvsetkeys{Field}{#1}%
13173 #2%
13174 \ifFld@radio
13175 \expandafter\@@Radio#3\\%
13176 \else
13177 \expandafter\@@Menu#3\\%
13178 \fi
13179 \endgroup
13180 }
13181 \def\Fld@findlength#1\\{%
13182 \Fld@menulength=0 %
13183 \@for\@curropt:=#1\do{\Hy@StepCount\Fld@menulength}%
13184 }
13185 \def\@@Menu#1\\{%
13186 \HCode{<select size="\the\Fld@menulength" %
13187 name="\Fld@name" %
13188 \the\Field@toks>%
13189 }%
13190 \@for\@curropt:=#1\do{%
13191 \expandafter\Fld@checkequals\@curropt==\\%
13192 \HCode{<option %
13193 \ifx\@curropt\Fld@default selected \fi
13194 value="\@currValue">\@currDisplay</option>%
13195 }%
13196 }%
13197 \HCode{</select>}%
13198 }
13199 \def\@@Radio#1\\{%
13200 \@for\@curropt:=#1\do{%
13201 \expandafter\Fld@checkequals\@curropt==\\%
13202 \HCode{<input type="radio" %
13203 \ifx\@curropt\Fld@default checked \fi
13204 name="\Fld@name" %

```

```

13205     value="\@currValue" %
13206     \the\Field@toks>%
13207 }%
13208   \@currDisplay
13209 }%
13210 }
13211 \def\@PushButton[#1]#2{% parameters, label
13212   \def\Fld@name{#2}%
13213   \bgroup
13214     \Field@toks={ }%
13215     \kvsetkeys{Field}{#1}%
13216     \HCode{<input type="button" %
13217       name="\Fld@name" %
13218       value="#2" %
13219       \the\Field@toks>%
13220     }%
13221     \HCode{</button>}%
13222   \egroup
13223 }
13224 \def\@Submit[#1]#2{%
13225   \HCode{<button type="submit">#2</button>}%
13226 }
13227 \def\@Reset[#1]#2{%
13228   \HCode{<button type="reset">#2</button>}%
13229 }
13230 \def\@CheckBox[#1]#2{% parameters, label
13231   \let\Hy@reserved@a\@empty
13232   \def\Fld@name{#2}%
13233   \def\Fld@default{0}%
13234   \bgroup
13235     \Field@toks={ }%
13236     \kvsetkeys{Field}{#1}%
13237     \HCode{<input type="checkbox" %
13238       \ifFld@checked checked \fi
13239       \ifFld@disabled disabled \fi
13240       \ifFld@readonly readonly \fi
13241       name="\Fld@name" %
13242       \ifFld@hidden type="hidden" \fi
13243       value="\Fld@default" %
13244       \the\Field@toks>%
13245     #2%
13246   }%
13247   \egroup
13248 }
13249 </tex4ht>

```

48.4 pdfTeX

```

13250 <*pdfTeX>
13251 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
13252   \Hy@Message{Sorry, pdfTeX does not support FORM gauges}%
13253 }
13254 \def\MakeFieldObject#1#2{\sbox0{#1}%
13255   \immediate\pdfxform0 %
13256   \expandafter\edef\csname #2Object\endcsname{%
13257     \the\pdflastxform\space 0 R%
13258   }%
13259 % \hbox to Opt{\hskip-\maxdimen{\pdfrefxform \the\pdflastxform}}}%

```

```

13260 }%
13261 \let\HyField@afields\ltx@empty
13262 \begingroup\expandafter\expandafter\expandafter\endgroup
13263 \expandafter\ifx\csname pdfastlink\endcsname\relax
13264 \let\HyField@AddToFields\relax
13265 \PackageInfo{hyperref}{%
13266   You need pdfTeX 1.40.0 for setting the /Fields entry.%
13267   \MessageBreak
13268   Adobe Reader/Acrobat accepts an empty /Field array,%
13269   \MessageBreak
13270   but other PDF viewers might complain%
13271 }%
13272 \else
13273 \let\HyField@AuxAddToFields\ltx@gobble
13274 \def\HyField@AfterAuxOpen{\Hy@AtBeginDocument}%
13275 \Hy@AtBeginDocument{%
13276   \if@filesw
13277     \immediate\write\@mainaux{%
13278       \string\providecommand\string\HyField@AuxAddToFields[1]{}%
13279     }%
13280   \fi
13281   \let\HyField@AfterAuxOpen\@firstofone
13282   \def\HyField@AuxAddToFields#1{%
13283     \xdef\HyField@afields{%
13284       \ifx\HyField@afields\@empty
13285         \else
13286           \HyField@afields
13287           \space
13288         \fi
13289       #1 0 R%
13290     }%
13291   }%
13292 }%
13293 \def\HyField@AddToFields{%
13294   \expandafter\HyField@@AddToFields\expandafter{%
13295     \the\pdfastlink
13296   }%
13297 }%
13298 \def\HyField@@AddToFields#1{%
13299   \HyField@AfterAuxOpen{%
13300     \if@filesw
13301       \write\@mainaux{%
13302         \string\HyField@AuxAddToFields{#1}%
13303       }%
13304     \fi
13305   }%
13306 }%
13307 \fi
13308 \def\@Form[#1]{%
13309   \@ifundefined{textcolor}{\let\textcolor\@gobble}{}%
13310   \kvsetkeys{Form}{#1}%
13311   \pdf@ifdraftmode{}{%
13312     \Hy@FormObjects
13313     \ifnum\pdfTeXversion>13 %
13314       \pdfrefobj\OBJ@pdfdocencoding
13315       \pdfrefobj\OBJ@ZaDb
13316       \pdfrefobj\OBJ@Helv

```

```

13317 \fi
13318 \AtVeryEndDocument{%
13319 \immediate\pdfobj{%
13320 <<%
13321 /Fields[\HyField@afields]%
13322 /DR<<%
13323 /Font<<%
13324 /ZaDb \OBJ@ZaDb\space 0 R%
13325 /Helv \OBJ@Helv\space 0 R%
13326 >>%
13327 >>%
13328 /DA(/Helv 10 Tf 0 g)%
13329 \ifHy@pdfa
13330 \else
13331 \ifHyField@NeedAppearances
13332 /NeedAppearances true%
13333 \fi
13334 \fi
13335 >>%
13336 }%
13337 \edef\OBJ@acroform{\the\pdfflastobj}%
13338 \pdfcatalog{/AcroForm \OBJ@acroform\space 0 R}%
13339 }%
13340 }%
13341 \MakeFieldObject{%

```

Same as \ding{123} of package pifont.

```

13342 \begingroup
13343 \fontfamily{pzd}%
13344 \fontencoding{U}%
13345 \fontseries{m}%
13346 \fontshape{n}%
13347 \selectfont
13348 \char123 %
13349 \endgroup
13350 }{Ding}%
13351 \MakeFieldObject{%
13352 \fbox{\textcolor{yellow}{\textsf{Submit}}}}%
13353 }{Submit}%
13354 \MakeFieldObject{%
13355 \fbox{\textcolor{yellow}{\textsf{SubmitP}}}}%
13356 }{SubmitP}%
13357 }
13358 \let\@endForm\ltx@empty
13359 \def\@TextField[#1]#2{% parameters, label
13360 \def\Fld@name{#2}%
13361 \let\Fld@default\ltx@empty
13362 \let\Fld@value\@empty
13363 \def\Fld@width{\DefaultWidthofText}%
13364 \def\Fld@height{%
13365 \ifFld@multiline
13366 \DefaultHeightofTextMultiline
13367 \else
13368 \DefaultHeightofText
13369 \fi
13370 }%
13371 \begingroup
13372 \expandafter\HyField@SetKeys\expandafter{%

```

```

13373 \DefaultOptionsofText,#1%
13374 }%
13375 \PDFForm@Name
13376 \HyField@FlagsText
13377 \ifFld@hidden\def\Fld@width{1sp}\fi
13378 \ifx\Fld@value\@empty\def\Fld@value{\Fld@default}\fi
13379 \LayoutTextField{#2}{%
13380 \leavevmode
13381 \Hy@escapeform\PDFForm@Text
13382 \pdfstartlink user {\PDFForm@Text}\relax
13383 \MakeTextField{\Fld@width}{\Fld@height}\pdfendlink
13384 \HyField@AddToFields
13385 }%
13386 \endgroup
13387 }
13388 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13389 \def\Fld@name{#2}%
13390 \let\Fld@default\relax
13391 \let\Fld@value\relax
13392 \def\Fld@width{\DefaultWidthofChoiceMenu}%
13393 \def\Fld@height{\DefaultHeightofChoiceMenu}%
13394 \beginngroup
13395 \Fld@menulength=0 %
13396 \@tempdima\z@
13397 \@for\@curropt:=#3\do{%
13398 \expandafter\Fld@checkequals\@curropt==\\%
13399 \Hy@StepCount\Fld@menulength
13400 \settowidth{\@tempdimb}{\@currDisplay}%
13401 \ifdim\@tempdimb>\@tempdima\@tempdima\@tempdimb\fi
13402 }%
13403 \advance\@tempdima by 15\p@
13404 \beginngroup
13405 \HyField@SetKeys{#1}%
13406 \edef\x{\endgroup
13407 \noexpand\expandafter
13408 \noexpand\HyField@SetKeys
13409 \noexpand\expandafter{%
13410 \expandafter\noexpand\csname DefaultOptionsof%
13411 \ifFld@radio
13412 Radio%
13413 \else
13414 \ifFld@combo
13415 \ifFld@popdown
13416 PopdownBox%
13417 \else
13418 ComboBox%
13419 \fi
13420 \else
13421 ListBox%
13422 \fi
13423 \fi
13424 \endcsname
13425 }%
13426 }\x
13427 \HyField@SetKeys{#1}%
13428 \PDFForm@Name
13429 \ifFld@hidden\def\Fld@width{1sp}\fi

```



```

13430 \ifx\Fld@value\relax
13431 \let\Fld@value\Fld@default
13432 \fi
13433 \LayoutChoiceField{#2}{%
13434 \ifFld@radio
13435 \HyField@FlagsRadioButton
13436 \@@Radio{#3}%
13437 \else
13438 \begingroup
13439 \HyField@FlagsChoice
13440 \ifdim\Fld@width<\@tempdima
13441 \ifdim\@tempdima<1cm\@tempdima1cm\fi
13442 \edef\Fld@width{\the\@tempdima}%
13443 \fi
13444 \ifFld@combo
13445 \else
13446 \@tempdima=\the\Fld@menulength\Fld@charsize
13447 \advance\@tempdima by \Fld@borderwidth bp %
13448 \advance\@tempdima by \Fld@borderwidth bp %
13449 \edef\Fld@height{\the\@tempdima}%
13450 \fi
13451 \@@ListBox{#3}%
13452 \endgroup
13453 \fi
13454 }%
13455 \endgroup
13456 }
13457 \def\@@Radio#1{%
13458 \Fld@listcount=0 %
13459 \EdefEscapeName\Fld@default{\Fld@default}%
13460 \@for\@curropt:=#1\do{%
13461 \expandafter\Fld@checkequals\@curropt==\%
13462 \EdefEscapeName\@currValue{\@currValue}%
13463 \Hy@StepCount\Fld@listcount
13464 \@currDisplay\space
13465 \leavevmode
13466 \Hy@escapeform\PDFForm@Radio
13467 \pdfstartlink user {%
13468 \PDFForm@Radio
13469 /AP<<%
13470 /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.

```

13471 \/\@currValue\space \DingObject
13472 >>%
13473 >>%
13474 }%
13475 \relax
13476 \MakeRadioField{\Fld@width}{\Fld@height}\pdfendlink
13477 \ifnum\Fld@listcount=1 %
13478 \HyField@AddToFields
13479 \fi
13480 \space % deliberate space between radio buttons
13481 }%
13482 }
13483 \newcount\Fld@listcount

```

```

13484 \def\@@ListBox#1{%
13485   \HyField@PDFChoices{#1}%
13486   \leavevmode
13487   \Hy@escapeform\PDFForm@List
13488   \pdfstartlink user {\PDFForm@List}\relax
13489   \MakeChoiceField{\Fld@width}{\Fld@height}%
13490   \pdfendlink
13491   \HyField@AddToFields
13492 }
13493 \def\@PushButton[#1]#2{% parameters, label
13494   \def\Fld@name{#2}%
13495   \begingroup
13496     \expandafter\HyField@SetKeys\expandafter{%
13497       \DefaultOptionsofPushButton,#1%
13498     }%
13499     \PDFForm@Name
13500     \ifHy@pdfa
13501       \Hy@Error{%
13502         PDF/A: Push button with JavaScript is prohibited%
13503       }\@ehc
13504       \LayoutPushButtonField{%
13505         \leavevmode
13506         \MakeButtonField{#2}%
13507       }%
13508     \else
13509       \HyField@FlagsPushButton
13510       \ifFld@hidden\def\Fld@width{1sp}\fi
13511       \LayoutPushButtonField{%
13512         \leavevmode
13513         \Hy@escapeform\PDFForm@Push
13514         \pdfstartlink user {\PDFForm@Push}\relax
13515         \MakeButtonField{#2}%
13516         \pdfendlink
13517         \HyField@AddToFields
13518       }%
13519     \fi
13520   \endgroup
13521 }
13522 \def\@Submit[#1]#2{%
13523   \def\Fld@width{\DefaultWidthofSubmit}%
13524   \def\Fld@height{\DefaultHeightofSubmit}%
13525   \begingroup
13526     \expandafter\HyField@SetKeys\expandafter{%
13527       \DefaultOptionsofSubmit,#1%
13528     }%
13529     \HyField@FlagsPushButton
13530     \HyField@FlagsSubmit
13531     \ifFld@hidden\def\Fld@width{1sp}\fi
13532     \leavevmode
13533     \Hy@escapeform\PDFForm@Submit
13534     \pdfstartlink user {%
13535       \PDFForm@Submit
13536       /AP<</N \SubmitObject/D \SubmitPObject>>%
13537     }%
13538     \relax
13539     \MakeButtonField{#2}%
13540     \pdfendlink

```

```

13541 \HyField@AddToFields
13542 \endgroup
13543 }
13544 \def\@Reset[#1]#2{%
13545 \def\Fld@width{\DefaultWidthofReset}%
13546 \def\Fld@height{\DefaultHeightofReset}%
13547 \begingroup
13548 \expandafter\HyField@SetKeys\expandafter{%
13549 \DefaultOptionsofReset,#1%
13550 }%
13551 \leavevmode
13552 \ifHy@pdfa
13553 \Hy@Error{%
13554 PDF/A: Reset action is prohibited%
13555 }\@ehc
13556 \MakeButtonField{#2}%
13557 \else
13558 \HyField@FlagsPushButton
13559 \ifFld@hidden\def\Fld@width{1sp}\fi
13560 \Hy@escapeform\PDFForm@Reset
13561 \pdfstartlink user {\PDFForm@Reset}\relax
13562 \MakeButtonField{#2}%
13563 \pdfendlink
13564 \HyField@AddToFields
13565 \fi
13566 \endgroup
13567 }
13568 \def\@CheckBox[#1]#2{% parameters, label
13569 \def\Fld@name{#2}%
13570 \def\Fld@default{0}%
13571 \begingroup
13572 \def\Fld@width{\DefaultWidthofCheckBox}%
13573 \def\Fld@height{\DefaultHeightofCheckBox}%
13574 \expandafter\HyField@SetKeys\expandafter{%
13575 \DefaultOptionsofCheckBox,#1%
13576 }%
13577 \PDFForm@Name
13578 \HyField@FlagsCheckBox
13579 \ifFld@hidden\def\Fld@width{1sp}\fi
13580 \LayoutCheckField{#2}{%
13581 \leavevmode
13582 \Hy@escapeform\PDFForm@Check
13583 \pdfstartlink user {\PDFForm@Check}\relax
13584 \MakeCheckField{\Fld@width}{\Fld@height}%
13585 \pdfendlink
13586 \HyField@AddToFields
13587 }%
13588 \endgroup
13589 }
13590 \def\Hy@FormObjects{%
13591 \pdfobj {%
13592 <<%
13593 /Type/Encoding%
13594 /Differences[%
13595 24/breve/caron/circumflex/dotaccent/hungarumlaut/ogonek%
13596 /ring/tilde %
13597 39/quotesingle %

```

```

13598 96/grave %
13599 128/bullet/dagger/daggerdbl/ellipsis/emdash/endash/florin%
13600 /fraction/guilsinglleft/guilsinglright/minus/perthousand%
13601 /quotedblbase/quotedblleft/quotedblright/quoteleft%
13602 /quoteright/quotesinglbase/trademark/fi/fl/Lslash/OE%
13603 /Scaron/Ydieresis/Zcaron/dotlessi/lslash/oe/scaron/zcaron %
13604 164/currency %
13605 166/brokenbar %
13606 168/dieresis/copyright/ordfeminine %
13607 172/logicalnot/.notdef/registered/macron/degree/plusminus%
13608 /twosuperior/threesuperior/acute/mu %
13609 183/periodcentered/cedilla/onesuperior/ordmasculine %
13610 188/onequarter/onehalf/threequarters %
13611 192/Agrave/Aacute/Acircumflex/Atilde/Adieresis/Aring/AE%
13612 /Ccedilla/Egrave/Eacute/Ecircumflex/Edieresis/Igrave%
13613 /Iacute/Icircumflex/Idieresis/Eth/Ntilde/Ograve/Oacute%
13614 /Ocircumflex/Otilde/Odieresis/multiply/Oslash/Ugrave%
13615 /Uacute/Ucircumflex/Udieresis/Yacute/Thorn/germandbls%
13616 /agrave/aacute/acircumflex/atilde/adieresis/aring/ae%
13617 /ccedilla/egrave/eacute/ecircumflex/edieresis/igrave%
13618 /iacute/icircumflex/idieresis/eth/ntilde/ograde/oacute%
13619 /ocircumflex/otilde/odieresis/divide/oslash/ugrave%
13620 /uacute/ucircumflex/udieresis/yacute/thorn/ydieresis%
13621 ]%
13622 >>%
13623 }%
13624 \xdef\OBJ@pdfdocencoding{\the\pdfastobj}%
13625 \pdfobj{%
13626 <<%
13627 /Type/Font%
13628 /Subtype/Type1%
13629 /Name/ZaDb%
13630 /BaseFont/ZapfDingbats%
13631 >>%
13632 }%
13633 \xdef\OBJ@ZaDb{\the\pdfastobj}%
13634 \pdfobj{%
13635 <<%
13636 /Type/Font%
13637 /Subtype/Type1%
13638 /Name/Helv%
13639 /BaseFont/Helvetica%
13640 /Encoding \OBJ@pdfdocencoding\space 0 R%
13641 >>%
13642 }%
13643 \xdef\OBJ@Helv{\the\pdfastobj}%
13644 \global\let\Hy@FormObjects\relax
13645 }
13646 </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.

```
13647 <{*dvipdfm | xetex>
```

\@Gauge

```
13648 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
```

```

13649 \Hy@Message{Sorry, dvipdfm/XeTeX does not support FORM gauges}%
13650 }

```

\@Form

```

13651 \def\@Form[#1]{%
13652   \ifundefined{textcolor}{\let\textcolor\@gobble}{}%
13653   \kvsetkeys{Form}{#1}%
13654   \Hy@FormObjects
13655   \@pdfm@mark{obj @afields []}%
13656   \@pdfm@mark{obj @corder []}%
13657   \@pdfm@mark{%
13658     obj @aform <<%
13659     /Fields @afields%
13660     /DR<<%
13661     /Font<<%
13662     /ZaDb @OBJZaDb%
13663     /Helv @OBJHelv%
13664     >>%
13665     >>%
13666     /DA(/Helv 10 Tf 0 g)%
13667     /CO @corder%
13668     \ifHy@pdfa
13669     \else
13670     \ifHyField@NeedAppearances
13671     /NeedAppearances true%
13672     \fi
13673     \fi
13674     >>%
13675   }%
13676   \@pdfm@mark{put @catalog <</AcroForm @aform>>}%
13677 }

```

\@endForm

```

13678 \let\@endForm\ltx@empty

```

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

```

13679 \def\dvipdfm@setdim{%
13680   height \the\ht\pdfm@box\space
13681   width \the\wd\pdfm@box\space
13682   depth \the\dp\pdfm@box\space
13683 }

```

\HyField@AnnotCount

```

13684 \newcount\HyField@AnnotCount
13685 \HyField@AnnotCount=\z@

```

\HyField@AdvanceAnnotCount

```

13686 \def\HyField@AdvanceAnnotCount{%
13687   \global\advance\HyField@AnnotCount\@ne
13688 }

```

\HyField@TheAnnotCount

```

13689 \def\HyField@TheAnnotCount{%
13690   \the\HyField@AnnotCount
13691 }

```

\@TextField

```

13692 \def\@TextField[#1]#2{% parameters, label
13693   \def\Fld@name{#2}%
13694   \let\Fld@default\ltx@empty
13695   \let\Fld@value\@empty
13696   \def\Fld@width{\DefaultWidthofText}%
13697   \def\Fld@height{%
13698     \ifFld@multiline
13699       \DefaultHeightofTextMultiline
13700     \else
13701       \DefaultHeightofText
13702     \fi
13703   }%
13704   \begingroup
13705     \expandafter\HyField@SetKeys\expandafter{%
13706       \DefaultOptionsofText,#1%
13707     }%
13708     \PDFForm@Name
13709     \HyField@FlagsText
13710     \ifFld@hidden\def\Fld@width{1sp}\fi
13711     \ifx\Fld@value\@empty\def\Fld@value{\Fld@default}\fi
13712     \setbox\pdfm@box=\hbox{%
13713       \MakeTextField{\Fld@width}{\Fld@height}%
13714     }%
13715     \HyField@AdvanceAnnotCount
13716     \LayoutTextField{#2}{%
13717       \leavevmode
13718       \Hy@escapeform\PDFForm@Text
13719       \@pdfm@mark{%
13720         ann @text\HyField@TheAnnotCount\space
13721         \dvi pdfm@setdim << \PDFForm@Text >>%
13722       }%
13723     }%
13724     \unhbox\pdfm@box
13725     \@pdfm@mark{put @afields @text\HyField@TheAnnotCount}%
13726     % record in @afields array
13727   \endgroup
13728 }

```

\@ChoiceMenu

```

13729 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13730   \def\Fld@name{#2}%
13731   \let\Fld@default\relax
13732   \let\Fld@value\relax
13733   \def\Fld@width{\DefaultWidthofChoiceMenu}%
13734   \def\Fld@height{\DefaultHeightofChoiceMenu}%
13735   \begingroup
13736     \Fld@menulength=0 %
13737     \@tempdima\z@
13738     \@for\@curropt:=#3\do{%
13739       \expandafter\Fld@checkequals\@curropt==\\%
13740       \Hy@StepCount\Fld@menulength
13741       \settowidth{\@tempdimb}{\@currDisplay}%
13742       \ifdim\@tempdimb>\@tempdima\@tempdima\@tempdimb\fi
13743     }%
13744     \advance\@tempdima by 15\p@
13745   \begingroup

```

```

13746 \HyField@SetKeys{#1}%
13747 \edef\x{\endgroup
13748 \noexpand\expandafter
13749 \noexpand\HyField@SetKeys
13750 \noexpand\expandafter{%
13751 \expandafter\noexpand\csname DefaultOptionsof%
13752 \ifFld@radio
13753 Radio%
13754 \else
13755 \ifFld@combo
13756 \ifFld@popdown
13757 PopdownBox%
13758 \else
13759 ComboBox%
13760 \fi
13761 \else
13762 ListBox%
13763 \fi
13764 \fi
13765 \endcsname
13766 }%
13767 }\x
13768 \HyField@SetKeys{#1}%
13769 \PDFForm@Name
13770 \ifFld@hidden\def\Fld@width{1sp}\fi
13771 \ifx\Fld@value\relax
13772 \let\Fld@value\Fld@default
13773 \fi
13774 \LayoutChoiceField{#2}{%
13775 \ifFld@radio
13776 \HyField@FlagsRadioButton
13777 \@@Radio{#3}%
13778 \else
13779 \begingroup
13780 \HyField@FlagsChoice
13781 \ifdim\Fld@width<\@tempdima
13782 \ifdim\@tempdima<1cm\@tempdima1cm\fi
13783 \edef\Fld@width{\the\@tempdima}%
13784 \fi
13785 \ifFld@combo
13786 \else
13787 \@tempdima=\the\Fld@menulength\Fld@charsize
13788 \advance\@tempdima by \Fld@borderwidth bp %
13789 \advance\@tempdima by \Fld@borderwidth bp %
13790 \edef\Fld@height{\the\@tempdima}%
13791 \fi
13792 \@@ListBox{#3}%
13793 \endgroup
13794 \fi
13795 }%
13796 \endgroup
13797 }

```

\@@Radio

```

13798 \def\@@Radio#1{%
13799 \Fld@listcount=0 %
13800 \EdefEscapeName\Fld@default{\Fld@default}%
13801 \setbox\pdfm@box=\hbox{%

```

```

13802   \MakeRadioField{\Fld@width}{\Fld@height}%
13803 }%
13804 \@for\@curropt:=#1\do{%
13805   \expandafter\Fld@checkequals\@curropt==\\%
13806   \EdefEscapeName\@currValue{\@currValue}%
13807   \Hy@StepCount\Fld@listcount
13808   \@currDisplay\space
13809   \leavevmode
13810   \Hy@escapeform\PDFForm@Radio
13811   \ifnum\Fld@listcount=1 %
13812     \HyField@AdvanceAnnotCount
13813   \fi
13814   \@pdfm@mark{%
13815     ann %
13816     \ifnum\Fld@listcount=1 %
13817       @radio\HyField@TheAnnotCount%
13818     \space
13819   \fi
13820   \dvipdfm@setdim
13821   <<%
13822     \PDFForm@Radio
13823     /AP<</N<</\@currValue /null>>>>%
13824   >>%
13825 }%
13826 \unhcopy\pdfm@box\space% deliberate space between radio buttons
13827 \ifnum\Fld@listcount=1 %
13828   \@pdfm@mark{%
13829     put @afields @radio\HyField@TheAnnotCount
13830   }%
13831 \fi
13832 }%
13833 }

```

\Fld@listcount

```

13834 \newcount\Fld@listcount

```

\@@ListBox

```

13835 \def\@@ListBox#1{%
13836   \HyField@PDFChoices{#1}%
13837   \setbox\pdfm@box=\hbox{%
13838     \MakeChoiceField{\Fld@width}{\Fld@height}%
13839   }%
13840   \leavevmode
13841   \Hy@escapeform\PDFForm@List
13842   \HyField@AdvanceAnnotCount
13843   \@pdfm@mark{%
13844     ann @list\HyField@TheAnnotCount\space
13845     \dvipdfm@setdim
13846     <<\PDFForm@List>>%
13847   }%
13848   \unhbox\pdfm@box
13849   \@pdfm@mark{put @afields @list\HyField@TheAnnotCount}%
13850 }

```

\@PushButton

```

13851 \def\@PushButton[#1]#2{% parameters, label
13852   \def\Fld@name{#2}%

```



```

13853 \begingroup
13854 \expandafter\HyField@SetKeys\expandafter{%
13855 \DefaultOptionsofPushButton,#1%
13856 }%
13857 \PDFForm@Name
13858 \ifHy@pdfa
13859 \Hy@Error{%
13860 PDF/A: Push button with JavaScript is prohibited%
13861 }\@ehc
13862 \LayoutPushButtonField{%
13863 \leavevmode
13864 \MakeButtonField{#2}%
13865 }%
13866 \else
13867 \setbox\pdfm@box=\hbox{\MakeButtonField{#2}}%
13868 \HyField@FlagsPushButton
13869 \ifFld@hidden\def\Fld@width{1sp}\fi
13870 \HyField@AdvanceAnnotCount
13871 \LayoutPushButtonField{%
13872 \leavevmode
13873 \Hy@escapeform\PDFForm@Push
13874 \@pdfm@mark{%
13875 ann @push\HyField@TheAnnotCount\space
13876 \dvi pdfm@setdim
13877 <<\PDFForm@Push>>%
13878 }%
13879 }%
13880 \unhbox\pdfm@box
13881 \@pdfm@mark{put @afields @push\HyField@TheAnnotCount}%
13882 \fi
13883 \endgroup
13884 }

```

\@Submit

```

13885 \def\@Submit[#1]#2{%
13886 \def\Fld@width{\DefaultWidthofSubmit}%
13887 \def\Fld@height{\DefaultHeightofSubmit}%
13888 \begingroup
13889 \expandafter\HyField@SetKeys\expandafter{%
13890 \DefaultOptionsofSubmit,#1%
13891 }%
13892 \HyField@FlagsPushButton
13893 \HyField@FlagsSubmit
13894 \ifFld@hidden\def\Fld@width{1sp}\fi
13895 \setbox\pdfm@box=\hbox{\MakeButtonField{#2}}%
13896 \leavevmode
13897 \Hy@escapeform\PDFForm@Submit
13898 \HyField@AdvanceAnnotCount
13899 \@pdfm@mark{%
13900 ann @submit\HyField@TheAnnotCount\space
13901 \dvi pdfm@setdim
13902 <<\PDFForm@Submit>>%
13903 }%
13904 \unhbox\pdfm@box%
13905 \@pdfm@mark{put @afields @submit\HyField@TheAnnotCount}%
13906 \endgroup
13907 }

```

`\@Reset`

```
13908 \def\@Reset[#1]#2{%
13909   \def\Fld@width{\DefaultWidthofReset}%
13910   \def\Fld@height{\DefaultHeightofReset}%
13911   \begingroup
13912     \expandafter\HyField@SetKeys\expandafter{%
13913       \DefaultOptionsofReset,#1%
13914     }%
13915     \leavevmode
13916     \ifHy@pdfa
13917       \Hy@Error{%
13918         PDF/A: Reset action is prohibited%
13919       }\@ehc
13920       \MakeButtonField{#2}%
13921     \else
13922       \HyField@FlagsPushButton
13923       \ifFld@hidden\def\Fld@width{1sp}\fi
13924       \setbox\pdfm@box=\hbox{\MakeButtonField{#2}}%
13925       \Hy@escapeform\PDFForm@Reset
13926       \HyField@AdvanceAnnotCount
13927       \@pdfm@mark{%
13928         ann @reset\HyField@TheAnnotCount\space
13929         \dvipdfm@setdim
13930         <<\PDFForm@Reset>>%
13931       }%
13932       \unhbox\pdfm@box
13933       \@pdfm@mark{put @afields @reset\HyField@TheAnnotCount}%
13934     \fi
13935   \endgroup
13936 }
```

`\@CheckBox`

```
13937 \def\@CheckBox[#1]#2{% parameters, label
13938   \def\Fld@name{#2}%
13939   \def\Fld@default{0}%
13940   \begingroup
13941     \def\Fld@width{\DefaultWidthofCheckBox}%
13942     \def\Fld@height{\DefaultHeightofCheckBox}%
13943     \expandafter\HyField@SetKeys\expandafter{%
13944       \DefaultOptionsofCheckBox,#1%
13945     }%
13946     \PDFForm@Name
13947     \HyField@FlagsCheckBox
13948     \ifFld@hidden\def\Fld@width{1sp}\fi
13949     \setbox\pdfm@box=\hbox{%
13950       \MakeCheckField{\Fld@width}{\Fld@height}%
13951     }%
13952     \HyField@AdvanceAnnotCount
13953     \LayoutCheckField{#2}{%
13954       \leavevmode
13955       \Hy@escapeform\PDFForm@Check
13956       \@pdfm@mark{%
13957         ann @check\HyField@TheAnnotCount\space
13958         \dvipdfm@setdim
13959         <<\PDFForm@Check>>%
13960       }%
13961       \unhbox\pdfm@box
```

```

13962 \@pdfm@mark{put @afields @check\HyField@TheAnnotCount}%
13963 }%
13964 \endgroup
13965 }

13966 \def\Hy@FormObjects{%
13967 \@pdfm@mark{obj @OBJpdfdocencoding%
13968 <<%
13969 /Type/Encoding%
13970 /Differences[%
13971 24/breve/caron/circumflex/dotaccent/hungarumlaut/ogonek/ring/tilde %
13972 39/quotesingle %
13973 96/grave %
13974 128/bullet/dagger/daggerdbl/ellipsis/emdash/endash/florin%
13975 /fraction/guilsinglleft/guilsinglright/minus/perthousand%
13976 /quotedblbase/quotedblleft/quotedblright/quoteleft/quoteright%
13977 /quotesinglbase/trademark/fi/fl/Lslash/OE/Scaron/Ydieresis%
13978 /Zcaron/dotlessi/lslash/oe/scaron/zcaron %
13979 164/currency %
13980 166/brokenbar %
13981 168/dieresis/copyright/ordfeminine %
13982 172/logicalnot/.notdef/registered/macron/degree/plusminus%
13983 /twosuperior/threesuperior/acute/mu %
13984 183/periodcentered/cedilla/onesuperior/ordmasculine %
13985 188/onequarter/onehalf/threequarters %
13986 192/Agrave/Aacute/Acircumflex/Atilde/Adieresis/Aring/AE%
13987 /Ccedilla/Egrave/Eacute/Ecircumflex/Edieresis/Igrave/Iacute%
13988 /Icircumflex/Idieresis/Eth/Ntilde/Ograve/Oacute/Ocircumflex%
13989 /Otilde/Odieresis/multiply/Oslash/Ugrave/Uacute/Ucircumflex%
13990 /Udieresis/Yacute/Thorn/germandbls/agrave/aacute/acircumflex%
13991 /atilde/adieresis/aring/ae/ccedilla/egrave/eacute%
13992 /ecircumflex/edieresis/igrave/iacute/icircumflex/idieresis%
13993 /eth/ntilde/ograde/oacute/ocircumflex/otilde/odieresis%
13994 /divide/oslash/ugrave/uacute/ucircumflex/udieresis/yacute%
13995 /thorn/ydieresis%
13996 ]%
13997 >>%
13998 }%
13999 \@pdfm@mark{obj @OBJZaDb%
14000 <<%
14001 /Type/Font%
14002 /Subtype/Type1%
14003 /Name/ZaDb%
14004 /BaseFont/ZapfDingbats%
14005 >>%
14006 }%
14007 \@pdfm@mark{obj @OBJHelv%
14008 <<%
14009 /Type/Font%
14010 /Subtype/Type1%
14011 /Name/Helv%
14012 /BaseFont/Helvetica%
14013 /Encoding @OBJpdfdocencoding%
14014 >>%
14015 }%
14016 \global\let\Hy@FormObjects\relax
14017 }
14018 </dvipdfm|xetex>

```

48.6 Common forms part

14019 \langle *pdfform \rangle

\Hy@escapestring

```
14020 \begingroup\expandafter\expandafter\expandafter\endgroup
14021 \expandafter\ifx\csname pdfescapestring\endcsname\relax
14022 \let\Hy@escapestring\@firstofone
14023 \def\Hy@escapeform#1{%
14024   \ifHy@pdfescapeform
14025     \def\Hy@escapestring##1{%
14026       \noexpand\Hy@escapestring{\noexpand##1}%
14027     }%
14028     \edef\Hy@temp{#1}%
14029     \expandafter\Hy@@@escapeform\Hy@temp\Hy@escapestring{}\@nil
14030     \def\Hy@escapestring##1{%
14031       \@ifundefined{Hy@esc@\string##1}{%
14032         ##1%
14033         \ThisShouldNotHappen
14034       }{%
14035         \csname Hy@esc@\string##1\endcsname
14036       }%
14037     }%
14038   \else
14039     \let\Hy@escapestring\@firstofone
14040   \fi
14041 }%
14042 \def\Hy@@@escapeform#1\Hy@escapestring#2#3\@nil{%
14043   \ifx\#3\%
14044     \else
14045       \expandafter
14046       \Hy@pstringdef\csname Hy@esc@\string#2\endcsname{#2}%
14047       \ltx@ReturnAfterFi{%
14048         \Hy@@@escapeform#3\@nil
14049       }%
14050     \fi
14051   }%
14052 \else
14053   \def\Hy@escapeform#1{%
14054     \ifHy@pdfescapeform
14055       \let\Hy@escapestring\pdfescapestring
14056     \else
14057       \let\Hy@escapestring\@firstofone
14058     \fi
14059   }%
14060   \Hy@escapeform{}%
14061 \fi
```

\PDFForm@Name

```
14062 \def\PDFForm@Name{%
14063   \PDFForm@@Name\Fld@name
14064   \ifx\Fld@altname\relax
14065   \else
14066     \PDFForm@@Name\Fld@altname
14067   \fi
14068   \ifx\Fld@mappingname\relax
14069   \else
14070     \PDFForm@@Name\Fld@mappingname
```

```

14071 \fi
14072 }

```

\PDFForm@@Name

```

14073 \def\PDFForm@@Name#1{%
14074 \begingroup
14075 \ifnum\Hy@pdfversion<5 % implementation note 117, PDF spec 1.7
14076 \ifHy@unicode
14077 \Hy@unicodetrue
14078 \fi
14079 \fi
14080 \HyPsd@XeTeXBigCharstrue
14081 \pdfstringdef\Hy@gtemp#1%
14082 \endgroup
14083 \let#1\Hy@gtemp
14084 }

```

\Fld@additionalactions

```

14085 \def\Fld@@additionalactions{%
K input (keystroke) format
14086 \ifx\Fld@keystroke@code\@empty
14087 \else
14088 /K<</S/JavaScript/JS(\Hy@escapestring{\Fld@keystroke@code})>>%
14089 \fi
F display format
14090 \ifx\Fld@format@code\@empty
14091 \else
14092 /F<</S/JavaScript/JS(\Hy@escapestring{\Fld@format@code})>>%
14093 \fi
V validation
14094 \ifx\Fld@validate@code\@empty
14095 \else
14096 /V<</S/JavaScript/JS(\Hy@escapestring{\Fld@validate@code})>>%
14097 \fi
C calculation
14098 \ifx\Fld@calculate@code\@empty
14099 \else
14100 /C<</S/JavaScript/JS(\Hy@escapestring{\Fld@calculate@code})>>%
14101 \fi
Fo receiving the input focus
14102 \ifx\Fld@onfocus@code\@empty
14103 \else
14104 /Fo<</S/JavaScript/JS(\Hy@escapestring{\Fld@onfocus@code})>>%
14105 \fi
Bl loosing the input focus (blurred)
14106 \ifx\Fld@onblur@code\@empty
14107 \else
14108 /Bl<</S/JavaScript/JS(\Hy@escapestring{\Fld@onblur@code})>>%
14109 \fi
D pressing the mouse button (down)
14110 \ifx\Fld@onmousedown@code\@empty
14111 \else
14112 /D<</S/JavaScript/JS(\Hy@escapestring{\Fld@onmousedown@code})>>%
14113 \fi

```

U releasing the mouse button (up)

```
14114 \ifx\Fld@onmouseup@code\@empty
14115 \else
14116 /U<</S/JavaScript/JS(\Hy@escapestring{\Fld@onmouseup@code})>>%
14117 \fi
```

E cursor enters the annotation's active area.

```
14118 \ifx\Fld@onenter@code\@empty
14119 \else
14120 /E<</S/JavaScript/JS(\Hy@escapestring{\Fld@onenter@code})>>%
14121 \fi
```

X cursor exits the annotation's active area.

```
14122 \ifx\Fld@onexit@code\@empty
14123 \else
14124 /X<</S/JavaScript/JS(\Hy@escapestring{\Fld@onexit@code})>>%
14125 \fi
14126 }
14127 \def\Fld@additionalactions{%
14128 \if-\Fld@@additionalactions-%
14129 \else
14130 \ifHy@pdfa
14131 \else
14132 /AA<<\Fld@@additionalactions>>%
14133 \fi
14134 \fi
14135 }
```

\Fld@annotnames

```
14136 \def\Fld@annotnames{%
14137 /T(\Fld@name)%
14138 \ifx\Fld@altname\relax
14139 \else
14140 /TU(\Fld@altname)%
14141 \fi
14142 \ifx\Fld@mappingname\relax
14143 \else
14144 /TM(\Fld@mappingname)%
14145 \fi
14146 }
```

\PDFForm@Check

```
14147 \def\PDFForm@Check{%
14148 /Subtype/Widget%
14149 \Fld@annotflags
14150 \Fld@annotnames
14151 /FT/Btn%
14152 \Fld@flags
14153 /Q \Fld@align
14154 /BS<</W \Fld@borderwidth /S/\Fld@borderstyle>>%
14155 /MK<<%
14156 \ifnum\Fld@rotation=z@
14157 \else
14158 /R \Fld@rotation
14159 \fi
14160 \ifx\Fld@bordercolor\relax
14161 \else
14162 /BC[\Fld@bordercolor]%

```

```

14163 \fi
14164 \ifx\Fld@bcolor\relax
14165 \else
14166 /BG[\Fld@bcolor]%
14167 \fi
14168 /CA(\Hy@escapestring{\Fld@cbsymbol})%
14169 >>%
14170 /DA(/ZaDb \strip@pt\Fld@charsize\space Tf%
14171 \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
14172 /H/P%
14173 \ifFld@checked /V/Yes\else /V/Off\fi
14174 \Fld@additionalactions
14175 }

```

\PDFForm@Push

```

14176 \ifHy@pdfa
14177 \else
14178 \def\PDFForm@Push{%
14179 /Subtype/Widget%
14180 \Fld@annotflags
14181 \Fld@annotnames
14182 /FT/Btn%
14183 \Fld@flags
14184 /H/P%
14185 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14186 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14187 \ifx\Fld@bordercolor\relax\else 1\fi
14188 \space
14189 \else
14190 /MK<<%
14191 \ifnum\Fld@rotation=\z@
14192 \else
14193 /R \Fld@rotation
14194 \fi
14195 \ifx\Fld@bordercolor\relax
14196 \else
14197 /BC[\Fld@bordercolor]%
14198 \fi
14199 >>%
14200 \fi
14201 /A<</S/JavaScript/JS(\Hy@escapestring{\Fld@onclick@code})>>%
14202 \Fld@additionalactions
14203 }%
14204 \fi

```

\PDFForm@List

```

14205 \def\PDFForm@List{%
14206 /Subtype/Widget%
14207 \Fld@annotflags
14208 \Fld@annotnames
14209 /FT/Ch%
14210 \Fld@flags
14211 /Q \Fld@align
14212 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14213 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14214 \ifx\Fld@bordercolor\relax\else 1\fi
14215 \ifx\Fld@bcolor\relax \else 1\fi

```

```

14216         \space
14217     \else
14218         /MK<<%
14219         \ifnum\Fld@rotation=\z@
14220         \else
14221             /R \Fld@rotation
14222         \fi
14223         \ifx\Fld@bordercolor\relax
14224         \else
14225             /BC[\Fld@bordercolor]%
14226         \fi
14227         \ifx\Fld@bcolor\relax
14228         \else
14229             /BG[\Fld@bcolor]%
14230         \fi
14231     >>%
14232 \fi
14233 /DA(/Helv \strip@pt\Fld@charsize\space Tf%
14234     \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
14235 \Fld@choices
14236 \Fld@additionalactions
14237 }

```

\PDFForm@Radio

```

14238 \def\PDFForm@Radio{%
14239     /Subtype/Widget%
14240     \Fld@annotflags
14241     \Fld@annotnames
14242     /FT/Btn%
14243     \Fld@flags
14244     /H/P%
14245     /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14246     /MK<<%
14247     \ifnum\Fld@rotation=\z@
14248     \else
14249         /R \Fld@rotation
14250     \fi
14251     \ifx\Fld@bordercolor\relax
14252     \else
14253         /BC[\Fld@bordercolor]%
14254     \fi
14255     \ifx\Fld@bcolor\relax
14256     \else
14257         /BG[\Fld@bcolor]%
14258     \fi
14259     /CA(\Fld@radiosymbol)%
14260 >>%
14261 /DA(/ZaDb \strip@pt\Fld@charsize\space Tf%
14262     \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
14263 \ifx\@currValue\Fld@default
14264     /V/\Fld@default
14265     /DV/\Fld@default
14266 \else
14267     /V/Off%
14268     /DV/Off%
14269 \fi
14270 \Fld@additionalactions
14271 }

```


\PDFForm@Text

```
14272 \def\PDFForm@Text{%
14273 /Subtype/Widget%
14274 \Fld@annotflags
14275 \Fld@annotnames
14276 /FT/Tx%
14277 \Fld@flags
14278 /Q \Fld@align
14279 /BS<</W \Fld@borderwidth\space /S /\Fld@borderstyle>>%
14280 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14281 \ifx\Fld@bordercolor\relax\else 1\fi
14282 \ifx\Fld@bcolor\relax \else 1\fi
14283 \space
14284 \else
14285 /MK<<%
14286 \ifnum\Fld@rotation=\z@
14287 \else
14288 /R \Fld@rotation
14289 \fi
14290 \ifx\Fld@bordercolor\relax
14291 \else
14292 /BC[\Fld@bordercolor]%
14293 \fi
14294 \ifx\Fld@bcolor\relax
14295 \else
14296 /BG[\Fld@bcolor]%
14297 \fi
14298 >>%
14299 \fi
14300 /DA(/Helv \strip@pt\Fld@charsize\space Tf%
14301 \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
14302 /DV(\Hy@escapestring{\Fld@default})%
14303 /V(\Hy@escapestring{\Fld@value})%
14304 \Fld@additionalactions
14305 \ifnum\Fld@maxlen>\z@/MaxLen \Fld@maxlen \fi
14306 }
```

\PDFForm@Submit

```
14307 \def\PDFForm@Submit{%
14308 /Subtype/Widget%
14309 \Fld@annotflags
14310 \Fld@annotnames
14311 /FT/Btn%
14312 \Fld@flags
14313 /H/P%
14314 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14315 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14316 \ifx\Fld@bordercolor\relax\else 1\fi
14317 \space
14318 \else
14319 /MK<<%
14320 \ifnum\Fld@rotation=\z@
14321 \else
14322 /R \Fld@rotation
14323 \fi
14324 \ifx\Fld@bordercolor\relax
14325 \else
```

```

14326      /BC[\Fld@bordercolor]%
14327      \fi
14328    >>%
14329  \fi
14330  /A<<%
14331    /S/SubmitForm%
14332    /F<<%
14333      /FS/URL%
14334      /F(\Hy@escapestring{\Form@action})%
14335    >>%
14336    \Fld@submitflags
14337  >>%
14338  \Fld@additionalactions
14339 }

\PDFForm@Reset

14340 \ifHy@pdfa
14341 \else
14342   \def\PDFForm@Reset{%
14343     /Subtype/Widget%
14344     \Fld@annotflags
14345     \Fld@annotnames
14346     /FT/Btn%
14347     \Fld@flags
14348     /H/P%
14349     /DA(/Helv \strip@pt\Fld@charsize\space Tf 0 0 1 rg)%
14350     \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14351       \ifx\Fld@bordercolor\relax\else 1\fi
14352       \space
14353   \else
14354     /MK<<%
14355     \ifnum\Fld@rotation=\z@
14356     \else
14357       /R \Fld@rotation
14358     \fi
14359     \ifx\Fld@bordercolor\relax
14360     \else
14361       /BC[\Fld@bordercolor]%
14362     \fi
14363   %   /CA (Clear)
14364   %   /AC (Done)
14365   >>%
14366   \fi
14367   /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14368   /A<</S/ResetForm>>%
14369   \Fld@additionalactions
14370 }%
14371 \fi

14372 </pdfform>
14373 <*package>

```

49 Bookmarks in the PDF file

This was originally developed by Yannis Haralambous (it was the separate `repere.sty`); it needed the `repere` or `makebook.pl` post-processor to work properly. Now redundant, as it is done entirely in L^AT_EX macros.

To write out the current section title, and its rationalized number, we have to intercept the `\@sect` command, which is rather dangerous. But how else to see the information we need? We do the *same* for `\@ssect`, giving anchors to unnumbered sections. This allows things like bibliographies to get bookmarks when used with a manual `\addcontentsline`

```

14374 \def\phantomsection{%
14375   \Hy@MakeCurrentHrefAuto{section*}%
14376   \Hy@raisedlink{\hyper@anchorstart{\@currentHref}\hyper@anchorend}%
14377 }
14378 \end{package}

```

49.1 Bookmarks

```
14379 \begin{outlines}
```

This section was written by Heiko Oberdiek; the code replaces an earlier version by David Carlisle.

The first part of bookmark code is in section 6. Further documentation is available as paper and slides of the talk, that Heiko Oberdiek has given at the EuroTeX'99 meeting in Heidelberg. See `paper.pdf` and `slides.pdf` in the `doc` directory of `hyperref`.

When using the right-to-left typesetting based on ε -TeX, the order of the `\BOOKMARK` commands written to the `\@outlinefile` could appear wrong, because of mis-feature of ε -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.

```

14380 \def\Hy@writebookmark#1#2#3#4#5{%
14381   % section number, text, label, level, file
14382   \ifx\WriteBookmarks\relax%
14383     \else
14384       \ifnum#4>\Hy@bookmarksdepth\relax
14385       \else
14386         \@writetorep{#1}{#2}{#3}{#4}{#5}%
14387       \fi
14388     \fi
14389 }
14390 \def\Hy@currentbookmarklevel{0}
14391 \def\Hy@numberline#1{#1 }
14392 \def\@writetorep#1#2#3#4#5{%
14393   \begin{group}
14394     \edef\Hy@tempa{#5}%
14395     \ifx\Hy@tempa\Hy@bookmarkstype
14396       \edef\Hy@level{#4}%
14397       \ifx\Hy@levelcheck Y%
14398         \@tempcnta\Hy@level\relax
14399         \advance\@tempcnta by -1 %
14400         \ifnum\Hy@currentbookmarklevel<\@tempcnta
14401           \advance\@tempcnta by -\Hy@currentbookmarklevel\relax
14402           \advance\@tempcnta by 1 %
14403         \Hy@Warning{%
14404           Difference (\the\@tempcnta) between bookmark levels is %

```

```

14405         greater \MessageBreak than one, level fixed%
14406     }%
14407     \@tempcnta\Hy@currentbookmarklevel
14408     \advance\@tempcnta by 1 %
14409     \edef\Hy@level{\the\@tempcnta}%
14410 \fi
14411 \else
14412     \global\let\Hy@levelcheck Y%
14413 \fi
14414 \global\let\Hy@currentbookmarklevel\Hy@level
14415 \@tempcnta\Hy@level\relax
14416 \expandafter\xdef\csname Parent\Hy@level\endcsname{#3}%
14417 \advance\@tempcnta by -1 %
14418 \edef\Hy@tempa{#3}%
14419 \edef\Hy@tempb{\csname Parent\the\@tempcnta\endcsname}%
14420 \ifx\Hy@tempa\Hy@tempb
14421     \Hy@Warning{%
14422         The anchor of a bookmark and its parent's must not%
14423         \MessageBreak be the same. Added a new anchor%
14424     }%
14425     \phantomsection
14426 \fi
14427 \ifHy@bookmarksnumbered
14428     \let\numberline\Hy@numberline
14429     \let\booknumberline\Hy@numberline
14430     \let\partnumberline\Hy@numberline
14431     \let\chapternumberline\Hy@numberline
14432 \else
14433     \let\numberline\@gobble
14434     \let\booknumberline\@gobble
14435     \let\partnumberline\@gobble
14436     \let\chapternumberline\@gobble
14437 \fi
14438 \HyPsd@XeTeXBigCharstrue
14439 \pdfstringdef\Hy@tempa{#2}%
14440 \HyPsd@SanitizeForOutFile\Hy@tempa
14441 \if@filesw
14442     \stepcounter{bookmark@seq@number}%
14443     \@ifundefined{@outlinefile}{%
14444     }{%
14445         \protected@write\@outlinefile{}{%
14446             \protect\BOOKMARK
14447             [\Hy@level][\@bookmarkopenstatus{\Hy@level}]{#3}%
14448             {\Hy@tempa}{\Hy@tempb}%
14449             \@percentchar\space\thebookmark@seq@number
14450         }%
14451     }%
14452 \fi
14453 \fi
14454 \endgroup
14455 }
14456 \newcounter{bookmark@seq@number}
14457 \begingroup
14458 \lccode'('= '{%
14459 \lccode'='='}%
14460 \lccode'1=\z@
14461 \lccode'2=\z@

```

```

14462 \lccode'3=\z@
14463 \lccode'5=\z@
14464 \lccode'7=\z@
14465 \lccode'\#=\z@
14466 \lccode'\'=\z@
14467 \lccode'\{=\z@
14468 \lccode'\}=\z@
14469 \lowercase{%
14470 \endgroup
14471 \def\HyPsd@SanitizeForOutFile#1{%
14472   \@onelevel@sanitize\Hy@tempa
14473   \escapechar'\%
14474   \edef\Hy@tempa{%
14475     \expandafter\HyPsd@SanitizeOut@BraceLeft\Hy@tempa\@nil
14476   }%
14477   \edef\Hy@tempa{%
14478     \expandafter\HyPsd@SanitizeOut@BraceRight\Hy@tempa\@nil
14479   }%
14480 }%
14481 \def\HyPsd@SanitizeOut@BraceLeft#1(#2\@nil{%
14482   #1%
14483   \ifx\#2\%
14484     \expandafter\ltx@gobble
14485   \else
14486     \expandafter\ltx@firstofone
14487   \fi
14488   {%
14489     \string\173%
14490     \HyPsd@SanitizeOut@BraceLeft#2\@nil
14491   }%
14492 }%
14493 \def\HyPsd@SanitizeOut@BraceRight#1)#2\@nil{%
14494   #1%
14495   \ifx\#2\%
14496     \expandafter\ltx@gobble
14497   \else
14498     \expandafter\ltx@firstofone
14499   \fi
14500   {%
14501     \string\175%
14502     \HyPsd@SanitizeOut@BraceRight#2\@nil
14503   }%
14504 }%
14505 }

```

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

```

14506 \newcommand{\currentpdfbookmark}{%
14507   \pdfbookmark[\Hy@currentbookmarklevel]%
14508 }
14509 \newcommand{\subpdfbookmark}{%
14510   \@tempcnta\Hy@currentbookmarklevel
14511   \Hy@StepCount\@tempcnta
14512   \expandafter\pdfbookmark\expandafter[\the\@tempcnta]%
14513 }
14514 \newcommand{\belowpdfbookmark}[2]{%
14515   \@tempcnta\Hy@currentbookmarklevel
14516   \Hy@StepCount\@tempcnta

```

```

14517 \expandafter\pdfbookmark\expandafter[\the\@tempcnta]{#1}{#2}%
14518 \advance\@tempcnta by -1 %
14519 \xdef\Hy@currentbookmarklevel{\the\@tempcnta}%
14520 }

```

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.

```

14521 \renewcommand\pdfbookmark[3][0]{%
14522 \Hy@writebookmark{#2}{#3.#1}{#1}{toc}%
14523 \hyper@anchorstart{#3.#1}\hyper@anchorend
14524 }
14525 \def\BOOKMARK{%
14526 \ifnextchar{\@BOOKMARK}{\@BOOKMARK[1][-]}%
14527 }
14528 \def\@BOOKMARK[#1]{%
14529 \ifnextchar{\@BOOKMARK[{#1}]}{\@BOOKMARK[{#1}][-]}%
14530 }

```

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`

```

14531 \RequirePackage{rerunfilecheck}[2009/12/10]
14532 \def\Hy@OutlineRerunCheck{%
14533 \RerunFileCheck{\jobname.out}{%
14534 \immediate\closeout\@outlinefile
14535 }{%
14536 Rerun to get outlines right\MessageBreak
14537 or use package 'bookmark'%
14538 }%
14539 }

```

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 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.

```

14540 <*vtex>
14541 \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.

```

14542 \begingroup
14543 \catcode'\=12 %
14544 \ifnum\Hy@VTeXversion<650 %
14545 \catcode'\=12 %
14546 \gdef\hv@pdf@char#1#2#3{%
14547 \char
14548 \ifcase'#1#2#3 %
14549 "00\or"01\or"02\or"03\or"04\or"05\or"06\or"07%
14550 \or"08\or"09\or"0A\or"0B\or"0C\or"0D\or"0E\or"0F%
14551 \or"10\or"11\or"12\or"13\or"14\or"15\or"16\or"17%

```

```

14552 \or"18\or"19\or"1A\or"1B\or"1C\or"1D\or"1E\or"1F%
14553 \or"20\or"21\or"22\or"23\or"24\or"25\or"26\or"27%
14554 \or"28\or"29\or"2A\or"2B\or"2C\or"2D\or"2E\or"2F%
14555 \or"30\or"31\or"32\or"33\or"34\or"35\or"36\or"37%
14556 \or"38\or"39\or"3A\or"3B\or"3C\or"3D\or"3E\or"3F%
14557 \or"40\or"41\or"42\or"43\or"44\or"45\or"46\or"47%
14558 \or"48\or"49\or"4A\or"4B\or"4C\or"4D\or"4E\or"4F%
14559 \or"50\or"51\or"52\or"53\or"54\or"55\or"56\or"57%
14560 \or"58\or"59\or"5A\or"5B\or"5C\or"5D\or"5E\or"5F%
14561 \or"60\or"61\or"62\or"63\or"64\or"65\or"66\or"67%
14562 \or"68\or"69\or"6A\or"6B\or"6C\or"6D\or"6E\or"6F%
14563 \or"70\or"71\or"72\or"73\or"74\or"75\or"76\or"77%
14564 \or"78\or"79\or"7A\or"7B\or"7C\or"7D\or"7E\or"7F%
14565 \or"80\or"81\or"82\or"83\or"84\or"85\or"86\or"87%
14566 \or"88\or"89\or"8A\or"8B\or"8C\or"8D\or"8E\or"8F%
14567 \or"90\or"91\or"92\or"93\or"94\or"95\or"96\or"97%
14568 \or"98\or"99\or"9A\or"9B\or"9C\or"9D\or"9E\or"9F%
14569 \or"A0\or"A1\or"A2\or"A3\or"A4\or"A5\or"A6\or"A7%
14570 \or"A8\or"A9\or"AA\or"AB\or"AC\or"AD\or"AE\or"AF%
14571 \or"B0\or"B1\or"B2\or"B3\or"B4\or"B5\or"B6\or"B7%
14572 \or"B8\or"B9\or"BA\or"BB\or"BC\or"BD\or"BE\or"BF%
14573 \or"C0\or"C1\or"C2\or"C3\or"C4\or"C5\or"C6\or"C7%
14574 \or"C8\or"C9\or"CA\or"CB\or"CC\or"CD\or"CE\or"CF%
14575 \or"D0\or"D1\or"D2\or"D3\or"D4\or"D5\or"D6\or"D7%
14576 \or"D8\or"D9\or"DA\or"DB\or"DC\or"DD\or"DE\or"DF%
14577 \or"E0\or"E1\or"E2\or"E3\or"E4\or"E5\or"E6\or"E7%
14578 \or"E8\or"E9\or"EA\or"EB\or"EC\or"ED\or"EE\or"EF%
14579 \or"F0\or"F1\or"F2\or"F3\or"F4\or"F5\or"F6\or"F7%
14580 \or"F8\or"F9\or"FA\or"FB\or"FC\or"FD\or"FE\or"FF%
14581 \fi
14582 }%
14583 \else
14584 \gdef\hv@pdf@char{\char'}%
14585 \fi
14586 \endgroup

```

\@@BOOKMARK

```

14587 \def\@@BOOKMARK[#1][#2]#3#4#5{%
14588 \expandafter\edef\csname @count@#3\endcsname{%
14589 \the\@serial@counter
14590 }%
14591 \edef\@mycount{\the\@serial@counter}%
14592 \Hy@StepCount\@serial@counter
14593 \edef\@parcount{%
14594 \expandafter\ifx\csname @count@#5\endcsname\relax
14595 0%
14596 \else
14597 \csname @count@#5\endcsname
14598 \fi
14599 }%
14600 \immediate\special{%
14601 !outline \HyperDestNameFilter{#3};p=\@parcount,i=\@mycount,%
14602 s=\ifx#2-c\else o\fi,t=#4%
14603 }%
14604 }%

```

\ReadBookmarks

```

14605 \def\ReadBookmarks{%
14606   \begingroup
14607   \def\0{\hv@pdf@char 0}%
14608   \def\1{\hv@pdf@char 1}%
14609   \def\2{\hv@pdf@char 2}%
14610   \def\3{\hv@pdf@char 3}%
14611   \def\({}%
14612   \def\)}%
14613   \def\do##1{%
14614     \ifnum\catcode'##1=\active
14615       \@makeother##1%
14616     \else
14617       \ifnum\catcode'##1=6 %
14618         \@makeother##1%
14619       \fi
14620     \fi
14621   }%
14622   \dospecials
14623   \Hy@safe@activetrue
14624   \InputIfFileExists{\jobname.out}{\}{}%
14625 \endgroup
14626 \ifx\WriteBookmarks\relax
14627 \else
14628   \if@filesw
14629     \newwrite\@outlinefile
14630     \Hy@OutlineRerunCheck
14631     \immediate\openout\@outlinefile=\jobname.out\relax
14632     \ifHy@typexml
14633       \immediate\write\@outlinefile{<relaxxml>\relax}%
14634     \fi
14635   \fi
14636 \fi
14637 }

14638 </vtex>
14639 (*!vtex)
14640 \def\ReadBookmarks{%
14641   \pdf@ifdraftmode{\}{%
14642     \begingroup
14643     \def\do##1{%
14644       \ifnum\catcode'##1=\active
14645         \@makeother##1%
14646       \else
14647         \ifnum\catcode'##1=6 %
14648           \@makeother##1%
14649         \fi
14650       \fi
14651     }%
14652     \dospecials
14653     \Hy@safe@activetrue
14654     \escapechar='\'%
14655     \def\@@BOOKMARK[##1][##2]##3##4##5{%
14656       \calc@bm@number{##5}%
14657     }%
14658     \InputIfFileExists{\jobname.out}{\}{}%
14659     \ifx\WriteBookmarks\relax
14660       \global\let\WriteBookmarks\relax
14661     \fi

```



```

14662 \def\@@BOOKMARK[##1][##2]###3###4###5{%
14663 \def\Hy@temp{##4}%
14664 (*pdfTex)
14665 \Hy@pstringdef\Hy@pstringName{\HyperDestNameFilter{##3}}%
14666 \Hy@OutlineName{}\Hy@pstringName{%
14667 ##2\check@bm@number{##3}%
14668 }{%
14669 \expandafter\strip@prefix\meaning\Hy@temp
14670 }%
14671 \pdfTex)
14672 (*pdfmark)
14673 \pdfmark{%
14674 pdfmark=/OUT,%
14675 Count={##2\check@bm@number{##3}},%
14676 Dest={##3},%
14677 Title=\expandafter\strip@prefix\meaning\Hy@temp
14678 }%
14679 \pdfmark)
14680 (*dvipdfm|xetex)
14681 \Hy@pstringdef\Hy@pstringName{\HyperDestNameFilter{##3}}%
14682 \@pdfm@mark{%
14683 outline \ifHy@DvipdfmxOutlineOpen
14684 [%
14685 \ifnum##21>\z@
14686 \else
14687 -%
14688 \fi
14689 ] %
14690 \fi
14691 ##1<<%
14692 /Title(\expandafter\strip@prefix\meaning\Hy@temp)%
14693 /A<<%
14694 /S/GoTo%
14695 /D(\Hy@pstringName)%
14696 >>%
14697 >>%
14698 }%
14699 \dvipdfm|xetex)
14700 }%
14701 \begingroup
14702 \def\WriteBookmarks{0}%
14703 \InputIfFileExists{jobname.out}{-}{-}%
14704 \endgroup
14705 %{\escapechar\m@ne\InputIfFileExists{jobname.out}{-}{-}}%
14706 \endgroup
14707 }%
14708 \ifx\WriteBookmarks\relax
14709 \else
14710 \if@files
14711 \newwrite\@outlinefile
14712 \Hy@OutlineRerunCheck
14713 \immediate\openout\@outlinefile=jobname.out\relax
14714 \ifHy@typexml
14715 \immediate\write\@outlinefile{<relaxxml>\relax}%
14716 \fi
14717 \fi
14718 \fi

```

```

14719 }
14720 \langle *pdfTeX\rangle
14721 \def\Hy@OutlineName#1#2#3#4{%
14722   \pdfoutline goto name{#2}count#3{#4}%
14723 }
14724 \rangle pdfTeX\rangle
14725 \def\check@bm@number#1{%
14726   \expandafter\ifx\csname B_#1\endcsname\relax
14727     0%
14728   \else
14729     \csname B_#1\endcsname
14730   \fi
14731 }
14732 \def\calc@bm@number#1{%
14733   \@tempcnta=\check@bm@number{#1}\relax
14734   \advance\@tempcnta by 1 %
14735   \expandafter\xdef\csname B_#1\endcsname{\the\@tempcnta}%
14736 }
14737 \rangle !vTeX\rangle

14738 \ifHy@implicit
14739 \else
14740   \expandafter\endinput
14741 \fi

14742 \rangle outlines\rangle
14743 \langle *outlines | hypertex\rangle

14744 \newlength\Hy@SectionHShift
14745 \def\Hy@SectionAnchorHref#1{%
14746   \ifx\protect\@typeset@protect
14747     \Hy@@SectionAnchor{#1}%
14748   \fi
14749 }
14750 \DeclareRobustCommand*{\Hy@@SectionAnchor}[1]{%
14751   \leavevmode
14752   \hbox to 0pt{%
14753     \kern-\Hy@SectionHShift
14754     \Hy@raisedlink{%
14755       \hyper@anchorstart{#1}\hyper@anchorend
14756     }%
14757     \hss
14758   }%
14759 }
14760 \let\H@old@ssect\@ssect
14761 \def\@ssect#1#2#3#4#5{%
14762   \Hy@MakeCurrentHrefAuto{section*}%
14763   \setlength{\Hy@SectionHShift}{#1}%
14764   \begingroup
14765     \toks@{\H@old@ssect{#1}{#2}{#3}{#4}}%
14766     \toks\tw@\expandafter{%
14767       \expandafter\Hy@SectionAnchorHref\expandafter{\@currentHref}%
14768       #5%
14769     }%
14770   \edef\x{\endgroup
14771     \the\toks@\the\toks\tw@}%
14772   }\x
14773 }
14774 \let\H@old@schapter\@schapter

```

```

14775 \def\@schapter#1{%
14776   \begingroup
14777     \let\@mkboth\@gobbletwo
14778     \Hy@MakeCurrentHrefAuto{\Hy@chapapp*}%
14779     \Hy@raisedlink{%
14780       \hyper@anchorstart{\@currentHref}\hyper@anchorend
14781     }%
14782   \endgroup
14783   \H@old@chapter{#1}%
14784 }

```

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:

```

14785 \ltx@ifundefined{@chapter}{-}{%
14786   \let\Hy@org@chapter\@chapter
14787   \def\@chapter{%
14788     \def\Hy@next{%
14789       \Hy@MakeCurrentHrefAuto{\Hy@chapapp*}%
14790       \Hy@raisedlink{%
14791         \hyper@anchorstart{\@currentHref}\hyper@anchorend
14792       }%
14793     }%
14794     \ifnum\c@secnumdepth>\m@ne
14795       \ltx@ifundefined{if@mainmatter}%
14796       \iftrue{\csname if@mainmatter\endcsname}%
14797       \let\Hy@next\relax
14798     \fi
14799   \fi
14800   \Hy@next
14801   \Hy@org@chapter
14802 }%
14803 }

14804 \let\H@old@part\@part
14805 \begingroup\expandafter\expandafter\expandafter\endgroup
14806 \expandafter\ifx\csname chapter\endcsname\relax
14807   \let\Hy@secnum@part\z@
14808 \else
14809   \let\Hy@secnum@part\m@ne
14810 \fi
14811 \def\@part{%
14812   \ifnum\Hy@secnum@part>\c@secnumdepth
14813     \phantomsection
14814   \fi
14815   \H@old@part
14816 }

14817 \let\H@old@spart\@spart
14818 \def\@spart#1{%
14819   \Hy@MakeCurrentHrefAuto{part*}%
14820   \Hy@raisedlink{%
14821     \hyper@anchorstart{\@currentHref}\hyper@anchorend
14822   }%
14823   \H@old@spart{#1}%
14824 }

14825 \let\H@old@sect\@sect
14826 \def\@sect#1#2#3#4#5#6[#7]#8{%
14827   \ifnum #2>\c@secnumdepth

```

```

14828 \expandafter\@firsttwo
14829 \else
14830 \expandafter\@secondoftwo
14831 \fi
14832 {%
14833 \Hy@MakeCurrentHrefAuto{section*}%
14834 \setlength{\Hy@SectionHShift}{#3}%
14835 \begingroup
14836 \toks@{\H@old@sect{#1}{#2}{#3}{#4}{#5}{#6}{#7}}%
14837 \toks\tw@\expandafter{%
14838 \expandafter\Hy@SectionAnchorHref\expandafter{\@currentHref}%
14839 #8%
14840 }%
14841 \edef\x{\endgroup
14842 \the\toks@\the\toks\tw@}%
14843 }\x
14844 }{%
14845 \H@old@sect{#1}{#2}{#3}{#4}{#5}{#6}{#7}{#8}%
14846 }%
14847 }

14848 </outlines | hypertex>
14849 <*outlines>

14850 \expandafter\def\csname Parent-4\endcsname{}
14851 \expandafter\def\csname Parent-3\endcsname{}
14852 \expandafter\def\csname Parent-2\endcsname{}
14853 \expandafter\def\csname Parent-1\endcsname{}
14854 \expandafter\def\csname Parent0\endcsname{}
14855 \expandafter\def\csname Parent1\endcsname{}
14856 \expandafter\def\csname Parent2\endcsname{}
14857 \expandafter\def\csname Parent3\endcsname{}
14858 \expandafter\def\csname Parent4\endcsname{}
14859 </outlines>

```

50 Compatibility with koma-script classes

```

14860 <*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.

```

14861 \def\Hy@tempa{%
14862 \def\@addchap[##1]##2{%
14863 \typeout{##2}%
14864 \if@twoside
14865 \@mkboth{##1}{}%
14866 \else
14867 \@mkboth{}{##1}%
14868 \fi
14869 \addtocontents{lof}{\protect\addvspace{10\p@}}%
14870 \addtocontents{lot}{\protect\addvspace{10\p@}}%
14871 \Hy@MakeCurrentHrefAuto{\Hy@chapapp*}%
14872 \Hy@raisedlink{%
14873 \hyper@anchorstart{\@currentHref}\hyper@anchorend
14874 }%
14875 \if@twocolumn

```

```

14876 \topnewpage[\@makeschapterhead{##2}]%
14877 \else
14878 \@makeschapterhead{##2}%
14879 \@afterheading
14880 \fi
14881 \addcontentsline{toc}{chapter}{##1}%
14882 }%
14883 }
14884 \@ifclassloaded{scrbook}{%
14885 \@ifclasslater{scrbook}{2001/01/01}{%
14886 \let\Hy@tempa\@empty
14887 }{}%
14888 }{%
14889 \@ifclassloaded{scrreprt}{%
14890 \@ifclasslater{scrreprt}{2001/01/01}{%
14891 \let\Hy@tempa\@empty
14892 }{}%
14893 }{%
14894 \let\Hy@tempa\@empty
14895 }%
14896 }%
14897 \Hy@tempa
14898 </outlines | hypertext>

```

51 Encoding definition files for encodings of PDF strings

This was contributed by Heiko Oberdiek.

51.1 PD1 encoding

```

14899 <*pd1enc>
14900 \DeclareFontEncoding{PD1}{}{}

Accents
14901 \DeclareTextAccent{'}{PD1}{\textasciigrave}
14902 \DeclareTextAccent{'}{PD1}{\textacute}
14903 \DeclareTextAccent{^}{PD1}{\textasciicircum}
14904 \DeclareTextAccent{~}{PD1}{\texttilde}
14905 \DeclareTextAccent{"}{PD1}{\textasciidieresis}
14906 \DeclareTextAccent{r}{PD1}{\textstring}
14907 \DeclareTextAccent{v}{PD1}{\textasciicaron}
14908 \DeclareTextAccent{.}{PD1}{\textdotaccent}
14909 \DeclareTextAccent{c}{PD1}{\textcedilla}
14910 \DeclareTextAccent{=}{PD1}{\textasciimacron}
14911 \DeclareTextAccent{b}{PD1}{\textmacronbelow}
14912 \DeclareTextAccent{d}{PD1}{\textdotbelow}
14913 \DeclareTextCompositeCommand{'}{PD1}{\@empty}{\textasciigrave}
14914 \DeclareTextCompositeCommand{'}{PD1}{\@empty}{\textacute}
14915 \DeclareTextCompositeCommand{^}{PD1}{\@empty}{\textasciicircum}
14916 \DeclareTextCompositeCommand{~}{PD1}{\@empty}{\texttilde}
14917 \DeclareTextCompositeCommand{"}{PD1}{\@empty}{\textasciidieresis}
14918 \DeclareTextCompositeCommand{r}{PD1}{\@empty}{\textstring}
14919 \DeclareTextCompositeCommand{v}{PD1}{\@empty}{\textasciicaron}
14920 \DeclareTextCompositeCommand{.}{PD1}{\@empty}{\textdotaccent}
14921 \DeclareTextCompositeCommand{c}{PD1}{\@empty}{\textcedilla}
14922 \DeclareTextCompositeCommand{=}{PD1}{\@empty}{\textasciimacron}

```

```

14923 \DeclareTextCompositeCommand{\b}{PD1}{\@empty}{\textmacronbelow}
14924 \DeclareTextCompositeCommand{\d}{PD1}{\@empty}{\textdotbelow}
14925 \DeclareTextCompositeCommand{\'}{PD1}{\ }{\textasciigrave}
14926 \DeclareTextCompositeCommand{\`}{PD1}{\ }{\textacute}
14927 \DeclareTextCompositeCommand{\^}{PD1}{\ }{\textasciicircum}
14928 \DeclareTextCompositeCommand{\~}{PD1}{\ }{\texttilde}
14929 \DeclareTextCompositeCommand{\"}{PD1}{\ }{\textasciidieresis}
14930 \DeclareTextCompositeCommand{\r}{PD1}{\ }{\textring}
14931 \DeclareTextCompositeCommand{\v}{PD1}{\ }{\textasciicaron}
14932 \DeclareTextCompositeCommand{\.}{PD1}{\ }{\textdotaccent}
14933 \DeclareTextCompositeCommand{\c}{PD1}{\ }{\textcedilla}
14934 \DeclareTextCompositeCommand{\=}{PD1}{\ }{\textasciimacron}
14935 \DeclareTextCompositeCommand{\b}{PD1}{\ }{\textmacronbelow}
14936 \DeclareTextCompositeCommand{\d}{PD1}{\ }{\textdotbelow}
14937 \DeclareTextCommand{\k}{PD1}[1]{\TextSymbolUnavailable{\k{#1}}#1}
14938 \DeclareTextCommand{\t}{PD1}[1]{\TextSymbolUnavailable{\t{#1}}#1}
14939 \DeclareTextCommand{\newtie}{PD1}[1]{%
14940 \TextSymbolUnavailable{\newtie{#1}}#1%
14941 }

```

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

```

14942 % U+0009 (CHARACTER TABULATION)
14943 \DeclareTextCommand{\textHT}{PD1}{\011}% U+0009
14944 % U+000A (LINE FEED)
14945 \DeclareTextCommand{\textLF}{PD1}{\012}% U+000A
14946 % U+000D (CARRIAGE RETURN)
14947 \DeclareTextCommand{\textCR}{PD1}{\015}% U+000D

```

Accent glyph names

```

14948 % U+02D8 BREVE; breve
14949 \DeclareTextCommand{\textasciibreve}{PD1}{\030}% U+02D8
14950 % U+02C7 CARON; caron
14951 \DeclareTextCommand{\textasciicaron}{PD1}{\031}% U+02C7
14952 % U+02C6 MODIFIER LETTER CIRCUMFLEX ACCENT; circumflex
14953 \DeclareTextCommand{\textcircumflex}{PD1}{\032}% U+02C6
14954 % U+02D9 DOT ABOVE; dotaccent
14955 \DeclareTextCommand{\textdotaccent}{PD1}{\033}% U+02D9
14956 % U+02DD DOUBLE ACUTE ACCENT; hungarumlaut
14957 \DeclareTextCommand{\texthungarumlaut}{PD1}{\034}% U+02DD
14958 % U+02DB OGONEK; ogonek
14959 \DeclareTextCommand{\textogonek}{PD1}{\035}% U+02DB
14960 % U+02DA RING ABOVE; ring
14961 \DeclareTextCommand{\textring}{PD1}{\036}% U+02DA
14962 % U+02DC SMALL TILDE; ilde, *tilde
14963 \DeclareTextCommand{\texttilde}{PD1}{\037}% U+02DC

```

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

\041: U+0021 EXCLAMATION MARK; exclam

```

14964 % U+0022 QUOTATION MARK; quotedbl
14965 \DeclareTextCommand{\textquotedbl}{PD1}{\string"}% \042 U+0022
14966 % U+0023 NUMBER SIGN; numbersign
14967 \DeclareTextCommand{\textnumbersign}{PD1}{\043}% U+0023
14968 % U+0024 DOLLAR SIGN; dollar
14969 \DeclareTextCommand{\textdollar}{PD1}{\044}% U+0024
14970 % U+0025 PERCENT SIGN; percent
14971 \DeclareTextCommand{\textpercent}{PD1}{\045}% U+0025
14972 % U+0026 AMPERSAND; ampersand
14973 \DeclareTextCommand{\textampersand}{PD1}{\046}% U+0026

```

\047: U+0027 APOSTROPHE; quotesingle
 14974 % U+0028 LEFT PARENTHESIS; parenleft
 14975 \DeclareTextCommand{\textparenleft}{PD1}{\string\{}% \050 U+0028
 14976 % U+0029 RIGHT PARENTHESIS; parenright
 14977 \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
 14978 % U+002E FULL STOP; period
 14979 \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
 14980 % U+003C LESS-THAN SIGN; less
 14981 \DeclareTextCommand{\textless}{PD1}{<}% \074 U+003C
 \075: U+003D EQUALS SIGN; equal
 14982 % U+003E GREATER-THAN SIGN; greater
 14983 \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
 14984 % U+005C REVERSE SOLIDUS; backslash
 14985 \DeclareTextCommand{\textbackslash}{PD1}{\134}% U+005C
 14986 % "U+2216 SET MINUS" simulated by "U+005C REVERSE SOLIDUS"
 14987 \DeclareTextCommand{\textsetminus}{PD1}{\textbackslash}
 \135: U+005D RIGHT SQUARE BRACKET; bracketright
 14988 % U+005E CIRCUMFLEX ACCENT; asciicircum
 14989 \DeclareTextCommand{\textasciicircum}{PD1}{\136}% U+005E
 14990 % U+005F LOW LINE; underscore
 14991 \DeclareTextCommand{\textunderscore}{PD1}{\137}% U+005F
 14992 \DeclareTextCommand{\textmacronbelow}{PD1}{\137}% U+005F
 14993 % U+0060 GRAVE ACCENT; grave
 14994 \DeclareTextCommand{\textasciigrave}{PD1}{\140}% U+0060
 \141: U+0061 LATIN SMALL LETTER A; a
 ...
 \150: U+0068 LATIN SMALL LETTER H; h
 14995 % U+0069 LATIN SMALL LETTER I; i
 14996 \DeclareTextCompositeCommand{\.}{PD1}{i}{i}% \151 U+0069
 \152: U+006A LATIN SMALL LETTER J; j
 ...
 \172: U+007A LATIN SMALL LETTER Z; z
 14997 % U+007B LEFT CURLY BRACKET; braceleft
 14998 \DeclareTextCommand{\textbraceleft}{PD1}{\173}% U+007B
 14999 % U+007C VERTICAL LINE; *bar, verticalbar

15000 \DeclareTextCommand{\textbar}{PD1}{|}% U+007C
15001 % U+007D RIGHT CURLY BRACKET; braceright
15002 \DeclareTextCommand{\textbraceright}{PD1}{\175}% U+007D
15003 % U+007E TILDE; asciitilde
15004 \DeclareTextCommand{\textasciitilde}{PD1}{\176}% U+007E
Slot \177 (0x7F) is undefined in PDFDocEncoding.
15005 % U+2022 BULLET; bullet
15006 \DeclareTextCommand{\textbullet}{PD1}{\200}% U+2022
15007 % U+2020 DAGGER; dagger
15008 \DeclareTextCommand{\textdagger}{PD1}{\201}% U+2020
15009 % U+2021 DOUBLE DAGGER; daggerdbl; \ddagger (LaTeX)
15010 \DeclareTextCommand{\textdaggerdbl}{PD1}{\202}% U+2021
15011 \DeclareTextCommand{\textddagger}{PD1}{\textddagger}
15012 % U+2026 HORIZONTAL ELLIPSIS; ellipsis
15013 \DeclareTextCommand{\textellipsis}{PD1}{\203}% U+2026
15014 % U+2014 EM DASH; emdash
15015 \DeclareTextCommand{\textemdash}{PD1}{\204}% U+2014
15016 % U+2013 EN DASH; endash
15017 \DeclareTextCommand{\textendash}{PD1}{\205}% U+2013
15018 % U+0192 LATIN SMALL LETTER F WITH HOOK; florin
15019 \DeclareTextCommand{\textflorin}{PD1}{\206}% U+0192
15020 % U+2044 FRACTION SLASH; fraction
15021 \DeclareTextCommand{\textfractionsolidus}{PD1}{\207}% U+2044
15022 % U+2039 SINGLE LEFT-POINTING ANGLE QUOTATION MARK; guil-
ingleft
15023 \DeclareTextCommand{\guilsingleft}{PD1}{\210}% U+2039
15024 % U+203A SINGLE RIGHT-POINTING ANGLE QUOTATION MARK; guil-
ingright
15025 \DeclareTextCommand{\guilsingright}{PD1}{\211}% U+203A
15026 % U+2212 MINUS SIGN; minus
15027 \DeclareTextCommand{\textminus}{PD1}{\212}% U+2212
15028 % U+2030 PER MILLE SIGN; perthousand
15029 \DeclareTextCommand{\textperthousand}{PD1}{\213}% U+2030
15030 % U+201E DOUBLE LOW-9 QUOTATION MARK; quotedblbase
15031 \DeclareTextCommand{\quotedblbase}{PD1}{\214}% U+201E
15032 % U+201C LEFT DOUBLE QUOTATION MARK; quotedblleft
15033 \DeclareTextCommand{\textquotedblleft}{PD1}{\215}% U+201C
15034 % U+201D RIGHT DOUBLE QUOTATION MARK; quotedblright
15035 \DeclareTextCommand{\textquotedblright}{PD1}{\216}% U+201D
15036 % U+2018 LEFT SINGLE QUOTATION MARK; quoteleft
15037 \DeclareTextCommand{\textquoteleft}{PD1}{\217}% U+2018
15038 % U+2019 RIGHT SINGLE QUOTATION MARK; quoteright
15039 \DeclareTextCommand{\textquoteright}{PD1}{\220}% U+2019
15040 % U+201A SINGLE LOW-9 QUOTATION MARK; quotesinglbase
15041 \DeclareTextCommand{\quotesinglbase}{PD1}{\221}% U+201A
15042 % U+2122 TRADE MARK SIGN; trademark
15043 \DeclareTextCommand{\texttrademark}{PD1}{\222}% U+2122
15044 % U+FB01 LATIN SMALL LIGATURE FI; fi
15045 \DeclareTextCommand{\textfi}{PD1}{\223}% U+FB01
15046 % U+FB02 LATIN SMALL LIGATURE FL; fl
15047 \DeclareTextCommand{\textfl}{PD1}{\224}% U+FB02
15048 % U+0141 LATIN CAPITAL LETTER L WITH STROKE; Lslash
15049 \DeclareTextCommand{\L}{PD1}{\225}% U+0141
15050 % U+0152 LATIN CAPITAL LIGATURE OE; OE
15051 \DeclareTextCommand{\OE}{PD1}{\226}% U+0152
15052 % U+0160 LATIN CAPITAL LETTER S WITH CARON; Scaron
15053 \DeclareTextCompositeCommand{\v}{PD1}{S}{\227}% U+0160

15054 % U+0178 LATIN CAPITAL LETTER Y WITH DIAERESIS; Ydieresis
15055 \DeclareTextCompositeCommand{"Y}{PD1}{\Y}{\230}% U+0178
15056 \DeclareTextCommand{\IJ}{PD1}{\230}
15057 % U+017D LATIN CAPITAL LETTER Z WITH CARON; Zcaron
15058 \DeclareTextCompositeCommand{\v}{PD1}{Z}{\231}% U+017D
15059 % U+0131 LATIN SMALL LETTER DOTLESS I; dotlessi
15060 \DeclareTextCommand{\i}{PD1}{\232}% U+0131
15061 % U+0142 LATIN SMALL LETTER L WITH STROKE; lslash
15062 \DeclareTextCommand{\l}{PD1}{\233}% U+0142
15063 % U+0153 LATIN SMALL LIGATURE OE; oe
15064 \DeclareTextCommand{\oe}{PD1}{\234}% U+0153
15065 % U+0161 LATIN SMALL LETTER S WITH CARON; scaron
15066 \DeclareTextCompositeCommand{\v}{PD1}{s}{\235}% U+0161
15067 % U+017E LATIN SMALL LETTER Z WITH CARON; zcaron
15068 \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.

15069 % U+20AC EURO SIGN; *Euro, euro
15070 \DeclareTextCommand{\texteuro}{PD1}{\240}% U+20AC
15071 % U+00A1 INVERTED EXCLAMATION MARK; exclamdown
15072 \DeclareTextCommand{\textexclamdown}{PD1}{\241}% U+00A1
15073 % U+00A2 CENT SIGN; cent
15074 \DeclareTextCommand{\textcent}{PD1}{\242}% U+00A2
15075 % U+00A3 POUND SIGN; sterling
15076 \DeclareTextCommand{\textsterling}{PD1}{\243}% U+00A3
15077 % U+00A4 CURRENCY SIGN; currency
15078 \DeclareTextCommand{\textcurrency}{PD1}{\244}% U+00A4
15079 % U+00A5 YEN SIGN; yen
15080 \DeclareTextCommand{\textyen}{PD1}{\245}% U+00A5
15081 % U+00A6 BROKEN BAR; brokenbar
15082 \DeclareTextCommand{\textbrokenbar}{PD1}{\246}% U+00A6
15083 % U+00A7 SECTION SIGN; section
15084 \DeclareTextCommand{\textsection}{PD1}{\247}% U+00A7
15085 % U+00A8 DIAERESIS; dieresis
15086 \DeclareTextCommand{\textasciidieresis}{PD1}{\250}% U+00A8
15087 % U+00A9 COPYRIGHT SIGN; copyright
15088 \DeclareTextCommand{\textcopyright}{PD1}{\251}% U+00A9
15089 % U+00AA FEMININE ORDINAL INDICATOR; ordfeminine
15090 \DeclareTextCommand{\textordfeminine}{PD1}{\252}% U+00AA
15091 % U+00AB LEFT-POINTING DOUBLE ANGLE QUOTATION MARK; guille-
motleft
15092 \DeclareTextCommand{\guillemotleft}{PD1}{\253}% U+00AB
15093 % U+00AC NOT SIGN; logicalnot
15094 \DeclareTextCommand{\textlogicalnot}{PD1}{\254}% U+00AC
15095 \DeclareTextCommand{\textlnot}{PD1}{\254}% logical not

No glyph \255 in PDFDocEncoding.

15096 % U+00AE REGISTERED SIGN; registered
15097 \DeclareTextCommand{\textregistered}{PD1}{\256}% U+00AE
15098 % U+00AF MACRON; *macron, overscore
15099 \DeclareTextCommand{\textasciimacron}{PD1}{\257}% U+00AF
15100 % U+00B0 DEGREE SIGN; degree
15101 \DeclareTextCommand{\textdegree}{PD1}{\260}% U+00B0
15102 % U+00B1 PLUS-MINUS SIGN; plusminus
15103 \DeclareTextCommand{\textplusminus}{PD1}{\261}% U+00B1
15104 % U+00B2 SUPERSCRIPT TWO; twosuperior
15105 \DeclareTextCommand{\texttwosuperior}{PD1}{\262}%* U+00B2
15106 % U+00B3 SUPERSCRIPT THREE; threesuperior

15107 \DeclareTextCommand{\textthreesuperior}{PD1}{\263}%* U+00B3
15108 % U+00B4 ACUTE ACCENT; acute
15109 \DeclareTextCommand{\textacute}{PD1}{\264}% U+00B4
15110 % U+00B5 MICRO SIGN; mu, mul
15111 \DeclareTextCommand{\textmu}{PD1}{\265}% U+00B5
15112 % U+00B6 PILCROW SIGN; paragraph
15113 \DeclareTextCommand{\textparagraph}{PD1}{\266}% U+00B6
15114 % U+00B7 MIDDLE DOT; middot, *periodcentered
15115 \DeclareTextCommand{\textperiodcentered}{PD1}{\267}% U+00B7
15116 % U+00B8 CEDILLA; cedilla
15117 \DeclareTextCommand{\textcedilla}{PD1}{\270}% U+00B8
15118 % U+00B9 SUPERSCRIPT ONE; onesuperior
15119 \DeclareTextCommand{\textonesuperior}{PD1}{\271}%* U+00B9
15120 % U+00BA MASCULINE ORDINAL INDICATOR; ordmasculine
15121 \DeclareTextCommand{\textordmasculine}{PD1}{\272}% U+00BA
15122 % U+00BB RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK; guille-
motright
15123 \DeclareTextCommand{\guillemotright}{PD1}{\273}% U+00BB
15124 % U+00BC VULGAR FRACTION ONE QUARTER; onequarter
15125 \DeclareTextCommand{\textonequarter}{PD1}{\274}% U+00BC
15126 % U+00BD VULGAR FRACTION ONE HALF; onehalf
15127 \DeclareTextCommand{\textonehalf}{PD1}{\275}% U+00BD
15128 % U+00BE VULGAR FRACTION THREE QUARTERS; threequarters
15129 \DeclareTextCommand{\textthreequarters}{PD1}{\276}% U+00BE
15130 % U+00BF INVERTED QUESTION MARK; questiondown
15131 \DeclareTextCommand{\textquestiondown}{PD1}{\277}% U+00BF
15132 % U+00C0 LATIN CAPITAL LETTER A WITH GRAVE; Agrave
15133 \DeclareTextCompositeCommand{\`}{PD1}{A}{\300}% U+00C0
15134 % U+00C1 LATIN CAPITAL LETTER A WITH ACUTE; Aacute
15135 \DeclareTextCompositeCommand{\'}{PD1}{A}{\301}% U+00C1
15136 % U+00C2 LATIN CAPITAL LETTER A WITH CIRCUMFLEX; Acircumflex
15137 \DeclareTextCompositeCommand{\^}{PD1}{A}{\302}% U+00C2
15138 % U+00C3 LATIN CAPITAL LETTER A WITH TILDE; Atilde
15139 \DeclareTextCompositeCommand{\~}{PD1}{A}{\303}% U+00C3
15140 % U+00C4 LATIN CAPITAL LETTER A WITH DIAERESIS; Adieresis
15141 \DeclareTextCompositeCommand{\\"}{PD1}{A}{\304}% U+00C4
15142 % U+00C5 LATIN CAPITAL LETTER A WITH RING ABOVE; Aring
15143 \DeclareTextCompositeCommand{\r}{PD1}{A}{\305}% U+00C5
15144 % U+00C6 LATIN CAPITAL LETTER AE; AE
15145 \DeclareTextCommand{\AE}{PD1}{\306}% U+00C6
15146 % U+00C7 LATIN CAPITAL LETTER C WITH CEDILLA; Ccedilla
15147 \DeclareTextCompositeCommand{\c}{PD1}{C}{\307}% U+00C7
15148 % U+00C8 LATIN CAPITAL LETTER E WITH GRAVE; Egrave
15149 \DeclareTextCompositeCommand{\`}{PD1}{E}{\310}% U+00C8
15150 % U+00C9 LATIN CAPITAL LETTER E WITH ACUTE; Eacute
15151 \DeclareTextCompositeCommand{\'}{PD1}{E}{\311}% U+00C9
15152 % U+00CA LATIN CAPITAL LETTER E WITH CIRCUMFLEX; Ecircumflex
15153 \DeclareTextCompositeCommand{\^}{PD1}{E}{\312}% U+00CA
15154 % U+00CB LATIN CAPITAL LETTER E WITH DIAERESIS; Edieresis
15155 \DeclareTextCompositeCommand{\\"}{PD1}{E}{\313}% U+00CB
15156 % U+00CC LATIN CAPITAL LETTER I WITH GRAVE; Igrave
15157 \DeclareTextCompositeCommand{\`}{PD1}{I}{\314}% U+00CC
15158 % U+00CD LATIN CAPITAL LETTER I WITH ACUTE; Iacute
15159 \DeclareTextCompositeCommand{\'}{PD1}{I}{\315}% U+00CD
15160 % U+00CE LATIN CAPITAL LETTER I WITH CIRCUMFLEX; Icircumflex
15161 \DeclareTextCompositeCommand{\^}{PD1}{I}{\316}% U+00CE
15162 % U+00CF LATIN CAPITAL LETTER I WITH DIAERESIS; Idieresis

15163 \DeclareTextCompositeCommand{"}{PD1}{I}{\317}% U+00CF
15164 % U+00D0 LATIN CAPITAL LETTER ETH; Eth
15165 \DeclareTextCommand{\DH}{PD1}{\320}% U+00D0
15166 \DeclareTextCommand{\DJ}{PD1}{\320}% U+00D0
15167 % U+00D1 LATIN CAPITAL LETTER N WITH TILDE; Ntilde
15168 \DeclareTextCompositeCommand{~}{PD1}{N}{\321}% U+00D1
15169 % U+00D2 LATIN CAPITAL LETTER O WITH GRAVE; Ograve
15170 \DeclareTextCompositeCommand{'}{PD1}{O}{\322}% U+00D2
15171 % U+00D3 LATIN CAPITAL LETTER O WITH ACUTE; Oacute
15172 \DeclareTextCompositeCommand{'}{PD1}{O}{\323}% U+00D3
15173 % U+00D4 LATIN CAPITAL LETTER O WITH CIRCUMFLEX; Ocircumflex
15174 \DeclareTextCompositeCommand{^}{PD1}{O}{\324}% U+00D4
15175 % U+00D5 LATIN CAPITAL LETTER O WITH TILDE; Otilde
15176 \DeclareTextCompositeCommand{~}{PD1}{O}{\325}% U+00D5
15177 % U+00D6 LATIN CAPITAL LETTER O WITH DIAERESIS; Odieresis
15178 \DeclareTextCompositeCommand{"}{PD1}{O}{\326}% U+00D6
15179 % U+00D7 MULTIPLICATION SIGN; multiply
15180 \DeclareTextCommand{\textmultiply}{PD1}{\327}% U+00D7
15181 % U+00D8 LATIN CAPITAL LETTER O WITH STROKE; Oslash
15182 \DeclareTextCommand{\O}{PD1}{\330}% U+00D8
15183 % U+00D9 LATIN CAPITAL LETTER U WITH GRAVE; Ugrave
15184 \DeclareTextCompositeCommand{'}{PD1}{U}{\331}% U+00D9
15185 % U+00DA LATIN CAPITAL LETTER U WITH ACUTE; Uacute
15186 \DeclareTextCompositeCommand{'}{PD1}{U}{\332}% U+00DA
15187 % U+00DB LATIN CAPITAL LETTER U WITH CIRCUMFLEX; Ucircumflex
15188 \DeclareTextCompositeCommand{^}{PD1}{U}{\333}% U+00DB
15189 % U+00DC LATIN CAPITAL LETTER U WITH DIAERESIS; Udieresis
15190 \DeclareTextCompositeCommand{"}{PD1}{U}{\334}% U+00DC
15191 % U+00DD LATIN CAPITAL LETTER Y WITH ACUTE; Yacute
15192 \DeclareTextCompositeCommand{'}{PD1}{Y}{\335}% U+00DD
15193 % U+00DE LATIN CAPITAL LETTER THORN; Thorn; \TH, \Thorn (wasysym)
15194 \DeclareTextCommand{\TH}{PD1}{\336}% U+00DE
15195 \DeclareTextCommand{\textThorn}{PD1}{\336}%* U+00DE
15196 % U+00DF LATIN SMALL LETTER SHARP S; germandbls
15197 \DeclareTextCommand{\ss}{PD1}{\337}% U+00DF
15198 % U+00E0 LATIN SMALL LETTER A WITH GRAVE; agrave
15199 \DeclareTextCompositeCommand{'}{PD1}{a}{\340}% U+00E0
15200 % U+00E1 LATIN SMALL LETTER A WITH ACUTE; aacute
15201 \DeclareTextCompositeCommand{'}{PD1}{a}{\341}% U+00E1
15202 % U+00E2 LATIN SMALL LETTER A WITH CIRCUMFLEX; acircumflex
15203 \DeclareTextCompositeCommand{^}{PD1}{a}{\342}% U+00E2
15204 % U+00E3 LATIN SMALL LETTER A WITH TILDE; atilde
15205 \DeclareTextCompositeCommand{~}{PD1}{a}{\343}% U+00E3
15206 % U+00E4 LATIN SMALL LETTER A WITH DIAERESIS; adieresis
15207 \DeclareTextCompositeCommand{"}{PD1}{a}{\344}% U+00E4
15208 % U+00E5 LATIN SMALL LETTER A WITH RING ABOVE; aring
15209 \DeclareTextCompositeCommand{\r}{PD1}{a}{\345}% U+00E5
15210 % U+00E6 LATIN SMALL LETTER AE; ae
15211 \DeclareTextCommand{\ae}{PD1}{\346}% U+00E6
15212 % U+00E7 LATIN SMALL LETTER C WITH CEDILLA; ccedilla
15213 \DeclareTextCompositeCommand{\c}{PD1}{c}{\347}% U+00E7
15214 % U+00E8 LATIN SMALL LETTER E WITH GRAVE; egrave
15215 \DeclareTextCompositeCommand{'}{PD1}{e}{\350}% U+00E8
15216 % U+00E9 LATIN SMALL LETTER E WITH ACUTE; eacute
15217 \DeclareTextCompositeCommand{'}{PD1}{e}{\351}% U+00E9
15218 % U+00EA LATIN SMALL LETTER E WITH CIRCUMFLEX; ecircumflex
15219 \DeclareTextCompositeCommand{^}{PD1}{e}{\352}% U+00EA

15220 % U+00EB LATIN SMALL LETTER E WITH DIAERESIS; edieresis
15221 \DeclareTextCompositeCommand{"}{PD1}{e}{\353}% U+00EB
15222 % U+00EC LATIN SMALL LETTER I WITH GRAVE; igrave
15223 \DeclareTextCompositeCommand{"}{PD1}{i}{\354}% U+00EC
15224 \DeclareTextCompositeCommand{"}{PD1}{i}{\354}% U+00EC
15225 % U+00ED LATIN SMALL LETTER I WITH ACUTE; iacute
15226 \DeclareTextCompositeCommand{"}{PD1}{i}{\355}% U+00ED
15227 \DeclareTextCompositeCommand{"}{PD1}{i}{\355}% U+00ED
15228 % U+00EE LATIN SMALL LETTER I WITH CIRCUMFLEX; icircumflex
15229 \DeclareTextCompositeCommand{"}{PD1}{i}{\356}% U+00EE
15230 \DeclareTextCompositeCommand{"}{PD1}{i}{\356}% U+00EE
15231 % U+00EF LATIN SMALL LETTER I WITH DIAERESIS; idieresis
15232 \DeclareTextCompositeCommand{"}{PD1}{i}{\357}% U+00EF
15233 \DeclareTextCompositeCommand{"}{PD1}{i}{\357}% U+00EF
15234 % U+00F0 LATIN SMALL LETTER ETH; eth
15235 \DeclareTextCommand{\dh}{PD1}{\360}% U+00F0
15236 % U+00F1 LATIN SMALL LETTER N WITH TILDE; ntilde
15237 \DeclareTextCompositeCommand{"}{PD1}{n}{\361}% U+00F1
15238 % U+00F2 LATIN SMALL LETTER O WITH GRAVE; ograve
15239 \DeclareTextCompositeCommand{"}{PD1}{o}{\362}% U+00F2
15240 % U+00F3 LATIN SMALL LETTER O WITH ACUTE; oacute
15241 \DeclareTextCompositeCommand{"}{PD1}{o}{\363}% U+00F3
15242 % U+00F4 LATIN SMALL LETTER O WITH CIRCUMFLEX; ocircumflex
15243 \DeclareTextCompositeCommand{"}{PD1}{o}{\364}% U+00F4
15244 % U+00F5 LATIN SMALL LETTER O WITH TILDE; otile
15245 \DeclareTextCompositeCommand{"}{PD1}{o}{\365}% U+00F5
15246 % U+00F6 LATIN SMALL LETTER O WITH DIAERESIS; odieresis
15247 \DeclareTextCompositeCommand{"}{PD1}{o}{\366}% U+00F6
15248 % U+00F7 DIVISION SIGN; divide
15249 \DeclareTextCommand{\textdivide}{PD1}{\367}% U+00F7
15250 % U+00F8 LATIN SMALL LETTER O WITH STROKE; oslash
15251 \DeclareTextCommand{\o}{PD1}{\370}% U+00F8
15252 % U+00F9 LATIN SMALL LETTER U WITH GRAVE; ugrave
15253 \DeclareTextCompositeCommand{"}{PD1}{u}{\371}% U+00F9
15254 % U+00FA LATIN SMALL LETTER U WITH ACUTE; uacute
15255 \DeclareTextCompositeCommand{"}{PD1}{u}{\372}% U+00FA
15256 % U+00FB LATIN SMALL LETTER U WITH CIRCUMFLEX; ucircumflex
15257 \DeclareTextCompositeCommand{"}{PD1}{u}{\373}% U+00FB
15258 % U+00FC LATIN SMALL LETTER U WITH DIAERESIS; udieresis
15259 \DeclareTextCompositeCommand{"}{PD1}{u}{\374}% U+00FC
15260 % U+00FD LATIN SMALL LETTER Y WITH ACUTE; yacute
15261 \DeclareTextCompositeCommand{"}{PD1}{y}{\375}% U+00FD
15262 % U+00FE LATIN SMALL LETTER THORN; thorn; \th, \thorn (wasysym)
15263 \DeclareTextCommand{\th}{PD1}{\376}% U+00FE
15264 \DeclareTextCommand{\textthorn}{PD1}{\376}%* U+00FE
15265 % U+00FF LATIN SMALL LETTER Y WITH DIAERESIS; ydieresis
15266 \DeclareTextCompositeCommand{"}{PD1}{y}{\377}% U+00FF
15267 \DeclareTextCommand{\ij}{PD1}{\377}% U+00FF

Glyphs that consist of several characters.

15268 \DeclareTextCommand{\SS}{PD1}{SS}
15269 \DeclareTextCommand{\textcelsius}{PD1}{\textdegree C}

Aliases (german.sty)

15270 \DeclareTextCommand{\textglqq}{PD1}{\quotedblbase}
15271 \DeclareTextCommand{\textgrqq}{PD1}{\textquotedblleft}
15272 \DeclareTextCommand{\textglq}{PD1}{\quotesinglbase}
15273 \DeclareTextCommand{\textgrq}{PD1}{\textquoteleft}
15274 \DeclareTextCommand{\textflqq}{PD1}{\guillemotleft}

```

15275 \DeclareTextCommand{\textfrqq}{PD1}{\guillemotright}
15276 \DeclareTextCommand{\textflq}{PD1}{\guilsinglleft}
15277 \DeclareTextCommand{\textfrq}{PD1}{\guilsinglright}

Aliases (math names)
15278 \DeclareTextCommand{\textneg}{PD1}{\textlogicalnot}
15279 \DeclareTextCommand{\texttimes}{PD1}{\textmultiply}
15280 \DeclareTextCommand{\textdiv}{PD1}{\textdivide}
15281 \DeclareTextCommand{\textpm}{PD1}{\textplusminus}
15282 \DeclareTextCommand{\textcdot}{PD1}{\textperiodcentered}
15283 \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).

```

15284 \DeclareTextCompositeCommand{\k}{PD1}{a}{a}% aogonek
15285 \DeclareTextCompositeCommand{\'}{PD1}{c}{c}% cacute
15286 \DeclareTextCompositeCommand{\k}{PD1}{e}{e}% eogonek
15287 \DeclareTextCompositeCommand{\'}{PD1}{n}{n}% nacute
15288 \DeclareTextCompositeCommand{\'}{PD1}{s}{s}% sacute
15289 \DeclareTextCompositeCommand{\'}{PD1}{z}{z}% zacute
15290 \DeclareTextCompositeCommand{\.}{PD1}{z}{z}% zdot

15291 \DeclareTextCompositeCommand{\k}{PD1}{A}{A}% Aogonek
15292 \DeclareTextCompositeCommand{\'}{PD1}{C}{C}% Cacute
15293 \DeclareTextCompositeCommand{\k}{PD1}{E}{E}% Eogonek
15294 \DeclareTextCompositeCommand{\'}{PD1}{N}{N}% Nacute
15295 \DeclareTextCompositeCommand{\'}{PD1}{S}{S}% Sacute
15296 \DeclareTextCompositeCommand{\'}{PD1}{Z}{Z}% Zacute
15297 \DeclareTextCompositeCommand{\.}{PD1}{Z}{Z}% Zdot

15298 </pd1enc>

```

51.2 PU encoding

```

15299 <*puenc>
15300 \DeclareFontEncoding{PU}{-}{-}

```

51.2.1 NFSS2 accents

```

15301 % U+0300 COMBINING GRAVE ACCENT; gravecmb, *gravecomb
15302 \DeclareTextCommand{\`}{PU}[1]{#1\83\000}% U+0300
15303 % U+0301 COMBINING ACUTE ACCENT; acutecmb, *acutecomb
15304 \DeclareTextCommand{\'}{PU}[1]{#1\83\001}% U+0301
15305 % U+0302 COMBINING CIRCUMFLEX ACCENT; circumflexcmb
15306 \DeclareTextCommand{\^}{PU}[1]{#1\83\002}% U+0302
15307 % U+0303 COMBINING TILDE; tildecmb, *tildecomb
15308 \DeclareTextCommand{\~}{PU}[1]{#1\83\003}% U+0303
15309 % U+0304 COMBINING MACRON; macroncmb
15310 \DeclareTextCommand{\=}{PU}[1]{#1\83\004}% U+0304
15311 % U+0306 COMBINING BREVE; brevecmb
15312 \DeclareTextCommand{\u}{PU}[1]{#1\83\006}% U+0306
15313 \DeclareTextCommand{\U}{PU}[1]{#1\83\006}% U+0306
15314 % U+0307 COMBINING DOT ABOVE; dotaccentcmb
15315 \DeclareTextCommand{\.}{PU}[1]{#1\83\007}% U+0307
15316 % U+0308 COMBINING DIAERESIS; dieresiscmb
15317 \DeclareTextCommand{\"}{PU}[1]{#1\83\010}% U+0308
15318 % U+030A COMBINING RING ABOVE; ringcmb
15319 \DeclareTextCommand{\r}{PU}[1]{#1\83\012}% U+030A
15320 % U+030B COMBINING DOUBLE ACUTE ACCENT; hungarumlautcmb
15321 \DeclareTextCommand{\H}{PU}[1]{#1\83\013}% U+030B
15322 % U+030C COMBINING CARON; caroncmb

```

```

15323 \DeclareTextCommand{\v}{PU}[1]{#1\83\014}% U+030C
15324 % U+030F COMBINING DOUBLE GRAVE ACCENT; dblgravecmb
15325 \DeclareTextCommand{\G}{PU}[1]{#1\83\017}% U+030F
15326 \DeclareTextCommand{\C}{PU}[1]{#1\83\017}% U+030F
15327 % U+0311 COMBINING INVERTED BREVE; breveinvertedcmb
15328 \DeclareTextCommand{\textinvbreve}{PU}[1]{#1\83\021}% U+0311
15329 % U+0323 COMBINING DOT BELOW; dotbelowcmb, *dotbelowcomb
15330 \DeclareTextCommand{\d}{PU}[1]{#1\83\043}% U+0323
15331 % U+0324 COMBINING DIAERESIS BELOW; dieresisbelowcmb; \textsubum-
    laut (tipa)
15332 \DeclareTextCommand{\textsubumlaut}{PU}[1]{#1\83\044}% U+0324
15333 % U+0325 COMBINING RING BELOW; ringbelowcmb; \textsubring (tipa)
15334 \DeclareTextCommand{\textsubring}{PU}[1]{#1\83\045}% U+0325
15335 % U+0327 COMBINING CEDILLA; cedillacmb
15336 \DeclareTextCommand{\c}{PU}[1]{#1\83\047}% U+0327
15337 % U+0328 COMBINING OGONEK; ogonekcmb
15338 \DeclareTextCommand{\k}{PU}[1]{#1\83\050}% U+0328
15339 % U+032D COMBINING CIRCUMFLEX ACCENT BELOW;
15340 % \textsubcircum (tipa)
15341 \DeclareTextCommand{\textsubcircum}{PU}[1]{#1\83\055}% U+032D
15342 % U+032E COMBINING BREVE BELOW; brevebelowcmb
15343 \DeclareTextCommand{\textsubbreve}{PU}[1]{#1\83\056}% U+032E
15344 % U+0330 COMBINING TILDE BELOW; tildebelowcmb; \textsubtilde (tipa)
15345 \DeclareTextCommand{\textsubtilde}{PU}[1]{#1\83\060}% U+0330
15346 % U+0331 COMBINING MACRON BELOW; macronbelowcmb
15347 \DeclareTextCommand{\b}{PU}[1]{#1\83\061}% U+0331
15348 % U+0361 COMBINING DOUBLE INVERTED BREVE; breveinverteddou-
    blecmb
15349 \DeclareTextCommand{\t}{PU}[1]{#1\83\141}% U+0361
15350 % U+20DD COMBINING ENCLOSING CIRCLE
15351 \DeclareTextCommand{\textcircled}{PU}[1]{#1\9040\335}% U+20DD

```

Double accents.

```

15352 \DeclareTextCommand{\textacutemacron}{PU}[1]{#1\83\001\83\004}
15353 \DeclareTextCommand{\textgravemacron}{PU}[1]{#1\83\000\83\004}

```

`\@empty` is an artefact of the NFSS2 machinery, it gets inserted for empty arguments and spaces.

```

15354 \DeclareTextCompositeCommand{\'}{PU}{\@empty}{\textasciigrave}
15355 \DeclareTextCompositeCommand{\`}{PU}{\@empty}{\textacute}
15356 \DeclareTextCompositeCommand{\^}{PU}{\@empty}{\textasciicircum}
15357 \DeclareTextCompositeCommand{\~}{PU}{\@empty}{\texttilde}
15358 \DeclareTextCompositeCommand{\"}{PU}{\@empty}{\textasciidieresis}
15359 \DeclareTextCompositeCommand{\r}{PU}{\@empty}{\textstring}
15360 \DeclareTextCompositeCommand{\v}{PU}{\@empty}{\textasciicaron}
15361 \DeclareTextCompositeCommand{\.}{PU}{\@empty}{\textdotaccent}
15362 \DeclareTextCompositeCommand{\c}{PU}{\@empty}{\textcedilla}
15363 \DeclareTextCompositeCommand{\u}{PU}{\@empty}{\textasciibreve}
15364 \DeclareTextCompositeCommand{\G}{PU}{\@empty}{\textdoublegrave}
15365 \DeclareTextCompositeCommand{\=}{PU}{\@empty}{\textasciimacron}
15366 \DeclareTextCompositeCommand{\H}{PU}{\@empty}{\texthungarumlaut}
15367 \DeclareTextCompositeCommand{\k}{PU}{\@empty}{\textogonek}
15368 \DeclareTextCompositeCommand{\textinvbreve}{PU}{\@empty}{\83\021}
15369 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{\@empty}{\83\044}
15370 \DeclareTextCompositeCommand{\textsubring}{PU}{\@empty}{\textringlow}
15371 \DeclareTextCompositeCommand{\textsubcircum}{PU}{\@empty}{\textcircum-
    low}
15372 \DeclareTextCompositeCommand{\textsubbreve}{PU}{\@empty}{\83\056}
15373 \DeclareTextCompositeCommand{\textsubtilde}{PU}{\@empty}{\texttildebelow}

```

```

15374 \DeclareTextCompositeCommand{\b}{PU}{\@empty}{\textmacronbelow}
15375 \DeclareTextCompositeCommand{\d}{PU}{\@empty}{\textdotbelow}
15376 \DeclareTextCompositeCommand{\t}{PU}{\@empty}{\texttie}
15377 \DeclareTextCompositeCommand{\newtie}{PU}{\@empty}{\textnewtie}
15378 \DeclareTextCompositeCommand{\textcircled}{PU}{\@empty}{\textbigcircle}
15379 \DeclareTextCompositeCommand{\textacutemacron}{PU}{\@empty}{\83\001\83\004}}
15380 \DeclareTextCompositeCommand{\textgravemacron}{PU}{\@empty}{\83\000\83\004}}
15381 \DeclareTextCompositeCommand{\'}{PU}{\ }{\textasciigrave}
15382 \DeclareTextCompositeCommand{\'}{PU}{\ }{\textacute}
15383 \DeclareTextCompositeCommand{\^}{PU}{\ }{\textasciicircum}
15384 \DeclareTextCompositeCommand{\~}{PU}{\ }{\texttilde}
15385 \DeclareTextCompositeCommand{\"}{PU}{\ }{\textasciidieresis}
15386 \DeclareTextCompositeCommand{\r}{PU}{\ }{\textring}
15387 \DeclareTextCompositeCommand{\v}{PU}{\ }{\textasciicaron}
15388 \DeclareTextCompositeCommand{\.}{PU}{\ }{\textdotaccent}
15389 \DeclareTextCompositeCommand{\c}{PU}{\ }{\textcedilla}
15390 \DeclareTextCompositeCommand{\u}{PU}{\ }{\textasciibreve}
15391 \DeclareTextCompositeCommand{\G}{PU}{\ }{\textdoublegrave}
15392 \DeclareTextCompositeCommand{\=}{PU}{\ }{\textasciimacron}
15393 \DeclareTextCompositeCommand{\H}{PU}{\ }{\texthungarumlaut}
15394 \DeclareTextCompositeCommand{\k}{PU}{\ }{\textogonek}
15395 \DeclareTextCompositeCommand{\textinvbreve}{PU}{\ }{\83\021}}
15396 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{\ }{\83\044}}
15397 \DeclareTextCompositeCommand{\textsubring}{PU}{\ }{\textringlow}
15398 \DeclareTextCompositeCommand{\textsubcircum}{PU}{\ }{\textcircumlow}
15399 \DeclareTextCompositeCommand{\textsubbreve}{PU}{\ }{\83\056}}
15400 \DeclareTextCompositeCommand{\textsubtilde}{PU}{\ }{\texttildelow}
15401 \DeclareTextCompositeCommand{\b}{PU}{\ }{\textmacronbelow}
15402 \DeclareTextCompositeCommand{\d}{PU}{\ }{\textdotbelow}
15403 \DeclareTextCompositeCommand{\t}{PU}{\ }{\texttie}
15404 \DeclareTextCompositeCommand{\newtie}{PU}{\ }{\textnewtie}
15405 \DeclareTextCompositeCommand{\textcircled}{PU}{\ }{\textbigcircle}
15406 \DeclareTextCompositeCommand{\textacutemacron}{PU}{\ }{\83\001\83\004}}
15407 \DeclareTextCompositeCommand{\textgravemacron}{PU}{\ }{\83\000\83\004}}

```

Accents for capitals (see encoding TS1)

```

15408 \DeclareTextCommand{\capitalcedilla}{PU}[1]{\c{#1}}
15409 \DeclareTextCommand{\capitalogonek}{PU}[1]{\k{#1}}
15410 \DeclareTextCommand{\capitalgrave}{PU}[1]{\`{#1}}
15411 \DeclareTextCommand{\capitalacute}{PU}[1]{\'{#1}}
15412 \DeclareTextCommand{\capitalcircumflex}{PU}[1]{\^{#1}}
15413 \DeclareTextCommand{\capitaltilde}{PU}[1]{\~{#1}}
15414 \DeclareTextCommand{\capitaldieresis}{PU}[1]{\">{#1}}
15415 \DeclareTextCommand{\capitalhungarumlaut}{PU}[1]{\H{#1}}
15416 \DeclareTextCommand{\capitalring}{PU}[1]{\r{#1}}
15417 \DeclareTextCommand{\capitalcaron}{PU}[1]{\v{#1}}
15418 \DeclareTextCommand{\capitalbreve}{PU}[1]{\u{#1}}
15419 \DeclareTextCommand{\capitalmacron}{PU}[1]{\={#1}}
15420 \DeclareTextCommand{\capitaldotaccent}{PU}[1]{\.{#1}}
15421 \DeclareTextCommand{\capitaltie}{PU}[1]{\t{#1}}
15422 \DeclareTextCommand{\capitalnewtie}{PU}[1]{\newtie{#1}}

```

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

Special white space escape characters.

```

15423 % U+0009 (CHARACTER TABULATION)
15424 \DeclareTextCommand{\textHT}{PU}{\80\011}% U+0009
15425 % U+000A (LINE FEED)

```

15426 \DeclareTextCommand{\textLF}{PU}{\80\012}% U+000A
 15427 % U+000D (CARRIAGE RETURN)
 15428 \DeclareTextCommand{\textCR}{PU}{\80\015}% U+000D
 \80\040: U+0020 SPACE; space, spacehackarabic
 \80\041: U+0021 EXCLAMATION MARK; exclam
 15429 % U+0022 QUOTATION MARK; quotedbl
 15430 \DeclareTextCommand{\textquotedbl}{PU}{\string"}% \80\042 U+0022
 15431 % U+0023 NUMBER SIGN; numbersign
 15432 \DeclareTextCommand{\textnumbersign}{PU}{\80\043}% U+0023
 15433 % U+0024 DOLLAR SIGN; dollar
 15434 \DeclareTextCommand{\textdollar}{PU}{\80\044}% U+0024
 15435 %* \textdollar -> \mathdollar
 15436 %* \textdollar -> \EyesDollar (marvosym)
 15437 % U+0025 PERCENT SIGN; percent
 15438 \DeclareTextCommand{\textpercent}{PU}{\80\045}% U+0025
 15439 % U+0026 AMPERSAND; ampersand
 15440 \DeclareTextCommand{\textampersand}{PU}{\80\046}% U+0026
 15441 %* \textampersand -> \binampersand (stmaryrd)
 15442 %* \textampersand -> \with (cml)
 15443 % U+0027 APOSTROPHE; quotesingle
 15444 \DeclareTextCommand{\textquotesingle}{PU}{\80\047}% U+0027
 15445 % U+0028 LEFT PARENTHESIS; parenleft
 15446 \DeclareTextCommand{\textparenleft}{PU}{\80\050}% U+0028
 15447 % U+0029 RIGHT PARENTHESIS; parenright
 15448 \DeclareTextCommand{\textparenright}{PU}{\80\051}% U+0029
 15449 % U+002A ASTERISK; asterisk
 15450 \DeclareTextCommand{\textasteriskcentered}{PU}{\80\052}% U+002A (?)
 15451 % U+002B PLUS SIGN; plus; \MVPlus (marvosym)
 15452 \DeclareTextCommand{\textMVPlus}{PU}{\80\053}%* U+002B
 15453 % U+002C COMMA; comma; \MVComma (marvosym)
 15454 \DeclareTextCommand{\textMVComma}{PU}{\80\054}%* U+002C
 15455 % U+002D HYPHEN-MINUS; hyphen; \MVMinus (marvosym)
 15456 \DeclareTextCommand{\textMVMinus}{PU}{\80\055}%* U+002D
 15457 % U+002E FULL STOP; period; \MVPeriod (marvosym)
 15458 \DeclareTextCommand{\textMVPeriod}{PU}{\80\056}%* U+002E
 15459 % U+002F SOLIDUS; slash; \MVDivision (marvosym)
 15460 \DeclareTextCommand{\textMVDivision}{PU}{\80\057}%* U+002F
 15461 % U+0030 DIGIT ZERO; zero; \MVZero (marvosym)
 15462 \DeclareTextCommand{\textMVZero}{PU}{\80\060}%* U+0030
 15463 % U+0031 DIGIT ONE; one; \MVOne (marvosym)
 15464 \DeclareTextCommand{\textMVOne}{PU}{\80\061}%* U+0031
 15465 % U+0032 DIGIT TWO; two; \MVTwo (marvosym)
 15466 \DeclareTextCommand{\textMVTwo}{PU}{\80\062}%* U+0032
 15467 % U+0033 DIGIT THREE; three; \MVThree (marvosym)
 15468 \DeclareTextCommand{\textMVThree}{PU}{\80\063}%* U+0033
 15469 % U+0034 DIGIT FOUR; four; \MVFfour (marvosym)
 15470 \DeclareTextCommand{\textMVFfour}{PU}{\80\064}%* U+0034
 15471 % U+0035 DIGIT FIVE; five; \MVFfive (marvosym)
 15472 \DeclareTextCommand{\textMVFfive}{PU}{\80\065}%* U+0035
 15473 % U+0036 DIGIT SIX; six; \MVSix (marvosym)
 15474 \DeclareTextCommand{\textMVSix}{PU}{\80\066}%* U+0036
 15475 % U+0037 DIGIT SEVEN; seven; \MVSeven (marvosym)
 15476 \DeclareTextCommand{\textMVSeven}{PU}{\80\067}%* U+0037
 15477 % U+0038 DIGIT EIGHT; eight; \MVEight (marvosym)
 15478 \DeclareTextCommand{\textMVEight}{PU}{\80\070}%* U+0038
 15479 % U+0039 DIGIT NINE; nine; \MVNine (marvosym)
 15480 \DeclareTextCommand{\textMVNine}{PU}{\80\071}%* U+0039

$\backslash 80\backslash 072$: U+003A COLON; colon
 $\backslash 80\backslash 073$: U+003B SEMICOLON; semicolon
15481 % U+003C LESS-THAN SIGN; less
15482 $\backslash \text{DeclareTextCommand}\{\backslash \text{textless}\}\{\text{PU}\}\{<\}\%$ $\backslash 80\backslash 074$ U+003C
 $\backslash 80\backslash 075$: U+003D EQUALS SIGN; equal
15483 % U+003E GREATER-THAN SIGN; greater
15484 $\backslash \text{DeclareTextCommand}\{\backslash \text{textgreater}\}\{\text{PU}\}\{>\}\%$ $\backslash 80\backslash 076$ U+003E
 $\backslash 80\backslash 077$: U+003F QUESTION MARK; question
15485 % U+0040 COMMERCIAL AT; at; $\backslash \text{MVAt}$ (marvosym)
15486 $\backslash \text{DeclareTextCommand}\{\backslash \text{textMVAt}\}\{\text{PU}\}\{\backslash 80\backslash 100\}\%*$ U+0040
 $\backslash 80\backslash 101$: U+0041 LATIN CAPITAL LETTER A; A
...
 $\backslash 80\backslash 132$: U+005A LATIN CAPITAL LETTER Z; Z
 $\backslash 80\backslash 133$: U+005B LEFT SQUARE BRACKET; bracketleft
15487 % U+005C REVERSE SOLIDUS; backslash
15488 $\backslash \text{DeclareTextCommand}\{\backslash \text{textbackslash}\}\{\text{PU}\}\{\backslash 80\backslash 134\}\%$ U+005C
 $\backslash 80\backslash 135$: U+005D RIGHT SQUARE BRACKET; bracketright
15489 % U+005E CIRCUMFLEX ACCENT; asciicircum
15490 $\backslash \text{DeclareTextCommand}\{\backslash \text{textasciicircum}\}\{\text{PU}\}\{\backslash 80\backslash 136\}\%$ U+005E
15491 % U+005F LOW LINE; underscore
15492 $\backslash \text{DeclareTextCommand}\{\backslash \text{textunderscore}\}\{\text{PU}\}\{\backslash 80\backslash 137\}\%$ U+005F
15493 %* $\backslash \text{textunderscore} \rightarrow \backslash \text{mathunderscore}$ (LaTeX)
15494 % U+0060 GRAVE ACCENT; grave
15495 $\backslash \text{DeclareTextCommand}\{\backslash \text{textasciigrave}\}\{\text{PU}\}\{\backslash 80\backslash 140\}\%$ U+0060
 $\backslash 80\backslash 141$: U+0061 LATIN SMALL LETTER A; a
...
 $\backslash 80\backslash 150$: U+0068 LATIN SMALL LETTER H; h
15496 % U+0069 LATIN SMALL LETTER I; i
15497 $\backslash \text{DeclareTextCompositeCommand}\{\backslash \cdot\}\{\text{PU}\}\{\text{i}\}\{\text{i}\}\%$ $\backslash 80\backslash 151$ U+0069
15498 $\backslash \text{DeclareTextCompositeCommand}\{\backslash \cdot\}\{\text{PU}\}\{\text{i}\}\{\text{i}\}\%$ $\backslash 80\backslash 151$ U+0069
 $\backslash 80\backslash 152$: U+006A LATIN SMALL LETTER J; j
...
 $\backslash 80\backslash 172$: U+007A LATIN SMALL LETTER Z; z
15499 % U+007B LEFT CURLY BRACKET; braceleft
15500 $\backslash \text{DeclareTextCommand}\{\backslash \text{textbraceleft}\}\{\text{PU}\}\{\backslash 80\backslash 173\}\%$ U+007B
15501 % U+007C VERTICAL LINE; *bar, verticalbar
15502 $\backslash \text{DeclareTextCommand}\{\backslash \text{textbar}\}\{\text{PU}\}\{\text{|}\}\%$ $\backslash 80\backslash 174$ U+007C
15503 %* $\backslash \text{textbar} \rightarrow \backslash \text{textvtrline}$ (tipa)
15504 % U+007D RIGHT CURLY BRACKET; braceright
15505 $\backslash \text{DeclareTextCommand}\{\backslash \text{textbraceright}\}\{\text{PU}\}\{\backslash 80\backslash 175\}\%$ U+007D
15506 % U+007E TILDE; asciitilde
15507 $\backslash \text{DeclareTextCommand}\{\backslash \text{textasciitilde}\}\{\text{PU}\}\{\backslash 80\backslash 176\}\%$ U+007E

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

$\backslash 80\backslash 240$: U+00A0 NO-BREAK SPACE; nbspace, nonbreakingspace
15508 % U+00A1 INVERTED EXCLAMATION MARK; exclamdown
15509 $\backslash \text{DeclareTextCommand}\{\backslash \text{textexclamdown}\}\{\text{PU}\}\{\backslash 80\backslash 241\}\%$ U+00A1
15510 % U+00A2 CENT SIGN; cent
15511 $\backslash \text{DeclareTextCommand}\{\backslash \text{textcent}\}\{\text{PU}\}\{\backslash 80\backslash 242\}\%$ U+00A2
15512 % U+00A3 POUND SIGN; sterling
15513 $\backslash \text{DeclareTextCommand}\{\backslash \text{textsterling}\}\{\text{PU}\}\{\backslash 80\backslash 243\}\%$ U+00A3
15514 %* $\backslash \text{textsterling} \rightarrow \backslash \text{mathsterling}$ (LaTeX)

15515 %* \textsterling -> \pounds (LaTeX)
15516 % U+00A4 CURRENCY SIGN; currency
15517 \DeclareTextCommand{\textcurrency}{PU}{\80\244}% U+00A4
15518 % U+00A5 YEN SIGN; yen
15519 \DeclareTextCommand{\textyen}{PU}{\80\245}% U+00A5
15520 % U+00A6 BROKEN BAR; brokenbar
15521 \DeclareTextCommand{\textbrokenbar}{PU}{\80\246}% U+00A6
15522 %* \textbrokenbar -> \brokenvert (wasysym)
15523 % U+00A7 SECTION SIGN; section
15524 \DeclareTextCommand{\textsection}{PU}{\80\247}% U+00A7
15525 %* \textsection -> \mathsection (LaTeX)
15526 %* \textsection -> \S (LaTeX)
15527 % U+00A8 DIAERESIS; dieresis
15528 \DeclareTextCommand{\textasciidieresis}{PU}{\80\250}% U+00A8
15529 % U+00A9 COPYRIGHT SIGN; copyright
15530 \DeclareTextCommand{\textcopyright}{PU}{\80\251}%* U+00A9
15531 % U+00AA FEMININE ORDINAL INDICATOR; ordfeminine
15532 \DeclareTextCommand{\textordfeminine}{PU}{\80\252}% U+00AA
15533 % U+00AB LEFT-POINTING DOUBLE ANGLE QUOTATION MARK; guillemotleft
15534 \DeclareTextCommand{\guillemotleft}{PU}{\80\253}% U+00AB
15535 % U+00AC NOT SIGN; logicalnot
15536 \DeclareTextCommand{\textlogicalnot}{PU}{\80\254}% U+00AC
15537 \DeclareTextCommand{\textlnot}{PU}{\80\254}% U+00AC
\80\255: U+00AD SOFT HYPHEN; sftthyphen, softthyphen
15538 % U+00AE REGISTERED SIGN; registered
15539 \DeclareTextCommand{\textregistered}{PU}{\80\256}% U+00AE
15540 % U+00AF MACRON; *macron, overscore
15541 \DeclareTextCommand{\textasciimacron}{PU}{\80\257}% U+00AF
15542 % U+00B0 DEGREE SIGN; degree
15543 \DeclareTextCommand{\textdegree}{PU}{\80\260}% U+00B0
15544 % U+00B1 PLUS-MINUS SIGN; plusminus
15545 \DeclareTextCommand{\textplusminus}{PU}{\80\261}% U+00B1
15546 % U+00B2 SUPERSCRIPT TWO; twosuperior
15547 \DeclareTextCommand{\texttwosuperior}{PU}{\80\262}%* U+00B2
15548 % U+00B3 SUPERSCRIPT THREE; threesuperior
15549 \DeclareTextCommand{\textthreesuperior}{PU}{\80\263}%* U+00B3
15550 % U+00B4 ACUTE ACCENT; acute
15551 \DeclareTextCommand{\textacute}{PU}{\80\264}% U+00B4
15552 \DeclareTextCommand{\textasciiacute}{PU}{\80\264}% U+00B4
15553 % U+00B5 MICRO SIGN; mu, mu1
15554 \DeclareTextCommand{\textmu}{PU}{\80\265}% U+00B5
15555 % U+00B6 PILCROW SIGN; paragraph
15556 \DeclareTextCommand{\textparagraph}{PU}{\80\266}% U+00B6
15557 %* \textparagraph -> \mathparagraph (LaTeX)
15558 % U+00B7 MIDDLE DOT; middot, *periodcentered
15559 \DeclareTextCommand{\textperiodcentered}{PU}{\80\267}% U+00B7
15560 %* \textperiodcentered -> \MultiplicationDot (marvosym)
15561 %* \textperiodcentered -> \Squaredot (marvosym)
15562 % U+00B8 CEDILLA; cedilla
15563 \DeclareTextCommand{\textcedilla}{PU}{\80\270}% U+00B8
15564 % U+00B9 SUPERSCRIPT ONE; onesuperior
15565 \DeclareTextCommand{\textonesuperior}{PU}{\80\271}%* U+00B9
15566 % U+00BA MASCULINE ORDINAL INDICATOR; ordmasculine
15567 \DeclareTextCommand{\textordmasculine}{PU}{\80\272}% U+00BA
15568 % U+00BB RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK; guillemotright

15569 \DeclareTextCommand{\guillemotright}{PU}{\80\273}% U+00BB
15570 % U+00BC VULGAR FRACTION ONE QUARTER; onequarter
15571 \DeclareTextCommand{\textonequarter}{PU}{\80\274}% U+00BC
15572 % U+00BD VULGAR FRACTION ONE HALF; onehalf
15573 \DeclareTextCommand{\textonehalf}{PU}{\80\275}% U+00BD
15574 % U+00BE VULGAR FRACTION THREE QUARTERS; threequarters
15575 \DeclareTextCommand{\textthreequarters}{PU}{\80\276}% U+00BE
15576 % U+00BF INVERTED QUESTION MARK; questiondown
15577 \DeclareTextCommand{\textquestiondown}{PU}{\80\277}% U+00BF
15578 % U+00C0 LATIN CAPITAL LETTER A WITH GRAVE; Agrave
15579 \DeclareTextCompositeCommand{\`}{PU}{A}{\80\300}% U+00C0
15580 % U+00C1 LATIN CAPITAL LETTER A WITH ACUTE; Aacute
15581 \DeclareTextCompositeCommand{\'}{PU}{A}{\80\301}% U+00C1
15582 % U+00C2 LATIN CAPITAL LETTER A WITH CIRCUMFLEX; Acircumflex
15583 \DeclareTextCompositeCommand{\^}{PU}{A}{\80\302}% U+00C2
15584 % U+00C3 LATIN CAPITAL LETTER A WITH TILDE; Atilde
15585 \DeclareTextCompositeCommand{\~}{PU}{A}{\80\303}% U+00C3
15586 % U+00C4 LATIN CAPITAL LETTER A WITH DIAERESIS; Adieresis
15587 \DeclareTextCompositeCommand{\"}{PU}{A}{\80\304}% U+00C4
15588 % U+00C5 LATIN CAPITAL LETTER A WITH RING ABOVE; Aring
15589 \DeclareTextCompositeCommand{\r}{PU}{A}{\80\305}% U+00C5
15590 % U+00C6 LATIN CAPITAL LETTER AE; AE
15591 \DeclareTextCommand{\AE}{PU}{\80\306}% U+00C6
15592 % U+00C7 LATIN CAPITAL LETTER C WITH CEDILLA; Ccedilla
15593 \DeclareTextCompositeCommand{\c}{PU}{C}{\80\307}% U+00C7
15594 % U+00C8 LATIN CAPITAL LETTER E WITH GRAVE; Egrave
15595 \DeclareTextCompositeCommand{\`}{PU}{E}{\80\310}% U+00C8
15596 % U+00C9 LATIN CAPITAL LETTER E WITH ACUTE; Eacute
15597 \DeclareTextCompositeCommand{\'}{PU}{E}{\80\311}% U+00C9
15598 % U+00CA LATIN CAPITAL LETTER E WITH CIRCUMFLEX; Ecircumflex
15599 \DeclareTextCompositeCommand{\^}{PU}{E}{\80\312}% U+00CA
15600 % U+00CB LATIN CAPITAL LETTER E WITH DIAERESIS; Edieresis
15601 \DeclareTextCompositeCommand{\"}{PU}{E}{\80\313}% U+00CB
15602 % U+00CC LATIN CAPITAL LETTER I WITH GRAVE; Igrave
15603 \DeclareTextCompositeCommand{\`}{PU}{I}{\80\314}% U+00CC
15604 % U+00CD LATIN CAPITAL LETTER I WITH ACUTE; Iacute
15605 \DeclareTextCompositeCommand{\'}{PU}{I}{\80\315}% U+00CD
15606 % U+00CE LATIN CAPITAL LETTER I WITH CIRCUMFLEX; Icircumflex
15607 \DeclareTextCompositeCommand{\^}{PU}{I}{\80\316}% U+00CE
15608 % U+00CF LATIN CAPITAL LETTER I WITH DIAERESIS; Idieresis
15609 \DeclareTextCompositeCommand{\"}{PU}{I}{\80\317}% U+00CF
15610 % U+00D0 LATIN CAPITAL LETTER ETH; Eth
15611 \DeclareTextCommand{\DH}{PU}{\80\320}% U+00D0
15612 % U+00D1 LATIN CAPITAL LETTER N WITH TILDE; Ntilde
15613 \DeclareTextCompositeCommand{\~}{PU}{N}{\80\321}% U+00D1
15614 % U+00D2 LATIN CAPITAL LETTER O WITH GRAVE; Ograve
15615 \DeclareTextCompositeCommand{\`}{PU}{O}{\80\322}% U+00D2
15616 % U+00D3 LATIN CAPITAL LETTER O WITH ACUTE; Oacute
15617 \DeclareTextCompositeCommand{\'}{PU}{O}{\80\323}% U+00D3
15618 % U+00D4 LATIN CAPITAL LETTER O WITH CIRCUMFLEX; Ocircumflex
15619 \DeclareTextCompositeCommand{\^}{PU}{O}{\80\324}% U+00D4
15620 % U+00D5 LATIN CAPITAL LETTER O WITH TILDE; Otilde
15621 \DeclareTextCompositeCommand{\~}{PU}{O}{\80\325}% U+00D5
15622 % U+00D6 LATIN CAPITAL LETTER O WITH DIAERESIS; Odieresis
15623 \DeclareTextCompositeCommand{\"}{PU}{O}{\80\326}% U+00D6
15624 % U+00D7 MULTIPLICATION SIGN; multiply
15625 \DeclareTextCommand{\textmultiply}{PU}{\80\327}% U+00D7

15626 %* \textmultiply -> \vartimes (stmaryrd)
15627 %* \textmultiply -> \MVMultiplication (marvosym)
15628 % U+00D8 LATIN CAPITAL LETTER O WITH STROKE; Oslash
15629 \DeclareTextCommand{\O}{PU}{\80\330}% U+00D8
15630 % U+00D9 LATIN CAPITAL LETTER U WITH GRAVE; Ugrave
15631 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\331}% U+00D9
15632 % U+00DA LATIN CAPITAL LETTER U WITH ACUTE; Uacute
15633 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\332}% U+00DA
15634 % U+00DB LATIN CAPITAL LETTER U WITH CIRCUMFLEX; Ucircumflex
15635 \DeclareTextCompositeCommand{\^}{PU}{U}{\80\333}% U+00DB
15636 % U+00DC LATIN CAPITAL LETTER U WITH DIAERESIS; Udieresis
15637 \DeclareTextCompositeCommand{\"}{PU}{U}{\80\334}% U+00DC
15638 % U+00DD LATIN CAPITAL LETTER Y WITH ACUTE; Yacute
15639 \DeclareTextCompositeCommand{\'}{PU}{Y}{\80\335}% U+00DD
15640 % U+00DE LATIN CAPITAL LETTER THORN; Thorn; \TH, \Thorn (wasysym)
15641 \DeclareTextCommand{\TH}{PU}{\80\336}% U+00DE
15642 \DeclareTextCommand{\textThorn}{PU}{\80\336}%* U+00DE
15643 % U+00DF LATIN SMALL LETTER SHARP S; germandbls
15644 \DeclareTextCommand{\ss}{PU}{\80\337}% U+00DF
15645 % U+00E0 LATIN SMALL LETTER A WITH GRAVE; agrave
15646 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\340}% U+00E0
15647 % U+00E1 LATIN SMALL LETTER A WITH ACUTE; aacute
15648 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\341}% U+00E1
15649 % U+00E2 LATIN SMALL LETTER A WITH CIRCUMFLEX; acircumflex
15650 \DeclareTextCompositeCommand{\^}{PU}{a}{\80\342}% U+00E2
15651 % U+00E3 LATIN SMALL LETTER A WITH TILDE; atilde
15652 \DeclareTextCompositeCommand{\~}{PU}{a}{\80\343}% U+00E3
15653 % U+00E4 LATIN SMALL LETTER A WITH DIAERESIS; adieresis
15654 \DeclareTextCompositeCommand{\"}{PU}{a}{\80\344}% U+00E4
15655 % U+00E5 LATIN SMALL LETTER A WITH RING ABOVE; aring
15656 \DeclareTextCompositeCommand{\r}{PU}{a}{\80\345}% U+00E5
15657 % U+00E6 LATIN SMALL LETTER AE; ae
15658 \DeclareTextCommand{\ae}{PU}{\80\346}% U+00E6
15659 % U+00E7 LATIN SMALL LETTER C WITH CEDILLA; ccedilla
15660 \DeclareTextCompositeCommand{\c}{PU}{c}{\80\347}% U+00E7
15661 % U+00E8 LATIN SMALL LETTER E WITH GRAVE; egrave
15662 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\350}% U+00E8
15663 % U+00E9 LATIN SMALL LETTER E WITH ACUTE; eacute
15664 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\351}% U+00E9
15665 % U+00EA LATIN SMALL LETTER E WITH CIRCUMFLEX; ecircumflex
15666 \DeclareTextCompositeCommand{\^}{PU}{e}{\80\352}% U+00EA
15667 % U+00EB LATIN SMALL LETTER E WITH DIAERESIS; edieresis
15668 \DeclareTextCompositeCommand{\"}{PU}{e}{\80\353}% U+00EB
15669 % U+00EC LATIN SMALL LETTER I WITH GRAVE; igrave
15670 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\354}% U+00EC
15671 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\354}% U+00EC
15672 % U+00ED LATIN SMALL LETTER I WITH ACUTE; iacute
15673 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\355}% U+00ED
15674 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\355}% U+00ED
15675 % U+00EE LATIN SMALL LETTER I WITH CIRCUMFLEX; icircumflex
15676 \DeclareTextCompositeCommand{\^}{PU}{i}{\80\356}% U+00EE
15677 \DeclareTextCompositeCommand{\^}{PU}{i}{\80\356}% U+00EE
15678 % U+00EF LATIN SMALL LETTER I WITH DIAERESIS; idieresis
15679 \DeclareTextCompositeCommand{\"}{PU}{i}{\80\357}% U+00EF
15680 \DeclareTextCompositeCommand{\"}{PU}{i}{\80\357}% U+00EF
15681 % U+00F0 LATIN SMALL LETTER ETH; eth
15682 \DeclareTextCommand{\dh}{PU}{\80\360}% U+00F0

15683 %* \dh -> \eth (wsuipa, phonetic)
 15684 % U+00F1 LATIN SMALL LETTER N WITH TILDE; ntilde
 15685 \DeclareTextCompositeCommand{\~}{PU}{n}{\80\361}% U+00F1
 15686 % U+00F2 LATIN SMALL LETTER O WITH GRAVE; ograve
 15687 \DeclareTextCompositeCommand{\`}{PU}{o}{\80\362}% U+00F2
 15688 % U+00F3 LATIN SMALL LETTER O WITH ACUTE; oacute
 15689 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\363}% U+00F3
 15690 % U+00F4 LATIN SMALL LETTER O WITH CIRCUMFLEX; ocircumflex
 15691 \DeclareTextCompositeCommand{\^}{PU}{o}{\80\364}% U+00F4
 15692 % U+00F5 LATIN SMALL LETTER O WITH TILDE; otilde
 15693 \DeclareTextCompositeCommand{\~}{PU}{o}{\80\365}% U+00F5
 15694 % U+00F6 LATIN SMALL LETTER O WITH DIAERESIS; odieresis
 15695 \DeclareTextCompositeCommand{\"}{PU}{o}{\80\366}% U+00F6
 15696 % U+00F7 DIVISION SIGN; divide
 15697 \DeclareTextCommand{\textdivide}{PU}{\80\367}% U+00F7
 15698 % U+00F8 LATIN SMALL LETTER O WITH STROKE; oslash
 15699 \DeclareTextCommand{\o}{PU}{\80\370}% U+00F8
 15700 % U+00F9 LATIN SMALL LETTER U WITH GRAVE; ugrave
 15701 \DeclareTextCompositeCommand{\`}{PU}{u}{\80\371}% U+00F9
 15702 % U+00FA LATIN SMALL LETTER U WITH ACUTE; uacute
 15703 \DeclareTextCompositeCommand{\'}{PU}{u}{\80\372}% U+00FA
 15704 % U+00FB LATIN SMALL LETTER U WITH CIRCUMFLEX; ucircumflex
 15705 \DeclareTextCompositeCommand{\^}{PU}{u}{\80\373}% U+00FB
 15706 % U+00FC LATIN SMALL LETTER U WITH DIAERESIS; udieresis
 15707 \DeclareTextCompositeCommand{\"}{PU}{u}{\80\374}% U+00FC
 15708 % U+00FD LATIN SMALL LETTER Y WITH ACUTE; yacute
 15709 \DeclareTextCompositeCommand{\'}{PU}{y}{\80\375}% U+00FD
 15710 % U+00FE LATIN SMALL LETTER THORN; thorn;
 15711 % \th, \thorn (wasysym), \textthorn (tipa)
 15712 \DeclareTextCommand{\th}{PU}{\80\376}% U+00FE
 15713 \DeclareTextCommand{\textthorn}{PU}{\80\376}%* U+00FE
 15714 % U+00FF LATIN SMALL LETTER Y WITH DIAERESIS; ydieresis
 15715 \DeclareTextCompositeCommand{\"}{PU}{y}{\80\377}% U+00FF

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

15716 % U+0100 LATIN CAPITAL LETTER A WITH MACRON; Amacron
 15717 \DeclareTextCompositeCommand{\=}{PU}{A}{\81\000}% U+0100
 15718 % U+0101 LATIN SMALL LETTER A WITH MACRON; amacron
 15719 \DeclareTextCompositeCommand{\=}{PU}{a}{\81\001}% U+0101
 15720 % U+0102 LATIN CAPITAL LETTER A WITH BREVE; Abreve
 15721 \DeclareTextCompositeCommand{\u}{PU}{A}{\81\002}% U+0102
 15722 % U+0103 LATIN SMALL LETTER A WITH BREVE; abreve
 15723 \DeclareTextCompositeCommand{\u}{PU}{a}{\81\003}% U+0103
 15724 % U+0104 LATIN CAPITAL LETTER A WITH OGONEK; Aogonek
 15725 \DeclareTextCompositeCommand{\k}{PU}{A}{\81\004}% U+0104
 15726 % U+0105 LATIN SMALL LETTER A WITH OGONEK; aogonek
 15727 \DeclareTextCompositeCommand{\k}{PU}{a}{\81\005}% U+0105
 15728 % U+0106 LATIN CAPITAL LETTER C WITH ACUTE; Cacute
 15729 \DeclareTextCompositeCommand{\'}{PU}{C}{\81\006}% U+0106
 15730 % U+0107 LATIN SMALL LETTER C WITH ACUTE; cacute
 15731 \DeclareTextCompositeCommand{\'}{PU}{c}{\81\007}% U+0107
 15732 % U+0108 LATIN CAPITAL LETTER C WITH CIRCUMFLEX; Ccircumflex
 15733 \DeclareTextCompositeCommand{\^}{PU}{C}{\81\010}% U+0108
 15734 % U+0109 LATIN SMALL LETTER C WITH CIRCUMFLEX; ccircumflex
 15735 \DeclareTextCompositeCommand{\^}{PU}{c}{\81\011}% U+0109

15736 % U+010A LATIN CAPITAL LETTER C WITH DOT ABOVE; Cdot, Cdotaccent
 15737 \DeclareTextCompositeCommand{\.}{PU}{C}{\81\012}% U+010A
 15738 % U+010B LATIN SMALL LETTER C WITH DOT ABOVE; cdot, cdotaccent
 15739 \DeclareTextCompositeCommand{\.}{PU}{c}{\81\013}% U+010B
 15740 % U+010C LATIN CAPITAL LETTER C WITH CARON; Ccaron
 15741 \DeclareTextCompositeCommand{\v}{PU}{C}{\81\014}% U+010C
 15742 % U+010D LATIN SMALL LETTER C WITH CARON; ccaron
 15743 \DeclareTextCompositeCommand{\v}{PU}{c}{\81\015}% U+010D
 15744 % U+010E LATIN CAPITAL LETTER D WITH CARON; Dcaron
 15745 \DeclareTextCompositeCommand{\v}{PU}{D}{\81\016}% U+010E
 15746 % U+010F LATIN SMALL LETTER D WITH CARON; dcaron
 15747 \DeclareTextCompositeCommand{\v}{PU}{d}{\81\017}% U+010F
 15748 % U+0110 LATIN CAPITAL LETTER D WITH STROKE; Dcroat, Dslash
 15749 \DeclareTextCommand{\DJ}{PU}{\81\020}% U+0110
 15750 % U+0111 LATIN SMALL LETTER D WITH STROKE; dcroat, dmacron;
 15751 % \textcrd (tipa)
 15752 \DeclareTextCommand{\dj}{PU}{\81\021}% U+0111
 15753 \DeclareTextCommand{\textcrd}{PU}{\81\021}% U+0111
 15754 %* \textcrd -> \crossd (wsuipa)
 15755 % An alternate glyph with the stroke through the bowl:
 15756 %* \textcrd -> \textbard (tipa)
 15757 %* \textcrd -> \bard (wsuipa)
 15758 % U+0112 LATIN CAPITAL LETTER E WITH MACRON; Emacron
 15759 \DeclareTextCompositeCommand{\=}{PU}{E}{\81\022}% U+0112
 15760 % U+0113 LATIN SMALL LETTER E WITH MACRON; emacron
 15761 \DeclareTextCompositeCommand{\=}{PU}{e}{\81\023}% U+0113
 15762 % U+0114 LATIN CAPITAL LETTER E WITH BREVE; Ebreve
 15763 \DeclareTextCompositeCommand{\u}{PU}{E}{\81\024}% U+0114
 15764 % U+0115 LATIN SMALL LETTER E WITH BREVE; ebreve
 15765 \DeclareTextCompositeCommand{\u}{PU}{e}{\81\025}% U+0115
 15766 % U+0116 LATIN CAPITAL LETTER E WITH DOT ABOVE; Edot, Edotaccent
 15767 \DeclareTextCompositeCommand{\.}{PU}{E}{\81\026}% U+0116
 15768 % U+0117 LATIN SMALL LETTER E WITH DOT ABOVE; edot, edotaccent
 15769 \DeclareTextCompositeCommand{\.}{PU}{e}{\81\027}% U+0117
 15770 % U+0118 LATIN CAPITAL LETTER E WITH OGONEK; Eogonek
 15771 \DeclareTextCompositeCommand{\k}{PU}{E}{\81\030}% U+0118
 15772 % U+0119 LATIN SMALL LETTER E WITH OGONEK; eogonek
 15773 \DeclareTextCompositeCommand{\k}{PU}{e}{\81\031}% U+0119
 15774 % U+011A LATIN CAPITAL LETTER E WITH CARON; Ecaron
 15775 \DeclareTextCompositeCommand{\v}{PU}{E}{\81\032}% U+011A
 15776 % U+011B LATIN SMALL LETTER E WITH CARON; ecaron
 15777 \DeclareTextCompositeCommand{\v}{PU}{e}{\81\033}% U+011B
 15778 % U+011C LATIN CAPITAL LETTER G WITH CIRCUMFLEX; Gcircumflex
 15779 \DeclareTextCompositeCommand{\^}{PU}{G}{\81\034}% U+011C
 15780 % U+011D LATIN SMALL LETTER G WITH CIRCUMFLEX; gcircumflex
 15781 \DeclareTextCompositeCommand{\^}{PU}{g}{\81\035}% U+011D
 15782 % U+011E LATIN CAPITAL LETTER G WITH BREVE; Gbreve
 15783 \DeclareTextCompositeCommand{\u}{PU}{G}{\81\036}% U+011E
 15784 % U+011F LATIN SMALL LETTER G WITH BREVE; gbreve
 15785 \DeclareTextCompositeCommand{\u}{PU}{g}{\81\037}% U+011F
 15786 % U+0120 LATIN CAPITAL LETTER G WITH DOT ABOVE; Gdot, Gdotaccent
 15787 \DeclareTextCompositeCommand{\.}{PU}{G}{\81\040}% U+0120
 15788 % U+0121 LATIN SMALL LETTER G WITH DOT ABOVE; gdot, gdotaccent
 15789 \DeclareTextCompositeCommand{\.}{PU}{g}{\81\041}% U+0121

15790 % U+0122 LATIN CAPITAL LETTER G WITH CEDILLA; Gcedilla, Gcommaaccent
15791 \DeclareTextCompositeCommand{\c}{PU}{G}{\81\042}% U+0122
15792 % U+0123 LATIN SMALL LETTER G WITH CEDILLA; gcedilla, gcommaaccent
15793 \DeclareTextCompositeCommand{\c}{PU}{g}{\81\043}% U+0123
15794 % U+0124 LATIN CAPITAL LETTER H WITH CIRCUMFLEX; Hcircumflex
15795 \DeclareTextCompositeCommand{\^}{PU}{H}{\81\044}% U+0124
15796 % U+0125 LATIN SMALL LETTER H WITH CIRCUMFLEX; hcircumflex
15797 \DeclareTextCompositeCommand{\^}{PU}{h}{\81\045}% U+0125
15798 % U+0126 LATIN CAPITAL LETTER H WITH STROKE; Hbar
15799 \DeclareTextCommand{\textHslash}{PU}{\81\046}% U+0126
15800 % U+0127 LATIN SMALL LETTER H WITH STROKE; hbar; \hbar (AmS)
15801 \DeclareTextCommand{\textthbar}{PU}{\81\047}%* U+127
15802 %* \textthbar -> \textcrh (tipa)
15803 %* \textthbar -> \crossh (wsuipa)
15804 %* \textthbar -> \planck (phonetic)
15805 % U+0128 LATIN CAPITAL LETTER I WITH TILDE; Itilde
15806 \DeclareTextCompositeCommand{\~}{PU}{I}{\81\050}% U+0128
15807 % U+0129 LATIN SMALL LETTER I WITH TILDE; itilde
15808 \DeclareTextCompositeCommand{\~}{PU}{i}{\81\051}% U+0129
15809 \DeclareTextCompositeCommand{\~}{PU}{\i}{\81\051}% U+0129
15810 % U+012A LATIN CAPITAL LETTER I WITH MACRON; Imacron
15811 \DeclareTextCompositeCommand{\=}{PU}{I}{\81\052}% U+012A
15812 % U+012B LATIN SMALL LETTER I WITH MACRON; imacron
15813 \DeclareTextCompositeCommand{\=}{PU}{i}{\81\053}% U+012B
15814 \DeclareTextCompositeCommand{\=}{PU}{\i}{\81\053}% U+012B
15815 % U+012C LATIN CAPITAL LETTER I WITH BREVE; Ibreve
15816 \DeclareTextCompositeCommand{\u}{PU}{I}{\81\054}% U+012C
15817 % U+012D LATIN SMALL LETTER I WITH BREVE; ibreve
15818 \DeclareTextCompositeCommand{\u}{PU}{i}{\81\055}% U+012D
15819 \DeclareTextCompositeCommand{\u}{PU}{\i}{\81\055}% U+012D
15820 % U+012E LATIN CAPITAL LETTER I WITH OGONEK; Iogonek
15821 \DeclareTextCompositeCommand{\k}{PU}{I}{\81\056}% U+012E
15822 % U+012F LATIN SMALL LETTER I WITH OGONEK; iogonek
15823 \DeclareTextCompositeCommand{\k}{PU}{i}{\81\057}% U+012F
15824 \DeclareTextCompositeCommand{\k}{PU}{\i}{\81\057}% U+012F
15825 % U+0130 LATIN CAPITAL LETTER I WITH DOT ABOVE; Idot, Idotaccent
15826 \DeclareTextCompositeCommand{\.}{PU}{I}{\81\060}% U+0130
15827 % U+0131 LATIN SMALL LETTER DOTLESS I; dotlessi
15828 \DeclareTextCommand{\i}{PU}{\81\061}% U+0131
15829 % U+0132 LATIN CAPITAL LIGATURE IJ; IJ
15830 \DeclareTextCommand{\IJ}{PU}{\81\062}% U+0132
15831 % U+0133 LATIN SMALL LIGATURE IJ; ij
15832 \DeclareTextCommand{\ij}{PU}{\81\063}% U+0133
15833 % U+0134 LATIN CAPITAL LETTER J WITH CIRCUMFLEX; Jcircumflex
15834 \DeclareTextCompositeCommand{\^}{PU}{J}{\81\064}% U+0134
15835 % U+0135 LATIN SMALL LETTER J WITH CIRCUMFLEX; jcircumflex
15836 \DeclareTextCompositeCommand{\^}{PU}{j}{\81\065}% U+0135
15837 \DeclareTextCompositeCommand{\^}{PU}{\j}{\81\065}% U+0135
15838 % U+0136 LATIN CAPITAL LETTER K WITH CEDILLA; Kcedilla, Kcommaaccent
15839 \DeclareTextCompositeCommand{\c}{PU}{K}{\81\066}% U+0136
15840 % U+0137 LATIN SMALL LETTER K WITH CEDILLA; kcedilla, kcommaaccent
15841 \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`.

15842 % U+0138 LATIN SMALL LETTER KRA; kgreenlandic
15843 \DeclareTextCommand{\textkra}{PU}{\81\070}% U+0138
15844 % U+0139 LATIN CAPITAL LETTER L WITH ACUTE; Lacute
15845 \DeclareTextCompositeCommand{\'}{PU}{L}{\81\071}% U+0139
15846 % U+013A LATIN SMALL LETTER L WITH ACUTE; lacute
15847 \DeclareTextCompositeCommand{\'}{PU}{l}{\81\072}% U+013A
15848 % U+013B LATIN CAPITAL LETTER L WITH CEDILLA; Lcedilla, Lcommaaccent
15849 \DeclareTextCompositeCommand{\c}{PU}{L}{\81\073}% U+013B
15850 % U+013C LATIN SMALL LETTER L WITH CEDILLA; lcedilla, lcommaaccent
15851 \DeclareTextCompositeCommand{\c}{PU}{l}{\81\074}% U+013C
15852 % U+013D LATIN CAPITAL LETTER L WITH CARON; Lcaron
15853 \DeclareTextCompositeCommand{\v}{PU}{L}{\81\075}% U+013D
15854 % U+013E LATIN SMALL LETTER L WITH CARON; lcaron
15855 \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.
15856 % U+013F LATIN CAPITAL LETTER L WITH MIDDLE DOT; Ldot, Ldotaccent
15857 \DeclareTextCompositeCommand{\.}{PU}{L}{\81\077}% U+013F
15858 % U+0140 LATIN SMALL LETTER L WITH MIDDLE DOT; ldot, ldotaccent
15859 \DeclareTextCompositeCommand{\.}{PU}{l}{\81\100}% U+0140
15860 % U+0141 LATIN CAPITAL LETTER L WITH STROKE; Lslash
15861 \DeclareTextCommand{\L}{PU}{\81\101}% U+0141
15862 % U+0142 LATIN SMALL LETTER L WITH STROKE; lslash
15863 \DeclareTextCommand{\l}{PU}{\81\102}% U+0142
15864 % U+0143 LATIN CAPITAL LETTER N WITH ACUTE; Nacute
15865 \DeclareTextCompositeCommand{\'}{PU}{N}{\81\103}% U+0143
15866 % U+0144 LATIN SMALL LETTER N WITH ACUTE; nacute
15867 \DeclareTextCompositeCommand{\'}{PU}{n}{\81\104}% U+0144
15868 % U+0145 LATIN CAPITAL LETTER N WITH CEDILLA; Ncedilla, Ncommaaccent
15869 \DeclareTextCompositeCommand{\c}{PU}{N}{\81\105}% U+0145
15870 % U+0146 LATIN SMALL LETTER N WITH CEDILLA; ncedilla, ncommaaccent
15871 \DeclareTextCompositeCommand{\c}{PU}{n}{\81\106}% U+0146
15872 % U+0147 LATIN CAPITAL LETTER N WITH CARON; Ncaron
15873 \DeclareTextCompositeCommand{\v}{PU}{N}{\81\107}% U+0147
15874 % U+0148 LATIN SMALL LETTER N WITH CARON; ncaron
15875 \DeclareTextCompositeCommand{\v}{PU}{n}{\81\110}% U+0148
15876 % U+0149 LATIN SMALL LETTER N PRECEDED BY APOSTROPHE; napostrophe, quoterightn
15877 \DeclareTextCommand{\textnapostrophe}{PU}{\81\111}% U+0149
15878 % U+014A LATIN CAPITAL LETTER ENG; Eng
15879 \DeclareTextCommand{\NG}{PU}{\81\112}% U+014A
15880 % U+014B LATIN SMALL LETTER ENG; eng
15881 \DeclareTextCommand{\ng}{PU}{\81\113}% U+014B
15882 %* \ng -> \eng (wsuipa)
15883 %* \ng -> \engma (phonetic)
15884 % U+014C LATIN CAPITAL LETTER O WITH MACRON; Omacron
15885 \DeclareTextCompositeCommand{\=}{PU}{O}{\81\114}% U+014C
15886 % U+014D LATIN SMALL LETTER O WITH MACRON; omacron
15887 \DeclareTextCompositeCommand{\=}{PU}{o}{\81\115}% U+014D
15888 % U+014E LATIN CAPITAL LETTER O WITH BREVE; Obreve
15889 \DeclareTextCompositeCommand{\u}{PU}{O}{\81\116}% U+014E
15890 % U+014F LATIN SMALL LETTER O WITH BREVE; obreve
15891 \DeclareTextCompositeCommand{\u}{PU}{o}{\81\117}% U+014F

15892 % U+0150 LATIN CAPITAL LETTER O WITH DOUBLE ACUTE; Odblacute, Ohungarumlaut
 15893 \DeclareTextCompositeCommand{\H}{PU}{O}{\81\120}% U+0150
 15894 % U+0151 LATIN SMALL LETTER O WITH DOUBLE ACUTE; odblacute, ohungarumlaut
 15895 \DeclareTextCompositeCommand{\H}{PU}{o}{\81\121}% U+0151
 15896 % U+0152 LATIN CAPITAL LIGATURE OE; OE
 15897 \DeclareTextCommand{\OE}{PU}{\81\122}% U+0152
 15898 % U+0153 LATIN SMALL LIGATURE OE; oe
 15899 \DeclareTextCommand{\oe}{PU}{\81\123}% U+0153
 15900 % U+0154 LATIN CAPITAL LETTER R WITH ACUTE; Racute
 15901 \DeclareTextCompositeCommand{\'}{PU}{R}{\81\124}% U+0154
 15902 % U+0155 LATIN SMALL LETTER R WITH ACUTE; racute
 15903 \DeclareTextCompositeCommand{\'}{PU}{r}{\81\125}% U+0155
 15904 % U+0156 LATIN CAPITAL LETTER R WITH CEDILLA; Rcedilla, Rcommaaccent
 15905 \DeclareTextCompositeCommand{\c}{PU}{R}{\81\126}% U+0156
 15906 % U+0157 LATIN SMALL LETTER R WITH CEDILLA; rcedilla, rcommaaccent
 15907 \DeclareTextCompositeCommand{\c}{PU}{r}{\81\127}% U+0157
 15908 % U+0158 LATIN CAPITAL LETTER R WITH CARON; Rcaron
 15909 \DeclareTextCompositeCommand{\v}{PU}{R}{\81\130}% U+0158
 15910 % U+0159 LATIN SMALL LETTER R WITH CARON; rcaron
 15911 \DeclareTextCompositeCommand{\v}{PU}{r}{\81\131}% U+0159
 15912 % U+015A LATIN CAPITAL LETTER S WITH ACUTE; Sacute
 15913 \DeclareTextCompositeCommand{\'}{PU}{S}{\81\132}% U+015A
 15914 % U+015B LATIN SMALL LETTER S WITH ACUTE; sacute
 15915 \DeclareTextCompositeCommand{\'}{PU}{s}{\81\133}% U+015B
 15916 % U+015C LATIN CAPITAL LETTER S WITH CIRCUMFLEX; Scircumflex
 15917 \DeclareTextCompositeCommand{\^}{PU}{S}{\81\134}% U+015C
 15918 % U+015D LATIN SMALL LETTER S WITH CIRCUMFLEX; scircumflex
 15919 \DeclareTextCompositeCommand{\^}{PU}{s}{\81\135}% U+015D
 15920 % U+015E LATIN CAPITAL LETTER S WITH CEDILLA; Scedilla
 15921 \DeclareTextCompositeCommand{\c}{PU}{S}{\81\136}% U+015E
 15922 % U+015F LATIN SMALL LETTER S WITH CEDILLA; scedilla
 15923 \DeclareTextCompositeCommand{\c}{PU}{s}{\81\137}% U+015F
 15924 % U+0160 LATIN CAPITAL LETTER S WITH CARON; Scaron
 15925 \DeclareTextCompositeCommand{\v}{PU}{S}{\81\140}% U+0160
 15926 % U+0161 LATIN SMALL LETTER S WITH CARON; scaron
 15927 \DeclareTextCompositeCommand{\v}{PU}{s}{\81\141}% U+0161
 15928 % U+0162 LATIN CAPITAL LETTER T WITH CEDILLA; Tcedilla, Tcommaaccent
 15929 \DeclareTextCompositeCommand{\c}{PU}{T}{\81\142}% U+0162
 15930 % U+0163 LATIN SMALL LETTER T WITH CEDILLA; tcedilla, tcommaaccent
 15931 \DeclareTextCompositeCommand{\c}{PU}{t}{\81\143}% U+0163
 15932 % U+0164 LATIN CAPITAL LETTER T WITH CARON; Tcaron
 15933 \DeclareTextCompositeCommand{\v}{PU}{T}{\81\144}% U+0164
 15934 % U+0165 LATIN SMALL LETTER T WITH CARON; tcaron
 15935 \DeclareTextCompositeCommand{\v}{PU}{t}{\81\145}% U+0165
 15936 % U+0166 LATIN CAPITAL LETTER T WITH STROKE; Tbar
 15937 \DeclareTextCommand{\textTslash}{PU}{\81\146}% U+0166
 15938 % U+0167 LATIN SMALL LETTER T WITH STROKE; tbar
 15939 \DeclareTextCommand{\texttslash}{PU}{\81\147}% U+0167
 15940 % U+0168 LATIN CAPITAL LETTER U WITH TILDE; Utilde
 15941 \DeclareTextCompositeCommand{\~}{PU}{U}{\81\150}% U+0168
 15942 % U+0169 LATIN SMALL LETTER U WITH TILDE; utilde
 15943 \DeclareTextCompositeCommand{\~}{PU}{u}{\81\151}% U+0169
 15944 % U+016A LATIN CAPITAL LETTER U WITH MACRON; Umacron

15945 \DeclareTextCompositeCommand{\=}{PU}{U}{\81\152}% U+016A
 15946 % U+016B LATIN SMALL LETTER U WITH MACRON; umacron
 15947 \DeclareTextCompositeCommand{\=}{PU}{u}{\81\153}% U+016B
 15948 % U+016C LATIN CAPITAL LETTER U WITH BREVE; Ubreve
 15949 \DeclareTextCompositeCommand{\u}{PU}{U}{\81\154}% U+016C
 15950 % U+016D LATIN SMALL LETTER U WITH BREVE; ubreve
 15951 \DeclareTextCompositeCommand{\u}{PU}{u}{\81\155}% U+016D
 15952 % U+016E LATIN CAPITAL LETTER U WITH RING ABOVE; Uring
 15953 \DeclareTextCompositeCommand{\r}{PU}{U}{\81\156}% U+016E
 15954 % U+016F LATIN SMALL LETTER U WITH RING ABOVE; uring
 15955 \DeclareTextCompositeCommand{\r}{PU}{u}{\81\157}% U+016F
 15956 % U+0170 LATIN CAPITAL LETTER U WITH DOUBLE ACUTE; Udblacute, Uhungarumlaut
 15957 \DeclareTextCompositeCommand{\H}{PU}{U}{\81\160}% U+0170
 15958 % U+0171 LATIN SMALL LETTER U WITH DOUBLE ACUTE; udblacute, uhungarumlaut
 15959 \DeclareTextCompositeCommand{\H}{PU}{u}{\81\161}% U+0171
 15960 % U+0172 LATIN CAPITAL LETTER U WITH OGONEK; Uogonek
 15961 \DeclareTextCompositeCommand{\k}{PU}{U}{\81\162}% U+0172
 15962 % U+0173 LATIN SMALL LETTER U WITH OGONEK; uogonek
 15963 \DeclareTextCompositeCommand{\k}{PU}{u}{\81\163}% U+0173
 15964 % U+0174 LATIN CAPITAL LETTER W WITH CIRCUMFLEX; Wcircumflex
 15965 \DeclareTextCompositeCommand{\^}{PU}{W}{\81\164}% U+0174
 15966 % U+0175 LATIN SMALL LETTER W WITH CIRCUMFLEX; wcircumflex
 15967 \DeclareTextCompositeCommand{\^}{PU}{w}{\81\165}% U+0175
 15968 % U+0176 LATIN CAPITAL LETTER Y WITH CIRCUMFLEX; Ycircumflex
 15969 \DeclareTextCompositeCommand{\^}{PU}{Y}{\81\166}% U+0176
 15970 % U+0177 LATIN SMALL LETTER Y WITH CIRCUMFLEX; ycircumflex
 15971 \DeclareTextCompositeCommand{\^}{PU}{y}{\81\167}% U+0177
 15972 % U+0178 LATIN CAPITAL LETTER Y WITH DIAERESIS; Ydieresis
 15973 \DeclareTextCompositeCommand{\"}{PU}{Y}{\81\170}% U+0178
 15974 % U+0179 LATIN CAPITAL LETTER Z WITH ACUTE; Zacute
 15975 \DeclareTextCompositeCommand{\'}{PU}{Z}{\81\171}% U+0179
 15976 % U+017A LATIN SMALL LETTER Z WITH ACUTE; zacute
 15977 \DeclareTextCompositeCommand{\'}{PU}{z}{\81\172}% U+017A
 15978 % U+017B LATIN CAPITAL LETTER Z WITH DOT ABOVE; Zdot, Zdotaccent
 15979 \DeclareTextCompositeCommand{\.}{PU}{Z}{\81\173}% U+017B
 15980 % U+017C LATIN SMALL LETTER Z WITH DOT ABOVE; zdot, zdotaccent
 15981 \DeclareTextCompositeCommand{\.}{PU}{z}{\81\174}% U+017C
 15982 % U+017D LATIN CAPITAL LETTER Z WITH CARON; Zcaron
 15983 \DeclareTextCompositeCommand{\v}{PU}{Z}{\81\175}% U+017D
 15984 % U+017E LATIN SMALL LETTER Z WITH CARON; zcaron
 15985 \DeclareTextCompositeCommand{\v}{PU}{z}{\81\176}% U+017E
 15986 % U+017F LATIN SMALL LETTER LONG S; longs, slong
 15987 \DeclareTextCommand{\textlongS}{PU}{\81\177}% U+017F

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

15988 % U+0180 LATIN SMALL LETTER B WITH STROKE; bstroke; \textcrb (tipa)
 15989 \DeclareTextCommand{\textcrb}{PU}{\81\200}% U+0180
 15990 %* \textcrb -> \crossb (wsuipa)
 15991 % An alternate glyph with the stroke through the bowl:
 15992 %* \textcrb -> \textbarb (tipa)
 15993 %* \textcrb -> \barb (wsuipa)
 15994 % U+0181 LATIN CAPITAL LETTER B WITH HOOK; Bhook; \hausab (phonetic)
 15995 \DeclareTextCommand{\texthausab}{PU}{\81\201}%* U+0181
 15996 % U+0188 LATIN SMALL LETTER C WITH HOOK; chook; \texthtc (tipa)

15997 \DeclareTextCommand{\texthtc}{PU}{\81\210}% U+0188
15998 % U+018A LATIN CAPITAL LETTER D WITH HOOK; Dhook; \hausad (pho-
netic)
15999 \DeclareTextCommand{\texthausad}{PU}{\81\212}%* U+018A
16000 % U+018E LATIN CAPITAL LETTER REVERSED E; Ereversed
16001 \DeclareTextCommand{\textEreversed}{PU}{\81\216}% U+018E
16002 \DeclareTextCommand{\textrevE}{PU}{\81\216}% U+018E
16003 % U+0192 LATIN SMALL LETTER F WITH HOOK; florin
16004 \DeclareTextCommand{\textflorin}{PU}{\81\222}% U+0192
16005 %* \textflorin -> \Florin (marvosym)
16006 % U+0195 LATIN SMALL LETTER HV; hv; \texthvlig (tipa)
16007 \DeclareTextCommand{\texthvlig}{PU}{\81\225}% U+0195
16008 %* \texthvlig -> \hv (wsuipa)
16009 % U+0198 LATIN CAPITAL LETTER K WITH HOOK; Khook; \hausak (pho-
netic)
16010 \DeclareTextCommand{\texthausak}{PU}{\81\230}%* U+0198
16011 % U+0199 LATIN SMALL LETTER K WITH HOOK; khook; \texthtk (tipa)
16012 \DeclareTextCommand{\texthtk}{PU}{\81\231}% U+0199
16013 %* \texthtk -> \hausak (phonetic)
16014 % U+019A LATIN SMALL LETTER L WITH BAR; lbar;
16015 % \textbarl (tipa), \barl (wsuipa)
16016 \DeclareTextCommand{\textbarl}{PU}{\81\232}%* U+019A
16017 % U+019B LATIN SMALL LETTER LAMBDA WITH STROKE/
16018 % LATIN SMALL LETTER BARRED LAMBDA; lambdastroke;
16019 % \textcrlambda (tipa)
16020 \DeclareTextCommand{\textcrlambda}{PU}{\81\233}% U+019B
16021 %* \textcrlambda -> \crossnilambda (wsuipa)
16022 %* \textcrlambda -> \barlambda (phonetic)
16023 %* \textcrlambda -> \lambdabar (txfonts/pxfonts)
16024 %* \textcrlambda -> \lambdaslash (txfonts/pxfonts)
16025 % U+019E LATIN SMALL LETTER N WITH LONG RIGHT LEG; nlegright-
long;
16026 % \textnrleg (tipx)
16027 \DeclareTextCommand{\textPUnrleg}{PU}{\81\236}% U+019E
16028 %* \textPUnrleg -> \textnrleg (tipx)
16029 % U+01A5 LATIN SMALL LETTER P WITH HOOK; phook; \texthtp (tipa)
16030 \DeclareTextCommand{\texthtp}{PU}{\81\245}% U+01A5
16031 % U+01AB LATIN SMALL LETTER T WITH PALATAL HOOK; tpalatalhook;
16032 % \textlhookt (tipa)
16033 \DeclareTextCommand{\textlhookt}{PU}{\81\253}% U+01AB
16034 % U+01AD LATIN SMALL LETTER T WITH HOOK; thook; \texthtt (tipa)
16035 \DeclareTextCommand{\texthtt}{PU}{\81\255}% U+01AD
16036 % U+01B9 LATIN SMALL LETTER EZH REVERSED/
16037 % LATIN SMALL LETTER REVERSED YOGH; \textrevyogh (tipa)
16038 \DeclareTextCommand{\textrevyogh}{PU}{\81\271}% U+01B9
16039 % U+01BB LATIN LETTER TWO WITH STROKE; twostroke; \textcrtwo (tipa)
16040 \DeclareTextCommand{\textcrtwo}{PU}{\81\273}% U+01BB
16041 % U+01BE LATIN LETTER INVERTED GLOTTAL STOP WITH STROKE;
16042 % glottalinvertedstroke; \textcrinvglotstop (tipa)
16043 \DeclareTextCommand{\textcrinvglotstop}{PU}{\81\276}% U+01BE
16044 % U+01BF LATIN LETTER WYNN; wynn; \textwynn (tipa)
16045 \DeclareTextCommand{\textwynn}{PU}{\81\277}% U+01BF
16046 % U+01C0 LATIN LETTER DENTAL CLICK/LATIN LETTER PIPE; clickden-
tal;
16047 % \textpipe (tipa)
16048 \DeclareTextCommand{\textpipe}{PU}{\81\300}% U+01C0
16049 %* \textpipe -> \textpipevar (tipx)

16050 % U+01C1 LATIN LETTER LATERAL CLICK/LATIN LETTER
16051 % DOUBLE PIPE; clicklateral; \textdoublepipe (tipa)
16052 \DeclareTextCommand{\textdoublepipe}{PU}{\81\301}% U+01C1
16053 %* \textdoublepipe -> \textdoublepipevar (tipx)
16054 % U+01C2 LATIN LETTER ALVEOLAR CLICK/LATIN LETTER PIPE DOU-
BLE BAR;
16055 % clickalveolar; \textdoublebarpipe (tipa)
16056 \DeclareTextCommand{\textdoublebarpipe}{PU}{\81\302}% U+01C2
16057 %* \textdoublebarpipe -> \textdoublebarpipevar (tipx)
16058 % U+01CD LATIN CAPITAL LETTER A WITH CARON; Acaron
16059 \DeclareTextCompositeCommand{\v}{PU}{A}{\81\315}% U+01CD
16060 % U+01CE LATIN SMALL LETTER A WITH CARON; acarón
16061 \DeclareTextCompositeCommand{\v}{PU}{a}{\81\316}% U+01CE
16062 % U+01CF LATIN CAPITAL LETTER I WITH CARON; Icaron
16063 \DeclareTextCompositeCommand{\v}{PU}{I}{\81\317}% U+01CF
16064 % U+01D0 LATIN SMALL LETTER I WITH CARON; icarón
16065 \DeclareTextCompositeCommand{\v}{PU}{i}{\81\320}% U+01D0
16066 \DeclareTextCompositeCommand{\v}{PU}{i}{\81\320}% U+01D0
16067 % U+01D1 LATIN CAPITAL LETTER O WITH CARON; Ocaron
16068 \DeclareTextCompositeCommand{\v}{PU}{O}{\81\321}% U+01D1
16069 % U+01D2 LATIN SMALL LETTER O WITH CARON; ocarón
16070 \DeclareTextCompositeCommand{\v}{PU}{o}{\81\322}% U+01D2
16071 % U+01D3 LATIN CAPITAL LETTER U WITH CARON; Ucaron
16072 \DeclareTextCompositeCommand{\v}{PU}{U}{\81\323}% U+01D3
16073 % U+01D4 LATIN SMALL LETTER U WITH CARON; ucarón
16074 \DeclareTextCompositeCommand{\v}{PU}{u}{\81\324}% U+01D4
16075 % U+01DD LATIN SMALL LETTER TURNED E; eturned; \inve (wasysym)
16076 \DeclareTextCommand{\textinve}{PU}{\81\335}%* U+01DD
16077 % U+01E4 LATIN CAPITAL LETTER G WITH STROKE; Gstroke
16078 \DeclareTextCommand{\textGslash}{PU}{\81\344}% U+01E4
16079 % U+01E5 LATIN SMALL LETTER G WITH STROKE; gstroke
16080 \DeclareTextCommand{\textgslash}{PU}{\81\345}% U+01E5
16081 %* \textgslash -> \textcrg (tipa)
16082 % U+01E6 LATIN CAPITAL LETTER G WITH CARON; Gcaron
16083 \DeclareTextCompositeCommand{\v}{PU}{G}{\81\346}% U+01E6
16084 % U+01E7 LATIN SMALL LETTER G WITH CARON; gcarón
16085 \DeclareTextCompositeCommand{\v}{PU}{g}{\81\347}% U+01E7
16086 % U+01E8 LATIN CAPITAL LETTER K WITH CARON; Kcaron
16087 \DeclareTextCompositeCommand{\v}{PU}{K}{\81\350}% U+01E8
16088 % U+01E9 LATIN SMALL LETTER K WITH CARON; kcarón
16089 \DeclareTextCompositeCommand{\v}{PU}{k}{\81\351}% U+01E9
16090 % U+01EA LATIN CAPITAL LETTER O WITH OGONEK; Oogonek
16091 \DeclareTextCompositeCommand{\k}{PU}{O}{\81\352}% U+01EA
16092 % U+01EB LATIN SMALL LETTER O WITH OGONEK; oogonek
16093 \DeclareTextCompositeCommand{\k}{PU}{o}{\81\353}% U+01EB
16094 % U+01F0 LATIN SMALL LETTER J WITH CARON; jcaron
16095 \DeclareTextCompositeCommand{\v}{PU}{j}{\81\360}% U+01F0
16096 \DeclareTextCompositeCommand{\v}{PU}{j}{\81\360}% U+01F0
16097 % U+01F4 LATIN CAPITAL LETTER G WITH ACUTE; Gacute
16098 \DeclareTextCompositeCommand{\'}{PU}{G}{\81\364}% U+01F4
16099 % U+01F5 LATIN SMALL LETTER G WITH ACUTE; gacute
16100 \DeclareTextCompositeCommand{\'}{PU}{g}{\81\365}% U+01F5
16101 % U+01F8 LATIN CAPITAL LETTER N WITH GRAVE
16102 \DeclareTextCompositeCommand{\`}{PU}{N}{\81\370}% U+01F8
16103 % U+01F9 LATIN SMALL LETTER N WITH GRAVE
16104 \DeclareTextCompositeCommand{\`}{PU}{n}{\81\371}% U+01F9
16105 % U+01FC LATIN CAPITAL LETTER AE WITH ACUTE; AEacute

16106 \DeclareTextCompositeCommand{\'}{PU}{\AE}{\81\374}% U+01FC
16107 % U+01FD LATIN SMALL LETTER AE WITH ACUTE; aeacute
16108 \DeclareTextCompositeCommand{\'}{PU}{\ae}{\81\375}% U+01FD
16109 % U+01FE LATIN CAPITAL LETTER O WITH STROKE AND ACUTE;
16110 % *Oslashacute, Ostrokeacut
16111 \DeclareTextCompositeCommand{\'}{PU}{\O}{\81\376}% U+01FE
16112 % U+01FF LATIN SMALL LETTER O WITH STROKE AND ACUTE;
16113 % *oslashacute, ostrokeacute
16114 \DeclareTextCompositeCommand{\'}{PU}{\o}{\81\377}% U+01FF
16115 % U+0200 LATIN CAPITAL LETTER A WITH DOUBLE GRAVE; Adblgrave
16116 \DeclareTextCompositeCommand{\G}{PU}{A}{\82\000}% U+0200
16117 % U+0201 LATIN SMALL LETTER A WITH DOUBLE GRAVE; adblgrave
16118 \DeclareTextCompositeCommand{\G}{PU}{a}{\82\001}% U+0201
16119 % U+0204 LATIN CAPITAL LETTER E WITH DOUBLE GRAVE; Edblgrave
16120 \DeclareTextCompositeCommand{\G}{PU}{E}{\82\004}% U+0204
16121 % U+0205 LATIN SMALL LETTER E WITH DOUBLE GRAVE; edblgrave
16122 \DeclareTextCompositeCommand{\G}{PU}{e}{\82\005}% U+0205
16123 % U+0206 LATIN CAPITAL LETTER E WITH INVERTED BREVE; Einvert-
edbreve
16124 \DeclareTextCompositeCommand{\textinvbreve}{PU}{E}{\82\006}% U+0206
16125 % U+0207 LATIN SMALL LETTER E WITH INVERTED BREVE; einverted-
breve
16126 \DeclareTextCompositeCommand{\textinvbreve}{PU}{e}{\82\007}% U+0207
16127 % U+0208 LATIN CAPITAL LETTER I WITH DOUBLE GRAVE; Idblgrave
16128 \DeclareTextCompositeCommand{\G}{PU}{I}{\82\010}% U+0208
16129 % U+0209 LATIN SMALL LETTER I WITH DOUBLE GRAVE; idblgrave
16130 \DeclareTextCompositeCommand{\G}{PU}{i}{\82\011}% U+0209
16131 \DeclareTextCompositeCommand{\G}{PU}{i}{\82\011}% U+0209
16132 % U+020A LATIN CAPITAL LETTER I WITH INVERTED BREVE; Iinverted-
breve
16133 \DeclareTextCompositeCommand{\textinvbreve}{PU}{I}{\82\012}% U+020A
16134 % U+020B LATIN SMALL LETTER I WITH INVERTED BREVE; iinverted-
breve
16135 \DeclareTextCompositeCommand{\textinvbreve}{PU}{i}{\82\013}% U+020B
16136 \DeclareTextCompositeCommand{\textinvbreve}{PU}{i}{\82\013}% U+020B
16137 % U+020C LATIN CAPITAL LETTER O WITH DOUBLE GRAVE; Odblgrave
16138 \DeclareTextCompositeCommand{\G}{PU}{O}{\82\014}% U+020C
16139 % U+020D LATIN SMALL LETTER O WITH DOUBLE GRAVE; odblgrave
16140 \DeclareTextCompositeCommand{\G}{PU}{o}{\82\015}% U+020D
16141 % U+020E LATIN CAPITAL LETTER O WITH INVERTED BREVE; Oinvert-
edbreve
16142 \DeclareTextCompositeCommand{\textinvbreve}{PU}{O}{\82\016}% U+020E
16143 % U+020F LATIN SMALL LETTER O WITH INVERTED BREVE; oinverted-
breve
16144 \DeclareTextCompositeCommand{\textinvbreve}{PU}{o}{\82\017}% U+020F
16145 % U+0210 LATIN CAPITAL LETTER R WITH DOUBLE GRAVE; Rdblgrave
16146 \DeclareTextCompositeCommand{\G}{PU}{R}{\82\020}% U+0210
16147 % U+0211 LATIN SMALL LETTER R WITH DOUBLE GRAVE; rdblgrave
16148 \DeclareTextCompositeCommand{\G}{PU}{r}{\82\021}% U+0211
16149 % U+0214 LATIN CAPITAL LETTER U WITH DOUBLE GRAVE; Udblgrave
16150 \DeclareTextCompositeCommand{\G}{PU}{U}{\82\024}% U+0214
16151 % U+0215 LATIN SMALL LETTER U WITH DOUBLE GRAVE; udblgrave
16152 \DeclareTextCompositeCommand{\G}{PU}{u}{\82\025}% U+0215
16153 % U+0216 LATIN CAPITAL LETTER U WITH INVERTED BREVE; Uinvert-
edbreve
16154 \DeclareTextCompositeCommand{\textinvbreve}{PU}{U}{\82\026}% U+0216

16155 % U+0217 LATIN SMALL LETTER U WITH INVERTED BREVE; uinverted-breve
 16156 \DeclareTextCompositeCommand{\textinvbreve}{PU}{u}{\82\027}% U+0217
 16157 % U+021E LATIN CAPITAL LETTER H WITH CARON
 16158 \DeclareTextCompositeCommand{\v}{PU}{H}{\82\036}% U+021E
 16159 % U+021F LATIN SMALL LETTER H WITH CARON
 16160 \DeclareTextCompositeCommand{\v}{PU}{h}{\82\037}% U+021F
 16161 % U+0221 LATIN SMALL LETTER D WITH CURL; \textctd (tipa)
 16162 \DeclareTextCommand{\textctd}{PU}{\82\041}% U+0221
 16163 % U+0225 LATIN SMALL LETTER Z WITH HOOK; \textcommatailz (tipa)
 16164 \DeclareTextCommand{\textcommatailz}{PU}{\82\045}% U+0225
 16165 % U+0226 LATIN CAPITAL LETTER A WITH DOT ABOVE
 16166 \DeclareTextCompositeCommand{\.}{PU}{A}{\82\046}% U+0226
 16167 % U+0227 LATIN SMALL LETTER A WITH DOT ABOVE
 16168 \DeclareTextCompositeCommand{\.}{PU}{a}{\82\047}% U+0227
 16169 % U+0228 LATIN CAPITAL LETTER E WITH CEDILLA
 16170 \DeclareTextCompositeCommand{\c}{PU}{E}{\82\050}% U+0228
 16171 % U+0229 LATIN SMALL LETTER E WITH CEDILLA
 16172 \DeclareTextCompositeCommand{\c}{PU}{e}{\82\051}% U+0229
 16173 % U+022E LATIN CAPITAL LETTER O WITH DOT ABOVE
 16174 \DeclareTextCompositeCommand{\.}{PU}{O}{\82\056}% U+022E
 16175 % U+022F LATIN SMALL LETTER O WITH DOT ABOVE
 16176 \DeclareTextCompositeCommand{\.}{PU}{o}{\82\057}% U+022F
 16177 % U+0232 LATIN CAPITAL LETTER Y WITH MACRON
 16178 \DeclareTextCompositeCommand{\=}{PU}{Y}{\82\062}% U+0232
 16179 % U+0233 LATIN SMALL LETTER Y WITH MACRON
 16180 \DeclareTextCompositeCommand{\=}{PU}{y}{\82\063}% U+0233
 16181 % U+0235 LATIN SMALL LETTER N WITH CURL; \textctn (tipa)
 16182 \DeclareTextCommand{\textctn}{PU}{\82\065}% U+0235
 16183 % U+0236 LATIN SMALL LETTER T WITH CURL; \textctt (tipa)
 16184 \DeclareTextCommand{\textctt}{PU}{\82\066}% U+0236
 16185 % U+0237 LATIN SMALL LETTER DOTLESS J
 16186 \DeclareTextCommand{\j}{PU}{\82\067}% U+0237
 16187 % U+0238 LATIN SMALL LETTER DB DIGRAPH; \textdblig (tipx)
 16188 \DeclareTextCommand{\textPUdblig}{PU}{\82\070}% U+0238
 16189 %* \textPUdblig -> \textdblig (tipx)
 16190 % U+0239 LATIN SMALL LETTER QP DIGRAPH; \textqplig (tipx)
 16191 \DeclareTextCommand{\textPUqplig}{PU}{\82\071}% U+0239
 16192 %* \textPUqplig -> \textqplig (tipx)
 16193 % U+023C LATIN SMALL LETTER C WITH STROKE; \slashc (wsuipa)
 16194 \DeclareTextCommand{\textslashc}{PU}{\82\074}%* U+023C
 16195 %* \textslashc -> \textcentoldstyle (textcomp)
 16196 % With bar instead of stroke:
 16197 %* \textslashc -> \textbarc (tipa)

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

16198 % U+0250 LATIN SMALL LETTER TURNED A; aturned; \textturna (tipa)
 16199 \DeclareTextCommand{\textturna}{PU}{\82\120}% U+0250
 16200 %* \textturna -> \inva (wasysym)
 16201 % U+0251 LATIN SMALL LETTER ALPHA/LATIN SMALL LETTER
 16202 % SCRIPT A; ascript; \textscripta (tipa), \scripta (wsuipa)
 16203 \DeclareTextCommand{\textscripta}{PU}{\82\121}%* U+0251
 16204 %* \textscripta -> \vara (phonetic)
 16205 % U+0252 LATIN SMALL LETTER TURNED ALPHA; ascriptturned;
 16206 % \textturnscripta (tipa)
 16207 \DeclareTextCommand{\textturnscripta}{PU}{\82\122}% U+0252
 16208 %* \textturnscripta -> \invscripta (wsuipa)

16209 %* \textturnscripta -> \rotvara (phonetic)
 16210 % U+0253 LATIN CAPITAL LETTER B WITH HOOK; bhook; \texthtb (tipa)
 16211 \DeclareTextCommand{\texthtb}{PU}{\82\123}% U+0253
 16212 %* \texthtb -> \hookb (wsuipa)
 16213 %* \texthtb -> \hausab (phonetic)
 16214 % U+0254 LATIN SMALL LETTER OPEN O; oopen;
 16215 % \textopeno (tipa), \openo (wasysym)
 16216 \DeclareTextCommand{\textopeno}{PU}{\82\124}% U+0254
 16217 %* \textopeno -> \varopeno (phonetic)
 16218 % U+0255 LATIN SMALL LETTER C WITH CURL; ccurl; \textctc (tipa)
 16219 \DeclareTextCommand{\textctc}{PU}{\82\125}% U+0255
 16220 %* \textctc -> \curlyc (wsuipa)
 16221 % U+0256 LATIN SMALL LETTER D WITH TAIL; dtail; \textrtaild (tipa)
 16222 \DeclareTextCommand{\textrtaild}{PU}{\82\126}% U+0256
 16223 %* \textrtaild -> \taild (wsuipa)
 16224 % U+0257 LATIN SMALL LETTER D WITH HOOK; dhook; \texthtd (tipa)
 16225 \DeclareTextCommand{\texthtd}{PU}{\82\127}% U+0257
 16226 %* \texthtd -> \hookd (wsuipa)
 16227 %* \texthtd -> \hausad (phonetic)
 16228 % U+0258 LATIN SMALL LETTER REVERSED E; ereversed;
 16229 % \textreve (tipa), \reve (wsuipa)
 16230 \DeclareTextCommand{\textreve}{PU}{\82\130}% U+0258
 16231 % U+0259 LATIN SMALL LETTER SCHWA; schwa;
 16232 % \textschwa (tipa), \schwa (wsuipa, phonetic)
 16233 \DeclareTextCommand{\textschwa}{PU}{\82\131}% U+0259
 16234 % U+025A LATIN SMALL LETTER SCHWA WITH HOOK; schwahook;
 16235 % \textrhookschwa (tipa)
 16236 \DeclareTextCommand{\textrhookschwa}{PU}{\82\132}% U+025A
 16237 %* \textrhookschwa -> \er (wsuipa)
 16238 % U+025B LATIN SMALL LETTER OPEN E/LATIN SMALL LETTER EP-
 SILON; eopen;
 16239 % \niepsilon (wsuipa)
 16240 \DeclareTextCommand{\textniepsilon}{PU}{\82\133}% U+025B
 16241 %* \textniepsilon -> \epsi (phonetic)
 16242 % U+025C LATIN SMALL LETTER REVERSED OPEN E; eopenreversed;
 16243 % \textrevepsilon (tipa), \revepsilon (wsuipa)
 16244 \DeclareTextCommand{\textrevepsilon}{PU}{\82\134}% U+025C
 16245 % U+025D LATIN SMALL LETTER REVERSED OPEN E WITH HOOK; eopen-
 reversedhook;
 16246 % \textrhookrevepsilon (tipa)
 16247 \DeclareTextCommand{\textrhookrevepsilon}{PU}{\82\135}% U+025D
 16248 %* \textrhookrevepsilon -> \hookrevepsilon (wsuipa)
 16249 % U+025E LATIN SMALL LETTER CLOSED REVERSED OPEN E; eopenre-
 versedclosed;
 16250 % \textcloserevepsilon (tipa)
 16251 \DeclareTextCommand{\textcloserevepsilon}{PU}{\82\136}% U+025E
 16252 %* \textcloserevepsilon -> \closedrevepsilon (wsuipa)
 16253 % U+025F LATIN SMALL LETTER DOTLESS J WITH STROKE; jdot-
 lessstroke;
 16254 % \textbardotlessj (tipa)
 16255 \DeclareTextCommand{\textbardotlessj}{PU}{\82\137}% U+025F
 16256 %* \textbardotlessj -> \barj (phonetic)
 16257 % U+0260 LATIN SMALL LETTER G WITH HOOK; ghook; \texthtg (tipa)
 16258 \DeclareTextCommand{\texthtg}{PU}{\82\140}% U+0260
 16259 %* \texthtg -> \hookg (wsuipa)
 16260 % U+0261 LATIN SMALL LETTER SCRIPT G; gscript;
 16261 % \textscriptg (tipa), \scriptg (wsuipa)

16262 \DeclareTextCommand{\textscriptg}{PU}{\82\141}%* U+0261
16263 %* \textscriptg -> \varg (phonetic)
16264 % U+0262 LATIN SMALL LETTER CAPITAL G; \textscg (tipa), \scg (wsuipa)
16265 \DeclareTextCommand{\textscg}{PU}{\82\142}%* U+0262
16266 % U+0263 LATIN SMALL LETTER GAMMA; gammalatinsmall;
16267 % \ipagamma (wsuipa), \vod (phonetic)
16268 \DeclareTextCommand{\textipagamma}{PU}{\82\143}%* U+0263
16269 %* \textipagamma -> \vod (phonetic)
16270 % U+0264 LATIN SMALL LETTER RAMS HORN; ramshorn;
16271 % \babygamma (wsuipa)
16272 \DeclareTextCommand{\textbabygamma}{PU}{\82\144}%* U+0264
16273 % U+0265 LATIN SMALL LETTER TURNED H; hturned; \textturnh (tipa)
16274 \DeclareTextCommand{\textturnh}{PU}{\82\145}% U+0265
16275 %* \textturnh -> \invh (wsuipa)
16276 %* \textturnh -> \udesc (phonetic)
16277 % U+0266 LATIN SMALL LETTER H WITH HOOK; hhook; \texthth (tipa)
16278 \DeclareTextCommand{\texthth}{PU}{\82\146}% U+0266
16279 %* \texthth -> \hookh (wsuipa)
16280 %* \texthth -> \voicedh (phonetic)
16281 % U+0267 LATIN SMALL LETTER HENG WITH HOOK; henghook; \tex-
ththeng (tipa)
16282 \DeclareTextCommand{\texththeng}{PU}{\82\147}% U+0267
16283 %* \texththeng -> \hookheng (wsuipa)
16284 % U+0268 LATIN SMALL LETTER I WITH STROKE;
16285 % \textbari (tipa), \bari (wsuipa)
16286 \DeclareTextCommand{\textbari}{PU}{\82\150}%* U+0268
16287 %* \textbari -> \ibar (phonetic)
16288 % U+0269 LATIN SMALL LETTER IOTA; iotalatin; \niiota (wsuipa)
16289 \DeclareTextCommand{\textniiota}{PU}{\82\151}%* U+0269
16290 %* \textniiota -> \vari (phonetic)
16291 % U+026A LATIN LETTER SMALL CAPITAL I; \textsci (tipa), \sci (wsuipa)
16292 \DeclareTextCommand{\textsci}{PU}{\82\152}%* U+026A
16293 % U+026B LATIN SMALL LETTER L WITH MIDDLE TILDE; lmiddletilde;
16294 % \textltilde (tipa)
16295 \DeclareTextCommand{\textltilde}{PU}{\82\153}% U+026B
16296 %* \textltilde -> \tildel (wsuipa)
16297 % U+026C LATIN SMALL LETTER L WITH BELT; lbelt; \textbeltl (tipa)
16298 \DeclareTextCommand{\textbeltl}{PU}{\82\154}% U+026C
16299 %* \textbeltl -> \latfric (wsuipa)
16300 % U+026D LATIN SMALL LETTER L WITH RETROFLEX HOOK;
16301 % lhookretroflex; \textrtaill (tipa)
16302 \DeclareTextCommand{\textrtaill}{PU}{\82\155}% U+026D
16303 %* \textrtaill -> \taill (wsuipa)
16304 % U+026E LATIN SMALL LETTER LEZH; lezh; \textlyoghlig (tipa)
16305 \DeclareTextCommand{\textlyoghlig}{PU}{\82\156}% U+026E
16306 %* \textlyoghlig -> \lz (wsuipa)
16307 % U+026F LATIN SMALL LETTER TURNED M; mturned; \textturnm (tipa)
16308 \DeclareTextCommand{\textturnm}{PU}{\82\157}% U+026F
16309 %* \textturnm -> \invm (wsuipa)
16310 %* \textturnm -> \rotm (phonetic)
16311 % U+0270 LATIN SMALL LETTER TURNED M WITH LONG LEG; mlongleg-
turned;
16312 % \textturnmrleg (tipa)
16313 \DeclareTextCommand{\textturnmrleg}{PU}{\82\160}% U+0270
16314 %* \textturnmrleg -> \legm (wsuipa)
16315 % U+0271 LATIN SMALL LETTER M WITH HOOK; mhook; \textltailm (tipa)
16316 \DeclareTextCommand{\textltailm}{PU}{\82\161}% U+0271

16317 %* \textltailm -> \labdentalnas (wsuipa)
16318 %* \textltailm -> \emgma (phonetic)
16319 % U+0272 LATIN SMALL LETTER N WITH LEFT HOOK; nhookleft; \textltailn (tipa)
16320 \DeclareTextCommand{\textltailn}{PU}{\82\162}% U+0272
16321 %* \textltailn -> \nj (wsuipa)
16322 %* \textltailn -> \nya (phonetic)
16323 % U+0273 LATIN SMALL LETTER N WITH RETROFLEX HOOK;
16324 % nhookretroflex; \textrtailn (tipa)
16325 \DeclareTextCommand{\textrtailn}{PU}{\82\163}% U+0273
16326 %* \textrtailn -> \tailn (wsuipa)
16327 % U+0274 LATIN LETTER SMALL CAPITAL N; \textscn (tipa), \scn (wsuipa)
16328 \DeclareTextCommand{\textscn}{PU}{\82\164}% U+0274
16329 % U+0275 LATIN CAPITAL LETTER O WITH MIDDLE TILDE/
16330 % LATIN CAPITAL LETTER BARRED O; obarred;
16331 % \textbaro (tipa), \baro (wsuipa)
16332 % But \baro from stmaryrd is different!
16333 \DeclareTextCommand{\textbaro}{PU}{\82\165}% U+0275
16334 % U+0276 LATIN LETTER SMALL CAPITAL OE; \textscelig (tipa)
16335 \DeclareTextCommand{\textscelig}{PU}{\82\166}% U+0276
16336 % U+0277 LATIN SMALL LETTER CLOSED OMEGA; omegalatininclosed;
16337 % \textcloseomega (tipa)
16338 \DeclareTextCommand{\textcloseomega}{PU}{\82\167}% U+0277
16339 %* \textcloseomega -> \closedniomega (wsuipa)
16340 %* \textcloseomega -> \varomega (phonetic)
16341 % U+0278 LATIN SMALL LETTER PHI; philatin; \nippi (wsuipa)
16342 \DeclareTextCommand{\textnippi}{PU}{\82\170}% U+0278
16343 % U+0279 LATIN SMALL LETTER TURNED R; rturned; \textturnr (tipa)
16344 \DeclareTextCommand{\textturnr}{PU}{\82\171}% U+0279
16345 %* \textturnr -> \invr (wsuipa)
16346 %* \textturnr -> \rotr (phonetic)
16347 % U+027A LATIN SMALL LETTER TURNED R WITH LONG LEG;
16348 % rlonglegturned; \textturnlongleg (tipa)
16349 \DeclareTextCommand{\textturnlongleg}{PU}{\82\172}% U+027A
16350 %* \textturnlongleg -> \invleg (wsuipa)
16351 % U+027B LATIN SMALL LETTER TURNED R WITH HOOK; rhoorturned;
16352 % \textturnrrtail (tipa)
16353 \DeclareTextCommand{\textturnrrtail}{PU}{\82\173}% U+027B
16354 %* \textturnrrtail -> \tailinvr (wsuipa)
16355 % U+027C LATIN SMALL LETTER R WITH LONG LEG; rlongleg; \textlongleg (tipa)
16356 \DeclareTextCommand{\textlongleg}{PU}{\82\174}% U+027C
16357 %* \textlongleg -> \leg (wsuipa)
16358 % U+027D LATIN SMALL LETTER R WITH TAIL; rhoortail; \textrtailr (tipa)
16359 \DeclareTextCommand{\textrtailr}{PU}{\82\175}% U+027D
16360 %* \textrtailr -> \tailr (wsuipa)
16361 % U+027E LATIN SMALL LETTER R WITH FISHHOOK; rfishhook;
16362 % \textfishhookr (tipa)
16363 \DeclareTextCommand{\textfishhookr}{PU}{\82\176}% U+027E
16364 %* \textfishhookr -> \flapr (wsuipa)
16365 %* \textfishhookr -> \flap (phonetic)
16366 % U+027F LATIN SMALL LETTER REVERSED R WITH FISHHOOK; rfishhookreversed;
16367 % \textlhtlongi (tipa)
16368 \DeclareTextCommand{\textlhtlongi}{PU}{\82\177}% U+027F
16369 % U+0280 LATIN LETTER SMALL CAPITAL R; \textscr (tipa), \scr (wsuipa)
16370 \DeclareTextCommand{\textscr}{PU}{\82\200}% U+0280

16371 % U+0281 LATIN LETTER SMALL CAPITAL INVERTED R; Rsmallinverted;
16372 % \textinvscr (tipa), \invscr (wsuipa)
16373 \DeclareTextCommand{\textinvscr}{PU}{\82\201}%* U+0281
16374 % U+0282 LATIN SMALL LETTER S WITH HOOK; shook; \texttrails (tipa)
16375 \DeclareTextCommand{\texttrails}{PU}{\82\202}% U+0282
16376 %* \texttrails -> \tails (wsuipa)
16377 % U+0283 LATIN SMALL LETTER ESH; esh; \textesh (tipa), \esh (wsuipa)
16378 \DeclareTextCommand{\textesh}{PU}{\82\203}%* U+0283
16379 % U+0284 LATIN SMALL LETTER DOTLESS J WITH STROKE AND HOOK;
16380 % dotlessjstrokehook; \texthtbardotlessj (tipa)
16381 \DeclareTextCommand{\texthtbardotlessj}{PU}{\82\204}% U+0284
16382 % U+0285 LATIN SMALL LETTER SQUAT REVERSED ESH; eshsquatre-
versed;
16383 % \textvibyi (tipa)
16384 \DeclareTextCommand{\textvibyi}{PU}{\82\205}% U+0285
16385 % U+0286 LATIN SMALL LETTER ESH WITH CURL; eshcurl; \textctesh (tipa)
16386 \DeclareTextCommand{\textctesh}{PU}{\82\206}% U+0286
16387 %* \textctesh -> \curlyesh (wsuipa)
16388 % U+0287 LATIN SMALL LETTER TURNED T; tturned; \textturnt (tipa)
16389 \DeclareTextCommand{\textturnt}{PU}{\82\207}% U+0287
16390 %* \textturnt -> \clickt (wsuipa)
16391 % U+0288 LATIN SMALL LETTER T WITH RETROFLEX HOOK; retroflex-
hook;
16392 % \texttrtailt (tipa)
16393 \DeclareTextCommand{\texttrtailt}{PU}{\82\210}% U+0288
16394 %* \texttrtailt -> \tailt (wsuipa)
16395 % U+0289 LATIN SMALL LETTER U BAR; ubar;
16396 % \textbaru (tipa), \baru (wsuipa)
16397 \DeclareTextCommand{\textbaru}{PU}{\82\211}%* U+0289
16398 %* \textbaru -> \ubar (phonetic)
16399 % U+028A LATIN SMALL LETTER UPSILON; \niupsilon (wsuipa)
16400 \DeclareTextCommand{\textniupsilon}{PU}{\82\212}%* U+028A
16401 %* \textniupsilon -> \rotOmega (phonetic)
16402 % U+028B LATIN SMALL LETTER V WITH HOOK/LATIN SMALL LET-
TER SCRIPT V;
16403 % vhook; \textscriptv (tipa), \scriptv (wsuipa)
16404 \DeclareTextCommand{\textscriptv}{PU}{\82\213}%* U+028B
16405 % U+028C LATIN SMALL LETTER TURNED V; vturned; \textturnv (tipa)
16406 \DeclareTextCommand{\textturnv}{PU}{\82\214}%* U+028C
16407 %* \textturnv -> \invv (wsuipa)
16408 %* \textturnv -> \pwedge (phonetic)
16409 % U+028D LATIN SMALL LETTER TURNED W; wturned; \textturnw (tipa)
16410 \DeclareTextCommand{\textturnw}{PU}{\82\215}%* U+028D
16411 %* \textturnw -> \invw (wsuipa)
16412 %* \textturnw -> \rotw (phonetic)
16413 % U+028E LATIN SMALL LETTER TURNED Y; yturned; \textturny (tipa)
16414 \DeclareTextCommand{\textturny}{PU}{\82\216}%* U+028E
16415 %* \textturny -> \invy (wsuipa)
16416 %* \textturny -> \roty (phonetic)
16417 % U+028F LATIN LETTER SMALL CAPITAL Y; \textscy (tipa), \scy (wsuipa)
16418 \DeclareTextCommand{\textscy}{PU}{\82\217}%* U+028F
16419 % U+0290 LATIN SMALL LETTER Z WITH RETROFLEX HOOK; zretroflex-
hook;
16420 % \texttrtailz (tipa)
16421 \DeclareTextCommand{\texttrtailz}{PU}{\82\220}% U+0290
16422 %* \texttrtailz -> \tailz (wsuipa)
16423 % U+0291 LATIN SMALL LETTER Z WITH CURL; zcurl; \textctz (tipa)

16424 \DeclareTextCommand{\textctz}{PU}{\82\221}% U+0291
16425 %* \textctz -> \curlyz (wsuipa)
16426 % U+0292 LATIN SMALL LETTER EZH/LATIN SMALL LETTER YOGH; ezh;
16427 % \textyogh (tipa), \yogh (wsuipa)
16428 \DeclareTextCommand{\textyogh}{PU}{\82\222}%* U+0292
16429 % U+0293 LATIN SMALL LETTER EZH WITH CURL/LATIN SMALL LETTER YOGH CURL;
16430 % ezhcurl; \textctyogh (tipa)
16431 \DeclareTextCommand{\textctyogh}{PU}{\82\223}% U+0293
16432 %* \textctyogh -> \curlyyogh (wsuipa)
16433 % U+0294 LATIN LETTER GLOTTAL STOP; glottalstop;
16434 % \textglotstop (tipa), \glotstop (wsuipa)
16435 \DeclareTextCommand{\textglotstop}{PU}{\82\224}%* U+0294
16436 %* \textglotstop -> \ejective (wsuipa)
16437 %* \textglotstop -> \glottal (phonetic)
16438 % U+0295 LATIN LETTER PHARYNGEAL VOICED FRICATIVE/
16439 % LATIN LETTER REVERSED GLOTTAL STOP; glottalstopreversed;
16440 % \textrevglotstop (tipa), \revglotstop (wsuipa)
16441 \DeclareTextCommand{\textrevglotstop}{PU}{\82\225}%* U+0295
16442 %* \textrevglotstop -> \reveject (wsuipa)
16443 % U+0296 LATIN LETTER INVERTED GLOTTAL STOP; glottalstopinverted;
16444 % \textinvglotstop (tipa), \invglotstop (wsuipa)
16445 \DeclareTextCommand{\textinvglotstop}{PU}{\82\226}%* U+0296
16446 % U+0297 LATIN LETTER STRETCHED C; cstretched; \textstretchc (tipa)
16447 \DeclareTextCommand{\textstretchc}{PU}{\82\227}% U+0297
16448 %* \textstretchc -> \clickc (wsuipa)
16449 %* \textstretchc -> \textstretchcvar (tipx)
16450 % U+0298 LATIN LETTER BILABIAL CLICK; bilabialclick;
16451 % \textbullseye (tipa)
16452 \DeclareTextCommand{\textbullseye}{PU}{\82\230}% U+0298
16453 %* \textbullseye -> \clickb (wsuipa)
16454 %* \textbullseye -> \textObullseye (tipx)
16455 % U+0299 LATIN LETTER SMALL CAPITAL B; \textscb (tipa)
16456 \DeclareTextCommand{\textscb}{PU}{\82\231}% U+0299
16457 % U+029A LATIN SMALL LETTER CLOSED OPEN E; eopenclosed;
16458 % \textcloseepsilon (tipa)
16459 \DeclareTextCommand{\textcloseepsilon}{PU}{\82\232}% U+029A
16460 % U+029B LATIN LETTER SMALL CAPITAL G WITH HOOK; Gsmallhook;
16461 % \texthtscg (tipa)
16462 \DeclareTextCommand{\texthtscg}{PU}{\82\233}% U+029B
16463 % U+029C LATIN LETTER SMALL CAPITAL H; \textsch (tipa)
16464 \DeclareTextCommand{\textsch}{PU}{\82\234}% U+029C
16465 % U+029D LATIN SMALL LETTER J WITH CROSSED-TAIL; jcrossetail; \textcdj (tipa)
16466 \DeclareTextCommand{\textctj}{PU}{\82\235}% U+029D
16467 %* \textctj -> \textctjvar (tipx)
16468 % U+029E LATIN SMALL LETTER TURNED K; kturned; \textturnk (tipa)
16469 \DeclareTextCommand{\textturnk}{PU}{\82\236}% U+029E
16470 %* \textturnk -> \textturnsck (tipx)
16471 % U+029F LATIN LETTER SMALL CAPITAL L; \textscL (tipa)
16472 \DeclareTextCommand{\textscL}{PU}{\82\237}% U+029F
16473 % U+02A0 LATIN SMALL LETTER Q WITH HOOK; qhook; \texthtq (tipa)
16474 \DeclareTextCommand{\texthtq}{PU}{\82\240}% U+02A0
16475 % U+02A1 LATIN LETTER GLOTTAL STOP WITH STROKE; glottalstop-stroke;
16476 % \textbarglotstop (tipa)
16477 \DeclareTextCommand{\textbarglotstop}{PU}{\82\241}% U+02A1

16478 % U+02A2 LATIN LETTER REVERSED GLOTTAL STOP WITH STROKE/
 16479 % LATIN LETTER REVERSED GLOTTAL STOP BAR; glottalstopstrokere-
 versed;
 16480 % \textbarrevglotstop (tipa)
 16481 \DeclareTextCommand{\textbarrevglotstop}{PU}{\82\242}% U+02A2
 16482 % U+02A3 LATIN SMALL LETTER DZ DIGRAPH; dzaltone; \textdzlig (tipa)
 16483 \DeclareTextCommand{\textdzlig}{PU}{\82\243}% U+02A3
 16484 %* \textdzlig -> \dz (wsupipa)
 16485 % U+02A4 LATIN SMALL LETTER DEZH DIGRAPH; dezh; \textdyogh-
 lig (tipa)
 16486 \DeclareTextCommand{\textdyoghlig}{PU}{\82\244}% U+02A4
 16487 % U+02A5 LATIN SMALL LETTER DZ DIGRAPH WITH CURL; dzcurl;
 16488 % \textdctzlig (tipa)
 16489 \DeclareTextCommand{\textdctzlig}{PU}{\82\245}% U+02A5
 16490 % U+02A6 LATIN SMALL LETTER TS DIGRAPH; ts; \texttslig (tipa)
 16491 \DeclareTextCommand{\texttslig}{PU}{\82\246}% U+02A6
 16492 % U+02A7 LATIN SMALL LETTER TESH DIGRAPH; tesh; \textteshlig (tipa)
 16493 \DeclareTextCommand{\textteshlig}{PU}{\82\247}% U+02A7
 16494 %* \textteshlig -> \tesh (wsuipa)
 16495 % U+02A8 LATIN SMALL LETTER TC DIGRAPH WITH CURL; tccurl;
 16496 % \texttctclig (tipa)
 16497 \DeclareTextCommand{\texttctclig}{PU}{\82\250}% U+02A8
 16498 % U+02AE LATIN SMALL LETTER TURNED H WITH FISHHOOK;
 16499 % \textlhtlongy (tipa)
 16500 \DeclareTextCommand{\textlhtlongy}{PU}{\82\256}% U+02AE
 16501 % U+02AF LATIN SMALL LETTER TURNED H WITH FISHHOOK AND TAIL;
 16502 % \textvibyy (tipa)
 16503 \DeclareTextCommand{\textvibyy}{PU}{\82\257}% U+02AF

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

16504 % U+02BD MODIFIER LETTER REVERSED COMMA;
 16505 % commareversedmod, afi64937; \textrevapostrophe (tipa)
 16506 \DeclareTextCommand{\textrevapostrophe}{PU}{\82\275}% U+02BD
 16507 % U+02C0 MODIFIER LETTER GLOTTAL STOP; glottalstopmod;
 16508 % \textraiseglotstop (tipa)
 16509 \DeclareTextCommand{\textraiseglotstop}{PU}{\82\300}% U+02C0
 16510 % U+02C2 MODIFIER LETTER LEFT ARROWHEAD; arrowheadleftmod;
 16511 % \textlptr (tipa)
 16512 \DeclareTextCommand{\textlptr}{PU}{\82\302}% U+02C2
 16513 % U+02C3 MODIFIER LETTER RIGHT ARROWHEAD; arrowheadrightmod;
 16514 % \textrptr (tipa)
 16515 \DeclareTextCommand{\textrptr}{PU}{\82\303}% U+02C3
 16516 % U+02C7 CARON; caron
 16517 \DeclareTextCommand{\textasciicaron}{PU}{\82\307}% U+02C7
 16518 % U+02C8 MODIFIER LETTER VERTICAL LINE; verticallinemod;
 16519 % \textprimstress (tipa)
 16520 \DeclareTextCommand{\textprimstress}{PU}{\82\310}% U+02C8
 16521 % U+02CC MODIFIER LETTER LOW VERTICAL LINE; verticallinelowmod;
 16522 % \textsecstress (tipa)
 16523 \DeclareTextCommand{\textsecstress}{PU}{\82\314}% U+02CC
 16524 % U+02D0 MODIFIER LETTER TRIANGULAR COLON; colontriangularmod;
 16525 % \textlengthmark (tipa)
 16526 \DeclareTextCommand{\textlengthmark}{PU}{\82\320}% U+02D0
 16527 % U+02D1 MODIFIER LETTER HALF TRIANGULAR COLON; colontriangu-
 larhalfmod;
 16528 % \texthalflength (tipa)
 16529 \DeclareTextCommand{\texthalflength}{PU}{\82\321}% U+02D1

16530 % U+02D8 BREVE; breve
 16531 \DeclareTextCommand{\textasciibreve}{PU}{\82\330}% U+02D8
 16532 % U+02D9 DOT ABOVE; dotaccent
 16533 \DeclareTextCommand{\textdotaccent}{PU}{\82\331}% U+02D9
 16534 % U+02DA RING ABOVE; ring
 16535 \DeclareTextCommand{\textring}{PU}{\82\332}% U+02DA
 16536 % U+02DB OGONEK; ogonek
 16537 \DeclareTextCommand{\textogonek}{PU}{\82\333}% U+02DB
 16538 % U+02DC SMALL TILDE; ilde, *tilde
 16539 \DeclareTextCommand{\texttilde}{PU}{\82\334}% U+02DC
 16540 % U+02DD DOUBLE ACUTE ACCENT; hungarumlaut
 16541 \DeclareTextCommand{\texthungarumlaut}{PU}{\82\335}% U+02DD
 16542 \DeclareTextCommand{\textacutedbl}{PU}{\texthungarumlaut}% U+02DD
 16543 % U+02F3 MODIFIER LETTER LOW RING
 16544 \DeclareTextCommand{\textringlow}{PU}{\82\363}% U+02F3
 16545 % U+02F5 MODIFIER LETTER MIDDLE DOUBLE GRAVE ACCENT
 16546 \DeclareTextCommand{\textgravedbl}{PU}{\82\365}% U+02F5
 16547 % U+02F7 MODIFIER LETTER LOW TILDE
 16548 \DeclareTextCommand{\texttildelow}{PU}{\82\367}% U+02F7
 16549 % U+02F9 MODIFIER LETTER BEGIN HIGH TONE; \textopencorner (tipa)
 16550 \DeclareTextCommand{\textopencorner}{PU}{\82\371}% U+02F9
 16551 % U+02FA MODIFIER LETTER END HIGH TONE; \textcorner (tipa)
 16552 \DeclareTextCommand{\textcorner}{PU}{\82\372}% U+02FA

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

16553 % U+030F COMBINING DOUBLE GRAVE ACCENT; dblgravecmb
 16554 \DeclareTextCommand{\textdoublegrave}{PU}{\83\017}% U+030F
 16555 % U+0311 COMBINING INVERTED BREVE; breveinvertedcmb
 16556 \DeclareTextCommand{\textnewtie}{PU}{\83\021}% U+0311
 16557 % U+0323 COMBINING DOT BELOW; dotbelowcmb, *dotbelowcomb
 16558 \DeclareTextCommand{\textdotbelow}{PU}{\83\043}% U+0323
 16559 % U+0331 COMBINING MACRON BELOW; macronbelowcmb
 16560 \DeclareTextCommand{\textmacronbelow}{PU}{\83\061}% U+0331
 16561 % U+0361 COMBINING DOUBLE INVERTED BREVE; breveinverteddoublecmb
 16562 \DeclareTextCommand{\texttie}{PU}{\83\141}% U+0361

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

16563 % U+0374 GREEK NUMERAL SIGN; numeralsigngreek
 16564 \DeclareTextCommand{\textnumeralsigngreek}{PU}{\83\164}% U+0374
 16565 % U+0375 GREEK LOWER NUMERAL SIGN; numeralsignlowergreek
 16566 \DeclareTextCommand{\textnumeralsignlowergreek}{PU}{\83\165}% U+0375
 16567 % U+0386 GREEK CAPITAL LETTER ALPHA WITH TONOS; Alphanos
 16568 \DeclareTextCompositeCommand{\'}{PU}{\textAlpha}{\83\206}% U+0386
 16569 % U+0388 GREEK CAPITAL LETTER EPSILON WITH TONOS; Epsilontonos
 16570 \DeclareTextCompositeCommand{\'}{PU}{\textEpsilon}{\83\210}% U+0388
 16571 % U+0389 GREEK CAPITAL LETTER ETA WITH TONOS; Etatonos
 16572 \DeclareTextCompositeCommand{\'}{PU}{\textEta}{\83\211}% U+0389
 16573 % U+038A GREEK CAPITAL LETTER IOTA WITH TONOS; Iotatonos
 16574 \DeclareTextCompositeCommand{\'}{PU}{\textIota}{\83\212}% U+038A
 16575 % U+038C GREEK CAPITAL LETTER OMICRON WITH TONOS; Omicrontonos
 16576 \DeclareTextCompositeCommand{\'}{PU}{\textOmicron}{\83\214}% U+038C
 16577 % U+038E GREEK CAPITAL LETTER UPSILON WITH TONOS; Upsilononos
 16578 \DeclareTextCompositeCommand{\'}{PU}{\textUpsilon}{\83\216}% U+038E
 16579 % U+038F GREEK CAPITAL LETTER OMEGA WITH TONOS; Omegatonos
 16580 \DeclareTextCompositeCommand{\'}{PU}{\textOmega}{\83\217}% U+038F

16581 % U+0390 GREEK SMALL LETTER IOTA WITH DIALYTIKA AND TONOS;
 16582 % \iotadieresis
 16583 \DeclareTextCompositeCommand{\'}{PU}{\textIotadieresis}{\83\220}% U+0390
 16584 % U+0391 GREEK CAPITAL LETTER ALPHA; Alpha
 16585 \DeclareTextCommand{\textAlpha}{PU}{\83\221}% U+0391
 16586 % U+0392 GREEK CAPITAL LETTER BETA; Beta
 16587 \DeclareTextCommand{\textBeta}{PU}{\83\222}% U+0392
 16588 % U+0393 GREEK CAPITAL LETTER GAMMA; Gamma; \Gamma (LaTeX)
 16589 \DeclareTextCommand{\textGamma}{PU}{\83\223}%* U+0393
 16590 % U+0394 GREEK CAPITAL LETTER DELTA; Deltagreek, *Delta; \Delta (LaTeX)
 16591 \DeclareTextCommand{\textDelta}{PU}{\83\224}%* U+0394
 16592 % U+0395 GREEK CAPITAL LETTER EPSILON; Epsilon
 16593 \DeclareTextCommand{\textEpsilon}{PU}{\83\225}% U+0395
 16594 % U+0396 GREEK CAPITAL LETTER ZETA; Zeta
 16595 \DeclareTextCommand{\textZeta}{PU}{\83\226}% U+0396
 16596 % U+0397 GREEK CAPITAL LETTER ETA; Eta
 16597 \DeclareTextCommand{\textEta}{PU}{\83\227}% U+0397
 16598 % U+0398 GREEK CAPITAL LETTER THETA; Theta; \Theta (LaTeX)
 16599 \DeclareTextCommand{\textTheta}{PU}{\83\230}%* U+0398
 16600 % U+0399 GREEK CAPITAL LETTER IOTA; Iota
 16601 \DeclareTextCommand{\textIota}{PU}{\83\231}% U+0399
 16602 % U+039A GREEK CAPITAL LETTER KAPPA; Kappa
 16603 \DeclareTextCommand{\textKappa}{PU}{\83\232}% U+039A
 16604 % U+039B GREEK CAPITAL LETTER LAMDA; Lambda; \Lambda (LaTeX)
 16605 \DeclareTextCommand{\textLambda}{PU}{\83\233}%* U+039B
 16606 % U+039C GREEK CAPITAL LETTER MU; Mu
 16607 \DeclareTextCommand{\textMu}{PU}{\83\234}% U+039C
 16608 % U+039D GREEK CAPITAL LETTER NU; Nu
 16609 \DeclareTextCommand{\textNu}{PU}{\83\235}% U+039D
 16610 % U+039E GREEK CAPITAL LETTER XI; Xi; \Xi (LaTeX)
 16611 \DeclareTextCommand{\textXi}{PU}{\83\236}%* U+039E
 16612 % U+039F GREEK CAPITAL LETTER OMICRON; Omicron
 16613 \DeclareTextCommand{\textOmicron}{PU}{\83\237}% U+039F
 16614 % U+03A0 GREEK CAPITAL LETTER PI; Pi
 16615 \DeclareTextCommand{\textPi}{PU}{\83\240}%* U+03A0
 16616 % U+03A1 GREEK CAPITAL LETTER RHO; Rho
 16617 \DeclareTextCommand{\textRho}{PU}{\83\241}% U+03A1
 16618 % U+03A3 GREEK CAPITAL LETTER SIGMA; Sigma; \Sigma (LaTeX)
 16619 \DeclareTextCommand{\textSigma}{PU}{\83\243}%* U+03A3
 16620 % U+03A4 GREEK CAPITAL LETTER TAU; Tau
 16621 \DeclareTextCommand{\textTau}{PU}{\83\244}% U+03A4
 16622 % U+03A5 GREEK CAPITAL LETTER UPSILON; Upsilon; \Upsilon (LaTeX)
 16623 \DeclareTextCommand{\textUpsilon}{PU}{\83\245}%* U+03A5
 16624 % U+03A6 GREEK CAPITAL LETTER PHI; Phi; \Phi (LaTeX)
 16625 \DeclareTextCommand{\textPhi}{PU}{\83\246}%* U+03A6
 16626 % U+03A7 GREEK CAPITAL LETTER CHI; Chi
 16627 \DeclareTextCommand{\textChi}{PU}{\83\247}% U+03A7
 16628 % U+03A8 GREEK CAPITAL LETTER PSI; Psi; \Psi (LaTeX)
 16629 \DeclareTextCommand{\textPsi}{PU}{\83\250}%* U+03A8
 16630 % U+03A9 GREEK CAPITAL LETTER OMEGA; Omegagreek, *Omega;
 16631 % \Omega (LaTeX)
 16632 \DeclareTextCommand{\textOmega}{PU}{\83\251}%* U+03A9
 16633 % U+03AA GREEK CAPITAL LETTER IOTA WITH DIALYTIKA; Iotadieresis
 16634 \DeclareTextCommand{\textIotadieresis}{PU}{\83\252}% U+03AA
 16635 \DeclareTextCompositeCommand{\"}{PU}{\textIota}{\83\252}% U+03AA

16636 % U+03AB GREEK CAPITAL LETTER UPSILON WITH DIALYTIKA; Up-silondieresis
 16637 \DeclareTextCompositeCommand{"}{PU}{\textUpsilon}{\83\253}% U+03AB
 16638 % U+03AC GREEK SMALL LETTER ALPHA WITH TONOS; alphanos
 16639 \DeclareTextCompositeCommand{'}{PU}{\textalpha}{\83\254}%* U+03AC
 16640 % U+03AD GREEK SMALL LETTER EPSILON WITH TONOS; epsilon
 16641 \DeclareTextCompositeCommand{'}{PU}{\textepsilon}{\83\255}% U+03AD
 16642 % U+03AE GREEK SMALL LETTER ETA WITH TONOS; etanos
 16643 \DeclareTextCompositeCommand{'}{PU}{\texteta}{\83\256}% U+03AE
 16644 % U+03AF GREEK SMALL LETTER IOTA WITH TONOS; iotanos
 16645 \DeclareTextCompositeCommand{'}{PU}{\textiota}{\83\257}% U+03AF
 16646 % U+03B0 GREEK SMALL LETTER UPSILON WITH DIALYTIKA
 16647 % AND TONOS; upsilondieresis
 16648 \DeclareTextCompositeCommand{"}{PU}{\textupsilon}{\83\260}% U+03B0
 16649 % U+03B1 GREEK SMALL LETTER ALPHA; alpha; \alpha (LaTeX)
 16650 \DeclareTextCommand{\textalpha}{PU}{\83\261}%* U+03B1
 16651 % U+03B2 GREEK SMALL LETTER BETA; beta; \beta (LaTeX)
 16652 \DeclareTextCommand{\textbeta}{PU}{\83\262}%* U+03B2
 16653 % U+03B3 GREEK SMALL LETTER GAMMA; gamma; \gamma (LaTeX)
 16654 \DeclareTextCommand{\textgamma}{PU}{\83\263}%* U+03B3
 16655 % U+03B4 GREEK SMALL LETTER DELTA; delta; \delta (LaTeX)
 16656 \DeclareTextCommand{\textdelta}{PU}{\83\264}%* U+03B4
 16657 % U+03B5 GREEK SMALL LETTER EPSILON; epsilon; \epsilon (LaTeX)
 16658 \DeclareTextCommand{\textepsilon}{PU}{\83\265}%* U+03B5
 16659 % U+03B6 GREEK SMALL LETTER ZETA; zeta; \zeta (LaTeX)
 16660 \DeclareTextCommand{\textzeta}{PU}{\83\266}%* U+03B6
 16661 % U+03B7 GREEK SMALL LETTER ETA; eta; \eta (LaTeX)
 16662 \DeclareTextCommand{\texteta}{PU}{\83\267}%* U+03B7
 16663 % U+03B8 GREEK SMALL LETTER THETA; theta; \theta (LaTeX)
 16664 \DeclareTextCommand{\texttheta}{PU}{\83\270}%* U+03B8
 16665 % U+03B9 GREEK SMALL LETTER IOTA; iota; \iota (LaTeX)
 16666 \DeclareTextCommand{\textiota}{PU}{\83\271}%* U+03B9
 16667 % U+03BA GREEK SMALL LETTER KAPPA; kappa; \kappa (LaTeX)
 16668 \DeclareTextCommand{\textkappa}{PU}{\83\272}%* U+03BA
 16669 % U+03BB GREEK SMALL LETTER LAMDA; lambda; \lambda (LaTeX)
 16670 \DeclareTextCommand{\textlambda}{PU}{\83\273}%* U+03BB
 16671 % U+03BC GREEK SMALL LETTER MU; mugreek; \mu (LaTeX)
 16672 \DeclareTextCommand{\textmugreek}{PU}{\83\274}%* U+03BC
 16673 % U+03BD GREEK SMALL LETTER NU; nu; \nu (LaTeX)
 16674 \DeclareTextCommand{\textnu}{PU}{\83\275}%* U+03BD
 16675 % U+03BE GREEK SMALL LETTER XI; xi; \xi (LaTeX)
 16676 \DeclareTextCommand{\textxi}{PU}{\83\276}%* U+03BE
 16677 % U+03BF GREEK SMALL LETTER OMICRON; omicron
 16678 \DeclareTextCommand{\textomicron}{PU}{\83\277}% U+03BF
 16679 % U+03C0 GREEK SMALL LETTER PI; pi; \pi (LaTeX)
 16680 \DeclareTextCommand{\textpi}{PU}{\83\300}%* U+03C0
 16681 % U+03C1 GREEK SMALL LETTER RHO; rho; \rho (LaTeX)
 16682 \DeclareTextCommand{\textrho}{PU}{\83\301}%* U+03C1
 16683 % U+03C2 GREEK SMALL LETTER FINAL SIGMA; \sigmaf, \sigmafinal
 16684 \DeclareTextCommand{\textvarsigma}{PU}{\83\302}%* U+03C2
 16685 % U+03C3 GREEK SMALL LETTER SIGMA; sigma; \sigma (LaTeX)
 16686 \DeclareTextCommand{\textsigma}{PU}{\83\303}%* U+03C3
 16687 % U+03C4 GREEK SMALL LETTER TAU; tau; \tau (LaTeX)
 16688 \DeclareTextCommand{\texttau}{PU}{\83\304}%* U+03C4
 16689 % U+03C5 GREEK SMALL LETTER UPSILON; upsilon; \upsilon (LaTeX)
 16690 \DeclareTextCommand{\textupsilon}{PU}{\83\305}%* U+03C5
 16691 % U+03C6 GREEK SMALL LETTER PHI; phi; \phi (LaTeX)

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16692 \DeclareTextCommand{\textphi}{PU}{\83\306}%* U+03C6
16693 % U+03C7 GREEK SMALL LETTER CHI; chi; \chi (LaTeX)
16694 \DeclareTextCommand{\textchi}{PU}{\83\307}%* U+03C7
16695 % U+03C8 GREEK SMALL LETTER PSI; psi; \psi (LaTeX)
16696 \DeclareTextCommand{\textpsi}{PU}{\83\310}%* U+03C8
16697 % U+03C9 GREEK SMALL LETTER OMEGA; omega; \omega (LaTeX)
16698 \DeclareTextCommand{\textomega}{PU}{\83\311}%* U+03C9
16699 % U+03CA GREEK SMALL LETTER IOTA WITH DIALYTIKA; iotadieresis
16700 \DeclareTextCompositeCommand{"}{PU}{\textiota}{\83\312}% U+03CA
16701 % U+03CB GREEK SMALL LETTER UPSILON WITH DIALYTIKA; up-
    silondieresis
16702 \DeclareTextCompositeCommand{"}{PU}{\textupsilon}{\83\313}% U+03CB
16703 % U+03CC GREEK SMALL LETTER OMICRON WITH TONOS; omicrontonos
16704 \DeclareTextCompositeCommand{'}{PU}{\textomicron}{\83\314}% U+03CC
16705 % U+03CD GREEK SMALL LETTER UPSILON WITH TONOS; upsilontonos
16706 \DeclareTextCommand{\textupsilonacute}{PU}{\83\315}% U+03CD
16707 \DeclareTextCompositeCommand{'}{PU}{\textupsilon}{\83\315}% U+03CD
16708 % U+03CE GREEK SMALL LETTER OMEGA WITH TONOS; omegatonos
16709 \DeclareTextCompositeCommand{'}{PU}{\textomega}{\83\316}% U+03CE
16710 % U+03DA GREEK LETTER STIGMA; Stigmagreek
16711 \DeclareTextCommand{\textStigmagreek}{PU}{\83\332}% U+03DA
16712 % U+03DB GREEK SMALL LETTER STIGMA
16713 \DeclareTextCommand{\textstigmagreek}{PU}{\83\333}% U+03DB
16714 % U+03DC GREEK LETTER DIGAMMA; Digammagreek
16715 \DeclareTextCommand{\textDigammagreek}{PU}{\83\334}% U+03DC
16716 % U+03DD GREEK SMALL LETTER DIGAMMA
16717 \DeclareTextCommand{\textdigammagreek}{PU}{\83\335}% U+03DD
16718 %* \textdigammagreek -> \digamma (AmS)
16719 % U+03DE GREEK LETTER KOPPA; Koppagreek
16720 \DeclareTextCommand{\textKoppagreek}{PU}{\83\336}% U+03DE
16721 % U+03DF GREEK SMALL LETTER KOPPA
16722 \DeclareTextCommand{\textkoppagreek}{PU}{\83\337}% U+03DF
16723 % U+03E0 GREEK LETTER SAMPI; Sampigreek
16724 \DeclareTextCommand{\textSampigreek}{PU}{\83\340}% U+03E0
16725 % U+03E1 GREEK SMALL LETTER SAMPI
16726 \DeclareTextCommand{\textsampigreek}{PU}{\83\341}% U+03E1
16727 % U+03F6 GREEK REVERSED LUNATE EPSILON SYMBOL;
16728 % \backepsilon (AmS)
16729 \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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16730 % U+0400 CYRILLIC CAPITAL LETTER IE WITH GRAVE
16731 \DeclareTextCompositeCommand{'}{PU}{\CYRE}{\84\000}% U+0400
16732 % U+0401 CYRILLIC CAPITAL LETTER IO; Iocyrrilic, *afi10023
16733 \DeclareTextCommand{\CYRYO}{PU}{\84\001}% U+0401
16734 \DeclareTextCompositeCommand{"}{PU}{\CYRE}{\84\001}% ???
16735 % U+0402 CYRILLIC CAPITAL LETTER DJE; Djecyrillic, *afi10051
16736 \DeclareTextCommand{\CYRDJE}{PU}{\84\002}% U+0402
16737 % U+0403 CYRILLIC CAPITAL LETTER GJE; Gjecyrillic, *afi10052
16738 \DeclareTextCompositeCommand{'}{PU}{\CYRG}{\84\003}% U+0403
16739 % U+0404 CYRILLIC CAPITAL LETTER UKRAINIAN IE; Ecyrrilic, *afi10053
16740 \DeclareTextCommand{\CYRIE}{PU}{\84\004}% U+0404
16741 % U+0405 CYRILLIC CAPITAL LETTER DZE; Dzecyrillic, *afi10054
16742 \DeclareTextCommand{\CYRDZE}{PU}{\84\005}% U+0405
16743 % U+0406 CYRILLIC CAPITAL LETTER BYELORUSSIAN-UKRAINIAN I;

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16744 % Icyrillic, *afii10055
 16745 \DeclareTextCommand{\CYRII}{PU}{\84\006}% U+0406
 16746 % U+0407 CYRILLIC CAPITAL LETTER YI; Yicyrillic, *afii10056
 16747 \DeclareTextCommand{\CYRYI}{PU}{\84\007}% U+0407
 16748 \DeclareTextCompositeCommand{\"}{PU}{\CYRII}{\84\007}% U+0407
 16749 % U+0408 CYRILLIC CAPITAL LETTER JE; Jecyrillic, *afii10057
 16750 \DeclareTextCommand{\CYRJE}{PU}{\84\010}% U+0408
 16751 % U+0409 CYRILLIC CAPITAL LETTER LJE; Ljecyrillic, *afii10058
 16752 \DeclareTextCommand{\CYRLJE}{PU}{\84\011}% U+0409
 16753 % U+040A CYRILLIC CAPITAL LETTER NJE; Njecyrillic, *afii10059
 16754 \DeclareTextCommand{\CYRNJE}{PU}{\84\012}% U+040A
 16755 % U+040B CYRILLIC CAPITAL LETTER TSHE; Tshecyrillic, *afii10060
 16756 \DeclareTextCommand{\CYRTSHE}{PU}{\84\013}% U+040B
 16757 % U+040C CYRILLIC CAPITAL LETTER KJE; Kjecyrillic, *afii10061
 16758 \DeclareTextCompositeCommand{\'}{PU}{\CYRK}{\84\014}% U+040C
 16759 % U+040D CYRILLIC CAPITAL LETTER I WITH GRAVE
 16760 \DeclareTextCompositeCommand{\`}{PU}{\CYRI}{\84\015}% U+040D
 16761 % U+040E CYRILLIC CAPITAL LETTER SHORT U; Ushortcyrillic, *afii10062
 16762 \DeclareTextCommand{\CYRUSHRT}{PU}{\84\016}% U+040E
 16763 \DeclareTextCompositeCommand{\U}{PU}{\CYRU}{\84\016}% U+040E
 16764 % U+040F CYRILLIC CAPITAL LETTER DZHE; Dzhecyrillic, *afii10145
 16765 \DeclareTextCommand{\CYRDZHE}{PU}{\84\017}% U+040F
 16766 % U+0410 CYRILLIC CAPITAL LETTER A; Acyrillic, *afii10017
 16767 \DeclareTextCommand{\CYRA}{PU}{\84\020}% U+0410
 16768 % U+0411 CYRILLIC CAPITAL LETTER BE; Becyrillic, *afii10018
 16769 \DeclareTextCommand{\CYRB}{PU}{\84\021}% U+0411
 16770 % U+0412 CYRILLIC CAPITAL LETTER VE; Vecyrillic, *afii10019
 16771 \DeclareTextCommand{\CYRV}{PU}{\84\022}% U+0412
 16772 % U+0413 CYRILLIC CAPITAL LETTER GHE; Gecyrillic, *afii10020
 16773 \DeclareTextCommand{\CYRG}{PU}{\84\023}% U+0413
 16774 % U+0414 CYRILLIC CAPITAL LETTER DE; Decyrillic, *afii10021
 16775 \DeclareTextCommand{\CYRD}{PU}{\84\024}% U+0414
 16776 % U+0415 CYRILLIC CAPITAL LETTER IE; Iecyrillic, *afii10022
 16777 \DeclareTextCommand{\CYRE}{PU}{\84\025}% U+0415
 16778 % U+0416 CYRILLIC CAPITAL LETTER ZHE; Zhecyrillic, *afii10024
 16779 \DeclareTextCommand{\CYRZH}{PU}{\84\026}% U+0416
 16780 % U+0417 CYRILLIC CAPITAL LETTER ZE; Zecyrillic, *afii10025
 16781 \DeclareTextCommand{\CYRZ}{PU}{\84\027}% U+0417
 16782 % U+0418 CYRILLIC CAPITAL LETTER I; Iicyrillic, *afii10026
 16783 \DeclareTextCommand{\CYRI}{PU}{\84\030}% U+0418
 16784 % U+0419 CYRILLIC CAPITAL LETTER SHORT I; Iishortcyrillic, *afii10027
 16785 \DeclareTextCommand{\CYRISHRT}{PU}{\84\031}% U+0419
 16786 \DeclareTextCompositeCommand{\U}{PU}{\CYRI}{\84\031}% U+0419
 16787 % U+041A CYRILLIC CAPITAL LETTER KA; Kacyrillic, *afii10028
 16788 \DeclareTextCommand{\CYRK}{PU}{\84\032}% U+041A
 16789 % U+041B CYRILLIC CAPITAL LETTER EL; Elcyrillic, *afii10029
 16790 \DeclareTextCommand{\CYRL}{PU}{\84\033}% U+041B
 16791 % U+041C CYRILLIC CAPITAL LETTER EM; Emcyrillic, *afii10030
 16792 \DeclareTextCommand{\CYRM}{PU}{\84\034}% U+041C
 16793 % U+041D CYRILLIC CAPITAL LETTER EN; Encyrillic, *afii10031
 16794 \DeclareTextCommand{\CYRN}{PU}{\84\035}% U+041D
 16795 % U+041E CYRILLIC CAPITAL LETTER O; Ocyrillic, *afii10032
 16796 \DeclareTextCommand{\CYRO}{PU}{\84\036}% U+041E
 16797 % U+041F CYRILLIC CAPITAL LETTER PE; Pecyrillic, *afii10033
 16798 \DeclareTextCommand{\CYRP}{PU}{\84\037}% U+041F
 16799 % U+0420 CYRILLIC CAPITAL LETTER ER; Ercyrillic, *afii10034
 16800 \DeclareTextCommand{\CYRR}{PU}{\84\040}% U+0420

16801 % U+0421 CYRILLIC CAPITAL LETTER ES; Escyrillic, *afii10035
16802 \DeclareTextCommand{\CYRS}{PU}{\84\041}% U+0421
16803 % U+0422 CYRILLIC CAPITAL LETTER TE; Tecyrillic, *afii10036
16804 \DeclareTextCommand{\CYRT}{PU}{\84\042}% U+0422
16805 % U+0423 CYRILLIC CAPITAL LETTER U; Ucyrillic, *afii10037
16806 \DeclareTextCommand{\CYRU}{PU}{\84\043}% U+0423
16807 % U+0424 CYRILLIC CAPITAL LETTER EF; Efcyrillic, *afii10038
16808 \DeclareTextCommand{\CYRF}{PU}{\84\044}% U+0424
16809 % U+0425 CYRILLIC CAPITAL LETTER HA; Khacyrillic, *afii10039
16810 \DeclareTextCommand{\CYRH}{PU}{\84\045}% U+0425
16811 % U+0426 CYRILLIC CAPITAL LETTER TSE; Tsecyrillic, *afii10040
16812 \DeclareTextCommand{\CYRC}{PU}{\84\046}% U+0426
16813 % U+0427 CYRILLIC CAPITAL LETTER CHE; Checyrillic, *afii10041
16814 \DeclareTextCommand{\CYRCH}{PU}{\84\047}% U+0427
16815 % U+0428 CYRILLIC CAPITAL LETTER SHA; Shacyrillic, *afii10042
16816 \DeclareTextCommand{\CYRSH}{PU}{\84\050}% U+0428
16817 % U+0429 CYRILLIC CAPITAL LETTER SHCHA; Shchacyrillic, *afii10043
16818 \DeclareTextCommand{\CYRSHCH}{PU}{\84\051}% U+0429
16819 % U+042A CYRILLIC CAPITAL LETTER HARD SIGN;
16820 % Hardsigncyrillic, *afii10044
16821 \DeclareTextCommand{\CYRHRDSN}{PU}{\84\052}% U+042A
16822 % U+042B CYRILLIC CAPITAL LETTER YERU; Yericyrillic, *afii10045
16823 \DeclareTextCommand{\CYRERY}{PU}{\84\053}% U+042B
16824 % U+042C CYRILLIC CAPITAL LETTER SOFT SIGN;
16825 % Softsigncyrillic, *afii10046
16826 \DeclareTextCommand{\CYRSFTSN}{PU}{\84\054}% U+042C
16827 % U+042D CYRILLIC CAPITAL LETTER E; Ereversedcyrillic, *afii10047
16828 \DeclareTextCommand{\CYREREV}{PU}{\84\055}% U+042D
16829 % U+042E CYRILLIC CAPITAL LETTER YU; IUcyrillic, *afii10048
16830 \DeclareTextCommand{\CYRYU}{PU}{\84\056}% U+042E
16831 % U+042F CYRILLIC CAPITAL LETTER YA; IAcyrillic, *afii10049
16832 \DeclareTextCommand{\CYRYA}{PU}{\84\057}% U+042F
16833 % U+0430 CYRILLIC SMALL LETTER A; acyrillic, *afii10065
16834 \DeclareTextCommand{\cyra}{PU}{\84\060}% U+0430
16835 % U+0431 CYRILLIC SMALL LETTER BE; *afii10066, becyrillic
16836 \DeclareTextCommand{\cyrb}{PU}{\84\061}% U+0431
16837 % U+0432 CYRILLIC SMALL LETTER VE; *afii10067, vecyrillic
16838 \DeclareTextCommand{\cyrv}{PU}{\84\062}% U+0432
16839 % U+0433 CYRILLIC SMALL LETTER GHE; *afii10068, gecyrillic
16840 \DeclareTextCommand{\cyrg}{PU}{\84\063}% U+0433
16841 % U+0434 CYRILLIC SMALL LETTER DE; *afii10069, decyrillic
16842 \DeclareTextCommand{\cyrd}{PU}{\84\064}% U+0434
16843 % U+0435 CYRILLIC SMALL LETTER IE; *afii10070, iecyrillic
16844 \DeclareTextCommand{\cyre}{PU}{\84\065}% U+0435
16845 % U+0436 CYRILLIC SMALL LETTER ZHE; *afii10072, zhacyrillic
16846 \DeclareTextCommand{\cyrz}{PU}{\84\066}% U+0436
16847 % U+0437 CYRILLIC SMALL LETTER ZE; *afii10073, zecyrillic
16848 \DeclareTextCommand{\cyrz}{PU}{\84\067}% U+0437
16849 % U+0438 CYRILLIC SMALL LETTER I; *afii10074, iicyrillic
16850 \DeclareTextCommand{\cyri}{PU}{\84\070}% U+0438
16851 % U+0439 CYRILLIC SMALL LETTER SHORT I; *afii10075, iishortcyrillic
16852 \DeclareTextCommand{\cyrishrt}{PU}{\84\071}% U+0439
16853 \DeclareTextCompositeCommand{\U}{PU}{\cyri}{\84\071}% U+0439
16854 % U+043A CYRILLIC SMALL LETTER KA; *afii10076, kacyrillic
16855 \DeclareTextCommand{\cyrk}{PU}{\84\072}% U+043A
16856 % U+043B CYRILLIC SMALL LETTER EL; *afii10077, elcyrillic
16857 \DeclareTextCommand{\cyrl}{PU}{\84\073}% U+043B

16858 % U+043C CYRILLIC SMALL LETTER EM; *afii10078, emcyrillic
 16859 \DeclareTextCommand{\cyrm}{PU}{\84\074}% U+043C
 16860 % U+043D CYRILLIC SMALL LETTER EN; *afii10079, encyrillic
 16861 \DeclareTextCommand{\cyrn}{PU}{\84\075}% U+043D
 16862 % U+043E CYRILLIC SMALL LETTER O; *afii10080, ocyrillic
 16863 \DeclareTextCommand{\cyro}{PU}{\84\076}% U+043E
 16864 % U+043F CYRILLIC SMALL LETTER PE; *afii10081, pecyrillic
 16865 \DeclareTextCommand{\cyrp}{PU}{\84\077}% U+043F
 16866 % U+0440 CYRILLIC SMALL LETTER ER; *afii10082, ercyrillic
 16867 \DeclareTextCommand{\cyrr}{PU}{\84\100}% U+0440
 16868 % U+0441 CYRILLIC SMALL LETTER ES; *afii10083, escyrillic
 16869 \DeclareTextCommand{\cyrs}{PU}{\84\101}% U+0441
 16870 % U+0442 CYRILLIC SMALL LETTER TE; *afii10084, tecyrillic
 16871 \DeclareTextCommand{\cyrt}{PU}{\84\102}% U+0442
 16872 % U+0443 CYRILLIC SMALL LETTER U; *afii10085, ucyrillic
 16873 \DeclareTextCommand{\cyru}{PU}{\84\103}% U+0443
 16874 % U+0444 CYRILLIC SMALL LETTER EF; *afii10086, efcyrillic
 16875 \DeclareTextCommand{\cyrf}{PU}{\84\104}% U+0444
 16876 % U+0445 CYRILLIC SMALL LETTER HA; *afii10087, khacyrillic
 16877 \DeclareTextCommand{\cyrh}{PU}{\84\105}% U+0445
 16878 % U+0446 CYRILLIC SMALL LETTER TSE; *afii10088, tsecyrillic
 16879 \DeclareTextCommand{\cyrc}{PU}{\84\106}% U+0446
 16880 % U+0447 CYRILLIC SMALL LETTER CHE; *afii10089, checyrillic
 16881 \DeclareTextCommand{\cyrch}{PU}{\84\107}% U+0447
 16882 % U+0448 CYRILLIC SMALL LETTER SHA; *afii10090, shacyrillic
 16883 \DeclareTextCommand{\cyrsh}{PU}{\84\110}% U+0448
 16884 % U+0449 CYRILLIC SMALL LETTER SHCHA; *afii10091, shchacyrillic
 16885 \DeclareTextCommand{\cyrshch}{PU}{\84\111}% U+0449
 16886 % U+044A CYRILLIC SMALL LETTER HARD SIGN; *afii10092, hardsigncyrillic
 16887 \DeclareTextCommand{\cyrhrdsn}{PU}{\84\112}% U+044A
 16888 %* \cyrhrdsn -> \hardsign (tipa)
 16889 % U+044B CYRILLIC SMALL LETTER YERU; *afii10093, yericyrillic
 16890 \DeclareTextCommand{\cyrrery}{PU}{\84\113}% U+044B
 16891 % U+044C CYRILLIC SMALL LETTER SOFT SIGN; *afii10094, softsigncyrillic
 16892 \DeclareTextCommand{\cyrsoftsn}{PU}{\84\114}% U+044C
 16893 %* \cyrsoftsn -> \softsign (tipa)
 16894 % U+044D CYRILLIC SMALL LETTER E; *afii10095, ereversedcyrillic
 16895 \DeclareTextCommand{\cyrrerev}{PU}{\84\115}% U+044D
 16896 % U+044E CYRILLIC SMALL LETTER YU; *afii10096, iucyrillic
 16897 \DeclareTextCommand{\cyryu}{PU}{\84\116}% U+044E
 16898 % U+044F CYRILLIC SMALL LETTER YA; *afii10097, iacyrillic
 16899 \DeclareTextCommand{\cyrya}{PU}{\84\117}% U+044F
 16900 % U+0450 CYRILLIC SMALL LETTER IE WITH GRAVE
 16901 \DeclareTextCompositeCommand{\'}{PU}{\cyre}{\84\120}% U+0450
 16902 % U+0451 CYRILLIC SMALL LETTER IO; *afii10071, iocyrlilic
 16903 \DeclareTextCommand{\cyryo}{PU}{\84\121}% U+0451
 16904 \DeclareTextCompositeCommand{\"}{PU}{\cyre}{\84\121}% U+0451
 16905 % U+0452 CYRILLIC SMALL LETTER DJE; *afii10099, djecyrillic
 16906 \DeclareTextCommand{\cyrdje}{PU}{\84\122}% U+0452
 16907 % U+0453 CYRILLIC SMALL LETTER GJE; *afii10100, gjecyrillic
 16908 \DeclareTextCompositeCommand{\'}{PU}{\cyrg}{\84\123}% U+0453
 16909 % U+0454 CYRILLIC SMALL LETTER UKRAINIAN IE; *afii10101, ecyrillic
 16910 \DeclareTextCommand{\cyrie}{PU}{\84\124}% U+0454
 16911 % U+0455 CYRILLIC SMALL LETTER DZE; *afii10102, dzecyrillic
 16912 \DeclareTextCommand{\cyrdze}{PU}{\84\125}% U+0455
 16913 % U+0456 CYRILLIC SMALL LETTER BYELORUSSIAN-UKRAINIAN I;

16914 % *afii10103, icyrillic
 16915 \DeclareTextCommand{\cyrii}{PU}{\84\126}% U+0456
 16916 % U+0457 CYRILLIC SMALL LETTER YI; *afii10104, yicyrillic
 16917 \DeclareTextCommand{\cyryi}{PU}{\84\127}% U+0457
 16918 \DeclareTextCompositeCommand{\"}{PU}{\cyrii}{\84\127}% U+0457
 16919 % U+0458 CYRILLIC SMALL LETTER JE; *afii10105, jecyrillic
 16920 \DeclareTextCommand{\cyrje}{PU}{\84\130}% U+0458
 16921 % U+0459 CYRILLIC SMALL LETTER LJE; *afii10106, ljecyrillic
 16922 \DeclareTextCommand{\cyrkje}{PU}{\84\131}% U+0459
 16923 % U+045A CYRILLIC SMALL LETTER NJE; *afii10107, njecyrillic
 16924 \DeclareTextCommand{\cyrnje}{PU}{\84\132}% U+045A
 16925 % U+045B CYRILLIC SMALL LETTER TSHE; *afii10108, tshecyrillic
 16926 \DeclareTextCommand{\cyrtshe}{PU}{\84\133}% U+045B
 16927 % U+045C CYRILLIC SMALL LETTER KJE; *afii10109, kjecyrillic
 16928 \DeclareTextCompositeCommand{\'}{PU}{\cyrk}{\84\134}% U+045C
 16929 % U+045D CYRILLIC SMALL LETTER I WITH GRAVE
 16930 \DeclareTextCompositeCommand{\`}{PU}{\cyri}{\84\135}% U+045D
 16931 % U+045E CYRILLIC SMALL LETTER SHORT U; *afii10110, ushortcyrillic
 16932 \DeclareTextCommand{\cyrushrt}{PU}{\84\136}% U+045E
 16933 \DeclareTextCompositeCommand{\U}{PU}{\curu}{\84\136}% U+045E
 16934 % U+045F CYRILLIC SMALL LETTER DZHE; *afii10193, dzhecyrillic
 16935 \DeclareTextCommand{\cyrdzhe}{PU}{\84\137}% U+045F
 16936 % U+0460 CYRILLIC CAPITAL LETTER OMEGA; Omegacyrillic
 16937 \DeclareTextCommand{\CYROMEGA}{PU}{\84\140}% U+0460
 16938 % U+0461 CYRILLIC SMALL LETTER OMEGA; omegacyrillic
 16939 \DeclareTextCommand{\cyromega}{PU}{\84\141}% U+0461
 16940 % U+0462 CYRILLIC CAPITAL LETTER YAT; Yatcyrillic, *afii10146
 16941 \DeclareTextCommand{\CYRYAT}{PU}{\84\142}% U+0462
 16942 % U+0463 CYRILLIC SMALL LETTER YAT; *afii10194, yatcyrillic
 16943 \DeclareTextCommand{\cyryat}{PU}{\84\143}% U+0463
 16944 % U+0464 CYRILLIC CAPITAL LETTER IOTIFIED E; Eiotifiedcyrillic
 16945 \DeclareTextCommand{\CYRIOTE}{PU}{\84\144}% U+0464
 16946 % U+0465 CYRILLIC SMALL LETTER IOTIFIED E; eiotifiedcyrillic
 16947 \DeclareTextCommand{\cyriote}{PU}{\84\145}% U+0465
 16948 % U+0466 CYRILLIC CAPITAL LETTER LITTLE YUS; Yuslitlecyrillic
 16949 \DeclareTextCommand{\CYRLYUS}{PU}{\84\146}% U+0466
 16950 % U+0467 CYRILLIC SMALL LETTER LITTLE YUS; yuslitlecyrillic
 16951 \DeclareTextCommand{\cyrlyus}{PU}{\84\147}% U+0467
 16952 % U+0468 CYRILLIC CAPITAL LETTER IOTIFIED LITTLE YUS; Yuslitlei-
 otifiedcyrillic
 16953 \DeclareTextCommand{\CYRIOTLYUS}{PU}{\84\150}% U+0468
 16954 % U+0469 CYRILLIC SMALL LETTER IOTIFIED LITTLE YUS; yuslitleioti-
 fiedcyrillic
 16955 \DeclareTextCommand{\cyriotlyus}{PU}{\84\151}% U+0469
 16956 % U+046A CYRILLIC CAPITAL LETTER BIG YUS; Yusbigcyrillic
 16957 \DeclareTextCommand{\CYRBYUS}{PU}{\84\152}% U+046A
 16958 % U+046B CYRILLIC SMALL LETTER BIG YUS; yusbigcyrillic
 16959 \DeclareTextCommand{\cyrbyus}{PU}{\84\153}% U+046B
 16960 % U+046C CYRILLIC CAPITAL LETTER IOTIFIED BIG YUS; Yusbigiotified-
 cyrillic
 16961 \DeclareTextCommand{\CYRIOTBYUS}{PU}{\84\154}% U+046C
 16962 % U+046D CYRILLIC SMALL LETTER IOTIFIED BIG YUS; yusbigiotified-
 cyrillic
 16963 \DeclareTextCommand{\cyriotbyus}{PU}{\84\155}% U+046D
 16964 % U+046E CYRILLIC CAPITAL LETTER KSI; Ksicyrillic
 16965 \DeclareTextCommand{\CYRKSI}{PU}{\84\156}% U+046E
 16966 % U+046F CYRILLIC SMALL LETTER KSI; ksicyrillic

16967 \DeclareTextCommand{\cyrksi}{PU}{\84\157}% U+046F
 16968 % U+0470 CYRILLIC CAPITAL LETTER PSI; Psicyrillic
 16969 \DeclareTextCommand{\CYRPSI}{PU}{\84\160}% U+0470
 16970 % U+0471 CYRILLIC SMALL LETTER PSI; psicyrillic
 16971 \DeclareTextCommand{\cyrpsi}{PU}{\84\161}% U+0471
 16972 % U+0472 CYRILLIC CAPITAL LETTER FITA; Fitacyrillic, *afii10147
 16973 \DeclareTextCommand{\CYRFITA}{PU}{\84\162}% U+0472
 16974 % U+0473 CYRILLIC SMALL LETTER FITA; *afii10195, fitacyrillic
 16975 \DeclareTextCommand{\cyrfita}{PU}{\84\163}% U+0473
 16976 % U+0474 CYRILLIC CAPITAL LETTER IZHITSA; Izhitsacyrillic, *afii10148
 16977 \DeclareTextCommand{\CYRIZH}{PU}{\84\164}% U+0474
 16978 % U+0475 CYRILLIC SMALL LETTER IZHITSA; *afii10196, izhitsacyrillic
 16979 \DeclareTextCommand{\cyrizh}{PU}{\84\165}% U+0475
 16980 % U+0476 CYRILLIC CAPITAL LETTER IZHITSA WITH DOUBLE
 16981 % GRAVE ACCENT; Izhitsadblgravecyrillic
 16982 \DeclareTextCompositeCommand{\C}{PU}{\CYRIZH}{\84\166}% U+0476
 16983 % U+0477 CYRILLIC SMALL LETTER IZHITSA WITH DOUBLE
 16984 % GRAVE ACCENT; izhitsadblgravecyrillic
 16985 \DeclareTextCompositeCommand{\C}{PU}{\cyrizh}{\84\167}% U+0477
 16986 % U+0478 CYRILLIC CAPITAL LETTER UK; Ukcyrillic
 16987 \DeclareTextCommand{\CYRUK}{PU}{\84\170}% U+0478
 16988 % U+0479 CYRILLIC SMALL LETTER UK; ukcyrillic
 16989 \DeclareTextCommand{\cyruk}{PU}{\84\171}% U+0479
 16990 % U+047A CYRILLIC CAPITAL LETTER ROUND OMEGA; Omegaroundcyril-
 lic
 16991 \DeclareTextCommand{\CYROMEGARND}{PU}{\84\172}% U+047A
 16992 % U+047B CYRILLIC SMALL LETTER ROUND OMEGA; omegaroundcyrillic
 16993 \DeclareTextCommand{\cyromegarnd}{PU}{\84\173}% U+047B
 16994 % U+047C CYRILLIC CAPITAL LETTER OMEGA WITH TITLO; Omegatit-
 locyrillic
 16995 \DeclareTextCommand{\CYROMEGATITLO}{PU}{\84\174}% U+047C
 16996 % U+047D CYRILLIC SMALL LETTER OMEGA WITH TITLO; omegatitlo-
 cyrillic
 16997 \DeclareTextCommand{\cyromegatitlo}{PU}{\84\175}% U+047D
 16998 % U+047E CYRILLIC CAPITAL LETTER OT; Otcyrillic
 16999 \DeclareTextCommand{\CYROT}{PU}{\84\176}% U+047E
 17000 % U+047F CYRILLIC SMALL LETTER OT; otcyrillic
 17001 \DeclareTextCommand{\cyrot}{PU}{\84\177}% U+047F
 17002 % U+0480 CYRILLIC CAPITAL LETTER KOPPA; Koppacyrillic
 17003 \DeclareTextCommand{\CYRKOPPA}{PU}{\84\200}% U+0480
 17004 % U+0481 CYRILLIC SMALL LETTER KOPPA; koppacyrillic
 17005 \DeclareTextCommand{\cyrkoppa}{PU}{\84\201}% U+0481
 17006 % U+0482 CYRILLIC THOUSANDS SIGN; thousandcyrillic
 17007 \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; dasiapneu-
 matacyrilliccmb
 \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
 17008 % U+048A CYRILLIC CAPITAL LETTER SHORT I WITH TAIL
 17009 \DeclareTextCommand{\CYRISHRTDSC}{PU}{\84\212}% U+048A

17010 % U+048B CYRILLIC SMALL LETTER SHORT I WITH TAIL
17011 \DeclareTextCommand{\cyrishrtdsc}{PU}{\84\213}% U+048B
17012 % U+048C CYRILLIC CAPITAL LETTER SEMISOFT SIGN
17013 \DeclareTextCommand{\CYRSEMISFTSN}{PU}{\84\214}% U+048C
17014 % U+048D CYRILLIC SMALL LETTER SEMISOFT SIGN
17015 \DeclareTextCommand{\cyrsemisftsn}{PU}{\84\215}% U+048D
17016 % U+048E CYRILLIC CAPITAL LETTER ER WITH TICK
17017 \DeclareTextCommand{\CYRRTICK}{PU}{\84\216}% U+048E
17018 % U+048F CYRILLIC SMALL LETTER ER WITH TICK
17019 \DeclareTextCommand{\cyrrtick}{PU}{\84\217}% U+048F
17020 % U+0490 CYRILLIC CAPITAL LETTER GHE WITH UPTURN; Gheupturn-cyrillic, *afii10050
17021 \DeclareTextCommand{\CYRGUP}{PU}{\84\220}% U+0490
17022 % U+0491 CYRILLIC SMALL LETTER GHE WITH UPTURN; *afii10098, gheupturncyrillic
17023 \DeclareTextCommand{\cyrgup}{PU}{\84\221}% U+0491
17024 % U+0492 CYRILLIC CAPITAL LETTER GHE WITH STROKE; Ghestroke-cyrillic
17025 \DeclareTextCommand{\CYRGHCRS}{PU}{\84\222}% U+0492
17026 % U+0493 CYRILLIC SMALL LETTER GHE WITH STROKE; ghestrokecyrillic
17027 \DeclareTextCommand{\cyrghcrs}{PU}{\84\223}% U+0493
17028 % U+0494 CYRILLIC CAPITAL LETTER GHE WITH MIDDLE HOOK;
17029 % Ghemiddlehookcyrillic
17030 \DeclareTextCommand{\CYRGHK}{PU}{\84\224}% U+0494
17031 % U+0495 CYRILLIC SMALL LETTER GHE WITH MIDDLE HOOK;
17032 % ghemiddlehookcyrillic
17033 \DeclareTextCommand{\cyrghk}{PU}{\84\225}% U+0495
17034 % U+0496 CYRILLIC CAPITAL LETTER ZHE WITH DESCENDER;
17035 % Zhedescendercyrillic
17036 \DeclareTextCommand{\CYRZHDSC}{PU}{\84\226}% U+0496
17037 % U+0497 CYRILLIC SMALL LETTER ZHE WITH DESCENDER;
17038 % zhedescendercyrillic
17039 \DeclareTextCommand{\cyrzhdsc}{PU}{\84\227}% U+0497
17040 % U+0498 CYRILLIC CAPITAL LETTER ZE WITH DESCENDER; Zedescendercyrillic
17041 \DeclareTextCommand{\CYRZDSC}{PU}{\84\230}% U+0498
17042 \DeclareTextCompositeCommand{\c}{PU}{\CYRZ}{\84\230}% U+0498
17043 % U+0499 CYRILLIC SMALL LETTER ZE WITH DESCENDER; zedescendercyrillic
17044 \DeclareTextCommand{\cyrzdsc}{PU}{\84\231}% U+0499
17045 \DeclareTextCompositeCommand{\c}{PU}{\cyrz}{\84\231}% U+0499
17046 % U+049A CYRILLIC CAPITAL LETTER KA WITH DESCENDER; Kadescendercyrillic
17047 \DeclareTextCommand{\CYRKDSC}{PU}{\84\232}% U+049A
17048 % U+049B CYRILLIC SMALL LETTER KA WITH DESCENDER; kadesendercyrillic
17049 \DeclareTextCommand{\cyrkdsc}{PU}{\84\233}% U+049B
17050 % U+049C CYRILLIC CAPITAL LETTER KA WITH VERTICAL STROKE;
17051 % Kavertikalstrokecyrillic
17052 \DeclareTextCommand{\CYRKVCRS}{PU}{\84\234}% U+049C
17053 % U+049D CYRILLIC SMALL LETTER KA WITH VERTICAL STROKE;
17054 % kavertikalstrokecyrillic
17055 \DeclareTextCommand{\cyrkvcrs}{PU}{\84\235}% U+049D
17056 % U+049E CYRILLIC CAPITAL LETTER KA WITH STROKE; Kastrokecyrillic
17057 \DeclareTextCommand{\CYRKHCRS}{PU}{\84\236}% U+049E
17058 % U+049F CYRILLIC SMALL LETTER KA WITH STROKE; kastrokecyrillic
17059 \DeclareTextCommand{\cyrkhcrs}{PU}{\84\237}% U+049F

17060 % U+04A0 CYRILLIC CAPITAL LETTER BASHKIR KA; Kabashkircyrillic
17061 \DeclareTextCommand{\CYRKBEAK}{PU}{\84\240}% U+04A0
17062 % U+04A1 CYRILLIC SMALL LETTER BASHKIR KA; kabashkircyrillic
17063 \DeclareTextCommand{\cyrkbeak}{PU}{\84\241}% U+04A1
17064 % U+04A2 CYRILLIC CAPITAL LETTER EN WITH DESCENDER; Endescen-
dercyrillic
17065 \DeclareTextCommand{\CYRNDSC}{PU}{\84\242}% U+04A2
17066 % U+04A3 CYRILLIC SMALL LETTER EN WITH DESCENDER; endescender-
cyrillic
17067 \DeclareTextCommand{\cyrndsc}{PU}{\84\243}% U+04A3
17068 % U+04A4 CYRILLIC CAPITAL LIGATURE EN GHE; Enghecyrillic
17069 \DeclareTextCommand{\CYRNG}{PU}{\84\244}% U+04A4
17070 % U+04A5 CYRILLIC SMALL LIGATURE EN GHE; enghecyrillic
17071 \DeclareTextCommand{\cyrng}{PU}{\84\245}% U+04A5
17072 % U+04A6 CYRILLIC CAPITAL LETTER PE WITH MIDDLE HOOK; Pemid-
dlehookcyrillic
17073 \DeclareTextCommand{\CYRPHK}{PU}{\84\246}% U+04A6
17074 % U+04A7 CYRILLIC SMALL LETTER PE WITH MIDDLE HOOK; pemiddle-
hookcyrillic
17075 \DeclareTextCommand{\cyrphk}{PU}{\84\247}% U+04A7
17076 % U+04A8 CYRILLIC CAPITAL LETTER ABKHASIAN HA; Haabkhasiancyril-
lic
17077 \DeclareTextCommand{\CYRABHHA}{PU}{\84\250}% U+04A8
17078 % U+04A9 CYRILLIC SMALL LETTER ABKHASIAN HA; haabkhasiancyrillic
17079 \DeclareTextCommand{\cyrabhha}{PU}{\84\251}% U+04A9
17080 % U+04AA CYRILLIC CAPITAL LETTER ES WITH DESCENDER; Esdescen-
dercyrillic
17081 \DeclareTextCommand{\CYRSDSC}{PU}{\84\252}% U+04AA
17082 \DeclareTextCompositeCommand{\CYRSDSC}{PU}{\CYRS}{\84\252}% U+04AA
17083 % U+04AB CYRILLIC SMALL LETTER ES WITH DESCENDER; esdescender-
cyrillic
17084 \DeclareTextCommand{\cyrsdsc}{PU}{\84\253}% U+04AB
17085 \DeclareTextCompositeCommand{\k}{PU}{\cyrs}{\84\253}% U+04AB
17086 % U+04AC CYRILLIC CAPITAL LETTER TE WITH DESCENDER; Tedescen-
dercyrillic
17087 \DeclareTextCommand{\CYRTDSC}{PU}{\84\254}% U+04AC
17088 % U+04AD CYRILLIC SMALL LETTER TE WITH DESCENDER; tedescen-
dercyrillic
17089 \DeclareTextCommand{\cyrtdsc}{PU}{\84\255}% U+04AD
17090 % U+04AE CYRILLIC CAPITAL LETTER STRAIGHT U; Ustraightcyrillic
17091 \DeclareTextCommand{\CYRY}{PU}{\84\256}% U+04AE
17092 % U+04AF CYRILLIC SMALL LETTER STRAIGHT U; ustraightcyrillic
17093 \DeclareTextCommand{\cyry}{PU}{\84\257}% U+04AF
17094 % U+04B0 CYRILLIC CAPITAL LETTER STRAIGHT U WITH STROKE; Us-
traightstrokecyrillic
17095 \DeclareTextCommand{\CYRYHCRS}{PU}{\84\260}% U+04B0
17096 % U+04B1 CYRILLIC SMALL LETTER STRAIGHT U WITH STROKE; us-
traightstrokecyrillic
17097 \DeclareTextCommand{\cyryhcrs}{PU}{\84\261}% U+04B1
17098 % U+04B2 CYRILLIC CAPITAL LETTER HA WITH DESCENDER; Hadescen-
dercyrillic
17099 \DeclareTextCommand{\CYRHDSC}{PU}{\84\262}% U+04B2
17100 % U+04B3 CYRILLIC SMALL LETTER HA WITH DESCENDER; hadescen-
dercyrillic
17101 \DeclareTextCommand{\cyrhdsc}{PU}{\84\263}% U+04B3
17102 % U+04B4 CYRILLIC CAPITAL LIGATURE TE TSE; Tetsecyrillic
17103 \DeclareTextCommand{\CYRTETSE}{PU}{\84\264}% U+04B4

17104 % U+04B5 CYRILLIC SMALL LIGATURE TE TSE; tetsecyrillic
17105 \DeclareTextCommand{\cyrtetse}{PU}{\84\265}% U+04B5
17106 % U+04B6 CYRILLIC CAPITAL LETTER CHE WITH DESCENDER;
17107 % Chedescendercyrillic
17108 \DeclareTextCommand{\CYRCHRDSC}{PU}{\84\266}% U+04B6
17109 % U+04B7 CYRILLIC SMALL LETTER CHE WITH DESCENDER; chedescen-
dercyrillic
17110 \DeclareTextCommand{\cyrchrdsc}{PU}{\84\267}% U+04B7
17111 % U+04B8 CYRILLIC CAPITAL LETTER CHE WITH VERTICAL STROKE;
17112 % Cheverticalstrokecyrillic
17113 \DeclareTextCommand{\CYRCHVCRS}{PU}{\84\270}% U+04B8
17114 % U+04B9 CYRILLIC SMALL LETTER CHE WITH VERTICAL STROKE;
17115 % cheverticalstrokecyrillic
17116 \DeclareTextCommand{\cyrchvcrs}{PU}{\84\271}% U+04B9
17117 % U+04BA CYRILLIC CAPITAL LETTER SHHA; Shhacyrillic
17118 \DeclareTextCommand{\CYRSHHA}{PU}{\84\272}% U+04BA
17119 % U+04BB CYRILLIC SMALL LETTER SHHA; shhacyrillic
17120 \DeclareTextCommand{\cyrshha}{PU}{\84\273}% U+04BB
17121 % U+04BC CYRILLIC CAPITAL LETTER ABKHASIAN CHE; Cheabkhasian-
cyrillic
17122 \DeclareTextCommand{\CYRABHCH}{PU}{\84\274}% U+04BC
17123 % U+04BD CYRILLIC SMALL LETTER ABKHASIAN CHE; cheabkhasiancyril-
lic
17124 \DeclareTextCommand{\cyrabhch}{PU}{\84\275}% U+04BD
17125 % U+04BE CYRILLIC CAPITAL LETTER ABKHASIAN CHE WITH DESCEN-
DER; Chedescenderabkhasiancyrillic
17126 \DeclareTextCommand{\CYRABHCHDSC}{PU}{\84\276}% U+04BE
17127 \DeclareTextCompositeCommand{\k}{PU}{\CYRABHCH}{\84\276}% U+04BE
17128 % U+04BF CYRILLIC SMALL LETTER ABKHASIAN CHE WITH DESCEN-
DER; chedescenderabkhasiancyrillic
17129 \DeclareTextCommand{\cyrabhchdsc}{PU}{\84\277}% U+04BF
17130 \DeclareTextCompositeCommand{\k}{PU}{\cyrabhch}{\84\277}% U+04BF
17131 % U+04C0 CYRILLIC LETTER PALOCHKA; palochkacyrillic
17132 \DeclareTextCommand{\CYRpalochka}{PU}{\84\300}% U+04C0
17133 % U+04C1 CYRILLIC CAPITAL LETTER ZHE WITH BREVE; Zhebrevecyrillic
17134 \DeclareTextCompositeCommand{\U}{PU}{\CYRZH}{\84\301}% U+04C1
17135 % U+04C2 CYRILLIC SMALL LETTER ZHE WITH BREVE; zhebrevecyrillic
17136 \DeclareTextCompositeCommand{\U}{PU}{\cyrzh}{\84\302}% U+04C2
17137 % U+04C3 CYRILLIC CAPITAL LETTER KA WITH HOOK; Kahookcyrillic
17138 \DeclareTextCommand{\CYRKHK}{PU}{\84\303}% U+04C3
17139 % U+04C4 CYRILLIC SMALL LETTER KA WITH HOOK; kahookcyrillic
17140 \DeclareTextCommand{\cyrkhk}{PU}{\84\304}% U+04C4
17141 % U+04C5 CYRILLIC CAPITAL LETTER EL WITH TAIL
17142 \DeclareTextCommand{\CYRLDSC}{PU}{\84\305}% U+04C5
17143 % U+04C6 CYRILLIC SMALL LETTER EL WITH TAIL
17144 \DeclareTextCommand{\cyrldsc}{PU}{\84\306}% U+04C6
17145 % U+04C7 CYRILLIC CAPITAL LETTER EN WITH HOOK; Enhookcyrillic
17146 \DeclareTextCommand{\CYRNHK}{PU}{\84\307}% U+04C7
17147 % U+04C8 CYRILLIC SMALL LETTER EN WITH HOOK; enhookcyrillic
17148 \DeclareTextCommand{\cyrnhk}{PU}{\84\310}% U+04C8
17149 % U+04CB CYRILLIC CAPITAL LETTER KHAKASSIAN CHE; Chekhakas-
siancyrillic
17150 \DeclareTextCommand{\CYRCHLDSC}{PU}{\84\313}% U+04CB
17151 % U+04CC CYRILLIC SMALL LETTER KHAKASSIAN CHE; chekhakassian-
cyrillic
17152 \DeclareTextCommand{\cyrchldsc}{PU}{\84\314}% U+04CC
17153 % U+04CD CYRILLIC CAPITAL LETTER EM WITH TAIL

17154 \DeclareTextCommand{\CYRMDSC}{PU}{\84\315}% U+04CD
17155 % U+04CE CYRILLIC SMALL LETTER EM WITH TAIL
17156 \DeclareTextCommand{\cyrmdsc}{PU}{\84\316}% U+04CE
\84\317: U+04CF CYRILLIC SMALL LETTER PALOCHKA
17157 % U+04D0 CYRILLIC CAPITAL LETTER A WITH BREVE; Abrevecyrillic
17158 \DeclareTextCompositeCommand{\U}{PU}{\CYRA}{\84\320}% U+04D0
17159 % U+04D1 CYRILLIC SMALL LETTER A WITH BREVE; abrevecyrillic
17160 \DeclareTextCompositeCommand{\U}{PU}{\cyra}{\84\321}% U+04D1
17161 % U+04D2 CYRILLIC CAPITAL LETTER A WITH DIAERESIS; Adieresiscyril-
lic
17162 \DeclareTextCompositeCommand{\"}{PU}{\CYRA}{\84\322}% U+04D2
17163 % U+04D3 CYRILLIC SMALL LETTER A WITH DIAERESIS; adieresiscyrillic
17164 \DeclareTextCompositeCommand{\"}{PU}{\cyra}{\84\323}% U+04D3
17165 % U+04D4 CYRILLIC CAPITAL LIGATURE A IE; Aiecyrillic
17166 \DeclareTextCommand{\CYRAE}{PU}{\84\324}% U+04D4
17167 % U+04D5 CYRILLIC SMALL LIGATURE A IE; aiecyrillic
17168 \DeclareTextCommand{\cyrae}{PU}{\84\325}% U+04D5
17169 % U+04D6 CYRILLIC CAPITAL LETTER IE WITH BREVE; Iebrevcyrillic
17170 \DeclareTextCompositeCommand{\U}{PU}{\CYRE}{\84\326}% U+04D6
17171 % U+04D7 CYRILLIC SMALL LETTER IE WITH BREVE; iebrevcyrillic
17172 \DeclareTextCompositeCommand{\U}{PU}{\cyre}{\84\327}% U+04D7
17173 % U+04D8 CYRILLIC CAPITAL LETTER SCHWA; Schwacyrillic
17174 \DeclareTextCommand{\CYRSCHWA}{PU}{\84\330}% U+04D8
17175 % U+04D9 CYRILLIC SMALL LETTER SCHWA; *afii10846, schwacyrillic
17176 \DeclareTextCommand{\cyrschwa}{PU}{\84\331}% U+04D9
17177 % U+04DA CYRILLIC CAPITAL LETTER SCHWA WITH DIAERESIS;
17178 % Schwadieresiscyrillic
17179 \DeclareTextCompositeCommand{\"}{PU}{\CYRSCHWA}{\84\332}% U+04DA
17180 % U+04DB CYRILLIC SMALL LETTER SCHWA WITH DIAERESIS;
17181 % schwadieresiscyrillic
17182 \DeclareTextCompositeCommand{\"}{PU}{\cyrschwa}{\84\333}% U+04DB
17183 % U+04DC CYRILLIC CAPITAL LETTER ZHE WITH DIAERESIS; Zhediere-
siscyrillic
17184 \DeclareTextCompositeCommand{\"}{PU}{\CYRZH}{\84\334}% U+04DC
17185 % U+04DD CYRILLIC SMALL LETTER ZHE WITH DIAERESIS; zhedieresis-
cyrillic
17186 \DeclareTextCompositeCommand{\"}{PU}{\cyrz}{\84\335}% U+04DD
17187 % U+04DE CYRILLIC CAPITAL LETTER ZE WITH DIAERESIS; Zedieresis-
cyrillic
17188 \DeclareTextCompositeCommand{\"}{PU}{\CYRZ}{\84\336}% U+04DE
17189 % U+04DF CYRILLIC SMALL LETTER ZE WITH DIAERESIS; zedieresiscyril-
lic
17190 \DeclareTextCompositeCommand{\"}{PU}{\cyrz}{\84\337}% U+04DF
17191 % U+04E0 CYRILLIC CAPITAL LETTER ABKHASIAN DZE; Dzeabkhasian-
cyrillic
17192 \DeclareTextCommand{\CYRABHDZE}{PU}{\84\340}% U+04E0
17193 % U+04E1 CYRILLIC SMALL LETTER ABKHASIAN DZE; dzeabkhasiancyril-
lic
17194 \DeclareTextCommand{\cyrabhdze}{PU}{\84\341}% U+04E1
17195 % U+04E2 CYRILLIC CAPITAL LETTER I WITH MACRON; Imacroncyrillic
17196 \DeclareTextCompositeCommand{\=}{PU}{\CYRI}{\84\342}% U+04E2
17197 % U+04E3 CYRILLIC SMALL LETTER I WITH MACRON; imacroncyrillic
17198 \DeclareTextCompositeCommand{\=}{PU}{\cyri}{\84\343}% U+04E3
17199 % U+04E4 CYRILLIC CAPITAL LETTER I WITH DIAERESIS; Idieresiscyrillic
17200 \DeclareTextCompositeCommand{\"}{PU}{\CYRI}{\84\344}% U+04E4
17201 % U+04E5 CYRILLIC SMALL LETTER I WITH DIAERESIS; idieresiscyrillic
17202 \DeclareTextCompositeCommand{\"}{PU}{\cyri}{\84\345}% U+04E5

17203 % U+04E6 CYRILLIC CAPITAL LETTER O WITH DIAERESIS; Odieresiscyrillic
 17204 \DeclareTextCompositeCommand{"}{PU}{\CYRO}{\84\346}% U+04E6
 17205 % U+04E7 CYRILLIC SMALL LETTER O WITH DIAERESIS; odieresiscyrillic
 17206 \DeclareTextCompositeCommand{"}{PU}{\cyro}{\84\347}% U+04E7
 17207 % U+04E8 CYRILLIC CAPITAL LETTER BARRED O; Obarredcyrillic
 17208 \DeclareTextCommand{\CYROTLD}{PU}{\84\350}% U+04E8
 17209 % U+04E9 CYRILLIC SMALL LETTER BARRED O; obarredcyrillic
 17210 \DeclareTextCommand{\cyrotld}{PU}{\84\351}% U+04E9
 17211 % U+04EA CYRILLIC CAPITAL LETTER BARRED O WITH DIAERESIS;
 17212 % Obarreddieresiscyrillic
 17213 \DeclareTextCompositeCommand{"}{PU}{\CYROTLD}{\84\352}% U+04EA
 17214 % U+04EB CYRILLIC SMALL LETTER BARRED O WITH DIAERESIS;
 17215 % obarreddieresiscyrillic
 17216 \DeclareTextCompositeCommand{"}{PU}{\cyrotld}{\84\353}% U+04EB
 17217 % U+04EC CYRILLIC CAPITAL LETTER E WITH DIAERESIS
 17218 \DeclareTextCompositeCommand{"}{PU}{\CYREREV}{\84\354}% U+04EC
 17219 % U+04ED CYRILLIC SMALL LETTER E WITH DIAERESIS
 17220 \DeclareTextCompositeCommand{"}{PU}{\cyreref}{\84\355}% U+04ED
 17221 % U+04EE CYRILLIC CAPITAL LETTER U WITH MACRON; Umacroncyrillic
 17222 \DeclareTextCompositeCommand{\=}{PU}{\CYRU}{\84\356}% U+04EE
 17223 % U+04EF CYRILLIC SMALL LETTER U WITH MACRON; umacroncyrillic
 17224 \DeclareTextCompositeCommand{\=}{PU}{\cyru}{\84\357}% U+04EF
 17225 % U+04F0 CYRILLIC CAPITAL LETTER U WITH DIAERESIS; Udieresiscyrillic
 17226 \DeclareTextCompositeCommand{"}{PU}{\CYRU}{\84\360}% U+04F0
 17227 % U+04F1 CYRILLIC SMALL LETTER U WITH DIAERESIS; udieresiscyrillic
 17228 \DeclareTextCompositeCommand{"}{PU}{\cyru}{\84\361}% U+04F1
 17229 % U+04F2 CYRILLIC CAPITAL LETTER U WITH DOUBLE ACUTE; Uhungarumlautcyrillic
 17230 \DeclareTextCompositeCommand{\H}{PU}{\CYRU}{\84\362}% U+04F2
 17231 % U+04F3 CYRILLIC SMALL LETTER U WITH DOUBLE ACUTE; uhungarumlautcyrillic
 17232 \DeclareTextCompositeCommand{\H}{PU}{\cyru}{\84\363}% U+04F3
 17233 % U+04F4 CYRILLIC CAPITAL LETTER CHE WITH DIAERESIS; Chedieresiscyrillic
 17234 \DeclareTextCompositeCommand{"}{PU}{\CYRCH}{\84\364}% U+04F4
 17235 % U+04F5 CYRILLIC SMALL LETTER CHE WITH DIAERESIS; chedieresiscyrillic
 17236 \DeclareTextCompositeCommand{"}{PU}{\cyrch}{\84\365}% U+04F5
 17237 % U+04F6 CYRILLIC CAPITAL LETTER GHE WITH DESCENDER
 17238 \DeclareTextCommand{\CYRGDSC}{PU}{\84\366}% U+04F6
 17239 % U+04F7 CYRILLIC SMALL LETTER GHE WITH DESCENDER
 17240 \DeclareTextCommand{\cyrgdsc}{PU}{\84\367}% U+04F7
 17241 % U+04F8 CYRILLIC CAPITAL LETTER YERU WITH DIAERESIS; Yerudieresiscyrillic
 17242 \DeclareTextCompositeCommand{"}{PU}{\CYRERY}{\84\370}% U+04F8
 17243 % U+04F9 CYRILLIC SMALL LETTER YERU WITH DIAERESIS; yerudieresiscyrillic
 17244 \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
 17245 % U+04FC CYRILLIC CAPITAL LETTER HA WITH HOOK
 17246 \DeclareTextCommand{\CYRHHK}{PU}{\84\374}% U+04FC
 17247 % U+04FD CYRILLIC SMALL LETTER HA WITH HOOK

17248 \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.

17249 % U+05C3 HEBREW PUNCTUATION SOF PASUQ
 17250 \DeclareTextCommand{\sofpasuq}{PU}{\85\303}% U+05C3
 17251 % U+05D0 HEBREW LETTER ALEF
 17252 \DeclareTextCommand{\hebalet}{PU}{\85\320}% U+05D0
 17253 % U+05D1 HEBREW LETTER BET
 17254 \DeclareTextCommand{\hebbet}{PU}{\85\321}% U+05D1
 17255 % U+05D2 HEBREW LETTER GIMEL
 17256 \DeclareTextCommand{\hebgimel}{PU}{\85\322}% U+05D2
 17257 % U+05D3 HEBREW LETTER DALET
 17258 \DeclareTextCommand{\hebdalet}{PU}{\85\323}% U+05D3
 17259 % U+05D4 HEBREW LETTER HE
 17260 \DeclareTextCommand{\hebhe}{PU}{\85\324}% U+05D4
 17261 % U+05D5 HEBREW LETTER VAV
 17262 \DeclareTextCommand{\hebvav}{PU}{\85\325}% U+05D5
 17263 % U+05D6 HEBREW LETTER ZAYIN
 17264 \DeclareTextCommand{\hebzayin}{PU}{\85\326}% U+05D6
 17265 % U+05D7 HEBREW LETTER HET
 17266 \DeclareTextCommand{\hebbet}{PU}{\85\327}% U+05D7
 17267 % U+05D8 HEBREW LETTER TET
 17268 \DeclareTextCommand{\hebtet}{PU}{\85\330}% U+05D8
 17269 % U+05D9 HEBREW LETTER YOD
 17270 \DeclareTextCommand{\hebyod}{PU}{\85\331}% U+05D9
 17271 % U+05DA HEBREW LETTER FINAL KAF
 17272 \DeclareTextCommand{\hebfinalkaf}{PU}{\85\332}% U+05DA
 17273 % U+05DB HEBREW LETTER KAF
 17274 \DeclareTextCommand{\hebkaf}{PU}{\85\333}% U+05DB
 17275 % U+05DC HEBREW LETTER LAMED
 17276 \DeclareTextCommand{\heblamed}{PU}{\85\334}% U+05DC
 17277 % U+05DD HEBREW LETTER FINAL MEM
 17278 \DeclareTextCommand{\hebfinalmem}{PU}{\85\335}% U+05DD
 17279 % U+05DE HEBREW LETTER MEM
 17280 \DeclareTextCommand{\hebmam}{PU}{\85\336}% U+05DE
 17281 % U+05DF HEBREW LETTER FINAL NUN
 17282 \DeclareTextCommand{\hebfinalnun}{PU}{\85\337}% U+05DF
 17283 % U+05E0 HEBREW LETTER NUN
 17284 \DeclareTextCommand{\hebnun}{PU}{\85\340}% U+05E0
 17285 % U+05E1 HEBREW LETTER SAMEKH
 17286 \DeclareTextCommand{\hebsamekh}{PU}{\85\341}% U+05E1
 17287 % U+05E2 HEBREW LETTER AYIN
 17288 \DeclareTextCommand{\hebayin}{PU}{\85\342}% U+05E2
 17289 % U+05E3 HEBREW LETTER FINAL PE
 17290 \DeclareTextCommand{\hebfinalpe}{PU}{\85\343}% U+05E3
 17291 % U+05E4 HEBREW LETTER PE
 17292 \DeclareTextCommand{\hebpe}{PU}{\85\344}% U+05E4
 17293 % U+05E5 HEBREW LETTER FINAL TSADI
 17294 \DeclareTextCommand{\hebfinaltsadi}{PU}{\85\345}% U+05E5
 17295 % U+05E6 HEBREW LETTER TSADI
 17296 \DeclareTextCommand{\hebtsadi}{PU}{\85\346}% U+05E6
 17297 % U+05E7 HEBREW LETTER QOF
 17298 \DeclareTextCommand{\hebqof}{PU}{\85\347}% U+05E7

17299 % U+05E8 HEBREW LETTER RESH
 17300 \DeclareTextCommand{\hebresh}{PU}{\85\350}% U+05E8
 17301 % U+05E9 HEBREW LETTER SHIN
 17302 \DeclareTextCommand{\hebshin}{PU}{\85\351}% U+05E9
 17303 %* \hebshin -> \hebsin (he8)
 17304 % U+05EA HEBREW LETTER TAV
 17305 \DeclareTextCommand{\hebtav}{PU}{\85\352}% U+05EA
 17306 % U+05F0 HEBREW LIGATURE YIDDISH DOUBLE VAV
 17307 \DeclareTextCommand{\doublevav}{PU}{\85\360}% U+05F0
 17308 % U+05F1 HEBREW LIGATURE YIDDISH VAV YOD
 17309 \DeclareTextCommand{\vavyod}{PU}{\85\361}% U+05F1
 17310 % U+05F2 HEBREW LIGATURE YIDDISH DOUBLE YOD
 17311 \DeclareTextCommand{\doubleyod}{PU}{\85\362}% U+05F2

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

17312 % U+0E3F THAI CURRENCY SYMBOL BAHT; bahtthai
 17313 \DeclareTextCommand{\textbaht}{PU}{\9016\077}% U+0E3F

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

17314 % U+1D00 LATIN LETTER SMALL CAPITAL A; \textzca (tipa)
 17315 \DeclareTextCommand{\textzca}{PU}{\9035\000}% U+1D00
 17316 % U+1D05 LATIN LETTER SMALL CAPITAL D; \scd (wsuipa)
 17317 \DeclareTextCommand{\textscd}{PU}{\9035\005}% U+1D05
 17318 % U+1D07 LATIN LETTER SMALL CAPITAL E; \textsce (tipa)
 17319 \DeclareTextCommand{\textsce}{PU}{\9035\007}% U+1D07
 17320 % U+1D0A LATIN LETTER SMALL CAPITAL J; \textscj (tipa)
 17321 \DeclareTextCommand{\textscj}{PU}{\9035\012}% U+1D0A
 17322 % U+1D0B LATIN LETTER SMALL CAPITAL K; \textsck (tipx)
 17323 \DeclareTextCommand{\textPUsck}{PU}{\9035\013}% U+1D0B
 17324 %* \textPUsck -> \textscj (tipx)
 17325 % U+1D0D LATIN LETTER SMALL CAPITAL M; \textscm (tipx)
 17326 \DeclareTextCommand{\textPUscm}{PU}{\9035\015}% U+1D0D
 17327 %* \textPUscm -> \textscm (tipx)
 17328 % U+1D18 LATIN LETTER SMALL CAPITAL P; \textscp (tipx)
 17329 \DeclareTextCommand{\textPUscp}{PU}{\9035\030}% U+1D18
 17330 %* \textPUscp -> \textscp (tipx)
 17331 % U+1D19 LATIN LETTER SMALL CAPITAL REVERSED R; \textrevscr (tipx)
 17332 \DeclareTextCommand{\textPUrevscr}{PU}{\9035\031}% U+1D19
 17333 %* \textPUrevscr -> \textrevscr (tipx)
 17334 % U+1D1C LATIN LETTER SMALL CAPITAL U; \textscu (tipa), \scu (wsuipa)
 17335 \DeclareTextCommand{\textscu}{PU}{\9035\034}% U+1D1C
 17336 % U+1D62 LATIN SUBSCRIPT SMALL LETTER I
 17337 \DeclareTextCommand{\textiinferior}{PU}{\9035\142}% U+1D62
 17338 % U+1D63 LATIN SUBSCRIPT SMALL LETTER R
 17339 \DeclareTextCommand{\textrinferior}{PU}{\9035\143}% U+1D63
 17340 % U+1D64 LATIN SUBSCRIPT SMALL LETTER U
 17341 \DeclareTextCommand{\textuinferior}{PU}{\9035\144}% U+1D64
 17342 % U+1D65 LATIN SUBSCRIPT SMALL LETTER V
 17343 \DeclareTextCommand{\textvinferior}{PU}{\9035\145}% U+1D65
 17344 % U+1D66 GREEK SUBSCRIPT SMALL LETTER BETA
 17345 \DeclareTextCommand{\textbetainferior}{PU}{\9035\146}% U+1D66
 17346 % U+1D67 GREEK SUBSCRIPT SMALL LETTER GAMMA
 17347 \DeclareTextCommand{\textgammainferior}{PU}{\9035\147}% U+1D67
 17348 % U+1D68 GREEK SUBSCRIPT SMALL LETTER RHO
 17349 \DeclareTextCommand{\textrhoinferior}{PU}{\9035\150}% U+1D68
 17350 % U+1D69 GREEK SUBSCRIPT SMALL LETTER PHI

17351 \DeclareTextCommand{\textphiinferior}{PU}{\9035\151}%* U+1D69
 17352 % U+1D6A GREEK SUBSCRIPT SMALL LETTER CHI
 17353 \DeclareTextCommand{\textchiinferior}{PU}{\9035\152}%* U+1D6A
 17354 % U+1D7B LATIN SMALL CAPITAL LETTER I WITH STROKE;
 17355 % \barsci (wsuipa)
 17356 \DeclareTextCommand{\textbarsci}{PU}{\9035\173}%* U+1D7B
 17357 % U+1D7D LATIN SMALL LETTER P WITH STROKE; \barp (wsuipa)
 17358 \DeclareTextCommand{\textbarp}{PU}{\9035\175}%* U+1D7D
 17359 % U+1D7E LATIN SMALL CAPITAL LETTER U WITH STROKE;
 17360 % \barscu (wsuipa)
 17361 \DeclareTextCommand{\textbarscu}{PU}{\9035\176}%* U+1D7E

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

17362 % U+1D8F LATIN SMALL LETTER A WITH RETROFLEX HOOK; \tex-
 trhooka (tipx)
 17363 \DeclareTextCommand{\textPUrhooka}{PU}{\9035\217}% U+1D8F
 17364 %* \textPUrhooka -> \textrhooka (tipx)
 17365 % U+1D91 LATIN SMALL LETTER D WITH HOOK AND TAIL; \texthtr-
 taild (tipa)
 17366 \DeclareTextCommand{\texthtrtaild}{PU}{\9035\221}%* U+1D91
 17367 % U+1D92 LATIN SMALL LETTER E WITH RETROFLEX HOOK; \tex-
 trhooke (tipx)
 17368 \DeclareTextCommand{\textPUrhooke}{PU}{\9035\222}% U+1D92
 17369 %* \textPUrhooke -> \textrhooke (tipx)
 17370 % U+1D93 LATIN SMALL LETTER OPEN E WITH RETROFLEX HOOK;
 17371 % \textrhookepsilon (tipx)
 17372 \DeclareTextCommand{\textPUrhookepsilon}{PU}{\9035\223}% U+1D93
 17373 %* \textPUrhookepsilon -> \textrhookepsilon (tipx)
 17374 % U+1D97 LATIN SMALL LETTER OPEN O WITH RETROFLEX HOOK;
 17375 % \textrhookopeno (tipx)
 17376 \DeclareTextCommand{\textPUrhookopeno}{PU}{\9035\227}% U+1D97
 17377 %* \textPUrhookopeno -> \textrhookopeno (tipx)

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

17378 % U+1E00 LATIN CAPITAL LETTER A WITH RING BELOW; Aringbelow
 17379 \DeclareTextCompositeCommand{\textsubring}{PU}{A}{\9036\000}% U+1E00
 17380 % U+1E01 LATIN SMALL LETTER A WITH RING BELOW; aringbelow
 17381 \DeclareTextCompositeCommand{\textsubring}{PU}{a}{\9036\001}% U+1E01
 17382 % U+1E02 LATIN CAPITAL LETTER B WITH DOT ABOVE; Bdotaccent
 17383 \DeclareTextCompositeCommand{.}{PU}{B}{\9036\002}% U+1E02
 17384 % U+1E03 LATIN SMALL LETTER B WITH DOT ABOVE; bdotaccent
 17385 \DeclareTextCompositeCommand{.}{PU}{b}{\9036\003}% U+1E03
 17386 % U+1E04 LATIN CAPITAL LETTER B WITH DOT BELOW; Bdotbelow
 17387 \DeclareTextCompositeCommand{\d}{PU}{B}{\9036\004}% U+1E04
 17388 % U+1E05 LATIN SMALL LETTER B WITH DOT BELOW; bdotbelow
 17389 \DeclareTextCompositeCommand{\d}{PU}{b}{\9036\005}% U+1E05
 17390 % U+1E06 LATIN CAPITAL LETTER B WITH LINE BELOW; Blinebelow
 17391 \DeclareTextCompositeCommand{\b}{PU}{B}{\9036\006}% U+1E06
 17392 % U+1E07 LATIN SMALL LETTER B WITH LINE BELOW; blinebelow
 17393 \DeclareTextCompositeCommand{\b}{PU}{b}{\9036\007}% U+1E07
 17394 % U+1E0A LATIN CAPITAL LETTER D WITH DOT ABOVE; Ddotaccent
 17395 \DeclareTextCompositeCommand{.}{PU}{D}{\9036\012}% U+1E0A
 17396 % U+1E0B LATIN SMALL LETTER D WITH DOT ABOVE; ddotaccent
 17397 \DeclareTextCompositeCommand{.}{PU}{d}{\9036\013}% U+1E0B
 17398 % U+1E0C LATIN CAPITAL LETTER D WITH DOT BELOW; Ddotbelow
 17399 \DeclareTextCompositeCommand{\d}{PU}{D}{\9036\014}% U+1E0C
 17400 % U+1E0D LATIN SMALL LETTER D WITH DOT BELOW; ddotbelow

17401 \DeclareTextCompositeCommand{\d}{PU}{d}{\9036\015}% U+1E0D
17402 % U+1E0E LATIN CAPITAL LETTER D WITH LINE BELOW; Dlinebelow
17403 \DeclareTextCompositeCommand{\b}{PU}{D}{\9036\016}% U+1E0E
17404 % U+1E0F LATIN SMALL LETTER D WITH LINE BELOW; dlinebelow
17405 \DeclareTextCompositeCommand{\b}{PU}{d}{\9036\017}% U+1E0F
17406 % U+1E10 LATIN CAPITAL LETTER D WITH CEDILLA; Dcedilla
17407 \DeclareTextCompositeCommand{\c}{PU}{D}{\9036\020}% U+1E10
17408 % U+1E11 LATIN SMALL LETTER D WITH CEDILLA; dcedilla
17409 \DeclareTextCompositeCommand{\c}{PU}{d}{\9036\021}% U+1E11
17410 % U+1E12 LATIN CAPITAL LETTER D WITH CIRCUMFLEX BELOW; Dcir-
cumflexbelow
17411 \DeclareTextCompositeCommand{\textsubcircum}{PU}{D}{\9036\022}% U+1E12
17412 % U+1E13 LATIN SMALL LETTER D WITH CIRCUMFLEX BELOW; dcir-
cumflexbelow
17413 \DeclareTextCompositeCommand{\textsubcircum}{PU}{d}{\9036\023}% U+1E13
17414 % U+1E14 LATIN CAPITAL LETTER E WITH MACRON AND GRAVE;
17415 % E macrongrave
17416 \DeclareTextCompositeCommand{\textgravemacron}{PU}{E}{\9036\024}% U+1E14
17417 % U+1E15 LATIN SMALL LETTER E WITH MACRON AND GRAVE;
17418 % e macrongrave
17419 \DeclareTextCompositeCommand{\textgravemacron}{PU}{e}{\9036\025}% U+1E15
17420 % U+1E16 LATIN CAPITAL LETTER E WITH MACRON AND ACUTE;
17421 % E macronacute
17422 \DeclareTextCompositeCommand{\textacutemacron}{PU}{E}{\9036\026}% U+1E16
17423 % U+1E17 LATIN SMALL LETTER E WITH MACRON AND ACUTE;
17424 % e macronacute
17425 \DeclareTextCompositeCommand{\textacutemacron}{PU}{e}{\9036\027}% U+1E17
17426 % U+1E18 LATIN CAPITAL LETTER E WITH CIRCUMFLEX BELOW; Ecir-
cumflexbelow
17427 \DeclareTextCompositeCommand{\textsubcircum}{PU}{E}{\9036\030}% U+1E18
17428 % U+1E19 LATIN SMALL LETTER E WITH CIRCUMFLEX BELOW; ecir-
cumflexbelow
17429 \DeclareTextCompositeCommand{\textsubcircum}{PU}{e}{\9036\031}% U+1E19
17430 % U+1E1A LATIN CAPITAL LETTER E WITH TILDE BELOW; Etildebelow
17431 \DeclareTextCompositeCommand{\textsubtilde}{PU}{E}{\9036\032}% U+1E1A
17432 % U+1E1B LATIN SMALL LETTER E WITH TILDE BELOW; etildebelow
17433 \DeclareTextCompositeCommand{\textsubtilde}{PU}{e}{\9036\033}% U+1E1B
17434 % U+1E1E LATIN CAPITAL LETTER F WITH DOT ABOVE; Fdotaccent
17435 \DeclareTextCompositeCommand{\.}{PU}{F}{\9036\036}% U+1E1E
17436 % U+1E1F LATIN SMALL LETTER F WITH DOT ABOVE; fdotaccent
17437 \DeclareTextCompositeCommand{\.}{PU}{f}{\9036\037}% U+1E1F
17438 % U+1E20 LATIN CAPITAL LETTER G WITH MACRON; Gmacron
17439 \DeclareTextCompositeCommand{\=}{PU}{G}{\9036\040}% U+1E20
17440 % U+1E21 LATIN SMALL LETTER G WITH MACRON; gmacron
17441 \DeclareTextCompositeCommand{\=}{PU}{g}{\9036\041}% U+1E21
17442 % U+1E22 LATIN CAPITAL LETTER H WITH DOT ABOVE; Hdotaccent
17443 \DeclareTextCompositeCommand{\.}{PU}{H}{\9036\042}% U+1E22
17444 % U+1E23 LATIN SMALL LETTER H WITH DOT ABOVE; hdotaccent
17445 \DeclareTextCompositeCommand{\.}{PU}{h}{\9036\043}% U+1E23
17446 % U+1E24 LATIN CAPITAL LETTER H WITH DOT BELOW; Hdotbelow
17447 \DeclareTextCompositeCommand{\d}{PU}{H}{\9036\044}% U+1E24
17448 % U+1E25 LATIN SMALL LETTER H WITH DOT BELOW; hdotbelow
17449 \DeclareTextCompositeCommand{\d}{PU}{h}{\9036\045}% U+1E25
17450 % U+1E26 LATIN CAPITAL LETTER H WITH DIAERESIS; Hdieresis
17451 \DeclareTextCompositeCommand{\"}{PU}{H}{\9036\046}% U+1E26
17452 % U+1E27 LATIN SMALL LETTER H WITH DIAERESIS; hdieresis
17453 \DeclareTextCompositeCommand{\"}{PU}{h}{\9036\047}% U+1E27

17454 % U+1E28 LATIN CAPITAL LETTER H WITH CEDILLA; Hcedilla
17455 \DeclareTextCompositeCommand{\c}{PU}{H}{\9036\050}% U+1E28
17456 % U+1E29 LATIN SMALL LETTER H WITH CEDILLA; hcedilla
17457 \DeclareTextCompositeCommand{\c}{PU}{h}{\9036\051}% U+1E29
17458 % U+1E2A LATIN CAPITAL LETTER H WITH BREVE BELOW; Hbrevebelow
17459 \DeclareTextCompositeCommand{\textsubbreve}{PU}{H}{\9036\052}% U+1E2A
17460 % U+1E2B LATIN SMALL LETTER H WITH BREVE BELOW; hbrevebelow
17461 \DeclareTextCompositeCommand{\textsubbreve}{PU}{h}{\9036\053}% U+1E2B
17462 % U+1E2C LATIN CAPITAL LETTER I WITH TILDE BELOW; Itildebelow
17463 \DeclareTextCompositeCommand{\textsubtilde}{PU}{I}{\9036\054}% U+1E2C
17464 % U+1E2D LATIN SMALL LETTER I WITH TILDE BELOW; itildebelow
17465 \DeclareTextCompositeCommand{\textsubtilde}{PU}{i}{\9036\055}% U+1E2D
17466 % U+1E30 LATIN CAPITAL LETTER K WITH ACUTE; Kacute
17467 \DeclareTextCompositeCommand{\'}{PU}{K}{\9036\060}% U+1E30
17468 % U+1E31 LATIN SMALL LETTER K WITH ACUTE; kacute
17469 \DeclareTextCompositeCommand{\'}{PU}{k}{\9036\061}% U+1E31
17470 % U+1E32 LATIN CAPITAL LETTER K WITH DOT BELOW; Kdotbelow
17471 \DeclareTextCompositeCommand{\d}{PU}{K}{\9036\062}% U+1E32
17472 % U+1E33 LATIN SMALL LETTER K WITH DOT BELOW; kdotbelow
17473 \DeclareTextCompositeCommand{\d}{PU}{k}{\9036\063}% U+1E33
17474 % U+1E34 LATIN CAPITAL LETTER K WITH LINE BELOW; Klinebelow
17475 \DeclareTextCompositeCommand{\b}{PU}{K}{\9036\064}% U+1E34
17476 % U+1E35 LATIN SMALL LETTER K WITH LINE BELOW; klinebelow
17477 \DeclareTextCompositeCommand{\b}{PU}{k}{\9036\065}% U+1E35
17478 % U+1E36 LATIN CAPITAL LETTER L WITH DOT BELOW; Ldotbelow
17479 \DeclareTextCompositeCommand{\d}{PU}{L}{\9036\066}% U+1E36
17480 % U+1E37 LATIN SMALL LETTER L WITH DOT BELOW; ldotbelow
17481 \DeclareTextCompositeCommand{\d}{PU}{l}{\9036\067}% U+1E37
17482 % U+1E3A LATIN CAPITAL LETTER L WITH LINE BELOW; Llinebelow
17483 \DeclareTextCompositeCommand{\b}{PU}{L}{\9036\072}% U+1E3A
17484 % U+1E3B LATIN SMALL LETTER L WITH LINE BELOW; llinebelow
17485 \DeclareTextCompositeCommand{\b}{PU}{l}{\9036\073}% U+1E3B
17486 % U+1E3C LATIN CAPITAL LETTER L WITH CIRCUMFLEX BELOW; Lcir-
cumflexbelow
17487 \DeclareTextCompositeCommand{\textsubcircum}{PU}{L}{\9036\074}% U+1E3C
17488 % U+1E3D LATIN SMALL LETTER L WITH CIRCUMFLEX BELOW; lcir-
cumflexbelow
17489 \DeclareTextCompositeCommand{\textsubcircum}{PU}{l}{\9036\075}% U+1E3D
17490 % U+1E3E LATIN CAPITAL LETTER M WITH ACUTE; Macute
17491 \DeclareTextCompositeCommand{\'}{PU}{M}{\9036\076}% U+1E3E
17492 % U+1E3F LATIN SMALL LETTER M WITH ACUTE; macute
17493 \DeclareTextCompositeCommand{\'}{PU}{m}{\9036\077}% U+1E3F
17494 % U+1E40 LATIN CAPITAL LETTER M WITH DOT ABOVE; Mdotaccent
17495 \DeclareTextCompositeCommand{\.}{PU}{M}{\9036\100}% U+1E40
17496 % U+1E41 LATIN SMALL LETTER M WITH DOT ABOVE; mdotaccent
17497 \DeclareTextCompositeCommand{\.}{PU}{m}{\9036\101}% U+1E41
17498 % U+1E42 LATIN CAPITAL LETTER M WITH DOT BELOW; Mdotbelow
17499 \DeclareTextCompositeCommand{\d}{PU}{M}{\9036\102}% U+1E42
17500 % U+1E43 LATIN SMALL LETTER M WITH DOT BELOW; mdotbelow
17501 \DeclareTextCompositeCommand{\d}{PU}{m}{\9036\103}% U+1E43
17502 % U+1E44 LATIN CAPITAL LETTER N WITH DOT ABOVE; Ndotaccent
17503 \DeclareTextCompositeCommand{\.}{PU}{N}{\9036\104}% U+1E44
17504 % U+1E45 LATIN SMALL LETTER N WITH DOT ABOVE; ndotaccent
17505 \DeclareTextCompositeCommand{\.}{PU}{n}{\9036\105}% U+1E45
17506 % U+1E46 LATIN CAPITAL LETTER N WITH DOT BELOW; Ndotbelow
17507 \DeclareTextCompositeCommand{\d}{PU}{N}{\9036\106}% U+1E46
17508 % U+1E47 LATIN SMALL LETTER N WITH DOT BELOW; ndotbelow

17509 \DeclareTextCompositeCommand{\d}{PU}{n}{\9036\107}% U+1E47
17510 % U+1E48 LATIN CAPITAL LETTER N WITH LINE BELOW; Nlinebelow
17511 \DeclareTextCompositeCommand{\b}{PU}{N}{\9036\110}% U+1E48
17512 % U+1E49 LATIN SMALL LETTER N WITH LINE BELOW; nlinebelow
17513 \DeclareTextCompositeCommand{\b}{PU}{n}{\9036\111}% U+1E49
17514 % U+1E4A LATIN CAPITAL LETTER N WITH CIRCUMFLEX BELOW; Ncir-
cumflexbelow
17515 \DeclareTextCompositeCommand{\textsubcircum}{PU}{N}{\9036\112}% U+1E4A
17516 % U+1E4B LATIN SMALL LETTER N WITH CIRCUMFLEX BELOW; ncir-
cumflexbelow
17517 \DeclareTextCompositeCommand{\textsubcircum}{PU}{n}{\9036\113}% U+1E4B
17518 % U+1E50 LATIN CAPITAL LETTER O WITH MACRON AND GRAVE;
17519 % Omacrongrave
17520 \DeclareTextCompositeCommand{\textgravemacron}{PU}{O}{\9036\120}% U+1E50
17521 % U+1E51 LATIN SMALL LETTER O WITH MACRON AND GRAVE;
17522 % omacrongrave
17523 \DeclareTextCompositeCommand{\textgravemacron}{PU}{o}{\9036\121}% U+1E51
17524 % U+1E52 LATIN CAPITAL LETTER O WITH MACRON AND ACUTE;
17525 % Omacronacute
17526 \DeclareTextCompositeCommand{\textacutemacron}{PU}{O}{\9036\122}% U+1E52
17527 % U+1E53 LATIN SMALL LETTER O WITH MACRON AND ACUTE;
17528 % omacronacute
17529 \DeclareTextCompositeCommand{\textacutemacron}{PU}{o}{\9036\123}% U+1E53
17530 % U+1E54 LATIN CAPITAL LETTER P WITH ACUTE; Pacute
17531 \DeclareTextCompositeCommand{\'}{PU}{P}{\9036\124}% U+1E54
17532 % U+1E55 LATIN SMALL LETTER P WITH ACUTE; pacute
17533 \DeclareTextCompositeCommand{\'}{PU}{p}{\9036\125}% U+1E55
17534 % U+1E56 LATIN CAPITAL LETTER P WITH DOT ABOVE; Pdotaccent
17535 \DeclareTextCompositeCommand{\.}{PU}{P}{\9036\126}% U+1E56
17536 % U+1E57 LATIN SMALL LETTER P WITH DOT ABOVE; pdotaccent
17537 \DeclareTextCompositeCommand{\.}{PU}{p}{\9036\127}% U+1E57
17538 % U+1E58 LATIN CAPITAL LETTER R WITH DOT ABOVE; Rdotaccent
17539 \DeclareTextCompositeCommand{\.}{PU}{R}{\9036\130}% U+1E58
17540 % U+1E59 LATIN SMALL LETTER R WITH DOT ABOVE; rdotaccent
17541 \DeclareTextCompositeCommand{\.}{PU}{r}{\9036\131}% U+1E59
17542 % U+1E5A LATIN CAPITAL LETTER R WITH DOT BELOW; Rdotbelow
17543 \DeclareTextCompositeCommand{\d}{PU}{R}{\9036\132}% U+1E5A
17544 % U+1E5B LATIN SMALL LETTER R WITH DOT BELOW; rdotbelow
17545 \DeclareTextCompositeCommand{\d}{PU}{r}{\9036\133}% U+1E5B
17546 % U+1E5E LATIN CAPITAL LETTER R WITH LINE BELOW; Rlinebelow
17547 \DeclareTextCompositeCommand{\b}{PU}{R}{\9036\136}% U+1E5E
17548 % U+1E5F LATIN SMALL LETTER R WITH LINE BELOW; rlinebelow
17549 \DeclareTextCompositeCommand{\b}{PU}{r}{\9036\137}% U+1E5F
17550 % U+1E60 LATIN CAPITAL LETTER S WITH DOT ABOVE; Sdotaccent
17551 \DeclareTextCompositeCommand{\.}{PU}{S}{\9036\140}% U+1E60
17552 % U+1E61 LATIN SMALL LETTER S WITH DOT ABOVE; sdotaccent
17553 \DeclareTextCompositeCommand{\.}{PU}{s}{\9036\141}% U+1E61
17554 % U+1E62 LATIN CAPITAL LETTER S WITH DOT BELOW; Sdotbelow
17555 \DeclareTextCompositeCommand{\d}{PU}{S}{\9036\142}% U+1E62
17556 % U+1E63 LATIN SMALL LETTER S WITH DOT BELOW; sdotbelow
17557 \DeclareTextCompositeCommand{\d}{PU}{s}{\9036\143}% U+1E63
17558 % U+1E6A LATIN CAPITAL LETTER T WITH DOT ABOVE; Tdotaccent
17559 \DeclareTextCompositeCommand{\.}{PU}{T}{\9036\152}% U+1E6A
17560 % U+1E6B LATIN SMALL LETTER T WITH DOT ABOVE; tdotaccent
17561 \DeclareTextCompositeCommand{\.}{PU}{t}{\9036\153}% U+1E6B
17562 % U+1E6C LATIN CAPITAL LETTER T WITH DOT BELOW; Tdotbelow
17563 \DeclareTextCompositeCommand{\d}{PU}{T}{\9036\154}% U+1E6C

17564 % U+1E6D LATIN SMALL LETTER T WITH DOT BELOW; tdotbelow
17565 \DeclareTextCompositeCommand{\d}{PU}{t}{\9036\155}% U+1E6D
17566 % U+1E6E LATIN CAPITAL LETTER T WITH LINE BELOW; Tlinebelow
17567 \DeclareTextCompositeCommand{\b}{PU}{T}{\9036\156}% U+1E6E
17568 % U+1E6F LATIN SMALL LETTER T WITH LINE BELOW; tlinebelow
17569 \DeclareTextCompositeCommand{\b}{PU}{t}{\9036\157}% U+1E6F
17570 % U+1E70 LATIN CAPITAL LETTER T WITH CIRCUMFLEX BELOW; Tcir-
cumflexbelow
17571 \DeclareTextCompositeCommand{\textsubcircum}{PU}{T}{\9036\160}% U+1E70
17572 % U+1E71 LATIN SMALL LETTER T WITH CIRCUMFLEX BELOW; tcir-
cumflexbelow
17573 \DeclareTextCompositeCommand{\textsubcircum}{PU}{t}{\9036\161}% U+1E71
17574 % U+1E72 LATIN CAPITAL LETTER U WITH DIAERESIS BELOW; Udiere-
sisbelow
17575 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{U}{\9036\162}% U+1E72
17576 % U+1E73 LATIN SMALL LETTER U WITH DIAERESIS BELOW; udiere-
sisbelow
17577 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{u}{\9036\163}% U+1E73
17578 % U+1E74 LATIN CAPITAL LETTER U WITH TILDE BELOW; Utildebelow
17579 \DeclareTextCompositeCommand{\textsubtilde}{PU}{U}{\9036\164}% U+1E74
17580 % U+1E75 LATIN SMALL LETTER U WITH TILDE BELOW; utildebelow
17581 \DeclareTextCompositeCommand{\textsubtilde}{PU}{u}{\9036\165}% U+1E75
17582 % U+1E76 LATIN CAPITAL LETTER U WITH CIRCUMFLEX BELOW; Ucir-
cumflexbelow
17583 \DeclareTextCompositeCommand{\textsubcircum}{PU}{U}{\9036\166}% U+1E76
17584 % U+1E77 LATIN SMALL LETTER U WITH CIRCUMFLEX BELOW; ucir-
cumflexbelow
17585 \DeclareTextCompositeCommand{\textsubcircum}{PU}{u}{\9036\167}% U+1E77
17586 % U+1E7C LATIN CAPITAL LETTER V WITH TILDE; Vtilde
17587 \DeclareTextCompositeCommand{\~}{PU}{V}{\9036\174}% U+1E7C
17588 % U+1E7D LATIN SMALL LETTER V WITH TILDE; vtilde
17589 \DeclareTextCompositeCommand{\~}{PU}{v}{\9036\175}% U+1E7D
17590 % U+1E7E LATIN CAPITAL LETTER V WITH DOT BELOW; Vdotbelow
17591 \DeclareTextCompositeCommand{\d}{PU}{V}{\9036\176}% U+1E7E
17592 % U+1E7F LATIN SMALL LETTER V WITH DOT BELOW; vdotbelow
17593 \DeclareTextCompositeCommand{\d}{PU}{v}{\9036\177}% U+1E7F
17594 % U+1E80 LATIN CAPITAL LETTER W WITH GRAVE; Wgrave
17595 \DeclareTextCompositeCommand{\`}{PU}{W}{\9036\200}% U+1E80
17596 % U+1E81 LATIN SMALL LETTER W WITH GRAVE; wgrave
17597 \DeclareTextCompositeCommand{\`}{PU}{w}{\9036\201}% U+1E81
17598 % U+1E82 LATIN CAPITAL LETTER W WITH ACUTE; Wacute
17599 \DeclareTextCompositeCommand{\'}{PU}{W}{\9036\202}% U+1E82
17600 % U+1E83 LATIN SMALL LETTER W WITH ACUTE; wacute
17601 \DeclareTextCompositeCommand{\'}{PU}{w}{\9036\203}% U+1E83
17602 % U+1E84 LATIN CAPITAL LETTER W WITH DIAERESIS; Wdieresis
17603 \DeclareTextCompositeCommand{\"}{PU}{W}{\9036\204}% U+1E84
17604 % U+1E85 LATIN SMALL LETTER W WITH DIAERESIS; wdieresis
17605 \DeclareTextCompositeCommand{\"}{PU}{w}{\9036\205}% U+1E85
17606 % U+1E86 LATIN CAPITAL LETTER W WITH DOT ABOVE; Wdotaccent
17607 \DeclareTextCompositeCommand{\.}{PU}{W}{\9036\206}% U+1E86
17608 % U+1E87 LATIN SMALL LETTER W WITH DOT ABOVE; wdotaccent
17609 \DeclareTextCompositeCommand{\.}{PU}{w}{\9036\207}% U+1E87
17610 % U+1E88 LATIN CAPITAL LETTER W WITH DOT BELOW; wdotbelow
17611 \DeclareTextCompositeCommand{\d}{PU}{W}{\9036\210}% U+1E88
17612 % U+1E89 LATIN SMALL LETTER W WITH DOT BELOW; wdotbelow
17613 \DeclareTextCompositeCommand{\d}{PU}{w}{\9036\211}% U+1E89
17614 % U+1E8A LATIN CAPITAL LETTER X WITH DOT ABOVE; Xdotaccent

17615 \DeclareTextCompositeCommand{\.}{PU}{X}{\9036\212}% U+1E8A
17616 % U+1E8B LATIN SMALL LETTER X WITH DOT ABOVE; xdotaccent
17617 \DeclareTextCompositeCommand{\.}{PU}{x}{\9036\213}% U+1E8B
17618 % U+1E8C LATIN CAPITAL LETTER X WITH DIAERESIS; Xdieresis
17619 \DeclareTextCompositeCommand{\"}{PU}{X}{\9036\214}% U+1E8C
17620 % U+1E8D LATIN SMALL LETTER X WITH DIAERESIS; xdieresis
17621 \DeclareTextCompositeCommand{\"}{PU}{x}{\9036\215}% U+1E8D
17622 % U+1E8E LATIN CAPITAL LETTER Y WITH DOT ABOVE; Ydotaccent
17623 \DeclareTextCompositeCommand{\.}{PU}{Y}{\9036\216}% U+1E8E
17624 % U+1E8F LATIN SMALL LETTER Y WITH DOT ABOVE; ydotaccent
17625 \DeclareTextCompositeCommand{\.}{PU}{y}{\9036\217}% U+1E8F
17626 % U+1E90 LATIN CAPITAL LETTER Z WITH CIRCUMFLEX; Zcircumflex
17627 \DeclareTextCompositeCommand{^}{PU}{Z}{\9036\220}% U+1E90
17628 % U+1E91 LATIN SMALL LETTER Z WITH CIRCUMFLEX; zcircumflex
17629 \DeclareTextCompositeCommand{^}{PU}{z}{\9036\221}% U+1E91
17630 % U+1E92 LATIN CAPITAL LETTER Z WITH DOT BELOW; Zdotbelow
17631 \DeclareTextCompositeCommand{\d}{PU}{Z}{\9036\222}% U+1E92
17632 % U+1E93 LATIN SMALL LETTER Z WITH DOT BELOW; zdotbelow
17633 \DeclareTextCompositeCommand{\d}{PU}{z}{\9036\223}% U+1E93
17634 % U+1E94 LATIN CAPITAL LETTER Z WITH LINE BELOW; Zlinebelow
17635 \DeclareTextCompositeCommand{\b}{PU}{Z}{\9036\224}% U+1E94
17636 % U+1E95 LATIN SMALL LETTER Z WITH LINE BELOW; zlinebelow
17637 \DeclareTextCompositeCommand{\b}{PU}{z}{\9036\225}% U+1E95
17638 % U+1E96 LATIN SMALL LETTER H WITH LINE BELOW; hlinebelow
17639 \DeclareTextCompositeCommand{\b}{PU}{h}{\9036\226}% U+1E96
17640 % U+1E97 LATIN SMALL LETTER T WITH DIAERESIS; tdieresis
17641 \DeclareTextCompositeCommand{\"}{PU}{t}{\9036\227}% U+1E97
17642 % U+1E98 LATIN SMALL LETTER W WITH RING ABOVE; wring
17643 \DeclareTextCompositeCommand{\r}{PU}{w}{\9036\230}% U+1E98
17644 % U+1E99 LATIN SMALL LETTER Y WITH RING ABOVE; yring
17645 \DeclareTextCompositeCommand{\r}{PU}{y}{\9036\231}% U+1E99
17646 % U+1E9B LATIN SMALL LETTER LONG S WITH DOT ABOVE; slongdo-
taccent
17647 \DeclareTextCompositeCommand{\.}{PU}{\textlongs}{\9036\233}% U+1E9B
17648 % U+1EA0 LATIN CAPITAL LETTER A WITH DOT BELOW; Adotbelow
17649 \DeclareTextCompositeCommand{\d}{PU}{A}{\9036\240}% U+1EA0
17650 % U+1EA1 LATIN SMALL LETTER A WITH DOT BELOW; adotbelow
17651 \DeclareTextCompositeCommand{\d}{PU}{a}{\9036\241}% U+1EA1
17652 % U+1EB8 LATIN CAPITAL LETTER E WITH DOT BELOW; Edotbelow
17653 \DeclareTextCompositeCommand{\d}{PU}{E}{\9036\270}% U+1EB8
17654 % U+1EB9 LATIN SMALL LETTER E WITH DOT BELOW; edotbelow
17655 \DeclareTextCompositeCommand{\d}{PU}{e}{\9036\271}% U+1EB9
17656 % U+1EBC LATIN CAPITAL LETTER E WITH TILDE; Etilde
17657 \DeclareTextCompositeCommand{\~}{PU}{E}{\9036\274}% U+1EBC
17658 % U+1EBD LATIN SMALL LETTER E WITH TILDE; etilde
17659 \DeclareTextCompositeCommand{\~}{PU}{e}{\9036\275}% U+1EBD
17660 % U+1ECA LATIN CAPITAL LETTER I WITH DOT BELOW; Idotbelow
17661 \DeclareTextCompositeCommand{\d}{PU}{I}{\9036\312}% U+1ECA
17662 % U+1ECB LATIN SMALL LETTER I WITH DOT BELOW; idotbelow
17663 \DeclareTextCompositeCommand{\d}{PU}{i}{\9036\313}% U+1ECB
17664 % U+1ECC LATIN CAPITAL LETTER O WITH DOT BELOW; Odotbelow
17665 \DeclareTextCompositeCommand{\d}{PU}{O}{\9036\314}% U+1ECC
17666 % U+1ECD LATIN SMALL LETTER O WITH DOT BELOW; odotbelow
17667 \DeclareTextCompositeCommand{\d}{PU}{o}{\9036\315}% U+1ECD
17668 % U+1EE4 LATIN CAPITAL LETTER U WITH DOT BELOW; Udotbelow
17669 \DeclareTextCompositeCommand{\d}{PU}{U}{\9036\344}% U+1EE4
17670 % U+1EE5 LATIN SMALL LETTER U WITH DOT BELOW; udotbelow

17671 \DeclareTextCompositeCommand{\d}{PU}{u}{\9036\345}% U+1EE5
 17672 % U+1EF2 LATIN CAPITAL LETTER Y WITH GRAVE; Ygrave
 17673 \DeclareTextCompositeCommand{\'}{PU}{Y}{\9036\362}% U+1EF2
 17674 % U+1EF3 LATIN SMALL LETTER Y WITH GRAVE; ygrave
 17675 \DeclareTextCompositeCommand{\'}{PU}{y}{\9036\363}% U+1EF3
 17676 % U+1EF4 LATIN CAPITAL LETTER Y WITH DOT BELOW; Ydotbelow
 17677 \DeclareTextCompositeCommand{\d}{PU}{Y}{\9036\364}% U+1EF4
 17678 % U+1EF5 LATIN SMALL LETTER Y WITH DOT BELOW; ydotbelow
 17679 \DeclareTextCompositeCommand{\d}{PU}{y}{\9036\365}% U+1EF5
 17680 % U+1EF8 LATIN CAPITAL LETTER Y WITH TILDE; Ytilde
 17681 \DeclareTextCompositeCommand{\~}{PU}{Y}{\9036\370}% U+1EF8
 17682 % U+1EF9 LATIN SMALL LETTER Y WITH TILDE; ytilde
 17683 \DeclareTextCompositeCommand{\~}{PU}{y}{\9036\371}% U+1EF9

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

17684 % U+200C ZERO WIDTH NON-JOINER; *afii61664, zerowidthnonjoiner
 17685 \DeclareTextCommand{\textcompwordmark}{PU}{\9040\014}% U+200C
 17686 % U+2013 EN DASH; endash
 17687 \DeclareTextCommand{\textendash}{PU}{\9040\023}% U+2013
 17688 % U+2014 EM DASH; emdash
 17689 \DeclareTextCommand{\textemdash}{PU}{\9040\024}% U+2014
 17690 % U+2016 DOUBLE VERTICAL LINE; dblverticalbar
 17691 \DeclareTextCommand{\textbardbl}{PU}{\9040\026}% U+2016
 17692 %* \textbardbl -> \textdoublevertline (tipa)
 17693 % U+2018 LEFT SINGLE QUOTATION MARK; quoteleft
 17694 \DeclareTextCommand{\textquoteleft}{PU}{\9040\030}% U+2018
 17695 % U+2019 RIGHT SINGLE QUOTATION MARK; quoteright
 17696 \DeclareTextCommand{\textquoteright}{PU}{\9040\031}% U+2019
 17697 % U+201A SINGLE LOW-9 QUOTATION MARK; quotesinglbase
 17698 \DeclareTextCommand{\quotesinglbase}{PU}{\9040\032}% U+201A
 17699 % U+201C LEFT DOUBLE QUOTATION MARK; quotedblleft
 17700 \DeclareTextCommand{\textquotedblleft}{PU}{\9040\034}% U+201C
 17701 % U+201D RIGHT DOUBLE QUOTATION MARK; quotedblright
 17702 \DeclareTextCommand{\textquotedblright}{PU}{\9040\035}% U+201D
 17703 % U+201E DOUBLE LOW-9 QUOTATION MARK; quotedblbase
 17704 \DeclareTextCommand{\quotedblbase}{PU}{\9040\036}% U+201E
 17705 % U+2020 DAGGER; dagger
 17706 \DeclareTextCommand{\textdagger}{PU}{\9040\040}%* U+2020
 17707 %* \textdagger -> \dag (LaTeX)
 17708 % U+2021 DOUBLE DAGGER; daggerdbl; \ddagger (LaTeX)
 17709 \DeclareTextCommand{\textdaggerdbl}{PU}{\9040\041}% U+2021
 17710 %* \textdaggerdbl -> \ddagger (LaTeX)
 17711 %* \textdaggerdbl -> \ddag (LaTeX)
 17712 % U+2022 BULLET; bullet
 17713 \DeclareTextCommand{\textbullet}{PU}{\9040\042}%* U+2022
 17714 % U+2025 TWO DOT LEADER; \hdotfor (MnSymbol)
 17715 \DeclareTextCommand{\texthdotfor}{PU}{\9040\045}%* U+2025
 17716 % U+2026 HORIZONTAL ELLIPSIS; ellipsis
 17717 \DeclareTextCommand{\textellipsis}{PU}{\9040\046}% U+2026
 17718 %* \textellipsis -> \mathellipsis
 17719 % U+2030 PER MILLE SIGN; perthousand
 17720 \DeclareTextCommand{\textperthousand}{PU}{\9040\060}% U+2030
 17721 % U+2031 PER TEN THOUSAND SIGN
 17722 \DeclareTextCommand{\textpertenthousand}{PU}{\9040\061}% U+2031
 17723 % U+2032 PRIME; minute; \prime (MnSymbol)
 17724 \DeclareTextCommand{\textprime}{PU}{\9040\062}%* U+2032
 17725 % U+2033 DOUBLE PRIME; \second (mathabx)

17726 \DeclareTextCommand{\textsecond}{PU}{\9040\063}%* U+2033
 17727 % U+2034 TRIPLE PRIME; \third (mathabx)
 17728 \DeclareTextCommand{\textthird}{PU}{\9040\064}%* U+2034
 17729 % U+2035 REVERSED PRIME; \backprime (AmS)
 17730 \DeclareTextCommand{\textbackprime}{PU}{\9040\065}%* U+2035
 17731 % U+2039 SINGLE LEFT-POINTING ANGLE QUOTATION MARK; guil-
 ingleft
 17732 \DeclareTextCommand{\guilingleft}{PU}{\9040\071}% U+2039
 17733 % U+203A SINGLE RIGHT-POINTING ANGLE QUOTATION MARK; guil-
 ingright
 17734 \DeclareTextCommand{\guilsingright}{PU}{\9040\072}% U+203A
 17735 % U+203B REFERENCE MARK; referencemark
 17736 \DeclareTextCommand{\textreferencemark}{PU}{\9040\073}% U+203B
 17737 % U+203D INTERROBANG
 17738 \DeclareTextCommand{\textinterrobang}{PU}{\9040\075}% U+203D
 17739 % U+2044 FRACTION SLASH; fraction
 17740 \DeclareTextCommand{\textfractionsolidus}{PU}{\9040\104}% U+2044
 17741 % U+2045 LEFT SQUARE BRACKET WITH QUILL
 17742 \DeclareTextCommand{\textlquill}{PU}{\9040\105}% U+2045
 17743 % U+2046 RIGHT SQUARE BRACKET WITH QUILL
 17744 \DeclareTextCommand{\textrquill}{PU}{\9040\106}% U+2046
 17745 % U+2052 COMMERCIAL MINUS SIGN
 17746 \DeclareTextCommand{\textdiscount}{PU}{\9040\122}% U+2052
 17747 % U+2056 THREE DOT PUNCTUATION; \lefttherefore (MnSymbol)
 17748 \DeclareTextCommand{\textlefttherefore}{PU}{\9040\126}%* U+2056
 17749 % U+2057 QUADRUPLE PRIME; \fourth (mathabx)
 17750 \DeclareTextCommand{\textfourth}{PU}{\9040\127}%* U+2057
 17751 % U+2058 FOUR DOT PUNCTUATION; \diamonddots (MnSymbol)
 17752 \DeclareTextCommand{\textdiamonddots}{PU}{\9040\130}%* U+2058

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

17753 % U+2070 SUPERSCRIPT ZERO; zerosuperior
 17754 \DeclareTextCommand{\textzerosuperior}{PU}{\9040\160}%* U+2070
 17755 % U+2071 SUPERSCRIPT LATIN SMALL LETTER I
 17756 \DeclareTextCommand{\textisuperior}{PU}{\9040\161}%* U+2071
 17757 % U+2074 SUPERSCRIPT FOUR; foursuperior
 17758 \DeclareTextCommand{\textfoursuperior}{PU}{\9040\164}%* U+2074
 17759 % U+2075 SUPERSCRIPT FIVE; fivesuperior
 17760 \DeclareTextCommand{\textfivesuperior}{PU}{\9040\165}%* U+2075
 17761 % U+2076 SUPERSCRIPT SIX; sixsuperior
 17762 \DeclareTextCommand{\textsixsuperior}{PU}{\9040\166}%* U+2076
 17763 % U+2077 SUPERSCRIPT SEVEN; sevensuperior
 17764 \DeclareTextCommand{\textsevensuperior}{PU}{\9040\167}%* U+2077
 17765 % U+2078 SUPERSCRIPT EIGHT; eightsuperior
 17766 \DeclareTextCommand{\texteightsuperior}{PU}{\9040\170}%* U+2078
 17767 % U+2079 SUPERSCRIPT NINE; ninesuperior
 17768 \DeclareTextCommand{\textninesuperior}{PU}{\9040\171}%* U+2079
 17769 % U+207A SUPERSCRIPT PLUS SIGN; plussuperior
 17770 \DeclareTextCommand{\textplussuperior}{PU}{\9040\172}%* U+207A
 17771 % U+207B SUPERSCRIPT MINUS
 17772 \DeclareTextCommand{\textminussuperior}{PU}{\9040\173}%* U+207B
 17773 % U+207C SUPERSCRIPT EQUALS SIGN; equalsuperior
 17774 \DeclareTextCommand{\textequalsuperior}{PU}{\9040\174}%* U+207C
 17775 % U+207D SUPERSCRIPT LEFT PARENTHESIS; parenleftsuperior
 17776 \DeclareTextCommand{\textparenleftsuperior}{PU}{\9040\175}%* U+207D
 17777 % U+207E SUPERSCRIPT RIGHT PARENTHESIS; parenrightsuperior
 17778 \DeclareTextCommand{\textparenrightsuperior}{PU}{\9040\176}%* U+207E

17779 % U+207F SUPERSCRIPT LATIN SMALL LETTER N; nsuperior
17780 \DeclareTextCommand{\textnsuperior}{PU}{\9040\177}%* U+207F
17781 % U+2080 SUBSCRIPT ZERO; zeroinferior
17782 \DeclareTextCommand{\textzeroinferior}{PU}{\9040\200}%* U+2080
17783 % U+2081 SUBSCRIPT ONE; oneinferior
17784 \DeclareTextCommand{\textoneinferior}{PU}{\9040\201}%* U+2081
17785 % U+2082 SUBSCRIPT TWO; twoinferior
17786 \DeclareTextCommand{\texttwoinferior}{PU}{\9040\202}%* U+2082
17787 % U+2083 SUBSCRIPT THREE; threeinferior
17788 \DeclareTextCommand{\textthreeminferior}{PU}{\9040\203}%* U+2083
17789 % U+2084 SUBSCRIPT FOUR; fourinferior
17790 \DeclareTextCommand{\textfourinferior}{PU}{\9040\204}%* U+2084
17791 % U+2085 SUBSCRIPT FIVE; fiveinferior
17792 \DeclareTextCommand{\textfiveinferior}{PU}{\9040\205}%* U+2085
17793 % U+2086 SUBSCRIPT SIX; sixinferior
17794 \DeclareTextCommand{\textsixinferior}{PU}{\9040\206}%* U+2086
17795 % U+2087 SUBSCRIPT SEVEN; seveninferior
17796 \DeclareTextCommand{\textseveninferior}{PU}{\9040\207}%* U+2087
17797 % U+2088 SUBSCRIPT EIGHT; eightinferior
17798 \DeclareTextCommand{\texteightinferior}{PU}{\9040\210}%* U+2088
17799 % U+2089 SUBSCRIPT NINE; nineinferior
17800 \DeclareTextCommand{\textnineinferior}{PU}{\9040\211}%* U+2089
17801 % U+208A SUBSCRIPT PLUS SIGN
17802 \DeclareTextCommand{\textplusinferior}{PU}{\9040\212}%* U+208A
17803 % U+208B SUBSCRIPT MINUS
17804 \DeclareTextCommand{\textminusinferior}{PU}{\9040\213}%* U+208B
17805 % U+208C SUBSCRIPT EQUALS SIGN
17806 \DeclareTextCommand{\textequalsinferior}{PU}{\9040\214}%* U+208C
17807 % U+208D SUBSCRIPT LEFT PARENTHESIS; parenleftinferior
17808 \DeclareTextCommand{\textparenleftinferior}{PU}{\9040\215}%* U+208D
17809 % U+208E SUBSCRIPT RIGHT PARENTHESIS; parenrightinferior
17810 \DeclareTextCommand{\textparenrightinferior}{PU}{\9040\216}%* U+208E
17811 % U+2090 LATIN SUBSCRIPT SMALL LETTER A
17812 \DeclareTextCommand{\textainferior}{PU}{\9040\220}%* U+2090
17813 % U+2091 LATIN SUBSCRIPT SMALL LETTER E
17814 \DeclareTextCommand{\texteinferior}{PU}{\9040\221}%* U+2091
17815 % U+2092 LATIN SUBSCRIPT SMALL LETTER O
17816 \DeclareTextCommand{\textoinferior}{PU}{\9040\222}%* U+2092
17817 % U+2093 LATIN SUBSCRIPT SMALL LETTER X
17818 \DeclareTextCommand{\textxinferior}{PU}{\9040\223}%* U+2093
17819 % U+2094 LATIN SUBSCRIPT SMALL LETTER SCHWA
17820 \DeclareTextCommand{\textschwainferior}{PU}{\9040\224}%* U+2094
17821 % U+2095 LATIN SUBSCRIPT SMALL LETTER H
17822 \DeclareTextCommand{\texthinferior}{PU}{\9040\225}%* U+2095
17823 % U+2096 LATIN SUBSCRIPT SMALL LETTER K
17824 \DeclareTextCommand{\textkinferior}{PU}{\9040\226}%* U+2096
17825 % U+2097 LATIN SUBSCRIPT SMALL LETTER L
17826 \DeclareTextCommand{\textlinferior}{PU}{\9040\227}%* U+2097
17827 % U+2098 LATIN SUBSCRIPT SMALL LETTER M
17828 \DeclareTextCommand{\textminferior}{PU}{\9040\230}%* U+2098
17829 % U+2099 LATIN SUBSCRIPT SMALL LETTER N
17830 \DeclareTextCommand{\textninferior}{PU}{\9040\231}%* U+2099
17831 % U+209A LATIN SUBSCRIPT SMALL LETTER P
17832 \DeclareTextCommand{\textpinferior}{PU}{\9040\232}%* U+209A
17833 % U+209B LATIN SUBSCRIPT SMALL LETTER S
17834 \DeclareTextCommand{\textsinferior}{PU}{\9040\233}%* U+209B
17835 % U+209C LATIN SUBSCRIPT SMALL LETTER T

17836 \DeclareTextCommand{\texttinferior}{PU}{\9040\234}%* U+209C

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

17837 % U+20A1 COLON SIGN; *colonmonetary, colonsign
 17838 \DeclareTextCommand{\textcolonmonetary}{PU}{\9040\241}% U+20A1
 17839 % U+20A4 LIRA SIGN; afii08941, *lira
 17840 \DeclareTextCommand{\textlira}{PU}{\9040\244}% U+20A4
 17841 % U+20A6 NAIRA SIGN
 17842 \DeclareTextCommand{\textnaira}{PU}{\9040\246}% U+20A6
 17843 % U+20A7 PESETA SIGN; peseta
 17844 \DeclareTextCommand{\textpeseta}{PU}{\9040\247}% U+20A7
 17845 % U+20A9 WON SIGN; won
 17846 \DeclareTextCommand{\textwon}{PU}{\9040\251}% U+20A9
 17847 % U+20AB DONG SIGN; dong
 17848 \DeclareTextCommand{\textdong}{PU}{\9040\253}% U+20AB
 17849 % U+20AC EURO SIGN; *Euro, euro
 17850 \DeclareTextCommand{\texteuro}{PU}{\9040\254}% U+20AC
 17851 %* \texteuro -> \EurDig (marvosym)
 17852 %* \texteuro -> \EURdig (marvosym)
 17853 %* \texteuro -> \EurHv (marvosym)
 17854 %* \texteuro -> \EURhv (marvosym)
 17855 %* \texteuro -> \EurCr (marvosym)
 17856 %* \texteuro -> \EURcr (marvosym)
 17857 %* \texteuro -> \EurTm (marvosym)
 17858 %* \texteuro -> \EURtm (marvosym)
 17859 %* \texteuro -> \Eur (marvosym)
 17860 % U+20B0 GERMAN PENNY SIGN; \Deleatur (marvosym)
 17861 \DeclareTextCommand{\textDeleatur}{PU}{\9040\260}%* U+20B0
 17862 %* \textDeleatur -> \Denarius (marvosym)
 17863 % U+20B1 PESO SIGN
 17864 \DeclareTextCommand{\textpeso}{PU}{\9040\261}% U+20B1
 17865 % U+20B2 GUARANI SIGN
 17866 \DeclareTextCommand{\textguarani}{PU}{\9040\262}% U+20B2

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

17867 % U+2103 DEGREE CELSIUS; centigrade
 17868 \DeclareTextCommand{\textcelsius}{PU}{\9041\003}% U+2103
 17869 % U+210F PLANCK CONSTANT OVER TWO PI; \hslash (AmS)
 17870 \DeclareTextCommand{\textslash}{PU}{\9041\017}%* U+210F
 17871 % U+2111 BLACK-LETTER CAPITAL I (=imaginary part); Ifraktur; \Im (LaTeX)
 17872 \DeclareTextCommand{\textIm}{PU}{\9041\021}%* U+2111
 17873 % U+2113 SCRIPT SMALL L (=ell, liter); afii61289, lsquare; \ell (LaTeX)
 17874 \DeclareTextCommand{\textell}{PU}{\9041\023}%* U+2113
 17875 % U+2116 NUMERO SIGN; *afii61352, numero
 17876 \DeclareTextCommand{\textnumero}{PU}{\9041\026}% U+2116
 17877 % U+2117 SOUND RECORDING COPYRIGHT
 17878 \DeclareTextCommand{\textcircledP}{PU}{\9041\027}% U+2117
 17879 % U+2118 SCRIPT CAPITAL P (=Weierstrass elliptic function);
 17880 % weierstrass; \wp (LaTeX)
 17881 \DeclareTextCommand{\textwp}{PU}{\9041\030}%* U+2118
 17882 % U+211C BLACK-LETTER CAPITAL R (=real part); Rfraktur; \Re (LaTeX)
 17883 \DeclareTextCommand{\textRe}{PU}{\9041\034}%* U+211C
 17884 % U+211E PRESCRIPTION TAKE; prescription
 17885 \DeclareTextCommand{\textrecipe}{PU}{\9041\036}% U+211E
 17886 % U+2120 SERVICE MARK
 17887 \DeclareTextCommand{\textservicemark}{PU}{\9041\040}% U+2120

17888 % U+2122 TRADE MARK SIGN; trademark
 17889 \DeclareTextCommand{\texttrademark}{PU}{\9041\042}% U+2122
 17890 % U+2126 OHM SIGN; Ohm, Omega
 17891 \DeclareTextCommand{\textohm}{PU}{\9041\046}% U+2126
 17892 % U+2127 INVERTED OHM SIGN
 17893 \DeclareTextCommand{\textmho}{PU}{\9041\047}%* U+2127
 17894 %* \textmho -> \agemO (wasysym)
 17895 % U+2129 TURNED GREEK SMALL LETTER IOTA; \riota (phonetic)
 17896 \DeclareTextCommand{\textriota}{PU}{\9041\051}%* U+2129
 17897 % U+212B ANGSTROM SIGN; angstrom
 17898 \DeclareTextCommand{\textangstrom}{PU}{\9041\053}% U+212B
 17899 % U+212E ESTIMATED SYMBOL; estimated
 17900 \DeclareTextCommand{\textestimated}{PU}{\9041\056}% U+212E
 17901 %* \textestimated -> \EstimatedSign (marvosym)
 17902 %* \textestimated -> \Ecommerce (marvosym)
 17903 % U+2132 TURNED CAPITAL F; \Finv (AmS)
 17904 \DeclareTextCommand{\textFinv}{PU}{\9041\062}%* U+2132
 17905 % U+2135 ALEF SYMBOL; aleph; \aleph (LaTeX)
 17906 \DeclareTextCommand{\textaleph}{PU}{\9041\065}%* U+2135
 17907 % U+2136 BET SYMBOL; \beth (AmS, MnSymbol)
 17908 \DeclareTextCommand{\textbeth}{PU}{\9041\066}%* U+2136
 17909 % U+2137 GIMEL SYMBOL; \gimel (AmS, MnSymbol)
 17910 \DeclareTextCommand{\textgimel}{PU}{\9041\067}%* U+2137
 17911 % U+2138 DALET SYMBOL; \daleth (AmS, MnSymbol)
 17912 \DeclareTextCommand{\textdaleth}{PU}{\9041\070}%* U+2138
 17913 % U+213B FACSIMILE SIGN; \fax (marvosym)
 17914 \DeclareTextCommand{\textfax}{PU}{\9041\073}%* U+213B
 17915 % U+2141 TURNED SANS-SERIF CAPITAL G (=game); \Game
 17916 \DeclareTextCommand{\textGame}{PU}{\9041\101}%* U+2141
 17917 % U+214B TURNED AMPERSAND; \invamp (txfonts/pxfonts)
 17918 \DeclareTextCommand{\textinvamp}{PU}{\9041\113}% U+214B
 17919 %* \textinvamp -> \bindnasrepma (stmaryrd)
 17920 %* \textinvamp -> \parr (cml)

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

17921 % U+2150 VULGAR FRACTION ONE SEVENTH
 17922 \DeclareTextCommand{\textoneseventh}{PU}{\9041\120}% U+2150
 17923 % U+2151 VULGAR FRACTION ONE NINTH
 17924 \DeclareTextCommand{\textoneninth}{PU}{\9041\121}% U+2151
 17925 % U+2152 VULGAR FRACTION ONE TENTH
 17926 \DeclareTextCommand{\textonetenth}{PU}{\9041\122}% U+2152
 17927 % U+2153 VULGAR FRACTION ONE THIRD; onethird
 17928 \DeclareTextCommand{\textonethird}{PU}{\9041\123}% U+2153
 17929 % U+2154 VULGAR FRACTION TWO THIRDS; twothirds
 17930 \DeclareTextCommand{\texttwothirds}{PU}{\9041\124}% U+2154
 17931 % U+2155 VULGAR FRACTION ONE FIFTH
 17932 \DeclareTextCommand{\textonefifth}{PU}{\9041\125}% U+2155
 17933 % U+2156 VULGAR FRACTION TWO FIFTHS
 17934 \DeclareTextCommand{\texttwofifths}{PU}{\9041\126}% U+2156
 17935 % U+2157 VULGAR FRACTION THREE FIFTHS
 17936 \DeclareTextCommand{\textthreefifths}{PU}{\9041\127}% U+2157
 17937 % U+2158 VULGAR FRACTION FOUR FIFTHS
 17938 \DeclareTextCommand{\textfourfifths}{PU}{\9041\130}% U+2158
 17939 % U+2159 VULGAR FRACTION ONE SIXTH
 17940 \DeclareTextCommand{\textonesixth}{PU}{\9041\131}% U+2159
 17941 % U+215A VULGAR FRACTION FIVE SIXTHS
 17942 \DeclareTextCommand{\textfivesixths}{PU}{\9041\132}% U+215A

17943 % U+215B VULGAR FRACTION ONE EIGHTH; oneeighth
 17944 \DeclareTextCommand{\textoneeighth}{PU}{\9041\133}% U+215B
 17945 % U+215C VULGAR FRACTION THREE EIGHTHS; threeeighths
 17946 \DeclareTextCommand{\textthreeeighths}{PU}{\9041\134}% U+215C
 17947 % U+215D VULGAR FRACTION FIVE EIGHTHS; fiveeighths
 17948 \DeclareTextCommand{\textfiveeighths}{PU}{\9041\135}% U+215D
 17949 % U+215E VULGAR FRACTION SEVEN EIGHTHS; seveneighths
 17950 \DeclareTextCommand{\textseveneighths}{PU}{\9041\136}% U+215E
 17951 % U+2184 LATIN SMALL LETTER REVERSED C
 17952 \DeclareTextCommand{\textrevc}{PU}{\9041\204}% U+2184
 17953 % U+2189 VULGAR FRACTION ZERO THIRDS
 17954 \DeclareTextCommand{\textzer thirds}{PU}{\9041\211}% U+2189

51.2.21 Arrows: U+2190 to U+21FF

17955 % U+2190 LEFTWARDS ARROW; arrowleft
 17956 \DeclareTextCommand{\textleftarrow}{PU}{\9041\220}%* U+2190
 17957 % U+2191 UPWARDS ARROW; arrowup
 17958 \DeclareTextCommand{\textuparrow}{PU}{\9041\221}%* U+2191
 17959 % U+2192 RIGHTWARDS ARROW; arrowright
 17960 \DeclareTextCommand{\textrightarrow}{PU}{\9041\222}%* U+2192
 17961 %* \textrightarrow -> \MVRightArrow (marvosym)
 17962 %* \textrightarrow -> \MVRightarrow (marvosym)
 17963 % U+2193 DOWNWARDS ARROW; arrowdown
 17964 \DeclareTextCommand{\textdownarrow}{PU}{\9041\223}%* U+2193
 17965 %* \textdownarrow -> \MVARrowDown (marvosym)
 17966 %* \textdownarrow -> \Force (marvosym)
 17967 % U+2194 LEFT RIGHT ARROW; arrowboth; \leftrightarrow (LaTeX)
 17968 \DeclareTextCommand{\textleftrightarrow}{PU}{\9041\224}%* U+2194
 17969 % U+2195 UP DOWN ARROW; arrowupdn; \updownarrow (LaTeX)
 17970 \DeclareTextCommand{\textupdownarrow}{PU}{\9041\225}%* U+2195
 17971 % U+2196 NORTH WEST ARROW; arrowupleft; \nwarrow (LaTeX)
 17972 \DeclareTextCommand{\textnwarrow}{PU}{\9041\226}%* U+2196
 17973 % U+2197 NORTH EAST ARROW; arrowupright; \nearrow (LaTeX)
 17974 \DeclareTextCommand{\textnearrow}{PU}{\9041\227}%* U+2197
 17975 %* \textnearrow -> \textglobrise (tipa)
 17976 % U+2198 SOUTH EAST ARROW; arrowdownright; \searrow (LaTeX)
 17977 \DeclareTextCommand{\textsearrow}{PU}{\9041\230}%* U+2198
 17978 %* \textsearrow -> \textglobfall (tipa)
 17979 % U+2199 SOUTH WEST ARROW; arrowdownleft; \swarrow (LaTeX)
 17980 \DeclareTextCommand{\textswarrow}{PU}{\9041\231}%* U+2199
 17981 % U+219A LEFTWARDS ARROW WITH STROKE; \leftarrow (AmS)
 17982 \DeclareTextCommand{\textnleftarrow}{PU}{\9041\232}%* U+219A
 17983 % U+219B RIGHTWARDS ARROW WITH STROKE; \rightarrow (AmS)
 17984 \DeclareTextCommand{\textnrightarrow}{PU}{\9041\233}%* U+219B
 17985 % U+219E LEFTWARDS TWO HEADED ARROW; \twoheadleftarrow (AmS)
 17986 \DeclareTextCommand{\texttwoheadleftarrow}{PU}{\9041\236}%* U+219E
 17987 % U+219F UPWARDS TWO HEADED ARROW; \twoheaduparrow (MnSymbol)
 17988 \DeclareTextCommand{\texttwoheaduparrow}{PU}{\9041\237}%* U+219F
 17989 % U+21A0 RIGHTWARDS TWO HEADED ARROW;
 17990 % \twoheadrightarrow (AmS)
 17991 \DeclareTextCommand{\texttwoheadrightarrow}{PU}{\9041\240}%* U+21A0
 17992 % U+21A1 DOWNWARDS TWO HEADED ARROW; \twoheaddownarrow (Mn-
 Symbol)
 17993 \DeclareTextCommand{\texttwoheaddownarrow}{PU}{\9041\241}%* U+21A1
 17994 % U+21A2 LEFTWARDS ARROW WITH TAIL; \leftarrowtail (AmS)
 17995 \DeclareTextCommand{\textleftarrowtail}{PU}{\9041\242}%* U+21A2
 17996 % U+21A3 RIGHTWARDS ARROW WITH TAIL; \rightarrowtail (AmS)


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17997 \DeclareTextCommand{\textrightarrowtail}{PU}{\9041\243}%* U+21A3
17998 % U+21A6 RIGHTWARDS ARROW FROM BAR; \mapsto (LaTeX)
17999 \DeclareTextCommand{\textmapsto}{PU}{\9041\246}%* U+21A6
18000 % U+21A9 LEFTWARDS ARROW WITH HOOK; \hookleftarrow (LaTeX)
18001 \DeclareTextCommand{\texthookleftarrow}{PU}{\9041\251}%* U+21A9
18002 % U+21AA RIGHTWARDS ARROW WITH HOOK; \hookrightarrow (LaTeX)
18003 \DeclareTextCommand{\texthookrightarrow}{PU}{\9041\252}%* U+21AA
18004 % U+21AB LEFTWARDS ARROW WITH LOOP; \looparrowleft (AmS)
18005 \DeclareTextCommand{\textlooparrowleft}{PU}{\9041\253}%* U+21AB
18006 % U+21AC RIGHTWARDS ARROW WITH LOOP; \looparrowright (AmS)
18007 \DeclareTextCommand{\textlooparrowright}{PU}{\9041\254}%* U+21AC
18008 % U+21AE LEFT RIGHT ARROW WITH STROKE; \leftrightharrow (AmS)
18009 \DeclareTextCommand{\textnlefrightharrow}{PU}{\9041\256}%* U+21AE
18010 % U+21AF DOWNWARDS ZIGZAG ARROW; \lightning (stmaryrd)
18011 \DeclareTextCommand{\textlightning}{PU}{\9041\257}%* U+21AF
18012 %* \textlightning -> \Lightning (marvosym)
18013 % U+21B5 DOWNWARDS ARROW WITH CORNER LEFTWARDS;
18014 % \dlsh (mathabx)
18015 \DeclareTextCommand{\textdlsh}{PU}{\9041\265}%* U+21B5
18016 % U+21B6 ANTICLOCKWISE TOP SEMICIRCLE ARROW;
18017 % \curvearrowleft (AmS)
18018 \DeclareTextCommand{\textcurvearrowleft}{PU}{\9041\266}%* U+21B6
18019 % U+21B7 CLOCKWISE TOP SEMICIRCLE ARROW; \curvearrowright (AmS)
18020 \DeclareTextCommand{\textcurvearrowright}{PU}{\9041\267}%* U+21B7
18021 % U+21BC LEFTWARDS HARPOON WITH BARB UPWARDS; harpoonleft-
    barbup;
18022 % \leftharpoonup (LaTeX)
18023 \DeclareTextCommand{\textleftharpoonup}{PU}{\9041\274}%* U+21BC
18024 % U+21BD LEFTWARDS HARPOON WITH BARB DOWNWARDS;
18025 % \leftharpoondown (LaTeX)
18026 \DeclareTextCommand{\textleftharpoondown}{PU}{\9041\275}%* U+21BD
18027 % U+21BE UPWARDS HARPOON WITH BARB RIGHTWARDS;
18028 % \upharpoonright (AmS)
18029 \DeclareTextCommand{\textupharpoonright}{PU}{\9041\276}%* U+21BE
18030 % U+21BF UPWARDS HARPOON WITH BARB LEFTWARDS;
18031 % \upharpoonleft (AmS)
18032 \DeclareTextCommand{\textupharpoonleft}{PU}{\9041\277}%* U+21BF
18033 % U+21C0 RIGHTWARDS HARPOON WITH BARB UPWARDS; harpoonright-
    barbup
18034 % \rightharpoonup (LaTeX)
18035 \DeclareTextCommand{\textrightharpoonup}{PU}{\9041\300}%* U+21C0
18036 % U+21C1 RIGHTWARDS HARPOON WITH BARB DOWNWARDS;
18037 % \rightharpoondown (LaTeX)
18038 \DeclareTextCommand{\textrightharpoondown}{PU}{\9041\301}%* U+21C1
18039 % U+21C2 DOWNWARDS HARPOON WITH BARB RIGHTWARDS;
18040 % \downharpoonright (AmS)
18041 \DeclareTextCommand{\textdownharpoonright}{PU}{\9041\302}%* U+21C2
18042 % U+21C3 DOWNWARDS HARPOON WITH BARB LEFTWARDS;
18043 % \downharpoonleft (AmS)
18044 \DeclareTextCommand{\textdownharpoonleft}{PU}{\9041\303}%* U+21C3
18045 % U+21C4 RIGHTWARDS ARROW OVER LEFTWARDS ARROW;
18046 % \rightarrowoverleftarrow; \rightleftarrows (MnSymbol)
18047 \DeclareTextCommand{\textrightleftarrows}{PU}{\9041\304}%* U+21C4
18048 % U+21C5 UPWARDS ARROW LEFTWARDS OF DOWNWARDS ARROW; ar-
    rowupleftofdown;
18049 % \updownarrows (MnSymbol)
18050 \DeclareTextCommand{\textupdownarrows}{PU}{\9041\305}%* U+21C5

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18051 % U+21C6 LEFTWARDS ARROW OVER RIGHTWARDS ARROW; arrowleft-
      overright;
18052 % \leftrightharrows (AmS)
18053 \DeclareTextCommand{\textleftrightharrows}{PU}{\9041\306}%* U+21C6
18054 % U+21C7 LEFTWARDS PAIRED ARROWS; \leftleftarrows (AmS)
18055 \DeclareTextCommand{\textleftleftarrows}{PU}{\9041\307}%* U+21C7
18056 % U+21C8 UPWARDS PAIRED ARROWS; \upuparrows (AmS)
18057 \DeclareTextCommand{\textupuparrows}{PU}{\9041\310}%* U+21C8
18058 % U+21C9 RIGHTWARDS PAIRED ARROWS; \rightrightarrows (AmS)
18059 \DeclareTextCommand{\textrightarrows}{PU}{\9041\311}%* U+21C9
18060 % U+21CA DOWNWARDS PAIRED ARROWS; \downdownarrows (AmS)
18061 \DeclareTextCommand{\textdowndownarrows}{PU}{\9041\312}%* U+21CA
18062 % U+21CB LEFTWARDS HARPOON OVER RIGHTWARDS HARPOON;
18063 % \leftrightharpoons (AmS);
18064 \DeclareTextCommand{\textleftrightharpoons}{PU}{\9041\313}%* U+21CB
18065 % U+21CC RIGHTWARDS HARPOON OVER LEFTWARDS HARPOON;
18066 % \rightleftharpoons (LaTeX, AmS)
18067 \DeclareTextCommand{\textrightleftharpoons}{PU}{\9041\314}%* U+21CC
18068 % U+21CD LEFTWARDS DOUBLE ARROW WITH STROKE; arrowleftd-
      blstroke;
18069 % \nLeftarrow (AmS)
18070 \DeclareTextCommand{\textnLeftarrow}{PU}{\9041\315}%* U+21CD
18071 % U+21CE LEFT RIGHT DOUBLE ARROW WITH STROKE; \nLeftrightar-
      row (AmS)
18072 \DeclareTextCommand{\textnLeftrightarrow}{PU}{\9041\316}%* U+21CE
18073 % U+21CF RIGHTWARDS DOUBLE ARROW WITH STROKE; arrowrightd-
      blstroke;
18074 % \nRightarrow (AmS)
18075 \DeclareTextCommand{\textnRightarrow}{PU}{\9041\317}%* U+21CF
18076 % U+21D0 LEFTWARDS DOUBLE ARROW; arrowdblleft, arrowleftdbl;
18077 % \Leftarrow (LaTeX)
18078 \DeclareTextCommand{\textLeftarrow}{PU}{\9041\320}%* U+21D0
18079 % U+21D1 UPWARDS DOUBLE ARROW; arrowdblup; \Uparrow (LaTeX)
18080 \DeclareTextCommand{\textUparrow}{PU}{\9041\321}%* U+21D1
18081 % U+21D2 RIGHTWARDS DOUBLE ARROW; arrowdblright, dblarrowright;
18082 % \Rightarrow (LaTeX)
18083 \DeclareTextCommand{\textRightarrow}{PU}{\9041\322}%* U+21D2
18084 %* \textRightarrow -> \Conclusion (marvosym)
18085 % U+21D3 DOWNWARDS DOUBLE ARROW; arrowdbldown; \Downarrow (La-
      TeX)
18086 \DeclareTextCommand{\textDownarrow}{PU}{\9041\323}%* U+21D3
18087 % U+21D4 LEFT RIGHT DOUBLE ARROW; arrowdblboth;
18088 % \Leftrightarrow (LaTeX)
18089 \DeclareTextCommand{\textLeftrightarrow}{PU}{\9041\324}%* U+21D4
18090 %* \textLeftrightarrow -> \Equivalence (marvosym)
18091 % U+21D5 UP DOWN DOUBLE ARROW; \Updownarrow (LaTeX)
18092 \DeclareTextCommand{\textUpdownarrow}{PU}{\9041\325}%* U+21D5
18093 % U+21D6 NORTH WEST DOUBLE ARROW; \Nwarrow (MnSymbol)
18094 \DeclareTextCommand{\textNwarrow}{PU}{\9041\326}%* U+21D6
18095 % U+21D7 NORTH EAST DOUBLE ARROW; \Nearrow (MnSymbol)
18096 \DeclareTextCommand{\textNearrow}{PU}{\9041\327}%* U+21D7
18097 % U+21D8 SOUTH EAST DOUBLE ARROW; \Searrow (MnSymbol)
18098 \DeclareTextCommand{\textSearrow}{PU}{\9041\330}%* U+21D8
18099 % U+21D9 SOUTH WEST DOUBLE ARROW; \Svarrow (MnSymbol)
18100 \DeclareTextCommand{\textSvarrow}{PU}{\9041\331}%* U+21D9
18101 % U+21DA LEFTWARDS TRIPLE ARROW; \Lleftarrow (AmS)
18102 \DeclareTextCommand{\textLleftarrow}{PU}{\9041\332}%* U+21DA

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18103 % U+21DB RIGHTWARDS TRIPLE ARROW; \Rrightarrow (MnSymbol)
18104 \DeclareTextCommand{\textRrightarrow}{PU}{\9041\333}%* U+21DB
18105 % U+21DC LEFTWARDS SQUIGGLE ARROW; \leftsquigarrow (mathabx)
18106 \DeclareTextCommand{\textleftsquigarrow}{PU}{\9041\334}%* U+21DC
18107 % U+21DD RIGHTWARDS SQUIGGLE ARROW; \rightsquigarrow (mathabx)
18108 \DeclareTextCommand{\textright squigarrow}{PU}{\9041\335}%* U+21DD
18109 % U+21E0 LEFTWARDS DASHED ARROW; arrowdashleft;
18110 % \dashleftarrow (AmS)
18111 \DeclareTextCommand{\textdashleftarrow}{PU}{\9041\340}%* U+21E0
18112 %* \textdashleftarrow -> \dashedleftarrow (MnSymbol)
18113 % U+21E1 UPWARDS DASHED ARROW; arrowdashup; \dasheduparrow (Mn-
Symbol)
18114 \DeclareTextCommand{\textdasheduparrow}{PU}{\9041\341}%* U+21E1
18115 % U+21E2 RIGHTWARDS DASHED ARROW; arrowdashright; \dashrightarrow
(AmS)
18116 \DeclareTextCommand{\textdashrightarrow}{PU}{\9041\342}%* U+21E2
18117 %* \textdashrightarrow -> \dashedrightarrow (MnSymbol)
18118 % U+21E3 DOWNWARDS DASHED ARROW; arrowdashdown; \dasheddownarrow
(MnSymbol)
18119 \DeclareTextCommand{\textdasheddownarrow}{PU}{\9041\343}%* U+21E3
18120 % U+21E8 RIGHTWARDS WHITE ARROW; \pointer (wasysym)
18121 \DeclareTextCommand{\textpointer}{PU}{\9041\350}%* U+21E8
18122 % U+21F5 DOWNWARDS ARROW LEFTWARDS OF UPWARDS ARROW;
18123 % \downuparrows (MnSymbol)
18124 \DeclareTextCommand{\textdownuparrows}{PU}{\9041\365}%* U+21F5
18125 % U+21FD LEFTWARDS OPEN-HEADED ARROW; \leftarrowtriangle (stmaryrd)
18126 \DeclareTextCommand{\textleftarrowtriangle}{PU}{\9041\375}%* U+21FD
18127 % U+21FE RIGHTWARDS OPEN-HEADED ARROW; \rightarrowtriangle (stmaryrd)
18128 \DeclareTextCommand{\textrightarrowtriangle}{PU}{\9041\376}%* U+21FE
18129 % U+21FF LEFT RIGHT OPEN-HEADED ARROW; \leftrightarrowtriangle
(stmaryrd)
18130 \DeclareTextCommand{\textleftrightarrowtriangle}{PU}{\9041\377}%* U+21FF

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

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18131 % U+2200 FOR ALL; forall; \forall (LaTeX)
18132 \DeclareTextCommand{\textforall}{PU}{\9042\000}%* U+2200
18133 % U+2201 COMPLEMENT; \complement (AmS)
18134 \DeclareTextCommand{\textcomplement}{PU}{\9042\001}%* U+2201
18135 % U+2202 PARTIAL DIFFERENTIAL; partialdiff; \partial (LaTeX)
18136 \DeclareTextCommand{\textpartial}{PU}{\9042\002}%* U+2202
18137 % U+2203 THERE EXISTS; existential; \exists (LaTeX)
18138 \DeclareTextCommand{\textexists}{PU}{\9042\003}%* U+2203
18139 % U+2204 THERE DOES NOT EXIST; \nexists (AmS)
18140 \DeclareTextCommand{\textnexists}{PU}{\9042\004}%* U+2204
18141 % U+2205 EMPTY SET; emptyset; \emptyset (LaTeX), \varnothing (AmS)
18142 \DeclareTextCommand{\textemptyset}{PU}{\9042\005}%* U+2205
18143 %* \textemptyset -> \varnothing (AmS)
18144 % U+2206 INCREMENT; increment, Delta; \triangle (LaTeX)
18145 \DeclareTextCommand{\texttriangle}{PU}{\9042\006}%* U+2206
18146 % U+2207 NABLA; nabla, gradient; \nabla (LaTeX)
18147 \DeclareTextCommand{\textnabla}{PU}{\9042\007}%* U+2207
18148 % U+2208 ELEMENT OF; element; \in (LaTeX)
18149 \DeclareTextCommand{\textin}{PU}{\9042\010}%* U+2208
18150 % U+2209 NOT AN ELEMENT OF; notelement, notelementof; \notin (LaTeX)
18151 \DeclareTextCommand{\textnotin}{PU}{\9042\011}%* U+2209
18152 % U+220A SMALL ELEMENT OF; \smallin (mathdesign)
18153 \DeclareTextCommand{\textsmallin}{PU}{\9042\012}%* U+220A

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18154 % U+220B CONTAINS AS MEMBER; suchthat; \ni (LaTeX)
18155 \DeclareTextCommand{\textni}{PU}{\9042\013}%* U+220B
18156 %* \textni -> \owns (mathabx)
18157 % U+220C DOES NOT CONTAIN AS MEMBER; \notowner (mathabx)
18158 \DeclareTextCommand{\textnotowner}{PU}{\9042\014}%* U+220C
18159 % U+220D SMALL CONTAINS AS MEMBER; \smallowns (mathdesign)
18160 \DeclareTextCommand{\textsmallowns}{PU}{\9042\015}%* U+220D
18161 % U+220F N-ARY PRODUCT; \prod (LaTeX)
18162 \DeclareTextCommand{\textprod}{PU}{\9042\017}%* U+220F
18163 % U+2210 N-ARY COPRODUCT; \amalg (LaTeX)
18164 \DeclareTextCommand{\textamalg}{PU}{\9042\020}%* U+2210
18165 % U+2211 N-ARY SUMMATION; summation; \sum (LaTeX)
18166 \DeclareTextCommand{\textsum}{PU}{\9042\021}%* U+2211
18167 % U+2212 MINUS SIGN; minus
18168 \DeclareTextCommand{\textminus}{PU}{\9042\022}% U+2212
18169 % U+2213 MINUS-OR-PLUS SIGN; minusplus; \mp (LaTeX)
18170 \DeclareTextCommand{\textmp}{PU}{\9042\023}%* U+2213
18171 % U+2214 DOT PLUS; \dotplus (AmS)
18172 \DeclareTextCommand{\textdotplus}{PU}{\9042\024}%* U+2214
18173 % U+2215 DIVISION SLASH; divisionslash; \Divides (marvosym)
18174 \DeclareTextCommand{\textDivides}{PU}{\9042\025}%* U+2215
18175 % \DividesNot (marvosym)
18176 \DeclareTextCommand{\textDividesNot}{PU}{\9042\025\9040\322}%* U+2215 U+20D2
18177 % U+2216 SET MINUS; \setminus (LaTeX)
18178 \DeclareTextCommand{\textsetminus}{PU}{\9042\026}%* U+2216
18179 % U+2217 ASTERISK OPERATOR; asteriskmath; \ast (LaTeX)
18180 \DeclareTextCommand{\textast}{PU}{\9042\027}%* U+2217
18181 % U+2218 RING OPERATOR; \circ (LaTeX)
18182 \DeclareTextCommand{\textcirc}{PU}{\9042\030}%* U+2218
18183 % U+2219 BULLET OPERATOR; bulletoperator; \bullet (LaTeX)
18184 \DeclareTextCommand{\textbulletoperator}{PU}{\9042\031}% U+2219
18185 % U+221A SQUARE ROOT; radical
18186 \DeclareTextCommand{\textsqrt}{PU}{\9042\032}%* U+221A
18187 % U+221D PROPORTIONAL TO; proportional; \propto (LaTeX)
18188 \DeclareTextCommand{\textpropto}{PU}{\9042\035}%* U+221D
18189 %* \textpropto -> \varprop (wasysym)
18190 % U+221E INFINITY; infinity; \infty (LaTeX)
18191 \DeclareTextCommand{\textinfty}{PU}{\9042\036}%* U+221E
18192 % U+2220 ANGLE; angle; \angle (LaTeX)
18193 \DeclareTextCommand{\textangle}{PU}{\9042\040}%* U+2220
18194 % U+2221 MEASURED ANGLE; \measuredangle (mathabx, MnSymbol)
18195 \DeclareTextCommand{\textmeasuredangle}{PU}{\9042\041}%* U+2221
18196 % U+2222 SPHERICAL ANGLE; \sphericalangle (AmS)
18197 \DeclareTextCommand{\textsphericalangle}{PU}{\9042\042}%* U+2222
18198 %* \textsphericalangle -> \varangle (wasysym)
18199 %* \textsphericalangle -> \Anglesign (marvosym)
18200 %* \textsphericalangle -> \AngleSign (marvosym)
18201 % U+2223 DIVIDES; divides; \mid (LaTeX)
18202 \DeclareTextCommand{\textmid}{PU}{\9042\043}%* U+2223
18203 % U+2224 DOES NOT DIVIDE; \nmid (AmS)
18204 \DeclareTextCommand{\textnmid}{PU}{\9042\044}%* U+2224
18205 % U+2225 PARALLEL TO; parallel; \parallel (LaTeX)
18206 \DeclareTextCommand{\textparallel}{PU}{\9042\045}%* U+2225
18207 % U+2226 NOT PARALLEL TO; notparallel; \nparallel (AmS)
18208 \DeclareTextCommand{\textnparallel}{PU}{\9042\046}%* U+2226
18209 % U+2227 LOGICAL AND; logicaland; \wedge (LaTeX)
18210 \DeclareTextCommand{\textwedge}{PU}{\9042\047}%* U+2227

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18211 % \owedge (stmaryrd)
18212 \DeclareTextCommand{\textowedge}{PU}{\9042\047\9040\335}%* U+2227 U+20DD
18213 %* \textowedge -> \varowedge (stmaryrd)
18214 % U+2228 LOGICAL OR; logicalor; \vee (LaTeX)
18215 \DeclareTextCommand{\textvee}{PU}{\9042\050}%* U+2228
18216 % \ovee (stmaryrd)
18217 \DeclareTextCommand{\textovee}{PU}{\9042\050\9040\335}%* U+2228 U+20DD
18218 %* \textovee -> \varovee (stmaryrd)
18219 % U+2229 INTERSECTION; intersection; \cap (LaTeX)
18220 \DeclareTextCommand{\textcap}{PU}{\9042\051}%* U+2229
18221 % U+222A UNION; union; \cup (LaTeX)
18222 \DeclareTextCommand{\textcup}{PU}{\9042\052}%* U+222A
18223 % U+222B INTEGRAL; integral; \int (LaTeX)
18224 \DeclareTextCommand{\textint}{PU}{\9042\053}%* U+222B
18225 %* \textint -> \varint (wasysym)
18226 % U+222C DOUBLE INTEGRAL; dblintegral; \iint (AmS)
18227 \DeclareTextCommand{\textiint}{PU}{\9042\054}%* U+222C
18228 % U+222D TRIPLE INTEGRAL; \iiint (AmS)
18229 \DeclareTextCommand{\textiiint}{PU}{\9042\055}%* U+222D
18230 % U+222E CONTOUR INTEGRAL; contourintegral; \oint (LaTeX)
18231 \DeclareTextCommand{\textoint}{PU}{\9042\056}%* U+222E
18232 %* \textoint -> \varoint (wasysym)
18233 % U+222F SURFACE INTEGRAL; \oiint (wasysym)
18234 \DeclareTextCommand{\textoiint}{PU}{\9042\057}%* U+222F
18235 % U+2232 CLOCKWISE CONTOUR INTEGRAL;
18236 % \ointclockwise (txfonts/pxfonts)
18237 \DeclareTextCommand{\textointclockwise}{PU}{\9042\062}%* U+2232
18238 % U+2233 ANTICLOCKWISE CONTOUR INTEGRAL; \ointctrclockwise (tx-
    fonts/pxfonts)
18239 \DeclareTextCommand{\textointctrclockwise}{PU}{\9042\063}%* U+2233
18240 % U+2234 THEREFORE; therefore; \therefore (AmS)
18241 \DeclareTextCommand{\texttherefore}{PU}{\9042\064}%* U+2234
18242 %* \texttherefore -> uptherefore (MnSymbol)
18243 % U+2235 BECAUSE; because; \because (AmS)
18244 \DeclareTextCommand{\textbecause}{PU}{\9042\065}%* U+2235
18245 %* \textbecause -> \downtherefore (MnSymbol)
18246 % U+2236 RATIO; \vdots (MnSymbol)
18247 \DeclareTextCommand{\textvdotdot}{PU}{\9042\066}%* U+2236
18248 % U+2237 PROPORTION; \squaredots (MnSymbol)
18249 \DeclareTextCommand{\textsquaredots}{PU}{\9042\067}%* U+2237
18250 % U+2238 DOT MINUS; \dotminus (MnSymbol)
18251 \DeclareTextCommand{\textdotminus}{PU}{\9042\070}%* U+2238
18252 %* \textdotminus -> \textdotdiv (mathabx)
18253 % U+2239 EXCESS; \eqcolon (txfonts/pxfonts)
18254 \DeclareTextCommand{\texteqcolon}{PU}{\9042\071}%* U+2239
18255 % U+223C TILDE OPERATOR; similar; \sim (LaTeX)
18256 \DeclareTextCommand{\textsim}{PU}{\9042\074}%* U+223C
18257 %* \textsim -> \AC (wasysym)
18258 % U+223D REVERSED TILDE; reversedtilde; \backsim (AmS)
18259 \DeclareTextCommand{\textbacksim}{PU}{\9042\075}%* U+223D
18260 % U+2240 WREATH PRODUCT; \wr (LaTeX)
18261 \DeclareTextCommand{\textwr}{PU}{\9042\100}%* U+2240
18262 %* \textwr -> \wreath (MnSymbol)
18263 % U+2241 NOT TILDE; \nsim (AmS)
18264 \DeclareTextCommand{\textnsim}{PU}{\9042\101}%* U+2241
18265 % U+2243 ASYMPTOTICALLY EQUAL TO; asymptoticallyequal; \simeq (La-
    TeX)

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18266 \DeclareTextCommand{\textsimeq}{PU}{\9042\103}%* U+2243
18267 % U+2245 APPROXIMATELY EQUAL TO; approximatelyequal; \cong (LaTeX)
18268 \DeclareTextCommand{\textcong}{PU}{\9042\105}%* U+2245
18269 % U+2247 NEITHER APPROXIMATELY NOR ACTUALLY EQUAL TO;
18270 % \ncong (AmS)
18271 \DeclareTextCommand{\textncong}{PU}{\9042\107}%* U+2247
18272 % U+2248 ALMOST EQUAL TO; approxequal; \approx (LaTeX)
18273 \DeclareTextCommand{\textapprox}{PU}{\9042\110}%* U+2248
18274 % U+224A ALMOST EQUAL OR EQUAL TO; \approxeq (AmS)
18275 \DeclareTextCommand{\textapproxeq}{PU}{\9042\112}%* U+224A
18276 % U+224B TRIPLE TILDE; \triplesim (MnSymbol)
18277 \DeclareTextCommand{\texttriplesim}{PU}{\9042\113}%* U+224B
18278 %* \texttriplesim -> \VHF (wasysym)
18279 % U+224C ALL EQUAL TO; allequal; \backcong (MnSymbol)
18280 \DeclareTextCommand{\textbackcong}{PU}{\9042\114}%* U+224C
18281 % U+224D EQUIVALENT TO; \asymp (LaTeX)
18282 \DeclareTextCommand{\textasymp}{PU}{\9042\115}%* U+224D
18283 % U+224E GEOMETRICALLY EQUIVALENT TO; \Bumpeq (AmS)
18284 \DeclareTextCommand{\textBumpeq}{PU}{\9042\116}%* U+224E
18285 % U+224F DIFFERENCE BETWEEN; \bumpeq (AmS)
18286 \DeclareTextCommand{\textbumpeq}{PU}{\9042\117}%* U+224F
18287 % U+2250 APPROACHES THE LIMIT; approaches; \doteq (LaTeX)
18288 \DeclareTextCommand{\textdoteq}{PU}{\9042\120}%* U+2250
18289 % U+2251 GEOMETRICALLY EQUAL TO; geometricallyequal;
18290 % \doteqdot (AmS)
18291 \DeclareTextCommand{\textdoteqdot}{PU}{\9042\121}%* U+2251
18292 %* \textdoteqdot -> \Doteq (MnSymbol)
18293 % U+2252 APPROXIMATELY EQUAL TO OR THE IMAGE OF; approx-
    equalorimage;
18294 % \fallingdotseq (AmS)
18295 \DeclareTextCommand{\textfallingdoteq}{PU}{\9042\122}%* U+2252
18296 % U+2253 IMAGE OF OR APPROXIMATELY EQUAL TO; imageorapproxi-
    matelyequal;
18297 % \risingdotseq (AmS)
18298 \DeclareTextCommand{\textrisingdoteq}{PU}{\9042\123}%* U+2253
18299 % U+2254 COLON EQUALS; \colonequals (colonequals)
18300 \DeclareTextCommand{\textcolonequals}{PU}{\9042\124}%* U+2254
18301 % U+2255 EQUALS COLON; \equalscolon (colonequals)
18302 \DeclareTextCommand{\textequalscolon}{PU}{\9042\125}%* U+2255
18303 % U+2256 RING IN EQUAL TO; \eqcirc (AmS)
18304 \DeclareTextCommand{\texteqcirc}{PU}{\9042\126}%* U+2256
18305 % U+2257 RING EQUAL TO; \circeq (AmS)
18306 \DeclareTextCommand{\textcirceq}{PU}{\9042\127}%* U+2257
18307 % U+2259 ESTIMATES; \hateq (MnSymbol)
18308 \DeclareTextCommand{\texthateq}{PU}{\9042\131}%* U+2259
18309 %* \texthateq -> \corresponds (mathabx)
18310 %* \texthateq -> \Corresponds (marvosym)
18311 % U+225C DELTA EQUAL TO; \triangleeq (AmS)
18312 \DeclareTextCommand{\texttriangleeq}{PU}{\9042\134}%* U+225C
18313 % U+2260 NOT EQUAL TO; notequal; \ne (LaTeX), \neq (LaTeX)
18314 \DeclareTextCommand{\textneq}{PU}{\9042\140}%* U+2260
18315 \DeclareTextCommand{\textne}{PU}{\9042\140}%* U+2260
18316 % U+2261 IDENTICAL TO; equivalence; \equiv (LaTeX)
18317 \DeclareTextCommand{\textequiv}{PU}{\9042\141}%* U+2261
18318 %* \textequiv -> \Congruent (marvosym)
18319 % U+2262 NOT IDENTICAL TO; notidentical; \nequiv (txfonts/pxfonts)
18320 \DeclareTextCommand{\textnequiv}{PU}{\9042\142}%* U+2262

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18321 %* \textnequiv -> \NotCongruent (marvosym)
18322 % U+2264 LESS-THAN OR EQUAL TO; lessequal; \le (LaTeX), \leq (LaTeX)
18323 \DeclareTextCommand{\textleq}{PU}{\9042\144}%* U+2264
18324 \DeclareTextCommand{\textlle}{PU}{\9042\144}%* U+2264
18325 %* \textleq -> \LessOrEqual (marvosym)
18326 % U+2265 GREATER-THAN OR EQUAL TO; greaterequal;
18327 % \ge (LaTeX), \geq (LaTeX)
18328 \DeclareTextCommand{\textgeq}{PU}{\9042\145}%* U+2265
18329 \DeclareTextCommand{\textge}{PU}{\9042\145}%* U+2265
18330 %* \textgeq -> \LargerOrEqual (marvosym)
18331 % U+2266 LESS-THAN OVER EQUAL TO; lessorequal; \leqq (AmS)
18332 \DeclareTextCommand{\textleqq}{PU}{\9042\146}%* U+2266
18333 % U+2267 GREATER-THAN OVER EQUAL TO; greaterorequal; \geqq (AmS)
18334 \DeclareTextCommand{\textgeqq}{PU}{\9042\147}%* U+2267
18335 % U+2268 LESS-THAN BUT NOT EQUAL TO; \lneqq (AmS)
18336 \DeclareTextCommand{\textlneqq}{PU}{\9042\150}%* U+2268
18337 % U+2269 GREATER-THAN BUT NOT EQUAL TO; \gneqq (AmS)
18338 \DeclareTextCommand{\textgneqq}{PU}{\9042\151}%* U+2269
18339 % U+226A MUCH LESS-THAN; muchless; \ll (LaTeX)
18340 \DeclareTextCommand{\textll}{PU}{\9042\152}%* U+226A
18341 % U+226B MUCH GREATER-THAN; muchgreater; \gg (LaTeX)
18342 \DeclareTextCommand{\textgg}{PU}{\9042\153}%* U+226B
18343 % U+226C BETWEEN; \between (AmS)
18344 \DeclareTextCommand{\textbetween}{PU}{\9042\154}%* U+226C
18345 % U+226E NOT LESS-THAN; notless; \nless (AmS)
18346 \DeclareTextCommand{\textnless}{PU}{\9042\156}%* U+226E
18347 % U+226F NOT GREATER-THAN; notgreater; \ngtr (AmS)
18348 \DeclareTextCommand{\textngtr}{PU}{\9042\157}%* U+226F
18349 % U+2270 NEITHER LESS-THAN NOR EQUAL TO; notlessnorequal;
18350 % \nleq (AmS)
18351 \DeclareTextCommand{\textnleq}{PU}{\9042\160}%* U+2270
18352 % U+2271 NEITHER GREATER-THAN NOR EQUAL TO; notgreaternorequal; \ngeq (AmS)
18353 \DeclareTextCommand{\textngeq}{PU}{\9042\161}%* U+2271
18354 % U+2272 LESS-THAN OR EQUIVALENT TO; lessorequivalent; \lessim (AmS)
18355 \DeclareTextCommand{\textlessim}{PU}{\9042\162}%* U+2272
18356 %* \textlessim -> \apprle (wasysym)
18357 % U+2273 GREATER-THAN OR EQUIVALENT TO; greaterorequivalent; \gtrsim (AmS)
18358 \DeclareTextCommand{\textgtrsim}{PU}{\9042\163}%* U+2273
18359 %* \textgtrsim -> \apprge (wasysym)
18360 % U+2276 LESS-THAN OR GREATER-THAN; lessorgreater; \lessgtr (AmS)
18361 \DeclareTextCommand{\textlessgtr}{PU}{\9042\166}%* U+2276
18362 % U+2277 GREATER-THAN OR LESS-THAN; greaterorless; \gtrless (AmS)
18363 \DeclareTextCommand{\textgtrless}{PU}{\9042\167}%* U+2277
18364 % U+227A PRECEDES; precedes; \prec (LaTeX)
18365 \DeclareTextCommand{\textprec}{PU}{\9042\172}%* U+227A
18366 % U+227B SUCCEEDS; succeeds; \succ (LaTeX)
18367 \DeclareTextCommand{\textsucc}{PU}{\9042\173}%* U+227B
18368 % U+227C PRECEDES OR EQUAL TO; \preccurlyeq (AmS)
18369 \DeclareTextCommand{\textpreccurlyeq}{PU}{\9042\174}%* U+227C
18370 % U+227D SUCCEEDS OR EQUAL TO; \succcurlyeq (AmS)
18371 \DeclareTextCommand{\textsucccurlyeq}{PU}{\9042\175}%* U+227D
18372 % U+227E PRECEDES OR EQUIVALENT TO; \precsim (AmS)
18373 \DeclareTextCommand{\textprecsim}{PU}{\9042\176}%* U+227E
18374 % U+227F SUCCEEDS OR EQUIVALENT TO; \succsim (AmS)
18375 \DeclareTextCommand{\textsuccsim}{PU}{\9042\177}%* U+227F

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18376 % U+2280 DOES NOT PRECEDE; notprecedes; \nprec (AmS)
18377 \DeclareTextCommand{\textnprec}{PU}{\9042\200}%* U+2280
18378 % U+2281 DOES NOT SUCCEED; notsucceds; \nsucc (AmS)
18379 \DeclareTextCommand{\textnsucc}{PU}{\9042\201}%* U+2281
18380 % U+2282 SUBSET OF; propersubset; \subset (LaTeX)
18381 \DeclareTextCommand{\textsubset}{PU}{\9042\202}%* U+2282
18382 % U+2283 SUPERSET OF; propersuperset; \supset (LaTeX)
18383 \DeclareTextCommand{\textsupset}{PU}{\9042\203}%* U+2283
18384 % U+2284 NOT A SUBSET OF; notsubset; \nsubset (mathabx)
18385 \DeclareTextCommand{\textnsubset}{PU}{\9042\204}%* U+2284
18386 % U+2285 NOT A SUPERSET OF; notsuperset; \nsupset (mathabx)
18387 \DeclareTextCommand{\textnsupset}{PU}{\9042\205}%* U+2285
18388 % U+2286 SUBSET OF OR EQUAL TO; reflexsubset; \subseteq (LaTeX)
18389 \DeclareTextCommand{\textsubseteq}{PU}{\9042\206}%* U+2286
18390 % U+2287 SUPERSET OF OR EQUAL TO; reflexsuperset; \supseteq (LaTeX)
18391 \DeclareTextCommand{\textsupseteq}{PU}{\9042\207}%* U+2287
18392 % U+2288 NEITHER A SUBSET OF NOR EQUAL TO; \nsubseteq (AmS)
18393 \DeclareTextCommand{\textnsubseteq}{PU}{\9042\210}%* U+2288
18394 % U+2289 NEITHER A SUPERSET OF NOR EQUAL TO; \nsupseteq (AmS)
18395 \DeclareTextCommand{\textnsupseteq}{PU}{\9042\211}%* U+2289
18396 % U+228A SUBSET OF WITH NOT EQUAL TO; subsetnotequal; \subsetneq (AmS)
18397 \DeclareTextCommand{\textsubsetneq}{PU}{\9042\212}%* U+228A
18398 % U+228B SUPERSET OF WITH NOT EQUAL TO; supersetnotequal; \supsetneq (AmS)
18399 \DeclareTextCommand{\textsupsetneq}{PU}{\9042\213}%* U+228B
18400 % U+228D MULTISET MULTIPLICATION; \cupdot (MnSymbol)
18401 \DeclareTextCommand{\textcupdot}{PU}{\9042\215}%* U+228D
18402 % U+228E MULTISET UNION; \cupplus (MnSymbol)
18403 \DeclareTextCommand{\textcupplus}{PU}{\9042\216}%* U+228E
18404 % U+228F SQUARE IMAGE OF; \sqsubset (latexsym, ...)
18405 \DeclareTextCommand{\textsqsubset}{PU}{\9042\217}%* U+228F
18406 % \nsqsubset (txfonts/pxfonts)
18407 \DeclareTextCommand{\textnsqsubset}{PU}{\9042\217\83\070}%* U+228F U+0338
18408 % U+2290 SQUARE ORIGINAL OF; \sqsupset (latexsym, ...)
18409 \DeclareTextCommand{\textsqsupset}{PU}{\9042\220}%* U+2290
18410 % \nsqsupset (txfonts/pxfonts)
18411 \DeclareTextCommand{\textnsqsupset}{PU}{\9042\220\83\070}%* U+2290 U+0338
18412 % U+2291 SQUARE IMAGE OF OR EQUAL TO; \sqsubseteq (LaTeX)
18413 \DeclareTextCommand{\textsqsubseteq}{PU}{\9042\221}%* U+2291
18414 % \nsqsubseteq (txfonts/pxfonts)
18415 \DeclareTextCommand{\textnsqsubseteq}{PU}{\9042\221\83\070}%* U+2291 U+0338
18416 % U+2292 SQUARE ORIGINAL OF OR EQUAL TO; \sqsupseteq (LaTeX)
18417 \DeclareTextCommand{\textsqsupseteq}{PU}{\9042\222}%* U+2292
18418 % \nsqsupseteq (txfonts/pxfonts)
18419 \DeclareTextCommand{\textnsqsupseteq}{PU}{\9042\222\83\070}%* U+2292 U+0338
18420 % U+2293 SQUARE CAP; \sqcap (LaTeX)
18421 \DeclareTextCommand{\textsqcap}{PU}{\9042\223}%* U+2293
18422 % U+2294 SQUARE CUP; \sqcup (LaTeX)
18423 \DeclareTextCommand{\textsqcup}{PU}{\9042\224}%* U+2294
18424 % U+2295 CIRCLED PLUS; circleplus; \oplus (LaTeX)
18425 \DeclareTextCommand{\textoplus}{PU}{\9042\225}%* U+2295
18426 %* \textoplus -> \varoplus (stmaryrd)
18427 % U+2296 CIRCLED MINUS; minuscircle; \ominus (LaTeX)
18428 \DeclareTextCommand{\textominus}{PU}{\9042\226}%* U+2296
18429 %* \textominus -> \varominus (stmaryrd)
18430 % U+2297 CIRCLED TIMES; circlemultiply; \otimes (LaTeX)

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18431 \DeclareTextCommand{\textotimes}{PU}{\9042\227}%* U+2297
18432 %* \textotimes -> \varotimes (stmaryrd)
18433 % U+2298 CIRCLED DIVISION SLASH; \oslash (LaTeX)
18434 \DeclareTextCommand{\textoslash}{PU}{\9042\230}%* U+2298
18435 %* \textoslash -> \varoslash (stmaryrd)
18436 % U+2299 CIRCLED DOT OPERATOR; circle(d?)ot; \odot (LaTeX)
18437 \DeclareTextCommand{\textodot}{PU}{\9042\231}%* U+2299
18438 %* \textodot -> \varodot (stmaryrd)
18439 % U+229A CIRCLED RING OPERATOR; \circledcirc (AmS)
18440 \DeclareTextCommand{\textcircledcirc}{PU}{\9042\232}%* U+229A
18441 %* \textcircledcirc -> \ocirc (mathabx)
18442 %* \textcircledcirc -> \varocircle (stmaryrd)
18443 % U+229B CIRCLED ASTERISK OPERATOR; \circledast (AmS)
18444 \DeclareTextCommand{\textcircledast}{PU}{\9042\233}%* U+229B
18445 %* \textcircledast -> \varoast (stmaryrd)
18446 %* \textcircledast -> \oasterisk (mathabx)
18447 % U+229D CIRCLED DASH; \circleddash (AmS)
18448 \DeclareTextCommand{\textcircleddash}{PU}{\9042\235}%* U+229D
18449 % U+229E SQUARED PLUS; \boxplus (AmS)
18450 \DeclareTextCommand{\textboxplus}{PU}{\9042\236}%* U+229E
18451 % U+229F SQUARED MINUS; \boxminus (AmS)
18452 \DeclareTextCommand{\textboxminus}{PU}{\9042\237}%* U+229F
18453 % U+22A0 SQUARED TIMES; \boxtimes (AmS)
18454 \DeclareTextCommand{\textboxtimes}{PU}{\9042\240}%* U+22A0
18455 % U+22A1 SQUARED DOT OPERATOR; \boxdot (AmS)
18456 \DeclareTextCommand{\textboxdot}{PU}{\9042\241}%* U+22A1
18457 % U+22A2 RIGHT TACK; \vdash (LaTeX)
18458 \DeclareTextCommand{\textvdash}{PU}{\9042\242}%* U+22A2
18459 %* \textvdash -> \rightvdash (MnSymbol)
18460 % U+22A3 LEFT TACK; \lhd; \dashv (LaTeX)
18461 \DeclareTextCommand{\textdashv}{PU}{\9042\243}%* U+22A3
18462 %* \textdashv -> \leftvdash (MnSymbol)
18463 % U+22A4 DOWN TACK (=top); \tackdown; \top (LaTeX)
18464 \DeclareTextCommand{\texttop}{PU}{\9042\244}%* U+22A4
18465 %* \texttop -> \downvdash (MnSymbol)
18466 % U+22A5 UP TACK (=base, bottom); \bot (LaTeX)
18467 \DeclareTextCommand{\textbot}{PU}{\9042\245}%* U+22A5
18468 % U+22A8 TRUE; \vDash (AmS)
18469 \DeclareTextCommand{\textvDash}{PU}{\9042\250}%* U+22A8
18470 %* \textvDash -> \models (LaTeX)
18471 %* \textvDash -> \rightmodels (MnSymbol)
18472 % U+22A9 FORCES; \Vdash (AmS)
18473 \DeclareTextCommand{\textVdash}{PU}{\9042\251}%* U+22A9
18474 %* \textVdash -> \rightVdash (MnSymbol)
18475 % U+22AA TRIPLE VERTICAL BAR RIGHT TURNSTILE; \Vvdash (AmS)
18476 \DeclareTextCommand{\textVvdash}{PU}{\9042\252}%* U+22AA
18477 % U+22AB DOUBLE VERTICAL BAR DOUBLE RIGHT TURNSTILE;
18478 % \Vdash (mathabx)
18479 \DeclareTextCommand{\textVDash}{PU}{\9042\253}%* U+22AB
18480 %* \textVDash -> \rightModels (MnSymbol)
18481 % U+22AC DOES NOT PROVE; \nvdash (AmS)
18482 \DeclareTextCommand{\textnvdash}{PU}{\9042\254}%* U+22AC
18483 % U+22AD NOT TRUE; \nvDash (AmS)
18484 \DeclareTextCommand{\textnvDash}{PU}{\9042\255}%* U+22AD
18485 % U+22AF NEGATED DOUBLE VERTICAL BAR DOUBLE RIGHT TURN-
      STILE; \nVDash (AmS)
18486 \DeclareTextCommand{\textnVDash}{PU}{\9042\257}%* U+22AF

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18487 % U+22B2 NORMAL SUBGROUP OF; \lhd (latexsym, ...)
18488 \DeclareTextCommand{\textlhd}{PU}{\9042\262}%* U+22B2
18489 %* \textlhd -> \lessclosed (MnSymbol)
18490 % U+22B3 CONTAINS AS NORMAL SUBGROUP; \rhd (latexsym, ...)
18491 \DeclareTextCommand{\textrhd}{PU}{\9042\263}%* U+22B3
18492 %* \textrhd -> \gtrclosed (MnSymbol)
18493 % U+22B4 NORMAL SUBGROUP OF OR EQUAL TO; \unlhd (latexsym, ...)
18494 \DeclareTextCommand{\textunlhd}{PU}{\9042\264}%* U+22B4
18495 %* \textunlhd -> \leqclosed (MnSymbol)
18496 %* \textunlhd -> \trianglelefteq (MnSymbol)
18497 % U+22B5 CONTAINS AS NORMAL SUBGROUP OR EQUAL TO; \unrhd (la-
    texsym, ...)
18498 \DeclareTextCommand{\textunrhd}{PU}{\9042\265}%* U+22B5
18499 %* \textunrhd -> \geqclosed (MnSymbol)
18500 %* \textunrhd -> \trianglerighteq (MnSymbol)
18501 % U+22B6 ORIGINAL OF; \multimapdotbothA (txfonts/pxfonts)
18502 \DeclareTextCommand{\textmultimapdotbothA}{PU}{\9042\266}%* U+22B6
18503 % U+22B7 IMAGE OF; \multimapdotbothB (txfonts/pxfonts)
18504 \DeclareTextCommand{\textmultimapdotbothB}{PU}{\9042\267}%* U+22B7
18505 % U+22B8 MULTIMAP; \multimap (AmS, txfonts/pxfonts)
18506 \DeclareTextCommand{\textmultimap}{PU}{\9042\270}%* U+22B8
18507 % U+22BB XOR; \veebar (AmS)
18508 \DeclareTextCommand{\textveebar}{PU}{\9042\273}%* U+22BB
18509 % U+22BC NAND; \barwedge (mathabx)
18510 \DeclareTextCommand{\textbarwedge}{PU}{\9042\274}%* U+22BC
18511 % U+22C6 STAR OPERATOR; \star (LaTeX)
18512 \DeclareTextCommand{\textstar}{PU}{\9042\306}%* U+22C6
18513 % U+22C7 DIVISION TIMES; \divideontimes (AmS)
18514 \DeclareTextCommand{\textdivideontimes}{PU}{\9042\307}%* U+22C7
18515 % U+22C8 BOWTIE; \bowtie (LaTeX)
18516 \DeclareTextCommand{\textbowtie}{PU}{\9042\310}%* U+22C8
18517 %* \textbowtie -> \Bowtie (wasysym)
18518 % U+22C9 LEFT NORMAL FACTOR SEMIDIRECT PRODUCT; \ltimes (AmS)
18519 \DeclareTextCommand{\textltimes}{PU}{\9042\311}%* U+22C9
18520 % U+22CA RIGHT NORMAL FACTOR SEMIDIRECT PRODUCT;
18521 % \rtimes (AmS)
18522 \DeclareTextCommand{\textrtimes}{PU}{\9042\312}%* U+22CA
18523 % U+22CB LEFT SEMIDIRECT PRODUCT; \leftthreetimes (AmS)
18524 \DeclareTextCommand{\textleftthreetimes}{PU}{\9042\313}%* U+22CB
18525 % U+22CC RIGHT SEMIDIRECT PRODUCT; \rightthreetimes (AmS)
18526 \DeclareTextCommand{\textrightthreetimes}{PU}{\9042\314}%* U+22CC
18527 % U+22CD REVERSED TILDE EQUALS; \backsimeq (AmS)
18528 \DeclareTextCommand{\textbacksimeq}{PU}{\9042\315}%* U+22CD
18529 % U+22CE CURLY LOGICAL OR; curlyor; \curlyvee (AmS)
18530 \DeclareTextCommand{\textcurlyvee}{PU}{\9042\316}%* U+22CE
18531 %* \textcurlyvee -> \varcurlyvee (stmaryrd)
18532 % U+22CF CURLY LOGICAL AND; curlyand; \curlywedge (AmS)
18533 \DeclareTextCommand{\textcurlywedge}{PU}{\9042\317}%* U+22CF
18534 %* \textcurlywedge -> \varcurlywedge (stmaryrd)
18535 % U+22D0 DOUBLE SUBSET; \Subset (AmS)
18536 \DeclareTextCommand{\textSubset}{PU}{\9042\320}%* U+22D0
18537 % \nSubset (txfonts/pxfonts)
18538 \DeclareTextCommand{\textnSubset}{PU}{\9042\320\83\070}%* U+22D0 U+0338
18539 % U+22D1 DOUBLE SUPERSET; \Supset (AmS)
18540 \DeclareTextCommand{\textSupset}{PU}{\9042\321}%* U+22D1
18541 % \nSupset (txfonts/pxfonts)
18542 \DeclareTextCommand{\textnSupset}{PU}{\9042\321\83\070}%* U+22D1 U+0338

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18543 % U+22D2 DOUBLE INTERSECTION; \Cap (AmS)
18544 \DeclareTextCommand{\textCap}{PU}{\9042\322}%* U+22D2
18545 %* \textCap -> \doublecap (mathabx)
18546 % U+22D3 DOUBLE UNION; \Cup (AmS)
18547 \DeclareTextCommand{\textCup}{PU}{\9042\323}%* U+22D3
18548 %* \textCup -> \doublecup (mathabx)
18549 % U+22D4 PITCHFORK; \pitchfork (mathabx)
18550 \DeclareTextCommand{\textpitchfork}{PU}{\9042\324}%* U+22D4
18551 % U+22D6 LESS-THAN WITH DOT; \lessdot (AmS)
18552 \DeclareTextCommand{\textlessdot}{PU}{\9042\326}%* U+22D6
18553 % U+22D7 GREATER-THAN WITH DOT; \gtrdot (AmS)
18554 \DeclareTextCommand{\textgtrdot}{PU}{\9042\327}%* U+22D7
18555 % U+22D8 VERY MUCH LESS-THAN; \lll (AmS)
18556 \DeclareTextCommand{\textlll}{PU}{\9042\330}%* U+22D8
18557 % U+22D9 VERY MUCH GREATER-THAN; \ggg (AmS)
18558 \DeclareTextCommand{\textggg}{PU}{\9042\331}%* U+22D9
18559 % U+22DA LESS-THAN EQUAL TO OR GREATER-THAN; lessequalorgreater;
18560 % \lesseqgtr (AmS)
18561 \DeclareTextCommand{\textlesseqgtr}{PU}{\9042\332}%* U+22DA
18562 % U+22DB GREATER-THAN EQUAL TO OR LESS-THAN; greaterequalorless;
18563 % \gtreqless (AmS)
18564 \DeclareTextCommand{\textgtreqless}{PU}{\9042\333}%* U+22DB
18565 % U+22DE EQUAL TO OR PRECEDES; \curlyeqprec (MnSymbol)
18566 \DeclareTextCommand{\textcurlyeqprec}{PU}{\9042\336}%* U+22DE
18567 % U+22DF EQUAL TO OR SUCCEEDS; \curlyeqsucc (MnSymbol)
18568 \DeclareTextCommand{\textcurlyeqsucc}{PU}{\9042\337}%* U+22DF
18569 % U+22E0 DOES NOT PRECEDE OR EQUAL; \npreccurlyeq (txfonts/pxfonts)
18570 \DeclareTextCommand{\textnpreccurlyeq}{PU}{\9042\340}%* U+22E0
18571 % U+22E1 DOES NOT SUCCEED OR EQUAL; \nsucccurlyeq (txfonts/pxfonts)
18572 \DeclareTextCommand{\textnsucccurlyeq}{PU}{\9042\341}%* U+22E1
18573 % U+22E2 NOT SQUARE IMAGE OF OR EQUAL TO; \nsqsubseteq (tx-
18574 % fonts/pxfonts)
18574 \DeclareTextCommand{\textnqsubseq}{PU}{\9042\342}%* U+22E2
18575 % U+22E3 NOT SQUARE ORIGINAL OF OR EQUAL TO; \nsqsupseteq (tx-
18576 % fonts/pxfonts)
18576 \DeclareTextCommand{\textnqsupseteq}{PU}{\9042\343}%* U+22E3
18577 % U+22E4 SQUARE IMAGE OF OR NOT EQUAL TO; \sqsubsetneq (mathabx)
18578 \DeclareTextCommand{\textsqsubsetneq}{PU}{\9042\344}%* U+22E4
18579 %* \textsqsubsetneq -> \varsqsubsetneq (mathabx)
18580 % U+22E5 SQUARE ORIGINAL OF OR NOT EQUAL TO; \sqsupsetneq (math-
18581 % abx)
18581 \DeclareTextCommand{\textsqsupsetneq}{PU}{\9042\345}%* U+22E5
18582 %* \textsqsupsetneq -> \varsqsupsetneq (mathabx)
18583 % U+22E6 LESS-THAN BUT NOT EQUIVALENT TO; \lnsim (AmS)
18584 \DeclareTextCommand{\textlnsim}{PU}{\9042\346}%* U+22E6
18585 % U+22E7 GREATER-THAN BUT NOT EQUIVALENT TO; \gnsim (AmS)
18586 \DeclareTextCommand{\textgnsim}{PU}{\9042\347}%* U+22E7
18587 % U+22E8 PRECEDES BUT NOT EQUIVALENT TO; \precnsim (AmS)
18588 \DeclareTextCommand{\textprecnsim}{PU}{\9042\350}%* U+22E8
18589 % U+22E9 SUCCEEDS BUT NOT EQUIVALENT TO; \succnsim (AmS)
18590 \DeclareTextCommand{\textsuccnsim}{PU}{\9042\351}%* U+22E9
18591 % U+22EA NOT NORMAL SUBGROUP OF; \ntriangleleft (AmS)
18592 \DeclareTextCommand{\textntriangleleft}{PU}{\9042\352}%* U+22EA
18593 %* \textntriangleleft -> \nlessclosed (MnSymbol)
18594 % U+22EB DOES NOT CONTAIN AS NORMAL SUBGROUP; \ntriang-
18595 % leright (AmS)
18595 \DeclareTextCommand{\textntriangleright}{PU}{\9042\353}%* U+22EB

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18596 %* \textntriangleright -> \ngtrclosed (MnSymbol)
18597 % U+22EC NOT NORMAL SUBGROUP OF OR EQUAL TO;
18598 % \ntrianglelefteq (AmS)
18599 \DeclareTextCommand{\textntrianglelefteq}{PU}{\9042\354}%* U+22EC
18600 % U+22ED DOES NOT CONTAIN AS NORMAL SUBGROUP OR EQUAL;
18601 % \ntrianglerighteq (AmS)
18602 \DeclareTextCommand{\textntrianglerighteq}{PU}{\9042\355}%* U+22ED
18603 %* \textntrianglerighteq -> \textngeqclosed
18604 % U+22EE VERTICAL ELLIPSIS; \ellipsisvertical; \vdots (LaTeX)
18605 \DeclareTextCommand{\textvdots}{PU}{\9042\356}%* U+22EE
18606 % U+22EF MIDLINE HORIZONTAL ELLIPSIS; \cdots (LaTeX)
18607 \DeclareTextCommand{\textcdots}{PU}{\9042\357}%* U+22EF
18608 % U+22F0 UP RIGHT DIAGONAL ELLIPSIS; \udots (MnSymbol)
18609 \DeclareTextCommand{\textudots}{PU}{\9042\360}%* U+22F0
18610 % U+22F1 DOWN RIGHT DIAGONAL ELLIPSIS; \ddots (LaTeX)
18611 \DeclareTextCommand{\textddots}{PU}{\9042\361}%* U+22F1
18612 % U+22F6 ELEMENT OF WITH OVERBAR; \barin (mathabx)
18613 \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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18614 % U+2300 DIAMETER SIGN; \diameter (mathabx,wasysym)
18615 \DeclareTextCommand{\textdiameter}{PU}{\9043\000}%* U+2300
18616 % U+2310 REVERSED NOT SIGN; \backneg (MnSymbol)
18617 \DeclareTextCommand{\textbackneg}{PU}{\9043\020}%* U+2310
18618 % U+2311 SQUARE LOZENGE; \wasyllozenge (wasysym)
18619 \DeclareTextCommand{\textwasyllozenge}{PU}{\9043\021}%* U+2311
18620 % U+2319 TURNED NOT SIGN; \invbackneg (MnSymbol)
18621 \DeclareTextCommand{\textinvbackneg}{PU}{\9043\031}%* U+2319
18622 % U+231A WATCH; \clock (wasysym)
18623 \DeclareTextCommand{\textclock}{PU}{\9043\032}%* U+231A
18624 %* \textclock -> \Clocklogo (marvosym)
18625 %* \textclock -> \ClockLogo (marvosym)
18626 % U+231C TOP LEFT CORNER; \ulcorner (AmS)
18627 \DeclareTextCommand{\textulcorner}{PU}{\9043\034}%* U+231C
18628 % U+231D TOP RIGHT CORNER; \urcorner (AmS)
18629 \DeclareTextCommand{\texturcorner}{PU}{\9043\035}%* U+231D
18630 % U+231E BOTTOM LEFT CORNER; \llcorner (AmS)
18631 \DeclareTextCommand{\textllcorner}{PU}{\9043\036}%* U+231E
18632 % U+231F BOTTOM RIGHT CORNER; \lrcorner (AmS)
18633 \DeclareTextCommand{\textlrcorner}{PU}{\9043\037}%* U+231F
18634 % U+2322 FROWN; \frown (LaTeX)
18635 \DeclareTextCommand{\textfrown}{PU}{\9043\042}%* U+2322
18636 % U+2323 SMILE; \smile (LaTeX)
18637 \DeclareTextCommand{\textsmile}{PU}{\9043\043}%* U+2323
18638 % U+2328 KEYBOARD; \Keyboard (marvosym)
18639 \DeclareTextCommand{\textKeyboard}{PU}{\9043\050}%* U+2328
18640 % U+2329 LEFT-POINTING ANGLE BRACKET; \angleleft; \langle (LaTeX)
18641 \DeclareTextCommand{\textlangle}{PU}{\9043\051}%* U+2329
18642 % U+232A RIGHT-POINTING ANGLE BRACKET; \angleright; \rangle (LaTeX)
18643 \DeclareTextCommand{\textrangle}{PU}{\9043\052}%* U+232A
18644 % U+2339 APL FUNCTIONAL SYMBOL QUAD DIVIDE; \APLinv (wasysym)
18645 \DeclareTextCommand{\textAPLinv}{PU}{\9043\071}%* U+2339
18646 % U+233C APL FUNCTIONAL SYMBOL QUAD CIRCLE; \Tumbler (marvosym)
18647 \DeclareTextCommand{\textTumbler}{PU}{\9043\074}%* U+233C
18648 % U+233D APL FUNCTIONAL SYMBOL CIRCLE STILE; \baro (stmaryrd)
18649 \DeclareTextCommand{\textstmaryrdbaro}{PU}{\9043\075}%* U+233D

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18650 %* \textstmaryrdbaro -> \baro (stmaryrd)
 18651 % U+233F APL FUNCTIONAL SYMBOL SLASH BAR; \notslash (wasysym)
 18652 \DeclareTextCommand{\textnotslash}{PU}{\9043\077}%* U+233F
 18653 % U+2340 APL FUNCTIONAL SYMBOL BACKSLASH BAR;
 18654 % \notbackslash (wasysym)
 18655 \DeclareTextCommand{\textnotbackslash}{PU}{\9043\100}%* U+2340
 18656 % U+2342 APL FUNCTIONAL SYMBOL QUAD BACKSLASH; \boxback-
 slash (mathabx)
 18657 \DeclareTextCommand{\textboxbackslash}{PU}{\9043\102}%* U+2342
 18658 % U+2347 APL FUNCTIONAL SYMBOL QUAD LEFTWARDS ARROW;
 18659 % \APLleftarrowbox (wasysym)
 18660 \DeclareTextCommand{\textAPLleftarrowbox}{PU}{\9043\107}%* U+2347
 18661 % U+2348 APL FUNCTIONAL SYMBOL QUAD RIGHTWARDS ARROW;
 18662 % \APLrightarrowbox (wasysym)
 18663 \DeclareTextCommand{\textAPLrightarrowbox}{PU}{\9043\110}%* U+2348
 18664 % U+2350 APL FUNCTIONAL SYMBOL QUAD UPWARDS ARROW; \APLu-
 parrowbox (wasysym)
 18665 \DeclareTextCommand{\textAPLuparrowbox}{PU}{\9043\120}%* U+2350
 18666 % U+2357 APL FUNCTIONAL SYMBOL QUAD DOWNWARDS ARROW;
 18667 % \APLdownarrowbox (wasysym)
 18668 \DeclareTextCommand{\textAPLdownarrowbox}{PU}{\9043\127}%* U+2357
 18669 % U+235E APL FUNCTIONAL SYMBOL QUOTE QUAD;
 18670 % \APLinput (wasysym)
 18671 \DeclareTextCommand{\textAPLinput}{PU}{\9043\136}%* U+235E
 18672 % U+2370 APL FUNCTIONAL SYMBOL QUAD QUESTION; \Request (china2e)
 18673 \DeclareTextCommand{\textRequest}{PU}{\9043\160}%* U+2370
 18674 % U+2393 DIRECT CURRENT SYMBOL FORM TWO; \Beam (marvosym)
 18675 \DeclareTextCommand{\textBeam}{PU}{\9043\223}%* U+2393
 18676 % U+2394 SOFTWARE-FUNCTION SYMBOL; \hexagon (wasysym)
 18677 \DeclareTextCommand{\texthexagon}{PU}{\9043\224}%* U+2394
 18678 % U+2395 APL FUNCTIONAL SYMBOL QUAD; \APLbox (wasysym)
 18679 \DeclareTextCommand{\textAPLbox}{PU}{\9043\225}%* U+2395
 18680 % U+23ED BLACK RIGHT-POINTING DOUBLE TRIANGLE WITH VERTI-
 CAL BAR;
 18681 % \ForwardToIndex (marvosym)
 18682 \DeclareTextCommand{\textForwardToIndex}{PU}{\9043\355}%* U+23ED
 18683 % U+23EE BLACK LEFT-POINTING DOUBLE TRIANGLE WITH VERTI-
 CAL BAR;
 18684 % \RewindToIndex (marvosym)
 18685 \DeclareTextCommand{\textRewindToIndex}{PU}{\9043\356}%* U+23EE

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

18686 % U+2422 BLANK SYMBOL
 18687 \DeclareTextCommand{\textblank}{PU}{\9044\042}% U+2422
 18688 % U+2423 OPEN BOX; blank
 18689 \DeclareTextCommand{\textvisiblespace}{PU}{\9044\043}% U+2423

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

18690 % U+244A OCR DOUBLE BACKSLASH; \bbslash (stmaryrd)
 18691 \DeclareTextCommand{\textbbslash}{PU}{\9044\112}%* U+244A
 18692 %* \textbbslash -> \varparallelinv (txfonts/pxfonts)

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

18693 % U+2460 CIRCLED DIGIT ONE; onecircle
 18694 \DeclareTextCompositeCommand{\textcircled}{PU}{1}{\9044\140}% U+2460
 18695 % U+2461 CIRCLED DIGIT TWO; twocircle
 18696 \DeclareTextCompositeCommand{\textcircled}{PU}{2}{\9044\141}% U+2461

18697 % U+2462 CIRCLED DIGIT THREE; threecircle
 18698 \DeclareTextCompositeCommand{\textcircled}{PU}{3}{\9044\142}% U+2462
 18699 % U+2463 CIRCLED DIGIT FOUR; fourcircle
 18700 \DeclareTextCompositeCommand{\textcircled}{PU}{4}{\9044\143}% U+2463
 18701 % U+2464 CIRCLED DIGIT FIVE; fivecircle
 18702 \DeclareTextCompositeCommand{\textcircled}{PU}{5}{\9044\144}% U+2464
 18703 % U+2465 CIRCLED DIGIT SIX; sixcircle
 18704 \DeclareTextCompositeCommand{\textcircled}{PU}{6}{\9044\145}% U+2465
 18705 % U+2466 CIRCLED DIGIT SEVEN; sevenscircle
 18706 \DeclareTextCompositeCommand{\textcircled}{PU}{7}{\9044\146}% U+2466
 18707 % U+2467 CIRCLED DIGIT EIGHT; eightcircle
 18708 \DeclareTextCompositeCommand{\textcircled}{PU}{8}{\9044\147}% U+2467
 18709 % U+2468 CIRCLED DIGIT NINE; ninecircle
 18710 \DeclareTextCompositeCommand{\textcircled}{PU}{9}{\9044\150}% U+2468
 18711 % U+2469 CIRCLED NUMBER TEN; tencircle
 18712 \DeclareTextCompositeCommand{\textcircled}{PU}{10}{\9044\151}% U+2469
 18713 % U+246A CIRCLED NUMBER ELEVEN; elevencircle
 18714 \DeclareTextCompositeCommand{\textcircled}{PU}{11}{\9044\152}% U+246A
 18715 % U+246B CIRCLED NUMBER TWELVE; twelvecircle
 18716 \DeclareTextCompositeCommand{\textcircled}{PU}{12}{\9044\153}% U+246B
 18717 % U+246C CIRCLED NUMBER THIRTEEN; thirteencircle
 18718 \DeclareTextCompositeCommand{\textcircled}{PU}{13}{\9044\154}% U+246C
 18719 % U+246D CIRCLED NUMBER FOURTEEN; fourteencircle
 18720 \DeclareTextCompositeCommand{\textcircled}{PU}{14}{\9044\155}% U+246D
 18721 % U+246E CIRCLED NUMBER FIFTEEN; fifteencircle
 18722 \DeclareTextCompositeCommand{\textcircled}{PU}{15}{\9044\156}% U+246E
 18723 % U+246F CIRCLED NUMBER SIXTEEN; sixteencircle
 18724 \DeclareTextCompositeCommand{\textcircled}{PU}{16}{\9044\157}% U+246F
 18725 % U+2470 CIRCLED NUMBER SEVENTEEN; seventeencircle
 18726 \DeclareTextCompositeCommand{\textcircled}{PU}{17}{\9044\160}% U+2470
 18727 % U+2471 CIRCLED NUMBER EIGHTEEN; eighteencircle
 18728 \DeclareTextCompositeCommand{\textcircled}{PU}{18}{\9044\161}% U+2471
 18729 % U+2472 CIRCLED NUMBER NINETEEN; nineteencircle
 18730 \DeclareTextCompositeCommand{\textcircled}{PU}{19}{\9044\162}% U+2472
 18731 % U+2473 CIRCLED NUMBER TWENTY; twentycircle
 18732 \DeclareTextCompositeCommand{\textcircled}{PU}{20}{\9044\163}% U+2473
 18733 % U+24B6 CIRCLED LATIN CAPITAL LETTER A; Acircle
 18734 \DeclareTextCompositeCommand{\textcircled}{PU}{A}{\9044\266}% U+24B6
 18735 % \CircledA (marvosym)
 18736 \DeclareTextCommand{\textCircledA}{PU}{\9044\266}%* U+24B6
 18737 %* \textCircledA -> \CleaningA
 18738 % U+24B7 CIRCLED LATIN CAPITAL LETTER B; Bcircle
 18739 \DeclareTextCompositeCommand{\textcircled}{PU}{B}{\9044\267}% U+24B7
 18740 % U+24B8 CIRCLED LATIN CAPITAL LETTER C; Ccircle
 18741 \DeclareTextCompositeCommand{\textcircled}{PU}{C}{\9044\270}% U+24B8
 18742 % U+24B9 CIRCLED LATIN CAPITAL LETTER D; Dcircle
 18743 \DeclareTextCompositeCommand{\textcircled}{PU}{D}{\9044\271}% U+24B9
 18744 % U+24BA CIRCLED LATIN CAPITAL LETTER E; Ecircle
 18745 \DeclareTextCompositeCommand{\textcircled}{PU}{E}{\9044\272}% U+24BA
 18746 % U+24BB CIRCLED LATIN CAPITAL LETTER F; Fcircle
 18747 \DeclareTextCompositeCommand{\textcircled}{PU}{F}{\9044\273}% U+24BB
 18748 % \CleaningF (marvosym)
 18749 \DeclareTextCommand{\textCleaningF}{PU}{\9044\273}%* U+24BB
 18750 % \CleaningFF (marvosym)
 18751 \DeclareTextCommand{\textCleaningFF}{PU}{\9044\273\83\062}%* U+24BB U+0332
 18752 % U+24BC CIRCLED LATIN CAPITAL LETTER G; Gcircle
 18753 \DeclareTextCompositeCommand{\textcircled}{PU}{G}{\9044\274}% U+24BC

18754 % U+24BD CIRCLED LATIN CAPITAL LETTER H; Hcircle
 18755 \DeclareTextCompositeCommand{\textcircled}{PU}{H}{\9044\275}% U+24BD
 18756 % U+24BE CIRCLED LATIN CAPITAL LETTER I; Icircle
 18757 \DeclareTextCompositeCommand{\textcircled}{PU}{I}{\9044\276}% U+24BE
 18758 % U+24BF CIRCLED LATIN CAPITAL LETTER J; Jcircle
 18759 \DeclareTextCompositeCommand{\textcircled}{PU}{J}{\9044\277}% U+24BF
 18760 % U+24C0 CIRCLED LATIN CAPITAL LETTER K; Kcircle
 18761 \DeclareTextCompositeCommand{\textcircled}{PU}{K}{\9044\300}% U+24C0
 18762 % U+24C1 CIRCLED LATIN CAPITAL LETTER L; Lcircle
 18763 \DeclareTextCompositeCommand{\textcircled}{PU}{L}{\9044\301}% U+24C1
 18764 % U+24C2 CIRCLED LATIN CAPITAL LETTER M; Mcircle
 18765 \DeclareTextCompositeCommand{\textcircled}{PU}{M}{\9044\302}% U+24C2
 18766 % U+24C3 CIRCLED LATIN CAPITAL LETTER N; Ncircle
 18767 \DeclareTextCompositeCommand{\textcircled}{PU}{N}{\9044\303}% U+24C3
 18768 % U+24C4 CIRCLED LATIN CAPITAL LETTER O; Ocircle
 18769 \DeclareTextCompositeCommand{\textcircled}{PU}{O}{\9044\304}% U+24C4
 18770 % U+24C5 CIRCLED LATIN CAPITAL LETTER P; Pcircle
 18771 \DeclareTextCompositeCommand{\textcircled}{PU}{P}{\9044\305}% U+24C5
 18772 % \CleaningP (marvosym)
 18773 \DeclareTextCommand{\textCleaningP}{PU}{\9044\305}%* U+24C5
 18774 % \CleaningPP (marvosym)
 18775 \DeclareTextCommand{\textCleaningPP}{PU}{\9044\305\83\062}%* U+24C5 U+0332
 18776 % U+24C6 CIRCLED LATIN CAPITAL LETTER Q; Qcircle
 18777 \DeclareTextCompositeCommand{\textcircled}{PU}{Q}{\9044\306}% U+24C6
 18778 % U+24C7 CIRCLED LATIN CAPITAL LETTER R; Rcircle
 18779 \DeclareTextCompositeCommand{\textcircled}{PU}{R}{\9044\307}% U+24C7
 18780 % U+24C8 CIRCLED LATIN CAPITAL LETTER S; Scircle
 18781 \DeclareTextCompositeCommand{\textcircled}{PU}{S}{\9044\310}% U+24C8
 18782 % U+24C9 CIRCLED LATIN CAPITAL LETTER T; Tcircle
 18783 \DeclareTextCompositeCommand{\textcircled}{PU}{T}{\9044\311}% U+24C9
 18784 % U+24CA CIRCLED LATIN CAPITAL LETTER U; Ucircle
 18785 \DeclareTextCompositeCommand{\textcircled}{PU}{U}{\9044\312}% U+24CA
 18786 % U+24CB CIRCLED LATIN CAPITAL LETTER V; Vcircle
 18787 \DeclareTextCompositeCommand{\textcircled}{PU}{V}{\9044\313}% U+24CB
 18788 % U+24CC CIRCLED LATIN CAPITAL LETTER W; Wcircle
 18789 \DeclareTextCompositeCommand{\textcircled}{PU}{W}{\9044\314}% U+24CC
 18790 % U+24CD CIRCLED LATIN CAPITAL LETTER X; Xcircle
 18791 \DeclareTextCompositeCommand{\textcircled}{PU}{X}{\9044\315}% U+24CD
 18792 % U+24CE CIRCLED LATIN CAPITAL LETTER Y; Ycircle
 18793 \DeclareTextCompositeCommand{\textcircled}{PU}{Y}{\9044\316}% U+24CE
 18794 % U+24CF CIRCLED LATIN CAPITAL LETTER Z; Zcircle
 18795 \DeclareTextCompositeCommand{\textcircled}{PU}{Z}{\9044\317}% U+24CF
 18796 % U+24D0 CIRCLED LATIN SMALL LETTER A; acircle
 18797 \DeclareTextCompositeCommand{\textcircled}{PU}{a}{\9044\320}% U+24D0
 18798 % U+24D1 CIRCLED LATIN SMALL LETTER B; bcircle
 18799 \DeclareTextCompositeCommand{\textcircled}{PU}{b}{\9044\321}% U+24D1
 18800 % U+24D2 CIRCLED LATIN SMALL LETTER C; ccircle
 18801 \DeclareTextCompositeCommand{\textcircled}{PU}{c}{\9044\322}% U+24D2
 18802 % U+24D3 CIRCLED LATIN SMALL LETTER D; dcircle
 18803 \DeclareTextCompositeCommand{\textcircled}{PU}{d}{\9044\323}% U+24D3
 18804 % U+24D4 CIRCLED LATIN SMALL LETTER E; ecircle
 18805 \DeclareTextCompositeCommand{\textcircled}{PU}{e}{\9044\324}% U+24D4
 18806 % U+24D5 CIRCLED LATIN SMALL LETTER F; fcircle
 18807 \DeclareTextCompositeCommand{\textcircled}{PU}{f}{\9044\325}% U+24D5
 18808 % U+24D6 CIRCLED LATIN SMALL LETTER G; gcircle
 18809 \DeclareTextCompositeCommand{\textcircled}{PU}{g}{\9044\326}% U+24D6
 18810 % U+24D7 CIRCLED LATIN SMALL LETTER H; hcircle

18811 \DeclareTextCompositeCommand{\textcircled}{PU}{h}{\9044\327}% U+24D7
18812 % U+24D8 CIRCLED LATIN SMALL LETTER I; icircle
18813 \DeclareTextCompositeCommand{\textcircled}{PU}{i}{\9044\330}% U+24D8
18814 % U+24D9 CIRCLED LATIN SMALL LETTER J; jcicle
18815 \DeclareTextCompositeCommand{\textcircled}{PU}{j}{\9044\331}% U+24D9
18816 % U+24DA CIRCLED LATIN SMALL LETTER K; kcicle
18817 \DeclareTextCompositeCommand{\textcircled}{PU}{k}{\9044\332}% U+24DA
18818 % U+24DB CIRCLED LATIN SMALL LETTER L; lcicle
18819 \DeclareTextCompositeCommand{\textcircled}{PU}{l}{\9044\333}% U+24DB
18820 % U+24DC CIRCLED LATIN SMALL LETTER M; mcicle
18821 \DeclareTextCompositeCommand{\textcircled}{PU}{m}{\9044\334}% U+24DC
18822 % U+24DD CIRCLED LATIN SMALL LETTER N; ncicle
18823 \DeclareTextCompositeCommand{\textcircled}{PU}{n}{\9044\335}% U+24DD
18824 % U+24DE CIRCLED LATIN SMALL LETTER O; ocicle
18825 \DeclareTextCompositeCommand{\textcircled}{PU}{o}{\9044\336}% U+24DE
18826 % U+24DF CIRCLED LATIN SMALL LETTER P; pcicle
18827 \DeclareTextCompositeCommand{\textcircled}{PU}{p}{\9044\337}% U+24DF
18828 % U+24E0 CIRCLED LATIN SMALL LETTER Q; qcicle
18829 \DeclareTextCompositeCommand{\textcircled}{PU}{q}{\9044\340}% U+24E0
18830 % U+24E1 CIRCLED LATIN SMALL LETTER R; rcicle
18831 \DeclareTextCompositeCommand{\textcircled}{PU}{r}{\9044\341}% U+24E1
18832 % U+24E2 CIRCLED LATIN SMALL LETTER S; scicle
18833 \DeclareTextCompositeCommand{\textcircled}{PU}{s}{\9044\342}% U+24E2
18834 % U+24E3 CIRCLED LATIN SMALL LETTER T; tcicle
18835 \DeclareTextCompositeCommand{\textcircled}{PU}{t}{\9044\343}% U+24E3
18836 % U+24E4 CIRCLED LATIN SMALL LETTER U; ucicle
18837 \DeclareTextCompositeCommand{\textcircled}{PU}{u}{\9044\344}% U+24E4
18838 % U+24E5 CIRCLED LATIN SMALL LETTER V; vcicle
18839 \DeclareTextCompositeCommand{\textcircled}{PU}{v}{\9044\345}% U+24E5
18840 % U+24E6 CIRCLED LATIN SMALL LETTER W; wcicle
18841 \DeclareTextCompositeCommand{\textcircled}{PU}{w}{\9044\346}% U+24E6
18842 % U+24E7 CIRCLED LATIN SMALL LETTER X; xcicle
18843 \DeclareTextCompositeCommand{\textcircled}{PU}{x}{\9044\347}% U+24E7
18844 % U+24E8 CIRCLED LATIN SMALL LETTER Y; ycicle
18845 \DeclareTextCompositeCommand{\textcircled}{PU}{y}{\9044\350}% U+24E8
18846 % U+24E9 CIRCLED LATIN SMALL LETTER Z; zcicle
18847 \DeclareTextCompositeCommand{\textcircled}{PU}{z}{\9044\351}% U+24E9
18848 % U+24EA CIRCLED DIGIT ZERO
18849 \DeclareTextCompositeCommand{\textcircled}{PU}{0}{\9044\352}% U+24EA

51.2.27 Box Drawing: U+2500 to 257F

18850 % U+2504 BOX DRAWINGS LIGHT TRIPLE DASH HORIZONTAL; \Cutting-
Line (marvosym)
18851 \DeclareTextCommand{\textCuttingLine}{PU}{\9045\004}%* U+2504
18852 %* \textCuttingLine -> \Kutline (marvosym)
18853 %* \textCuttingLine -> \CutLine (marvosym)
18854 %* \textCuttingLine -> \Cutline (marvosym)

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

18855 % U+25B2 BLACK UP-POINTING TRIANGLE; \UParrow (wasysym)
18856 \DeclareTextCommand{\textUParrow}{PU}{\9045\262}%* U+25B2
18857 %* \textUParrow -> \MoveUp (marvosym)
18858 % U+25B3 WHITE UP-POINTING TRIANGLE; whiteuppointingtriangle;
18859 % \bigtriangleup (LaTeX)
18860 \DeclareTextCommand{\textbigtriangleup}{PU}{\9045\263}%* U+25B3
18861 %* \textbigtriangleup -> \APLup (wasysym)
18862 %* \textbigtriangleup -> \Bleech (marvosym)


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18863 % U+25B6 BLACK RIGHT-POINTING TRIANGLE; \Forward (marvosym)
18864 \DeclareTextCommand{\textForward}{PU}{\9045\266}%* U+25B6
18865 % U+25B7 WHITE RIGHT-POINTING TRIANGLE (= z notation range restric-
tion);
18866 % whiterightpointingtriangle; \triangleright (LaTeX)
18867 \DeclareTextCommand{\texttriangleright}{PU}{\9045\267}%* U+25B7
18868 % U+25BA BLACK RIGHT-POINTING POINTER; \RHD (wasysym)
18869 \DeclareTextCommand{\textRHD}{PU}{\9045\272}%* U+25BA
18870 % U+25BC BLACK DOWN-POINTING TRIANGLE; \DOWNarrow (wasysym)
18871 \DeclareTextCommand{\textDOWNarrow}{PU}{\9045\274}%* U+25BC
18872 %* \textDOWNarrow -> \MoveDown (marvosym)
18873 % U+25BD WHITE DOWN-POINTING TRIANGLE; whitedownpointingtrian-
gle;
18874 % \bigtriangledown (LaTeX)
18875 \DeclareTextCommand{\textbigtriangledown}{PU}{\9045\275}%* U+25BD
18876 %* \textbigtriangledown -> \APLdown (wasysym)
18877 % U+25C0 BLACK LEFT-POINTING TRIANGLE; \Rewind (marvosym)
18878 \DeclareTextCommand{\textRewind}{PU}{\9045\300}%* U+25C0
18879 % U+25C1 WHITE RIGHT-POINTING TRIANGLE (= z notation domain re-
striction);
18880 % whiteleftpointingtriangle; \triangleleft (LaTeX)
18881 \DeclareTextCommand{\texttriangleleft}{PU}{\9045\301}%* U+25C1
18882 % U+25C4 BLACK LEFT-POINTING POINTER; \LHD (wasysym)
18883 \DeclareTextCommand{\textLHD}{PU}{\9045\304}%* U+25C4
18884 % U+25C7 WHITE DIAMOND; whitediamond; \diamond (LaTeX)
18885 \DeclareTextCommand{\textdiamond}{PU}{\9045\307}%* U+25C7
18886 %* \textdiamond -> \Diamond (wasysym)
18887 % U+25CA LOZENGE; lozenge; \lozenge (AmS)
18888 \DeclareTextCommand{\textlozenge}{PU}{\9045\312}%* U+25CA
18889 % U+25D6 LEFT HALF BLACK CIRCLE; \LEFTCIRCLE (wasysym)
18890 \DeclareTextCommand{\textLEFTCIRCLE}{PU}{\9045\326}%* U+25D6
18891 % U+25D7 RIGHT HALF BLACK CIRCLE; \RIGHTCIRCLE (wasysym)
18892 \DeclareTextCommand{\textRIGHTCIRCLE}{PU}{\9045\327}%* U+25D7
18893 % U+25E6 WHITE BULLET; *openbullet, whitebullet
18894 \DeclareTextCommand{\textopenbullet}{PU}{\9045\346}%* U+25E6
18895 % U+25EB WHITE SQUARE WITH VERTICAL BISECTING LINE;
18896 % \boxbar (stmaryrd)
18897 \DeclareTextCommand{\textboxbar}{PU}{\9045\353}%* U+25EB
18898 % U+25EF LARGE CIRCLE; largecircle
18899 \DeclareTextCommand{\textbigcircle}{PU}{\9045\357}%* U+25EF
18900 %* \textbigcircle -> \varbigcirc (stmaryrd)
18901 %

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

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18902 % U+2601 CLOUD; \Cloud (ifsym)
18903 \DeclareTextCommand{\textCloud}{PU}{\9046\001}%* U+2601
18904 % U+2605 BLACK STAR; \FiveStar (bbding)
18905 \DeclareTextCommand{\textFiveStar}{PU}{\9046\005}%* U+2605
18906 % U+2606 WHITE STAR; \FiveStarOpen (bbding)
18907 \DeclareTextCommand{\textFiveStarOpen}{PU}{\9046\006}%* U+2606
18908 % U+260E BLACK TELEPHONE; telephoneblack; \Phone (bbding)
18909 \DeclareTextCommand{\textPhone}{PU}{\9046\016}%* U+260E
18910 %* \textPhone -> \Telefon (marvosym)
18911 % U+2610 BALLOT BOX; \boxempty (stmaryrd)
18912 \DeclareTextCommand{\textboxempty}{PU}{\9046\020}%* U+2610
18913 %* \textboxempty -> \Box (wasysym)
18914 % U+2611 BALLOT BOX WITH CHECK; \Checkedbox (marvosym)

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18915 \DeclareTextCommand{\textCheckedbox}{PU}{\9046\021}%* U+2611
18916 %* \textCheckedbox -> \CheckedBox (marvosym)
18917 % U+2612 BALLOT BOX WITH X; \Crossedbox (marvosym)
18918 \DeclareTextCommand{\textCrossedbox}{PU}{\9046\022}%* U+2612
18919 %* \textCrossedbox -> \XBox (wasysym)
18920 %* \textCrossedbox -> \CrossedBox (marvosym)
18921 % U+2615 HOT BEVERAGE; \Coffeecup (marvosym)
18922 \DeclareTextCommand{\textCoffeecup}{PU}{\9046\025}%* U+2615
18923 % U+261A BLACK LEFT POINTING INDEX; \HandCuffLeft (bding)
18924 \DeclareTextCommand{\textHandCuffLeft}{PU}{\9046\032}%* U+261A
18925 % U+261B BLACK RIGHT POINTING INDEX; \HandCuffRight (bding)
18926 \DeclareTextCommand{\textHandCuffRight}{PU}{\9046\033}%* U+261B
18927 % U+261C WHITE LEFT POINTING INDEX; \HandLeft (bding)
18928 \DeclareTextCommand{\textHandLeft}{PU}{\9046\034}%* U+261C
18929 %* \textHandLeft -> \rightpointleft (fourier)
18930 % U+261E WHITE RIGHT POINTING INDEX; \HandRight (bding)
18931 \DeclareTextCommand{\textHandRight}{PU}{\9046\036}%* U+261E
18932 %* \textHandRight -> \leftpointright (fourier)
18933 %* \textHandRight -> \PointingHand (marvosym)
18934 %* \textHandRight -> \Pointinghand (marvosym)
18935 % U+2622 RADIOACTIVE SIGN; \Radioactivity (marvosym)
18936 \DeclareTextCommand{\textRadioactivity}{PU}{\9046\042}%* U+2622
18937 %* \textRadioactivity -> \Radiation (ifsym)
18938 % U+2623 BIOHAZARD SIGN; \Biohazard (marvosym)
18939 \DeclareTextCommand{\textBiohazard}{PU}{\9046\043}%* U+2623
18940 % U+2625 ANKH; \Ankh (marvosym)
18941 \DeclareTextCommand{\textAnkh}{PU}{\9046\045}%* U+2625
18942 % U+262F YIN YANG; \YinYang (marvosym)
18943 \DeclareTextCommand{\textYinYang}{PU}{\9046\057}%* U+262F
18944 %* \textYinYang -> \Yinyang (marvosym)
18945 %* \textYinYang -> \YingYang (marvosym)
18946 %* \textYinYang -> \Yingyang (marvosym)
18947 % U+2639 WHITE FROWNING FACE; \frownie (wasysym)
18948 \DeclareTextCommand{\textfrownie}{PU}{\9046\071}%* U+2639
18949 %* \textfrownie -> \Frowny (marvosym)
18950 % U+263A WHITE SMILING FACE; \smiley (wasysym)
18951 \DeclareTextCommand{\textsmiley}{PU}{\9046\072}%* U+263A
18952 %* \textsmiley -> \Smiley (marvosym)
18953 % U+263B BLACK SMILING FACE; \blacksmiley (wasysym)
18954 \DeclareTextCommand{\textblacksmiley}{PU}{\9046\073}%* U+263B
18955 % U+263C WHITE SUN WITH RAYS; \sun (wasysym)
18956 \DeclareTextCommand{\textsun}{PU}{\9046\074}%* U+263C
18957 %* \textsun -> \Sun (marvosym)
18958 % U+263D FIRST QUARTER MOON; \leftmoon (wasysym, mathabx)
18959 \DeclareTextCommand{\textleftmoon}{PU}{\9046\075}%* U+263D
18960 % U+263E LAST QUARTER MOON; \rightmoon (wasysym, mathabx)
18961 \DeclareTextCommand{\textrightmoon}{PU}{\9046\076}%* U+263E
18962 % U+263F MERCURY; \mercury (wasysym)
18963 \DeclareTextCommand{\textmercury}{PU}{\9046\077}%* U+263F
18964 %* \textmercury -> \Mercury (marvosym)
18965 % U+2640 FEMALE SIGN; female; \female (wasysym)
18966 \DeclareTextCommand{\textPUfemale}{PU}{\9046\100}% U+2640
18967 %* \textPUfemale -> \textfemale (tipx)
18968 %* \textPUfemale -> \female (wasysym)
18969 %* \textPUfemale -> \venus (wasysym)
18970 %* \textPUfemale -> \Venus (marvosym)
18971 %* \textPUfemale -> \Female (marvosym)

18972 % U+2641 EARTH; \earth (wasysym)
18973 \DeclareTextCommand{\textearth}{PU}{\9046\101}%* U+2641
18974 %* \textearth -> \Earth (marvosym)
18975 % U+2642 MALE SIGN; male, mars; \male (wasysym)
18976 \DeclareTextCommand{\textmale}{PU}{\9046\102}%* U+2642
18977 %* \textmale -> \mars (wasysym)
18978 %* \textmale -> \Mars (marvosym)
18979 %* \textmale -> \Male (marvosym)
18980 % U+2643 JUPITER; \jupiter (wasysym)
18981 \DeclareTextCommand{\textjupiter}{PU}{\9046\103}%* U+2643
18982 %* \textjupiter -> \Jupiter (marvosym)
18983 % U+2644 SATURN; \saturn (wasysym)
18984 \DeclareTextCommand{\textsaturn}{PU}{\9046\104}%* U+2644
18985 %* \textsaturn -> \Saturn (marvosym)
18986 % U+2645 URANUS; \uranus (wasysym)
18987 \DeclareTextCommand{\texturanus}{PU}{\9046\105}%* U+2645
18988 %* \texturanus -> \Uranus (marvosym)
18989 % U+2646 NEPTUNE; \neptune (wasysym)
18990 \DeclareTextCommand{\textneptune}{PU}{\9046\106}%* U+2646
18991 %* \textneptune -> \Neptune (marvosym)
18992 % U+2647 PLUTO; \pluto (wasysym)
18993 \DeclareTextCommand{\textpluto}{PU}{\9046\107}%* U+2647
18994 %* \textpluto -> \Pluto (marvosym)
18995 % U+2648 ARIES; \aries (wasysym)
18996 \DeclareTextCommand{\textaries}{PU}{\9046\110}%* U+2648
18997 %* \textaries -> \Aries (marvosym)
18998 % U+2649 TAURUS; \taurus (wasysym)
18999 \DeclareTextCommand{\texttaurus}{PU}{\9046\111}%* U+2649
19000 %* \texttaurus -> \Taurus (marvosym)
19001 % U+264A GEMINI; \gemini (wasysym)
19002 \DeclareTextCommand{\textgemini}{PU}{\9046\112}%* U+264A
19003 %* \textgemini -> \Gemini (marvosym)
19004 % U+264B CANCER; \cancer (wasysym)
19005 \DeclareTextCommand{\textcancer}{PU}{\9046\113}%* U+264B
19006 %* \textcancer -> \Cancer (marvosym)
19007 % U+264C LEO; \leo (wasysym)
19008 \DeclareTextCommand{\textleo}{PU}{\9046\114}%* U+264C
19009 %* \textleo -> \Leo (marvosym)
19010 % U+264D VIRGO; \virgo (wasysym)
19011 \DeclareTextCommand{\textvirgo}{PU}{\9046\115}%* U+264D
19012 %* \textvirgo -> \Virgo (marvosym)
19013 % U+264E LIBRA; \libra (wasysym)
19014 \DeclareTextCommand{\textlibra}{PU}{\9046\116}%* U+264E
19015 %* \textlibra -> \Libra (marvosym)
19016 % U+264F SCORPIO; \scorpio (wasysym)
19017 \DeclareTextCommand{\textscorpio}{PU}{\9046\117}%* U+264F
19018 %* \textscorpio -> \Scorpio (marvosym)
19019 % U+2650 SAGITTARIUS; \sagittarius (wasysym)
19020 \DeclareTextCommand{\textsagittarius}{PU}{\9046\120}%* U+2650
19021 %* \textsagittarius -> \Sagittarius (marvosym)
19022 % U+2651 CAPRICORN; \capricorn (wasysym)
19023 \DeclareTextCommand{\textcapricorn}{PU}{\9046\121}%* U+2651
19024 %* \textcapricorn -> \Capricorn (marvosym)
19025 % U+2652 AQUARIUS; \aquarius (wasysym)
19026 \DeclareTextCommand{\textaquarius}{PU}{\9046\122}%* U+2652
19027 %* \textaquarius -> \Aquarius (marvosym)
19028 % U+2653 PISCES; \pisces (wasysym)

19029 \DeclareTextCommand{\textpisces}{PU}{\9046\123}%* U+2653
19030 %* \textpisces -> \Pisces (marvosym)
19031 % U+2660 BLACK SPADE SUIT; spade, spadesuitblack; \spadesuit (LaTeX)
19032 \DeclareTextCommand{\textspadesuitblack}{PU}{\9046\140}% U+2660
19033 %* \textspadesuitblack -> \spadesuit (MnSymbol)
19034 % U+2661 WHITE HEART SUIT; heartsuitwhite; \heartsuit (LaTeX)
19035 \DeclareTextCommand{\textheartsuitwhite}{PU}{\9046\141}% U+2661
19036 %* \textheartsuitwhite -> \Heart (marvosym)
19037 %* \textheartsuitwhite -> \heartsuit (MnSymbol)
19038 % U+2662 WHITE DIAMOND SUIT; diamondsuitwhite; \diamondsuit (LaTeX)
19039 \DeclareTextCommand{\textdiamondsuitwhite}{PU}{\9046\142}% U+2662
19040 %* \textdiamondsuitwhite -> \diamondsuit (MnSymbol)
19041 % U+2663 BLACK CLUB SUIT; club, clubsuitblack; \clubsuit (LaTeX)
19042 \DeclareTextCommand{\textclubsuitblack}{PU}{\9046\143}% U+2663
19043 %* \textclubsuitblack -> \clubsuit (MnSymbol)
19044 % U+2664 WHITE SPADE SUIT; spadesuitwhite
19045 \DeclareTextCommand{\textspadesuitwhite}{PU}{\9046\144}% U+2664
19046 % U+2665 BLACK HEART SUIT; heartsuitblack, heart
19047 \DeclareTextCommand{\textheartsuitblack}{PU}{\9046\145}% U+2665
19048 % U+2666 BLACK DIAMOND SUIT; diamond
19049 \DeclareTextCommand{\textdiamondsuitblack}{PU}{\9046\146}% U+2666
19050 % U+2667 WHITE CLUB SUIT; clubsuitwhite
19051 \DeclareTextCommand{\textclubsuitwhite}{PU}{\9046\147}% U+2667
19052 % U+2669 QUARTER NOTE; quarternote; \quarternote (wasysym, arev)
19053 \DeclareTextCommand{\textquarternote}{PU}{\9046\151}%* U+2669
19054 % U+266A EIGHTH NOTE; musicalnote; \textmusicalnote (textcomp)
19055 \DeclareTextCommand{\textmusicalnote}{PU}{\9046\152}% U+266A
19056 %* \textmusicalnote -> \eighthnote (wasysym, arev)
19057 % U+266B BEAMED EIGHTH NOTES; eighthnotebeamed; \twonotes (wasysym)
19058 \DeclareTextCommand{\texttwonotes}{PU}{\9046\153}%* U+266B
19059 % U+266C BEAMED SIXTEENTH NOTES; beamedsixteenthnotes; \sixteenth-
note (arev)
19060 \DeclareTextCommand{\textsixteenthnote}{PU}{\9046\154}%* U+266C
19061 % U+266D MUSIC FLAT SIGN; musicflatsign; \flat (LaTeX)
19062 \DeclareTextCommand{\textflat}{PU}{\9046\155}%* U+266D
19063 % U+266E MUSIC NATURAL SIGN; \natural (LaTeX)
19064 \DeclareTextCommand{\textnatural}{PU}{\9046\156}%* U+266E
19065 % U+266F MUSIC SHARP SIGN; musicsharpsign; \sharp (LaTeX)
19066 \DeclareTextCommand{\textsharp}{PU}{\9046\157}%* U+266F
19067 % U+2672 UNIVERSAL RECYCLING SYMBOL; \recycle (recycle)
19068 \DeclareTextCommand{\textrecycle}{PU}{\9046\162}%* U+2672
19069 %* \textrecycle -> \Recycling (marvosym)
19070 % U+267F WHEELCHAIR SYMBOL; \Wheelchair (marvosym)
19071 \DeclareTextCommand{\textWheelchair}{PU}{\9046\177}%* U+267F
19072 % U+2691 BLACK FLAG; \Flag (ifsym)
19073 \DeclareTextCommand{\textFlag}{PU}{\9046\221}%* U+2691
19074 %* \textFlag -> \VarFlag (ifsym)
19075 % U+2692 HAMMER AND PICK; \MineSign (marvosym)
19076 \DeclareTextCommand{\textMineSign}{PU}{\9046\222}%* U+2692
19077 % U+2694 CROSSED SWORDS; \dsmilitary (dictsym)
19078 \DeclareTextCommand{\textdsmilitary}{PU}{\9046\224}%* U+2694
19079 %* \textdsmilitary -> \textxswup (fourier)
19080 % U+2695 STAFF OF AESCULAPIUS; \dsmedical (dictsym)
19081 \DeclareTextCommand{\textdsmedical}{PU}{\9046\225}%* U+2695
19082 % U+2696 SCALES; \dsjuridical (dictsym)
19083 \DeclareTextCommand{\textdsjuridical}{PU}{\9046\226}%* U+2696
19084 % U+2697 ALEMBIC; \dschemical (dictsym)

19085 \DeclareTextCommand{\textdschemical}{PU}{\9046\227}%* U+2697
 19086 % U+2698 FLOWER; \dsbiological (dictsym)
 19087 \DeclareTextCommand{\textdsbiological}{PU}{\9046\230}%* U+2698
 19088 % U+269A STAFF OF HERMES; \dscommercial (dictsym)
 19089 \DeclareTextCommand{\textdscommercial}{PU}{\9046\232}%* U+269A
 19090 % U+269D OUTLINED WHITE STAR; \manstar (manfnt)
 19091 \DeclareTextCommand{\textmanstar}{PU}{\9046\235}%* U+269D
 19092 % U+26A0 WARNING SIGN; \danger (fourier)
 19093 \DeclareTextCommand{\textdanger}{PU}{\9046\240}%* U+26A0
 19094 % U+26A2 DOUBLED FEMALE SIGN; \FemaleFemale (marvosym)
 19095 \DeclareTextCommand{\textFemaleFemale}{PU}{\9046\242}%* U+26A2
 19096 % U+26A3 DOUBLED MALE SIGN; \MaleMale (marvosym)
 19097 \DeclareTextCommand{\textMaleMale}{PU}{\9046\243}%* U+26A3
 19098 % U+26A4 INTERLOCKED FEMALE AND MALE SIGN; \FemaleMale (marvosym)
 19099 \DeclareTextCommand{\textFemaleMale}{PU}{\9046\244}%* U+26A4
 19100 % U+26A5 MALE AND FEMALE SIGN; \Hermaphrodite (marvosym)
 19101 \DeclareTextCommand{\textHermaphrodite}{PU}{\9046\245}%* U+26A5
 19102 % U+26AA MEDIUM WHITE CIRCLE; \Neural (marvosym)
 19103 \DeclareTextCommand{\textNeutral}{PU}{\9046\252}%* U+26AA
 19104 % U+26AD MARRIAGE SYMBOL
 19105 \DeclareTextCommand{\textmarried}{PU}{\9046\255}% U+26AD
 19106 % U+26AE DIVORCE SYMBOL
 19107 \DeclareTextCommand{\textdivorced}{PU}{\9046\256}% U+26AE
 19108 % U+26B2 NEUTER; \textuncrfemale (tipx)
 19109 \DeclareTextCommand{\textPUuncrfemale}{PU}{\9046\262}% U+26B2
 19110 %* \textPUuncrfemale -> \textuncrfemale (tipx)
 19111 % U+26B9 SEXTILE; \hexstar (wasysym)
 19112 \DeclareTextCommand{\texthexstar}{PU}{\9046\271}%* U+26B9
 19113 % U+26BD SOCCER BALL; \Football (marvosym)
 19114 \DeclareTextCommand{\textSoccerBall}{PU}{\9046\275}% U+26BD
 19115 %* \textSoccerBall -> \Football (marvosym)
 19116 % U+26C5 SUN BEHIND CLOUD; \SunCloud (ifsym)
 19117 \DeclareTextCommand{\textSunCloud}{PU}{\9046\305}%* U+26C5
 19118 % U+26C6 RAIN; \Rain (ifsym)
 19119 \DeclareTextCommand{\textRain}{PU}{\9046\306}%* U+26C6
 19120 % U+26D4 NO ENTRY; \noway (fourier)
 19121 \DeclareTextCommand{\textnoway}{PU}{\9046\324}%* U+26D4
 19122 % U+26F0 MOUNTAIN; \Mountain (ifsym)
 19123 \DeclareTextCommand{\textMountain}{PU}{\9046\360}%* U+26F0
 19124 % U+26FA TENT; \Tent (ifsym)
 19125 \DeclareTextCommand{\textTent}{PU}{\9046\372}%* U+26FA

51.2.30 Dingbats: U+2700 to U+27BF

19126 % U+2701 UPPER BLADE SCISSORS; \ScissorRightBrokenBottom (bbding)
 19127 \DeclareTextCommand{\textScissorRightBrokenBottom}{PU}{\9047\001}% U+2701
 19128 %* \textScissorRightBrokenBottom -> \CutLeft (marvosym)
 19129 %* \textScissorRightBrokenBottom -> \Cutright (marvosym)
 19130 % U+2702 BLACK SCISSORS; \ScissorRight (bbding)
 19131 \DeclareTextCommand{\textScissorRight}{PU}{\9047\002}%* U+2702
 19132 %* \textScissorRight -> \RightScissors (marvosym)
 19133 %* \textScissorRight -> \Leftscissors (marvosym)
 19134 % U+2703 LOWER BLADE SCISSORS; \ScissorRightBrokenTop (bbding)
 19135 \DeclareTextCommand{\textScissorRightBrokenTop}{PU}{\9047\003}%* U+2703
 19136 % U+2704 WHITE SCISSORS; \ScissorHollowRight (bbding)
 19137 \DeclareTextCommand{\textScissorHollowRight}{PU}{\9047\004}%* U+2704
 19138 % U+2706 TELEPHONE LOCATION SIGN; \PhoneHandset (bbding)

19139 \DeclareTextCommand{\textPhoneHandset}{PU}{\9047\006}%* U+2706
19140 % U+2707 TAPE DRIVE; \Tape (bding)
19141 \DeclareTextCommand{\textTape}{PU}{\9047\007}%* U+2707
19142 % U+2708 AIRPLANE; \Plane (bding)
19143 \DeclareTextCommand{\textPlane}{PU}{\9047\010}%* U+2708
19144 % U+2709 ENVELOPE; \Envelope (bding),
19145 \DeclareTextCommand{\textEnvelope}{PU}{\9047\011}%* U+2709
19146 %* \textEnvelope -> \Letter (marvosym)
19147 % U+270C VICTORY HAND; \Peace (bding)
19148 \DeclareTextCommand{\textPeace}{PU}{\9047\014}%* U+270C
19149 % U+270D WRITING HAND; \WritingHand (marvosym)
19150 \DeclareTextCommand{\textWritingHand}{PU}{\9047\015}%* U+270D
19151 %* \textWritingHand -> \Writinghand (marvosym)
19152 % U+270E LOWER RIGHT PENCIL; \PencilRightDown (bding)
19153 \DeclareTextCommand{\textPencilRightDown}{PU}{\9047\016}%* U+270E
19154 % U+270F PENCIL; \PencilRight (bding)
19155 \DeclareTextCommand{\textPencilRight}{PU}{\9047\017}%* U+270F
19156 % U+2710 UPPER RIGHT PENCIL; \PencilRightUp (bding)
19157 \DeclareTextCommand{\textPencilRightUp}{PU}{\9047\020}%* U+2710
19158 % U+2711 WHITE NIB; \NibRight (bding)
19159 \DeclareTextCommand{\textNibRight}{PU}{\9047\021}%* U+2711
19160 % U+2712 BLACK NIB; \NibSolidRight (bding)
19161 \DeclareTextCommand{\textNibSolidRight}{PU}{\9047\022}%* U+2712
19162 % U+2713 CHECK MARK; checkmark; \Checkmark (bding)
19163 \DeclareTextCommand{\textCheckmark}{PU}{\9047\023}%* U+2713
19164 %* \textCheckmark -> \checkmark (MnSymbol)
19165 % U+2714 HEAVY CHECK MARK; \CheckmarkBold (bding)
19166 \DeclareTextCommand{\textCheckmarkBold}{PU}{\9047\024}%* U+2714
19167 % U+2715 MULTIPLICATION X; \XSolid (bding)
19168 \DeclareTextCommand{\textXSolid}{PU}{\9047\025}%* U+2715
19169 % U+2716 HEAVY MULTIPLICATION X; \XSolidBold (bding)
19170 \DeclareTextCommand{\textXSolidBold}{PU}{\9047\026}%* U+2716
19171 % U+2717 BALLOT X; \XSolidBrush (bding)
19172 \DeclareTextCommand{\textXSolidBrush}{PU}{\9047\027}%* U+2717
19173 % U+2719 OUTLINED GREEK CROSS; \PlusOutline (bding)
19174 \DeclareTextCommand{\textPlusOutline}{PU}{\9047\031}%* U+2719
19175 % U+271A HEAVY GREEK CROSS; \Plus (bding)
19176 \DeclareTextCommand{\textPlus}{PU}{\9047\032}%* U+271A
19177 % U+271B OPEN CENTRE CROSS; \PlusThinCenterOpen (bding)
19178 \DeclareTextCommand{\textPlusThinCenterOpen}{PU}{\9047\033}%* U+271B
19179 % U+271C HEAVY OPEN CENTRE CROSS; \PlusCenterOpen (bding)
19180 \DeclareTextCommand{\textPlusCenterOpen}{PU}{\9047\034}%* U+271C
19181 % U+271D LATIN CROSS; \Cross (bding)
19182 \DeclareTextCommand{\textCross}{PU}{\9047\035}%* U+271D
19183 % U+271E SHADOWED WHITE LATIN CROSS; \CrossOpenShadow (bding)
19184 \DeclareTextCommand{\textCrossOpenShadow}{PU}{\9047\036}%* U+271E
19185 % U+271F OUTLINED LATIN CROSS; \CrossOutline (bding)
19186 \DeclareTextCommand{\textCrossOutline}{PU}{\9047\037}%* U+271F
19187 % U+2720 MALTESE CROSS; \CrossMaltese (bding)
19188 \DeclareTextCommand{\textCrossMaltese}{PU}{\9047\040}%* U+2720
19189 % U+2721 STAR OF DAVID; \DavidStar (bding)
19190 \DeclareTextCommand{\textDavidStar}{PU}{\9047\041}%* U+2721
19191 %* \textDavidStar -> \davidstar (wasysym)
19192 % U+2722 FOUR TEARDROP-SPOKED ASTERISK; \FourAsterisk (bding)
19193 \DeclareTextCommand{\textFourAsterisk}{PU}{\9047\042}%* U+2722
19194 % U+2723 FOUR BALLOON-SPOKED ASTERISK; \JackStar (bding)
19195 \DeclareTextCommand{\textJackStar}{PU}{\9047\043}%* U+2723

19196 % U+2724 HEAVY FOUR BALLOON-SPOKED ASTERISK; \JackStarBold (b
 ding)
 19197 \DeclareTextCommand{\textJackStarBold}{PU}{\9047\044}%* U+2724
 19198 % U+2725 FOUR CLUB-SPOKED ASTERISK; \CrossClowerTips (bding)
 19199 \DeclareTextCommand{\textClowerTips}{PU}{\9047\045}%* U+2725
 19200 % U+2726 BLACK FOUR POINTED STAR; \FourStar (bding)
 19201 \DeclareTextCommand{\textFourStar}{PU}{\9047\046}%* U+2726
 19202 % U+2727 WHITE FOUR POINTED STAR; \FourStarOpen (bding)
 19203 \DeclareTextCommand{\textFourStarOpen}{PU}{\9047\047}%* U+2727
 19204 % U+272A CIRCLED WHITE STAR; \FiveStarOpenCircled (bding)
 19205 \DeclareTextCommand{\textFiveStarOpenCircled}{PU}{\9047\052}%* U+272A
 19206 % U+272B OPEN CENTRE BLACK STAR; \FiveStarCenterOpen (bding)
 19207 \DeclareTextCommand{\textFiveStarCenterOpen}{PU}{\9047\053}%* U+272B
 19208 % U+272C BLACK CENTRE WHITE STAR; \FiveStarOpenDotted (bding)
 19209 \DeclareTextCommand{\textFiveStarOpenDotted}{PU}{\9047\054}%* U+272C
 19210 % U+272D OUTLINED BLACK STAR; \FiveStarOutline (bding)
 19211 \DeclareTextCommand{\textFiveStarOutline}{PU}{\9047\055}%* U+272D
 19212 % U+272E HEAVY OUTLINED BLACK STAR; \FiveStarOutlineHeavy (bding)
 19213 \DeclareTextCommand{\textFiveStarOutlineHeavy}{PU}{\9047\056}%* U+272E
 19214 % U+272F PINWHEEL STAR; \FiveStarConvex (bding)
 19215 \DeclareTextCommand{\textFiveStarConvex}{PU}{\9047\057}%* U+272F
 19216 % U+2730 SHADOWED WHITE STAR; \FiveStarShadow (bding)
 19217 \DeclareTextCommand{\textFiveStarShadow}{PU}{\9047\060}%* U+2730
 19218 % U+2731 HEAVY ASTERISK; \AsteriskBold (bding)
 19219 \DeclareTextCommand{\textAsteriskBold}{PU}{\9047\061}%* U+2731
 19220 % U+2732 OPEN CENTRE ASTERISK; \AsteriskCenterOpen (bding)
 19221 \DeclareTextCommand{\textAsteriskCenterOpen}{PU}{\9047\062}%* U+2732
 19222 % U+2734 EIGHT POINTED BLACK STAR; \EightStarTaper (bding)
 19223 \DeclareTextCommand{\textEightStarTaper}{PU}{\9047\064}%* U+2734
 19224 % U+2735 EIGHT POINTED PINWHEEL STAR; \EightStarConvex (bding)
 19225 \DeclareTextCommand{\textEightStarConvex}{PU}{\9047\065}%* U+2735
 19226 % U+2736 SIX POINTED BLACK STAR; \SixStar (bding)
 19227 \DeclareTextCommand{\textSixStar}{PU}{\9047\066}%* U+2736
 19228 % U+2737 EIGHT POINTED RECTILINEAR BLACK STAR; \EightStar (b
 ding)
 19229 \DeclareTextCommand{\textEightStar}{PU}{\9047\067}%* U+2737
 19230 % U+2738 HEAVY EIGHT POINTED RECTILINEAR BLACK STAR; \Eight
 StarBold (bding)
 19231 \DeclareTextCommand{\textEightStarBold}{PU}{\9047\070}%* U+2738
 19232 % U+2739 TWELVE POINTED BLACK STAR; \TwelveStar (bding)
 19233 \DeclareTextCommand{\textTwelveStar}{PU}{\9047\071}%* U+2739
 19234 % U+273A SIXTEEN POINTED ASTERISK; \SixteenStarLight (bding)
 19235 \DeclareTextCommand{\textSixteenStarLight}{PU}{\9047\072}%* U+273A
 19236 % U+273B TEARDROP-SPOKED ASTERISK; \SixFlowerPetalRemoved (b
 ding)
 19237 \DeclareTextCommand{\textSixFlowerPetalRemoved}{PU}{\9047\073}%* U+273B
 19238 % U+273C OPEN CENTRE TEARDROP-SPOKED ASTERISK;
 19239 % \SixFlowerOpenCenter (bding)
 19240 \DeclareTextCommand{\textSixFlowerOpenCenter}{PU}{\9047\074}%* U+273C
 19241 % U+273D HEAVY TEARDROP-SPOKED ASTERISK; \Asterisk (bding)
 19242 \DeclareTextCommand{\textAsterisk}{PU}{\9047\075}%* U+273D
 19243 % U+273E SIX PETALLED BLACK AND WHITE FLORETTE; \SixFlowerAl
 ternate (bding)
 19244 \DeclareTextCommand{\textSixFlowerAlternate}{PU}{\9047\076}%* U+273E
 19245 % U+273F BLACK FLORETTE; \FiveFlowerPetal (bding)
 19246 \DeclareTextCommand{\textFiveFlowerPetal}{PU}{\9047\077}%* U+273F
 19247 % U+2740 WHITE FLORETTE; \FiveFlowerOpen (bding)

19248 \DeclareTextCommand{\textFiveFlowerOpen}{PU}{\9047\100}%* U+2740
 19249 % U+2741 EIGHT PETALLED OUTLINED BLACK FLORETTE; \EightFlow-
 erPetal (bding)
 19250 \DeclareTextCommand{\textEightFlowerPetal}{PU}{\9047\101}%* U+2741
 19251 % U+2742 CIRCLED OPEN CENTRE EIGHT POINTED STAR; \Sunshi-
 neOpenCircled (bding)
 19252 \DeclareTextCommand{\textSunshineOpenCircled}{PU}{\9047\102}%* U+2742
 19253 % U+2743 HEAVY TEARDROP-SPOKED PINWHEEL ASTERISK; \SixFlow-
 erAltPetal (bding)
 19254 \DeclareTextCommand{\textSixFlowerAltPetal}{PU}{\9047\103}%* U+2743
 19255 % U+2744 SNOWFLAKE; \SnowflakeChevron (bding)
 19256 \DeclareTextCommand{\textSnowflakeChevron}{PU}{\9047\104}%* U+2744
 19257 % U+2745 TIGHT TRIFOLIATE SNOWFLAKE; \Snowflake (bding)
 19258 \DeclareTextCommand{\textSnowflake}{PU}{\9047\105}%* U+2745
 19259 % U+2746 HEAVY CHEVRON SNOWFLAKE; \SnowflakeChevronBold (bding)
 19260 \DeclareTextCommand{\textSnowflakeChevronBold}{PU}{\9047\106}%* U+2746
 19261 % U+2747 SPARKLE; \Sparkle (bding)
 19262 \DeclareTextCommand{\textSparkle}{PU}{\9047\107}%* U+2747
 19263 % U+2748 HEAVY SPARKLE; \SparkleBold (bding)
 19264 \DeclareTextCommand{\textSparkleBold}{PU}{\9047\110}%* U+2748
 19265 % U+2749 BALLOON-SPOKED ASTERISK; \AsteriskRoundedEnds (bding)
 19266 \DeclareTextCommand{\textAsteriskRoundedEnds}{PU}{\9047\111}%* U+2749
 19267 % U+274A EIGHT TEARDROP-SPOKED PROPELLER ASTERISK;
 19268 % \EightFlowerPetalRemoved (bding)
 19269 \DeclareTextCommand{\textEightFlowerPetalRemoved}{PU}{\9047\112}%* U+274A
 19270 % U+274B HEAVY EIGHT TEARDROP-SPOKED PROPELLER ASTERISK;
 19271 % \EightAsterisk (bding)
 19272 \DeclareTextCommand{\textEightAsterisk}{PU}{\9047\113}%* U+274B
 19273 % U+274D SHADOWED WHITE CIRCLE; \CircleShadow (bding)
 19274 \DeclareTextCommand{\textCircleShadow}{PU}{\9047\115}%* U+274D
 19275 % U+274F LOWER RIGHT DROP-SHADOWED WHITE SQUARE;
 19276 % \SquareShadowBottomRight (bding)
 19277 \DeclareTextCommand{\textSquareShadowBottomRight}{PU}{\9047\117}%* U+274F
 19278 % U+2750 UPPER RIGHT DROP-SHADOWED WHITE SQUARE;
 19279 % \SquareShadowTopRight (bding)
 19280 \DeclareTextCommand{\textSquareTopRight}{PU}{\9047\120}%* U+2750
 19281 % U+2751 LOWER RIGHT SHADOWED WHITE SQUARE;
 19282 % \SquareCastShadowBottomRight (bding)
 19283 \DeclareTextCommand{\textSquareCastShadowBottomRight}{PU}{\9047\121}%* U+2751
 19284 % U+2752 UPPER RIGHT SHADOWED WHITE SQUARE;
 19285 % \SquareCastShadowTopRight (bding)
 19286 \DeclareTextCommand{\textSquareCastShadowTopRight}{PU}{\9047\122}%* U+2752
 19287 % U+2756 BLACK DIAMOND MINUS WHITE X; \OrnamentDiamandSolid (bb-
 ding)
 19288 \DeclareTextCommand{\textDiamandSolid}{PU}{\9047\126}%* U+2756
 19289 % U+2758 LIGHT VERTICAL BAR; \RectangleThin (bding)
 19290 \DeclareTextCommand{\textRectangleThin}{PU}{\9047\130}%* U+2758
 19291 % U+2759 MEDIUM VERTICAL BAR; \Rectangle (bding)
 19292 \DeclareTextCommand{\textRectangle}{PU}{\9047\131}%* U+2759
 19293 % U+275A HEAVY VERTICAL BAR; \RectangleBold (bding)
 19294 \DeclareTextCommand{\textRectangleBold}{PU}{\9047\132}%* U+275A

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

19295 % U+27C2 PERPENDICULAR; perpendicular; \perp (LaTeX)
 19296 \DeclareTextCommand{\textperp}{PU}{\9047\302}%* U+27C2
 19297 % U+27C7 OR WITH DOT INSIDE; \veedot (MnSymbol)
 19298 \DeclareTextCommand{\textveedot}{PU}{\9047\307}%* U+27C7

19299 % U+27D1 AND WITH DOT; \wedgedot (MnSymbol)
 19300 \DeclareTextCommand{\textwedgedot}{PU}{\9047\321}%* U+27D1
 19301 % U+27DC LEFT MULTIMAP; \leftspoon (MnSymbol)
 19302 \DeclareTextCommand{\textleftspoon}{PU}{\9047\334}%* U+27DC
 19303 % U+27E6 MATHEMATICAL LEFT WHITE SQUARE BRACKET
 19304 \DeclareTextCommand{\textlbrackdbl}{PU}{\9047\346}%* U+27E6
 19305 %* \textlbrackdbl -> \lbracket (stmaryrd)
 19306 % U+27E7 MATHEMATICAL RIGHT WHITE SQUARE BRACKET
 19307 \DeclareTextCommand{\textrbrackdbl}{PU}{\9047\347}%* U+27E7
 19308 %* \textrbrackdbl -> \rrbracket (stmaryrd)

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

19309 % U+27F2 ANTICLOCKWISE GAPPED CIRCLE ARROW;
 19310 % \circlearrowleft (AmS)
 19311 \DeclareTextCommand{\textcirclearrowleft}{PU}{\9047\362}%* U+27F2
 19312 % U+27F3 CLOCKWISE GAPPED CIRCLE ARROW; \circlearrowright (AmS)
 19313 \DeclareTextCommand{\textcirclearrowright}{PU}{\9047\363}%* U+27F3
 19314 % U+27F5 LONG LEFTWARDS ARROW; \longleftarrow (AmS)
 19315 \DeclareTextCommand{\textlongleftarrow}{PU}{\9047\365}%* U+27F5
 19316 % U+27F6 LONG RIGHTWARDS ARROW; \longrightarrow (AmS)
 19317 \DeclareTextCommand{\textlongrightarrow}{PU}{\9047\366}%* U+27F6
 19318 % U+27F7 LONG LEFT RIGHT ARROW; \longleftrightarrow (AmS)
 19319 \DeclareTextCommand{\textlongleftrightarrow}{PU}{\9047\367}%* U+27F7
 19320 % U+27F8 LONG LEFTWARDS DOUBLE ARROW; \Longleftarrow (AmS)
 19321 \DeclareTextCommand{\textLongleftarrow}{PU}{\9047\370}%* U+27F8
 19322 % U+27F9 LONG RIGHTWARDS DOUBLE ARROW; \Longrightarrow (AmS)
 19323 \DeclareTextCommand{\textLongrightarrow}{PU}{\9047\371}%* U+27F9
 19324 % U+27FA LONG LEFT RIGHT DOUBLE ARROW; \Longleftrightarrow (AmS)
 19325 \DeclareTextCommand{\textLongleftrightarrow}{PU}{\9047\372}%* U+27FA
 19326 % U+27FC LONG RIGHTWARDS ARROW FROM BAR; \longmapsto (AmS)
 19327 \DeclareTextCommand{\textlongmapsto}{PU}{\9047\374}%* U+27FC
 19328 % U+27FD LONG LEFTWARDS DOUBLE ARROW FROM BAR; \Longmaps-
 from (stmaryrd)
 19329 \DeclareTextCommand{\textLongmapsfrom}{PU}{\9047\375}%* U+27FD
 19330 % U+27FE LONG RIGHTWARDS DOUBLE ARROW FROM BAR; \Longmap-
 sto (stmaryrd)
 19331 \DeclareTextCommand{\textLongmapsto}{PU}{\9047\376}%* U+27FE

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

19332 % U+2921 NORTH WEST AND SOUTH EAST ARROW; \nwsearrow (MnSym-
 bol)
 19333 \DeclareTextCommand{\textnwsearrow}{PU}{\9051\041}%* U+2921
 19334 % U+2922 NORTH EAST AND SOUTH WEST ARROW; \neswarrow (MnSym-
 bol)
 19335 \DeclareTextCommand{\textneswarrow}{PU}{\9051\042}%* U+2922
 19336 % U+2923 NORTH WEST ARROW WITH HOOK; \hooknwarrow (MnSymbol)
 19337 \DeclareTextCommand{\textlnwarrow}{PU}{\9051\043}%* U+2923
 19338 % U+2924 NORTH EAST ARROW WITH HOOK; \hooknearrow (MnSymbol)
 19339 \DeclareTextCommand{\textrhooknearrow}{PU}{\9051\044}%* U+2924
 19340 % U+2925 SOUTH EAST ARROW WITH HOOK; \hooksearrow (MnSymbol)
 19341 \DeclareTextCommand{\textlhooksearrow}{PU}{\9051\045}%* U+2925
 19342 % U+2926 SOUTH WEST ARROW WITH HOOK; \hookswarrow (MnSymbol)
 19343 \DeclareTextCommand{\textrhookswarrow}{PU}{\9051\046}%* U+2926
 19344 % U+2933 WAVE ARROW POINTING DIRECTLY RIGHT; \leadsto (wasysym)
 19345 \DeclareTextCommand{\textleadsto}{PU}{\9051\063}%* U+2933
 19346 % U+2934 ARROW POINTING RIGHTWARDS THEN CURVING UPWARDS;
 19347 % \rcurvearrowne (MnSymbol)

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19348 \DeclareTextCommand{\textrcurvearrowne}{PU}{\9051\064}%* U+2934
19349 % U+2935 ARROW POINTING RIGHTWARDS THEN CURVING DOWN-
WARDS;
19350 % \lcurvearrowse (MnSymbol)
19351 \DeclareTextCommand{\textlcurvearrowse}{PU}{\9051\065}%* U+2935
19352 % U+2936 ARROW POINTING DOWNWARDS THEN CURVING LEFT-
WARDS;
19353 % \lcurvearrowsw (MnSymbol)
19354 \DeclareTextCommand{\textlcurvearrowsw}{PU}{\9051\066}%* U+2936
19355 % U+2937 ARROW POINTING DOWNWARDS THEN CURVING RIGHT-
WARDS;
19356 % \rcurvearrowse (MnSymbol)
19357 \DeclareTextCommand{\textrcurvearrowse}{PU}{\9051\067}%* U+2937
19358 % U+2938 RIGHT-SIDE ARC CLOCKWISE ARROW; \lcurvearrowdown (Mn-
Symbol)
19359 \DeclareTextCommand{\textlcurvearrowdown}{PU}{\9051\070}%* U+2938
19360 %* \textlcurvearrowdown -> \RightTorque (marvosym)
19361 %* \textlcurvearrowdown -> \Righttorque (marvosym)
19362 % U+2939 LEFT-SIDE ARC ANTICLOCKWISE ARROW;
19363 % \rcurvearrowdown (MnSymbol)
19364 \DeclareTextCommand{\textrcurvearrowdown}{PU}{\9051\071}%* U+2939
19365 %* \textrcurvearrowdown -> \LeftTorque (marvosym)
19366 %* \textrcurvearrowdown -> \Lefttorque (marvosym)
19367 % U+293A TOP ARC ANTICLOCKWISE ARROW; \rcurvearrowleft (MnSym-
bol)
19368 \DeclareTextCommand{\textrcurvearrowleft}{PU}{\9051\072}%* U+293A
19369 % U+293B BOTTOM ARC ANTICLOCKWISE ARROW;
19370 % \rcurvearrowright (MnSymbol)
19371 \DeclareTextCommand{\textrcurvearrowright}{PU}{\9051\073}%* U+293B
19372 % U+294A LEFT BARB UP RIGHT BARB DOWN HARPOON; \leftrighthar-
poon (mathabx)
19373 \DeclareTextCommand{\textleftrightharpoon}{PU}{\9051\112}%* U+294A
19374 % U+294B LEFT BARB DOWN RIGHT BARB UP HARPOON; \rightlefthar-
poon (mathabx)
19375 \DeclareTextCommand{\textrightleftharpoon}{PU}{\9051\113}%* U+294B
19376 % U+294C UP BARB RIGHT DOWN BARB LEFT HARPOON;
19377 % \updownharpoonrightleft (MnSymbol)
19378 \DeclareTextCommand{\textupdownharpoonrightleft}{PU}{\9051\114}%* U+294C
19379 % U+294D UP BARB LEFT DOWN BARB RIGHT HARPOON;
19380 % \updownharpoonleftright (MnSymbol)
19381 \DeclareTextCommand{\textupdownharpoonleftright}{PU}{\9051\115}%* U+294D
19382 % U+2962 LEFTWARDS HARPOON WITH BARB UP ABOVE LEFTWARDS
19383 % HARPOON WITH BARB DOWN; \leftleftharpoons (mathabx)
19384 \DeclareTextCommand{\textleftleftharpoons}{PU}{\9051\142}%* U+2962
19385 % U+2963 UPWARDS HARPOON WITH BARB LEFT BESIDE UPWARDS
19386 % HARPOON WITH BARB RIGHT; \upupharpoons (mathabx)
19387 \DeclareTextCommand{\textupupharpoons}{PU}{\9051\143}%* U+2963
19388 % U+2964 RIGHTWARDS HARPOON WITH BARB UP ABOVE RIGHT-
WARDS HARPOON
19389 % WITH BARB DOWN; \rightrightarpoons (mathabx)
19390 \DeclareTextCommand{\textrightarpoons}{PU}{\9051\144}%* U+2964
19391 % U+2965 DOWNWARDS HARPOON WITH BARB LEFT BESIDE DOWN-
WARDS HARPOON
19392 % WITH BARB RIGHT; \downdownharpoons (mathabx)
19393 \DeclareTextCommand{\textdowndownharpoons}{PU}{\9051\145}%* U+2965
19394 % U+296A LEFTWARDS HARPOON WITH BARB UP ABOVE LONG DASH;
19395 % \leftbarharpoon (mathabx)

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19396 \DeclareTextCommand{\textleftbarharpoon}{PU}{\9051\152}%* U+296A
 19397 % U+296B LEFTWARDS HARPOON WITH BARB DOWN BELOW
 19398 % LONG DASH; \barleftharpoon (mathabx)
 19399 \DeclareTextCommand{\textbarleftharpoon}{PU}{\9051\153}%* U+296B
 19400 % U+296C RIGHTWARDS HARPOON WITH BARB UP ABOVE
 19401 % LONG DASH; \rightbarharpoon (mathabx)
 19402 \DeclareTextCommand{\textrightbarharpoon}{PU}{\9051\154}%* U+296C
 19403 % U+296D RIGHTWARDS HARPOON WITH BARB DOWN BELOW
 19404 % LONG DASH; \barrightharpoon (mathabx)
 19405 \DeclareTextCommand{\textbarrightharpoon}{PU}{\9051\155}%* U+296D
 19406 % U+296E UPWARDS HARPOON WITH BARB LEFT BESIDE DOWN-
 WARDS HARPOON
 19407 % WITH BARB RIGHT; \updownharpoons (mathabx)
 19408 \DeclareTextCommand{\textupdownharpoons}{PU}{\9051\156}%* U+296E
 19409 % U+296F DOWNWARDS HARPOON WITH BARB LEFT BESIDE UP-
 WARDS HARPOON
 19410 % WITH BARB RIGHT; \downupharpoons (mathabx)
 19411 \DeclareTextCommand{\textdownupharpoons}{PU}{\9051\157}%* U+296F
 19412 % U+297F DOWN FISH TAIL
 19413 \DeclareTextCommand{\textmoo}{PU}{\9051\177\83\066}%* U+297F U+0336

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

19414 % U+2987 Z NOTATION LEFT IMAGE BRACKET; \llparenthesis (stmaryrd)
 19415 \DeclareTextCommand{\textllparenthesis}{PU}{\9051\207}%* U+2987
 19416 % U+2988 Z NOTATION RIGHT IMAGE BRACKET; \rrparenthesis (stmaryrd)
 19417 \DeclareTextCommand{\textrrparenthesis}{PU}{\9051\210}%* U+2988
 19418 % U+29B0 REVERSED EMPTY SET; \invdiameter (wasysym)
 19419 \DeclareTextCommand{\textinvdiameter}{PU}{\9051\260}%* U+29B0
 19420 % U+29B6 CIRCLED VERTICAL BAR; \obar (stmaryrd)
 19421 \DeclareTextCommand{\textobar}{PU}{\9051\266}%* U+29B6
 19422 %* \textobar -> \textvarobar (stmaryrd)
 19423 % U+29B8 CIRCLED REVERSE SOLIDUS; \obslash (stmaryrd)
 19424 \DeclareTextCommand{\textobslash}{PU}{\9051\270}%* U+29B8
 19425 %* \textobslash -> \circledbslash (txfonts/pxfonts)
 19426 %* \textobslash -> \obackslash (mathabx)
 19427 %* \textobslash -> \varobslash (stmaryrd)
 19428 % U+29BA CIRCLE DIVIDED BY HORIZONTAL BAR AND TOP HALF
 19429 % DIVIDED BY VERTICAL BAR; \obot (mathabx)
 19430 \DeclareTextCommand{\textobot}{PU}{\9051\272}%* U+29BA
 19431 %* \textobot -> \odplus (ulsy)
 19432 % U+29BB CIRCLE WITH SUPERIMPOSED X; \NoChemicalCleaning (mar-
 vosym)
 19433 \DeclareTextCommand{\textNoChemicalCleaning}{PU}{\9051\273}%* U+29BB
 19434 % U+29C0 CIRCLED LESS-THAN; \olessthan (stmaryrd)
 19435 \DeclareTextCommand{\textolessthan}{PU}{\9051\300}%* U+29C0
 19436 %* \textolessthan -> \varolessthan (stmaryrd)
 19437 % U+29C1 CIRCLED GREATER-THAN; \ogreaterthan (stmaryrd)
 19438 \DeclareTextCommand{\textogreaterthan}{PU}{\9051\301}%* U+29C1
 19439 %* \textogreaterthan -> \varogreaterthan (stmaryrd)
 19440 % U+29C4 SQUARED RISING DIAGONAL SLASH; \boxslash (mathabx, stmaryrd)
 19441 \DeclareTextCommand{\textboxslash}{PU}{\9051\304}%* U+29C4
 19442 % U+29C5 SQUARED FALLING DIAGONAL SLASH; \boxbslash (stmaryrd)
 19443 \DeclareTextCommand{\textboxbslash}{PU}{\9051\305}%* U+29C5
 19444 % U+29C6 SQUARED ASTERISK; \boxast (stmaryrd)
 19445 \DeclareTextCommand{\textboxast}{PU}{\9051\306}%* U+29C6
 19446 % U+29C7 SQUARED SMALL CIRCLE; \boxcircle (stmaryrd)
 19447 \DeclareTextCommand{\textboxcircle}{PU}{\9051\307}%* U+29C7

19448 % U+29C8 SQUARED SQUARE; \boxbox (stmaryrd)
 19449 \DeclareTextCommand{\textboxbox}{PU}{\9051\310}%* U+29C8
 19450 % U+29D3 BLACK BOWTIE; \Valve (marvosym)
 19451 \DeclareTextCommand{\textValve}{PU}{\9051\323}%* U+29D3
 19452 % U+29DF DOUBLE-ENDED MULTIMAP; \multimapboth (txfonts/pxfonts)
 19453 \DeclareTextCommand{\textmultimapboth}{PU}{\9051\337}%* U+29DF
 19454 % U+29E2 SHUFFLE PRODUCT; \shuffle (shuffle)
 19455 \DeclareTextCommand{\textshuffle}{PU}{\9051\342}%* U+29E2

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

19456 % U+2A04 N-ARY UNION OPERATOR WITH PLUS; \uplus (LaTeX)
 19457 \DeclareTextCommand{\textuplus}{PU}{\9052\004}%* U+2A04
 19458 % U+2A07 TWO LOGICAL AND OPERATOR; \bigdoublewedge (MnSymbol)
 19459 \DeclareTextCommand{\textbigdoublewedge}{PU}{\9052\007}%* U+2A07
 19460 % U+2A08 TWO LOGICAL OR OPERATOR; \bigdoublevee (MnSymbol)
 19461 \DeclareTextCommand{\textbigdoublevee}{PU}{\9052\010}%* U+2A08
 19462 % U+2A1D JOIN; \Join (latexsym, amssymb, mathabx, txfonts,
 19463 % pxfonts, wasysym)
 19464 \DeclareTextCommand{\textJoin}{PU}{\9052\035}%* U+2A1D
 19465 % U+2A1F Z NOTATION SCHEMA COMPOSITION; \fatsemi (stmaryrd)
 19466 \DeclareTextCommand{\textfatsemi}{PU}{\9052\037}%* U+2A1F
 19467 % U+2A22 PLUS SIGN WITH SMALL CIRCLE ABOVE; \circplus (mathabx)
 19468 \DeclareTextCommand{\textcircplus}{PU}{\9052\042}%* U+2A22
 19469 % U+2A2A MINUS SIGN WITH DOT BELOW; \minusdot (MnSymbol)
 19470 \DeclareTextCommand{\textminusdot}{PU}{\9052\052}%* U+2A2A
 19471 %* \textminusdot -> \divdot (mathabx)
 19472 % U+2A30 MULTIPLICATION SIGN WITH DOT ABOVE; \dotimes (math-
 19473 % abx)
 19473 \DeclareTextCommand{\textdotimes}{PU}{\9052\060}%* U+2A30
 19474 % U+2A32 SEMIDIRECT PRODUCT WITH BOTTOM CLOSED;
 19475 % \dimes (mathdesign)
 19476 \DeclareTextCommand{\textdimes}{PU}{\9052\062}%* U+2A32
 19477 % U+2A38 CIRCLED DIVISION SIGN; \odiv (mathabx)
 19478 \DeclareTextCommand{\textodiv}{PU}{\9052\070}%* U+2A38
 19479 % U+2A3C INTERIOR PRODUCT; \invneg (MnSymbol)
 19480 \DeclareTextCommand{\textinvneg}{PU}{\9052\074}%* U+2A3C
 19481 % U+2A4E DOUBLE SQUARE INTERSECTION; \sqdoublecap (mathabx)
 19482 \DeclareTextCommand{\textsqdoublecap}{PU}{\9052\116}%* U+2A4E
 19483 %* \textsqdoublecap -> \doublesqcap (MnSymbol)
 19484 % U+2A40 INTERSECTION WITH DOT; \capdot (MnSymbol)
 19485 \DeclareTextCommand{\textcapdot}{PU}{\9052\100}%* U+2A40
 19486 % U+2A4F DOUBLE SQUARE UNION; \sqdoublecup (mathabx)
 19487 \DeclareTextCommand{\textsqdoublecup}{PU}{\9052\117}%* U+2A4F
 19488 %* \textsqdoublecup -> \doublesqcup (MnSymbol)
 19489 % U+2A55 TWO INTERSECTING LOGICAL AND; \doublewedge (MnSymbol)
 19490 \DeclareTextCommand{\textdoublewedge}{PU}{\9052\125}%* U+2A55
 19491 % U+2A56 TWO INTERSECTING LOGICAL OR; \doublevee (MnSymbol)
 19492 \DeclareTextCommand{\textdoublevee}{PU}{\9052\126}%* U+2A56
 19493 %* \textdoublevee -> \merge (stmaryrd)
 19494 % U+2A5E LOGICAL AND WITH DOUBLE OVERBAR;
 19495 % \doublebarwedge (AmS)
 19496 \DeclareTextCommand{\textdoublebarwedge}{PU}{\9052\136}%* U+2A5E
 19497 % U+2A63 LOGICAL OR WITH DOUBLE UNDERBAR;
 19498 % \veedoublebar (mahtabx)
 19499 \DeclareTextCommand{\textveedoublebar}{PU}{\9052\143}%* U+2A63
 19500 % U+2A66 EQUALS SIGN WITH DOT BELOW; \eqdot (MnSymbol)
 19501 \DeclareTextCommand{\texteqdot}{PU}{\9052\146}%* U+2A66

19502 % U+2A74 DOUBLE COLON EQUAL; \coloncolonequals (colonequals)
 19503 \DeclareTextCommand{\textcoloncolonequals}{PU}{\9052\164}%* U+2A74
 19504 % U+2A7D LESS-THAN OR SLANTED EQUAL TO; \leqslant (AmS)
 19505 \DeclareTextCommand{\textleqslant}{PU}{\9052\175}%* U+2A7D
 19506 % U+2A7E GREATER-THAN OR SLANTED EQUAL TO; \geqslant (AmS)
 19507 \DeclareTextCommand{\textgeqslant}{PU}{\9052\176}%* U+2A7E
 19508 % U+2A85 LESS-THAN OR APPROXIMATE; \lessapprox (AmS)
 19509 \DeclareTextCommand{\textlessapprox}{PU}{\9052\205}%* U+2A85
 19510 % U+2A86 GREATER-THAN OR APPROXIMATE; \gtrapprox (AmS)
 19511 \DeclareTextCommand{\textgtrapprox}{PU}{\9052\206}%* U+2A86
 19512 % U+2A87 LESS-THAN AND SINGLE-LINE NOT EQUAL TO; \lneq (AmS)
 19513 \DeclareTextCommand{\textlneq}{PU}{\9052\207}%* U+2A87
 19514 % U+2A88 GREATER-THAN AND SINGLE-LINE NOT EQUAL TO;
 19515 % \gneq (AmS)
 19516 \DeclareTextCommand{\textgneq}{PU}{\9052\210}%* U+2A88
 19517 % U+2A89 LESS-THAN AND NOT APPROXIMATE; \lnapprox (AmS)
 19518 \DeclareTextCommand{\textlnapprox}{PU}{\9052\211}%* U+2A89
 19519 % U+2A8A GREATER-THAN AND NOT APPROXIMATE; \gnapprox (AmS)
 19520 \DeclareTextCommand{\textgnapprox}{PU}{\9052\212}%* U+2A8A
 19521 % U+2A8B LESS-THAN ABOVE DOUBLE-LINE EQUAL ABOVE GREATER-THAN;
 19522 % \lesseqgtr (AmS)
 19523 \DeclareTextCommand{\textlesseqgtr}{PU}{\9052\213}%* U+2A8B
 19524 % U+2A8C GREATER-THAN ABOVE DOUBLE-LINE EQUAL ABOVE LESS-THAN;
 19525 % \gtreqless (AmS)
 19526 \DeclareTextCommand{\textgtreqless}{PU}{\9052\214}%* U+2A8C
 19527 % U+2A95 SLANTED EQUAL TO OR LESS-THAN; \eqslantless (AmS)
 19528 \DeclareTextCommand{\texteqslantless}{PU}{\9052\225}%* U+2A95
 19529 % U+2A96 SLANTED EQUAL TO OR GREATER-THAN; \eqslantgtr (AmS)
 19530 \DeclareTextCommand{\texteqslantgtr}{PU}{\9052\226}%* U+2A96
 19531 % U+2AA6 LESS-THAN CLOSED BY CURVE; \leftslice (stmaryrd)
 19532 \DeclareTextCommand{\textleftslice}{PU}{\9052\246}%* U+2AA6
 19533 % U+2AA7 GREATER-THAN CLOSED BY CURVE; \rightslice (stmaryrd)
 19534 \DeclareTextCommand{\textright slice}{PU}{\9052\247}%* U+2AA7
 19535 % U+2AAF PRECEDES ABOVE SINGLE-LINE EQUALS SIGN; \preceq (Mn-Symbol)
 19536 \DeclareTextCommand{\textpreceq}{PU}{\9052\257}%* U+2AAF
 19537 % U+2AB0 SUCCEEDS ABOVE SINGLE-LINE EQUALS SIGN; \succeq (Mn-Symbol)
 19538 \DeclareTextCommand{\textsucceq}{PU}{\9052\260}%* U+2AB0
 19539 % U+2AB1 PRECEDES ABOVE SINGLE-LINE NOT EQUAL TO; \precneq (mathabx)
 19540 \DeclareTextCommand{\textprecneq}{PU}{\9052\261}%* U+2AB1
 19541 % U+2AB2 SUCCEEDS ABOVE SINGLE-LINE NOT EQUAL TO; \succneq (mathabx)
 19542 \DeclareTextCommand{\textsuccneq}{PU}{\9052\262}%* U+2AB2
 19543 % U+2AB3 PRECEDES ABOVE EQUALS SIGN; \preceqq (txfonts/pxfonts)
 19544 \DeclareTextCommand{\textpreceqq}{PU}{\9052\263}%* U+2AB3
 19545 % U+2AB4 SUCCEEDS ABOVE EQUALS SIGN; \succeqq (txfonts/pxfonts)
 19546 \DeclareTextCommand{\textsucceqq}{PU}{\9052\264}%* U+2AB4
 19547 % U+2AB5 PRECEDES ABOVE NOT EQUAL TO; \precneqq (txfonts/pxfonts)
 19548 \DeclareTextCommand{\textprecneqq}{PU}{\9052\265}%* U+2AB5
 19549 % U+2AB6 SUCCEEDS ABOVE NOT EQUAL TO; \succneqq (txfonts/pxfonts)
 19550 \DeclareTextCommand{\textsuccneqq}{PU}{\9052\266}%* U+2AB6
 19551 % U+2AB7 PRECEDES ABOVE ALMOST EQUAL TO; \precapprox (AmS)
 19552 \DeclareTextCommand{\textprecapprox}{PU}{\9052\267}%* U+2AB7
 19553 % U+2AB8 SUCCEEDS ABOVE ALMOST EQUAL TO; \succapprox (AmS)
 19554 \DeclareTextCommand{\textsuccapprox}{PU}{\9052\270}%* U+2AB8

19555 % U+2AB9 PRECEDES ABOVE NOT ALMOST EQUAL TO; \precnapprox (AmS)
 19556 \DeclareTextCommand{\textprecnapprox}{PU}{\9052\271}%* U+2AB9
 19557 % U+2ABA SUCCEEDS ABOVE NOT ALMOST EQUAL TO; \succnapprox (AmS)
 19558 \DeclareTextCommand{\textsuccnapprox}{PU}{\9052\272}%* U+2ABA
 19559 % U+2AC5 SUBSET OF ABOVE EQUALS SIGN; \subseteqq (AmS)
 19560 \DeclareTextCommand{\textsubseteqq}{PU}{\9052\305}%* U+2AC5
 19561 % \nsubseteqq (txfonts/pxfonts, mathabx)
 19562 \DeclareTextCommand{\textnsubseteqq}{PU}{\9052\305\83\070}%* U+2AC5 U+0338
 19563 % U+2AC6 SUPERSET OF ABOVE EQUALS SIGN; \supseteqq (AmS)
 19564 \DeclareTextCommand{\textsupseteqq}{PU}{\9052\306}%* U+2AC6
 19565 % \nsupseteqq (mathabx)
 19566 \DeclareTextCommand{\textnsupseteqq}{PU}{\9052\306\83\070}%* U+2AC6 U+0338
 19567 % U+2AE3 DOUBLE VERTICAL BAR LEFT TURNSTILE
 19568 \DeclareTextCommand{\textdashV}{PU}{\9052\343}%* U+2AE3
 19569 %* \textdashV -> \leftVdash (MnSymbol)
 19570 % U+2AE4 VERTICAL BAR DOUBLE LEFT TURNSTILE; \Dashv (mathabx)
 19571 \DeclareTextCommand{\textDashv}{PU}{\9052\344}%* U+2AE4
 19572 %* \textDashv -> \leftmodels (MnSymbol)
 19573 % U+2AE5 DOUBLE VERTICAL BAR DOUBLE LEFT TURNSTILE;
 19574 % \DashV (mathabx)
 19575 \DeclareTextCommand{\textDashV}{PU}{\9052\345}%* U+2AE5
 19576 %* \textDashV -> \leftModels (MnSymbol)
 19577 % U+2AEA DOUBLE DOWN TACK; \downmodels (MnSymbol)
 19578 \DeclareTextCommand{\textdownmodels}{PU}{\9052\352}%* U+2AEA
 19579 % U+2AEB DOUBLE UP TACK; \upmodels (MnSymbol)
 19580 \DeclareTextCommand{\textupmodels}{PU}{\9052\353}%* U+2AEB
 19581 % U+2AEF VERTICAL LINE WITH CIRCLE ABOVE; \upspoon (MnSymbol)
 19582 \DeclareTextCommand{\textupspoon}{PU}{\9052\357}%* U+2AEF
 19583 % U+2AF4 TRIPLE VERTICAL BAR BINARY RELATION;
 19584 % \interleave (stmaryrd)
 19585 \DeclareTextCommand{\textinterleave}{PU}{\9052\364}%* U+2AF4
 19586 % U+2AFD DOUBLE SOLIDUS OPERATOR; \sslash (stmaryrd)
 19587 \DeclareTextCommand{\textsslash}{PU}{\9052\375}%* U+2AFD
 19588 %* \textsslash -> \varparallel (txfonts/pxfonts)

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

19589 % U+2B20 WHITE PENTAGON; \pentagon (wasysym)
 19590 \DeclareTextCommand{\textpentagon}{PU}{\9053\040}%* U+2B20
 19591 % U+2B21 WHITE HEXAGON; \varhexagon (wasysym)
 19592 \DeclareTextCommand{\textvarhexagon}{PU}{\9053\041}%* U+2B21

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

19593 % U+2C7C LATIN SUBSCRIPT SMALL LETTER J
 19594 \DeclareTextCommand{\textjinferior}{PU}{\9054\174}%* U+2C7C

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

19595 % U+2E13 DOTTED OBELOS; \slashdiv (MnSymbol)
 19596 \DeclareTextCommand{\textslashdiv}{PU}{\9056\023}%* U+2E13
 19597 % U+2E18 INVERTED INTERROBANG; \textinterrobangdown (textcomp)
 19598 \DeclareTextCommand{\textinterrobangdown}{PU}{\9056\030}%* U+2E18
 19599 % U+2E2D FIVE DOT MARK; \fivedots (MnSymbol)
 19600 \DeclareTextCommand{\textfivedots}{PU}{\9056\055}%* U+2E2D

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

19601 % U+A71B MODIFIER LETTER RAISED UP ARROW; \textupstep (tipa)

19602 \DeclareTextCommand{\textupstep}{PU}{\9247\033}% U+A71B
 19603 % U+A71C MODIFIER LETTER RAISED DOWN ARROW;
 19604 % \textdownstep (tipa)
 19605 \DeclareTextCommand{\textdownstep}{PU}{\9247\034}% U+A71C

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

19606 % U+A727 LATIN SMALL LETTER HENG; \textheng (tipx)
 19607 \DeclareTextCommand{\textPUheng}{PU}{\9247\047}% U+A727
 19608 %* \textPUheng -> \textheng (tipx)
 19609 % U+A72C LATIN CAPITAL LETTER CUATRILLO; \textlhookfour (tipx)
 19610 \DeclareTextCommand{\textPULhookfour}{PU}{\9247\054}% U+A72C
 19611 %* \textPULhookfour -> \textlhookfour (tipx)
 19612 % U+A730 LATIN LETTER SMALL CAPITAL F; \textscf (tipx)
 19613 \DeclareTextCommand{\textPUscf}{PU}{\9247\060}% U+A730
 19614 %* \textPUscf -> \textscf (tipx)
 19615 % U+A735 LATIN SMALL LETTER AO; \textao lig (tipx)
 19616 \DeclareTextCommand{\textPUaolig}{PU}{\9247\065}% U+A735
 19617 %* \textPUaolig -> \textao lig (tipx)
 19618 % U+A74F LATIN SMALL LETTER OO; \oo (wsuipa)
 19619 \DeclareTextCommand{\textoo}{PU}{\9247\117}%* U+A74F
 19620 % U+A788 MODIFIER LETTER LOW CIRCUMFLEX ACCENT
 19621 \DeclareTextCommand{\textcircuml}{PU}{\9247\210}% U+A788

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

19622 % U+FB01 LATIN SMALL LIGATURE FI; fi
 19623 \DeclareTextCommand{\textfi}{PU}{\9373\001}% U+FB01
 19624 % U+FB02 LATIN SMALL LIGATURE FL; fl
 19625 \DeclareTextCommand{\textfl}{PU}{\9373\002}% U+FB02

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

19626 % U+1D13B MUSICAL SYMBOL WHOLE REST; \GaPa (harmony)
 19627 \DeclareTextCommand{\textGaPa}{PU}{\9330\064\9335\073}%* U+1D13B
 19628 % U+1D13C MUSICAL SYMBOL HALF REST; \HaPa (harmony)
 19629 \DeclareTextCommand{\textHaPa}{PU}{\9330\064\9335\074}%* U+1D13C
 19630 % U+1D13D MUSICAL SYMBOL QUARTER REST; \ViPa (harmony)
 19631 \DeclareTextCommand{\textViPa}{PU}{\9330\064\9335\075}%* U+1D13D
 19632 % U+1D13E MUSICAL SYMBOL EIGHTH REST; \AcPa (harmony)
 19633 \DeclareTextCommand{\textAcPa}{PU}{\9330\064\9335\076}%* U+1D13E
 19634 % U+1D13F MUSICAL SYMBOL SIXTEENTH REST; \SePa (harmony)
 19635 \DeclareTextCommand{\textSePa}{PU}{\9330\064\9335\077}%* U+1D13F
 19636 % U+1D140 MUSICAL SYMBOL THIRTY-SECOND REST; \ZwPa (harmony)
 19637 \DeclareTextCommand{\textZwPa}{PU}{\9330\064\9335\100}%* U+1D140
 19638 % U+1D15D MUSICAL SYMBOL WHOLE NOTE; \fullnote (wasysym)
 19639 \DeclareTextCommand{\textfullnote}{PU}{\9330\064\9335\135}%* U+1D15D
 19640 %* \textfullnote -> \Ganz (harmony)
 19641 % U+1D15E MUSICAL SYMBOL HALF NOTE; \halfnote (wasysym)
 19642 \DeclareTextCommand{\texthalfnote}{PU}{\9330\064\9335\136}%* U+1D15E
 19643 %* \texthalfnote -> \Halb (harmony)
 19644 % U+1D15F MUSICAL SYMBOL QUARTER NOTE; \Vier (harmony)
 19645 \DeclareTextCommand{\textVier}{PU}{\9330\064\9335\137}%* U+1D15F
 19646 % U+1D160 MUSICAL SYMBOL EIGHTH NOTE; \Acht (harmony)
 19647 \DeclareTextCommand{\textAcht}{PU}{\9330\064\9335\140}%* U+1D160
 19648 % U+1D161 MUSICAL SYMBOL SIXTEENTH NOTE; \Sech (harmony)
 19649 \DeclareTextCommand{\textSech}{PU}{\9330\064\9335\141}%* U+1D161
 19650 % U+1D162 MUSICAL SYMBOL THIRTY-SECOND NOTE; \Zwdr (harmony)
 19651 \DeclareTextCommand{\textZwdr}{PU}{\9330\064\9335\142}%* U+1D162

51.2.43 Miscellaneous Symbols and Pictographs: U+1F300 to U+1F5FF

19652 % U+1F30D EARTH GLOBE EUROPE-AFRICA; \Mundus (marvosym)
19653 \DeclareTextCommand{\textMundus}{PU}{\9330\074\9337\015}%* U+1F30D
19654 % U+1F319 CRESCENT MOON; \Moon (marvosym)
19655 \DeclareTextCommand{\textMoon}{PU}{\9330\074\9337\031}%* U+1F319
19656 % U+1F468 MAN; \ManFace (marvosym)
19657 \DeclareTextCommand{\textManFace}{PU}{\9330\075\9334\150}%* U+1F468
19658 % U+1F469 WOMAN; \WomanFace (marvosym)
19659 \DeclareTextCommand{\textWomanFace}{PU}{\9330\075\9334\151}%* U+1F469
19660 %* \textWomanFace -> \Womanface (marvosym)
19661 % U+1F4E0 FAX MACHINE; \Fax (marvosym)
19662 \DeclareTextCommand{\textFax}{PU}{\9330\075\9334\340}%* U+1F4E0
19663 %* \textFax -> \Faxmachine (marvosym)
19664 % U+1F525 FIRE; \Fire (ifsym)
19665 \DeclareTextCommand{\textFire}{PU}{\9330\075\9335\045}%* U+1F525

51.2.44 Transport and Map Symbols: U+1F680 to U+1F6FF

19666 % U+1F6B2 BICYCLE; \Bicycle (marvosym)
19667 \DeclareTextCommand{\textBicycle}{PU}{\9330\075\9336\262}%* U+1F6B2
19668 % U+1F6B9 MENS SYMBOL; \Gentsroom (marvosym)
19669 \DeclareTextCommand{\textGentsroom}{PU}{\9330\075\9336\271}%* U+1F6B9
19670 % U+1F6BA WOMENS SYMBOL; \Ladiesroom (marvosym)
19671 \DeclareTextCommand{\textLadiesroom}{PU}{\9330\075\9336\272}%* U+1F6BA

51.2.45 Miscellaneous

19672 \DeclareTextCommand{\SS}{PU}{SS}
19673 % \textcopyleft (textcomp)
19674 \DeclareTextCommand{\textcopyleft}{PU}{\9041\204\9040\335}% U+2184 U+20DD
19675 % \ccnc (ccllicenses)
19676 \DeclareTextCommand{\textccnc}{PU}{\80\044\9040\340}%* U+0024 U+20E0
19677 % \ccnd (ccllicenses)
19678 \DeclareTextCommand{\textccnd}{PU}{=\9040\335}%* U+003D U+20DD
19679 % \ccsa (ccllicenses)
19680 \DeclareTextCommand{\textccsa}{PU}{\9047\362\9040\335}%* U+27F2 U+20DD
19681 % \Info (marvosym, china2e)
19682 \DeclareTextCommand{\textInfo}{PU}{\9330\065\9334\042\9040\336}%* U+1D422 U+20DE
19683 % \CESign (marvosym)
19684 \DeclareTextCommand{\textCESign}{PU}{\80\103\80\105}%* U+0043 U+0045
19685 %* \textCESign -> \CESign (marvosym)

51.2.46 Aliases

Aliases (german.sty)

19686 \DeclareTextCommand{\textglqq}{PU}{\quotedblbase}
19687 \DeclareTextCommand{\textgrqq}{PU}{\textquotedblleft}
19688 \DeclareTextCommand{\textglq}{PU}{\quotesinglbase}
19689 \DeclareTextCommand{\textgrq}{PU}{\textquoteleft}
19690 \DeclareTextCommand{\textflqq}{PU}{\guillemotleft}
19691 \DeclareTextCommand{\textfrqq}{PU}{\guillemotright}
19692 \DeclareTextCommand{\textflq}{PU}{\guilsinglleft}
19693 \DeclareTextCommand{\textfrq}{PU}{\guilsinglright}

Aliases (math names)

19694 \DeclareTextCommand{\textneg}{PU}{\textlogicalnot}%*
19695 \DeclareTextCommand{\texttimes}{PU}{\textmultiply}%*
19696 \DeclareTextCommand{\textdiv}{PU}{\textdivide}%*
19697 \DeclareTextCommand{\textpm}{PU}{\textplusminus}%*
19698 \DeclareTextCommand{\textcdot}{PU}{\textperiodcentered}%*

19699 </puenc>

51.3 PU encoding, additions for VnT_EX

This file is provided by Han The Thanh.

19700 <*puvnenc>

```
19701 \DeclareTextCommand{\abreve}{PU}{\81\003}% U+0103
19702 \DeclareTextCommand{\acircumflex}{PU}{\80\342}% U+00E2
19703 \DeclareTextCommand{\ecircumflex}{PU}{\80\352}% U+00EA
19704 \DeclareTextCommand{\ocircumflex}{PU}{\80\364}% U+00F4
19705 \DeclareTextCommand{\ohorn}{PU}{\81\241}% U+01A1
19706 \DeclareTextCommand{\uhorn}{PU}{\81\260}% U+01B0
19707 \DeclareTextCommand{\ABREVE}{PU}{\81\002}% U+0102
19708 \DeclareTextCommand{\ACIRCUMFLEX}{PU}{\80\302}% U+00C2
19709 \DeclareTextCommand{\ECIRCUMFLEX}{PU}{\80\312}% U+00CA
19710 \DeclareTextCommand{\OCIRCUMFLEX}{PU}{\80\324}% U+00D4
19711 \DeclareTextCommand{\OHORN}{PU}{\81\240}% U+01A0
19712 \DeclareTextCommand{\UHORN}{PU}{\81\257}% U+01AF

19713 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\341}% U+00E1
19714 \DeclareTextCompositeCommand{\d}{PU}{a}{\9036\241}% U+1EA1
19715 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\340}% U+00E0
19716 \DeclareTextCompositeCommand{\h}{PU}{a}{\9036\243}% U+1EA3
19717 \DeclareTextCompositeCommand{\~}{PU}{a}{\80\343}% U+00E3
19718 \DeclareTextCompositeCommand{\'}{PU}{\abreve}{\9036\257}% U+1EAF
19719 \DeclareTextCompositeCommand{\d}{PU}{\abreve}{\9036\267}% U+1EB7
19720 \DeclareTextCompositeCommand{\'}{PU}{\abreve}{\9036\261}% U+1EB1
19721 \DeclareTextCompositeCommand{\h}{PU}{\abreve}{\9036\263}% U+1EB3
19722 \DeclareTextCompositeCommand{\~}{PU}{\abreve}{\9036\265}% U+1EB5
19723 \DeclareTextCompositeCommand{\'}{PU}{\acircumflex}{\9036\245}% U+1EA5
19724 \DeclareTextCompositeCommand{\d}{PU}{\acircumflex}{\9036\255}% U+1EAD
19725 \DeclareTextCompositeCommand{\'}{PU}{\acircumflex}{\9036\247}% U+1EA7
19726 \DeclareTextCompositeCommand{\h}{PU}{\acircumflex}{\9036\251}% U+1EA9
19727 \DeclareTextCompositeCommand{\~}{PU}{\acircumflex}{\9036\253}% U+1EAB
19728 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\351}% U+00E9
19729 \DeclareTextCompositeCommand{\d}{PU}{e}{\9036\271}% U+1EB9
19730 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\350}% U+00E8
19731 \DeclareTextCompositeCommand{\h}{PU}{e}{\9036\273}% U+1EBB
19732 \DeclareTextCompositeCommand{\~}{PU}{e}{\9036\275}% U+1EBD
19733 \DeclareTextCompositeCommand{\'}{PU}{\ecircumflex}{\9036\277}% U+1EBF
19734 \DeclareTextCompositeCommand{\d}{PU}{\ecircumflex}{\9036\307}% U+1EC7
19735 \DeclareTextCompositeCommand{\'}{PU}{\ecircumflex}{\9036\301}% U+1EC1
19736 \DeclareTextCompositeCommand{\h}{PU}{\ecircumflex}{\9036\303}% U+1EC3
19737 \DeclareTextCompositeCommand{\~}{PU}{\ecircumflex}{\9036\305}% U+1EC5
19738 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\355}% U+00ED
19739 \DeclareTextCompositeCommand{\d}{PU}{i}{\9036\313}% U+1ECB
19740 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\354}% U+00EC
19741 \DeclareTextCompositeCommand{\h}{PU}{i}{\9036\311}% U+1EC9
19742 \DeclareTextCompositeCommand{\~}{PU}{i}{\81\051}% U+0129
19743 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\363}% U+00F3
19744 \DeclareTextCompositeCommand{\d}{PU}{o}{\9036\315}% U+1ECD
19745 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\362}% U+00F2
19746 \DeclareTextCompositeCommand{\h}{PU}{o}{\9036\317}% U+1ECF
19747 \DeclareTextCompositeCommand{\~}{PU}{o}{\80\365}% U+00F5
19748 \DeclareTextCompositeCommand{\'}{PU}{\ocircumflex}{\9036\321}% U+1ED1
19749 \DeclareTextCompositeCommand{\d}{PU}{\ocircumflex}{\9036\331}% U+1ED9
19750 \DeclareTextCompositeCommand{\'}{PU}{\ocircumflex}{\9036\323}% U+1ED3
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19751 \DeclareTextCompositeCommand{\h}{PU}{\ocircumflex}{\9036\325}% U+1ED5
19752 \DeclareTextCompositeCommand{\~}{PU}{\ocircumflex}{\9036\327}% U+1ED7
19753 \DeclareTextCompositeCommand{\'}{PU}{\ohorn}{\9036\333}% U+1EDB
19754 \DeclareTextCompositeCommand{\d}{PU}{\ohorn}{\9036\343}% U+1EE3
19755 \DeclareTextCompositeCommand{\'}{PU}{\ohorn}{\9036\335}% U+1EDD
19756 \DeclareTextCompositeCommand{\h}{PU}{\ohorn}{\9036\337}% U+1EDF
19757 \DeclareTextCompositeCommand{\~}{PU}{\ohorn}{\9036\341}% U+1EE1
19758 \DeclareTextCompositeCommand{\'}{PU}{u}{\80\372}% U+00FA
19759 \DeclareTextCompositeCommand{\d}{PU}{u}{\9036\345}% U+1EE5
19760 \DeclareTextCompositeCommand{\'}{PU}{u}{\80\371}% U+00F9
19761 \DeclareTextCompositeCommand{\h}{PU}{u}{\9036\347}% U+1EE7
19762 \DeclareTextCompositeCommand{\~}{PU}{u}{\81\151}% U+0169
19763 \DeclareTextCompositeCommand{\'}{PU}{\uhorn}{\9036\351}% U+1EE9
19764 \DeclareTextCompositeCommand{\d}{PU}{\uhorn}{\9036\361}% U+1EF1
19765 \DeclareTextCompositeCommand{\'}{PU}{\uhorn}{\9036\353}% U+1EEB
19766 \DeclareTextCompositeCommand{\h}{PU}{\uhorn}{\9036\355}% U+1EED
19767 \DeclareTextCompositeCommand{\~}{PU}{\uhorn}{\9036\357}% U+1EEF
19768 \DeclareTextCompositeCommand{\'}{PU}{y}{\80\375}% U+00FD
19769 \DeclareTextCompositeCommand{\d}{PU}{y}{\9036\365}% U+1EF5
19770 \DeclareTextCompositeCommand{\'}{PU}{y}{\9036\363}% U+1EF3
19771 \DeclareTextCompositeCommand{\h}{PU}{y}{\9036\367}% U+1EF7
19772 \DeclareTextCompositeCommand{\~}{PU}{y}{\9036\371}% U+1EF9
19773 \DeclareTextCompositeCommand{\'}{PU}{A}{\80\301}% U+00C1
19774 \DeclareTextCompositeCommand{\d}{PU}{A}{\9036\240}% U+1EA0
19775 \DeclareTextCompositeCommand{\'}{PU}{A}{\80\300}% U+00C0
19776 \DeclareTextCompositeCommand{\h}{PU}{A}{\9036\242}% U+1EA2
19777 \DeclareTextCompositeCommand{\~}{PU}{A}{\80\303}% U+00C3
19778 \DeclareTextCompositeCommand{\'}{PU}{\ABREVE}{\9036\256}% U+1EAE
19779 \DeclareTextCompositeCommand{\d}{PU}{\ABREVE}{\9036\266}% U+1EB6
19780 \DeclareTextCompositeCommand{\'}{PU}{\ABREVE}{\9036\260}% U+1EB0
19781 \DeclareTextCompositeCommand{\h}{PU}{\ABREVE}{\9036\262}% U+1EB2
19782 \DeclareTextCompositeCommand{\~}{PU}{\ABREVE}{\9036\264}% U+1EB4
19783 \DeclareTextCompositeCommand{\'}{PU}{\ACIRCUMFLEX}{\9036\244}% U+1EA4
19784 \DeclareTextCompositeCommand{\d}{PU}{\ACIRCUMFLEX}{\9036\254}% U+1EAC
19785 \DeclareTextCompositeCommand{\'}{PU}{\ACIRCUMFLEX}{\9036\246}% U+1EA6
19786 \DeclareTextCompositeCommand{\h}{PU}{\ACIRCUMFLEX}{\9036\250}% U+1EA8
19787 \DeclareTextCompositeCommand{\~}{PU}{\ACIRCUMFLEX}{\9036\252}% U+1EAA
19788 \DeclareTextCompositeCommand{\'}{PU}{E}{\80\311}% U+00C9
19789 \DeclareTextCompositeCommand{\d}{PU}{E}{\9036\270}% U+1EB8
19790 \DeclareTextCompositeCommand{\'}{PU}{E}{\80\310}% U+00C8
19791 \DeclareTextCompositeCommand{\h}{PU}{E}{\9036\272}% U+1EBA
19792 \DeclareTextCompositeCommand{\~}{PU}{E}{\9036\274}% U+1EBC
19793 \DeclareTextCompositeCommand{\'}{PU}{\ECIRCUMFLEX}{\9036\276}% U+1EBE
19794 \DeclareTextCompositeCommand{\d}{PU}{\ECIRCUMFLEX}{\9036\306}% U+1EC6
19795 \DeclareTextCompositeCommand{\'}{PU}{\ECIRCUMFLEX}{\9036\300}% U+1EC0
19796 \DeclareTextCompositeCommand{\h}{PU}{\ECIRCUMFLEX}{\9036\302}% U+1EC2
19797 \DeclareTextCompositeCommand{\~}{PU}{\ECIRCUMFLEX}{\9036\304}% U+1EC4
19798 \DeclareTextCompositeCommand{\'}{PU}{I}{\80\315}% U+00CD
19799 \DeclareTextCompositeCommand{\d}{PU}{I}{\9036\312}% U+1ECA
19800 \DeclareTextCompositeCommand{\'}{PU}{I}{\80\314}% U+00CC
19801 \DeclareTextCompositeCommand{\h}{PU}{I}{\9036\310}% U+1EC8
19802 \DeclareTextCompositeCommand{\~}{PU}{I}{\81\050}% U+0128
19803 \DeclareTextCompositeCommand{\'}{PU}{O}{\80\323}% U+00D3
19804 \DeclareTextCompositeCommand{\d}{PU}{O}{\9036\314}% U+1ECC
19805 \DeclareTextCompositeCommand{\'}{PU}{O}{\80\322}% U+00D2
19806 \DeclareTextCompositeCommand{\h}{PU}{O}{\9036\316}% U+1ECE
19807 \DeclareTextCompositeCommand{\~}{PU}{O}{\80\325}% U+00D5

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19808 \DeclareTextCompositeCommand{\'}{PU}{\OCIRCUMFLEX}{\9036\320}% U+1ED0
19809 \DeclareTextCompositeCommand{\d}{PU}{\OCIRCUMFLEX}{\9036\330}% U+1ED8
19810 \DeclareTextCompositeCommand{\'}{PU}{\OCIRCUMFLEX}{\9036\322}% U+1ED2
19811 \DeclareTextCompositeCommand{\h}{PU}{\OCIRCUMFLEX}{\9036\324}% U+1ED4
19812 \DeclareTextCompositeCommand{\~}{PU}{\OCIRCUMFLEX}{\9036\326}% U+1ED6
19813 \DeclareTextCompositeCommand{\'}{PU}{\OHORN}{\9036\332}% U+1EDA
19814 \DeclareTextCompositeCommand{\d}{PU}{\OHORN}{\9036\342}% U+1EE2
19815 \DeclareTextCompositeCommand{\'}{PU}{\OHORN}{\9036\334}% U+1EDC
19816 \DeclareTextCompositeCommand{\h}{PU}{\OHORN}{\9036\336}% U+1EDE
19817 \DeclareTextCompositeCommand{\~}{PU}{\OHORN}{\9036\340}% U+1EE0
19818 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\332}% U+00DA
19819 \DeclareTextCompositeCommand{\d}{PU}{U}{\9036\344}% U+1EE4
19820 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\331}% U+00D9
19821 \DeclareTextCompositeCommand{\h}{PU}{U}{\9036\346}% U+1EE6
19822 \DeclareTextCompositeCommand{\~}{PU}{U}{\81\150}% U+0168
19823 \DeclareTextCompositeCommand{\'}{PU}{\UHORN}{\9036\350}% U+1EE8
19824 \DeclareTextCompositeCommand{\d}{PU}{\UHORN}{\9036\360}% U+1EF0
19825 \DeclareTextCompositeCommand{\'}{PU}{\UHORN}{\9036\352}% U+1EEA
19826 \DeclareTextCompositeCommand{\h}{PU}{\UHORN}{\9036\354}% U+1EEC
19827 \DeclareTextCompositeCommand{\~}{PU}{\UHORN}{\9036\356}% U+1EEE
19828 \DeclareTextCompositeCommand{\'}{PU}{Y}{\80\335}% U+00DD
19829 \DeclareTextCompositeCommand{\d}{PU}{Y}{\9036\364}% U+1EF4
19830 \DeclareTextCompositeCommand{\'}{PU}{Y}{\9036\362}% U+1EF2
19831 \DeclareTextCompositeCommand{\h}{PU}{Y}{\9036\366}% U+1EF6
19832 \DeclareTextCompositeCommand{\~}{PU}{Y}{\9036\370}% U+1EF8
19833 </puvnenc>

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51.4 PU encoding, additions for Arabi

This file is provided and maintained by Youssef Jabri.

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19834 <*puarenc>

19835 % U+0621;afii57409;ARABIC LETTER HAMZA
19836 \DeclareTextCommand{\hamza}{PU}{\86\041}% U+0621
19837 % U+0622;afii57410;ARABIC LETTER ALEF WITH MADDA ABOVE
19838 \DeclareTextCommand{\alefmadda}{PU}{\86\042}% U+0622
19839 % U+0623;afii57411;ARABIC LETTER ALEF WITH HAMZA ABOVE
19840 \DeclareTextCommand{\alefhamza}{PU}{\86\043}% U+0623
19841 % U+0624;afii57412;ARABIC LETTER WAW WITH HAMZA ABOVE
19842 \DeclareTextCommand{\wawhamza}{PU}{\86\044}% U+0624
19843 % U+0625;afii57413;ARABIC LETTER ALEF WITH HAMZA BELOW
19844 \DeclareTextCommand{\aleflowerhamza}{PU}{\86\045}% U+0625
19845 % U+0626;afii57414;ARABIC LETTER YEH WITH HAMZA ABOVE
19846 \DeclareTextCommand{\yahamza}{PU}{\86\046}% U+0626
19847 % U+0627;afii57415;ARABIC LETTER ALEF
19848 \DeclareTextCommand{\alef}{PU}{\86\047}% U+0627
19849 % U+0628;afii57416;ARABIC LETTER BEH
19850 \DeclareTextCommand{\baa}{PU}{\86\050}% U+0628
19851 % U+0629;afii57417;ARABIC LETTER TEH MARBUTA
19852 \DeclareTextCommand{\T}{PU}{\86\051}% U+0629
19853 % U+062A;afii57418;ARABIC LETTER TEH
19854 \DeclareTextCommand{\taa}{PU}{\86\052}% U+062A
19855 % U+062B;afii57419;ARABIC LETTER THEH
19856 \DeclareTextCommand{\thaa}{PU}{\86\053}% U+062B
19857 % U+062C;afii57420;ARABIC LETTER JEEM
19858 \DeclareTextCommand{\jeem}{PU}{\86\054}% U+062C
19859 % U+062D;afii57421;ARABIC LETTER HAH

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19860 \DeclareTextCommand{\Haa}{PU}{\86\055}% U+062D
 19861 % U+062E;afii57422;ARABIC LETTER KHAH
 19862 \DeclareTextCommand{\kha}{PU}{\86\056}% U+062E
 19863 % U+062F;afii57423;ARABIC LETTER DAL
 19864 \DeclareTextCommand{\dal}{PU}{\86\057}% U+062F
 19865 % U+0630;afii57424;ARABIC LETTER THAL
 19866 \DeclareTextCommand{\dhal}{PU}{\86\060}% U+0630
 19867 % U+0631;afii57425;ARABIC LETTER REH
 19868 \DeclareTextCommand{\ra}{PU}{\86\061}% U+0631
 19869 % U+0632;afii57426;ARABIC LETTER ZAIN
 19870 \DeclareTextCommand{\zay}{PU}{\86\062}% U+0632
 19871 % U+0633;afii57427;ARABIC LETTER SEEN
 19872 \DeclareTextCommand{\seen}{PU}{\86\063}% U+0633
 19873 % U+0634;afii57428;ARABIC LETTER SHEEN
 19874 \DeclareTextCommand{\sheen}{PU}{\86\064}% U+0634
 19875 % U+0635;afii57429;ARABIC LETTER SAD
 19876 \DeclareTextCommand{\sad}{PU}{\86\065}% U+0635
 19877 % U+0636;afii57430;ARABIC LETTER DAD
 19878 \DeclareTextCommand{\dad}{PU}{\86\066}% U+0636
 19879 % U+0637;afii57431;ARABIC LETTER TAH
 19880 \DeclareTextCommand{\Ta}{PU}{\86\067}% U+0637
 19881 % U+0638;afii57432;ARABIC LETTER ZAH
 19882 \DeclareTextCommand{\za}{PU}{\86\070}% U+0638
 19883 % U+0639;afii57433;ARABIC LETTER AIN
 19884 \DeclareTextCommand{\ayn}{PU}{\86\071}% U+0639
 19885 % U+063A;afii57434;ARABIC LETTER GHAIN
 19886 \DeclareTextCommand{\ghayn}{PU}{\86\072}% U+063A
 19887 % U+0640;afii57440;ARABIC TATWEEL
 19888 \DeclareTextCommand{\tatweel}{PU}{\86\100}% U+0640
 19889 % U+0641;afii57441;ARABIC LETTER FEH
 19890 \DeclareTextCommand{\fa}{PU}{\86\101}% U+0641
 19891 % U+0642;afii57442;ARABIC LETTER QAF
 19892 \DeclareTextCommand{\qaf}{PU}{\86\102}% U+0642
 19893 % U+0643;afii57443;ARABIC LETTER KAF
 19894 \DeclareTextCommand{\kaf}{PU}{\86\103}% U+0643
 19895 % U+0644;afii57444;ARABIC LETTER LAM
 19896 \DeclareTextCommand{\lam}{PU}{\86\104}% U+0644
 19897 % U+0645;afii57445;ARABIC LETTER MEEM
 19898 \DeclareTextCommand{\meem}{PU}{\86\105}% U+0645
 19899 % U+0646;afii57446;ARABIC LETTER NOON
 19900 \DeclareTextCommand{\nun}{PU}{\86\106}% U+0646
 19901 % U+0647;afii57470;ARABIC LETTER HEH
 19902 \DeclareTextCommand{\ha}{PU}{\86\107}% U+0647
 19903 % U+0648;afii57448;ARABIC LETTER WAW
 19904 \DeclareTextCommand{\waw}{PU}{\86\110}% U+0648
 19905 % U+0649;afii57449;ARABIC LETTER ALEF MAKSURA
 19906 \DeclareTextCommand{\alefmaqsura}{PU}{\86\111}% U+0649
 19907 % U+064A;afii57450;ARABIC LETTER YEH
 19908 \DeclareTextCommand{\ya}{PU}{\86\112}% U+064A
 19909 % U+064B;afii57451;ARABIC FATHATAN
 19910 \DeclareTextCommand{\nasb}{PU}{\86\113}% U+064B
 19911 % U+064C;afii57452;ARABIC DAMMATAN
 19912 \DeclareTextCommand{\raff}{PU}{\86\114}% U+064C
 19913 % U+064D;afii57453;ARABIC KASRATAN
 19914 \DeclareTextCommand{\jarr}{PU}{\86\115}% U+064D
 19915 % U+064E;afii57454;ARABIC FATHA
 19916 \DeclareTextCommand{\fatha}{PU}{\86\116}% U+064E

19917 % U+064F;afii57455;ARABIC DAMMA
 19918 \DeclareTextCommand{\damma}{PU}{\86\117}% U+064F
 19919 % U+0650;afii57456;ARABIC KASRA
 19920 \DeclareTextCommand{\kasra}{PU}{\86\120}% U+0650
 19921 % U+0651;afii57457;ARABIC SHADDA
 19922 \DeclareTextCommand{\shadda}{PU}{\86\121}% U+0651
 19923 % U+0652;afii57458;ARABIC SUKUN
 19924 \DeclareTextCommand{\sukun}{PU}{\86\122}% U+0652

 Farsi
 19925 % U+067E ARABIC LETTER PEH; afii57506
 19926 \DeclareTextCommand{\peh}{PU}{\86\176}% U+067E
 19927 % U+0686 ARABIC LETTER TCHEH; afii57507
 19928 \DeclareTextCommand{\tcheh}{PU}{\86\206}% U+0686
 19929 % U+0698 ARABIC LETTER JEH; afii57508
 19930 \DeclareTextCommand{\jeh}{PU}{\86\230}% U+0698
 19931 % U+06A9 ARABIC LETTER KEHEH
 19932 \DeclareTextCommand{\farsikaf}{PU}{\86\251}% U+06A9
 19933 % U+06AF ARABIC LETTER GAF; afii57509
 19934 \DeclareTextCommand{\gaf}{PU}{\86\257}% U+06AF
 19935 % U+06CC ARABIC LETTER FARSI YEH
 19936 \DeclareTextCommand{\farsiya}{PU}{\86\314}% U+06CC

 19937 % U+200C ZERO WIDTH NON-JOINER; afii61664
 19938 \DeclareTextCommand{\ZWNJ}{PU}{\9040\014}% U+200C
 19939 % U+200D ZERO WIDTH JOINER; afii301
 19940 \DeclareTextCommand{\noboundary}{PU}{\9040\015}% U+200D

 19941 \langle \rangle
 19942 \langle *psdextra \rangle
 19943 \Hy@VersionCheck{psdextra.def}
 19944 \newcommand*{\psdmapshortnames}{%
 19945 \let\MVPlus\textMVPlus
 19946 \let\MVComma\textMVComma
 19947 \let\MVMinus\textMVMinus
 19948 \let\MVPeriod\textMVPeriod
 19949 \let\MVDivision\textMVDivision
 19950 \let\MVZero\textMVZero
 19951 \let\MVOne\textMVOne
 19952 \let\MVTwo\textMVTwo
 19953 \let\MVThree\textMVThree
 19954 \let\MVFour\textMVFour
 19955 \let\MVFive\textMVFive
 19956 \let\MVSix\textMVSix
 19957 \let\MVSeven\textMVSeven
 19958 \let\MVEight\textMVEight
 19959 \let\MVNine\textMVNine
 19960 \let\MVAt\textMVAt
 19961 \let\copyright\textcopyright
 19962 \let\twosuperior\texttwosuperior
 19963 \let\threesuperior\textthreesuperior
 19964 \let\onesuperior\textonesuperior
 19965 \let\Thorn\textThorn
 19966 \let\thorn\textthorn
 19967 \let\hbar\texthbar
 19968 \let\hausaB\texthausaB
 19969 \let\hausaD\texthausaD
 19970 \let\hausaK\texthausaK
 19971 \let\barl\textbarl

19972 \let\inve\textinve
 19973 \let\slashc\textslashc
 19974 \let\scripta\textscripta
 19975 \let\openo\textopeno
 19976 \let\rtaild\textrtaild
 19977 \let\reve\textreve
 19978 \let\schwa\textschwa
 19979 \let\niepsilon\textniepsilon
 19980 \let\repsilon\textrepsilon
 19981 \let\rhookrepsilon\text\rhookrepsilon
 19982 \let\scriptg\textscriptg
 19983 \let\scg\textscg
 19984 \let\ipagamma\textipagamma
 19985 \let\babygamma\textbabygamma
 19986 \let\bari\textbari
 19987 \let\niiota\textniiota
 19988 \let\sci\textsci
 19989 \let\scn\textscn
 19990 \let\niphi\textniphi
 19991 \let\longleg\textlongleg
 19992 \let\scr\textscr
 19993 \let\invscr\textinvscr
 19994 \let\esh\textesh
 19995 \let\baru\textbaru
 19996 \let\niupsilon\textniupsilon
 19997 \let\scriptv\textscriptv
 19998 \let\turnv\textturnv
 19999 \let\turnw\textturnw
 20000 \let\turny\textturny
 20001 \let\scy\textscy
 20002 \let\yogh\textyogh
 20003 \let\glotstop\textglotstop
 20004 \let\revglotstop\textrevglotstop
 20005 \let\invglotstop\textinvglotstop
 20006 \let\Gamma\textGamma
 20007 \let\Delta\textDelta
 20008 \let\Theta\textTheta
 20009 \let\Lambda\textLambda
 20010 \let\Xi\textXi
 20011 \let\Pi\textPi
 20012 \let\Sigma\textSigma
 20013 \let\Upsilon\textUpsilon
 20014 \let\Phi\textPhi
 20015 \let\Psi\textPsi
 20016 \let\Omega\textOmega
 20017 \let\alpha\textalpha
 20018 \let\beta\textbeta
 20019 \let\gamma\textgamma
 20020 \let\delta\textdelta
 20021 \let\epsilon\textepsilon
 20022 \let\zeta\textzeta
 20023 \let\eta\texteta
 20024 \let\theta\texttheta
 20025 \let\iota\textiota
 20026 \let\kappa\textkappa
 20027 \let\lambda\textlambda
 20028 \let\mu\textmu

20029 `\let\nu\textnu`
 20030 `\let\xi\textxi`
 20031 `\let\pi\textpi`
 20032 `\let\rho\textrho`
 20033 `\let\varsigma\textvarsigma`
 20034 `\let\sigma\textsigma`
 20035 `\let\tau\texttau`
 20036 `\let\upsilon\textupsilon`
 20037 `\let\phi\textphi`
 20038 `\let\chi\textchi`
 20039 `\let\psi\textpsi`
 20040 `\let\omega\textomega`
 20041 `\let\scd\textscd`
 20042 `\let\scu\textscu`
 20043 `\let\iinferior\textiinferior`
 20044 `\let\rinferior\textrinferior`
 20045 `\let\uinferior\textuinferior`
 20046 `\let\vinferior\textvinferior`
 20047 `\let\betainferior\textbetainferior`
 20048 `\let\gammainferior\textgammainferior`
 20049 `\let\rhoinferior\textrhoinferior`
 20050 `\let\phiinferior\textphiinferior`
 20051 `\let\chiinferior\textchiinferior`
 20052 `\let\barsci\textbarsci`
 20053 `\let\barp\textbarp`
 20054 `\let\barscu\textbarscu`
 20055 `\let\htrtaild\texthtrtaild`
 20056 `\let\dagger\textdagger`
 20057 `\let\bullet\textbullet`
 20058 `\let\hdotfor\texthdotfor`
 20059 `\let\prime\textprime`
 20060 `\let\second\textsecond`
 20061 `\let\third\textthird`
 20062 `\let\backprime\textbackprime`
 20063 `\let\lefttherefore\textlefttherefore`
 20064 `\let\fourth\textfourth`
 20065 `\let\diamonddots\textdiamonddots`
 20066 `\let\zerosuperior\textzerosuperior`
 20067 `\let\isuperior\textisuperior`
 20068 `\let\foursuperior\textfoursuperior`
 20069 `\let\fivesuperior\textfivesuperior`
 20070 `\let\sixsuperior\textsixsuperior`
 20071 `\let\sevensuperior\textsevensuperior`
 20072 `\let\eightsuperior\texteightsuperior`
 20073 `\let\ninesuperior\textninesuperior`
 20074 `\let\plussuperior\textplussuperior`
 20075 `\let\minussuperior\textminussuperior`
 20076 `\let\equalsuperior\textequalsuperior`
 20077 `\let\parenleftsuperior\textparenleftsuperior`
 20078 `\let\parenrightsuperior\textparenrightsuperior`
 20079 `\let\nsuperior\textnsuperior`
 20080 `\let\zeroinferior\textzeroinferior`
 20081 `\let\oneinferior\textoneinferior`
 20082 `\let\twoinferior\texttwoinferior`
 20083 `\let\threeinferior\textthreeinferior`
 20084 `\let\fourinferior\textfourinferior`
 20085 `\let\fiveinferior\textfiveinferior`

20086 \let\sixinferior\textsixinferior
 20087 \let\seveninferior\textseveninferior
 20088 \let\eightinferior\texteightinferior
 20089 \let\nineinferior\textnineinferior
 20090 \let\plusinferior\textplusinferior
 20091 \let\minusinferior\textminusinferior
 20092 \let\equalsinferior\textequalsinferior
 20093 \let\parenleftinferior\textparenleftinferior
 20094 \let\parenrightinferior\textparenrightinferior
 20095 \let\ainferior\textainferior
 20096 \let\einferior\texteinferior
 20097 \let\oinferior\textoinferior
 20098 \let\xinferior\textxinferior
 20099 \let\schwainferior\textschwainferior
 20100 \let\hinferior\texthinferior
 20101 \let\kinferior\textkinferior
 20102 \let\linferior\textlinferior
 20103 \let\minferior\textminferior
 20104 \let\ninferior\textninferior
 20105 \let\pinferior\textpinferior
 20106 \let\sinferior\textsinferior
 20107 \let\tinferior\texttinferior
 20108 \let\Deleatur\textDeleatur
 20109 \let\hslash\texthslash
 20110 \let\Im\textIm
 20111 \let\ell\textell
 20112 \let\wp\textwp
 20113 \let\Re\textRe
 20114 \let\mho\textmho
 20115 \let\riota\textriota
 20116 \let\Finv\textFinv
 20117 \let\aleph\textaleph
 20118 \let\beth\textbeth
 20119 \let\gimel\textgimel
 20120 \let\daleth\textdaleth
 20121 \let\xfax\textfax
 20122 \let\Game\textGame
 20123 \let\leftarrow\textleftarrow
 20124 \let\uparrow\textuparrow
 20125 \let\rightarrow\textrightarrow
 20126 \let\downarrow\textdownarrow
 20127 \let\leftrightarrow\textleftrightarrow
 20128 \let\updownarrow\textupdownarrow
 20129 \let\nwarrow\textnwarrow
 20130 \let\nearrow\textnearrow
 20131 \let\searrow\textsearrow
 20132 \let\swarrow\textswarrow
 20133 \let\leftleftarrows\textleftleftarrows
 20134 \let\leftrightarrows\textleftrightarrows
 20135 \let\twoheadleftarrow\texttwoheadleftarrow
 20136 \let\twoheaduparrow\texttwoheaduparrow
 20137 \let\twoheadrightarrow\texttwoheadrightarrow
 20138 \let\twoheaddownarrow\texttwoheaddownarrow
 20139 \let\leftarrowtail\textleftarrowtail
 20140 \let\rightarrowtail\textrightarrowtail
 20141 \let\mapsto\textmapsto
 20142 \let\hookleftarrow\texthookleftarrow

20143 `\let\hookrightarrow\texthookrightarrow`
 20144 `\let\looparrowleft\textlooparrowleft`
 20145 `\let\looparrowright\textlooparrowright`
 20146 `\let\leftrightharpoonarrow\textnleftrightharpoonarrow`
 20147 `\let\lightning\textlightning`
 20148 `\let\dlsh\textdlsh`
 20149 `\let\curvearrowleft\textcurvearrowleft`
 20150 `\let\curvearrowright\textcurvearrowright`
 20151 `\let\leftharpoonup\textleftharpoonup`
 20152 `\let\leftharpoondown\textleftharpoondown`
 20153 `\let\upharpoonright\textupharpoonright`
 20154 `\let\upharpoonleft\textupharpoonleft`
 20155 `\let\rightharpoonup\texttrightharpoonup`
 20156 `\let\rightharpoondown\texttrightharpoondown`
 20157 `\let\downharpoonright\textdownharpoonright`
 20158 `\let\downharpoonleft\textdownharpoonleft`
 20159 `\let\rightleftarrows\textrightleftarrows`
 20160 `\let\updownarrows\textupdownarrows`
 20161 `\let\leftrightarrows\textleftrightarrows`
 20162 `\let\leftleftarrows\textleftleftarrows`
 20163 `\let\upuparrows\textupuparrows`
 20164 `\let\righttrightarrows\textrighttrightarrows`
 20165 `\let\downdownarrows\textdowndownarrows`
 20166 `\let\leftrightharpoons\textleftrightharpoons`
 20167 `\let\rightleftharpoons\textrightleftharpoons`
 20168 `\let\mathrel{\rightarrow}\textnrightarrow`
 20169 `\let\mathrel{\rightarrow}\textnrightarrow`
 20170 `\let\mathrel{\rightarrow}\textnrightarrow`
 20171 `\let\mathrel{\rightarrow}\textnrightarrow`
 20172 `\let\mathrel{\rightarrow}\textnrightarrow`
 20173 `\let\mathrel{\rightarrow}\textnrightarrow`
 20174 `\let\mathrel{\rightarrow}\textnrightarrow`
 20175 `\let\mathrel{\rightarrow}\textnrightarrow`
 20176 `\let\mathrel{\rightarrow}\textnrightarrow`
 20177 `\let\mathrel{\rightarrow}\textnrightarrow`
 20178 `\let\mathrel{\rightarrow}\textnrightarrow`
 20179 `\let\mathrel{\rightarrow}\textnrightarrow`
 20180 `\let\mathrel{\rightarrow}\textnrightarrow`
 20181 `\let\mathrel{\rightarrow}\textnrightarrow`
 20182 `\let\mathrel{\rightarrow}\textnrightarrow`
 20183 `\let\mathrel{\rightarrow}\textnrightarrow`
 20184 `\let\mathrel{\rightarrow}\textnrightarrow`
 20185 `\let\mathrel{\rightarrow}\textnrightarrow`
 20186 `\let\mathrel{\rightarrow}\textnrightarrow`
 20187 `\let\mathrel{\rightarrow}\textnrightarrow`
 20188 `\let\mathrel{\rightarrow}\textnrightarrow`
 20189 `\let\mathrel{\rightarrow}\textnrightarrow`
 20190 `\let\mathrel{\rightarrow}\textnrightarrow`
 20191 `\let\mathrel{\rightarrow}\textnrightarrow`
 20192 `\let\mathrel{\rightarrow}\textnrightarrow`
 20193 `\let\mathrel{\rightarrow}\textnrightarrow`
 20194 `\let\mathrel{\rightarrow}\textnrightarrow`
 20195 `\let\mathrel{\rightarrow}\textnrightarrow`
 20196 `\let\mathrel{\rightarrow}\textnrightarrow`
 20197 `\let\mathrel{\rightarrow}\textnrightarrow`
 20198 `\let\mathrel{\rightarrow}\textnrightarrow`
 20199 `\let\mathrel{\rightarrow}\textnrightarrow`

20200 \let\triangle\texttriangle
 20201 \let\nabla\textnabla
 20202 \let\in\textin
 20203 \let\notin\textnotin
 20204 \let\smallin\textsmallin
 20205 \let\ni\textni
 20206 \let\notowner\textnotowner
 20207 \let\smallowns\textsmallowns
 20208 \let\prod\textprod
 20209 \let\amalg\textamalg
 20210 \let\sum\textsum
 20211 \let\mp\textmp
 20212 \let\dotplus\textdotplus
 20213 \let\Divides\textDivides
 20214 \let\DividesNot\textDividesNot
 20215 \let\setminus\textsetminus
 20216 \let\ast\textast
 20217 \let\circ\textcirc
 20218 \let\surd\textsurd
 20219 \let\propto\textpropto
 20220 \let\infty\textinfty
 20221 \let\angle\textangle
 20222 \let\measuredangle\textmeasuredangle
 20223 \let\sphericalangle\textsphericalangle
 20224 \let\mid\textmid
 20225 \let\nmid\textnmid
 20226 \let\parallel\textparallel
 20227 \let\nparallel\textnparallel
 20228 \let\wedge\textwedge
 20229 \let\owedge\textowedge
 20230 \let\vee\textvee
 20231 \let\ovee\textovee
 20232 \let\cap\textcap
 20233 \let\cup\textcup
 20234 \let\int\textint
 20235 \let\iint\textiint
 20236 \let\iiint\textiiint
 20237 \let\oint\textoint
 20238 \let\oiint\textoiint
 20239 \let\ointclockwise\textointclockwise
 20240 \let\ointctrlockwise\textointctrlockwise
 20241 \let\therefore\texttherefore
 20242 \let\because\textbecause
 20243 \let\vdots\textvdots
 20244 \let\squaredots\textsquaredots
 20245 \let\dotminus\textdotminus
 20246 \let\eqcolon\texteqcolon
 20247 \let\sim\textsim
 20248 \let\backsim\textbacksim
 20249 \let\wr\textwr
 20250 \let\sim\textsim
 20251 \let\simeq\textsimeq
 20252 \let\cong\textcong
 20253 \let\ncong\textncong
 20254 \let\approx\textapprox
 20255 \let\approxeq\textapproxeq
 20256 \let\triplesim\texttriplesim

20257 \let\backcong\textbackcong
 20258 \let\asympt\textasympt
 20259 \let\Bumpeq\textBumpeq
 20260 \let\bumpeq\textbumpeq
 20261 \let\doteq\textdoteq
 20262 \let\doteqdot\textdoteqdot
 20263 \let\fallingdoteq\textfallingdoteq
 20264 \let\risingdoteq\textrisingdoteq
 20265 \let\colonequals\textcolonequals
 20266 \let\equalscolon\textequalscolon
 20267 \let\eqcirc\texteqcirc
 20268 \let\circeq\textcirceq
 20269 \let\hateq\texthateq
 20270 \let\triangleeq\texttriangleeq
 20271 \let\neq\textneq
 20272 \let\ne\textne
 20273 \let\equiv\textequiv
 20274 \let\nequiv\textnequiv
 20275 \let\leq\textleq
 20276 \let\le\textle
 20277 \let\geq\textgeq
 20278 \let\ge\textge
 20279 \let\leqq\textleqq
 20280 \let\geqq\textgeqq
 20281 \let\lneqq\textlneqq
 20282 \let\gneqq\textgneqq
 20283 \let\ll\textll
 20284 \let\gg\textgg
 20285 \let\between\textbetween
 20286 \let\nless\textnless
 20287 \let\ngtr\textngtr
 20288 \let\nleq\textnleq
 20289 \let\ngeq\textngeq
 20290 \let\lesssim\textlessim
 20291 \let\gtrsim\textgtrsim
 20292 \let\lessgtr\textlessgtr
 20293 \let\gtrless\textgtrless
 20294 \let\prec\textprec
 20295 \let\succ\textsucc
 20296 \let\preccurlyeq\textpreccurlyeq
 20297 \let\succcurlyeq\textsucccurlyeq
 20298 \let\precsim\textprecsim
 20299 \let\succsim\textsuccsim
 20300 \let\prec\textnprec
 20301 \let\succ\textnsucc
 20302 \let\subset\textsubset
 20303 \let\supset\textsupset
 20304 \let\subsetset\textsubsetset
 20305 \let\supsetset\textsupsetset
 20306 \let\subseteq\textsubseteq
 20307 \let\supseteq\textsupseteq
 20308 \let\subsetseteq\textsubsetseteq
 20309 \let\supsetseteq\textsupsetseteq
 20310 \let\subsetsetneq\textsubsetsetneq
 20311 \let\supsetsetneq\textsupsetsetneq
 20312 \let\cupdot\textcupdot
 20313 \let\cupplus\textcupplus

20314 $\backslash\text{let}\backslash\text{sqsubset}\backslash\text{textsqssubset}$
 20315 $\backslash\text{let}\backslash\text{nsqsubset}\backslash\text{textnsqsubset}$
 20316 $\backslash\text{let}\backslash\text{sqsupset}\backslash\text{textsqsupset}$
 20317 $\backslash\text{let}\backslash\text{nsqsupset}\backslash\text{textnsqsupset}$
 20318 $\backslash\text{let}\backslash\text{sqsubseteq}\backslash\text{textsqssubseq}$
 20319 $\backslash\text{let}\backslash\text{nsqsubseteq}\backslash\text{textnsqsubseq}$
 20320 $\backslash\text{let}\backslash\text{sqsupseteq}\backslash\text{textsqsupseq}$
 20321 $\backslash\text{let}\backslash\text{nsqsupseteq}\backslash\text{textnsqsupseq}$
 20322 $\backslash\text{let}\backslash\text{sqcap}\backslash\text{textsqqcap}$
 20323 $\backslash\text{let}\backslash\text{sqcup}\backslash\text{textsqqcup}$
 20324 $\backslash\text{let}\backslash\text{oplus}\backslash\text{textoplus}$
 20325 $\backslash\text{let}\backslash\text{ominus}\backslash\text{textominus}$
 20326 $\backslash\text{let}\backslash\text{otimes}\backslash\text{textotimes}$
 20327 $\backslash\text{let}\backslash\text{oslash}\backslash\text{textoslash}$
 20328 $\backslash\text{let}\backslash\text{odot}\backslash\text{textodot}$
 20329 $\backslash\text{let}\backslash\text{circledcirc}\backslash\text{textcircledcirc}$
 20330 $\backslash\text{let}\backslash\text{circledast}\backslash\text{textcircledast}$
 20331 $\backslash\text{let}\backslash\text{circleddash}\backslash\text{textcircleddash}$
 20332 $\backslash\text{let}\backslash\text{boxplus}\backslash\text{textboxplus}$
 20333 $\backslash\text{let}\backslash\text{boxminus}\backslash\text{textboxminus}$
 20334 $\backslash\text{let}\backslash\text{boxtimes}\backslash\text{textboxtimes}$
 20335 $\backslash\text{let}\backslash\text{boxdot}\backslash\text{textboxdot}$
 20336 $\backslash\text{let}\backslash\text{vdash}\backslash\text{textvdash}$
 20337 $\backslash\text{let}\backslash\text{dashv}\backslash\text{texdashv}$
 20338 $\backslash\text{let}\backslash\text{top}\backslash\text{texttop}$
 20339 $\backslash\text{let}\backslash\text{bot}\backslash\text{textbot}$
 20340 $\backslash\text{let}\backslash\text{vDash}\backslash\text{textvDash}$
 20341 $\backslash\text{let}\backslash\text{Vdash}\backslash\text{textVdash}$
 20342 $\backslash\text{let}\backslash\text{Vvdash}\backslash\text{textVvdash}$
 20343 $\backslash\text{let}\backslash\text{VDash}\backslash\text{textVDash}$
 20344 $\backslash\text{let}\backslash\text{nvdash}\backslash\text{textnvdash}$
 20345 $\backslash\text{let}\backslash\text{nvDash}\backslash\text{textnvDash}$
 20346 $\backslash\text{let}\backslash\text{nVDash}\backslash\text{textnVDash}$
 20347 $\backslash\text{let}\backslash\text{lhs}\backslash\text{textrhs}$
 20348 $\backslash\text{let}\backslash\text{rhd}\backslash\text{textrhd}$
 20349 $\backslash\text{let}\backslash\text{unlhd}\backslash\text{textunlhd}$
 20350 $\backslash\text{let}\backslash\text{unrhd}\backslash\text{textunrhd}$
 20351 $\backslash\text{let}\backslash\text{multimapdotbothA}\backslash\text{textmultimapdotbothA}$
 20352 $\backslash\text{let}\backslash\text{multimapdotbothB}\backslash\text{textmultimapdotbothB}$
 20353 $\backslash\text{let}\backslash\text{multimap}\backslash\text{textmultimap}$
 20354 $\backslash\text{let}\backslash\text{veebar}\backslash\text{textveebar}$
 20355 $\backslash\text{let}\backslash\text{barwedge}\backslash\text{textbarwedge}$
 20356 $\backslash\text{let}\backslash\text{star}\backslash\text{textstar}$
 20357 $\backslash\text{let}\backslash\text{divideontimes}\backslash\text{textdivideontimes}$
 20358 $\backslash\text{let}\backslash\text{bowtie}\backslash\text{textbowtie}$
 20359 $\backslash\text{let}\backslash\text{ltimes}\backslash\text{textrtimes}$
 20360 $\backslash\text{let}\backslash\text{rtimes}\backslash\text{textrtimes}$
 20361 $\backslash\text{let}\backslash\text{leftthreetimes}\backslash\text{textleftthreetimes}$
 20362 $\backslash\text{let}\backslash\text{rightthreetimes}\backslash\text{textrightthreetimes}$
 20363 $\backslash\text{let}\backslash\text{backsimeq}\backslash\text{textbacksimeq}$
 20364 $\backslash\text{let}\backslash\text{curlyvee}\backslash\text{textcurlyvee}$
 20365 $\backslash\text{let}\backslash\text{curlywedge}\backslash\text{textcurlywedge}$
 20366 $\backslash\text{let}\backslash\text{Subset}\backslash\text{textSubset}$
 20367 $\backslash\text{let}\backslash\text{nSubset}\backslash\text{textnSubset}$
 20368 $\backslash\text{let}\backslash\text{Supset}\backslash\text{textSupset}$
 20369 $\backslash\text{let}\backslash\text{nSupset}\backslash\text{textnSupset}$
 20370 $\backslash\text{let}\backslash\text{Cap}\backslash\text{textCap}$

20371 \let\Cup\textCup
 20372 \let\pitchfork\textpitchfork
 20373 \let\lessdot\textlessdot
 20374 \let\gtrdot\textgtrdot
 20375 \let\lll\textlll
 20376 \let\ggg\textggg
 20377 \let\lesseqgtr\textlesseqgtr
 20378 \let\gtreqless\textgtreqless
 20379 \let\curlyeqprec\textcurlyeqprec
 20380 \let\curlyeqsucc\textcurlyeqsucc
 20381 \let\npreccurlyeq\textnpreccurlyeq
 20382 \let\nsucccurlyeq\textnsucccurlyeq
 20383 \let\nqsubseteq\textnqsubseteq
 20384 \let\nqsupseteq\textnqsupseteq
 20385 \let\sqsubsetneq\textsqsubsetneq
 20386 \let\sqsupsetneq\textsqsupsetneq
 20387 \let\lnsim\textlnsim
 20388 \let\gnsim\textgnsim
 20389 \let\precnsim\textprecnsim
 20390 \let\succnsim\textsuccnsim
 20391 \let\ntriangleright\textntriangleright
 20392 \let\ntriangleright\textntriangleright
 20393 \let\ntrianglerighteq\textntrianglerighteq
 20394 \let\ntrianglerighteq\textntrianglerighteq
 20395 \let\vdots\textvdots
 20396 \let\cdots\textcdots
 20397 \let\udots\textudots
 20398 \let\ddots\textddots
 20399 \let\barin\textbarin
 20400 \let\diameter\textdiameter
 20401 \let\backneg\textbackneg
 20402 \let\wasylounge\textwasylounge
 20403 \let\invbackneg\textinvbackneg
 20404 \let\clock\textclock
 20405 \let\ulcorner\textulcorner
 20406 \let\urcorner\texturcorner
 20407 \let\llcorner\textllcorner
 20408 \let\lrcorner\textlrcorner
 20409 \let\frown\textfrown
 20410 \let\smile\textsmile
 20411 \let\Keyboard\textKeyboard
 20412 \let\langle\textlangle
 20413 \let\rangle\textrangle
 20414 \let\APLinv\textAPLinv
 20415 \let\notslash\textnotslash
 20416 \let\notbackslash\textnotbackslash
 20417 \let\boxbackslash\textboxbackslash
 20418 \let\APLleftarrowbox\textAPLleftarrowbox
 20419 \let\APLrightarrowbox\textAPLrightarrowbox
 20420 \let\APLuparrowbox\textAPLuparrowbox
 20421 \let\APLdownarrowbox\textAPLdownarrowbox
 20422 \let\APLinput\textAPLinput
 20423 \let\Request\textRequest
 20424 \let\hexagon\texthexagon
 20425 \let\APLbox\textAPLbox
 20426 \let\ForwardToIndex\textForwardToIndex
 20427 \let\RewindToIndex\textRewindToIndex

20428 \let\bbslash\textbbslash
 20429 \let\CircledA\textCircledA
 20430 \let\CleaningF\textCleaningF
 20431 \let\CleaningFF\textCleaningFF
 20432 \let\CleaningP\textCleaningP
 20433 \let\CleaningPP\textCleaningPP
 20434 \let\CuttingLine\textCuttingLine
 20435 \let\UParrow\textUParrow
 20436 \let\bigtriangleup\textbigtriangleup
 20437 \let\Forward\textForward
 20438 \let\triangleright\texttriangleright
 20439 \let\RHD\textRHD
 20440 \let\DOWNarrow\textDOWNarrow
 20441 \let\bigtriangledown\textbigtriangledown
 20442 \let\Rewind\textRewind
 20443 \let\triangleleft\texttriangleleft
 20444 \let\LHD\textLHD
 20445 \let\diamond\textdiamond
 20446 \let\lozenge\textlozenge
 20447 \let\LEFTCIRCLE\textLEFTCIRCLE
 20448 \let\RIGHTCIRCLE\textRIGHTCIRCLE
 20449 \let\openbullet\textopenbullet
 20450 \let\boxbar\textboxbar
 20451 \let\bigcircle\textbigcircle
 20452 \let\Cloud\textCloud
 20453 \let\FiveStar\textFiveStar
 20454 \let\FiveStarOpen\textFiveStarOpen
 20455 \let\Phone\textPhone
 20456 \let\boxempty\textboxempty
 20457 \let\Checkedbox\textCheckedbox
 20458 \let\Crossedbox\textCrossedbox
 20459 \let\Coffeecup\textCoffeecup
 20460 \let\HandCuffLeft\textHandCuffLeft
 20461 \let\HandCuffRight\textHandCuffRight
 20462 \let\HandLeft\textHandLeft
 20463 \let\HandRight\textHandRight
 20464 \let\Radioactivity\textRadioactivity
 20465 \let\Biohazard\textBiohazard
 20466 \let\Ankh\textAnkh
 20467 \let\YinYang\textYinYang
 20468 \let\frownie\textfrownie
 20469 \let\smiley\textsmiley
 20470 \let\blacksmiley\textblacksmiley
 20471 \let\sun\textsun
 20472 \let\leftmoon\textleftmoon
 20473 \let\rightmoon\textrightmoon
 20474 \let\mercury\textmercury
 20475 \let\earth\textearth
 20476 \let\male\textmale
 20477 \let\jupiter\textjupiter
 20478 \let\saturn\textsaturn
 20479 \let\uranus\texturanus
 20480 \let\neptune\textneptune
 20481 \let\pluto\textpluto
 20482 \let\aries\textaries
 20483 \let\taurus\texttaurus
 20484 \let\gemini\textgemini

20485 \let\cancer\textcancer
 20486 \let\leo\textleo
 20487 \let\virgo\textvirgo
 20488 \let\libra\textlibra
 20489 \let\scorpio\textscorpio
 20490 \let\sagittarius\textsagittarius
 20491 \let\capricorn\textcapricorn
 20492 \let\aquarius\textaquarius
 20493 \let\pisces\textpisces
 20494 \let\quarternote\textquarternote
 20495 \let\twonotes\texttwonotes
 20496 \let\sixteenthnote\textsixteenthnote
 20497 \let\flat\textflat
 20498 \let\natural\textnatural
 20499 \let\sharp\textsharp
 20500 \let\recycle\textrecycle
 20501 \let\Wheelchair\textWheelchair
 20502 \let\Flag\textFlag
 20503 \let\MineSign\textMineSign
 20504 \let\dsmlilitary\textdsmlilitary
 20505 \let\dsmedical\textdsmedical
 20506 \let\dsjuridical\textdsjuridical
 20507 \let\dschemical\textdschemical
 20508 \let\dsbiological\textdsbiological
 20509 \let\dscommercial\textdscommercial
 20510 \let\manstar\textmanstar
 20511 \let\danger\textdanger
 20512 \let\FemaleFemale\textFemaleFemale
 20513 \let\MaleMale\textMaleMale
 20514 \let\FemaleMale\textFemaleMale
 20515 \let\Hermaphrodite\textHermaphrodite
 20516 \let\Neutral\textNeutral
 20517 \let\hexstar\texthexstar
 20518 \let\SunCload\textSunCload
 20519 \let\Rain\textRain
 20520 \let\noway\textnoway
 20521 \let\Mountain\textMountain
 20522 \let\Tent\textTent
 20523 \let\ScissorRight\textScissorRight
 20524 \let\ScissorRightBrokenTop\textScissorRightBrokenTop
 20525 \let\ScissorHollowRight\textScissorHollowRight
 20526 \let\PhoneHandset\textPhoneHandset
 20527 \let\Tape\textTape
 20528 \let\Plane\textPlane
 20529 \let\Envelope\textEnvelope
 20530 \let\Peace\textPeace
 20531 \let\WritingHand\textWritingHand
 20532 \let\PencilRightDown\textPencilRightDown
 20533 \let\PencilRight\textPencilRight
 20534 \let\PencilRightUp\textPencilRightUp
 20535 \let\NibRight\textNibRight
 20536 \let\NibSolidRight\textNibSolidRight
 20537 \let\Checkmark\textCheckmark
 20538 \let\CheckmarkBold\textCheckmarkBold
 20539 \let\XSolid\textXSolid
 20540 \let\XSolidBold\textXSolidBold
 20541 \let\XSolidBrush\textXSolidBrush

20542 \let\PlusOutline\textPlusOutline
 20543 \let\Plus\textPlus
 20544 \let\PlusThinCenterOpen\textPlusThinCenterOpen
 20545 \let\PlusCenterOpen\textPlusCenterOpen
 20546 \let\Cross\textCross
 20547 \let\CrossOpenShadow\textCrossOpenShadow
 20548 \let\CrossOutline\textCrossOutline
 20549 \let\CrossMaltese\textCrossMaltese
 20550 \let\DavidStar\textDavidStar
 20551 \let\FourAsterisk\textFourAsterisk
 20552 \let\JackStar\textJackStar
 20553 \let\JackStarBold\textJackStarBold
 20554 \let\ClowerTips\textClowerTips
 20555 \let\FourStar\textFourStar
 20556 \let\FourStarOpen\textFourStarOpen
 20557 \let\FiveStarOpenCircled\textFiveStarOpenCircled
 20558 \let\FiveStarCenterOpen\textFiveStarCenterOpen
 20559 \let\FiveStarOpenDotted\textFiveStarOpenDotted
 20560 \let\FiveStarOutline\textFiveStarOutline
 20561 \let\FiveStarOutlineHeavy\textFiveStarOutlineHeavy
 20562 \let\FiveStarConvex\textFiveStarConvex
 20563 \let\FiveStarShadow\textFiveStarShadow
 20564 \let\AsteriskBold\textAsteriskBold
 20565 \let\AsteriskCenterOpen\textAsteriskCenterOpen
 20566 \let\EightStarTaper\textEightStarTaper
 20567 \let\EightStarConvex\textEightStarConvex
 20568 \let\SixStar\textSixStar
 20569 \let\EightStar\textEightStar
 20570 \let\EightStarBold\textEightStarBold
 20571 \let\TwelveStar\textTwelveStar
 20572 \let\SixteenStarLight\textSixteenStarLight
 20573 \let\SixFlowerPetalRemoved\textSixFlowerPetalRemoved
 20574 \let\SixFlowerOpenCenter\textSixFlowerOpenCenter
 20575 \let\Asterisk\textAsterisk
 20576 \let\SixFlowerAlternate\textSixFlowerAlternate
 20577 \let\FiveFlowerPetal\textFiveFlowerPetal
 20578 \let\FiveFlowerOpen\textFiveFlowerOpen
 20579 \let\EightFlowerPetal\textEightFlowerPetal
 20580 \let\SunshineOpenCircled\textSunshineOpenCircled
 20581 \let\SixFlowerAltPetal\textSixFlowerAltPetal
 20582 \let\SnowflakeChevron\textSnowflakeChevron
 20583 \let\Snowflake\textSnowflake
 20584 \let\SnowflakeChevronBold\textSnowflakeChevronBold
 20585 \let\Sparkle\textSparkle
 20586 \let\SparkleBold\textSparkleBold
 20587 \let\AsteriskRoundedEnds\textAsteriskRoundedEnds
 20588 \let\EightFlowerPetalRemoved\textEightFlowerPetalRemoved
 20589 \let\EightAsterisk\textEightAsterisk
 20590 \let\CircleShadow\textCircleShadow
 20591 \let\SquareShadowBottomRight\textSquareShadowBottomRight
 20592 \let\SquareTopRight\textSquareTopRight
 20593 \let\SquareCastShadowBottomRight\textSquareCastShadowBottomRight
 20594 \let\SquareCastShadowTopRight\textSquareCastShadowTopRight
 20595 \let\DiamandSolid\textDiamandSolid
 20596 \let\RectangleThin\textRectangleThin
 20597 \let\Rectangle\textRectangle
 20598 \let\RectangleBold\textRectangleBold

20599 $\backslash\mathrm{let}\backslash\mathrm{perp}\backslash\mathrm{textperp}$
 20600 $\backslash\mathrm{let}\backslash\mathrm{veedot}\backslash\mathrm{textveedot}$
 20601 $\backslash\mathrm{let}\backslash\mathrm{wedgedot}\backslash\mathrm{textwedgedot}$
 20602 $\backslash\mathrm{let}\backslash\mathrm{leftspoon}\backslash\mathrm{textleftspoon}$
 20603 $\backslash\mathrm{let}\backslash\mathrm{lbrackdbl}\backslash\mathrm{textlbrackdbl}$
 20604 $\backslash\mathrm{let}\backslash\mathrm{rbrackdbl}\backslash\mathrm{textrbrackdbl}$
 20605 $\backslash\mathrm{let}\backslash\mathrm{circlearrowleft}\backslash\mathrm{textcirclearrowleft}$
 20606 $\backslash\mathrm{let}\backslash\mathrm{circlearrowright}\backslash\mathrm{textcirclearrowright}$
 20607 $\backslash\mathrm{let}\backslash\mathrm{longleftarrow}\backslash\mathrm{textlongleftarrow}$
 20608 $\backslash\mathrm{let}\backslash\mathrm{longrightarrow}\backslash\mathrm{textlongrightarrow}$
 20609 $\backslash\mathrm{let}\backslash\mathrm{longleftarrowrightarrow}\backslash\mathrm{textlongleftarrowrightarrow}$
 20610 $\backslash\mathrm{let}\backslash\mathrm{Longleftarrow}\backslash\mathrm{textLongleftarrow}$
 20611 $\backslash\mathrm{let}\backslash\mathrm{Longrightarrow}\backslash\mathrm{textLongrightarrow}$
 20612 $\backslash\mathrm{let}\backslash\mathrm{Longleftarrowrightarrow}\backslash\mathrm{textLongleftarrowrightarrow}$
 20613 $\backslash\mathrm{let}\backslash\mathrm{longmapsto}\backslash\mathrm{textlongmapsto}$
 20614 $\backslash\mathrm{let}\backslash\mathrm{Longmapsfrom}\backslash\mathrm{textLongmapsfrom}$
 20615 $\backslash\mathrm{let}\backslash\mathrm{Longmapsto}\backslash\mathrm{textLongmapsto}$
 20616 $\backslash\mathrm{let}\backslash\mathrm{nwsearrow}\backslash\mathrm{textnwsearrow}$
 20617 $\backslash\mathrm{let}\backslash\mathrm{neswarrow}\backslash\mathrm{textneswarrow}$
 20618 $\backslash\mathrm{let}\backslash\mathrm{hookrightarrow}\backslash\mathrm{texthookrightarrow}$
 20619 $\backslash\mathrm{let}\backslash\mathrm{hookrightarrow}\backslash\mathrm{textrhookrightarrow}$
 20620 $\backslash\mathrm{let}\backslash\mathrm{hookrightarrow}\backslash\mathrm{textlhookrightarrow}$
 20621 $\backslash\mathrm{let}\backslash\mathrm{hookrightarrow}\backslash\mathrm{textrhookrightarrow}$
 20622 $\backslash\mathrm{let}\backslash\mathrm{leadsto}\backslash\mathrm{textleadsto}$
 20623 $\backslash\mathrm{let}\backslash\mathrm{rcurvearrowne}\backslash\mathrm{textrcurvearrowne}$
 20624 $\backslash\mathrm{let}\backslash\mathrm{lcurearrowse}\backslash\mathrm{textlcurearrowse}$
 20625 $\backslash\mathrm{let}\backslash\mathrm{lcurearrowsw}\backslash\mathrm{textlcurearrowsw}$
 20626 $\backslash\mathrm{let}\backslash\mathrm{rcurvearrowse}\backslash\mathrm{textrcurvearrowse}$
 20627 $\backslash\mathrm{let}\backslash\mathrm{lcurearrowdown}\backslash\mathrm{textlcurearrowdown}$
 20628 $\backslash\mathrm{let}\backslash\mathrm{rcurearrowdown}\backslash\mathrm{textrcurvearrowdown}$
 20629 $\backslash\mathrm{let}\backslash\mathrm{rcurearrowleft}\backslash\mathrm{textrcurvearrowleft}$
 20630 $\backslash\mathrm{let}\backslash\mathrm{rcurearrowright}\backslash\mathrm{textrcurvearrowright}$
 20631 $\backslash\mathrm{let}\backslash\mathrm{leftrightharpoon}\backslash\mathrm{textleftrightharpoon}$
 20632 $\backslash\mathrm{let}\backslash\mathrm{rightleftharpoon}\backslash\mathrm{textrightleftharpoon}$
 20633 $\backslash\mathrm{let}\backslash\mathrm{updownharpoonleftright}\backslash\mathrm{textupdownharpoonleftright}$
 20634 $\backslash\mathrm{let}\backslash\mathrm{updownharpoonleftright}\backslash\mathrm{textupdownharpoonleftright}$
 20635 $\backslash\mathrm{let}\backslash\mathrm{leftleftharpoons}\backslash\mathrm{textleftleftharpoons}$
 20636 $\backslash\mathrm{let}\backslash\mathrm{upupharpoons}\backslash\mathrm{textupupharpoons}$
 20637 $\backslash\mathrm{let}\backslash\mathrm{rightrightarpoons}\backslash\mathrm{textrightarpoons}$
 20638 $\backslash\mathrm{let}\backslash\mathrm{downdownharpoons}\backslash\mathrm{textdowndownharpoons}$
 20639 $\backslash\mathrm{let}\backslash\mathrm{leftbarharpoon}\backslash\mathrm{textleftbarharpoon}$
 20640 $\backslash\mathrm{let}\backslash\mathrm{barleftharpoon}\backslash\mathrm{textbarleftharpoon}$
 20641 $\backslash\mathrm{let}\backslash\mathrm{rightbarharpoon}\backslash\mathrm{textrightbarharpoon}$
 20642 $\backslash\mathrm{let}\backslash\mathrm{barriharpoon}\backslash\mathrm{textbarriharpoon}$
 20643 $\backslash\mathrm{let}\backslash\mathrm{updownharpoons}\backslash\mathrm{textupdownharpoons}$
 20644 $\backslash\mathrm{let}\backslash\mathrm{downupharpoons}\backslash\mathrm{textdownupharpoons}$
 20645 $\backslash\mathrm{let}\backslash\mathrm{moo}\backslash\mathrm{textmoo}$
 20646 $\backslash\mathrm{let}\backslash\mathrm{llparenthesis}\backslash\mathrm{textllparenthesis}$
 20647 $\backslash\mathrm{let}\backslash\mathrm{rrparenthesis}\backslash\mathrm{textrrparenthesis}$
 20648 $\backslash\mathrm{let}\backslash\mathrm{invdiameter}\backslash\mathrm{textinvdiameter}$
 20649 $\backslash\mathrm{let}\backslash\mathrm{obar}\backslash\mathrm{textobar}$
 20650 $\backslash\mathrm{let}\backslash\mathrm{obslash}\backslash\mathrm{textobslash}$
 20651 $\backslash\mathrm{let}\backslash\mathrm{obot}\backslash\mathrm{textobot}$
 20652 $\backslash\mathrm{let}\backslash\mathrm{NoChemicalCleaning}\backslash\mathrm{textNoChemicalCleaning}$
 20653 $\backslash\mathrm{let}\backslash\mathrm{olessthan}\backslash\mathrm{textolessthan}$
 20654 $\backslash\mathrm{let}\backslash\mathrm{ogreaterthan}\backslash\mathrm{textogreaterthan}$
 20655 $\backslash\mathrm{let}\backslash\mathrm{boxslash}\backslash\mathrm{textboxslash}$

20656 \let\boxslash\textboxslash
 20657 \let\boxast\textboxast
 20658 \let\boxcircle\textboxcircle
 20659 \let\boxbox\textboxbox
 20660 \let\Valve\textValve
 20661 \let\multimapboth\textmultimapboth
 20662 \let\shuffle\textshuffle
 20663 \let\uplus\textuplus
 20664 \let\bigdoublewedge\textbigdoublewedge
 20665 \let\bigdoublevee\textbigdoublevee
 20666 \let\Join\textJoin
 20667 \let\fatsemi\textfatsemi
 20668 \let\circplus\textcircplus
 20669 \let\minusdot\textminusdot
 20670 \let\dottimes\textdottimes
 20671 \let\dtimes\textdtimes
 20672 \let\odiv\textodiv
 20673 \let\invneg\textinvneg
 20674 \let\squdoublecap\textsqudoublecap
 20675 \let\capdot\textcapdot
 20676 \let\squdoublecup\textsqudoublecup
 20677 \let\doublewedge\textdoublewedge
 20678 \let\doublevee\textdoublevee
 20679 \let\doublebarwedge\textdoublebarwedge
 20680 \let\veedoublebar\textveedoublebar
 20681 \let\eqdot\texteqdot
 20682 \let\coloncolonequals\textcoloncolonequals
 20683 \let\leqslant\textleqslant
 20684 \let\geqslant\textgeqslant
 20685 \let\lessapprox\textlessapprox
 20686 \let\gtrapprox\textgtrapprox
 20687 \let\lneq\textlneq
 20688 \let\gneq\textgneq
 20689 \let\lnapprox\textlnapprox
 20690 \let\gnapprox\textgnapprox
 20691 \let\lesseqqgtr\textlesseqqgtr
 20692 \let\gtreqqlless\textgtreqqlless
 20693 \let\eqslantless\texteqslantless
 20694 \let\eqslantgtr\texteqslantgtr
 20695 \let\leftslice\textleftslice
 20696 \let\rightslice\textright slice
 20697 \let\preceq\textpreceq
 20698 \let\succeq\textsucceq
 20699 \let\precneq\textprecneq
 20700 \let\succneq\textsuccneq
 20701 \let\preceqq\textpreceqq
 20702 \let\succeqq\textsucceqq
 20703 \let\precneqq\textprecneqq
 20704 \let\succneqq\textsuccneqq
 20705 \let\precapprox\textprecapprox
 20706 \let\precnapprox\textprecnapprox
 20707 \let\succnapprox\textsuccnapprox
 20708 \let\subseteqq\textsubseteqq
 20709 \let\nsubseteqq\textnsubseteqq
 20710 \let\supseteqq\textsupseteqq
 20711 \let\nsupseteqq\textnsupseteqq
 20712 \let\dashV\textdashV

20713 \let\Dashv\textDashv
 20714 \let\DashV\textDashV
 20715 \let\downmodels\textdownmodels
 20716 \let\upmodels\textupmodels
 20717 \let\upspoon\textupspoon
 20718 \let\interleave\textinterleave
 20719 \let\sslash\textsslash
 20720 \let\pentagon\textpentagon
 20721 \let\varhexagon\textvarhexagon
 20722 \let\jinferior\textjinferior
 20723 \let\slashdiv\textslashdiv
 20724 \let\fivedots\textfivedots
 20725 \let\oo\textoo
 20726 \let\GaPa\textGaPa
 20727 \let\HaPa\textHaPa
 20728 \let\ViPa\textViPa
 20729 \let\AcPa\textAcPa
 20730 \let\SePa\textSePa
 20731 \let\ZwPa\textZwPa
 20732 \let\fullnote\textfullnote
 20733 \let\halfnote\texthalfnote
 20734 \let\Vier\textVier
 20735 \let\Acht\textAcht
 20736 \let\Sech\textSech
 20737 \let\Zwdr\textZwdr
 20738 \let\Mundus\textMundus
 20739 \let\Moon\textMoon
 20740 \let\ManFace\textManFace
 20741 \let\WomanFace\textWomanFace
 20742 \let\Fax\textFax
 20743 \let\Fire\textFire
 20744 \let\Bicycle\textBicycle
 20745 \let\Gentsroom\textGentsroom
 20746 \let\Ladiesroom\textLadiesroom
 20747 \let\ccnc\textccnc
 20748 \let\ccsa\textccsa
 20749 \let\Info\textInfo
 20750 \let\CESign\textCESign
 20751 \let\neg\textneg
 20752 \let\times\texttimes
 20753 \let\div\textdiv
 20754 \let\pm\textpm
 20755 \let\cdot\textcdot
 20756 }% \psdmapshortnames
 20757 \newcommand*{\psdaliasnames}{%
 20758 \let\epsdice\HyPsd@DieFace
 20759 \let\fcdice\HyPsd@DieFace
 20760 \let\MoonPha\HyPsd@MoonPha
 20761 \let\mathdollar\textdollar
 20762 \let\EyesDollar\textdollar
 20763 \let\binampersand\textampersand
 20764 \let\with\textampersand
 20765 \let\mathunderscore\textunderscore
 20766 \let\textvertline\textbar
 20767 \let\mathsterling\textsterling
 20768 \let\pounds\textsterling
 20769 \let\brokenvert\textbrokenbar

20770 \let\mathsection\textsection
 20771 \let\S\textsection
 20772 \let\mathparagraph\textparagraph
 20773 \let\MultiplicationDot\textperiodcentered
 20774 \let\Squaredot\textperiodcentered
 20775 \let\vartimes\textmultiply
 20776 \let\MVMultiplication\textmultiply
 20777 \let\eth\dh
 20778 \let\crossd\textcrd
 20779 \let\textbard\textcrd
 20780 \let\bard\textcrd
 20781 \let\textcrh\texthbar
 20782 \let\crossh\texthbar
 20783 \let\planck\texthbar
 20784 \let\eng\ng
 20785 \let\engma\ng
 20786 \let\crossb\textcrb
 20787 \let\textbarb\textcrb
 20788 \let\barb\textcrb
 20789 \let\Florin\textflorin
 20790 \let\hv\texthvl
 20791 \let\hausak\texthtk
 20792 \let\crossnilambda\textcrlambda
 20793 \let\barlambda\textcrlambda
 20794 \let\lambdabar\textcrlambda
 20795 \let\lambdaslash\textcrlambda
 20796 \let\textnrleg\textPUnrleg
 20797 \let\textpipevar\textpipe
 20798 \let\textdoublepipevar\textdoublepipe
 20799 \let\textdoublebarpipevar\textdoublebarpipe
 20800 \let\textcrg\textgslash
 20801 \let\textdblig\textPUdblig
 20802 \let\textqplig\textPUqplig
 20803 \let\textcentoldstyle\textslashc
 20804 \let\textbarc\textslashc
 20805 \let\inva\textturna
 20806 \let\vara\textscripta
 20807 \let\invscripta\textturnscripta
 20808 \let\rotvara\textturnscripta
 20809 \let\hookb\texthtb
 20810 \let\hausab\texthtb
 20811 \let\varopeno\textopeno
 20812 \let\curlyc\textctc
 20813 \let\taild\textrtaild
 20814 \let\hookd\texthtd
 20815 \let\hausad\texthtd
 20816 \let\er\textrhookswa
 20817 \let\epsi\textniepsilon
 20818 \let\hookrepsilon\texthookrepsilon
 20819 \let\closedrepsilon\textcloserepsilon
 20820 \let\barj\textbardotlessj
 20821 \let\hookg\texthtg
 20822 \let\varg\textscriptg
 20823 \let\vod\textipagamma
 20824 \let\invh\textturnh
 20825 \let\udesc\textturnh
 20826 \let\hookh\textthh

20827 \let\voicedh\textthth
 20828 \let\hookheng\textthheng
 20829 \let\ibar\textbari
 20830 \let\vari\textniiota
 20831 \let\tildel\textltilde
 20832 \let\latfric\textbeltl
 20833 \let\tail\texttrtail
 20834 \let\lz\textlyoghlig
 20835 \let\inv\textturnm
 20836 \let\rotr\textturnm
 20837 \let\legm\textturnmrleg
 20838 \let\labdentals\textltailm
 20839 \let\emgma\textltailm
 20840 \let\nj\textltailn
 20841 \let\enya\textltailn
 20842 \let\tailn\texttrtailn
 20843 \let\closedniomega\textcloseomega
 20844 \let\varomega\textcloseomega
 20845 \let\invr\textturnr
 20846 \let\rotr\textturnr
 20847 \let\invlegr\textturnlonglegr
 20848 \let\tailinvr\textturnrrtail
 20849 \let\legr\textlonglegr
 20850 \let\tailr\texttrtailr
 20851 \let\flapr\textfishhookr
 20852 \let\flap\textfishhookr
 20853 \let\tails\texttrtails
 20854 \let\curlyesh\textctesh
 20855 \let\clickt\textturnt
 20856 \let\tailt\texttrtailt
 20857 \let\ubar\textbaru
 20858 \let\rotOmega\textniupsilon
 20859 \let\invv\textturnv
 20860 \let\pwedge\textturnv
 20861 \let\invw\textturnw
 20862 \let\rotrw\textturnw
 20863 \let\invy\textturny
 20864 \let\roty\textturny
 20865 \let\tailz\texttrtailz
 20866 \let\curlyz\textctz
 20867 \let\curlyyogh\textctyogh
 20868 \let\ejective\textglotstop
 20869 \let\glottal\textglotstop
 20870 \let\reveject\textrevglotstop
 20871 \let\clickc\textstretchc
 20872 \let\textstretchcvar\textstretchc
 20873 \let\clickb\textbullseye
 20874 \let\textObullseye\textbullseye
 20875 \let\textctjvar\textctj
 20876 \let\textturnsck\textturnk
 20877 \let\dz\textdzlig
 20878 \let\tesh\textteshlig
 20879 \let\digamma\textdigammagreek
 20880 \let\hardsign\cyrhrdsn
 20881 \let\softsign\cyrsoftsn
 20882 \let\hebsin\hebshin
 20883 \let\texttsck\textPUscck

20884 \let\textscm\textPUscm
 20885 \let\textscp\textPUscp
 20886 \let\textrevscr\textPUrevscr
 20887 \let\textrhoaka\textPUrhoaka
 20888 \let\textrhooke\textPUrhooke
 20889 \let\textrhookepsilon\textPUrhookepsilon
 20890 \let\textrhookeno\textPUrhookeno
 20891 \let\textdoublevertline\textbardbl
 20892 \let\dag\textdagger
 20893 \let\ddagger\textdaggerdbl
 20894 \let\ddag\textdaggerdbl
 20895 \let\mathellipsis\textellipsis
 20896 \let\EurDig\texteuro
 20897 \let\EURdig\texteuro
 20898 \let\EurHv\texteuro
 20899 \let\EURhv\texteuro
 20900 \let\EurCr\texteuro
 20901 \let\EURcr\texteuro
 20902 \let\EurTm\texteuro
 20903 \let\EURtm\texteuro
 20904 \let\Eur\texteuro
 20905 \let\Denarius\textDeleatur
 20906 \let\agemO\textmho
 20907 \let\EstimatedSign\textestimated
 20908 \let\Ecommerce\textestimated
 20909 \let\bindnasrepma\textinvamp
 20910 \let\parr\textinvamp
 20911 \let\MVRightArrow\textrightarrow
 20912 \let\MVRightarrow\textrightarrow
 20913 \let\MVArrowDown\textdownarrow
 20914 \let\Force\textdownarrow
 20915 \let\textglobrise\textnearrow
 20916 \let\textglobfall\textsearrow
 20917 \let\Lightning\textlightning
 20918 \let\Conclusion\textrightarrow
 20919 \let\dashedleftarrow\textdashleftarrow
 20920 \let\dashedrightarrow\textdashrightarrow
 20921 \let\varnothing\textemptyset
 20922 \let\owns\textni
 20923 \let\varprop\textpropto
 20924 \let\varangle\textsphericalangle
 20925 \let\Anglesign\textsphericalangle
 20926 \let\AngleSign\textsphericalangle
 20927 \let\varowedge\texttowedge
 20928 \let\varovee\textovee
 20929 \let\varint\textint
 20930 \let\varoint\textoint
 20931 \let\downtherefore\textbecause
 20932 \let\textdotdiv\textdotminus
 20933 \let\AC\textsim
 20934 \let\wreath\textwr
 20935 \let\VHF\texttriplesim
 20936 \let\Doteq\textdoteqdot
 20937 \let\corresponds\texthateq
 20938 \let\Corresponds\texthateq
 20939 \let\Congruent\textequiv
 20940 \let\NotCongruent\textnequiv

20941 `\let\LessOrEqual\textleq`
 20942 `\let\LargerOrEqual\textgeq`
 20943 `\let\apprle\textless`
 20944 `\let\apprge\textgtr`
 20945 `\let\varoplus\textoplus`
 20946 `\let\varominus\textominus`
 20947 `\let\varotimes\textotimes`
 20948 `\let\varoslash\textoslash`
 20949 `\let\varodot\textodot`
 20950 `\let\ocirc\textcircledcirc`
 20951 `\let\varocircle\textcircledcirc`
 20952 `\let\varoast\textcircledast`
 20953 `\let\oasterisk\textcircledast`
 20954 `\let\rightvdash\textvdash`
 20955 `\let\leftvdash\textdashv`
 20956 `\let\downvdash\texttop`
 20957 `\let\models\textvDash`
 20958 `\let\rightmodels\textvDash`
 20959 `\let\rightVdash\textVdash`
 20960 `\let\rightModels\textVDash`
 20961 `\let\lessclosed\textlhd`
 20962 `\let\gtrclosed\textrhd`
 20963 `\let\leqclosed\textunlhd`
 20964 `\let\trianglelefteq\textunlhd`
 20965 `\let\geqclosed\textunrhd`
 20966 `\let\trianglerighteq\textunrhd`
 20967 `\let\Bowtie\textbowtie`
 20968 `\let\varcurlyvee\textcurlyvee`
 20969 `\let\varcurlywedge\textcurlywedge`
 20970 `\let\doublecap\textCap`
 20971 `\let\doublecup\textCup`
 20972 `\let\varsqsubsetneq\textsqsubsetneq`
 20973 `\let\varsqsupsetneq\textsqsupsetneq`
 20974 `\let\nlessclosed\textntriangleleft`
 20975 `\let\ngtrclosed\textntriangleright`
 20976 `\let\Clocklogo\textclock`
 20977 `\let\ClockLogo\textclock`
 20978 `\let\baro\textstmaryrdbaro`
 20979 `\let\varparallelinv\textbbslash`
 20980 `\let\CleaningA\textCircledA`
 20981 `\let\Kutline\textCuttingLine`
 20982 `\let\CutLine\textCuttingLine`
 20983 `\let\Cutline\textCuttingLine`
 20984 `\let\MoveUp\textUParrow`
 20985 `\let\APLup\textbigtriangleup`
 20986 `\let\Bleech\textbigtriangleup`
 20987 `\let\MoveDown\textDOWNarrow`
 20988 `\let\APLdown\textbigtriangledown`
 20989 `\let\Diamond\textdiamond`
 20990 `\let\varbigcirc\textbigcircle`
 20991 `\let\Telefon\textPhone`
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 20993 `\let\CheckedBox\textCheckedbox`
 20994 `\let\XBox\textCrossedbox`
 20995 `\let\CrossedBox\textCrossedbox`
 20996 `\let\rightpointleft\textHandLeft`
 20997 `\let\leftpointright\textHandRight`

20998 \let\PointingHand\textHandRight
 20999 \let\Pointinghand\textHandRight
 21000 \let\Radiation\textRadioactivity
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 21002 \let\YingYang\textYinYang
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 21007 \let\Mercury\textmercury
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 21043 \let\textuncrfemale\textPUuncrfemale
 21044 \let\Football\textSoccerBall
 21045 \let\CutLeft\textScissorRightBrokenBottom
 21046 \let\Cutright\textScissorRightBrokenBottom
 21047 \let\RightScissors\textScissorRight
 21048 \let\Leftscissors\textScissorRight
 21049 \let\Letter\textEnvelope
 21050 \let\Writinghand\textWritingHand
 21051 \let\checkmark\textCheckmark
 21052 \let\davidstar\textDavidStar
 21053 \let\llbracket\textlbrackdbl
 21054 \let\rrbracket\textrrbrackdbl


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21055 \let\RightTorque\textlcurvearrowdown
21056 \let\Righttorque\textlcurvearrowdown
21057 \let\LeftTorque\textrcurvearrowdown
21058 \let\Lefttorque\textrcurvearrowdown
21059 \let\textvarobar\textobar
21060 \let\circledbslash\textobslash
21061 \let\obackslash\textobslash
21062 \let\varobslash\textobslash
21063 \let\odplus\textobot
21064 \let\varolessthan\textolessthan
21065 \let\varogreaterthan\textogreaterthan
21066 \let\divdot\textminusdot
21067 \let\doublesqcap\textsqdoublecap
21068 \let\doublesqcup\textsqdoublecup
21069 \let\merge\textdoublevee
21070 \let\leftVdash\textdashV
21071 \let\leftmodels\textDashv
21072 \let\leftModels\textDashV
21073 \let\varparallel\textsslash
21074 \let\texttheng\textPUheng
21075 \let\textlhookfour\textPUlhookfour
21076 \let\textscf\textPUscf
21077 \let\texttaolig\textPUaolig
21078 \let\Ganz\textfullnote
21079 \let\Halb\texthalfnote
21080 \let\Womanface\textWomanFace
21081 \let\Faxmachine\textFax
21082 \let\CEsign\textCESign
21083 }% \psdaliasnames
21084 </psdextra>

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52 End of file hycheck.tex

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21085 <*check>
21086 \typeout{}
21087 \begin{document}
21088 \end{document}
21089 </check>

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