

Hypertext marks in L^AT_EX

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<https://github.com/latex3/hyperref/issues>

2022-11-13 v7.00u

1 Documentation overview for hyperref

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

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

ChangeLog This file records the version history.

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 hyccheck.tex

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

```
1 (*check)
2 \documentclass{article}
3 \makeatletter
```

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

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

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

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

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

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

`\HyC@checkPackage`

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

```

37   \space\space Loaded: `\'HyC@package' %
38   \csname ver@\'HyC@package.sty\endcsname
39   }%
40 }%
41 }

```

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

```

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

```

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

```

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

```

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

```

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

```

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

```

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

```



```

82 \let\HyC@org@robustoptcmd\HyC@noValue
83 \HyC@next
84 }

```

`\HyC@noValue`

```

85 \def\HyC@noValue{NoValue}

```

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

```

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

```

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

```

90 \newtoks\HyC@Toks

```

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

```

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

```

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

```

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

```

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

```

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

```

`\HyC@DeclareRobustCommand` `\DeclareRobustCommand{\cmd}` makes the command `\cmd` robust, that then calls `\cmdl` 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

change 2020-07-24: require newer pdftexcmds and remove fallback code for version older than 2010. change 2021-08-14: require expl3

```

232 \ifx\ExplSyntaxOn\undefined \RequirePackage{expl3}\fi
233 \RequirePackage{ltxcmds}[2010/11/12]
234 \RequirePackage{iftex}[2019/10/24]
235 \RequirePackage{pdftexcmds}[2018/09/10]
236 \RequirePackage{infwarerr}[2010/04/08]
237 \RequirePackage{keyval}[1997/11/10]
238 \RequirePackage{kvsetkeys}[2007/09/29]
239 \RequirePackage{kvdefinekeys}[2011/04/07]
240 \RequirePackage{pdfescape}[2007/11/11]
241 \RequirePackage{hycolor}
242 \RequirePackage{letltxmacro}[2008/06/13]
243 \RequirePackage{auxhook}[2009/12/14]
244 \RequirePackage{nameref}[2012/07/28]

```

```

245 \def\Hy@Error{\@PackageError{hyperref}}
246 \def\Hy@Warning{\@PackageWarning{hyperref}}
247 \def\Hy@WarningNoLine{\@PackageWarningNoLine{hyperref}}
248 \def\Hy@Info{\@PackageInfo{hyperref}}
249 \def\Hy@InfoNoLine{\@PackageInfoNoLine{hyperref}}
250 \def\Hy@Message#1{%
251   \GenericWarning{%
252     (hyperref)\@spaces\@spaces\@spaces\@spaces
253   }{%
254     Package hyperref Message: #1\ltx@gobble
255   }%
256 }

```

4.2 Version check

\Hy@VersionChecked

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

\Hy@VersionCheck

```

258 \def\Hy@VersionCheck#1{%
259   \begingroup
260   \ltx@ifundefined{ver@hyperref.sty}{%
261     \Hy@Error{%
262       This should not happen!\MessageBreak
263       Missing hyperref version%
264     }\@ehd
265   }{%
266     \ltx@ifundefined{ver@#1}{%
267       \Hy@Error{%
268         This should not happen!\MessageBreak
269         Missing version of `#1'%
270       }\@ehd
271     }{%
272       \def\x##1##2##3{%
273         \expandafter\expandafter\expandafter\Hy@@VersionCheck
274         \expandafter\expandafter\expandafter##2%
275         \csname ver@##3\endcsname##1##1\@nil
276       }%
277       \x{ }\y{hyperref.sty}%
278       \x{ }\z{#1}%
279       \ifx\y\z
280       \else
281         \edef\a{#1}%
282         \edef\b{\HyOpt@CustomDriver.def}%
283         \ifx\a\b
284           \Hy@WarningNoLine{%
285             Version mismatch (custom driver)!\MessageBreak
286             * \y: hyperref.sty\MessageBreak
287             * \z: \a
288           }%
289         \else
290           \Hy@Error{%
291             Version mismatch!\MessageBreak
292             * \y: hyperref.sty\MessageBreak

```

```

293     * \z: \a
294     }\@ehd
295     \fi
296     \fi
297     }%
298     }%
299 \endgroup
300 \chardef\Hy@VersionChecked=1 %
301 }

```

\Hy@@VersionCheck

```

302 \def\Hy@@VersionCheck #1#2 #3 #4\@nil{%
303 \def#1{#2 #3}%
304 }

```

4.3 Checks with regular expressions

```

305 \ltx@ifundefined{pdfmatch}{%
306 \def\Hy@Match#1#2#3#4#5{%
307 }{%
308 \def\Hy@Match#1#2#3{%
309 \begingroup
310 \edef\^{\ltx@backslashchar\string^}%
311 \edef\.\{\ltx@backslashchar.}%
312 \edef\[{\ltx@backslashchar[]}%
313 \edef\${\ltx@backslashchar$}%
314 \edef\({\ltx@backslashchar(}%
315 \edef\){\ltx@backslashchar)}%
316 \edef\|{\ltx@backslashchar|}%
317 \edef\*{\ltx@backslashchar*}%
318 \edef\+{\ltx@backslashchar+}%
319 \edef\?{\ltx@backslashchar?}%
320 \edef\{{\ltx@backslashchar\ltx@leftbracechar}%
321 \edef\}{\ltx@rightbracechar}%
322 \edef\\\{\ltx@backslashchar\ltx@backslashchar}%
323 \let\ \ltx@space
324 \ifcase\pdfmatch#2{#3}{#1} %
325 \endgroup
326 \expandafter\ltx@secondoftwo
327 \or
328 \endgroup
329 \expandafter\ltx@firstoftwo
330 \else
331 \Hy@Warning{%
332 Internal error: Wrong pattern!\MessageBreak
333 --> #3 <--\MessageBreak
334 Pattern check ignored%
335 }%
336 \endgroup
337 \expandafter\ltx@firstoftwo
338 \fi
339 }%
340 }

```

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`.

```
341 \@ifundefined{AfterBeginDocument}{%
342   \def\AfterBeginDocument{\AtBeginDocument}%
343 }{}
```

`\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.

```
344 \def\Hy@AtBeginDocument{%
345   \ltx@LocalAppendToMacro\Hy@AtBeginDocumentHook
346 }
```

`\Hy@AtEndOfPackage`

```
347 \def\Hy@AtEndOfPackage{%
348   \ltx@LocalAppendToMacro\Hy@AtEndOfPackageHook
349 }
```

`\Hy@AtBeginDocumentHook`

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

`\Hy@AtEndOfPackageHook`

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

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

```
352 \AtEndOfPackage{%
353   \Hy@AtEndOfPackageHook
354   \let\Hy@AtEndOfPackageHook\@undefined
355   \AfterBeginDocument{%
356     \Hy@AtBeginDocumentHook}%
357   \let\Hy@AtBeginDocumentHook\@undefined
358   }%
359 }
```

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

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

4.5 Switches

```
361 \newif\ifHy@stoppeadearly
362 \newif\ifHy@typexml
363 \newif\ifHy@activeanchor
364 \newif\ifHy@backref
365 \newif\ifHy@bookmarks
```

```

366 \newif\ifHy@bookmarksnumbered
367 \newif\ifHy@bookmarksopen
368 \newif\ifHy@breaklinks
369 \newif\ifHy@pdfcenterwindow
370 \newif\ifHy@CJKbookmarks
371 \newif\ifHy@colorlinks
372 \newif\ifHy@destlabel
373 \newif\ifHy@draft
374 \let\Hy@finaltrue\Hy@draftfalse
375 \let\Hy@finalfalse\Hy@drafttrue
376 \newif\ifHy@pdfescapeform
377 \newif\ifHy@hyperfigures
378 \newif\ifHy@pdffitwindow
379 \newif\ifHy@frenchlinks
380 \newif\ifHy@hyperfootnotes
381 \newif\ifHy@hyperindex
382 \newif\ifHy@hypertextnames
383 \newif\ifHy@implicit
384 \newif\ifHy@linktopage
385 \newif\ifHy@localanchorname
386 \newif\ifHy@pdfmenubar
387 \newif\ifHy@naturalnames
388 \newif\ifHy@nesting
389 \newif\ifHy@pdfnewwindowset
390 \newif\ifHy@pdfnewwindow
391 \newif\ifHy@ocgcolorlinks
392 \newif\ifHy@pageanchor
393 \newif\ifHy@pdfpagelabels
394 \newif\ifHy@pdfstring
395 \newif\ifHy@plainpages
396 \newif\ifHy@psize
397 \newif\ifHy@raiselinks
398 \newif\ifHy@seminarslides
399 \newif\ifHy@setpagesize
400 \newif\ifHy@texht
401 \newif\ifHy@psdextra
402 \newif\ifHy@pdftoolbar
403 \newif\ifHy@unicode
404 \newif\ifHy@pdfusetitle
405 \newif\ifHy@verbose
406 \let\Hy@debugtrue\Hy@verbosetrue
407 \let\Hy@debugfalse\Hy@verbosefalse
408 \newif\ifHy@pdfwindowui
409 \newif\ifHy@pdfdisplaydoctitle
410 \newif\ifHy@pdfa

```

Defaults for the switches are now set.

```

411 \Hy@backreffalse
412 \Hy@bookmarksnumberedfalse
413 \Hy@bookmarksopenfalse
414 \Hy@bookmarkstrue
415 \Hy@breaklinksfalse
416 \Hy@pdfcenterwindowfalse
417 \Hy@CJKbookmarksfalse
418 \Hy@destlabelfalse

```



```

419 \Hy@pdfescapeformfalse
420 \Hy@hyperfiguresfalse
421 \Hy@pdffitwindowfalse
422 \Hy@hyperfootnotesttrue
423 \Hy@hyperindextrue
424 \Hy@hypertextnamestrue
425 \Hy@implicittrue
426 \Hy@linktocpagefalse
427 \Hy@localanchornamfalse
428 \Hy@pdfmenubartrue
429 \Hy@naturalnamesfalse
430 \Hy@nestingfalse
431 \Hy@pdfnewwindowsetfalse
432 \Hy@pdfnewwindowfalse
433 \Hy@pageanchortrue
434 \Hy@pdfpagelabelstrue
435 \Hy@pdfstringfalse
436 \Hy@plainpagesfalse
437 \Hy@raiselinksfalse
438 \Hy@setpagesizetrue
439 \Hy@texhtfalse
440 \Hy@psdextrafalse
441 \Hy@pdftoolbartrue
442 \Hy@unicodetrue
443 \ifx\kanjiskip\@undefined
444 \else
445 \ifx\forcecjktoken\@undefined
446 \Hy@unicodefalse
447 \fi
448 \fi
449 \Hy@pdfusetitlefalse
450 \Hy@verbosefalse
451 \Hy@pdfwindowuitrue
452 \Hy@pdfdisplaydoctitlefalse
453 \Hy@pdfafalse

```

5 Common help macros

\Hy@StepCount

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

\Hy@GlobalStepCount

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

```

456 \newdimen\@linkdim
457 \let\Hy@driver\ltx@empty
458 \let\MaybeStopEarly\relax
459 \newcount\Hy@linkcounter
460 \newcount\Hy@pagecounter
461 \Hy@linkcounter0
462 \Hy@pagecounter0

```

5.1 Macros for recursions

```

463 \let\Hy@ReturnEnd\@empty
464 \long\def\Hy@ReturnAfterFiFiEnd#1\fi#2\Hy@ReturnEnd{\fi\fi#1}
465 \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.

```

466 \def\Hy@safe@activetrue{\csname @safe@activetrue\endcsname}
467 \def\Hy@safe@activesfalse{\csname @safe@activesfalse\endcsname}

```

5.3 Coordinate transformations

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

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

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

- It cannot be used inside `\usepackage`, because LaTeX expands the options before package `hyperref` is loaded and `\hypercalsbp` is defined.
- With the now required e-TeX extensions an expandable implementation is very easy; `\hypercalsbp` can be used everywhere and is expanded at use.

Example (TeX):

```

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

```

`\hypercalsbp`

```

468 \def\hypercalsbp#1{%
469 \strip@pt\dimexpr 0.99626401\dimexpr(#1)\relax\relax
470 }%
471 \def\hypercalsbpdef{\def}%

```

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 <i>ddd</i>
- 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.

`\MakeUppercase` and `\MakeLowercase` do not work by expansion in legacy code but if the `expl3` code is available we can handle them.

`\MakeUppercaseUnsupportedInPdfStrings`
`\MakeLowercaseUnsupportedInPdfStrings`

```

472 \ExplSyntaxOn
473 \@ifundefined{text__uppercase:n}{}
474 {
475   \def\MakeUppercaseUnsupportedInPdfStrings#1{\use:e {\text__uppercase:n {#1}}}
476   \def\MakeLowercaseUnsupportedInPdfStrings#1{\use:e {\text__lowercase:n {#1}}}
477 }
478 \ExplSyntaxOff

```

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

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

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

```

479 \def\pdfstringdef#1#2{%

```

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

```

480 \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.

```
481 \escapechar`\\%
```

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

```
482 \edef\0{\string\0}%  
483 \edef\1{\string\1}%  
484 \edef\2{\string\2}%  
485 \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.

```
486 \ifHy@unicode  
487 \edef\8{\string\8}%  
488 \edef\9{\string\9}%  
489 \fontencoding{PU}%  
490 \HyPsd@UTFviii  
491 \def\ifpdfstringunicode###1##2{##1}%  
492 \else  
493 \fontencoding{PD1}%  
494 \def\ifpdfstringunicode###1##2{##2}%  
495 \fi  
496 \let\utf@viii@undeferr\HyPsd@utf@viii@undeferr  
497 \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).

```
498 \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).

```
499 \let\@inmathwarn\HyPsd@inmathwarn
```

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

```
500 \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. UF 29.09.2017: added a mapping for `\nboundary`, see issue #37 <https://github.com/latex3/hyperref/issues/37> No test for PU, if some definition for PD1 is added it will work too.

```
501 \let\{\textbraceleft
502 \let\}\textbraceright
503 \let\\\textbackslash
504 \let\#\textnumbersign
505 \let\$\textdollar
506 \let%\textpercent
507 \let&\textampersand
508 % \let~\textasciitilde
509 \let\_ \textunderscore
510 \let\P\textparagraph
511 \let\ldots\textellipsis
512 \let\dots\textellipsis
513 \ltx@ifundefined{textEncodingNoboundary}%
514 {}{\let\noboundary\textEncodingNoboundary}%
```

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.

```
515 \def\{\pdfstringdefWarn\\}%
516 \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. We use the direct PU code to avoid problems if `\textepsilon` is not defined.

```

517 \def\TeX{TeX}%
518 \def\LaTeX{LaTeX}%
519 \def\LaTeXe{%
520   \LaTeX2%
521   \ifHy@unicode\83\265\else e\fi
522 }%
523 \def\eTeX{%
524   \ifHy@unicode\83\265\else e\fi
525   -\TeX%
526 }%
527 \def\SliTeX{SliTeX}%
528 \def\MF{Metafont}%
529 \def\MP{Metapost}%

```

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

```

530 \let\fontencoding@gobble
531 \let\fontfamily@gobble
532 \let\fontseries@gobble
533 \let\fontshape@gobble
534 \let\fontsize@gobbletwo
535 \let\selectfont@empty
536 \let\usefont@gobblefour
537 \let\emph@firstofone
538 \let\textnormal@firstofone
539 \let\textrm@firstofone
540 \let\textsf@firstofone
541 \let\texttt@firstofone
542 \let\textbf@firstofone
543 \let\textmd@firstofone
544 \let\textit@firstofone
545 \let\textsc@firstofone
546 \let\textsl@firstofone
547 \let\textup@firstofone
548 \let\normalfont@empty
549 \let\rmfamily@empty
550 \let\sffamily@empty
551 \let\ttfamily@empty
552 \let\bfseries@empty
553 \let\mdseries@empty
554 \let\itshape@empty
555 \let\scshape@empty
556 \let\slshape@empty
557 \let\upshape@empty
558 \let\em@empty
559 \let\rm@empty
560 \let\Huge@empty
561 \let\LARGE@empty
562 \let\Large@empty
563 \let\footnotesize@empty

```

```

564 \let\huge\@empty
565 \let\large\@empty
566 \let\normalsize\@empty
567 \let\scriptsize\@empty
568 \let\small\@empty
569 \let\tiny\@empty
570 \let\mathversion\@gobble
571 \let\phantom\@gobble
572 \let\vphantom\@gobble
573 \let\hphantom\@gobble

```

Package pifont.

```

574 \let\ding\HyPsd@ding
575 \let\Cube\HyPsd@DieFace
576 %* \HyPsd@DieFace -> \epsdice (epsdice)
577 %* \HyPsd@DieFace -> \fcdice (hhcount)

```

Environments.

```

578 \def\begin###1{\csname###1\endcsname}%
579 \def\end###1{\csname end###1\endcsname}%

```

Package color.

```

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

```

Upper- and lowercase.

```

581 \def\MakeUppercase{\MakeUppercaseUnsupportedInPdfStrings}%
582 \def\MakeLowercase{\MakeLowercaseUnsupportedInPdfStrings}%

```

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

```

583 \ifHy@psdextra
584 \ifHy@unicode
585 \csname psdmapshortnames\endcsname
586 \csname psdaliasnames\endcsname
587 \fi
588 \fi

```

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

```

589 \let\foreignlanguage\@secondoftwo
590 \let\textlatin\@firstofone
591 \ltx@ifundefined{language@group}{-}{-}%
592 \let\bbl@info\@gobble
593 \csname HyPsd@babel@\language@group\endcsname
594 }%
595 \let\@safe@activetrue\relax
596 \let\@safe@activesfalse\relax

```

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

```

597 \let\cyr\relax

```

Package german.

```
598 \let\glqq\textglqq
599 \let\grqq\textgrqq
600 \let\glq\textglq
601 \let\grq\textgrq
602 \let\flqq\textflqq
603 \let\frqq\textfrqq
604 \let\flq\textflq
605 \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}
606 \let\if@mid@expandable\@firstoftwo
```

AMS classes.

```
607 \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.

```
608 \let\hspace\HyPsd@hspace
```

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

```
609 \let\label\@gobble
610 \let\index\@gobble
611 \let\glossary\@gobble
612 \let\href\HyPsd@href
613 \let\@mkboth\@gobbletwo
```

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

```
614 \let\ref\HyPsd@ref
615 \let\pageref\HyPsd@pageref
616 \let\nameref\HyPsd@nameref
617 \let\autoref\HyPsd@autoref
```

Miscellaneous commands.

```
618 \let\leavevmode\@empty
619 \let\mbox\@empty
```

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

```
620 \def\halign{\pdfstringdefWarn\halign\@gobble}%
621 \let\ignorespaces\HyPsd@ignorespaces
622 \let\Hy@SectionAnchorHref\@gobble
623 \let\ensuremath\@firstofone
```


Patch for cjk bookmarks.

```
624 \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`).

```
625 \Hy@pdfstringtrue
626 \pdfstringdefPreHook
```

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

```
627 \HyPsd@LetUnexpandableSpace\space
628 \HyPsd@LetUnexpandableSpace\ %
629 \HyPsd@LetUnexpandableSpace-%
630 \HyPsd@LetUnexpandableSpace\nobreakspace
```

Package xspace.

```
631 \ltx@ifundefined{@xspace}{%
632 \let\xspace\HyPsd@ITALCORR
633 }{%
634 \let\xspace\HyPsd@XSPACE
635 }%
636 \let\@HyPsd@ITALCORR
637 \let\bgroup\/%
638 \let\egroup\/%
```

Redefinitions of miscellaneous commands. Hyphenation does not make sense.

```
639 \let\discretionary\@gobbletwo
```

`\@ifstar` is defined in \LaTeX as follows:

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

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

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

```
640 \def\@ifnextchar{\HyPsd@ifnextchar\@ifnextchar}%
641 \def\kernel@ifnextchar{\HyPsd@ifnextchar\kernel@ifnextchar}%
642 \def\new@ifnextchar{\HyPsd@ifnextchar\new@ifnextchar}%
643 \let\@protected@testopt\HyPsd@protected@testopt
```

Support for package 'xargs':

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

6.2.2 Expansion

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

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

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

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

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

```
645 \begingroup
646 \let\GenericError\@gobblefour
647 \let\GenericWarning\@gobbletwo
648 \let\GenericInfo\@gobbletwo
```

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

```
649 \ifx\nofrenchguillemets\undefined
650 \else
651 \nofrenchguillemets
652 \fi
```

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

```

653 \let\Hy@temp\xdef
654 \let\def\HyPsd@DefCommand
655 \let\gdef\HyPsd@DefCommand
656 \let\edef\HyPsd@DefCommand
657 \let\xdef\HyPsd@DefCommand
658 \let\futurelet\HyPsd@LetCommand
659 \let\let\HyPsd@LetCommand
660 \Hy@temp#1{#2}%
661 \endgroup

```

6.2.3 Postprocessing

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

```

662 \ifx#1\@empty
663 \else

```

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

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

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

```

664 \HyPsd@ProtectSpaces#1%
665 \let\HyPsd@String\@empty
666 \expandafter\HyPsd@RemoveBraces\expandafter{#1|}%
667 \global\let#1\HyPsd@String

```

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

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

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

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

```

668 \let\HyPsd@SPACEOPTI\relax
669 {%
670 \let\HyPsd@String\@empty
671 \expandafter\HyPsd@CheckCatcodes#1\HyPsd@End
672 \global\let#1\HyPsd@String
673 }%
674 \expandafter\HyPsd@RemoveMask\expandafter
675 |\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.

```

676 \expandafter
677 \HyPsd@Subst\expandafter{\HyPsd@GLYPHERR}{\relax}#1%
678 \let\HyPsd@String\@empty
679 \expandafter\HyPsd@GlyphProcess#1\relax\@empty
680 \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.

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

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

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

```

682 \ifHy@unicode
683 \expandafter\HyPsd@StringSubst\csname 80\040\endcsname
684 \HyPsd@SPACEOPTI#1%
685 \edef\Hy@temp@A{\HyPsd@SPACEOPTI\HyPsd@SPACEOPTI\80\273}%
686 \expandafter\HyPsd@Subst\expandafter{\Hy@temp@A}%
687 {\HyPsd@SPACEOPTI\80\273}#1%
688 \else
689 \HyPsd@StringSubst{\040}\HyPsd@SPACEOPTI#1%
690 \expandafter\HyPsd@Subst\expandafter{%
691 \expandafter\HyPsd@SPACEOPTI\expandafter\HyPsd@SPACEOPTI
692 \string\273}\HyPsd@SPACEOPTI\273}#1%
693 \fi

```

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

```

694 \ifHy@unicode
695 \HyPsd@StringSubst{\}){\80\051}#1%
696 \HyPsd@Subst){\80\051}#1%
697 \let\HyPsd@empty\relax
698 \expandafter\HyPsd@StringSubst\csname 80\051\endcsname
699 {\HyPsd@empty\80\051}#1%
700 \else
701 \HyPsd@StringSubst{\}){\051}#1%
702 \HyPsd@Subst){\051}#1%
703 \let\HyPsd@empty\relax
704 \HyPsd@StringSubst{\051}{\HyPsd@empty\string\})}#1%
705 \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`.

```

706 \expandafter\HyPsd@Subst\expandafter{\}/\HyPsd@empty#1%
707 \ltx@ifundefined{@xspace}{%
708 }{%
709 \let\HyPsd@xspace\relax
710 \expandafter\HyPsd@Subst\expandafter
711 {\HyPsd@XSPACE}\HyPsd@xspace#1%
712 \let\HyPsd@xspace\HyPsd@doxspace
713 }%
714 \xdef#1{#1\HyPsd@empty}%

```

Ligatures. T_EX forms ligatures in its stomach, but the PDF strings are treated only by T_EX'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.

```

715 \HyPsd@Subst{---}\textemdash#1%
716 \HyPsd@Subst{--}\textendash#1%
717 % \HyPsd@Subst{fi}\textfi#1%
718 % \HyPsd@Subst{fl}\textfl#1%
719 \HyPsd@Subst{!}\textexclamdown#1%
720 \HyPsd@Subst{?}\textquestiondown#1%

```

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

```

721 \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 T_EX memory and time.

```

722 \ifHy@unicode
723 \HyPsd@StringSubst\(\textparenleft#1%
724 \HyPsd@Subst(\textparenleft#1%
725 \else
726 \HyPsd@StringSubst\({\050}#1%
727 \HyPsd@Subst({\050}#1%
728 \HyPsd@StringSubst{\050}{\string\{ }#1%
729 \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.

```

730 \ifHy@unicode
731 \edef\HyPsd@SPACEOPTI{\80\040}%
732 \else
733 \let\HyPsd@SPACEOPTI\HyPsd@spaceopti
734 \fi
735 \xdef#1{#1\@empty}%
736 \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.

```

737 \endgroup
738 \begingroup
739 \ifHy@unicode
740 \HyPsd@ConvertToUnicode#1%

```

Try conversion back to PDFDocEncoding.

```

741 \ifx\HyPsd@pdfencoding\HyPsd@pdfencoding@auto
742 \ltx@ifundefined{StringEncodingConvertTest}{%
743 }{%
744 \EdefUnescapeString\HyPsd@temp#1%
745 \iftutex
746 \let\HyPsd@UnescapedString\HyPsd@temp
747 \StringEncodingConvertTest\HyPsd@temp\HyPsd@temp
748 {utf16be}{ascii-print}{%
749 \EdefEscapeString\HyPsd@temp\HyPsd@temp
750 \global\let#1\HyPsd@temp
751 \HyPsd@EscapeTeX#1%
752 \Hy@unicodefalse
753 }{%
754 \HyPsd@EscapeTeX#1%
755 }%
756 \else
757 \StringEncodingConvertTest\HyPsd@temp\HyPsd@temp
758 {utf16be}{pdfdoc}{%
759 \EdefEscapeString\HyPsd@temp\HyPsd@temp
760 \global\let#1\HyPsd@temp
761 \HyPsd@EscapeTeX#1%
762 \Hy@unicodefalse
763 }{}%
764 \fi
765 }%
766 \fi
767 \fi

```

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

```

768 \pdfstringdefPostHook#1%
769 \endgroup
770 }

```

`\Hy@pdfstringdef`

```

771 \def\Hy@pdfstringdef#1#2{%
772 \pdfstringdef\Hy@gtemp{#2}%
773 \let#1\Hy@gtemp
774 }

```

6.3 Encodings

6.3.1 XeTeX

change 2020-05-13: the special code for XeTeX big chars has been removed as no longer needed.

6.3.2 Workaround for package linguex

```
775 \@ifpackageloaded{linguex}{%
776   \let\HyLinguex@OrgB\b
777   \let\HyLinguex@OrgC\c
778   \let\HyLinguex@OrgD\d
779   \def\HyLinguex@Restore{%
780     \let\b\HyLinguex@OrgB
781     \let\c\HyLinguex@OrgC
782     \let\d\HyLinguex@OrgD
783   }%
784   \Hy@AtEndOfPackage{%
785     \pdfstringdefDisableCommands{%
786       \ltx@ifundefined{oldb}{-}{\let\b\oldb}%
787       \ltx@ifundefined{oldc}{-}{\let\c\oldc}%
788       \ltx@ifundefined{oldd}{-}{\let\d\oldd}%
789     }%
790   }%
791 }{%
792   \let\HyLinguex@Restore\relax
793 }%
```

6.3.3 Catcodes saving and restoring for .def files

\Hy@SaveCatcodeSettings

```
794 \def\Hy@SaveCatcodeSettings#1{%
795   \expandafter\edef\csname Hy@cat@#1\endcsname{%
796     \endlinechar=\the\endlinechar\relax
797     \catcode32 \the\catcode32\relax % (space)
798     \catcode34 \the\catcode34\relax % "
799     \catcode35 \the\catcode35\relax % #
800     \catcode37 \the\catcode37\relax % (percent)
801     \catcode40 \the\catcode40\relax % (
802     \catcode41 \the\catcode41\relax % )
803     \catcode42 \the\catcode42\relax % *
804     \catcode46 \the\catcode46\relax % .
805     \catcode58 \the\catcode58\relax % :
806     \catcode60 \the\catcode60\relax % <
807     \catcode61 \the\catcode61\relax % =
808     \catcode62 \the\catcode62\relax % >
809     \catcode64 \the\catcode64\relax % @
810     \catcode91 \the\catcode91\relax % [
811     \catcode92 \the\catcode92\relax % (backslash)
812     \catcode93 \the\catcode93\relax % ]
813     \catcode123 \the\catcode123\relax % {
814     \catcode124 \the\catcode124\relax % |
815     \catcode125 \the\catcode125\relax % }
816   }%
817   \endlinechar=-1 %
818   \catcode32 10 % (space)
819   \catcode34 12 % "
820   \catcode35 6 % #
821   \catcode37 14 % (percent)
822   \catcode40 12 % (
823   \catcode41 12 % )
```



```

824 \catcode42 12 % *
825 \catcode46 12 % .
826 \catcode58 12 % :
827 \catcode60 12 % <
828 \catcode61 12 % =
829 \catcode62 12 % >
830 \catcode91 12 % [
831 \catcode92 0 % (backslash)
832 \catcode93 12 % ]
833 \catcode123 1 % {
834 \catcode124 12 % |
835 \catcode125 2 % }
836 \makeatletter
837 }

```

`\Hy@RestoreCatcodeSettings`

```

838 \def\Hy@RestoreCatcodeSettings#1{%
839   \csname Hy@cat@#1\endcsname
840   \expandafter\let\csname Hy@cat@#1\endcsname\relax
841 }

```

6.3.4 PD1 encoding

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

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

```

842 \@ifundefined{T@PD1}{%
843   \Hy@SaveCatcodeSettings{pd1}%
844   \input{pd1enc.def}%
845   \Hy@RestoreCatcodeSettings{pd1}%
846   \HyLinguex@Restore
847 }-{}
848 \DeclareFontFamily{PD1}{pdf}{}
849 \DeclareFontShape{PD1}{pdf}{m}{n}{ <-> cmr10 }-{}
850 \DeclareFontSubstitution{PD1}{pdf}{m}{n}

```

6.3.5 PU encoding

The PU encoding implements the Unicode encoding for use with L^AT_EX's NFSS. Because of large memory requirements the encoding file for Unicode support is only loaded, if option `unicode` is specified as package option. change 2020-08-14: Starting with version v7.00f the file is always loaded and `unicode` is the default 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`.

```

851 \def\HyPsd@LoadUnicode{%
852   \@ifundefined{T@PU}{%
853     \Hy@SaveCatcodeSettings{pu}%

```

```

854 \input{puenc.def}%
855 \Hy@RestoreCatcodeSettings{pu}%
856 \HyLinguex@Restore
857 }{}%
858 \DeclareFontFamily{PU}{pdf}{}%
859 \DeclareFontShape{PU}{pdf}{m}{n}{ <-> cmr10 }{}%
860 \DeclareFontSubstitution{PU}{pdf}{m}{n}%
861 \HyPsd@LoadExtra
862 \let\HyPsd@LoadUnicode\relax
863 }

```

`\HyPsd@LoadExtra`

```

864 \def\HyPsd@LoadExtra{%
865 \ifHy@psdextra
866 \ltx@iffileloaded{puenc.def}{%
867 \ltx@iffileloaded{puenc-greekbasic.def}{}{%
868 \Hy@SaveCatcodeSettings{pu}%
869 \input{puenc-greekbasic.def}%
870 \Hy@RestoreCatcodeSettings{pu}}%
871 \Hy@SaveCatcodeSettings{psdextra}%
872 \input{psdextra.def}%
873 \Hy@RestoreCatcodeSettings{psdextra}%
874 \let\HyPsd@LoadExtra\relax
875 }{}%
876 \fi
877 }

```

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.

```

878 \def\texorpdfstring{%
879 \ifHy@pdfstring
880 \expandafter\@secondoftwo
881 \else
882 \expandafter\@firstoftwo
883 \fi
884 }

```

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`.

```

885 \@ifundefined{pdfstringdefPreHook}{%
886 \let\pdfstringdefPreHook\@empty
887 }{}
888 \@ifundefined{pdfstringdefPostHook}{%
889 \let\pdfstringdefPostHook\@gobble
890 }{}

```

`\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`.

```
891 \def\pdfstringdefDisableCommands{%
892   \begingroup
893   \makeatletter
894   \HyPsd@DisableCommands
895 }
```

`\HyPsd@DisableCommands`

```
896 \long\def\HyPsd@DisableCommands#1{%
897   \ltx@GlobalAppendToMacro\pdfstringdefPreHook{#1}%
898   \endgroup
899 }
```

`\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`.

```
900 \def\pdfstringdefWarn#1{%
901   \expandafter\noexpand\csname<>\string#1\endcsname
902 }
```

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.

```
903 \begingroup
```

```

904 \catcode0=12 %
905 \def\x{\endgroup
906 \def\HyPsd@ignorespaces{%
907 \romannumeral\expandafter`\expandafter^^@%
908 \romannumeral^^@%
909 }%
910 }%
911 \x

```

6.5.2 Babel languages

change 2020-10-10: moved language patches to its own file as a first step toward removing them completely.

```

912 \newif\ifHy@next
913 \</package>

```

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

```

\pdfstringdefDisableCommands{%
\languageshorthands{system}%
}

```

As consequence the shorthands were shown in the bookmarks, and required a hyperref patch. In version 3.48 babel removed this unneeded code and so the patch could be removed.

Nothing to do for english. change 2020/07/16: removed patch for french. No longer needed. change 2020/07/21: removed patches for german, ngerman. Will be done by the language package. <https://github.com/jspitz/babel-german/issues/4> change 2020/10/10: removed patches for danish, dutch, finnish, portugues, swedish, usorbian, slovene see <https://github.com/latex3/babel/issues/84> change 2020/10/10: removed patch for macedonian, ukrainian; maintainers notified. change 2020/10/11: removed patch for russian, has been merged into babel-russian see <https://github.com/kia999/babel-russian/pull/3> change 2021/02/04: removed patches for greek numerals, code is now in babel-greek. spanish: Nested quoting environments are not supported (<<, >>). change 2021/07/19: removed patches for spanish, code is now in babel-spanish.

```

914 (*package)

```

6.5.3 CJK patch

```

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

```

`\HyPsd@CJKhook`

```

916 \def\HyPsd@CJKhook{%
917 \ltx@ifpackageloaded{CJK}{%
918 \let\CJK@kern\relax
919 \let\CJKkern\relax
920 \let\CJK@CJK\relax
921 \ifHy@CJKbookmarks
922 \HyPsd@CJKhook@bookmarks
923 \fi
924 \HyPsd@CJKhook@unicode
925 }-}%
926 }

```

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 ($\geq 0x40$).

```
927 \begingroup
928 \catcode"7F=\active
929 \toks@{%
930 \let\CJK@ignorespaces\empty
931 \def\CJK@char#1{\@gobbletwo}%
932 \let\CJK@charx\@gobblefour
933 \let\CJK@punctchar\@gobblefour
934 \def\CJK@punctcharx#1{\@gobblefour}%
935 \catcode"7F=\active
936 \def^^7f#1^^7f#2^^7f{%
937 \string #1\HyPsd@DecimalToOctal{#2}%
938 }%
939 % ... ?
940 \ifHy@unicode
941 \def\Hy@cjkpu{\80}%
942 \else
943 \let\Hy@cjkpu\@empty
944 \fi
945 \HyPsd@CJKActiveChars
946 }%
947 \count@=127 %
948 \@whilenum\count@<255 \do{%
949 \advance\count@ by 1 %
950 \lccode`\~=\count@
951 \lowercase{%
952 \toks@\expandafter{\the\toks@ ~}%
953 }%
954 }%
955 \toks@\expandafter{\the\toks@ !}%
956 \xdef\HyPsd@CJKhook@bookmarks{%
957 \the\toks@
958 }%
959 \endgroup
```

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

```
960 \def\HyPsd@CJKActiveChars#1{%
961 \ifx#1!%
962 \let\HyPsd@CJKActiveChars\relax
963 \else
964 \edef#1{\noexpand\Hy@cjkpu\string#1}%
965 \fi
```

```

966 \HyPsd@CJKActiveChars
967 }

```

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

```

968 \def\HyPsd@DecimalToOctal#1{%
969 \ifcase #1 %
970 \000\or \001\or \002\or \003\or \004\or \005\or \006\or \007%
971 \or \010\or \011\or \012\or \013\or \014\or \015\or \016\or \017%
972 \or \020\or \021\or \022\or \023\or \024\or \025\or \026\or \027%
973 \or \030\or \031\or \032\or \033\or \034\or \035\or \036\or \037%
974 \or \040\or \041\or \042\or \043\or \044\or \045\or \046\or \047%
975 \or \050\or \051\or \052\or \053\or \054\or \055\or \056\or \057%
976 \or 0\or 1\or 2\or 3\or 4\or 5\or 6\or 7%
977 \or 8\or 9\or \072\or \073\or \074\or \075\or \076\or \077%
978 \or @\or A\or B\or C\or D\or E\or F\or G%
979 \or H\or I\or J\or K\or L\or M\or N\or O%
980 \or P\or Q\or R\or S\or T\or U\or V\or W%
981 \or X\or Y\or Z\or \133\or \134\or \135\or \136\or \137%
982 \or \140\or a\or b\or c\or d\or e\or f\or g%
983 \or h\or i\or j\or k\or l\or m\or n\or o%
984 \or p\or q\or r\or s\or t\or u\or v\or w%
985 \or x\or y\or z\or \173\or \174\or \175\or \176\or \177%
986 \or \200\or \201\or \202\or \203\or \204\or \205\or \206\or \207%
987 \or \210\or \211\or \212\or \213\or \214\or \215\or \216\or \217%
988 \or \220\or \221\or \222\or \223\or \224\or \225\or \226\or \227%
989 \or \230\or \231\or \232\or \233\or \234\or \235\or \236\or \237%
990 \or \240\or \241\or \242\or \243\or \244\or \245\or \246\or \247%
991 \or \250\or \251\or \252\or \253\or \254\or \255\or \256\or \257%
992 \or \260\or \261\or \262\or \263\or \264\or \265\or \266\or \267%
993 \or \270\or \271\or \272\or \273\or \274\or \275\or \276\or \277%
994 \or \300\or \301\or \302\or \303\or \304\or \305\or \306\or \307%
995 \or \310\or \311\or \312\or \313\or \314\or \315\or \316\or \317%
996 \or \320\or \321\or \322\or \323\or \324\or \325\or \326\or \327%
997 \or \330\or \331\or \332\or \333\or \334\or \335\or \336\or \337%
998 \or \340\or \341\or \342\or \343\or \344\or \345\or \346\or \347%
999 \or \350\or \351\or \352\or \353\or \354\or \355\or \356\or \357%
1000 \or \360\or \361\or \362\or \363\or \364\or \365\or \366\or \367%
1001 \or \370\or \371\or \372\or \373\or \374\or \375\or \376\or \377%
1002 \fi
1003 }

```

6.5.5 CJK unicode

\HyPsd@CJKhook@unicode

```

1004 \def\HyPsd@CJKhook@unicode{%
1005 \let\Unicode\HyPsd@CJK@Unicode
1006 \let\CJKnumber\HyPsd@CJKnumber
1007 \let\CJKdigits\HyPsd@CJKdigits
1008 }

```

\HyPsd@CJK@Unicode

```

1009 \def\HyPsd@CJK@Unicode#1#2{%
1010 \ifnum#1<256 %
1011 \HyPsd@DecimalToOctalFirst{#1}%

```

```

1012 \HyPsd@DecimalToOctalSecond{#2}%
1013 \else
1014 \933%
1015 \expandafter\expandafter\expandafter\HyPsd@HighA
1016 \intcalcDiv{#1}{4}!%
1017 \933%
1018 \ifcase\intcalcMod{#1}{4} %
1019 4\or 5\or 6\or 7%
1020 \fi
1021 \HyPsd@DecimalToOctalSecond{#2}%
1022 \fi
1023 }

1024 \def\HyPsd@HighA#1!{%
1025 \expandafter\expandafter\expandafter\HyPsd@HighB
1026 \IntCalcDiv#1!64!!%
1027 \expandafter\expandafter\expandafter\HyPsd@HighD
1028 \IntCalcMod#1!64!!%
1029 }
1030 \def\HyPsd@HighB#1!{%
1031 \expandafter\expandafter\expandafter\HyPsd@HighC
1032 \IntCalcDec#1!!%
1033 }
1034 \def\HyPsd@HighC#1!{%
1035 \IntCalcDiv#1!4!%
1036 \@backslashchar
1037 \IntCalcMod#1!4!%
1038 }
1039 \def\HyPsd@HighD#1!{%
1040 \ifcase\IntCalcDiv#1!8! %
1041 0\or 1\or 2\or 3\or 4\or 5\or 6\or 7%
1042 \fi
1043 \ifcase\IntCalcMod#1!8! %
1044 0\or 1\or 2\or 3\or 4\or 5\or 6\or 7%
1045 \fi
1046 }
1047 \def\HyPsd@DecimalToOctalFirst#1{%
1048 \9%
1049 \ifcase#1 %
1050 000\or 001\or 002\or 003\or 004\or 005\or 006\or 007%
1051 \or 010\or 011\or 012\or 013\or 014\or 015\or 016\or 017%
1052 \or 020\or 021\or 022\or 023\or 024\or 025\or 026\or 027%
1053 \or 030\or 031\or 032\or 033\or 034\or 035\or 036\or 037%
1054 \or 040\or 041\or 042\or 043\or 044\or 045\or 046\or 047%
1055 \or 050\or 051\or 052\or 053\or 054\or 055\or 056\or 057%
1056 \or 060\or 061\or 062\or 063\or 064\or 065\or 066\or 067%
1057 \or 070\or 071\or 072\or 073\or 074\or 075\or 076\or 077%
1058 \or 100\or 101\or 102\or 103\or 104\or 105\or 106\or 107%
1059 \or 120\or 111\or 112\or 113\or 114\or 115\or 116\or 117%
1060 \or 120\or 121\or 122\or 123\or 124\or 125\or 126\or 127%
1061 \or 130\or 131\or 132\or 133\or 134\or 135\or 136\or 137%
1062 \or 140\or 141\or 142\or 143\or 144\or 145\or 146\or 147%
1063 \or 150\or 151\or 152\or 153\or 154\or 155\or 156\or 157%
1064 \or 160\or 161\or 162\or 163\or 164\or 165\or 166\or 167%

```

```

1065 \or 170\or 171\or 172\or 173\or 174\or 175\or 176\or 177%
1066 \or 200\or 201\or 202\or 203\or 204\or 205\or 206\or 207%
1067 \or 210\or 211\or 212\or 213\or 214\or 215\or 216\or 217%
1068 \or 220\or 221\or 222\or 223\or 224\or 225\or 226\or 227%
1069 \or 230\or 231\or 232\or 233\or 234\or 235\or 236\or 237%
1070 \or 240\or 241\or 242\or 243\or 244\or 245\or 246\or 247%
1071 \or 250\or 251\or 252\or 253\or 254\or 255\or 256\or 257%
1072 \or 260\or 261\or 262\or 263\or 264\or 265\or 266\or 267%
1073 \or 270\or 271\or 272\or 273\or 274\or 275\or 276\or 277%
1074 \or 300\or 301\or 302\or 303\or 304\or 305\or 306\or 307%
1075 \or 310\or 311\or 312\or 313\or 314\or 315\or 316\or 317%
1076 \or 320\or 321\or 322\or 323\or 324\or 325\or 326\or 327%
1077 \or 330\or 331\or 332\or 333\or 334\or 335\or 336\or 337%
1078 \or 340\or 341\or 342\or 343\or 344\or 345\or 346\or 347%
1079 \or 350\or 351\or 352\or 353\or 354\or 355\or 356\or 357%
1080 \or 360\or 361\or 362\or 363\or 364\or 365\or 366\or 367%
1081 \or 370\or 371\or 372\or 373\or 374\or 375\or 376\or 377%
1082 \fi
1083 }
1084 \def\HyPsd@DecimalToOctalSecond#1{%
1085 \ifcase #1 %
1086 \000\or \001\or \002\or \003\or \004\or \005\or \006\or \007%
1087 \or \010\or \011\or \012\or \013\or \014\or \015\or \016\or \017%
1088 \or \020\or \021\or \022\or \023\or \024\or \025\or \026\or \027%
1089 \or \030\or \031\or \032\or \033\or \034\or \035\or \036\or \037%
1090 \or \040\or \041\or \042\or \043\or \044\or \045\or \046\or \047%
1091 \or \050\or \051\or \052\or \053\or \054\or \055\or \056\or \057%
1092 \or \060\or \061\or \062\or \063\or \064\or \065\or \066\or \067%
1093 \or \070\or \071\or \072\or \073\or \074\or \075\or \076\or \077%
1094 \or \100\or \101\or \102\or \103\or \104\or \105\or \106\or \107%
1095 \or \110\or \111\or \112\or \113\or \114\or \115\or \116\or \117%
1096 \or \120\or \121\or \122\or \123\or \124\or \125\or \126\or \127%
1097 \or \130\or \131\or \132\or \133\or \134\or \135\or \136\or \137%
1098 \or \140\or \141\or \142\or \143\or \144\or \145\or \146\or \147%
1099 \or \150\or \151\or \152\or \153\or \154\or \155\or \156\or \157%
1100 \or \160\or \161\or \162\or \163\or \164\or \165\or \166\or \167%
1101 \or \170\or \171\or \172\or \173\or \174\or \175\or \176\or \177%
1102 \or \200\or \201\or \202\or \203\or \204\or \205\or \206\or \207%
1103 \or \210\or \211\or \212\or \213\or \214\or \215\or \216\or \217%
1104 \or \220\or \221\or \222\or \223\or \224\or \225\or \226\or \227%
1105 \or \230\or \231\or \232\or \233\or \234\or \235\or \236\or \237%
1106 \or \240\or \241\or \242\or \243\or \244\or \245\or \246\or \247%
1107 \or \250\or \251\or \252\or \253\or \254\or \255\or \256\or \257%
1108 \or \260\or \261\or \262\or \263\or \264\or \265\or \266\or \267%
1109 \or \270\or \271\or \272\or \273\or \274\or \275\or \276\or \277%
1110 \or \300\or \301\or \302\or \303\or \304\or \305\or \306\or \307%
1111 \or \310\or \311\or \312\or \313\or \314\or \315\or \316\or \317%
1112 \or \320\or \321\or \322\or \323\or \324\or \325\or \326\or \327%
1113 \or \330\or \331\or \332\or \333\or \334\or \335\or \336\or \337%
1114 \or \340\or \341\or \342\or \343\or \344\or \345\or \346\or \347%
1115 \or \350\or \351\or \352\or \353\or \354\or \355\or \356\or \357%
1116 \or \360\or \361\or \362\or \363\or \364\or \365\or \366\or \367%
1117 \or \370\or \371\or \372\or \373\or \374\or \375\or \376\or \377%
1118 \fi

```



```

1119 }
1120 \def\HyPsd@CJKnumber#1{%
1121   \ifnum#1<\z@
1122     \CJK@minus
1123     \expandafter\HyPsd@@CJKnumber\expandafter{\number-\number#1}%
1124   \else
1125     \expandafter\HyPsd@@CJKnumber\expandafter{\number#1}%
1126   \fi
1127 }
1128 \def\HyPsd@@CJKnumber#1{%
1129   \ifcase#1 %
1130     \CJK@zero\or\CJK@one\or\CJK@two\or\CJK@three\or\CJK@four\or
1131     \CJK@five\or\CJK@six\or\CJK@seven\or\CJK@eight\or\CJK@nine\or
1132     \CJK@ten\or\CJK@ten\CJK@one\or\CJK@ten\CJK@two\or
1133     \CJK@ten\CJK@three\or\CJK@ten\CJK@four\or\CJK@ten\CJK@five\or
1134     \CJK@ten\CJK@six\or\CJK@ten\CJK@seven\or\CJK@ten\CJK@eight\or
1135     \CJK@ten\CJK@nine
1136   \else
1137     \ifnum#1<10000 %
1138       \HyPsd@CJKnumberFour#1!\@empty{20}%
1139       \@empty
1140     \else
1141       \ifnum#1<100000000 %
1142         \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1143         \IntCalcDiv#1!10000!%
1144         !{}{20}%
1145         \CJK@tenthousand
1146         \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1147         \IntCalcMod#1!10000!%
1148         !\CJK@zero{10}%
1149         \@empty
1150       \else
1151         \expandafter\HyPsd@CJKnumberLarge
1152         \number\IntCalcDiv#1!100000000!\expandafter!%
1153         \number\IntCalcMod#1!100000000!!%
1154       \fi
1155     \fi
1156   \fi
1157 }
1158 \def\HyPsd@CJKnumberLarge#1!#2!{%
1159   \HyPsd@CJKnumberFour#1!{}{20}%
1160   \CJK@hundredmillion
1161   \ifnum#2=\z@
1162   \else
1163     \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1164     \IntCalcDiv#2!10000!%
1165     !\CJK@zero{10}%
1166     \CJK@tenthousand
1167     \expandafter\expandafter\expandafter\HyPsd@CJKnumberFour
1168     \IntCalcMod#2!10000!%
1169     !\CJK@zero{10}%
1170     \@empty
1171   \fi
1172 }

```

```

1173 \def\HyPsd@CJKnumberFour#1!#2#3{%
1174 \ifnum#1=\z@
1175 \expandafter\@gobble
1176 \else
1177 \ifnum#1<1000 %
1178 #2%
1179 \HyPsd@CJKnumberThree#1!#{#3}%
1180 \else
1181 \HyPsd@@CJKnumber{\IntCalcDiv#1!1000!}%
1182 \CJK@thousand
1183 \expandafter\expandafter\expandafter\HyPsd@CJKnumberThree
1184 \IntCalcMod#1!1000!%
1185 !\CJK@zero{10}%
1186 \fi
1187 \fi
1188 }
1189 \def\HyPsd@CJKnumberThree#1!#2#3{%
1190 \ifnum#1=\z@
1191 \else
1192 \ifnum#1<100 %
1193 #2%
1194 \HyPsd@CJKnumberTwo#1!#{#3}%
1195 \else
1196 \HyPsd@@CJKnumber{\IntCalcDiv#1!100!}%
1197 \CJK@hundred
1198 \expandafter\expandafter\expandafter\HyPsd@CJKnumberTwo
1199 \IntCalcMod#1!100!%
1200 !\CJK@zero{10}%
1201 \fi
1202 \fi
1203 }
1204 \def\HyPsd@CJKnumberTwo#1!#2#3{%
1205 \ifnum#1=\z@
1206 \else
1207 \ifnum#1<#3 %
1208 #2%
1209 \HyPsd@@CJKnumber{#1}%
1210 \else
1211 \HyPsd@@CJKnumber{\IntCalcDiv#1!10!}%
1212 \CJK@ten
1213 \ifnum\IntCalcMod#1!10!=\z@
1214 \else
1215 \HyPsd@@CJKnumber{\IntCalcMod#1!10!}%
1216 \fi
1217 \fi
1218 \fi
1219 }
1220 \def\HyPsd@CJKdigits#1{%
1221 \ifx*#1\relax
1222 \expandafter\HyPsd@@CJKdigits\expandafter\CJK@zero
1223 \else
1224 \HyPsd@@CJKdigits\CJK@null{#1}%
1225 \fi
1226 }

```

```

1227 \def\HyPsd@@CJKdigits#1#2{%
1228   \ifx\|#2\|}%
1229   \else
1230     \HyPsd@@@CJKdigits#1#2\@nil
1231   \fi
1232 }%
1233 \def\HyPsd@@@CJKdigits#1#2#3\@nil{%
1234   \HyPsd@CJKdigit#1{#2}%
1235   \ifx\|#3\|}%
1236     \expandafter\@gobble
1237   \else
1238     \expandafter\@firstofone
1239   \fi
1240   {%
1241     \HyPsd@@@CJKdigits#1#3\@nil
1242   }%
1243 }
1244 \def\HyPsd@CJKdigit#1#2{%
1245   \ifcase#2 %
1246     #1\or
1247     \CJK@one\or\CJK@two\or\CJK@three\or\CJK@four\or
1248     \CJK@five\or\CJK@six\or\CJK@seven\or\CJK@eight\or\CJK@nine
1249   \fi
1250 }

```

6.5.6 \@inmathwarn-Patch

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

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

```

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

```

```

        \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}

1251 \def\HyPsd@inmathwarn#1#2{%
1252   \ifx#2\expandafter
1253     \expandafter\ifx\csname\cf@encoding\string#1\endcsname\relax
1254       \HyPsd@GLYPHERR
1255     \expandafter\@gobble\string#1%
1256     >%
1257     \expandafter\expandafter\expandafter\HyPsd@EndWithElse
1258   \else
1259     \expandafter\expandafter\expandafter\HyPsd@GobbleFiFi
1260   \fi
1261 \else
1262   \expandafter#2%
1263 \fi
1264 }
1265 \def\HyPsd@GobbleFiFi#1\fi#2\fi{}
1266 \def\HyPsd@EndWithElse#1\else\else}

```

`\HyPsd@add@accent`

```

1267 \def\HyPsd@add@accent#1#2{%
1268   \HyPsd@GLYPHERR\expandafter\@gobble\string#1+\string#2>%
1269   #2%
1270 }%

```

6.5.7 Unexpandable spaces

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

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

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

```

1271 \def\HyPsd@LetUnexpandableSpace#1{%
1272   \expandafter\futurelet\expandafter#1\expandafter\@gobble\space\relax
1273 }

```

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

```
1274 \HyPsd@LetUnexpandableSpace\HyPsd@UnexpandableSpace
```

6.5.8 Marker for commands

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

```
1275 \edef\HyPsd@XSPACE{\string#\string X}  
1276 \edef\HyPsd@ITALCORR{\string#\string I}  
1277 \edef\HyPsd@GLYPHERR{\string#\string G}
```

6.5.9 `\hspace` fix

`\HyPsd@hspace`

```
1278 \def\HyPsd@hspace#1{\HyPsd@@hspace#1*END}
```

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

```
1279 \def\HyPsd@@hspace#1*#2\END{%  
1280 \ifx\#2\%  
1281 \HyPsd@hspacetest{#1}%  
1282 \else  
1283 \expandafter\HyPsd@hspacetest  
1284 \fi  
1285 }
```

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

```
1286 \def\HyPsd@hspacetest#1{\ifdim\dimexpr#1\relax>\z@\space\fi}
```

6.5.10 Fix for AMS classes

```
1287 \ltx@ifundefined{tocsection}{%  
1288 \let\HyPsd@AMSclassfix\relax  
1289 }{%  
1290 \def\HyPsd@AMSclassfix{%  
1291 \let\tocpart\HyPsd@tocsection  
1292 \let\tocchapter\HyPsd@tocsection  
1293 \let\tocappendix\HyPsd@tocsection  
1294 \let\tocsection\HyPsd@tocsection  
1295 \let\tocsubsection\HyPsd@tocsection  
1296 \let\tocsubsubsection\HyPsd@tocsection  
1297 \let\tocparagraph\HyPsd@tocsection  
1298 }%  
1299 \def\HyPsd@tocsection#1#2#3{%  
1300 \if @#2\else\if @#1\else#1 \fi#2. \fi  
1301 #3%  
1302 }%  
1303 }
```

6.5.11 Reference commands

`\HyPsd@href`

```
1304 \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.

```
1305 \def\HyPsd@ref#1{\HyPsd@@ref#1*\END}%
```

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

```
1306 \def\HyPsd@@ref#1*#2\END{%
1307   \ifx\#2\%
1308     \HyPsd@@@ref{#1}%
1309   \else
1310     \expandafter\HyPsd@@@ref
1311   \fi
1312 }%
```

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

```
1313 \def\HyPsd@@@ref#1{%
1314   \expandafter\ifx\csname r@#1\endcsname\relax
1315     ??%
1316   \else
1317     \expandafter\expandafter\expandafter
1318     \@car\csname r@#1\endcsname\@nil
1319   \fi
1320 }
```

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

```
1321 \def\HyPsd@pageref#1{\HyPsd@@pageref#1*\END}
```

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

```
1322 \def\HyPsd@@pageref#1*#2\END{%
1323   \ifx\#2\%
1324     \HyPsd@@@pageref{#1}%
1325   \else
1326     \expandafter\HyPsd@@@pageref
1327   \fi
1328 }
```

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

```
1329 \def\HyPsd@@@pageref#1{%
1330   \expandafter\ifx\csname r@#1\endcsname\relax
1331     ??%
1332   \else
1333     \expandafter\expandafter\expandafter\expandafter
1334     \expandafter\expandafter\expandafter\@car
1335     \expandafter\expandafter\expandafter\@gobble
1336     \csname r@#1\endcsname{\}\@nil
1337   \fi
1338 }
```

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

```
1339 \def\HyPsd@nameref#1{\HyPsd@@nameref#1*\END}
```

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

```
1340 \def\HyPsd@@nameref#1*#2\END{%
1341   \ifx\#2\%
1342     \HyPsd@@@nameref{#1}%
1343   \else
1344     \expandafter\HyPsd@@@nameref
1345   \fi
1346 }
```

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

```
1347 \def\HyPsd@@@nameref#1{%
1348   \expandafter\ifx\csname r@#1\endcsname\relax
1349     ??%
1350   \else
1351     \expandafter\expandafter\expandafter\expandafter
1352     \expandafter\expandafter\expandafter\@car
1353     \expandafter\expandafter\expandafter\@gobbletwo
1354     \csname r@#1\endcsname{}{} \@nil
1355   \fi
1356 }
```

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

```
1357 \def\HyPsd@autoref#1{\HyPsd@@autoref#1*\END}
```

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

```
1358 \def\HyPsd@@autoref#1*#2\END{%
1359   \ifx\#2\%
1360     \HyPsd@@@autoref{#1}%
1361   \else
1362     \expandafter\HyPsd@@@autoref
1363   \fi
1364 }
```

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

```
1365 \def\HyPsd@@@autoref#1{%
1366   \expandafter\ifx\csname r@#1\endcsname\relax
1367     ??%
1368   \else
1369     \expandafter\expandafter\expandafter\HyPsd@autorefname
1370     \csname r@#1\endcsname{}{}{} \@nil
1371     \expandafter\expandafter\expandafter
1372     \@car\csname r@#1\endcsname \@nil
1373   \fi
1374 }
```

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

```
1375 \def\HyPsd@autorefname#1#2#3#4#5\@nil{%
1376   \ifx\#4\%
1377     \else
1378     \HyPsd@@autorefname#4.\@nil
1379   \fi
1380 }
```

`\HyPsd@@autorefname`

```
1381 \def\HyPsd@@autorefname#1.#2\@nil{%
1382 \ltx@ifundefined{#1autorefname}{%
1383 \ltx@ifundefined{#1name}{%
1384 }{%
1385 \csname#1name\endcsname\space
1386 }%
1387 }{%
1388 \csname#1autorefname\endcsname\space
1389 }%
1390 }
```

6.5.12 Redefining the defining commands

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

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

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

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

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

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

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

```
1391 \begingroup
1392 \def\x#1#2{%
1393 \endgroup
1394 \let#1\def
1395 \def\HyPsd@DefCommand##1##2###{%
1396 #1%
1397 \expandafter\noexpand
1398 \csname\expandafter\@gobble\string##1\@empty\endcsname
1399 \@gobble
```



```

1400 }%
1401 \let#2\let
1402 \def\HyPsd@@LetCommand##1{%
1403 \expandafter\ifx\csname##1\expandafter\endcsname
1404 \csname iftrue\endcsname
1405 \pdfstringdefWarn\let
1406 \expandafter\@gobble
1407 \else
1408 \expandafter\ifx\csname##1\expandafter\endcsname
1409 \csname iffalse\endcsname
1410 \pdfstringdefWarn\let
1411 \expandafter\expandafter\expandafter\@gobble
1412 \else
1413 #2%
1414 \expandafter\noexpand
1415 \csname##1\expandafter\expandafter\expandafter\endcsname
1416 \fi
1417 \fi
1418 }%
1419 }%
1420 \expandafter\x\csname <def>-command\expandafter\endcsname
1421 \csname <let>-command\endcsname
1422 \def\HyPsd@LetCommand#1{%
1423 \expandafter\expandafter\expandafter\HyPsd@@LetCommand
1424 \expandafter\expandafter\expandafter{%
1425 \expandafter\@gobble\string#1\@empty
1426 }%
1427 }

```

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).

```

1428 \def\HyPsd@ifnextchar#1{%
1429 \pdfstringdefWarn#1%
1430 \expandafter\@gobbletwo\@gobble
1431 }

```

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`.

```
1432 \def\HyPsd@protected@testopt#1{%
1433   \pdfstringdefWarn#1%
1434   \@gobbletwo
1435 }
```

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:

```
1436 \def\HyPsd@Warning#1{%
1437   \begingroup
1438   \let\space\ltx@space
1439   \Hy@Warning{#1}%
1440   \endgroup
1441 }
```

6.6.2 Protecting spaces

```
1442 \RequirePackage{etexcmds}[2007/09/09]
1443 \ifetex@unexpanded
1444   \expandafter\@secondoftwo
1445 \else
1446   \expandafter\@firstoftwo
1447 \fi
1448 {%
```

`\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`.

```
1449 \def\HyPsd@ProtectSpaces#1{%
1450   \iftrue
1451     \expandafter\HyPsd@@ProtectSpacesFi
1452     \expandafter|\expandafter\@empty#1| \HyPsd@End#1%
1453   \fi
1454 }%
```

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

```
1455 \def\HyPsd@@ProtectSpacesFi#1 #2\HyPsd@End#3\fi{%
1456   \fi
1457   \ifx\scrollmode#2\scrollmode
1458     \HyPsd@RemoveMask#1\HyPsd@End#3%
1459   \else
1460     \gdef#3{#1\HyPsd@UnexpandableSpace#2}%
1461     \expandafter\HyPsd@@ProtectSpacesFi#3\HyPsd@End#3%
1462   \fi
1463 }%
```

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.

```
1464 \def\HyPsd@RemoveMask|#1|\HyPsd@End#2{%
1465   \toks@\expandafter{#1}%
1466   \xdef#2{\the\toks@}%
1467 }%

1468 }{%
1469 \let\HyPsd@fi\fi
1470 \def\HyPsd@ProtectSpaces#1{%
1471   \xdef#1{%
1472     \iftrue
1473       \expandafter\HyPsd@@ProtectSpacesFi
1474       \expandafter|\expandafter\@empty#1| %
1475     \HyPsd@fi
1476   }%
1477   \expandafter\HyPsd@RemoveMask#1\HyPsd@End#1%
1478 }%
1479 \def\HyPsd@@ProtectSpacesFi#1 #2\HyPsd@fi{%
1480   \fi
1481   \etex@unexpanded{#1}%
1482   \ifx\scrollmode#2\scrollmode
1483   \else
1484     \HyPsd@@ProtectSpacesFi\HyPsd@UnexpandableSpace#2%
1485   \HyPsd@fi
1486 }%
1487 \def\HyPsd@RemoveMask|#1|\HyPsd@End#2{%
1488   \xdef#2{\etex@unexpanded\expandafter{#1}}%
1489 }%
1490 }
```

6.6.3 Remove grouping braces

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

```
1491 \def\HyPsd@RemoveBraces#1{%
1492   \ifx\scrollmode#1\scrollmode
1493   \else
1494     \HyPsd@@RemoveBracesFi#1\HyPsd@End{#1}%
1495   \fi
1496 }
```

`\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`.

```

1497 \def\HyPsd@@RemoveBracesFi#1#2\HyPsd@End#3\fi{%
1498   \fi
1499   \def\Hy@temp@A{#1#2}%
1500   \def\Hy@temp@B{#3}%
1501   \ifx\Hy@temp@A\Hy@temp@B
1502     \expandafter\def\expandafter\HyPsd@String\expandafter{%
1503       \HyPsd@String#1%
1504     }%
1505     \ifx\scrollmode#2\scrollmode
1506     \else
1507       \Hy@ReturnAfterFiFiEnd{%
1508         \HyPsd@RemoveBraces{#2}%
1509       }%
1510     \fi
1511   \else
1512     \def\Hy@temp@A{#1}%
1513     \HyPsd@AppendItalcorr\HyPsd@String
1514     \ifx\Hy@temp@A\@empty
1515       \Hy@ReturnAfterElseFiFiEnd{%
1516         \HyPsd@RemoveBraces{#2}%
1517       }%
1518     \else
1519       \HyPsd@ProtectSpaces\Hy@temp@A
1520       \HyPsd@AppendItalcorr\Hy@temp@A
1521       \Hy@ReturnAfterFiFiEnd{%
1522         \expandafter\HyPsd@RemoveBraces\expandafter
1523           {\Hy@temp@A#2}%
1524       }%
1525     \fi
1526   \fi
1527   \Hy@ReturnEnd
1528 }

```

`\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`.

```

1529 \def\HyPsd@AppendItalcorr#1{%
1530   \expandafter\HyPsd@@AppendItalcorr\expandafter{\}/#1%
1531 }
1532 \def\HyPsd@@AppendItalcorr#1#2{%
1533   \expandafter\def\expandafter#2\expandafter{#2#1}%
1534 }

```

6.6.4 Catcode check

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

```

1535 \ltx@ifundefined{directlua}{%
1536 }{%
1537   \expandafter\ifx\curname\endcurname\relax\fi
1538 }

```

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`.

```

1539 \begingroup
1540 \catcode`\Q=\active
1541 \let Q\ltx@empty
1542 \gdef\HyPsd@CheckCatcodes#1#2\HyPsd@End{%
1543 \global\let\HyPsd@Rest\relax
1544 \ifcat\relax\noexpand#1\relax
1545 \ifx#1\protect
1546 \else
1547 \ifx#1\penalty
1548 \setbox\z@=\hbox{%
1549 \afterassignment\HyPsd@AfterCountRemove
1550 \count@=#2\HyPsd@End
1551 }%
1552 \else
1553 \ifx#1\kern
1554 \setbox\z@=\hbox{%
1555 \afterassignment\HyPsd@AfterDimenRemove
1556 \dimen@=#2\HyPsd@End
1557 }%
1558 \else
1559 \ifx#1\hskip
1560 \setbox\z@=\hbox{%
1561 \afterassignment\HyPsd@AfterSkipRemove
1562 \skip@=#2\HyPsd@End
1563 }%
1564 \else
1565 \HyPsd@CatcodeWarning{#1}%
1566 \fi
1567 \fi
1568 \fi
1569 \else
1570 \else
1571 \ifcat\noexpand#1\noexpandQ% active character
1572 \expandafter\expandafter\expandafter\def
1573 \expandafter\expandafter\expandafter\HyPsd@String
1574 \expandafter\expandafter\expandafter{%
1575 \expandafter\HyPsd@String\string#1%
1576 }%
1577 \else

```

```

1578 \ifcat#1A% letter
1579 \expandafter\def\expandafter\HyPsd@String\expandafter{%
1580 \HyPsd@String#1%
1581 }%
1582 \else
1583 \ifcat#1 % SPACE
1584 \expandafter\def\expandafter\HyPsd@String\expandafter{%
1585 \HyPsd@String\HyPsd@SPACEOPTI
1586 }%
1587 \else
1588 \ifcat$#1%
1589 \HyPsd@CatcodeWarning{math shift}%
1590 \else
1591 \ifcat&#1%
1592 \HyPsd@CatcodeWarning{alignment tab}%
1593 \else
1594 \ifcat^#1%
1595 \HyPsd@CatcodeWarning{superscript}%
1596 \else
1597 \ifcat_#1%
1598 \HyPsd@CatcodeWarning{subscript}%
1599 \else
1600 \expandafter\def\expandafter\HyPsd@String\expandafter{%
1601 \HyPsd@String#1%
1602 }%
1603 \fi
1604 \fi
1605 \fi
1606 \fi
1607 \fi
1608 \fi
1609 \fi
1610 \fi
1611 \ifx\HyPsd@Rest\relax
1612 \ifx\scrollmode#2\scrollmode
1613 \else
1614 \Hy@ReturnAfterFiFiEnd{%
1615 \HyPsd@CheckCatcodes#2\HyPsd@End
1616 }%
1617 \fi
1618 \else
1619 \ifx\HyPsd@Rest\@empty
1620 \else
1621 \Hy@ReturnAfterFiFiEnd{%
1622 \expandafter\HyPsd@CheckCatcodes\HyPsd@Rest\HyPsd@End
1623 }%
1624 \fi
1625 \fi
1626 \Hy@ReturnEnd
1627 }%
1628 \endgroup

```

Remove counts, dimens, skips.

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

```
1629 \def\HyPsd@AfterCountRemove#1\HyPsd@end{%
1630   \gdef\HyPsd@Rest{#1}%
1631 }
```

`\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.

```
1632 \def\HyPsd@AfterDimenRemove#1\HyPsd@end{%
1633   \ifdim\ifx\HyPsd@String\@empty\z@\else\dimen@>1ex %
1634     \HyPsd@ReplaceSpaceWarning{\string\kern\space\the\dimen@}%
1635     \gdef\HyPsd@Rest{\HyPsd@UnexpandableSpace #1}%
1636   \else
1637     \ifdim\dimen@=\z@
1638     \else
1639       \HyPsd@RemoveSpaceWarning{\string\kern\space\the\dimen@}%
1640     \fi
1641     \gdef\HyPsd@Rest{#1}%
1642   \fi
1643 }
```

`\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).

```
1644 \def\HyPsd@AfterSkipRemove#1\HyPsd@end{%
1645   \ifdim\ifx\HyPsd@String\@empty\z@\else\skip@>1ex %
1646     \HyPsd@ReplaceSpaceWarning{\string\hskip\space\the\skip@}%
1647     \gdef\HyPsd@Rest{\HyPsd@UnexpandableSpace #1}%
1648   \else
1649     \ifdim\skip@=\z@
1650     \else
1651       \HyPsd@RemoveSpaceWarning{\string\kern\space\the\skip@}%
1652     \fi
1653     \gdef\HyPsd@Rest{#1}%
1654   \fi
1655 }
```

Catcode warnings.

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

```
1656 \def\HyPsd@CatcodeWarning#1{%
1657   \HyPsd@Warning{%
1658     Token not allowed in a PDF string (%
1659     \ifHy@unicode
1660       Unicode%
1661     \else
1662       PDFDocEncoding%
1663     \fi
1664     ):%
1665     \MessageBreak removing `\'HyPsd@RemoveCmdPrefix#1'%
1666   }%
1667 }
1668 \begingroup
```

```

1669 \catcode`\|=0 %
1670 \catcode`\|=12 %
1671 |gdef|HyPsd@RemoveCmdPrefix#1{%
1672   |expandafter|HyPsd@@RemoveCmdPrefix
1673   |string#1|@empty\<>-|@empty|@empty
1674 }%
1675 |gdef|HyPsd@@RemoveCmdPrefix#1\<>-#2|@empty#3|@empty{#1#2}%
1676 |endgroup

```

\HyPsd@RemoveSpaceWarning

```

1677 \def\HyPsd@RemoveSpaceWarning#1{%
1678   \HyPsd@Warning{%
1679     Token not allowed in a PDF string (%
1680     \ifHy@unicode
1681       Unicode%
1682     \else
1683       PDFDocEncoding%
1684     \fi
1685     ):%
1686     \MessageBreak #1\MessageBreak
1687     removed%
1688   }%
1689 }

```

\HyPsd@ReplaceSpaceWarning

```

1690 \def\HyPsd@ReplaceSpaceWarning#1{%
1691   \HyPsd@Warning{%
1692     Token not allowed in a PDF string (%
1693     \ifHy@unicode
1694       Unicode%
1695     \else
1696       PDFDocEncoding%
1697     \fi
1698     ):%
1699     \MessageBreak #1\MessageBreak
1700     replaced by space%
1701   }%
1702 }

```

6.6.5 Check for wrong glyphs

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

```

1703 \def\HyPsd@GlyphProcess#1\relax#2\@empty{%
1704   \expandafter\def\expandafter\HyPsd@String\expandafter{%
1705     \HyPsd@String#1%
1706   }%
1707   \ifx\|#2\|%
1708   \else
1709     \ltx@ReturnAfterFi{%
1710       \HyPsd@GlyphProcessWarning#2\@empty
1711     }%
1712   \fi
1713 }

```



```

1714 \def\HyPsd@GlyphProcessWarning#1>#2\@empty{%
1715 \HyPsd@@GlyphProcessWarning#1++>%
1716 \HyPsd@GlyphProcess#2\@empty
1717 }
1718 \def\HyPsd@@GlyphProcessWarning#1+#2+#3>{%
1719 \ifx\#2\%
1720 \HyPsd@Warning{%
1721 Glyph not defined in %
1722 P\ifHy@unicode U\else D1\fi\space encoding,\MessageBreak
1723 removing \@backslashchar#1'%
1724 }%
1725 \else
1726 \HyPsd@Warning{%
1727 Composite letter \@backslashchar#1+#2'\MessageBreak
1728 not defined in P\ifHy@unicode U\else D1\fi\space encoding,%
1729 \MessageBreak
1730 removing \@backslashchar#1'%
1731 }%
1732 \fi
1733 }

```

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`.

```

1734 \def\HyPsd@spaceopti#1{ % first space
1735 \ifx\HyPsd@spaceopti#1%
1736 \040%
1737 \else
1738 #1%
1739 \fi
1740 }%

```

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.
1741 \def\HyPsd@Subst#1#2#3{%
1742 \def\HyPsd@@ReplaceFi##1#1##2\END\fi{%
1743 \fi
1744 ##1%
1745 \ifx\scrollmode##2\scrollmode
1746 \else
1747 #2%
1748 \HyPsd@@@ReplaceFi##2\END
1749 \fi
1750 }%

```

```

1751 \xdef#3{%
1752   \iftrue
1753   \expandafter\HyPsd@@ReplaceFi#3#1\END
1754   \fi
1755 }%
1756 }

```

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

```

1757 \def\HyPsd@StringSubst#1{%
1758   \expandafter\HyPsd@Subst\expandafter{\string#1}%
1759 }

```

`\HyPsd@EscapeTeX`

```

1760 \begingroup
1761 \lccode`!=`%%
1762 \lccode`|=``\%
1763 \lccode`\<=``\{%
1764 \lccode`\)=``\}%
1765 \lccode`0=\ltx@zero
1766 \lccode`1=\ltx@zero
1767 \lccode`3=\ltx@zero
1768 \lccode`4=\ltx@zero
1769 \lccode`5=\ltx@zero
1770 \lccode`7=\ltx@zero
1771 \lowercase{\endgroup
1772 \def\HyPsd@EscapeTeX#1{%
1773   \HyPsd@Subst!{|045}#1%
1774   \HyPsd@Subst({|173}#1%
1775   \HyPsd@Subst){|175}#1%
1776 }%
1777 }

```

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.

```

1778 \def\HyPsd@doxspace#1{%
1779   \ifx#1\relax\else
1780   \ifx#1.\else
1781   \ifx#1:\else
1782   \ifx#1,\else
1783   \ifx#1;\else
1784   \ifx#1!\else
1785   \ifx#1?\else
1786   \ifx#1/\else
1787   \ifx#1-\else
1788   \ifx#1'\else
1789     \HyPsd@SPACEOPTI
1790   \fi
1791   \fi

```

```

1792     \fi
1793     \fi
1794     \fi
1795     \fi
1796     \fi
1797     \fi
1798     \fi
1799     \fi
1800     #1%
1801 }%

```

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.

```

1802 \begingroup
1803 \catcode`\|=0 %
1804 \catcode`\|=12 %

```

\HyPsd@ConvertToUnicode

```

1805 |gdef|HyPsd@ConvertToUnicode#1{%
1806 |xdef#1{%
1807 |expandafter|HyPsd@DoConvert#1|@empty|@empty|@empty
1808 }%
1809 |ifx#1|@empty
1810 |else
1811 |xdef#1{%
1812 \376\377%
1813 #1%
1814 }%
1815 |fi
1816 }%

```

\HyPsd@DoConvert

```

1817 |gdef|HyPsd@DoConvert#1{%
1818 |ifx#1|@empty
1819 |else
1820 |!tx@ReturnAfterFi{%
1821 |ifx#1\%%
1822 \%%
1823 |expandafter|HyPsd@DoEscape
1824 |else
1825 |HyPsd@Char{#1}%
1826 |expandafter|HyPsd@DoConvert
1827 |fi
1828 }%
1829 |fi
1830 }%

```

\HyPsd@DoEscape

```

1831 |gdef|HyPsd@DoEscape#1{%
1832 |ifx#19%

```

```

1833 |expandafter|HyPsd@GetTwoBytes
1834 |else
1835 |!tx@ReturnAfterFi{%
1836 |!fx#18%
1837 00%
1838 |expandafter|HyPsd@GetTwoBytes
1839 |else
1840 #1%
1841 |expandafter|HyPsd@GetOneByte
1842 |fi
1843 }%
1844 |fi
1845 }%

```

\HyPsd@GetTwoBytes

```

1846 |gdef|HyPsd@GetTwoBytes#1\#2#3#4{%
1847 #1\#2#3#4%
1848 |HyPsd@DoConvert
1849 }%

```

\HyPsd@GetOneBye

```

1850 |gdef|HyPsd@GetOneByte#1#2{%
1851 #1#2%
1852 |HyPsd@DoConvert
1853 }%
1854 |endgroup

```

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

```

1855 \def\HyPsd@GetNextTwoTokens#1#2#3\END#4{%
1856 \xdef#4{#4#1#2}%
1857 \HyPsd@@@ConvertToUnicode#3\END#4%
1858 }

```

\HyPsd@Char

```

1859 \begingroup
1860 \catcode0=9 %
1861 \catcode\^=7 %
1862 \catcode\^^=12 %
1863 \def\x{^^^0000}%
1864 \expandafter\endgroup
1865 \!x\@empty
1866 \def\HyPsd@Char#1{%
1867 \!num`#1<128 %
1868 \@backslashchar 000#1%
1869 \else
1870 \!num`#1<65536 %
1871 \expandafter\HyPsd@CharTwoByte\!number`#1!%
1872 \else
1873 \expandafter\expandafter\expandafter\HyPsd@CharSurrogate
1874 \!intcalcSub{`#1}{65536}!%
1875 \!fi
1876 \!fi
1877 }%

```

```

1878 \def\HyPsd@CharTwoByte#1!{%
1879 \expandafter\expandafter\expandafter\HyPsd@CharOctByte
1880 \IntCalcDiv#1!256!!%
1881 \expandafter\expandafter\expandafter\HyPsd@CharOctByte
1882 \IntCalcMod#1!256!!%
1883 }%
1884 \def\HyPsd@CharOctByte#1!{%
1885 \@backslashchar
1886 \IntCalcDiv#1!64!%
1887 \intcalcDiv{\IntCalcMod#1!64!}{8}%
1888 \IntCalcMod#1!8!%
1889 }%
1890 \def\HyPsd@CharSurrogate#1!{%
1891 \@backslashchar 33%
1892 \IntCalcDiv#1!262144!%
1893 \expandafter\expandafter\expandafter\HyPsd@CharOctByte
1894 \intcalcDiv{\IntCalcMod#1!262144!}{1024}!%
1895 \@backslashchar 33%
1896 \expandafter\expandafter\expandafter\IntCalcAdd
1897 \intcalcDiv{\IntCalcMod#1!1024!}{256}!4!%
1898 \expandafter\expandafter\expandafter\HyPsd@CharOctByte
1899 \IntCalcMod#1!256!!%
1900 }%
1901 \else
1902 \def\HyPsd@Char#1{%
1903 \@backslashchar 000#1%
1904 }%
1905 \fi

```

change 2022-02-21 For the case that utf8 chars are protected we need to expand them. This works only if `\UTFviii@loop` is not defined in a group, which will be the case in the new latex code, so we test for it.

```

1906 \ifcsname UTFviii@loop\endcsname
1907 \def\HyPsd@expand@utfvii{%
1908 \count@"C2
1909 \@tempcnta"F5
1910 \def\UTFviii@tmp{\expandafter\def\expandafter~\expandafter{~}}%
1911 \UTFviii@loop
1912 }
1913 \else
1914 \def\HyPsd@expand@utfvii{}
1915 \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
1916 \begingroup
1917 \lccode\~=\^^f4\relax
1918 \lowercase{\endgroup
1919 \def\HyPsd@UTFviii{%
1920 \HyPsd@expand@utfvii
1921 \let\UTFviii@two@octets\HyPsd@UTFviii@two
1922 \let\UTFviii@three@octets\HyPsd@UTFviii@three
1923 \let\UTFviii@four@octets\HyPsd@UTFviii@four
1924 \ifx~\HyPsd@UTFviii@ccxliv@undef
1925 \let~\HyPsd@UTFviii@ccxliv@def
1926 \fi
1927 \let\unichar\HyPsd@unichar
1928 }%
1929 }%
1930 \def\HyPsd@UTFviii@ccxliv@undef{\@inpencl@undefined@{utf8}}%
1931 \edef\HyPsd@UTFviii@ccxliv@def{%
1932 \noexpand\UTFviii@four@octets\string ^^f4%
1933 }%

```

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.

$$a := A/4 - 48 \tag{1}$$

$$b := A - 4 * (A/4) \tag{2}$$

$$c := B/8 - 8 * ((8 * (B/8))/8) \tag{3}$$

$$d := B - 8 * (B/8) \tag{4}$$

$$\tag{5}$$

```

1934 \def\HyPsd@UTFviii@two#1#2{%
1935 \expandafter\HyPsd@UTFviii@@two
1936 \number\dimexpr.25\dimexpr`#1sp\expandafter\relax\expandafter| %
1937 \number`#1\expandafter| %
1938 \number\dimexpr.125\dimexpr`#2sp\expandafter\relax\expandafter| %
1939 \number`#2 \@nil
1940 }%
1941 \def\HyPsd@UTFviii@@two#1|#2|#3|#4\@nil{%
1942 \expandafter\8%
1943 \number\numexpr #1-48\expandafter\relax
1944 \csname\number\numexpr #2-4*#1\relax\expandafter\endcsname
1945 \number\numexpr #3-8*%
1946 \number\dimexpr.125\dimexpr#3sp\relax\relax\expandafter\relax
1947 \number\numexpr #4-8*#3\relax
1948 }%

```

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

$$a := A/4 - 56 \tag{6}$$

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

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

$$d := B - 4 * (B/4) \tag{9}$$

$$e := C/8 - 16 \tag{10}$$

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

$$\tag{12}$$

```

1949 \def\HyPsd@UTFviii@three#1#2#3{%
1950 \expandafter\HyPsd@UTFviii@@three
1951 \number\dimexpr.25\dimexpr`#1sp\expandafter\relax\expandafter| %
1952 \number`#1\expandafter| %
1953 \number\ifnum\numexpr`#2-128\relax <32 0\else 1\fi\expandafter| %
1954 \number\dimexpr.25\dimexpr`#2sp\expandafter\relax\expandafter| %
1955 \number`#2\expandafter| %
1956 \number\dimexpr.125\dimexpr`#3sp\expandafter\relax\expandafter| %
1957 \number`#3 \@nil
1958 }%
1959 \def\HyPsd@UTFviii@@three#1|#2|#3|#4|#5|#6|#7\@nil{%
1960 \expandafter\9%
1961 \number\numexpr #1-56\expandafter\relax
1962 \number\numexpr 2*(#2-4*#1)+#3\expandafter\relax
1963 \number\numexpr #4 - 32 -\ifcase#3 0\else 8\fi\expandafter\relax
1964 \csname\number\numexpr #5-4*#4\relax\expandafter\endcsname
1965 \number\numexpr #6-16\expandafter\relax
1966 \number\numexpr #7-8*#6\relax
1967 }%

```

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 = uuuuu - 1
UTF-16: 110110ww wwzzzzyy 110111yy yyxxxxxx
octal: 011 011 0ww 0ww zzz zyy 011 011 1yy 0yy xxx xxx

```

1968 \def\HyPsd@UTFviii@four#1#2{%
1969 \expandafter\HyPsd@@UTFviii@four\number
1970 \numexpr-1+(\`#1-240)*4+\dimexpr.0625\dimexpr`#2sp-128sp%
1971 \expandafter|\number
1972 \numexpr`#2-16*\dimexpr.0625\dimexpr`#2sp| %
1973 }%
1974 \def\HyPsd@@UTFviii@four#1|#2|#3{%
1975 \933\number\dimexpr.25\dimexpr#1sp\relax\relax
1976 \csname\number\numexpr#1-4*\dimexpr.25\dimexpr#1sp\endcsname
1977 \ifodd#2 %
1978 \number\numexpr(#2-1)/2\relax
1979 \else
1980 \number\numexpr#2/2\relax
1981 \fi
1982 \number\numexpr\ifodd#2 4+\fi
1983 \dimexpr.0625\dimexpr`#3sp-128sp\relax\relax\relax
1984 \933%
1985 \expandafter\HyPsd@@@UTFviii@four\number
1986 \numexpr`#3-16*\dimexpr.0625\dimexpr`#3sp| %
1987 }%
1988 \def\HyPsd@@@UTFviii@four#1|#2{%

```

```

1989 \number\numexpr4+\dimexpr.25\dimexpr#1sp\relax\relax\relax
1990 \csname\number\numexpr#1-4*\dimexpr.25\dimexpr#1sp\endcsname
1991 \number\dimexpr.125\dimexpr`#2sp-128sp\relax\relax
1992 \number\numexpr`#2-8*\dimexpr.125\dimexpr`#2sp\relax\relax\relax
1993 }%

```

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

```

1994 \def\HyPsd@unicar#1{%
1995 \ifHy@unicode
1996 \ifnum#1>"10FFFF %
1997 \HyPsd@UnicodeReplacementCharacter % illegal
1998 \else
1999 \ifnum#1>"FFFF %

```

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

```

2000 \expandafter\HyPsd@unicar\expandafter{%
2001 \number\numexpr 55296+%
2002 \dimexpr.0009765625\dimexpr\number#1sp-\p@
2003 \relax\relax\relax
2004 }%

```

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

```

2005 \expandafter\HyPsd@unicar\expandafter{%
2006 \number\numexpr#1-9216%
2007 -1024*\dimexpr.0009765625\dimexpr\number#1sp-\p@
2008 \relax\relax\relax
2009 }%
2010 \else
2011 \ifnum#1>"7FF %
2012 \9%
2013 \expandafter\HyPsd@unicar@first@byte\expandafter{%
2014 \number
2015 \dimexpr.00390625\dimexpr\number#1sp\relax\relax
2016 }%
2017 \else
2018 \8%
2019 \number\dimexpr.00390625\dimexpr\number#1sp\relax\relax
2020 \fi
2021 \expandafter\HyPsd@unicar@second@byte\expandafter{%
2022 \number
2023 \numexpr#1-256*\number
2024 \dimexpr.00390625\dimexpr\number#1sp\relax\relax\relax
2025 }%
2026 \fi
2027 \fi
2028 \else
2029 .% unsupported (Unicode -> PDF Doc Encoding)
2030 \fi
2031 }%
2032 \def\HyPsd@UnicodeReplacementCharacter{\9377\375}%
2033 \def\HyPsd@unicar@first@byte#1{%
2034 \number\dimexpr.015625\dimexpr#1sp\relax\relax
2035 \expandafter\HyPsd@unicar@octtwo\expandafter{%
2036 \number

```



```

2037 \numexpr#1-64*\number\dimexpr.015625\dimexpr#1sp%
2038 \relax\relax\relax
2039 }%
2040 }%
2041 \def\HyPsd@unichar@second@byte#1{%
2042 \csname\number\dimexpr.015625\dimexpr#1sp\relax\relax\endcsname
2043 \expandafter\HyPsd@unichar@octtwo\expandafter{%
2044 \number
2045 \numexpr#1-64*\number\dimexpr.015625\dimexpr#1sp%
2046 \relax\relax\relax
2047 }%
2048 }%
2049 \def\HyPsd@unichar@octtwo#1{%
2050 \number\dimexpr.125\dimexpr#1sp\relax\relax
2051 \number\numexpr#1-8*\number\dimexpr.125\dimexpr#1sp%
2052 \relax\relax\relax
2053 }%

```

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

```

2054 \def\HyPsd@utf@viii@undeferr#1#2#3#4#5#6{%
2055 \ifx@gobble#1%
2056 \else
2057 [Please insert \textbackslash PrerenderUnicode%
2058 \textbraceleft#1\textbraceright\space
2059 into preamble]%
2060 \fi
2061 }%

```

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.

```

2062 \def\HyPsd@DieFace#1{%
2063 \ifHy@unicode
2064 \ifnum#1<1 %
2065 \HyPsd@UnicodeReplacementCharacter
2066 \else
2067 \ifnum#1>6 %
2068 \9046\205%
2069 \expandafter\expandafter\expandafter
2070 \HyPsd@DieFaceLarge\intcalcSub{#1}{6}!%
2071 \else
2072 \9046\20\intcalcDec{#1}%
2073 \fi
2074 \fi
2075 \else

```

```

2076 .% Die faces are not part of PDFDocEncoding
2077 \fi
2078 }

```

\HyPsd@DieFaceLarge

```

2079 \def\HyPsd@DieFaceLarge#1{%
2080 \ifnum#1>6 %
2081 \expandafter\ltx@firstoftwo
2082 \else
2083 \expandafter\ltx@secondoftwo
2084 \fi
2085 {%
2086 \9046\205%
2087 \expandafter\expandafter\expandafter
2088 \HyPsd@DieFaceLarge\IntCalcSub#1!6!!%
2089 }{%
2090 \9046\20\IntCalcDec#1!%
2091 }%
2092 }

```

6.6.11 Support for moon phases of package china2e

```

2093 \def\HyPsd@MoonPha#1{%
2094 \ifcase\intcalcNum{#1} %
2095 \HyPsd@UnicodeReplacementCharacter
2096 \or % 1
2097 % U+1F31A NEW MOON WITH FACE; \MoonPha{1} (china2e)
2098 \9330\074\9337\032%
2099 \or % 2
2100 \HyPsd@UnicodeReplacementCharacter
2101 \or % 3
2102 % U+1F31D FULL MOON WITH FACE; \MoonPha{3} (china2e)
2103 \9330\074\9337\035%
2104 \or % 4
2105 % U+1F31C LAST QUARTER MOON WITH FACE; \MoonPha{4} (china2e)
2106 \9330\074\9337\034%
2107 \else
2108 \HyPsd@UnicodeReplacementCharacter
2109 \fi
2110 }
2111 %* \HyPsd@MoonPha -> \MoonPha

```

6.6.12 Support for package pifont

\HyPsd@ding

```

2112 \def\HyPsd@ding#1{%
2113 \ifHy@unicode
2114 \ifnum#1<32 %
2115 \HyPsd@UnicodeReplacementCharacter
2116 \else
2117 \ifnum#1>254 %
2118 \HyPsd@UnicodeReplacementCharacter
2119 \else
2120 \ifnum#1<127 %
2121 \expandafter\expandafter\expandafter

```

```

2122     \HyPsd@@ding\intcalcNum{#1}!%
2123     \else
2124     \ifnum#1>160 %
2125         \expandafter\expandafter\expandafter
2126         \HyPsd@@ding\intcalcNum{#1}!%
2127     \else
2128         \HyPsd@UnicodeReplacementCharacter
2129     \fi
2130 \fi
2131 \fi
2132 \fi
2133 \else
2134 .% Dingbats are not part of PDFDocEncoding
2135 \fi
2136 }

```

\HyPsd@@ding

```

2137 \def\HyPsd@@ding#1!{%
2138 \ltx@ifundefined{HyPsd@ding@#1}{%
2139 \ifnum#1<127 %
2140 \9047%
2141 \HyPsd@DecimalToOctalSecond{\IntCalcSub#1!32!}%
2142 \else
2143 \ifnum#1<168 %
2144 \9047\14\IntCalcSub#1!160!%
2145 \else
2146 \ifnum#1>181 %
2147 \9047\HyPsd@DecimalToOctalSecond{\IntCalcSub#1!64!}%
2148 \else
2149 % 172..181 -> U+2460..U+2469
2150 \9044\HyPsd@DecimalToOctalSecond{\IntCalcSub#1!76!}%
2151 \fi
2152 \fi
2153 \fi
2154 }{%
2155 \csname HyPsd@ding@#1\endcsname
2156 }%
2157 }

2158 \@namedef{HyPsd@ding@32}{\space}
2159 % U+260E BLACK TELEPHONE
2160 \@namedef{HyPsd@ding@37}{\9046\016}% U+260E
2161 % U+261B BLACK RIGHT POINTING INDEX
2162 \@namedef{HyPsd@ding@42}{\9046\033}% U+261B
2163 % U+261E WHITE RIGHT POINTING INDEX
2164 \@namedef{HyPsd@ding@43}{\9046\036}% U+261E
2165 % U+2605 BLACK STAR
2166 \@namedef{HyPsd@ding@72}{\9046\005}% U+2605
2167 % U+25CF BLACK CIRCLE
2168 \@namedef{HyPsd@ding@108}{\9045\317}% U+25CF
2169 % U+25A0 BLACK SQUARE
2170 \@namedef{HyPsd@ding@110}{\9045\240}% U+25A0
2171 % U+25B2 BLACK UP-POINTING TRIANGLE
2172 \@namedef{HyPsd@ding@115}{\9045\262}% U+25B2

```

```

2173 % U+25BC BLACK DOWN-POINTING TRIANGLE
2174 \@namedef{HyPsd@ding@116}{\9045\274}% U+25BC
2175 % U+25C6 BLACK DIAMOND
2176 \@namedef{HyPsd@ding@117}{\9045\306}% U+25C6
2177 % U+25D7 RIGHT HALF BLACK CIRCLE
2178 \@namedef{HyPsd@ding@119}{\9045\327}% U+25D7
2179 \@namedef{HyPsd@ding@168}{\textclubsuitblack}%
2180 \@namedef{HyPsd@ding@169}{\textdiamondsuitblack}%
2181 \@namedef{HyPsd@ding@170}{\textheartsuitblack}%
2182 \@namedef{HyPsd@ding@171}{\textspadesuitblack}%
2183 \@namedef{HyPsd@ding@213}{\extrightarrow}%
2184 \@namedef{HyPsd@ding@214}{\textleftrightarrow}%
2185 \@namedef{HyPsd@ding@215}{\textupdownarrow}%
2186 \@namedef{HyPsd@ding@240}{\HyPsd@UnicodeReplacementCharacter}

```

7 Support of other packages

7.1 Package subfigure

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

```

2187 \@ifpackageloaded{subfigure}{%
2188   \ltx@ifundefined{sub@label}{%
2189     \Hy@hypertextnamesfalse
2190   }{%
2191     \renewcommand*{\sub@label}[1]{%
2192       \@bspack
2193       \subfig@oldlabel{#1}%
2194     \if@filesw
2195       \begingroup
2196         \edef\@currentlabstr{%
2197           \expandafter\strip@prefix\meaning\@currentlabelname
2198         }%
2199         \protected@write\@auxout{}{%
2200           \string\newlabel{sub@#1}{%
2201             {\@nameuse{@@thesub\@capytype}}%
2202             {\thepage}%
2203             {%
2204               \expandafter\strip@period\@currentlabstr
2205               \relax.\relax\@@@%
2206             }%
2207             {\@currentHref}%
2208             {}%
2209           }%
2210         }%
2211       \endgroup
2212     \fi
2213     \@espack
2214   }%
2215 }%
2216 }{}

```

7.2 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:

```
2217 \ltx@ifundefined{XR@addURL}{%
2218 }{%
```

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.

```
2219 \def\xR@addURL#1{\XR@dURL#1{}{}{}\\}%
2220 \def\xR@dURL#1#2#3#4#5\{%
2221   {#1}{#2}%
2222   \if!#4!%
2223   \else
2224     {#3}{#4}{\XR@URL}%
2225   \fi
2226 }%
2227 }

2228 \def\Hy@true{true}
2229 \def\Hy@false{false}
```

Providing dummy definitions.

```
2230 \let\literalps@out\@gobble
2231 \newcommand\pdfbookmark[3]{}
2232 \def\Acrobatmenu#1#2{\leavevmode#2}
2233 \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

```
2234 \let\HyperRaiseLinkHook\@empty
2235 \def\HyperRaiseLinkDefault{\baselineskip}
```

\HyperRaiseLinkHook allows the user to reassign \HyperRaiseLinkLength.

```
2236 \newcount\Hy@SavedSpaceFactor
2237 \def\Hy@SaveSpaceFactor{%
2238   \global\Hy@SavedSpaceFactor=\ifhmode\spacefactor\else\z@\fi
2239 }
2240 \def\Hy@RestoreSpaceFactor{%
2241   \relax
2242   \ifhmode
```

```

2243 \ifnum\Hy@SavedSpaceFactor>\z@
2244 \spacefactor=\Hy@SavedSpaceFactor
2245 \fi
2246 \fi
2247 }
2248 \def\Hy@SaveSavedSpaceFactor{%
2249 \edef\Hy@RestoreSavedSpaceFactor{%
2250 \global\Hy@SavedSpaceFactor=\the\Hy@SavedSpaceFactor\relax
2251 }%
2252 }
2253 \def\Hy@raisedlink#1{%
2254 \ifvmode
2255 #1%
2256 \else
2257 \Hy@SaveSpaceFactor
2258 \penalty\@M
2259 \smash{%
2260 \begingroup
2261 \let\HyperRaiseLinkLength\@tempdima
2262 \setlength\HyperRaiseLinkLength\HyperRaiseLinkDefault
2263 \HyperRaiseLinkHook
2264 \expandafter\endgroup
2265 \expandafter\raise\the\HyperRaiseLinkLength\hbox{%
2266 \Hy@RestoreSpaceFactor
2267 #1%
2268 \Hy@SaveSpaceFactor
2269 }%
2270 }%
2271 \Hy@RestoreSpaceFactor
2272 \fi
2273 }

```

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

```

2274 \def\Hy@SaveLastskip{%
2275 \let\Hy@RestoreLastskip\relax
2276 \ifvmode
2277 \ifdim\lastskip=\z@
2278 \ifnum\lastnodetype=1 %
2279 \let\Hy@RestoreLastskip\relax
2280 \else
2281 \let\Hy@RestoreLastskip\nobreak
2282 \fi
2283 \else
2284 \begingroup
2285 \skip@=-\lastskip
2286 \edef\x{%
2287 \endgroup
2288 \def\noexpand\Hy@RestoreLastskip{%
2289 \noexpand\ifvmode
2290 \noexpand\nobreak
2291 \vskip\the\skip@
2292 \vskip\the\lastskip\relax
2293 \noexpand\fi
2294 }%

```

```

2295     }%
2296     \x
2297     \fi
2298   \else
2299     \ifhmode
2300       \ifdim\lastskip=\z@
2301         \let\Hy@RestoreLastskip\nobreak
2302       \else
2303         \begingroup
2304         \skip@=-\lastskip
2305         \edef\x{%
2306           \endgroup
2307           \def\noexpand\Hy@RestoreLastskip{%
2308             \noexpand\ifhmode
2309             \noexpand\nobreak
2310             \hskip\the\skip@
2311             \hskip\the\lastskip\relax
2312           \noexpand\fi
2313         }%
2314       }%
2315     \x
2316     \fi
2317   \fi
2318 \fi
2319 }%

```

9 Options

```

2320 \SetupKeyvalOptions{%
2321   family=Hyp,%
2322   prefix=HyOpt%
2323 }

```

9.1 Help macros

Package like hyperxmp want to retrieve the value of keys like `pdfauthor`. To avoid that we have two parallel interfaces we provide the interface from the `pdfmanagement/ltdocinit` if it doesn't exist.

```

\AddToDocumentProperties
\GetDocumentProperties 2324 \ExplSyntaxOn
2325 \@ifundefined{AddToDocumentProperties}
2326 {
2327   \prop_new:N \g__hyp_documentproperties_prop
2328   \NewDocumentCommand\AddToDocumentProperties{O{\@currname}mm}
2329   {
2330     \exp_args:NNx
2331     \prop_gput:Nnn \g__hyp_documentproperties_prop
2332     {
2333       \tl_if_blank:eTF {#1}{top-level/}{#1/} #2
2334     }
2335     { #3}
2336   }
2337   \NewExpandableDocumentCommand\GetDocumentProperties{m}

```

```

2338 {
2339   \prop_item:Nn \g__hyp_documentproperties_prop {#1}
2340 }
2341 }{}
2342 \ExplSyntaxOff

```

\IfHyperBooleanExists

```

2343 \def\IfHyperBooleanExists#1{%
2344   \ltx@ifundefined{Hy@#1false}\ltx@secondoftwo{%
2345     \ltx@ifundefined{KV@Hyp@#1@default}\ltx@secondoftwo\ltx@firstoftwo
2346   }%
2347 }

2348 \@namedef{KV@Hyp@stoppeearly@default}{}

```

\IfHyperBoolean

```

2349 \def\IfHyperBoolean#1{%
2350   \IfHyperBooleanExists{#1}{%
2351     \csname ifHy@#1\endcsname
2352     \expandafter\ltx@firstoftwo
2353   \else
2354     \expandafter\ltx@secondoftwo
2355   \fi
2356 } \ltx@secondoftwo
2357 }

```

\Hy@boolkey

```

2358 \def\Hy@boolkey#1#2{%
2359   \edef\Hy@tempa{#2}%
2360   \lowercase\expandafter{%
2361     \expandafter\def\expandafter\Hy@tempa\expandafter{\Hy@tempa}%
2362   }%
2363   \ifx\Hy@tempa\@empty
2364     \let\Hy@tempa\Hy@true
2365   \fi
2366   \ifx\Hy@tempa\Hy@true
2367   \else
2368     \ifx\Hy@tempa\Hy@false
2369     \else
2370       \let\Hy@tempa\relax
2371     \fi
2372   \fi
2373   \ifx\Hy@tempa\relax
2374     \Hy@WarnOptionValue{#2}{#1}{`true' or 'false'}%
2375   \else
2376     \Hy@Info{Option `#1' set ``\Hy@tempa'}%
2377     \csname Hy@#1\Hy@tempa\endcsname
2378   \fi
2379 }

```

\Hy@WarnOptionValue

```

2380 \def\Hy@WarnOptionValue#1#2#3{%
2381   \Hy@Warning{%
2382     Unexpected value `#1'\MessageBreak

```



```

2383   of option `#2' instead of\MessageBreak
2384   #3%
2385 }%
2386 }

```

\Hy@DisableOption

```

2387 \def\Hy@DisableOption#1{%
2388   \ltx@ifundefined{KV@Hyp@#1@default}{%
2389     \define@key{Hyp}{#1}%
2390   }{%
2391     \define@key{Hyp}{#1}[]%
2392   }%
2393   {\Hy@WarnOptionDisabled{#1}}%
2394 }
2395

```

\Hy@WarnOptionDisabled

```

2396 \def\Hy@WarnOptionDisabled#1{%
2397   \Hy@Warning{%
2398     Option `#1' has already been used,\MessageBreak
2399     setting the option has no effect%
2400   }%
2401 }

```

\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.

```

2402 \def\Hy@CheckOptionValue#1#2#3{%
2403   \begingroup
2404   \edef\x{#1}%
2405   \@onelevel@sanitize\x
2406   \let\y=y%
2407   \def\do##1##2{%
2408     \def\z{##1}%
2409     \@onelevel@sanitize\z
2410     \if\x\z
2411       \let\y=n%
2412     \let\do\gobbletwo
2413   }fi
2414   }%
2415   #3%
2416   \ifx\y y%
2417     \def\do##1##2{%
2418       * `##1'%
2419       \ifx\##2\ \else\space(##2)\fi
2420     \MessageBreak
2421   }%
2422   \Hy@Warning{%
2423     Values of option `#2':\MessageBreak
2424     #3%
2425     * An empty value disables the option.\MessageBreak
2426     Unknown value `x'%
2427   }%
2428   \fi

```

```

2429 \endgroup
2430 }

\Hy@DefNameKey #1: option name
#2: \do list with known values, first argument of \do is value, second argument
is a comment.
2431 \def\Hy@DefNameKey#1{%
2432 \expandafter\Hy@@DefNameKey\csname @#1\endcsname{#1}%
2433 }

\Hy@@DefNameKey #1: macro for value storage
#2: option name
#3: \do list with known values.
2434 \def\Hy@@DefNameKey#1#2#3{%
2435 \define@key{Hyp}{#2}{%
2436 \edef#1{##1}%
2437 \ifx#1\@empty
2438 \else
2439 \Hy@CheckOptionValue{##1}{#2}{#3}%
2440 \fi
2441 }%
2442 \let#1\@empty
2443 }

\Hy@UseNameKey
2444 \def\Hy@UseNameKey#1#2{%
2445 \ifx#2\@empty
2446 \else
2447 /#1/#2%
2448 \fi
2449 }

```

9.2 Defining the options

```

2450 \define@key{Hyp}{implicit}[true]{%
2451 \Hy@boolkey{implicit}{#1}%
2452 }
2453 \define@key{Hyp}{draft}[true]{%
2454 \Hy@boolkey{draft}{#1}%
2455 }
2456 \define@key{Hyp}{final}[true]{%
2457 \Hy@boolkey{final}{#1}%
2458 }
2459 \let\KV@Hyp@nolinks\KV@Hyp@draft

2460 \def\Hy@ObsoletePaperOption#1{%
2461 \Hy@WarningNoLine{%
2462 Option `#1' is no longer used%
2463 }%
2464 \define@key{Hyp}{#1}[true]{}%
2465 }
2466 \def\Hy@temp#1{%
2467 \define@key{Hyp}{#1}[true]{%
2468 \Hy@ObsoletePaperOption{#1}%

```

```

2469 }%
2470 }
2471 \Hy@temp{a4paper}
2472 \Hy@temp{a5paper}
2473 \Hy@temp{b5paper}
2474 \Hy@temp{letterpaper}
2475 \Hy@temp{legalpaper}
2476 \Hy@temp{executivepaper}

2477 \define@key{Hyp}{setpagesize}[true]{%
2478   \Hy@boolkey{setpagesize}{#1}%
2479 }
2480 \define@key{Hyp}{debug}[true]{%
2481   \Hy@boolkey{debug}{#1}%
2482 }
2483 \define@key{Hyp}{linktocpage}[true]{%
2484   \Hy@boolkey{linktocpage}{#1}%
2485   \ifHy@linktocpage
2486     \let\Hy@linktoc\Hy@linktoc@page
2487   \else
2488     \let\Hy@linktoc\Hy@linktoc@section
2489   \fi
2490 }
2491 \chardef\Hy@linktoc@none=0 %
2492 \chardef\Hy@linktoc@section=1 %
2493 \chardef\Hy@linktoc@page=2 %
2494 \chardef\Hy@linktoc@all=3 %
2495 \ifHy@linktocpage
2496   \let\Hy@linktoc\Hy@linktoc@page
2497 \else
2498   \let\Hy@linktoc\Hy@linktoc@section
2499 \fi
2500 \define@key{Hyp}{linktoc}{%
2501   \@ifundefined{Hy@linktoc@#1}{%
2502     \Hy@Warning{%
2503       Unexpected value `#1' of\MessageBreak
2504       option `linktoc' instead of `none',\MessageBreak
2505       `section', `page' or `all'%
2506     }%
2507   }{%
2508     \expandafter\let\expandafter\Hy@linktoc
2509     \csname Hy@linktoc@#1\endcsname
2510   }%
2511 }
2512 \define@key{Hyp}{extension}{\def\XR@ext{#1}}
2513 \let\XR@ext\relax
2514 \define@key{Hyp}{verbose}[true]{%
2515   \Hy@boolkey{verbose}{#1}%
2516 }

```

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.

```

2517 \define@key{Hyp}{raiselinks}[true]{%

```

```

2518 \Hy@boolkey{raiselinks}{#1}%
2519 }

```

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

```

2520 \def\Hy@setbreaklinks#1{%
2521   \csname breaklinks#1\endcsname
2522 }

2523 \def\Hy@breaklinks@unsupported{%
2524   \ifx\Hy@setbreaklinks@gobble
2525     \ifHy@breaklinks
2526       \Hy@WarningNoLine{%
2527         You have enabled option `breaklinks'.\MessageBreak
2528         But driver `Hy@driver.def' does not support this.\MessageBreak
2529         Expect trouble with the link areas of broken links%
2530       }%
2531     \fi
2532   \fi
2533 }

```

```

2534 \define@key{Hyp}{breaklinks}[true]{%
2535   \Hy@boolkey{breaklinks}{#1}%
2536   \let\Hy@setbreaklinks@gobble
2537 }

```

```

2538 \define@key{Hyp}{localanchorname}[true]{%
2539   \Hy@WarningNoLine{%
2540     Option `localanchorname' is deprecated%
2541   }%
2542   \Hy@boolkey{localanchorname}{#1}%
2543 }

```

Determines whether an automatic anchor is put on each page

```

2544 \define@key{Hyp}{pageanchor}[true]{%
2545   \Hy@boolkey{pageanchor}{#1}%
2546 }

```

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.

```

2547 \define@key{Hyp}{plainpages}[true]{%
2548   \Hy@boolkey{plainpages}{#1}%
2549 }

```

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

```

2550 \define@key{Hyp}{naturalnames}[true]{%
2551   \Hy@boolkey{naturalnames}{#1}%
2552 }

```

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

```

2553 \define@key{Hyp}{hypertexnames}[true]{%
2554   \Hy@boolkey{hypertexnames}{#1}%
2555 }

```

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

```

2556 \define@key{Hyp}{nesting}[true]{%
2557   \Hy@boolkey{nesting}{#1}%

```

```

2558 }
2559 \define@key{Hyp}{destlabel}[true]{%
2560   \Hy@boolkey{destlabel}{#1}%
2561 }

2562 \define@key{Hyp}{unicode}[true]{%
2563   \Hy@boolkey{unicode}{#1}%
2564   \ifHy@unicode
2565     \def\HyPsd@pdfencoding{unicode}%
2566     \HyPsd@LoadUnicode
2567   \else
2568     \def\HyPsd@pdfencoding{pdfdoc}%
2569   \fi
2570 }
2571 \Hy@AtBeginDocument{%
2572   \ifx\HyPsd@LoadUnicode\relax
2573   \else
2574     \def\HyPsd@LoadUnicode{%
2575       \Hy@Error{%
2576         Unicode support for bookmarks is not available.\MessageBreak
2577         Activate unicode support by using one of the options\MessageBreak
2578         `unicode', `pdfencoding=unicode', `pdfencoding=auto'\MessageBreak
2579         in the preamble%
2580       } \@ehc
2581       \global\let\HyPsd@LoadUnicode\relax
2582       \global\Hy@unicodedefalse
2583       \global\let\Hy@unicodetrue\Hy@unicodedefalse
2584     }%
2585   \fi
2586 }

2587 \define@key{Hyp}{pdfencoding}{%
2588   \edef\HyPsd@temp{#1}%
2589   \ifx\HyPsd@temp\HyPsd@pdfencoding@pdfdoc
2590     \let\HyPsd@pdfencoding\HyPsd@temp
2591     \Hy@unicodedefalse
2592   \else
2593     \ifcase\ifx\HyPsd@temp\HyPsd@pdfencoding@unicode
2594       \z@
2595     \else
2596       \ifx\HyPsd@temp\HyPsd@pdfencoding@auto
2597         \z@
2598       \else
2599         \@ne
2600       \fi
2601     \fi
2602     \let\HyPsd@pdfencoding\HyPsd@temp
2603     \hypersetup{unicode}%
2604     \ifHy@unicode
2605       \def\HyPsd@pdfencoding{#1}%
2606       \ifx\HyPsd@pdfencoding\HyPsd@pdfencoding@auto
2607         \HyPsd@LoadStringEncoding
2608       \fi
2609     \else
2610       \Hy@Warning{Cannot switch to unicode bookmarks}%

```

```

2611     \let\HyPsd@pdfencoding\HyPsd@pdfencoding@pdfdoc
2612     \fi
2613   \else
2614     \@onelevel@sanitize\HyPsd@temp
2615     \Hy@Warning{%
2616       Values of option `pdfencoding':\MessageBreak
2617       `pdfdoc', `unicode', `auto'.\MessageBreak
2618       Ignoring unknown value `\HyPsd@temp'%
2619     }%
2620   \fi
2621 \fi
2622 }
2623 \def\HyPsd@pdfencoding@auto{auto}
2624 \def\HyPsd@pdfencoding@pdfdoc{pdfdoc}
2625 \def\HyPsd@pdfencoding@unicode{unicode}

change 2020-08-14, use unicode by default:
2626 \let\HyPsd@pdfencoding\HyPsd@pdfencoding@unicode
2627 \HyPsd@LoadUnicode
2628 \def\HyPsd@LoadStringEnc{%
2629   \RequirePackage{stringenc}[2009/12/15]%
2630   \let\HyPsd@LoadStringEnc\relax
2631 }
2632 \Hy@AtBeginDocument{%
2633   \@ifpackageloaded{stringenc}{%
2634     \let\HyPsd@LoadStringEnc\relax
2635   }{%
2636     \def\HyPsd@LoadStringEnc{%
2637       \Hy@WarningNoLine{%
2638         Missing package `stringenc'. Use `pdfencoding=auto'\MessageBreak
2639         in the preamble or load the package there%
2640       }%
2641     }%
2642   }%
2643 }

2644 \define@key{Hyp}{psdextra}[true]{%
2645   \Hy@boolkey{psdextra}{#1}%
2646   \HyPsd@LoadExtra
2647 }

2648 \def\hypersetup{\kvsetkeys{Hyp}}

2649 \newif\ifHy@setpdfversion
2650 \define@key{Hyp}{pdfversion}{%
2651   \@ifundefined{Hy@pdfversion@#1}{%
2652     \PackageWarning{hyperref}{%
2653       Unsupported PDF version `#1'.\MessageBreak
2654       Valid values: 1.2-1.7, 2.0%
2655     }%
2656   }{%
2657     \Hy@setpdfversiontrue
2658     \@nameuse{Hy@pdfversion@#1}%
2659   }%
2660 }

\Hy@pdfminorversion already used elsewhere to denote \pdfminorversion or

```

```

\pdfvariable majorversion} so introduce new names here.
2661 \@namedef{Hy@pdfversion@1.2}{\def\Hy@pdf@majorversion{1}\def\Hy@pdf@mi-
norversion{2}}%
2662 \@namedef{Hy@pdfversion@1.3}{\def\Hy@pdf@majorversion{1}\def\Hy@pdf@mi-
norversion{3}}%
2663 \@namedef{Hy@pdfversion@1.4}{\def\Hy@pdf@majorversion{1}\def\Hy@pdf@mi-
norversion{4}}%
2664 \@namedef{Hy@pdfversion@1.5}{\def\Hy@pdf@majorversion{1}\def\Hy@pdf@mi-
norversion{5}}%
2665 \@namedef{Hy@pdfversion@1.6}{\def\Hy@pdf@majorversion{1}\def\Hy@pdf@mi-
norversion{6}}%
2666 \@namedef{Hy@pdfversion@1.7}{\def\Hy@pdf@majorversion{1}\def\Hy@pdf@mi-
norversion{7}}%
2667 \@namedef{Hy@pdfversion@2.0}{\def\Hy@pdf@majorversion{2}\def\Hy@pdf@mi-
norversion{0}}%
2668 \def\Hy@pdf@majorversion{1}\def\Hy@pdf@minorversion{5}
Legacy name, earlier releases assumed 1.x
2669 \let\Hy@pdfversion\Hy@pdf@minorversion
2670 \def\Hy@pdf@majorminor@version{\numexpr100*\Hy@pdf@majorversion+\Hy@pdf@mi-
norversion\relax}
2671 \def\Hy@pdf@majorminor@version{\numexpr100*\Hy@pdf@majorversion+\Hy@pdf@mi-
norversion\relax}
if pdfminorversion is defined, make sure pdfmajorversion is too.
2672 \@ifundefined{pdfminorversion}{}{%
2673 \@ifundefined{pdfmajorversion}{}%
2674 \newcount\pdfmajorversion
2675 \pdfmajorversion=1
2676 }{}%
2677 }
2678 \ifx\pdfmajorversion\@undefined\else
2679 \def\Hy@pdf@majorversion{\pdfmajorversion}
2680 \fi

```

10 Options for different drivers

```

2681 \newif\ifHy@DviMode
2682 \let\Hy@DviErrMsg\ltx@empty
2683 \ifpdf
2684 \def\Hy@DviErrMsg{pdfTeX or LuaTeX is running in PDF mode}%
2685 \else
2686 \ifxetex
2687 \def\Hy@DviErrMsg{XeTeX is running}%
2688 \else
2689 \ifvtex
2690 \ifnum\OpMode=\z@
2691 \Hy@DviModetrue
2692 \else
2693 \def\Hy@DviErrMsg{VTeX is running, but not in DVI mode}%
2694 \fi
2695 \else
2696 \Hy@DviModetrue
2697 \fi
2698 \fi
2699 \fi

```

```

2700 \def\HyOpt@CheckDvi#1{%
2701   \ifHy@DviMode
2702     \expandafter\ltx@firstofone
2703   \else
2704     \Hy@Error{%
2705       Wrong DVI mode driver option `#1',\MessageBreak
2706       because \Hy@DviErrMsg
2707     }\@ehc
2708     \expandafter\ltx@gobble
2709   \fi
2710 }

2711 \DeclareVoidOption{tex4ht}{%
2712   \Hy@texhttrue
2713   \kvsetkeys{Hyp}{colorlinks=true}%
2714   \def\BeforeTeXIVht{\RequirePackage{color}}%
2715   \def\Hy@driver{htex4ht}%
2716   \def\MaybeStopEarly{%
2717     \Hy@Message{Stopped early}%
2718     \Hy@AtBeginDocument{%
2719       \PDF@FinishDoc
2720       \gdef\PDF@FinishDoc{}%
2721     }%
2722     \endinput
2723   }%
2724 }

2725 \DeclareVoidOption{pdftex}{%
2726   \ifpdf
2727     \def\Hy@driver{hpdftex}%
2728     \PassOptionsToPackage{pdftex}{color}%
2729   \else
2730     \Hy@Error{%
2731       Wrong driver option `pdftex',\MessageBreak
2732       because pdfTeX in PDF mode is not detected%
2733     }\@ehc
2734   \fi
2735 }

2736 \DeclareVoidOption{luatex}{%
2737   \ifpdf
2738     \ifx\pdfextension\@undefined
2739       \def\Hy@driver{hpdftex}%
2740       \PassOptionsToPackage{pdftex}{color}%
2741     \else
2742       \def\Hy@driver{hluatex}%
2743       \PassOptionsToPackage{luatex}{color}%
2744     \fi
2745   \else
2746     \Hy@Error{%
2747       Wrong driver option `luatex',\MessageBreak
2748       because luaTeX in PDF mode is not detected%
2749     }\@ehc
2750   \fi
2751 }

2752 \DeclareVoidOption{nativpdf}{%
2753   \HyOpt@CheckDvi{nativpdf}{%

```



```

2754 \def\Hy@driver{hdvips}%
2755 \PassOptionsToPackage{dvips}{color}%
2756 }%
2757 }
2758 \DeclareVoidOption{dvipdfm}{%
2759 \HyOpt@CheckDvi{dvipdfm}{%
2760 \def\Hy@driver{hdvipdfm}%
2761 }%
2762 }
2763 \DeclareVoidOption{dvipdfmx}{%
2764 \HyOpt@CheckDvi{dvipdfmx}{%
2765 \def\Hy@driver{hdvipdfm}%
2766 \PassOptionsToPackage{dvipdfmx}{color}%
2767 }%
2768 }
2769 \define@key{Hyp}{dvipdfmx-outline-open}[true]{%
2770 \expandafter\ifx\csname if#1\expandafter\endcsname
2771 \csname iftrue\endcsname
2772 \chardef\SpecialDvipdfmxOutlineOpen\@ne
2773 \else
2774 \chardef\SpecialDvipdfmxOutlineOpen\z@
2775 \fi
2776 }
2777 \DeclareVoidOption{xetex}{%
2778 \ifxetex
2779 \def\Hy@driver{hxetex}%
2780 \else
2781 \Hy@Error{%
2782 Wrong driver option `xetex',\MessageBreak
2783 because XeTeX is not detected%
2784 }\@ehc
2785 \fi
2786 }
2787 \DeclareVoidOption{pdfmark}{%
2788 \HyOpt@CheckDvi{pdfmark}{%
2789 \def\Hy@driver{hdvips}%
2790 }%
2791 }
2792 \DeclareVoidOption{dvips}{%
2793 \HyOpt@CheckDvi{dvips}{%
2794 \def\Hy@driver{hdvips}%
2795 \PassOptionsToPackage{dvips}{color}%
2796 }%
2797 }
2798 \DeclareVoidOption{hypertex}{%
2799 \HyOpt@CheckDvi{hypertex}{%
2800 \def\Hy@driver{hypertex}%
2801 }%
2802 }
2803 \let\Hy@MaybeStopNow\relax
2804 \DeclareVoidOption{vtex}{%
2805 \ifvtex
2806 \ifnum 0\ifnum\OpMode<1 1\fi \ifnum\OpMode>3 1\fi =0 %
2807 \def\Hy@driver{hvtex}%

```

```

2808 \else
2809 \ifnum\OpMode=10\relax
2810 \def\Hy@driver{hvtexhtm}%
2811 \def\MaybeStopEarly{%
2812 \Hy@Message{Stopped early}%
2813 \Hy@AtBeginDocument{%
2814 \PDF@FinishDoc
2815 \gdef\PDF@FinishDoc{}}%
2816 }%
2817 \endinput
2818 }%
2819 \else
2820 \Hy@Error{%
2821 Wrong driver option `vtex',\MessageBreak
2822 because of wrong OpMode (\the\OpMode)%
2823 }\@ehc
2824 \fi
2825 \fi
2826 \else
2827 \Hy@Error{%
2828 Wrong driver option `vtex',\MessageBreak
2829 because VTeX is not running%
2830 }\@ehc
2831 \fi
2832 }
2833 \DeclareVoidOption{vtxpdfmark}{%
2834 \ifvtex
2835 \ifnum 0\ifnum\OpMode<1 1\fi \ifnum\OpMode>3 1\fi =0 %
2836 \def\Hy@driver{hvtexmrk}%
2837 \else
2838 \Hy@Error{%
2839 Wrong driver option `vtxpdfmark',\MessageBreak
2840 because of wrong OpMode (\the\OpMode)%
2841 }\@ehc
2842 \fi
2843 \else
2844 \Hy@Error{%
2845 Wrong driver option `vtxpdfmark,\MessageBreak
2846 because VTeX is not running%
2847 }\@ehc
2848 \fi
2849 }
2850 \DeclareVoidOption{dviwindo}{%
2851 \HyOpt@CheckDvi{dviwindo}{%
2852 \def\Hy@driver{hdviwind}%
2853 \kvsetkeys{Hyp}{colorlinks}%
2854 \PassOptionsToPackage{dviwindo}{color}%
2855 }%
2856 }
2857 \DeclareVoidOption{dvipsone}{%
2858 \HyOpt@CheckDvi{dvipsone}{%
2859 \def\Hy@driver{hdvipson}%
2860 \PassOptionsToPackage{dvipsone}{color}%
2861 }%

```

```

2862 }
2863 \DeclareVoidOption{textures}{%
2864 \HyOpt@CheckDvi{textures}{%
2865 \def\Hy@driver{htexture}%
2866 }%
2867 }
2868 \DeclareVoidOption{latex2html}{%
2869 \Hy@Warning{Option `latex2html` is obsolete. \MessageBreak
2870 A current html.sty will do all necessary (re)definitions%
2871 }%
2872 }

```

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

```

2873 \DeclareVoidOption{ps2pdf}{%
2874 \HyOpt@CheckDvi{ps2pdf}{%
2875 \def\Hy@driver{hdvips}%
2876 \PassOptionsToPackage{dvips}{color}%
2877 }%
2878 }
2879 \let\HyOpt@DriverFallback\ltx@empty
2880 \define@key{Hyp}{driverfallback}{%
2881 \ifHy@DviMode
2882 \def\HyOpt@DriverFallback{#1}%
2883 \Hy@Match\HyOpt@DriverFallback}{%
2884 ~(|dvipdfm|dvipdfmx|dvips|dvipsone|dviwindo|hypertex|ps2pdf|
2885 latex2html|tex4ht)$%
2886 }{-%
2887 \Hy@Warning{%
2888 Invalid driver `#1' for option\MessageBreak
2889 `driverfallback'%
2890 }%
2891 \let\HyOpt@DriverFallback\ltx@empty
2892 }%
2893 \fi
2894 }
2895 \let\HyOpt@CustomDriver\ltx@empty
2896 \define@key{Hyp}{customdriver}{%
2897 \IfFileExists{#1.def}{%
2898 \def\HyOpt@CustomDriver{#1}%
2899 }{-%
2900 \Hy@Warning{%
2901 Missing driver file `#1.def',\MessageBreak
2902 ignoring custom driver%
2903 }%
2904 }%
2905 }

```

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.

```

2906 \define@key{Hyp}{hyperfigures}[true]{%
2907 \Hy@boolkey{hyperfigures}{#1}%
2908 }

```

The automatic footnote linking can be disabled by option hyperfootnotes.

```

2909 \define@key{Hyp}{hyperfootnotes}[true]{%
2910 \Hy@boolkey{hyperfootnotes}{#1}%
2911 }

Set up back-referencing to be hyper links, by page, slide or section number,
2912 \def\back@none{none}
2913 \def\back@section{section}
2914 \def\back@page{page}
2915 \def\back@slide{slide}
2916 \define@key{Hyp}{backref}[section]{%
2917 \lowercase{\def\Hy@tempa{#1}}%
2918 \ifx\Hy@tempa\@empty
2919 \let\Hy@tempa\back@section
2920 \fi
2921 \ifx\Hy@tempa\Hy@false
2922 \let\Hy@tempa\back@none
2923 \fi
2924 \ifx\Hy@tempa\back@slide
2925 \let\Hy@tempa\back@section
2926 \fi
2927 \ifx\Hy@tempa\back@page
2928 \PassOptionsToPackage{hyperpageref}{backref}%
2929 \Hy@backreftrue
2930 \else
2931 \ifx\Hy@tempa\back@section
2932 \PassOptionsToPackage{hyperref}{backref}%
2933 \Hy@backreftrue
2934 \else
2935 \ifx\Hy@tempa\back@none
2936 \Hy@backreffalse
2937 \else
2938 \Hy@WarnOptionValue{#1}{backref}{%
2939 `section', `slide', `page', `none',\MessageBreak
2940 or `false'}%
2941 \fi
2942 \fi
2943 \fi
2944 }
2945 \define@key{Hyp}{pagebackref}[true]{%
2946 \edef\Hy@tempa{#1}%
2947 \lowercase\expandafter{%
2948 \expandafter\def\expandafter\Hy@tempa\expandafter{\Hy@tempa}%
2949 }%
2950 \ifx\Hy@tempa\@empty
2951 \let\Hy@tempa\Hy@true
2952 \fi
2953 \ifx\Hy@tempa\Hy@true
2954 \PassOptionsToPackage{hyperpageref}{backref}%
2955 \Hy@backreftrue
2956 \else
2957 \ifx\Hy@tempa\Hy@false
2958 \Hy@backreffalse
2959 \else

```

```

2960 \Hy@WarnOptionValue{#1}{pagebackref}{`true' or `false'}%
2961 \fi
2962 \fi
2963 }

```

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

```

2964 \define@key{Hyp}{hyperindex}[true]{%
2965 \Hy@boolkey{hyperindex}{#1}%
2966 }

```

Configuration of encap char.

```

2967 \define@key{Hyp}{encap}[\|]{%
2968 \def\HyInd@EncapChar{#1}%
2969 }

```

12 Language options

The `\autoref` feature depends on the language.

```

2970 \def\HyLang@afrikaans{%
2971 \def\equationautorefname{Vergelyking}%
2972 \def\footnoteautorefname{Voetnota}%
2973 \def\itemautorefname{Item}%
2974 \def\figureautorefname{Figuur}%
2975 \def\tableautorefname{Tabel}%
2976 \def\partautorefname{Deel}%
2977 \def\appendixautorefname{Bylae}%
2978 \def\chapterautorefname{Hoofstuk}%
2979 \def\sectionautorefname{Afdeling}%
2980 \def\subsectionautorefname{Subafdeling}%
2981 \def\subsubsectionautorefname{Subsubafdeling}%
2982 \def\paragraphautorefname{Paragraaf}%
2983 \def\subparagraphautorefname{Subparagraaf}%
2984 \def\FancyVerbLineautorefname{Lyn}%
2985 \def\theoremautorefname{Teorema}%
2986 \def\pageautorefname{Bladsy}%
2987 }
2988 \def\HyLang@english{%
2989 \def\equationautorefname{Equation}%
2990 \def\footnoteautorefname{footnote}%
2991 \def\itemautorefname{item}%
2992 \def\figureautorefname{Figure}%
2993 \def\tableautorefname{Table}%
2994 \def\partautorefname{Part}%
2995 \def\appendixautorefname{Appendix}%
2996 \def\chapterautorefname{chapter}%
2997 \def\sectionautorefname{section}%
2998 \def\subsectionautorefname{subsection}%
2999 \def\subsubsectionautorefname{subsubsection}%
3000 \def\paragraphautorefname{paragraph}%
3001 \def\subparagraphautorefname{subparagraph}%
3002 \def\FancyVerbLineautorefname{line}%
3003 \def\theoremautorefname{Theorem}%
3004 \def\pageautorefname{page}%

```

```

3005 }
3006 \def\HyLang@french{%
3007 \def\equationautorefname{'equation}%
3008 \def\footnoteautorefname{note}%
3009 \def\itemautorefname{item}%
3010 \def\figureautorefname{figure}%
3011 \def\tableautorefname{tableau}%
3012 \def\partautorefname{partie}%
3013 \def\appendixautorefname{annexe}%
3014 \def\chapterautorefname{chapitre}%
3015 \def\sectionautorefname{section}%
3016 \def\subsectionautorefname{sous-section}%
3017 \def\subsubsectionautorefname{sous-sous-section}%
3018 \def\paragraphautorefname{paragraphe}%
3019 \def\subparagraphautorefname{sous-paragraphe}%
3020 \def\FancyVerbLineautorefname{ligne}%
3021 \def\theoremautorefname{th'eor`eme}%
3022 \def\pageautorefname{page}%
3023 }
3024 \def\HyLang@german{%
3025 \def\equationautorefname{Gleichung}%
3026 \def\footnoteautorefname{Fu\ss note}%
3027 \def\itemautorefname{Punkt}%
3028 \def\figureautorefname{Abbildung}%
3029 \def\tableautorefname{Tabelle}%
3030 \def\partautorefname{Teil}%
3031 \def\appendixautorefname{Anhang}%
3032 \def\chapterautorefname{Kapitel}%
3033 \def\sectionautorefname{Abschnitt}%
3034 \def\subsectionautorefname{Unterabschnitt}%
3035 \def\subsubsectionautorefname{Unterunterabschnitt}%
3036 \def\paragraphautorefname{Absatz}%
3037 \def\subparagraphautorefname{Unterabsatz}%
3038 \def\FancyVerbLineautorefname{Zeile}%
3039 \def\theoremautorefname{Theorem}%
3040 \def\pageautorefname{Seite}%
3041 }
3042 \def\HyLang@italian{%
3043 \def\equationautorefname{Equazione}%
3044 \def\footnoteautorefname{nota}%
3045 \def\itemautorefname{punto}%
3046 \def\figureautorefname{Figura}%
3047 \def\tableautorefname{Tabella}%
3048 \def\partautorefname{Parte}%
3049 \def\appendixautorefname{Appendice}%
3050 \def\chapterautorefname{Capitolo}%
3051 \def\sectionautorefname{sezione}%
3052 \def\subsectionautorefname{sottosezione}%
3053 \def\subsubsectionautorefname{sottosottosezione}%
3054 \def\paragraphautorefname{paragrafo}%
3055 \def\subparagraphautorefname{sottoparagrafo}%
3056 \def\FancyVerbLineautorefname{linea}%
3057 \def\theoremautorefname{Teorema}%
3058 \def\pageautorefname{Pag.\@}%

```

```

3059 }
3060 \def\HyLang@magyar{%
3061 \def\equationautorefname{Egyenlet}%
3062 \def\footnoteautorefname{1\`abjegyzet}%
3063 \def\itemautorefname{Elem}%
3064 \def\figureautorefname{\`Abra}%
3065 \def\tableautorefname{T\`abl\`azat}%
3066 \def\partautorefname{R\`esz}%
3067 \def\appendixautorefname{F\`uggel\`ek}%
3068 \def\chapterautorefname{fejezet}%
3069 \def\sectionautorefname{szakasz}%
3070 \def\subsectionautorefname{alszakasz}%
3071 \def\subsubsectionautorefname{alalszakasz}%
3072 \def\paragraphautorefname{bekezd\`es}%
3073 \def\subparagraphautorefname{albekezd\`es}%
3074 \def\FancyVerbLineautorefname{sor}%
3075 \def\theoremautorefname{T\`etel}%
3076 \def\pageautorefname{oldal}%
3077 }
3078 \def\HyLang@portuges{%
3079 \def\equationautorefname{Equa\c c\~ao}%
3080 \def\footnoteautorefname{Nota de rodap\`e}%
3081 \def\itemautorefname{Item}%
3082 \def\figureautorefname{Figura}%
3083 \def\tableautorefname{Tabela}%
3084 \def\partautorefname{Parte}%
3085 \def\appendixautorefname{Ap\`endice}%
3086 \def\chapterautorefname{Cap\`itulo}%
3087 \def\sectionautorefname{Se\c c\~ao}%
3088 \def\subsectionautorefname{Subse\c c\~ao}%
3089 \def\subsubsectionautorefname{Subsubse\c c\~ao}%
3090 \def\paragraphautorefname{par\`agrafo}%
3091 \def\subparagraphautorefname{subpar\`agrafo}%
3092 \def\FancyVerbLineautorefname{linha}%
3093 \def\theoremautorefname{Teorema}%
3094 \def\pageautorefname{P\`agina}%
3095 }

```

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`.

```
3096 \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`?

```
3097 \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 `\auto{ref}{auto}`” etc. The full name must follow full name of the `\theoremautorefname`.

```

3098 % \def\equationautorefname{%
3099 %   \cyr\cyrv\cyry\cyrr\cyra\cyrz\cyre\cyrn\cyri\cyre
3100 % }%

```

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

```

3101 \def\footnoteautorefname{%
3102   \cyr\cyrp\cyro\cyrd\cyrs\cyrt\cyrr.\ \cyrp\cyrr\cyri\cyrm.%
3103 }%

```

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

```

3104 % \def\footnoteautorefname{%
3105 %   \cyr\cyrp\cyro\cyrd\cyrs\cyrt\cyrr\cyro\cyrch\cyrn\cyro\cyre\ %
3106 %   \cyrp\cyrr\cyri\cyrm\cyre\cyrch\cyra\cyrn\cyri\cyre
3107 % }%

```

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

```

3108 % \def\Nomfootnoteautorefname{\cyr\cyrs\cyrn\cyro\cyrs\cyrk\cyra}%
3109 % \def\Accfootnoteautorefname{\cyr\cyrs\cyrn\cyro\cyrs\cyrk\cyru}%

```

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

```

3110 \def\itemautorefname{\cyr\cyrp.}%
3111 % \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.

```

3112 \def\figureautorefname{\cyr\cyrr\cyri\cyrs.}%
3113 \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.

```

3114 \def\partautorefname{\cyr\cyrch.}%
3115 \def\chapterautorefname{\cyr\cyrg\cyrl.}%
3116 \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 \autorefname{auto}” etc.

```

3117 \def\appendixautorefname{\cyr\cyrp\cyrr\cyri\cyrl.}%
3118 % \def\appendixautorefname{%
3119 %   \cyr\cyrp\cyrr\cyri\cyrl\cyro\cyrz\cyre\cyrn\cyri\cyre
3120 % }%

```

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.

```

3121 \def\subsectionautorefname{\cyr\cyrr\cyra\cyrz\cyrd.}%
3122 \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.

```
3123 \def\paragraphautorefname{\cyr\cyrp.}%
3124 \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.

```
3125 % \def\paragraphautorefname{\cyr\cyrp\cyru\cyrn\cyrk\cyrt}%
3126 % \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.

```
3127 \def\FancyVerbLineautorefname{\cyr\cyrs\cyrt\cyrr.}%
```

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

```
3128 % \def\NomFancyVerbLineautorefname{\cyr\cyrs\cyrt\cyrr\cyro\cyrk\cyra}%
3129 % \def\AccFancyVerbLineautorefname{\cyr\cyrs\cyrt\cyrr\cyro\cyrk\cyru}%
```

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

```
3130 % \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 ...

```
3131 \def\theoremautorefname{\cyr\cyrt\cyre\cyro\cyrr.}%
```

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

```
3132 % \def\Nomtheoremautorefname{\cyr\cyrt\cyre\cyro\cyrr\cyre\cyrm\cyra}%
3133 % \def\Acctheoremautorefname{\cyr\cyrt\cyre\cyro\cyrr\cyre\cyrm\cyru}%
```

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

```
3134 \def\pageautorefname{\cyr\cyrs.}%
3135 }
```

```
3136 \def\HyLang@spanish{%
3137 \def\equationautorefname{Ecuaci'on}%
3138 \def\footnoteautorefname{Nota a pie de p'agina}%
3139 \def\itemautorefname{Elemento}%
3140 \def\figureautorefname{Figura}%
3141 \def\tableautorefname{Tabla}%
3142 \def\partautorefname{Parte}%
3143 \def\appendixautorefname{Ap'endice}%
3144 \def\chapterautorefname{Cap'itulo}%
3145 \def\sectionautorefname{Secci'on}%
3146 \def\subsectionautorefname{Subsecci'on}%
3147 \def\subsubsectionautorefname{Subsubsecci'on}%
3148 \def\paragraphautorefname{P'arrafo}%
3149 \def\subparagraphautorefname{Subp'arrafo}%
3150 \def\FancyVerbLineautorefname{L'inea}%
3151 \def\theoremautorefname{Teorema}%
```

```

3152 \def\pageautorefname{P\`agina}%
3153 }

3154 \def\HyLang@catalan{%
3155 \def\equationautorefname{Equaci\`o}%
3156 \def\footnoteautorefname{Nota al peu de p\`agina}%
3157 \def\itemautorefname{Element}%
3158 \def\figureautorefname{Figura}%
3159 \def\tableautorefname{Taula}%
3160 \def\partautorefname{Part}%
3161 \def\appendixautorefname{Ap\`endix}%
3162 \def\chapterautorefname{Cap\`itol}%
3163 \def\sectionautorefname{Secci\`o}%
3164 \def\subsectionautorefname{Subsecci\`o}%
3165 \def\subsubsectionautorefname{Subsubsecci\`o}%
3166 \def\paragraphautorefname{Par\`agraf}%
3167 \def\subparagraphautorefname{Subpar\`agraf}%
3168 \def\FancyVerbLineautorefname{L\`inia}%
3169 \def\theoremautorefname{Teorema}%
3170 \def\pageautorefname{P\`agina}%
3171 }

3172 \def\HyLang@vietnamese{%
3173 \def\equationautorefname{Ph\`uhorn{\}ohorn{ng tr\`inh}%
3174 \def\footnoteautorefname{Ch\`u th\`ich}%
3175 \def\itemautorefname{m\`d{u}c}%
3176 \def\figureautorefname{H\`inh}%
3177 \def\tableautorefname{B\`h{a}ng}%
3178 \def\partautorefname{Ph\` \`acircumflex{n}}%
3179 \def\appendixautorefname{Ph\`d{u} l\`d{u}c}%
3180 \def\chapterautorefname{ch\`uhorn{\}ohorn{ng}}%
3181 \def\sectionautorefname{m\`d{u}c}%
3182 \def\subsectionautorefname{m\`d{u}c}%
3183 \def\subsubsectionautorefname{m\`d{u}c}%
3184 \def\paragraphautorefname{\`dj{ }o\`d{a}n}%
3185 \def\subparagraphautorefname{\`dj{ }o\`d{a}n}%
3186 \def\FancyVerbLineautorefname{d\`ong}%
3187 \def\theoremautorefname{\`DJ{\}d{i}nh l\`y}%
3188 \def\pageautorefname{Trang}%
3189 }

```

Greek, see github issue 52

```

3190 \def\HyLang@greek{%
3191 \def\equationautorefname{\textEpsilon\textxi\acconos\textiota\textsigma\textomega\textsigma\texteta}%
3192 \def\footnoteautorefname{\textupsilon\textpi\textomicron\textsigma\texteta\textmu\textepsilon\acconos\textiota\textomega\textsigma\texteta}%
3193 \def\itemautorefname{\textalpha\textnu\texttau\textiota\textkappa\textepsilon\acconos\textiota\textmu\textepsilon\textnu\textomicron}%
3194 \def\figureautorefname{\textSigma\textchi\acconos\texteta\textmu\textalpha}%
3195 \def\tableautorefname{\textPi\acconos\textiota\textnu\textalpha\textkappa\textalpha}%
3196 \def\partautorefname{\textMu\acconos\textepsilon\textrho\textomicron\textvarsigma}%

```

```

3197 \def\appendixautorefname{\textPi\textalpha\extrho\acconos\textalpha\ex-
trho\texttau\texteta\textmu\textalpha}%
3198 \def\chapterautorefname{\textkappa\textepsilon\textphi\acconos\textal-
pha\textlambda\textalpha\textiota\textomicron}%
3199 \def\sectionautorefname{\textepsilon\textnu\acconos\textomicron\texttau\text-
eta\texttau\textalpha}%
3200 \def\subsectionautorefname{\textupsilon\textpi\textomicron\textepsilon\textnu\ac-
conos\textomicron\texttau\texteta\texttau\textalpha}%
3201 \def\subsubsectionautorefname{\textupsilon\textpi\textomicron-\textupsilon\textpi\textomicron\text-
eta\texttau\textalpha}%
3202 \def\paragraphautorefname{\textpi\textalpha\extrho\acconos\textalpha\textgamma\text-
rho\textalpha\textphi\textomicron\textvarsigma}%
3203 \def\subparagraphautorefname{\textupsilon\textpi\textomicron\textpi\text-
alpha\extrho\acconos\textalpha\textgamma\extrho\textalpha\textphi\textomi-
cron\textvarsigma}%
3204 \def\FancyVerbLineautorefname{\textgamma\extrho\textalpha\textmu\textmu\ac-
conos\texteta}%
3205 \def\theoremautorefname{\textTheta\textepsilon\acconos\textomega\text-
rho\texteta\textmu\textalpha}%
3206 \def\pageautorefname{\textsigma\textepsilon\textlambda\acconos\textiota\textdelta\text-
alpha}%
3207 }

3208 \def\HyLang@dutch{%
3209 \def\equationautorefname{Vergelijking}%
3210 \def\footnoteautorefname{voetnoot}%
3211 \def\itemautorefname{punt}%
3212 \def\figureautorefname{Figuur}%
3213 \def\tableautorefname{Tabel}%
3214 \def\partautorefname{Deel}%
3215 \def\appendixautorefname{Bijlage}%
3216 \def\chapterautorefname{hoofdstuk}%
3217 \def\sectionautorefname{paragraaf}%
3218 \def\subsectionautorefname{deelparagraaf}%
3219 \def\subsubsectionautorefname{deel-deelparagraaf}%
3220 \def\paragraphautorefname{alinea}%
3221 \def\subparagraphautorefname{deelalinea}%
3222 \def\FancyVerbLineautorefname{regel}%
3223 \def\theoremautorefname{Stelling}%
3224 \def\pageautorefname{pagina}%
3225 }

3226 \def\HyLang@norsk{%
3227 \def\equationautorefname{Ligning}%
3228 \def\footnoteautorefname{fotnote}%
3229 \def\itemautorefname{element}%
3230 \def\figureautorefname{Figur}%
3231 \def\tableautorefname{Tabell}%
3232 \def\partautorefname{Del}%
3233 \def\appendixautorefname{Tillegg}%
3234 \def\chapterautorefname{kapittel}%
3235 \def\sectionautorefname{seksjon}%
3236 \def\subsectionautorefname{underseksjon}%
3237 \def\subsubsectionautorefname{under-underseksjon}%
3238 \def\paragraphautorefname{avsnitt}%
3239 \def\subparagraphautorefname{underavsnitt}%
3240 \def\FancyVerbLineautorefname{Linje}%

```

```

3241 \def\theoremautorefname{Teorem}%
3242 \def\pageautorefname{side}%
3243 }
3244 \def\HyLang@danish{%
3245 \def\equationautorefname{Ligning}%
3246 \def\footnoteautorefname{fodnote}%
3247 \def\itemautorefname{element}%
3248 \def\figureautorefname{Figur}%
3249 \def\tableautorefname{Tabel}%
3250 \def\partautorefname{Del}%
3251 \def\appendixautorefname{Bilag}%
3252 \def\chapterautorefname{kapitel}%
3253 \def\sectionautorefname{sektion}%
3254 \def\subsectionautorefname{under-sektion}%
3255 \def\subsubsectionautorefname{under-under-sektion}%
3256 \def\paragraphautorefname{afsnit}%
3257 \def\subparagraphautorefname{underafsnit}%
3258 \def\FancyVerbLineautorefname{linje}%
3259 \def\theoremautorefname{Teorem}%
3260 \def\pageautorefname{side}%
3261 }

```

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

```

3262 \def\HyLang@addto#1#2{%
3263 #2%
3264 \@temptokena{#2}%
3265 \ifx#1\relax
3266 \let#1\@empty
3267 \fi
3268 \ifx#1\@undefined
3269 \edef#1{\the\@temptokena}%
3270 \else
3271 \toks@\expandafter{#1}%
3272 \edef#1{\the\toks@\the\@temptokena}%
3273 \fi
3274 \@temptokena{}\toks@\@temptokena
3275 }

3276 \def\HyLang@DeclareLang#1#2#3{%
3277 \@ifpackagewith{babel}{#1}{%
3278 \expandafter\HyLang@addto
3279 \csname extras#1\expandafter\endcsname
3280 \csname HyLang@#2\endcsname
3281 \begingroup
3282 \edef\x{\endgroup
3283 #3%
3284 }%
3285 \x
3286 \@namedef{HyLang@#1@done}{}%
3287 }{}%
3288 \begingroup
3289 \edef\x##1##2{%
3290 \noexpand\ifx##2\relax
3291 \errmessage{No definitions for language #2' found!}%

```

```

3292 \noexpand\fi
3293 \endgroup
3294 \noexpand\define@key{Hyp}{#1}[]{}%
3295 \noexpand\@ifundefined{HyLang@#1@done}{%
3296 \noexpand\HyLang@addto{\noexpand##1}{\noexpand##2}%
3297 #3%
3298 \noexpand\@namedef{HyLang@#1@done}{}%
3299 }{}%
3300 }%
3301 }%
3302 \expandafter\x\csname extras#1\expandafter\endcsname
3303 \csname HyLang@#2\endcsname
3304 }
3305 \HyLang@DeclareLang{english}{english}{}
3306 \HyLang@DeclareLang{UKenglish}{english}{}
3307 \HyLang@DeclareLang{british}{english}{}
3308 \HyLang@DeclareLang{USenglish}{english}{}
3309 \HyLang@DeclareLang{american}{english}{}
3310 \HyLang@DeclareLang{german}{german}{}
3311 \HyLang@DeclareLang{austrian}{german}{}
3312 \HyLang@DeclareLang{ngerman}{german}{}
3313 \HyLang@DeclareLang{naustrian}{german}{}
3314 \HyLang@DeclareLang{russian}{russian}{\noexpand\hypersetup{unicode}}
3315 \HyLang@DeclareLang{brazil}{portuges}{}
3316 \HyLang@DeclareLang{brazilian}{portuges}{}
3317 \HyLang@DeclareLang{portuguese}{portuges}{}
3318 \HyLang@DeclareLang{spanish}{spanish}{}
3319 \HyLang@DeclareLang{catalan}{catalan}{}
3320 \HyLang@DeclareLang{afrikaans}{afrikaans}{}
3321 \HyLang@DeclareLang{french}{french}{}
3322 \HyLang@DeclareLang{frenchb}{french}{}
3323 \HyLang@DeclareLang{français}{french}{}
3324 \HyLang@DeclareLang{acadian}{french}{}
3325 \HyLang@DeclareLang{canadien}{french}{}
3326 \HyLang@DeclareLang{italian}{italian}{}
3327 \HyLang@DeclareLang{magyar}{magyar}{}
3328 \HyLang@DeclareLang{hungarian}{magyar}{}
3329 \HyLang@DeclareLang{greek}{greek}{}
3330 \HyLang@DeclareLang{dutch}{dutch}{}
3331 \HyLang@DeclareLang{norsk}{norsk}{}
3332 \HyLang@DeclareLang{norwegian}{norsk}{}
3333 \HyLang@DeclareLang{danish}{danish}{}

```

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

```

3334 \DeclareVoidOption{vietnamese}{%
3335 \HyLang@addto\extrasvietnamese\HyLang@vietnamese
3336 \Hy@AtEndOfPackage{%
3337 \@ifundefined{T@PU}{%
3338 \input{pvnenc.def}%
3339 }%
3340 }%
3341 }
3342 \DeclareVoidOption{vietnam}{%
3343 \HyLang@addto\extrasvietnam\HyLang@vietnamese

```

```

3344 \Hy@AtEndOfPackage{%
3345   \@ifundefined{T@PU}{}{%
3346     \input{puvnenc.def}%
3347   }%
3348 }%
3349 }

```

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

```

3350 \DeclareVoidOption{arabic}{%
3351   \Hy@AtEndOfPackage{%
3352     \@ifundefined{T@PU}{}{%
3353       \input{puarenc.def}%
3354     }%
3355   }%
3356 }

```

13 Options to change appearance of links

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

```

3357 \define@key{Hyp}{colorlinks}[true]{%
3358   \Hy@boolkey{colorlinks}{#1}%
3359 }
3360 \DeclareVoidOption{hidelinks}{%
3361   \Hy@colorlinksfalse
3362   \Hy@ocgcolorlinksfalse
3363   \Hy@frenchlinksfalse
3364   \def\Hy@colorlink##1{\begingroup}%
3365   \def\Hy@endcolorlink{\endgroup}%
3366   \def\@pdfborder{0 0 0}%
3367   \let\@pdfborderstyle\ltx@empty
3368 }
3369 \define@key{Hyp}{ocgcolorlinks}[true]{%
3370   \Hy@boolkey{ocgcolorlinks}{#1}%
3371 }
3372 \Hy@AtBeginDocument{%
3373   \begingroup
3374   \@ifundefined{OBJ@OCG@view}{%
3375     \ifHy@ocgcolorlinks
3376       \Hy@Warning{%
3377         Driver does not support `ocgcolorlinks',\MessageBreak
3378         using `colorlinks' instead%
3379       }%
3380     \fi
3381   }{}%
3382   \endgroup
3383 }
3384 \define@key{Hyp}{frenchlinks}[true]{%
3385   \Hy@boolkey{frenchlinks}{#1}%
3386 }

```

14 Bookmarking

```

3387 \begingroup\expandafter\expandafter\expandafter\endgroup
3388 \expandafter\ifx\cscname chapter\endcscname\relax
3389 \def\toclevel@part{0}%
3390 \else
3391 \def\toclevel@part{-1}%
3392 \fi
3393 \def\toclevel@chapter{0}
3394 \def\toclevel@section{1}
3395 \def\toclevel@subsection{2}
3396 \def\toclevel@subsubsection{3}
3397 \def\toclevel@paragraph{4}
3398 \def\toclevel@subparagraph{5}
3399 \def\toclevel@figure{0}
3400 \def\toclevel@table{0}

3401 \define@key{Hyp}{bookmarks}[true]{%
3402 \Hy@boolkey{bookmarks}{#1}%
3403 }

3404 \define@key{Hyp}{bookmarksopen}[true]{%
3405 \Hy@boolkey{bookmarksopen}{#1}%
3406 }

```

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.

```

3407 \let\Hy@bookmarksdepth\c@tocdepth
3408 \define@key{Hyp}{bookmarksdepth}[]{%
3409 \begingroup
3410 \edef\x{#1}%
3411 \ifx\x\empty
3412 \global\let\Hy@bookmarksdepth\c@tocdepth
3413 \else
3414 \@ifundefined{toclevel@\x}{%
3415 \@onelevel@sanitize\x
3416 \edef\y{\expandafter\@car\x\@nil}%
3417 \ifcase 0\expandafter\ifx\y-1\fi
3418 \expandafter\ifnum\expandafter`\y>47 %
3419 \expandafter\ifnum\expandafter`\y<58 1\fi\fi\relax
3420 \Hy@Warning{Unknown document division name (\x)}%
3421 \else
3422 \setbox\z@=\hbox{%
3423 \count@=\x
3424 \xdef\Hy@bookmarksdepth{\the\count@}%
3425 }%
3426 \fi
3427 }{%
3428 \setbox\z@=\hbox{%

```

```

3429     \count@=\csname toplevel@\x\endcsname
3430     \xdef\Hy@bookmarksdepth{\the\count@}%
3431     }%
3432   }%
3433   \fi
3434 \endgroup
3435 }

```

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

```

3436 \define@key{Hyp}{bookmarksopenlevel}{%
3437   \def\@bookmarksopenlevel{#1}%
3438 }
3439 \def\@bookmarksopenlevel{\maxdimen}
3440 % `bookmarkstype' to specify which `toc' file to mimic
3441 \define@key{Hyp}{bookmarkstype}{%
3442   \def\Hy@bookmarkstype{#1}%
3443 }
3444 \def\Hy@bookmarkstype{toc}

```

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

```

3445 \define@key{Hyp}{bookmarksnumbered}[true]{%
3446   \Hy@boolkey{bookmarksnumbered}{#1}%
3447 }

```

Option CJKbookmarks enables the patch for CJK bookmarks.

```

3448 \define@key{Hyp}{CJKbookmarks}[true]{%
3449   \Hy@boolkey{CJKbookmarks}{#1}%
3450 }

3451 \def\Hy@temp#1{%
3452   \expandafter\Hy@temp\csname @#1color\endcsname{#1}%
3453 }
3454 \def\Hy@@temp#1#2#3{%
3455   \define@key{Hyp}{#2color}{%
3456     \HyColor@HyperrefColor{##1}#1%
3457   }%
3458   \def#1{#3}%
3459 }
3460 \Hy@temp{link}{red}
3461 \Hy@temp{anchor}{black}
3462 \Hy@temp{cite}{green}
3463 \Hy@temp{file}{cyan}
3464 \Hy@temp{url}{magenta}
3465 \Hy@temp{menu}{red}
3466 \Hy@temp{run}{\@filecolor}
3467 \define@key{Hyp}{pagecolor}{%
3468   \Hy@WarningPageColor
3469 }
3470 \def\Hy@WarningPageColor{%
3471   \Hy@WarningNoLine{Option `pagecolor' is not available anymore}%
3472   \global\let\Hy@WarningPageColor\relax
3473 }
3474 \define@key{Hyp}{allcolors}{%
3475   \HyColor@HyperrefColor{#1}\@linkcolor
3476   \HyColor@HyperrefColor{#1}\@anchorcolor

```



```

3477 \HyColor@HyperrefColor{#1}\@citecolor
3478 \HyColor@HyperrefColor{#1}\@filecolor
3479 \HyColor@HyperrefColor{#1}\@urlcolor
3480 \HyColor@HyperrefColor{#1}\@menucolor
3481 \HyColor@HyperrefColor{#1}\@runcolor
3482 }

3483 \def\hyperbaseurl#1{\def\@baseurl{#1}}
3484 \define@key{Hyp}{baseurl}{\hyperbaseurl{#1}}
3485 \let\@baseurl\@empty
3486 \def\hyperlinkfileprefix#1{\def\Hy@linkfileprefix{#1}}
3487 \define@key{Hyp}{linkfileprefix}{\hyperlinkfileprefix{#1}}
3488 \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.

```

3489 \let\@pdfpagetransition\relax
3490 \define@key{Hyp}{pdfpagetransition}{%
3491 \def\@pdfpagetransition{#1}%
3492 }

```

`\@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.

```

3493 \let\@pdfpageduration\relax
3494 \define@key{Hyp}{pdfpageduration}{%
3495 \def\@pdfpageduration{#1}%
3496 \Hy@Match\@pdfpageduration{}{%
3497 ^{([0-9]+\.[0-9]*|[0-9]*\.[0-9]+)}$%
3498 }-}{%
3499 \Hy@Warning{%
3500 Invalid value '\@pdfpageduration'\MessageBreak
3501 of option `pdfpageduration'\MessageBreak
3502 is replaced by an empty value%
3503 }%
3504 \let\@pdfpageduration\ltx@empty
3505 }%
3506 }

```

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).

```

3507 \def\Hy@ColorList{cite,file,link,menu,run,url}
3508 \@for\Hy@temp:=\Hy@ColorList\do{%

```

```

3509 \edef\Hy@temp{%
3510   \noexpand\define@key{Hyp}{\Hy@temp bordercolor}{%
3511     \noexpand\HyColor@HyperrefBorderColor
3512       {##1}%
3513     \expandafter\noexpand\csname @\Hy@temp bordercolor\endcsname
3514     {hyperref}%
3515     {\Hy@temp bordercolor}%
3516   }%
3517 }%
3518 \Hy@temp
3519 }
3520 \define@key{Hyp}{pagebordercolor}{%
3521   \Hy@WarningPageBorderColor
3522 }
3523 \def\Hy@WarningPageBorderColor{%
3524   \Hy@WarningNoLine{Option `pagebordercolor' is not available anymore}%
3525   \global\let\Hy@WarningPageBorderColor\relax
3526 }
3527 \define@key{Hyp}{allbordercolors}{%
3528   \def\Hy@temp##1##2{%
3529     \HyColor@HyperrefBorderColor{##1}##1{hyperref}{##2bordercolor}%
3530   }%
3531   \Hy@temp\@citebordercolor{cite}%
3532   \Hy@temp\@filebordercolor{file}%
3533   \Hy@temp\@linkbordercolor{link}%
3534   \Hy@temp\@menubordercolor{menu}%
3535   \Hy@temp\@runbordercolor{run}%
3536   \Hy@temp\@urlbordercolor{url}%
3537 }

3538 \define@key{Hyp}{pdfhighlight}{\def\@pdfhighlight{##1}}
3539 \Hy@DefNameKey{pdfhighlight}{%
3540   \do{/I}{Invert}%
3541   \do{/N}{None}%
3542   \do{/O}{Outline}%
3543   \do{/P}{Push}%
3544 }
3545 \def\Hy@setpdfhighlight{%
3546   \ifx\@pdfhighlight\@empty
3547   \else
3548     /H\@pdfhighlight
3549   \fi
3550 }
3551 \define@key{Hyp}{pdfborder}{%
3552   \let\Hy@temp\@pdfborder
3553   \def\@pdfborder{##1}%
3554   \Hy@Match\@pdfborder{}{%
3555     ~\HyPat@NonNegativeReal/ %
3556     \HyPat@NonNegativeReal/ %
3557     \HyPat@NonNegativeReal/%
3558     (?[\HyPat@NonNegativeReal/(\HyPat@NonNegativeReal/)*])?$$%
3559   }{}{%
3560     \Hy@Warning{%
3561       Invalid value `@\pdfborder'\MessageBreak
3562       for option `pdfborder'.\MessageBreak

```

```

3563     Option setting is ignored%
3564 }%
3565 \let\@pdfborder\Hy@temp
3566 }%
3567 }
3568 \define@key{Hyp}{pdfborderstyle}{%
3569 \let\Hy@temp\@pdfborderstyle
3570 \def\@pdfborderstyle{#1}%
3571 \Hy@Match\@pdfborderstyle}{-%
3572 ~%
3573 ( */Type */Border%
3574 | */W +\HyPat@NonNegativeReal/%
3575 | */S */[SDBIU]%
3576 | */D *\[ *(\HyPat@NonNegativeReal/( \HyPat@NonNegativeReal/)?)?}%
3577 )* *$%
3578 }-}{-%
3579 \Hy@Warning{%
3580     Invalid value ` \@pdfborderstyle'\MessageBreak
3581     for option `pdfborderstyle'.\MessageBreak
3582     Option setting is ignored%
3583 }%
3584 \let\@pdfborderstyle\Hy@temp
3585 }%
3586 }
3587 \def\Hy@setpdfborder{%
3588 \ifx\@pdfborder\@empty
3589 \else
3590 /Border[\@pdfborder]%
3591 \fi
3592 \ifx\@pdfborderstyle\@empty
3593 \else
3594 /BS<<\@pdfborderstyle>>%
3595 \fi
3596 }
3597 \Hy@DefNameKey{pdfpagemode}{-%
3598 \do{UseNone}{-%
3599 \do{UseOutlines}{-%
3600 \do{UseThumbs}{-%
3601 \do{FullScreen}{-%
3602 \do{UseOC}{PDF 1.5}%
3603 \do{UseAttachments}{PDF 1.6}%
3604 }
3605 \Hy@DefNameKey{pdfnonfullscreenpagemode}{-%
3606 \do{UseNone}{-%
3607 \do{UseOutlines}{-%
3608 \do{UseThumbs}{-%
3609 \do{FullScreen}{-%
3610 \do{UseOC}{PDF 1.5}%
3611 \do{UseAttachments}{PDF 1.6}%
3612 }
3613 \Hy@DefNameKey{pdfdirection}{-%
3614 \do{L2R}{Left to right}%
3615 \do{R2L}{Right to left}%
3616 }

```

```

3617 \Hy@DefNameKey{pdfviewarea}{%
3618   \do{MediaBox}{}%
3619   \do{CropBox}{}%
3620   \do{BleedBox}{}%
3621   \do{TrimBox}{}%
3622   \do{ArtBox}{}%
3623 }
3624 \Hy@DefNameKey{pdfviewclip}{%
3625   \do{MediaBox}{}%
3626   \do{CropBox}{}%
3627   \do{BleedBox}{}%
3628   \do{TrimBox}{}%
3629   \do{ArtBox}{}%
3630 }
3631 \Hy@DefNameKey{pdfprintarea}{%
3632   \do{MediaBox}{}%
3633   \do{CropBox}{}%
3634   \do{BleedBox}{}%
3635   \do{TrimBox}{}%
3636   \do{ArtBox}{}%
3637 }
3638 \Hy@DefNameKey{pdfprintclip}{%
3639   \do{MediaBox}{}%
3640   \do{CropBox}{}%
3641   \do{BleedBox}{}%
3642   \do{TrimBox}{}%
3643   \do{ArtBox}{}%
3644 }
3645 \Hy@DefNameKey{pdfprintscaling}{%
3646   \do{AppDefault}{}%
3647   \do{None}{}%
3648 }
3649 \Hy@DefNameKey{pdfduplex}{%
3650   \do{Simplex}{}%
3651   \do{DuplexFlipShortEdge}{}%
3652   \do{DuplexFlipLongEdge}{}%
3653 }
3654 \Hy@DefNameKey{pdfpicktraybypdfsize}{%
3655   \do{true}{}%
3656   \do{false}{}%
3657 }
3658 \define@key{Hyp}{pdfprintpagerange}{%
3659   \def\@pdfprintpagerange{#1}%
3660 }
3661 \Hy@DefNameKey{pdfnumcopies}{%
3662   \do{2}{two copies}%
3663   \do{3}{three copies}%
3664   \do{4}{four copies}%
3665   \do{5}{five copies}%
3666 }
3667 \define@key{Hyp}{pdfusetitle}[true]{%
3668   \Hy@boolkey{pdfusetitle}{#1}%
3669 }
3670 \def\HyXeTeX@CheckUnicode{%

```

```

3671 \ifxetex
3672 \ifHy@unicode
3673 \else
3674 \Hy@WarningNoLine{%
3675 XeTeX driver only supports unicode.\MessageBreak
3676 Enabling option `unicode'%
3677 }%
3678 \kvsetkeys{Hyp}{unicode}%
3679 \fi
3680 \else
3681 \let\HyXeTeX@CheckUnicode\relax
3682 \fi
3683 }
3684 \def\HyPsd@PrerenderUnicode#1{%
3685 \begingroup
3686 \expandafter\ifx\csname PrerenderUnicode\endcsname\relax
3687 \else
3688 \sbox0{%
3689 \let\GenericInfo@gobbletwo
3690 \let\GenericWarning@gobbletwo
3691 \let\GenericError@gobblefour
3692 \PrerenderUnicode{#1}%
3693 }%
3694 \fi
3695 \endgroup
3696 }
3697 \define@key{Hyp}{pdftitle}{%
3698 \AddToDocumentProperties[hyperref]{pdftitle}{#1}%
3699 \HyXeTeX@CheckUnicode
3700 \HyPsd@PrerenderUnicode{#1}%
3701 \pdfstringdef\@pdftitle{#1}%
3702 }
3703 \define@key{Hyp}{pdfauthor}{%
3704 \AddToDocumentProperties[hyperref]{pdfauthor}{#1}%
3705 \HyXeTeX@CheckUnicode
3706 \HyPsd@PrerenderUnicode{#1}%
3707 \pdfstringdef\@pdfauthor{#1}%
3708 }
3709 \define@key{Hyp}{pdfproducer}{%
3710 \AddToDocumentProperties[hyperref]{pdfproducer}{#1}%
3711 \HyXeTeX@CheckUnicode
3712 \HyPsd@PrerenderUnicode{#1}%
3713 \pdfstringdef\@pdfproducer{#1}%
3714 }
3715 \define@key{Hyp}{pdfcreator}{%
3716 \AddToDocumentProperties[hyperref]{pdfcreator}{#1}%
3717 \HyXeTeX@CheckUnicode
3718 \HyPsd@PrerenderUnicode{#1}%
3719 \pdfstringdef\@pdfcreator{#1}%
3720 }
3721 \define@key{Hyp}{addtopdfcreator}{%
3722 \HyXeTeX@CheckUnicode
3723 \HyPsd@PrerenderUnicode{#1}%
3724 \pdfstringdef\@pdfcreator{\@pdfcreator, #1}%

```

```

3725 }
3726 \define@key{Hyp}{pdfcreationdate}{%
3727   \begingroup
3728   \Hy@unicodedefalse
3729   \pdfstringdef\@pdfcreationdate{#1}%
3730 \endgroup
3731 }
3732 \define@key{Hyp}{pdfmoddate}{%
3733   \begingroup
3734   \Hy@unicodedefalse
3735   \pdfstringdef\@pdfmoddate{#1}%
3736 \endgroup
3737 }
3738 \define@key{Hyp}{pdfsubject}{%
3739   \AddToDocumentProperties[hyperref]{pdfsubject}{#1}%
3740   \HyXeTeX@CheckUnicode
3741   \HyPsd@PrerenderUnicode{#1}%
3742   \pdfstringdef\@pdfsubject{#1}%
3743 }
3744 \define@key{Hyp}{pdfkeywords}{%
3745   \AddToDocumentProperties[hyperref]{pdfkeywords}{#1}%
3746   \HyXeTeX@CheckUnicode
3747   \HyPsd@PrerenderUnicode{#1}%
3748   \pdfstringdef\@pdfkeywords{#1}%
3749 }
3750 \define@key{Hyp}{pdftrapped}{%
3751   \lowercase{\edef\Hy@temp{#1}}%
3752   \ifx\Hy@temp\HyInfo@trapped@true
3753     \def\@pdftrapped{True}%
3754   \else
3755     \ifx\Hy@temp\HyInfo@trapped@false
3756       \def\@pdftrapped{False}%
3757     \else
3758       \ifx\Hy@temp\HyInfo@trapped@unknown
3759         \def\@pdftrapped{Unknown}%
3760       \else
3761         \ifx\Hy@temp\@empty
3762           \else
3763             \Hy@Warning{%
3764               Unsupported value `#1'\MessageBreak
3765               for option `pdftrapped'%
3766             }%
3767         \fi
3768       \def\@pdftrapped{}%
3769     \fi
3770   \fi
3771 \fi
3772 }
3773 \def\HyInfo@trapped@true{true}
3774 \def\HyInfo@trapped@false{false}
3775 \def\HyInfo@trapped@unknown{unknown}
3776 \def\HyInfo@TrappedUnsupported{%
3777   \ifx\@pdftrapped\@empty
3778   \else

```

```

3779 \Hy@WarningNoLine{`pdftrapped' is not supported by this driver}%
3780 \gdef\HyInfo@TrappedUnsupported{}%
3781 \fi
3782 }
3783 \define@key{Hyp}{pdfinfo}{%
3784 \kvsetkeys{pdfinfo}{#1}%
3785 }
3786 \def\Hy@temp#1{%
3787 \lowercase{\Hy@temp@A{#1}}{#1}%
3788 }
3789 \def\Hy@temp@A#1#2{%
3790 \define@key{pdfinfo}{#2}{%
3791 \hypersetup{pdf#1={##1}}}%
3792 }%
3793 }
3794 \Hy@temp{Title}
3795 \Hy@temp{Author}
3796 \Hy@temp{Keywords}
3797 \Hy@temp{Subject}
3798 \Hy@temp{Creator}
3799 \Hy@temp{Producer}
3800 \Hy@temp{CreationDate}
3801 \Hy@temp{ModDate}
3802 \Hy@temp{Trapped}
3803 \newif\ifHyInfo@AddonUnsupported
3804 \kv@set@family@handler{pdfinfo}{%
3805 \HyInfo@AddonHandler{#1}{#2}%
3806 }
3807 \let\HyInfo@do\relax
3808 \def\HyInfo@AddonHandler#1#2{%
3809 \ifx\kv@value\relax
3810 \Hy@Warning{%
3811 Option `pdfinfo': ignoring key `\'kv@key' without value%
3812 }%
3813 \else
3814 \EdefEscapeName\HyInfo@KeyEscaped{\kv@key}%
3815 \EdefUnescapeName\HyInfo@Key{\HyInfo@KeyEscaped}%
3816 \expandafter\ifx\csname KV@pdfinfo@\HyInfo@Key\endcsname\relax
3817 \ifHyInfo@AddonUnsupported
3818 \Hy@Warning{%
3819 This driver does not support additional\MessageBreak
3820 information entries, therefore\MessageBreak
3821 `\'kv@key' is ignored%
3822 }%
3823 \else
3824 \def\HyInfo@tmp##1{%
3825 \kv@define@key{pdfinfo}{##1}{%
3826 \HyXeTeX@CheckUnicode
3827 \HyPsd@PrerenderUnicode{###1}}%
3828 \pdfstringdef\HyInfo@Value{###1}%
3829 \global\expandafter
3830 \let\csname HyInfo@Value@##1\endcsname
3831 \HyInfo@Value
3832 }%

```

```

3833 }%
3834 \expandafter\HyInfo@tmp\expandafter{\HyInfo@Key}%
3835 \global\expandafter
3836 \let\csname KV@pdfinfo@\HyInfo@Key\expandafter\endcsname
3837 \csname KV@pdfinfo@\HyInfo@Key\endcsname
3838 \xdef\HyInfo@AddonList{%
3839 \HyInfo@AddonList
3840 \HyInfo@do{\HyInfo@Key}%
3841 }%
3842 \kv@parse@normalized{%
3843 \HyInfo@Key={#2}%
3844 }{%
3845 \kv@processor@default{pdfinfo}%
3846 }%
3847 \fi
3848 \else
3849 \kv@parse@normalized{%
3850 \HyInfo@Key={#2}%
3851 }{%
3852 \kv@processor@default{pdfinfo}%
3853 }%
3854 \fi
3855 \fi
3856 }
3857 \def\HyInfo@GenerateAddons{%
3858 \ifHyInfo@AddonUnsupported
3859 \def\HyInfo@Addons{}%
3860 \else
3861 \begingroup
3862 \toks@{}%
3863 \def\HyInfo@do##1{%
3864 \EdefEscapeName\HyInfo@Key{##1}%
3865 \edef\x{%
3866 \toks@{%
3867 \the\toks@
3868 /\HyInfo@Key(\csname HyInfo@Value@##1\endcsname)%
3869 }%
3870 }%
3871 \x
3872 }%
3873 \HyInfo@AddonList
3874 \edef\x{\endgroup
3875 \def\noexpand\HyInfo@Addons{\the\toks@}%
3876 }%
3877 \x
3878 \fi
3879 }
3880 \global\let\HyInfo@AddonList\ltx@empty
3881 \define@key{Hyp}{pdfview}{\calculate@pdfview#1 \}
3882 \define@key{Hyp}{pdfinkmargin}{\setpdfinkmargin{#1}}
3883 \let\setpdfinkmargin\gobble
3884 \def\calculate@pdfview#1 #2\{\%
3885 \def@\pdfview{#1}%
3886 \ifx\#2\%

```



```

3887 \def\@pdfviewparams{-32768}%
3888 \else
3889 \def\@pdfviewparams{ #2}%
3890 \fi
3891 }
3892 \def\Hy@number#1{%
3893 \the\numexpr#1\relax
3894 }%
3895 \define@key{Hyp}{pdfstartpage}{%
3896 \ifx\#1\%
3897 \let\@pdfstartpage\ltx@empty
3898 \else
3899 \edef\@pdfstartpage{\Hy@number{#1}}%
3900 \fi
3901 }%
3902 \define@key{Hyp}{pdfstartview}{%
3903 \ifx\#1\%
3904 \let\@pdfstartview\ltx@empty
3905 \else
3906 \def\@pdfstartview{/#1}%
3907 \fi
3908 }
3909 \def\HyPat@NonNegativeReal/{%
3910 \ *([0-9]+\.[0-9]*|[0-9]*\.[0-9]+) *%
3911 }
3912 \define@key{Hyp}{pdfremotestartview}{%
3913 \ifx\#1\%
3914 \def\@pdfremotestartview{/Fit}%
3915 \else
3916 \edef\@pdfremotestartview{#1}%
3917 \Hy@Match\@pdfremotestartview}{%
3918 ~XYZ(%
3919 ()| %
3920 (null|-\HyPat@NonNegativeReal/) %
3921 (null|-\HyPat@NonNegativeReal/) %
3922 (null|\HyPat@NonNegativeReal/)%
3923 )| % end of "XYZ"
3924 Fit(%
3925 ()| %
3926 B| %
3927 (H|V|BH|BV)(%
3928 ()| %
3929 (null|\HyPat@NonNegativeReal/)%
3930 )| %
3931 R %
3932 \HyPat@NonNegativeReal/ %
3933 \HyPat@NonNegativeReal/ %
3934 \HyPat@NonNegativeReal/ %
3935 \HyPat@NonNegativeReal/ %
3936 ) % end of "Fit"
3937 )$%
3938 }{ }{%
3939 \Hy@Warning{%
3940 Invalid value ` \@pdfremotestartview'\MessageBreak

```

```

3941     of `pdfremotestartview'\MessageBreak
3942     is replaced by `Fit'%
3943   }%
3944   \let\@pdfremotestartview\@empty
3945 }%
3946 \ifx\@pdfremotestartview\@empty
3947   \def\@pdfremotestartview{/Fit}%
3948 \else
3949   \edef\@pdfremotestartview{/ \@pdfremotestartview}%
3950 \fi
3951 \fi
3952 }
3953 \define@key{Hyp}{pdfpagescrop}{\edef\@pdfpagescrop{#1}}
3954 \define@key{Hyp}{pdftoolbar}[true]{%
3955   \Hy@boolkey{pdftoolbar}{#1}%
3956 }
3957 \define@key{Hyp}{pdfmenubar}[true]{%
3958   \Hy@boolkey{pdfmenubar}{#1}%
3959 }
3960 \define@key{Hyp}{pdfwindowui}[true]{%
3961   \Hy@boolkey{pdfwindowui}{#1}%
3962 }
3963 \define@key{Hyp}{pdffitwindow}[true]{%
3964   \Hy@boolkey{pdffitwindow}{#1}%
3965 }
3966 \define@key{Hyp}{pdfcenterwindow}[true]{%
3967   \Hy@boolkey{pdfcenterwindow}{#1}%
3968 }
3969 \define@key{Hyp}{pdfdisplaydoctitle}[true]{%
3970   \Hy@boolkey{pdfdisplaydoctitle}{#1}%
3971 }
3972 \define@key{Hyp}{pdfa}[true]{%
3973   \Hy@boolkey{pdfa}{#1}%
3974 }
3975 \define@key{Hyp}{pdfnewwindow}[true]{%
3976   \def\Hy@temp{#1}%
3977   \ifx\Hy@temp\@empty
3978     \Hy@pdfnewwindowsetfalse
3979   \else
3980     \Hy@pdfnewwindowsettrue
3981     \Hy@boolkey{pdfnewwindow}{#1}%
3982   \fi
3983 }
3984 \def\Hy@SetNewWindow{%
3985   \ifHy@pdfnewwindowset
3986     /NewWindow %
3987   \ifHy@pdfnewwindow true\else false\fi
3988 \fi
3989 }
3990 \Hy@DefNameKey{pdfpagelayout}{%
3991   \do{SinglePage}{}%
3992   \do{OneColumn}{}%
3993   \do{TwoColumnLeft}{}%
3994   \do{TwoColumnRight}{}%

```

```

3995 \do{TwoPageLeft}{PDF 1.5}%
3996 \do{TwoPageRight}{PDF 1.5}%
3997 }
3998 \define@key{Hyp}{pdflang}{%
3999 \edef\@pdflang{#1}%
4000 \def\Hy@temp{\relax}%
4001 \ifx\@pdflang\Hy@temp
4002 \let\@pdflang\relax
4003 \fi
4004 \ifx\@pdflang\relax
4005 \else
4006 \ifx\@pdflang\ltx@empty
4007 \else

```

Test according to ABNF of RFC 3066.

```

4008 \Hy@Match\@pdflang{icase}{%
4009 ~%
4010 [a-z]{1,8}%
4011 (-[a-z0-9]{1,8})*%
4012 $%
4013 }{%

```

Test according to ABNF of RFC 5646.

```

4014 \Hy@Match\@pdflang{icase}{%
4015 ~%
4016 (%
4017 % langtag
4018 (% language
4019 [a-z]{2,3}%
4020 ([a-z]{3}(-[a-z]{3}){0,2})?% extlang
4021 |[a-z]{4}% reserved for future use
4022 |[a-z]{5,8}% registered language subtag
4023 )%
4024 (-[a-z]{4})?% script
4025 (-([a-z]{2}|[0-9]{3}))?% region
4026 (-([a-z]{5,8}|[0-9][a-z0-9]{3}))?% variant
4027 (-[0-9a-wyz](-[a-z0-9]{2,8})+)% extension
4028 (-x(-[a-z0-9]{1,8})+)?% privateuse
4029 % privateuse
4030 |x(-[a-z0-9]{1,8})+%
4031 % grandfathered/irregular
4032 |en-GB-oed%
4033 |i-(ami|bnn|default|enochian|hak|klinton|lux|%
4034 mingo|navajo|pwn|tao|tay|tsu)%
4035 |sgn-(BE-FR|BE-NL|CH-DE)%
4036 % grandfathered/regular
4037 |art-lojban%
4038 |cel-gaulish%
4039 |no-(bok|nyn)%
4040 |zh-(guoyu|hakka|min|min-nan|xiang)%
4041 )%
4042 $%
4043 }{%

```

Test for unique extensions.

```

4044 \Hy@Match{-\@pdflang}{icase}{-[a-wyz0-9]-}{%
4045 \Hy@Match\@pdflang{icase}{~x-}{}%
4046 % remove privateuse
4047 \edef\Hy@temp{-\@pdflang}%
4048 \Hy@Match\Hy@temp{icase}{%
4049 ~%
4050 (%
4051 (-[a-wyz0-9]|-[a-z0-9]{2,8})*%
4052 )%
4053 -x-%
4054 }{%
4055 \edef\Hy@temp{%
4056 \expandafter\strip@prefix\pdfastmatch1%
4057 }%
4058 }{}%
4059 \Hy@Match\Hy@temp{icase}{%
4060 (-[a-wyz0-9]-).*\ltx@backslashchar1%
4061 }{%
4062 \Hy@Warning{%
4063 Invalid language identifier `#1'\MessageBreak
4064 for option `pdflang', because it violates\MessageBreak
4065 well-formedness defined in RFC 4646\MessageBreak
4066 by duplicate singleton subtags%
4067 }%
4068 \let\@pdflang\relax
4069 }{}%
4070 }%
4071 }{}%

```

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

```

4072 \ifx\@pdflang\relax
4073 \else
4074 \Hy@Match\@pdflang{icase}{%
4075 ~%
4076 [a-zA-Z]{2}-%
4077 (%
4078 aa|AA|%
4079 [qQ][m-zA-Z]|%
4080 [xX][a-zA-Z]|%
4081 zz|ZZ%
4082 )%
4083 (-|%)%
4084 }{%
4085 \Hy@Warning{%
4086 Invalid language identifier `#1'\MessageBreak
4087 for option `pdflang' because of invalid country code%
4088 \MessageBreak
4089 in second subtag (RFC 3066)%
4090 }%
4091 \let\@pdflang\relax
4092 }{}%
4093 \fi
4094 }{%
4095 \Hy@Warning{%
4096 Invalid language identifier `#1'\MessageBreak

```

```

4097     for option `pdflang', because it violates\MessageBreak
4098     well-formedness defined in RFC 5646%
4099     }%
4100     \let\@pdflang\relax
4101     }%
4102     }{%
4103     \Hy@Warning{%
4104     Invalid language identifier `#1'\MessageBreak
4105     for option `pdflang' (RFC 3066)%
4106     }%
4107     \let\@pdflang\relax
4108     }%
4109     \fi
4110     \fi
4111 }
4112 \define@key{Hyp}{pdfpagelabels}[true]{%
4113   \Hy@boolkey{pdfpagelabels}{#1}%
4114 }
4115 \define@key{Hyp}{pdfescapeform}[true]{%
4116   \Hy@boolkey{pdfescapeform}{#1}%
4117 }

```

Default values:

```

4118 \def\@linkbordercolor{1 0 0}
4119 \def\@urlbordercolor{0 1 1}
4120 \def\@menubordercolor{1 0 0}
4121 \def\@filebordercolor{0 .5 .5}
4122 \def\@runbordercolor{0 .7 .7}
4123 \def\@citebordercolor{0 1 0}
4124 \def\@pdfhighlight{/I}
4125 \let\@pdftitle\ltx@empty
4126 \let\@pdfauthor\ltx@empty
4127 \let\@pdfproducer\relax
4128 \def\@pdfcreator{LaTeX with hyperref}
4129 \let\@pdfcreationdate\ltx@empty
4130 \let\@pdfmoddate\ltx@empty
4131 \let\@pdfsubject\ltx@empty
4132 \let\@pdfkeywords\ltx@empty
4133 \let\@pdftrapped\ltx@empty
4134 \let\@pdfpagescrop\ltx@empty
4135 \def\@pdfstartview{/Fit}
4136 \def\@pdfremotestartview{/Fit}
4137 \def\@pdfstartpage{1}
4138 \let\@pdfprintpagerange\ltx@empty
4139 \let\@pdflang\relax
4140 \let\PDF@SetupDoc\@empty
4141 \let\PDF@FinishDoc\@empty
4142 \let\phantomsection\@empty
4143 \let\special@paper\@empty
4144 \def\HyperDestNameFilter#1{#1}
4145 \Hy@AtBeginDocument{%
4146   \begingroup
4147   \edef\x{\ifdim\stockheight>\z@ \stockheight\else\paperheight\fi}%
4148   \dimen@=\x\relax
4149   \ifdim\dimen@>\z@

```

```

4150 \else
4151 \dimen@=11in\relax
4152 \Hy@WarningNoLine{%
4153   Height of page (\expandafter\string\x) %
4154   is invalid (\the\x),\MessageBreak
4155   using 11in%
4156 }%
4157 \fi
4158 \dimen@=0.99626401\dimen@
4159 \xdef\Hy@pageheight{\strip@pt\dimen@}%
4160 \endgroup
4161 }
4162 \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.

```

4163 \let\hyper@normalise\ExecuteOptions
4164 \let\ExecuteOptions\hypersetup
4165 \Hy@RestoreCatcodes
4166 \InputIfFileExists{hyperref.cfg}{-}{-}
4167 \Hy@SetCatcodes
4168 \let\ExecuteOptions\hyper@normalise
4169 \ifx\Hy@MaybeStopNow\relax
4170 \else
4171 \Hy@stoppedearlytrue
4172 \expandafter\Hy@MaybeStopNow
4173 \fi
4174 \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.

```

4175 \SetupKeyvalOptions{family=Hyp}
4176 \DeclareLocalOptions{%
4177   a4paper,a5paper,b5paper,letterpaper,legalpaper,executivepaper%
4178 }

```

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

```

4179 \@ifpackagewith{hyperref}{tex4ht}{%
4180 }{%
4181 \@ifpackageloaded{tex4ht}{%
4182   \PassOptionsToPackage{tex4ht}{hyperref}%
4183 }{%
4184   \ltx@IfUndefined{HCode}{%
4185   }{%
4186     \begingroup
4187     \def\Hy@pkg{tex4ht}%
4188     \def\Hy@temp@A#1\RequirePackage[#2]#3#4\Hy@NIL{%
4189       \def\Hy@param{#2#3}%
4190       \ifx\Hy@param\ltx@empty
4191         \expandafter\ltx@gobble
4192       \else
4193         \def\Hy@param{#3}%
4194         \ifx\Hy@param\Hy@pkg
4195           \PassOptionsToPackage{#2}{tex4ht}%

```

```

4196         \expandafter\expandafter\expandafter\@gobble
4197         \else
4198         \expandafter\expandafter\expandafter\ltx@firstofone
4199         \fi
4200     \fi
4201     {\Hy@temp@A#4\Hy@NIL}%
4202 }%
4203 \expandafter
4204 \Hy@temp@A\@documentclasshook\RequirePackage[]\Hy@NIL
4205 \endgroup
4206 \PassOptionsToPackage{tex4ht}{hyperref}%
4207 }%
4208 }%
4209 }

4210 \let\ReadBookmarks\relax
4211 \ProcessKeyvalOptions{Hyp}

```

After processing options.

15.1 Package xspace support

```

4212 \def\Hy@xspace@end{}
4213 \ltx@ifundefined{xspaceaddexceptions}{%
4214 \Hy@AtBeginDocument{%
4215 \ltx@ifundefined{xspaceaddexceptions}{%
4216 }{%
4217 \def\Hy@xspace@end{%
4218 \ltx@gobble{end for xspace}%
4219 }%
4220 \xspaceaddexceptions{%
4221 \Hy@xspace@end,\hyper@linkend,\hyper@anchorend
4222 }%
4223 }%
4224 }%
4225 }{%
4226 \def\Hy@xspace@end{%
4227 \ltx@gobble{end for xspace}%
4228 }%
4229 \xspaceaddexceptions{\Hy@xspace@end,\hyper@linkend,\hyper@anchorend}%
4230 }

```

15.2 Option draft

```

4231 \Hy@AtBeginDocument{%
4232 \ifHy@draft
4233 \let\hyper@@anchor\@gobble
4234 \gdef\hyper@link#1#2#3{#3\Hy@xspace@end}%
4235 \def\hyper@anchorstart#1#2{#2\Hy@xspace@end}%
4236 \def\hyper@anchorend{\Hy@xspace@end}%
4237 \let\hyper@linkstart\@gobbletwo
4238 \def\hyper@linkend{\Hy@xspace@end}%
4239 \def\hyper@linkurl#1#2{#1\Hy@xspace@end}%
4240 \def\hyper@linkfile#1#2#3{#1\Hy@xspace@end}%
4241 \def\hyper@link@[#1]#2#3#4{#4\Hy@xspace@end}%
4242 \def\Acrobatmenu#1#2{\leavevmode#2\Hy@xspace@end}%

```

```

4243 \let\PDF@SetupDoc\@empty
4244 \let\PDF@FinishDoc\@empty
4245 \let\ReadBookmarks\relax
4246 \let\WriteBookmarks\relax
4247 \Hy@WarningNoLine{Draft mode on}%
4248 \fi
4249 \Hy@DisableOption{draft}%
4250 \Hy@DisableOption{nolinks}%
4251 \Hy@DisableOption{final}%
4252 }

```

15.3 PDF/A

```

4253 \Hy@DisableOption{pdfa}
4254 \ifHy@pdfa
4255 \ifnum \Hy@pdf@majorminor@version < 104
4256 \kvsetkeys{Hyp}{pdfversion=1.4}%
4257 \fi
4258 \Hy@DisableOption{pdfversion}%
4259 \def\Hy@Acrobatmenu#1#2{%
4260 \leavevmode
4261 \begingroup
4262 \edef\x{#1}%
4263 \@onelevel@sanitize\x
4264 \ifx\x\Hy@NextPage
4265 \let\y=Y%
4266 \else
4267 \ifx\x\Hy@PrevPage
4268 \let\y=Y%
4269 \else
4270 \ifx\x\Hy@FirstPage
4271 \let\y=Y%
4272 \else
4273 \ifx\x\Hy@LastPage
4274 \let\y=Y%
4275 \else
4276 \let\y=N%
4277 \fi
4278 \fi
4279 \fi
4280 \fi
4281 \expandafter\endgroup
4282 \ifx\y Y%
4283 \else
4284 \Hy@Error{%
4285 PDF/A: Named action `#1' is not permitted%
4286 } \@ehc
4287 {#2}%
4288 \expandafter\@gobble
4289 \fi
4290 }%
4291 \def\Hy@temp#1{%
4292 \expandafter\def\csname Hy@#1\endcsname{#1}%
4293 \expandafter\@onelevel@sanitize\csname Hy@#1\endcsname
4294 }%

```



```

4295 \Hy@temp{NextPage}%
4296 \Hy@temp{PrevPage}%
4297 \Hy@temp{FirstPage}%
4298 \Hy@temp{LastPage}%
4299 \else
4300 \def\Hy@Acrobatmenu#1#2{\leavevmode}%
4301 \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.

change 2020-10-10: no trace of `\texttilde` can be found in the three languages spanish, galician and estonian so the patch has been removed as outdated.

```

4302 \def\Hy@wrapper@babel#1#2{%
4303   \begingroup
4304   \Hy@safe@activetrue
4305   \set@display@protect
4306   \edef\x{#2}%
4307   \@onelevel@sanitize\x
4308   \toks@{#1}%
4309   \edef\x{\endgroup\the\toks@{\x}}%
4310   \x
4311 }
4312 \def\Hy@WrapperDef#1{%
4313   \begingroup
4314   \escapechar=\m@ne
4315   \xdef\Hy@gtemp{%
4316     \expandafter\noexpand\csname HyWrap@\string#1\endcsname
4317   }%
4318   \endgroup
4319   \edef#1{%
4320     \noexpand\Hy@wrapper@babel
4321     \expandafter\noexpand\Hy@gtemp
4322   }%
4323   \expandafter\def\Hy@gtemp
4324 }

4325 \ifHy@hyperfigures
4326 \Hy@Info{Hyper figures ON}%
4327 \else
4328 \Hy@Info{Hyper figures OFF}%
4329 \fi

4330 \ifHy@nesting
4331 \Hy@Info{Link nesting ON}%
4332 \else
4333 \Hy@Info{Link nesting OFF}%
4334 \fi

4335 \ifHy@hyperindex
4336 \Hy@Info{Hyper index ON}%
4337 \else
4338 \Hy@Info{Hyper index OFF}%
4339 \fi

4340 \ifHy@plainpages

```

```

4341 \Hy@Info{Plain pages ON}%
4342 \else
4343 \Hy@Info{Plain pages OFF}%
4344 \fi
4345 \ifHy@backref
4346 \Hy@Info{Backreferencing ON}%
4347 \else
4348 \Hy@Info{Backreferencing OFF}%
4349 \fi
4350 \ifHy@implicit
4351 \Hy@InfoNoLine{Implicit mode ON; LaTeX internals redefined}%
4352 \else
4353 \Hy@InfoNoLine{Implicit mode OFF; no redefinition of LaTeX internals}%
4354 \def\MaybeStopEarly{%
4355 \Hy@Message{Stopped early}%
4356 \Hy@AtBeginDocument{%
4357 \PDF@FinishDoc
4358 \gdef\PDF@FinishDoc{}}%
4359 }%
4360 \endinput
4361 }%
4362 \Hy@AtBeginDocument{%
4363 \let\autoref\ref
4364 \let\autopageref\pageref
4365 \ifx\@pdfpagemode\@empty
4366 \gdef\@pdfpagemode{UseNone}%
4367 \fi
4368 \global\Hy@backreffalse
4369 }%
4370 \Hy@AtEndOfPackage{%
4371 \global\let\ReadBookmarks\relax
4372 \global\let\WriteBookmarks\relax
4373 }%
4374 \fi
4375 \Hy@DisableOption{implicit}

```

15.4.1 Driver loading

Ensure that `\stockwidth` and `\stockheight` are defined

```

4376 \@ifundefined{stockwidth}{\newdimen\stockwidth}{}
4377 \@ifundefined{stockheight}{\newdimen\stockheight}{}

4378 \Hy@AtEndOfPackage{%
4379 \ifpackageloaded{tex4ht}{%
4380 \def\Hy@driver{htex4ht}%
4381 \Hy@texhttrue
4382 }{}%

```

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.

```

4383 \ifx\Hy@driver\@empty
4384 \else
4385 \ifx\pdfextension\@undefined
4386 \def\Hy@temp{hpdfTeX}%
4387 \else

```

```

4388     \def\Hy@temp{hluatex}%
4389     \fi
4390 \ifpdf
4391     \ifx\Hy@driver\Hy@temp
4392     \else
4393     \Hy@WarningNoLine{%
4394     Wrong driver ``\Hy@driver.def';\MessageBreak
4395     pdfTeX is running in PDF mode.\MessageBreak
4396     Forcing driver ``\Hy@temp.def'%
4397     }%
4398     \let\Hy@driver\Hy@temp
4399     \fi
4400 \else
4401     \ifx\Hy@driver\Hy@temp
4402     \Hy@WarningNoLine{%
4403     Wrong driver ``\Hy@driver.def';\MessageBreak
4404     pdfTeX is not running in PDF mode.\MessageBreak
4405     Using default driver%
4406     }%
4407     \let\Hy@driver\@empty
4408     \fi
4409 \fi
4410 \fi
4411 \ifHy@texht
4412 \else
4413     \ifx\Hy@driver\@empty
4414     \else
4415     \def\Hy@temp{hxtex}%
4416     \ifxetex
4417     \ifx\Hy@driver\Hy@temp
4418     \else
4419     \Hy@WarningNoLine{%
4420     Wrong driver ``\Hy@driver.def';\MessageBreak
4421     XeTeX is running.\MessageBreak
4422     Forcing driver ``\Hy@temp.def' for XeTeX%
4423     }%
4424     \let\Hy@driver\Hy@temp
4425     \fi
4426     \fi
4427 \fi
4428 \fi
4429 \ifx\Hy@driver\@empty
4430 \else
4431     \def\Hy@temp{hvtexhtm}%
4432     \ifnum\ifvtex\OpMode\else\m@ne\fi=10 %
4433     \ifx\Hy@driver\Hy@temp
4434     \else
4435     \Hy@WarningNoLine{%
4436     Wrong driver ``\Hy@driver.def';\MessageBreak
4437     VTeX is running in HTML mode.\MessageBreak
4438     Forcing driver ``\Hy@temp.def'%
4439     }%
4440     \let\Hy@driver\Hy@temp
4441     \fi

```

```

4442 \else
4443 \ifx\Hy@driver\Hy@temp
4444 \Hy@WarningNoLine{%
4445   Wrong driver `\'Hy@driver.def';\MessageBreak
4446   VTeX is not running in HTML mode.\MessageBreak
4447   Using default driver%
4448 }%
4449 \let\Hy@driver\@empty
4450 \fi
4451 \fi
4452 \fi

```

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

```

4453 \let\HyOpt@DriverType\ltx@empty
4454 \ifx\HyOpt@CustomDriver\ltx@empty
4455 \ifx\Hy@driver\@empty
4456 \def\HyOpt@DriverType{ (autodetected)}%
4457 \providecommand*{\Hy@defaultdriver}{hdvips}%
4458 \ifpdf
4459 \ifx\pdfextension\@undefined
4460 \def\Hy@driver{hpdftex}%
4461 \else
4462 \def\Hy@driver{hluatex}%
4463 \fi
4464 \else
4465 \ifxetex
4466 \def\Hy@driver{hxetex}%
4467 \else
4468 \ifnum\ifvtex\OpMode\else\m@ne\fi=10 %
4469 \def\Hy@driver{hvtexhtm}%
4470 \def\MaybeStopEarly{%
4471 \Hy@Message{Stopped early}%
4472 \Hy@AtBeginDocument{%
4473 \PDF@FinishDoc
4474 \gdef\PDF@FinishDoc{}}%
4475 }%
4476 \endinput
4477 }%
4478 \else
4479 \ifnum\ifvtex\OpMode\else\m@ne\fi=\@ne
4480 \def\Hy@driver{hvtex}%
4481 \else
4482 \ifnum\ifvtex\OpMode\else\m@ne\fi=\tw@
4483 \def\Hy@driver{hvtex}%
4484 \else
4485 \ifx\HyOpt@DriverFallback\ltx@empty
4486 \let\Hy@driver\Hy@defaultdriver
4487 \def\HyOpt@DriverType{ (default)}%
4488 \else
4489 \begingroup
4490 \toks@\expandafter{\HyOpt@DriverFallback}%
4491 \edef\x{\endgroup
4492 \noexpand\kvsetkeys{Hyp}{\the\toks@}}%
4493 }%
4494 \x

```

```

4495         \ifx\Hy@driver\ltx@empty
4496         \let\Hy@driver\Hy@defaultdriver
4497         \def\HyOpt@DriverType{ (default)}%
4498     \else
4499         \def\HyOpt@DriverType{ (fallback)}%
4500     \fi
4501 \fi
4502 \fi
4503 \fi
4504 \fi
4505 \fi
4506 \fi
4507 \ifx\Hy@driver\Hy@defaultdriver
4508 \def\Hy@temp{hdvwind}%
4509 \ifx\Hy@temp\Hy@driver
4510 \kvsetkeys{Hyp}{colorlinks}%
4511 \PassOptionsToPackage{dviwindo}{color}%
4512 \fi
4513 \fi
4514 \fi
4515 \else
4516 \def\HyOpt@DriverType{ (custom)}%
4517 \let\Hy@driver\HyOpt@CustomDriver
4518 \fi
4519 \Hy@InfoNoLine{Driver\HyOpt@DriverType: \Hy@driver}%
4520 \chardef\Hy@VersionChecked=0 %
4521 \input{\Hy@driver.def}%
4522 \ifcase\Hy@VersionChecked
4523 \Hy@VersionCheck{\Hy@driver.def}%
4524 \fi
4525 \let\@unprocessedoptions\relax
4526 \Hy@RestoreCatcodes
4527 \Hy@DisableOption{tex4ht}%
4528 \Hy@DisableOption{pdftex}%
4529 \Hy@DisableOption{nativepdf}%
4530 \Hy@DisableOption{dvipdfm}%
4531 \Hy@DisableOption{dvipdfmx}%
4532 \Hy@DisableOption{dvipdfmx-outline-open}%
4533 \Hy@DisableOption{pdfmark}%
4534 \Hy@DisableOption{dvips}%
4535 \Hy@DisableOption{hypertex}%
4536 \Hy@DisableOption{vtex}%
4537 \Hy@DisableOption{vtexpdfmark}%
4538 \Hy@DisableOption{dviwindo}%
4539 \Hy@DisableOption{dvipsone}%
4540 \Hy@DisableOption{textures}%
4541 \Hy@DisableOption{latex2html}%
4542 \Hy@DisableOption{ps2pdf}%
4543 \Hy@DisableOption{xetex}%
4544 \Hy@DisableOption{driverfallback}%
4545 \Hy@DisableOption{customdriver}%
4546 \Hy@DisableOption{pdfversion}%
4547 }

```

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.

```

4548 \newif\ifHy@DvipdfmxOutlineOpen
4549 \ifxetex
4550 \ifdim\number\XeTeXversion\XeTeXrevision in<0.9995in %
4551 \else
4552 \chardef\SpecialDvipdfmxOutlineOpen\@ne
4553 \Hy@DvipdfmxOutlineOpentruer
4554 \fi
4555 \fi
4556 \begingroup\expandafter\expandafter\expandafter\endgroup
4557 \expandafter\ifx\csname SpecialDvipdfmxOutlineOpen\endcsname\relax
4558 \else
4559 \ifnum\SpecialDvipdfmxOutlineOpen>\z@
4560 \Hy@DvipdfmxOutlineOpentruer
4561 \fi
4562 \fi

```

15.4.2 Bookmarks

```

4563 \def\WriteBookmarks{0}
4564 \def\@bookmarkopenstatus#1{%
4565 \ifHy@bookmarksopen

```

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

```

4566 \ifnum#1<\expandafter\@firstofone\expandafter
4567 \number\@bookmarksopenlevel} % explicit space
4568 \else
4569 -%
4570 \fi
4571 \else
4572 -%
4573 \fi
4574 }
4575 \ifHy@bookmarks
4576 \Hy@Info{Bookmarks ON}%
4577 \ifx\@pdfpagemode\@empty
4578 \def\@pdfpagemode{UseOutlines}%
4579 \fi
4580 \else
4581 \let\@bookmarkopenstatus\ltx@gobble
4582 \Hy@Info{Bookmarks OFF}%
4583 \Hy@AtEndOfPackage{%
4584 \global\let\ReadBookmarks\relax
4585 \global\let\WriteBookmarks\relax
4586 }%
4587 \ifx\@pdfpagemode\@empty
4588 \def\@pdfpagemode{UseNone}%
4589 \fi
4590 \fi
4591 \Hy@DisableOption{bookmarks}

```

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

```

4592 \def\Hy@CatcodeWrapper#1{%

```

```

4593 \let\Hy@EndWrap\ltx@empty
4594 \def\TMP@EnsureCode###1##2{%
4595   \edef\Hy@EndWrap{%
4596     \Hy@EndWrap
4597     \catcode###1 \the\catcode###1\relax
4598   }%
4599   \catcode###1 ##2\relax
4600 }%
4601 \TMP@EnsureCode{10}{12}% ^^J
4602 \TMP@EnsureCode{33}{12}% !
4603 \TMP@EnsureCode{34}{12}% "
4604 \TMP@EnsureCode{36}{3}% $ (math)
4605 \TMP@EnsureCode{38}{4}% & (alignment)
4606 \TMP@EnsureCode{39}{12}% '
4607 \TMP@EnsureCode{40}{12}% (
4608 \TMP@EnsureCode{41}{12}% )
4609 \TMP@EnsureCode{42}{12}% *
4610 \TMP@EnsureCode{43}{12}% +
4611 \TMP@EnsureCode{44}{12}% ,
4612 \TMP@EnsureCode{45}{12}% -
4613 \TMP@EnsureCode{46}{12}% .
4614 \TMP@EnsureCode{47}{12}% /
4615 \TMP@EnsureCode{58}{12}% :
4616 \TMP@EnsureCode{59}{12}% ;
4617 \TMP@EnsureCode{60}{12}% <
4618 \TMP@EnsureCode{61}{12}% =
4619 \TMP@EnsureCode{62}{12}% >
4620 \TMP@EnsureCode{63}{12}% ?
4621 \TMP@EnsureCode{91}{12}% [
4622 \TMP@EnsureCode{93}{12}% ]
4623 \TMP@EnsureCode{94}{7}% ^ (superscript)
4624 \TMP@EnsureCode{95}{8}% _ (subscript)
4625 \TMP@EnsureCode{96}{12}% `
4626 \TMP@EnsureCode{124}{12}% |
4627 \TMP@EnsureCode{126}{13}% ~ (active)
4628 #1\relax
4629 \Hy@EndWrap
4630 }

```

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

```

4631 \Hy@AtBeginDocument{%
4632   \ifHy@ocgcolorlinks
4633     \kvsetkeys{Hyp}{colorlinks}%
4634     \ifHy@pdfa
4635       \Hy@Warning{%
4636         PDF/A: Optional Content Groups are prohibited,\MessageBreak
4637         using `colorlinks' instead of `ocgcolorlinks'%
4638       }%
4639     \Hy@ocgcolorlinksfalse
4640   \fi
4641 \fi
4642 \ifHy@ocgcolorlinks
4643 \else
4644   \Hy@DisableOption{ocgcolorlinks}%

```

```

4645 \fi
4646 \ifHy@colorlinks
4647   \def\@pdfborder{0 0 0}%
4648   \let\@pdfborderstyle\@empty
4649   \Hy@CatcodeWrapper{%
4650     \RequirePackage{color}%
4651   }%
4652   \def\Hy@colorlink#1{%
4653     \begingroup
4654     \HyColor@UseColor#1%
4655   }%
4656   \def\Hy@endcolorlink{\endgroup}%
4657   \Hy@Info{Link coloring ON}%
4658 \else
4659   \ifHy@frenchlinks
4660     \def\Hy@colorlink#1{\begingroup\fontshape{\scdefault}\selectfont}%
4661     \def\Hy@endcolorlink{\endgroup}%
4662     \Hy@Info{French linking ON}%
4663   \else

```

for grouping consistency:

```

4664   \def\Hy@colorlink#1{\begingroup}%
4665   \def\Hy@endcolorlink{\endgroup}%
4666   \Hy@Info{Link coloring OFF}%
4667 \fi
4668 \fi
4669 \Hy@DisableOption{colorlinks}%
4670 \Hy@DisableOption{frenchlinks}%
4671 \ifHy@texht
4672 \else

```

With active links we have to redefine the starred versions to avoid that they get links from the include \@setref:

```

4673 \ifHy@implicit
4674   \let \T@Ref\HyRef@Ref
4675   \def\@refstar#1{%
4676     \NR@ref@showkeys{#1}%
4677     \HyRef@StarSetRef{#1}\@firstoffive
4678   }
4679   \def\@pagerefstar#1{%
4680     \NR@ref@showkeys{#1}%
4681     \HyRef@StarSetRef{#1}\@secondoffive
4682   }
4683   \def\@namerefstar#1{%
4684     \NR@ref@showkeys{#1}%
4685     \HyRef@StarSetRef{#1}\@thirdoffive
4686   }
4687   \def\@Refstar#1{%
4688     \NR@ref@showkeys{#1}%
4689     \HyRef@StarSetRef{#1}\HyRef@MakeUppercaseFirstOfFive
4690   }%
4691 \else
4692 \fi
4693 \fi
4694 }

```



```

4695 \Hy@AtBeginDocument{%
4696 \ifx\ReadBookmarks\relax
4697 \else
4698 \Hy@CatcodeWrapper\ReadBookmarks
4699 \fi
4700 }

4701 \ifHy@backref
4702 \RequirePackage{backref}%
4703 \else
4704 \let\Hy@backout\@gobble
4705 \fi
4706 \Hy@DisableOption{backref}
4707 \Hy@DisableOption{pagebackref}
4708 \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`.

```

4709 \begingroup
4710 \endlinechar=-1 %
4711 \catcode`\^^A=14 %
4712 \catcode`\^^M\active
4713 \catcode`\%\active
4714 \catcode`\#\active
4715 \catcode`\_\active
4716 \catcode`\$\active
4717 \catcode`\&\active
4718 \gdef\hyper@normalise{^^A
4719 \begingroup
4720 \catcode`\^^M\active
4721 \def^^M{ }^^A
4722 \catcode`\%\active
4723 \let%\@percentchar
4724 \let%\@percentchar
4725 \catcode`\#\active
4726 \def#{\hyper@hash}^^A
4727 \def\#{\hyper@hash}^^A
4728 \@makeother\&^^A
4729 \edef&{\string&}^^A
4730 \edef\&{\string&}^^A
4731 \edef\textunderscore{\string_}^^A
4732 \let_\textunderscore
4733 \catcode`\_\active
4734 \let_\textunderscore
4735 \let~\hyper@tilde
4736 \let~\hyper@tilde
4737 \let\textasciitilde\hyper@tilde

```

```

4738 \let\\@backslashchar
4739 \edef$\string$^^A
4740 \Hy@safe@activestrue
4741 \hyper@n@rmalise
4742 }^^A
4743 \catcode`\#=6 ^^A
4744 \gdef\Hy@ActiveCarriageReturn{^^M}^^A
4745 \gdef\hyper@n@rmalise#1#2{^^A
4746 \def\Hy@tempa{#2}^^A
4747 \ifx\Hy@tempa\Hy@ActiveCarriageReturn
4748 \ltx@ReturnAfterElseFi{^^A
4749 \hyper@@normalise{#1}^^A
4750 }^^A
4751 \else
4752 \ltx@ReturnAfterFi{^^A
4753 \hyper@@normalise{#1}{#2}^^A
4754 }^^A
4755 \fi
4756 }^^A
4757 \gdef\hyper@@normalise#1#2{^^A
4758 \edef\Hy@tempa{^^A
4759 \endgroup
4760 \noexpand#1{\Hy@RemovePercentCr#2%^^M\@nil}^^A
4761 }^^A
4762 \Hy@tempa
4763 }^^A
4764 \gdef\Hy@RemovePercentCr#1%^^M#2\@nil{^^A
4765 #1^^A
4766 \ifx\limits#2\limits
4767 \else
4768 \ltx@ReturnAfterFi{^^A
4769 \Hy@RemovePercentCr #2\@nil
4770 }^^A
4771 \fi
4772 }^^A
4773 \endgroup
4774 \providecommand*\hyper@chars{%
4775 \let\#\hyper@hash
4776 \let%\@percentchar
4777 \Hy@safe@activestrue
4778 }

4779 \def\hyperlink#1#2{%
4780 \hyper@@link{}{#1}{#2}%
4781 }

4782 \def\Hy@VerboseLinkStart#1#2{%
4783 \ifHy@verbose
4784 \begingroup
4785 \Hy@safe@activestrue
4786 \xdef\Hy@VerboseGlobalTemp{(#1) `#2'}%
4787 \Hy@Info{Reference \Hy@VerboseGlobalTemp}%
4788 \xdef\Hy@VerboseGlobalTemp{%
4789 \Hy@VerboseGlobalTemp, %
4790 line \the\inputlineno

```

```

4791 }%
4792 \endgroup
4793 \let\Hy@VerboseLinkInfo\Hy@VerboseGlobalTemp
4794 \@onelevel@sanitize\Hy@VerboseLinkInfo
4795 \fi
4796 }

4797 \def\Hy@VerboseLinkInfo{<VerboseLinkInfo>}
4798 \def\Hy@VerboseLinkStop{%
4799 \ifHy@verbose
4800 \begingroup
4801 \edef\x{\endgroup
4802 \write\m@ne{%
4803 Package `hyperref' Info: %
4804 End of reference \Hy@VerboseLinkInfo.%
4805 }%
4806 }%
4807 \x
4808 \fi
4809 }

4810 \def\Hy@VerboseAnchor#1{%
4811 \ifHy@verbose
4812 \begingroup
4813 \Hy@safe@activestruer
4814 \Hy@Info{Anchor ``HyperDestNameFilter{#1}'}%
4815 \endgroup
4816 \fi
4817 }

4818 \def\Hy@AllowHyphens{%
4819 \relax
4820 \ifhmode
4821 \penalty\@M
4822 \hskip\z@skip
4823 \fi
4824 }

4825 \DeclareRobustCommand*\href}[1][]{%
4826 \begingroup
4827 \setkeys{href}{#1}%
4828 \@ifnextchar\bgroup\Hy@href{\hyper@normalise\href@}%
4829 }
4830 \def\Hy@href#1{%
4831 \hyper@normalise\href@
4832 }
4833 \begingroup
4834 \catcode`\$=6 %
4835 \catcode`\#=12 %
4836 \gdef\href@\$1{\expandafter\href@split$1##\}%
4837 \gdef\href@split$1##$2##$3\\$4{%
4838 \hyper@@link{$1}->{$2}->{$4}%
4839 \endgroup
4840 }%
4841 \endgroup

```

Option ‘page’.

```

4842 \define@key{href}{page}{%
4843   \def\Hy@href@page{#1}%
4844 }
4845 \let\Hy@href@page\@empty
4846 \newcount\c@Hy@tempcnt
4847 \def\theHy@tempcnt{\the\c@Hy@tempcnt}
4848 \def\Hy@MakeRemoteAction{%
4849   \ifx\Hy@href@page\@empty
4850     \def\Hy@href@page{0}%
4851   \else
4852     \setcounter{Hy@tempcnt}{\Hy@href@page}%
4853     \ifnum\c@Hy@tempcnt<\@ne
4854       \Hy@Warning{%
4855         Invalid page number (\theHy@tempcnt)\MessageBreak
4856         for remote PDF file.\MessageBreak
4857         Using page 1%
4858       }%
4859     \def\Hy@href@page{0}%
4860   \else
4861     \global\advance\c@Hy@tempcnt\m@ne
4862   \edef\Hy@href@page{\theHy@tempcnt}%
4863   \fi
4864 \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.

```

4865 \ifx\Hy@href@nextactionraw\@empty
4866 \else
4867   \Hy@pdfnewwindowsettrue
4868   \Hy@pdfnewwindowtrue
4869 \fi
4870 }

```

Option ‘pdfremotestartview’.

```

4871 \define@key{href}{pdfremotestartview}{%
4872   \setkeys{Hyp}{pdfremotestartview={#1}}%
4873 }

```

Option ‘pdfnewwindow’.

```

4874 \let\KV@href@pdfnewwindow\KV@Hyp@pdfnewwindow
4875 \let\KV@href@pdfnewwindow@default\KV@Hyp@pdfnewwindow@default

```

Option ‘ismap’.

```

4876 \newif\ifHy@href@ismap
4877 \define@key{href}{ismap}[true]{%
4878   \ltx@ifundefined{Hy@href@ismap#1}{%
4879     \Hy@Error{%
4880       Invalid value (#1) for key `ismap'.\MessageBreak
4881       Permitted values are `true' or `false'.\MessageBreak
4882       Ignoring `ismap'%
4883     }\@ehc
4884   }{%
4885     \csname Hy@href@ismap#1\endcsname
4886   }%
4887 }

```

Option ‘nextactionraw’.

```

4888 \let\Hy@href@nextactionraw\@empty
4889 \define@key{href}{nextactionraw}{%
4890   \edef\Hy@href@nextactionraw{#1}%
4891   \ifx\Hy@href@nextactionraw\@empty
4892     \else
4893     \Hy@Match\Hy@href@nextactionraw{}{%
4894       ~(\HyPat@ObjRef/|<<.*[/S| /].+>>|%
4895       \[( ?\HyPat@ObjRef/|<<.*[/S| /].+>>)+ ?)]$%
4896     }{}{%
4897     \Hy@Warning{Invalid value for `nextactionraw':\MessageBreak
4898     \Hy@href@nextactionraw\MessageBreak
4899     The action is discarded%
4900     }%
4901   }%
4902   \ifx\Hy@href@nextactionraw\@empty
4903     \else
4904     \edef\Hy@href@nextactionraw{/Next \Hy@href@nextactionraw}%
4905   \fi
4906 \fi
4907 }
4908 \def\HyPat@ObjRef/{.+}

```

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

```

4909 \RequirePackage{url}
4910 \let\HyOrg@url\url
4911 \def\Hurl{\begingroup \Url}
4912 \DeclareRobustCommand*\nolinkurl{\hyper@normalise\nolinkurl@}
4913 \def\nolinkurl@#1{\Hurl{#1}}
4914 \DeclareRobustCommand*\url{\hyper@normalise\url@}
4915 \def\url@#1{\hyper@linkurl{\Hurl{#1}}{#1}}
4916 \DeclareRobustCommand*\hyperimage{\hyper@normalise\hyper@image}
4917 \providecommand\hyper@image[2]{#2}
4918 \def\hypertarget#1#2{%
4919   \ifHy@nesting
4920     \hyper@@anchor{#1}{#2}%
4921   \else
4922     \hyper@@anchor{#1}{\relax}#2%
4923   \fi
4924 }

```

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

```

4925 \DeclareRobustCommand*\hyperref{}{%
4926   \@ifnextchar{\Hy@babelnormalise\label@hyperref}\@hyperref
4927 }
4928 \def\Hy@babelnormalise#1[#2]{%
4929   \begingroup

```

```

4930 \Hy@safe@activestru
4931 \let\protect\@unexpandable@protect
4932 \edef\Hy@tempa{%
4933 \endgroup
4934 \noexpand#1[{\#2}]%
4935 }%
4936 \Hy@tempa
4937 }
4938 \def\@hyperref{\hyper@normalise\@hyperref}
4939 \def\@hyperref#1#2#3{%
4940 \edef\ref@one{\ifx\#2\else#2.\fi#3}%
4941 \expandafter\tryhyper@link\ref@one\{#1}%
4942 }
4943 \def\tryhyper@link#1\#2{%
4944 \hyper@@link{#2}{#1}%
4945 }

4946 \def\hyperdef{\@ifnextchar{\label@hyperdef}{\@hyperdef}}
4947 \def\@hyperdef#1#2#3{%, category, name, text
4948 \ifx\#1\%
4949 \def\Hy@AnchorName{#2}%
4950 \else
4951 \def\Hy@AnchorName{#1.#2}%
4952 \fi
4953 \ifHy@nesting
4954 \expandafter\hyper@@anchor\expandafter{\Hy@AnchorName}{#3}%
4955 \else
4956 \expandafter\hyper@@anchor\expandafter{\Hy@AnchorName}{\relax}#3%
4957 \fi
4958 }

We also have a need to give a LATEX label to a hyper reference, to ease the pain of
referring to it later. \hyperrefundefinedlink may be redefined by a user to add
colour or other formatting.

4959 \let\hyperrefundefinedlink\@firstofone
4960 \def\label@hyperref[#1]{%
4961 \expandafter\label@@hyperref\csname r@#1\endcsname{#1}%
4962 }%
4963 \def\label@@hyperref#1#2#3{%
4964 \ifx#1\relax
4965 \protect\G@refundefinedtrue
4966 \@latex@warning{%
4967 Hyper reference `#2' on page \thepage \space undefined%
4968 }%
4969 \begingroup
4970 \hyperrefundefinedlink{#3}%
4971 \endgroup
4972 \else
4973 \hyper@@link{\expandafter\@fifthoffive#1}%
4974 {\expandafter\@fourthoffive#1\@empty\@empty}{#3}%
4975 \fi
4976 }
4977 \def\label@hyperdef[#1]#2#3#4{% label name, category, name,
4978 % anchor text
4979 \@bsphack

```

```

4980 \ifx\#2\%
4981 \def\Hy@AnchorName{#3}%
4982 \else
4983 \def\Hy@AnchorName{#2.#3}%
4984 \fi
4985 \if@filesw
4986 \protected@write\@auxout{}{%
4987 \string\newlabel{#1}{-}{-}{\Hy@AnchorName}{-}}%
4988 }%
4989 \fi
4990 \@esphack
4991 \ifHy@nesting
4992 \expandafter\hyper@@anchor\expandafter{\Hy@AnchorName}{#4}%
4993 \else
4994 \expandafter\hyper@@anchor\expandafter{\Hy@AnchorName}{\relax}#4%
4995 \fi
4996 }

```

`\hyperget` To create manually bookmarks one need the destination name. If there is a label, the name can be retrieved with commands from `refcount`. Such a destination name must take `\HyperDestNameFilter` into account

```
\HyperDestNameFilter{\getrefbykeydefault{label}{anchor}{Doc-Start}}
```

To make this easier, we define `\hyperget`

```

4997 \ExplSyntaxOn
4998 \cs_new:Npn \hyperget #1 #2
4999 {
5000 \use:c { __hyp_get_#1:n } { #2}
5001 }
5002
5003 \cs_new:Npn \__hyp_get_anchor:n #1
5004 {
5005 \HyperDestNameFilter
5006 {
5007 \cs_if_exist:cTF {r@#1}
5008 {
5009 \tl_item:cn {r@#1}{4}
5010 }
5011 {
5012 Doc-Start
5013 }
5014 }
5015 }
5016 \cs_new:Npn \__hyp_get_pageanchor:n #1
5017 {
5018 \HyperDestNameFilter
5019 {
5020 \cs_if_exist:cTF {r@#1}
5021 {
5022 page. \tl_item:cn {r@#1}{2}
5023 }
5024 {
5025 Doc-Start

```

```

5026     }
5027   }
5028 }
5029 \cs_new:Npn \__hyp_get_currentanchor:n #1
5030 {
5031   \HyperDestNameFilter { \@currentHref }
5032 }
5033 \ExplSyntaxOff

```

16.1 Link box support for XeTeX

```

5034 \newdimen\XeTeXLinkMargin
5035 \setlength{\XeTeXLinkMargin}{2pt}
5036 \ifxetex
5037   \font\XeTeXLink@font=pzdr at 1sp\relax
5038   \newcommand*{\XeTeXLink@space}{%
5039     \begingroup
5040       \XeTeXLink@font
5041       \@xxxii
5042     \endgroup
5043   }%
5044   \newcommand{\XeTeXLinkBox}[1]{%
5045     \begingroup
5046       \leavevmode
5047       \sbox\z@{#1}%
5048     \begingroup
5049       \dimen@=\dp\z@
5050       \advance\dimen@\XeTeXLinkMargin
5051       \setbox\tw@=\llap{%
5052         \hb@xt@\XeTeXLinkMargin{%
5053           \lower\dimen@\hbox{\XeTeXLink@space}%
5054         \hss
5055       }%
5056     }%
5057     \dp\tw@=\dp\z@
5058     \ht\tw@=\ht\z@
5059     \copy\tw@
5060   \endgroup
5061   \copy\z@
5062   \dimen@=\ht\z@
5063   \advance\dimen@\XeTeXLinkMargin
5064   \setbox\tw@=\rlap{%
5065     \hb@xt@\XeTeXLinkMargin{%
5066       \hss
5067       \raise\dimen@\hbox{\XeTeXLink@space}%
5068     }%
5069   }%
5070   \dp\tw@=\dp\z@
5071   \ht\tw@=\ht\z@
5072   \copy\tw@
5073 \endgroup
5074 }%
5075 \else
5076 \newcommand*{\XeTeXLinkBox}[1]{%

```



```

5077 \begingroup
5078 \leavevmode
5079 \sbox\z@{\#1}%
5080 \copy\z@
5081 \endgroup
5082 }%
5083 \fi

```

17 Underlying basic hypertext macros

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

```

5084 \def\hyper@@link{\let\Hy@reserved@a\relax
5085 \ifnextchar[{\hyper@link@}{\hyper@link@[link]}%
5086 }
5087 % #1: type
5088 % #2: URL
5089 % #3: destination name
5090 % #4: text
5091 \def\hyper@link@[#1]#2#3#4{%
5092 \ltx@ifempty{#4}{% link text
5093 \Hy@Warning{Suppressing empty link}%
5094 }{%
5095 \begingroup
5096 \protected@edef\Hy@tempa{#2}%
5097 \edef\Hy@tempb{#3}%
5098 \ifx\Hy@tempa\ltx@empty
5099 \ifx\Hy@tempb\ltx@empty
5100 \Hy@Warning{Suppressing link with empty target}%
5101 \toks@{%
5102 \endgroup
5103 \ltx@secondoftwo
5104 }%
5105 \else
5106 \toks@{%
5107 \endgroup
5108 \hyper@link{#1}%
5109 }%
5110 \fi
5111 \else
5112 \toks@{%
5113 \endgroup
5114 \expandafter\hyper@readexternallink#2\{\#1}%
5115 }%
5116 \fi
5117 \Hy@safe@activesfalse
5118 \toks@\expandafter{%
5119 \the\expandafter\toks@
5120 \expandafter{\Hy@tempb}{#4}%
5121 }%
5122 \the\toks@
5123 }%

```

```
5124 }
```

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.

```
5125 \def\hyper@readexternallink#1\|#2#3#4{%
5126   \begingroup
5127   \let\\\relax
5128   \expandafter\endgroup
5129   \expandafter\@hyper@\@readexternallink#1\#{#2}\#{#3}\#{#4}%
5130 }
5131 \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.

```
5132 \@hyper@readexternallink{#2}\#{#3}\#{#4}\#1::\#{#1}%
5133 }
```

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

```
5134 \def\@pdfwordfile{file}%
5135 \def\@pdfwordrun{run}%
5136 \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:

```
5137 \ifx\|#6\|
5138   \@hyper@linkfile file:#7\#{#3}\#{#2}\#{#7}%
5139 \else
5140   \ifx\|#4\|
5141     \@hyper@linkfile file:#7\#{#3}\#{#2}\#{#7}%
5142   \else
```

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

```
5143   \def\@pdftempa{#4}%
5144   \ifx\@pdftempa\@pdfwordfile
5145     \@hyper@linkfile#7\#{#3}\#{#2}\#{#7}%
5146   \else
```

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

```
5147 \ifx\@pdftempa\@pdftempwordrun
5148 \ifHy@pdfa
5149 \Hy@Error{%
5150 PDF/A: Launch action is prohibited%
5151 }\@ehc
5152 \begingroup
5153 \leavevmode
5154 #2%
5155 \endgroup
5156 \else
5157 \@hyper@launch#7\#{#3}{#2}%
5158 \fi
5159 \else
```

otherwise its a URL

```
5160 \hyper@linkurl{#3}{#7\ifx\#2\else\hyper@hash#2\fi}%
5161 \fi
5162 \fi
5163 \fi
5164 \fi
5165 }
```

By default, turn run: into file:

```
5166 \def\@hyper@launch run:#1\#2#3{% filename, anchor text, linkname
5167 \hyper@linkurl{#2}{%
5168 \Hy@linkfileprefix
5169 #1%
5170 \ifx\#3\%
5171 \else
5172 \hyper@hash
5173 #3%
5174 \fi
5175 }%
5176 }
```

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

```
5177 \def\@hyper@linkfile file:#1\#2#3#4{%
5178 %file url,link string, name, original uri
5179 \filename@parse{#1}%
5180 \ifx\filename@ext\relax
5181 \edef\filename@ext{\XR@ext}%
5182 \fi
5183 \def\use@file{\filename@area\filename@base.\filename@ext}%
5184 \Hy@ifStringEndsWith\filename@ext\XR@ext{%
5185 \hyper@linkfile{#2}{\use@file}{#3}%
5186 }{%
5187 \ifx\@baseurl\empty
5188 \hyper@linkurl{#2}{%
5189 #4\ifx\#3\else\hyper@hash#3\fi
5190 }%
5191 \else
5192 \hyper@linkurl{#2}{\use@file\ifx\#3\else\hyper@hash#3\fi}%
5193 \fi
```

```

5194 }%
5195 }

5196 \def\Hy@ifStringEndsWith#1#2{%
5197 \begingroup
5198 \edef\x{#1}%
5199 \@onelevel@sanitize\x
5200 \edef\x{. \x$}%
5201 \edef\y{#2}%
5202 \@onelevel@sanitize\y
5203 \edef\y{. \y$}%
5204 \expandafter\def\expandafter\z\expandafter##\expandafter1\y##2\@nil{%
5205 \endgroup
5206 \ifx\relax##2\relax
5207 \expandafter\ltx@secondoftwo
5208 \else
5209 \expandafter\ltx@firstoftwo
5210 \fi
5211 }%
5212 \expandafter\expandafter\expandafter\z\expandafter\x\y\@nil
5213 }

5214 \def\Hy@StringLocalhost{localhost}
5215 \@onelevel@sanitize\Hy@StringLocalhost
5216 \def\Hy@CleanupFile#1{%
5217 \edef#1{#1}%
5218 \expandafter\Hy@@CleanupFile#1\hbox///\hbox\@nil{#1}%
5219 }
5220 \def\Hy@@CleanupFile#1//#2/#3\hbox#4\@nil#5{%
5221 \begingroup
5222 \toks@{\endgroup}%
5223 \def\x{#1}%
5224 \ifx\x\@empty
5225 \def\x{#2}%
5226 \ifx\x\@empty
5227 \toks@{\endgroup\def#5{/#3}}%
5228 \else
5229 \@onelevel@sanitize\x
5230 \ifx\x\Hy@StringLocalhost
5231 \toks@{\endgroup\def#5{/#3}}%
5232 \fi
5233 \fi
5234 \fi
5235 \the\toks@
5236 }

```

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.

```

5237 \long\def\hyper@@anchor#1#2{\@hyper@@anchor#1\relax#2\relax}
5238 \long\def\@hyper@@anchor#1\relax#2#3\relax{%

```

```

5239 \ifx\#1\%
5240   #2\Hy@Warning{Ignoring empty anchor}%
5241 \else
5242   \def\anchor@spot{#2#3}%
5243   \let\put@me@back\@empty
5244   \ifx\relax#2\relax
5245   \else
5246     \ifHy@nesting
5247     \else
5248       \ifcat a\noexpand#2\relax
5249       \else
5250         \ifcat 0\noexpand#2 \relax
5251         \else
5252           \typeout{Anchor start is not alphanumeric %
5253             on input line\the\inputlineno%
5254           }%
5255           \let\anchor@spot\@empty
5256           \def\put@me@back{#2#3}%
5257         \fi
5258       \fi
5259     \fi
5260   \fi
5261   \ifHy@activeanchor
5262     \anchor@spot
5263   \else
5264     \hyper@anchor{#1}%
5265   \fi
5266   \expandafter\put@me@back
5267 \fi
5268 \let\anchor@spot\@empty
5269 }
5270 \let\anchor@spot\ltx@empty

```

18 Option ‘destlabel’

```

5271 \ifHy@destlabel

\hyper@newdestlabel

5272 \def\hyper@newdestlabel#1#2{%
5273   \begingroup
5274   \Hy@safe@activetrue
5275   \edef\x{\endgroup
5276     \noexpand\@newl@bel{HyDL}{#1}{#2}%
5277   }%
5278   \x
5279 }%

\hyper@destlabel@hook

5280 \providecommand*\hyper@destlabel@hook{}%

\Hy@DestRename

5281 \newcommand*\Hy@DestRename}[2]{%
5282   \ltx@ifundefined{HyDL!#1}{%

```

```

5283 \begingroup
5284 \Hy@safe@activetrue
5285 \edef\dest@name{#1}%
5286 \edef\label@name{#2}%
5287 \hyper@destlabel@hook
5288 \Hy@IsNotEmpty{dest@name}{%
5289 \Hy@IsNotEmpty{label@name}{%
5290 \global\expandafter
5291 \let\csname HyDL!#1\endcsname\ltx@empty
5292 \if@filesw
5293 \protected@write\@auxout{}{%
5294 \string\hyper@newdestlabel
5295 {#1}%
5296 {\label@name}%
5297 }%
5298 \fi
5299 }%
5300 }%
5301 \endgroup
5302 }{}%
5303 }%

```

\HyperDestRename

```

5304 \newcommand*{\HyperDestRename}[2]{%
5305 \AtBeginDocument{%
5306 \Hy@DestRename{#1}{#2}%
5307 }%
5308 }%
5309 \AtBeginDocument{%
5310 \let\HyperDestRename\Hy@DestRename
5311 }%

```

\Hy@IsNotEmpty

```

5312 \def\Hy@IsNotEmpty#1{%
5313 \ltx@ifundefined{#1}\ltx@gobble{%
5314 \expandafter\ifx\csname#1\endcsname\ltx@empty
5315 \expandafter\ltx@gobble
5316 \else
5317 \expandafter\ltx@firstofone
5318 \fi
5319 }%
5320 }%

5321 \ltx@GlobalAppendToMacro\label@hook{%
5322 \HyperDestRename\@currentHref\label@name
5323 }%

```

\HyperDestLabelReplace

```

5324 \def\HyperDestLabelReplace#1{%
5325 \ltx@ifundefined{HyDL@#1}{%
5326 #1%
5327 }{}%
5328 \csname HyDL@#1\endcsname
5329 }%
5330 }%

```

```

\HyperDestNameFilter
5331 \let\HyperDestNameFilter\HyperDestLabelReplace
5332 \else

```

```

\hyper@newdestlabel
5333 \let\hyper@newdestlabel\ltx@gobbletwo

```

```

\HyperDestLabelReplace
5334 \let\HyperDestLabelReplace\ltx@firstofone

```

```

\HyperDestRename
5335 \let\HyperDestRename\ltx@gobbletwo

5336 \fi
5337 \Hy@DisableOption{destlabel}

```

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

```

5338 \AddToHook{include/before}
5339 {\immediate\write\@partaux{\string\providecommand\string\hyper@newdest-
label[2]{}}
5340 \AddToHook{begindocument}
5341 {\immediate\write\@mainaux{\string\providecommand\string\hyper@newdest-
label[2]{}}

```

19 Forms creation

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

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

19.1 Field flags

The field flags are organized in a bit set.

```

5342 \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
5343 \def\HyField@NewFlag#1#2{%
5344 \lowercase{\HyField@NewOption{#2}}%
5345 \lowercase{\HyField@NewBitsetFlag{#2}}{#2}{#1}%
5346 }

```

`\HyField@NewFlagOnly`

```
5347 \def\HyField@NewFlagOnly#1#2{%
5348 \lowercase{\HyField@NewBitsetFlag{#2}}{#2}{#1}%
5349 }
```

`\HyField@NewOption #1: option name`

```
5350 \def\HyField@NewOption#1{%
5351 \expandafter\newif\csname ifFld@#1\endcsname
5352 \define@key{Field}{#1}[true]{%
5353 \lowercase{\Field@boolkey{##1}}{#1}%
5354 }%
5355 }
```

`\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`

```
5356 \def\HyField@NewBitsetFlag#1#2#3#4{%
5357 \begingroup
5358 \count@=#4\relax
5359 \advance\count@\m@ne
5360 \def\x##1{%
5361 \endgroup
5362 \expandafter\def\csname HyField@#3@#1\endcsname{##1}%
5363 \expandafter\ifx\csname HyField@#3@##1\endcsname\relax
5364 \expandafter\edef\csname HyField@#3@##1\endcsname{%
5365 (\number#4) #2%
5366 }%
5367 \else
5368 \expandafter\edef\csname HyField@#3@##1\endcsname{%
5369 \csname HyField@#3@##1\endcsname
5370 /#2%
5371 }%
5372 \fi
5373 }%
5374 \expandafter\x\expandafter{\the\count@}%
5375 }
```

`\HyField@UseFlag` The bit set is `HyField@#1`

```
5376 \def\HyField@UseFlag#1#2{%
5377 \lowercase{\HyField@@UseFlag{#2}}{#1}%
5378 }
```

`\HyField@@UseFlag`

```
5379 \def\HyField@@UseFlag#1#2{%
5380 \bitsetSetValue{HyField@#2}{%
5381 \csname HyField@#2@#1\endcsname
5382 }{%
5383 \csname ifFld@#1\endcsname 1\else 0\fi
5384 }%
5385 }
```



```

\HyField@SetFlag The bit set is HyField@#1
5386 \def\HyField@SetFlag#1#2{%
5387 \lowercase{\HyField@@SetFlag{#2}}{#1}%
5388 }

```

```

\HyField@@SetFlag
5389 \def\HyField@@SetFlag#1#2{%
5390 \bitsetSetValue{HyField@#2}{%
5391 \csname HyField@#2@#1\endcsname
5392 }{1}%
5393 }

```

```

\HyField@PrintFlags
5394 \def\HyField@PrintFlags#1#2{%
5395 \ifHy@verbose
5396 \begingroup
5397 \let\Hy@temp\@empty
5398 \let\MessageBreak\relax
5399 \expandafter\@for\expandafter\x\expandafter:\expandafter=%
5400 \bitsetGetSetBitList{HyField@#1}\do{%
5401 \edef\Hy@temp{%
5402 \Hy@temp
5403 \csname HyField@#1@\x\endcsname\MessageBreak
5404 }%
5405 }%
5406 \edef\x{\endgroup
5407 \noexpand\Hy@Info{%
5408 Field flags: %
5409 \expandafter\ifx\@car#1\@nil S\else/\fi
5410 #1 %
5411 \bitsetGetDec{HyField@#1} %
5412 (0x\bitsetGetHex{HyField@#1}{32})\MessageBreak
5413 \Hy@temp
5414 for #2%
5415 }%
5416 }\x
5417 \fi
5418 }

```

19.1.1 Declarations of field flags

“Table 8.70 Field flags common to all field types”

```

5419 \HyField@NewFlag{Ff}{ReadOnly}{1}
5420 \HyField@NewFlag{Ff}{Required}{2}
5421 \HyField@NewFlag{Ff}{NoExport}{3}

```

“Table 8.75 Field flags specific to button fields”

```

5422 \HyField@NewFlag{Ff}{NoToggleToOff}{15}
5423 \HyField@NewFlag{Ff}{Radio}{16}
5424 \HyField@NewFlag{Ff}{Pushbutton}{17}
5425 \HyField@NewFlag{Ff}{RadiosInUnison}{26}

```

“Table 8.77 Field flags specific to text fields”

```

5426 \HyField@NewFlag{Ff}{Multiline}{13}

```

```

5427 \HyField@NewFlag{Ff}{Password}{14}
5428 \HyField@NewFlag{Ff}{FileSelect}{21}% PDF 1.4
5429 \HyField@NewFlag{Ff}{DoNotSpellCheck}{23}% PDF 1.4
5430 \HyField@NewFlag{Ff}{DoNotScroll}{24}% PDF 1.4
5431 \HyField@NewFlag{Ff}{Comb}{25}% PDF 1.4
5432 \HyField@NewFlag{Ff}{RichText}{26}% PDF 1.5

```

“Table 8.79 field flags specific to choice fields”

```

5433 \HyField@NewFlag{Ff}{Combo}{18}
5434 \HyField@NewFlag{Ff}{Edit}{19}
5435 \HyField@NewFlag{Ff}{Sort}{20}
5436 \HyField@NewFlag{Ff}{MultiSelect}{22}% PDF 1.4
5437 % \HyField@NewFlag{Ff}{DoNotSpellCheck}{23}% PDF 1.4
5438 \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.

```

5439 \newif\ifFld@popdown
5440 \define@key{Field}{popdown}{true}{%
5441   \lowercase{\Field@boolkey{#1}}{popdown}%
5442 }

```

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.

```

5443 \HyField@NewFlag{F}{Invisible}{1}
5444 \HyField@NewFlag{F}{Hidden}{2}% PDF 1.2
5445 \HyField@NewFlag{F}{Print}{3}% PDF 1.2
5446 \HyField@NewFlag{F}{NoZoom}{4}% PDF 1.2
5447 \HyField@NewFlag{F}{NoRotate}{5}% PDF 1.3
5448 \HyField@NewFlag{F}{NoView}{6}% PDF 1.3
5449 \HyField@NewFlag{F}{Locked}{8}% PDF 1.4
5450 \HyField@NewFlag{F}{ToggleNoView}{9}% PDF 1.5
5451 \HyField@NewFlag{F}{LockedContents}{10}% PDF 1.7

5452 \ifHy@pdfa
5453   \def\HyField@PDFAFFlagWarning#1#2{%
5454     \Hy@Warning{%
5455       PDF/A: Annotation flag `#1' must\MessageBreak
5456       be set to `#2'%
5457     }%
5458   }%
5459   \Fld@invisiblefalse
5460   \def\Fld@invisibletrue{%
5461     \HyField@PDFAFFlagWarning{invisible}{false}%
5462   }%
5463   \Fld@hiddenfalse
5464   \def\Fld@hiddentrue{%
5465     \HyField@PDFAFFlagWarning{hidden}{false}%
5466   }%
5467   \Fld@printtrue
5468   \def\Fld@printfalse{%

```

```

5469 \HyField@PDFAFIagWarning{print}{true}%
5470 }%
5471 \Fld@nozoomtrue
5472 \def\Fld@nozoomfalse{%
5473 \HyField@PDFAFIagWarning{nozoom}{true}%
5474 }%
5475 \Fld@norotatetrue
5476 \def\Fld@norotatefalse{%
5477 \HyField@PDFAFIagWarning{norotate}{true}%
5478 }%
5479 \Fld@noviewfalse
5480 \def\Fld@noviewtrue{%
5481 \HyField@PDFAFIagWarning{noview}{false}%
5482 }%
5483 \fi

```

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

```

5484 \HyField@NewFlag{Submit}{IncludeNoValueFields}{2}
5485 \HyField@NewFlagOnly{Submit}{ExportFormat}{3}
5486 \HyField@NewFlag{Submit}{GetMethod}{4}
5487 \HyField@NewFlag{Submit}{SubmitCoordinates}{5}
5488 \HyField@NewFlagOnly{Submit}{XFDF}{6}
5489 \HyField@NewFlag{Submit}{IncludeAppendSaves}{7}
5490 \HyField@NewFlag{Submit}{IncludeAnnotations}{8}
5491 \HyField@NewFlagOnly{Submit}{SubmitPDF}{9}
5492 \HyField@NewFlag{Submit}{CanonicalFormat}{10}
5493 \HyField@NewFlag{Submit}{ExclNonUserAnnots}{11}
5494 \HyField@NewFlag{Submit}{ExclFKey}{12}
5495 \HyField@NewFlag{Submit}{EmbedForm}{14}
5496 \define@key{Field}{export}{%
5497 \lowercase{\def\Hy@temp{#1}}%
5498 \@ifundefined{Fld@export@\Hy@temp}{%
5499 \@onelevel@sanitize\Hy@temp
5500 \Hy@Error{%
5501 Unknown export format ` \Hy@temp'.\MessageBreak
5502 Known formats are `FDF', `HTML', `XFDF', and `PDF'%
5503 }\@ehc
5504 }%
5505 \let\Fld@export\Hy@temp
5506 }%
5507 }
5508 \def\Fld@export{fdf}
5509 \@namedef{Fld@export@fdf}{0}%
5510 \@namedef{Fld@export@html}{1}%
5511 \@namedef{Fld@export@xfdf}{2}%
5512 \@namedef{Fld@export@pdf}{3}%

```

19.1.2 Set submit flags

\HyField@FlagsSubmit

```

5513 \def\HyField@FlagsSubmit{%
5514 \bitsetReset{HyField@Submit}%
5515 \ifcase\@nameuse{Fld@export@\Fld@export} %

```

```

5516 % FDF
5517 \HyField@UseFlag{Submit}{IncludeNoValueFields}%
5518 \HyField@UseFlag{Submit}{SubmitCoordinates}%
5519 \HyField@UseFlag{Submit}{IncludeAppendSaves}%
5520 \HyField@UseFlag{Submit}{IncludeAnnotations}%
5521 \HyField@UseFlag{Submit}{CanonicalFormat}%
5522 \HyField@UseFlag{Submit}{ExclNonUserAnnots}%
5523 \HyField@UseFlag{Submit}{ExclFKey}%
5524 \HyField@UseFlag{Submit}{EmbedForm}%
5525 \or % HTML
5526 \HyField@SetFlag{Submit}{ExportFormat}%
5527 \HyField@UseFlag{Submit}{IncludeNoValueFields}%
5528 \HyField@UseFlag{Submit}{GetMethod}%
5529 \HyField@UseFlag{Submit}{SubmitCoordinates}%
5530 \HyField@UseFlag{Submit}{CanonicalFormat}%
5531 \or % XFDF
5532 \HyField@SetFlag{Submit}{XFDF}%
5533 \HyField@UseFlag{Submit}{IncludeNoValueFields}%
5534 \HyField@UseFlag{Submit}{SubmitCoordinates}%
5535 \HyField@UseFlag{Submit}{CanonicalFormat}%
5536 \or % PDF
5537 \HyField@SetFlag{Submit}{SubmitPDF}%
5538 \HyField@UseFlag{Submit}{GetMethod}%
5539 \fi
5540 \HyField@PrintFlags{Submit}{submit button field}%
5541 \bitsetIsEmpty{HyField@Submit}{%
5542 \let\Fld@submitflags\tx@empty
5543 }{%
5544 \edef\Fld@submitflags{/Flags \bitsetGetDec{HyField@Submit}}%
5545 }%
5546 }

```

19.1.3 Set annot flags in fields

\HyField@FlagsAnnot

```

5547 \def\HyField@FlagsAnnot#1{%
5548 \bitsetReset{HyField@F}%
5549 \HyField@UseFlag{F}{Invisible}%
5550 \HyField@UseFlag{F}{Hidden}%
5551 \HyField@UseFlag{F}{Print}%
5552 \HyField@UseFlag{F}{NoZoom}%
5553 \HyField@UseFlag{F}{NoRotate}%
5554 \HyField@UseFlag{F}{NoView}%
5555 \HyField@UseFlag{F}{Locked}%
5556 \HyField@UseFlag{F}{ToggleNoView}%
5557 \HyField@UseFlag{F}{LockedContents}%
5558 \HyField@PrintFlags{F}{#1}%
5559 \bitsetIsEmpty{HyField@F}{%
5560 \let\Fld@annotflags\tx@empty
5561 }{%
5562 \edef\Fld@annotflags{/F \bitsetGetDec{HyField@F}}%
5563 }%
5564 }

```

19.1.4 Pushbutton field

`\HyField@FlagsPushButton`

```
5565 \def\HyField@FlagsPushButton{%
5566 \HyField@FlagsAnnot{push button field}%
5567 \bitsetReset{HyField@Ff}%
5568 \HyField@UseFlag{Ff}{ReadOnly}%
5569 \HyField@UseFlag{Ff}{Required}%
5570 \HyField@UseFlag{Ff}{NoExport}%
5571 \HyField@SetFlag{Ff}{PushButton}%
5572 \HyField@PrintFlags{Ff}{push button field}%
5573 \bitsetIsEmpty{HyField@Ff}{%
5574 \let\Fld@flags\ltx@empty
5575 }{%
5576 \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5577 }%
5578 }
```

19.1.5 Check box field

`\HyField@FlagsCheckBox`

```
5579 \def\HyField@FlagsCheckBox{%
5580 \HyField@FlagsAnnot{check box field}%
5581 \bitsetReset{HyField@Ff}%
5582 \HyField@UseFlag{Ff}{ReadOnly}%
5583 \HyField@UseFlag{Ff}{Required}%
5584 \HyField@UseFlag{Ff}{NoExport}%
5585 \HyField@PrintFlags{Ff}{check box field}%
5586 \bitsetIsEmpty{HyField@Ff}{%
5587 \let\Fld@flags\ltx@empty
5588 }{%
5589 \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5590 }%
5591 }
```

19.1.6 Radio button field

`\HyField@FlagsRadioButton`

```
5592 \def\HyField@FlagsRadioButton{%
5593 \HyField@FlagsAnnot{radio button field}%
5594 \bitsetReset{HyField@Ff}%
5595 \HyField@UseFlag{Ff}{ReadOnly}%
5596 \HyField@UseFlag{Ff}{Required}%
5597 \HyField@UseFlag{Ff}{NoExport}%
5598 \HyField@UseFlag{Ff}{NoToggleToOff}%
5599 \HyField@SetFlag{Ff}{Radio}%
5600 \HyField@UseFlag{Ff}{RadiosInUnison}%
5601 \HyField@PrintFlags{Ff}{radio button field}%
5602 \bitsetIsEmpty{HyField@Ff}{%
5603 \let\Fld@flags\ltx@empty
5604 }{%
5605 \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5606 }%
5607 }
```

19.1.7 Text fields

`\HyField@FlagsText`

```
5608 \def\HyField@FlagsText{%
5609   \HyField@FlagsAnnot{text field}%
5610   \bitsetReset{HyField@Ff}%
5611   \HyField@UseFlag{Ff}{ReadOnly}%
5612   \HyField@UseFlag{Ff}{Required}%
5613   \HyField@UseFlag{Ff}{NoExport}%
5614   \HyField@UseFlag{Ff}{Multiline}%
5615   \HyField@UseFlag{Ff}{Password}%
5616   \HyField@UseFlag{Ff}{FileSelect}%
5617   \HyField@UseFlag{Ff}{DoNotSpellCheck}%
5618   \HyField@UseFlag{Ff}{DoNotScroll}%
5619   \ifFld@comb
5620     \ifcase0\ifFld@multiline
5621       \else\ifFld@password
5622       \else\ifFld@fileselect
5623       \else 1\fi\fi\fi\relax
5624     \Hy@Error{%
5625       Field option `comb' cannot be used together with\MessageBreak
5626       `multiline', `password', or `fileselect'%
5627     }@\ehc
5628   \else
5629     \HyField@UseFlag{Ff}{Comb}%
5630   \fi
5631 \fi
5632 \HyField@UseFlag{Ff}{RichText}%
5633 \HyField@PrintFlags{Ff}{text field}%
5634 \bitsetIsEmpty{HyField@Ff}{%
5635   \let\Fld@flags\tx@empty
5636 }{%
5637   \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5638 }%
5639 }
```

19.1.8 Choice fields

`\HyField@FlagsChoice`

```
5640 \def\HyField@FlagsChoice{%
5641   \HyField@FlagsAnnot{choice field}%
5642   \bitsetReset{HyField@Ff}%
5643   \HyField@UseFlag{Ff}{ReadOnly}%
5644   \HyField@UseFlag{Ff}{Required}%
5645   \HyField@UseFlag{Ff}{NoExport}%
5646   \HyField@UseFlag{Ff}{Combo}%
5647   \ifFld@combo
5648     \HyField@UseFlag{Ff}{Edit}%
5649   \fi
5650   \HyField@UseFlag{Ff}{Sort}%
5651   \HyField@UseFlag{Ff}{MultiSelect}%
5652   \ifFld@combo
5653     \ifFld@edit
5654     \HyField@UseFlag{Ff}{DoNotSpellCheck}%
5655   \fi
5656 }
```

```

5655 \fi
5656 \fi
5657 \HyField@UseFlag{Ff}{CommitOnSelChange}%
5658 \HyField@PrintFlags{Ff}{choice field}%
5659 \bitsetIsEmpty{HyField@Ff}{%
5660 \let\Fld@flags\ltx@empty
5661 }{%
5662 \edef\Fld@flags{/Ff \bitsetGetDec{HyField@Ff}}%
5663 }%
5664 }

```

19.2 Choice field

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

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

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

```

5665 \def\HyField@PDFChoices#1{%
5666 \begingroup
5667 \global\let\Fld@choices\ltx@empty
5668 \let\HyTmp@optlist\ltx@empty
5669 \let\HyTmp@optitem\relax
5670 \count@=0 %
5671 \kv@parse{#1}{%
5672 \Hy@pdfstringdef\kv@key\kv@key
5673 \ifx\kv@value\relax
5674 \ifnum\Hy@pdf@majorminor@version<103 % implementation note 122, PDF spec 1.7
5675 \xdef\Fld@choices{\Fld@choices(\kv@key)(\kv@key)}%
5676 \else
5677 \xdef\Fld@choices{\Fld@choices(\kv@key)}%
5678 \fi
5679 \else
5680 \Hy@pdfstringdef\kv@value\kv@value
5681 \xdef\Fld@choices{\Fld@choices(\kv@value)(\kv@key)}%
5682 \fi
5683 \edef\HyTmp@optlist{%
5684 \HyTmp@optlist
5685 \HyTmp@optitem{\the\count@}{\kv@key}0%
5686 }%
5687 \advance\count@ by 1 %
5688 \@gobbletwo
5689 }%
5690 \xdef\Fld@choices{/Opt[\Fld@choices]}%
5691 \ifFld@multiselect
5692 \HyField@@PDFChoices{DV}\Fld@default
5693 \HyField@@PDFChoices{V}\Fld@value
5694 \else
5695 \ifx\Fld@default\relax
5696 \else
5697 \pdfstringdef\Hy@gtmp\Fld@default
5698 \xdef\Fld@choices{\Fld@choices/DV(\Hy@gtmp)}%
5699 \fi
5700 \ifx\Fld@value\relax

```

```

5701 \else
5702 \pdfstringdef\Hy@temp\Fld@value
5703 \xdef\Fld@choices{\Fld@choices/V(\Hy@temp)}%
5704 \fi
5705 \fi
5706 \endgroup
5707 }

```

\HyField@@PDFChoices

```

5708 \def\HyField@@PDFChoices#1#2{%
5709 \ifx#2\relax
5710 \else
5711 \count@=0 %
5712 \def\HyTmp@optitem##1##2##3{%
5713 \def\HyTmp@key{##2}%
5714 \ifx\HyTmp@key\Hy@temp
5715 \expandafter\def\expandafter\HyTmp@optlist\expandafter{%
5716 \HyTmp@optlist
5717 \HyTmp@optitem{##1}{##2}1%
5718 }%
5719 \let\HyTmp@found=Y%
5720 \else
5721 \expandafter\def\expandafter\HyTmp@optlist\expandafter{%
5722 \HyTmp@optlist
5723 \HyTmp@optitem{##1}{##2}##3%
5724 }%
5725 \fi
5726 }%
5727 \expandafter\comma@parse\expandafter{#2}{%
5728 \pdfstringdef\Hy@temp\comma@entry
5729 \let\HyTmp@found=N %
5730 \expandafter\let\expandafter\HyTmp@optlist\expandafter\@empty
5731 \HyTmp@optlist
5732 \ifx\HyTmp@found Y%
5733 \advance\count@ by 1 %
5734 \else
5735 \@onelevel@sanitize\comma@entry
5736 \PackageWarning{hyperref}{%
5737 \string\ChoiceBox: Ignoring value `\'comma@entry',%
5738 \MessageBreak
5739 it cannot be found in the choices%
5740 }%
5741 \fi
5742 \@gobble
5743 }%
5744 \def\HyTmp@optitem##1##2##3{%
5745 \ifnum##3=1 %
5746 (##2)%
5747 \fi
5748 }%
5749 \ifcase\count@
5750 \or
5751 \xdef\Fld@choices{\Fld@choices/#1\HyTmp@optlist}%
5752 \else

```



```

5753 \xdef\Fld@choices{\Fld@choices/#1[\HyTmp@optlist]}%
5754 \ifx#1V%
5755 \def\HyTmp@optitem##1##2##3{%
5756 \ifnum##3=1 %
5757 \@firstofone{ ##1}%
5758 \fi
5759 }%
5760 \edef\HyTmp@optlist{\HyTmp@optlist}%
5761 \xdef\Fld@choices{%
5762 \Fld@choices
5763 /I\expandafter\@firstofone\HyTmp@optlist}%
5764 }%
5765 \fi
5766 \fi
5767 \fi
5768 }

```

19.3 Forms

\HyField@SetKeys

```

5769 \def\HyField@SetKeys{%
5770 \kvsetkeys{Field}%
5771 }

5772 \newif\ifFld@checked
5773 \newif\ifFld@disabled
5774 \Fld@checkedfalse
5775 \Fld@disabledfalse
5776 \newcount\Fld@menulength
5777 \newdimen\Fld@Width
5778 \newdimen\Fld@charsize
5779 \Fld@charsize=10\p@
5780 \def\Fld@maxlen{0}
5781 \def\Fld@align{0}
5782 \def\Fld@color{0 0 0 rg}
5783 \def\Fld@bcolor{1 1 1}
5784 \def\Fld@bordercolor{1 0 0}
5785 \def\Fld@bordersep{1\p@}
5786 \def\Fld@borderwidth{1}
5787 \def\Fld@borderstyle{S}
5788 \def\Fld@cbsymbol{4}
5789 \def\Fld@radiosymbol{H}
5790 \def\Fld@rotation{0}
5791 \def\Fld@Form{\@ifnextchar[{\@Form}{\@Form[]}}
5792 \def\endForm{\@endForm}
5793 \newif\ifForm@html
5794 \Form@htmlfalse
5795 \def\Fld@boolkey#1#2{%
5796 \csname Form@#2\ifx\relax#1\relax true\else#1\fi\endcsname
5797 }
5798 \define@key{Form}{action}{%
5799 \hyper@normalise\Hy@DefFormAction{#1}%
5800 }
5801 \def\Hy@DefFormAction{\def\Fld@action}

```

```

5802 \def\enc@html{html}
5803 \define@key{Form}{encoding}{%
5804   \def\Hy@tempa{#1}%
5805   \ifx\Hy@tempa\enc@html
5806     \Form@htmltrue
5807     \def\Fld@export{html}%
5808   \else
5809     \Hy@Warning{%
5810       Form `encoding' key with \MessageBreak
5811       unknown value `#1'%
5812     }%
5813   \Form@htmlfalse
5814 \fi
5815 }
5816 \define@key{Form}{method}{%
5817   \lowercase{\def\Hy@temp{#1}}%
5818   \@ifundefined{Form@method@\Hy@temp}{%
5819     \@onelevel@sanitize\Hy@temp
5820     \Hy@Error{%
5821       Unknown method ``\Hy@temp'.\MessageBreak
5822       Known values are `post' and `get'%
5823     } \@ehc
5824   }{%
5825     \let\Form@method\Hy@temp
5826     \ifcase\@nameuse{Form@method@\Hy@temp} %
5827       \Fld@getmethodfalse
5828     \else
5829       \Fld@getmethodtrue
5830     \fi
5831   }%
5832 }
5833 \def\Form@method{}
5834 \@namedef{Form@method@post}{0}
5835 \@namedef{Form@method@get}{1}
5836 \newif\ifHyField@NeedAppearances
5837 \def\HyField@NeedAppearancesfalse{%
5838   \global\let\ifHyField@NeedAppearances\iffalse
5839 }
5840 \def\HyField@NeedAppearancetrue{%
5841   \global\let\ifHyField@NeedAppearances\iftrue
5842 }
5843 \HyField@NeedAppearancetrue
5844 \define@key{Form}{NeedAppearances}[true]{%
5845   \edef\Hy@tempa{#1}%
5846   \ifx\Hy@tempa\Hy@true
5847     \HyField@NeedAppearancetrue
5848   \else
5849     \ifx\Hy@tempa\Hy@false
5850       \HyField@NeedAppearancesfalse
5851     \else
5852       \Hy@Error{%
5853         Unexpected value ``\Hy@tempa'.\MessageBreak
5854         of option `NeedAppearances' instead of\MessageBreak
5855         `true' or `false'%

```

```

5856     }\@ehc
5857     \fi
5858     \fi
5859 }
5860 \def\Field@boolkey#1#2{%
5861   \csname Fld@#2\ifx\relax#1\relax true\else#1\fi\endcsname
5862 }
5863 \ifHy@texht
5864   \newtoks\Field@toks
5865   \Field@toks={ }%
5866   \def\Field@addtoks#1#2{%
5867     \edef\@processme{\Field@toks{\the\Field@toks\space #1="#2"}}%
5868     \@processme
5869   }%
5870 \else
5871   \def\Hy@WarnHTMLFieldOption#1{%
5872     \Hy@Warning{%
5873       HTML field option `#1'\MessageBreak
5874       is ignored%
5875     }%
5876   }%
5877 \fi
5878 \def\Fld@checkequals#1=#2=#3\{\%
5879   \def\@currDisplay{#1}%
5880   \ifx\#2\%
5881     \def\@currValue{#1}%
5882   \else
5883     \def\@currValue{#2}%
5884   \fi
5885   \expandafter\Hy@pdfstringdef\expandafter\@currValue\expandafter{\@currValue}%
5886 }
5887 \define@key{Field}{loc}{%
5888   \def\Fld@loc{#1}%
5889 }
5890 \define@key{Field}{checked}[true]{%
5891   \lowercase{\Field@boolkey{#1}}{checked}%
5892 }
5893 \define@key{Field}{disabled}[true]{%
5894   \lowercase{\Field@boolkey{#1}}{disabled}%
5895 }
5896 \ifHy@texht
5897   \define@key{Field}{accesskey}{%
5898     \Field@addtoks{accesskey}{#1}%
5899   }%
5900   \define@key{Field}{tabkey}{%
5901     \Field@addtoks{tabkey}{#1}%
5902   }%
5903 \else
5904   \define@key{Field}{accesskey}{%
5905     \Hy@WarnHTMLFieldOption{accesskey}%
5906   }%
5907   \define@key{Field}{tabkey}{%
5908     \Hy@WarnHTMLFieldOption{tabkey}%
5909   }%

```

```

5910 \fi
5911 \define@key{Field}{name}{%
5912   \def\Fld@name{#1}%
5913 }
5914 \let\Fld@altname\relax
5915 \define@key{Field}{altname}{%
5916   \def\Fld@altname{#1}%
5917 }
5918 \let\Fld@mappingname\relax
5919 \define@key{Field}{mappingname}{%
5920   \def\Fld@mappingname{#1}%
5921 }
5922 \define@key{Field}{width}{%
5923   \def\Fld@width{#1}%
5924   \Field@Width#1\setbox0=\hbox{m}%
5925 }
5926 \define@key{Field}{maxlen}{%
5927   \def\Fld@maxlen{#1}%
5928 }
5929 \define@key{Field}{menulength}{%
5930   \Fld@menulength=#1\relax
5931 }
5932 \define@key{Field}{height}{%
5933   \def\Fld@height{#1}%
5934 }
5935 \define@key{Field}{charsize}{%
5936   \setlength{\Fld@charsize}{#1}%
5937 }
5938 \define@key{Field}{borderwidth}{%
5939   \Hy@defaultbp\Fld@borderwidth{#1}%
5940 }
5941 \def\Hy@defaultbp#1#2{%
5942   \begingroup
5943   \afterassignment\Hy@defaultbpAux
5944   \dimen@=#2bp\relax{#1}{#2}%
5945 }
5946 \def\Hy@defaultbpAux#1\relax#2#3{%
5947   \ifx!#1!%
5948     \endgroup
5949     \def#2{#3}%
5950   \else
5951     \edef\x{\endgroup
5952       \def\noexpand#2{%
5953         \strip@pt\dimexpr\dimen@*800/803\relax
5954       }%
5955     }\x
5956   \fi
5957 }%
5958 \define@key{Field}{borderstyle}{%
5959   \let\Hy@temp\Fld@borderstyle
5960   \def\Fld@borderstyle{#1}%
5961   \Hy@Match\Fld@borderstyle}{%
5962     ~[SDBIU]$%
5963   }{ }%

```

```

5964 \Hy@Warning{%
5965   Invalid value `\

```

```

6018 }
6019 \define@key{Field}{rotation}{%
6020 \def\Fld@rotation{#1}%
6021 }
6022 \define@key{Field}{backgroundcolor}{%
6023 \HyColor@FieldBColor{#1}\Fld@bcolor{hyperref}{backgroundcolor}%
6024 }
6025 \define@key{Field}{bordercolor}{%
6026 \HyColor@FieldBColor{#1}\Fld@bordercolor{hyperref}{bordercolor}%
6027 }
6028 \define@key{Field}{color}{%
6029 \HyColor@FieldColor{#1}\Fld@color{hyperref}{color}%
6030 }
6031 \let\Fld@onclick@code\ltx@empty
6032 \let\Fld@format@code\ltx@empty
6033 \let\Fld@validate@code\ltx@empty
6034 \let\Fld@calculate@code\ltx@empty
6035 \let\Fld@keystroke@code\ltx@empty
6036 \let\Fld@onfocus@code\ltx@empty
6037 \let\Fld@onblur@code\ltx@empty
6038 \let\Fld@onmousedown@code\ltx@empty
6039 \let\Fld@onmouseup@code\ltx@empty
6040 \let\Fld@onenter@code\ltx@empty
6041 \let\Fld@onexit@code\ltx@empty
6042 \def\Hy@temp#1{%
6043 \expandafter\Hy@@temp\csname Fld@#1@code\endcsname{#1}%
6044 }
6045 \def\Hy@@temp#1#2{%
6046 \ifHy@pdfa
6047 \define@key{Field}{#2}{%
6048 \Hy@Error{%
6049 PDF/A: Additional action `#2' is prohibited%
6050 } \@ehc
6051 }%
6052 \else
6053 \define@key{Field}{#2}{%
6054 \def#1{##1}%
6055 }%
6056 \fi
6057 }
6058 \Hy@temp{keystroke}
6059 \Hy@temp{format}
6060 \Hy@temp{validate}
6061 \Hy@temp{calculate}
6062 \Hy@temp{onfocus}
6063 \Hy@temp{onblur}
6064 \Hy@temp{onenter}
6065 \Hy@temp{onexit}
6066 \let\Fld@calculate@sortkey\ltx@empty
6067 \define@key{Field}{calculatesortkey}[1]{%
6068 \def\Fld@calculate@sortkey{#1}%
6069 }

```

```

6070 \ifHy@texht
6071 \def\Hy@temp#1{%
6072   \define@key{Field}{#1}{%
6073     \Field@addtoks{#1}{##1}%
6074   }%
6075 }%
6076 \else
6077 \def\Hy@temp#1{%
6078   \define@key{Field}{#1}{%
6079     \Hy@WarnHTMLFieldOption{#1}%
6080   }%
6081 }%
6082 \fi
6083 \Hy@temp{ondblclick}
6084 \Hy@temp{onmousedown}
6085 \Hy@temp{onmouseup}
6086 \Hy@temp{onmouseover}
6087 \Hy@temp{onmousemove}
6088 \Hy@temp{onmouseout}
6089 \Hy@temp{onkeydown}
6090 \Hy@temp{onkeyup}
6091 \Hy@temp{onselect}
6092 \Hy@temp{onchange}
6093 \Hy@temp{onkeypress}
6094 \ifHy@texht
6095 \define@key{Field}{onclick}{%
6096   \Field@addtoks{onclick}{#1}%
6097 }%
6098 \else
6099 \ifHy@pdfa
6100   \define@key{Field}{onclick}{%
6101     \Hy@Error{%
6102       PDF/A: Action `onclick' is prohibited%
6103     } \@ehc
6104   }%
6105 \else
6106   \define@key{Field}{onclick}{%
6107     \def\Fld@onclick@code{#1}%
6108   }%
6109 \fi
6110 \fi
6111 \DeclareRobustCommand\TextField{%
6112   \@ifnextchar[{\@TextField}{\@TextField[]}%
6113 }
6114 \DeclareRobustCommand\ChoiceMenu{%
6115   \@ifnextchar[{\@ChoiceMenu}{\@ChoiceMenu[]}%
6116 }
6117 \DeclareRobustCommand\CheckBox{%
6118   \@ifnextchar[{\@CheckBox}{\@CheckBox[]}%
6119 }
6120 \DeclareRobustCommand\PushButton{%
6121   \@ifnextchar[{\@PushButton}{\@PushButton[]}%
6122 }
6123 \DeclareRobustCommand\Gauge{%

```

```

6124 \@ifnextchar[{\@Gauge}{\@Gauge[]}%
6125 }
6126 \DeclareRobustCommand\Submit{%
6127 \@ifnextchar[{\@Submit}{\@Submit[]}%
6128 }
6129 \DeclareRobustCommand\Reset{%
6130 \@ifnextchar[{\@Reset}{\@Reset[]}%
6131 }
6132 \def\LayoutTextField#1#2{% label, field
6133 \def\Hy@temp{#1}%
6134 \ifx\Hy@temp\@empty
6135 #2%
6136 \else
6137 #1 #2%
6138 \fi
6139 }
6140 \def\LayoutChoiceField#1#2{% label, field
6141 \def\Hy@temp{#1}%
6142 \ifx\Hy@temp\@empty
6143 #2%
6144 \else
6145 #1 #2%
6146 \fi
6147 }
6148 \def\LayoutCheckField#1#2{% label, field
6149 \def\Hy@temp{#1}%
6150 \ifx\Hy@temp\@empty
6151 #2%
6152 \else
6153 #1 #2%
6154 \fi
6155 }
6156 \def\LayoutPushButtonField#1{% button
6157 #1%
6158 }
6159 \def\MakeRadioField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
6160 \def\MakeCheckField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
6161 \def\MakeTextField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
6162 \def\MakeChoiceField#1#2{\vbox to #2{\hbox to #1{\hfill}\vfill}}
6163 \def\MakeButtonField#1{%
6164 \sbox0{%
6165 \hskip\Fld@borderwidth bp#1\hskip\Fld@borderwidth bp%
6166 }%
6167 \@tempdima\ht0 %
6168 \advance\@tempdima by \Fld@borderwidth bp %
6169 \advance\@tempdima by \Fld@borderwidth bp %
6170 \ht0\@tempdima
6171 \@tempdima\dp0 %
6172 \advance\@tempdima by \Fld@borderwidth bp %
6173 \advance\@tempdima by \Fld@borderwidth bp %
6174 \dp0\@tempdima
6175 \box0\relax
6176 }
6177 \def\DefaultHeightofSubmit{14pt}

```



```

6178 \def\DefaultWidthofSubmit{2cm}
6179 \def\DefaultHeightofReset{14pt}
6180 \def\DefaultWidthofReset{2cm}
6181 \def\DefaultHeightofCheckBox{\normalbaselineskip}
6182 \def\DefaultWidthofCheckBox{\normalbaselineskip}
6183 \def\DefaultHeightofChoiceMenu{\normalbaselineskip}
6184 \def\DefaultWidthofChoiceMenu{\normalbaselineskip}
6185 \def\DefaultHeightofText{\normalbaselineskip}
6186 \def\DefaultHeightofTextMultiline{4\normalbaselineskip}
6187 \def\DefaultWidthofText{3cm}
6188 \def\DefaultOptionsofSubmit{print,name=Submit,noexport}
6189 \def\DefaultOptionsofReset{print,name=Reset,noexport}
6190 \def\DefaultOptionsofPushButton{print}
6191 \def\DefaultOptionsofCheckBox{print}
6192 \def\DefaultOptionsofText{print}

```

Default options for the types of `\ChoiceMenu`.

```

6193 \def\DefaultOptionsofListBox{print}
6194 \def\DefaultOptionsofComboBox{print,edit,sort}
6195 \def\DefaultOptionsofPopdownBox{print}
6196 \def\DefaultOptionsofRadio{print,notoggletooff}

```

20 Setup

```

6197 \ifHy@hyperfigures
6198 \Hy@Info{Hyper figures ON}%
6199 \else
6200 \Hy@Info{Hyper figures OFF}%
6201 \fi
6202 \ifHy@nesting
6203 \Hy@Info{Link nesting ON}%
6204 \else
6205 \Hy@Info{Link nesting OFF}%
6206 \fi
6207 \ifHy@hyperindex
6208 \Hy@Info{Hyper index ON}%
6209 \else
6210 \Hy@Info{Hyper index OFF}%
6211 \fi
6212 \ifHy@backref
6213 \Hy@Info{backreferencing ON}%
6214 \else
6215 \Hy@Info{backreferencing OFF}%
6216 \fi
6217 \ifHy@colorlinks
6218 \Hy@Info{Link coloring ON}%
6219 \else
6220 \Hy@Info{Link coloring OFF}%
6221 \fi
6222 \ifHy@ocgcolorlinks
6223 \Hy@Info{Link coloring with OCG ON}%
6224 \else
6225 \Hy@Info{Link coloring with OCG OFF}%

```

```

6226 \fi
6227 \ifHy@pdfa
6228 \Hy@Info{PDF/A mode ON}%
6229 \else
6230 \Hy@Info{PDF/A mode OFF}%
6231 \fi

```

21 Low-level utility macros

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

```

6232 \edef\hyper@hash{\string#}
6233 \edef\hyper@tilde{\string~}
6234 \edef\hyper@quote{\string"}

```

Support \label before \begin{document}.

```

6235 \def\@currentHref{Doc-Start}
6236 \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.

```

6237 \Hy@AtBeginDocument{%
6238 \Hy@pdfstringtrue
6239 \PDF@SetupDoc
6240 \let\PDF@SetupDoc\@empty
6241 \Hy@DisableOption{pdfpagescrop}%
6242 \Hy@DisableOption{pdfpagemode}%
6243 \Hy@DisableOption{pdfnonfullscreenpagemode}%
6244 \Hy@DisableOption{pdfdirection}%
6245 \Hy@DisableOption{pdfviewarea}%
6246 \Hy@DisableOption{pdfviewclip}%
6247 \Hy@DisableOption{pdfprintarea}%
6248 \Hy@DisableOption{pdfprintclip}%
6249 \Hy@DisableOption{pdfprintscaling}%
6250 \Hy@DisableOption{pdfduplex}%
6251 \Hy@DisableOption{pdfpicktraybypdfsize}%
6252 \Hy@DisableOption{pdfprintpagerange}%
6253 \Hy@DisableOption{pdfnumcopies}%
6254 \Hy@DisableOption{pdfstartview}%
6255 \Hy@DisableOption{pdfstartpage}%
6256 \Hy@DisableOption{pdftoolbar}%
6257 \Hy@DisableOption{pdfmenubar}%
6258 \Hy@DisableOption{pdfwindowui}%
6259 \Hy@DisableOption{pdfitwindow}%
6260 \Hy@DisableOption{pdfcenterwindow}%
6261 \Hy@DisableOption{pdfdisplaydoctitle}%
6262 \Hy@DisableOption{pdfpagelayout}%
6263 \Hy@DisableOption{pdflang}%
6264 \Hy@DisableOption{baseurl}%
6265 \ifHy@texht\else\hyper@anchorstart{Doc-Start}\hyper@anchorend\fi
6266 \Hy@pdfstringfalse
6267 }

```

Ignore star from referencing macros: This is only needed if LaTeX doesn't define the starred variants itself.

```

6268 \@ifundefined{@kernel@ref}
6269 {\LetLtxMacro\NoHy@OrgRef\ref
6270 \DeclareRobustCommand*{\ref}{%
6271 \@ifstar\NoHy@OrgRef\NoHy@OrgRef
6272 }
6273 \LetLtxMacro\NoHy@OrgPageRef\pageref
6274 \DeclareRobustCommand*{\pageref}{%
6275 \@ifstar\NoHy@OrgPageRef\NoHy@OrgPageRef
6276 }{}

```

22 Localized nullifying of package

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

```

6277 \def\NoHyper{%
6278 \def\hyper@link@[##1]##2##3##4{##4\Hy@xspace@end}%
6279 \def\hyper@@anchor##1##2{##2\Hy@xspace@end}%
6280 \global\let\hyper@livelink\hyper@link
6281 \gdef\hyper@link##1##2##3{##3\Hy@xspace@end}%
6282 \let\hyper@anchor\ltx@gobble
6283 \let\hyper@anchorstart\ltx@gobble
6284 \def\hyper@anchorend{\Hy@xspace@end}%
6285 \let\hyper@linkstart\ltx@gobbletwo
6286 \def\hyper@linkend{\Hy@xspace@end}%
6287 \def\hyper@linkurl##1##2{##1\Hy@xspace@end}%
6288 \def\hyper@linkfile##1##2##3{##1\Hy@xspace@end}%
6289 \let\Hy@backout\@gobble
6290 }
6291 \def\stop@hyper{%
6292 \def\hyper@link@[##1]##2##3##4{##4\Hy@xspace@end}%
6293 \let\Hy@backout\@gobble
6294 \let\hyper@@anchor\ltx@gobble
6295 \def\hyper@link##1##2##3{##3\Hy@xspace@end}%
6296 \let\hyper@anchor\ltx@gobble
6297 \let\hyper@anchorstart\ltx@gobble
6298 \def\hyper@anchorend{\Hy@xspace@end}%
6299 \let\hyper@linkstart\ltx@gobbletwo
6300 \def\hyper@linkend{\Hy@xspace@end}%
6301 \def\hyper@linkurl##1##2{##1\Hy@xspace@end}%
6302 \def\hyper@linkfile##1##2##3{##1\Hy@xspace@end}%
6303 }
6304 \def\endNoHyper{%
6305 \global\let\hyper@link\hyper@livelink
6306 }
6307 </package>

```

23 Package nohyperref

This package is introduced by Sebastian Rahtz.

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

Some low-level commands:

```

6308 (*nohyperref)
6309 \RequirePackage{letltxmacro}[2008/06/13]
6310 \let\hyper@@anchor\@gobble
6311 \def\hyper@link#1#2#3{#3}%
6312 \let\hyper@anchorstart\@gobble
6313 \let\hyper@anchorend\@empty
6314 \let\hyper@linkstart\@gobbletwo
6315 \let\hyper@linkend\@empty
6316 \def\hyper@linkurl#1#2{#1}%
6317 \def\hyper@linkfile#1#2#3{#1}%
6318 \def\hyper@link@[#1]#2#3{#1}%
6319 \let\PDF@SetupDoc\@empty
6320 \let\PDF@FinishDoc\@empty
6321 \def\nohyperpage#1{#1}

```

Some top-level commands:

```

6322 \def\Acrobatmenu#1#2{\leavevmode#2}
6323 \let\pdfstringdefDisableCommands\@gobbletwo
6324 \let\texorpdfstring\@firstoftwo
6325 \let\pdfbookmark\@undefined
6326 \newcommand\pdfbookmark[3][]{#3}
6327 \let\phantomsection\@empty
6328 \let\hypersetup\@gobble
6329 \let\hyperbaseurl\@gobble
6330 \newcommand*{\href}[3][]{#3}
6331 \let\hyperdef\@gobbletwo
6332 \let\hyperlink\@gobble
6333 \let\hypertarget\@gobble
6334 \def\hyperref{%
6335   \@ifnextchar\@gobbleopt{\expandafter\@gobbletwo\@gobble}%
6336 }
6337 \long\def\@gobbleopt[#1]{#1}
6338 \let\hyperpage\@empty

```

Ignore star from referencing macros. This is only needed in older formats.

```

6339 \@if@t@r\fmtversion{2022-06-01}
6340 {}%
6341 {%
6342   \LetLtxMacro\NoHy@OrgRef\ref
6343   \DeclareRobustCommand*\ref}{%
6344     \@ifstar\NoHy@OrgRef\NoHy@OrgRef
6345   }
6346   \LetLtxMacro\NoHy@OrgPageRef\pageref
6347   \DeclareRobustCommand*\pageref}{%
6348     \@ifstar\NoHy@OrgPageRef\NoHy@OrgPageRef
6349   }%
6350 }
6351 </nohyperref>

```

24 The Mangling Of Aux and Toc Files

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

```
6352 (*package)
6353 \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 `\newlabel` is defined to cope with the extra arguments. change 2022-03-28: removed the code for `\contentsline`, it is no longer needed as `\contentsline` has now always four arguments.

```
6354 \if@filesw
6355 \immediate\write\@auxout{%
6356 \string\providecommand\string\HyperFirstAtBeginDocument{%
6357 \string\AtBeginDocument}^^J%
6358 \string\HyperFirstAtBeginDocument{%
6359 \string\ifx\string\hyper@anchor\string\@undefined^^J%
6360 \string\global\string\let\string\oldnewlabel\string\newlabel^^J%
6361 \string\gdef\string\newlabel\string#1\string#2{%
6362 \string\newlabelxx{\string#1}\string#2}^^J%
6363 \string\gdef\string\newlabelxx%
6364 \string#1\string#2\string#3\string#4\string#5\string#6{%
6365 \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.

```
6366 \string\AtEndDocument{%
6367 \string\ifx\string\hyper@anchor\string\@undefined^^J%
6368 \string\let\string\newlabel\string\oldnewlabel^^J%
6369 \string\fi%
6370 }^^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.

```
6371 \string\fi%
6372 }^^J%
6373 \string\global\string\let\string\hyper@last\relax^^J%
6374 \string\gdef\string\HyperFirstAtBeginDocument\string#1{\string#1}%
6375 }%
6376 \fi
6377 \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. change 2022-03-28: removed the test for an old toc. `\contentsline` has now always four arguments.

```
6378 \ifx\hyper@last\@undefined
6379 \def\newlabel#1#2{\@newlabel r{#1}{#2}{-}{-}}%
6380 \fi
6381 }
```

25 Title strings

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

```

6382 \ifHy@pdfusetitle
6383   \let\HyOrg@title\title
6384   \let\HyOrg@author\author
6385   \def\title{\@ifnextchar{\Hy@scanopttitle}{\Hy@scantitle}}%
6386   \def\Hy@scanopttitle[#1]{%
6387     \gdef\Hy@title{#1}%
6388     \HyOrg@title{#1}%
6389   }%
6390   \def\Hy@scantitle#1{%
6391     \gdef\Hy@title{#1}%
6392     \HyOrg@title{#1}%
6393   }%
6394   \def\author{\@ifnextchar{\Hy@scanoptauthor}{\Hy@scanauthor}}%
6395   \def\Hy@scanoptauthor[#1]{%
6396     \gdef\Hy@author{#1}%
6397     \HyOrg@author{#1}%
6398   }%
6399   \def\Hy@scanauthor#1{%
6400     \gdef\Hy@author{#1}%
6401     \HyOrg@author{#1}%
6402   }%

```

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

```

6403 \begingroup
6404   \def\process@me#1\@nil#2{%
6405     \expandafter\let\expandafter\x\csname @#2\endcsname
6406     \edef\y{\expandafter\strip@prefix\meaning\x}%
6407     \def\c##1##2\@nil{%
6408       \ifx\##1\%
6409         \else
6410           \expandafter\gdef\csname Hy@#2\expandafter\endcsname
6411             \expandafter{x}%
6412         \fi
6413       }%
6414     \expandafter\c\y\relax#1\@nil
6415   }%
6416   \expandafter\process@me\string\@latex@\@nil{title}%
6417   \expandafter\process@me\string\@latex@\@nil{author}%
6418 \endgroup
6419 \fi
6420 \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.

A possible ¹removes its argument.

```
6421 \def\Hy@UseMaketitleString#1{%
6422 \ltx@ifundefined{Hy@#1}{}{%
6423 \begingroup
6424 \let\Hy@saved@hook\pdfstringdefPreHook
6425 \pdfstringdefDisableCommands{%
6426 \expandafter\let\expandafter\\\csname Hy@newline@#1\endcsname
6427 \let\newline\\%
6428 \def\and{;}%
6429 \let\thanks\@gobble%
6430 }%
6431 \expandafter\ifx\csname @pdf#1\endcsname\@empty
6432 \expandafter\pdfstringdef\csname @pdf#1\endcsname{%
6433 \csname Hy@#1\endcsname\@empty
6434 }%
6435 \fi
6436 \global\let\pdfstringdefPreHook\Hy@saved@hook
6437 \endgroup
6438 }%
6439 }
6440 \def\Hy@newline@title#1{ #1}
6441 \def\Hy@newline@author#1{, #1}
6442 \def\Hy@UseMaketitleInfos{%
6443 \Hy@UseMaketitleString{title}%
6444 \Hy@UseMaketitleString{author}%
6445 }
```

26 Page numbers

This stuff is done by Heiko Oberdiek.

27 Every page

```
6446 \RequirePackage{atbegshi}[2007/09/09]
6447 \let\Hy@EveryPageHook\ltx@empty
6448 \let\Hy@EveryPageBoxHook\ltx@empty
6449 \let\Hy@FirstPageHook\ltx@empty
6450 \AtBeginShipout{%
6451 \Hy@EveryPageHook
6452 \ifx\Hy@EveryPageBoxHook\ltx@empty
6453 \else
6454 \setbox\AtBeginShipoutBox=\vbox{%
6455 \offinterlineskip
6456 \Hy@EveryPageBoxHook
6457 \box\AtBeginShipoutBox
6458 }%
6459 \fi
6460 }
```

```

6461 \ltx@iffileloaded{hpdftex.def}{%
6462 \AtBeginShipout{%
6463 \Hy@FirstPageHook
6464 \global\let\Hy@FirstPageHook\ltx@empty
6465 }%
6466 }{%
6467 \AtBeginShipoutFirst{%
6468 \Hy@FirstPageHook
6469 }%
6470 }
6471 \g@addto@macro\Hy@FirstPageHook{%
6472 \PDF@FinishDoc
6473 \global\let\PDF@FinishDoc\ltx@empty
6474 }

```

27.1 PDF /PageLabels

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

```

6475 \ifHy@pdfpagelabels
6476 \begingroup\expandafter\expandafter\expandafter\endgroup
6477 \expandafter\ifx\csname thepage\endcsname\relax
6478 \Hy@pdfpagelabelsfalse
6479 \Hy@WarningNoLine{%
6480 Option `pdfpagelabels' is turned off\MessageBreak
6481 because \string\thepage\space is undefined%
6482 }%
6483 \csname fi\endcsname
6484 \csname iffalse\expandafter\endcsname
6485 \fi

```

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

```

6486 \def\thispdfpagelabel#1{%
6487 \gdef\HyPL@thisLabel{#1}%
6488 }%
6489 \global\let\HyPL@thisLabel\relax

```

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

```

6490 \let\HyPL@Labels\ltx@empty

```

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

```

6491 \newcount\Hy@abspage
6492 \Hy@abspage=0 %

```

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

```

6493 \def\HyPL@LastType{init}%
6494 \def\HyPL@LastNumber{0}%
6495 \let\HyPL@LastPrefix\ltx@empty

```

Definitions for the PDF names of the \LaTeX pendants.

```

6496 \def\HyPL@arabic{D}%
6497 \def\HyPL@Roman{R}%
6498 \def\HyPL@roman{r}%

```



```

6499 \def\HyPL@Alph{A}%
6500 \def\HyPL@alph{a}%

6501 \let\HyPL@SlidesSetPage\ltx@empty
6502 \ltx@ifclassloaded{slides}{%
6503   \def\HyPL@SlidesSetPage{%
6504     \advance\c@page\ltx@one
6505     \ifnum\value{page}>\ltx@one
6506       \protected@edef\HyPL@SlidesOptionalPage{%
6507         \Hy@SlidesFormatOptionalPage{\thepage}%
6508       }%
6509     \else
6510       \let\HyPL@SlidesOptionalPage\ltx@empty
6511     \fi
6512     \advance\c@page-\ltx@one
6513   \def\HyPL@page{%
6514     \csname the\Hy@SlidesPage\endcsname
6515     \HyPL@SlidesOptionalPage
6516   }%
6517 }%
6518 }{}%

```

`\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.

```

6519 \def\HyPL@EveryPage{%
6520   \begingroup
6521   \ifx\HyPL@thisLabel\relax
6522     \let\HyPL@page\thepage
6523     \HyPL@SlidesSetPage
6524   \else
6525     \let\HyPL@page\HyPL@thisLabel
6526     \global\let\HyPL@thisLabel\relax
6527   \fi
6528   \let\HyPL@Type\relax
6529   \ifnum\c@page>0 %
6530     \ifx\HyPL@SlidesSetPage\ltx@empty
6531       \expandafter\HyPL@CheckThePage\HyPL@page\@nil
6532     \fi
6533   \fi
6534   \let\Hy@temp Y%
6535   \ifx\HyPL@Type\HyPL@LastType
6536   \else
6537     \let\Hy@temp N%
6538   \fi
6539   \ifx\HyPL@Type\relax
6540     \pdfstringdef\HyPL@Prefix{\HyPL@page}%
6541   \else
6542     \pdfstringdef\HyPL@Prefix\HyPL@Prefix
6543   \fi
6544   \ifx\HyPL@Prefix\HyPL@LastPrefix
6545   \else
6546     \let\Hy@temp N%
6547   \fi
6548   \if Y\Hy@temp
6549     \advance\c@page by -1 %

```

```

6550     \ifnum\HyPL@LastNumber=\the\c@page\relax
6551     \else
6552     \let\Hy@temp N%
6553     \fi
6554     \Hy@StepCount\c@page
6555     \fi
6556     \if N\Hy@temp
6557     \ifx\HyPL@Type\relax
6558     \HyPL@StorePageLabel{/P(\HyPL@Prefix)}%
6559     \else
6560     \HyPL@StorePageLabel{%
6561     \ifx\HyPL@Prefix\@empty
6562     \else
6563     /P(\HyPL@Prefix)%
6564     \fi
6565     /S/\csname HyPL\HyPL@Type\endcsname
6566     \ifnum\the\c@page=1 %
6567     \else
6568     \space/St \the\c@page
6569     \fi
6570     }%
6571     \fi
6572     \fi
6573     \xdef\HyPL@LastNumber{\the\c@page}%
6574     \global\let\HyPL@LastType\HyPL@Type
6575     \global\let\HyPL@LastPrefix\HyPL@Prefix
6576     \endgroup
6577     \Hy@GlobalStepCount\Hy@abspage
6578     }%

```

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

```

6579     \def\HyPL@CheckThePage#1\@nil{%
6580     \HyPL@@CheckThePage{#1}#1\csname\endcsname\c@page\@nil
6581     }%

```

`\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`.

```

6582     \def\HyPL@@CheckThePage#1#2\csname#3\endcsname\c@page#4\@nil{%
6583     \def\Hy@tempa{#4}%
6584     \def\Hy@tempb{\csname\endcsname\c@page}%
6585     \ifx\Hy@tempa\Hy@tempb
6586     \expandafter\ifx\csname HyPL#3\endcsname\relax
6587     \else
6588     \def\HyPL@Type{#3}%
6589     \def\HyPL@Prefix{#2}%
6590     \fi
6591     \else
6592     \begingroup
6593     \let\Hy@next\endgroup
6594     \let\HyPL@found\@undefined
6595     \def\arabic{\HyPL@Format{arabic}}%

```

```

6596     \def\Roman{\HyPL@Format{Roman}}%
6597     \def\roman{\HyPL@Format{roman}}%
6598     \def\Alph{\HyPL@Format{Alph}}%
6599     \def\alph{\HyPL@Format{alph}}%
6600     \protected@edef\Hy@temp{#1}%
6601     \ifx\HyPL@found\relax
6602         \toks@\expandafter{\Hy@temp}%
6603         \edef\Hy@next{\endgroup
6604             \noexpand\HyPL@@@CheckThePage\the\toks@
6605             \noexpand\HyPL@found\relax\noexpand\nil
6606         }%
6607     \fi
6608     \Hy@next
6609 \fi
6610 }%

```

`\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`.

```

6611 \def\HyPL@Format#1#2{%
6612     \ifx\HyPL@found\undefined
6613         \expandafter\ifx\csname c@#2\endcsname\c@page
6614             \expandafter\noexpand\csname HyPL@found\endcsname{#1}%
6615         \else
6616             \expandafter\noexpand\csname#1\endcsname{#2}%
6617         \fi
6618     \else
6619         \expandafter\noexpand\csname#1\endcsname{#2}%
6620     \fi
6621 }%

```

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

```

6622 \def\HyPL@@@CheckThePage#1\HyPL@found#2#3\@nil{%
6623     \def\Hy@tempa{#3}%
6624     \def\Hy@tempb{\HyPL@found\relax}%
6625     \ifx\Hy@tempa\Hy@tempb
6626         \def\HyPL@Type{#2}%
6627         \def\HyPL@Prefix{#1}%
6628     \fi
6629 }%

```

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

```

6630 \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`.

```

6631 \def\HyPL@Useless{0<</S/D>>}%
6632 \@onelevel@sanitize\HyPL@Useless

```

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

```

6633 \def\HyPL@SetPageLabels{%
6634   \@onelevel@sanitize\HyPL@Labels
6635   \ifx\HyPL@Labels\@empty
6636     \else
6637     \ifx\HyPL@Labels\HyPL@Useless
6638     \else
6639     \Hy@PutCatalog{/PageLabels<</Nums{\HyPL@Labels}>>}%
6640     \fi
6641   \fi
6642 }%

6643 \g@addto@macro\Hy@EveryPageHook{\HyPL@EveryPage}%
6644 \fi

Option ‘pdfpagelabels’ has been used and is now disabled.
6645 \Hy@DisableOption{pdfpagelabels}
6646 \end{package}

```

27.1.1 pdfTeX and VTeX

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

`\Hy@PutCatalog`

```

6647 (*pdfTeX)
6648 \pdf@ifdraftmode{%
6649   \let\Hy@PutCatalog\ltx@gobble
6650 }{%
6651   \let\Hy@PutCatalog\pdfcatalog
6652 }
6653 \end{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.

```

6654 (*vTeX)
6655 \providecommand*\XR@ext}{pdf}
6656 \edef\Hy@VTeXversion{%
6657   \ifx\VTeXversion\@undefined
6658     \z@
6659   \else
6660     \ifx\VTeXversion\relax
6661       \z@
6662     \else
6663       \VTeXversion
6664     \fi
6665   \fi
6666 }
6667 \begingroup
6668 \ifnum\Hy@VTeXversion<660 %
6669   \gdef\Hy@PutCatalog#1{%
6670     \Hy@WarningNoLine{%

```

```

6671     VTeX 6.59g or above required for pdfpagelabels%
6672   }%
6673 }%
6674 \else
6675   \gdef\Hy@PutCatalog#1{%
6676     \Hy@vt@PutCatalog#1/PageLabels<<>>\@nil
6677   }%
6678   \gdef\Hy@vt@PutCatalog#1/PageLabels<<#2>>#3\@nil{%
6679     \ifx\#2\%
6680     \else
6681       \immediate\special{!pdfpagelabels #2}%
6682     \fi
6683   }%
6684 \fi
6685 \endgroup
6686 </vtex>

6687 <*pdftex | vtex>

```

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

```

6688 \ifHy@pdfpagelabels
6689   \def\HyPL@StorePageLabel#1{%
6690     \toks@\expandafter{\HyPL@Labels}%
6691     \xdef\HyPL@Labels{%
6692       \the\toks@
6693       \the\Hy@abspage<<#1>>%
6694     }%
6695   }%

```

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.

```

6696   \RequirePackage{atveryend}[2009/12/07]%
6697   \AtVeryEndDocument{%
6698     \HyPL@SetPageLabels
6699   }%

6700 \fi
6701 </pdftex | vtex>

```

27.1.2 xetex

```

6702 <*xetex>
6703 \HyPsd@LoadUnicode
6704 \Hy@unicodetrue
6705 \ifx\HyPsd@pdfencoding\HyPsd@pdfencoding@unicode
6706 \else
6707   \let\HyPsd@pdfencoding\HyPsd@pdfencoding@auto
6708 \fi
6709 \HyPsd@LoadStringEncoding
6710 \define@key{Hyp}{unicode}[true]{%
6711   \Hy@boolkey{unicode}{#1}%
6712 \ifHy@unicode
6713 \else
6714   \Hy@Warning{%

```

```

6715 XeTeX driver only supports `unicode=true'. Ignoring\MessageBreak
6716 option setting `unicode=false'%
6717 }%
6718 \Hy@unicodetrue
6719 \fi
6720 }
6721 \define@key{Hyp}{pdfencoding}{%
6722 \edef\HyPsd@temp{#1}%
6723 \ifx\HyPsd@temp\HyPsd@pdfencoding@unicode
6724 \let\HyPsd@pdfencoding\HyPsd@temp
6725 \else
6726 \ifx\HyPsd@temp\HyPsd@pdfencoding@auto
6727 \let\HyPsd@pdfencoding\HyPsd@temp
6728 \else
6729 \Hy@Warning{%
6730 XeTeX driver only supports\MessageBreak
6731 `pdfencoding=unicode|auto'. Ignoring option\MessageBreak
6732 setting `pdfencoding=\HyPsd@temp'%
6733 }%
6734 \fi
6735 \fi
6736 }
6737 \let\HyXeTeX@CheckUnicode\relax

```

Since 2016 (x)dvipdfmx has a special to control the spacing of annotation borders. So let's make use of it:

```

6738 \def\setpdfinkmargin#1{%
6739 \begingroup
6740 \setlength{\dimen@}{#1}%
6741 \special{dvipdfmx:config g \strip@pt\dimen@}%
6742 \endgroup}
6743 </xetex>

```

set the pdf version

```

6744 <*dvipdfm|xetex>
6745 \special{pdf:majorversion \Hy@pdf@majorversion}
6746 \special{pdf:minorversion \Hy@pdf@minorversion}
6747 </dvipdfm|xetex>

```

27.1.3 pdfmarkbase, dvipdfm, xetex

```

6748 <*pdfmarkbase>
6749 \begingroup
6750 \@ifundefined{headerps@out}{-}{%
6751 \toks@\expandafter{\Hy@FirstPageHook}%
6752 \xdef\Hy@FirstPageHook{%
6753 \noexpand\headerps@out{%
6754 systemdict /pdfmark known%
6755 {%
6756 userdict /?pdfmark systemdict /exec get put%
6757 }{%
6758 userdict /?pdfmark systemdict /pop get put %
6759 userdict /pdfmark systemdict /cleartomark get put%
6760 }%
6761 ifelse%
6762 }%

```

```

6763   \the\toks@
6764   }%
6765 }%
6766 \endgroup
6767 \</pdfmarkbase>

```

\Hy@PutCatalog

```

6768 <dvipdfm | xetex>\def\Hy@PutCatalog#1{\@pdfmark{docview <<#1>>}}
6769 <*pdfmarkbase>
6770 \def\Hy@PutCatalog#1{%
6771   \pdfmark{pdfmark=/PUT,Raw={\string{Catalog\string} <<#1>>}}%
6772 }
6773 \</pdfmarkbase>

6774 <*pdfmarkbase | dvipdfm | xetex>
6775 \ifHy@pdfpagelabels

```

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

```

6776 \def\HyPL@StorePageLabel#1{%
6777   \if@filesw
6778   \begingroup
6779     \edef\Hy@tempa{\the\Hy@abspage<<#1>>}%
6780     \immediate\write\@mainaux{%
6781       \string\HyPL@Entry{\Hy@tempa}%
6782     }%
6783   \endgroup
6784   \fi
6785 }%

```

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.

```

6786 \Hy@AtBeginDocument{%
6787   \if@filesw
6788     \immediate\write\@mainaux{%
6789       \string\providecommand\string*\string\HyPL@Entry[1]{}%
6790     }%
6791   \fi
6792   \ifx\HyPL@Labels\@empty
6793     \Hy@WarningNoLine{Rerun to get /PageLabels entry}%
6794   \else
6795     \HyPL@SetPageLabels
6796   \fi
6797   \let\HyPL@Entry\@gobble
6798 }%

```

\HyPL@Entry

```

6799 \def\HyPL@Entry#1{%
6800   \expandafter\gdef\expandafter\HyPL@Labels\expandafter{%
6801     \HyPL@Labels
6802     #1%
6803   }%
6804 }%

```

```

6805 \fi
6806 </pdfmarkbase | dvipdfm | xetex>
6807 <*packageEnd>
6808 \ifx\MaybeStopEarly\relax
6809 \else
6810 \Hy@stoppedearlytrue
6811 \expandafter\MaybeStopEarly
6812 \fi
6813 \Hy@stoppedearlyfalse

```

28 Automated L^AT_EX hypertext cross-references

Anything which can be referenced advances some counter; we overload this to put in a hypertext starting point (with no visible anchor), and make a note of that for later use in `\label`. This will fail badly if `\theH<name>` does not expand to a sensible reference. This means that classes or package which introduce new elements need to define an equivalent `\theH<name>` for every `\the<name>`. We do make a trap to make `\theH<name>` be the same as `\arabic{<name>}`, if `\theH<name>` is not defined, but this is not necessarily a good idea. Alternatively, the ‘naturalnames’ option uses whatever L^AT_EX provides, which may be useable. But then its up to you to make sure these are legal PDF and HTML names. The ‘hypertextnames=false’ option just makes up arbitrary names.

All the shenanigans is to make sure section numbers etc are always arabic, separated by dots. Who knows how people will set up `\@currentlabel`? If they put spaces in, or brackets (quite legal) then the hypertext processors will get upset.

But this is flaky, and open to abuse. Styles like `subeqn` will mess it up, for starters. Appendices are an issue, too. We just hope to cover most situations. We can at least cope with the standard sectioning structure, allowing for `\part` and `\chapter`.

Start with a fallback for equations

```

6814 \def\Hy@CounterExists#1{%
6815 \begingroup\expandafter\expandafter\expandafter\endgroup
6816 \expandafter\ifx\csname c@#1\endcsname\relax
6817 \expandafter\@gobble
6818 \else
6819 \begingroup\expandafter\expandafter\expandafter\endgroup
6820 \expandafter\ifx\csname the#1\endcsname\relax
6821 \expandafter\expandafter\expandafter\@gobble
6822 \else
6823 \expandafter\expandafter\expandafter\@firstofone
6824 \fi
6825 \fi
6826 }
6827 \Hy@CounterExists{section}{%
6828 \providecommand\theHequation{\theHsection.\arabic{equation}}}%
6829 }
6830 \providecommand\theHequation{\arabic{equation}}}%
6831 \Hy@CounterExists{part}{%
6832 \providecommand\theHpart{\arabic{part}}}%
6833 }

```



```

6834 \ltx@ifundefined{thechapter}{%
6835   \providecommand\theHsection   {\arabic{section}}%
6836   \providecommand\theHfigure    {\arabic{figure}}%
6837   \providecommand\theHtable     {\arabic{table}}%
6838 }{%
6839   \providecommand\theHchapter    {\arabic{chapter}}%
6840   \providecommand\theHfigure     {\theHchapter.\arabic{figure}}%
6841   \providecommand\theHtable      {\theHchapter.\arabic{table}}%
6842   \providecommand\theHsection    {\theHchapter.\arabic{section}}%
6843 }
6844 \providecommand\theHsubsection  {\theHsection.\arabic{subsection}}
6845 \providecommand\theHsubsubsection{\theHsubsection.\arabic{subsubsection}}
6846 \providecommand\theHparagraph   {\theHsubsubsection.\arabic{paragraph}}
6847 \providecommand\theHsubparagraph{\theHparagraph.\arabic{subparagraph}}
6848 \providecommand\theHtheorem     {\theHsection.\arabic{theorem}}
6849 \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.

```

6850 \let\H@item\item
6851 \newcounter{Item}
6852 \def\theHItem{\arabic{Item}}
6853 \def\item{%
6854   \@hyper@itemfalse
6855   \if@nmbrrlist\@hyper@itemtrue\fi
6856   \H@item
6857 }
6858 \providecommand\theHenumi       {\theHItem}
6859 \providecommand\theHenumii      {\theHItem}
6860 \providecommand\theHenumiii     {\theHItem}
6861 \providecommand\theHenumiv      {\theHItem}
6862 \providecommand\theHHfootnote   {\arabic{Hfootnote}}
6863 \providecommand\theHmpfootnote  {\arabic{mpfootnote}}
6864 \@ifundefined{theHHmpfootnote}{%
6865   \let\theHHmpfootnote\theHHfootnote
6866 }{}

```

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.

```

6867 \let\H@refstepcounter\refstepcounter
6868 \edef\name@of@eq{equation}%

```

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. change 2022-04-22: removed test for the slide counter and for the equation name. change 2022-05-02: added the new boolean set by `\LinkTargetOn/\LinkTargetOff`

```

6869 \newif\if@hyper@item
6870 \newif\if@skiphyperref
6871 \@hyper@itemfalse
6872 \@skiphyperreffalse
6873 \ExplSyntaxOn

```

```

6874 \def\refstepcounter#1{%
6875   \legacy_if:nF {Hy@pdfstring}
6876   {
6877     \H@refstepcounter{#1}%
6878     \bool_lazy_and:nnT
6879     { \l__hyp_target_create_bool }
6880     { ! \legacy_if_p:n{@skiphyperref} }
6881     {
6882       \legacy_if:nTF {@hyper@item}
6883       {
6884         \stepcounter{Item}%
6885         \hyper@refstepcounter{Item}%
6886         \@hyper@itemfalse
6887       }
6888       {
6889         \hyper@refstepcounter{#1}%
6890       }
6891     }
6892   }
6893 }
6894 \ExplSyntaxOff
6895 \let\Hy@saved@refstepcounter\refstepcounter

```

AMS^ITeX 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.

```

6896 \@ifpackageloaded{amsmath}{\newif\ifmeasuring@\measuring@false}

```

`\hyper@refstepcounter`

```

6897 \def\hyper@refstepcounter#1{%
6898   \edef\This@name{#1}%
6899   \ifx\This@name\name@of@eq
6900     \@ifundefined{theHequation}{%
6901       \make@stripped@name{\theequation}%
6902       \let\theHequation\newname
6903     }{}%
6904   \fi
6905   \HyCnt@ProvideTheHCounter{#1}%
6906   \hyper@makecurrent{#1}%
6907   \ifmeasuring@
6908   \else
6909     \Hy@raisedlink{%
6910       \hyper@anchorstart{\@currentHref}\hyper@anchorend
6911     }%
6912   \fi
6913 }

```

`\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.

```

6914 \def\HyCnt@ProvideTheHCounter#1{%
6915   \@ifundefined{theH#1}{%
6916     \expandafter\def\csname theH#1\endcsname{%
6917       \def\Hy@temp{\@elt{#1}}%
6918       \ltx@onelevel@sanitize\Hy@temp
6919       \let\HyOrg@elt\@elt
6920       \edef\@elt{%
6921         \noexpand\HyCnt@LookForParentCounter
6922         \expandafter\noexpand\csname theH#1\endcsname
6923       }%
6924       \cl@ckpt
6925       \let\@elt\HyOrg@elt
6926       \expandafter
6927       \ltx@LocalAppendToMacro\csname theH#1\expandafter\endcsname
6928       \expandafter{%
6929         \expandafter\@arabic\csname c@#1\endcsname
6930       }%
6931     }-%
6932 }

```

\Hy@LookForParentCounter

```

6933 \def\HyCnt@LookForParentCounter#1#2{%
6934   \expandafter\let\expandafter\Hy@temp@A\csname cl@#2\endcsname
6935   \ltx@ifundefined{cl@#2}{%
6936     }-%
6937     \ltx@onelevel@sanitize\Hy@temp@A
6938     \edef\Hy@temp@A{%
6939       \noexpand\in@{\Hy@temp}{\Hy@temp@A}%
6940     }\Hy@temp@A
6941     \ifin@
6942     \ltx@ifundefined{theH#2}{%
6943       \expandafter\ltx@LocalAppendToMacro\expandafter#1%
6944       \expandafter{%
6945         \expandafter\@arabic\csname c@#2\endcsname.%
6946       }%
6947     }-%
6948     \expandafter\ltx@LocalAppendToMacro\expandafter#1%
6949     \expandafter{%
6950       \csname theH#2\endcsname.%
6951     }%
6952   }-%
6953   \fi
6954 }-%
6955 }

```

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.

```

6956 \begingroup\expandafter\expandafter\expandafter\endgroup
6957 \expandafter\ifx\csname chapter\endcsname\relax
6958   \def\Hy@chapterstring{section}%

```

```

6959 \else
6960 \def\Hy@chapterstring{chapter}%
6961 \fi
6962 \def\Hy@appendixstring{appendix}
6963 \def\Hy@chapapp{\Hy@chapterstring}
6964 \ltx@ifundefined{appendix}{%
6965 }{%
6966 \let\HyOrg@appendix\appendix
6967 \def\Hy@AlphNoErr#1{%
6968 \ifnum\value{#1}>26 %
6969 Alph\number\value{#1}%
6970 \else
6971 \ifnum\value{#1}<1 %
6972 Alph\number\value{#1}%
6973 \else
6974 \Alph{#1}%
6975 \fi
6976 \fi
6977 }%
6978 \def\appendix{%
6979 \ltx@ifundefined{chapter}{%
6980 \gdef\theHsection{\Hy@AlphNoErr{section}}}%
6981 }{%
6982 \gdef\theHchapter{\Hy@AlphNoErr{chapter}}}%
6983 }%
6984 \xdef\Hy@chapapp{\Hy@appendixstring}%
6985 \HyOrg@appendix
6986 }%
6987 }

```

\Hy@Test@alph

```

6988 \def\Hy@Test@alph#1{%
6989 \ifcase#1\or
6990 a\or b\or c\or d\or e\or f\or g\or h\or i\or j\or
6991 k\or l\or m\or n\or o\or p\or q\or r\or s\or t\or
6992 u\or v\or w\or x\or y\or z%
6993 \else
6994 \@ctrerr
6995 \fi
6996 }

```

\Hy@Test@Alph

```

6997 \def\Hy@Test@Alph#1{%
6998 \ifcase#1\or
6999 A\or B\or C\or D\or E\or F\or G\or H\or I\or J\or
7000 K\or L\or M\or N\or O\or P\or Q\or R\or S\or T\or
7001 U\or V\or W\or X\or Y\or Z%
7002 \else
7003 \@ctrerr
7004 \fi
7005 }

```

We define a hook to allow to overwrite the next destination name.

```

7006 \NewHook{__hyp/target/setname }

```

```

7007 \define@key{Hyp}{next-anchor}{%
7008   \AddToHookNext{__hyp/target/setname}%
7009   {\Hy@MakeCurrentHref{#1}}%
7010 }

```

`\hyper@makecurrent` Because of Babel mucking around, nullify `\textlatin` when making names. And `\@number` because of babel's `lrbabel.def`. change 2021-08-15: For new formats we add a hook which allows to overwrite the name of the next destination.

```

7011 \def\hyper@makecurrent#1{%
7012   \begingroup
7013   \Hy@safe@activestruer
7014   \edef\Hy@param{#1}%
7015   \ifx\Hy@param\Hy@chapterstring
7016     \let\Hy@param\Hy@chapapp
7017   \fi
7018   \ifHy@hypertextnames
7019     \let\@number\@firstofone
7020     \def\@fnsymbol##1{fnsymbol\number##1}%
7021     \def\@arabic##1{\number##1}%
7022     \ifx\@alph\Hy@Test@alph
7023       \else
7024         \def\@alph{alph\number}%
7025       \fi
7026     \ifx\@Alph\Hy@Test@Alph
7027       \else
7028         \def\@Alph{Alph\number}%
7029       \fi
7030     \ifHy@naturalnames
7031       \let\textlatin\@firstofone
7032       \xdef\HyperGlobalCurrentHref{\csname the#1\endcsname}%
7033     \else
7034       \xdef\HyperGlobalCurrentHref{%
7035         \csname
7036           the%
7037           \expandafter\ifx\csname theH#1\endcsname\relax\else H\fi
7038           #1%
7039         \endcsname
7040       }%
7041     \fi
7042     \xdef\HyperGlobalCurrentHref{%
7043       \Hy@param.\expandafter\strip@prefix\meaning\HyperGlobalCurrentHref
7044     }%
7045     \else
7046       \Hy@GlobalStepCount\Hy@linkcounter
7047       \xdef\HyperGlobalCurrentHref{\Hy@param.the\Hy@linkcounter}%
7048     \fi
7049   \endgroup
7050   \let\HyperLocalCurrentHref\HyperGlobalCurrentHref
7051   \ifHy@localanchorname
7052     \let\@currentHref\HyperLocalCurrentHref
7053   \else
7054     \global\let\@currentHref\HyperGlobalCurrentHref
7055   \fi
7056   \UseHook{__hyp/target/setname}%

```

```
7057 }
```

`\Hy@MakeCurrentHref`

```
7058 \def\Hy@MakeCurrentHref#1{%
7059 \edef\HyperLocalCurrentHref{#1}%
7060 \@onelevel@sanitize\HyperLocalCurrentHref
7061 \global\let\HyperGlobalCurrentHref\HyperLocalCurrentHref
7062 \let\HyperLocalCurrentHref\HyperGlobalCurrentHref
7063 \ifHy@localanchorname
7064 \let\@currentHref\HyperLocalCurrentHref
7065 \else
7066 \global\let\@currentHref\HyperGlobalCurrentHref
7067 \fi
7068 }
```

`\Hy@MakeCurrentHrefAuto` This command is e.g. used to create destinations for unnumbered sections and chapters. For new formats we add a hook which allows to overwrite the name of the next destination.

```
7069 \def\Hy@MakeCurrentHrefAuto#1{%
7070 \Hy@GlobalStepCount\Hy@linkcounter
7071 \Hy@MakeCurrentHref{#1.\the\Hy@linkcounter}%
7072 \UseHook{__hyp/target/setname}}
```

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

```
7073 \def\@currentHlabel{\@currentHref}
```

29 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.

```
7074 \def\hypergetref#1{\getrefbykeydefault{#1}{}{??}}
7075 \def\hypergetpageref#1{\getrefbykeydefault{#1}{page}{0}}
```

30 Package titlesec and titletoc support

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

Package `titlesec` support:

```
7076 \@ifpackageloaded{titlesec}{%
7077 \def\ttl@Hy@steplink#1{%
7078 \Hy@MakeCurrentHrefAuto{#1*}%
7079 \edef\ttl@Hy@saveanchor{%
7080 \noexpand\Hy@raisedlink{%
7081 \noexpand\hyper@anchorstart{\@currentHref}%
7082 \noexpand\hyper@anchorend
7083 \def\noexpand\ttl@Hy@SavedCurrentHref{\@currentHref}%
7084 \noexpand\ttl@Hy@PatchSaveWrite
7085 }%
7086 }%
7087 }%
7088 \def\ttl@Hy@PatchSaveWrite{%
```

```

7089 \begingroup
7090 \toks@\expandafter{\ttl@savewrite}%
7091 \edef\x{\endgroup
7092 \def\noexpand\ttl@savewrite{%
7093 \let\noexpand\@currentHref
7094 \noexpand\ttl@Hy@SavedCurrentHref
7095 \the\toks@
7096 }%
7097 }%
7098 \x
7099 }%
7100 \def\ttl@Hy@refstepcounter#1{%
7101 \let\ttl@b\Hy@raisedlink
7102 \def\Hy@raisedlink##1{%
7103 \def\ttl@Hy@saveanchor{\Hy@raisedlink{##1}}%
7104 }%
7105 \refstepcounter{#1}%
7106 \let\Hy@raisedlink\ttl@b
7107 }%
7108 }-}

```

31 Package varioref support

Package nameref uses five arguments for the ref system. Fix provided by Felix Neubauer (felix.neubauer@gmx.net). This fix will no longer be needed with latex 2021-11-15.

```

7109 \@if@t@r\fmtversion{2021-11-15}
7110 {}%
7111 {
7112 \AtBeginDocument{%
7113 \def\Hy@varioref@undefined{???}{??}{-}{-}}
7114 \@ifpackageloaded{varioref}{%
7115 \def\vref@pagenum#1#2{%
7116 \@ifundefined{r@#2}{%
7117 \expandafter\let\csname r@#2\endcsname\Hy@varioref@undefined
7118 }-}%
7119 \edef#1{\getpagerefnumber{#2}}%
7120 }%
7121 }-}
7122 }
7123 }

```

32 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

```

7124 \@ifpackageloaded{longtable}{%
7125 \begingroup

```

```

7126 \def\y{\LT@array}%
7127 \@ifundefined{scr@LT@array}{%
7128   \@ifundefined{adl@LT@array}{\def\y{\adl@LT@array}}%
7129 }{\def\y{\scr@LT@array}}%
7130 \long\def\x\refstepcounter#1#2\@sharp#3#4\@nil{%
7131   \expandafter\endgroup
7132   \expandafter\def\y[##1]##2{%
7133     \H@refstepcounter{#1}%
7134     \hyper@makecurrent{table}%
7135     \let\Hy@LT@currentHref\@currentHref
7136     #2\@sharp###3###4%
7137   }%
7138 }%
7139 \expandafter\expandafter\expandafter\x\y[#{1}]{#2}\@nil

```

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

```

7140 \begingroup
7141 \def\x#1\ifvoid\LT@foot#2\fi#3\@nil{%
7142   \endgroup
7143   \def\LT@start{%
7144     #1%
7145     \ifvoid\LT@foot#2\fi
7146     \let\@currentHref\Hy@LT@currentHref
7147     \Hy@raisedlink{%
7148       \hyper@anchorstart{\@currentHref}\hyper@anchorend
7149     }%
7150     #3%
7151   }%
7152 }%
7153 \expandafter\x\LT@start\@nil
7154 }{}

```

33 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 40). 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.

```

7155 \let\new@refstepcounter\refstepcounter
7156 \let\H@equation\equation
7157 \let\H@endequation\endequation
7158 \@ifpackageloaded{amsmath}{%
7159   \long\def\Hy@temp{%
7160     \incr@eqnum
7161     \mathdisplay@push
7162     \st@rredfalse \global\@eqnswtrue
7163     \mathdisplay{equation}%
7164   }%
7165   \ifx\Hy@temp\equation
7166     \expandafter\ifx\csname if@fleqn\expandafter\endcsname
7167       \csname iftrue\endcsname

```



```

7168 \else
7169 \long\def\equation{%
7170 \mathdisplay@push
7171 \st@rredfalse \global\@eqnswtrue
7172 \mathdisplay{equation}%
7173 \incr@eqnum
7174 }%
7175 \fi
7176 \fi
7177 }{%
7178 \def\equation{%
7179 \let\refstepcounter\H@refstepcounter
7180 \H@equation
7181 \@ifundefined{theHequation}{%
7182 \make@stripped@name{\theequation}%
7183 \let\theHequation\newname
7184 }{}%
7185 \hyper@makecurrent{equation}%

```

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

```

7186 \mathopen{%
7187 \Hy@raisedlink{\hyper@anchorstart{\@currentHref}}%
7188 }%
7189 \let\refstepcounter\new@refstepcounter
7190 }%
7191 \def\endequation{%
7192 \ifx\Hy@raisedlink\ltx@empty
7193 \hyper@anchorend
7194 \else
7195 \mathclose{\Hy@raisedlink{\hyper@anchorend}}%
7196 \fi
7197 \H@endequation
7198 }%
7199 }

```

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.

```

7200 \newif\if@eqnstar
7201 \@eqnstarfalse
7202 \let\H@eqnarray\eqnarray
7203 \let\H@endeqnarray\endeqnarray
7204 \def\eqnarray{%
7205 \let\Hy@reserved@a\relax
7206 \def\@currentHref{}%
7207 \H@eqnarray
7208 \if@eqnstar
7209 \else
7210 \ifx\\\@currentHref\\%
7211 \else
7212 \@ifundefined{theHequation}{%
7213 \make@stripped@name{\theequation}%

```

```

7214     \let\theHequation\newname
7215   }{}%
7216   \hyper@makecurrent{equation}%
7217   \mathopen{%
7218     \Hy@raisedlink{%
7219       \hyper@anchorstart{\@currentHref}\hyper@anchorend
7220     }%
7221   }%
7222   \fi
7223   \fi
7224 }
7225 \def\endeqnarray{%
7226   \H@endeqnarray
7227 }

```

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.

```

7228 \@namedef{eqnarray*}{%
7229   \def\@eqncr{\nonumber\@seqncr}\@eqnstartrue\eqnarray
7230 }
7231 \@namedef{endeqnarray*}{%
7232   \nonumber\endeqnarray\@eqnstarfalse
7233 }

```

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

```

7234 \ltx@ifundefined{subeqnarray}{}{}%
7235 \let\H@subeqnarray\subeqnarray
7236 \let\H@endsubeqnarray\endsubeqnarray
7237 \def\subeqnarray{%
7238   \let\Hy@reserved@a\relax
7239   \H@subeqnarray
7240   \@ifundefined{theHequation}{%
7241     \make@stripped@name{\theequation}%
7242     \let\theHequation\newname
7243   }{}%
7244   \hyper@makecurrent{equation}%
7245   \hyper@anchorstart{\@currentHref}{}\hyper@anchorend
7246 }%
7247 \def\endsubeqnarray{%
7248   \H@endsubeqnarray
7249 }%
7250 \providecommand\theHsubequation{\theHequation\alph{subequation}}%
7251 }

```

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

```

7252 \def\make@stripped@name#1{%
7253   \begingroup
7254   \escapechar\m@ne
7255   \global\let\newname\@empty
7256   \protected@edef\Hy@tempa{#1}%
7257   \edef\@tempb{%
7258     \noexpand\@tfor\noexpand\Hy@tempa:=%

```

```

7259     \expandafter\strip@prefix\meaning\Hy@tempa
7260   }%
7261   \@tempb\do{%
7262     \if\Hy@tempa\else
7263     \if\Hy@tempa\else
7264     \xdef\newname{\newname\Hy@tempa}%
7265     \fi
7266     \fi
7267   }%
7268 \endgroup
7269 }

```

Support for amsmath's subequations:

```

7270 \begingroup\expandafter\expandafter\expandafter\endgroup
7271 \expandafter\ifx\csname subequations\endcsname\relax
7272 \else
7273 \let\HyOrg@subequations\subequations
7274 \def\subequations{%
7275   \stepcounter{equation}%
7276   \protected@edef\theHparentequation{%
7277     \@ifundefined{theHequation}\theequation\theHequation
7278   }%
7279   \addtocounter{equation}{-1}%
7280   \HyOrg@subequations
7281   \def\theHequation{\theHparentequation\alph{equation}}%
7282   \ignorespaces
7283 }%
7284 \fi

```

Support for package amsthm (Daniel Müllner): also cleveref.

```

7285 \Hy@AtBeginDocument{%
7286 \@ifpackageloaded{cleveref}{%
7287 \let\Hy@savedthm\@thm
7288 \def\@thm{\ifhmode\unskip\fi\Hy@savedthm}%
7289 }{%
7290 \@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

7291 \def\Hy@temp#1#2#3{%
7292   \ifhmode\unskip\unskip\par\fi
7293   \normalfont
7294   \trivlist
7295   \let\thmheadnl\relax
7296   \let\thm@swap\@gobble
7297   \let\thm@indent\indent % indent
7298   \thm@headfont{\scshape}% heading font small caps
7299   \thm@notefont{\fontseries\mddefault\upshape}%
7300   \thm@headpunct{.}% add period after heading
7301   \thm@headsep 5\p@ plus\p@ minus\p@\relax
7302   \thm@space@setup
7303   #1% style overrides

```

```

7304 \@topsep \thm@preskip          % used by thm head
7305 \@topsepadd \thm@postskip      % used by \@endparenv
7306 \def\@tempa{#2}\ifx\@empty\@tempa
7307   \def\@tempa{\@oparg{\@begintheorem{#3}{}}}%
7308 \else
7309   \refstepcounter{#2}%
7310   \def\@tempa{%
7311     \@oparg{\@begintheorem{#3}{\csname the#2\endcsname}}}%
7312   }%
7313 \fi
7314 \@tempa
7315 }%
7316 \ifx\Hy@temp\@thm
7317   \def\@thm#1#2#3{%
7318     \ifhmode
7319       \unskip\unskip\par
7320     \fi
7321     \normalfont
7322     \trivlist
7323     \let\thmheadnl\relax
7324     \let\thm@swap\@gobble
7325     \let\thm@indent\indent % indent
7326     \thm@headfont{\scshape}% heading font small caps
7327     \thm@notefont{\fontseries\mddefault\upshape}%
7328     \thm@headpunct{.}% add period after heading
7329     \thm@headsep 5\p@ plus\p@ minus\p@\relax
7330     \thm@space@setup
7331     #1% style overrides
7332     \@topsep \thm@preskip          % used by thm head
7333     \@topsepadd \thm@postskip      % used by \@endparenv
7334     \def\dth@counter{#2}%
7335     \ifx\@empty\dth@counter
7336       \def\@tempa{%
7337         \@oparg{\@begintheorem{#3}{}}}%
7338       }%
7339     \else
7340       \H@refstepcounter{#2}%
7341       \hyper@makecurrent{#2}%
7342       \let\Hy@dth@currentHref\@currentHref
7343       \def\@tempa{%
7344         \@oparg{\@begintheorem{#3}{\csname the#2\endcsname}}}%
7345       }%
7346     \fi
7347     \@tempa
7348   }%
7349 \else
7350   \def\@thm#1#2#3{%
7351     \ifhmode
7352       \unskip\unskip\par
7353     \fi
7354     \normalfont
7355     \trivlist
7356     \let\thmheadnl\relax
7357     \let\thm@swap\@gobble

```

```

7358 \thm@notefont{\fontseries\mddefault\upshape}%
7359 \thm@headpunct{.}% add period after heading
7360 \thm@headsep 5\p@ plus\p@ minus\p@\relax
7361 \thm@space@setup
7362 #1% style overrides
7363 \@topsep \thm@preskip % used by thm head
7364 \@topsepadd \thm@postskip % used by \@endparenv
7365 \def\dth@counter{#2}%
7366 \ifx\@empty\dth@counter
7367 \def\@tempa{%
7368 \@oparg{\@begintheorem{#3}{}}}%
7369 }%
7370 \else
7371 \H@refstepcounter{#2}%
7372 \hyper@makecurrent{#2}%
7373 \let\Hy@dth@currentHref\@currentHref
7374 \def\@tempa{%
7375 \@oparg{\@begintheorem{#3}{\csname the#2\endcsname}}}%
7376 }%
7377 \fi
7378 \@tempa
7379 }%
7380 \fi
7381 \dth@everypar={%
7382 \@minipagefalse
7383 \global\@newlistfalse
7384 \@noparitemfalse
7385 \if@inlabel
7386 \global\@inlabelfalse
7387 \begingroup
7388 \setbox\z@\lastbox
7389 \ifvoid\z@
7390 \kern-\itemindent
7391 \fi
7392 \endgroup
7393 \ifx\@empty\dth@counter
7394 \else
7395 \Hy@raisedlink{%
7396 \hyper@anchorstart{%
7397 \ltx@ifundefined{Hy@dth@currentHref}%
7398 \@currentHref\Hy@dth@currentHref
7399 }\hyper@anchorend
7400 }%
7401 \fi
7402 \unhbox\@labels
7403 \fi
7404 \if@nobreak
7405 \@nobreakfalse \clubpenalty\@M
7406 \else
7407 \clubpenalty\@clubpenalty \everypar{}%
7408 \fi
7409 }%
7410 }%

```

non `amsthm` case, remove final space on line before a theorem for githib issue 11.

```

7411 {%
7412 \let\Hy@savedthm\@thm
7413 \def\@thm{\ifhmode\unskip\fi\Hy@savedthm}%
7414 }%
7415 }%
7416 }

```

34 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. If `\hyper@nopath@footnote` is defined we don't patch but assume that addings links to footnotes is handled elsewhere.

```

7417 \ifundefined{hyper@nopath@footnote}{%
7418 \ifHy@hyperfootnotes
7419 \newcounter{Hfootnote}%
7420 \let\H@@footnotetext\@footnotetext
7421 \let\H@@footnotemark\@footnotemark
7422 \def\@xfootnotenext[#1]{%
7423 \begingroup
7424 \csname c@\@mpfn\endcsname #1\relax
7425 \unrestored@protected@xdef\@thefnmark{\thempfn}%
7426 \endgroup
7427 \ifx\@footnotetext\@mpfootnotetext
7428 \expandafter\H@@mpfootnotetext
7429 \else
7430 \expandafter\H@@@footnotetext
7431 \fi
7432 }%
7433 \def\@xfootnotemark[#1]{%
7434 \begingroup
7435 \c@footnote #1\relax
7436 \unrestored@protected@xdef\@thefnmark{\thefootnote}%
7437 \endgroup
7438 \H@@@footnotemark
7439 }%
7440 \let\H@@mpfootnotetext\@mpfootnotetext
7441 \long\def\@mpfootnotetext#1{%
7442 \H@@mpfootnotetext{%
7443 \ifHy@nesting
7444 \expandafter\ltx@firstoftwo
7445 \else
7446 \expandafter\ltx@secondoftwo
7447 \fi
7448 }%
7449 \expandafter\hyper@@anchor\expandafter{%
7450 \Hy@footnote@currentHref
7451 }{\ignorespaces #1}%
7452 }%

```

```

7453     \Hy@raisedlink{%
7454     \expandafter\hyper@@anchor\expandafter{%
7455     \Hy@footnote@currentHref
7456     }\relax}%
7457     }\ignorespaces #1%
7458   }%
7459 }%
7460 }%
7461 \long\def\@footnotetext#1{%
7462 \H@@@footnotetext{%
7463 \ifHy@nesting
7464 \expandafter\ltx@firstoftwo
7465 \else
7466 \expandafter\ltx@secondoftwo
7467 \fi
7468 {%
7469 \expandafter\hyper@@anchor\expandafter{%
7470 \Hy@footnote@currentHref
7471 }\ignorespaces #1}%
7472 }{%
7473 \Hy@raisedlink{%
7474 \expandafter\hyper@@anchor\expandafter{%
7475 \Hy@footnote@currentHref
7476 }\relax}%
7477 }%
7478 \let\@currentHref\Hy@footnote@currentHref
7479 \let\@currentlabelname\@empty
7480 \ignorespaces #1%
7481 }%
7482 }%
7483 }%

```

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.

```

7484 \def\@footnotemark{%
7485 \leavevmode
7486 \ifhmode\edef\@x@sf{\the\spacefactor}\nobreak\fi
7487 \stepcounter{Hfootnote}%
7488 \global\let\Hy@saved@currentHref\@currentHref
7489 \hyper@makecurrent{Hfootnote}%
7490 \global\let\Hy@footnote@currentHref\@currentHref
7491 \global\let\@currentHref\Hy@saved@currentHref
7492 \hyper@linkstart{link}{\Hy@footnote@currentHref}%
7493 \@makefnmark
7494 \hyper@linkend
7495 \ifhmode\spacefactor\@x@sf\fi
7496 \relax
7497 }%

```

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

```

7498 \@ifpackageloaded{tabularx}{%
7499   \let\HyOrg@TX@endtabularx\TX@endtabularx
7500   \def\Hy@tabularx@hook{%
7501     \let\@footnotetext\H@@footnotetext
7502     \let\@footnotemark\H@@footnotemark
7503     \let\@mpfootnotetext\H@@mpfootnotetext
7504   }%
7505   \begingroup
7506     \toks@\expandafter{\TX@endtabularx}%
7507     \xdef\Hy@gtemp{%
7508       \noexpand\Hy@tabularx@hook
7509       \the\toks@
7510     }%
7511   \endgroup
7512   \let\TX@endtabularx\Hy@gtemp
7513 }-%

```

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

```

7514 \@ifpackageloaded{longtable}{%
7515   \CheckCommand{\LT@p@ftntext}[1]{%
7516     \edef\@tempa{%
7517       \the\LT@p@ftn
7518       \noexpand\footnotetext[\the\c@footnote]%
7519     }%
7520     \global\LT@p@ftn\expandafter{\@tempa{#1}}%
7521   }%
7522   \long\def\LT@p@ftntext#1{%
7523     \edef\@tempa{%
7524       \the\LT@p@ftn
7525     }%
7526     \begingroup
7527       \noexpand\c@footnote=\the\c@footnote\relax
7528       \noexpand\protected@xdef\noexpand\@thefnmark{%
7529         \noexpand\thempfn
7530       }%
7531       \noexpand\Hy@LT@footnotetext{%
7532         \Hy@footnote@currentHref
7533       }%
7534       \global\LT@p@ftn\expandafter{%
7535         \@tempa{#1}%
7536       }%
7537     \endgroup
7538   }%
7539   \long\def\Hy@LT@footnotetext#1#2{%
7540     \H@@footnotetext{%
7541       \ifHy@nesting
7542         \hyper@@anchor{#1}{#2}%
7543       \else
7544         \Hy@raisedlink{%
7545           \hyper@@anchor{#1}{\relax}%
7546         }%

```



```

7547     \def\@currentHref{#1}%
7548     \let\@currentlabelname\@empty
7549     #2%
7550     \fi
7551   }%
7552 }%
7553 }-{}%

```

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

```

7554 \ifpackageloaded{fancyvrb}{%
7555   \def\V@@footnotetext{%
7556     \insert\footins\bgroup
7557     \csname reset@font\endcsname
7558     \footnotesize
7559     \interlinepenalty\interfootnotelinepenalty
7560     \splittopskip\footnotesep
7561     \splitmaxdepth\dp\strutbox
7562     \floatingpenalty \@MMM
7563     \hsize\columnwidth
7564     \@parboxrestore
7565     \def\@currentcounter{footnote}%
7566     \protected@edef\@currentlabel{\csname p@footnote\endcsname\@thefn-
mark}%
7567     \@makefntext{}%
7568     \rule{\z@}{\footnotesep}%
7569     \bgroup
7570     \aftergroup\V@@@footnotetext
7571     \Hy@raisedlink{%
7572       \expandafter\hyper@@anchor\expandafter{%
7573         \Hy@footnote@currentHref
7574         }{\relax}%
7575     }%
7576     \let\@currentHref\Hy@footnote@currentHref
7577     \let\@currentlabelname\@empty
7578     \ignorespaces
7579   }%
7580 }-{}%

```

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

```

7581 \def\Hy@temp#1{%
7582   \begingroup
7583   \unrestored@protected@xdef\@thefnmark{\ref{#1}}%
7584   \endgroup
7585   \@footnotemark
7586 }%
7587 \ifx\Hy@temp\footref
7588   \def\footref#1{%
7589     \begingroup
7590     \unrestored@protected@xdef\@thefnmark{\ref{#1}}%
7591     \endgroup
7592     \H@@@footnotemark
7593   }%
7594   \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.

```

7595 \let\HyOrg@maketitle\maketitle
7596 \def\maketitle{%
7597   \let\Hy@saved@footnotemark\@footnotemark
7598   \let\Hy@saved@footnotetext\@footnotetext
7599   \let\@footnotemark\H@@footnotemark
7600   \let\@footnotetext\H@@footnotetext
7601   \@ifnextchar[\Hy@maketitle@optarg{% ]
7602     \HyOrg@maketitle
7603     \Hy@maketitle@end
7604   }%
7605 }%
7606 \def\Hy@maketitle@optarg[#1]{%
7607   \HyOrg@maketitle[#1]}%
7608   \Hy@maketitle@end
7609 }%
7610 \def\Hy@maketitle@end{%
7611   \ifx\@footnotemark\H@@footnotemark
7612     \let\@footnotemark\Hy@saved@footnotemark
7613   \fi
7614   \ifx\@footnotetext\H@@footnotetext
7615     \let\@footnotetext\Hy@saved@footnotetext
7616   \fi
7617 }%

```

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

```

7618 \def\realfootnote{%
7619   \@ifnextchar[\@xfootnote%
7620     {\stepcounter{\@mpfn}}%
7621     \protected@xdef\@thefnmark{\thempfn}%
7622     \H@@footnotemark\H@@footnotetext
7623   }%
7624 }%
7625 \fi
7626 }-{}
7627 \Hy@DisableOption{hyperfootnotes}
7628 \</packageEnd>
7629 \< *check>
7630 \checklatex
7631 \checkcommand\def\@xfootnotenext[#1]{%
7632   \begingroup
7633     \csname c@\@mpfn\endcsname #1\relax
7634     \unrestored@protected@xdef\@thefnmark{\thempfn}%
7635   \endgroup
7636   \@footnotetext
7637 }
7638 \checkcommand\def\@xfootnotemark[#1]{%
7639   \begingroup
7640     \c@footnote #1\relax
7641     \unrestored@protected@xdef\@thefnmark{\thefootnote}%

```

```

7642 \endgroup
7643 \@footnotemark
7644 }
7645 \checkcommand\def\@footnotemark{%
7646 \leavevmode
7647 \ifhmode\edef\@x@sf{\the\spacefactor}\nobreak\fi
7648 \@makefnmark
7649 \ifhmode\spacefactor\@x@sf\fi
7650 \relax
7651 }
7652 </check>
7653 <*packageEnd>

```

35 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.

```

7654 \def\caption{%
7655 \ifx\@captive\@undefined
7656 \@latex@error{\noexpand\caption outside float}\@ehd
7657 \expandafter\@gobble
7658 \else
7659 \H@refstepcounter\@captive
7660 \let\Hy@tempa\@caption
7661 \@ifundefined{float@caption}{%
7662 }{%
7663 \expandafter\ifx\csname @float@c@\@captive\endcsname
7664 \float@caption
7665 \let\Hy@tempa\Hy@float@caption
7666 \fi
7667 }%
7668 \expandafter\@firstofone
7669 \fi
7670 {\@dblarg{\Hy@tempa\@captive}}%
7671 }
7672 \long\def\@caption#1[#2]#3{%
7673 \expandafter\ifx\csname if@capstart\endcsname
7674 \csname iftrue\endcsname
7675 \global\let\@currentHref\hc@currentHref
7676 \else
7677 \hyper@makecurrent{\@captive}%
7678 \fi
7679 \@ifundefined{NR@getttitle}{%
7680 \def\@currentlabelname{#2}%
7681 }{%
7682 \NR@getttitle{#2}%
7683 }%
7684 \par\addcontentsline{\csname ext@#1\endcsname}{#1}{%
7685 \protect\numberline{\csname the#1\endcsname}{\ignorespaces #2}%
7686 }%
7687 \begingroup
7688 \@parboxrestore
7689 \if@minipage

```

```

7690 \setminipage
7691 \fi
7692 \normalsize
7693 \expandafter\ifx\csname if@capstart\expandafter\endcsname
7694 \csname iftrue\endcsname
7695 \global\@capstartfalse
7696 \@makecaption{\csname fnum@#1\endcsname}{\ignorespaces#3}%
7697 \else
7698 \@makecaption{\csname fnum@#1\endcsname}{%
7699 \ignorespaces

```

If we cannot have nesting, the anchor is empty.

```

7700 \ifHy@nesting
7701 \expandafter\hyper@@anchor\expandafter{\@currentHref}{#3}%
7702 \else
7703 \Hy@raisedlink{%
7704 \expandafter\hyper@@anchor\expandafter{%
7705 \@currentHref
7706 }{\relax}%
7707 }%
7708 #3%
7709 \fi
7710 }%
7711 \fi
7712 \par
7713 \endgroup
7714 }

```

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’.

```

7715 \let\Hy@float@caption\@caption
7716 \newcommand{\HyNew@float@makebox}[1]{%
7717 \HyOrg@float@makebox{%
7718 #1\relax
7719 \ifx\Hy@float@currentHref\@undefined
7720 \else
7721 \expandafter\hyper@@anchor\expandafter{%
7722 \Hy@float@currentHref
7723 }{\relax}%
7724 \global\let\Hy@float@currentHref\@undefined
7725 \fi
7726 }%
7727 }%
7728 \@ifpackageloaded{float}{%
7729 \def\Hy@float@caption{%
7730 \ifx\Hy@float@currentHref\@undefined
7731 \hyper@makecurrent{\@capttype}%
7732 \global\let\Hy@float@currentHref\@currentHref
7733 \else
7734 \let\@currentHref\Hy@float@currentHref
7735 \fi
7736 \float@caption

```

```

7737 }%
7738 \let\HyOrg@float@makebox\float@makebox
7739 \let\float@makebox\HyNew@float@makebox
7740 }-{}

7741 </packageEnd>
7742 <*check>
7743 \checklatex[1999/06/01 - 2000/06/01]
7744 \checkcommand\def\caption{%
7745 \ifx\@cuptype\@undefined
7746 \@latex@error{\noexpand\caption outside float}\@ehd
7747 \expandafter\@gobble
7748 \else
7749 \refstepcounter\@cuptype
7750 \expandafter\@firstofone
7751 \fi
7752 {\@dblarg{\@caption\@cuptype}}}%
7753 }
7754 \checkcommand\long\def\@caption#1[#2]#3{%
7755 \par
7756 \addcontentsline{\csname ext@#1\endcsname}{#1}{%
7757 \protect\numberline{\csname the#1\endcsname}{\ignorespaces #2}}%
7758 }%
7759 \begingroup
7760 \@parboxrestore
7761 \if@minipage
7762 \@setminipage
7763 \fi
7764 \normalsize
7765 \@makecaption{\csname fnum@#1\endcsname}{\ignorespaces #3}\par
7766 \endgroup
7767 }
7768 </check>
7769 <*packageEnd>

```

36 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 that's a powerful, important package. Patrick Daly (daly@linmpi.mpg.de) has provided hooks for us, so all we need to do is activate them.

```

7770 \def\hyper@natlinkstart#1{%
7771 \Hy@backout{#1}%
7772 \hyper@linkstart{cite}{cite.#1}%
7773 \def\hyper@nat@current{#1}%
7774 }
7775 \def\hyper@natlinkend{%
7776 \hyper@linkend
7777 }

```

```

7778 \def\hyper@natlinkbreak#1#2{%
7779 \hyper@linkend#1\hyper@linkstart{cite}{cite.#2}%
7780 }
7781 \def\hyper@natanchorstart#1{%
7782 \Hy@raisedlink{\hyper@anchorstart{cite.#1}}%
7783 }
7784 \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.

```

7785 \ltx@ifundefined{NAT@parse}{%
7786 \providecommand*\@extra@binfo{}%
7787 \providecommand*\@extra@b@citeb{}%
7788 \def\bibcite#1#2{%
7789 \@newl@bel{b}{#1\@extra@binfo}{%
7790 \hyper@link{cite}{cite.#1\@extra@b@citeb}{#2}%
7791 }%
7792 }%
7793 \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.”.

```

7794 \let\Hy@bibcite\bibcite
7795 \begingroup
7796 \@ifundefined{bbl@cite@choice}{}{%
7797 \g@addto@macro\bbl@cite@choice{%
7798 \let\bibcite\Hy@bibcite
7799 }%
7800 }%
7801 \endgroup

```

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

```

7802 \providecommand*\@BIBLABEL{\@biblabel}%
7803 \def\@lbibitem[#1]#2{%
7804 \@skiphyperrreftrue
7805 \H@item{%
7806 \ifx\Hy@raisedlink\@empty
7807 \hyper@anchorstart{cite.#2\@extra@b@citeb}%
7808 \@BIBLABEL{#1}%
7809 \hyper@anchorend
7810 \else
7811 \Hy@raisedlink{%
7812 \hyper@anchorstart{cite.#2\@extra@b@citeb}\hyper@anchorend
7813 }%
7814 \@BIBLABEL{#1}%
7815 \fi
7816 \hfill
7817 ]%
7818 \@skiphyperrreffalse
7819 \if@filesw
7820 \begingroup
7821 \let\protect\noexpand
7822 \immediate\write\@auxout{%

```

```

7823     \string\bibcite{#2}{#1}%
7824     }%
7825     \endgroup
7826     \fi
7827     \ignorespaces
7828     }%

```

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

```

7829     \def\@bibitem#1{%
7830     \@skiphyperreftrue\H@item\@skiphyperreffalse
7831     \Hy@raisedlink{%
7832     \hyper@anchorstart{cite.#1\@extra@b@citeb}\relax\hyper@anchorend
7833     }%
7834     \if@filesw
7835     \begingroup
7836     \let\protect\noexpand
7837     \immediate\write\@auxout{%
7838     \string\bibcite{#1}{\the\value{\@listctr}}%
7839     }%
7840     \endgroup
7841     \fi
7842     \ignorespaces
7843     }%
7844     }{}

7845 </packageEnd>
7846 <*check>
7847 \checklatex
7848 \checkcommand\def\@lbibitem[#1]#2{%
7849 \item[\@biblabel{#1}\hfill]%
7850 \if@filesw
7851 {%
7852 \let\protect\noexpand
7853 \immediate\write\@auxout{%
7854 \string\bibcite{#2}{#1}%
7855 }%
7856 }%
7857 \fi
7858 \ignorespaces
7859 }
7860 \checkcommand\def\@bibitem#1{%
7861 \item
7862 \if@filesw
7863 \immediate\write\@auxout{%
7864 \string\bibcite{#1}{\the\value{\@listctr}}%
7865 }%
7866 \fi
7867 \ignorespaces
7868 }
7869 </check>
7870 <*packageEnd>

```

36.1 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.

```

7871 \ifpackageloaded{harvard}{%
7872 \Hy@AtBeginDocument{%
7873 \Hy@Info{*** compatibility with harvard **** }%
7874 \Hy@raiselinksfalse
7875 \def\harvardcite#1#2#3#4{%
7876 \global\@namedef{HAR@fn@#1}{\hyper@link[cite]{}{cite.#1}{#2}}%
7877 \global\@namedef{HAR@an@#1}{\hyper@link[cite]{}{cite.#1}{#3}}%
7878 \global\@namedef{HAR@yr@#1}{\hyper@link[cite]{}{cite.#1}{#4}}%
7879 \global\@namedef{HAR@df@#1}{\csname HAR@fn@#1\endcsname}%
7880 }%
7881 \def\HAR@citetoaux#1{%
7882 \if@filesw\immediate\write\@auxout{\string\citation{#1}}\fi%
7883 \ifHy@backref
7884 \ifx\@empty\@currentlabel
7885 \else
7886 \@bsphack
7887 \if@filesw
7888 \protected@write\@auxout{}{%
7889 \string\@writefile{brf}{%
7890 \string\backcite{#1}{%
7891 {\thepage}{\@currentlabel}{\@currentHref}%
7892 }%
7893 }%
7894 }%
7895 \fi
7896 \@esphack
7897 \fi
7898 \fi
7899 }%
7900 \def\harvarditem{%
7901 \@ifnextchar[{\@harvarditem}{\@harvarditem[\null]}%
7902 }%
7903 \def\@harvarditem[#1]#2#3#4#5\par{%
7904 \item[]%
7905 \hyper@anchorstart{cite.#4}\relax\hyper@anchorend
7906 \if@filesw
7907 \begingroup
7908 \def\protect##1{\string ##1\space}%
7909 \ifthenelse{\equal{#1}{\null}}%
7910 {\def\next{{#4}{#2}{#3}}}%
7911 {\def\next{{#4}{#2}{#1}{#3}}}%
7912 \immediate\write\@auxout{\string\harvardcite\codeof\next}%
7913 \endgroup
7914 \fi
7915 \protect\hspace*{-\labelwidth}%

```



```

7916 \protect\hspace*{-\labelsep}%
7917 \ignorespaces
7918 #5%
7919 \ifHy@backref
7920 \newblock
7921 \backref{\csname br@#4\endcsname}%
7922 \fi
7923 \par
7924 }%

```

`\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`:

```

7925 \long\def\HAR@checkcitations#1#2#3#4{%
7926 \def\HAR@tempa{\hyper@@link[cite]{}{cite.#1}{#2}}%
7927 \expandafter\ifx\csname HAR@fn@#1\endcsname\HAR@tempa
7928 \def\HAR@tempa{\hyper@@link[cite]{}{cite.#1}{#3}}%
7929 \expandafter\ifx\csname HAR@an@#1\endcsname\HAR@tempa
7930 \def\HAR@tempa{\hyper@@link[cite]{}{cite.#1}{#4}}%
7931 \expandafter\ifx\csname HAR@yr@#1\endcsname\HAR@tempa
7932 \else
7933 \@tempwattrue
7934 \fi
7935 \else
7936 \@tempwattrue
7937 \fi
7938 \else
7939 \@tempwattrue
7940 \fi
7941 }%
7942 }%

7943 }{}

```

36.2 Package chicago

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

```

7944 \@ifpackageloaded{chicago}{%

```

`\citeN`

```

7945 \def\citeN{%
7946 \def\@citesep{-1000}%
7947 \def\@cite##1##2{##1}%
7948 \def\citeauthoryear##1##2##3{##1 (##3\@cite@opt)}%
7949 \@citedata@opt
7950 }%

```

`\shortciteN`

```

7951 \def\shortciteN{%
7952 \def\@citesep{-1000}%
7953 \def\@cite##1##2{##1}%
7954 \def\citeauthoryear##1##2##3{##2 (##3\@cite@opt)}%
7955 \@citedata@opt
7956 }%

```

\@citedata@opt

```
7957 \def\@citedata@opt{%
7958   \let\@cite@opt\@empty
7959   \ifnextchar [{%
7960     \@tempswatruue
7961     \@citedatax@opt
7962   }{%
7963     \@tempswafalse
7964     \@citedatax[]%
7965   }%
7966 }%
```

\@citedatax@opt

```
7967 \def\@citedatax@opt[#1]{%
7968   \def\@cite@opt{, #1}%
7969   \@citedatax[#{#1}]%
7970 }%

7971 }{}
```

37 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{pdf-pageduration={}}`. 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.

```
7972 \ltx@ifclassloaded{slides}{%
7973   \def\Hy@SlidesFormatOptionalPage#1{(#1)}%
7974   \def\Hy@PageAnchorSlidesPlain{%
7975     \advance\c@page\ltx@one
7976     \edef\Hy@TempPageAnchor{%
7977       \noexpand\hyper@@anchor{%
7978         page.\the\c@slide.\the\c@overlay.\the\c@note%
7979         \ifnum\c@page=\ltx@one
7980           \else
7981             .\the\c@page
7982           \fi
7983         }%
7984       }%
7985     \advance\c@page-\ltx@one
7986   }%
7987   \def\Hy@PageAnchorSlide{%
7988     \advance\c@page\ltx@one
7989     \ifnum\c@page>\ltx@one
7990       \ltx@ifUndefined{theHpage}{%
7991         \protected@edef\Hy@TheSlideOptionalPage{%
7992           \Hy@SlidesFormatOptionalPage{\thepage}%
7993         }%
7994       }{%
7995         \protected@edef\Hy@TheSlideOptionalPage{%
```

```

7996     \Hy@SlidesFormatOptionalPage{\theHpage}%
7997     }%
7998     }%
7999     \else
8000     \def\Hy@TheSlideOptionalPage{%
8001     \fi
8002     \advance\c@page-\ltx@one
8003     \pdfstringdef\@the@H@page{%
8004     \csname
8005     the%
8006     \ltx@ifundefined{theH\Hy@SlidesPage}{H}%
8007     \Hy@SlidesPage
8008     \endcsname
8009     \Hy@TheSlideOptionalPage
8010     }%
8011     \ltx@gobblethree
8012     }%
8013     \def\Hy@SlidesPage{slide}%
8014     \g@addto@macro\slide{%
8015     \def\Hy@SlidesPage{slide}%
8016     }%
8017     \g@addto@macro\overlay{%
8018     \def\Hy@SlidesPage{overlay}%
8019     }%
8020     \g@addto@macro\note{%
8021     \def\Hy@SlidesPage{note}%
8022     }%
8023     }{%
8024     \def\Hy@PageAnchorSlidesPlain{%
8025     \def\Hy@PageAnchorSlide{%
8026     }
8027     \def\Hy@EveryPageAnchor{%
8028     \Hy@DistillerDestFix
8029     \ifHy@pageanchor
8030     \ifHy@hypertexnames
8031     \ifHy@plainpages
8032     \def\Hy@TempPageAnchor{\hyper@@anchor{page.\the\c@page}}%
8033     \Hy@PageAnchorSlidesPlain
8034     \else
8035     \begingroup
8036     \let\@number\@firstofone
8037     \Hy@unicodedefalse
8038     \Hy@PageAnchorSlide
8039     \pdfstringdef\@the@H@page{\theHpage}%
8040     \endgroup
8041     \EdefUnescapeString\@the@H@page{\@the@H@page}%
8042     \def\Hy@TempPageAnchor{\hyper@@anchor{page.\@the@H@page}}%
8043     \fi
8044     \else
8045     \Hy@GlobalStepCount\Hy@pagecounter
8046     \def\Hy@TempPageAnchor{%
8047     \hyper@@anchor{page.\the\Hy@pagecounter}%
8048     }%
8049     \fi

```

```

8050 \vbox to 0pt{%
8051 \kern\voffset
8052 \kern\topmargin
8053 \kern-1bp\relax
8054 \hbox to 0pt{%
8055 \kern\hoffset
8056 \kern\ifodd\value{page}%
8057 \oddsidemargin
8058 \else
8059 \evensidemargin
8060 \fi
8061 \kern-1bp\relax
8062 \Hy@TempPageAnchor\relax
8063 \hss
8064 }%
8065 \vss
8066 }%
8067 \fi
8068 }
8069 \g@addto@macro\Hy@EveryPageBoxHook{%
8070 \Hy@EveryPageAnchor
8071 }

```

38 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. In newer L^AT_EX releases this is defined to put a % at the end of the line in the tocf file.

```

8072 \providecommand\protected@file@percent{}
8073 \def\addcontentsline#1#2#3{% toc extension, type, tag
8074 \begingroup
8075 \let\label\@gobble
8076 \ifx\@currentHref\@empty
8077 \Hy@Warning{%
8078 No destination for bookmark of \string\addcontentsline,%
8079 \MessageBreak destination is added%
8080 }%
8081 \phantomsection
8082 \fi
8083 \expandafter\ifx\csname toplevel@#2\endcsname\relax
8084 \begingroup
8085 \def\Hy@tempa{#1}%
8086 \ifx\Hy@tempa\Hy@bookmarkstype
8087 \Hy@WarningNoLine{%
8088 bookmark level for unknown #2 defaults to 0%
8089 }%
8090 \else
8091 \Hy@Info{bookmark level for unknown #2 defaults to 0}%
8092 \fi
8093 \endgroup

```

```

8094 \expandafter\gdef\csname toplevel@#2\endcsname{0}%
8095 \fi
8096 \edef\Hy@toplevel{\csname toplevel@#2\endcsname}%
8097 \Hy@writebookmark{\csname the#2\endcsname}%
8098 {#3}%
8099 {\@currentHref}%
8100 {\Hy@toplevel}%
8101 {#1}%
8102 \ifHy@verbose
8103 \begingroup
8104 \def\Hy@tempa{#3}%
8105 \@onelevel@sanitize\Hy@tempa
8106 \let\temp@online\on@line
8107 \let\on@line\@empty
8108 \Hy@Info{%
8109 bookmark\temp@online:\MessageBreak
8110 thecounter {\csname the#2\endcsname}\MessageBreak
8111 text {\Hy@tempa}\MessageBreak
8112 reference {\@currentHref}\MessageBreak
8113 toplevel {\Hy@toplevel}\MessageBreak
8114 type {#1}%
8115 }%
8116 \endgroup
8117 \fi
8118 \addtocontents{#1}{%
8119 \protect\contentsline{#2}{#3}{\thepage}{\@currentHref}\protected@file@per-
cent
8120 }%
8121 \endgroup
8122 }

```

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

change 2022-11-13: To avoid problems if `MakeUppercase` is used around the entry we use special protected commands:

```

8123 \protected\def\Hy@toclinkstart{\hyper@linkstart{link}{\Hy@tocdestname}}
8124 \protected\def\Hy@toclinkend{\hyper@linkend}
8125
8126 \def\contentsline#1#2#3#4{%
8127 \begingroup
8128 \Hy@safe@activestruer
8129 \edef\x{\endgroup
8130 \def\noexpand\Hy@tocdestname{#4}%
8131 }\x
8132 \ifx\Hy@tocdestname\ltx@empty
8133 \csname l@#1\endcsname{#2}{#3}%
8134 \else
8135 \ifcase\Hy@linktoc % none
8136 \csname l@#1\endcsname{#2}{#3}%
8137 \or % section
8138 \csname l@#1\endcsname{%
8139 \Hy@toclinkstart{#2}\Hy@toclinkend
8140 }{#3}%
8141 \or % page

```

```

8142 \def\Hy@temp{#3}%
8143 \ifx\Hy@temp\ltx@empty
8144 \csname l@#1\endcsname{#2}{#3}%
8145 \else
8146 \csname l@#1\endcsname{{#2}}{%
8147 \Hy@toclinkstart{#3}\Hy@toclinkend
8148 }%
8149 \fi
8150 \else % all
8151 \def\Hy@temp{#3}%
8152 \ifx\Hy@temp\ltx@empty
8153 \csname l@#1\endcsname{%
8154 \Hy@toclinkstart{#2}\Hy@toclinkend
8155 }{}%
8156 \else
8157 \csname l@#1\endcsname{%
8158 \Hy@toclinkstart{#2}\Hy@toclinkend
8159 }{%
8160 \Hy@toclinkstart{#3}\Hy@toclinkend
8161 }%
8162 \fi
8163 \fi
8164 \fi
8165 }

8166 \endpackage
8167 \check
8168 \checklatex
8169 \checkcommand\def\addcontentsline#1#2#3{%
8170 \addtocontents{#1}{\protect\contentsline{#2}{#3}{\thepage}}%
8171 }
8172 \checkcommand\def\contentsline#1{\csname l@#1\endcsname}
8173 \endcheck
8174 \endpackage

```

39 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.

```

8175 \let\H@definecounter\@definecounter
8176 \def\@definecounter#1{%
8177 \H@definecounter{#1}%
8178 \expandafter\gdef\csname theH#1\endcsname{\arabic{#1}}%
8179 }

```

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.

```

8180 \let\H@newctr\@newctr
8181 \def\@newctr#1[#2]{%
8182 \H@newctr#1[{#2}]%
8183 \expandafter\gdef\csname theH#1\endcsname{%
8184 \csname the\@ifundefined{theH#2}{-}{H}#2\endcsname.\arabic{#1}}%
8185 }%
8186 }

```

40 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.

```

8187 \@ifpackageloaded{amsmath}{%
8188   \def\Hy@make@anchor{%
8189     \Hy@MakeCurrentHrefAuto{AMS}%
8190     \Hy@raisedlink{\hyper@anchorstart{\@currentHref}\hyper@anchorend}%
8191   }%
8192   \def\Hy@make@df@tag@#1{%
8193     \gdef\df@tag{%
8194       \maketag@@@{\Hy@make@anchor#1}%
8195       \def\@currentlabel{#1}%
8196     }%
8197   }%
8198   \def\Hy@make@df@tag@@#1{%
8199     \gdef\df@tag{%
8200       \tagform@{\Hy@make@anchor#1}%
8201       \toks@\@xp{\p@equation{#1}}%
8202       \edef\@currentlabel{\the\toks@}%
8203     }%
8204   }%
8205   \let\HyOrg@make@df@tag@@\make@df@tag@@
8206   \let\HyOrg@make@df@tag@@@\make@df@tag@@@
8207   \let\make@df@tag@@\Hy@make@df@tag@@
8208   \let\make@df@tag@@@\Hy@make@df@tag@@@
8209 }{}

```

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

```

8210 \@ifpackagewith{hyperref}{pdftex}{%
8211   \let\H@seteqlabel\seteqlabel
8212   \def\@seteqlabel#1{%
8213     \H@seteqlabel{#1}%
8214     \xdef\@currentHref{AMS.\the\Hy@linkcounter}%
8215     \Hy@raisedlink{%
8216       \hyper@anchorstart{\@currentHref}\hyper@anchorend
8217     }%
8218   }%
8219 }{}

```

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}}}

```

40.1 \@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.

```

8220 \let\HyOrg@addtoreset\@addtoreset
8221 \def\@addtoreset#1#2{%
8222   \HyOrg@addtoreset{#1}{#2}%
8223   \expandafter\xdef\csname theH#1\endcsname{%
8224     \expandafter\noexpand
8225       \csname the\@ifundefined{theH#2}{}H#2\endcsname
8226     .\noexpand\the\noexpand\value{#1}%
8227   }%
8228 }
```

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

```

8229 </packageEnd>
8230 <*check>
8231 \checkpackage{amsmath}[1999/12/14 - 2000/06/06]
8232 \checkcommand\newcommand{\numberwithin}[3][\arabic]{%
8233   \@ifundefined{c@#2}{\@nocounterr{#2}}{%
8234     \@ifundefined{c@#3}{\@nocnterr{#3}}{%
8235       \@addtoreset{#2}{#3}%
8236       \@xp\xdef\csname the#2\endcsname{%
8237         \@xp\@nx\csname the#3\endcsname .\@nx#1{#2}%
8238       }%
8239     }%
8240   }%
8241 }%
8242 </check>
8243 <*packageEnd>
8244 \@ifpackageloaded{amsmath}{%
8245   \renewcommand*\numberwithin}[3][\arabic]{%
8246     \@ifundefined{c@#2}{\@nocounterr{#2}}{%
8247       \@ifundefined{c@#3}{\@nocnterr{#3}}{%
8248         \HyOrg@addtoreset{#2}{#3}%
8249         \@xp\xdef\csname the#2\endcsname{%
8250           \@xp\@nx\csname the#3\endcsname .\@nx#1{#2}%
8251         }%
8252         \@xp\xdef\csname theH#2\endcsname{%
8253           \@xp\@nx
8254           \csname the\@ifundefined{theH#3}{}H#3\endcsname
8255           .\@nx#1{#2}%
8256         }%
8257       }%
8258     }%
8259   }%
8260 }{}
```


41 Included figures

Simply intercept the low level graphics package macro.

```
8261 \ifHy@hyperfigures
8262 \let\Hy@Gin@setfile\Gin@setfile
8263 \def\Gin@setfile#1#2#3{%
8264   \hyperimage{#3}{\Hy@Gin@setfile{#1}{#2}{#3}}%
8265 }%
8266 \fi
8267 \Hy@DisableOption{hyperfigures}
```

42 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.

```
8268 \ifHy@hyperindex
8269 \def\HyInd@ParenLeft{({}%
8270 \def\HyInd@ParenRight{)}}%
8271 \def\hyperindexformat#1#2{%
8272   \let\HyOrg@hyperpage\hyperpage
8273   \let\hyperpage\@firstofone
8274   #1{\HyOrg@hyperpage{#2}}%
8275   \let\hyperpage\HyOrg@hyperpage
8276 }%
8277 \Hy@nextfalse
8278 \@ifpackageloaded{multind}{\Hy@nexttrue}{}%
8279 \@ifpackageloaded{index}{\Hy@nexttrue}{}%
8280 \@ifpackageloaded{amsmidx}{\Hy@nexttrue}{}%
8281 \begingroup
8282 \lccode`|= \expandafter`\HyInd@EncapChar\relax
8283 \lccode`\/= `\\ \relax
8284 \lowercase{\endgroup
8285 \ifHy@next
8286   \let\HyInd@org@wrindex\@wrindex
8287   \def\@wrindex#1#2{\HyInd@wrindex{#1}#2||\}%
8288   \def\HyInd@wrindex#1#2|#3|#4\{\%
8289     \ifx\|#3\%
8290       \HyInd@org@wrindex{#1}{#2|hyperpage}%
8291     \else
8292       \HyInd@@@wrindex{#1}{#2}#3\%
8293     \fi
8294   }%
8295 \def\HyInd@@@wrindex#1#2#3#4\{\%
8296   \def\Hy@temp@A{#3}%
8297   \ifcase0\ifx\Hy@temp@A\HyInd@ParenLeft 1\fi
```

```

8298         \ifx\Hy@temp@A\HyInd@ParenRight 1\fi
8299         \relax
8300     \HyInd@org@wrindex{#1}{%
8301         #2|hyperindexformat{/#3#4}%
8302     }%
8303 \else
8304     \ifx\#4\%
8305         \ifx\Hy@temp@A\HyInd@ParenRight
8306             \HyInd@org@wrindex{#1}{#2|#3}%
8307         \else
8308             \HyInd@org@wrindex{#1}{#2|#3hyperpage}%
8309         \fi
8310     \else
8311         \HyInd@org@wrindex{#1}{%
8312             #2|#3hyperindexformat{/#4}%
8313         }%
8314     \fi
8315 \fi
8316 }%
8317 \else
8318     \def\@wrindex#1{\@wrindex#1||\}%
8319     \def\@wrindex#1|#2|#3\%
8320     \if@filesw
8321         \ifx\#2\%
8322             \protected@write\@indexfile{}{%
8323                 \string\indexentry{#1|hyperpage}{\thepage}%
8324             }%
8325         \else
8326             \HyInd@@@wrindex{#1}#2\%
8327         \fi
8328     \fi
8329 \endgroup
8330 \@esphack
8331 }%
8332 \def\HyInd@@@wrindex#1#2#3\%
8333 \def\Hy@temp@A{#2}%
8334 \ifcase0\ifx\Hy@temp@A\HyInd@ParenLeft 1\fi
8335         \ifx\Hy@temp@A\HyInd@ParenRight 1\fi
8336         \relax
8337     \protected@write\@indexfile{}{%
8338         \string\indexentry{%
8339             #1|hyperindexformat{/#2#3}%
8340         }{\thepage}%
8341     }%
8342 \else
8343     \ifx\#3\%
8344         \ifx\Hy@temp@A\HyInd@ParenRight
8345             \HyInd@DefKey{#1}%
8346         \ltx@ifundefined{HyInd@(\HyInd@key)}{%
8347             \let\Hy@temp\ltx@empty
8348         }{%
8349             \expandafter\let\expandafter\Hy@temp
8350             \csname HyInd@(\HyInd@key)\endcsname
8351         }%

```

```

8352     \protected@write\@indexfile{}{%
8353         \string\indexentry{#1|#2\Hy@temp}{\thepage}%
8354     }%
8355     \else
8356     \protected@write\@indexfile{}{%
8357         \string\indexentry{#1|#2hyperpage}{\thepage}%
8358     }%
8359     \HyInd@DefKey{#1}%
8360     \expandafter
8361     \gdef\csname HyInd@(\HyInd@key)\endcsname{%
8362         hyperpage%
8363     }%
8364     \fi
8365     \else
8366     \protected@write\@indexfile{}{%
8367         \string\indexentry{%
8368             #1|#2hyperindexformat{/#3}%
8369         }{\thepage}%
8370     }%
8371     \ifx\Hy@temp@A\HyInd@ParenLeft
8372     \HyInd@DefKey{#1}%
8373     \expandafter
8374     \gdef\csname HyInd@(\HyInd@key)\endcsname{%
8375         hyperindexformat{/#3}%
8376     }%
8377     \fi
8378     \fi
8379     \fi
8380 }%
8381 \def\HyInd@DefKey#1{%
8382     \begingroup
8383     \let\protect\@unexpandable@protect
8384     \edef\Hy@temp{#1}%
8385     \ltx@onelevel@sanitize\Hy@temp
8386     \global\let\HyInd@key\Hy@temp
8387     \endgroup
8388 }%
8389 \fi
8390 }%
8391 \fi
8392 \Hy@DisableOption{hyperindex}
8393 \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.

```
8394 \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.

```

8395 \def\hyperpage#1{%
8396     \HyInd@hyperpage#1\nohyperpage{}\@nil
8397 }
8398 \def\HyInd@hyperpage#1\nohyperpage#2#3\@nil{%
8399     \HyInd@@hyperpage{#1}%

```

```

8400 #2%
8401 \def\Hy@temp{#3}%
8402 \ifx\Hy@temp\@empty
8403 \else
8404 \ltx@ReturnAfterFi{%
8405 \HyInd@hyperpage#3\@nil
8406 }%
8407 \fi
8408 }
8409 \def\HyInd@@hyperpage#1{\@hyperpage#1----\}
8410 \def\@hyperpage#1--#2--#3\{\%
8411 \ifx\#2\%
8412 \@commahyperpage{#1}%
8413 \else
8414 \HyInd@pagelink{#1}--\HyInd@pagelink{#2}%
8415 \fi
8416 }
8417 \def\@commahyperpage#1{\@commahyperpage#1, \}
8418 \def\@commahyperpage#1, #2, #3\{\%
8419 \ifx\#2\%
8420 \HyInd@pagelink{#1}%
8421 \else
8422 \HyInd@pagelink{#1}, \HyInd@pagelink{#2}%
8423 \fi
8424 }

```

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

```

8425 \def\HyInd@pagelink#1{%
8426 \begingroup
8427 \toks@={}%
8428 \HyInd@removespaces#1 \@nil
8429 \endgroup
8430 }
8431 \def\HyInd@removespaces#1 #2\@nil{%
8432 \toks@=\expandafter{\the\toks@#1}%
8433 \ifx\#2\%
8434 \edef\x{\the\toks@}%
8435 \ifx\x\@empty
8436 \else
8437 \hyperlink{page.\the\toks@}{\the\toks@}%
8438 \fi
8439 \else
8440 \ltx@ReturnAfterFi{%
8441 \HyInd@removespaces#2\@nil
8442 }%
8443 \fi
8444 }

```

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.)

change 2022-11-13: added an `\@empty` for issue#261.

```

8445 \ifHy@texht
8446 \expandafter\endinput

```

```

8447 \fi
8448 \let\real@setref\@setref
8449 \def\@setref#1#2#3{% csname, extract group, refname
8450 \ifx#1\relax
8451 \protect\G@refundefinedtrue
8452 \nfss@text{\reset@font\bfseries ??}%
8453 \@latex@warning{%
8454 Reference `#3' on page \thepage \space undefined%
8455 }%
8456 \else
8457 \expandafter\Hy@setref@link#1\@empty\@empty\@empty\@nil{#2}%
8458 \fi
8459 }

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

8460 \def\Hy@setref@link#1#2#3#4#5#6\@nil#7{%
8461 \begingroup
8462 \toks0={\hyper@@link{#5}{#4}}%
8463 \toks1=\expandafter{#7{#1}{#2}{#3}{#4}{#5}}%
8464 \edef\x{\endgroup
8465 \the\toks0 {\the\toks1 }%
8466 }%
8467 \x
8468 }
8469 \def\@pagesetref#1#2#3{% csname, extract macro, ref
8470 \ifx#1\relax
8471 \protect\G@refundefinedtrue
8472 \nfss@text{\reset@font\bfseries ??}%
8473 \@latex@warning{%
8474 Reference `#3' on page \thepage \space undefined%
8475 }%
8476 \else
8477 \protect\hyper@@link
8478 {\expandafter\@fifthoffive#1}%
8479 {page.\expandafter\@secondoffive#1}%
8480 {\expandafter\@secondoffive#1}%
8481 \fi
8482 }

8483 \</packageEnd>
8484 \< *check>
8485 \checklatex
8486 \checkcommand\def\@setref#1#2#3{%
8487 \ifx#1\relax
8488 \protect\G@refundefinedtrue
8489 \nfss@text{\reset@font\bfseries ??}%
8490 \@latex@warning{%
8491 Reference `#3' on page \thepage \space undefined%
8492 }%
8493 \else
8494 \expandafter#2#1\< null
8495 \fi
8496 }
8497 \< /check>

```

8498 (*packageEnd)

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

```
8499 \def\HyRef@StarSetRef#1{%
8500   \begingroup
8501   \Hy@safe@activestrue
8502   \let\protect\@unexpandable@protect
8503   \edef\x{#1}%
8504   \@onelevel@sanitize\x
8505   \edef\x{\endgroup
8506     \noexpand\HyRef@@StarSetRef
8507     \expandafter\noexpand\csname r@\x\endcsname{\x}%
8508   }%
8509   \x
8510 }
8511 \def\HyRef@@StarSetRef#1#2#3{%
8512   \ifx#1\@undefined
8513     \let#1\relax
8514   \fi
8515   \real@setref#1#3{#2}%
8516 }
8517 \def\@refstar#1{%
8518   \HyRef@StarSetRef{#1}\@firstoffive
8519 }
8520 \def\@pagerefstar#1{%
8521   \HyRef@StarSetRef{#1}\@secondoffive
8522 }
8523 \def\@namerefstar#1{%
8524   \HyRef@StarSetRef{#1}\@thirdoffive
8525 }
8526 \def\@Refstar#1{%
8527   \HyRef@StarSetRef{#1}\HyRef@MakeUppercaseFirstOfFive
8528 }%
8529 \def\HyRef@MakeUppercaseFirstOfFive#1#2#3#4#5{%
8530   \MakeUppercase#1%
8531 }%
8532 \def\HyRef@Ref#1{%
8533   \hyperref[{#1}]{\Ref*{#1}}%
8534 }%
8535 \Hy@AtBeginDocument{%
8536   \@ifpackageloaded{varioref}{%
```

This are the patches for a varioref newer after 2019-09 Older versions are no longer supported. If `\hyper@nopatch@varioref` is defined we don't patch but assume that varioref handles the hyperlinks.

```
8537   \@ifundefined{hyper@nopatch@varioref}
8538   {
8539     \renewcommand\Vref@star[2][]{%
8540       \begingroup
8541         \let\T@pageref\@pagerefstar
8542         \Ref*{#2}
8543         \vpageref[#1]{#2}%
8544       \endgroup
8545     }%
```

```

8546 \renewcommand\Vr@f[2][]{%
8547 \begingroup
8548 \let\T@pageref\@pagerefstar
8549 \hyperref[#{#2}]{%
8550 \Ref*{#2}
8551 \vpageref[#1]{#2}%
8552 }%
8553 \endgroup
8554 }%
8555 \renewcommand\vr@f[2][]{%
8556 \begingroup
8557 \let\T@pageref\@pagerefstar
8558 \hyperref[#{#2}]{%
8559 \ref*{#2}
8560 \vpageref[#1]{#2}%
8561 }%
8562 \endgroup
8563 }%
8564 \renewcommand\vref@star[2][]{%
8565 \begingroup
8566 \let\T@pageref\@pagerefstar
8567 \ref*{#2}
8568 \vpageref[#1]{#2}%
8569 \endgroup
8570 }%
8571 }{}%
8572 }{}%
8573 }

8574 \DeclareRobustCommand*\autopageref}{%
8575 \@ifstar{%
8576 \HyRef@autopagerefname\pageref*%
8577 }\HyRef@autopageref
8578 }
8579 \def\HyRef@autopageref#1{%
8580 \hyperref[#{#1}]{\HyRef@autopagerefname\pageref*{#1}}%
8581 }
8582 \def\HyRef@autopagerefname{%
8583 \ltx@ifundefined{pageautorefname}{%
8584 \ltx@ifundefined{pagename}{%
8585 \Hy@Warning{No autoref name for `page'}%
8586 }{%
8587 \pagename\nobreakspace
8588 }%
8589 }{%
8590 \pageautorefname\nobreakspace
8591 }%
8592 }

```

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

```

8593 \NewDocumentCommand\autoref{s}
8594 {\leavevmode
8595 \IfBooleanTF{#1}{\HyRef@autoref@gobbletwo}{\HyRef@autoref\hyper@@link}}
8596 \def\HyRef@autoref#1#2{%

```

```

8597 \begingroup
8598   \Hy@safe@activetrue
8599   \expandafter\HyRef@autosetref\csname r@#2\endcsname{#2}{#1}%
8600 \endgroup
8601 }
8602 \def\HyRef@autosetref#1#2#3{% link command, csname, refname
8603   \HyRef@ShowKeysRef{#2}%
8604   \ifcase 0\ifx#1\relax 1\fi\ifx#1\Hy@varioref@undefined 1\fi\relax
8605   \edef\HyRef@thisref{%
8606     \expandafter\@fourthoffive#1\@empty\@empty\@empty
8607   }%
8608   \expandafter\HyRef@testreftype\HyRef@thisref.\.%
8609   \Hy@safe@activesfalse
8610   #3{%
8611     \expandafter\@fifthoffive#1\@empty\@empty\@empty
8612   }{%
8613     \expandafter\@fourthoffive#1\@empty\@empty\@empty
8614   }{%
8615     \HyRef@currentHtag
8616     \expandafter\@firstoffive#1\@empty\@empty\@empty
8617     \null
8618   }%
8619 \else
8620   \protect\G@refundefinedtrue
8621   \nfss@text{\reset@font\bfseries ??}%
8622   \@latex@warning{%
8623     Reference `#2' on page \thepage\space undefined%
8624   }%
8625 \fi
8626 }
8627 \def\HyRef@testreftype#1.#2\{\%
8628   \ltx@ifundefined{#1autorefname}{%
8629     \ltx@ifundefined{#1name}{%
8630       \HyRef@StripStar#1\*\@nil{#1}%
8631       \ltx@ifundefined{\HyRef@name autorefname}{%
8632         \ltx@ifundefined{\HyRef@name name}{%
8633           \def\HyRef@currentHtag{}%
8634           \Hy@Warning{No autoref name for `#1'}%
8635         }{%
8636           \edef\HyRef@currentHtag{%
8637             \expandafter\noexpand\csname\HyRef@name name\endcsname
8638             \noexpand~%
8639           }%
8640         }%
8641       }{%
8642         \edef\HyRef@currentHtag{%
8643           \expandafter\noexpand
8644           \csname\HyRef@name autorefname\endcsname
8645           \noexpand~%
8646         }%
8647       }%
8648     }{%
8649       \edef\HyRef@currentHtag{%
8650         \expandafter\noexpand\csname#1name\endcsname

```



```

8651     \noexpand-%
8652   }%
8653 }%
8654 }{%
8655   \edef\HyRef@currentHtag{%
8656     \expandafter\noexpand\csname#1\autorefname\endcsname
8657     \noexpand-%
8658   }%
8659 }%
8660 }
8661 \def\HyRef@StripStar#1*\#2\@nil#3{%
8662   \def\HyRef@name{#2}%
8663   \ifx\HyRef@name\HyRef@CaseStar
8664     \def\HyRef@name{#1}%
8665   \else
8666     \def\HyRef@name{#3}%
8667   \fi
8668 }
8669 \def\HyRef@CaseStar{*\\}
8670 \def\HyRef@currentHtag{}

```

Support for package showkeys.

\HyRef@ShowKeysRef

```

8671 \let\HyRef@ShowKeysRef@gobble
8672 \def\HyRef@ShowKeysInit{%
8673   \ifcsname SK@@label\endcsname
8674     \ifx\SK@ref\@empty
8675     \else
8676       \def\HyRef@ShowKeysRef{%
8677         \SK@\SK@\@ref
8678       }%
8679     \fi
8680   \fi
8681 }
8682 \AddToHook{package/showkeys/after}{\HyRef@ShowKeysInit}

```

Defaults for the names that \autoref uses.

```

8683 \providecommand*\AMSautorefname{\equationautorefname}
8684 \providecommand*\Hfootnoteautorefname{\footnoteautorefname}
8685 \providecommand*\Itemautorefname{\itemautorefname}
8686 \providecommand*\itemautorefname{item}
8687 \providecommand*\equationautorefname{Equation}
8688 \providecommand*\footnoteautorefname{footnote}
8689 \providecommand*\itemautorefname{item}
8690 \providecommand*\figureautorefname{Figure}
8691 \providecommand*\tableautorefname{Table}
8692 \providecommand*\partautorefname{Part}
8693 \providecommand*\appendixautorefname{Appendix}
8694 \providecommand*\chapterautorefname{chapter}
8695 \providecommand*\sectionautorefname{section}
8696 \providecommand*\subsectionautorefname{subsection}
8697 \providecommand*\subsubsectionautorefname{subsubsection}
8698 \providecommand*\paragraphautorefname{paragraph}
8699 \providecommand*\subparagraphautorefname{subparagraph}

```

```

8700 \providecommand*\FancyVerbLineautorefname{line}
8701 \providecommand*\theoremautorefname{Theorem}
8702 \providecommand*\pageautorefname{page}
8703 \endpackage

```

43 Configuration files

43.1 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`.

```

8704 (*pdfTeX | dvipdfm | xetex | vtex | pdfmarkbase | dviwindo)
8705 \begingroup\expandafter\expandafter\expandafter\endgroup
8706 \expandafter\ifx\csname pdf@escapestring\endcsname\relax
8707 \begingroup
8708 \catcode`\|=0 %
8709 \@makeother\|%
8710 |@firstofone{|endgroup
8711 |def|Hy@pstringdef#1#2{%
8712 |begingroup
8713 |edef~{|string~}%
8714 |xdef|Hy@gtemp{#2}%
8715 |endgroup
8716 |let#1|Hy@gtemp
8717 |@onelevel@sanitize#1%
8718 |edef#1{|expandafter|Hy@ExchangeBackslash#1|@nil}%
8719 |edef#1{|expandafter|Hy@ExchangeLeftParenthesis#1|@nil}%
8720 |edef#1{|expandafter|Hy@ExchangeRightParenthesis#1|@nil}%
8721 }%
8722 |def|Hy@ExchangeBackslash#1\#2|@nil{%
8723 #1%
8724 |ifx|\#2|\%%
8725 |else
8726 \\\%
8727 |ltx@ReturnAfterFi{%
8728 |Hy@ExchangeBackslash#2|@nil
8729 }%
8730 |fi
8731 }%
8732 }%
8733 \def\Hy@ExchangeLeftParenthesis#1(#2\@nil{%
8734 #1%
8735 \ifx\#2\%%
8736 \else
8737 \@backslashchar(%
8738 \ltx@ReturnAfterFi{%
8739 \Hy@ExchangeLeftParenthesis#2\@nil

```

```

8740 }%
8741 \fi
8742 }%
8743 \def\Hy@ExchangeRightParenthesis#1)#2\@nil{%
8744 #1%
8745 \ifx\#2\%
8746 \else
8747 \@backslashchar)%
8748 \ltx@ReturnAfterFi{%
8749 \Hy@ExchangeRightParenthesis#2\@nil
8750 }%
8751 \fi
8752 }%
8753 \else
8754 \def\Hy@pstringdef#1#2{%
8755 \begingroup
8756 \edef~{\string~}%
8757 \xdef\Hy@gtemp{\pdf@escapestring{#2}}%
8758 \endgroup
8759 \let#1\Hy@gtemp
8760 }%
8761 \fi
8762 </pdfTeX | dvipdfm | xetex | vtex | pdfmarkbase | dviwindo>

```

43.2 pdftex

```

8763 <{*pdfTeX}
8764 \providecommand*\XR@ext}{pdf}
8765 \Hy@setbreaklinks{true}
8766 \def\HyPat@ObjRef{%
8767 [0-9]*[1-9][0-9]* 0 R%
8768 }

```

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

```

8769 \def\Hy@pdfminorversion{\pdfoptionpdfminorversion}%
8770 \def\Hy@pdfminorversion{\pdfminorversion}%
8771 \ifHy@ocgcolorlinks
8772 \ifnum\Hy@pdfmajorminor@version<105 %
8773 \kvsetkeys{Hyp}{pdfversion=1.5}%
8774 \fi
8775 \fi
8776 \ifHy@setpdfversion
8777 \ifnum\Hy@pdf@majorminor@version<105 %
8778 \ltx@ifundefined{pdfobjcompresslevel}{%
8779 }{%
8780 \ifHy@verbose
8781 \Hy@InfoNoLine{%
8782 PDF object streams are disabled, because they are%

```

```

8783     \MessageBreak
8784     not supported in requested PDF version %
8785     \Hy@pdf@majorversion.\Hy@pdf@minorversion
8786     }%
8787     \fi
8788     \pdfobjcompresslevel=\ltx@zero
8789     }%
8790     \fi
8791     \ifnum\Hy@pdfmajorminor@version=\Hy@pdf@majorminor@version\relax
8792     \else
8793     \let\Hy@temp\ltx@empty
8794     \def\Hy@temp@A#1#2{%
8795     \ifnum#1>\ltx@zero
8796     \edef\Hy@temp{%
8797     \Hy@temp
8798     \space\space
8799     \the#1\space #2%
8800     \ifnum#1=\ltx@one\else s\fi
8801     \MessageBreak
8802     }%
8803     \fi
8804     }%
8805     \Hy@temp@A\pdflastobj{PDF object}%
8806     \Hy@temp@A\pdflastxform{form XObject}%
8807     \Hy@temp@A\pdflastximage{image XObject}%
8808     \Hy@temp@A\pdflastannot{annotation}%
8809     \ltx@ifundefined{pdflastlink}{%
8810     }{%
8811     \Hy@temp@A\pdflastlink{link}%
8812     }%
8813     \ifx\Hy@temp\ltx@empty
8814     \Hy@pdfmajorversion=\Hy@pdf@majorversion\relax
8815     \Hy@pdfminorversion=\Hy@pdf@minorversion\relax
8816     \else
8817     \let\Hy@temp@A\ltx@empty
8818     \ifnum\Hy@pdf@majorminor@version=104 %
8819     \IfFileExists{pdf14.sty}{%
8820     \def\Hy@temp@A{%
8821     \MessageBreak
8822     Or \string\RequirePackage{pdf14} can be used%
8823     \MessageBreak
8824     before \string\documentclass\space as shortcut%
8825     }%
8826     }{}%
8827     \fi
8828     \Hy@WarningNoLine{%
8829     The PDF version number could not be set,\MessageBreak
8830     because some PDF objects are already written:%
8831     \MessageBreak
8832     \Hy@temp
8833     The version should be set as early as possible:%
8834     \MessageBreak
8835     \space\space
8836     \expandafter\string\Hy@pdfmajorversion=\Hy@pdf@majorversion, %

```

```

8837     \expandafter\string\Hy@pdfminorversion=\Hy@pdf@minorversion
8838     \string\relax
8839     \ifnum\Hy@pdf@majorminor@version<105 %
8840     \ltx@ifundefined{pdfobjcompresslevel}{%
8841     }{%
8842     \MessageBreak
8843     \space\space
8844     \string\pdfobjcompresslevel=0\string\relax
8845     }%
8846     \fi
8847     \Hy@temp@A
8848     }%
8849     \fi
8850     \fi
8851     \PackageInfo{hyperref}{%
8852     \expandafter\string\Hy@pdfmajorversion.%
8853     \expandafter\string\Hy@pdfminorversion
8854     :=\number\Hy@pdf@majorversion.\number\Hy@pdf@minorversion\space
8855     }%
8856     \fi
8857     \edef\Hy@pdf@majorversion{\number\Hy@pdfmajorversion}%
8858     \edef\Hy@pdf@minorversion{\number\Hy@pdfminorversion}%
8859     \Hy@DisableOption{pdfversion}%

8860 \ifHy@ocgcolorlinks
8861 \pdf@ifdraftmode{}{%
8862 \immediate\pdfobj{%
8863 <<%
8864 /Type/OCG%
8865 /Name(View)%
8866 /Usage<<%
8867 /Print<<%
8868 /PrintState/OFF%
8869 >>%
8870 /View<<%
8871 /ViewState/ON%
8872 >>%
8873 >>%
8874 >>%
8875 }%
8876 \edef\OBJ@OCG@view{\the\pdfastobj\space 0 R}%
8877 \immediate\pdfobj{%
8878 <<%
8879 /Type/OCG%
8880 /Name(Print)%
8881 /Usage<<%
8882 /Print<<%
8883 /PrintState/ON%
8884 >>%
8885 /View<<%
8886 /ViewState/OFF%
8887 >>%
8888 >>%
8889 >>%
8890 }%

```

```

8891 \edef\OBJ@OCG@print{\the\pdfastobj\space 0 R}%
8892 \immediate\pdfobj{%
8893   [%
8894   \OBJ@OCG@view\space\OBJ@OCG@print
8895   ]%
8896 }%
8897 \edef\OBJ@OCGs{\the\pdfastobj\space 0 R}%
8898 \pdfcatalog{%
8899   /OCProperties<<%
8900   /OCGs \OBJ@OCGs
8901   /D<<%
8902   /OFF[\OBJ@OCG@print]%
8903   /AS[%
8904     <<%
8905     /Event/View%
8906     /OCGs \OBJ@OCGs
8907     /Category[/View]%
8908     >>%
8909     <<%
8910     /Event/Print%
8911     /OCGs \OBJ@OCGs
8912     /Category[/Print]%
8913     >>%
8914     <<%
8915     /Event/Export%
8916     /OCGs \OBJ@OCGs
8917     /Category[/Print]%
8918     >>%
8919   ]%
8920   >>%
8921   >>%
8922 }%
8923 \begingroup
8924 \edef\x{\endgroup
8925 \pdfpageresources{%
8926 \the\pdfpageresources
8927 /Properties<<%
8928 /OCView \OBJ@OCG@view
8929 /OCPrint \OBJ@OCG@print
8930 >>%
8931 }%
8932 }%
8933 \x
8934 }%
8935 \Hy@AtBeginDocument{%
8936 \def\Hy@colorlink#1{%
8937 \begingroup
8938 \ifHy@ocgcolorlinks
8939 \def\Hy@ocgcolor{#1}%
8940 \setbox0=\hbox\bgroup\color@begingroup
8941 \else
8942 \HyColor@UseColor#1%
8943 \fi
8944 }%

```

```

8945 \def\Hy@endcolorlink{%
8946 \ifHy@ocgcolorlinks
8947 \color@endgroup\egroup
8948 \mbox{%
8949 \pdfliteral page{/OC/OCPrint BDC}%
8950 \rlap{\copy0}%
8951 \pdfliteral page{EMC/OC/OCView BDC}%
8952 \begingroup
8953 \expandafter\HyColor@UseColor\Hy@ocgcolor
8954 \box0 %
8955 \endgroup
8956 \pdfliteral page{EMC}%
8957 }%
8958 \fi
8959 \endgroup
8960 }%
8961 }%
8962 \else
8963 \Hy@DisableOption{ocgcolorlinks}%
8964 \fi

```

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

```

8965 \def\setpdfinkmargin#1{%
8966 \begingroup
8967 \setlength{\dimen@}{#1}%
8968 \expandafter\endgroup
8969 \expandafter\pdfinkmargin\the\dimen@\relax
8970 }
8971 \pdfinkmargin1pt %

```

First set up the default linking

```

8972 \providecommand*\@pdfview{XYZ}

```

First define the anchors:

```

8973 \Hy@WrapperDef\new@pdfink#1{%
8974 \ifhmode
8975 \@savsf\spacefactor
8976 \fi
8977 \Hy@SaveLastskip
8978 \Hy@VerboseAnchor{#1}%
8979 \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
8980 \Hy@DestName\Hy@pstringDest\@pdfview
8981 \Hy@RestoreLastskip
8982 \ifhmode
8983 \spacefactor\@savsf
8984 \fi
8985 }
8986 \let\pdf@endanchor\@empty

```

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

```

8987 \def\Hy@DestName#1#2{%
8988 \pdfdest name{#1}#2\relax
8989 }

```

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.

```

8990 \providecommand*\@pdfborder{0 0 1}
8991 \providecommand*\@pdfborderstyle{}
8992 \def\Hy@undefinedname{UNDEFINED}
8993 \def\find@pdfink#1#2{%
8994   \leavevmode
8995   \protected@edef\Hy@testname{#2}%
8996   \ifx\Hy@testname\@empty
8997     \Hy@Warning{%
8998       Empty destination name,\MessageBreak
8999       using '\Hy@undefinedname'%
9000     }%
9001   \let\Hy@testname\Hy@undefinedname
9002   \else
9003     \Hy@pstringdef\Hy@testname{%
9004       \expandafter\HyperDestNameFilter\expandafter{\Hy@testname}%
9005     }%
9006   \fi
9007   \Hy@StartlinkName{%
9008     \ifHy@pdfa /F 4\fi
9009     \Hy@setpdfborder
9010     \Hy@setpdfhighlight
9011     \ifx\CurrentBorderColor\relax
9012       \else
9013         /C[\CurrentBorderColor]%
9014       \fi
9015   }\Hy@testname
9016   \expandafter\Hy@colorlink\csname @#1color\endcsname
9017 }
9018 \def\Hy@StartlinkName#1#2{%
9019   \pdfstartlink attr{#1}goto name{#2}\relax
9020 }
9021 \def\close@pdfink{%
9022   \Hy@endcolorlink
9023   \Hy@VerboseLinkStop
9024   \pdfendlink
9025 }
9026 \def\hyper@anchor#1{%
9027   \new@pdfink{#1}\anchor@spot\pdf@endanchor
9028 }
9029 \def\hyper@anchorstart#1{%
9030   \new@pdfink{#1}%
9031   \Hy@activeanchortrue
9032 }
9033 \def\hyper@anchorend{%
9034   \pdf@endanchor
9035   \Hy@activeanchorfalse
9036 }
9037 \def\hyper@linkstart#1#2{%
9038   \Hy@VerboseLinkStart{#1}{#2}%
9039   \ltx@ifundefined{#1bordercolor}{%

```



```

9040 \let\CurrentBorderColor\relax
9041 }{%
9042 \edef\CurrentBorderColor{\csname @#1bordercolor\endcsname}%
9043 }%
9044 \find@pdfink{#1}{#2}%
9045 }
9046 \def\hyper@linkend{\close@pdfink}
9047 \def\hyper@link#1#2#3{%
9048 \Hy@VerboseLinkStart{#1}{#2}%
9049 \ltx@ifundefined{#1bordercolor}{%
9050 \let\CurrentBorderColor\relax
9051 }{%
9052 \edef\CurrentBorderColor{\csname @#1bordercolor\endcsname}%
9053 }%
9054 \find@pdfink{#1}{#2}#3\Hy@xspace@end
9055 \close@pdfink
9056 }
9057 \let\CurrentBorderColor\@linkbordercolor
9058 \def\hyper@linkurl#1#2{%
9059 \begingroup
9060 \Hy@pstringdef\Hy@pstringURI{#2}%
9061 \hyper@chars
9062 \leavevmode
9063 \pdfstartlink
9064 attr{%
9065 \Hy@setpdfborder
9066 \Hy@setpdfhighlight
9067 \ifx\@urlbordercolor\relax
9068 \else
9069 /C[\@urlbordercolor]%
9070 \fi
9071 }%
9072 user{%
9073 /Subtype/Link%
9074 \ifHy@pdfa /F 4\fi
9075 /A<<%
9076 /Type/Action%
9077 /S/URI%
9078 /URI(\Hy@pstringURI)%
9079 \ifHy@href@ismap
9080 /IsMap true%
9081 \fi
9082 \Hy@href@nextactionraw
9083 >>%
9084 }%
9085 \relax
9086 \Hy@colorlink\@urlcolor#1\Hy@xspace@end
9087 \close@pdfink
9088 \endgroup
9089 }
9090 \def\hyper@linkfile#1#2#3{% anchor text, filename, linkname
9091 \begingroup
9092 \def\Hy@pstringF{#2}%
9093 \Hy@CleanupFile\Hy@pstringF

```

```

9094 \Hy@pstringdef\Hy@pstringF\Hy@pstringF
9095 \Hy@pstringdef\Hy@pstringD{#3}%
9096 \Hy@MakeRemoteAction
9097 \leavevmode
9098 \pdfstartlink
9099 attr{%
9100   \Hy@setpdfborder
9101   \Hy@setpdfhighlight
9102   \ifx\@filebordercolor\relax
9103   \else
9104     /C[\@filebordercolor]%
9105   \fi
9106 }%
9107 user {%
9108   /Subtype/Link%
9109   \ifHy@pdfa /F 4\fi
9110   /A<<%
9111   /F(\Hy@pstringF)%
9112   /S/GoToR%
9113   \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}

```

```

9114   \ifx\#3\%
9115     /D[\Hy@href@page\@pdfremotestartview]%
9116   \else
9117     /D(\Hy@pstringD)%
9118   \fi
9119   \Hy@href@nextactionraw
9120   >>%
9121 }%
9122 \relax
9123 \Hy@colorlink\@filecolor#1\Hy@xspace@end
9124 \close@pdfink
9125 \endgroup
9126 }
9127 \def\@hyper@launch run:#1\#2#3{% filename, anchor text linkname
9128 \begingroup
9129 \Hy@pstringdef\Hy@pstringF{#1}%
9130 \Hy@pstringdef\Hy@pstringP{#3}%
9131 \leavevmode
9132 \pdfstartlink
9133 attr{%
9134   \Hy@setpdfborder
9135   \Hy@setpdfhighlight

```

```

9136     \ifx\@runbordercolor\relax
9137     \else
9138       /C[\@runbordercolor]%
9139     \fi
9140   }%
9141   user {%
9142     /Subtype/Link%
9143     \ifHy@pdfa /F 4\fi
9144     /A<<%
9145       /F(\Hy@pstringF)%
9146       /S/Launch%
9147       \Hy@SetNewWindow
9148       \ifx\#3\%
9149       \else
9150         /Win<</P(\Hy@pstringP)/F(\Hy@pstringF)>>%
9151       \fi
9152       \Hy@href@nextactionraw
9153     >>%
9154   }%
9155   \relax
9156   \Hy@colorlink\@runcolor#2\Hy@xspace@end
9157   \close@pdfink
9158   \endgroup
9159 }

```

\PDF@SetupDoc

```

9160 \def\PDF@SetupDoc{%
9161   \ifx\@pdfpagescrop\@empty
9162   \else
9163     \edef\process@me{%
9164       \pdfpagesattr={%
9165         /CropBox[\@pdfpagescrop]%
9166         \expandafter\ifx\expandafter\the\pdfpagesattr\%
9167         \else
9168           ^^J\the\pdfpagesattr
9169         \fi
9170       }%
9171     }%
9172     \process@me
9173   \fi
9174   \Hy@pstringdef\Hy@pstringB{\@baseurl}%
9175   \pdfcatalog{%
9176     /PageMode/\@pdfpagemode
9177     \ifx\@baseurl\@empty
9178     \else
9179       /URI<</Base(\Hy@pstringB)>>%
9180     \fi
9181   }%
9182   \ifx\@pdfstartpage\@empty
9183   \else
9184     \ifx\@pdfstartview\@empty
9185     \else
9186       openaction goto page\@pdfstartpage{\@pdfstartview}%
9187     \fi

```

```

9188 \fi
9189 \edef\Hy@temp{%
9190 \ifHy@pdftoolbar\else /HideToolbar true\fi
9191 \ifHy@pdfmenubar\else /HideMenubar true\fi
9192 \ifHy@pdfwindowui\else /HideWindowUI true\fi
9193 \ifHy@pdffitwindow /FitWindow true\fi
9194 \ifHy@pdfcenterwindow /CenterWindow true\fi
9195 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
9196 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
9197 \Hy@UseNameKey{Direction}\@pdfdirection
9198 \Hy@UseNameKey{ViewArea}\@pdfviewarea
9199 \Hy@UseNameKey{ViewClip}\@pdfviewclip
9200 \Hy@UseNameKey{PrintArea}\@pdfprintarea
9201 \Hy@UseNameKey{PrintClip}\@pdfprintclip
9202 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
9203 \Hy@UseNameKey{Duplex}\@pdfduplex
9204 \ifx\@pdfpicktraybypdfsize\@empty
9205 \else
9206 /PickTrayByPDFSize \@pdfpicktraybypdfsize
9207 \fi
9208 \ifx\@pdfprintpagerange\@empty
9209 \else
9210 /PrintPageRange[\@pdfprintpagerange]%
9211 \fi
9212 \ifx\@pdfnumcopies\@empty
9213 \else
9214 /NumCopies \@pdfnumcopies
9215 \fi
9216 }%
9217 \pdfcatalog{%
9218 \ifx\Hy@temp\@empty
9219 \else
9220 /ViewerPreferences<<\Hy@temp>>%
9221 \fi
9222 \Hy@UseNameKey{PageLayout}\@pdfpagelayout
9223 \ifx\@pdflang\relax
9224 \else
9225 /Lang(\@pdflang)%
9226 \fi
9227 }%
9228 }

```

\PDF@FinishDoc

```

9229 \def\PDF@FinishDoc{%
9230 \pdf@ifdraftmode{}-%
9231 \Hy@UseMaketitleInfos
9232 \HyInfo@GenerateAddons
9233 \pdfinfo{%
9234 /Author(\@pdfauthor)%
9235 /Title(\@pdftitle)%
9236 /Subject(\@pdfsubject)%
9237 /Creator(\@pdfcreator)%
9238 \ifx\@pdfcreationdate\@empty
9239 \else

```

```

9240     /CreationDate(\@pdfcreationdate)%
9241     \fi
9242     \ifx\@pdfmoddate\@empty
9243     \else
9244     /ModDate(\@pdfmoddate)%
9245     \fi
9246     \ifx\@pdfproducer\relax
9247     \else
9248     /Producer(\@pdfproducer)%
9249     \fi
9250     /Keywords(\@pdfkeywords)%
9251     \ifx\@pdftrapped\@empty
9252     \else
9253     /Trapped/\@pdftrapped
9254     \fi
9255     \HyInfo@Addons
9256   }%
9257 }%
9258 \Hy@DisableOption{pdfauthor}%
9259 \Hy@DisableOption{pdftitle}%
9260 \Hy@DisableOption{pdfsubject}%
9261 \Hy@DisableOption{pdfcreator}%
9262 \Hy@DisableOption{addtopdfcreator}%
9263 \Hy@DisableOption{pdfcreationdate}%
9264 \Hy@DisableOption{pdfmoddate}%
9265 \Hy@DisableOption{pdfproducer}%
9266 \Hy@DisableOption{pdfkeywords}%
9267 \Hy@DisableOption{pdftrapped}%
9268 \Hy@DisableOption{pdfinfo}%
9269 }

```

`\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`.

```

9270 \def\hyper@pagetransition{%
9271   \ifx\@pdfpagetransition\relax
9272   \else
9273     \expandafter\Hy@RemoveTransPageAttr
9274     \the\pdfpageattr^^J/Trans{}>>\END
9275     \ifx\@pdfpagetransition\@empty
9276     \else
9277       \edef\@processme{%
9278         \global\pdfpageattr{%
9279           \the\pdfpageattr
9280           ^^J/Trans << /S /\@pdfpagetransition\space >>%
9281         }%
9282       }%
9283       \@processme
9284     \fi
9285   \fi
9286 }

```

`\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.

```

9287 \gdef\Hy@RemoveTransPageAttr#1^^J/Trans#2#3>>#4\END{%
9288   \ifx\#2\%
9289     \global\pdfpageattr{#1}%
9290   \else
9291     \Hy@RemoveTransPageAttr#1#4\END
9292   \fi
9293 }
```

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

```

9294 \def\hyper@pageduration{%
9295   \ifx\@pdfpageduration\relax
9296   \else
9297     \expandafter
9298     \Hy@RemoveDurPageAttr\the\pdfpageattr^^J/Dur{} \END
9299   \ifx\@pdfpageduration\@empty
9300   \else
9301     \edef\@processme{%
9302       \global\pdfpageattr{%
9303         \the\pdfpageattr
9304         ^^J/Dur \@pdfpageduration\space
9305       }%
9306     }%
9307     \@processme
9308   \fi
9309 \fi
9310 }
```

`\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.

```

9311 \gdef\Hy@RemoveDurPageAttr#1^^J/Dur#2#3 #4\END{%
9312   \ifx\#2\%
9313     \global\pdfpageattr{#1}%
9314   \else
9315     \Hy@RemoveDurPageAttr#1#4\END
9316   \fi
9317 }

9318 \pdf@ifdraftmode{}{%
9319   \g@addto@macro\Hy@EveryPageHook{%
9320     \hyper@pagetransition
9321     \hyper@pageduration
9322   }%
9323 }
```

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

```

9324 </pdftex>
9325 <*pdftex | xetex>
9326 \Hy@AtBeginDocument{%
9327   \ifHy@setpagesize
9328     \expandafter\@firstofone
9329   \else
9330     \expandafter\@gobble
9331   \fi
9332   {%
9333     \@ifclassloaded{seminar}{%
9334 <*pdftex>
9335     \setlength{\pdfhorigin}{1truein}%
9336     \setlength{\pdfvorigin}{1truein}%
9337 </pdftex>
9338     \ifportrait
9339       \ifdim\paperwidth=\z@
9340       \else
9341         \setlength{\pdfpagewidth}{\strip@pt\paperwidth truept}%
9342       \fi
9343       \ifdim\paperheight=\z@
9344       \else
9345         \setlength{\pdfpageheight}{\strip@pt\paperheight truept}%
9346       \fi
9347     \else
9348       \ifdim\paperheight=\z@
9349       \else
9350         \setlength{\pdfpagewidth}{\strip@pt\paperheight truept}%
9351       \fi
9352       \ifdim\paperwidth=\z@
9353       \else
9354         \setlength{\pdfpageheight}{\strip@pt\paperwidth truept}%
9355       \fi
9356     \fi
9357   }{%
9358     \ifnum\mag=\@m
9359     \ifdim\stockwidth>\z@
9360       \ifdim\stockheight>\z@
9361         \setlength{\pdfpagewidth}{\stockwidth}%
9362         \setlength{\pdfpageheight}{\stockheight}%
9363       \else
9364         \ifdim\paperwidth>\z@
9365         \ifdim\paperheight>\z@
9366           \setlength{\pdfpagewidth}{\paperwidth}%
9367           \setlength{\pdfpageheight}{\paperheight}%
9368         \fi
9369       \fi
9370     \fi
9371   \else
9372     \ifdim\stockwidth=\z@
9373     \ifdim\paperwidth>\z@
9374       \ifdim\paperheight>\z@
9375         \setlength{\pdfpagewidth}{\paperwidth}%
9376         \setlength{\pdfpageheight}{\paperheight}%
9377     \fi

```

```

9378     \fi
9379     \fi
9380     \fi
9381     \fi
9382   }%
9383 }%
9384 \Hy@DisableOption{setpagesize}%
9385 }
9386 </pdfTeX | xetex>
9387 (*pdfTeX)
9388 \def\Acrobatmenu#1#2{%
9389 \Hy@Acrobatmenu{#1}{#2}{%
9390 \leavevmode
9391 \EdefEscapeName\Hy@temp@menu{#1}%
9392 \pdfstartlink
9393 attr{%
9394 \Hy@setpdfborder
9395 \Hy@setpdfhighlight
9396 \ifx\@menubordercolor\relax
9397 \else
9398 /C[\@menubordercolor]%
9399 \fi
9400 }%
9401 user{%
9402 /Subtype/Link%
9403 \ifHy@pdfa /F 4\fi
9404 /A<<%
9405 /S/Named%
9406 /N/\Hy@temp@menu
9407 \Hy@href@nextactionraw
9408 >>%
9409 }%
9410 \relax
9411 \Hy@colorlink\@menucolor#2%
9412 \close@pdfink
9413 }%
9414 }

```

43.2.1 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.

change 2020-10-01: the code has been removed as outdated.

```

9415 </pdfTeX>

```


43.3 hypertext

The Hyper \TeX specification (this is borrowed from an article by Arthur Smith) says that conformant viewers/translators must recognize the following set of `\special` commands:

href: `html:`

name: `html:`

end: `html:`

image: `html:`

base_name: `html:<base href = "href_string">`

The *href*, *name* and *end* commands are used to do the basic hypertext operations of establishing links between sections of documents. The *image* command is intended (as with current html viewers) to place an image of arbitrary graphical format on the page in the current location. The *base_name* command is used to communicate to the *dvi* viewer the full (URL) location of the current document so that files specified by relative URL's may be retrieved correctly.

The *href* and *name* commands must be paired with an *end* command later in the \TeX file — the \TeX commands between the two ends of a pair form an *anchor* in the document. In the case of an *href* command, the *anchor* is to be highlighted in the *dvi* viewer, and when clicked on will cause the scene to shift to the destination specified by *href_string*. The *anchor* associated with a name command represents a possible location to which other hypertext links may refer, either as local references (of the form `href="#name_string"` with the *name_string* identical to the one in the name command) or as part of a URL (of the form `URL#name_string`). Here *href_string* is a valid URL or local identifier, while *name_string* could be any string at all: the only caveat is that ‘’ characters should be escaped with a backslash (`\`), and if it looks like a URL name it may cause problems.

```
9416 (*hypertext)
9417 \providecommand*\XR@ext}{dvi}
9418 \let\PDF@FinishDoc\ltx@empty
9419 \def\PDF@SetupDoc{%
9420   \ifx\@baseurl\@empty
9421     \else
9422       \special{html:<base href="\@baseurl">}%
9423     \fi
9424 }
9425 \Hy@WrapperDef\hyper@anchor#1{%
9426   \Hy@SaveLastskip
9427   \Hy@VerboseAnchor{#1}%
9428   \begingroup
9429     \let\protect=\string
9430     \hyper@chars
9431     \special{html:<a name=%
9432       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
9433   \endgroup
9434   \Hy@activeanchortrue
9435   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
```

```

9436 \special{html:</a>}%
9437 \Hy@activeanchorfalse
9438 \Hy@RestoreLastskip
9439 }
9440 \Hy@WrapperDef\hyper@anchorstart#1{%
9441 \Hy@SaveLastskip
9442 \Hy@VerboseAnchor{#1}%
9443 \begingroup
9444 \hyper@chars
9445 \special{html:<a name=%
9446 \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
9447 \endgroup
9448 \Hy@activeanchortrue
9449 }
9450 \def\hyper@anchorend{%
9451 \special{html:</a>}%
9452 \Hy@activeanchorfalse
9453 \Hy@RestoreLastskip
9454 }
9455 \def\@urltype{url}
9456 \def\hyper@linkstart#1#2{%
9457 \Hy@VerboseLinkStart{#1}{#2}%
9458 \expandafter\Hy@colorlink\csname @#1color\endcsname
9459 \def\Hy@tempa{#1}%
9460 \ifx\Hy@tempa\@urltype
9461 \special{html:<a href=\hyper@quote#2\hyper@quote>}%
9462 \else
9463 \begingroup
9464 \hyper@chars
9465 \special{html:<a href=%
9466 \hyper@quote\#\HyperDestNameFilter{#2}\hyper@quote>}%
9467 \endgroup
9468 \fi
9469 }
9470 \def\hyper@linkend{%
9471 \special{html:</a>}%
9472 \Hy@endcolorlink
9473 }
9474 \def\hyper@linkfile#1#2#3{%
9475 \hyper@linkurl{#1}{\Hy@linkfileprefix#2\ifx\\#3\\\else\##3\fi}%
9476 }
9477 \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.

```

9478 \leavevmode
9479 \ifHy@raiselinks
9480 \Hy@SaveSpaceFactor
9481 \Hy@SaveSavedSpaceFactor
9482 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
9483 \Hy@RestoreSavedSpaceFactor
9484 \@linkdim\dp\@tempboxa
9485 \lower\@linkdim\hbox{%

```

```

9486 \hyper@chars
9487 \special{html:<a href=\hyper@quote#2\hyper@quote>}%
9488 }%
9489 \Hy@colorlink\@urlcolor
9490 \Hy@RestoreSpaceFactor
9491 #1%
9492 \Hy@SaveSpaceFactor
9493 \@linkdim\ht\@tempboxa

```

Because of the interaction with the dvilhs 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).

```

9494 \advance\@linkdim by -6.5\p@
9495 \raise\@linkdim\hbox{\special{html:</a>}}%
9496 \Hy@endcolorlink
9497 \Hy@RestoreSpaceFactor
9498 \else
9499 \begingroup
9500 \hyper@chars
9501 \special{html:<a href=\hyper@quote#2\hyper@quote>}%
9502 \Hy@colorlink\@urlcolor#1\Hy@xspace@end
9503 \special{html:</a>}%
9504 \Hy@endcolorlink
9505 \endgroup
9506 \fi
9507 }

```

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

```

9508 \def\hyper@link#1#2#3{%
9509 \Hy@VerboseLinkStart{#1}{#2}%
9510 \hyper@linkurl{#3}{\#\HyperDestNameFilter{#2}}%
9511 }

9512 \def\hyper@image#1#2{%
9513 \begingroup
9514 \hyper@chars
9515 \special{html:<img src=\hyper@quote#1\hyper@quote>}%
9516 \endgroup
9517 }
9518 </hypertex>
9519 <*\dviwindo>

```

43.4 dviwindo

[This was developed by David Carlisle]. Within a file `dviwindo` hyperlinking is used, for external URL's a call to `\wwwbrowser` is made. (You can define this command before or after loading the `hyperref` package if the default `c:/netscape/netscape` is not suitable) `Dviwindo` could in fact handle external links to dvi files on the same machine without calling a web browser, but that would mean parsing the URL to recognise such, and this is currently not done.

This was more or less blindly copied from the `hypertex` cfg. For `dviwindo`, \LaTeX must specify the size of the active area for links. For some hooks this information is available but for some, the start and end of the link are specified

separately in which case a fixed size area of 10000000sp wide by `\baselineskip` high is used.

```

9520 \providecommand*\XR@ext}{dvi}
9521 \providecommand*\wwwbrowser{c:\string\netscape\string\netscape}
9522 \Hy@WrapperDef\hyper@anchor#1{%
9523   \Hy@SaveLastskip
9524   \Hy@VerboseAnchor{#1}%
9525   \begingroup
9526     \let\protect=\string
9527     \special{mark: #1}%
9528   \endgroup
9529   \Hy@activeanchortrue
9530   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
9531   \Hy@activeanchorfalse
9532   \Hy@RestoreLastskip
9533 }
9534 \Hy@WrapperDef\hyper@anchorstart#1{%
9535   \Hy@SaveLastskip
9536   \Hy@VerboseAnchor{#1}%
9537   \special{mark: #1}%
9538   \Hy@activeanchortrue
9539 }
9540 \def\hyper@anchorend{%
9541   \Hy@activeanchorfalse
9542   \Hy@RestoreLastskip
9543 }
9544 \def\hyper@linkstart#1#2{%
9545   \Hy@VerboseLinkStart{#1}{#2}%
9546   \expandafter\Hy@colorlink\csname @#1color\endcsname
9547   \special{button: %
9548     10000000 %
9549     \number\baselineskip\space
9550     #2%
9551   }%
9552 }
9553 \def\hyper@linkend{%
9554   \Hy@endcolorlink
9555 }
9556 \def\hyper@link#1#2#3{%
9557   \Hy@VerboseLinkStart{#1}{#2}%
9558   \leavevmode
9559   \ifHy@raiselinks
9560     \Hy@SaveSpaceFactor
9561     \Hy@SaveSavedSpaceFactor
9562     \sbox\@tempboxa{\Hy@RestoreSpaceFactor#3}%
9563     \Hy@RestoreSavedSpaceFactor
9564     \@linkdim\dp\@tempboxa
9565     \lower\@linkdim\hbox{%
9566       \special{button: %
9567         \number\wd\@tempboxa\space
9568         \number\ht\@tempboxa\space
9569         #2%
9570       }%
9571     \expandafter\Hy@colorlink\csname @#1color\endcsname

```

```

9572 \Hy@RestoreSpaceFactor
9573 #3\Hy@xspace@end
9574 \Hy@SaveSpaceFactor
9575 \Hy@endcolorlink
9576 }%
9577 \@linkdim\ht\@tempboxa
9578 \advance\@linkdim by -6.5\p@
9579 \raise\@linkdim\hbox{}%
9580 \Hy@RestoreSpaceFactor
9581 \else
9582 \special{button: %
9583 \number\wd\@tempboxa\space
9584 \number\ht\@tempboxa\space
9585 #2%
9586 }%
9587 \expandafter\Hy@colorlink\cname @#1color\endcsname
9588 #3\Hy@xspace@end
9589 \Hy@endcolorlink
9590 \fi
9591 }
9592 \def\hyper@linkurl#1#2{%
9593 \begingroup
9594 \hyper@chars
9595 \leavevmode
9596 \ifHy@raiselinks
9597 \Hy@SaveSpaceFactor
9598 \Hy@SaveSavedSpaceFactor
9599 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
9600 \Hy@RestoreSavedSpaceFactor
9601 \@linkdim\dp\@tempboxa
9602 \lower\@linkdim\hbox{%
9603 \special{button: %
9604 \number\wd\@tempboxa\space
9605 \number\ht\@tempboxa\space
9606 launch: \wwwbrowser\space
9607 #2%
9608 }%
9609 \Hy@colorlink\@urlcolor
9610 \Hy@RestoreSpaceFactor
9611 #1\Hy@xspace@end
9612 \Hy@SaveSpaceFactor
9613 \Hy@endcolorlink
9614 }%
9615 \@linkdim\ht\@tempboxa
9616 \advance\@linkdim by -6.5\p@
9617 \raise\@linkdim\hbox{}%
9618 \Hy@RestoreSpaceFactor
9619 \else
9620 \special{button: %
9621 \number\wd\@tempboxa\space
9622 \number\ht\@tempboxa\space
9623 launch: \wwwbrowser\space
9624 #2%
9625 }%

```

```

9626 \Hy@colorlink \@urlcolor
9627 #1\Hy@xspace@end
9628 \Hy@endcolorlink
9629 \fi
9630 \endgroup
9631 }
9632 \def\hyper@linkfile#1#2#3{%
9633 \begingroup
9634 \hyper@chars
9635 \leavevmode
9636 \ifHy@raiselinks
9637 \Hy@SaveSpaceFactor
9638 \Hy@SaveSavedSpaceFactor
9639 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
9640 \Hy@RestoreSavedSpaceFactor
9641 \@linkdim\dp\@tempboxa
9642 \lower\@linkdim\hbox{%
9643 \special{button: %
9644 \number\wd\@tempboxa\space
9645 \number\ht\@tempboxa\space
9646 #3,%
9647 file: #2%
9648 }%
9649 \Hy@colorlink \@filecolor
9650 \Hy@RestoreSpaceFactor
9651 #1\Hy@xspace@end
9652 \Hy@SaveSpaceFactor
9653 \Hy@endcolorlink
9654 }%
9655 \@linkdim\ht\@tempboxa
9656 \advance\@linkdim by -6.5\p@
9657 \raise\@linkdim\hbox{}%
9658 \Hy@RestoreSpaceFactor
9659 \else
9660 \special{button: %
9661 \number\wd\@tempboxa\space
9662 \number\ht\@tempboxa\space
9663 #3,%
9664 file: #2%
9665 }%
9666 \Hy@colorlink \@filecolor
9667 #1\Hy@xspace@end
9668 \Hy@endcolorlink
9669 \fi
9670 \endgroup
9671 }
9672 \HyInfo@AddonUnsupportedtrue
9673 \def\PDF@FinishDoc{%
9674 \Hy@UseMaketitleInfos
9675 \HyInfo@TrappedUnsupported
9676 \special{PDF: Keywords \@pdfkeywords}%
9677 \special{PDF: Title \@pdftitle}%
9678 \special{PDF: Creator \@pdfcreator}%
9679 \ifx\@pdfcreationdate\@empty

```

```

9680 \else
9681 \special{PDF: CreationDate \@pdfcreationdate}%
9682 \fi
9683 \ifx\@pdfmoddate\@empty
9684 \else
9685 \special{PDF: ModDate \@pdfmoddate}%
9686 \fi
9687 \special{PDF: Author \@pdfauthor}%
9688 \ifx\@pdfproducer\relax
9689 \else
9690 \special{PDF: Producer \@pdfproducer}%
9691 \fi
9692 \special{PDF: Subject \@pdfsubject}%
9693 \Hy@DisableOption{pdfauthor}%
9694 \Hy@DisableOption{pdftitle}%
9695 \Hy@DisableOption{pdfsubject}%
9696 \Hy@DisableOption{pdfcreator}%
9697 \Hy@DisableOption{addtopdfcreator}%
9698 \Hy@DisableOption{pdfcreationdate}%
9699 \Hy@DisableOption{pdfcreationdate}%
9700 \Hy@DisableOption{pdfmoddate}%
9701 \Hy@DisableOption{pdfproducer}%
9702 \Hy@DisableOption{pdfkeywords}%
9703 \Hy@DisableOption{pdftrapped}%
9704 \Hy@DisableOption{pdfinfo}%
9705 }
9706 \def\PDF@SetupDoc{%
9707 \ifx\@baseurl\@empty
9708 \else
9709 \special{PDF: Base \@baseurl}%
9710 \fi
9711 \ifx\@pdfpagescrop\@empty\else
9712 \special{PDF: BBox \@pdfpagescrop}%
9713 \fi
9714 \def\Hy@temp{}%
9715 \ifx\@pdfstartpage\@empty
9716 \else
9717 \ifx\@pdfstartview\@empty
9718 \else
9719 \edef\Hy@temp{%
9720 ,Page=\@pdfstartpage
9721 ,View=\@pdfstartview
9722 }%
9723 \fi
9724 \fi
9725 \edef\Hy@temp{%
9726 \noexpand\pdfmark{%
9727 pdfmark=/DOCVIEW,%
9728 PageMode=/\@pdfpagemode
9729 \Hy@temp
9730 }%
9731 }%
9732 \Hy@temp
9733 \ifx\@pdfpagescrop\@empty

```

```

9734 \else
9735 \pdfmark{pdfmark=/PAGES,CropBox=\@pdfpagescrop}%
9736 \fi
9737 \edef\Hy@temp{%
9738 \ifHy@pdftoolbar\else /HideToolbar true\fi
9739 \ifHy@pdfmenubar\else /HideMenubar true\fi
9740 \ifHy@pdfwindowui\else /HideWindowUI true\fi
9741 \ifHy@pdffitwindow /FitWindow true\fi
9742 \ifHy@pdfcenterwindow /CenterWindow true\fi
9743 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
9744 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
9745 \Hy@UseNameKey{Direction}\@pdfdirection
9746 \Hy@UseNameKey{ViewArea}\@pdfviewarea
9747 \Hy@UseNameKey{ViewClip}\@pdfviewclip
9748 \Hy@UseNameKey{PrintArea}\@pdfprintarea
9749 \Hy@UseNameKey{PrintClip}\@pdfprintclip
9750 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
9751 \Hy@UseNameKey{Duplex}\@pdfduplex
9752 \ifx\@pdfpicktraybypdfsize\@empty
9753 \else
9754 /PickTrayByPDFSize \@pdfpicktraybypdfsize
9755 \fi
9756 \ifx\@pdfprintpagerange\@empty
9757 \else
9758 /PrintPageRange[\@pdfprintpagerange]%
9759 \fi
9760 \ifx\@pdfnumcopies\@empty
9761 \else
9762 /NumCopies \@pdfnumcopies
9763 \fi
9764 }%
9765 \pdfmark{pdfmark=/PUT,%
9766 Raw={%
9767 \string{Catalog}\string}<<%
9768 \ifx\Hy@temp\@empty
9769 \else
9770 /ViewerPreferences<<\Hy@temp>>%
9771 \fi
9772 \Hy@UseNameKey{PageLayout}\@pdfpagelayout
9773 \ifx\@pdflang\relax
9774 \else
9775 /Lang(\@pdflang)%
9776 \fi
9777 >>%
9778 }%
9779 }%
9780 }
9781 </dviwindo>
9782 <*\dviPDFm | xetex>

```

43.5 dvipdfm/xetex dvi to PDF converter

Provided by Mark Wicks (mwicks@kettering.edu)

(x)dvipdfmx replaces destination names by numbers. This makes it impossible

to link from an external document with xr-hyper, so from version 7.00j on this is suppressed with a config special.

```

9783 \special{dvipdfmx:config C 0x0010}
9784 \providecommand*\XR@ext}{pdf}
9785 \Hy@setbreaklinks{true}
9786 \def\HyPat@ObjRef{%
9787   @[^ ]+%
9788 }
9789 \newsavebox{\pdfm@box}
9790 \def\@pdfm@mark#1{\special{pdf:#1}}
9791 \Hy@WrapperDef\@pdfm@dest#1{%
9792   \Hy@SaveLastskip
9793   \Hy@VerboseAnchor{#1}%
9794   \begingroup
9795     \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
9796     \def\x{XYZ}%
9797     \ifx\x\@pdfview
9798       \def\x{XYZ @xpos @ypos null}%
9799     \else
9800       \def\x{FitH}%
9801       \ifx\x\@pdfview
9802         \def\x{FitH @ypos}%
9803       \else
9804         \def\x{FitBH}%
9805         \ifx\x\@pdfview
9806           \def\x{FitBH @ypos}%
9807         \else
9808           \def\x{FitV}%
9809           \ifx\x\@pdfview
9810             \def\x{FitV @xpos}%
9811           \else
9812             \def\x{FitBV}%
9813             \ifx\x\@pdfview
9814               \def\x{FitBV @xpos}%
9815             \else
9816               \def\x{Fit}%
9817               \ifx\x\@pdfview
9818                 \let\x\@pdfview
9819               \else
9820                 \def\x{FitB}%
9821                 \ifx\x\@pdfview
9822                   \let\x\@pdfview
9823                 \else
9824                   \def\x{FitR}%
9825                   \ifx\x\@pdfview
9826                     \Hy@Warning{'pdfview=FitR' is not supported}%
9827                   \def\x{XYZ @xpos @ypos null}%
9828                 \else
9829                   \@onelevel@sanitize\@pdfview
9830                   \Hy@Warning{%
9831                     Unknown value '\@pdfview' for pdfview%
9832                   }%
9833                 \def\x{XYZ @xpos @ypos null}%
9834               \fi

```

```

9835         \fi
9836         \fi
9837         \fi
9838         \fi
9839         \fi
9840         \fi
9841         \fi
9842         \@pdfm@mark{dest (\Hy@pstringDest) [@thispage /\x]}%
9843     \endgroup
9844     \Hy@RestoreLastskip
9845 }
9846 \providecommand*\@pdfview{XYZ}
9847 \providecommand*\@pdfborder{0 0 1}
9848 \providecommand*\@pdfborderstyle{}
9849 \def\hyper@anchor#1{%
9850     \@pdfm@dest{#1}%
9851 }
9852 \def\hyper@anchorstart#1{%
9853     \Hy@activeanchortrue
9854     \@pdfm@dest{#1}%
9855 }
9856 \def\hyper@anchorend{%
9857     \Hy@activeanchorfalse
9858 }
9859 \newcounter{Hy@AnnotLevel}
9860 \ifHy@ocgcolorlinks
9861     \def\OBJ@OCG@view{@OCG@view}%
9862     \@pdfm@mark{%
9863         obj \OBJ@OCG@view <<%
9864             /Type/OCG%
9865             /Name(View)%
9866             /Usage<<%
9867             /Print<<%
9868             /PrintState/OFF%
9869             >>%
9870             /View<<%
9871             /ViewState/ON%
9872             >>%
9873             >>%
9874             >>%
9875     }%
9876     \@pdfm@mark{close \OBJ@OCG@view}%
9877     \def\OBJ@OCG@print{@OCG@print}%
9878     \@pdfm@mark{%
9879         obj \OBJ@OCG@print <<%
9880             /Type/OCG%
9881             /Name(Print)%
9882             /Usage<<%
9883             /Print<<%
9884             /PrintState/ON%
9885             >>%
9886             /View<<%
9887             /ViewState/OFF%

```

```

9888     >>%
9889     >>%
9890     >>%
9891 }%
9892 \@pdfm@mark{close \OBJ@OCG@print}%
9893 \def\OBJ@OCGs{@OCGs}%
9894 \@pdfm@mark{%
9895   obj \OBJ@OCGs [%
9896     \OBJ@OCG@view\space\OBJ@OCG@print
9897   ]%
9898 }%
9899 \@pdfm@mark{close \OBJ@OCGs}%
9900 \@pdfm@mark{%
9901   put @catalog <<%
9902     /OCProperties<<%
9903     /OCGs \OBJ@OCGs
9904     /D<<%
9905     /OFF[\OBJ@OCG@print]%
9906     /AS[%
9907       <<%
9908         /Event/View%
9909         /OCGs \OBJ@OCGs
9910         /Category[/View]%
9911       >>%
9912       <<%
9913         /Event/Print%
9914         /OCGs \OBJ@OCGs
9915         /Category[/Print]%
9916       >>%
9917       <<%
9918         /Event/Export%
9919         /OCGs \OBJ@OCGs
9920         /Category[/Print]%
9921       >>%
9922     ]%
9923   >>%
9924   >>%
9925   >>%
9926 }%
9927 \AtBeginShipout{%
9928   \setbox\AtBeginShipoutBox=\hbox{%
9929     \copy\AtBeginShipoutBox
9930     \@pdfm@mark{%
9931       put @resources <<%
9932         /Properties<<%
9933         /OCView \OBJ@OCG@view
9934         /OCPrint \OBJ@OCG@print
9935       >>%
9936     >>%
9937   }%
9938 }%
9939 }%
9940 \Hy@AtBeginDocument{%
9941   \def\Hy@colorlink#1{%

```

```

9942 \begingroup
9943 \ifHy@ocgcolorlinks
9944 \def\Hy@ocgcolor{#1}%
9945 \setbox0=\hbox\bgroup\color@begingroup
9946 \else
9947 \HyColor@UseColor#1%
9948 \fi
9949 }%
9950 \def\Hy@endcolorlink{%
9951 \ifHy@ocgcolorlinks
9952 \color@endgroup\egroup
9953 \mbox{%
9954 \@pdfm@mark{content /OC/OCPrint BDC}%
9955 \rlap{\copy0}%
9956 \@pdfm@mark{content EMC/OC/OCView BDC}%
9957 \begingroup
9958 \expandafter\HyColor@UseColor\Hy@ocgcolor
9959 \box0 %
9960 \endgroup
9961 \@pdfm@mark{content EMC}%
9962 }%
9963 \fi
9964 \endgroup
9965 }%
9966 }%
9967 \else
9968 \Hy@DisableOption{ocgcolorlinks}%
9969 \fi

```

Use primitive counter arithmetic here to avoid amsmath redefining `\stepcounter` (github issue/13)

```

9970 \def\Hy@BeginAnnot#1{%
9971 \global\advance\c@Hy@AnnotLevel\@ne
9972 \ifnum\c@Hy@AnnotLevel=\@ne
9973 #1%
9974 \fi
9975 }
9976 \def\Hy@endAnnot{%
9977 \ifnum\value{Hy@AnnotLevel}=\@ne
9978 \Hy@endcolorlink
9979 \@pdfm@mark{eann}%
9980 \fi
9981 \global\advance\c@Hy@AnnotLevel\m@ne
9982 }
9983 \def\Hy@undefinedname{UNDEFINED}
9984 \def\hyper@linkstart#1#2{%
9985 \Hy@VerboseLinkStart{#1}{#2}%
9986 \leavevmode
9987 \Hy@BeginAnnot{%
9988 \protected@edef\Hy@testname{#2}%
9989 \ifx\Hy@testname\@empty
9990 \Hy@Warning{%
9991 Empty destination name,\MessageBreak
9992 using '\Hy@undefinedname'%

```

```

9993 }%
9994 \let\Hy@testname\Hy@undefinedname
9995 \else
9996 \Hy@pstringdef\Hy@testname{%
9997 \expandafter\HyperDestNameFilter\expandafter{%
9998 \Hy@testname
9999 }%
10000 }%
10001 \fi
10002 \@pdfm@mark{%
10003 bann<<%
10004 /Type/Annot%
10005 /Subtype/Link%
10006 \ifHy@pdfa /F 4\fi
10007 \Hy@setpdfborder
10008 \Hy@setpdfhighlight
10009 \expandafter\ifx\csname @#1bordercolor\endcsname\relax
10010 \else
10011 /C[\csname @#1bordercolor\endcsname]%
10012 \fi
10013 /A<<%
10014 /S/GoTo%
10015 /D(\Hy@testname)%
10016 \Hy@href@nextactionraw
10017 >>%
10018 >>%
10019 }%
10020 \expandafter\Hy@colorlink\csname @#1color\endcsname
10021 }%
10022 }
10023 \def\hyper@linkend{\Hy@EndAnnot}%
10024 \def\hyper@link#1#2#3{%
10025 \hyper@linkstart{#1}{#2}#3\Hy@xspace@end\hyper@linkend
10026 }
10027 \def\hyper@linkfile#1#2#3{%
10028 \leavevmode
10029 \Hy@BeginAnnot{%
10030 \def\Hy@pstringF{#2}%
10031 \Hy@CleanupFile\Hy@pstringF
10032 \Hy@pstringdef\Hy@pstringF\Hy@pstringF
10033 \Hy@pstringdef\Hy@pstringD{#3}%
10034 \Hy@MakeRemoteAction
10035 \@pdfm@mark{%
10036 bann<<%
10037 /Type/Annot%
10038 /Subtype/Link%
10039 \ifHy@pdfa /F 4\fi
10040 \Hy@setpdfborder
10041 \Hy@setpdfhighlight
10042 \ifx\@filebordercolor\relax
10043 \else
10044 /C[\@filebordercolor]%
10045 \fi
10046 /A<<%

```

```

10047      /S/GoToR%
10048      /F(\Hy@pstringF)%
10049      /D%
10050      \ifx\#3\%
10051      [\Hy@href@page\@pdfremotestartview]%
10052      \else
10053      (\Hy@pstringD)%
10054      \fi
10055      \Hy@SetNewWindow
10056      \Hy@href@nextactionraw
10057      >>%
10058      >>%
10059      }%
10060      \Hy@colorlink\@filecolor
10061      }%
10062      #1\Hy@xspace@end
10063      \Hy@endAnnot
10064      }
10065      \def\@hyper@launch run:#1\#2#3{% filename, anchor text linkname
10066      \leavevmode
10067      \Hy@BeginAnnot{%
10068      \Hy@pstringdef\Hy@pstringF{#1}%
10069      \Hy@pstringdef\Hy@pstringP{#3}%
10070      \@pdfm@mark{%
10071      bann<<%
10072      /Type/Annot%
10073      /Subtype/Link%
10074      \ifHy@pdfa /F 4\fi
10075      \Hy@setpdfborder
10076      \Hy@setpdfhighlight
10077      \ifx\@runbordercolor\relax
10078      \else
10079      /C[\@runbordercolor]%
10080      \fi
10081      /A<<%
10082      /F(\Hy@pstringF)%
10083      /S/Launch%
10084      \Hy@SetNewWindow
10085      \ifx\#3\%
10086      \else
10087      /Win<</P(\Hy@pstringP)/F(\Hy@pstringF)>>%
10088      \fi
10089      \Hy@href@nextactionraw
10090      >>%
10091      >>%
10092      }%
10093      \Hy@colorlink\@runcolor
10094      }%
10095      #2\Hy@xspace@end
10096      \Hy@endAnnot
10097      }
10098      \def\hyper@linkurl#1#2{%
10099      \leavevmode
10100      \Hy@BeginAnnot{%

```

```

10101 \Hy@pstringdef\Hy@pstringURI{#2}%
10102 \@pdfm@mark{%
10103   bann<<%
10104     /Type/Annot%
10105     /Subtype/Link%
10106     \ifHy@pdfa /F 4\fi
10107     \Hy@setpdfborder
10108     \Hy@setpdfhighlight
10109     \ifx\@urlbordercolor\relax
10110     \else
10111       /C[\@urlbordercolor]%
10112     \fi
10113     /A<<%
10114     /S/URI%
10115     /URI(\Hy@pstringURI)%
10116     \ifHy@href@ismap
10117       /IsMap true%
10118     \fi
10119     \Hy@href@nextactionraw
10120     >>%
10121   >>%
10122 }%
10123 \Hy@colorlink\@urlcolor
10124 }%
10125 #1\Hy@xspace@end
10126 \Hy@EndAnnot
10127 }
10128 \def\Acrobatmenu#1#2{%
10129 \Hy@Acrobatmenu{#1}{#2}{%
10130 \Hy@BeginAnnot{%
10131 \EdefEscapeName\Hy@temp@menu{#1}%
10132 \@pdfm@mark{%
10133   bann<<%
10134     /Type/Annot%
10135     /Subtype/Link%
10136     \ifHy@pdfa /F 4\fi
10137     \Hy@setpdfborder
10138     \Hy@setpdfhighlight
10139     \ifx\@menubordercolor\relax
10140     \else
10141       /C[\@menubordercolor]%
10142     \fi
10143     /A<<%
10144     /S/Named%
10145     /N/\Hy@temp@menu
10146     \Hy@href@nextactionraw
10147     >>%
10148   >>%
10149 }%
10150 \Hy@colorlink\@menucolor
10151 }%
10152 #2\Hy@xspace@end
10153 \Hy@EndAnnot
10154 }%

```

```

10155 }
10156
10157 \def\PDF@FinishDoc{%
10158 \Hy@UseMaketitleInfos
10159 \HyInfo@GenerateAddons
10160 \@pdfm@mark{%
10161 docinfo<<%
10162 /Title(\@pdftitle)%
10163 /Subject(\@pdfsubject)%
10164 /Creator(\@pdfcreator)%
10165 \ifx\@pdfcreationdate\@empty
10166 \else
10167 /CreationDate(\@pdfcreationdate)%
10168 \fi
10169 \ifx\@pdfmoddate\@empty
10170 \else
10171 /ModDate(\@pdfmoddate)%
10172 \fi
10173 /Author(\@pdfauthor)%
10174 \ifx\@pdfproducer\relax
10175 \else
10176 /Producer(\@pdfproducer)%
10177 \fi
10178 /Keywords(\@pdfkeywords)%
10179 \ifx\@pdftrapped\@empty
10180 \else
10181 /Trapped/\@pdftrapped
10182 \fi
10183 \HyInfo@Addons
10184 >>%
10185 }%
10186 \Hy@DisableOption{pdfauthor}%
10187 \Hy@DisableOption{pdftitle}%
10188 \Hy@DisableOption{pdfsubject}%
10189 \Hy@DisableOption{pdfcreator}%
10190 \Hy@DisableOption{addtopdfcreator}%
10191 \Hy@DisableOption{pdfcreationdate}%
10192 \Hy@DisableOption{pdfcreationdate}%
10193 \Hy@DisableOption{pdfmoddate}%
10194 \Hy@DisableOption{pdfproducer}%
10195 \Hy@DisableOption{pdfkeywords}%
10196 \Hy@DisableOption{pdftrapped}%
10197 \Hy@DisableOption{pdfinfo}%
10198 }

10199 \def\PDF@SetupDoc{%
10200 \edef\Hy@temp{%
10201 \ifHy@pdftoolbar\else /HideToolbar true\fi
10202 \ifHy@pdfmenubar\else /HideMenubar true\fi
10203 \ifHy@pdfwindowui\else /HideWindowUI true\fi
10204 \ifHy@pdffitwindow /FitWindow true\fi
10205 \ifHy@pdfcenterwindow /CenterWindow true\fi
10206 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
10207 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
10208 \Hy@UseNameKey{Direction}\@pdfdirection

```



```

10209 \Hy@UseNameKey{ViewArea}\@pdfviewarea
10210 \Hy@UseNameKey{ViewClip}\@pdfviewclip
10211 \Hy@UseNameKey{PrintArea}\@pdfprintarea
10212 \Hy@UseNameKey{PrintClip}\@pdfprintclip
10213 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
10214 \Hy@UseNameKey{Duplex}\@pdfduplex
10215 \ifx\@pdfpicktraybypdfsize\@empty
10216 \else
10217 /PickTrayByPDFSize \@pdfpicktraybypdfsize
10218 \fi
10219 \ifx\@pdfprintpagerange\@empty
10220 \else
10221 /PrintPageRange[\@pdfprintpagerange]%
10222 \fi
10223 \ifx\@pdfnumcopies\@empty
10224 \else
10225 /NumCopies \@pdfnumcopies
10226 \fi
10227 }%
10228 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
10229 \@pdfm@mark{%
10230 docview<<%
10231 \ifx\@pdfstartpage\@empty
10232 \else
10233 \ifx\@pdfstartview\@empty
10234 \else
10235 /OpenAction[@page\@pdfstartpage\@pdfstartview]%
10236 \fi
10237 \fi
10238 \ifx\@baseurl\@empty
10239 \else
10240 /URI<</Base(\Hy@pstringB)>>%
10241 \fi
10242 /PageMode/\@pdfpagemode
10243 \ifx\Hy@temp\@empty
10244 \else
10245 /ViewerPreferences<<\Hy@temp>>%
10246 \fi
10247 \Hy@UseNameKey{PageLayout}\@pdfpagelayout
10248 \ifx\@pdflang\relax
10249 \else
10250 /Lang(\@pdflang)%
10251 \fi
10252 >>%
10253 }%
10254 \ifx\@pdfpagescrop\@empty
10255 \else
10256 \@pdfm@mark{put @pages <</CropBox[\@pdfpagescrop]>>}%
10257 \fi
10258 }
10259 </dvi/pdfm | xetex>
10260 <*/dvi/pdfm | xetex>

```

\hyper@pagetransition

```

10261 \def\hyper@pagetransition{%
10262   \ifx\@pdfpagetransition\relax
10263   \else
10264     \ifx\@pdfpagetransition\@empty
10265     \else
10266       \special{pdf:put @thispage %
10267         <</Trans<</S/\@pdfpagetransition>>>>%
10268       }%
10269     \fi
10270   \fi
10271 }

```

\hyper@pageduration

```

10272 \def\hyper@pageduration{%
10273   \ifx\@pdfpageduration\relax
10274   \else
10275     \ifx\@pdfpageduration\@empty
10276     \else
10277       \special{pdf:put @thispage %
10278         <</Dur \@pdfpageduration>>%
10279       }%
10280     \fi
10281   \fi
10282 }

10283 \g@addto@macro\Hy@EveryPageBoxHook{%
10284   \hyper@pagetransition
10285   \hyper@pageduration
10286 }

10287 </dvipdfm | xetex>

```

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

```

10288 (*dvipdfm)
10289 \AtBeginShipoutFirst{%
10290   \ifHy@setpagesize
10291   \begingroup
10292     \ifnum\mag=\@m
10293     \ifdim\stockwidth>\z@
10294       \ifdim\stockheight>\z@
10295         \special{papersize=\the\stockwidth,\the\stockheight}%
10296       \else
10297         \ifdim\paperwidth>\z@
10298         \ifdim\paperheight>\z@
10299           \special{papersize=\the\paperwidth,\the\paperheight}%
10300         \fi
10301       \fi
10302     \fi
10303   \else
10304     \ifdim\stockwidth=\z@
10305     \ifdim\paperwidth>\z@
10306       \ifdim\paperheight>\z@
10307         \special{papersize=\the\paperwidth,\the\paperheight}%
10308     \fi

```

```

10309     \fi
10310     \fi
10311     \fi
10312     \fi
10313     \endgroup
10314     \fi
10315     \Hy@DisableOption{setpagesize}%
10316 }
10317 </dvipdfm>

```

43.6 VTeX typesetting system

Provided by MicroPress, May 1998. They require VTeX version 6.02 or newer; see <http://www.micropress-inc.com/> for details.

```

10318 <*vtexhtml>
10319 \providecommand*\XR@ext}{htm}
10320 \RequirePackage{vtexhtml}
10321 \newif\if@Localurl
10322 \let\PDF@FinishDoc\ltx@empty
10323 \def\PDF@SetupDoc{%
10324   \ifx\@baseurl\@empty
10325     \else
10326     \special{!direct <base href="\@baseurl">}%
10327   \fi
10328 }
10329 \def\@urltype{url}
10330 \def\hyper@link#1#2#3{%
10331   \Hy@VerboseLinkStart{#1}{#2}%
10332   \leavevmode
10333   \special{!direct <a href=%
10334     \hyper@quote\hyper@hash\HyperDestNameFilter{#2}\hyper@quote>}%
10335   #3\Hy@xspace@end
10336   \special{!direct </a>}%
10337 }
10338 \def\hyper@linkurl#1#2{%
10339   \begingroup
10340     \hyper@chars
10341     \leavevmode
10342     \MathBSuppress=1\relax
10343     \special{!direct <a href=%
10344       \hyper@quote\HyperDestNameFilter{#2}\hyper@quote>}%
10345     #1\Hy@xspace@end
10346     \MathBSuppress=0\relax
10347     \special{!direct </a>}%
10348   \endgroup
10349 }
10350 \def\hyper@linkfile#1#2#3{%
10351   \hyper@linkurl{#1}{\Hy@linkfileprefix#2\ifx\\#3\\\else\##3\fi}%
10352 }
10353 \def\hyper@linkstart#1#2{%
10354   \Hy@VerboseLinkStart{#1}{#2}%
10355   \def\Hy@tempa{#1}\ifx\Hy@tempa\@urltype
10356     \@Localurltrue
10357     \special{!direct <a href=\hyper@quote#2\hyper@quote>}%

```

```

10358 \else
10359 \@@Localurlfalse
10360 \begingroup
10361 \hyper@chars
10362 \special{!aref \HyperDestNameFilter{#2}}%
10363 \endgroup
10364 \fi
10365 }
10366 \def\hyper@linkend{%
10367 \if@Localurl
10368 \special{!endaref}%
10369 \else
10370 \special{!direct </a>}%
10371 \fi
10372 }
10373 \Hy@WrapperDef\hyper@anchorstart#1{%
10374 \Hy@SaveLastskip
10375 \Hy@VerboseAnchor{#1}%
10376 \begingroup
10377 \hyper@chars
10378 \special{!aname #1}%
10379 \special{!direct <a name=%
10380 \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
10381 \endgroup
10382 \Hy@activeanchortrue
10383 }
10384 \def\hyper@anchorend{%
10385 \special{!direct </a>}%
10386 \Hy@activeanchorfalse
10387 \Hy@RestoreLastskip
10388 }
10389 \Hy@WrapperDef\hyper@anchor#1{%
10390 \Hy@SaveLastskip
10391 \Hy@VerboseAnchor{#1}%
10392 \begingroup
10393 \let\protect=\string
10394 \hyper@chars
10395 \leavevmode
10396 \special{!aname #1}%
10397 \special{!direct <a name=%
10398 \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
10399 \endgroup
10400 \Hy@activeanchortrue
10401 \bgroup\anchor@spot\egroup
10402 \special{!direct </a>}%
10403 \Hy@activeanchorfalse
10404 \Hy@RestoreLastskip
10405 }
10406 \def\@Form[#1]{%
10407 \Hy@Message{Sorry, TeXpider does not yet support FORMs}%
10408 }
10409 \let\@endForm\ltx@empty
10410 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
10411 \Hy@Message{Sorry, TeXpider does not yet support FORM gauges}%

```

```

10412 }
10413 \def\@TextField[#1]#2{% parameters, label
10414 \Hy@Message{Sorry, TeXpider does not yet support FORM text fields}%
10415 }
10416 \def\@CheckBox[#1]#2{% parameters, label
10417 \Hy@Message{Sorry, TeXpider does not yet support FORM checkboxes}%
10418 }
10419 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
10420 \Hy@Message{Sorry, TeXpider does not yet support FORM choice menus}%
10421 }
10422 \def\@PushButton[#1]#2{% parameters, label
10423 \Hy@Message{Sorry, TeXpider does not yet support FORM pushbuttons}%
10424 }
10425 \def\@Reset[#1]#2{%
10426 \Hy@Message{Sorry, TeXpider does not yet support FORMs}%
10427 }
10428 \def\@Submit[#1]#2{%
10429 \Hy@Message{Sorry, TeXpider does not yet support FORMs}%
10430 }
10431 </vtexthtml>
10432 <*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.

```

10433 \ifcsname mediaheight\endcsname
10434 \ifHy@setpagesize
10435 \providecommand*\VTeXInitMediaSize{%
10436 \ifnum\mag=\@m
10437 \ifdim\stockwidth>\z@
10438 \ifdim\stockheight>\z@
10439 \setlength\mediaheight\stockheight
10440 \setlength\mediawidth\stockwidth
10441 \else
10442 \ifdim\paperwidth>\z@
10443 \ifdim\paperheight>\z@
10444 \setlength\mediaheight\paperheight
10445 \setlength\mediawidth\paperwidth
10446 \fi
10447 \fi
10448 \fi
10449 \else
10450 \ifdim\stockwidth=\z@
10451 \ifdim\paperwidth>\z@
10452 \ifdim\paperheight>\z@
10453 \setlength\mediaheight\paperheight
10454 \setlength\mediawidth\paperwidth
10455 \fi
10456 \fi
10457 \fi
10458 \fi
10459 \fi
10460 }%
10461 \Hy@AtBeginDocument{\VTeXInitMediaSize}%

```

```

10462 \fi
10463 \Hy@DisableOption{setpagesize}%
10464 \fi
Older versions of VTeX require xyz in lower case.
10465 \providecommand*\@pdfview{xyz}
10466 \providecommand*\@pdfborder{0 0 1}
10467 \providecommand*\@pdfborderstyle{}
10468 \let\CurrentBorderColor\@linkbordercolor
10469 \Hy@WrapperDef\hyper@anchor#1{%
10470 \Hy@SaveLastskip
10471 \Hy@VerboseAnchor{#1}%
10472 \begingroup
10473 \let\protect=\string
10474 \hyper@chars
10475 \special{!aname \HyperDestNameFilter{#1};\@pdfview}%
10476 \endgroup
10477 \Hy@activeanchortrue
10478 \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
10479 \Hy@activeanchorfalse
10480 \Hy@RestoreLastskip
10481 }
10482 \Hy@WrapperDef\hyper@anchorstart#1{%
10483 \Hy@SaveLastskip
10484 \Hy@VerboseAnchor{#1}%
10485 \begingroup
10486 \hyper@chars
10487 \special{!aname \HyperDestNameFilter{#1};\@pdfview}%
10488 \endgroup
10489 \Hy@activeanchortrue
10490 }
10491 \def\hyper@anchorend{%
10492 \Hy@activeanchorfalse
10493 \Hy@RestoreLastskip
10494 }
10495 \def\@urltype{url}
10496 \def\Hy@undefinedname{UNDEFINED}
10497 \def\hyper@linkstart#1#2{%
10498 \Hy@VerboseLinkStart{#1}{#2}%
10499 \Hy@pstringdef\Hy@pstringURI{#2}%
10500 \expandafter\Hy@colorlink\csname @#1color\endcsname
10501 \ltx@ifundefined{#@#1bordercolor}{%
10502 \let\CurrentBorderColor\relax
10503 }{%
10504 \edef\CurrentBorderColor{%
10505 \csname @#1bordercolor\endcsname
10506 }%
10507 }%
10508 \def\Hy@tempa{#1}%
10509 \ifx\Hy@tempa\@urltype
10510 \special{!%
10511 aref <u=/Type/Action/S/URI/URI(\Hy@pstringURI)%
10512 \ifHy@href@ismap
10513 /IsMap true%
10514 \fi

```

```

10515     \Hy@href@nextactionraw
10516     >,%
10517     a=<%
10518     \ifHy@pdfa /F 4\fi
10519     \Hy@setpdfborder
10520     \ifx\CurrentBorderColor\relax
10521     \else
10522     /C [\CurrentBorderColor]%
10523     \fi
10524     >%
10525     }%
10526 \else
10527 \protected@edef\Hy@testname{#2}%
10528 \ifx\Hy@testname\@empty
10529 \Hy@Warning{%
10530     Empty destination name,\MessageBreak
10531     using ` \Hy@undefinedname'%
10532     }%
10533 \let\Hy@testname\Hy@undefinedname
10534 \fi
10535 \special{!%
10536     aref \expandafter\HyperDestNameFilter
10537     \expandafter{\Hy@testname};%
10538     a=<%
10539     \ifHy@pdfa /F 4\fi
10540     \Hy@setpdfborder
10541     \ifx\CurrentBorderColor\relax
10542     \else
10543     /C [\CurrentBorderColor]%
10544     \fi
10545     >%
10546     }%
10547 \fi
10548 }
10549 \def\hyper@linkend{%
10550 \special{!endaref}%
10551 \Hy@endcolorlink
10552 }
10553 \def\hyper@linkfile#1#2#3{%
10554 \leavevmode
10555 \def\Hy@pstringF{#2}%
10556 \Hy@CleanupFile\Hy@pstringF
10557 \special{!%
10558     aref <%
10559     \ifnum\Hy@VTeXversion>753 \ifHy@pdfnewwindow n\fi\fi
10560     f=\Hy@pstringF>#3;%
10561     a=<%
10562     \ifHy@pdfa /F 4\fi
10563     \Hy@setpdfborder
10564     \ifx\@filebordercolor\relax
10565     \else
10566     /C [\@filebordercolor]%
10567     \fi
10568     >%

```

```

10569 }%
10570 \Hy@colorlink\@filecolor
10571 #1\Hy@xspace@end
10572 \Hy@endcolorlink
10573 \special{!endaref}%
10574 }
10575 \def\hyper@linkurl#1#2{%
10576 \begingroup
10577 \Hy@pstringdef\Hy@pstringURI{#2}%
10578 \hyper@chars
10579 \leavevmode
10580 \special{!%
10581 aref <u=/Type/Action/S/URI/URI(\Hy@pstringURI)%
10582 \ifHy@href@ismap
10583 /IsMap true%
10584 \fi
10585 \Hy@href@nextactionraw
10586 >,%
10587 a=<%
10588 \ifHy@pdfa /F 4\fi
10589 \Hy@setpdfborder
10590 \ifx \@urlbordercolor\relax
10591 \else
10592 /C [\@urlbordercolor]%
10593 \fi
10594 >%
10595 }%
10596 \Hy@colorlink\@urlcolor
10597 #1\Hy@xspace@end
10598 \Hy@endcolorlink
10599 \special{!endaref}%
10600 \endgroup
10601 }
10602 \def\hyper@link#1#2#3{%
10603 \Hy@VerboseLinkStart{#1}{#2}%
10604 \ltx@ifundefined{@#1bordercolor}{%
10605 \let\CurrentBorderColor\relax
10606 }{%
10607 \edef\CurrentBorderColor{\csname @#1bordercolor\endcsname}%
10608 }%
10609 \leavevmode
10610 \protected@edef\Hy@testname{#2}%
10611 \ifx\Hy@testname\@empty
10612 \Hy@Warning{%
10613 Empty destination name,\MessageBreak
10614 using \Hy@undefinedname'%
10615 }%
10616 \let\Hy@testname\Hy@undefinedname
10617 \fi
10618 \special{!%
10619 aref \expandafter\HyperDestNameFilter
10620 \expandafter{\Hy@testname};%
10621 a=<%
10622 \ifHy@pdfa /F 4\fi

```



```

10623 \Hy@setpdfborder
10624 \ifx\CurrentBorderColor\relax
10625 \else
10626 /C [\CurrentBorderColor]%
10627 \fi
10628 >%
10629 }%
10630 \expandafter
10631 \Hy@colorlink\csname @#1color\endcsname
10632 #3\Hy@xspace@end
10633 \Hy@endcolorlink
10634 \special{!endaref}%
10635 }
10636 \def\hyper@image#1#2{%
10637 \hyper@linkurl{#2}{#1}%
10638 }
10639 \def\@hyper@launch run:#1\#2#3{%
10640 \Hy@pstringdef\Hy@pstringF{#1}%
10641 \Hy@pstringdef\Hy@pstringP{#3}%
10642 \leavevmode
10643 \special{!aref %
10644 <u=%
10645 /Type/Action%
10646 /S/Launch%
10647 /F(\Hy@pstringF)%
10648 \Hy@SetNewWindow
10649 \ifx\#3\%
10650 \else
10651 /Win<</F(\Hy@pstringF)/P(\Hy@pstringP)>>%
10652 \fi
10653 \Hy@href@nextactionraw
10654 >:%
10655 a=<%
10656 \ifHy@pdfa /F 4\fi
10657 \Hy@setpdfborder
10658 \ifx\@runbordercolor\relax
10659 \else
10660 /C[\@runbordercolor]%
10661 \fi
10662 >%
10663 }%
10664 \Hy@colorlink\@runcolor
10665 #2\Hy@xspace@end
10666 \Hy@endcolorlink
10667 \special{!endaref}%
10668 }
10669 \def\Acrobatmenu#1#2{%
10670 \EdefEscapeName\Hy@temp@menu{#1}%
10671 \Hy@Acrobatmenu{#1}{#2}{%
10672 \special{!%
10673 aref <u=/S /Named /N /\Hy@temp@menu>:%
10674 a=<%
10675 \ifHy@pdfa /F 4\fi
10676 \Hy@setpdfborder

```

```

10677     \ifx\@menubordercolor\relax
10678     \else
10679     /C[\@menubordercolor]%
10680     \fi
10681     >%
10682     }%
10683     \Hy@colorlink\@menucolor
10684     #2\Hy@xspace@end
10685     \Hy@endcolorlink
10686     \special{!endaref}%
10687     }%
10688     }

```

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

The code below makes sense for $\text{V}\text{T}\text{E}\text{X}$ 7.02 or later.

Please never use $\backslash\@ifundefined\{\text{V}\text{T}\text{E}\text{X}\text{version}\}\{..\}\{..\}$ *globally*.

```

10689 \ifnum\Hy@VTeXversion<702 %
10690 \else
10691 \def\hyper@pagetransition{%
10692 \ifx\@pdfpagetransition\relax
10693 \else
10694 \ifx\@pdfpagetransition\@empty

```

Standard incantation.

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

```

10695 \else
10696 \hvtex@parse@trans\@pdfpagetransition
10697 \fi
10698 \fi
10699 }%

```

I have to write an “honest” parser to convert raw PDF code into $\text{V}\text{T}\text{E}\text{X}$ $\backslash\text{special}$. (AVK)

Syntax of $\text{V}\text{T}\text{E}\text{X}$ $\backslash\text{special}\{!\text{trans } \langle\text{transition_effect}\rangle\}$:

```

<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:

```

10700 \def\hvtex@trans@effect@Blinds{\def\hvtex@trans@code{B}}%
10701 \def\hvtex@trans@effect@Box{\def\hvtex@trans@code{X}}%
10702 \def\hvtex@trans@effect@Dissolve{\def\hvtex@trans@code{D}}%

```

```

10703 \def\hvtex@trans@effect@Glitter{\def\hvtex@trans@code{G}}%
10704 \def\hvtex@trans@effect@Split{\def\hvtex@trans@code{S}}%
10705 \def\hvtex@trans@effect@Wipe{\def\hvtex@trans@code{W}}%
10706 \def\hvtex@trans@effect@R{\def\hvtex@trans@code{R}}%

```

Optional parameters:

```

10707 \def\hvtex@par@dimension{/Dm}%
10708 \def\hvtex@par@direction{/Di}%
10709 \def\hvtex@par@duration{/D}%
10710 \def\hvtex@par@motion{/M}%

```

Tokenizer:

```

10711 \def\hvtex@gettoken{%
10712   \expandafter\hvtex@gettoken@\hvtex@buffer\@nil
10713 }%

```

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

```

10714 \def\hvtex@gettoken@#1 #2\@nil{%
10715   \edef\hvtex@token{#1}%
10716   \edef\hvtex@buffer{#2}%
10717 }%
10718 \def\hvtex@parse@trans#1{%

```

Initializing code:

```

10719 \let\hvtex@trans@code\@empty
10720 \let\hvtex@param@dimension\@empty
10721 \let\hvtex@param@direction\@empty
10722 \let\hvtex@param@duration\@empty
10723 \let\hvtex@param@motion\@empty
10724 \edef\hvtex@buffer{#1\space}%

```

First token is the PDF transition name without escape.

```

10725 \hvtex@gettoken
10726 \ifx\hvtex@token\@empty

```

Leading space(s)?

```

10727   \ifx\hvtex@buffer\@empty

```

The buffer is empty, nothing to do.

```

10728     \else
10729       \hvtex@gettoken
10730     \fi
10731 \fi
10732 \csname hvtex@trans@effect@\hvtex@token\endcsname

```

Now is time to parse optional parameters.

```

10733 \hvtex@trans@params
10734 }%

```

Reentrant macro to parse optional parameters.

```

10735 \def\hvtex@trans@params{%
10736   \ifx\hvtex@buffer\@empty
10737   \else
10738     \hvtex@gettoken
10739     \let\hvtex@trans@par\hvtex@token
10740     \ifx\hvtex@buffer\@empty
10741     \else
10742       \hvtex@gettoken
10743       \ifx\hvtex@trans@par\hvtex@par@duration

```

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

```
10744     \let\hvtex@param@duration\hvtex@token
10745     \else \ifx\hvtex@trans@par\hvtex@par@motion
/M can be either /I or /O
10746     \expandafter\edef\expandafter\hvtex@param@motion
10747     \expandafter{\expandafter\@gobble\hvtex@token}%
10748     \else \ifx\hvtex@trans@par\hvtex@par@dimension
```

/Dm can be either /H or /V

```
10749     \expandafter\edef\expandafter\hvtex@param@dimension
10750     \expandafter{\expandafter\@gobble\hvtex@token}%
10751     \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).

```
10752     \let\hvtex@param@direction\hvtex@token
10753     \fi\fi\fi
10754     \fi
10755     \fi
10756     \ifx\hvtex@buffer\@empty
10757     \let\next\hvtex@produce@trans
10758     \else
10759     \let\next\hvtex@trans@params
10760     \fi
10761     \next
10762 }%
```

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

```
10763 \def\hvtex@produce@trans{%
10764 \let\vtex@trans@special\@empty
10765 \if S\hvtex@trans@code
10766 \edef\vtex@trans@special{\hvtex@trans@code
10767 \hvtex@param@dimension\hvtex@param@motion}%
10768 \else\if B\hvtex@trans@code
10769 \edef\vtex@trans@special{%
10770 \hvtex@trans@code\hvtex@param@dimension
10771 }%
10772 \else\if X\hvtex@trans@code
10773 \edef\vtex@trans@special{%
10774 \hvtex@trans@code\hvtex@param@motion
10775 }%
10776 \else\if W\hvtex@trans@code
10777 \edef\vtex@trans@special{%
10778 \hvtex@trans@code\hvtex@param@direction
10779 }%
10780 \else\if D\hvtex@trans@code
10781 \let\vtex@trans@special\hvtex@trans@code
10782 \else\if R\hvtex@trans@code
10783 \let\vtex@trans@special\hvtex@trans@code
10784 \else\if G\hvtex@trans@code
10785 \edef\vtex@trans@special{%
10786 \hvtex@trans@code\hvtex@param@direction
10787 }%
```

```

10788 \fi\fi\fi\fi\fi\fi
10789 \ifx\vtex@trans@special@empty
10790 \else
10791 \ifx\hvtex@param@duration@empty
10792 \else
10793 \setlength{\dimen@}{\hvtex@param@duration\p@}%

```

I'm not guilty of possible overflow.

```

10794 \multiply\dimen@\@m
10795 \edef\vtex@trans@special{%
10796 \vtex@trans@special,\strip@pt\dimen@
10797 }%
10798 \fi

```

And all the mess is just for this.

```

10799 \special{!trans \vtex@trans@special}%
10800 \fi
10801 }%

10802 \def\hyper@pageduration{%
10803 \ifx\@pdfpageduration\relax
10804 \else
10805 \ifx\@pdfpageduration@empty
10806 \special{!duration-}%
10807 \else
10808 \special{!duration \@pdfpageduration}%
10809 \fi
10810 \fi
10811 }%
10812 \g@addto@macro\Hy@EveryPageBoxHook{%
10813 \hyper@pagetransition
10814 \hyper@pageduration
10815 }%
10816 \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

```

10817 \ifx\@pdfproducer\relax
10818 \def\@pdfproducer{VTeX}%
10819 \ifnum\Hy@VTeXversion>\z@
10820 \count@\VTeXversion
10821 \divide\count@ 100 %
10822 \edef\@pdfproducer{\@pdfproducer\space v\the\count@}%
10823 \multiply\count@ -100 %
10824 \advance\count@\VTeXversion
10825 \edef\@pdfproducer{%
10826 \@pdfproducer

```

```

10827 .\ifnum\count@<10 0\fi\the\count@
10828 \ifx\VTeXOS\@undefined\else
10829 \ifnum\VTeXOS>0 %
10830 \ifnum\VTeXOS<6 %
10831 \space(%
10832 \ifcase\VTeXOS
10833 \or Windows\or Linux\or OS/2\or MacOS\or MacOS/X%
10834 \fi
10835 )%
10836 \fi
10837 \fi
10838 \fi
10839 ,\space
10840 \ifnum\OpMode=\@one PDF\else PS\fi
10841 \space backend%
10842 \ifx\gexmode\@undefined\else
10843 \ifnum\gexmode>\z@\space with GeX\fi
10844 \fi
10845 }%
10846 \fi
10847 \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).

```

10848 \def\PDF@SetupDoc{%
10849 \ifx\@pdfpagescrop\@empty
10850 \else
10851 \special{!pdfinfo b=<\@pdfpagescrop>}%
10852 \fi
10853 \ifx\@pdfstartpage\@empty
10854 \else
10855 \ifx\@pdfstartview\@empty
10856 \else
10857 \special{!onopen Page\@pdfstartpage}%
10858 \fi
10859 \fi
10860 \special{!pdfinfo p=</\@pdfpagemode>}%
10861 \ifx\@baseurl\@empty
10862 \else
10863 \special{!pdfinfo u=<<</Base (\@baseurl)>>>}%
10864 \fi

```

```

10865 \special{!pdfinfo v=<<<%
10866   \ifHy@pdftoolbar\else /HideToolbar true\fi
10867   \ifHy@pdfmenubar\else /HideMenubar true\fi
10868   \ifHy@pdfwindowui\else /HideWindowUI true\fi
10869   \ifHy@pdfwindow /FitWindow true\fi
10870   \ifHy@pdfcenterwindow /CenterWindow true\fi
10871   \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
10872   \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
10873   \Hy@UseNameKey{Direction}\@pdfdirection
10874   \Hy@UseNameKey{ViewArea}\@pdfviewarea
10875   \Hy@UseNameKey{ViewClip}\@pdfviewclip
10876   \Hy@UseNameKey{PrintArea}\@pdfprintarea
10877   \Hy@UseNameKey{PrintClip}\@pdfprintclip
10878   \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
10879   \Hy@UseNameKey{Duplex}\@pdfduplex
10880   \ifx\@pdfpicktraybypdfsize\@empty
10881     \else
10882       /PickTrayByPDFSize \@pdfpicktraybypdfsize
10883     \fi
10884   \ifx\@pdfprintpagerange\@empty
10885     \else
10886       /PrintPageRange[\@pdfprintpagerange]%
10887     \fi
10888   \ifx\@pdfnumcopies\@empty
10889     \else
10890       /NumCopies \@pdfnumcopies
10891     \fi
10892   >>>}%
10893 \ifx\@pdfpagelayout\@empty
10894 \else
10895   \special{!pdfinfo l=<\/\@pdfpagelayout\space>}%
10896 \fi
10897 }%
10898 \HyInfo@AddonUnsupportedtrue
10899 \define@key{Hyp}{pdfcreationdate}{%
10900   \Hy@Warning{%
10901     VTeX does not support pdfcreationdate.\MessageBreak
10902     Therefore its setting is ignored%
10903   }%
10904 }
10905 \define@key{Hyp}{pdfmoddate}{%
10906   \Hy@Warning{%
10907     VTeX does not support pdfmoddate.\MessageBreak
10908     Therefore its setting is ignored%
10909   }%
10910 }
10911 \def\PDF@FinishDoc{%
10912   \Hy@UseMaketitleInfos
10913   \HyInfo@TrappedUnsupported
10914   \special{!pdfinfo a=<\@pdfauthor>}%
10915   \special{!pdfinfo t=<\@pdftitle>}%
10916   \special{!pdfinfo s=<\@pdfsubject>}%
10917   \special{!pdfinfo c=<\@pdfcreator>}%
10918   \ifx\@pdfproducer\relax

```

```

10919 \else
10920   \special{!pdfinfo r=<\@pdfproducer>}%
10921 \fi
10922 \special{!pdfinfo k=<\@pdfkeywords>}%
10923 \Hy@DisableOption{pdfauthor}%
10924 \Hy@DisableOption{pdftitle}%
10925 \Hy@DisableOption{pdfsubject}%
10926 \Hy@DisableOption{pdfcreator}%
10927 \Hy@DisableOption{addtopdfcreator}%
10928 \Hy@DisableOption{pdfcreationdate}%
10929 \Hy@DisableOption{pdfcreationdate}%
10930 \Hy@DisableOption{pdfmoddate}%
10931 \Hy@DisableOption{pdfproducer}%
10932 \Hy@DisableOption{pdfkeywords}%
10933 \Hy@DisableOption{pdftrapped}%
10934 \Hy@DisableOption{pdfinfo}%
10935 }
10936 </vtx>

```

43.7 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.

```

10937 <dviwindo>\def\literalps@out#1{\special{ps:#1}}%
10938 <packageEnd>\providecommand*\Hy@DistillerDestFix{-}
10939 <*pdfmark | dviwindo>
10940 \def\Hy@DistillerDestFix{%
10941   \begingroup
10942   \let\x\literalps@out

```

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

```

10943   \ifnum \@ifundefined{OpMode}{0}{%
10944     \@ifundefined{gexmode}{0}{%
10945       \ifnum\gexmode>0 \OpMode\else 0\fi
10946     }>1 %
10947   \def\x##1{%
10948     \immediate\special{!##1}%
10949   }%
10950 \fi
10951 \x{%
10952   /product where{%
10953     pop %
10954     product(Distiller)search{%
10955       pop pop pop %
10956     version(.)search{%

```



```

10957     exch pop exch pop%
10958     (3011)eq{%
10959         gsave %
10960         newpath 0 0 moveto closepath clip%
10961         /Courier findfont 10 scalefont setfont %
10962         72 72 moveto(.)show %
10963         grestore%
10964     }if%
10965     }{pop}ifelse%
10966     }{pop}ifelse%
10967     }if%
10968     }%
10969 \endgroup
10970 }
10971 </pdfmark | dviwindo>

```

43.8 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

```

```

10972 (*pdfmark)
10973 \Hy@breaklinks@unsupported
10974 \def\HyPat@ObjRef{%
10975   \[~{}]+\}%
10976 }
10977 \Hy@WrapperDef\hyper@anchor#1{%
10978   \Hy@SaveLastskip
10979   \Hy@VerboseAnchor{#1}%
10980   \begingroup
10981     \pdfmark[\anchor@spot]{%
10982       pdfmark=/DEST,%
10983       linktype=anchor,%
10984       View=/\@pdfview \@pdfviewparams,%
10985       DestAnchor={#1}%
10986     }%
10987   \endgroup
10988   \Hy@RestoreLastskip
10989 }
10990 \ltx@ifundefined{hyper@anchorstart}{\endinput}
10991 \Hy@WrapperDef\hyper@anchorstart#1{%
10992   \Hy@SaveLastskip
10993   \Hy@VerboseAnchor{#1}%
10994   \literalps@out{H.S}%

```

```

10995 \Hy@AllowHyphens
10996 \xdef\hyper@currentanchor{#1}%
10997 \Hy@activeanchortrue
10998 }
10999 \def\hyper@anchorend{%
11000 \literalps@out{\strip@pt@and@otherjunk\baselineskip\space H.A}%
11001 \pdfmark{%
11002   pdfmark=/DEST,%
11003   linktype=anchor,%
11004   View=/\@pdfview \@pdfviewparams,%
11005   DestAnchor=\hyper@currentanchor,%
11006 }%
11007 \Hy@activeanchorfalse
11008 \Hy@RestoreLastskip
11009 }
11010 \def\hyper@linkstart#1#2{%
11011 \Hy@VerboseLinkStart{#1}{#2}%
11012 \ifHy@breaklinks
11013 \else
11014 \leavevmode
11015 \ifmmode
11016 \def\Hy@LinkMath{${}}%
11017 \else
11018 \let\Hy@LinkMath\ltx@empty
11019 \fi
11020 \Hy@SaveSpaceFactor
11021 \hbox\bgroup
11022 \Hy@RestoreSpaceFactor
11023 \Hy@LinkMath
11024 \fi
11025 \expandafter\Hy@colorlink\csname @#1color\endcsname
11026 \literalps@out{H.S}%
11027 \Hy@AllowHyphens
11028 \xdef\hyper@currentanchor{#2}%
11029 \gdef\hyper@currentlinktype{#1}%
11030 }
11031 \def\hyper@linkend{%
11032 \literalps@out{\strip@pt@and@otherjunk\baselineskip\space H.L}%
11033 \ltx@ifundefined{@\hyper@currentlinktype bordercolor}{%
11034 \let\Hy@tempcolor\relax
11035 }{%
11036 \edef\Hy@tempcolor{%
11037 \csname @\hyper@currentlinktype bordercolor\endcsname
11038 }%
11039 }%
11040 \pdfmark{%
11041   pdfmark=/ANN,%
11042   linktype=link,%
11043   Subtype=/Link,%
11044   PDFAFlags=4,%
11045   Dest=\hyper@currentanchor,%
11046   AcroHighlight=\@pdfhighlight,%
11047   Border=\@pdfborder,%
11048   BorderStyle=\@pdfborderstyle,%

```

```

11049   Color=\Hy@tempcolor,%
11050   Raw=H.B%
11051 }%
11052 \Hy@endcolorlink
11053 \ifHy@breaklinks
11054 \else
11055   \Hy@LinkMath
11056   \Hy@SaveSpaceFactor
11057 \egroup
11058   \Hy@RestoreSpaceFactor
11059 \fi
11060 }

```

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.

```

11061 \begingroup
11062 \catcode`P=12 %
11063 \catcode`T=12 %
11064 \lowercase{\endgroup
11065 \gdef\rem@ptetc#1.#2PT#3!{#1\ifnum#2>\z@.#2\fi}%
11066 }
11067 \def\strip@pt@and@otherjunk#1{\expandafter\rem@ptetc\the#1!}

```

`\hyper@pagetransition`

```

11068 \def\hyper@pagetransition{%
11069 \ifx\@pdfpagetransition\relax
11070 \else
11071 \ifx\@pdfpagetransition\@empty
11072 % 1. Does an old entry have to be deleted?
11073 % 2. If 1=yes, how to delete?
11074 \else
11075 \pdfmark{%
11076 pdfmark=/PUT,%
11077 Raw={%
11078 \string{ThisPage\string}%
11079 <</Trans << /S /\@pdfpagetransition\space >> >>%
11080 }%
11081 }%
11082 \fi
11083 \fi
11084 }

```

`\hyper@pageduration`

```

11085 \def\hyper@pageduration{%
11086 \ifx\@pdfpageduration\relax
11087 \else
11088 \ifx\@pdfpageduration\@empty
11089 % 1. Does an old entry have to be deleted?
11090 % 2. If 1=yes, how to delete?
11091 \else
11092 \pdfmark{%
11093 pdfmark=/PUT,%
11094 Raw={%

```

```

11095     \string{ThisPage\string}%
11096     <</Dur \@pdfpageduration>>%
11097     }%
11098     }%
11099     \fi
11100     \fi
11101     }

11102 \g@addto@macro\Hy@EveryPageBoxHook{%
11103     \hyper@pagetransition
11104     \hyper@pageduration
11105     }

11106 \def\hyper@image#1#2{%
11107     \hyper@linkurl{#2}{#1}%
11108     }
11109 \def\Hy@undefinedname{UNDEFINED}
11110 \def\hyper@link#1#2#3{%
11111     \Hy@VerboseLinkStart{#1}{#2}%
11112     \ltx@ifundefined{#1bordercolor}{%
11113         \let\Hy@tempcolor\relax
11114     }{%
11115         \edef\Hy@tempcolor{\csname @#1bordercolor\endcsname}%
11116     }%
11117     \begingroup
11118     \protected@edef\Hy@testname{#2}%
11119     \ifx\Hy@testname\@empty
11120         \Hy@Warning{%
11121             Empty destination name,\MessageBreak
11122             using '\Hy@undefinedname'%
11123         }%
11124         \let\Hy@testname\Hy@undefinedname
11125     \fi
11126     \pdfmark[#{#3}]{%
11127         Color=\Hy@tempcolor,%
11128         linktype={#1},%
11129         AcroHighlight=\@pdfhighlight,%
11130         Border=\@pdfborder,%
11131         BorderStyle=\@pdfborderstyle,%
11132         pdfmark=/ANN,%
11133         Subtype=/Link,%
11134         PDFANFlags=4,%
11135         Dest=\Hy@testname
11136     }%
11137     \endgroup
11138     }

11139 \newtoks\pdf@docset
11140 \def\PDF@FinishDoc{%
11141     \Hy@UseMaketitleInfos
11142     \Hy@Info@GenerateAddons
11143     \let\Hy@temp\@empty
11144     \ifx\@pdfcreationdate\@empty
11145     \else
11146         \def\Hy@temp{CreationDate=\@pdfcreationdate,}%
11147     \fi

```

```

11148 \ifx \@pdfmoddate \@empty
11149 \else
11150 \expandafter \def \expandafter \Hy@temp \expandafter {%
11151 \Hy@temp
11152 ModDate=\@pdfmoddate,%
11153 }%
11154 \fi
11155 \ifx \@pdfproducer \relax
11156 \else
11157 \expandafter \def \expandafter \Hy@temp \expandafter {%
11158 \Hy@temp
11159 Producer=\@pdfproducer,%
11160 }%
11161 \fi
11162 \expandafter
11163 \pdfmark \expandafter {%
11164 \Hy@temp
11165 pdfmark=/DOCINFO,%
11166 Title=\@pdftitle,%
11167 Subject=\@pdfsubject,%
11168 Creator=\@pdfcreator,%
11169 Author=\@pdfauthor,%
11170 Keywords=\@pdfkeywords,%
11171 Trapped=\@pdftrapped
11172 }%
11173 \ifx \HyInfo@Addons \@empty
11174 \else
11175 \pdfmark {%
11176 pdfmark=/DOCINFO,%
11177 Raw={\HyInfo@Addons}%
11178 }%
11179 \fi
11180 \Hy@DisableOption{pdfauthor}%
11181 \Hy@DisableOption{pdftitle}%
11182 \Hy@DisableOption{pdfsubject}%
11183 \Hy@DisableOption{pdfcreator}%
11184 \Hy@DisableOption{addtopdfcreator}%
11185 \Hy@DisableOption{pdfcreationdate}%
11186 \Hy@DisableOption{pdfcreationdate}%
11187 \Hy@DisableOption{pdfmoddate}%
11188 \Hy@DisableOption{pdfproducer}%
11189 \Hy@DisableOption{pdfkeywords}%
11190 \Hy@DisableOption{pdftrapped}%
11191 \Hy@DisableOption{pdfinfo}%
11192 }
11193 \def \PDF@SetupDoc {%
11194 \def \Hy@temp {}%
11195 \ifx \@pdfstartpage \@empty
11196 \else
11197 \ifx \@pdfstartview \@empty
11198 \else
11199 \edef \Hy@temp {%
11200 ,Page=\@pdfstartpage
11201 ,View=\@pdfstartview

```

```

11202 }%
11203 \fi
11204 \fi
11205 \edef\Hy@temp{%
11206 \noexpand\pdfmark{%
11207 pdfmark=/DOCVIEW,%
11208 PageMode=/\@pdfpagemode
11209 \Hy@temp
11210 }%
11211 }%
11212 \Hy@temp
11213 \ifx\@pdfpagescrop\@empty
11214 \else
11215 \pdfmark{pdfmark=/PAGES,CropBox=\@pdfpagescrop}%
11216 \fi
11217 \edef\Hy@temp{%
11218 \ifHy@pdftoolbar\else /HideToolbar true\fi
11219 \ifHy@pdfmenubar\else /HideMenubar true\fi
11220 \ifHy@pdfwindowui\else /HideWindowUI true\fi
11221 \ifHy@pdffitwindow /FitWindow true\fi
11222 \ifHy@pdfcenterwindow /CenterWindow true\fi
11223 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
11224 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
11225 \Hy@UseNameKey{Direction}\@pdfdirection
11226 \Hy@UseNameKey{ViewArea}\@pdfviewarea
11227 \Hy@UseNameKey{ViewClip}\@pdfviewclip
11228 \Hy@UseNameKey{PrintArea}\@pdfprintarea
11229 \Hy@UseNameKey{PrintClip}\@pdfprintclip
11230 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
11231 \Hy@UseNameKey{Duplex}\@pdfduplex
11232 \ifx\@pdfpicktraybypdfsize\@empty
11233 \else
11234 /PickTrayByPDFSize \@pdfpicktraybypdfsize
11235 \fi
11236 \ifx\@pdfprintpagerange\@empty
11237 \else
11238 /PrintPageRange[\@pdfprintpagerange]%
11239 \fi
11240 \ifx\@pdfnumcopies\@empty
11241 \else
11242 /NumCopies \@pdfnumcopies
11243 \fi
11244 }%
11245 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
11246 \pdfmark{%
11247 pdfmark=/PUT,%
11248 Raw={%
11249 \string{Catalog\string}<<%
11250 \ifx\Hy@temp\@empty
11251 \else
11252 /ViewerPreferences<<\Hy@temp>>%
11253 \fi
11254 \Hy@UseNameKey{PageLayout}\@pdfpagelayout
11255 \ifx\@pdflang\relax

```

```

11256     \else
11257     /Lang(\@pdflang)%
11258     \fi
11259     \ifx\@baseurl\@empty
11260     \else
11261     /URI<</Base(\Hy@pstringB)>>%
11262     \fi
11263     >>%
11264     }%
11265 }%
11266 }
11267 </pdfmark>
11268 (*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.

```

11269 \newif\ifHy@pdfmarkerror
11270 \def\pdfmark{\@ifnextchar[{\pdfmark@}{\pdfmark@[]}}
11271 \def\pdfmark@[#1]#2{%
11272   \Hy@pdfmarkerrorfalse
11273   \edef\@processme{\noexpand\pdf@toks={\the\pdf@defaulttoks}}%
11274   \@processme
11275   \let\pdf@type\relax
11276   \let\pdf@objdef\ltx@empty
11277   \kvsetkeys{PDF}{#2}%
11278   \ifHy@pdfmarkerror
11279   \else
11280     \ifx\pdf@type\relax
11281       \Hy@WarningNoLine{no pdfmark type specified in #2!!}%
11282       \ifx\#1\%
11283         \else
11284           \pdf@rect{#1}%
11285           \fi
11286         \else
11287           \ifx\#1\%
11288             \literalps@out{%
11289               [%
11290               \ifx\pdf@objdef\ltx@empty
11291               \else
11292                 /_objdef\string{\pdf@objdef\string}%
11293               \fi
11294               \the\pdf@toks\space\pdf@type\space pdfmark%
11295             ]%
11296           \else
11297             \ltx@ifUndefined{@\pdf@linktype color}{%
11298               \Hy@colorlink\@linkcolor
11299             }{%
11300               \expandafter\Hy@colorlink
11301               \csname @\pdf@linktype color\endcsname
11302             }%

```

```

11303     \pdf@rect{#1}%
11304     \literalps@out{%
11305         [%
11306         \ifx\pdf@objdef\ltx@empty
11307         \else
11308             /_objdef\string{\pdf@objdef\string}%
11309         \fi
11310         \the\pdf@toks\space\pdf@type\space pdfmark%
11311     }%
11312     \Hy@endcolorlink
11313     \fi
11314     \fi
11315     \fi
11316 }

```

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}

```

```

11317 \newsavebox{\pdf@box}
11318 \providecommand*{\Hy@setouterhbox}{\sbox}
11319 \providecommand*{\Hy@breaklinksunhbox}{\unhbox}
11320 \def\Hy@DEST{/DEST}
11321 \def\pdf@rect#1{%
11322     \begingroup
11323     \chardef\x=1 %
11324     \def\Hy@temp{#1}%
11325     \ifx\Hy@temp\ltx@empty
11326     \chardef\x=0 %
11327     \else
11328         \def\y{\anchor@spot}%
11329         \ifx\Hy@temp\y
11330             \def\y{\relax}%
11331             \ifx\anchor@spot\y
11332                 \chardef\x=0 %
11333             \fi
11334         \fi
11335     \fi
11336     \expandafter\endgroup
11337     \ifcase\x
11338         \literalps@out{H.S}%
11339         \literalps@out{H.R}%
11340     \else
11341         \leavevmode
11342     \Hy@SaveSpaceFactor

```



```

11343 \ifmmode
11344 \def\Hy@LinkMath{${}}%
11345 \else
11346 \let\Hy@LinkMath\ltx@empty
11347 \fi
11348 \ifHy@breaklinks
11349 \Hy@setouterhbox\pdf@box{%
11350 \Hy@RestoreSpaceFactor
11351 \Hy@LinkMath
11352 \Hy@AllowHyphens#1\Hy@xspace@end
11353 \Hy@LinkMath
11354 \Hy@SaveSpaceFactor
11355 }%
11356 \else
11357 \sbox\pdf@box{%
11358 \Hy@RestoreSpaceFactor
11359 \Hy@LinkMath
11360 #1\Hy@xspace@end
11361 \Hy@LinkMath
11362 \Hy@SaveSpaceFactor
11363 }%
11364 \fi
11365 \dimen@ht\pdf@box
11366 \ifdim\dp\pdf@box=\z@
11367 \literalps@out{H.S}%
11368 \else
11369 \lower\dp\pdf@box\hbox{\literalps@out{H.S}}%
11370 \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...).

```

11371 \ifHy@breaklinks
11372 \ifhmode
11373 \Hy@breaklinkssunhbox\pdf@box
11374 \else
11375 \box\pdf@box
11376 \fi
11377 \else
11378 \expandafter\box\pdf@box
11379 \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

11380 \ifdim\dimen@=\z@
11381 \literalps@out{H.R}%
11382 \else
11383 \raise\dimen@\hbox{\literalps@out{H.R}}%
11384 \fi
11385 \Hy@RestoreSpaceFactor
11386 \fi
11387 \ifx\pdf@type\Hy@DEST

```

```

11388 \else
11389 \pdf@addtoksx{H.B}%
11390 \fi
11391 }

```

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.

```

11392 \newtoks\pdf@toks
11393 \newtoks\pdf@defaulttoks
11394 \pdf@defaulttoks={}%
11395 \def\pdf@addtoks#1#2{%
11396 \edef\@processme{\pdf@toks{\the\pdf@toks/#2 #1}}%
11397 \@processme
11398 }
11399 \def\pdf@addtoksx#1{%
11400 \edef\@processme{\pdf@toks{\the\pdf@toks\space #1}}%
11401 \@processme
11402 }
11403 \def\PDFdefaults#1{%
11404 \pdf@defaulttoks={#1}%
11405 }

```

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

```

11406 % what is the type of pdfmark?
11407 \define@key{PDF}{pdfmark}{\def\pdf@type{#1}}
11408 % what is the link type?
11409 \define@key{PDF}{linktype}{\def\pdf@linktype{#1}}
11410 \def\pdf@linktype{link}
11411 % named object?
11412 \define@key{PDF}{objdef}{\edef\pdf@objdef{#1}}
11413 \let\pdf@objdef\ltx@empty
11414 % parameter is a stream of PDF
11415 \define@key{PDF}{Raw}{\pdf@addtoksx{#1}}
11416 % parameter is a name
11417 \define@key{PDF}{Action}{\pdf@addtoks{#1}{Action}}
11418 % parameter is a array
11419 \define@key{PDF}{Border}{%
11420 \edef\Hy@temp{#1}%
11421 \ifx\Hy@temp\@empty
11422 \else
11423 \pdf@addtoks{[#1]\Hy@BorderArrayPatch}{Border}% hash-ok
11424 \fi
11425 }
11426 \let\Hy@BorderArrayPatch\@empty
11427 % parameter is a dictionary
11428 \define@key{PDF}{BorderStyle}{%
11429 \edef\Hy@temp{#1}%
11430 \ifx\Hy@temp\@empty
11431 \else
11432 \pdf@addtoks{<<#1>>}{BS}%
11433 \fi
11434 }
11435 % parameter is a array
11436 \define@key{PDF}{Color}{%

```

```

11437 \ifx\relax#1\relax
11438 \else
11439 \pdf@addtoks{[#1]}{Color}% hash-ok
11440 \fi
11441 }
11442 % parameter is a string
11443 \define@key{PDF}{Contents}{\pdf@addtoks{(#1)}{Contents}}
11444 % parameter is a integer
11445 \define@key{PDF}{Count}{\pdf@addtoks{#1}{Count}}
11446 % parameter is a array
11447 \define@key{PDF}{CropBox}{\pdf@addtoks{[#1]}{CropBox}}% hash-ok
11448 % parameter is a string
11449 \define@key{PDF}{DOSFile}{\pdf@addtoks{(#1)}{DOSFile}}
11450 % parameter is a string or file
11451 \define@key{PDF}{DataSource}{\pdf@addtoks{(#1)}{DataSource}}
11452 % parameter is a destination
11453 \define@key{PDF}{Dest}{%
11454 \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
11455 \ifx\Hy@pstringDest\@empty
11456 \Hy@pdfmarkerrortrue
11457 \Hy@Warning{Destination with empty name ignored}%
11458 \else
11459 \pdf@addtoks{(\Hy@pstringDest) cvn}{Dest}%
11460 \fi
11461 }
11462 \define@key{PDF}{DestAnchor}{%
11463 \Hy@pstringdef\Hy@pstringDest{\HyperDestNameFilter{#1}}%
11464 \ifx\Hy@pstringDest\@empty
11465 \Hy@pdfmarkerrortrue
11466 \Hy@Warning{Destination with empty name ignored}%
11467 \else
11468 \pdf@addtoks{(\Hy@pstringDest) cvn}{Dest}%
11469 \fi
11470 }
11471 % parameter is a string
11472 \define@key{PDF}{Dir}{\pdf@addtoks{(#1)}{Dir}}
11473 % parameter is a string
11474 \define@key{PDF}{File}{\pdf@addtoks{(#1)}{File}}
11475 % parameter is a int
11476 \define@key{PDF}{Flags}{\pdf@addtoks{#1}{Flags}}
11477 \define@key{PDF}{PDFAFlags}{%
11478 \ifHy@pdfa
11479 \pdf@addtoks{#1}{F}%
11480 \fi
11481 }
11482 % parameter is a name
11483 \define@key{PDF}{AcroHighlight}{%
11484 \begingroup
11485 \edef\x{#1}%
11486 \expandafter\endgroup\ifx\x\@empty
11487 \else
11488 \pdf@addtoks{#1}{H}%
11489 \fi
11490 }

```

```

11491 % parameter is a string
11492 \define@key{PDF}{ID}{\pdf@addtoks{(#1)}{ID}}% hash-ok
11493 % parameter is a string
11494 \define@key{PDF}{MacFile}{\pdf@addtoks{(#1)}{MacFile}}
11495 % parameter is a string
11496 \define@key{PDF}{ModDate}{\pdf@addtoks{(#1)}{ModDate}}
11497 % parameter is a string
11498 \define@key{PDF}{Op}{\pdf@addtoks{(#1)}{Op}}
11499 % parameter is a Boolean
11500 \define@key{PDF}{Open}{\pdf@addtoks{#1}{Open}}
11501 % parameter is a integer or name
11502 \define@key{PDF}{Page}{\pdf@addtoks{#1}{Page}}
11503 % parameter is a name
11504 \define@key{PDF}{PageMode}{\pdf@addtoks{#1}{PageMode}}
11505 % parameter is a string
11506 \define@key{PDF}{Params}{\pdf@addtoks{(#1)}{Params}}
11507 % parameter is a array
11508 \define@key{PDF}{Rect}{\pdf@addtoks{[#1]}{Rect}}% hash-ok
11509 % parameter is a integer
11510 \define@key{PDF}{SrcPg}{\pdf@addtoks{#1}{SrcPg}}
11511 % parameter is a name
11512 \define@key{PDF}{Subtype}{\pdf@addtoks{#1}{Subtype}}
11513 % parameter is a string
11514 \define@key{PDF}{Title}{\pdf@addtoks{(#1)}{Title}}
11515 % parameter is a string
11516 \define@key{PDF}{Unix}{\pdf@addtoks{(#1)}{Unix}}
11517 % parameter is a string
11518 \define@key{PDF}{UnixFile}{\pdf@addtoks{(#1)}{UnixFile}}
11519 % parameter is an array
11520 \define@key{PDF}{View}{\pdf@addtoks{[#1]}{View}}% hash-ok
11521 % parameter is a string
11522 \define@key{PDF}{WinFile}{\pdf@addtoks{(#1)}{WinFile}}
These are the keys used in the DOCINFO section.
11523 \define@key{PDF}{Author}{\pdf@addtoks{(#1)}{Author}}
11524 \define@key{PDF}{Creator}{\pdf@addtoks{(#1)}{Creator}}
11525 \define@key{PDF}{CreationDate}{\pdf@addtoks{(#1)}{CreationDate}}
11526 \define@key{PDF}{ModDate}{\pdf@addtoks{(#1)}{ModDate}}
11527 \define@key{PDF}{Producer}{\pdf@addtoks{(#1)}{Producer}}
11528 \define@key{PDF}{Subject}{\pdf@addtoks{(#1)}{Subject}}
11529 \define@key{PDF}{Keywords}{\pdf@addtoks{(#1)}{Keywords}}
11530 \define@key{PDF}{ModDate}{\pdf@addtoks{(#1)}{ModDate}}
11531 \define@key{PDF}{Base}{\pdf@addtoks{(#1)}{Base}}
11532 \define@key{PDF}{URI}{\pdf@addtoks{#1}{URI}}
11533 \define@key{PDF}{Trapped}{%
11534 \edef\Hy@temp{#1}%
11535 \ifx\Hy@temp\@empty
11536 \else
11537 \pdf@addtoks{/#1}{Trapped}%
11538 \fi
11539 }
11540
11541 </pdfmarkbase>
11542 <*pdfmark>
11543 \def\Acrobatmenu#1#2{%

```

```

11544 \EdefEscapeName\Hy@temp@menu{#1}%
11545 \Hy@Acrobatmenu{#1}{#2}{%
11546 \pdfmark{#2}{%
11547 linktype=menu,%
11548 pdfmark=/ANN,%
11549 AcroHighlight=\@pdfhighlight,%
11550 Border=\@pdfborder,%
11551 BorderStyle=\@pdfborderstyle,%
11552 Color=\@menubordercolor,%
11553 Action={<</Subtype/Named/N/\Hy@temp@menu>>},%
11554 Subtype=/Link,%
11555 PDFAFlags=4%
11556 }%
11557 }%
11558 }

```

And now for some useful examples:

```

11559 \def\PDFNextPage{\@ifnextchar{\PDFNextPage@}{\PDFNextPage@[]}}
11560 \def\PDFNextPage@[#1]#2{%
11561 \pdfmark{#2}{%
11562 #1,%
11563 Border=\@pdfborder,%
11564 BorderStyle=\@pdfborderstyle,%
11565 Color=.2 .1 .5,%
11566 pdfmark=/ANN,%
11567 Subtype=/Link,%
11568 PDFAFlags=4,%
11569 Page=/Next%
11570 }%
11571 }
11572 \def\PDFPreviousPage{%
11573 \@ifnextchar{\PDFPreviousPage@}{\PDFPreviousPage@[]}%
11574 }
11575 \def\PDFPreviousPage@[#1]#2{%
11576 \pdfmark{#2}{%
11577 #1,%
11578 Border=\@pdfborder,%
11579 BorderStyle=\@pdfborderstyle,%
11580 Color=.4 .4 .1,%
11581 pdfmark=/ANN,%
11582 Subtype=/Link,%
11583 PDFAFlags=4,%
11584 Page=/Prev%
11585 }%
11586 }
11587 \def\PDFOpen#1{%
11588 \pdfmark{#1,pdfmark=/DOCVIEW}%
11589 }

```

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

```

11590 \def\hyper@linkurl#1#2{%
11591 \begingroup
11592 \Hy@pstringdef\Hy@pstringURI{#2}%
11593 \hyper@chars
11594 \leavevmode

```

```

11595 \pdfmark[#{#1}]{%
11596 pdfmark=/ANN,%
11597 linktype=url,%
11598 AcroHighlight=\@pdfhighlight,%
11599 Border=\@pdfborder,%
11600 BorderStyle=\@pdfborderstyle,%
11601 Color=\@urlbordercolor,%
11602 Action={<<%
11603 /Subtype/URI%
11604 /URI(\Hy@pstringURI)%
11605 \ifHy@href@ismap
11606 /IsMap true%
11607 \fi
11608 >>},%
11609 Subtype=/Link,%
11610 PDFAFlags=4%
11611 }%
11612 \endgroup
11613 }
11614 \def\hyper@linkfile#1#2#3{%
11615 \begingroup
11616 \def\Hy@pstringF{#2}%
11617 \Hy@CleanupFile\Hy@pstringF
11618 \Hy@pstringdef\Hy@pstringF\Hy@pstringF
11619 \Hy@pstringdef\Hy@pstringD{#3}%
11620 \Hy@MakeRemoteAction
11621 \leavevmode
11622 \pdfmark[#{#1}]{%
11623 pdfmark=/ANN,%
11624 Subtype=/Link,%
11625 PDFAFlags=4,%
11626 AcroHighlight=\@pdfhighlight,%
11627 Border=\@pdfborder,%
11628 BorderStyle=\@pdfborderstyle,%
11629 linktype=file,%
11630 Color=\@filebordercolor,%
11631 Action={%
11632 <<%
11633 /S/GoToR%
11634 \Hy@SetNewWindow
11635 /F(\Hy@pstringF)%
11636 /D%
11637 \ifx\#3\%
11638 [\Hy@href@page\@pdfremotestartview]%
11639 \else
11640 (\Hy@pstringD)cvn%
11641 \fi
11642 \Hy@href@nextactionraw
11643 >>%
11644 }%
11645 }%
11646 \endgroup
11647 }
11648 \def\@hyper@launch run:#1\#2#3{%

```

```

11649 \begingroup
11650 \Hy@pstringdef\Hy@pstringF{#1}%
11651 \Hy@pstringdef\Hy@pstringP{#3}%
11652 \leavevmode
11653 \pdfmark[#{#2}]{%
11654 pdfmark=/ANN,%
11655 Subtype=/Link,%
11656 PDFAFlags=4,%
11657 AcroHighlight=\@pdfhighlight,%
11658 Border=\@pdfborder,%
11659 BorderStyle=\@pdfborderstyle,%
11660 linktype=run,%
11661 Color=\@runbordercolor,%
11662 Action={%
11663 <<%
11664 /S/Launch%
11665 \Hy@SetNewWindow
11666 /F(\Hy@pstringF)%
11667 \ifx\#3\%
11668 \else
11669 /Win<</P(\Hy@pstringP)/F(\Hy@pstringF)>>%
11670 \fi
11671 \Hy@href@nextactionraw
11672 >>%
11673 }%
11674 }%
11675 \endgroup
11676 }
11677 </pdfmark>

```

Unfortunately, some parts of the pdfmark PostScript code depend on vagaries of the dvi driver. We isolate here all the problems.

43.9 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.

```

11678 (*dvips)
11679 \providecommand*\XR@ext}{pdf}
11680 \let\Hy@raisedlink\ltx@empty
11681 \def\literalps@out#1{\special{ps:SDict begin #1 end}}%
11682 \def\headerps@out#1{\special{! #1}}%
11683 \input{pdfmark.def}%
11684 \ifx\@pdfproducer\relax
11685 \def\@pdfproducer{dvips + Distiller}%
11686 \fi
11687 \providecommand*\@pdfborder{0 0 1}
11688 \providecommand*\@pdfborderstyle{}
11689 \providecommand*\@pdfview{XYZ}
11690 \providecommand*\@pdfviewparams{ H.V}
11691 \def\Hy@BorderArrayPatch{BorderArrayPatch}

```

```
11692 \g@addto@macro\Hy@FirstPageHook{%
11693 \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.

```
11694 /DvipsToPDF{72.27 mul Resolution div} def%
11695 /PDFToDvips{72.27 div Resolution mul} def%
11696 /BPToDvips{72 div Resolution mul}def
```

The values inside the /Border 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.

Note GhostScript changed its behaviour here and later versions do not need this scaling, so test the PostScript interpreter is GhostScript and if so check its version.

If using gs and release > 9.27 no-op, otherwise patch.

```
11697 product (Ghostscript) search {pop pop pop revision 927 gt}%
11698 {pop false} ifelse%
11699 {%
11700 /BorderArrayPatch{} def%
11701 }%
11702 {%
11703 /BorderArrayPatch{%
11704 [exch{%
11705 dup dup type/integertype eq exch type/realttype eq or%
11706 {BPToDvips}if%
11707 }forall]%
11708 }def%
11709 } ifelse
```

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.

```
11710 /HyperBorder {1 PDFToDvips} def%
11711 /H.V {pdf@hoff pdf@voff null} def%
11712 /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

```
11713 /H.S {%
11714 currentpoint %
11715 HyperBorder add /pdf@lly exch def %
11716 dup DvipsToPDF 72 add /pdf@hoff exch def %
11717 HyperBorder sub /pdf@llx exch def%
11718 } def%
```


The calculation of upper left y is done without raising the point in \TeX , by simply adding on the current `\baselineskip` to the current y . This is usually too much, so we remove a notional 2 points.

We have to see what the current `baselineskip` is, and convert it to the dvips coordinate system.

Argument: `baselineskip` in pt. The x and y coordinates of the current point, minus the `baselineskip`

```

11719 /H.L {%
11720 2 sub dup%
11721 /HyperBasePt exch def %
11722 PDFToDvips /HyperBaseDvips exch def %
11723 currentpoint %
11724 HyperBaseDvips sub /pdf@ury exch def%
11725 /pdf@urx exch def%
11726 } def%
11727 /H.A {%
11728 H.L %
11729 % |pdf@voff| = the distance from the top of the page to a point
11730 % |\baselineskip| above the current point in PDF coordinates
11731 currentpoint exch pop %
11732 vsize 72 sub exch DvipsToPDF %
11733 HyperBasePt sub % baseline skip
11734 sub /pdf@voff exch def%
11735 } def%
11736 /H.R {%
11737 currentpoint %
11738 HyperBorder sub /pdf@ury exch def %
11739 HyperBorder add /pdf@urx exch def %
11740 % |pdf@voff| = the distance from the top of the page to the current point, in
11741 % PDF coordinates
11742 currentpoint exch pop vsize 72 sub %
11743 exch DvipsToPDF sub /pdf@voff exch def%
11744 } def%
11745 }%
11746 }
11747 \AtBeginShipoutFirst{%
11748 \ifHy@setpagesize
11749 \begingroup
11750 \ifnum\mag=\@m
11751 \ifdim\stockwidth>\z@
11752 \ifdim\stockheight>\z@
11753 \special{papersize=\the\stockwidth,\the\stockheight}%
11754 \else
11755 \ifdim\paperwidth>\z@
11756 \ifdim\paperheight>\z@
11757 \special{papersize=\the\paperwidth,\the\paperheight}%
11758 \fi
11759 \fi
11760 \fi
11761 \else
11762 \ifdim\stockwidth=\z@
11763 \ifdim\paperwidth>\z@
11764 \ifdim\paperheight>\z@

```

```

11765     \special{papersize=\the\paperwidth,\the\paperheight}%
11766     \fi
11767     \fi
11768     \fi
11769     \fi
11770     \fi
11771     \endgroup
11772     \fi
11773     \Hy@DisableOption{setpagesize}%
11774 }

11775 \def\setpdfinkmargin#1{%
11776   \begingroup
11777   \setlength{\dimen@}{#1}%
11778   \literalps@out{%
11779     /HyperBorder{\strip@pt\dimen@\space PDFToDvips}def%
11780   }%
11781   \endgroup
11782 }

11783 </dvips>

```

43.10 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.

```

11784 (*vtexpdfmark)
11785 \providecommand*\XR@ext}{pdf}
11786 \let\Hy@raisedlink\ltx@empty
11787 \def\literalps@out#1{\special{pS:#1}}%
11788 \def\headerps@out#1{\immediate\special{pS:#1}}%
11789 \input{pdfmark.def}%
11790 \ifx\@pdfproducer\relax
11791   \ifnum\OpMode=\@one
11792     \def\@pdfproducer{VTeX}%
11793   \else
11794     \def\@pdfproducer{VTeX + Distiller}%
11795   \fi
11796 \fi
11797 \providecommand*\@pdfborder{0 0 1}
11798 \providecommand*\@pdfborderstyle{}
11799 \providecommand*\@pdfview{XYZ}
11800 \providecommand*\@pdfviewparams{ H.V}

11801 \g@addto@macro\Hy@FirstPageHook{%
11802   \headerps@out{%
11803     /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.

```

11804   /HyperBorder {1} def%
11805   /H.V {pdf@hoff pdf@voff null} def%
11806   /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: $\text{pdf@lly} = Y_c - \text{HyperBorder}$, $\text{pdf@hoff} = X_c + 72$, $\text{pdf@llx} = X_c - \text{HyperBorder}$

```

11807 /H.S {%
11808   currentpoint %
11809   HyperBorder sub%
11810   /pdf@lly exch def %
11811   dup 72 add /pdf@hoff exch def %
11812   HyperBorder sub%
11813   /pdf@llx exch def%
11814 } def%

```

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

```

11815 /H.L {%
11816   2 sub%
11817   /HyperBasePt exch def %
11818   currentpoint %
11819   HyperBasePt add HyperBorder add%
11820   /pdf@ury exch def %
11821   HyperBorder add%
11822   /pdf@urx exch def%
11823 } def%
11824 /H.A {%
11825   H.L %
11826   currentpoint exch pop %
11827   vsize 72 sub exch %
11828   HyperBasePt add add%
11829   /pdf@voff exch def%
11830 } def%

```

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

```

11831 /H.R {%
11832   currentpoint %
11833   HyperBorder add%
11834   /pdf@ury exch def %
11835   HyperBorder add%
11836   /pdf@urx exch def %
11837   currentpoint exch pop vsize 72 sub add%
11838   /pdf@voff exch def%
11839 } def%
11840 }%
11841 }

```

```

11842 \def\setpdfinkmargin#1{%
11843   \begingroup
11844   \setlength{\dimen@}{#1}%
11845   \literalps@out{%
11846     /HyperBorder{\strip@pt\dimen@}def%
11847   }%
11848   \endgroup
11849 }
11850 </vtxpdfmark>

```

43.11 Textures

```
11851 (*textures)
11852 \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.

```
11853 \begingroup
11854 \obeylines %
11855 \gdef\Hy@ps@CR{\noexpand
11856 }%
11857 \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`.

```
11858 \def\literalps@out#1{%
11859 \special{postscript 0 0 transform}%
11860 \special{rawpostscript itransform moveto\Hy@ps@CR #1}%
11861 }%
11862 %
```

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.

```
11863 \def\headerps@out#1{%
11864 \special{%
11865 prepostscript TeXdict begin\Hy@ps@CR
11866 #1\Hy@ps@CR
11867 end%
11868 }%
11869 }%
11870 %
```

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.

```
11871 \g@addto@macro\Hy@FirstPageHook{%
11872 \headerps@out{%
11873 /betterpdfmark {%
```

```

11874    systemdict begin %
11875      dup /BP eq%
11876      {cleartomark gsave nulldevice []}%
11877      {dup /EP eq%
11878        {cleartomark cleartomark grestore}%
11879        {cleartomark}%
11880        ifelse%
11881      }ifelse %
11882    end%
11883  }def\Hy@ps@CR
11884  ___pdfmark___ not{/pdfmark /betterpdfmark load def}if%
11885 }% end of \headerps@out
11886 }% end of \AtBeginShipoutFirst
11887 %
11888 \input{pdfmark.def}%
11889 %
11890 \ifx\@pdfproducer\relax
11891   \def\@pdfproducer{Textures + Distiller}%
11892 \fi
11893 \providecommand*\@pdfborder{0 0 1}
11894 \providecommand*\@pdfborderstyle{}
11895 \providecommand*\@pdfview{XYZ}
11896 \providecommand*\@pdfviewparams{ H.V}
11897 %

```

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 .

```

11898 \Hy@AtBeginDocument{%
11899   \headerps@out{%

```

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

```

11900   /vsize {\Hy@pageheight} def%
11901   /DvipsToPDF {} def%
11902   /PDFToDvips {} def%
11903   /BPToDvips {} def%
11904   /HyperBorder { 1 PDFToDvips } def\Hy@ps@CR
11905   /H.V {pdf@hoff pdf@voff null} def\Hy@ps@CR
11906   /H.B {/Rect[pdf@llx pdf@lly pdf@urx pdf@ury]} def\Hy@ps@CR
11907   /H.S {}%
11908   currentpoint %
11909   HyperBorder add /pdf@lly exch def %
11910   dup DvipsToPDF 72 add /pdf@hoff exch def %
11911   HyperBorder sub /pdf@llx exch def%
11912 } def\Hy@ps@CR
11913 /H.L {}%
11914 2 sub %
11915 PDFToDvips /HyperBase exch def %
11916 currentpoint %
11917 HyperBase sub /pdf@ury exch def%
11918 /pdf@urx exch def%

```

```

11919 } def\Hy@ps@CR
11920 /H.A {%
11921   H.L %
11922   currentpoint exch pop %
11923   vsize 72 sub exch DvipsToPDF %
11924   HyperBase sub % baseline skip
11925   sub /pdf@voff exch def%
11926 } def\Hy@ps@CR
11927 /H.R {%
11928   currentpoint %
11929   HyperBorder sub /pdf@ury exch def %
11930   HyperBorder add /pdf@urx exch def %
11931   currentpoint exch pop vsize 72 sub %
11932   exch DvipsToPDF sub /pdf@voff exch def%
11933 } def\Hy@ps@CR
11934 }%
11935 }

11936 \def\setpdfinkmargin#1{%
11937   \begingroup
11938   \setlength{\dimen@}{#1}%
11939   \literalps@out{%
11940     /HyperBorder{\strip@pt\dimen@\space PDFToDvips}def%
11941   }%
11942   \endgroup
11943 }

11944 \Hy@AtBeginDocument{%
11945   \ifHy@colorlinks
11946     \headerps@out{/PDFBorder{/Border [0 0 0]}def}%
11947   \fi
11948 }

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.

11949 \expandafter\let\expandafter\keepPDF@SetupDoc
11950   \csname PDF@SetupDoc\endcsname
11951 \def\PDF@SetupDoc{%
11952   \ifx\@baseurl\@empty
11953   \else
11954     \special{html:<base href="\@baseurl">}%
11955   \fi
11956   \keepPDF@SetupDoc
11957 }
11958 \Hy@WrapperDef\hyper@anchor#1{%
11959   \Hy@SaveLastskip
11960   \Hy@VerboseAnchor{#1}%
11961   \begingroup
11962     \let\protect=\string
11963     \special{html:<a name=%
11964       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
11965   \endgroup
11966   \Hy@activeanchortrue
11967   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink

```

```

11968 \special{html:</a>}%
11969 \Hy@activeanchorfalse
11970 \Hy@RestoreLastskip
11971 }
11972 \Hy@WrapperDef\hyper@anchorstart#1{%
11973 \Hy@SaveLastskip
11974 \Hy@VerboseAnchor{#1}%
11975 \begingroup
11976 \hyper@chars
11977 \special{html:<a name=%
11978 \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
11979 \endgroup
11980 \Hy@activeanchortrue
11981 }
11982 \def\hyper@anchorend{%
11983 \special{html:</a>}%
11984 \Hy@activeanchorfalse
11985 \Hy@RestoreLastskip
11986 }
11987 \def\@urltype{url}
11988 \def\hyper@linkstart#1#2{%
11989 \Hy@VerboseLinkStart{#1}{#2}%
11990 \expandafter\Hy@colorlink\csname @#1color\endcsname
11991 \def\Hy@tempa{#1}%
11992 \ifx\Hy@tempa\@urltype
11993 \special{html:<a href=\hyper@quote#2\hyper@quote>}%
11994 \else
11995 \begingroup
11996 \hyper@chars
11997 \special{%
11998 html:<a href=%
11999 \hyper@quote\# \HyperDestNameFilter{#2}\hyper@quote>%
12000 }%
12001 \endgroup
12002 \fi
12003 }
12004 \def\hyper@linkend{%
12005 \special{html:</a>}%
12006 \Hy@endcolorlink
12007 }
12008 \def\hyper@linkfile#1#2#3{%
12009 \hyper@linkurl{#1}{%
12010 \Hy@linkfileprefix#2\ifx\#3\\\else\##3\fi
12011 }%
12012 }
12013 \def\hyper@linkurl#1#2{%
12014 \leavevmode
12015 \ifHy@raiselinks
12016 \Hy@SaveSpaceFactor
12017 \Hy@SaveSavedSpaceFactor
12018 \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
12019 \Hy@RestoreSavedSpaceFactor
12020 \@linkdim\dp\@tempboxa
12021 \lower\@linkdim\hbox{%

```

```

12022 \hyper@chars
12023 \special{html:<a href=\hyper@quote#2\hyper@quote>}%
12024 }%
12025 \Hy@colorlink\@urlcolor
12026 \Hy@RestoreSpaceFactor
12027 #1\Hy@xspace@end
12028 \Hy@SaveSpaceFactor
12029 \@linkdim\ht\@tempboxa
12030 \advance\@linkdim by -6.5\p@
12031 \raise\@linkdim\hbox{\special{html:</a>}}%
12032 \Hy@endcolorlink
12033 \Hy@RestoreSpaceFactor
12034 \else
12035 \begingroup
12036 \hyper@chars
12037 \special{html:<a href=\hyper@quote#2\hyper@quote>}%
12038 \Hy@colorlink\@urlcolor#1\Hy@xspace@end
12039 \special{html:</a>}%
12040 \Hy@endcolorlink
12041 \endgroup
12042 \fi
12043 }

```

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

```

12044 \def\hyper@link#1#2#3{%
12045 \Hy@VerboseLinkStart{#1}{#2}%
12046 \hyper@linkurl{#3}{\# \Hy@HyperDestNameFilter{#2}}%
12047 }
12048 \def\hyper@image#1#2{%
12049 \begingroup
12050 \hyper@chars
12051 \special{html:<img src=\hyper@quote#1\hyper@quote>}%
12052 \endgroup
12053 }
12054 </textures>

```

43.12 dvipsone

```

12055 % \subsection{dvipsone driver}
12056 % Over-ride the default setup macro in pdfmark driver to use Y\&Y
12057 % |\special| commands.
12058 (*dvipsone)
12059 \providecommand*\XR@ext}{pdf}
12060 \let\Hy@raisedlink\ltx@empty
12061 \providecommand*\@pdfborder{0 0 1}
12062 \providecommand*\@pdfborderstyle{}
12063 \def\literalps@out#1{\special{ps:#1}}%
12064 \def\headerps@out#1{\special{headertext=#1}}%
12065 \input{pdfmark.def}%
12066 \HyInfo@AddonUnsupportedtrue
12067 \def\PDF@FinishDoc{%
12068 \Hy@UseMaketitleInfos
12069 \HyInfo@TrappedUnsupported
12070 \special{PDF: Keywords \@pdfkeywords}%

```



```

12071 \special{PDF: Title \@pdftitle}%
12072 \special{PDF: Creator \@pdfcreator}%
12073 \ifx\@pdfcreationdate\@empty
12074 \else
12075   \special{PDF: CreationDate \@pdfcreationdate}%
12076 \fi
12077 \ifx\@pdfmoddate\@empty
12078 \else
12079   \special{PDF: ModDate \@pdfmoddate}%
12080 \fi
12081 \special{PDF: Author \@pdfauthor}%
12082 \ifx\@pdfproducer\relax
12083 \else
12084   \special{PDF: Producer \@pdfproducer}%
12085 \fi
12086 \special{PDF: Subject \@pdfsubject}%
12087 \Hy@DisableOption{pdfauthor}%
12088 \Hy@DisableOption{pdftitle}%
12089 \Hy@DisableOption{pdfsubject}%
12090 \Hy@DisableOption{pdfcreator}%
12091 \Hy@DisableOption{addtopdfcreator}%
12092 \Hy@DisableOption{pdfcreationdate}%
12093 \Hy@DisableOption{pdfcreationdate}%
12094 \Hy@DisableOption{pdfmoddate}%
12095 \Hy@DisableOption{pdfproducer}%
12096 \Hy@DisableOption{pdfkeywords}%
12097 \Hy@DisableOption{pdftrapped}%
12098 \Hy@DisableOption{pdfinfo}%
12099 }
12100 \def\PDF@SetupDoc{%
12101   \def\Hy@temp{}%
12102   \ifx\@pdfstartpage\@empty
12103   \else
12104     \ifx\@pdfstartview\@empty
12105     \else
12106       \edef\Hy@temp{%
12107         ,Page=\@pdfstartpage
12108         ,View=\@pdfstartview
12109       }%
12110     \fi
12111   \fi
12112   \edef\Hy@temp{%
12113     \noexpand\pdfmark{%
12114       pdfmark=/DOCVIEW,%
12115       PageMode=/\@pdfpagemode
12116     }\Hy@temp
12117   }%
12118 }%
12119 \Hy@temp
12120 \ifx\@pdfpagescrop\@empty
12121 \else
12122   \pdfmark{pdfmark=/PAGES,CropBox=\@pdfpagescrop}%
12123 \fi
12124 \edef\Hy@temp{%

```

```

12125 \ifHy@pdftoolbar\else /HideToolbar true\fi
12126 \ifHy@pdfmenubar\else /HideMenubar true\fi
12127 \ifHy@pdfwindowui\else /HideWindowUI true\fi
12128 \ifHy@pdfwindow /FitWindow true\fi
12129 \ifHy@pdfcenterwindow /CenterWindow true\fi
12130 \ifHy@pdfdisplaydoctitle /DisplayDocTitle true\fi
12131 \Hy@UseNameKey{NonFullScreenPageMode}\@pdfnonfullscreenpagemode
12132 \Hy@UseNameKey{Direction}\@pdfdirection
12133 \Hy@UseNameKey{ViewArea}\@pdfviewarea
12134 \Hy@UseNameKey{ViewClip}\@pdfviewclip
12135 \Hy@UseNameKey{PrintArea}\@pdfprintarea
12136 \Hy@UseNameKey{PrintClip}\@pdfprintclip
12137 \Hy@UseNameKey{PrintScaling}\@pdfprintscaling
12138 \Hy@UseNameKey{Duplex}\@pdfduplex
12139 \ifx\@pdfpicktraybypdfsize\@empty
12140 \else
12141 /PickTrayByPDFSize \@pdfpicktraybypdfsize
12142 \fi
12143 \ifx\@pdfprintpagerange\@empty
12144 \else
12145 /PrintPageRange[\@pdfprintpagerange]%
12146 \fi
12147 \ifx\@pdfnumcopies\@empty
12148 \else
12149 /NumCopies \@pdfnumcopies
12150 \fi
12151 }%
12152 \Hy@pstringdef\Hy@pstringB{\@baseurl}%
12153 \pdfmark{%
12154 pdfmark=/PUT,%
12155 Raw={%
12156 \string{Catalog\string}<<%
12157 \ifx\Hy@temp\@empty
12158 \else
12159 /ViewerPreferences<<\Hy@temp>>%
12160 \fi
12161 \Hy@UseNameKey{PageLayout}\@pdfpagelayout
12162 \ifx\@pdflang\relax
12163 \else
12164 /Lang(\@pdflang)%
12165 \fi
12166 \ifx\@baseurl\@empty
12167 \else
12168 /URI<</Base(\Hy@pstringB)>>%
12169 \fi
12170 >>%
12171 }%
12172 }%
12173 }
12174 \providecommand*\@pdfview{XYZ}
12175 \providecommand*\@pdfviewparams{ %
12176 gsave revscl currentpoint grestore %
12177 72 add exch pop null exch null%
12178 }

```

```
12179 \def\Hy@BorderArrayPatch{BorderArrayPatch}
```

These are called at the start and end of unboxed links; their job is to leave available PS variables called `pdf@llx pdf@lly pdf@urx pdf@ury`, which are the coordinates of the bounding rectangle of the link, and `pdf@hoff pdf@voff` which are the PDF page offsets. These latter are currently not used in the `dvipsone` setup. The `Rect` pair are called at the LL and UR corners of a box known to `TEX`.

```
12180 \g@addto@macro\Hy@FirstPageHook{%
```

```
12181 \headerps@out{%
```

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

```
12182 /DvipsToPDF { 65781 div } def%
```

```
12183 /PDFToDvips { 65781 mul } def%
```

```
12184 /BPToDvips{65781 mul}def%
```

```
12185 /HyperBorder { 1 PDFToDvips } def%
```

```
12186 /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.

```
12187 /BorderArrayPatch{%
```

```
12188 [exch{%
```

```
12189 dup dup type/integertype eq exch type/realttype eq or%
```

```
12190 {BPToDvips}if%
```

```
12191 }forall]%
```

```
12192 ]def%
```

```
12193 /H.S {%
```

```
12194 currentpoint %
```

```
12195 HyperBorder add /pdf@lly exch def %
```

```
12196 dup DvipsToPDF 72 add /pdf@hoff exch def %
```

```
12197 HyperBorder sub /pdf@llx exch def%
```

```
12198 } def%
```

```
12199 /H.L {%
```

```
12200 2 sub %
```

```
12201 PDFToDvips /HyperBase exch def %
```

```
12202 currentpoint %
```

```
12203 HyperBase sub /pdf@ury exch def%
```

```
12204 /pdf@urx exch def%
```

```
12205 } def%
```

```
12206 /H.A {%
```

```
12207 H.L %
```

```
12208 currentpoint exch pop %
```

```
12209 HyperBase sub % baseline skip
```

```
12210 DvipsToPDF /pdf@voff exch def%
```

```
12211 } def%
```

```
12212 /H.R {%
```

```
12213 currentpoint %
```

```
12214 HyperBorder sub /pdf@ury exch def %
```

```
12215 HyperBorder add /pdf@urx exch def %
```

```
12216 currentpoint exch pop DvipsToPDF /pdf@voff exch def%
```

```
12217 } def%
```

```
12218 ]%
```

```
12219 }
```

```
12220 \def\setpdfinkmargin#1{%
```

```
12221 \begingroup
```

```

12222 \setlength{\dimen@}{#1}%
12223 \literalps@out{%
12224   /HyperBorder{\strip@pt\dimen@\space PDFToDvips}def%
12225   }%
12226 \endgroup
12227 }
12228 </dvipsone>

```

43.13 TeX4ht

```

12229 (*tex4ht)
12230 \providecommand*\XR@ext}{html}
12231 \let\Hy@raisedlink\ltx@empty
12232 \@ifpackageloaded{tex4ht}{%
12233   \Hy@InfoNoLine{tex4ht is already loaded}%
12234 }{%
12235   \RequirePackage[hTeX4ht]{tex4ht}%
12236 }
12237 \hyperlinkfileprefix{}
12238 \let\PDF@FinishDoc\ltx@empty
12239 \def\PDF@SetupDoc{%
12240   \ifx\@baseurl\@empty
12241     \else
12242     \special{t4ht=<base href="\@baseurl">}%
12243   \fi
12244 }
12245 \Hy@WrapperDef\hyper@anchor#1{%
12246   \Hy@SaveLastskip
12247   \Hy@VerboseAnchor{#1}%
12248   \begingroup
12249     \let\protect=\string
12250     \special{t4ht=<a name=%
12251       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
12252   \endgroup
12253   \Hy@activeanchortrue
12254   \Hy@colorlink\@anchorcolor\anchor@spot\Hy@endcolorlink
12255   \special{t4ht=</a>}%
12256   \Hy@activeanchorfalse
12257   \Hy@RestoreLastskip
12258 }
12259 \Hy@WrapperDef\hyper@anchorstart#1{%
12260   \Hy@SaveLastskip
12261   \Hy@VerboseAnchor{#1}%
12262   \begingroup
12263     \hyper@chars\special{t4ht=<a name=%
12264       \hyper@quote\HyperDestNameFilter{#1}\hyper@quote>}%
12265   \endgroup
12266   \Hy@activeanchortrue
12267 }
12268 \def\hyper@anchorend{%
12269   \special{t4ht=</a>}%
12270   \Hy@activeanchorfalse
12271   \Hy@RestoreLastskip
12272 }
12273 \def\@urltype{url}

```

```

12274 \def\hyper@linkstart#1#2{%
12275   \Hy@VerboseLinkStart{#1}{#2}%
12276   \expandafter\Hy@colorlink\csname @#1color\endcsname
12277   \def\Hy@tempa{#1}%
12278   \ifx\Hy@tempa \@urltype
12279     \special{t4ht=<a href=\hyper@quote#2\hyper@quote>}%
12280   \else
12281     \begingroup
12282     \hyper@chars
12283     \special{t4ht=<a href=%
12284       \hyper@quote\#\Hy@HyperDestNameFilter{#2}\hyper@quote>}%
12285     \endgroup
12286   \fi
12287 }
12288 \def\hyper@linkend{%
12289   \special{t4ht=</a>}%
12290   \Hy@endcolorlink
12291 }
12292 \def\hyper@linkfile#1#2#3{%
12293   \hyper@linkurl{#1}{\Hy@linkfileprefix#2\ifx\\#3\\\else\##3\fi}%
12294 }
12295 \def\hyper@linkurl#1#2{%
12296   \leavevmode
12297   \ifHy@raiselinks
12298     \Hy@SaveSpaceFactor
12299     \Hy@SaveSavedSpaceFactor
12300     \sbox\@tempboxa{\Hy@RestoreSpaceFactor#1}%
12301     \Hy@RestoreSavedSpaceFactor
12302     \@linkdim\dp\@tempboxa
12303     \lower\@linkdim\hbox{%
12304       \begingroup
12305         \hyper@chars
12306         \special{%
12307           t4ht=<a href=\hyper@quote#2\hyper@quote>%
12308         }%
12309       \endgroup
12310     }%
12311     \Hy@colorlink\@urlcolor
12312     \Hy@RestoreSpaceFactor
12313     #1\Hy@xspace@end
12314     \Hy@SaveSpaceFactor
12315     \Hy@endcolorlink
12316     \@linkdim\ht\@tempboxa
12317     \advance\@linkdim by -6.5\p@
12318     \raise\@linkdim\hbox{\special{t4ht=</a>}}%
12319     \Hy@RestoreSpaceFactor
12320   \else
12321     \begingroup
12322     \hyper@chars
12323     \special{t4ht=<a href=\hyper@quote#2\hyper@quote>}%
12324     \Hy@colorlink\@urlcolor
12325     #1\Hy@xspace@end
12326     \Hy@endcolorlink
12327     \special{t4ht=</a>}%

```

```

12328 \endgroup
12329 \fi
12330 }

Poor implementation of \hyper@link without considering #1.
12331 \def\hyper@link#1#2#3{%
12332 \Hy@VerboseLinkStart{#1}{#2}%
12333 \hyper@linkurl{#3}{\#\HyperDestNameFilter{#2}}%
12334 }
12335 \def\hyper@image#1#2{%
12336 \begingroup
12337 \hyper@chars
12338 \special{t4ht=<img src=\hyper@quote#1\hyper@quote>}%
12339 \endgroup
12340 }
12341 \let\autoref\ref
12342 \ifx \rEfLiNK \UnDef
12343 \def\rEfLiNK #1#2{#2}%
12344 \fi
12345 \let\backref\ltx@gobble

Fix for tex4ht.
12346 \AtBeginDocument{%
12347 \expandafter
12348 \let\expandafter\Hy@OrgMakeLabel\csname Make:Label\endcsname
12349 \expandafter\def\csname Make:Label\endcsname#1#2{%
12350 \ifhmode
12351 \Hy@SaveSpaceFactor
12352 \else
12353 \global\Hy@SavedSpaceFactor=1000 %
12354 \fi
12355 \Hy@OrgMakeLabel{#1}{%
12356 \Hy@RestoreSpaceFactor
12357 #2\Hy@xspace@end%
12358 \Hy@SaveSpaceFactor
12359 }%
12360 \Hy@RestoreSpaceFactor
12361 }%
12362 }
12363 </tex4ht>
12364 (*tex4htcfg)
12365 \IfFileExists{\jobname.cfg}{\endinput}{\}
12366 \Preamble{html}
12367 \begin{document}%
12368 \EndPreamble
12369 \def\TeX{TeX}
12370 \def\OMEGA{Omega}
12371 \def\LaTeX{LaTeX}
12372 \def\LaTeXe{\LaTeX2e}
12373 \def\eTeX{e-TeX}
12374 \def\MF{Metafont}
12375 \def\MP{MetaPost}
12376 </tex4htcfg>

```

44 Driver-specific form support

44.1 pdfmarks

change 2020-06-20: added /Euro to encoding

```
12377 (*pdfmark)
12378 \long\def\@Form[#1]{%
12379 \g@addto@macro\Hy@FirstPageHook{%
12380 \headerps@out{%
12381 [%
12382 /_objdef{pdfDocEncoding}%
12383 /type/dict%
12384 /OBJ pdfmark%
12385 [%
12386 {pdfDocEncoding}%
12387 <<%
12388 /Type/Encoding%
12389 /Differences[%
12390 24/breve/caron/circumflex/dotaccent/hungarumlaut/ogonek/ring%
12391 /tilde %
12392 39/quotesingle %
12393 96/grave %
12394 128/bullet/dagger/daggerdbl/ellipsis/emdash/endash/florin%
12395 /fraction/guilsinglleft/guilsinglright/minus/perthousand%
12396 /quotedblbase/quotedblleft/quotedblright/quoteleft%
12397 /quoteright/quotesinglbase/trademark/fi/fl/Lslash/OE/Scaron%
12398 /Ydieresis/Zcaron/dotlessi/lslash/oe/scaron/zcaron %
12399 160/Euro %
12400 164/currency %
12401 166/brokenbar %
12402 168/dieresis/copyright/ordfeminine %
12403 172/logicalnot/.notdef/registered/macron/degree/plusminus%
12404 /twosuperior/threesuperior/acute/mu %
12405 183/periodcentered/cedilla/onesuperior/ordmasculine %
12406 188/onequarter/onehalf/threequarters %
12407 192/Agrave/Aacute/Acircumflex/Atilde/Adieresis/Aring/AE%
12408 /Ccedilla/Egrave/Eacute/Ecircumflex/Edieresis/Igrave%
12409 /Iacute/Icircumflex/Idieresis/Eth/Ntilde/Ograve/Oacute%
12410 /Ocircumflex/Otilde/Odieresis/multiply/Oslash/Ugrave%
12411 /Uacute/Ucircumflex/Udieresis/Yacute/Thorn/germandbls%
12412 /agrave/aacute/acircumflex/atilde/adieresis/aring/ae%
12413 /ccedilla/egrave/eacute/ecircumflex/edieresis/igrave%
12414 /iacute/icircumflex/idieresis/eth/ntilde/ograde/oacute%
12415 /ocircumflex/otilde/odieresis/divide/oslash/ugrave/uacute%
12416 /ucircumflex/udieresis/yacute/thorn/ydieresis%
12417 ]%
12418 >>%
12419 /PUT pdfmark%
12420 [%
12421 /_objdef{ZaDb}%
12422 /type/dict%
12423 /OBJ pdfmark%
12424 [%
12425 {ZaDb}%
```

```

12426 <<%
12427 /Type/Font%
12428 /Subtype/Type1%
12429 /Name/ZaDb%
12430 /BaseFont/ZapfDingbats%
12431 >>%
12432 /PUT pdfmark%
12433 [%
12434 /_objdef{Helv}%
12435 /type/dict%
12436 /OBJ pdfmark%
12437 [%
12438 {Helv}%
12439 <<%
12440 /Type/Font%
12441 /Subtype/Type1%
12442 /Name/Helv%
12443 /BaseFont/Helvetica%
12444 /Encoding{pdfDocEncoding}%
12445 >>%
12446 /PUT pdfmark%
12447 [%
12448 /_objdef{aform}%
12449 /type/dict%
12450 /OBJ pdfmark%
12451 [%
12452 /_objdef{afields}%
12453 /type/array%
12454 /OBJ pdfmark%
12455 [%
12456 /_objdef{corder}%
12457 /type/array%
12458 /OBJ pdfmark%
12459 {%
12460 [%
12461 /BBox[0 0 100 100]%
12462 /_objdef{Check}%
12463 /BP pdfmark %
12464 1 0 0 setrgbcolor%
12465 /ZapfDingbats 80 selectfont %
12466 20 20 moveto%
12467 (4)show%
12468 [/EP pdfmark%
12469 [%
12470 /BBox[0 0 100 100]%
12471 /_objdef{Cross}%
12472 /BP pdfmark %
12473 1 0 0 setrgbcolor%
12474 /ZapfDingbats 80 selectfont %
12475 20 20 moveto%
12476 (8)show%
12477 [/EP pdfmark%
12478 [%
12479 /BBox[0 0 250 100]%

```



```

12480  /_objdef{Submit}%
12481  /BP pdfmark %
12482  0.6 setgray %
12483  0 0 250 100 rectfill %
12484  1 setgray %
12485  2 2 moveto %
12486  2 98 lineto %
12487  248 98 lineto %
12488  246 96 lineto %
12489  4 96 lineto %
12490  4 4 lineto %
12491  fill %
12492  0.34 setgray %
12493  248 98 moveto %
12494  248 2 lineto %
12495  2 2 lineto %
12496  4 4 lineto %
12497  246 4 lineto %
12498  246 96 lineto %
12499  fill%
12500  /Helvetica 76 selectfont %
12501  0 setgray %
12502  8 22.5 moveto%
12503  (Submit)show%
12504  [/EP pdfmark%
12505  [%
12506  /BBox[0 0 250 100]%
12507  /_objdef{SubmitP}%
12508  /BP pdfmark %
12509  0.6 setgray %
12510  0 0 250 100 rectfill %
12511  0.34 setgray %
12512  2 2 moveto %
12513  2 98 lineto %
12514  248 98 lineto %
12515  246 96 lineto %
12516  4 96 lineto %
12517  4 4 lineto %
12518  fill %
12519  1 setgray %
12520  248 98 moveto %
12521  248 2 lineto %
12522  2 2 lineto %
12523  4 4 lineto %
12524  246 4 lineto %
12525  246 96 lineto %
12526  fill%
12527  /Helvetica 76 selectfont %
12528  0 setgray %
12529  10 20.5 moveto%
12530  (Submit)show%
12531  [/EP pdfmark%
12532  }?pdfmark%
12533  [%

```

```

12534 {aform}%
12535 <<%
12536 /Fields{afields}%
12537 /DR.<<%
12538 /Font.<<%
12539 /ZaDb{ZaDb}%
12540 /Helv{Helv}%
12541 >>%
12542 >>%
12543 /DA(/Helv 10 Tf 0 g)%
12544 /CO{corder}%
12545 \ifHy@pdfa
12546 \else
12547 \ifHyField@NeedAppearances
12548 /NeedAppearances true%
12549 \fi
12550 \fi
12551 >>%
12552 /PUT pdfmark%
12553 [%
12554 {Catalog}%
12555 <<%
12556 /AcroForm{aform}%
12557 >>%
12558 /PUT pdfmark%
12559 ]}%
12560 \kvsetkeys{Form}{#1}%
12561 }
12562 \let\@endForm\ltx@empty
12563 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
12564 \Hy@Message{Sorry, pdfmark drivers do not support FORM gauges}%
12565 }

12566 \newcount\HyField@AnnotCount
12567 \HyField@AnnotCount=\z@
12568 \def\HyField@AdvanceAnnotCount{%
12569 \global\advance\HyField@AnnotCount\@ne
12570 }
12571 \def\HyField@TheAnnotCount{%
12572 \the\HyField@AnnotCount
12573 }

12574 \edef\Fld@pageobjref{/P\string{ThisPage\string}}

12575 \def\HyField@AddToFields#1{%
12576 \pdfmark{%
12577 pdfmark=/APPEND,%
12578 Raw={%
12579 \string{afields\string}%
12580 \string{#1\HyField@TheAnnotCount\string}%
12581 }%
12582 }%
12583 \ifx\Fld@calculate@code\ltx@empty
12584 \else
12585 \pdfmark{%
12586 pdfmark=/APPEND,%

```

```

12587     Raw={%
12588         \string{corder\string}%
12589         \string{#1\HyField@TheAnnotCount\string}%
12590     }%
12591 }%
12592 \fi
12593 }

12594 \def\@TextField[#1]#2{% parameters, label
12595     \def\Fld@name{#2}%
12596     \let\Fld@default\tx@empty
12597     \let\Fld@value\@empty
12598     \def\Fld@width{\DefaultWidthofText}%
12599     \def\Fld@height{%
12600         \ifFld@multiline
12601             \DefaultHeightofTextMultiline
12602         \else
12603             \DefaultHeightofText
12604         \fi
12605     }%
12606     \begingroup
12607         \expandafter\HyField@SetKeys\expandafter{%
12608             \DefaultOptionsofText,#1%
12609         }%
12610         \HyField@FlagsText
12611         \ifFld@hidden\def\Fld@width{1sp}\fi
12612         \ifx\Fld@value\@empty\def\Fld@value{\Fld@default}\fi
12613         \HyField@AdvanceAnnotCount
12614         \LayoutTextField{#2}{%
12615             \leavevmode
12616             \Hy@escapeform\PDFForm@Text
12617             \pdfmark[\MakeTextField{\Fld@width}{\Fld@height}]{%
12618                 pdfmark=/ANN,%
12619                 objdef=text\HyField@TheAnnotCount,%
12620                 Raw={\PDFForm@Text}%
12621             }%
12622         }%
12623         \HyField@AddToFields{text}%
12624     \endgroup
12625 }

12626 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
12627     \def\Fld@name{#2}%
12628     \let\Fld@default\relax
12629     \let\Fld@value\relax
12630     \def\Fld@width{\DefaultWidthofChoiceMenu}%
12631     \def\Fld@height{\DefaultHeightofChoiceMenu}%
12632     \begingroup
12633         \Fld@menulength=0 %
12634         \@tempdima\z@
12635         \@for\@curropt:=#3\do{%
12636             \expandafter\Fld@checkequals\@curropt==\%
12637             \Hy@StepCount\Fld@menulength
12638             \settowidth{\@tempdimb}{\@currDisplay}%
12639             \ifdim\@tempdimb>\@tempdima\@tempdima\@tempdimb\fi
12640         }%

```

```

12641 \advance\@tempdima by 15\p@
12642 \begingroup
12643 \HyField@SetKeys{#1}%
12644 \edef\x{\endgroup
12645 \noexpand\expandafter
12646 \noexpand\HyField@SetKeys
12647 \noexpand\expandafter{%
12648 \expandafter\noexpand\csname DefaultOptionsof%
12649 \ifFld@radio
12650 Radio%
12651 \else
12652 \ifFld@combo
12653 \ifFld@popdown
12654 PopdownBox%
12655 \else
12656 ComboBox%
12657 \fi
12658 \else
12659 ListBox%
12660 \fi
12661 \fi
12662 \endcsname
12663 }%
12664 }\x
12665 \HyField@SetKeys{#1}%
12666 \ifFld@hidden\def\Fld@width{1sp}\fi
12667 \ifx\Fld@value\relax
12668 \let\Fld@value\Fld@default
12669 \fi
12670 \LayoutChoiceField{#2}{%
12671 \ifFld@radio
12672 \HyField@FlagsRadioButton
12673 \@@Radio{#3}%
12674 \else
12675 \begingroup
12676 \HyField@FlagsChoice
12677 \ifdim\Fld@width<\@tempdima
12678 \ifdim\@tempdima<1cm\@tempdima1cm\fi
12679 \edef\Fld@width{\the\@tempdima}%
12680 \fi
12681 \ifFld@combo
12682 \else
12683 \@tempdima=\the\Fld@menulength\Fld@charsize
12684 \advance\@tempdima by \Fld@borderwidth bp %
12685 \advance\@tempdima by \Fld@borderwidth bp %
12686 \edef\Fld@height{\the\@tempdima}%
12687 \fi
12688 \@@Listbox{#3}%
12689 \endgroup
12690 \fi
12691 }%
12692 \endgroup
12693 }
12694 \def\@@Radio#1{%

```

```

12695 \Fld@listcount=0 %
12696 \EdefEscapeName\Fld@default{\Fld@default}%
12697 \@for\@curropt:=#1\do{%
12698   \expandafter\Fld@checkequals\@curropt==\ %
12699   \EdefEscapeName\@currValue{\@currValue}%
12700   \Hy@StepCount\Fld@listcount
12701   \@currDisplay\space
12702   \Hy@escapeform\PDFForm@Radio
12703   \ifnum\Fld@listcount=1 %
12704     \HyField@AdvanceAnnotCount
12705     \fi
12706     \pdfmark[\MakeRadioField{\Fld@width}{\Fld@height}]{%
12707       pdfmark=/ANN,%
12708       objdef=\ifnum\Fld@listcount=1 radio\HyField@TheAnnotCount\fi,%
12709       Raw={%
12710         \PDFForm@Radio /AP <</N <</\@currValue\space {Check}>> >>%
12711       }%
12712     } % deliberate space between radio buttons
12713     \ifnum\Fld@listcount=1 %
12714       \HyField@AddToFields{radio}%
12715     \fi
12716   }%
12717 }
12718 \newcount\Fld@listcount
12719 \def\@@Listbox#1{%
12720   \HyField@PDFChoices{#1}%
12721   \Hy@escapeform\PDFForm@List
12722   \HyField@AdvanceAnnotCount
12723   \pdfmark[\MakeChoiceField{\Fld@width}{\Fld@height}]{%
12724     pdfmark=/ANN,%
12725     objdef=list\HyField@TheAnnotCount,%
12726     Raw={\PDFForm@List}%
12727   }%
12728   \HyField@AddToFields{list}%
12729 }
12730 \def\@PushButton[#1]#2{% parameters, label
12731   \def\Fld@name{#2}%
12732   \begingroup
12733     \expandafter\HyField@SetKeys\expandafter{%
12734       \DefaultOptionsofPushButton,#1%
12735     }%
12736     \ifHy@pdfa
12737       \Hy@Error{%
12738         PDF/A: Push button with JavaScript is prohibited%
12739       } \@ehc
12740     \LayoutPushButtonField{%
12741       \leavevmode
12742       \MakeButtonField{#2}%
12743     }%
12744     \else
12745       \HyField@FlagsPushButton
12746       \ifFld@hidden\def\Fld@width{1sp}\fi
12747       \HyField@AdvanceAnnotCount
12748     \LayoutPushButtonField{%

```

```

12749     \leavevmode
12750     \Hy@escapeform\PDFForm@Push
12751     \pdfmark[\MakeButtonField{#2}]{%
12752     pdfmark=/ANN,%
12753     objdef=push\HyField@TheAnnotCount,%
12754     Raw={\PDFForm@Push}%
12755     }%
12756     }%
12757     \HyField@AddToFields{push}%
12758     \fi
12759 \endgroup
12760 }
12761 \def\@Submit[#1]#2{%
12762 \def\Fld@width{\DefaultWidthofSubmit}%
12763 \def\Fld@height{\DefaultHeightofSubmit}%
12764 \begingroup
12765 \expandafter\HyField@SetKeys\expandafter{%
12766 \DefaultOptionsofSubmit,#1%
12767 }%
12768 \HyField@FlagsPushButton
12769 \HyField@FlagsSubmit
12770 \ifFld@hidden\def\Fld@width{1sp}\fi
12771 \Hy@escapeform\PDFForm@Submit
12772 \HyField@AdvanceAnnotCount
12773 \pdfmark[\MakeButtonField{#2}]{%
12774 pdfmark=/ANN,%
12775 objdef=submit\HyField@TheAnnotCount,%
12776 Raw={\PDFForm@Submit /AP<</N{Submit}/D{SubmitP}>>}}%
12777 }%
12778 \HyField@AddToFields{submit}%
12779 \endgroup
12780 }
12781 \def\@Reset[#1]#2{%
12782 \def\Fld@width{\DefaultWidthofReset}%
12783 \def\Fld@height{\DefaultHeightofReset}%
12784 \begingroup
12785 \expandafter\HyField@SetKeys\expandafter{%
12786 \DefaultOptionsofReset,#1%
12787 }%
12788 \leavevmode
12789 \ifHy@pdfa
12790 \Hy@Error{%
12791 PDF/A: Reset action is prohibited%
12792 } \@ehc
12793 \MakeButtonField{#2}%
12794 \else
12795 \HyField@FlagsPushButton
12796 \ifFld@hidden\def\Fld@width{1sp}\fi
12797 \Hy@escapeform\PDFForm@Reset
12798 \HyField@AdvanceAnnotCount
12799 \pdfmark[\MakeButtonField{#2}]{%
12800 pdfmark=/ANN,%
12801 objdef=reset\HyField@TheAnnotCount,%
12802 Raw={\PDFForm@Reset}%

```

```

12803 }%
12804 \HyField@AddToFields{reset}%
12805 \fi
12806 \endgroup
12807 }%
12808 \def\@CheckBox[#1]#2{% parameters, label
12809 \def\Fld@name{#2}%
12810 \def\Fld@default{0}%
12811 \begingroup
12812 \def\Fld@width{\DefaultWidthofCheckBox}%
12813 \def\Fld@height{\DefaultHeightofCheckBox}%
12814 \expandafter\HyField@SetKeys\expandafter{%
12815 \DefaultOptionsofCheckBox,#1%
12816 }%
12817 \HyField@FlagsCheckBox
12818 \ifFld@hidden\def\Fld@width{1sp}\fi
12819 \HyField@AdvanceAnnotCount
12820 \LayoutCheckField{#2}{%
12821 \leavevmode
12822 \Hy@escapeform\PDFForm@Check
12823 \pdfmark{\MakeCheckField{\Fld@width}{\Fld@height}}{%
12824 pdfmark=/ANN,%
12825 objdef=check\HyField@TheAnnotCount,%
12826 Raw={\PDFForm@Check}%
12827 }%
12828 }%
12829 \HyField@AddToFields{check}%
12830 \endgroup
12831 }
12832 (/pdfmark)

```

44.2 HyperTeX

```

12833 (*hypertex)
12834 \def\@Form[#1]{%
12835 \Hy@Message{Sorry, HyperTeX does not support FORMs}%
12836 }
12837 \let\@endForm\ltx@empty
12838 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
12839 \Hy@Message{Sorry, HyperTeX does not support FORM gauges}%
12840 }
12841 \def\@TextField[#1]#2{% parameters, label
12842 \Hy@Message{Sorry, HyperTeX does not support FORM text fields}%
12843 }
12844 \def\@CheckBox[#1]#2{% parameters, label
12845 \Hy@Message{Sorry, HyperTeX does not support FORM checkboxes}%
12846 }
12847 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
12848 \Hy@Message{Sorry, HyperTeX does not support FORM choice menus}%
12849 }
12850 \def\@PushButton[#1]#2{% parameters, label
12851 \Hy@Message{Sorry, HyperTeX does not support FORM pushbuttons}%
12852 }
12853 \def\@Reset[#1]#2{%

```

```

12854 \Hy@Message{Sorry, HyperTeX does not support FORMs}%
12855 }
12856 \def\@Submit[#1]#2{%
12857 \Hy@Message{Sorry, HyperTeX does not support FORMs}%
12858 }
12859 </hypertex>

```

44.3 TeX4ht

```

12860 (*tex4ht)
12861 \def\@Form[#1]{%
12862 \kvsetkeys{Form}{#1}%
12863 \HCode{<form action="\Form@action" method="\Form@method">}%
12864 }
12865 \def\@endForm{\HCode{</form>}}
12866 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
12867 \Hy@Message{Sorry, TeX4ht does not support gauges}%
12868 }
12869 \def\@TextField[#1]#2{% parameters, label
12870 \let\Hy@reserved@a\@empty
12871 \def\Fld@name{#2}%
12872 \let\Fld@default\tx@empty
12873 \bgroup
12874 \Field@toks={ }%
12875 \kvsetkeys{Field}{#1}%
12876 \HCode{<label for="\Fld@name">#2</label>}%
12877 \ifFld@password
12878 \@@PasswordField
12879 \else
12880 \@@TextField
12881 \fi
12882 \egroup
12883 }
12884 \def\@@PasswordField{%
12885 \HCode{%
12886 <input type="password" %
12887 id="\Fld@name" %
12888 name="\Fld@name" %
12889 \ifFld@hidden type="hidden" \fi
12890 value="\Fld@default" %
12891 \the\Field@toks
12892 >%
12893 }%
12894 }
12895 \def\@@TextField{%
12896 \ifFld@multiline
12897 \HCode{<textarea %
12898 \ifFld@readonly readonly \fi
12899 id="\Fld@name" %
12900 name="\Fld@name" %
12901 \ifFld@hidden type="hidden" \fi
12902 \the\Field@toks>%
12903 }%
12904 \Fld@default
12905 \HCode{</textarea>}%

```



```

12906 \else
12907 \HCode{<input type="textbox" %
12908 \ifFld@readonly readonly \fi
12909 id="\Fld@name" %
12910 name="\Fld@name" %
12911 \ifFld@hidden type="hidden" \fi
12912 value="\Fld@default" %
12913 \the\Field@toks>%
12914 }%
12915 \fi
12916 }
12917 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
12918 \def\Fld@name{#2}%
12919 \let\Fld@default\tx@empty
12920 \let\Hy@reserved@a\relax
12921 \begingroup
12922 \expandafter\Fld@findlength#3\\%
12923 \Field@toks={ }%
12924 \kvsetkeys{Field}{#1}%
12925 #2%
12926 \ifFld@radio
12927 \expandafter\@@Radio#3\\%
12928 \else
12929 \expandafter\@@Menu#3\\%
12930 \fi
12931 \endgroup
12932 }
12933 \def\Fld@findlength#1\\{%
12934 \Fld@menulength=0 %
12935 \@for\@curropt:=#1\do{\Hy@StepCount\Fld@menulength}%
12936 }
12937 \def\@@Menu#1\\{%
12938 \HCode{<select size="\the\Fld@menulength" %
12939 name="\Fld@name" %
12940 \the\Field@toks>%
12941 }%
12942 \@for\@curropt:=#1\do{%
12943 \expandafter\Fld@checkequals\@curropt==\\%
12944 \HCode{<option %
12945 \ifx\@curropt\Fld@default selected \fi
12946 value="\@currValue">\@currDisplay</option>%
12947 }%
12948 }%
12949 \HCode{</select>}%
12950 }
12951 \def\@@Radio#1\\{%
12952 \@for\@curropt:=#1\do{%
12953 \expandafter\Fld@checkequals\@curropt==\\%
12954 \HCode{<input type="radio" %
12955 \ifx\@curropt\Fld@default checked \fi
12956 name="\Fld@name" %
12957 value="\@currValue" %
12958 \the\Field@toks>%
12959 }%

```

```

12960   \@currDisplay
12961 }%
12962 }
12963 \def\@PushButton[#1]#2{% parameters, label
12964   \def\Fld@name{#2}%
12965   \bgroup
12966     \Field@toks={ }%
12967     \kvsetkeys{Field}{#1}%
12968     \HCode{<input type="button" %
12969       name="\Fld@name" %
12970       value="#2" %
12971       \the\Fld@toks>%
12972     }%
12973     \HCode{</button>}%
12974   \egroup
12975 }
12976 \def\@Submit[#1]#2{%
12977   \HCode{<button type="submit">#2</button>}%
12978 }
12979 \def\@Reset[#1]#2{%
12980   \HCode{<button type="reset">#2</button>}%
12981 }
12982 \def\@CheckBox[#1]#2{% parameters, label
12983   \let\Hy@reserved@a\@empty
12984   \def\Fld@name{#2}%
12985   \def\Fld@default{0}%
12986   \bgroup
12987     \Field@toks={ }%
12988     \kvsetkeys{Field}{#1}%
12989     \HCode{<input type="checkbox" %
12990       \ifFld@checked checked \fi
12991       \ifFld@disabled disabled \fi
12992       \ifFld@readonly readonly \fi
12993       name="\Fld@name" %
12994       \ifFld@hidden type="hidden" \fi
12995       value="\Fld@default" %
12996       \the\Fld@toks>%
12997     #2%
12998   }%
12999   \egroup
13000 }
13001 </tex4ht>

```

44.4 pdfTeX

```

13002 (*pdftex)
13003 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
13004   \Hy@Message{Sorry, pdftex does not support FORM gauges}%
13005 }
13006 \def\MakeFieldObject#1#2{\sbox0{#1}%
13007   \immediate\pdfxform0 %
13008   \expandafter\edef\csname #2Object\endcsname{%
13009     \the\pdfastxform\space 0 R%
13010   }%
13011 % \hbox to 0pt{\hskip-\maxdimen{\pdfrefxform \the\pdfastxform}}%

```

```

13012 }%
13013 \let\HyField@afields\ltx@empty
13014 \let\HyField@cofields\ltx@empty
13015 \@ifundefined{pdflastlink}
13016 {%
13017 \let\HyField@AddToFields\relax
13018 \PackageInfo{hyperref}{%
13019   You need pdfTeX 1.40.0 for setting the /Fields entry.%
13020 \MessageBreak
13021   Adobe Reader/Acrobat accepts an empty /Field array,%
13022 \MessageBreak
13023   but other PDF viewers might complain%
13024 }}%
13025 {%
13026 \let\HyField@AuxAddToFields\ltx@gobble
13027 \let\HyField@AuxAddToCoFields\ltx@gobbletwo
13028 \def\HyField@AfterAuxOpen{\Hy@AtBeginDocument}%

```

Insertion sort for calculation field list. In case of equal sort keys (for example, if ‘calculatesortkey‘ is not used at all) the keys keep document calling order.

```

13029 \def\HyField@ABD@AuxAddToCoFields#1#2{%
13030 \begingroup
13031 \Hy@safe@activetrue
13032 \let\ltx@secondoftwo\relax
13033 \ifx\HyField@cofields\ltx@empty
13034 \xdef\HyField@cofields{%
13035 \ltx@secondoftwo{#1}{ #2 0 R}%
13036 }%
13037 \else
13038 \let\ltx@secondoftwo\relax
13039 \def\HyField@AddCoField##1##2##3{%
13040 \ifx##1\ltx@empty
13041 \ltx@secondoftwo{#1}{ #2 0 R}%
13042 \expandafter\ltx@gobble
13043 \else
13044 \ifnum\pdfstrcmp{##2}{#1}>\ltx@zero
13045 \ltx@secondoftwo{#1}{ #2 0 R}%
13046 \ltx@secondoftwo{##2}{##3}%
13047 \expandafter\expandafter\expandafter\ltx@gobble
13048 \else
13049 \ltx@secondoftwo{##2}{##3}%
13050 \fi
13051 \fi
13052 \HyField@AddCoField
13053 }%
13054 \xdef\HyField@cofields{%
13055 \expandafter\HyField@AddCoField
13056 \HyField@cofields\ltx@empty\ltx@empty\ltx@empty
13057 }%
13058 \fi
13059 \endgroup
13060 }%
13061 \Hy@AtBeginDocument{%
13062 \if@filesw
13063 \immediate\write\@mainaux{%

```

```

13064     \string\providecommand\string\HyField@AuxAddToFields[1]{}%
13065 }%
13066 \immediate\write\@mainaux{%
13067   \string\providecommand\string\HyField@AuxAddToCoFields[2]{}%
13068 }%
13069 \fi
13070 \let\HyField@AfterAuxOpen\@firstofone
13071 \def\HyField@AuxAddToFields#1{%
13072   \xdef\HyField@afields{%
13073     \ifx\HyField@afields\@empty
13074     \else
13075       \HyField@afields
13076       \space
13077     \fi
13078     #1 0 R.%
13079   }%
13080 }%
13081 \let\HyField@AuxAddToCoFields\HyField@ABD@AuxAddToCoFields
13082 }%
13083 \def\HyField@AddToFields{%
13084   \expandafter\HyField@@AddToFields\expandafter{%
13085     \the\pdfastlink
13086   }%
13087   \ifx\Fld@calculate@code\ltx@empty
13088   \else
13089     \begingroup
13090     \Hy@safe@activestruer
13091     \edef\Hy@temp{%
13092       \endgroup
13093       \if@filesw
13094         \write\@mainaux{%
13095           \string\HyField@AuxAddToCoFields{%
13096             \Fld@calculate@sortkey
13097           }{%
13098             \the\pdfastlink
13099           }%
13100         }%
13101       \fi
13102     }%
13103     \Hy@temp
13104   \fi
13105 }%
13106 \def\HyField@@AddToFields#1{%
13107   \HyField@AfterAuxOpen{%
13108     \if@filesw
13109       \write\@mainaux{%
13110         \string\HyField@AuxAddToFields{#1}%
13111       }%
13112     \fi
13113   }%
13114 }%
13115 }
13116 \def\@Form[#1]{%
13117   \@ifundefined{textcolor}{\let\textcolor\@gobble}{}%

```

```

13118 \kvsetkeys{Form}{#1}%
13119 \pdf@ifdraftmode{}{%
13120 \Hy@FormObjects
13121 \ifnum\pdftexversion>13 %
13122 \pdfrefobj\OBJ@pdfdocencoding
13123 \pdfrefobj\OBJ@ZaDb
13124 \pdfrefobj\OBJ@Helv
13125 \fi
13126 \AtVeryEndDocument{%
13127 \immediate\pdfobj{%
13128 <<%
13129 /Fields[\HyField@afields]%
13130 \ifx\HyField@cofields\ltx@empty
13131 \else
13132 /CO[\romannumeral-\`Q\HyField@cofields]%
13133 \fi
13134 /DR<<%
13135 /Font<<%
13136 /ZaDb \OBJ@ZaDb\space 0 R%
13137 /Helv \OBJ@Helv\space 0 R%
13138 >>%
13139 >>%
13140 /DA(/Helv 10 Tf 0 g)%
13141 \ifHy@pdfa
13142 \else
13143 \ifHyField@NeedAppearances
13144 /NeedAppearances true%
13145 \fi
13146 \fi
13147 >>%
13148 }%
13149 \edef\OBJ@acroform{\the\pdflastobj}%
13150 \pdfcatalog{/AcroForm \OBJ@acroform\space 0 R}%
13151 }%
13152 }%
13153 \MakeFieldObject{%
Same as \ding{123} of package pifont.
13154 \begingroup
13155 \fontfamily{pzd}%
13156 \fontencoding{U}%
13157 \fontseries{m}%
13158 \fontshape{n}%
13159 \selectfont
13160 \char123 %
13161 \endgroup
13162 }{Ding}%
13163 \MakeFieldObject{%
13164 \fbox{\textcolor{yellow}{\textsf{Submit}}}%
13165 }{Submit}%
13166 \MakeFieldObject{%
13167 \fbox{\textcolor{yellow}{\textsf{SubmitP}}}%
13168 }{SubmitP}%
13169 }
13170 \let\@endForm\ltx@empty

```

```

13171 \let\HyAnn@AbsPageLabel\ltx@empty
13172 \let\Fld@pageobjref\ltx@empty
13173 \ltx@ifundefined{pdfpageref}{%
13174 }{%
13175 \ltx@ifpackageloaded{zref-abspage}{%
13176   \newcount\HyAnn@Count
13177   \HyAnn@Count=\ltx@zero
13178   \def\HyAnn@AbsPageLabel{%
13179     \global\advance\HyAnn@Count by\ltx@one
13180     \zref@labelbyprops{HyAnn@\the\HyAnn@Count}{abspage}%
13181     \zref@refused{HyAnn@\the\HyAnn@Count}%
13182   }%
13183   \def\Fld@pageobjref{%
13184     \zref@ifrefundefined{HyAnn@\the\HyAnn@Count}{%
13185     }{%
13186       \zref@ifrefcontainsprop{HyAnn@\the\HyAnn@Count}{abspage}{%
13187         /P \pdfpageref
13188         \zref@extractdefault{HyAnn@\the\HyAnn@Count}{abspage}{1} %
13189         \space 0 R%
13190       }{%
13191       }%
13192     }%
13193   }%
13194 }{%
13195 }%
13196 }

13197 \def\@TextField[#1]#2{% parameters, label
13198 \def\Fld@name{#2}%
13199 \let\Fld@default\ltx@empty
13200 \let\Fld@value\@empty
13201 \def\Fld@width{\DefaultWidthofText}%
13202 \def\Fld@height{%
13203   \ifFld@multiline
13204     \DefaultHeightofTextMultiline
13205   \else
13206     \DefaultHeightofText
13207   \fi
13208 }%
13209 \begingroup
13210 \expandafter\HyField@SetKeys\expandafter{%
13211   \DefaultOptionsofText,#1%
13212 }%
13213 \PDFForm@Name
13214 \HyField@FlagsText
13215 \ifFld@hidden\def\Fld@width{1sp}\fi
13216 \ifx\Fld@value\@empty\def\Fld@value{\Fld@default}\fi
13217 \LayoutTextField{#2}{%
13218   \leavevmode
13219   \HyAnn@AbsPageLabel
13220   \Hy@escapeform\PDFForm@Text
13221   \pdfstartlink user {\PDFForm@Text}\relax
13222   \MakeTextField{\Fld@width}{\Fld@height}\pdfendlink
13223   \HyField@AddToFields
13224 }%

```

```

13225 \endgroup
13226 }
13227 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13228 \def\Fld@name{#2}%
13229 \let\Fld@default\relax
13230 \let\Fld@value\relax
13231 \def\Fld@width{\DefaultWidthofChoiceMenu}%
13232 \def\Fld@height{\DefaultHeightofChoiceMenu}%
13233 \begingroup
13234 \Fld@menulength=0 %
13235 \@tempdima\z@
13236 \@for\@curropt:=#3\do{%
13237 \expandafter\Fld@checkequals\@curropt==\%
13238 \Hy@StepCount\Fld@menulength
13239 \settowidth{\@tempdimb}{\@currDisplay}%
13240 \ifdim\@tempdimb>\@tempdima\@tempdima\@tempdimb\fi
13241 }%
13242 \advance\@tempdima by 15\p@
13243 \begingroup
13244 \HyField@SetKeys{#1}%
13245 \edef\x{\endgroup
13246 \noexpand\expandafter
13247 \noexpand\HyField@SetKeys
13248 \noexpand\expandafter{
13249 \expandafter\noexpand\csname DefaultOptionsof%
13250 \ifFld@radio
13251 Radio%
13252 \else
13253 \ifFld@combo
13254 \ifFld@popdown
13255 PopdownBox%
13256 \else
13257 ComboBox%
13258 \fi
13259 \else
13260 ListBox%
13261 \fi
13262 \fi
13263 \endcsname
13264 }%
13265 }\x
13266 \HyField@SetKeys{#1}%
13267 \PDFForm@Name
13268 \ifFld@hidden\def\Fld@width{1sp}\fi
13269 \ifx\Fld@value\relax
13270 \let\Fld@value\Fld@default
13271 \fi
13272 \LayoutChoiceField{#2}{%
13273 \ifFld@radio
13274 \HyField@FlagsRadioButton
13275 \@@Radio{#3}%
13276 \else
13277 \begingroup
13278 \HyField@FlagsChoice

```

```

13279     \ifdim\Fld@width<\@tempdima
13280     \ifdim\@tempdima<1cm\@tempdima1cm\fi
13281     \edef\Fld@width{\the\@tempdima}%
13282     \fi
13283     \ifFld@combo
13284     \else
13285     \@tempdima=\the\Fld@menulength\Fld@charsize
13286     \advance\@tempdima by \Fld@borderwidth bp %
13287     \advance\@tempdima by \Fld@borderwidth bp %
13288     \edef\Fld@height{\the\@tempdima}%
13289     \fi
13290     \@@ListBox{#3}%
13291     \endgroup
13292     \fi
13293 }%
13294 \endgroup
13295 }
13296 \def\@@Radio#1{%
13297   \Fld@listcount=0 %
13298   \EdefEscapeName\Fld@default{\Fld@default}%
13299   \@for\@curropt:=#1\do{%
13300     \expandafter\Fld@checkequals\@curropt==\%
13301     \EdefEscapeName\@currValue{\@currValue}%
13302     \Hy@StepCount\Fld@listcount
13303     \@currDisplay\space
13304     \leavevmode
13305     \HyAnn@AbsPageLabel
13306     \Hy@escapeform\PDFForm@Radio
13307     \pdfstartlink user {%
13308       \PDFForm@Radio
13309       /AP<<%
13310       /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.

```

13311     /\@currValue\space \DingObject
13312     >>%
13313     >>%
13314     }%
13315     \relax
13316     \MakeRadioField{\Fld@width}{\Fld@height}\pdfendlink
13317     \ifnum\Fld@listcount=1 %
13318     \HyField@AddToFields
13319     \fi
13320     \space % deliberate space between radio buttons
13321     }%
13322 }
13323 \newcount\Fld@listcount
13324 \def\@@ListBox#1{%
13325   \HyField@PDFChoices{#1}%
13326   \leavevmode
13327   \HyAnn@AbsPageLabel
13328   \Hy@escapeform\PDFForm@List

```



```

13329 \pdfstartlink user {\PDFForm@List}\relax
13330 \MakeChoiceField{\Fld@width}{\Fld@height}%
13331 \pdfendlink
13332 \HyField@AddToFields
13333 }
13334 \def\@PushButton[#1]#2{% parameters, label
13335 \def\Fld@name{#2}%
13336 \begingroup
13337 \expandafter\HyField@SetKeys\expandafter{%
13338 \DefaultOptionsofPushButton,#1%
13339 }%
13340 \PDFForm@Name
13341 \ifHy@pdfa
13342 \Hy@Error{%
13343 PDF/A: Push button with JavaScript is prohibited%
13344 } \@ehc
13345 \LayoutPushButtonField{%
13346 \leavevmode
13347 \MakeButtonField{#2}%
13348 }%
13349 \else
13350 \HyField@FlagsPushButton
13351 \ifFld@hidden\def\Fld@width{1sp}\fi
13352 \LayoutPushButtonField{%
13353 \leavevmode
13354 \HyAnn@AbsPageLabel
13355 \Hy@escapeform\PDFForm@Push
13356 \pdfstartlink user {\PDFForm@Push}\relax
13357 \MakeButtonField{#2}%
13358 \pdfendlink
13359 \HyField@AddToFields
13360 }%
13361 \fi
13362 \endgroup
13363 }
13364 \def\@Submit[#1]#2{%
13365 \def\Fld@width{\DefaultWidthofSubmit}%
13366 \def\Fld@height{\DefaultHeightofSubmit}%
13367 \begingroup
13368 \expandafter\HyField@SetKeys\expandafter{%
13369 \DefaultOptionsofSubmit,#1%
13370 }%
13371 \HyField@FlagsPushButton
13372 \HyField@FlagsSubmit
13373 \ifFld@hidden\def\Fld@width{1sp}\fi
13374 \leavevmode
13375 \HyAnn@AbsPageLabel
13376 \Hy@escapeform\PDFForm@Submit
13377 \pdfstartlink user {%
13378 \PDFForm@Submit
13379 /AP<</N \SubmitObject/D \SubmitPObject>>%
13380 }%
13381 \relax
13382 \MakeButtonField{#2}%

```

```

13383 \pdfendlink
13384 \HyField@AddToFields
13385 \endgroup
13386 }
13387 \def\@Reset[#1]#2{%
13388 \def\Fld@width{\DefaultWidthofReset}%
13389 \def\Fld@height{\DefaultHeightofReset}%
13390 \begingroup
13391 \expandafter\HyField@SetKeys\expandafter{%
13392 \DefaultOptionsofReset,#1%
13393 }%
13394 \leavevmode
13395 \ifHy@pdfa
13396 \Hy@Error{%
13397 PDF/A: Reset action is prohibited%
13398 }\@ehc
13399 \MakeButtonField{#2}%
13400 \else
13401 \HyField@FlagsPushButton
13402 \ifFld@hidden\def\Fld@width{1sp}\fi
13403 \HyAnn@AbsPageLabel
13404 \Hy@escapeform\PDFForm@Reset
13405 \pdfstartlink user {\PDFForm@Reset}\relax
13406 \MakeButtonField{#2}%
13407 \pdfendlink
13408 \HyField@AddToFields
13409 \fi
13410 \endgroup
13411 }
13412 \def\@CheckBox[#1]#2{% parameters, label
13413 \def\Fld@name{#2}%
13414 \def\Fld@default{0}%
13415 \begingroup
13416 \def\Fld@width{\DefaultWidthofCheckBox}%
13417 \def\Fld@height{\DefaultHeightofCheckBox}%
13418 \expandafter\HyField@SetKeys\expandafter{%
13419 \DefaultOptionsofCheckBox,#1%
13420 }%
13421 \PDFForm@Name
13422 \HyField@FlagsCheckBox
13423 \ifFld@hidden\def\Fld@width{1sp}\fi
13424 \LayoutCheckField{#2}{%
13425 \leavevmode
13426 \HyAnn@AbsPageLabel
13427 \Hy@escapeform\PDFForm@Check
13428 \pdfstartlink user {\PDFForm@Check}\relax
13429 \MakeCheckField{\Fld@width}{\Fld@height}%
13430 \pdfendlink
13431 \HyField@AddToFields
13432 }%
13433 \endgroup
13434 }
13435 \def\Hy@FormObjects{%
13436 \pdfobj {%

```

```

13437 <<%
13438 /Type/Encoding%
13439 /Differences[%
13440 24/breve/caron/circumflex/dotaccent/hungarumlaut/ogonek%
13441 /ring/tilde %
13442 39/quotesingle %
13443 96/grave %
13444 128/bullet/dagger/daggerdbl/ellipsis/emdash/endash/florin%
13445 /fraction/guilsingleft/guilsingright/minus/perthousand%
13446 /quotedblbase/quotedblleft/quotedblright/quoteleft%
13447 /quoteright/quotesinglbase/trademark/fi/fl/Lslash/OE%
13448 /Scaron/Ydieresis/Zcaron/dotlessi/lslash/oe/scaron/zcaron %
13449 160/Euro %
13450 164/currency %
13451 166/brokenbar %
13452 168/dieresis/copyright/ordfeminine %
13453 172/logicalnot/.notdef/registered/macron/degree/plusminus%
13454 /twosuperior/threesuperior/acute/mu %
13455 183/periodcentered/cedilla/onesuperior/ordmasculine %
13456 188/onequarter/onehalf/threequarters %
13457 192/Agrave/Aacute/Acircumflex/Atilde/Adieresis/Aring/AE%
13458 /Ccedilla/Egrave/Eacute/Ecircumflex/Edieresis/Igrave%
13459 /Iacute/Icircumflex/Idieresis/Eth/Ntilde/Ograve/Oacute%
13460 /Ocircumflex/Otilde/Odieresis/multiply/Oslash/Ugrave%
13461 /Uacute/Ucircumflex/Udieresis/Yacute/Thorn/germandbls%
13462 /agrave/aacute/acircumflex/atilde/adieresis/aring/ae%
13463 /cedilla/egrave/eacute/ecircumflex/edieresis/igrave%
13464 /iacute/icircumflex/idieresis/eth/ntilde/ograde/oacute%
13465 /ocircumflex/otilde/odieresis/divide/oslash/ugrave%
13466 /uacute/ucircumflex/udieresis/yacute/thorn/ydieresis%
13467 ]%
13468 >>%
13469 }%
13470 \xdef\OBJ@pdfdocencoding{\the\pdfastobj}%
13471 \pdfobj{%
13472 <<%
13473 /Type/Font%
13474 /Subtype/Type1%
13475 /Name/ZaDb%
13476 /BaseFont/ZapfDingbats%
13477 >>%
13478 }%
13479 \xdef\OBJ@ZaDb{\the\pdfastobj}%
13480 \pdfobj{%
13481 <<%
13482 /Type/Font%
13483 /Subtype/Type1%
13484 /Name/Helv%
13485 /BaseFont/Helvetica%
13486 /Encoding \OBJ@pdfdocencoding\space 0 R.%
13487 >>%
13488 }%
13489 \xdef\OBJ@Helv{\the\pdfastobj}%
13490 \global\let\Hy@FormObjects\relax

```

```
13491 }
13492 </pdfTeX>
```

44.5 dvipdfm, xetex

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

```
13493 <*dvipdfm | xetex>
```

```
\@Gauge
```

```
13494 \def\@Gauge[#1]#2#3#4{% parameters, label, minimum, maximum
13495 \Hy@Message{Sorry, dvipdfm/XeTeX does not support FORM gauges}%
13496 }
```

```
\@Form
```

```
13497 \def\@Form[#1]{%
13498 \@ifundefined{textcolor}{\let\textcolor\@gobble}{}%
13499 \kvsetkeys{Form}{#1}%
13500 \Hy@FormObjects
13501 \@pdfm@mark{obj @afields []}%
13502 \@pdfm@mark{obj @corder []}%
13503 \@pdfm@mark{%
13504   obj @aform <<%
13505     /Fields @afields%
13506     /DR<<%
13507     /Font<<%
13508     /ZaDb @OBJZaDb%
13509     /Helv @OBJHelv%
13510     >>%
13511     >>%
13512     /DA(/Helv 10 Tf 0 g)%
13513     /CO @corder%
13514     \ifHy@pdfa
13515     \else
13516     \ifHyField@NeedAppearances
13517     /NeedAppearances true%
13518     \fi
13519     \fi
13520     >>%
13521   }%
13522   \@pdfm@mark{put @catalog <</AcroForm @aform>>}%
13523 }
```

```
\@endForm
```

```
13524 \let\@endForm\ltx@empty
```

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

```
13525 \def\dvipdfm@setdim{%
13526   height \the\ht\pdfm@box\space
13527   width \the\wd\pdfm@box\space
13528   depth \the\dp\pdfm@box\space
13529 }
```

\HyField@AnnotCount

```
13530 \newcount\HyField@AnnotCount
13531 \HyField@AnnotCount=\z@
```

\HyField@AdvanceAnnotCount

```
13532 \def\HyField@AdvanceAnnotCount{%
13533 \global\advance\HyField@AnnotCount\@ne
13534 }
```

\HyField@TheAnnotCount

```
13535 \def\HyField@TheAnnotCount{%
13536 \the\HyField@AnnotCount
13537 }
```

\Fld@pageobjref

```
13538 \def\Fld@pageobjref{/P @thispage}%
```

\HyField@AddToFields

```
13539 \def\HyField@AddToFields#1{%
13540 \@pdfm@mark{put @afields @#1\HyField@TheAnnotCount}%
13541 \ifx\Fld@calculate@code\ltx@empty
13542 \else
13543 \@pdfm@mark{put @corder @#1\HyField@TheAnnotCount}%
13544 \fi
13545 }
```

\@TextField

```
13546 \def\@TextField[#1]#2{% parameters, label
13547 \def\Fld@name{#2}%
13548 \let\Fld@default\ltx@empty
13549 \let\Fld@value\@empty
13550 \def\Fld@width{\DefaultWidthofText}%
13551 \def\Fld@height{%
13552 \ifFld@multiline
13553 \DefaultHeightofTextMultiline
13554 \else
13555 \DefaultHeightofText
13556 \fi
13557 }%
13558 \begingroup
13559 \expandafter\HyField@SetKeys\expandafter{%
13560 \DefaultOptionsofText,#1%
13561 }%
13562 \PDFForm@Name
13563 \HyField@FlagsText
13564 \ifFld@hidden\def\Fld@width{1sp}\fi
13565 \ifx\Fld@value\@empty\def\Fld@value{\Fld@default}\fi
13566 \setbox\pdfm@box=\hbox{%
13567 \MakeTextField{\Fld@width}{\Fld@height}%
13568 }%
13569 \HyField@AdvanceAnnotCount
13570 \LayoutTextField{#2}{%
13571 \leavevmode
```

```

13572 \Hy@escapeform\PDFForm@Text
13573 \@pdfm@mark{%
13574 ann @text\HyField@TheAnnotCount\space
13575 \dviPDFm@setdim << \PDFForm@Text >>%
13576 }%
13577 }%
13578 \unhbox\pdfm@box
13579 \HyField@AddToFields{text}%
13580 % record in @afields array
13581 \endgroup
13582 }

```

\@ChoiceMenu

```

13583 \def\@ChoiceMenu[#1]#2#3{% parameters, label, choices
13584 \def\Fld@name{#2}%
13585 \let\Fld@default\relax
13586 \let\Fld@value\relax
13587 \def\Fld@width{\DefaultWidthofChoiceMenu}%
13588 \def\Fld@height{\DefaultHeightofChoiceMenu}%
13589 \begingroup
13590 \Fld@menulength=0 %
13591 \@tempdima\z@
13592 \@for\@curropt:=#3\do{%
13593 \expandafter\Fld@checkequals\@curropt==\%
13594 \Hy@StepCount\Fld@menulength
13595 \settowidth{\@tempdimb}{\@currDisplay}%
13596 \ifdim\@tempdimb>\@tempdima\@tempdima\@tempdimb\fi
13597 }%
13598 \advance\@tempdima by 15\p@
13599 \begingroup
13600 \HyField@SetKeys{#1}%
13601 \edef\x{\endgroup
13602 \noexpand\expandafter
13603 \noexpand\HyField@SetKeys
13604 \noexpand\expandafter{%
13605 \expandafter\noexpand\cename DefaultOptionsof%
13606 \ifFld@radio
13607 Radio%
13608 \else
13609 \ifFld@combo
13610 \ifFld@popdown
13611 PopdownBox%
13612 \else
13613 ComboBox%
13614 \fi
13615 \else
13616 ListBox%
13617 \fi
13618 \fi
13619 \endcename
13620 }%
13621 }\x
13622 \HyField@SetKeys{#1}%
13623 \PDFForm@Name

```

```

13624 \ifFld@hidden\def\Fld@width{1sp}\fi
13625 \ifx\Fld@value\relax
13626 \let\Fld@value\Fld@default
13627 \fi
13628 \LayoutChoiceField{#2}{%
13629 \ifFld@radio
13630 \HyField@FlagsRadioButton
13631 \@@Radio{#3}%
13632 \else
13633 \begingroup
13634 \HyField@FlagsChoice
13635 \ifdim\Fld@width<\@tempdima
13636 \ifdim\@tempdima<1cm\@tempdima1cm\fi
13637 \edef\Fld@width{\the\@tempdima}%
13638 \fi
13639 \ifFld@combo
13640 \else
13641 \@tempdima=\the\Fld@menulength\Fld@charsize
13642 \advance\@tempdima by \Fld@borderwidth bp %
13643 \advance\@tempdima by \Fld@borderwidth bp %
13644 \edef\Fld@height{\the\@tempdima}%
13645 \fi
13646 \@@ListBox{#3}%
13647 \endgroup
13648 \fi
13649 }%
13650 \endgroup
13651 }

```

\@@Radio

```

13652 \def\@@Radio#1{%
13653 \Fld@listcount=0 %
13654 \EdefEscapeName\Fld@default{\Fld@default}%
13655 \setbox\pdfm@box=\hbox{%
13656 \MakeRadioField{\Fld@width}{\Fld@height}%
13657 }%
13658 \@for\@curropt:=#1\do{%
13659 \expandafter\Fld@checkequals\@curropt==\%
13660 \EdefEscapeName\@currValue{\@currValue}%
13661 \Hy@StepCount\Fld@listcount
13662 \@currDisplay\space
13663 \leavevmode
13664 \Hy@escapeform\PDFForm@Radio
13665 \ifnum\Fld@listcount=1 %
13666 \HyField@AdvanceAnnotCount
13667 \fi
13668 \@pdfm@mark{%
13669 ann %
13670 \ifnum\Fld@listcount=1 %
13671 @radio\HyField@TheAnnotCount%
13672 \space
13673 \fi
13674 \dvi pdfm@setdim
13675 <<%

```

```

13676     \PDFForm@Radio
13677     /AP<</N<</\@currValue /null>>>>%
13678     >>%
13679     }%
13680     \unhcopy\pdfm@box\space% deliberate space between radio buttons
13681     \ifnum\Fld@listcount=1 %
13682     \HyField@AddToFields{radio}%
13683     \fi
13684     }%
13685     }

\Fld@listcount
13686 \newcount\Fld@listcount

\@@ListBox
13687 \def\@@ListBox#1{%
13688 \HyField@PDFChoices{#1}%
13689 \setbox\pdfm@box=\hbox{%
13690 \MakeChoiceField{\Fld@width}{\Fld@height}%
13691 }%
13692 \leavevmode
13693 \Hy@escapeform\PDFForm@List
13694 \HyField@AdvanceAnnotCount
13695 \@pdfm@mark{%
13696 ann @list\HyField@TheAnnotCount\space
13697 \dvi pdfm@setdim
13698 <<\PDFForm@List>>%
13699 }%
13700 \unhbox\pdfm@box
13701 \HyField@AddToFields{list}%
13702 }

\@PushButton
13703 \def\@PushButton[#1]#2{% parameters, label
13704 \def\Fld@name{#2}%
13705 \begingroup
13706 \expandafter\HyField@SetKeys\expandafter{%
13707 \DefaultOptionsofPushButton,#1%
13708 }%
13709 \PDFForm@Name
13710 \ifHy@pdfa
13711 \Hy@Error{%
13712 PDF/A: Push button with JavaScript is prohibited%
13713 } \@ehc
13714 \LayoutPushButtonField{%
13715 \leavevmode
13716 \MakeButtonField{#2}%
13717 }%
13718 \else
13719 \setbox\pdfm@box=\hbox{\MakeButtonField{#2}}%
13720 \HyField@FlagsPushButton
13721 \ifFld@hidden\def\Fld@width{1sp}\fi
13722 \HyField@AdvanceAnnotCount
13723 \LayoutPushButtonField{%

```



```

13724 \leavevmode
13725 \Hy@escapeform\PDFForm@Push
13726 \@pdfm@mark{%
13727   ann @push\HyField@TheAnnotCount\space
13728   \dviPDFm@setdim
13729   <<\PDFForm@Push>>%
13730   }%
13731 }%
13732 \unhbox\pdfm@box
13733 \HyField@AddToFields{push}%
13734 \fi
13735 \endgroup
13736 }

\@Submit
13737 \def\@Submit[#1]#2{%
13738 \def\Fld@width{\DefaultWidthofSubmit}%
13739 \def\Fld@height{\DefaultHeightofSubmit}%
13740 \begingroup
13741 \expandafter\HyField@SetKeys\expandafter{%
13742   \DefaultOptionsofSubmit,#1%
13743 }%
13744 \HyField@FlagsPushButton
13745 \HyField@FlagsSubmit
13746 \ifFld@hidden\def\Fld@width{1sp}\fi
13747 \setbox\pdfm@box=\hbox{\MakeButtonField{#2}}%
13748 \leavevmode
13749 \Hy@escapeform\PDFForm@Submit
13750 \HyField@AdvanceAnnotCount
13751 \@pdfm@mark{%
13752   ann @submit\HyField@TheAnnotCount\space
13753   \dviPDFm@setdim
13754   <<\PDFForm@Submit>>%
13755   }%
13756 \unhbox\pdfm@box%
13757 \HyField@AddToFields{submit}%
13758 \endgroup
13759 }

\@Reset
13760 \def\@Reset[#1]#2{%
13761 \def\Fld@width{\DefaultWidthofReset}%
13762 \def\Fld@height{\DefaultHeightofReset}%
13763 \begingroup
13764 \expandafter\HyField@SetKeys\expandafter{%
13765   \DefaultOptionsofReset,#1%
13766 }%
13767 \leavevmode
13768 \ifHy@pdfa
13769 \Hy@Error{%
13770   PDF/A: Reset action is prohibited%
13771 } \@ehc
13772 \MakeButtonField{#2}%
13773 \else

```

```

13774 \HyField@FlagsPushButton
13775 \ifFld@hidden\def\Fld@width{1sp}\fi
13776 \setbox\pdfm@box=\hbox{\MakeButtonField{#2}}%
13777 \Hy@escapeform\PDFForm@Reset
13778 \HyField@AdvanceAnnotCount
13779 \@pdfm@mark{%
13780   ann @reset\HyField@TheAnnotCount\space
13781   \dviPDFm@setdim
13782   <<\PDFForm@Reset>>%
13783 }%
13784 \unhbox\pdfm@box
13785 \HyField@AddToFields{reset}%
13786 \fi
13787 \endgroup
13788 }

```

\@CheckBox

```

13789 \def\@CheckBox[#1]#2{% parameters, label
13790 \def\Fld@name{#2}%
13791 \def\Fld@default{0}%
13792 \begingroup
13793 \def\Fld@width{\DefaultWidthofCheckBox}%
13794 \def\Fld@height{\DefaultHeightofCheckBox}%
13795 \expandafter\HyField@SetKeys\expandafter{%
13796 \DefaultOptionsofCheckBox,#1}%
13797 }%
13798 \PDFForm@Name
13799 \HyField@FlagsCheckBox
13800 \ifFld@hidden\def\Fld@width{1sp}\fi
13801 \setbox\pdfm@box=\hbox{%
13802 \MakeCheckField{\Fld@width}{\Fld@height}%
13803 }%
13804 \HyField@AdvanceAnnotCount
13805 \LayoutCheckField{#2}{%
13806 \leavevmode
13807 \Hy@escapeform\PDFForm@Check
13808 \@pdfm@mark{%
13809   ann @check\HyField@TheAnnotCount\space
13810   \dviPDFm@setdim
13811   <<\PDFForm@Check>>%
13812 }%
13813 \unhbox\pdfm@box
13814 \HyField@AddToFields{check}%
13815 }%
13816 \endgroup
13817 }

13818 \def\Hy@FormObjects{%
13819 \@pdfm@mark{obj @OBJpdfdocencoding%
13820 <<%
13821 /Type/Encoding%
13822 /Differences[
13823 24/breve/caron/circumflex/dotaccent/hungarumlaut/ogonek/ring/tilde %
13824 39/quotesingle %

```

13825 96/grave %
13826 128/bullet/dagger/daggerdbl/ellipsis/emdash/endash/florin%
13827 /fraction/guilsinglleft/guilsinglright/minus/perthousand%
13828 /quotedblbase/quotedblleft/quotedblright/quotefleft/quoteright%
13829 /quotesinglbase/trademark/fi/fl/Lslash/OE/Scaron/Ydieresis%
13830 /Zcaron/dotlessi/lslash/oe/scaron/zcaron %
13831 160/Euro %
13832 164/currency %
13833 166/brokenbar %
13834 168/dieresis/copyright/ordfeminine %
13835 172/logicalnot/.notdef/registered/macron/degree/plusminus%
13836 /twosuperior/threesuperior/acute/mu %
13837 183/periodcentered/cedilla/onesuperior/ordmasculine %
13838 188/onequarter/onehalf/threequarters %
13839 192/Agrave/Aacute/Acircumflex/Atilde/Adieresis/Aring/AE%
13840 /Ccedilla/Egrave/Eacute/Ecircumflex/Edieresis/Igrave/Iacute%
13841 /Icircumflex/Idieresis/Eth/Ntilde/Ograve/Oacute/Ocircumflex%
13842 /Otilde/Odieresis/multiply/Oslash/Ugrave/Uacute/Ucircumflex%
13843 /Udieresis/Yacute/Thorn/germandbls/agrave/aacute/acircumflex%
13844 /atilde/adieresis/aring/ae/ccedilla/egrave/eacute%
13845 /ecircumflex/edieresis/igrave/iacute/icircumflex/idieresis%
13846 /eth/ntilde/ograde/oacute/ocircumflex/otilde/odieresis%
13847 /divide/oslash/ugrave/uacute/ucircumflex/udieresis/yacute%
13848 /thorn/ydieresis%
13849]%
13850 >>%
13851 }%
13852 \@pdfm@mark{obj @OBJZaDb%
13853 <<%
13854 /Type/Font%
13855 /Subtype/Type1%
13856 /Name/ZaDb%
13857 /BaseFont/ZapfDingbats%
13858 >>%
13859 }%
13860 \@pdfm@mark{obj @OBJHelv%
13861 <<%
13862 /Type/Font%
13863 /Subtype/Type1%
13864 /Name/Helv%
13865 /BaseFont/Helvetica%
13866 /Encoding @OBJpdfdocencoding%
13867 >>%
13868 }%
13869 \global\let\Hy@FormObjects\relax
13870 }
13871 </dvipdfm | xetex>

44.6 Common forms part

13872 (*pdfform)

\Fld@pageobjref

13873 \providecommand*{\Fld@pageobjref}{}

\Hy@escapestring

```
13874 \@ifundefined{pdf@escapestring}
13875 {%
13876 \let\Hy@escapestring\@firstofone
13877 \def\Hy@escapeform#1{%
13878 \ifHy@pdfescapeform
13879 \def\Hy@escapestring##1{%
13880 \noexpand\Hy@escapestring{\noexpand##1}%
13881 }%
13882 \edef\Hy@temp{#1}%
13883 \expandafter\Hy@@@escapeform\Hy@temp\Hy@escapestring}\@nil
13884 \def\Hy@escapestring##1{%
13885 \@ifundefined{Hy@esc@\string##1}{%
13886 ##1%
13887 \ThisShouldNotHappen
13888 }{%
13889 \csname Hy@esc@\string##1\endcsname
13890 }%
13891 }%
13892 \else
13893 \let\Hy@escapestring\@firstofone
13894 \fi
13895 }%
13896 \def\Hy@@@escapeform#1\Hy@escapestring#2#3\@nil{%
13897 \ifx\#3\%
13898 \else
13899 \expandafter
13900 \Hy@pstringdef\csname Hy@esc@\string#2\endcsname{#2}%
13901 \ltx@ReturnAfterFi{%
13902 \Hy@@@escapeform#3\@nil
13903 }%
13904 \fi
13905 }%
13906 }{%
13907 \def\Hy@escapeform#1{%
13908 \ifHy@pdfescapeform
13909 \let\Hy@escapestring\pdfescapestring
13910 \else
13911 \let\Hy@escapestring\@firstofone
13912 \fi
13913 }%
13914 \Hy@escapeform{}}%
13915 }
```

\PDFForm@Name

```
13916 \def\PDFForm@Name{%
13917 \PDFForm@@Name\Fld@name
13918 \ifx\Fld@altname\relax
13919 \else
13920 \PDFForm@@Name\Fld@altname
13921 \fi
13922 \ifx\Fld@mappingname\relax
13923 \else
13924 \PDFForm@@Name\Fld@mappingname
```

```
13925 \fi
13926 }
```

\PDFForm@@Name

```
13927 \def\PDFForm@@Name#1{%
13928 \begingroup
13929 \ifnum\Hy@pdf@major@minor@version<105 % implementation note 117, PDF spec 1.7
13930 \ifHy@unicode
13931 \Hy@unicodedefalse
13932 \fi
13933 \fi
13934 \pdfstringdef\Hy@gtemp#1%
13935 \endgroup
13936 \let#1\Hy@gtemp
13937 }
```

\Fld@additionalactions

```
13938 \def\Fld@@additionalactions{%
K input (keystroke) format
13939 \ifx\Fld@keystroke@code\@empty
13940 \else
13941 /K<</S/JavaScript/JS(\Hy@escapestring{\Fld@keystroke@code})>>%
13942 \fi
F display format
13943 \ifx\Fld@format@code\@empty
13944 \else
13945 /F<</S/JavaScript/JS(\Hy@escapestring{\Fld@format@code})>>%
13946 \fi
V validation
13947 \ifx\Fld@validate@code\@empty
13948 \else
13949 /V<</S/JavaScript/JS(\Hy@escapestring{\Fld@validate@code})>>%
13950 \fi
C calculation
13951 \ifx\Fld@calculate@code\@empty
13952 \else
13953 /C<</S/JavaScript/JS(\Hy@escapestring{\Fld@calculate@code})>>%
13954 \fi
Fo receiving the input focus
13955 \ifx\Fld@onfocus@code\@empty
13956 \else
13957 /Fo<</S/JavaScript/JS(\Hy@escapestring{\Fld@onfocus@code})>>%
13958 \fi
Bl losing the input focus (blurred)
13959 \ifx\Fld@onblur@code\@empty
13960 \else
13961 /Bl<</S/JavaScript/JS(\Hy@escapestring{\Fld@onblur@code})>>%
13962 \fi
```

```

D pressing the mouse button (down)
13963 \ifx\Fld@onmousedown@code\@empty
13964 \else
13965 /D<</S/JavaScript/JS(\Hy@escapestring{\Fld@onmousedown@code})>>%
13966 \fi

U releasing the mouse button (up)
13967 \ifx\Fld@onmouseup@code\@empty
13968 \else
13969 /U<</S/JavaScript/JS(\Hy@escapestring{\Fld@onmouseup@code})>>%
13970 \fi

E cursor enters the annotation's active area.
13971 \ifx\Fld@onenter@code\@empty
13972 \else
13973 /E<</S/JavaScript/JS(\Hy@escapestring{\Fld@onenter@code})>>%
13974 \fi

X cursor exits the annotation's active area.
13975 \ifx\Fld@onexit@code\@empty
13976 \else
13977 /X<</S/JavaScript/JS(\Hy@escapestring{\Fld@onexit@code})>>%
13978 \fi
13979 }
13980 \def\Fld@additionalactions{%
13981 \if-\Fld@@@additionalactions-%
13982 \else
13983 \ifHy@pdfa
13984 \else
13985 /AA<<\Fld@@@additionalactions>>%
13986 \fi
13987 \fi
13988 }

\Fld@annotnames
13989 \def\Fld@annotnames{%
13990 /T(\Fld@name)%
13991 \ifx\Fld@altname\relax
13992 \else
13993 /TU(\Fld@altname)%
13994 \fi
13995 \ifx\Fld@mappingname\relax
13996 \else
13997 /TM(\Fld@mappingname)%
13998 \fi
13999 }

\PDFForm@Check
14000 \def\PDFForm@Check{%
14001 /Subtype/Widget%
14002 \Fld@annotflags
14003 \Fld@pageobjref
14004 \Fld@annotnames
14005 /FT/Btn%
14006 \Fld@flags

```

```

14007 /Q \Fld@align
14008 /BS<</W \Fld@borderwidth /S/\Fld@borderstyle>>%
14009 /AP<< /N <</Yes<<>>>> >> %new string /Yes is from below
14010 /MK<<%
14011 \ifnum\Fld@rotation=\z@
14012 \else
14013 /R \Fld@rotation
14014 \fi
14015 \ifx\Fld@bordercolor\relax
14016 \else
14017 /BC[\Fld@bordercolor]%
14018 \fi
14019 \ifx\Fld@bcolor\relax
14020 \else
14021 /BG[\Fld@bcolor]%
14022 \fi
14023 /CA(\Hy@escapestring{\Fld@cbsymbol})%
14024 >>%
14025 /DA(/ZaDb \strip@pt\Fld@charsize\space Tf%
14026 \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
14027 /H/P%
14028 \ifFld@checked /V/Yes/AS/Yes\else /V/Off/AS/Off\fi
14029 \Fld@additionalactions
14030 }

```

\PDFForm@Push

```

14031 \ifHy@pdfa
14032 \else
14033 \def\PDFForm@Push{%
14034 /Subtype/Widget%
14035 \Fld@annotflags
14036 \Fld@pageobjref
14037 \Fld@annotnames
14038 /FT/Btn%
14039 \Fld@flags
14040 /H/P%
14041 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14042 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14043 \ifx\Fld@bordercolor\relax\else 1\fi
14044 \space
14045 \else
14046 /MK<<%
14047 \ifnum\Fld@rotation=\z@
14048 \else
14049 /R \Fld@rotation
14050 \fi
14051 \ifx\Fld@bordercolor\relax
14052 \else
14053 /BC[\Fld@bordercolor]%
14054 \fi
14055 >>%
14056 \fi
14057 /A<</S/JavaScript/JS(\Hy@escapestring{\Fld@onclick@code})>>%
14058 \Fld@additionalactions

```

14059 }%
14060 \fi

\PDFForm@List

```
14061 \def\PDFForm@List{%  
14062 /Subtype/Widget%  
14063 \Fld@annotflags  
14064 \Fld@pageobjref  
14065 \Fld@annotnames  
14066 /FT/Ch%  
14067 \Fld@flags  
14068 /Q \Fld@align  
14069 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%  
14070 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi  
14071     \ifx\Fld@bordercolor\relax\else 1\fi  
14072     \ifx\Fld@bcolor\relax \else 1\fi  
14073     \space  
14074 \else  
14075 /MK<<%  
14076     \ifnum\Fld@rotation=\z@  
14077     \else  
14078     /R \Fld@rotation  
14079     \fi  
14080     \ifx\Fld@bordercolor\relax  
14081     \else  
14082     /BC[\Fld@bordercolor]%  
14083     \fi  
14084     \ifx\Fld@bcolor\relax  
14085     \else  
14086     /BG[\Fld@bcolor]%  
14087     \fi  
14088     >>%  
14089 \fi  
14090 /DA(/Helv \strip@pt\Fld@charsize\space Tf%  
14091     \ifx\Fld@color\@empty\else\space\Fld@color\fi)%  
14092 \Fld@choices  
14093 \Fld@additionalactions  
14094 }
```

\PDFForm@Radio

```
14095 \def\PDFForm@Radio{%  
14096 /Subtype/Widget%  
14097 \Fld@annotflags  
14098 \Fld@pageobjref  
14099 \Fld@annotnames  
14100 /FT/Btn%  
14101 \Fld@flags  
14102 /H/P%  
14103 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%  
14104 /MK<<%  
14105     \ifnum\Fld@rotation=\z@  
14106     \else  
14107     /R \Fld@rotation  
14108     \fi
```



```

14109 \ifx\Fld@bordercolor\relax
14110 \else
14111 /BC[\Fld@bordercolor]%
14112 \fi
14113 \ifx\Fld@bcolor\relax
14114 \else
14115 /BG[\Fld@bcolor]%
14116 \fi
14117 /CA(\Hy@escapestring{\Fld@radiosymbol})%
14118 >>%
14119 /DA(/ZaDb \strip@pt\Fld@charsize\space Tf%
14120 \ifx\Fld@color\@empty\else\space\Fld@color\fi)%

```

New code, the default value is used for all buttons

```

14121 \ifx\Fld@default\@empty
14122 /V/Off%
14123 /DV/Off%
14124 \else
14125 /V/\Fld@default
14126 /DV/\Fld@default
14127 \fi
14128 \Fld@additionalactions
14129 }

```

\PDFForm@Text

```

14130 \def\PDFForm@Text{%
14131 /Subtype/Widget%
14132 \Fld@annotflags
14133 \Fld@pageobjref
14134 \Fld@annotnames
14135 /FT/Tx%
14136 \Fld@flags
14137 /Q \Fld@align
14138 /BS<</W \Fld@borderwidth\space /S /\Fld@borderstyle>>%
14139 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14140 \ifx\Fld@bordercolor\relax\else 1\fi
14141 \ifx\Fld@bcolor\relax \else 1\fi
14142 \space
14143 \else
14144 /MK<<%
14145 \ifnum\Fld@rotation=\z@
14146 \else
14147 /R \Fld@rotation
14148 \fi
14149 \ifx\Fld@bordercolor\relax
14150 \else
14151 /BC[\Fld@bordercolor]%
14152 \fi
14153 \ifx\Fld@bcolor\relax
14154 \else
14155 /BG[\Fld@bcolor]%
14156 \fi
14157 >>%
14158 \fi

```

```

14159 /DA(/Helv \strip@pt\Fld@charsize\space Tf%
14160 \ifx\Fld@color\@empty\else\space\Fld@color\fi)%
14161 /DV(\Hy@escapestring{\Fld@default})%
14162 /V(\Hy@escapestring{\Fld@value})%
14163 \Fld@additionalactions
14164 \ifnum\Fld@maxlen>\z@/MaxLen \Fld@maxlen \fi
14165 }

```

\PDFForm@Submit

```

14166 \def\PDFForm@Submit{%
14167 /Subtype/Widget%
14168 \Fld@annotflags
14169 \Fld@pageobjref
14170 \Fld@annotnames
14171 /FT/Btn%
14172 \Fld@flags
14173 /H/P%
14174 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14175 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14176 \ifx\Fld@bordercolor\relax\else 1\fi
14177 \space
14178 \else
14179 /MK<<%
14180 \ifnum\Fld@rotation=\z@
14181 \else
14182 /R \Fld@rotation
14183 \fi
14184 \ifx\Fld@bordercolor\relax
14185 \else
14186 /BC[\Fld@bordercolor]%
14187 \fi
14188 >>%
14189 \fi
14190 /A<<%
14191 /S/SubmitForm%
14192 /F<<%
14193 /FS/URL%
14194 /F(\Hy@escapestring{\Form@action})%
14195 >>%
14196 \Fld@submitflags
14197 >>%
14198 \Fld@additionalactions
14199 }

```

\PDFForm@Reset

```

14200 \ifHy@pdfa
14201 \else
14202 \def\PDFForm@Reset{%
14203 /Subtype/Widget%
14204 \Fld@annotflags
14205 \Fld@pageobjref
14206 \Fld@annotnames
14207 /FT/Btn%
14208 \Fld@flags

```

```

14209 /H/P%
14210 /DA(/Helv \strip@pt\Fld@charsize\space Tf 0 0 1 rg)%
14211 \ifcase0\ifnum\Fld@rotation=\z@ \else 1\fi
14212 \ifx\Fld@bordercolor\relax\else 1\fi
14213 \space
14214 \else
14215 /MK<<%
14216 \ifnum\Fld@rotation=\z@
14217 \else
14218 /R \Fld@rotation
14219 \fi
14220 \ifx\Fld@bordercolor\relax
14221 \else
14222 /BC[\Fld@bordercolor]%
14223 \fi
14224 % /CA (Clear)
14225 % /AC (Done)
14226 >>%
14227 \fi
14228 /BS<</W \Fld@borderwidth/S/\Fld@borderstyle>>%
14229 /A<</S/ResetForm>>%
14230 \Fld@additionalactions
14231 }%
14232 \fi

14233 </pdfform>
14234 <*packageEnd>

```

45 Bookmarks in the PDF file

This was originally developed by Yannis Haralambous (it was the separate `reper.sty`); it needed the `reper` or `makebook.pl` post-processor to work properly. Now redundant, as it is done entirely in \LaTeX macros.

To write out the current section title, and its rationalized number, we have to intercept the `\@sect` command, which is rather dangerous. But how else to see the information we need? We do the *same* for `\@ssect`, giving anchors to unnumbered sections. This allows things like bibliographies to get bookmarks when used with a manual `\addcontentsline`

```

14235 \def\phantomsection{%
14236 \Hy@MakeCurrentHrefAuto{section*}%
14237 \Hy@raisedlink{\hyper@anchorstart{\@currentHref}\hyper@anchorend}%
14238 }
14239 </packageEnd>

```

45.1 Bookmarks

```
14240 <*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.

```

14241 \def\Hy@writebookmark#1#2#3#4#5{%
14242   % section number, text, label, level, file
14243   \ifx\WriteBookmarks\relax%
14244   \else
14245     \ifnum#4>\Hy@bookmarksdepth\relax
14246     \else
14247       \@writetorep{#1}{#2}{#3}{#4}{#5}%
14248     \fi
14249   \fi
14250 }
14251 \def\Hy@currentbookmarklevel{0}
14252 \def\Hy@numberline#1{#1 }
14253 \def\@@writetorep#1#2#3#4#5{%
14254   \begingroup
14255     \edef\Hy@tempa{#5}%
14256     \ifx\Hy@tempa\Hy@bookmarkstype
14257       \edef\Hy@level{#4}%
14258       \ifx\Hy@levelcheck Y%
14259         \@tempcnta\Hy@level\relax
14260         \advance\@tempcnta by -1 %
14261         \ifnum\Hy@currentbookmarklevel<\@tempcnta
14262           \advance\@tempcnta by -\Hy@currentbookmarklevel\relax
14263           \advance\@tempcnta by 1 %
14264           \Hy@Warning{%
14265             Difference (\the\@tempcnta) between bookmark levels is %
14266             greater \MessageBreak than one, level fixed%
14267           }%
14268           \@tempcnta\Hy@currentbookmarklevel
14269           \advance\@tempcnta by 1 %
14270           \edef\Hy@level{\the\@tempcnta}%
14271         \fi
14272       \else
14273         \global\let\Hy@levelcheck Y%
14274       \fi
14275       \global\let\Hy@currentbookmarklevel\Hy@level
14276       \@tempcnta\Hy@level\relax
14277       \expandafter\xdef\csname Parent\Hy@level\endcsname{#3}%
14278       \advance\@tempcnta by -1 %
14279       \edef\Hy@tempa{#3}%
14280       \edef\Hy@tempb{\csname Parent\the\@tempcnta\endcsname}%
14281       \ifx\Hy@tempa\Hy@tempb

```

```

14282     \Hy@Warning{%
14283         The anchor of a bookmark and its parent's must not%
14284         \MessageBreak be the same. Added a new anchor%
14285     }%
14286     \phantomsection
14287 \fi
14288 \ifHy@bookmarksnumbered
14289     \let\numberline\Hy@numberline
14290     \let\booknumberline\Hy@numberline
14291     \let\partnumberline\Hy@numberline
14292     \let\chapternumberline\Hy@numberline
14293 \else
14294     \let\numberline\@gobble
14295     \let\booknumberline\@gobble
14296     \let\partnumberline\@gobble
14297     \let\chapternumberline\@gobble
14298 \fi
14299 \pdfstringdef\Hy@tempa{#2}%
14300 \HyPsd@SanitizeForOutFile\Hy@tempa
14301 \if@filesw
14302     \stepcounter{bookmark@seq@number}%
14303     \@ifundefined{@outlinefile}{%
14304     }{%
14305         \protected@write\@outlinefile}{%
14306         \protect\BOOKMARK
14307         [\Hy@level][\@bookmarkopenstatus{\Hy@level}]{#3}%
14308         {\Hy@tempa}{\Hy@tempb}%
14309         \@percentchar\space\thebookmark@seq@number
14310     }%
14311     }%
14312 \fi
14313 \fi
14314 \endgroup
14315 }
14316 \newcounter{bookmark@seq@number}

14317 \begingroup
14318 \lccode` (= ` { %
14319 \lccode` ) = ` } %
14320 \lccode` 1 = \z@
14321 \lccode` 2 = \z@
14322 \lccode` 3 = \z@
14323 \lccode` 5 = \z@
14324 \lccode` 7 = \z@
14325 \lccode` \# = \z@
14326 \lccode` \ ` = \z@
14327 \lccode` \ { = \z@
14328 \lccode` \ } = \z@
14329 \lowercase{%
14330 \endgroup
14331 \def\HyPsd@SanitizeForOutFile#1{%
14332     \@onelevel@sanitize\Hy@tempa
14333     \escapechar` \ %
14334     \edef\Hy@tempa{%
14335         \expandafter\HyPsd@SanitizeOut@BraceLeft\Hy@tempa(\@nil

```

```

14336 }%
14337 \edef\Hy@tempa{%
14338   \expandafter\HyPsd@SanitizeOut@BraceRight\Hy@tempa)\@nil
14339 }%
14340 }%
14341 \def\HyPsd@SanitizeOut@BraceLeft#1(#2\@nil{%
14342   #1%
14343   \ifx\#2\%
14344     \expandafter\ltx@gobble
14345   \else
14346     \expandafter\ltx@firstofone
14347   \fi
14348   {%
14349     \string\173%
14350     \HyPsd@SanitizeOut@BraceLeft#2\@nil
14351   }%
14352 }%
14353 \def\HyPsd@SanitizeOut@BraceRight#1)#2\@nil{%
14354   #1%
14355   \ifx\#2\%
14356     \expandafter\ltx@gobble
14357   \else
14358     \expandafter\ltx@firstofone
14359   \fi
14360   {%
14361     \string\175%
14362     \HyPsd@SanitizeOut@BraceRight#2\@nil
14363   }%
14364 }%
14365 }

```

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

```

14366 \newcommand{\currentpdfbookmark}{%
14367   \pdfbookmark[\Hy@currentbookmarklevel]%
14368 }
14369 \newcommand{\subpdfbookmark}{%
14370   \@tempcnta\Hy@currentbookmarklevel
14371   \Hy@StepCount\@tempcnta
14372   \expandafter\pdfbookmark\expandafter[\the\@tempcnta]%
14373 }
14374 \newcommand{\belowpdfbookmark}[2]{%
14375   \@tempcnta\Hy@currentbookmarklevel
14376   \Hy@StepCount\@tempcnta
14377   \expandafter\pdfbookmark\expandafter[\the\@tempcnta]{#1}{#2}%
14378   \advance\@tempcnta by -1 %
14379   \xdef\Hy@currentbookmarklevel{\the\@tempcnta}%
14380 }

```

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.

```

14381 \renewcommand\pdfbookmark[3][0]{%
14382   \Hy@writebookmark}{#2}{#3.#1}{#1}{toc}%

```

```

14383 \hyper@anchorstart{#3.#1}\hyper@anchorend
14384 }
14385 \def\BOOKMARK{%
14386 \@ifnextchar{\@BOOKMARK}{\@BOOKMARK[1][-]}%
14387 }
14388 \def\@BOOKMARK[#1]{%
14389 \@ifnextchar{\@@BOOKMARK[#1]}{\@BOOKMARK[#1][-]}%
14390 }

```

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

45.1.1 Rerun warning

`\Hy@OutlineRerunCheck`

```

14391 \RequirePackage{rerunfilecheck}[2009/12/10]
14392 \def\Hy@OutlineRerunCheck{%
14393 \RerunFileCheck{\jobname.out}{%
14394 \immediate\closeout\@outlinefile
14395 }{%
14396 Rerun to get outlines right\MessageBreak
14397 or use package `bookmark'%
14398 }%
14399 }

```

45.1.2 Driver stuff

The VTEX section was written originally by VTEX, but then amended by Denis Girou (denis.girou@idris.fr), then by by Taco Hoekwater (taco.hoekwater@wkap.nl). The problem is that VTEX, with its close integration of the PDF backend, does look at the contents of bookmarks, escaping `\` and the like.

```

14400 (*vtex)
14401 \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.

```

14402 \begingroup
14403 \catcode`\'=12 %
14404 \ifnum\Hy@VTeXversion<650 %
14405 \catcode`\ "=12 %
14406 \gdef\hv@pdf@char#1#2#3{%
14407 \char
14408 \ifcase'#1#2#3 %
14409 "00\or"01\or"02\or"03\or"04\or"05\or"06\or"07%
14410 \or"08\or"09\or"0A\or"0B\or"0C\or"0D\or"0E\or"0F%
14411 \or"10\or"11\or"12\or"13\or"14\or"15\or"16\or"17%
14412 \or"18\or"19\or"1A\or"1B\or"1C\or"1D\or"1E\or"1F%
14413 \or"20\or"21\or"22\or"23\or"24\or"25\or"26\or"27%
14414 \or"28\or"29\or"2A\or"2B\or"2C\or"2D\or"2E\or"2F%
14415 \or"30\or"31\or"32\or"33\or"34\or"35\or"36\or"37%
14416 \or"38\or"39\or"3A\or"3B\or"3C\or"3D\or"3E\or"3F%
14417 \or"40\or"41\or"42\or"43\or"44\or"45\or"46\or"47%
14418 \or"48\or"49\or"4A\or"4B\or"4C\or"4D\or"4E\or"4F%

```

```

14419 \or"50\or"51\or"52\or"53\or"54\or"55\or"56\or"57%
14420 \or"58\or"59\or"5A\or"5B\or"5C\or"5D\or"5E\or"5F%
14421 \or"60\or"61\or"62\or"63\or"64\or"65\or"66\or"67%
14422 \or"68\or"69\or"6A\or"6B\or"6C\or"6D\or"6E\or"6F%
14423 \or"70\or"71\or"72\or"73\or"74\or"75\or"76\or"77%
14424 \or"78\or"79\or"7A\or"7B\or"7C\or"7D\or"7E\or"7F%
14425 \or"80\or"81\or"82\or"83\or"84\or"85\or"86\or"87%
14426 \or"88\or"89\or"8A\or"8B\or"8C\or"8D\or"8E\or"8F%
14427 \or"90\or"91\or"92\or"93\or"94\or"95\or"96\or"97%
14428 \or"98\or"99\or"9A\or"9B\or"9C\or"9D\or"9E\or"9F%
14429 \or"A0\or"A1\or"A2\or"A3\or"A4\or"A5\or"A6\or"A7%
14430 \or"A8\or"A9\or"AA\or"AB\or"AC\or"AD\or"AE\or"AF%
14431 \or"B0\or"B1\or"B2\or"B3\or"B4\or"B5\or"B6\or"B7%
14432 \or"B8\or"B9\or"BA\or"BB\or"BC\or"BD\or"BE\or"BF%
14433 \or"C0\or"C1\or"C2\or"C3\or"C4\or"C5\or"C6\or"C7%
14434 \or"C8\or"C9\or"CA\or"CB\or"CC\or"CD\or"CE\or"CF%
14435 \or"D0\or"D1\or"D2\or"D3\or"D4\or"D5\or"D6\or"D7%
14436 \or"D8\or"D9\or"DA\or"DB\or"DC\or"DD\or"DE\or"DF%
14437 \or"E0\or"E1\or"E2\or"E3\or"E4\or"E5\or"E6\or"E7%
14438 \or"E8\or"E9\or"EA\or"EB\or"EC\or"ED\or"EE\or"EF%
14439 \or"F0\or"F1\or"F2\or"F3\or"F4\or"F5\or"F6\or"F7%
14440 \or"F8\or"F9\or"FA\or"FB\or"FC\or"FD\or"FE\or"FF%
14441 \fi
14442 }%
14443 \else
14444 \gdef\hv@pdf@char{\char'}%
14445 \fi
14446 \endgroup

```

\@@BOOKMARK

```

14447 \def\@@BOOKMARK[#1][#2]#3#4#5{%
14448 \expandafter\edef\csname @count@#3\endcsname{%
14449 \the\@serial@counter
14450 }%
14451 \edef\@mycount{\the\@serial@counter}%
14452 \Hy@StepCount\@serial@counter
14453 \edef\@parcount{%
14454 \expandafter\ifx\csname @count@#5\endcsname\relax
14455 0%
14456 \else
14457 \csname @count@#5\endcsname
14458 \fi
14459 }%
14460 \immediate\special{%
14461 !outline \HyperDestNameFilter{#3};p=\@parcount,i=\@mycount,%
14462 s=\ifx#2-c\else o\fi,t=#4%
14463 }%
14464 }%

```

\ReadBookmarks

```

14465 \def\ReadBookmarks{%
14466 \begingroup
14467 \def\0{\hv@pdf@char 0}%
14468 \def\1{\hv@pdf@char 1}%

```



```

14469 \def\2{\hv@pdf@char 2}%
14470 \def\3{\hv@pdf@char 3}%
14471 \def\{(){}%
14472 \def\}{}%
14473 \def\do###1{%
14474 \ifnum\catcode`###1=\active
14475 \@makeother###1%
14476 \else
14477 \ifnum\catcode`###1=6 %
14478 \@makeother###1%
14479 \fi
14480 \fi
14481 }%
14482 \dospecials
14483 \Hy@safe@activetrue
14484 \InputIfFileExists{\jobname.out}{-}{-}%
14485 \endgroup
14486 \ifx\WriteBookmarks\relax
14487 \else
14488 \if@filesw
14489 \newwrite\@outlinefile
14490 \Hy@OutlineRerunCheck
14491 \immediate\openout\@outlinefile=\jobname.out\relax
14492 \fi
14493 \fi
14494 }

14495 </vtex>

14496 <*\vtex>
14497 \def\ReadBookmarks{%
14498 \pdf@ifdraftmode{-}{-}%
14499 \begingroup
14500 \def\do###1{%
14501 \ifnum\catcode`###1=\active
14502 \@makeother###1%
14503 \else
14504 \ifnum\catcode`###1=6 %
14505 \@makeother###1%
14506 \fi
14507 \fi
14508 }%
14509 \dospecials
14510 \Hy@safe@activetrue
14511 \escapechar=`\%
14512 \def\@@BOOKMARK[##1][##2]##3##4##5{%
14513 \calc@bm@number{##5}%
14514 }%
14515 \InputIfFileExists{\jobname.out}{-}{-}%
14516 \ifx\WriteBookmarks\relax
14517 \global\let\WriteBookmarks\relax
14518 \fi
14519 \def\@@BOOKMARK[##1][##2]##3##4##5{%
14520 \def\Hy@temp{##4}%
14521 <*\pdfTeX>

```

```

14522 \Hy@pstringdef\Hy@pstringName{\HyperDestNameFilter{###3}}%
14523 \Hy@OutlineName{}\Hy@pstringName{%
14524   ##2\check@bm@number{###3}%
14525 }{%
14526   \expandafter\strip@prefix\meaning\Hy@temp
14527 }%
14528 </pdftex>
14529 (*pdfmark)
14530 \pdfmark{%
14531   pdfmark=/OUT,%
14532   Count={##2\check@bm@number{###3}},%
14533   Dest={###3},%
14534   Title=\expandafter\strip@prefix\meaning\Hy@temp
14535 }%
14536 </pdfmark>
14537 (*dvi pdfm | xetex)
14538 \Hy@pstringdef\Hy@pstringName{\HyperDestNameFilter{###3}}%
14539 \@pdfm@mark{%
14540   outline \ifHy@DvipdfmxOutlineOpen
14541     [%
14542     \ifnum##21>\z@
14543     \else
14544     -%
14545     \fi
14546     ] %
14547     \fi
14548     ##1<<%
14549     /Title(\expandafter\strip@prefix\meaning\Hy@temp)%
14550     /A<<%
14551     /S/GoTo%
14552     /D(\Hy@pstringName)%
14553     >>%
14554     >>%
14555     }%
14556 </dvi pdfm | xetex>
14557 }%
14558 \begingroup
14559 \def\WriteBookmarks{0}%
14560 \InputIfFileExists{\jobname.out}{-}{-}%
14561 \endgroup
14562 %{\escapechar\m@ne\InputIfFileExists{\jobname.out}{-}{-}}%
14563 \endgroup
14564 }%
14565 \ifx\WriteBookmarks\relax
14566 \else
14567 \if@filesw
14568 \newwrite\@outlinefile
14569 \Hy@OutlineRerunCheck
14570 \immediate\openout\@outlinefile=\jobname.out\relax
14571 \fi
14572 \fi
14573 }
14574 (*pdftex)
14575 \def\Hy@OutlineName#1#2#3#4{%

```

```

14576 \pdfoutline goto name{#2}count#3{#4}%
14577 }
14578 </pdfTeX>
14579 \def\check@bm@number#1{%
14580 \expandafter\ifx\csname B_#1\endcsname\relax
14581 0%
14582 \else
14583 \csname B_#1\endcsname
14584 \fi
14585 }
14586 \def\calc@bm@number#1{%
14587 \@tempcnta=\check@bm@number{#1}\relax
14588 \advance\@tempcnta by 1 %
14589 \expandafter\xdef\csname B_#1\endcsname{\the\@tempcnta}%
14590 }
14591 </!vTeX>

14592 \ifHy@implicit
14593 \else
14594 \expandafter\endinput
14595 \fi

14596 </outlines>
14597 (*outlines | hypertex)

14598 \newlength\Hy@SectionHShift
14599 \def\Hy@SectionAnchorHref#1{%
14600 \ifx\protect\@typeset@protect
14601 \Hy@@@SectionAnchor{#1}%
14602 \fi
14603 }
14604 \DeclareRobustCommand*{\Hy@@@SectionAnchor}[1]{%
14605 \leavevmode
14606 \hbox to 0pt{%
14607 \kern-\Hy@SectionHShift
14608 \Hy@raisedlink{%
14609 \hyper@anchorstart{#1}\hyper@anchorend
14610 }%
14611 \hss
14612 }%
14613 }
14614 \@ifundefined{hyper@nopatch@sectioning}
14615 {
14616 \let\H@old@ssect\@ssect
14617 \def\@ssect#1#2#3#4#5{%
14618 \Hy@MakeCurrentHrefAuto{section*}%
14619 \setlength{\Hy@SectionHShift}{#1}%
14620 \begingroup
14621 \toks@{\H@old@ssect{#1}{#2}{#3}{#4}}%
14622 \toks\tw@\expandafter{%
14623 \expandafter\Hy@SectionAnchorHref\expandafter{\@currentHref}%
14624 #5%
14625 }%
14626 \edef\x{\endgroup
14627 \the\toks@{\the\toks\tw@}}%
14628 }\x

```

```

14629 }
14630 \let\H@old@chapter\@chapter
14631 \def\@chapter#1{%
14632   \begingroup
14633   \let\@mkboth\@gobbletwo
14634   \Hy@MakeCurrentHrefAuto{\Hy@chapapp*}%
14635   \Hy@raisedlink{%
14636     \hyper@anchorstart{\@currentHref}\hyper@anchorend
14637   }%
14638   \endgroup
14639   \H@old@chapter{#1}%
14640 }

```

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:

```

14641 \ltx@ifundefined{@chapter}{-}{%
14642   \let\Hy@org@chapter\@chapter
14643   \def\@chapter{%
14644     \def\Hy@next{%
14645       \Hy@MakeCurrentHrefAuto{\Hy@chapapp*}%
14646       \Hy@raisedlink{%
14647         \hyper@anchorstart{\@currentHref}\hyper@anchorend
14648       }%
14649     }%
14650     \ifnum\c@secnumdepth>\m@ne
14651       \ltx@ifundefined{if@mainmatter}%
14652       \iftrue{\csname if@mainmatter\endcsname}%
14653       \let\Hy@next\relax
14654     \fi
14655     \fi
14656     \Hy@next
14657     \Hy@org@chapter
14658   }%
14659 }

14660 \let\H@old@part\@part
14661 \@ifundefined{chapter}
14662   {\let\Hy@secnum@part\z@}
14663   {\let\Hy@secnum@part\m@ne}
14664 \def\@part{%
14665   \ifnum\Hy@secnum@part>\c@secnumdepth
14666     \phantomsection
14667   \fi
14668   \H@old@part
14669 }

14670 \let\H@old@spart\@spart
14671 \def\@spart#1{%
14672   \Hy@MakeCurrentHrefAuto{part*}%
14673   \Hy@raisedlink{%
14674     \hyper@anchorstart{\@currentHref}\hyper@anchorend
14675   }%
14676   \H@old@spart{#1}%
14677 }

```

```

14678 \let\H@old@sect\@sect
14679 \def\@sect#1#2#3#4#5#6[#7]#8{%
14680   \ifnum #2>\c@secnumdepth
14681     \expandafter\@firstoftwo
14682   \else
14683     \expandafter\@secondoftwo
14684   \fi
14685   {%
14686     \Hy@MakeCurrentHrefAuto{section*}%
14687     \setlength{\Hy@SectionHShift}{#3}%
14688     \begingroup
14689       \toks@{\H@old@sect{#1}{#2}{#3}{#4}{#5}{#6}{#7}}%
14690       \toks\tw@\expandafter{%
14691         \expandafter\Hy@SectionAnchorHref\expandafter{\@currentHref}%
14692         #8%
14693       }%
14694       \edef\x{\endgroup
14695         \the\toks@\the\toks\tw@}%
14696       }\x
14697     }{%
14698       \H@old@sect{#1}{#2}{#3}{#4}{#5}{#6}{#7}{#8}%
14699     }%
14700   }
14701 }{}

14702 </outlines | hypertex>
14703 (*outlines)

14704 \expandafter\def\csname Parent-4\endcsname{}
14705 \expandafter\def\csname Parent-3\endcsname{}
14706 \expandafter\def\csname Parent-2\endcsname{}
14707 \expandafter\def\csname Parent-1\endcsname{}
14708 \expandafter\def\csname Parent0\endcsname{}
14709 \expandafter\def\csname Parent1\endcsname{}
14710 \expandafter\def\csname Parent2\endcsname{}
14711 \expandafter\def\csname Parent3\endcsname{}
14712 \expandafter\def\csname Parent4\endcsname{}
14713 </outlines>

```

46 Encoding definition files for encodings of PDF strings

This was contributed by Heiko Oberdiek.

46.1 PD1 encoding

```

14714 <*pd1enc>
14715 \DeclareFontEncoding{PD1}{}{}

Accents
14716 \DeclareTextAccent{\`}{PD1}{\textasciigrave}
14717 \DeclareTextAccent{\'}{PD1}{\textacute}
14718 \DeclareTextAccent{\^}{PD1}{\textasciicircum}
14719 \DeclareTextAccent{\~}{PD1}{\texttilde}

```

```

14720 \DeclareTextAccent{"}{PD1}{\textasciidieresis}
14721 \DeclareTextAccent{r}{PD1}{\texttring}
14722 \DeclareTextAccent{v}{PD1}{\textasciicaron}
14723 \DeclareTextAccent{.}{PD1}{\textdotaccent}
14724 \DeclareTextAccent{c}{PD1}{\textcedilla}
14725 \DeclareTextAccent{=} {PD1}{\textasciimacron}
14726 \DeclareTextAccent{b}{PD1}{\textmacronbelow}
14727 \DeclareTextAccent{d}{PD1}{\textdotbelow}
14728 \DeclareTextCompositeCommand{`}{PD1}{\@empty}{\textasciigrave}
14729 \DeclareTextCompositeCommand{'}{PD1}{\@empty}{\textacute}
14730 \DeclareTextCompositeCommand{~}{PD1}{\@empty}{\textasciicircum}
14731 \DeclareTextCompositeCommand{~}{PD1}{\@empty}{\texttilde}
14732 \DeclareTextCompositeCommand{"}{PD1}{\@empty}{\textasciidieresis}
14733 \DeclareTextCompositeCommand{r}{PD1}{\@empty}{\texttring}
14734 \DeclareTextCompositeCommand{v}{PD1}{\@empty}{\textasciicaron}
14735 \DeclareTextCompositeCommand{.}{PD1}{\@empty}{\textdotaccent}
14736 \DeclareTextCompositeCommand{c}{PD1}{\@empty}{\textcedilla}
14737 \DeclareTextCompositeCommand{=} {PD1}{\@empty}{\textasciimacron}
14738 \DeclareTextCompositeCommand{b}{PD1}{\@empty}{\textmacronbelow}
14739 \DeclareTextCompositeCommand{d}{PD1}{\@empty}{\textdotbelow}
14740 \DeclareTextCompositeCommand{`}{PD1}{\ }{\textasciigrave}
14741 \DeclareTextCompositeCommand{'}{PD1}{\ }{\textacute}
14742 \DeclareTextCompositeCommand{~}{PD1}{\ }{\textasciicircum}
14743 \DeclareTextCompositeCommand{~}{PD1}{\ }{\texttilde}
14744 \DeclareTextCompositeCommand{"}{PD1}{\ }{\textasciidieresis}
14745 \DeclareTextCompositeCommand{r}{PD1}{\ }{\texttring}
14746 \DeclareTextCompositeCommand{v}{PD1}{\ }{\textasciicaron}
14747 \DeclareTextCompositeCommand{.}{PD1}{\ }{\textdotaccent}
14748 \DeclareTextCompositeCommand{c}{PD1}{\ }{\textcedilla}
14749 \DeclareTextCompositeCommand{=} {PD1}{\ }{\textasciimacron}
14750 \DeclareTextCompositeCommand{b}{PD1}{\ }{\textmacronbelow}
14751 \DeclareTextCompositeCommand{d}{PD1}{\ }{\textdotbelow}
14752 \DeclareTextCommand{\k}{PD1}[1]{\TextSymbolUnavailable{\k{#1}}#1}
14753 \DeclareTextCommand{\t}{PD1}[1]{\TextSymbolUnavailable{\t{#1}}#1}
14754 \DeclareTextCommand{\newtie}{PD1}[1]{%
14755 \TextSymbolUnavailable{\newtie{#1}}#1%
14756 }

```

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

```

14757 % U+0009 (CHARACTER TABULATION)
14758 \DeclareTextCommand{\textHT}{PD1}{\011}% U+0009
14759 % U+000A (LINE FEED)
14760 \DeclareTextCommand{\textLF}{PD1}{\012}% U+000A
14761 % U+000D (CARRIAGE RETURN)
14762 \DeclareTextCommand{\textCR}{PD1}{\015}% U+000D

```

Accent glyph names

```

14763 % U+02D8 BREVE; breve
14764 \DeclareTextCommand{\textasciibreve}{PD1}{\030}% U+02D8
14765 % U+02C7 CARON; caron
14766 \DeclareTextCommand{\textasciicaron}{PD1}{\031}% U+02C7
14767 % U+02C6 MODIFIER LETTER CIRCUMFLEX ACCENT; circumflex
14768 \DeclareTextCommand{\textcircumflex}{PD1}{\032}% U+02C6
14769 % U+02D9 DOT ABOVE; dotaccent

```

14770 \DeclareTextCommand{\textdotaccent}{PD1}{\033}% U+02D9
14771 % U+02DD DOUBLE ACUTE ACCENT; hungarumlaut
14772 \DeclareTextCommand{\texthungarumlaut}{PD1}{\034}% U+02DD
14773 % U+02DB OGONEK; ogonek
14774 \DeclareTextCommand{\textogonek}{PD1}{\035}% U+02DB
14775 % U+02DA RING ABOVE; ring
14776 \DeclareTextCommand{\textring}{PD1}{\036}% U+02DA
14777 % U+02DC SMALL TILDE; ilde, *tilde
14778 \DeclareTextCommand{\texttilde}{PD1}{\037}% U+02DC

\040: U+0020 SPACE; *space, spacehackarabic
\041: U+0021 EXCLAMATION MARK; exclam
14779 % U+0022 QUOTATION MARK; quotedbl
14780 \DeclareTextCommand{\textquotedbl}{PD1}{"}% \042 U+0022
14781 % U+0023 NUMBER SIGN; numbersign
14782 \DeclareTextCommand{\textnumbersign}{PD1}{\043}% U+0023
14783 % U+0024 DOLLAR SIGN; dollar
14784 \DeclareTextCommand{\textdollar}{PD1}{\044}% U+0024
14785 % U+0025 PERCENT SIGN; percent
14786 \DeclareTextCommand{\textpercent}{PD1}{\045}% U+0025
14787 % U+0026 AMPERSAND; ampersand
14788 \DeclareTextCommand{\textampersand}{PD1}{\046}% U+0026

\047: U+0027 APOSTROPHE; quotesingle

14789 % U+0028 LEFT PARENTHESIS; parenleft
14790 \DeclareTextCommand{\textparenleft}{PD1}{\string\{}% \050 U+0028
14791 % U+0029 RIGHT PARENTHESIS; parenright
14792 \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
14793 % U+002E FULL STOP; period
14794 \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
14795 % U+003C LESS-THAN SIGN; less
14796 \DeclareTextCommand{\textless}{PD1}{<}% \074 U+003C

\075: U+003D EQUALS SIGN; equal
14797 % U+003E GREATER-THAN SIGN; greater
14798 \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

14799 % U+005C REVERSE SOLIDUS; backslash
14800 \DeclareTextCommand{\textbackslash}{PD1}{\134}% U+005C
14801 % "U+2216 SET MINUS" simulated by "U+005C REVERSE SOLIDUS"
14802 \DeclareTextCommand{\textsetminus}{PD1}{\textbackslash}
\135: U+005D RIGHT SQUARE BRACKET; bracketright
14803 % U+005E CIRCUMFLEX ACCENT; asciicircum
14804 \DeclareTextCommand{\textasciicircum}{PD1}{\136}% U+005E
14805 % U+005F LOW LINE; underscore
14806 \DeclareTextCommand{\textunderscore}{PD1}{\137}% U+005F
14807 \DeclareTextCommand{\textmacronbelow}{PD1}{\137}% U+005F
14808 % U+0060 GRAVE ACCENT; grave
14809 \DeclareTextCommand{\textasciigrave}{PD1}{\140}% U+0060
\141: U+0061 LATIN SMALL LETTER A; a
...
\150: U+0068 LATIN SMALL LETTER H; h
14810 % U+0069 LATIN SMALL LETTER I; i
14811 \DeclareTextCompositeCommand{\.}{PD1}{i}{i}% \151 U+0069
\152: U+006A LATIN SMALL LETTER J; j
...
\172: U+007A LATIN SMALL LETTER Z; z
14812 % U+007B LEFT CURLY BRACKET; braceleft
14813 \DeclareTextCommand{\textbraceleft}{PD1}{\173}% U+007B
14814 % U+007C VERTICAL LINE; *bar, verticalbar
14815 \DeclareTextCommand{\textbar}{PD1}{|}% U+007C
14816 % U+007D RIGHT CURLY BRACKET; braceright
14817 \DeclareTextCommand{\textbraceright}{PD1}{\175}% U+007D
14818 % U+007E TILDE; asciitilde
14819 \DeclareTextCommand{\textasciitilde}{PD1}{\176}% U+007E
Slot \177 (0x7F) is undefined in PDFDocEncoding.
14820 % U+2022 BULLET; bullet
14821 \DeclareTextCommand{\textbullet}{PD1}{\200}% U+2022
14822 % U+2020 DAGGER; dagger
14823 \DeclareTextCommand{\textdagger}{PD1}{\201}% U+2020
14824 % U+2021 DOUBLE DAGGER; daggerdbl; \ddagger (LaTeX)
14825 \DeclareTextCommand{\textdaggerdbl}{PD1}{\202}% U+2021
14826 \DeclareTextCommand{\textddagger}{PD1}{\textddagger}
14827 % U+2026 HORIZONTAL ELLIPSIS; ellipsis
14828 \DeclareTextCommand{\textellipsis}{PD1}{\203}% U+2026
14829 % U+2014 EM DASH; emdash
14830 \DeclareTextCommand{\textemdash}{PD1}{\204}% U+2014
14831 % U+2013 EN DASH; endash
14832 \DeclareTextCommand{\textendash}{PD1}{\205}% U+2013
14833 % U+0192 LATIN SMALL LETTER F WITH HOOK; florin
14834 \DeclareTextCommand{\textflorin}{PD1}{\206}% U+0192
14835 % U+2044 FRACTION SLASH; fraction
14836 \DeclareTextCommand{\textfractionsolidus}{PD1}{\207}% U+2044
14837 % U+2039 SINGLE LEFT-POINTING ANGLE QUOTATION MARK; guil-
ingleft
14838 \DeclareTextCommand{\guilsingleft}{PD1}{\210}% U+2039
14839 % U+203A SINGLE RIGHT-POINTING ANGLE QUOTATION MARK; guil-
ingright
14840 \DeclareTextCommand{\guilsingright}{PD1}{\211}% U+203A

14841 % U+2212 MINUS SIGN; minus
14842 \DeclareTextCommand{\textminus}{PD1}{\212}% U+2212
14843 % U+2030 PER MILLE SIGN; perthousand
14844 \DeclareTextCommand{\textperthousand}{PD1}{\213}% U+2030
14845 % U+201E DOUBLE LOW-9 QUOTATION MARK; quotedblbase
14846 \DeclareTextCommand{\quotedblbase}{PD1}{\214}% U+201E
14847 % U+201C LEFT DOUBLE QUOTATION MARK; quotedblleft
14848 \DeclareTextCommand{\textquotedblleft}{PD1}{\215}% U+201C
14849 % U+201D RIGHT DOUBLE QUOTATION MARK; quotedblright
14850 \DeclareTextCommand{\textquotedblright}{PD1}{\216}% U+201D
14851 % U+2018 LEFT SINGLE QUOTATION MARK; quoteleft
14852 \DeclareTextCommand{\textquoteleft}{PD1}{\217}% U+2018
14853 % U+2019 RIGHT SINGLE QUOTATION MARK; quoteright
14854 \DeclareTextCommand{\textquoteright}{PD1}{\220}% U+2019
14855 % U+201A SINGLE LOW-9 QUOTATION MARK; quotesinglbase
14856 \DeclareTextCommand{\quotesinglbase}{PD1}{\221}% U+201A
14857 % U+2122 TRADE MARK SIGN; trademark
14858 \DeclareTextCommand{\texttrademark}{PD1}{\222}% U+2122
14859 % U+FB01 LATIN SMALL LIGATURE FI; fi
14860 \DeclareTextCommand{\textfi}{PD1}{\223}% U+FB01
14861 % U+FB02 LATIN SMALL LIGATURE FL; fl
14862 \DeclareTextCommand{\textfl}{PD1}{\224}% U+FB02
14863 % U+0141 LATIN CAPITAL LETTER L WITH STROKE; Lslash
14864 \DeclareTextCommand{\L}{PD1}{\225}% U+0141
14865 % U+0152 LATIN CAPITAL LIGATURE OE; OE
14866 \DeclareTextCommand{\OE}{PD1}{\226}% U+0152
14867 % U+0160 LATIN CAPITAL LETTER S WITH CARON; Scaron
14868 \DeclareTextCompositeCommand{\v}{PD1}{S}{\227}% U+0160
14869 % U+0178 LATIN CAPITAL LETTER Y WITH DIAERESIS; Ydieresis
14870 \DeclareTextCompositeCommand{"}{PD1}{Y}{\230}% U+0178
14871 \DeclareTextCommand{\IJ}{PD1}{IJ}% ligature U+0049 U+004A
14872 % U+017D LATIN CAPITAL LETTER Z WITH CARON; Zcaron
14873 \DeclareTextCompositeCommand{\v}{PD1}{Z}{\231}% U+017D
14874 % U+0131 LATIN SMALL LETTER DOTLESS I; dotlessi
14875 \DeclareTextCommand{\i}{PD1}{\232}% U+0131
14876 % U+0142 LATIN SMALL LETTER L WITH STROKE; lslash
14877 \DeclareTextCommand{\l}{PD1}{\233}% U+0142
14878 % U+0153 LATIN SMALL LIGATURE OE; oe
14879 \DeclareTextCommand{\oe}{PD1}{\234}% U+0153
14880 % U+0161 LATIN SMALL LETTER S WITH CARON; scaron
14881 \DeclareTextCompositeCommand{\v}{PD1}{s}{\235}% U+0161
14882 % U+017E LATIN SMALL LETTER Z WITH CARON; zcaron
14883 \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.
14884 % U+20AC EURO SIGN; *Euro, euro
14885 \DeclareTextCommand{\texteuro}{PD1}{\240}% U+20AC
14886 % U+00A1 INVERTED EXCLAMATION MARK; exclamdown
14887 \DeclareTextCommand{\textexclamdown}{PD1}{\241}% U+00A1
14888 % U+00A2 CENT SIGN; cent
14889 \DeclareTextCommand{\textcent}{PD1}{\242}% U+00A2
14890 % U+00A3 POUND SIGN; sterling
14891 \DeclareTextCommand{\textsterling}{PD1}{\243}% U+00A3
14892 % U+00A4 CURRENCY SIGN; currency

14893 \DeclareTextCommand{\textcurrency}{PD1}{\244}% U+00A4
14894 % U+00A5 YEN SIGN; yen
14895 \DeclareTextCommand{\textyen}{PD1}{\245}% U+00A5
14896 % U+00A6 BROKEN BAR; brokenbar
14897 \DeclareTextCommand{\textbrokenbar}{PD1}{\246}% U+00A6
14898 % U+00A7 SECTION SIGN; section
14899 \DeclareTextCommand{\textsection}{PD1}{\247}% U+00A7
14900 % U+00A8 DIAERESIS; dieresis
14901 \DeclareTextCommand{\textasciidieresis}{PD1}{\250}% U+00A8
14902 % U+00A9 COPYRIGHT SIGN; copyright
14903 \DeclareTextCommand{\textcopyright}{PD1}{\251}% U+00A9
14904 % U+00AA FEMININE ORDINAL INDICATOR; ordfeminine
14905 \DeclareTextCommand{\textordfeminine}{PD1}{\252}% U+00AA
14906 % U+00AB LEFT-POINTING DOUBLE ANGLE QUOTATION MARK; guillemetleft
14907 \DeclareTextCommand{\guillemotleft}{PD1}{\253}% U+00AB
14908 \DeclareTextCommand{\guillemetleft}{PD1}{\253}% U+00AB
14909 % U+00AC NOT SIGN; logicalnot
14910 \DeclareTextCommand{\textlogicalnot}{PD1}{\254}% U+00AC
14911 \DeclareTextCommand{\textlnot}{PD1}{\254}% logical not

No glyph \255 in PDFDocEncoding.
14912 % U+00AE REGISTERED SIGN; registered
14913 \DeclareTextCommand{\textregistered}{PD1}{\256}% U+00AE
14914 % U+00AF MACRON; *macron, overscore
14915 \DeclareTextCommand{\textasciimacron}{PD1}{\257}% U+00AF
14916 % U+00B0 DEGREE SIGN; degree
14917 \DeclareTextCommand{\textdegree}{PD1}{\260}% U+00B0
14918 % U+00B1 PLUS-MINUS SIGN; plusminus
14919 \DeclareTextCommand{\textplusminus}{PD1}{\261}% U+00B1
14920 % U+00B2 SUPERSCRIPT TWO; twosuperior
14921 \DeclareTextCommand{\texttwosuperior}{PD1}{\262}%* U+00B2
14922 % U+00B3 SUPERSCRIPT THREE; threesuperior
14923 \DeclareTextCommand{\textthreesuperior}{PD1}{\263}%* U+00B3
14924 % U+00B4 ACUTE ACCENT; acute
14925 \DeclareTextCommand{\textacute}{PD1}{\264}% U+00B4
14926 % U+00B5 MICRO SIGN; mu, mul
14927 \DeclareTextCommand{\textmu}{PD1}{\265}% U+00B5
14928 % U+00B6 PILCROW SIGN; paragraph
14929 \DeclareTextCommand{\textparagraph}{PD1}{\266}% U+00B6
14930 % U+00B7 MIDDLE DOT; middot, *periodcentered
14931 \DeclareTextCommand{\textperiodcentered}{PD1}{\267}% U+00B7
14932 % U+00B8 CEDILLA; cedilla
14933 \DeclareTextCommand{\textcedilla}{PD1}{\270}% U+00B8
14934 % U+00B9 SUPERSCRIPT ONE; onesuperior
14935 \DeclareTextCommand{\textonesuperior}{PD1}{\271}%* U+00B9
14936 % U+00BA MASCULINE ORDINAL INDICATOR; ordmasculine
14937 \DeclareTextCommand{\textordmasculine}{PD1}{\272}% U+00BA
14938 % U+00BB RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK; guillemetright
14939 \DeclareTextCommand{\guillemotright}{PD1}{\273}% U+00BB
14940 \DeclareTextCommand{\guillemetright}{PD1}{\273}% U+00BB
14941 % U+00BC VULGAR FRACTION ONE QUARTER; onequarter
14942 \DeclareTextCommand{\textonequarter}{PD1}{\274}% U+00BC
14943 % U+00BD VULGAR FRACTION ONE HALF; onehalf
14944 \DeclareTextCommand{\textonehalf}{PD1}{\275}% U+00BD
14945 % U+00BE VULGAR FRACTION THREE QUARTERS; threequarters

14946 \DeclareTextCommand{\textthreequarters}{PD1}{\276}% U+00BE
14947 % U+00BF INVERTED QUESTION MARK; questiondown
14948 \DeclareTextCommand{\textquestiondown}{PD1}{\277}% U+00BF
14949 % U+00C0 LATIN CAPITAL LETTER A WITH GRAVE; Agrave
14950 \DeclareTextCompositeCommand{\`}{PD1}{A}{\300}% U+00C0
14951 % U+00C1 LATIN CAPITAL LETTER A WITH ACUTE; Aacute
14952 \DeclareTextCompositeCommand{\'}{PD1}{A}{\301}% U+00C1
14953 % U+00C2 LATIN CAPITAL LETTER A WITH CIRCUMFLEX; Acircumflex
14954 \DeclareTextCompositeCommand{\^}{PD1}{A}{\302}% U+00C2
14955 % U+00C3 LATIN CAPITAL LETTER A WITH TILDE; Atilde
14956 \DeclareTextCompositeCommand{\~}{PD1}{A}{\303}% U+00C3
14957 % U+00C4 LATIN CAPITAL LETTER A WITH DIAERESIS; Adieresis
14958 \DeclareTextCompositeCommand{\"}{PD1}{A}{\304}% U+00C4
14959 % U+00C5 LATIN CAPITAL LETTER A WITH RING ABOVE; Aring
14960 \DeclareTextCompositeCommand{\r}{PD1}{A}{\305}% U+00C5
14961 % U+00C6 LATIN CAPITAL LETTER AE; AE
14962 \DeclareTextCommand{\AE}{PD1}{\306}% U+00C6
14963 % U+00C7 LATIN CAPITAL LETTER C WITH CEDILLA; Ccedilla
14964 \DeclareTextCompositeCommand{\c}{PD1}{C}{\307}% U+00C7
14965 % U+00C8 LATIN CAPITAL LETTER E WITH GRAVE; Egrave
14966 \DeclareTextCompositeCommand{\`}{PD1}{E}{\310}% U+00C8
14967 % U+00C9 LATIN CAPITAL LETTER E WITH ACUTE; Eacute
14968 \DeclareTextCompositeCommand{\'}{PD1}{E}{\311}% U+00C9
14969 % U+00CA LATIN CAPITAL LETTER E WITH CIRCUMFLEX; Ecircumflex
14970 \DeclareTextCompositeCommand{\^}{PD1}{E}{\312}% U+00CA
14971 % U+00CB LATIN CAPITAL LETTER E WITH DIAERESIS; Edieresis
14972 \DeclareTextCompositeCommand{\"}{PD1}{E}{\313}% U+00CB
14973 % U+00CC LATIN CAPITAL LETTER I WITH GRAVE; Igrave
14974 \DeclareTextCompositeCommand{\`}{PD1}{I}{\314}% U+00CC
14975 % U+00CD LATIN CAPITAL LETTER I WITH ACUTE; Iacute
14976 \DeclareTextCompositeCommand{\'}{PD1}{I}{\315}% U+00CD
14977 % U+00CE LATIN CAPITAL LETTER I WITH CIRCUMFLEX; Icircumflex
14978 \DeclareTextCompositeCommand{\^}{PD1}{I}{\316}% U+00CE
14979 % U+00CF LATIN CAPITAL LETTER I WITH DIAERESIS; Idieresis
14980 \DeclareTextCompositeCommand{\"}{PD1}{I}{\317}% U+00CF
14981 % U+00D0 LATIN CAPITAL LETTER ETH; Eth
14982 \DeclareTextCommand{\DH}{PD1}{\320}% U+00D0
14983 \DeclareTextCommand{\DJ}{PD1}{\320}% U+00D0
14984 % U+00D1 LATIN CAPITAL LETTER N WITH TILDE; Ntilde
14985 \DeclareTextCompositeCommand{\~}{PD1}{N}{\321}% U+00D1
14986 % U+00D2 LATIN CAPITAL LETTER O WITH GRAVE; Ograve
14987 \DeclareTextCompositeCommand{\`}{PD1}{O}{\322}% U+00D2
14988 % U+00D3 LATIN CAPITAL LETTER O WITH ACUTE; Oacute
14989 \DeclareTextCompositeCommand{\'}{PD1}{O}{\323}% U+00D3
14990 % U+00D4 LATIN CAPITAL LETTER O WITH CIRCUMFLEX; Ocircumflex
14991 \DeclareTextCompositeCommand{\^}{PD1}{O}{\324}% U+00D4
14992 % U+00D5 LATIN CAPITAL LETTER O WITH TILDE; Otilde
14993 \DeclareTextCompositeCommand{\~}{PD1}{O}{\325}% U+00D5
14994 % U+00D6 LATIN CAPITAL LETTER O WITH DIAERESIS; Odieresis
14995 \DeclareTextCompositeCommand{\"}{PD1}{O}{\326}% U+00D6
14996 % U+00D7 MULTIPLICATION SIGN; multiply
14997 \DeclareTextCommand{\textmultiply}{PD1}{\327}% U+00D7
14998 % U+00D8 LATIN CAPITAL LETTER O WITH STROKE; Oslash
14999 \DeclareTextCommand{\O}{PD1}{\330}% U+00D8

15000 % U+00D9 LATIN CAPITAL LETTER U WITH GRAVE; Ugrave
15001 \DeclareTextCompositeCommand{\`}{PD1}{U}{\331}% U+00D9
15002 % U+00DA LATIN CAPITAL LETTER U WITH ACUTE; Uacute
15003 \DeclareTextCompositeCommand{\'}{PD1}{U}{\332}% U+00DA
15004 % U+00DB LATIN CAPITAL LETTER U WITH CIRCUMFLEX; Ucircumflex
15005 \DeclareTextCompositeCommand{\^}{PD1}{U}{\333}% U+00DB
15006 % U+00DC LATIN CAPITAL LETTER U WITH DIAERESIS; Udieresis
15007 \DeclareTextCompositeCommand{\"}{PD1}{U}{\334}% U+00DC
15008 % U+00DD LATIN CAPITAL LETTER Y WITH ACUTE; Yacute
15009 \DeclareTextCompositeCommand{\'}{PD1}{Y}{\335}% U+00DD
15010 % U+00DE LATIN CAPITAL LETTER THORN; Thorn; \TH, \Thorn (wasysym)
15011 \DeclareTextCommand{\TH}{PD1}{\336}% U+00DE
15012 \DeclareTextCommand{\textThorn}{PD1}{\336}%* U+00DE
15013 % U+00DF LATIN SMALL LETTER SHARP S; germandbls
15014 \DeclareTextCommand{\ss}{PD1}{\337}% U+00DF
15015 % U+00E0 LATIN SMALL LETTER A WITH GRAVE; agrave
15016 \DeclareTextCompositeCommand{\`}{PD1}{a}{\340}% U+00E0
15017 % U+00E1 LATIN SMALL LETTER A WITH ACUTE; aacute
15018 \DeclareTextCompositeCommand{\'}{PD1}{a}{\341}% U+00E1
15019 % U+00E2 LATIN SMALL LETTER A WITH CIRCUMFLEX; acircumflex
15020 \DeclareTextCompositeCommand{\^}{PD1}{a}{\342}% U+00E2
15021 % U+00E3 LATIN SMALL LETTER A WITH TILDE; atilde
15022 \DeclareTextCompositeCommand{\~}{PD1}{a}{\343}% U+00E3
15023 % U+00E4 LATIN SMALL LETTER A WITH DIAERESIS; adieresis
15024 \DeclareTextCompositeCommand{\"}{PD1}{a}{\344}% U+00E4
15025 % U+00E5 LATIN SMALL LETTER A WITH RING ABOVE; aring
15026 \DeclareTextCompositeCommand{\r}{PD1}{a}{\345}% U+00E5
15027 % U+00E6 LATIN SMALL LETTER AE; ae
15028 \DeclareTextCommand{\ae}{PD1}{\346}% U+00E6
15029 % U+00E7 LATIN SMALL LETTER C WITH CEDILLA; ccedilla
15030 \DeclareTextCompositeCommand{\c}{PD1}{c}{\347}% U+00E7
15031 % U+00E8 LATIN SMALL LETTER E WITH GRAVE; egrave
15032 \DeclareTextCompositeCommand{\`}{PD1}{e}{\350}% U+00E8
15033 % U+00E9 LATIN SMALL LETTER E WITH ACUTE; eacute
15034 \DeclareTextCompositeCommand{\'}{PD1}{e}{\351}% U+00E9
15035 % U+00EA LATIN SMALL LETTER E WITH CIRCUMFLEX; ecircumflex
15036 \DeclareTextCompositeCommand{\^}{PD1}{e}{\352}% U+00EA
15037 % U+00EB LATIN SMALL LETTER E WITH DIAERESIS; edieresis
15038 \DeclareTextCompositeCommand{\"}{PD1}{e}{\353}% U+00EB
15039 % U+00EC LATIN SMALL LETTER I WITH GRAVE; igrave
15040 \DeclareTextCompositeCommand{\`}{PD1}{i}{\354}% U+00EC
15041 \DeclareTextCompositeCommand{\'}{PD1}{i}{\354}% U+00EC
15042 % U+00ED LATIN SMALL LETTER I WITH ACUTE; iacute
15043 \DeclareTextCompositeCommand{\'}{PD1}{i}{\355}% U+00ED
15044 \DeclareTextCompositeCommand{\^}{PD1}{i}{\355}% U+00ED
15045 % U+00EE LATIN SMALL LETTER I WITH CIRCUMFLEX; icircumflex
15046 \DeclareTextCompositeCommand{\^}{PD1}{i}{\356}% U+00EE
15047 \DeclareTextCompositeCommand{\^}{PD1}{i}{\356}% U+00EE
15048 % U+00EF LATIN SMALL LETTER I WITH DIAERESIS; idieresis
15049 \DeclareTextCompositeCommand{\"}{PD1}{i}{\357}% U+00EF
15050 \DeclareTextCompositeCommand{\"}{PD1}{i}{\357}% U+00EF
15051 % U+00F0 LATIN SMALL LETTER ETH; eth
15052 \DeclareTextCommand{\dh}{PD1}{\360}% U+00F0
15053 % U+00F1 LATIN SMALL LETTER N WITH TILDE; ntilde

15054 \DeclareTextCompositeCommand{\~}{PD1}{n}{\361}% U+00F1
15055 % U+00F2 LATIN SMALL LETTER O WITH GRAVE; ograve
15056 \DeclareTextCompositeCommand{\`}{PD1}{o}{\362}% U+00F2
15057 % U+00F3 LATIN SMALL LETTER O WITH ACUTE; oacute
15058 \DeclareTextCompositeCommand{\'}{PD1}{o}{\363}% U+00F3
15059 % U+00F4 LATIN SMALL LETTER O WITH CIRCUMFLEX; ocircumflex
15060 \DeclareTextCompositeCommand{\^}{PD1}{o}{\364}% U+00F4
15061 % U+00F5 LATIN SMALL LETTER O WITH TILDE; otilde
15062 \DeclareTextCompositeCommand{\~}{PD1}{o}{\365}% U+00F5
15063 % U+00F6 LATIN SMALL LETTER O WITH DIAERESIS; odieresis
15064 \DeclareTextCompositeCommand{\"}{PD1}{o}{\366}% U+00F6
15065 % U+00F7 DIVISION SIGN; divide
15066 \DeclareTextCommand{\textdivide}{PD1}{\367}% U+00F7
15067 % U+00F8 LATIN SMALL LETTER O WITH STROKE; oslash
15068 \DeclareTextCommand{\o}{PD1}{\370}% U+00F8
15069 % U+00F9 LATIN SMALL LETTER U WITH GRAVE; ugrave
15070 \DeclareTextCompositeCommand{\`}{PD1}{u}{\371}% U+00F9
15071 % U+00FA LATIN SMALL LETTER U WITH ACUTE; uacute
15072 \DeclareTextCompositeCommand{\'}{PD1}{u}{\372}% U+00FA
15073 % U+00FB LATIN SMALL LETTER U WITH CIRCUMFLEX; ucircumflex
15074 \DeclareTextCompositeCommand{\^}{PD1}{u}{\373}% U+00FB
15075 % U+00FC LATIN SMALL LETTER U WITH DIAERESIS; udieresis
15076 \DeclareTextCompositeCommand{\"}{PD1}{u}{\374}% U+00FC
15077 % U+00FD LATIN SMALL LETTER Y WITH ACUTE; yacute
15078 \DeclareTextCompositeCommand{\'}{PD1}{y}{\375}% U+00FD
15079 % U+00FE LATIN SMALL LETTER THORN; thorn; \th, \thorn (wasysym)
15080 \DeclareTextCommand{\th}{PD1}{\376}% U+00FE
15081 \DeclareTextCommand{\textthorn}{PD1}{\376}%* U+00FE
15082 % U+00FF LATIN SMALL LETTER Y WITH DIAERESIS; ydieresis
15083 \DeclareTextCompositeCommand{\"}{PD1}{y}{\377}% U+00FF
15084 \DeclareTextCommand{\ij}{PD1}{ij}% ligature U+0069 U+006A

Glyphs that consist of several characters.

15085 \DeclareTextCommand{\SS}{PD1}{SS}%
15086 \DeclareTextCommand{\textcelsius}{PD1}{\textdegree C}%

Aliases (german.sty)

15087 \DeclareTextCommand{\textglqq}{PD1}{\quotedblbase}%
15088 \DeclareTextCommand{\textgrqq}{PD1}{\textquotedblleft}%
15089 \DeclareTextCommand{\textglq}{PD1}{\quotesinglbase}%
15090 \DeclareTextCommand{\textgrq}{PD1}{\textquoteleft}%
15091 \DeclareTextCommand{\textflqq}{PD1}{\guillemetleft}%
15092 \DeclareTextCommand{\textfrqq}{PD1}{\guillemetright}%
15093 \DeclareTextCommand{\textflq}{PD1}{\guilsinglleft}%
15094 \DeclareTextCommand{\textfrq}{PD1}{\guilsinglright}%

Aliases (math names)

15095 \DeclareTextCommand{\textneg}{PD1}{\textlogicalnot}%
15096 \DeclareTextCommand{\texttimes}{PD1}{\textmultiply}%
15097 \DeclareTextCommand{\textdiv}{PD1}{\textdivide}%
15098 \DeclareTextCommand{\textpm}{PD1}{\textplusminus}%
15099 \DeclareTextCommand{\textcdot}{PD1}{\textperiodcentered}%
15100 \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).

```

15101 \DeclareTextCompositeCommand{\k}{PD1}{a}{a}% aogonek
15102 \DeclareTextCompositeCommand{\'}{PD1}{c}{c}% cacute
15103 \DeclareTextCompositeCommand{\k}{PD1}{e}{e}% eogonek
15104 \DeclareTextCompositeCommand{\'}{PD1}{n}{n}% nacute
15105 \DeclareTextCompositeCommand{\'}{PD1}{s}{s}% sacute
15106 \DeclareTextCompositeCommand{\'}{PD1}{z}{z}% zacute
15107 \DeclareTextCompositeCommand{\.}{PD1}{z}{z}% zdot
15108 \DeclareTextCompositeCommand{\k}{PD1}{A}{A}% Aogonek
15109 \DeclareTextCompositeCommand{\'}{PD1}{C}{C}% Cacute
15110 \DeclareTextCompositeCommand{\k}{PD1}{E}{E}% Eogonek
15111 \DeclareTextCompositeCommand{\'}{PD1}{N}{N}% Nacute
15112 \DeclareTextCompositeCommand{\'}{PD1}{S}{S}% Sacute
15113 \DeclareTextCompositeCommand{\'}{PD1}{Z}{Z}% Zacute
15114 \DeclareTextCompositeCommand{\.}{PD1}{Z}{Z}% Zdot
15115 (/pd1enc)

```

46.2 PU encoding

```

15116 (*puenc)
15117 \DeclareFontEncoding{PU}{-}{-}

```

46.2.1 NFSS2 accents

```

15118 % U+0300 COMBINING GRAVE ACCENT; gravecmb, *gravecomb
15119 \DeclareTextCommand{\`}{PU}[1]{#1\83\000}% U+0300
15120 % U+0301 COMBINING ACUTE ACCENT; acutecmb, *acutecomb
15121 \DeclareTextCommand{\'}{PU}[1]{#1\83\001}% U+0301
15122 % U+0302 COMBINING CIRCUMFLEX ACCENT; circumflexcmb
15123 \DeclareTextCommand{\^}{PU}[1]{#1\83\002}% U+0302
15124 % U+0303 COMBINING TILDE; tildecmb, *tildecmb
15125 \DeclareTextCommand{\~}{PU}[1]{#1\83\003}% U+0303
15126 % U+0304 COMBINING MACRON; macroncmb
15127 \DeclareTextCommand{\=}{PU}[1]{#1\83\004}% U+0304
15128 % U+0306 COMBINING BREVE; brevecmb
15129 \DeclareTextCommand{\u}{PU}[1]{#1\83\006}% U+0306
15130 \ifx\CYRDZE@\undefined \else
15131 \DeclareTextCommand{\U}{PU}[1]{#1\83\006}% U+0306
15132 \fi
15133 % U+0307 COMBINING DOT ABOVE; dotaccentcmb
15134 \DeclareTextCommand{\.}{PU}[1]{#1\83\007}% U+0307
15135 % U+0308 COMBINING DIAERESIS; dieresiscmb
15136 \DeclareTextCommand{\"}{PU}[1]{#1\83\010}% U+0308
15137 % U+030A COMBINING RING ABOVE; ringcmb
15138 \DeclareTextCommand{\r}{PU}[1]{#1\83\012}% U+030A
15139 % U+030B COMBINING DOUBLE ACUTE ACCENT; hungarumlautcmb
15140 \DeclareTextCommand{\H}{PU}[1]{#1\83\013}% U+030B
15141 % U+030C COMBINING CARON; caroncmb
15142 \DeclareTextCommand{\v}{PU}[1]{#1\83\014}% U+030C
15143 (/puenc)
15144 % U+030F COMBINING DOUBLE GRAVE ACCENT; dblgravecmb
15145 (puextra)\DeclareTextCommand{\G}{PU}[1]{#1\83\017}% U+030F
15146 (*puenc)
15147 \ifx\CYRDZE@\undefined \else
15148 \DeclareTextCommand{\C}{PU}[1]{#1\83\017}% U+030F
15149 \fi

```

15150 % U+0311 COMBINING INVERTED BREVE; breveinvertedcmb
15151 \DeclareTextCommand{\textinvbreve}{PU}[1]{#1\83\021}% U+0311
15152 \DeclareTextCommand{\newtie}{PU}[1]{#1\83\021}% U+0311
15153 % U+0323 COMBINING DOT BELOW; dotbelowcmb, *dotbelowcmb
15154 \DeclareTextCommand{\d}{PU}[1]{#1\83\043}% U+0323
15155 % U+0324 COMBINING DIAERESIS BELOW; dieresisbelowcmb; \textsubum-
laut (tipa)
15156 \DeclareTextCommand{\textsubumlaut}{PU}[1]{#1\83\044}% U+0324
15157 % U+0325 COMBINING RING BELOW; ringbelowcmb; \textsubring (tipa)
15158 \DeclareTextCommand{\textsubring}{PU}[1]{#1\83\045}% U+0325
15159 % U+0327 COMBINING CEDILLA; cedillacmb
15160 \DeclareTextCommand{\c}{PU}[1]{#1\83\047}% U+0327
15161 % U+0328 COMBINING OGONEK; ogonekcmb
15162 \DeclareTextCommand{\k}{PU}[1]{#1\83\050}% U+0328
15163 % U+032D COMBINING CIRCUMFLEX ACCENT BELOW;
15164 % \textsubcircum (tipa)
15165 \DeclareTextCommand{\textsubcircum}{PU}[1]{#1\83\055}% U+032D
15166 % U+032E COMBINING BREVE BELOW; brevebelowcmb
15167 \DeclareTextCommand{\textsubbreve}{PU}[1]{#1\83\056}% U+032E
15168 % U+0330 COMBINING TILDE BELOW; tildebelowcmb; \textsubtilde (tipa)
15169 \DeclareTextCommand{\textsubtilde}{PU}[1]{#1\83\060}% U+0330
15170 % U+0331 COMBINING MACRON BELOW; macronbelowcmb
15171 \DeclareTextCommand{\b}{PU}[1]{#1\83\061}% U+0331
15172 % U+0361 COMBINING DOUBLE INVERTED BREVE; breveinverteddou-
blecmb
15173 \DeclareTextCommand{\t}{PU}[1]{#1\83\141}% U+0361
15174 % U+20DD COMBINING ENCLOSING CIRCLE
15175 \DeclareTextCommand{\textcircled}{PU}[1]{#1\9040\335}% U+20DD

Double accents.

15176 \DeclareTextCommand{\textacutemacron}{PU}[1]{#1\83\001\83\004}% U+0301 U+0304
15177 \DeclareTextCommand{\textgravemacron}{PU}[1]{#1\83\000\83\004}% U+0300 U+0304

\@empty is an artefact of the NFSS2 machinery, it gets inserted for empty arguments and spaces.

15178 \DeclareTextCompositeCommand{\`}{PU}{\@empty}{\textasciigrave}%
15179 \DeclareTextCompositeCommand{\'}{PU}{\@empty}{\textacute}%
15180 \DeclareTextCompositeCommand{\^}{PU}{\@empty}{\textasciicircum}%
15181 \DeclareTextCompositeCommand{\~}{PU}{\@empty}{\texttilde}%
15182 \DeclareTextCompositeCommand{\"}{PU}{\@empty}{\textasciidieresis}%
15183 \DeclareTextCompositeCommand{\r}{PU}{\@empty}{\textring}%
15184 \DeclareTextCompositeCommand{\v}{PU}{\@empty}{\textasciicaron}%
15185 \DeclareTextCompositeCommand{\.}{PU}{\@empty}{\textdotaccent}%
15186 \DeclareTextCompositeCommand{\c}{PU}{\@empty}{\textcedilla}%
15187 \DeclareTextCompositeCommand{\u}{PU}{\@empty}{\textasciibreve}%
15188 (/puenc)
15189 (puextra)\DeclareTextCompositeCommand{\G}{PU}{\@empty}{\textdoublegrave}%
15190 (*puenc)
15191 \DeclareTextCompositeCommand{\=}{PU}{\@empty}{\textasciimacron}%
15192 \DeclareTextCompositeCommand{\H}{PU}{\@empty}{\texthungarumlaut}%
15193 \DeclareTextCompositeCommand{\k}{PU}{\@empty}{\textogonek}%
15194 \DeclareTextCompositeCommand{\textinvbreve}{PU}{\@empty}{\83\021}% U+0311
15195 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{\@empty}{\83\044}% U+0324
15196 \DeclareTextCompositeCommand{\textsubring}{PU}{\@empty}{\textringlow}%
15197 \DeclareTextCompositeCommand{\textsubcircum}{PU}{\@empty}{\textcircled}

low}%

15198 \DeclareTextCompositeCommand{\textsubbreve}{PU}{\@empty}{\ \83\056}}% U+032E

15199 \DeclareTextCompositeCommand{\textsubtilde}{PU}{\@empty}{\texttildebelow}%

15200 \DeclareTextCompositeCommand{\b}{PU}{\@empty}{\textmacronbelow}%

15201 \DeclareTextCompositeCommand{\d}{PU}{\@empty}{\textdotbelow}%

15202 \DeclareTextCompositeCommand{\t}{PU}{\@empty}{\texttie}%

15203 \DeclareTextCompositeCommand{\newtie}{PU}{\@empty}{\textnewtie}%

15204 \DeclareTextCompositeCommand{\textcircled}{PU}{\@empty}{\textbigcircle}%

15205 \DeclareTextCompositeCommand{\textacutemacron}{PU}{\@empty}{\ \83\001\83\004}}% U+0301 U

15206 \DeclareTextCompositeCommand{\textgravemacron}{PU}{\@empty}{\ \83\000\83\004}}% U+0300 U

15207 \DeclareTextCompositeCommand{\`}{PU}{\ }{\textasciigrave}%

15208 \DeclareTextCompositeCommand{\'}{PU}{\ }{\textacute}%

15209 \DeclareTextCompositeCommand{\~}{PU}{\ }{\textasciicircum}%

15210 \DeclareTextCompositeCommand{\~}{PU}{\ }{\texttilde}%

15211 \DeclareTextCompositeCommand{\"}{PU}{\ }{\textasciidieresis}%

15212 \DeclareTextCompositeCommand{\r}{PU}{\ }{\textring}%

15213 \DeclareTextCompositeCommand{\v}{PU}{\ }{\textasciicaron}%

15214 \DeclareTextCompositeCommand{\.}{PU}{\ }{\textdotaccent}%

15215 \DeclareTextCompositeCommand{\c}{PU}{\ }{\textcedilla}%

15216 \DeclareTextCompositeCommand{\u}{PU}{\ }{\textasciibreve}%

15217 (/puenc)

15218 (puextra)\DeclareTextCompositeCommand{\G}{PU}{\ }{\textdoublegrave}%

15219 (*puenc)

15220 \DeclareTextCompositeCommand{\=}{PU}{\ }{\textasciimacron}%

15221 \DeclareTextCompositeCommand{\H}{PU}{\ }{\texthungarumlaut}%

15222 \DeclareTextCompositeCommand{\k}{PU}{\ }{\textogonek}%

15223 \DeclareTextCompositeCommand{\textinvbreve}{PU}{\ }{\ \83\021}}% U+0311

15224 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{\ }{\ \83\044}}% U+0324

15225 \DeclareTextCompositeCommand{\textsubring}{PU}{\ }{\textringlow}%

15226 \DeclareTextCompositeCommand{\textsubcircum}{PU}{\ }{\textcircumlow}%

15227 \DeclareTextCompositeCommand{\textsubbreve}{PU}{\ }{\ \83\056}}% U+032E

15228 \DeclareTextCompositeCommand{\textsubtilde}{PU}{\ }{\texttildebelow}%

15229 \DeclareTextCompositeCommand{\b}{PU}{\ }{\textmacronbelow}%

15230 \DeclareTextCompositeCommand{\d}{PU}{\ }{\textdotbelow}%

15231 \DeclareTextCompositeCommand{\t}{PU}{\ }{\texttie}%

15232 \DeclareTextCompositeCommand{\newtie}{PU}{\ }{\textnewtie}%

15233 \DeclareTextCompositeCommand{\textcircled}{PU}{\ }{\textbigcircle}%

15234 \DeclareTextCompositeCommand{\textacutemacron}{PU}{\ }{\ \83\001\83\004}}% U+0301 U+0304

15235 \DeclareTextCompositeCommand{\textgravemacron}{PU}{\ }{\ \83\000\83\004}}% U+0300 U+0304

Accents for capitals (see encoding TS1)

15236 \DeclareTextCommand{\capitalcedilla}{PU}[1]{\c{#1}}%

15237 \DeclareTextCommand{\capitalogonek}{PU}[1]{\k{#1}}%

15238 \DeclareTextCommand{\capitalgrave}{PU}[1]{\`{#1}}%

15239 \DeclareTextCommand{\capitalacute}{PU}[1]{\'{#1}}%

15240 \DeclareTextCommand{\capitalcircumflex}{PU}[1]{\^{#1}}%

15241 \DeclareTextCommand{\capitaltilde}{PU}[1]{\~{#1}}%

15242 \DeclareTextCommand{\capitaldieresis}{PU}[1]{\~{#1}}%

15243 \DeclareTextCommand{\capitalhungarumlaut}{PU}[1]{\H{#1}}%

15244 \DeclareTextCommand{\capitalring}{PU}[1]{\r{#1}}%

15245 \DeclareTextCommand{\capitalcaron}{PU}[1]{\v{#1}}%

15246 \DeclareTextCommand{\capitalbreve}{PU}[1]{\u{#1}}%

15247 \DeclareTextCommand{\capitalmacron}{PU}[1]{\={#1}}%

15248 \DeclareTextCommand{\capitaldotaccent}{PU}[1]{\cdot{#1}}%

15249 \DeclareTextCommand{\capitaltie}{PU}[1]{\t{#1}}%
 15250 \DeclareTextCommand{\capitalnewtie}{PU}[1]{\newtie{#1}}%

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

Special white space escape characters.

15251 % U+0009 (CHARACTER TABULATION)
 15252 \DeclareTextCommand{\textHT}{PU}{\80\011}% U+0009
 15253 % U+000A (LINE FEED)
 15254 \DeclareTextCommand{\textLF}{PU}{\80\012}% U+000A
 15255 % U+000D (CARRIAGE RETURN)
 15256 \DeclareTextCommand{\textCR}{PU}{\80\015}% U+000D
 \80\040: U+0020 SPACE; space, spacehackarabic
 \80\041: U+0021 EXCLAMATION MARK; exclam
 15257 % U+0022 QUOTATION MARK; quotedbl
 15258 \DeclareTextCommand{\textquotedbl}{PU}{"}% \80\042 U+0022
 15259 % U+0023 NUMBER SIGN; numbersign
 15260 \DeclareTextCommand{\textnumbersign}{PU}{\80\043}% U+0023
 15261 % U+0024 DOLLAR SIGN; dollar
 15262 \DeclareTextCommand{\textdollar}{PU}{\80\044}% U+0024
 15263 %* \textdollar -> \mathdollar
 15264 %* \textdollar -> \EyesDollar (marvosym)
 15265 % U+0025 PERCENT SIGN; percent
 15266 \DeclareTextCommand{\textpercent}{PU}{\80\045}% U+0025
 15267 % U+0026 AMPERSAND; ampersand
 15268 \DeclareTextCommand{\textampersand}{PU}{\80\046}% U+0026
 15269 %* \textampersand -> \binampersand (stmaryrd)
 15270 %* \textampersand -> \with (cml)
 15271 % U+0027 APOSTROPHE; quotesingle
 15272 \DeclareTextCommand{\textquotesingle}{PU}{\80\047}% U+0027
 15273 % U+0028 LEFT PARENTHESIS; parenleft
 15274 \DeclareTextCommand{\textparenleft}{PU}{\80\050}% U+0028
 15275 % U+0029 RIGHT PARENTHESIS; parenright
 15276 \DeclareTextCommand{\textparenright}{PU}{\80\051}% U+0029
 15277 % U+002A ASTERISK; asterisk; (?)
 15278 \DeclareTextCommand{\textasteriskcentered}{PU}{\80\052}% U+002A
 15279 % U+002B PLUS SIGN; plus; \MVPlus (marvosym)
 15280 \DeclareTextCommand{\textMVPlus}{PU}{\80\053}%* U+002B
 15281 % U+002C COMMA; comma; \MVComma (marvosym)
 15282 \DeclareTextCommand{\textMVComma}{PU}{\80\054}%* U+002C
 15283 % U+002D HYPHEN-MINUS; hyphen; \MVMinus (marvosym)
 15284 \DeclareTextCommand{\textMVMinus}{PU}{\80\055}%* U+002D
 15285 % U+002E FULL STOP; period; \MVPeriod (marvosym)
 15286 \DeclareTextCommand{\textMVPeriod}{PU}{\80\056}%* U+002E
 15287 % U+002F SOLIDUS; slash; \MVDivision (marvosym)
 15288 \DeclareTextCommand{\textMVDivision}{PU}{\80\057}%* U+002F
 15289 % U+0030 DIGIT ZERO; zero; \MVZero (marvosym)
 15290 \DeclareTextCommand{\textMVZero}{PU}{\80\060}%* U+0030
 15291 % U+0031 DIGIT ONE; one; \MVOne (marvosym)
 15292 \DeclareTextCommand{\textMVOne}{PU}{\80\061}%* U+0031
 15293 % U+0032 DIGIT TWO; two; \MVTwo (marvosym)
 15294 \DeclareTextCommand{\textMVTwo}{PU}{\80\062}%* U+0032
 15295 % U+0033 DIGIT THREE; three; \MVThree (marvosym)
 15296 \DeclareTextCommand{\textMVThree}{PU}{\80\063}%* U+0033

15297 % U+0034 DIGIT FOUR; four; \MVFfour (marvosym)
15298 \DeclareTextCommand{\textMVFfour}{PU}{\80\064}%* U+0034
15299 % U+0035 DIGIT FIVE; five; \MVFfive (marvosym)
15300 \DeclareTextCommand{\textMVFfive}{PU}{\80\065}%* U+0035
15301 % U+0036 DIGIT SIX; six; \MVSix (marvosym)
15302 \DeclareTextCommand{\textMVSix}{PU}{\80\066}%* U+0036
15303 % U+0037 DIGIT SEVEN; seven; \MVSeven (marvosym)
15304 \DeclareTextCommand{\textMVSeven}{PU}{\80\067}%* U+0037
15305 % U+0038 DIGIT EIGHT; eight; \MVEight (marvosym)
15306 \DeclareTextCommand{\textMVEight}{PU}{\80\070}%* U+0038
15307 % U+0039 DIGIT NINE; nine; \MVNine (marvosym)
15308 \DeclareTextCommand{\textMVNine}{PU}{\80\071}%* U+0039

\80\072: U+003A COLON; colon
\80\073: U+003B SEMICOLON; semicolon

15309 % U+003C LESS-THAN SIGN; less
15310 \DeclareTextCommand{\textless}{PU}{<}% \80\074 U+003C

\80\075: U+003D EQUALS SIGN; equal

15311 % U+003E GREATER-THAN SIGN; greater
15312 \DeclareTextCommand{\textgreater}{PU}{>}% \80\076 U+003E

\80\077: U+003F QUESTION MARK; question

15313 % U+0040 COMMERCIAL AT; at; \MVAt (marvosym)
15314 \DeclareTextCommand{\textMVAt}{PU}{\80\100}%* U+0040

\80\101: U+0041 LATIN CAPITAL LETTER A; A

...
\80\132: U+005A LATIN CAPITAL LETTER Z; Z
\80\133: U+005B LEFT SQUARE BRACKET; bracketleft

15315 % U+005C REVERSE SOLIDUS; backslash
15316 \DeclareTextCommand{\textbackslash}{PU}{\80\134}% U+005C

\80\135: U+005D RIGHT SQUARE BRACKET; bracketright

15317 % U+005E CIRCUMFLEX ACCENT; asciicircum
15318 \DeclareTextCommand{\textasciicircum}{PU}{\80\136}% U+005E
15319 % U+005F LOW LINE; underscore
15320 \DeclareTextCommand{\textunderscore}{PU}{\80\137}% U+005F
15321 %* \textunderscore -> \mathunderscore (LaTeX)
15322 % U+0060 GRAVE ACCENT; grave
15323 \DeclareTextCommand{\textasciigrave}{PU}{\80\140}% U+0060

\80\141: U+0061 LATIN SMALL LETTER A; a

...
\80\150: U+0068 LATIN SMALL LETTER H; h

15324 % U+0069 LATIN SMALL LETTER I; i
15325 \DeclareTextCompositeCommand{\.}{PU}{i}{i}% \80\151 U+0069
15326 \DeclareTextCompositeCommand{\.}{PU}{i}{i}% \80\151 U+0069

\80\152: U+006A LATIN SMALL LETTER J; j

...
\80\172: U+007A LATIN SMALL LETTER Z; z

15327 % U+007B LEFT CURLY BRACKET; braceleft
15328 \DeclareTextCommand{\textbraceleft}{PU}{\80\173}% U+007B
15329 % U+007C VERTICAL LINE; *bar, verticalbar
15330 \DeclareTextCommand{\textbar}{PU}{|}% \80\174 U+007C

15331 %* \textbar -> \textvline (tipa)
15332 % U+007D RIGHT CURLY BRACKET; braceright
15333 \DeclareTextCommand{\textbraceright}{PU}{\80\175}% U+007D
15334 % U+007E TILDE; asciitilde
15335 \DeclareTextCommand{\textasciitilde}{PU}{\80\176}% U+007E

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

\80\240: U+00A0 NO-BREAK SPACE; nbspace, nonbreakingspace
15336 % U+00A1 INVERTED EXCLAMATION MARK; exclamdown
15337 \DeclareTextCommand{\textexclamdown}{PU}{\80\241}% U+00A1
15338 % U+00A2 CENT SIGN; cent
15339 \DeclareTextCommand{\textcent}{PU}{\80\242}% U+00A2
15340 % U+00A3 POUND SIGN; sterling
15341 \DeclareTextCommand{\textsterling}{PU}{\80\243}% U+00A3
15342 %* \textsterling -> \mathsterling (LaTeX)
15343 %* \textsterling -> \pounds (LaTeX)
15344 % U+00A4 CURRENCY SIGN; currency
15345 \DeclareTextCommand{\textcurrency}{PU}{\80\244}% U+00A4
15346 % U+00A5 YEN SIGN; yen
15347 \DeclareTextCommand{\textyen}{PU}{\80\245}% U+00A5
15348 % U+00A6 BROKEN BAR; brokenbar
15349 \DeclareTextCommand{\textbrokenbar}{PU}{\80\246}% U+00A6
15350 %* \textbrokenbar -> \brokenvert (wasysym)
15351 % U+00A7 SECTION SIGN; section
15352 \DeclareTextCommand{\textsection}{PU}{\80\247}% U+00A7
15353 %* \textsection -> \mathsection (LaTeX)
15354 %* \textsection -> \S (LaTeX)
15355 % U+00A8 DIAERESIS; diaeresis
15356 \DeclareTextCommand{\textasciidieresis}{PU}{\80\250}% U+00A8
15357 % U+00A9 COPYRIGHT SIGN; copyright
15358 \DeclareTextCommand{\textcopyright}{PU}{\80\251}%* U+00A9
15359 % U+00AA FEMININE ORDINAL INDICATOR; ordfeminine
15360 \DeclareTextCommand{\textordfeminine}{PU}{\80\252}% U+00AA
15361 % U+00AB LEFT-POINTING DOUBLE ANGLE QUOTATION MARK; guillemetleft
15362 \DeclareTextCommand{\guillemotleft}{PU}{\80\253}% U+00AB
15363 \DeclareTextCommand{\guillemetleft}{PU}{\80\253}% U+00AB
15364 % U+00AC NOT SIGN; logicalnot
15365 \DeclareTextCommand{\textlogicalnot}{PU}{\80\254}% U+00AC
15366 \DeclareTextCommand{\textlnot}{PU}{\80\254}% U+00AC
\80\255: U+00AD SOFT HYPHEN; sftthyphen, softthyphen
15367 % U+00AE REGISTERED SIGN; registered
15368 \DeclareTextCommand{\textregistered}{PU}{\80\256}% U+00AE
15369 % U+00AF MACRON; *macron, overscore
15370 \DeclareTextCommand{\textasciimacron}{PU}{\80\257}% U+00AF
15371 % U+00B0 DEGREE SIGN; degree
15372 \DeclareTextCommand{\textdegree}{PU}{\80\260}% U+00B0
15373 % U+00B1 PLUS-MINUS SIGN; plusminus
15374 \DeclareTextCommand{\textplusminus}{PU}{\80\261}% U+00B1
15375 % U+00B2 SUPERSCRIPT TWO; twosuperior
15376 \DeclareTextCommand{\texttwosuperior}{PU}{\80\262}%* U+00B2
15377 % U+00B3 SUPERSCRIPT THREE; threesuperior
15378 \DeclareTextCommand{\textthreesuperior}{PU}{\80\263}%* U+00B3

15379 % U+00B4 ACUTE ACCENT; acute
15380 \DeclareTextCommand{\textacute}{PU}{\80\264}% U+00B4
15381 \DeclareTextCommand{\textasciiacute}{PU}{\80\264}% U+00B4
15382 % U+00B5 MICRO SIGN; mu, mu1
15383 \DeclareTextCommand{\textmu}{PU}{\80\265}% U+00B5
15384 % U+00B6 PILCROW SIGN; paragraph
15385 \DeclareTextCommand{\textparagraph}{PU}{\80\266}% U+00B6
15386 %* \textparagraph -> \mathparagraph (LaTeX)
15387 % U+00B7 MIDDLE DOT; middot, *periodcentered
15388 \DeclareTextCommand{\textperiodcentered}{PU}{\80\267}% U+00B7
15389 %* \textperiodcentered -> \MultiplicationDot (marvosym)
15390 %* \textperiodcentered -> \Squaredot (marvosym)
15391 % U+00B8 CEDILLA; cedilla
15392 \DeclareTextCommand{\textcedilla}{PU}{\80\270}% U+00B8
15393 % U+00B9 SUPERSCRIPT ONE; onesuperior
15394 \DeclareTextCommand{\textonesuperior}{PU}{\80\271}%* U+00B9
15395 % U+00BA MASCULINE ORDINAL INDICATOR; ordmasculine
15396 \DeclareTextCommand{\textordmasculine}{PU}{\80\272}% U+00BA
15397 % U+00BB RIGHT-POINTING DOUBLE ANGLE QUOTATION MARK; guillemetright
15398 \DeclareTextCommand{\guillemotright}{PU}{\80\273}% U+00BB
15399 \DeclareTextCommand{\guillemetright}{PU}{\80\273}% U+00BB
15400 % U+00BC VULGAR FRACTION ONE QUARTER; onequarter
15401 \DeclareTextCommand{\textonequarter}{PU}{\80\274}% U+00BC
15402 % U+00BD VULGAR FRACTION ONE HALF; onehalf
15403 \DeclareTextCommand{\textonehalf}{PU}{\80\275}% U+00BD
15404 % U+00BE VULGAR FRACTION THREE QUARTERS; threequarters
15405 \DeclareTextCommand{\textthreequarters}{PU}{\80\276}% U+00BE
15406 % U+00BF INVERTED QUESTION MARK; questiondown
15407 \DeclareTextCommand{\textquestiondown}{PU}{\80\277}% U+00BF
15408 % U+00C0 LATIN CAPITAL LETTER A WITH GRAVE; Agrave
15409 \DeclareTextCompositeCommand{\`}{PU}{A}{\80\300}% U+00C0
15410 % U+00C1 LATIN CAPITAL LETTER A WITH ACUTE; Aacute
15411 \DeclareTextCompositeCommand{\'}{PU}{A}{\80\301}% U+00C1
15412 % U+00C2 LATIN CAPITAL LETTER A WITH CIRCUMFLEX; Acircumflex
15413 \DeclareTextCompositeCommand{\^}{PU}{A}{\80\302}% U+00C2
15414 % U+00C3 LATIN CAPITAL LETTER A WITH TILDE; Atilde
15415 \DeclareTextCompositeCommand{\~}{PU}{A}{\80\303}% U+00C3
15416 % U+00C4 LATIN CAPITAL LETTER A WITH DIAERESIS; Adieresis
15417 \DeclareTextCompositeCommand{\\"}{PU}{A}{\80\304}% U+00C4
15418 % U+00C5 LATIN CAPITAL LETTER A WITH RING ABOVE; Aring
15419 \DeclareTextCompositeCommand{\r}{PU}{A}{\80\305}% U+00C5
15420 % U+00C6 LATIN CAPITAL LETTER AE; AE
15421 \DeclareTextCommand{\AE}{PU}{\80\306}% U+00C6
15422 % U+00C7 LATIN CAPITAL LETTER C WITH CEDILLA; Ccedilla
15423 \DeclareTextCompositeCommand{\c}{PU}{C}{\80\307}% U+00C7
15424 % U+00C8 LATIN CAPITAL LETTER E WITH GRAVE; Egrave
15425 \DeclareTextCompositeCommand{\`}{PU}{E}{\80\310}% U+00C8
15426 % U+00C9 LATIN CAPITAL LETTER E WITH ACUTE; Eacute
15427 \DeclareTextCompositeCommand{\'}{PU}{E}{\80\311}% U+00C9
15428 % U+00CA LATIN CAPITAL LETTER E WITH CIRCUMFLEX; Ecircumflex
15429 \DeclareTextCompositeCommand{\^}{PU}{E}{\80\312}% U+00CA
15430 % U+00CB LATIN CAPITAL LETTER E WITH DIAERESIS; Edieresis
15431 \DeclareTextCompositeCommand{\\"}{PU}{E}{\80\313}% U+00CB
15432 % U+00CC LATIN CAPITAL LETTER I WITH GRAVE; Igrave

15433 \DeclareTextCompositeCommand{\`}{PU}{I}{\80\314}% U+00CC
15434 % U+00CD LATIN CAPITAL LETTER I WITH ACUTE; Iacute
15435 \DeclareTextCompositeCommand{\'}{PU}{I}{\80\315}% U+00CD
15436 % U+00CE LATIN CAPITAL LETTER I WITH CIRCUMFLEX; Icircumflex
15437 \DeclareTextCompositeCommand{\^}{PU}{I}{\80\316}% U+00CE
15438 % U+00CF LATIN CAPITAL LETTER I WITH DIAERESIS; Idieresis
15439 \DeclareTextCompositeCommand{\"}{PU}{I}{\80\317}% U+00CF
15440 % U+00D0 LATIN CAPITAL LETTER ETH; Eth
15441 \DeclareTextCommand{\DH}{PU}{\80\320}% U+00D0
15442 % U+00D1 LATIN CAPITAL LETTER N WITH TILDE; Ntilde
15443 \DeclareTextCompositeCommand{\~}{PU}{N}{\80\321}% U+00D1
15444 % U+00D2 LATIN CAPITAL LETTER O WITH GRAVE; Ograve
15445 \DeclareTextCompositeCommand{\`}{PU}{O}{\80\322}% U+00D2
15446 % U+00D3 LATIN CAPITAL LETTER O WITH ACUTE; Oacute
15447 \DeclareTextCompositeCommand{\'}{PU}{O}{\80\323}% U+00D3
15448 % U+00D4 LATIN CAPITAL LETTER O WITH CIRCUMFLEX; Ocircumflex
15449 \DeclareTextCompositeCommand{\^}{PU}{O}{\80\324}% U+00D4
15450 % U+00D5 LATIN CAPITAL LETTER O WITH TILDE; Otilde
15451 \DeclareTextCompositeCommand{\~}{PU}{O}{\80\325}% U+00D5
15452 % U+00D6 LATIN CAPITAL LETTER O WITH DIAERESIS; Odieresis
15453 \DeclareTextCompositeCommand{\"}{PU}{O}{\80\326}% U+00D6
15454 % U+00D7 MULTIPLICATION SIGN; multiply
15455 \DeclareTextCommand{\textmultiply}{PU}{\80\327}% U+00D7
15456 %* \textmultiply -> \vartimes (stmaryrd)
15457 %* \textmultiply -> \MVMultiplication (marvosym)
15458 % U+00D8 LATIN CAPITAL LETTER O WITH STROKE; Oslash
15459 \DeclareTextCommand{\O}{PU}{\80\330}% U+00D8
15460 % U+00D9 LATIN CAPITAL LETTER U WITH GRAVE; Ugrave
15461 \DeclareTextCompositeCommand{\`}{PU}{U}{\80\331}% U+00D9
15462 % U+00DA LATIN CAPITAL LETTER U WITH ACUTE; Uacute
15463 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\332}% U+00DA
15464 % U+00DB LATIN CAPITAL LETTER U WITH CIRCUMFLEX; Ucircumflex
15465 \DeclareTextCompositeCommand{\^}{PU}{U}{\80\333}% U+00DB
15466 % U+00DC LATIN CAPITAL LETTER U WITH DIAERESIS; Udieresis
15467 \DeclareTextCompositeCommand{\"}{PU}{U}{\80\334}% U+00DC
15468 % U+00DD LATIN CAPITAL LETTER Y WITH ACUTE; Yacute
15469 \DeclareTextCompositeCommand{\'}{PU}{Y}{\80\335}% U+00DD
15470 % U+00DE LATIN CAPITAL LETTER THORN; Thorn; \TH, \Thorn (wasysym)
15471 \DeclareTextCommand{\TH}{PU}{\80\336}% U+00DE
15472 \DeclareTextCommand{\textThorn}{PU}{\80\336}%* U+00DE
15473 % U+00DF LATIN SMALL LETTER SHARP S; germandbls
15474 \DeclareTextCommand{\ss}{PU}{\80\337}% U+00DF
15475 % U+00E0 LATIN SMALL LETTER A WITH GRAVE; agrave
15476 \DeclareTextCompositeCommand{\`}{PU}{a}{\80\340}% U+00E0
15477 % U+00E1 LATIN SMALL LETTER A WITH ACUTE; aacute
15478 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\341}% U+00E1
15479 % U+00E2 LATIN SMALL LETTER A WITH CIRCUMFLEX; acircumflex
15480 \DeclareTextCompositeCommand{\^}{PU}{a}{\80\342}% U+00E2
15481 % U+00E3 LATIN SMALL LETTER A WITH TILDE; atilde
15482 \DeclareTextCompositeCommand{\~}{PU}{a}{\80\343}% U+00E3
15483 % U+00E4 LATIN SMALL LETTER A WITH DIAERESIS; adieresis
15484 \DeclareTextCompositeCommand{\"}{PU}{a}{\80\344}% U+00E4
15485 % U+00E5 LATIN SMALL LETTER A WITH RING ABOVE; aring
15486 \DeclareTextCompositeCommand{\r}{PU}{a}{\80\345}% U+00E5

15487 % U+00E6 LATIN SMALL LETTER AE; ae
15488 \DeclareTextCommand{\ae}{PU}{\80\346}% U+00E6
15489 % U+00E7 LATIN SMALL LETTER C WITH CEDILLA; ccedilla
15490 \DeclareTextCompositeCommand{\c}{PU}{c}{\80\347}% U+00E7
15491 % U+00E8 LATIN SMALL LETTER E WITH GRAVE; egrave
15492 \DeclareTextCompositeCommand{\`}{PU}{e}{\80\350}% U+00E8
15493 % U+00E9 LATIN SMALL LETTER E WITH ACUTE; eacute
15494 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\351}% U+00E9
15495 % U+00EA LATIN SMALL LETTER E WITH CIRCUMFLEX; ecircumflex
15496 \DeclareTextCompositeCommand{\^}{PU}{e}{\80\352}% U+00EA
15497 % U+00EB LATIN SMALL LETTER E WITH DIAERESIS; edieresis
15498 \DeclareTextCompositeCommand{\"}{PU}{e}{\80\353}% U+00EB
15499 % U+00EC LATIN SMALL LETTER I WITH GRAVE; igrave
15500 \DeclareTextCompositeCommand{\`}{PU}{i}{\80\354}% U+00EC
15501 \DeclareTextCompositeCommand{\`}{PU}{i}{\80\354}% U+00EC
15502 % U+00ED LATIN SMALL LETTER I WITH ACUTE; iacute
15503 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\355}% U+00ED
15504 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\355}% U+00ED
15505 % U+00EE LATIN SMALL LETTER I WITH CIRCUMFLEX; icircumflex
15506 \DeclareTextCompositeCommand{\^}{PU}{i}{\80\356}% U+00EE
15507 \DeclareTextCompositeCommand{\^}{PU}{i}{\80\356}% U+00EE
15508 % U+00EF LATIN SMALL LETTER I WITH DIAERESIS; idieresis
15509 \DeclareTextCompositeCommand{\"}{PU}{i}{\80\357}% U+00EF
15510 \DeclareTextCompositeCommand{\"}{PU}{i}{\80\357}% U+00EF
15511 % U+00F0 LATIN SMALL LETTER ETH; eth
15512 \DeclareTextCommand{\dh}{PU}{\80\360}% U+00F0
15513 %* \dh -> \eth (wsuipa, phonetic)
15514 % U+00F1 LATIN SMALL LETTER N WITH TILDE; ntilde
15515 \DeclareTextCompositeCommand{\~}{PU}{n}{\80\361}% U+00F1
15516 % U+00F2 LATIN SMALL LETTER O WITH GRAVE; ograve
15517 \DeclareTextCompositeCommand{\`}{PU}{o}{\80\362}% U+00F2
15518 % U+00F3 LATIN SMALL LETTER O WITH ACUTE; oacute
15519 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\363}% U+00F3
15520 % U+00F4 LATIN SMALL LETTER O WITH CIRCUMFLEX; ocircumflex
15521 \DeclareTextCompositeCommand{\^}{PU}{o}{\80\364}% U+00F4
15522 % U+00F5 LATIN SMALL LETTER O WITH TILDE; otilde
15523 \DeclareTextCompositeCommand{\~}{PU}{o}{\80\365}% U+00F5
15524 % U+00F6 LATIN SMALL LETTER O WITH DIAERESIS; odieresis
15525 \DeclareTextCompositeCommand{\"}{PU}{o}{\80\366}% U+00F6
15526 % U+00F7 DIVISION SIGN; divide
15527 \DeclareTextCommand{\textdivide}{PU}{\80\367}% U+00F7
15528 % U+00F8 LATIN SMALL LETTER O WITH STROKE; oslash
15529 \DeclareTextCommand{\o}{PU}{\80\370}% U+00F8
15530 % U+00F9 LATIN SMALL LETTER U WITH GRAVE; ugrave
15531 \DeclareTextCompositeCommand{\`}{PU}{u}{\80\371}% U+00F9
15532 % U+00FA LATIN SMALL LETTER U WITH ACUTE; uacute
15533 \DeclareTextCompositeCommand{\'}{PU}{u}{\80\372}% U+00FA
15534 % U+00FB LATIN SMALL LETTER U WITH CIRCUMFLEX; ucircumflex
15535 \DeclareTextCompositeCommand{\^}{PU}{u}{\80\373}% U+00FB
15536 % U+00FC LATIN SMALL LETTER U WITH DIAERESIS; udieresis
15537 \DeclareTextCompositeCommand{\"}{PU}{u}{\80\374}% U+00FC
15538 % U+00FD LATIN SMALL LETTER Y WITH ACUTE; yacute
15539 \DeclareTextCompositeCommand{\'}{PU}{y}{\80\375}% U+00FD
15540 % U+00FE LATIN SMALL LETTER THORN; thorn;

15541 % \th, \thorn (wasysym), \textthorn (tipa)
15542 \DeclareTextCommand{\th}{PU}{\80\376}% U+00FE
15543 \DeclareTextCommand{\textthorn}{PU}{\80\376}%* U+00FE
15544 % U+00FF LATIN SMALL LETTER Y WITH DIAERESIS; ydieresis
15545 \DeclareTextCompositeCommand{\"}{PU}{y}{\80\377}% U+00FF

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

15546 % U+0100 LATIN CAPITAL LETTER A WITH MACRON; Amacron
15547 \DeclareTextCompositeCommand{\=}{PU}{A}{\81\000}% U+0100
15548 % U+0101 LATIN SMALL LETTER A WITH MACRON; amacron
15549 \DeclareTextCompositeCommand{\=}{PU}{a}{\81\001}% U+0101
15550 % U+0102 LATIN CAPITAL LETTER A WITH BREVE; Abreve
15551 \DeclareTextCompositeCommand{\u}{PU}{A}{\81\002}% U+0102
15552 % U+0103 LATIN SMALL LETTER A WITH BREVE; abreve
15553 \DeclareTextCompositeCommand{\u}{PU}{a}{\81\003}% U+0103
15554 % U+0104 LATIN CAPITAL LETTER A WITH OGONEK; Aogonek
15555 \DeclareTextCompositeCommand{\k}{PU}{A}{\81\004}% U+0104
15556 % U+0105 LATIN SMALL LETTER A WITH OGONEK; aogonek
15557 \DeclareTextCompositeCommand{\k}{PU}{a}{\81\005}% U+0105
15558 % U+0106 LATIN CAPITAL LETTER C WITH ACUTE; Cacute
15559 \DeclareTextCompositeCommand{\'}{PU}{C}{\81\006}% U+0106
15560 % U+0107 LATIN SMALL LETTER C WITH ACUTE; cacute
15561 \DeclareTextCompositeCommand{\'}{PU}{c}{\81\007}% U+0107
15562 % U+0108 LATIN CAPITAL LETTER C WITH CIRCUMFLEX; Ccircumflex
15563 \DeclareTextCompositeCommand{\^}{PU}{C}{\81\010}% U+0108
15564 % U+0109 LATIN SMALL LETTER C WITH CIRCUMFLEX; ccircumflex
15565 \DeclareTextCompositeCommand{\^}{PU}{c}{\81\011}% U+0109
15566 % U+010A LATIN CAPITAL LETTER C WITH DOT ABOVE; Cdot, Cdotac-
cent
15567 \DeclareTextCompositeCommand{\.}{PU}{C}{\81\012}% U+010A
15568 % U+010B LATIN SMALL LETTER C WITH DOT ABOVE; cdot, cdotaccent
15569 \DeclareTextCompositeCommand{\.}{PU}{c}{\81\013}% U+010B
15570 % U+010C LATIN CAPITAL LETTER C WITH CARON; Ccaron
15571 \DeclareTextCompositeCommand{\v}{PU}{C}{\81\014}% U+010C
15572 % U+010D LATIN SMALL LETTER C WITH CARON; ccaron
15573 \DeclareTextCompositeCommand{\v}{PU}{c}{\81\015}% U+010D
15574 % U+010E LATIN CAPITAL LETTER D WITH CARON; Dcaron
15575 \DeclareTextCompositeCommand{\v}{PU}{D}{\81\016}% U+010E
15576 % U+010F LATIN SMALL LETTER D WITH CARON; dcaron
15577 \DeclareTextCompositeCommand{\v}{PU}{d}{\81\017}% U+010F
15578 % U+0110 LATIN CAPITAL LETTER D WITH STROKE; Dcroat, Dslash
15579 \DeclareTextCommand{\DJ}{PU}{\81\020}% U+0110
15580 % U+0111 LATIN SMALL LETTER D WITH STROKE; dcroat, dmacron;
15581 % \textcrd (tipa)
15582 \DeclareTextCommand{\dj}{PU}{\81\021}% U+0111
15583 \DeclareTextCommand{\textcrd}{PU}{\81\021}% U+0111
15584 %* \textcrd -> \crossd (wsuipa)
15585 % An alternate glyph with the stroke through the bowl:
15586 %* \textcrd -> \textbard (tipa)
15587 %* \textcrd -> \bard (wsuipa)
15588 % U+0112 LATIN CAPITAL LETTER E WITH MACRON; Emacron
15589 \DeclareTextCompositeCommand{\=}{PU}{E}{\81\022}% U+0112
15590 % U+0113 LATIN SMALL LETTER E WITH MACRON; emacron

15591 \DeclareTextCompositeCommand{=} {PU}{e}{\81\023}% U+0113
15592 % U+0114 LATIN CAPITAL LETTER E WITH BREVE; Ebreve
15593 \DeclareTextCompositeCommand{\u} {PU}{E}{\81\024}% U+0114
15594 % U+0115 LATIN SMALL LETTER E WITH BREVE; ebreve
15595 \DeclareTextCompositeCommand{\u} {PU}{e}{\81\025}% U+0115
15596 % U+0116 LATIN CAPITAL LETTER E WITH DOT ABOVE; Edot, Edotaccent
15597 \DeclareTextCompositeCommand{\.} {PU}{E}{\81\026}% U+0116
15598 % U+0117 LATIN SMALL LETTER E WITH DOT ABOVE; edot, edotaccent
15599 \DeclareTextCompositeCommand{\.} {PU}{e}{\81\027}% U+0117
15600 % U+0118 LATIN CAPITAL LETTER E WITH OGONEK; Eogonek
15601 \DeclareTextCompositeCommand{\k} {PU}{E}{\81\030}% U+0118
15602 % U+0119 LATIN SMALL LETTER E WITH OGONEK; eogonek
15603 \DeclareTextCompositeCommand{\k} {PU}{e}{\81\031}% U+0119
15604 % U+011A LATIN CAPITAL LETTER E WITH CARON; Ecaron
15605 \DeclareTextCompositeCommand{\v} {PU}{E}{\81\032}% U+011A
15606 % U+011B LATIN SMALL LETTER E WITH CARON; ecaron
15607 \DeclareTextCompositeCommand{\v} {PU}{e}{\81\033}% U+011B
15608 % U+011C LATIN CAPITAL LETTER G WITH CIRCUMFLEX; Gcircumflex
15609 \DeclareTextCompositeCommand{\^} {PU}{G}{\81\034}% U+011C
15610 % U+011D LATIN SMALL LETTER G WITH CIRCUMFLEX; gcircumflex
15611 \DeclareTextCompositeCommand{\^} {PU}{g}{\81\035}% U+011D
15612 % U+011E LATIN CAPITAL LETTER G WITH BREVE; Gbreve
15613 \DeclareTextCompositeCommand{\u} {PU}{G}{\81\036}% U+011E
15614 % U+011F LATIN SMALL LETTER G WITH BREVE; gbreve
15615 \DeclareTextCompositeCommand{\u} {PU}{g}{\81\037}% U+011F
15616 % U+0120 LATIN CAPITAL LETTER G WITH DOT ABOVE; Gdot, Gdotac-
cent
15617 \DeclareTextCompositeCommand{\.} {PU}{G}{\81\040}% U+0120
15618 % U+0121 LATIN SMALL LETTER G WITH DOT ABOVE; gdot, gdotaccent
15619 \DeclareTextCompositeCommand{\.} {PU}{g}{\81\041}% U+0121
15620 % U+0122 LATIN CAPITAL LETTER G WITH CEDILLA; Gcedilla, Gcom-
maaccent
15621 \DeclareTextCompositeCommand{\c} {PU}{G}{\81\042}% U+0122
15622 % U+0123 LATIN SMALL LETTER G WITH CEDILLA; gcedilla, gcommaaccent
15623 \DeclareTextCompositeCommand{\c} {PU}{g}{\81\043}% U+0123
15624 % U+0124 LATIN CAPITAL LETTER H WITH CIRCUMFLEX; Hcircumflex
15625 \DeclareTextCompositeCommand{\^} {PU}{H}{\81\044}% U+0124
15626 % U+0125 LATIN SMALL LETTER H WITH CIRCUMFLEX; hcircumflex
15627 \DeclareTextCompositeCommand{\^} {PU}{h}{\81\045}% U+0125
15628 % U+0126 LATIN CAPITAL LETTER H WITH STROKE; Hbar
15629 \DeclareTextCommand{\textHslash} {PU}{\81\046}% U+0126
15630 % U+0127 LATIN SMALL LETTER H WITH STROKE; hbar; \hbar (AmS)
15631 \DeclareTextCommand{\texthbar} {PU}{\81\047}%* U+0127
15632 %* \texthbar -> \textcrh (tipa)
15633 %* \texthbar -> \crossh (wsuipa)
15634 %* \texthbar -> \planck (phonetic)
15635 % U+0128 LATIN CAPITAL LETTER I WITH TILDE; Itilde
15636 \DeclareTextCompositeCommand{\~} {PU}{I}{\81\050}% U+0128
15637 % U+0129 LATIN SMALL LETTER I WITH TILDE; itilde
15638 \DeclareTextCompositeCommand{\~} {PU}{i}{\81\051}% U+0129
15639 \DeclareTextCompositeCommand{\~} {PU}{i}{\81\051}% U+0129
15640 % U+012A LATIN CAPITAL LETTER I WITH MACRON; Imacron
15641 \DeclareTextCompositeCommand{=} {PU}{I}{\81\052}% U+012A
15642 % U+012B LATIN SMALL LETTER I WITH MACRON; imacron

15643 \DeclareTextCompositeCommand{\=} {PU}{i}{\81\053}% U+012B
15644 \DeclareTextCompositeCommand{\=} {PU}{i}{\81\053}% U+012B
15645 % U+012C LATIN CAPITAL LETTER I WITH BREVE; Ibreve
15646 \DeclareTextCompositeCommand{\u} {PU}{I}{\81\054}% U+012C
15647 % U+012D LATIN SMALL LETTER I WITH BREVE; ibreve
15648 \DeclareTextCompositeCommand{\u} {PU}{i}{\81\055}% U+012D
15649 \DeclareTextCompositeCommand{\u} {PU}{i}{\81\055}% U+012D
15650 % U+012E LATIN CAPITAL LETTER I WITH OGONEK; Iogonek
15651 \DeclareTextCompositeCommand{\k} {PU}{I}{\81\056}% U+012E
15652 % U+012F LATIN SMALL LETTER I WITH OGONEK; iogonek
15653 \DeclareTextCompositeCommand{\k} {PU}{i}{\81\057}% U+012F
15654 \DeclareTextCompositeCommand{\k} {PU}{i}{\81\057}% U+012F
15655 % U+0130 LATIN CAPITAL LETTER I WITH DOT ABOVE; Idot, Idotaccent
15656 \DeclareTextCompositeCommand{\.} {PU}{I}{\81\060}% U+0130
15657 % U+0131 LATIN SMALL LETTER DOTLESS I; dotlessi
15658 \DeclareTextCommand{\i} {PU}{\81\061}% U+0131
15659 % U+0132 LATIN CAPITAL LIGATURE IJ; IJ
15660 \DeclareTextCommand{\IJ} {PU}{\81\062}% U+0132
15661 % U+0133 LATIN SMALL LIGATURE IJ; ij
15662 \DeclareTextCommand{\ij} {PU}{\81\063}% U+0133
15663 % U+0134 LATIN CAPITAL LETTER J WITH CIRCUMFLEX; Jcircumflex
15664 \DeclareTextCompositeCommand{\^} {PU}{J}{\81\064}% U+0134
15665 % U+0135 LATIN SMALL LETTER J WITH CIRCUMFLEX; jcircumflex
15666 \DeclareTextCompositeCommand{\^} {PU}{j}{\81\065}% U+0135
15667 \DeclareTextCompositeCommand{\^} {PU}{j}{\81\065}% U+0135
15668 % U+0136 LATIN CAPITAL LETTER K WITH CEDILLA; Kcedilla, Kcommaac-
cent
15669 \DeclareTextCompositeCommand{\c} {PU}{K}{\81\066}% U+0136
15670 % U+0137 LATIN SMALL LETTER K WITH CEDILLA; kcedilla, kcommaaccent
15671 \DeclareTextCompositeCommand{\c} {PU}{k}{\81\067}% U+0137

The canonical name of U+0138, small letter kra, would be `\textkgreenlandic`, following the glyph naming convention. However `latex/base/inputenc.dtx` has chosen `\textkra`.

15672 % U+0138 LATIN SMALL LETTER KRA; kgreenlandic
15673 \DeclareTextCommand{\textkra} {PU}{\81\070}% U+0138
15674 % U+0139 LATIN CAPITAL LETTER L WITH ACUTE; Lacute
15675 \DeclareTextCompositeCommand{\'} {PU}{L}{\81\071}% U+0139
15676 % U+013A LATIN SMALL LETTER L WITH ACUTE; lacute
15677 \DeclareTextCompositeCommand{\'} {PU}{l}{\81\072}% U+013A
15678 % U+013B LATIN CAPITAL LETTER L WITH CEDILLA; Lcedilla, Lcommaac-
cent
15679 \DeclareTextCompositeCommand{\c} {PU}{L}{\81\073}% U+013B
15680 % U+013C LATIN SMALL LETTER L WITH CEDILLA; lcedilla, lcommaaccent
15681 \DeclareTextCompositeCommand{\c} {PU}{l}{\81\074}% U+013C
15682 % U+013D LATIN CAPITAL LETTER L WITH CARON; Lcaron
15683 \DeclareTextCompositeCommand{\v} {PU}{L}{\81\075}% U+013D
15684 % U+013E LATIN SMALL LETTER L WITH CARON; lcaron
15685 \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`.

15686 % U+013F LATIN CAPITAL LETTER L WITH MIDDLE DOT; Ldot, Ldotac-
cent

15687 \DeclareTextCompositeCommand{\.}{PU}{L}{\81\077}% U+013F
15688 % U+0140 LATIN SMALL LETTER L WITH MIDDLE DOT; ldot, ldotaccent
15689 \DeclareTextCompositeCommand{\.}{PU}{l}{\81\100}% U+0140
15690 % U+0141 LATIN CAPITAL LETTER L WITH STROKE; Lslash
15691 \DeclareTextCommand{\L}{PU}{\81\101}% U+0141
15692 % U+0142 LATIN SMALL LETTER L WITH STROKE; lslash
15693 \DeclareTextCommand{\l}{PU}{\81\102}% U+0142
15694 % U+0143 LATIN CAPITAL LETTER N WITH ACUTE; Nacute
15695 \DeclareTextCompositeCommand{\'}{PU}{N}{\81\103}% U+0143
15696 % U+0144 LATIN SMALL LETTER N WITH ACUTE; nacute
15697 \DeclareTextCompositeCommand{\'}{PU}{n}{\81\104}% U+0144
15698 % U+0145 LATIN CAPITAL LETTER N WITH CEDILLA; Ncedilla, Ncommaac-
cent
15699 \DeclareTextCompositeCommand{\c}{PU}{N}{\81\105}% U+0145
15700 % U+0146 LATIN SMALL LETTER N WITH CEDILLA; ncedilla, ncommaaccent
15701 \DeclareTextCompositeCommand{\c}{PU}{n}{\81\106}% U+0146
15702 % U+0147 LATIN CAPITAL LETTER N WITH CARON; Ncaron
15703 \DeclareTextCompositeCommand{\v}{PU}{N}{\81\107}% U+0147
15704 % U+0148 LATIN SMALL LETTER N WITH CARON; ncaron
15705 \DeclareTextCompositeCommand{\v}{PU}{n}{\81\110}% U+0148
15706 % U+0149 LATIN SMALL LETTER N PRECEDED BY APOSTROPHE; napos-
trophe, quoterightn
15707 \DeclareTextCommand{\textnapostrophe}{PU}{\81\111}% U+0149
15708 % U+014A LATIN CAPITAL LETTER ENG; Eng
15709 \DeclareTextCommand{\NG}{PU}{\81\112}% U+014A
15710 % U+014B LATIN SMALL LETTER ENG; eng
15711 \DeclareTextCommand{\ng}{PU}{\81\113}% U+014B
15712 %* \ng -> \eng (wsuipa)
15713 %* \ng -> \engma (phonetic)
15714 % U+014C LATIN CAPITAL LETTER O WITH MACRON; Omacron
15715 \DeclareTextCompositeCommand{\=}{PU}{O}{\81\114}% U+014C
15716 % U+014D LATIN SMALL LETTER O WITH MACRON; omacron
15717 \DeclareTextCompositeCommand{\=}{PU}{o}{\81\115}% U+014D
15718 % U+014E LATIN CAPITAL LETTER O WITH BREVE; Obreve
15719 \DeclareTextCompositeCommand{\u}{PU}{O}{\81\116}% U+014E
15720 % U+014F LATIN SMALL LETTER O WITH BREVE; obreve
15721 \DeclareTextCompositeCommand{\u}{PU}{o}{\81\117}% U+014F
15722 % U+0150 LATIN CAPITAL LETTER O WITH DOUBLE ACUTE; Odbla-
cute, Ohungarumlaut
15723 \DeclareTextCompositeCommand{\H}{PU}{O}{\81\120}% U+0150
15724 % U+0151 LATIN SMALL LETTER O WITH DOUBLE ACUTE; odbla-
cute, ohungarumlaut
15725 \DeclareTextCompositeCommand{\H}{PU}{o}{\81\121}% U+0151
15726 % U+0152 LATIN CAPITAL LIGATURE OE; OE
15727 \DeclareTextCommand{\OE}{PU}{\81\122}% U+0152
15728 % U+0153 LATIN SMALL LIGATURE OE; oe
15729 \DeclareTextCommand{\oe}{PU}{\81\123}% U+0153
15730 % U+0154 LATIN CAPITAL LETTER R WITH ACUTE; Racute
15731 \DeclareTextCompositeCommand{\'}{PU}{R}{\81\124}% U+0154
15732 % U+0155 LATIN SMALL LETTER R WITH ACUTE; racute
15733 \DeclareTextCompositeCommand{\'}{PU}{r}{\81\125}% U+0155
15734 % U+0156 LATIN CAPITAL LETTER R WITH CEDILLA; Rcedilla, Rcommaac-
cent
15735 \DeclareTextCompositeCommand{\c}{PU}{R}{\81\126}% U+0156

15736 % U+0157 LATIN SMALL LETTER R WITH CEDILLA; rcedilla, rcommaaccent
15737 \DeclareTextCompositeCommand{\c}{PU}{r}{\81\127}% U+0157
15738 % U+0158 LATIN CAPITAL LETTER R WITH CARON; Rcaron
15739 \DeclareTextCompositeCommand{\v}{PU}{R}{\81\130}% U+0158
15740 % U+0159 LATIN SMALL LETTER R WITH CARON; rcaron
15741 \DeclareTextCompositeCommand{\v}{PU}{r}{\81\131}% U+0159
15742 % U+015A LATIN CAPITAL LETTER S WITH ACUTE; Sacute
15743 \DeclareTextCompositeCommand{\'}{PU}{S}{\81\132}% U+015A
15744 % U+015B LATIN SMALL LETTER S WITH ACUTE; sacute
15745 \DeclareTextCompositeCommand{\'}{PU}{s}{\81\133}% U+015B
15746 % U+015C LATIN CAPITAL LETTER S WITH CIRCUMFLEX; Scircumflex
15747 \DeclareTextCompositeCommand{\^}{PU}{S}{\81\134}% U+015C
15748 % U+015D LATIN SMALL LETTER S WITH CIRCUMFLEX; scircumflex
15749 \DeclareTextCompositeCommand{\^}{PU}{s}{\81\135}% U+015D
15750 % U+015E LATIN CAPITAL LETTER S WITH CEDILLA; Scedilla
15751 \DeclareTextCompositeCommand{\c}{PU}{S}{\81\136}% U+015E
15752 % U+015F LATIN SMALL LETTER S WITH CEDILLA; scedilla
15753 \DeclareTextCompositeCommand{\c}{PU}{s}{\81\137}% U+015F
15754 % U+0160 LATIN CAPITAL LETTER S WITH CARON; Scaron
15755 \DeclareTextCompositeCommand{\v}{PU}{S}{\81\140}% U+0160
15756 % U+0161 LATIN SMALL LETTER S WITH CARON; scaron
15757 \DeclareTextCompositeCommand{\v}{PU}{s}{\81\141}% U+0161
15758 % U+0162 LATIN CAPITAL LETTER T WITH CEDILLA; Tcedilla, Tcommaac-
cent
15759 \DeclareTextCompositeCommand{\c}{PU}{T}{\81\142}% U+0162
15760 % U+0163 LATIN SMALL LETTER T WITH CEDILLA; tcedilla, tcommaaccent
15761 \DeclareTextCompositeCommand{\c}{PU}{t}{\81\143}% U+0163
15762 % U+0164 LATIN CAPITAL LETTER T WITH CARON; Tcaron
15763 \DeclareTextCompositeCommand{\v}{PU}{T}{\81\144}% U+0164
15764 % U+0165 LATIN SMALL LETTER T WITH CARON; tcaron
15765 \DeclareTextCompositeCommand{\v}{PU}{t}{\81\145}% U+0165
15766 % U+0166 LATIN CAPITAL LETTER T WITH STROKE; Tbar
15767 \DeclareTextCommand{\textTslash}{PU}{\81\146}% U+0166
15768 % U+0167 LATIN SMALL LETTER T WITH STROKE; tbar
15769 \DeclareTextCommand{\texttslash}{PU}{\81\147}% U+0167
15770 % U+0168 LATIN CAPITAL LETTER U WITH TILDE; Utilde
15771 \DeclareTextCompositeCommand{\~}{PU}{U}{\81\150}% U+0168
15772 % U+0169 LATIN SMALL LETTER U WITH TILDE; utilde
15773 \DeclareTextCompositeCommand{\~}{PU}{u}{\81\151}% U+0169
15774 % U+016A LATIN CAPITAL LETTER U WITH MACRON; Umacron
15775 \DeclareTextCompositeCommand{\=}{PU}{U}{\81\152}% U+016A
15776 % U+016B LATIN SMALL LETTER U WITH MACRON; umacron
15777 \DeclareTextCompositeCommand{\=}{PU}{u}{\81\153}% U+016B
15778 % U+016C LATIN CAPITAL LETTER U WITH BREVE; Ubreve
15779 \DeclareTextCompositeCommand{\u}{PU}{U}{\81\154}% U+016C
15780 % U+016D LATIN SMALL LETTER U WITH BREVE; ubreve
15781 \DeclareTextCompositeCommand{\u}{PU}{u}{\81\155}% U+016D
15782 % U+016E LATIN CAPITAL LETTER U WITH RING ABOVE; Uring
15783 \DeclareTextCompositeCommand{\r}{PU}{U}{\81\156}% U+016E
15784 % U+016F LATIN SMALL LETTER U WITH RING ABOVE; uring
15785 \DeclareTextCompositeCommand{\r}{PU}{u}{\81\157}% U+016F
15786 % U+0170 LATIN CAPITAL LETTER U WITH DOUBLE ACUTE; Udbla-
cute, Uhungarumlaut
15787 \DeclareTextCompositeCommand{\H}{PU}{U}{\81\160}% U+0170

15788 % U+0171 LATIN SMALL LETTER U WITH DOUBLE ACUTE; udblacute, uhungarumlaut
15789 \DeclareTextCompositeCommand{\H}{PU}{u}{\81\161}% U+0171
15790 % U+0172 LATIN CAPITAL LETTER U WITH OGONEK; Uogonek
15791 \DeclareTextCompositeCommand{\k}{PU}{U}{\81\162}% U+0172
15792 % U+0173 LATIN SMALL LETTER U WITH OGONEK; uogonek
15793 \DeclareTextCompositeCommand{\k}{PU}{u}{\81\163}% U+0173
15794 % U+0174 LATIN CAPITAL LETTER W WITH CIRCUMFLEX; Wcircumflex
15795 \DeclareTextCompositeCommand{\^}{PU}{W}{\81\164}% U+0174
15796 % U+0175 LATIN SMALL LETTER W WITH CIRCUMFLEX; wcircumflex
15797 \DeclareTextCompositeCommand{\^}{PU}{w}{\81\165}% U+0175
15798 % U+0176 LATIN CAPITAL LETTER Y WITH CIRCUMFLEX; Ycircumflex
15799 \DeclareTextCompositeCommand{\^}{PU}{Y}{\81\166}% U+0176
15800 % U+0177 LATIN SMALL LETTER Y WITH CIRCUMFLEX; ycircumflex
15801 \DeclareTextCompositeCommand{\^}{PU}{y}{\81\167}% U+0177
15802 % U+0178 LATIN CAPITAL LETTER Y WITH DIAERESIS; Ydieresis
15803 \DeclareTextCompositeCommand{\"}{PU}{Y}{\81\170}% U+0178
15804 % U+0179 LATIN CAPITAL LETTER Z WITH ACUTE; Zacute
15805 \DeclareTextCompositeCommand{\'}{PU}{Z}{\81\171}% U+0179
15806 % U+017A LATIN SMALL LETTER Z WITH ACUTE; zacute
15807 \DeclareTextCompositeCommand{\'}{PU}{z}{\81\172}% U+017A
15808 % U+017B LATIN CAPITAL LETTER Z WITH DOT ABOVE; Zdot, Zdotaccent
15809 \DeclareTextCompositeCommand{\.}{PU}{Z}{\81\173}% U+017B
15810 % U+017C LATIN SMALL LETTER Z WITH DOT ABOVE; zdot, zdotaccent
15811 \DeclareTextCompositeCommand{\.}{PU}{z}{\81\174}% U+017C
15812 % U+017D LATIN CAPITAL LETTER Z WITH CARON; Zcaron
15813 \DeclareTextCompositeCommand{\v}{PU}{Z}{\81\175}% U+017D
15814 % U+017E LATIN SMALL LETTER Z WITH CARON; zcaron
15815 \DeclareTextCompositeCommand{\v}{PU}{z}{\81\176}% U+017E
15816 % U+017F LATIN SMALL LETTER LONG S; longs, slong
15817 \DeclareTextCommand{\textlongS}{PU}{\81\177}% U+017F

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

15818 % U+0180 LATIN SMALL LETTER B WITH STROKE; bstroke; \textcrb (tipa)
15819 \DeclareTextCommand{\textcrb}{PU}{\81\200}% U+0180
15820 %* \textcrb -> \crossb (wsuipa)
15821 % An alternate glyph with the stroke through the bowl:
15822 %* \textcrb -> \textbarb (tipa)
15823 %* \textcrb -> \barb (wsuipa)
15824 % U+0181 LATIN CAPITAL LETTER B WITH HOOK; Bhook; \hausaB (phonetic)
15825 \DeclareTextCommand{\texthausaB}{PU}{\81\201}%* U+0181
15826 % U+0188 LATIN SMALL LETTER C WITH HOOK; chook; \texthtc (tipa)
15827 \DeclareTextCommand{\texthtc}{PU}{\81\210}% U+0188
15828 % U+018A LATIN CAPITAL LETTER D WITH HOOK; Dhook; \hausaD (phonetic)
15829 \DeclareTextCommand{\texthausaD}{PU}{\81\212}%* U+018A
15830 % U+018E LATIN CAPITAL LETTER REVERSED E; Ereversed
15831 \DeclareTextCommand{\textEreversed}{PU}{\81\216}% U+018E
15832 \DeclareTextCommand{\textrevE}{PU}{\81\216}% U+018E
15833 % U+0192 LATIN SMALL LETTER F WITH HOOK; florin
15834 \DeclareTextCommand{\textflorin}{PU}{\81\222}% U+0192
15835 %* \textflorin -> \Florin (marvosym)
15836 % U+0195 LATIN SMALL LETTER HV; hv; \texthvlig (tipa)

15837 \DeclareTextCommand{\texthvlig}{PU}{\81\225}% U+0195
15838 %* \texthvlig -> \hv (wsuipa)
15839 % U+0198 LATIN CAPITAL LETTER K WITH HOOK; Khook; \hausak (phonetic)
15840 \DeclareTextCommand{\texthausak}{PU}{\81\230}%* U+0198
15841 % U+0199 LATIN SMALL LETTER K WITH HOOK; khook; \texthtk (tipa)
15842 \DeclareTextCommand{\texthtk}{PU}{\81\231}% U+0199
15843 %* \texthtk -> \hausak (phonetic)
15844 % U+019A LATIN SMALL LETTER L WITH BAR; lbar;
15845 % \textbarl (tipa), \barl (wsuipa)
15846 \DeclareTextCommand{\textbarl}{PU}{\81\232}%* U+019A
15847 % U+019B LATIN SMALL LETTER LAMBDA WITH STROKE/
15848 % LATIN SMALL LETTER BARRED LAMBDA; lambdastroke;
15849 % \textcrlambda (tipa)
15850 \DeclareTextCommand{\textcrlambda}{PU}{\81\233}% U+019B
15851 %* \textcrlambda -> \crossnilambda (wsuipa)
15852 %* \textcrlambda -> \barlambda (phonetic)
15853 %* \textcrlambda -> \lambdabar (txfonts/pxfonts)
15854 %* \textcrlambda -> \lambdaslash (txfonts/pxfonts)
15855 % U+019E LATIN SMALL LETTER N WITH LONG RIGHT LEG; nlegrightlong;
15856 % \textnrleg (tipx)
15857 \DeclareTextCommand{\textPUnrleg}{PU}{\81\236}% U+019E
15858 %* \textPUnrleg -> \textnrleg (tipx)
15859 % U+01A5 LATIN SMALL LETTER P WITH HOOK; phook; \texthtp (tipa)
15860 \DeclareTextCommand{\texthtp}{PU}{\81\245}% U+01A5
15861 % U+01AB LATIN SMALL LETTER T WITH PALATAL HOOK; tpalatalhook;
15862 % \textlhookt (tipa)
15863 \DeclareTextCommand{\textlhookt}{PU}{\81\253}% U+01AB
15864 % U+01AD LATIN SMALL LETTER T WITH HOOK; thook; \texthtt (tipa)
15865 \DeclareTextCommand{\texthtt}{PU}{\81\255}% U+01AD
15866 % U+01B9 LATIN SMALL LETTER EZH REVERSED/
15867 % LATIN SMALL LETTER REVERSED YOGH; \textrevyogh (tipa)
15868 \DeclareTextCommand{\textrevyogh}{PU}{\81\271}% U+01B9
15869 % U+01BB LATIN LETTER TWO WITH STROKE; twostroke; \textcrtwo (tipa)
15870 \DeclareTextCommand{\textcrtwo}{PU}{\81\273}% U+01BB
15871 % U+01BE LATIN LETTER INVERTED GLOTTAL STOP WITH STROKE;
15872 % glottalinvertedstroke; \textcrinvglotstop (tipa)
15873 \DeclareTextCommand{\textcrinvglotstop}{PU}{\81\276}% U+01BE
15874 % U+01BF LATIN LETTER WYNN; wynn; \textwynn (tipa)
15875 \DeclareTextCommand{\textwynn}{PU}{\81\277}% U+01BF
15876 % U+01C0 LATIN LETTER DENTAL CLICK/LATIN LETTER PIPE; clickdental;
15877 % \textpipe (tipa)
15878 \DeclareTextCommand{\textpipe}{PU}{\81\300}% U+01C0
15879 %* \textpipe -> \textpipevar (tipx)
15880 % U+01C1 LATIN LETTER LATERAL CLICK/LATIN LETTER
15881 % DOUBLE PIPE; clicklateral; \textdoublepipe (tipa)
15882 \DeclareTextCommand{\textdoublepipe}{PU}{\81\301}% U+01C1
15883 %* \textdoublepipe -> \textdoublepipevar (tipx)
15884 % U+01C2 LATIN LETTER ALVEOLAR CLICK/LATIN LETTER PIPE DOUBLE BAR;
15885 % clickalveolar; \textdoublebarpipe (tipa)
15886 \DeclareTextCommand{\textdoublebarpipe}{PU}{\81\302}% U+01C2

15887 %* \textdoublebarpipe -> \textdoublebarpipevar (tipx)
15888 % U+01CD LATIN CAPITAL LETTER A WITH CARON; Acaron
15889 \DeclareTextCompositeCommand{\v}{PU}{A}{\81\315}% U+01CD
15890 % U+01CE LATIN SMALL LETTER A WITH CARON; acaron
15891 \DeclareTextCompositeCommand{\v}{PU}{a}{\81\316}% U+01CE
15892 % U+01CF LATIN CAPITAL LETTER I WITH CARON; Icaron
15893 \DeclareTextCompositeCommand{\v}{PU}{I}{\81\317}% U+01CF
15894 % U+01D0 LATIN SMALL LETTER I WITH CARON; icaron
15895 \DeclareTextCompositeCommand{\v}{PU}{i}{\81\320}% U+01D0
15896 \DeclareTextCompositeCommand{\v}{PU}{i}{\81\320}% U+01D0
15897 % U+01D1 LATIN CAPITAL LETTER O WITH CARON; Ocaron
15898 \DeclareTextCompositeCommand{\v}{PU}{O}{\81\321}% U+01D1
15899 % U+01D2 LATIN SMALL LETTER O WITH CARON; ocaron
15900 \DeclareTextCompositeCommand{\v}{PU}{o}{\81\322}% U+01D2
15901 % U+01D3 LATIN CAPITAL LETTER U WITH CARON; Ucaron
15902 \DeclareTextCompositeCommand{\v}{PU}{U}{\81\323}% U+01D3
15903 % U+01D4 LATIN SMALL LETTER U WITH CARON; ucaron
15904 \DeclareTextCompositeCommand{\v}{PU}{u}{\81\324}% U+01D4
15905 % U+01DD LATIN SMALL LETTER TURNED E; eturned; \inve (wasysym)
15906 \DeclareTextCommand{\textinve}{PU}{\81\335}%* U+01DD
15907 % U+01E4 LATIN CAPITAL LETTER G WITH STROKE; Gstroke
15908 \DeclareTextCommand{\textGslash}{PU}{\81\344}% U+01E4
15909 % U+01E5 LATIN SMALL LETTER G WITH STROKE; gstroke
15910 \DeclareTextCommand{\textgslash}{PU}{\81\345}% U+01E5
15911 %* \textgslash -> \textcrg (tipa)
15912 % U+01E6 LATIN CAPITAL LETTER G WITH CARON; Gcaron
15913 \DeclareTextCompositeCommand{\v}{PU}{G}{\81\346}% U+01E6
15914 % U+01E7 LATIN SMALL LETTER G WITH CARON; gcaron
15915 \DeclareTextCompositeCommand{\v}{PU}{g}{\81\347}% U+01E7
15916 % U+01E8 LATIN CAPITAL LETTER K WITH CARON; Kcaron
15917 \DeclareTextCompositeCommand{\v}{PU}{K}{\81\350}% U+01E8
15918 % U+01E9 LATIN SMALL LETTER K WITH CARON; kcaron
15919 \DeclareTextCompositeCommand{\v}{PU}{k}{\81\351}% U+01E9
15920 % U+01EA LATIN CAPITAL LETTER O WITH OGONEK; Oogonek
15921 \DeclareTextCompositeCommand{\k}{PU}{O}{\81\352}% U+01EA
15922 % U+01EB LATIN SMALL LETTER O WITH OGONEK; oogonek
15923 \DeclareTextCompositeCommand{\k}{PU}{o}{\81\353}% U+01EB
15924 % U+01F0 LATIN SMALL LETTER J WITH CARON; jcaron
15925 \DeclareTextCompositeCommand{\v}{PU}{j}{\81\360}% U+01F0
15926 \DeclareTextCompositeCommand{\v}{PU}{j}{\81\360}% U+01F0
15927 % U+01F4 LATIN CAPITAL LETTER G WITH ACUTE; Gacute
15928 \DeclareTextCompositeCommand{\'}{PU}{G}{\81\364}% U+01F4
15929 % U+01F5 LATIN SMALL LETTER G WITH ACUTE; gacute
15930 \DeclareTextCompositeCommand{\'}{PU}{g}{\81\365}% U+01F5
15931 % U+01F8 LATIN CAPITAL LETTER N WITH GRAVE
15932 \DeclareTextCompositeCommand{\`}{PU}{N}{\81\370}% U+01F8
15933 % U+01F9 LATIN SMALL LETTER N WITH GRAVE
15934 \DeclareTextCompositeCommand{\`}{PU}{n}{\81\371}% U+01F9
15935 % U+01FC LATIN CAPITAL LETTER AE WITH ACUTE; AEacute
15936 \DeclareTextCompositeCommand{\'}{PU}{\AE}{\81\374}% U+01FC
15937 % U+01FD LATIN SMALL LETTER AE WITH ACUTE; aeacute
15938 \DeclareTextCompositeCommand{\'}{PU}{\ae}{\81\375}% U+01FD
15939 % U+01FE LATIN CAPITAL LETTER O WITH STROKE AND ACUTE;
15940 % *Oslashacute, Ostrokeacut

15941 \DeclareTextCompositeCommand{\'}{PU}{\o}{\81\376}% U+01FE
15942 % U+01FF LATIN SMALL LETTER O WITH STROKE AND ACUTE;
15943 % *oslashacute, ostrokeacute
15944 \DeclareTextCompositeCommand{\'}{PU}{\o}{\81\377}% U+01FF
15945 \/\puenc)
15946 (*puextra)
15947 % U+0200 LATIN CAPITAL LETTER A WITH DOUBLE GRAVE; Adblgrave
15948 \DeclareTextCompositeCommand{\G}{PU}{A}{\82\000}% U+0200
15949 % U+0201 LATIN SMALL LETTER A WITH DOUBLE GRAVE; adblgrave
15950 \DeclareTextCompositeCommand{\G}{PU}{a}{\82\001}% U+0201
15951 % U+0204 LATIN CAPITAL LETTER E WITH DOUBLE GRAVE; Edblgrave
15952 \DeclareTextCompositeCommand{\G}{PU}{E}{\82\004}% U+0204
15953 % U+0205 LATIN SMALL LETTER E WITH DOUBLE GRAVE; edblgrave
15954 \DeclareTextCompositeCommand{\G}{PU}{e}{\82\005}% U+0205
15955 \/\puextra)
15956 (*puenc)
15957 % U+0206 LATIN CAPITAL LETTER E WITH INVERTED BREVE; Einvert-
edbreve
15958 \DeclareTextCompositeCommand{\textinvbreve}{PU}{E}{\82\006}% U+0206
15959 % U+0207 LATIN SMALL LETTER E WITH INVERTED BREVE; einvert-
breve
15960 \DeclareTextCompositeCommand{\textinvbreve}{PU}{e}{\82\007}% U+0207
15961 \/\puenc)
15962 (*puextra)
15963 % U+0208 LATIN CAPITAL LETTER I WITH DOUBLE GRAVE; Idblgrave
15964 \DeclareTextCompositeCommand{\G}{PU}{I}{\82\010}% U+0208
15965 % U+0209 LATIN SMALL LETTER I WITH DOUBLE GRAVE; idblgrave
15966 \DeclareTextCompositeCommand{\G}{PU}{i}{\82\011}% U+0209
15967 \DeclareTextCompositeCommand{\G}{PU}{i}{\82\011}% U+0209
15968 \/\puextra)
15969 (*puenc)
15970 % U+020A LATIN CAPITAL LETTER I WITH INVERTED BREVE; Iinverted-
breve
15971 \DeclareTextCompositeCommand{\textinvbreve}{PU}{I}{\82\012}% U+020A
15972 % U+020B LATIN SMALL LETTER I WITH INVERTED BREVE; iinverted-
breve
15973 \DeclareTextCompositeCommand{\textinvbreve}{PU}{i}{\82\013}% U+020B
15974 \DeclareTextCompositeCommand{\textinvbreve}{PU}{i}{\82\013}% U+020B
15975 \/\puenc)
15976 (*puextra)
15977 % U+020C LATIN CAPITAL LETTER O WITH DOUBLE GRAVE; Odblgrave
15978 \DeclareTextCompositeCommand{\G}{PU}{O}{\82\014}% U+020C
15979 % U+020D LATIN SMALL LETTER O WITH DOUBLE GRAVE; odblgrave
15980 \DeclareTextCompositeCommand{\G}{PU}{o}{\82\015}% U+020D
15981 \/\puextra)
15982 (*puenc)
15983 % U+020E LATIN CAPITAL LETTER O WITH INVERTED BREVE; Oinvert-
edbreve
15984 \DeclareTextCompositeCommand{\textinvbreve}{PU}{O}{\82\016}% U+020E
15985 % U+020F LATIN SMALL LETTER O WITH INVERTED BREVE; oinvert-
breve
15986 \DeclareTextCompositeCommand{\textinvbreve}{PU}{o}{\82\017}% U+020F
15987 \/\puenc)
15988 (*puextra)

15989 % U+0210 LATIN CAPITAL LETTER R WITH DOUBLE GRAVE; Rdblgrave
15990 \DeclareTextCompositeCommand{\G}{PU}{R}{\82\020}% U+0210
15991 % U+0211 LATIN SMALL LETTER R WITH DOUBLE GRAVE; rdblgrave
15992 \DeclareTextCompositeCommand{\G}{PU}{r}{\82\021}% U+0211
15993 % U+0214 LATIN CAPITAL LETTER U WITH DOUBLE GRAVE; Udblgrave
15994 \DeclareTextCompositeCommand{\G}{PU}{U}{\82\024}% U+0214
15995 % U+0215 LATIN SMALL LETTER U WITH DOUBLE GRAVE; udblgrave
15996 \DeclareTextCompositeCommand{\G}{PU}{u}{\82\025}% U+0215
15997 </puextra>
15998 <*puenc>
15999 % U+0216 LATIN CAPITAL LETTER U WITH INVERTED BREVE; Uinvert-
edbreve
16000 \DeclareTextCompositeCommand{\textinvbreve}{PU}{U}{\82\026}% U+0216
16001 % U+0217 LATIN SMALL LETTER U WITH INVERTED BREVE; uinverted-
breve
16002 \DeclareTextCompositeCommand{\textinvbreve}{PU}{u}{\82\027}% U+0217
16003 % U+021E LATIN CAPITAL LETTER H WITH CARON
16004 \DeclareTextCompositeCommand{\v}{PU}{H}{\82\036}% U+021E
16005 % U+021F LATIN SMALL LETTER H WITH CARON
16006 \DeclareTextCompositeCommand{\v}{PU}{h}{\82\037}% U+021F
16007 % U+0221 LATIN SMALL LETTER D WITH CURL; \textctd (tipa)
16008 \DeclareTextCommand{\textctd}{PU}{\82\041}% U+0221
16009 % U+0225 LATIN SMALL LETTER Z WITH HOOK; \textcommatailz (tipa)
16010 \DeclareTextCommand{\textcommatailz}{PU}{\82\045}% U+0225
16011 % U+0226 LATIN CAPITAL LETTER A WITH DOT ABOVE
16012 \DeclareTextCompositeCommand{\.}{PU}{A}{\82\046}% U+0226
16013 % U+0227 LATIN SMALL LETTER A WITH DOT ABOVE
16014 \DeclareTextCompositeCommand{\.}{PU}{a}{\82\047}% U+0227
16015 % U+0228 LATIN CAPITAL LETTER E WITH CEDILLA
16016 \DeclareTextCompositeCommand{\c}{PU}{E}{\82\050}% U+0228
16017 % U+0229 LATIN SMALL LETTER E WITH CEDILLA
16018 \DeclareTextCompositeCommand{\c}{PU}{e}{\82\051}% U+0229
16019 % U+022E LATIN CAPITAL LETTER O WITH DOT ABOVE
16020 \DeclareTextCompositeCommand{\.}{PU}{O}{\82\056}% U+022E
16021 % U+022F LATIN SMALL LETTER O WITH DOT ABOVE
16022 \DeclareTextCompositeCommand{\.}{PU}{o}{\82\057}% U+022F
16023 % U+0232 LATIN CAPITAL LETTER Y WITH MACRON
16024 \DeclareTextCompositeCommand{\=}{PU}{Y}{\82\062}% U+0232
16025 % U+0233 LATIN SMALL LETTER Y WITH MACRON
16026 \DeclareTextCompositeCommand{\=}{PU}{y}{\82\063}% U+0233
16027 % U+0235 LATIN SMALL LETTER N WITH CURL; \textctn (tipa)
16028 \DeclareTextCommand{\textctn}{PU}{\82\065}% U+0235
16029 % U+0236 LATIN SMALL LETTER T WITH CURL; \textctt (tipa)
16030 \DeclareTextCommand{\textctt}{PU}{\82\066}% U+0236
16031 % U+0237 LATIN SMALL LETTER DOTLESS J
16032 \DeclareTextCommand{\j}{PU}{\82\067}% U+0237
16033 % U+0238 LATIN SMALL LETTER DB DIGRAPH; \textdblig (tipx)
16034 \DeclareTextCommand{\textPUdblig}{PU}{\82\070}% U+0238
16035 %* \textPUdblig -> \textdblig (tipx)
16036 % U+0239 LATIN SMALL LETTER QP DIGRAPH; \textqplig (tipx)
16037 \DeclareTextCommand{\textPUqplig}{PU}{\82\071}% U+0239
16038 %* \textPUqplig -> \textqplig (tipx)
16039 % U+023C LATIN SMALL LETTER C WITH STROKE; \slashc (wsuipa)
16040 \DeclareTextCommand{\textslashc}{PU}{\82\074}%* U+023C

16041 %* \textslashc -> \textcentoldstyle (textcomp)
16042 % With bar instead of stroke:
16043 %* \textslashc -> \textbarc (tipa)

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

16044 % U+0250 LATIN SMALL LETTER TURNED A; aturned; \textturna (tipa)
16045 \DeclareTextCommand{\textturna}{PU}{\82\120}% U+0250
16046 %* \textturna -> \inva (wasysym)
16047 % U+0251 LATIN SMALL LETTER ALPHA/LATIN SMALL LETTER
16048 % SCRIPT A; ascript; \textscripta (tipa), \scripta (wsuipa)
16049 \DeclareTextCommand{\textscripta}{PU}{\82\121}%* U+0251
16050 %* \textscripta -> \vara (phonetic)
16051 % U+0252 LATIN SMALL LETTER TURNED ALPHA; ascriptturned;
16052 % \textturnscripta (tipa)
16053 \DeclareTextCommand{\textturnscripta}{PU}{\82\122}% U+0252
16054 %* \textturnscripta -> \invscripta (wsuipa)
16055 %* \textturnscripta -> \rotvara (phonetic)
16056 % U+0253 LATIN CAPITAL LETTER B WITH HOOK; bhook; \texthtb (tipa)
16057 \DeclareTextCommand{\texthtb}{PU}{\82\123}% U+0253
16058 %* \texthtb -> \hookb (wsuipa)
16059 %* \texthtb -> \hausab (phonetic)
16060 % U+0254 LATIN SMALL LETTER OPEN O; oopen;
16061 % \textopeno (tipa), \openo (wasysym)
16062 \DeclareTextCommand{\textopeno}{PU}{\82\124}%* U+0254
16063 %* \textopeno -> \varopeno (phonetic)
16064 % U+0255 LATIN SMALL LETTER C WITH CURL; ccurl; \textctc (tipa)
16065 \DeclareTextCommand{\textctc}{PU}{\82\125}% U+0255
16066 %* \textctc -> \curlyc (wsuipa)
16067 % U+0256 LATIN SMALL LETTER D WITH TAIL; dtail; \textrtaid (tipa)
16068 \DeclareTextCommand{\textrtaid}{PU}{\82\126}%* U+0256
16069 %* \textrtaid -> \taid (wsuipa)
16070 % U+0257 LATIN SMALL LETTER D WITH HOOK; dhook; \texthtd (tipa)
16071 \DeclareTextCommand{\texthtd}{PU}{\82\127}% U+0257
16072 %* \texthtd -> \hookd (wsuipa)
16073 %* \texthtd -> \hausad (phonetic)
16074 % U+0258 LATIN SMALL LETTER REVERSED E; ereversed;
16075 % \textreve (tipa), \reve (wsuipa)
16076 \DeclareTextCommand{\textreve}{PU}{\82\130}%* U+0258
16077 % U+0259 LATIN SMALL LETTER SCHWA; schwa;
16078 % \textschwa (tipa), \schwa (wsuipa, phonetic)
16079 \DeclareTextCommand{\textschwa}{PU}{\82\131}%* U+0259
16080 % U+025A LATIN SMALL LETTER SCHWA WITH HOOK; schwahook;
16081 % \textrhookschwa (tipa)
16082 \DeclareTextCommand{\textrhookschwa}{PU}{\82\132}% U+025A
16083 %* \textrhookschwa -> \er (wsuipa)
16084 % U+025B LATIN SMALL LETTER OPEN E/LATIN SMALL LETTER EP-
SILON; eopen;
16085 % \niepsilon (wsuipa)
16086 \DeclareTextCommand{\textniepsilon}{PU}{\82\133}%* U+025B
16087 %* \textniepsilon -> \epsi (phonetic)
16088 % U+025C LATIN SMALL LETTER REVERSED OPEN E; eopenreversed;
16089 % \textrevepsilon (tipa), \revepsilon (wsuipa)
16090 \DeclareTextCommand{\textrevepsilon}{PU}{\82\134}%* U+025C
16091 % U+025D LATIN SMALL LETTER REVERSED OPEN E WITH HOOK; eopen-

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reversedhook;
16092 % \texthookreversible (tipa)
16093 \DeclareTextCommand{\texthookreversible}{PU}{\82\135}% U+025D
16094 %* \texthookreversible -> \hookreversible (wsuipa)
16095 % U+025E LATIN SMALL LETTER CLOSED REVERSED OPEN E; eopenre-
reversedclosed;
16096 % \textclosereversible (tipa)
16097 \DeclareTextCommand{\textclosereversible}{PU}{\82\136}% U+025E
16098 %* \textclosereversible -> \closedreversible (wsuipa)
16099 % U+025F LATIN SMALL LETTER DOTLESS J WITH STROKE; jdot-
lessstroke;
16100 % \textbardotlessj (tipa)
16101 \DeclareTextCommand{\textbardotlessj}{PU}{\82\137}% U+025F
16102 %* \textbardotlessj -> \barj (phonetic)
16103 % U+0260 LATIN SMALL LETTER G WITH HOOK; ghook; \texthtg (tipa)
16104 \DeclareTextCommand{\texthtg}{PU}{\82\140}% U+0260
16105 %* \texthtg -> \hookg (wsuipa)
16106 % U+0261 LATIN SMALL LETTER SCRIPT G; gscript;
16107 % \textscriptg (tipa), \scriptg (wsuipa)
16108 \DeclareTextCommand{\textscriptg}{PU}{\82\141}% U+0261
16109 %* \textscriptg -> \varg (phonetic)
16110 % U+0262 LATIN LETTER SMALL CAPITAL G; \textscg (tipa), \scg (wsuipa)
16111 \DeclareTextCommand{\textscg}{PU}{\82\142}% U+0262
16112 % U+0263 LATIN SMALL LETTER GAMMA; gammadatinsmall;
16113 % \ipagamma (wsuipa), \vod (phonetic)
16114 \DeclareTextCommand{\textipagamma}{PU}{\82\143}% U+0263
16115 %* \textipagamma -> \vod (pnonetic)
16116 % U+0264 LATIN SMALL LETTER RAMS HORN; ramshorn;
16117 % \babygamma (wsuipa)
16118 \DeclareTextCommand{\textbabygamma}{PU}{\82\144}% U+0264
16119 % U+0265 LATIN SMALL LETTER TURNED H; hturned; \textturnh (tipa)
16120 \DeclareTextCommand{\textturnh}{PU}{\82\145}% U+0265
16121 %* \textturnh -> \invh (wsuipa)
16122 %* \textturnh -> \udesc (phonetic)
16123 % U+0266 LATIN SMALL LETTER H WITH HOOK; hhook; \texthth (tipa)
16124 \DeclareTextCommand{\texthth}{PU}{\82\146}% U+0266
16125 %* \texthth -> \hookh (wsuipa)
16126 %* \texthth -> \voicedh (phonetic)
16127 % U+0267 LATIN SMALL LETTER HENG WITH HOOK; henghook; \tex-
ththeng (tipa)
16128 \DeclareTextCommand{\textththeng}{PU}{\82\147}% U+0267
16129 %* \textththeng -> \hookheng (wsuipa)
16130 % U+0268 LATIN SMALL LETTER I WITH STROKE;
16131 % \textbari (tipa), \bari (wsuipa)
16132 \DeclareTextCommand{\textbari}{PU}{\82\150}% U+0268
16133 %* \textbari -> \ibar (phonetic)
16134 % U+0269 LATIN SMALL LETTER IOTA; iotalatin; \niiota (wsuipa)
16135 \DeclareTextCommand{\textniiota}{PU}{\82\151}% U+0269
16136 %* \textniiota -> \vari (phonetic)
16137 % U+026A LATIN LETTER SMALL CAPITAL I; \textsci (tipa), \sci (wsuipa)
16138 \DeclareTextCommand{\textsci}{PU}{\82\152}% U+026A
16139 % U+026B LATIN SMALL LETTER L WITH MIDDLE TILDE; lmiddletilde;
16140 % \textltilde (tipa)
16141 \DeclareTextCommand{\textltilde}{PU}{\82\153}% U+026B

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16142 %* \textltilde -> \tildel (wsuipa)
16143 % U+026C LATIN SMALL LETTER L WITH BELT; lbelt; \textbeltl (tipa)
16144 \DeclareTextCommand{\textbeltl}{PU}{\82\154}% U+026C
16145 %* \textbeltl -> \latfric (wsuipa)
16146 % U+026D LATIN SMALL LETTER L WITH RETROFLEX HOOK;
16147 % lhookretroflex; \textrtaill (tipa)
16148 \DeclareTextCommand{\textrtaill}{PU}{\82\155}% U+026D
16149 %* \textrtaill -> \taill (wsuipa)
16150 % U+026E LATIN SMALL LETTER LEZH; lezh; \textlyoghlig (tipa)
16151 \DeclareTextCommand{\textlyoghlig}{PU}{\82\156}% U+026E
16152 %* \textlyoghlig -> \lz (wsuipa)
16153 % U+026F LATIN SMALL LETTER TURNED M; mturned; \textturnm (tipa)
16154 \DeclareTextCommand{\textturnm}{PU}{\82\157}% U+026F
16155 %* \textturnm -> \invm (wsuipa)
16156 %* \textturnm -> \rotm (phonetic)
16157 % U+0270 LATIN SMALL LETTER TURNED M WITH LONG LEG; mlongleg-
turned;
16158 % \textturnmrlg (tipa)
16159 \DeclareTextCommand{\textturnmrlg}{PU}{\82\160}% U+0270
16160 %* \textturnmrlg -> \legm (wsuipa)
16161 % U+0271 LATIN SMALL LETTER M WITH HOOK; mhook; \textltailm (tipa)
16162 \DeclareTextCommand{\textltailm}{PU}{\82\161}% U+0271
16163 %* \textltailm -> \labdentainas (wsuipa)
16164 %* \textltailm -> \emgma (phonetic)
16165 % U+0272 LATIN SMALL LETTER N WITH LEFT HOOK; nhookleft; \textl-
tailn (tipa)
16166 \DeclareTextCommand{\textltailn}{PU}{\82\162}% U+0272
16167 %* \textltailn -> \nj (wsuipa)
16168 %* \textltailn -> \enya (phonetic)
16169 % U+0273 LATIN SMALL LETTER N WITH RETROFLEX HOOK;
16170 % nhookretroflex; \textrtailn (tipa)
16171 \DeclareTextCommand{\textrtailn}{PU}{\82\163}% U+0273
16172 %* \textrtailn -> \tailn (wsuipa)
16173 % U+0274 LATIN LETTER SMALL CAPITAL N; \textscn (tipa), \scn (wsuipa)
16174 \DeclareTextCommand{\textscn}{PU}{\82\164}% U+0274
16175 % U+0275 LATIN CAPITAL LETTER O WITH MIDDLE TILDE/
16176 % LATIN CAPITAL LETTER BARRED O; obarred;
16177 % \textbaro (tipa), \baro (wsuipa)
16178 % But \baro from stmaryrd is different!
16179 \DeclareTextCommand{\textbaro}{PU}{\82\165}% U+0275
16180 % U+0276 LATIN LETTER SMALL CAPITAL OE; \textscnelig (tipa)
16181 \DeclareTextCommand{\textscnelig}{PU}{\82\166}% U+0276
16182 % U+0277 LATIN SMALL LETTER CLOSED OMEGA; omegalatinclosed;
16183 % \textcloseomega (tipa)
16184 \DeclareTextCommand{\textcloseomega}{PU}{\82\167}% U+0277
16185 %* \textcloseomega -> \closedniomega (wsuipa)
16186 %* \textcloseomega -> \varomega (phonetic)
16187 % U+0278 LATIN SMALL LETTER PHI; philatin; \niph (wsuipa)
16188 \DeclareTextCommand{\textniph}{PU}{\82\170}% U+0278
16189 % U+0279 LATIN SMALL LETTER TURNED R; rturned; \textturnr (tipa)
16190 \DeclareTextCommand{\textturnr}{PU}{\82\171}% U+0279
16191 %* \textturnr -> \invr (wsuipa)
16192 %* \textturnr -> \rotr (phonetic)
16193 % U+027A LATIN SMALL LETTER TURNED R WITH LONG LEG;

16194 % rlonglegturned; \textturnlongleg (tipa)
16195 \DeclareTextCommand{\textturnlongleg}{PU}{\82\172}% U+027A
16196 %* \textturnlongleg -> \invleg (wsuipa)
16197 % U+027B LATIN SMALL LETTER TURNED R WITH HOOK; rhoorturned;
16198 % \textturnrrtail (tipa)
16199 \DeclareTextCommand{\textturnrrtail}{PU}{\82\173}% U+027B
16200 %* \textturnrrtail -> \tailinvr (wsuipa)
16201 % U+027C LATIN SMALL LETTER R WITH LONG LEG; rlongleg; \textlongleg (tipa)
16202 \DeclareTextCommand{\textlongleg}{PU}{\82\174}%* U+027C
16203 %* \textlongleg -> \leg (wsuipa)
16204 % U+027D LATIN SMALL LETTER R WITH TAIL; rhoort; \textrrtail (tipa)
16205 \DeclareTextCommand{\textrrtail}{PU}{\82\175}% U+027D
16206 %* \textrrtail -> \tailr (wsuipa)
16207 % U+027E LATIN SMALL LETTER R WITH FISHHOOK; rfishhook;
16208 % \textfishhook (tipa)
16209 \DeclareTextCommand{\textfishhook}{PU}{\82\176}% U+027E
16210 %* \textfishhook -> \flapr (wsuipa)
16211 %* \textfishhook -> \flap (phonetic)
16212 % U+027F LATIN SMALL LETTER REVERSED R WITH FISHHOOK; rfishhookreversed;
16213 % \textlhtlongi (tipa)
16214 \DeclareTextCommand{\textlhtlongi}{PU}{\82\177}% U+027F
16215 % U+0280 LATIN LETTER SMALL CAPITAL R; \textscr (tipa), \scr (wsuipa)
16216 \DeclareTextCommand{\textscr}{PU}{\82\200}%* U+0280
16217 % U+0281 LATIN LETTER SMALL CAPITAL INVERTED R; Rsmallinverted;
16218 % \textinvscr (tipa), \invscr (wsuipa)
16219 \DeclareTextCommand{\textinvscr}{PU}{\82\201}%* U+0281
16220 % U+0282 LATIN SMALL LETTER S WITH HOOK; shook; \textrtails (tipa)
16221 \DeclareTextCommand{\textrtails}{PU}{\82\202}% U+0282
16222 %* \textrtails -> \tails (wsuipa)
16223 % U+0283 LATIN SMALL LETTER ESH; esh; \textesh (tipa), \esh (wsuipa)
16224 \DeclareTextCommand{\textesh}{PU}{\82\203}%* U+0283
16225 % U+0284 LATIN SMALL LETTER DOTLESS J WITH STROKE AND HOOK;
16226 % dotlessjstrokehook; \texthtbardotlessj (tipa)
16227 \DeclareTextCommand{\texthtbardotlessj}{PU}{\82\204}% U+0284
16228 % U+0285 LATIN SMALL LETTER SQUAT REVERSED ESH; eshsquatreversed;
16229 % \textvibyi (tipa)
16230 \DeclareTextCommand{\textvibyi}{PU}{\82\205}% U+0285
16231 % U+0286 LATIN SMALL LETTER ESH WITH CURL; eshcurl; \textctesh (tipa)
16232 \DeclareTextCommand{\textctesh}{PU}{\82\206}% U+0286
16233 %* \textctesh -> \curlyesh (wsuipa)
16234 % U+0287 LATIN SMALL LETTER TURNED T; tturned; \textturnt (tipa)
16235 \DeclareTextCommand{\textturnt}{PU}{\82\207}% U+0287
16236 %* \textturnt -> \clickt (wsuipa)
16237 % U+0288 LATIN SMALL LETTER T WITH RETROFLEX HOOK; retroflexhook;
16238 % \textrrtail (tipa)
16239 \DeclareTextCommand{\textrrtail}{PU}{\82\210}% U+0288
16240 %* \textrrtail -> \tailt (wsuipa)
16241 % U+0289 LATIN SMALL LETTER U BAR; ubar;
16242 % \textbaru (tipa), \baru (wsuipa)
16243 \DeclareTextCommand{\textbaru}{PU}{\82\211}%* U+0289

16244 %* \textbaru -> \ubar (phonetic)
16245 % U+028A LATIN SMALL LETTER UPSILON; \niupsilon (wsuipa)
16246 \DeclareTextCommand{\textniupsilon}{PU}{\82\212}%* U+028A
16247 %* \textniupsilon -> \rotOmega (phonetic)
16248 % U+028B LATIN SMALL LETTER V WITH HOOK/LATIN SMALL LETTER SCRIPT V;
16249 % vhook; \textscriptv (tipa), \scriptv (wsuipa)
16250 \DeclareTextCommand{\textscriptv}{PU}{\82\213}%* U+028B
16251 % U+028C LATIN SMALL LETTER TURNED V; vturned; \textturnv (tipa)
16252 \DeclareTextCommand{\textturnv}{PU}{\82\214}%* U+028C
16253 %* \textturnv -> \invv (wsuipa)
16254 %* \textturnv -> \pwedge (phonetic)
16255 % U+028D LATIN SMALL LETTER TURNED W; wturned; \textturnw (tipa)
16256 \DeclareTextCommand{\textturnw}{PU}{\82\215}%* U+028D
16257 %* \textturnw -> \invw (wsuipa)
16258 %* \textturnw -> \rotw (phonetic)
16259 % U+028E LATIN SMALL LETTER TURNED Y; yturned; \textturny (tipa)
16260 \DeclareTextCommand{\textturny}{PU}{\82\216}%* U+028E
16261 %* \textturny -> \invy (wsuipa)
16262 %* \textturny -> \roty (phonetic)
16263 % U+028F LATIN LETTER SMALL CAPITAL Y; \textscy (tipa), \scy (wsuipa)
16264 \DeclareTextCommand{\textscy}{PU}{\82\217}%* U+028F
16265 % U+0290 LATIN SMALL LETTER Z WITH RETROFLEX HOOK; zretroflex-hook;
16266 % \textrtailz (tipa)
16267 \DeclareTextCommand{\textrtailz}{PU}{\82\220}% U+0290
16268 %* \textrtailz -> \tailz (wsuipa)
16269 % U+0291 LATIN SMALL LETTER Z WITH CURL; zcurl; \textctz (tipa)
16270 \DeclareTextCommand{\textctz}{PU}{\82\221}% U+0291
16271 %* \textctz -> \curlyz (wsuipa)
16272 % U+0292 LATIN SMALL LETTER EZH/LATIN SMALL LETTER YOGH; ezh;
16273 % \textyogh (tipa), \yogh (wsuipa)
16274 \DeclareTextCommand{\textyogh}{PU}{\82\222}%* U+0292
16275 % U+0293 LATIN SMALL LETTER EZH WITH CURL/LATIN SMALL LETTER YOGH CURL;
16276 % ezhcurl; \textctyogh (tipa)
16277 \DeclareTextCommand{\textctyogh}{PU}{\82\223}% U+0293
16278 %* \textctyogh -> \curlyyogh (wsuipa)
16279 % U+0294 LATIN LETTER GLOTTAL STOP; glottalstop;
16280 % \textglotstop (tipa), \glotstop (wsuipa)
16281 \DeclareTextCommand{\textglotstop}{PU}{\82\224}%* U+0294
16282 %* \textglotstop -> \ejective (wsuipa)
16283 %* \textglotstop -> \glottal (phonetic)
16284 % U+0295 LATIN LETTER PHARYNGEAL VOICED FRICATIVE/
16285 % LATIN LETTER REVERSED GLOTTAL STOP; glottalstopreversed;
16286 % \textrevglotstop (tipa), \revglotstop (wsuipa)
16287 \DeclareTextCommand{\textrevglotstop}{PU}{\82\225}%* U+0295
16288 %* \textrevglotstop -> \rejectif (wsuipa)
16289 % U+0296 LATIN LETTER INVERTED GLOTTAL STOP; glottalstopinverted;
16290 % \textinvglotstop (tipa), \invglotstop (wsuipa)
16291 \DeclareTextCommand{\textinvglotstop}{PU}{\82\226}%* U+0296
16292 % U+0297 LATIN LETTER STRETCHED C; cstretched; \textstretchc (tipa)
16293 \DeclareTextCommand{\textstretchc}{PU}{\82\227}% U+0297
16294 %* \textstretchc -> \clickc (wsuipa)

16295 %* \textstretchc -> \textstretchcvar (tipx)
16296 % U+0298 LATIN LETTER BILABIAL CLICK; bilabialclick;
16297 % \textbullseye (tipa)
16298 \DeclareTextCommand{\textbullseye}{PU}{\82\230}% U+0298
16299 %* \textbullseye -> \clickb (wsuipa)
16300 %* \textbullseye -> \textObullseye (tipx)
16301 % U+0299 LATIN LETTER SMALL CAPITAL B; \textscb (tipa)
16302 \DeclareTextCommand{\textscb}{PU}{\82\231}% U+0299
16303 % U+029A LATIN SMALL LETTER CLOSED OPEN E; eopenclosed;
16304 % \textcloseepsilon (tipa)
16305 \DeclareTextCommand{\textcloseepsilon}{PU}{\82\232}% U+029A
16306 % U+029B LATIN LETTER SMALL CAPITAL G WITH HOOK; Gsmallhook;
16307 % \texthtscg (tipa)
16308 \DeclareTextCommand{\texthtscg}{PU}{\82\233}% U+029B
16309 % U+029C LATIN LETTER SMALL CAPITAL H; \textsch (tipa)
16310 \DeclareTextCommand{\textsch}{PU}{\82\234}% U+029C
16311 % U+029D LATIN SMALL LETTER J WITH CROSSED-TAIL; jcrossed-
tail; \textcdj (tipa)
16312 \DeclareTextCommand{\textctj}{PU}{\82\235}% U+029D
16313 %* \textctj -> \textctjvar (tipx)
16314 % U+029E LATIN SMALL LETTER TURNED K; kturned; \textturnk (tipa)
16315 \DeclareTextCommand{\textturnk}{PU}{\82\236}% U+029E
16316 %* \textturnk -> \textturnsck (tipx)
16317 % U+029F LATIN LETTER SMALL CAPITAL L; \textscL (tipa)
16318 \DeclareTextCommand{\textscL}{PU}{\82\237}% U+029F
16319 % U+02A0 LATIN SMALL LETTER Q WITH HOOK; qhook; \texthtq (tipa)
16320 \DeclareTextCommand{\texthtq}{PU}{\82\240}% U+02A0
16321 % U+02A1 LATIN LETTER GLOTTAL STOP WITH STROKE; glottalstop-
stroke;
16322 % \textbarglotstop (tipa)
16323 \DeclareTextCommand{\textbarglotstop}{PU}{\82\241}% U+02A1
16324 % U+02A2 LATIN LETTER REVERSED GLOTTAL STOP WITH STROKE/
16325 % LATIN LETTER REVERSED GLOTTAL STOP BAR; glottalstopstrokere-
versed;
16326 % \textbarrevglotstop (tipa)
16327 \DeclareTextCommand{\textbarrevglotstop}{PU}{\82\242}% U+02A2
16328 % U+02A3 LATIN SMALL LETTER DZ DIGRAPH; dzaltone; \textdzlig (tipa)
16329 \DeclareTextCommand{\textdzlig}{PU}{\82\243}% U+02A3
16330 %* \textdzlig -> \dz (wsuipa)
16331 % U+02A4 LATIN SMALL LETTER DEZH DIGRAPH; dezh; \textdyogh-
lig (tipa)
16332 \DeclareTextCommand{\textdyoghlig}{PU}{\82\244}% U+02A4
16333 % U+02A5 LATIN SMALL LETTER DZ DIGRAPH WITH CURL; dzcurl;
16334 % \textdctzlig (tipa)
16335 \DeclareTextCommand{\textdctzlig}{PU}{\82\245}% U+02A5
16336 % U+02A6 LATIN SMALL LETTER TS DIGRAPH; ts; \texttslig (tipa)
16337 \DeclareTextCommand{\texttslig}{PU}{\82\246}% U+02A6
16338 % U+02A7 LATIN SMALL LETTER TESH DIGRAPH; tesh; \textteshlig (tipa)
16339 \DeclareTextCommand{\textteshlig}{PU}{\82\247}% U+02A7
16340 %* \textteshlig -> \tesh (wsuipa)
16341 % U+02A8 LATIN SMALL LETTER TC DIGRAPH WITH CURL; tccurl;
16342 % \texttctclig (tipa)
16343 \DeclareTextCommand{\texttctclig}{PU}{\82\250}% U+02A8
16344 % U+02AE LATIN SMALL LETTER TURNED H WITH FISHHOOK;

16345 % \textlhtlongy (tipa)
 16346 \DeclareTextCommand{\textlhtlongy}{PU}{\82\256}% U+02AE
 16347 % U+02AF LATIN SMALL LETTER TURNED H WITH FISHHOOK AND TAIL;
 16348 % \textvibyy (tipa)
 16349 \DeclareTextCommand{\textvibyy}{PU}{\82\257}% U+02AF

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

16350 % U+02BD MODIFIER LETTER REVERSED COMMA;
 16351 % commareversedmod, afi64937; \textrevapostrophe (tipa)
 16352 \DeclareTextCommand{\textrevapostrophe}{PU}{\82\275}% U+02BD
 16353 % U+02C0 MODIFIER LETTER GLOTTAL STOP; glottalstopmod;
 16354 % \textraiseglotstop (tipa)
 16355 \DeclareTextCommand{\textraiseglotstop}{PU}{\82\300}% U+02C0
 16356 % U+02C2 MODIFIER LETTER LEFT ARROWHEAD; arrowheadleftmod;
 16357 % \textlptr (tipa)
 16358 \DeclareTextCommand{\textlptr}{PU}{\82\302}% U+02C2
 16359 % U+02C3 MODIFIER LETTER RIGHT ARROWHEAD; arrowheadrightmod;
 16360 % \textrptr (tipa)
 16361 \DeclareTextCommand{\textrptr}{PU}{\82\303}% U+02C3
 16362 % U+02C7 CARON; caron
 16363 \DeclareTextCommand{\textasciicaron}{PU}{\82\307}% U+02C7
 16364 % U+02C8 MODIFIER LETTER VERTICAL LINE; verticallinemod;
 16365 % \textprimstress (tipa)
 16366 \DeclareTextCommand{\textprimstress}{PU}{\82\310}% U+02C8
 16367 % U+02CC MODIFIER LETTER LOW VERTICAL LINE; verticallinelowmod;
 16368 % \textsecstress (tipa)
 16369 \DeclareTextCommand{\textsecstress}{PU}{\82\314}% U+02CC
 16370 % U+02D0 MODIFIER LETTER TRIANGULAR COLON; colontriangularmod;
 16371 % \textlengthmark (tipa)
 16372 \DeclareTextCommand{\textlengthmark}{PU}{\82\320}% U+02D0
 16373 % U+02D1 MODIFIER LETTER HALF TRIANGULAR COLON; colontriangularhalfmod;
 16374 % \texthalflength (tipa)
 16375 \DeclareTextCommand{\texthalflength}{PU}{\82\321}% U+02D1
 16376 % U+02D8 BREVE; breve
 16377 \DeclareTextCommand{\textasciibreve}{PU}{\82\330}% U+02D8
 16378 % U+02D9 DOT ABOVE; dotaccent
 16379 \DeclareTextCommand{\textdotaccent}{PU}{\82\331}% U+02D9
 16380 % U+02DA RING ABOVE; ring
 16381 \DeclareTextCommand{\textring}{PU}{\82\332}% U+02DA
 16382 % U+02DB OGONEK; ogonek
 16383 \DeclareTextCommand{\textogonek}{PU}{\82\333}% U+02DB
 16384 % U+02DC SMALL TILDE; ilde, *tilde
 16385 \DeclareTextCommand{\texttilde}{PU}{\82\334}% U+02DC
 16386 % U+02DD DOUBLE ACUTE ACCENT; hungarumlaut
 16387 \DeclareTextCommand{\texthungarumlaut}{PU}{\82\335}% U+02DD
 16388 \DeclareTextCommand{\textacutedbl}{PU}{\82\335}% U+02DD
 16389 % U+02F3 MODIFIER LETTER LOW RING
 16390 \DeclareTextCommand{\textringlow}{PU}{\82\363}% U+02F3
 16391 % U+02F5 MODIFIER LETTER MIDDLE DOUBLE GRAVE ACCENT
 16392 \DeclareTextCommand{\textgravedbl}{PU}{\82\365}% U+02F5
 16393 % U+02F7 MODIFIER LETTER LOW TILDE
 16394 \DeclareTextCommand{\texttildelow}{PU}{\82\367}% U+02F7
 16395 % U+02F9 MODIFIER LETTER BEGIN HIGH TONE; \textopencorner (tipa)

16396 \DeclareTextCommand{\textopencorner}{PU}{\82\371}% U+02F9
 16397 % U+02FA MODIFIER LETTER END HIGH TONE; \textcorner (tipa)
 16398 \DeclareTextCommand{\textcorner}{PU}{\82\372}% U+02FA

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

16399 % U+030F COMBINING DOUBLE GRAVE ACCENT; dblgravecmb
 16400 \DeclareTextCommand{\textdoublegrave}{PU}{ \83\017}% U+030F
 16401 % U+0311 COMBINING INVERTED BREVE; breveinvertedcmb
 16402 \DeclareTextCommand{\textnewtie}{PU}{ \83\021}% U+0311
 16403 % U+0323 COMBINING DOT BELOW; dotbelowcmb, *dotbelowcomb
 16404 \DeclareTextCommand{\textdotbelow}{PU}{ \83\043}% U+0323
 16405 % U+0331 COMBINING MACRON BELOW; macronbelowcmb
 16406 \DeclareTextCommand{\textmacronbelow}{PU}{ \83\061}% U+0331
 16407 % U+0361 COMBINING DOUBLE INVERTED BREVE; breveinverteddoublecmb
 16408 \DeclareTextCommand{\texttie}{PU}{ \83\141}% U+0361

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

Greek is only loaded if \textBeta is defined.

16409 \ifx\textBeta\@undefined \else
 16410 \input{puenc-greekbasic.def}
 16411 \fi
 16412 (/puenc)
 16413 (*pugreek)
 16414 % U+0374 GREEK NUMERAL SIGN; numeralsigngreek
 16415 \DeclareTextCommand{\textnumeralsigngreek}{PU}{\83\164}% U+0374
 16416 \DeclareTextCommand{\textdexiakeraia}{PU}{\83\164}% U+0374
 16417 % U+0375 GREEK LOWER NUMERAL SIGN; numeralsignlowergreek
 16418 \DeclareTextCommand{\textnumeralsignlowergreek}{PU}{\83\165}% U+0375
 16419 \DeclareTextCommand{\textaristerikeraia}{PU}{\83\165}% U+0375
 16420 % U+0386 GREEK CAPITAL LETTER ALPHA WITH TONOS; Alphonos
 16421 \DeclareTextCompositeCommand{\'}{PU}{\textAlpha}{\83\206}% U+0386
 16422 % U+0388 GREEK CAPITAL LETTER EPSILON WITH TONOS; Epsilontonos
 16423 \DeclareTextCompositeCommand{\'}{PU}{\textEpsilon}{\83\210}% U+0388
 16424 % U+0389 GREEK CAPITAL LETTER ETA WITH TONOS; Etatonos
 16425 \DeclareTextCompositeCommand{\'}{PU}{\textEta}{\83\211}% U+0389
 16426 % U+038A GREEK CAPITAL LETTER IOTA WITH TONOS; Iotatonos
 16427 \DeclareTextCompositeCommand{\'}{PU}{\textIota}{\83\212}% U+038A
 16428 % U+038C GREEK CAPITAL LETTER OMICRON WITH TONOS; Omicrontonos
 16429 \DeclareTextCompositeCommand{\'}{PU}{\textOmicron}{\83\214}% U+038C
 16430 % U+038E GREEK CAPITAL LETTER UPSILON WITH TONOS; Upsilontonos
 16431 \DeclareTextCompositeCommand{\'}{PU}{\textUpsilon}{\83\216}% U+038E
 16432 % U+038F GREEK CAPITAL LETTER OMEGA WITH TONOS; Omegatonos
 16433 \DeclareTextCompositeCommand{\'}{PU}{\textOmega}{\83\217}% U+038F
 16434 % U+0390 GREEK SMALL LETTER IOTA WITH DIALYTIKA AND TONOS;
 16435 % iodadiesistonos
 16436 \DeclareTextCompositeCommand{\'}{PU}{\textIotadiesis}{\83\220}% U+0390
 16437 % U+0391 GREEK CAPITAL LETTER ALPHA; Alpha
 16438 \DeclareTextCommand{\textAlpha}{PU}{\83\221}% U+0391
 16439 % U+0392 GREEK CAPITAL LETTER BETA; Beta
 16440 \DeclareTextCommand{\textBeta}{PU}{\83\222}% U+0392
 16441 % U+0393 GREEK CAPITAL LETTER GAMMA; Gamma; \Gamma (LaTeX)
 16442 \DeclareTextCommand{\textGamma}{PU}{\83\223}%* U+0393

16443 % U+0394 GREEK CAPITAL LETTER DELTA; Deltagreek, *Delta; \Delta (LaTeX)

16444 \DeclareTextCommand{\textDelta}{PU}{\83\224}%* U+0394

16445 % U+0395 GREEK CAPITAL LETTER EPSILON; Epsilon

16446 \DeclareTextCommand{\textEpsilon}{PU}{\83\225}% U+0395

16447 % U+0396 GREEK CAPITAL LETTER ZETA; Zeta

16448 \DeclareTextCommand{\textZeta}{PU}{\83\226}% U+0396

16449 % U+0397 GREEK CAPITAL LETTER ETA; Eta

16450 \DeclareTextCommand{\textEta}{PU}{\83\227}% U+0397

16451 % U+0398 GREEK CAPITAL LETTER THETA; Theta; \Theta (LaTeX)

16452 \DeclareTextCommand{\textTheta}{PU}{\83\230}%* U+0398

16453 % U+0399 GREEK CAPITAL LETTER IOTA; Iota

16454 \DeclareTextCommand{\textIota}{PU}{\83\231}% U+0399

16455 % U+039A GREEK CAPITAL LETTER KAPPA; Kappa

16456 \DeclareTextCommand{\textKappa}{PU}{\83\232}% U+039A

16457 % U+039B GREEK CAPITAL LETTER LAMDA; Lambda; \Lambda (LaTeX)

16458 \DeclareTextCommand{\textLambda}{PU}{\83\233}%* U+039B

16459 % U+039C GREEK CAPITAL LETTER MU; Mu

16460 \DeclareTextCommand{\textMu}{PU}{\83\234}% U+039C

16461 % U+039D GREEK CAPITAL LETTER NU; Nu

16462 \DeclareTextCommand{\textNu}{PU}{\83\235}% U+039D

16463 % U+039E GREEK CAPITAL LETTER XI; Xi; \Xi (LaTeX)

16464 \DeclareTextCommand{\textXi}{PU}{\83\236}%* U+039E

16465 % U+039F GREEK CAPITAL LETTER OMICRON; Omicron

16466 \DeclareTextCommand{\textOmicron}{PU}{\83\237}% U+039F

16467 % U+03A0 GREEK CAPITAL LETTER PI; Pi

16468 \DeclareTextCommand{\textPi}{PU}{\83\240}%* U+03A0

16469 % U+03A1 GREEK CAPITAL LETTER RHO; Rho

16470 \DeclareTextCommand{\textRho}{PU}{\83\241}% U+03A1

16471 % U+03A3 GREEK CAPITAL LETTER SIGMA; Sigma; \Sigma (LaTeX)

16472 \DeclareTextCommand{\textSigma}{PU}{\83\243}%* U+03A3

16473 % U+03A4 GREEK CAPITAL LETTER TAU; Tau

16474 \DeclareTextCommand{\textTau}{PU}{\83\244}% U+03A4

16475 % U+03A5 GREEK CAPITAL LETTER UPSILON; Upsilon; \Upsilon (LaTeX)

16476 \DeclareTextCommand{\textUpsilon}{PU}{\83\245}%* U+03A5

16477 % U+03A6 GREEK CAPITAL LETTER PHI; Phi; \Phi (LaTeX)

16478 \DeclareTextCommand{\textPhi}{PU}{\83\246}%* U+03A6

16479 % U+03A7 GREEK CAPITAL LETTER CHI; Chi

16480 \DeclareTextCommand{\textChi}{PU}{\83\247}% U+03A7

16481 % U+03A8 GREEK CAPITAL LETTER PSI; Psi; \Psi (LaTeX)

16482 \DeclareTextCommand{\textPsi}{PU}{\83\250}%* U+03A8

16483 % U+03A9 GREEK CAPITAL LETTER OMEGA; Omegagreek, *Omega;

16484 % \Omega (LaTeX)

16485 \DeclareTextCommand{\textOmega}{PU}{\83\251}%* U+03A9

16486 % U+03AA GREEK CAPITAL LETTER IOTA WITH DIALYTIKA; Iotadieresis

16487 \DeclareTextCommand{\textIotadieresis}{PU}{\83\252}% U+03AA

16488 \DeclareTextCompositeCommand{"}{PU}{\textIota}{\83\252}% U+03AA

16489 % U+03AB GREEK CAPITAL LETTER UPSILON WITH DIALYTIKA; Upsilonondieresis

16490 \DeclareTextCompositeCommand{"}{PU}{\textUpsilon}{\83\253}% U+03AB

16491 % U+03AC GREEK SMALL LETTER ALPHA WITH TONOS; alphanos

16492 \DeclareTextCompositeCommand{'}{PU}{\textalpha}{\83\254}%* U+03AC

16493 % U+03AD GREEK SMALL LETTER EPSILON WITH TONOS; epsilononos

16494 \DeclareTextCompositeCommand{'}{PU}{\textepsilon}{\83\255}% U+03AD

16495 % U+03AE GREEK SMALL LETTER ETA WITH TONOS; etatonos
16496 \DeclareTextCompositeCommand{\'}{PU}{\texteta}{\83\256}% U+03AE
16497 % U+03AF GREEK SMALL LETTER IOTA WITH TONOS; iotatonos
16498 \DeclareTextCompositeCommand{\'}{PU}{\textiota}{\83\257}% U+03AF
16499 % U+03B0 GREEK SMALL LETTER UPSILON WITH DIALYTIKA
16500 % AND TONOS; upsilondieresisto
16501 \DeclareTextCompositeCommand{\"}{PU}{\textupsilonacute}{\83\260}% U+03B0
16502 % U+03B1 GREEK SMALL LETTER ALPHA; alpha; \alpha (LaTeX)
16503 \DeclareTextCommand{\textalpha}{PU}{\83\261}%* U+03B1
16504 % U+03B2 GREEK SMALL LETTER BETA; beta; \beta (LaTeX)
16505 \DeclareTextCommand{\textbeta}{PU}{\83\262}%* U+03B2
16506 % U+03B3 GREEK SMALL LETTER GAMMA; gamma; \gamma (LaTeX)
16507 \DeclareTextCommand{\textgamma}{PU}{\83\263}%* U+03B3
16508 % U+03B4 GREEK SMALL LETTER DELTA; delta; \delta (LaTeX)
16509 \DeclareTextCommand{\textdelta}{PU}{\83\264}%* U+03B4
16510 % U+03B5 GREEK SMALL LETTER EPSILON; epsilon; \epsilon (LaTeX)
16511 \DeclareTextCommand{\textepsilon}{PU}{\83\265}%* U+03B5
16512 % U+03B6 GREEK SMALL LETTER ZETA; zeta; \zeta (LaTeX)
16513 \DeclareTextCommand{\textzeta}{PU}{\83\266}%* U+03B6
16514 % U+03B7 GREEK SMALL LETTER ETA; eta; \eta (LaTeX)
16515 \DeclareTextCommand{\texteta}{PU}{\83\267}%* U+03B7
16516 % U+03B8 GREEK SMALL LETTER THETA; theta; \theta (LaTeX)
16517 \DeclareTextCommand{\texttheta}{PU}{\83\270}%* U+03B8
16518 % U+03B9 GREEK SMALL LETTER IOTA; iota; \iota (LaTeX)
16519 \DeclareTextCommand{\textiota}{PU}{\83\271}%* U+03B9
16520 % U+03BA GREEK SMALL LETTER KAPPA; kappa; \kappa (LaTeX)
16521 \DeclareTextCommand{\textkappa}{PU}{\83\272}%* U+03BA
16522 % U+03BB GREEK SMALL LETTER LAMDA; lambda; \lambda (LaTeX)
16523 \DeclareTextCommand{\textlambda}{PU}{\83\273}%* U+03BB
16524 % U+03BC GREEK SMALL LETTER MU; mugreek, *mu; \mu (LaTeX)
16525 \DeclareTextCommand{\textmugreek}{PU}{\83\274}%* U+03BC
16526 % U+03BD GREEK SMALL LETTER NU; nu; \nu (LaTeX)
16527 \DeclareTextCommand{\textnu}{PU}{\83\275}%* U+03BD
16528 % U+03BE GREEK SMALL LETTER XI; xi; \xi (LaTeX)
16529 \DeclareTextCommand{\textxi}{PU}{\83\276}%* U+03BE
16530 % U+03BF GREEK SMALL LETTER OMICRON; omicron
16531 \DeclareTextCommand{\textomicron}{PU}{\83\277}%* U+03BF
16532 % U+03C0 GREEK SMALL LETTER PI; pi; \pi (LaTeX)
16533 \DeclareTextCommand{\textpi}{PU}{\83\300}%* U+03C0
16534 % U+03C1 GREEK SMALL LETTER RHO; rho; \rho (LaTeX)
16535 \DeclareTextCommand{\textrho}{PU}{\83\301}%* U+03C1
16536 % U+03C2 GREEK SMALL LETTER FINAL SIGMA; *sigma1, sigmafinal
16537 \DeclareTextCommand{\textvarsigma}{PU}{\83\302}%* U+03C2
16538 % U+03C3 GREEK SMALL LETTER SIGMA; sigma; \sigma (LaTeX)
16539 \DeclareTextCommand{\textsigma}{PU}{\83\303}%* U+03C3
16540 % U+03C4 GREEK SMALL LETTER TAU; tau; \tau (LaTeX)
16541 \DeclareTextCommand{\texttau}{PU}{\83\304}%* U+03C4
16542 % U+03C5 GREEK SMALL LETTER UPSILON; upsilon; \upsilon (LaTeX)
16543 \DeclareTextCommand{\textupsilon}{PU}{\83\305}%* U+03C5
16544 % U+03C6 GREEK SMALL LETTER PHI; phi; \phi (LaTeX)
16545 \DeclareTextCommand{\textphi}{PU}{\83\306}%* U+03C6
16546 % U+03C7 GREEK SMALL LETTER CHI; chi; \chi (LaTeX)
16547 \DeclareTextCommand{\textchi}{PU}{\83\307}%* U+03C7
16548 % U+03C8 GREEK SMALL LETTER PSI; psi; \psi (LaTeX)

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16549 \DeclareTextCommand{\textpsi}{PU}{\83\310}%* U+03C8
16550 % U+03C9 GREEK SMALL LETTER OMEGA; omega; \omega (LaTeX)
16551 \DeclareTextCommand{\textomega}{PU}{\83\311}%* U+03C9
16552 % U+03CA GREEK SMALL LETTER IOTA WITH DIALYTIKA; iotadieresis
16553 \DeclareTextCompositeCommand{"}{PU}{\textiota}{\83\312}% U+03CA
16554 % U+03CB GREEK SMALL LETTER UPSILON WITH DIALYTIKA; up-
silondieresis
16555 \DeclareTextCompositeCommand{"}{PU}{\textupsilon}{\83\313}% U+03CB
16556 % U+03CC GREEK SMALL LETTER OMICRON WITH TONOS; omicrontonos
16557 \DeclareTextCompositeCommand{'}{PU}{\textomicron}{\83\314}% U+03CC
16558 % U+03CD GREEK SMALL LETTER UPSILON WITH TONOS; upsilontonos
16559 \DeclareTextCommand{\textupsilonacute}{PU}{\83\315}% U+03CD
16560 \DeclareTextCompositeCommand{'}{PU}{\textupsilon}{\83\315}% U+03CD
16561 % U+03CE GREEK SMALL LETTER OMEGA WITH TONOS; omegatonos
16562 \DeclareTextCompositeCommand{'}{PU}{\textomega}{\83\316}% U+03CE
16563 % U+03D8 GREEK LETTER ARCHAIC KOPPA;
16564 \DeclareTextCommand{\textQoppa}{PU}{\83\330}% U+03D8
16565 % U+03D9 GREEK SMALL LETTER ARCHAIC KOPPA;
16566 \DeclareTextCommand{\textqoppa}{PU}{\83\331}% U+03D9
16567 % U+03DA GREEK LETTER STIGMA; Stigmagreek
16568 \DeclareTextCommand{\textStigmagreek}{PU}{\83\332}% U+03DA
16569 \DeclareTextCommand{\textStigma}{PU}{\83\332}% U+03DA
16570 % U+03DB GREEK SMALL LETTER STIGMA
16571 \DeclareTextCommand{\textstigmagreek}{PU}{\83\333}% U+03DB
16572 \DeclareTextCommand{\textstigma}{PU}{\83\333}% U+03DB
16573 % U+03DC GREEK LETTER DIGAMMA; Digammagreek
16574 \DeclareTextCommand{\textDigammagreek}{PU}{\83\334}% U+03DC
16575 \DeclareTextCommand{\textDigamma}{PU}{\83\334}% U+03DC
16576 % U+03DD GREEK SMALL LETTER DIGAMMA
16577 \DeclareTextCommand{\textdigammagreek}{PU}{\83\335}% U+03DD
16578 \DeclareTextCommand{\textdigamma}{PU}{\83\335}% U+03DD
16579 %* \textdigammagreek -> \digamma (AmS)
16580 % U+03DE GREEK LETTER KOPPA; Koppagreek
16581 \DeclareTextCommand{\textKoppa}{PU}{\83\336}% U+03DE
16582 \DeclareTextCommand{\textKoppagreek}{PU}{\83\336}% U+03DE
16583 % U+03DF GREEK SMALL LETTER KOPPA
16584 \DeclareTextCommand{\textkoppa}{PU}{\83\337}% U+03DF
16585 \DeclareTextCommand{\textkoppagreek}{PU}{\83\337}% U+03DF
16586 % U+03E0 GREEK LETTER SAMPI; Sampigreek
16587 \DeclareTextCommand{\textSampigreek}{PU}{\83\340}% U+03E0
16588 \DeclareTextCommand{\textSampi}{PU}{\83\340}% U+03E0
16589 % U+03E1 GREEK SMALL LETTER SAMPI
16590 \DeclareTextCommand{\textsampigreek}{PU}{\83\341}% U+03E1
16591 \DeclareTextCommand{\textsampi}{PU}{\83\341}% U+03E1
16592 % U+03F6 GREEK REVERSED LUNATE EPSILON SYMBOL;
16593 % \backepsilon (AmS)
16594 \DeclareTextCommand{\textbackepsilon}{PU}{\83\366}% U+03F6
16595 \end{pugreek}

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46.2.10 Cyrillic: U+0400 to U+04FF

Thanks to Vladimir Volovich (vov@vov.vsu.ru) for the help with the Cyrillic glyph names. Cyrillic only loaded if \CYRDZE is defined.

```
16596 (*puenc)
```

16597 \ifx\CYRDZE\@undefined \else
16598 % U+0400 CYRILLIC CAPITAL LETTER IE WITH GRAVE
16599 \DeclareTextCompositeCommand{\`}{PU}{\CYRE}{\84\000}% U+0400
16600 % U+0401 CYRILLIC CAPITAL LETTER IO; Iocyrillic, *afii10023
16601 \DeclareTextCommand{\CYRYO}{PU}{\84\001}% U+0401
16602 \DeclareTextCompositeCommand{\"}{PU}{\CYRE}{\84\001}% U+0401
16603 % U+0402 CYRILLIC CAPITAL LETTER DJE; Djecyrillic, *afii10051
16604 \DeclareTextCommand{\CYRDJE}{PU}{\84\002}% U+0402
16605 % U+0403 CYRILLIC CAPITAL LETTER GJE; Gjecyrillic, *afii10052
16606 \DeclareTextCompositeCommand{\'}{PU}{\CYRG}{\84\003}% U+0403
16607 % U+0404 CYRILLIC CAPITAL LETTER UKRAINIAN IE; Ecyrillic, *afii10053
16608 \DeclareTextCommand{\CYRIE}{PU}{\84\004}% U+0404
16609 % U+0405 CYRILLIC CAPITAL LETTER DZE; Dzecyrillic, *afii10054
16610 \DeclareTextCommand{\CYRDZE}{PU}{\84\005}% U+0405
16611 % U+0406 CYRILLIC CAPITAL LETTER BYELORUSSIAN-UKRAINIAN I;
16612 % Icyrillic, *afii10055
16613 \DeclareTextCommand{\CYRII}{PU}{\84\006}% U+0406
16614 % U+0407 CYRILLIC CAPITAL LETTER YI; Yicyrillic, *afii10056
16615 \DeclareTextCommand{\CYRYI}{PU}{\84\007}% U+0407
16616 \DeclareTextCompositeCommand{\"}{PU}{\CYRII}{\84\007}% U+0407
16617 % U+0408 CYRILLIC CAPITAL LETTER JE; Jecyrillic, *afii10057
16618 \DeclareTextCommand{\CYRJE}{PU}{\84\010}% U+0408
16619 % U+0409 CYRILLIC CAPITAL LETTER LJE; Ljecyrillic, *afii10058
16620 \DeclareTextCommand{\CYRLJE}{PU}{\84\011}% U+0409
16621 % U+040A CYRILLIC CAPITAL LETTER NJE; Njecyrillic, *afii10059
16622 \DeclareTextCommand{\CYRNJE}{PU}{\84\012}% U+040A
16623 % U+040B CYRILLIC CAPITAL LETTER TSHE; Tshecyrillic, *afii10060
16624 \DeclareTextCommand{\CYRTSHE}{PU}{\84\013}% U+040B
16625 % U+040C CYRILLIC CAPITAL LETTER KJE; Kjecyrillic, *afii10061
16626 \DeclareTextCompositeCommand{\'}{PU}{\CYRK}{\84\014}% U+040C
16627 % U+040D CYRILLIC CAPITAL LETTER I WITH GRAVE
16628 \DeclareTextCompositeCommand{\`}{PU}{\CYRI}{\84\015}% U+040D
16629 % U+040E CYRILLIC CAPITAL LETTER SHORT U; Ushortcyrillic, *afii10062
16630 \DeclareTextCommand{\CYRUSHRT}{PU}{\84\016}% U+040E
16631 \DeclareTextCompositeCommand{\U}{PU}{\CYRU}{\84\016}% U+040E
16632 % U+040F CYRILLIC CAPITAL LETTER DZHE; Dzhecyrillic, *afii10145
16633 \DeclareTextCommand{\CYRDZHE}{PU}{\84\017}% U+040F
16634 % U+0410 CYRILLIC CAPITAL LETTER A; Acyrillic, *afii10017
16635 \DeclareTextCommand{\CYRA}{PU}{\84\020}% U+0410
16636 % U+0411 CYRILLIC CAPITAL LETTER BE; Becyrillic, *afii10018
16637 \DeclareTextCommand{\CYRB}{PU}{\84\021}% U+0411
16638 % U+0412 CYRILLIC CAPITAL LETTER VE; Vecyrillic, *afii10019
16639 \DeclareTextCommand{\CYRV}{PU}{\84\022}% U+0412
16640 % U+0413 CYRILLIC CAPITAL LETTER GHE; Gecyrillic, *afii10020
16641 \DeclareTextCommand{\CYRG}{PU}{\84\023}% U+0413
16642 % U+0414 CYRILLIC CAPITAL LETTER DE; Decyrillic, *afii10021
16643 \DeclareTextCommand{\CYRD}{PU}{\84\024}% U+0414
16644 % U+0415 CYRILLIC CAPITAL LETTER IE; Iecyrillic, *afii10022
16645 \DeclareTextCommand{\CYRE}{PU}{\84\025}% U+0415
16646 % U+0416 CYRILLIC CAPITAL LETTER ZHE; Zhecyrillic, *afii10024
16647 \DeclareTextCommand{\CYRZH}{PU}{\84\026}% U+0416
16648 % U+0417 CYRILLIC CAPITAL LETTER ZE; Zecyrillic, *afii10025
16649 \DeclareTextCommand{\CYRZ}{PU}{\84\027}% U+0417
16650 % U+0418 CYRILLIC CAPITAL LETTER I; Iicyrillic, *afii10026

16651 \DeclareTextCommand{\CYRI}{PU}{\84\030}% U+0418
16652 % U+0419 CYRILLIC CAPITAL LETTER SHORT I; Iishortcyrillic, *afii10027
16653 \DeclareTextCommand{\CYRISHRT}{PU}{\84\031}% U+0419
16654 \DeclareTextCompositeCommand{\U}{PU}{\CYRI}{\84\031}% U+0419
16655 % U+041A CYRILLIC CAPITAL LETTER KA; Kacyrillic, *afii10028
16656 \DeclareTextCommand{\CYRK}{PU}{\84\032}% U+041A
16657 % U+041B CYRILLIC CAPITAL LETTER EL; Elcyrillic, *afii10029
16658 \DeclareTextCommand{\CYRL}{PU}{\84\033}% U+041B
16659 % U+041C CYRILLIC CAPITAL LETTER EM; Emcyrillic, *afii10030
16660 \DeclareTextCommand{\CYRM}{PU}{\84\034}% U+041C
16661 % U+041D CYRILLIC CAPITAL LETTER EN; Encyrillic, *afii10031
16662 \DeclareTextCommand{\CYRN}{PU}{\84\035}% U+041D
16663 % U+041E CYRILLIC CAPITAL LETTER O; Ocyrillic, *afii10032
16664 \DeclareTextCommand{\CYRO}{PU}{\84\036}% U+041E
16665 % U+041F CYRILLIC CAPITAL LETTER PE; Pecyrillic, *afii10033
16666 \DeclareTextCommand{\CYRP}{PU}{\84\037}% U+041F
16667 % U+0420 CYRILLIC CAPITAL LETTER ER; Ercyrillic, *afii10034
16668 \DeclareTextCommand{\CYRR}{PU}{\84\040}% U+0420
16669 % U+0421 CYRILLIC CAPITAL LETTER ES; Escyrillic, *afii10035
16670 \DeclareTextCommand{\CYRS}{PU}{\84\041}% U+0421
16671 % U+0422 CYRILLIC CAPITAL LETTER TE; Tecyrillic, *afii10036
16672 \DeclareTextCommand{\CYRT}{PU}{\84\042}% U+0422
16673 % U+0423 CYRILLIC CAPITAL LETTER U; Ucyrillic, *afii10037
16674 \DeclareTextCommand{\CYRU}{PU}{\84\043}% U+0423
16675 % U+0424 CYRILLIC CAPITAL LETTER EF; Efcyrillic, *afii10038
16676 \DeclareTextCommand{\CYRF}{PU}{\84\044}% U+0424
16677 % U+0425 CYRILLIC CAPITAL LETTER HA; Khacyrillic, *afii10039
16678 \DeclareTextCommand{\CYRH}{PU}{\84\045}% U+0425
16679 % U+0426 CYRILLIC CAPITAL LETTER TSE; Tsecyrillic, *afii10040
16680 \DeclareTextCommand{\CYRC}{PU}{\84\046}% U+0426
16681 % U+0427 CYRILLIC CAPITAL LETTER CHE; Checyrillic, *afii10041
16682 \DeclareTextCommand{\CYRCH}{PU}{\84\047}% U+0427
16683 % U+0428 CYRILLIC CAPITAL LETTER SHA; Shacyrillic, *afii10042
16684 \DeclareTextCommand{\CYRSH}{PU}{\84\050}% U+0428
16685 % U+0429 CYRILLIC CAPITAL LETTER SHCHA; Shchacyrillic, *afii10043
16686 \DeclareTextCommand{\CYRSHCH}{PU}{\84\051}% U+0429
16687 % U+042A CYRILLIC CAPITAL LETTER HARD SIGN;
16688 % Hardsigncyrillic, *afii10044
16689 \DeclareTextCommand{\CYRHRDSN}{PU}{\84\052}% U+042A
16690 % U+042B CYRILLIC CAPITAL LETTER YERU; Yericyrillic, *afii10045
16691 \DeclareTextCommand{\CYRERY}{PU}{\84\053}% U+042B
16692 % U+042C CYRILLIC CAPITAL LETTER SOFT SIGN;
16693 % Softsigncyrillic, *afii10046
16694 \DeclareTextCommand{\CYRSFTSN}{PU}{\84\054}% U+042C
16695 % U+042D CYRILLIC CAPITAL LETTER E; Eversedcyrillic, *afii10047
16696 \DeclareTextCommand{\CYREREV}{PU}{\84\055}% U+042D
16697 % U+042E CYRILLIC CAPITAL LETTER YU; IUcyrillic, *afii10048
16698 \DeclareTextCommand{\CYRYU}{PU}{\84\056}% U+042E
16699 % U+042F CYRILLIC CAPITAL LETTER YA; IAcyrillic, *afii10049
16700 \DeclareTextCommand{\CYRYA}{PU}{\84\057}% U+042F
16701 % U+0430 CYRILLIC SMALL LETTER A; acyrillic, *afii10065
16702 \DeclareTextCommand{\cyra}{PU}{\84\060}% U+0430
16703 % U+0431 CYRILLIC SMALL LETTER BE; *afii10066, becyrillic
16704 \DeclareTextCommand{\cyrb}{PU}{\84\061}% U+0431

16705 % U+0432 CYRILLIC SMALL LETTER VE; *afii10067, vecyrillic
16706 \DeclareTextCommand{\cyrv}{PU}{\84\062}% U+0432
16707 % U+0433 CYRILLIC SMALL LETTER GHE; *afii10068, gecyrillic
16708 \DeclareTextCommand{\cyrg}{PU}{\84\063}% U+0433
16709 % U+0434 CYRILLIC SMALL LETTER DE; *afii10069, decyrillic
16710 \DeclareTextCommand{\cyrd}{PU}{\84\064}% U+0434
16711 % U+0435 CYRILLIC SMALL LETTER IE; *afii10070, iecyrillic
16712 \DeclareTextCommand{\cyre}{PU}{\84\065}% U+0435
16713 % U+0436 CYRILLIC SMALL LETTER ZHE; *afii10072, zhecyrillic
16714 \DeclareTextCommand{\cyrzh}{PU}{\84\066}% U+0436
16715 % U+0437 CYRILLIC SMALL LETTER ZE; *afii10073, zecyrillic
16716 \DeclareTextCommand{\cyrz}{PU}{\84\067}% U+0437
16717 % U+0438 CYRILLIC SMALL LETTER I; *afii10074, iicyrillic
16718 \DeclareTextCommand{\cyri}{PU}{\84\070}% U+0438
16719 % U+0439 CYRILLIC SMALL LETTER SHORT I; *afii10075, iishortcyrillic
16720 \DeclareTextCommand{\cyrishrt}{PU}{\84\071}% U+0439
16721 \DeclareTextCompositeCommand{\U}{PU}{\cyri}{\84\071}% U+0439
16722 % U+043A CYRILLIC SMALL LETTER KA; *afii10076, kacyrillic
16723 \DeclareTextCommand{\cyrk}{PU}{\84\072}% U+043A
16724 % U+043B CYRILLIC SMALL LETTER EL; *afii10077, elcyrillic
16725 \DeclareTextCommand{\cyr}{PU}{\84\073}% U+043B
16726 % U+043C CYRILLIC SMALL LETTER EM; *afii10078, emcyrillic
16727 \DeclareTextCommand{\cyrm}{PU}{\84\074}% U+043C
16728 % U+043D CYRILLIC SMALL LETTER EN; *afii10079, encyrillic
16729 \DeclareTextCommand{\cyrn}{PU}{\84\075}% U+043D
16730 % U+043E CYRILLIC SMALL LETTER O; *afii10080, ocyrillic
16731 \DeclareTextCommand{\cyro}{PU}{\84\076}% U+043E
16732 % U+043F CYRILLIC SMALL LETTER PE; *afii10081, pecyrillic
16733 \DeclareTextCommand{\cyrp}{PU}{\84\077}% U+043F
16734 % U+0440 CYRILLIC SMALL LETTER ER; *afii10082, ercyrillic
16735 \DeclareTextCommand{\cyrr}{PU}{\84\100}% U+0440
16736 % U+0441 CYRILLIC SMALL LETTER ES; *afii10083, escyrillic
16737 \DeclareTextCommand{\cyrs}{PU}{\84\101}% U+0441
16738 % U+0442 CYRILLIC SMALL LETTER TE; *afii10084, tecyrillic
16739 \DeclareTextCommand{\cyrt}{PU}{\84\102}% U+0442
16740 % U+0443 CYRILLIC SMALL LETTER U; *afii10085, ucyrillic
16741 \DeclareTextCommand{\cyru}{PU}{\84\103}% U+0443
16742 % U+0444 CYRILLIC SMALL LETTER EF; *afii10086, efcyrillic
16743 \DeclareTextCommand{\cyrf}{PU}{\84\104}% U+0444
16744 % U+0445 CYRILLIC SMALL LETTER HA; *afii10087, khacyrillic
16745 \DeclareTextCommand{\cyrh}{PU}{\84\105}% U+0445
16746 % U+0446 CYRILLIC SMALL LETTER TSE; *afii10088, tsecyrillic
16747 \DeclareTextCommand{\cyr}{PU}{\84\106}% U+0446
16748 % U+0447 CYRILLIC SMALL LETTER CHE; *afii10089, checyrillic
16749 \DeclareTextCommand{\cyrch}{PU}{\84\107}% U+0447
16750 % U+0448 CYRILLIC SMALL LETTER SHA; *afii10090, shacyrillic
16751 \DeclareTextCommand{\cyrsh}{PU}{\84\110}% U+0448
16752 % U+0449 CYRILLIC SMALL LETTER SHCHA; *afii10091, shchacyrillic
16753 \DeclareTextCommand{\cyrshch}{PU}{\84\111}% U+0449
16754 % U+044A CYRILLIC SMALL LETTER HARD SIGN; *afii10092, hardsigncyrillic
16755 \DeclareTextCommand{\cyrhrdsn}{PU}{\84\112}% U+044A
16756 %* \cyrhrdsn -> \hardsign (tipa)
16757 % U+044B CYRILLIC SMALL LETTER YERU; *afii10093, yericyrillic

16758 \DeclareTextCommand{\cyrery}{PU}{\84\113}% U+044B
16759 % U+044C CYRILLIC SMALL LETTER SOFT SIGN; *afii10094, softsigncyrillic
16760 \DeclareTextCommand{\cyrstfn}{PU}{\84\114}% U+044C
16761 %* \cyrstfn -> \softsign (tipa)
16762 % U+044D CYRILLIC SMALL LETTER E; *afii10095, ereversedcyrillic
16763 \DeclareTextCommand{\cyrerev}{PU}{\84\115}% U+044D
16764 % U+044E CYRILLIC SMALL LETTER YU; *afii10096, iucyrillic
16765 \DeclareTextCommand{\cyryu}{PU}{\84\116}% U+044E
16766 % U+044F CYRILLIC SMALL LETTER YA; *afii10097, iacyrillic
16767 \DeclareTextCommand{\cyrya}{PU}{\84\117}% U+044F
16768 % U+0450 CYRILLIC SMALL LETTER IE WITH GRAVE
16769 \DeclareTextCompositeCommand{\`}{PU}{\cyre}{\84\120}% U+0450
16770 % U+0451 CYRILLIC SMALL LETTER IO; *afii10071, iocyrillic
16771 \DeclareTextCommand{\cyryo}{PU}{\84\121}% U+0451
16772 \DeclareTextCompositeCommand{\"}{PU}{\cyre}{\84\121}% U+0451
16773 % U+0452 CYRILLIC SMALL LETTER DJE; *afii10099, djecyrillic
16774 \DeclareTextCommand{\cyrdje}{PU}{\84\122}% U+0452
16775 % U+0453 CYRILLIC SMALL LETTER GJE; *afii10100, gjecyrillic
16776 \DeclareTextCompositeCommand{\'}{PU}{\cyrg}{\84\123}% U+0453
16777 % U+0454 CYRILLIC SMALL LETTER UKRAINIAN IE; *afii10101, ecyrillic
16778 \DeclareTextCommand{\cyrie}{PU}{\84\124}% U+0454
16779 % U+0455 CYRILLIC SMALL LETTER DZE; *afii10102, dzecyrillic
16780 \DeclareTextCommand{\cyrdze}{PU}{\84\125}% U+0455
16781 % U+0456 CYRILLIC SMALL LETTER BYELORUSSIAN-UKRAINIAN I;
16782 % *afii10103, icyrillic
16783 \DeclareTextCommand{\cyrii}{PU}{\84\126}% U+0456
16784 % U+0457 CYRILLIC SMALL LETTER YI; *afii10104, yicyrillic
16785 \DeclareTextCommand{\cyryi}{PU}{\84\127}% U+0457
16786 \DeclareTextCompositeCommand{\"}{PU}{\cyrii}{\84\127}% U+0457
16787 % U+0458 CYRILLIC SMALL LETTER JE; *afii10105, jecyrillic
16788 \DeclareTextCommand{\cyrje}{PU}{\84\130}% U+0458
16789 % U+0459 CYRILLIC SMALL LETTER LJE; *afii10106, ljecyrillic
16790 \DeclareTextCommand{\cyrlje}{PU}{\84\131}% U+0459
16791 % U+045A CYRILLIC SMALL LETTER NJE; *afii10107, njecyrillic
16792 \DeclareTextCommand{\cyrnje}{PU}{\84\132}% U+045A
16793 % U+045B CYRILLIC SMALL LETTER TSHE; *afii10108, tshecyrillic
16794 \DeclareTextCommand{\cyrtshe}{PU}{\84\133}% U+045B
16795 % U+045C CYRILLIC SMALL LETTER KJE; *afii10109, kjecyrillic
16796 \DeclareTextCompositeCommand{\'}{PU}{\cyrk}{\84\134}% U+045C
16797 % U+045D CYRILLIC SMALL LETTER I WITH GRAVE
16798 \DeclareTextCompositeCommand{\`}{PU}{\cyri}{\84\135}% U+045D
16799 % U+045E CYRILLIC SMALL LETTER SHORT U; *afii10110, ushortcyrillic
16800 \DeclareTextCommand{\cyrushrt}{PU}{\84\136}% U+045E
16801 \DeclareTextCompositeCommand{\U}{PU}{\curu}{\84\136}% U+045E
16802 % U+045F CYRILLIC SMALL LETTER DZHE; *afii10193, dzhecyrillic
16803 \DeclareTextCommand{\cyrdzhe}{PU}{\84\137}% U+045F
16804 % U+0460 CYRILLIC CAPITAL LETTER OMEGA; Omegacyrillic
16805 \DeclareTextCommand{\CYROMEGA}{PU}{\84\140}% U+0460
16806 % U+0461 CYRILLIC SMALL LETTER OMEGA; omegacyrillic
16807 \DeclareTextCommand{\cyromega}{PU}{\84\141}% U+0461
16808 % U+0462 CYRILLIC CAPITAL LETTER YAT; Yatcyrillic, *afii10146
16809 \DeclareTextCommand{\CYRYAT}{PU}{\84\142}% U+0462
16810 % U+0463 CYRILLIC SMALL LETTER YAT; *afii10194, yatcyrillic
16811 \DeclareTextCommand{\cyryat}{PU}{\84\143}% U+0463

16812 % U+0464 CYRILLIC CAPITAL LETTER IOTIFIED E; Eiotifiedcyrillic
16813 \DeclareTextCommand{\CYRIOTE}{PU}{\84\144}% U+0464
16814 % U+0465 CYRILLIC SMALL LETTER IOTIFIED E; eiotifiedcyrillic
16815 \DeclareTextCommand{\cyriote}{PU}{\84\145}% U+0465
16816 % U+0466 CYRILLIC CAPITAL LETTER LITTLE YUS; Yuslittlecyrillic
16817 \DeclareTextCommand{\CYRLYUS}{PU}{\84\146}% U+0466
16818 % U+0467 CYRILLIC SMALL LETTER LITTLE YUS; yuslittlecyrillic
16819 \DeclareTextCommand{\cyrlyus}{PU}{\84\147}% U+0467
16820 % U+0468 CYRILLIC CAPITAL LETTER IOTIFIED LITTLE YUS; Yuslitlei-
otifiedcyrillic
16821 \DeclareTextCommand{\CYRIOTLYUS}{PU}{\84\150}% U+0468
16822 % U+0469 CYRILLIC SMALL LETTER IOTIFIED LITTLE YUS; yuslitlei-
otifiedcyrillic
16823 \DeclareTextCommand{\cyriotlyus}{PU}{\84\151}% U+0469
16824 % U+046A CYRILLIC CAPITAL LETTER BIG YUS; Yusbigcyrillic
16825 \DeclareTextCommand{\CYRBYUS}{PU}{\84\152}% U+046A
16826 % U+046B CYRILLIC SMALL LETTER BIG YUS; yusbigcyrillic
16827 \DeclareTextCommand{\cyrbyus}{PU}{\84\153}% U+046B
16828 % U+046C CYRILLIC CAPITAL LETTER IOTIFIED BIG YUS; Yusbigiotified-
cyrillic
16829 \DeclareTextCommand{\CYRIOTBYUS}{PU}{\84\154}% U+046C
16830 % U+046D CYRILLIC SMALL LETTER IOTIFIED BIG YUS; yusbigiotified-
cyrillic
16831 \DeclareTextCommand{\cyriotbyus}{PU}{\84\155}% U+046D
16832 % U+046E CYRILLIC CAPITAL LETTER KSI; Ksicyrillic
16833 \DeclareTextCommand{\CYRKSI}{PU}{\84\156}% U+046E
16834 % U+046F CYRILLIC SMALL LETTER KSI; ksicyrillic
16835 \DeclareTextCommand{\cyrksi}{PU}{\84\157}% U+046F
16836 % U+0470 CYRILLIC CAPITAL LETTER PSI; Psicyrillic
16837 \DeclareTextCommand{\CYRPSI}{PU}{\84\160}% U+0470
16838 % U+0471 CYRILLIC SMALL LETTER PSI; psicyrillic
16839 \DeclareTextCommand{\cyrpsi}{PU}{\84\161}% U+0471
16840 % U+0472 CYRILLIC CAPITAL LETTER FITA; Fitacyrillic, *afii10147
16841 \DeclareTextCommand{\CYRFITA}{PU}{\84\162}% U+0472
16842 % U+0473 CYRILLIC SMALL LETTER FITA; *afii10195, fitacyrillic
16843 \DeclareTextCommand{\cyrfita}{PU}{\84\163}% U+0473
16844 % U+0474 CYRILLIC CAPITAL LETTER IZHITSA; Izhitsacyrillic, *afii10148
16845 \DeclareTextCommand{\CYRIZH}{PU}{\84\164}% U+0474
16846 % U+0475 CYRILLIC SMALL LETTER IZHITSA; *afii10196, izhitsacyrillic
16847 \DeclareTextCommand{\cyrizh}{PU}{\84\165}% U+0475
16848 % U+0476 CYRILLIC CAPITAL LETTER IZHITSA WITH DOUBLE
GRAVE ACCENT; Izhitsadblgravecyrillic
16849 % GRAVE ACCENT; Izhitsadblgravecyrillic
16850 \DeclareTextCompositeCommand{\C}{PU}{\CYRIZH}{\84\166}% U+0476
16851 % U+0477 CYRILLIC SMALL LETTER IZHITSA WITH DOUBLE
GRAVE ACCENT; izhitsadblgravecyrillic
16852 % GRAVE ACCENT; izhitsadblgravecyrillic
16853 \DeclareTextCompositeCommand{\C}{PU}{\cyrizh}{\84\167}% U+0477
16854 % U+0478 CYRILLIC CAPITAL LETTER UK; Ukcyrillic
16855 \DeclareTextCommand{\CYRUK}{PU}{\84\170}% U+0478
16856 % U+0479 CYRILLIC SMALL LETTER UK; ukcyrillic
16857 \DeclareTextCommand{\cyruk}{PU}{\84\171}% U+0479
16858 % U+047A CYRILLIC CAPITAL LETTER ROUND OMEGA; Omegaroundcyril-
lic
16859 \DeclareTextCommand{\CYROMEGARND}{PU}{\84\172}% U+047A
16860 % U+047B CYRILLIC SMALL LETTER ROUND OMEGA; omegaroundcyrillic

16861 \DeclareTextCommand{\cyromegarnd}{PU}{\84\173}% U+047B
16862 % U+047C CYRILLIC CAPITAL LETTER OMEGA WITH TITLO; Omegatitlocyrillic
16863 \DeclareTextCommand{\CYROMEGATITLO}{PU}{\84\174}% U+047C
16864 % U+047D CYRILLIC SMALL LETTER OMEGA WITH TITLO; omegatitlocyrillic
16865 \DeclareTextCommand{\cyromegatitlo}{PU}{\84\175}% U+047D
16866 % U+047E CYRILLIC CAPITAL LETTER OT; Otcyrillic
16867 \DeclareTextCommand{\CYROT}{PU}{\84\176}% U+047E
16868 % U+047F CYRILLIC SMALL LETTER OT; otcyrillic
16869 \DeclareTextCommand{\cyrot}{PU}{\84\177}% U+047F
16870 % U+0480 CYRILLIC CAPITAL LETTER KOPPA; Koppacyrillic
16871 \DeclareTextCommand{\CYRKOPPA}{PU}{\84\200}% U+0480
16872 % U+0481 CYRILLIC SMALL LETTER KOPPA; koppacyrillic
16873 \DeclareTextCommand{\cyrkoppa}{PU}{\84\201}% U+0481
16874 % U+0482 CYRILLIC THOUSANDS SIGN; thousandcyrillic
16875 \DeclareTextCommand{\cyrthousands}{PU}{\84\202}% U+0482
\84\203: U+0483 COMBINING CYRILLIC TITLO; titlocyrilliccmb
\84\204: U+0484 COMBINING CYRILLIC PALATALIZATION; palatalizationcyrilliccmb
\84\205: U+0485 COMBINING CYRILLIC DASIA PNEUMATA; dasiapneumatacyrilliccmb
\84\206: U+0486 COMBINING CYRILLIC PSILI PNEUMATA; psilipneumatacyrilliccmb
\84\207: U+0487 COMBINING CYRILLIC POKRYTIE
\84\210: U+0488 COMBINING CYRILLIC HUNDRED THOUSANDS SIGN
\84\211: U+0489 COMBINING CYRILLIC MILLIONS SIGN
16876 % U+048A CYRILLIC CAPITAL LETTER SHORT I WITH TAIL
16877 \DeclareTextCommand{\CYRISHRTDSC}{PU}{\84\212}% U+048A
16878 % U+048B CYRILLIC SMALL LETTER SHORT I WITH TAIL
16879 \DeclareTextCommand{\cyrishrtdsc}{PU}{\84\213}% U+048B
16880 % U+048C CYRILLIC CAPITAL LETTER SEMISOFT SIGN
16881 \DeclareTextCommand{\CYRSEMISFTSN}{PU}{\84\214}% U+048C
16882 % U+048D CYRILLIC SMALL LETTER SEMISOFT SIGN
16883 \DeclareTextCommand{\cyrsemisftsn}{PU}{\84\215}% U+048D
16884 % U+048E CYRILLIC CAPITAL LETTER ER WITH TICK
16885 \DeclareTextCommand{\CYRRRTICK}{PU}{\84\216}% U+048E
16886 % U+048F CYRILLIC SMALL LETTER ER WITH TICK
16887 \DeclareTextCommand{\cyrirtick}{PU}{\84\217}% U+048F
16888 % U+0490 CYRILLIC CAPITAL LETTER GHE WITH UPTURN; Gheupturncyrillic, *afii10050
16889 \DeclareTextCommand{\CYRGUP}{PU}{\84\220}% U+0490
16890 % U+0491 CYRILLIC SMALL LETTER GHE WITH UPTURN; *afii10098, gheupturncyrillic
16891 \DeclareTextCommand{\cyrgup}{PU}{\84\221}% U+0491
16892 % U+0492 CYRILLIC CAPITAL LETTER GHE WITH STROKE; Ghestrokecyrillic
16893 \DeclareTextCommand{\CYRGHCRS}{PU}{\84\222}% U+0492
16894 % U+0493 CYRILLIC SMALL LETTER GHE WITH STROKE; ghestrokecyrillic
16895 \DeclareTextCommand{\cyrghcrs}{PU}{\84\223}% U+0493
16896 % U+0494 CYRILLIC CAPITAL LETTER GHE WITH MIDDLE HOOK;
16897 % Ghemiddlehookcyrillic
16898 \DeclareTextCommand{\CYRGHK}{PU}{\84\224}% U+0494

16899 % U+0495 CYRILLIC SMALL LETTER GHE WITH MIDDLE HOOK;
16900 % ghemiddlehookcyrillic
16901 \DeclareTextCommand{\cyrghk}{PU}{\84\225}% U+0495
16902 % U+0496 CYRILLIC CAPITAL LETTER ZHE WITH DESCENDER;
16903 % Zhedescendercyrillic
16904 \DeclareTextCommand{\CYRZHDSC}{PU}{\84\226}% U+0496
16905 % U+0497 CYRILLIC SMALL LETTER ZHE WITH DESCENDER;
16906 % zhedescendercyrillic
16907 \DeclareTextCommand{\cyrzhdsc}{PU}{\84\227}% U+0497
16908 % U+0498 CYRILLIC CAPITAL LETTER ZE WITH DESCENDER; Zedescendercyrillic
16909 \DeclareTextCommand{\CYRZDSC}{PU}{\84\230}% U+0498
16910 \DeclareTextCompositeCommand{\c}{PU}{\CYRZ}{\84\230}% U+0498
16911 % U+0499 CYRILLIC SMALL LETTER ZE WITH DESCENDER; zedescendercyrillic
16912 \DeclareTextCommand{\cyrzdsc}{PU}{\84\231}% U+0499
16913 \DeclareTextCompositeCommand{\c}{PU}{\cyrz}{\84\231}% U+0499
16914 % U+049A CYRILLIC CAPITAL LETTER KA WITH DESCENDER; Kadescendercyrillic
16915 \DeclareTextCommand{\CYRKDSC}{PU}{\84\232}% U+049A
16916 % U+049B CYRILLIC SMALL LETTER KA WITH DESCENDER; kadescendercyrillic
16917 \DeclareTextCommand{\cyrkdsc}{PU}{\84\233}% U+049B
16918 % U+049C CYRILLIC CAPITAL LETTER KA WITH VERTICAL STROKE;
16919 % Kavertikalstrokecyrillic
16920 \DeclareTextCommand{\CYRKVCRS}{PU}{\84\234}% U+049C
16921 % U+049D CYRILLIC SMALL LETTER KA WITH VERTICAL STROKE;
16922 % kavertikalstrokecyrillic
16923 \DeclareTextCommand{\cyrkvcrs}{PU}{\84\235}% U+049D
16924 % U+049E CYRILLIC CAPITAL LETTER KA WITH STROKE; Kastrokecyrillic
16925 \DeclareTextCommand{\CYRKHCRS}{PU}{\84\236}% U+049E
16926 % U+049F CYRILLIC SMALL LETTER KA WITH STROKE; kastrokecyrillic
16927 \DeclareTextCommand{\cyrkhcrs}{PU}{\84\237}% U+049F
16928 % U+04A0 CYRILLIC CAPITAL LETTER BASHKIR KA; Kabashkircyrillic
16929 \DeclareTextCommand{\CYRKBEAK}{PU}{\84\240}% U+04A0
16930 % U+04A1 CYRILLIC SMALL LETTER BASHKIR KA; kabashkircyrillic
16931 \DeclareTextCommand{\cyrkbeak}{PU}{\84\241}% U+04A1
16932 % U+04A2 CYRILLIC CAPITAL LETTER EN WITH DESCENDER; Endescendercyrillic
16933 \DeclareTextCommand{\CYRNDSC}{PU}{\84\242}% U+04A2
16934 % U+04A3 CYRILLIC SMALL LETTER EN WITH DESCENDER; endescendercyrillic
16935 \DeclareTextCommand{\cyrndsc}{PU}{\84\243}% U+04A3
16936 % U+04A4 CYRILLIC CAPITAL LIGATURE EN GHE; Enghecyrillic
16937 \DeclareTextCommand{\CYRNG}{PU}{\84\244}% U+04A4
16938 % U+04A5 CYRILLIC SMALL LIGATURE EN GHE; enghecyrillic
16939 \DeclareTextCommand{\cyrng}{PU}{\84\245}% U+04A5
16940 % U+04A6 CYRILLIC CAPITAL LETTER PE WITH MIDDLE HOOK; Pemiddlehookcyrillic
16941 \DeclareTextCommand{\CYRPHK}{PU}{\84\246}% U+04A6
16942 % U+04A7 CYRILLIC SMALL LETTER PE WITH MIDDLE HOOK; pemiddlehookcyrillic
16943 \DeclareTextCommand{\cyrphk}{PU}{\84\247}% U+04A7
16944 % U+04A8 CYRILLIC CAPITAL LETTER ABKHASIAN HA; Haabkhasiancyrillic

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16945 \DeclareTextCommand{\CYRABHHA}{PU}{\84\250}% U+04A8

16946 % U+04A9 CYRILLIC SMALL LETTER ABKHASIAN HA; haabkhasiancyrillic

16947 \DeclareTextCommand{\cyrabhha}{PU}{\84\251}% U+04A9

16948 % U+04AA CYRILLIC CAPITAL LETTER ES WITH DESCENDER; Esdescendercyrillic

16949 \DeclareTextCommand{\CYRSDSC}{PU}{\84\252}% U+04AA

16950 \DeclareTextCompositeCommand{\CYRSDSC}{PU}{\CYRS}{\84\252}% U+04AA

16951 % U+04AB CYRILLIC SMALL LETTER ES WITH DESCENDER; esdescendercyrillic

16952 \DeclareTextCommand{\cyrsdsc}{PU}{\84\253}% U+04AB

16953 \DeclareTextCompositeCommand{\k}{PU}{\cyr}{\84\253}% U+04AB

16954 % U+04AC CYRILLIC CAPITAL LETTER TE WITH DESCENDER; Tedescendercyrillic

16955 \DeclareTextCommand{\CYRTDSC}{PU}{\84\254}% U+04AC

16956 % U+04AD CYRILLIC SMALL LETTER TE WITH DESCENDER; tedescendercyrillic

16957 \DeclareTextCommand{\cyrt dsc}{PU}{\84\255}% U+04AD

16958 % U+04AE CYRILLIC CAPITAL LETTER STRAIGHT U; Ustraightcyrillic

16959 \DeclareTextCommand{\CYRY}{PU}{\84\256}% U+04AE

16960 % U+04AF CYRILLIC SMALL LETTER STRAIGHT U; ustraightcyrillic

16961 \DeclareTextCommand{\cyry}{PU}{\84\257}% U+04AF

16962 % U+04B0 CYRILLIC CAPITAL LETTER STRAIGHT U WITH STROKE; Ustraightstrokecyrillic

16963 \DeclareTextCommand{\CYRYHCRS}{PU}{\84\260}% U+04B0

16964 % U+04B1 CYRILLIC SMALL LETTER STRAIGHT U WITH STROKE; usstraightstrokecyrillic

16965 \DeclareTextCommand{\cyryhcrs}{PU}{\84\261}% U+04B1

16966 % U+04B2 CYRILLIC CAPITAL LETTER HA WITH DESCENDER; Hadesdescendercyrillic

16967 \DeclareTextCommand{\CYRHDSC}{PU}{\84\262}% U+04B2

16968 % U+04B3 CYRILLIC SMALL LETTER HA WITH DESCENDER; hadescendercyrillic

16969 \DeclareTextCommand{\cyrhdsc}{PU}{\84\263}% U+04B3

16970 % U+04B4 CYRILLIC CAPITAL LIGATURE TE TSE; Tetsecyrillic

16971 \DeclareTextCommand{\CYRTETSE}{PU}{\84\264}% U+04B4

16972 % U+04B5 CYRILLIC SMALL LIGATURE TE TSE; tetsecyrillic

16973 \DeclareTextCommand{\cyrtetse}{PU}{\84\265}% U+04B5

16974 % U+04B6 CYRILLIC CAPITAL LETTER CHE WITH DESCENDER;

16975 % Chedescendercyrillic

16976 \DeclareTextCommand{\CYRCHRDSC}{PU}{\84\266}% U+04B6

16977 % U+04B7 CYRILLIC SMALL LETTER CHE WITH DESCENDER; chedescendercyrillic

16978 \DeclareTextCommand{\cyrchrdsc}{PU}{\84\267}% U+04B7

16979 % U+04B8 CYRILLIC CAPITAL LETTER CHE WITH VERTICAL STROKE;

16980 % Cheverticalstrokecyrillic

16981 \DeclareTextCommand{\CYRCHVCRS}{PU}{\84\270}% U+04B8

16982 % U+04B9 CYRILLIC SMALL LETTER CHE WITH VERTICAL STROKE;

16983 % cheverticalstrokecyrillic

16984 \DeclareTextCommand{\cyrchvcrs}{PU}{\84\271}% U+04B9

16985 % U+04BA CYRILLIC CAPITAL LETTER SHHA; Shhacyrillic

16986 \DeclareTextCommand{\CYRSHHA}{PU}{\84\272}% U+04BA

16987 % U+04BB CYRILLIC SMALL LETTER SHHA; shhacyrillic

16988 \DeclareTextCommand{\cyrshha}{PU}{\84\273}% U+04BB

16989 % U+04BC CYRILLIC CAPITAL LETTER ABKHASIAN CHE; Cheabkhasian-cyrillic
16990 \DeclareTextCommand{\CYRABHCH}{PU}{\84\274}% U+04BC
16991 % U+04BD CYRILLIC SMALL LETTER ABKHASIAN CHE; cheabkhasiancyrillic
16992 \DeclareTextCommand{\cyrabhch}{PU}{\84\275}% U+04BD
16993 % U+04BE CYRILLIC CAPITAL LETTER ABKHASIAN CHE WITH DESCENDER; Chedescenderabkhasiancyrillic
16994 \DeclareTextCommand{\CYRABHCHDSC}{PU}{\84\276}% U+04BE
16995 \DeclareTextCompositeCommand{\k}{PU}{\CYRABHCH}{\84\276}% U+04BE
16996 % U+04BF CYRILLIC SMALL LETTER ABKHASIAN CHE WITH DESCENDER; chedescenderabkhasiancyrillic
16997 \DeclareTextCommand{\cyrabhchdsc}{PU}{\84\277}% U+04BF
16998 \DeclareTextCompositeCommand{\k}{PU}{\cyrabhch}{\84\277}% U+04BF
16999 % U+04C0 CYRILLIC LETTER PALOCHKA; palochkacyrillic
17000 \DeclareTextCommand{\CYRpalochka}{PU}{\84\300}% U+04C0
17001 % U+04C1 CYRILLIC CAPITAL LETTER ZHE WITH BREVE; Zhebrevecyrillic
17002 \DeclareTextCompositeCommand{\U}{PU}{\CYRZH}{\84\301}% U+04C1
17003 % U+04C2 CYRILLIC SMALL LETTER ZHE WITH BREVE; zhebrevecyrillic
17004 \DeclareTextCompositeCommand{\U}{PU}{\cyrzh}{\84\302}% U+04C2
17005 % U+04C3 CYRILLIC CAPITAL LETTER KA WITH HOOK; Kahookcyrillic
17006 \DeclareTextCommand{\CYRKHK}{PU}{\84\303}% U+04C3
17007 % U+04C4 CYRILLIC SMALL LETTER KA WITH HOOK; kahookcyrillic
17008 \DeclareTextCommand{\cyrkhk}{PU}{\84\304}% U+04C4
17009 % U+04C5 CYRILLIC CAPITAL LETTER EL WITH TAIL
17010 \DeclareTextCommand{\CYRLDSC}{PU}{\84\305}% U+04C5
17011 % U+04C6 CYRILLIC SMALL LETTER EL WITH TAIL
17012 \DeclareTextCommand{\cyrldsc}{PU}{\84\306}% U+04C6
17013 % U+04C7 CYRILLIC CAPITAL LETTER EN WITH HOOK; Enhookcyrillic
17014 \DeclareTextCommand{\CYRNHK}{PU}{\84\307}% U+04C7
17015 % U+04C8 CYRILLIC SMALL LETTER EN WITH HOOK; enhookcyrillic
17016 \DeclareTextCommand{\cyrnhk}{PU}{\84\310}% U+04C8
17017 % U+04CB CYRILLIC CAPITAL LETTER KHAKASSIAN CHE; Chekhakassiancyrillic
17018 \DeclareTextCommand{\CYRCHLDSC}{PU}{\84\313}% U+04CB
17019 % U+04CC CYRILLIC SMALL LETTER KHAKASSIAN CHE; chekhakassiancyrillic
17020 \DeclareTextCommand{\cyrchldsc}{PU}{\84\314}% U+04CC
17021 % U+04CD CYRILLIC CAPITAL LETTER EM WITH TAIL
17022 \DeclareTextCommand{\CYRMDSC}{PU}{\84\315}% U+04CD
17023 % U+04CE CYRILLIC SMALL LETTER EM WITH TAIL
17024 \DeclareTextCommand{\cyrmdsc}{PU}{\84\316}% U+04CE
\84\317: U+04CF CYRILLIC SMALL LETTER PALOCHKA
17025 % U+04D0 CYRILLIC CAPITAL LETTER A WITH BREVE; Abrevecyrillic
17026 \DeclareTextCompositeCommand{\U}{PU}{\CYRA}{\84\320}% U+04D0
17027 % U+04D1 CYRILLIC SMALL LETTER A WITH BREVE; abrevecyrillic
17028 \DeclareTextCompositeCommand{\U}{PU}{\cyra}{\84\321}% U+04D1
17029 % U+04D2 CYRILLIC CAPITAL LETTER A WITH DIAERESIS; Adieresiscyrillic
17030 \DeclareTextCompositeCommand{\"}{PU}{\CYRA}{\84\322}% U+04D2
17031 % U+04D3 CYRILLIC SMALL LETTER A WITH DIAERESIS; adieresiscyrillic
17032 \DeclareTextCompositeCommand{\"}{PU}{\cyra}{\84\323}% U+04D3
17033 % U+04D4 CYRILLIC CAPITAL LIGATURE A IE; Aiecyrillic
17034 \DeclareTextCommand{\CYRAE}{PU}{\84\324}% U+04D4

17035 % U+04D5 CYRILLIC SMALL LIGATURE A IE; aiecyrillic
17036 \DeclareTextCommand{\cyrae}{PU}{\84\325}% U+04D5
17037 % U+04D6 CYRILLIC CAPITAL LETTER IE WITH BREVE; iebrevocyrlilic
17038 \DeclareTextCompositeCommand{\U}{PU}{\CYRE}{\84\326}% U+04D6
17039 % U+04D7 CYRILLIC SMALL LETTER IE WITH BREVE; iebrevocyrlilic
17040 \DeclareTextCompositeCommand{\U}{PU}{\cyre}{\84\327}% U+04D7
17041 % U+04D8 CYRILLIC CAPITAL LETTER SCHWA; Schwacyrillic
17042 \DeclareTextCommand{\CYRSCHWA}{PU}{\84\330}% U+04D8
17043 % U+04D9 CYRILLIC SMALL LETTER SCHWA; *afii10846, schwacyrillic
17044 \DeclareTextCommand{\cyrswa}{PU}{\84\331}% U+04D9
17045 % U+04DA CYRILLIC CAPITAL LETTER SCHWA WITH DIAERESIS;
17046 % Schwadieresiscyrlilic
17047 \DeclareTextCompositeCommand{\"}{PU}{\CYRSCHWA}{\84\332}% U+04DA
17048 % U+04DB CYRILLIC SMALL LETTER SCHWA WITH DIAERESIS;
17049 % schwadieresiscyrlilic
17050 \DeclareTextCompositeCommand{\"}{PU}{\cyrswa}{\84\333}% U+04DB
17051 % U+04DC CYRILLIC CAPITAL LETTER ZHE WITH DIAERESIS; Zhedie-
siscyrlilic
17052 \DeclareTextCompositeCommand{\"}{PU}{\CYRZH}{\84\334}% U+04DC
17053 % U+04DD CYRILLIC SMALL LETTER ZHE WITH DIAERESIS; zhedie-
siscyrlilic
17054 \DeclareTextCompositeCommand{\"}{PU}{\cyrzh}{\84\335}% U+04DD
17055 % U+04DE CYRILLIC CAPITAL LETTER ZE WITH DIAERESIS; Zedie-
siscyrlilic
17056 \DeclareTextCompositeCommand{\"}{PU}{\CYRZ}{\84\336}% U+04DE
17057 % U+04DF CYRILLIC SMALL LETTER ZE WITH DIAERESIS; zedie-
siscyrlilic
17058 \DeclareTextCompositeCommand{\"}{PU}{\cyrz}{\84\337}% U+04DF
17059 % U+04E0 CYRILLIC CAPITAL LETTER ABKHASIAN DZE; Dzeabkhasian-
cyrlilic
17060 \DeclareTextCommand{\CYRABHDZE}{PU}{\84\340}% U+04E0
17061 % U+04E1 CYRILLIC SMALL LETTER ABKHASIAN DZE; dzeabkhasiancyrlilic
17062 \DeclareTextCommand{\cyrabhdze}{PU}{\84\341}% U+04E1
17063 % U+04E2 CYRILLIC CAPITAL LETTER I WITH MACRON; Imacroncyrlilic
17064 \DeclareTextCompositeCommand{\=} {PU}{\CYRI}{\84\342}% U+04E2
17065 % U+04E3 CYRILLIC SMALL LETTER I WITH MACRON; imacroncyrlilic
17066 \DeclareTextCompositeCommand{\=} {PU}{\cyri}{\84\343}% U+04E3
17067 % U+04E4 CYRILLIC CAPITAL LETTER I WITH DIAERESIS; Idieresiscyrlilic
17068 \DeclareTextCompositeCommand{\"}{PU}{\CYRI}{\84\344}% U+04E4
17069 % U+04E5 CYRILLIC SMALL LETTER I WITH DIAERESIS; idieresiscyrlilic
17070 \DeclareTextCompositeCommand{\"}{PU}{\cyri}{\84\345}% U+04E5
17071 % U+04E6 CYRILLIC CAPITAL LETTER O WITH DIAERESIS; Odieresiscyrlilic
17072 \DeclareTextCompositeCommand{\"}{PU}{\CYRO}{\84\346}% U+04E6
17073 % U+04E7 CYRILLIC SMALL LETTER O WITH DIAERESIS; odieresiscyrlilic
17074 \DeclareTextCompositeCommand{\"}{PU}{\cyro}{\84\347}% U+04E7
17075 % U+04E8 CYRILLIC CAPITAL LETTER BARRED O; Obarredcyrlilic
17076 \DeclareTextCommand{\CYROTLD}{PU}{\84\350}% U+04E8
17077 % U+04E9 CYRILLIC SMALL LETTER BARRED O; obarredcyrlilic
17078 \DeclareTextCommand{\cyrotld}{PU}{\84\351}% U+04E9
17079 % U+04EA CYRILLIC CAPITAL LETTER BARRED O WITH DIAERESIS;
17080 % Obarreddieresiscyrlilic
17081 \DeclareTextCompositeCommand{\"}{PU}{\CYROTLD}{\84\352}% U+04EA

17082 % U+04EB CYRILLIC SMALL LETTER BARRED O WITH DIAERESIS;
17083 % obarreddieresiscyrillic
17084 \DeclareTextCompositeCommand{\}{PU}{\cyrotld}{\84\353}% U+04EB
17085 % U+04EC CYRILLIC CAPITAL LETTER E WITH DIAERESIS
17086 \DeclareTextCompositeCommand{\}{PU}{\CYREREV}{\84\354}% U+04EC
17087 % U+04ED CYRILLIC SMALL LETTER E WITH DIAERESIS
17088 \DeclareTextCompositeCommand{\}{PU}{\cyreref}{\84\355}% U+04ED
17089 % U+04EE CYRILLIC CAPITAL LETTER U WITH MACRON; Umacroncyrillic
17090 \DeclareTextCompositeCommand{\=}{PU}{\CYRU}{\84\356}% U+04EE
17091 % U+04EF CYRILLIC SMALL LETTER U WITH MACRON; umacroncyrillic
17092 \DeclareTextCompositeCommand{\=}{PU}{\cyru}{\84\357}% U+04EF
17093 % U+04F0 CYRILLIC CAPITAL LETTER U WITH DIAERESIS; Udieresiscyrillic
17094 \DeclareTextCompositeCommand{\}{PU}{\CYRU}{\84\360}% U+04F0
17095 % U+04F1 CYRILLIC SMALL LETTER U WITH DIAERESIS; udieresiscyrillic
17096 \DeclareTextCompositeCommand{\}{PU}{\cyru}{\84\361}% U+04F1
17097 % U+04F2 CYRILLIC CAPITAL LETTER U WITH DOUBLE ACUTE; Uhungarumlautcyrillic
17098 \DeclareTextCompositeCommand{\H}{PU}{\CYRU}{\84\362}% U+04F2
17099 % U+04F3 CYRILLIC SMALL LETTER U WITH DOUBLE ACUTE; uhungarumlautcyrillic
17100 \DeclareTextCompositeCommand{\H}{PU}{\cyru}{\84\363}% U+04F3
17101 % U+04F4 CYRILLIC CAPITAL LETTER CHE WITH DIAERESIS; Chedieresiscyrillic
17102 \DeclareTextCompositeCommand{\}{PU}{\CYRCH}{\84\364}% U+04F4
17103 % U+04F5 CYRILLIC SMALL LETTER CHE WITH DIAERESIS; chedieresiscyrillic
17104 \DeclareTextCompositeCommand{\}{PU}{\cyrch}{\84\365}% U+04F5
17105 % U+04F6 CYRILLIC CAPITAL LETTER GHE WITH DESCENDER
17106 \DeclareTextCommand{\CYRGDSC}{PU}{\84\366}% U+04F6
17107 % U+04F7 CYRILLIC SMALL LETTER GHE WITH DESCENDER
17108 \DeclareTextCommand{\cyrgdsc}{PU}{\84\367}% U+04F7
17109 % U+04F8 CYRILLIC CAPITAL LETTER YERU WITH DIAERESIS; Yerudieresiscyrillic
17110 \DeclareTextCompositeCommand{\}{PU}{\CYRERY}{\84\370}% U+04F8
17111 % U+04F9 CYRILLIC SMALL LETTER YERU WITH DIAERESIS; yerudieresiscyrillic
17112 \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
17113 % U+04FC CYRILLIC CAPITAL LETTER HA WITH HOOK
17114 \DeclareTextCommand{\CYRHHK}{PU}{\84\374}% U+04FC
17115 % U+04FD CYRILLIC SMALL LETTER HA WITH HOOK
17116 \DeclareTextCommand{\cyrhk}{PU}{\84\375}% U+04FD
17117 \fi
\84\376: U+04FE CYRILLIC CAPITAL LETTER HA WITH STROKE
\84\377: U+04FF CYRILLIC SMALL LETTER HA WITH STROKE

46.2.11 Hebrew: U+0590 to U+05FF

Macro names are taken from `he8enc.def`. `hebrew` is only loaded if `\hebdalet` is defined

```
17118 \ifx\hebdalet\@undefined\else
17119 % U+05C3 HEBREW PUNCTUATION SOF PASUQ
17120 \DeclareTextCommand{\sofpasuq}{PU}{\85\303}% U+05C3
17121 % U+05D0 HEBREW LETTER ALEF
17122 \DeclareTextCommand{\hebalef}{PU}{\85\320}% U+05D0
17123 % U+05D1 HEBREW LETTER BET
17124 \DeclareTextCommand{\hebbet}{PU}{\85\321}% U+05D1
17125 % U+05D2 HEBREW LETTER GIMEL
17126 \DeclareTextCommand{\hebgimel}{PU}{\85\322}% U+05D2
17127 % U+05D3 HEBREW LETTER DALET
17128 \DeclareTextCommand{\hebdalet}{PU}{\85\323}% U+05D3
17129 % U+05D4 HEBREW LETTER HE
17130 \DeclareTextCommand{\hebhe}{PU}{\85\324}% U+05D4
17131 % U+05D5 HEBREW LETTER VAV
17132 \DeclareTextCommand{\hebvav}{PU}{\85\325}% U+05D5
17133 % U+05D6 HEBREW LETTER ZAYIN
17134 \DeclareTextCommand{\hebzayin}{PU}{\85\326}% U+05D6
17135 % U+05D7 HEBREW LETTER HET
17136 \DeclareTextCommand{\hebhet}{PU}{\85\327}% U+05D7
17137 % U+05D8 HEBREW LETTER TET
17138 \DeclareTextCommand{\hebtet}{PU}{\85\330}% U+05D8
17139 % U+05D9 HEBREW LETTER YOD
17140 \DeclareTextCommand{\hebyod}{PU}{\85\331}% U+05D9
17141 % U+05DA HEBREW LETTER FINAL KAF
17142 \DeclareTextCommand{\hebfinalkaf}{PU}{\85\332}% U+05DA
17143 % U+05DB HEBREW LETTER KAF
17144 \DeclareTextCommand{\hebkafe}{PU}{\85\333}% U+05DB
17145 % U+05DC HEBREW LETTER LAMED
17146 \DeclareTextCommand{\heblamed}{PU}{\85\334}% U+05DC
17147 % U+05DD HEBREW LETTER FINAL MEM
17148 \DeclareTextCommand{\hebfinalmem}{PU}{\85\335}% U+05DD
17149 % U+05DE HEBREW LETTER MEM
17150 \DeclareTextCommand{\hebmeme}{PU}{\85\336}% U+05DE
17151 % U+05DF HEBREW LETTER FINAL NUN
17152 \DeclareTextCommand{\hebfinalnun}{PU}{\85\337}% U+05DF
17153 % U+05E0 HEBREW LETTER NUN
17154 \DeclareTextCommand{\hebnun}{PU}{\85\340}% U+05E0
17155 % U+05E1 HEBREW LETTER SAMEKH
17156 \DeclareTextCommand{\hebsamekh}{PU}{\85\341}% U+05E1
17157 % U+05E2 HEBREW LETTER AYIN
17158 \DeclareTextCommand{\hebayin}{PU}{\85\342}% U+05E2
17159 % U+05E3 HEBREW LETTER FINAL PE
17160 \DeclareTextCommand{\hebfinalpe}{PU}{\85\343}% U+05E3
17161 % U+05E4 HEBREW LETTER PE
17162 \DeclareTextCommand{\hebpe}{PU}{\85\344}% U+05E4
17163 % U+05E5 HEBREW LETTER FINAL TSADI
17164 \DeclareTextCommand{\hebfinaltsadi}{PU}{\85\345}% U+05E5
17165 % U+05E6 HEBREW LETTER TSADI
17166 \DeclareTextCommand{\hebtsadi}{PU}{\85\346}% U+05E6
17167 % U+05E7 HEBREW LETTER QOF
```

17168 \DeclareTextCommand{\hebqof}{PU}{\85\347}% U+05E7
 17169 % U+05E8 HEBREW LETTER RESH
 17170 \DeclareTextCommand{\hebresh}{PU}{\85\350}% U+05E8
 17171 % U+05E9 HEBREW LETTER SHIN
 17172 \DeclareTextCommand{\hebshin}{PU}{\85\351}% U+05E9
 17173 %* \hebshin -> \hebsin (he8)
 17174 % U+05EA HEBREW LETTER TAV
 17175 \DeclareTextCommand{\hebtav}{PU}{\85\352}% U+05EA
 17176 % U+05F0 HEBREW LIGATURE YIDDISH DOUBLE VAV
 17177 \DeclareTextCommand{\doublevav}{PU}{\85\360}% U+05F0
 17178 % U+05F1 HEBREW LIGATURE YIDDISH VAV YOD
 17179 \DeclareTextCommand{\vavyod}{PU}{\85\361}% U+05F1
 17180 % U+05F2 HEBREW LIGATURE YIDDISH DOUBLE YOD
 17181 \DeclareTextCommand{\doubleyod}{PU}{\85\362}% U+05F2
 17182 \fi

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

17183 % U+0E3F THAI CURRENCY SYMBOL BAHT; bahtthai
 17184 \DeclareTextCommand{\textbaht}{PU}{\9016\077}% U+0E3F

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

17185 % U+1D00 LATIN LETTER SMALL CAPITAL A; \textscA (tipa)
 17186 \DeclareTextCommand{\textscA}{PU}{\9035\000}% U+1D00
 17187 % U+1D05 LATIN LETTER SMALL CAPITAL D; \scD (wsuipa)
 17188 \DeclareTextCommand{\textscD}{PU}{\9035\005}%* U+1D05
 17189 % U+1D07 LATIN LETTER SMALL CAPITAL E; \textscE (tipa)
 17190 \DeclareTextCommand{\textscE}{PU}{\9035\007}% U+1D07
 17191 % U+1D0A LATIN LETTER SMALL CAPITAL J; \textscJ (tipa)
 17192 \DeclareTextCommand{\textscJ}{PU}{\9035\012}% U+1D0A
 17193 % U+1D0B LATIN LETTER SMALL CAPITAL K; \textscK (tipx)
 17194 \DeclareTextCommand{\textPUscK}{PU}{\9035\013}% U+1D0B
 17195 %* \textPUscK -> \textscK (tipx)
 17196 % U+1D0D LATIN LETTER SMALL CAPITAL M; \textscM (tipx)
 17197 \DeclareTextCommand{\textPUscM}{PU}{\9035\015}% U+1D0D
 17198 %* \textPUscM -> \textscM (tipx)
 17199 % U+1D18 LATIN LETTER SMALL CAPITAL P; \textscP (tipx)
 17200 \DeclareTextCommand{\textPUscP}{PU}{\9035\030}% U+1D18
 17201 %* \textPUscP -> \textscP (tipx)
 17202 % U+1D19 LATIN LETTER SMALL CAPITAL REVERSED R; \textrevscr (tipx)
 17203 \DeclareTextCommand{\textPUrevscr}{PU}{\9035\031}% U+1D19
 17204 %* \textPUrevscr -> \textrevscr (tipx)
 17205 % U+1D1C LATIN LETTER SMALL CAPITAL U; \textscU (tipa), \scU (wsuipa)
 17206 \DeclareTextCommand{\textscU}{PU}{\9035\034}%* U+1D1C
 17207 % U+1D62 LATIN SUBSCRIPT SMALL LETTER I
 17208 \DeclareTextCommand{\textiinferior}{PU}{\9035\142}%* U+1D62
 17209 % U+1D63 LATIN SUBSCRIPT SMALL LETTER R
 17210 \DeclareTextCommand{\textrinferior}{PU}{\9035\143}%* U+1D63
 17211 % U+1D64 LATIN SUBSCRIPT SMALL LETTER U
 17212 \DeclareTextCommand{\textuinferior}{PU}{\9035\144}%* U+1D64
 17213 % U+1D65 LATIN SUBSCRIPT SMALL LETTER V
 17214 \DeclareTextCommand{\textvinferior}{PU}{\9035\145}%* U+1D65
 17215 % U+1D66 GREEK SUBSCRIPT SMALL LETTER BETA
 17216 \DeclareTextCommand{\textbetainferior}{PU}{\9035\146}%* U+1D66

17217 % U+1D67 GREEK SUBSCRIPT SMALL LETTER GAMMA
 17218 \DeclareTextCommand{\textgammainferior}{PU}{\9035\147}%* U+1D67
 17219 % U+1D68 GREEK SUBSCRIPT SMALL LETTER RHO
 17220 \DeclareTextCommand{\textrhoinferior}{PU}{\9035\150}%* U+1D68
 17221 % U+1D69 GREEK SUBSCRIPT SMALL LETTER PHI
 17222 \DeclareTextCommand{\textphiinferior}{PU}{\9035\151}%* U+1D69
 17223 % U+1D6A GREEK SUBSCRIPT SMALL LETTER CHI
 17224 \DeclareTextCommand{\textchiinferior}{PU}{\9035\152}%* U+1D6A
 17225 % U+1D7B LATIN SMALL CAPITAL LETTER I WITH STROKE;
 17226 % \barsci (wsuipa)
 17227 \DeclareTextCommand{\textbarsci}{PU}{\9035\173}%* U+1D7B
 17228 % U+1D7D LATIN SMALL LETTER P WITH STROKE; \barp (wsuipa)
 17229 \DeclareTextCommand{\textbarp}{PU}{\9035\175}%* U+1D7D
 17230 % U+1D7E LATIN SMALL CAPITAL LETTER U WITH STROKE;
 17231 % \barscu (wsuipa)
 17232 \DeclareTextCommand{\textbarscu}{PU}{\9035\176}%* U+1D7E

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

17233 % U+1D8F LATIN SMALL LETTER A WITH RETROFLEX HOOK; \text-
 trhooka (tipx)
 17234 \DeclareTextCommand{\textPURhooka}{PU}{\9035\217}% U+1D8F
 17235 %* \textPURhooka -> \texttrhooka (tipx)
 17236 % U+1D91 LATIN SMALL LETTER D WITH HOOK AND TAIL; \texthtr-
 taild (tipa)
 17237 \DeclareTextCommand{\texthtrtaild}{PU}{\9035\221}%* U+1D91
 17238 % U+1D92 LATIN SMALL LETTER E WITH RETROFLEX HOOK; \text-
 trhooke (tipx)
 17239 \DeclareTextCommand{\textPURhooke}{PU}{\9035\222}% U+1D92
 17240 %* \textPURhooke -> \texttrhooke (tipx)
 17241 % U+1D93 LATIN SMALL LETTER OPEN E WITH RETROFLEX HOOK;
 17242 % \textrhookepsilon (tipx)
 17243 \DeclareTextCommand{\textPURhookepsilon}{PU}{\9035\223}% U+1D93
 17244 %* \textPURhookepsilon -> \textrhookepsilon (tipx)
 17245 % U+1D97 LATIN SMALL LETTER OPEN O WITH RETROFLEX HOOK;
 17246 % \textrhookopeno (tipx)
 17247 \DeclareTextCommand{\textPURhookopeno}{PU}{\9035\227}% U+1D97
 17248 %* \textPURhookopeno -> \textrhookopeno (tipx)

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

17249 % U+1E00 LATIN CAPITAL LETTER A WITH RING BELOW; Aringbelow
 17250 \DeclareTextCompositeCommand{\textsubring}{PU}{A}{\9036\000}% U+1E00
 17251 % U+1E01 LATIN SMALL LETTER A WITH RING BELOW; aringbelow
 17252 \DeclareTextCompositeCommand{\textsubring}{PU}{a}{\9036\001}% U+1E01
 17253 % U+1E02 LATIN CAPITAL LETTER B WITH DOT ABOVE; Bdotaccent
 17254 \DeclareTextCompositeCommand{\.}{PU}{B}{\9036\002}% U+1E02
 17255 % U+1E03 LATIN SMALL LETTER B WITH DOT ABOVE; bdotaccent
 17256 \DeclareTextCompositeCommand{\.}{PU}{b}{\9036\003}% U+1E03
 17257 % U+1E04 LATIN CAPITAL LETTER B WITH DOT BELOW; Bdotbelow
 17258 \DeclareTextCompositeCommand{\d}{PU}{B}{\9036\004}% U+1E04
 17259 % U+1E05 LATIN SMALL LETTER B WITH DOT BELOW; bdotbelow
 17260 \DeclareTextCompositeCommand{\d}{PU}{b}{\9036\005}% U+1E05
 17261 % U+1E06 LATIN CAPITAL LETTER B WITH LINE BELOW; Blinebelow
 17262 \DeclareTextCompositeCommand{\b}{PU}{B}{\9036\006}% U+1E06
 17263 % U+1E07 LATIN SMALL LETTER B WITH LINE BELOW; blinebelow

17264 \DeclareTextCompositeCommand{\b}{PU}{b}{\9036\007}% U+1E07
17265 % U+1E0A LATIN CAPITAL LETTER D WITH DOT ABOVE; Ddotaccent
17266 \DeclareTextCompositeCommand{\.}{PU}{D}{\9036\012}% U+1E0A
17267 % U+1E0B LATIN SMALL LETTER D WITH DOT ABOVE; ddotaccent
17268 \DeclareTextCompositeCommand{\.}{PU}{d}{\9036\013}% U+1E0B
17269 % U+1E0C LATIN CAPITAL LETTER D WITH DOT BELOW; Ddotbelow
17270 \DeclareTextCompositeCommand{\d}{PU}{D}{\9036\014}% U+1E0C
17271 % U+1E0D LATIN SMALL LETTER D WITH DOT BELOW; ddotbelow
17272 \DeclareTextCompositeCommand{\d}{PU}{d}{\9036\015}% U+1E0D
17273 % U+1E0E LATIN CAPITAL LETTER D WITH LINE BELOW; Dlinebelow
17274 \DeclareTextCompositeCommand{\b}{PU}{D}{\9036\016}% U+1E0E
17275 % U+1E0F LATIN SMALL LETTER D WITH LINE BELOW; dlinebelow
17276 \DeclareTextCompositeCommand{\b}{PU}{d}{\9036\017}% U+1E0F
17277 % U+1E10 LATIN CAPITAL LETTER D WITH CEDILLA; Dcedilla
17278 \DeclareTextCompositeCommand{\c}{PU}{D}{\9036\020}% U+1E10
17279 % U+1E11 LATIN SMALL LETTER D WITH CEDILLA; dcedilla
17280 \DeclareTextCompositeCommand{\c}{PU}{d}{\9036\021}% U+1E11
17281 % U+1E12 LATIN CAPITAL LETTER D WITH CIRCUMFLEX BELOW; Dcircumflexbelow
17282 \DeclareTextCompositeCommand{\textsubcircum}{PU}{D}{\9036\022}% U+1E12
17283 % U+1E13 LATIN SMALL LETTER D WITH CIRCUMFLEX BELOW; dcircumflexbelow
17284 \DeclareTextCompositeCommand{\textsubcircum}{PU}{d}{\9036\023}% U+1E13
17285 % U+1E14 LATIN CAPITAL LETTER E WITH MACRON AND GRAVE;
17286 % Emacrongrave
17287 \DeclareTextCompositeCommand{\textgravemacron}{PU}{E}{\9036\024}% U+1E14
17288 % U+1E15 LATIN SMALL LETTER E WITH MACRON AND GRAVE;
17289 % emacrongrave
17290 \DeclareTextCompositeCommand{\textgravemacron}{PU}{e}{\9036\025}% U+1E15
17291 % U+1E16 LATIN CAPITAL LETTER E WITH MACRON AND ACUTE;
17292 % Emacronacute
17293 \DeclareTextCompositeCommand{\textacutemacron}{PU}{E}{\9036\026}% U+1E16
17294 % U+1E17 LATIN SMALL LETTER E WITH MACRON AND ACUTE;
17295 % emacronacute
17296 \DeclareTextCompositeCommand{\textacutemacron}{PU}{e}{\9036\027}% U+1E17
17297 % U+1E18 LATIN CAPITAL LETTER E WITH CIRCUMFLEX BELOW; Ecircumflexbelow
17298 \DeclareTextCompositeCommand{\textsubcircum}{PU}{E}{\9036\030}% U+1E18
17299 % U+1E19 LATIN SMALL LETTER E WITH CIRCUMFLEX BELOW; ecircumflexbelow
17300 \DeclareTextCompositeCommand{\textsubcircum}{PU}{e}{\9036\031}% U+1E19
17301 % U+1E1A LATIN CAPITAL LETTER E WITH TILDE BELOW; Etildebelow
17302 \DeclareTextCompositeCommand{\textsubtilde}{PU}{E}{\9036\032}% U+1E1A
17303 % U+1E1B LATIN SMALL LETTER E WITH TILDE BELOW; etildebelow
17304 \DeclareTextCompositeCommand{\textsubtilde}{PU}{e}{\9036\033}% U+1E1B
17305 % U+1E1E LATIN CAPITAL LETTER F WITH DOT ABOVE; Fdotaccent
17306 \DeclareTextCompositeCommand{\.}{PU}{F}{\9036\036}% U+1E1E
17307 % U+1E1F LATIN SMALL LETTER F WITH DOT ABOVE; fdotaccent
17308 \DeclareTextCompositeCommand{\.}{PU}{f}{\9036\037}% U+1E1F
17309 % U+1E20 LATIN CAPITAL LETTER G WITH MACRON; Gmacron
17310 \DeclareTextCompositeCommand{\=} {PU}{G}{\9036\040}% U+1E20
17311 % U+1E21 LATIN SMALL LETTER G WITH MACRON; gmacron
17312 \DeclareTextCompositeCommand{\=} {PU}{g}{\9036\041}% U+1E21
17313 % U+1E22 LATIN CAPITAL LETTER H WITH DOT ABOVE; Hdotaccent

17314 \DeclareTextCompositeCommand{\.}{PU}{H}{\9036\042}% U+1E22
17315 % U+1E23 LATIN SMALL LETTER H WITH DOT ABOVE; hdotaccent
17316 \DeclareTextCompositeCommand{\.}{PU}{h}{\9036\043}% U+1E23
17317 % U+1E24 LATIN CAPITAL LETTER H WITH DOT BELOW; Hdotbelow
17318 \DeclareTextCompositeCommand{\d}{PU}{H}{\9036\044}% U+1E24
17319 % U+1E25 LATIN SMALL LETTER H WITH DOT BELOW; hdotbelow
17320 \DeclareTextCompositeCommand{\d}{PU}{h}{\9036\045}% U+1E25
17321 % U+1E26 LATIN CAPITAL LETTER H WITH DIAERESIS; Hdieresis
17322 \DeclareTextCompositeCommand{"}{PU}{H}{\9036\046}% U+1E26
17323 % U+1E27 LATIN SMALL LETTER H WITH DIAERESIS; hdieresis
17324 \DeclareTextCompositeCommand{"}{PU}{h}{\9036\047}% U+1E27
17325 % U+1E28 LATIN CAPITAL LETTER H WITH CEDILLA; Hcedilla
17326 \DeclareTextCompositeCommand{\c}{PU}{H}{\9036\050}% U+1E28
17327 % U+1E29 LATIN SMALL LETTER H WITH CEDILLA; hcedilla
17328 \DeclareTextCompositeCommand{\c}{PU}{h}{\9036\051}% U+1E29
17329 % U+1E2A LATIN CAPITAL LETTER H WITH BREVE BELOW; Hbrevebelow
17330 \DeclareTextCompositeCommand{\textsubbreve}{PU}{H}{\9036\052}% U+1E2A
17331 % U+1E2B LATIN SMALL LETTER H WITH BREVE BELOW; hbrevebelow
17332 \DeclareTextCompositeCommand{\textsubbreve}{PU}{h}{\9036\053}% U+1E2B
17333 % U+1E2C LATIN CAPITAL LETTER I WITH TILDE BELOW; Itildebelow
17334 \DeclareTextCompositeCommand{\textsubtilde}{PU}{I}{\9036\054}% U+1E2C
17335 % U+1E2D LATIN SMALL LETTER I WITH TILDE BELOW; itildebelow
17336 \DeclareTextCompositeCommand{\textsubtilde}{PU}{i}{\9036\055}% U+1E2D
17337 % U+1E30 LATIN CAPITAL LETTER K WITH ACUTE; Kacute
17338 \DeclareTextCompositeCommand{\'}{PU}{K}{\9036\060}% U+1E30
17339 % U+1E31 LATIN SMALL LETTER K WITH ACUTE; kacute
17340 \DeclareTextCompositeCommand{\'}{PU}{k}{\9036\061}% U+1E31
17341 % U+1E32 LATIN CAPITAL LETTER K WITH DOT BELOW; Kdotbelow
17342 \DeclareTextCompositeCommand{\d}{PU}{K}{\9036\062}% U+1E32
17343 % U+1E33 LATIN SMALL LETTER K WITH DOT BELOW; kdotbelow
17344 \DeclareTextCompositeCommand{\d}{PU}{k}{\9036\063}% U+1E33
17345 % U+1E34 LATIN CAPITAL LETTER K WITH LINE BELOW; Klinebelow
17346 \DeclareTextCompositeCommand{\b}{PU}{K}{\9036\064}% U+1E34
17347 % U+1E35 LATIN SMALL LETTER K WITH LINE BELOW; klinebelow
17348 \DeclareTextCompositeCommand{\b}{PU}{k}{\9036\065}% U+1E35
17349 % U+1E36 LATIN CAPITAL LETTER L WITH DOT BELOW; Ldotbelow
17350 \DeclareTextCompositeCommand{\d}{PU}{L}{\9036\066}% U+1E36
17351 % U+1E37 LATIN SMALL LETTER L WITH DOT BELOW; ldotbelow
17352 \DeclareTextCompositeCommand{\d}{PU}{l}{\9036\067}% U+1E37
17353 % U+1E3A LATIN CAPITAL LETTER L WITH LINE BELOW; Llinebelow
17354 \DeclareTextCompositeCommand{\b}{PU}{L}{\9036\072}% U+1E3A
17355 % U+1E3B LATIN SMALL LETTER L WITH LINE BELOW; llinebelow
17356 \DeclareTextCompositeCommand{\b}{PU}{l}{\9036\073}% U+1E3B
17357 % U+1E3C LATIN CAPITAL LETTER L WITH CIRCUMFLEX BELOW; Lcir-
cumflexbelow
17358 \DeclareTextCompositeCommand{\textsubcircum}{PU}{L}{\9036\074}% U+1E3C
17359 % U+1E3D LATIN SMALL LETTER L WITH CIRCUMFLEX BELOW; lcir-
cumflexbelow
17360 \DeclareTextCompositeCommand{\textsubcircum}{PU}{l}{\9036\075}% U+1E3D
17361 % U+1E3E LATIN CAPITAL LETTER M WITH ACUTE; Macute
17362 \DeclareTextCompositeCommand{\'}{PU}{M}{\9036\076}% U+1E3E
17363 % U+1E3F LATIN SMALL LETTER M WITH ACUTE; macute
17364 \DeclareTextCompositeCommand{\'}{PU}{m}{\9036\077}% U+1E3F
17365 % U+1E40 LATIN CAPITAL LETTER M WITH DOT ABOVE; Mdotaccent

17366 \DeclareTextCompositeCommand{\.}{PU}{M}{\9036\100}% U+1E40
17367 % U+1E41 LATIN SMALL LETTER M WITH DOT ABOVE; mdotaccent
17368 \DeclareTextCompositeCommand{\.}{PU}{m}{\9036\101}% U+1E41
17369 % U+1E42 LATIN CAPITAL LETTER M WITH DOT BELOW; Mdotbelow
17370 \DeclareTextCompositeCommand{\d}{PU}{M}{\9036\102}% U+1E42
17371 % U+1E43 LATIN SMALL LETTER M WITH DOT BELOW; mdotbelow
17372 \DeclareTextCompositeCommand{\d}{PU}{m}{\9036\103}% U+1E43
17373 % U+1E44 LATIN CAPITAL LETTER N WITH DOT ABOVE; Ndotaccent
17374 \DeclareTextCompositeCommand{\.}{PU}{N}{\9036\104}% U+1E44
17375 % U+1E45 LATIN SMALL LETTER N WITH DOT ABOVE; ndotaccent
17376 \DeclareTextCompositeCommand{\.}{PU}{n}{\9036\105}% U+1E45
17377 % U+1E46 LATIN CAPITAL LETTER N WITH DOT BELOW; Ndotbelow
17378 \DeclareTextCompositeCommand{\d}{PU}{N}{\9036\106}% U+1E46
17379 % U+1E47 LATIN SMALL LETTER N WITH DOT BELOW; ndotbelow
17380 \DeclareTextCompositeCommand{\d}{PU}{n}{\9036\107}% U+1E47
17381 % U+1E48 LATIN CAPITAL LETTER N WITH LINE BELOW; Nlinebelow
17382 \DeclareTextCompositeCommand{\b}{PU}{N}{\9036\110}% U+1E48
17383 % U+1E49 LATIN SMALL LETTER N WITH LINE BELOW; nlinebelow
17384 \DeclareTextCompositeCommand{\b}{PU}{n}{\9036\111}% U+1E49
17385 % U+1E4A LATIN CAPITAL LETTER N WITH CIRCUMFLEX BELOW; Ncir-
cumflexbelow
17386 \DeclareTextCompositeCommand{\textsubcircum}{PU}{N}{\9036\112}% U+1E4A
17387 % U+1E4B LATIN SMALL LETTER N WITH CIRCUMFLEX BELOW; ncir-
cumflexbelow
17388 \DeclareTextCompositeCommand{\textsubcircum}{PU}{n}{\9036\113}% U+1E4B
17389 % U+1E50 LATIN CAPITAL LETTER O WITH MACRON AND GRAVE;
17390 % Omacrongrave
17391 \DeclareTextCompositeCommand{\textgravemacron}{PU}{O}{\9036\120}% U+1E50
17392 % U+1E51 LATIN SMALL LETTER O WITH MACRON AND GRAVE;
17393 % omacrongrave
17394 \DeclareTextCompositeCommand{\textgravemacron}{PU}{o}{\9036\121}% U+1E51
17395 % U+1E52 LATIN CAPITAL LETTER O WITH MACRON AND ACUTE;
17396 % Omacronacute
17397 \DeclareTextCompositeCommand{\textacutemacron}{PU}{O}{\9036\122}% U+1E52
17398 % U+1E53 LATIN SMALL LETTER O WITH MACRON AND ACUTE;
17399 % omacronacute
17400 \DeclareTextCompositeCommand{\textacutemacron}{PU}{o}{\9036\123}% U+1E53
17401 % U+1E54 LATIN CAPITAL LETTER P WITH ACUTE; Pacute
17402 \DeclareTextCompositeCommand{\'}{PU}{P}{\9036\124}% U+1E54
17403 % U+1E55 LATIN SMALL LETTER P WITH ACUTE; pacute
17404 \DeclareTextCompositeCommand{\'}{PU}{p}{\9036\125}% U+1E55
17405 % U+1E56 LATIN CAPITAL LETTER P WITH DOT ABOVE; Pdotaccent
17406 \DeclareTextCompositeCommand{\.}{PU}{P}{\9036\126}% U+1E56
17407 % U+1E57 LATIN SMALL LETTER P WITH DOT ABOVE; pdotaccent
17408 \DeclareTextCompositeCommand{\.}{PU}{p}{\9036\127}% U+1E57
17409 % U+1E58 LATIN CAPITAL LETTER R WITH DOT ABOVE; Rdotaccent
17410 \DeclareTextCompositeCommand{\.}{PU}{R}{\9036\130}% U+1E58
17411 % U+1E59 LATIN SMALL LETTER R WITH DOT ABOVE; rdotaccent
17412 \DeclareTextCompositeCommand{\.}{PU}{r}{\9036\131}% U+1E59
17413 % U+1E5A LATIN CAPITAL LETTER R WITH DOT BELOW; Rdotbelow
17414 \DeclareTextCompositeCommand{\d}{PU}{R}{\9036\132}% U+1E5A
17415 % U+1E5B LATIN SMALL LETTER R WITH DOT BELOW; rdotbelow
17416 \DeclareTextCompositeCommand{\d}{PU}{r}{\9036\133}% U+1E5B
17417 % U+1E5E LATIN CAPITAL LETTER R WITH LINE BELOW; Rlinebelow

17418 \DeclareTextCompositeCommand{\b}{PU}{R}{\9036\136}% U+1E5E
17419 % U+1E5F LATIN SMALL LETTER R WITH LINE BELOW; rlinebelow
17420 \DeclareTextCompositeCommand{\b}{PU}{r}{\9036\137}% U+1E5F
17421 % U+1E60 LATIN CAPITAL LETTER S WITH DOT ABOVE; Sdotaccent
17422 \DeclareTextCompositeCommand{\.}{PU}{S}{\9036\140}% U+1E60
17423 % U+1E61 LATIN SMALL LETTER S WITH DOT ABOVE; sdotaccent
17424 \DeclareTextCompositeCommand{\.}{PU}{s}{\9036\141}% U+1E61
17425 % U+1E62 LATIN CAPITAL LETTER S WITH DOT BELOW; Sdotbelow
17426 \DeclareTextCompositeCommand{\d}{PU}{S}{\9036\142}% U+1E62
17427 % U+1E63 LATIN SMALL LETTER S WITH DOT BELOW; sdotbelow
17428 \DeclareTextCompositeCommand{\d}{PU}{s}{\9036\143}% U+1E63
17429 % U+1E6A LATIN CAPITAL LETTER T WITH DOT ABOVE; Tdotaccent
17430 \DeclareTextCompositeCommand{\.}{PU}{T}{\9036\152}% U+1E6A
17431 % U+1E6B LATIN SMALL LETTER T WITH DOT ABOVE; tdotaccent
17432 \DeclareTextCompositeCommand{\.}{PU}{t}{\9036\153}% U+1E6B
17433 % U+1E6C LATIN CAPITAL LETTER T WITH DOT BELOW; Tdotbelow
17434 \DeclareTextCompositeCommand{\d}{PU}{T}{\9036\154}% U+1E6C
17435 % U+1E6D LATIN SMALL LETTER T WITH DOT BELOW; tdotbelow
17436 \DeclareTextCompositeCommand{\d}{PU}{t}{\9036\155}% U+1E6D
17437 % U+1E6E LATIN CAPITAL LETTER T WITH LINE BELOW; Tlinebelow
17438 \DeclareTextCompositeCommand{\b}{PU}{T}{\9036\156}% U+1E6E
17439 % U+1E6F LATIN SMALL LETTER T WITH LINE BELOW; tlinebelow
17440 \DeclareTextCompositeCommand{\b}{PU}{t}{\9036\157}% U+1E6F
17441 % U+1E70 LATIN CAPITAL LETTER T WITH CIRCUMFLEX BELOW; Tcircumflexbelow
17442 \DeclareTextCompositeCommand{\textsubcircum}{PU}{T}{\9036\160}% U+1E70
17443 % U+1E71 LATIN SMALL LETTER T WITH CIRCUMFLEX BELOW; tcircumflexbelow
17444 \DeclareTextCompositeCommand{\textsubcircum}{PU}{t}{\9036\161}% U+1E71
17445 % U+1E72 LATIN CAPITAL LETTER U WITH DIAERESIS BELOW; Udiere-
sisbelow
17446 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{U}{\9036\162}% U+1E72
17447 % U+1E73 LATIN SMALL LETTER U WITH DIAERESIS BELOW; udiere-
sisbelow
17448 \DeclareTextCompositeCommand{\textsubumlaut}{PU}{u}{\9036\163}% U+1E73
17449 % U+1E74 LATIN CAPITAL LETTER U WITH TILDE BELOW; Utildebelow
17450 \DeclareTextCompositeCommand{\textsubtilde}{PU}{U}{\9036\164}% U+1E74
17451 % U+1E75 LATIN SMALL LETTER U WITH TILDE BELOW; utildebelow
17452 \DeclareTextCompositeCommand{\textsubtilde}{PU}{u}{\9036\165}% U+1E75
17453 % U+1E76 LATIN CAPITAL LETTER U WITH CIRCUMFLEX BELOW; Ucircumflexbelow
17454 \DeclareTextCompositeCommand{\textsubcircum}{PU}{U}{\9036\166}% U+1E76
17455 % U+1E77 LATIN SMALL LETTER U WITH CIRCUMFLEX BELOW; ucircumflexbelow
17456 \DeclareTextCompositeCommand{\textsubcircum}{PU}{u}{\9036\167}% U+1E77
17457 % U+1E7C LATIN CAPITAL LETTER V WITH TILDE; Vtilde
17458 \DeclareTextCompositeCommand{\~}{PU}{V}{\9036\174}% U+1E7C
17459 % U+1E7D LATIN SMALL LETTER V WITH TILDE; vtilde
17460 \DeclareTextCompositeCommand{\~}{PU}{v}{\9036\175}% U+1E7D
17461 % U+1E7E LATIN CAPITAL LETTER V WITH DOT BELOW; Vdotbelow
17462 \DeclareTextCompositeCommand{\d}{PU}{V}{\9036\176}% U+1E7E
17463 % U+1E7F LATIN SMALL LETTER V WITH DOT BELOW; vdotbelow
17464 \DeclareTextCompositeCommand{\d}{PU}{v}{\9036\177}% U+1E7F
17465 % U+1E80 LATIN CAPITAL LETTER W WITH GRAVE; Wgrave

17466 \DeclareTextCompositeCommand{\`}{PU}{W}{\9036\200}% U+1E80
17467 % U+1E81 LATIN SMALL LETTER W WITH GRAVE; wgrave
17468 \DeclareTextCompositeCommand{\`}{PU}{w}{\9036\201}% U+1E81
17469 % U+1E82 LATIN CAPITAL LETTER W WITH ACUTE; Wacute
17470 \DeclareTextCompositeCommand{\' }{PU}{W}{\9036\202}% U+1E82
17471 % U+1E83 LATIN SMALL LETTER W WITH ACUTE; wacute
17472 \DeclareTextCompositeCommand{\' }{PU}{w}{\9036\203}% U+1E83
17473 % U+1E84 LATIN CAPITAL LETTER W WITH DIAERESIS; Wdieresis
17474 \DeclareTextCompositeCommand{\"}{PU}{W}{\9036\204}% U+1E84
17475 % U+1E85 LATIN SMALL LETTER W WITH DIAERESIS; wdieresis
17476 \DeclareTextCompositeCommand{\"}{PU}{w}{\9036\205}% U+1E85
17477 % U+1E86 LATIN CAPITAL LETTER W WITH DOT ABOVE; Wdotaccent
17478 \DeclareTextCompositeCommand{\. }{PU}{W}{\9036\206}% U+1E86
17479 % U+1E87 LATIN SMALL LETTER W WITH DOT ABOVE; wdotaccent
17480 \DeclareTextCompositeCommand{\. }{PU}{w}{\9036\207}% U+1E87
17481 % U+1E88 LATIN CAPITAL LETTER W WITH DOT BELOW; wdotbelow
17482 \DeclareTextCompositeCommand{\d }{PU}{W}{\9036\210}% U+1E88
17483 % U+1E89 LATIN SMALL LETTER W WITH DOT BELOW; wdotbelow
17484 \DeclareTextCompositeCommand{\d }{PU}{w}{\9036\211}% U+1E89
17485 % U+1E8A LATIN CAPITAL LETTER X WITH DOT ABOVE; Xdotaccent
17486 \DeclareTextCompositeCommand{\. }{PU}{X}{\9036\212}% U+1E8A
17487 % U+1E8B LATIN SMALL LETTER X WITH DOT ABOVE; xdotaccent
17488 \DeclareTextCompositeCommand{\. }{PU}{x}{\9036\213}% U+1E8B
17489 % U+1E8C LATIN CAPITAL LETTER X WITH DIAERESIS; Xdieresis
17490 \DeclareTextCompositeCommand{\"}{PU}{X}{\9036\214}% U+1E8C
17491 % U+1E8D LATIN SMALL LETTER X WITH DIAERESIS; xdieresis
17492 \DeclareTextCompositeCommand{\"}{PU}{x}{\9036\215}% U+1E8D
17493 % U+1E8E LATIN CAPITAL LETTER Y WITH DOT ABOVE; Ydotaccent
17494 \DeclareTextCompositeCommand{\. }{PU}{Y}{\9036\216}% U+1E8E
17495 % U+1E8F LATIN SMALL LETTER Y WITH DOT ABOVE; ydotaccent
17496 \DeclareTextCompositeCommand{\. }{PU}{y}{\9036\217}% U+1E8F
17497 % U+1E90 LATIN CAPITAL LETTER Z WITH CIRCUMFLEX; Zcircumflex
17498 \DeclareTextCompositeCommand{\^ }{PU}{Z}{\9036\220}% U+1E90
17499 % U+1E91 LATIN SMALL LETTER Z WITH CIRCUMFLEX; zcircumflex
17500 \DeclareTextCompositeCommand{\^ }{PU}{z}{\9036\221}% U+1E91
17501 % U+1E92 LATIN CAPITAL LETTER Z WITH DOT BELOW; Zdotbelow
17502 \DeclareTextCompositeCommand{\d }{PU}{Z}{\9036\222}% U+1E92
17503 % U+1E93 LATIN SMALL LETTER Z WITH DOT BELOW; zdotbelow
17504 \DeclareTextCompositeCommand{\d }{PU}{z}{\9036\223}% U+1E93
17505 % U+1E94 LATIN CAPITAL LETTER Z WITH LINE BELOW; Zlinebelow
17506 \DeclareTextCompositeCommand{\b }{PU}{Z}{\9036\224}% U+1E94
17507 % U+1E95 LATIN SMALL LETTER Z WITH LINE BELOW; zlinebelow
17508 \DeclareTextCompositeCommand{\b }{PU}{z}{\9036\225}% U+1E95
17509 % U+1E96 LATIN SMALL LETTER H WITH LINE BELOW; hlinebelow
17510 \DeclareTextCompositeCommand{\b }{PU}{h}{\9036\226}% U+1E96
17511 % U+1E97 LATIN SMALL LETTER T WITH DIAERESIS; tdieresis
17512 \DeclareTextCompositeCommand{\"}{PU}{t}{\9036\227}% U+1E97
17513 % U+1E98 LATIN SMALL LETTER W WITH RING ABOVE; wring
17514 \DeclareTextCompositeCommand{\r }{PU}{w}{\9036\230}% U+1E98
17515 % U+1E99 LATIN SMALL LETTER Y WITH RING ABOVE; yring
17516 \DeclareTextCompositeCommand{\r }{PU}{y}{\9036\231}% U+1E99
17517 % U+1E9B LATIN SMALL LETTER LONG S WITH DOT ABOVE; slongdo-
taccent
17518 \DeclareTextCompositeCommand{\. }{PU}{\textlongs}{\9036\233}% U+1E9B

17519 % U+1EA0 LATIN CAPITAL LETTER A WITH DOT BELOW; Adotbelow
17520 \DeclareTextCompositeCommand{\d}{PU}{A}{\9036\240}% U+1EA0
17521 % U+1EA1 LATIN SMALL LETTER A WITH DOT BELOW; adotbelow
17522 \DeclareTextCompositeCommand{\d}{PU}{a}{\9036\241}% U+1EA1
17523 % U+1EB8 LATIN CAPITAL LETTER E WITH DOT BELOW; Edotbelow
17524 \DeclareTextCompositeCommand{\d}{PU}{E}{\9036\270}% U+1EB8
17525 % U+1EB9 LATIN SMALL LETTER E WITH DOT BELOW; edotbelow
17526 \DeclareTextCompositeCommand{\d}{PU}{e}{\9036\271}% U+1EB9
17527 % U+1EBC LATIN CAPITAL LETTER E WITH TILDE; Etilde
17528 \DeclareTextCompositeCommand{\~}{PU}{E}{\9036\274}% U+1EBC
17529 % U+1EBD LATIN SMALL LETTER E WITH TILDE; etilde
17530 \DeclareTextCompositeCommand{\~}{PU}{e}{\9036\275}% U+1EBD
17531 % U+1ECA LATIN CAPITAL LETTER I WITH DOT BELOW; Idotbelow
17532 \DeclareTextCompositeCommand{\d}{PU}{I}{\9036\312}% U+1ECA
17533 % U+1ECB LATIN SMALL LETTER I WITH DOT BELOW; idotbelow
17534 \DeclareTextCompositeCommand{\d}{PU}{i}{\9036\313}% U+1ECB
17535 % U+1ECC LATIN CAPITAL LETTER O WITH DOT BELOW; Odotbelow
17536 \DeclareTextCompositeCommand{\d}{PU}{O}{\9036\314}% U+1ECC
17537 % U+1ECD LATIN SMALL LETTER O WITH DOT BELOW; odotbelow
17538 \DeclareTextCompositeCommand{\d}{PU}{o}{\9036\315}% U+1ECD
17539 % U+1EE4 LATIN CAPITAL LETTER U WITH DOT BELOW; Udotbelow
17540 \DeclareTextCompositeCommand{\d}{PU}{U}{\9036\344}% U+1EE4
17541 % U+1EE5 LATIN SMALL LETTER U WITH DOT BELOW; udotbelow
17542 \DeclareTextCompositeCommand{\d}{PU}{u}{\9036\345}% U+1EE5
17543 % U+1EF2 LATIN CAPITAL LETTER Y WITH GRAVE; Ygrave
17544 \DeclareTextCompositeCommand{\`}{PU}{Y}{\9036\362}% U+1EF2
17545 % U+1EF3 LATIN SMALL LETTER Y WITH GRAVE; ygrave
17546 \DeclareTextCompositeCommand{\`}{PU}{y}{\9036\363}% U+1EF3
17547 % U+1EF4 LATIN CAPITAL LETTER Y WITH DOT BELOW; Ydotbelow
17548 \DeclareTextCompositeCommand{\d}{PU}{Y}{\9036\364}% U+1EF4
17549 % U+1EF5 LATIN SMALL LETTER Y WITH DOT BELOW; ydotbelow
17550 \DeclareTextCompositeCommand{\d}{PU}{y}{\9036\365}% U+1EF5
17551 % U+1EF8 LATIN CAPITAL LETTER Y WITH TILDE; Ytilde
17552 \DeclareTextCompositeCommand{\~}{PU}{Y}{\9036\370}% U+1EF8
17553 % U+1EF9 LATIN SMALL LETTER Y WITH TILDE; ytilde
17554 \DeclareTextCompositeCommand{\~}{PU}{y}{\9036\371}% U+1EF9

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

17555 % U+200C ZERO WIDTH NON-JOINER; *afii61664, zerowidthnonjoiner
17556 \DeclareTextCommand{\textcompwordmark}{PU}{\9040\014}% U+200C
17557 % U+2013 EN DASH; endash
17558 \DeclareTextCommand{\textendash}{PU}{\9040\023}% U+2013
17559 % U+2014 EM DASH; emdash
17560 \DeclareTextCommand{\textemdash}{PU}{\9040\024}% U+2014
17561 % U+2016 DOUBLE VERTICAL LINE; dblverticalbar
17562 \DeclareTextCommand{\textbardbl}{PU}{\9040\026}% U+2016
17563 %* \textbardbl -> \textdoublevertline (tipa)
17564 % U+2018 LEFT SINGLE QUOTATION MARK; quoteleft
17565 \DeclareTextCommand{\textquoteleft}{PU}{\9040\030}% U+2018
17566 % U+2019 RIGHT SINGLE QUOTATION MARK; quoteright
17567 \DeclareTextCommand{\textquoteright}{PU}{\9040\031}% U+2019
17568 % U+201A SINGLE LOW-9 QUOTATION MARK; quotesinglbase
17569 \DeclareTextCommand{\quotesinglbase}{PU}{\9040\032}% U+201A
17570 % U+201C LEFT DOUBLE QUOTATION MARK; quotedblleft

17571 `\DeclareTextCommand{\textquotedblleft}{PU}{\9040\034}% U+201C`
17572 `% U+201D RIGHT DOUBLE QUOTATION MARK; quotedblright`
17573 `\DeclareTextCommand{\textquotedblright}{PU}{\9040\035}% U+201D`
17574 `% U+201E DOUBLE LOW-9 QUOTATION MARK; quotedblbase`
17575 `\DeclareTextCommand{\quotedblbase}{PU}{\9040\036}% U+201E`
17576 `% U+2020 DAGGER; dagger`
17577 `\DeclareTextCommand{\textdagger}{PU}{\9040\040}%* U+2020`
17578 `%* \textdagger -> \dag (LaTeX)`
17579 `% U+2021 DOUBLE DAGGER; daggerdbl; \ddagger (LaTeX)`
17580 `\DeclareTextCommand{\textdaggerdbl}{PU}{\9040\041}% U+2021`
17581 `%* \textdaggerdbl -> \ddagger (LaTeX)`
17582 `%* \textdaggerdbl -> \ddag (LaTeX)`
17583 `% U+2022 BULLET; bullet`
17584 `\DeclareTextCommand{\textbullet}{PU}{\9040\042}%* U+2022`
17585 `% U+2025 TWO DOT LEADER; \hdotfor (MnSymbol)`
17586 `\DeclareTextCommand{\textthreepoints}{PU}{\9040\043}%* U+2025`
17587 `% U+2026 HORIZONTAL ELLIPSIS; ellipsis`
17588 `\DeclareTextCommand{\textellipsis}{PU}{\9040\046}% U+2026`
17589 `%* \textellipsis -> \mathellipsis`
17590 `% U+2030 PER MILLE SIGN; perthousand`
17591 `\DeclareTextCommand{\textperthousand}{PU}{\9040\060}% U+2030`
17592 `% U+2031 PER TEN THOUSAND SIGN`
17593 `\DeclareTextCommand{\textpertenthousand}{PU}{\9040\061}% U+2031`
17594 `% U+2032 PRIME; minute; \prime (MnSymbol)`
17595 `\DeclareTextCommand{\textprime}{PU}{\9040\062}%* U+2032`
17596 `% U+2033 DOUBLE PRIME; \second (mathabx)`
17597 `\DeclareTextCommand{\textsecond}{PU}{\9040\063}%* U+2033`
17598 `% U+2034 TRIPLE PRIME; \third (mathabx)`
17599 `\DeclareTextCommand{\textthird}{PU}{\9040\064}%* U+2034`
17600 `% U+2035 REVERSED PRIME; \backprime (AmS)`
17601 `\DeclareTextCommand{\textbackprime}{PU}{\9040\065}%* U+2035`
17602 `% U+2039 SINGLE LEFT-POINTING ANGLE QUOTATION MARK; guil-`
`ingleft`
17603 `\DeclareTextCommand{\guilsingleft}{PU}{\9040\071}% U+2039`
17604 `% U+203A SINGLE RIGHT-POINTING ANGLE QUOTATION MARK; guil-`
`ingright`
17605 `\DeclareTextCommand{\guilsingright}{PU}{\9040\072}% U+203A`
17606 `% U+203B REFERENCE MARK; referencemark`
17607 `\DeclareTextCommand{\textreferencemark}{PU}{\9040\073}% U+203B`
17608 `% U+203D INTERROBANG`
17609 `\DeclareTextCommand{\textinterrobang}{PU}{\9040\075}% U+203D`
17610 `% U+2044 FRACTION SLASH; fraction`
17611 `\DeclareTextCommand{\textfractionsolidus}{PU}{\9040\104}% U+2044`
17612 `% U+2045 LEFT SQUARE BRACKET WITH QUILL`
17613 `\DeclareTextCommand{\textlquill}{PU}{\9040\105}% U+2045`
17614 `% U+2046 RIGHT SQUARE BRACKET WITH QUILL`
17615 `\DeclareTextCommand{\textrquill}{PU}{\9040\106}% U+2046`
17616 `% U+2052 COMMERCIAL MINUS SIGN`
17617 `\DeclareTextCommand{\textdiscount}{PU}{\9040\122}% U+2052`
17618 `% U+2056 THREE DOT PUNCTUATION; \lefttherefore (MnSymbol)`
17619 `\DeclareTextCommand{\textlefttherefore}{PU}{\9040\126}%* U+2056`
17620 `% U+2057 QUADRUPLE PRIME; \fourth (mathabx)`
17621 `\DeclareTextCommand{\textfourth}{PU}{\9040\127}%* U+2057`
17622 `% U+2058 FOUR DOT PUNCTUATION; \diamonddots (MnSymbol)`

17623 \DeclareTextCommand{\textdiamonddots}{PU}{\9040\130}%* U+2058

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

17624 % U+2070 SUPERSCRIPT ZERO; zerosuperior
17625 \DeclareTextCommand{\textzerosuperior}{PU}{\9040\160}%* U+2070
17626 % U+2071 SUPERSCRIPT LATIN SMALL LETTER I
17627 \DeclareTextCommand{\textisuperior}{PU}{\9040\161}%* U+2071
17628 % U+2074 SUPERSCRIPT FOUR; foursuperior
17629 \DeclareTextCommand{\textfoursuperior}{PU}{\9040\164}%* U+2074
17630 % U+2075 SUPERSCRIPT FIVE; fivesuperior
17631 \DeclareTextCommand{\textfivesuperior}{PU}{\9040\165}%* U+2075
17632 % U+2076 SUPERSCRIPT SIX; sixsuperior
17633 \DeclareTextCommand{\textsixsuperior}{PU}{\9040\166}%* U+2076
17634 % U+2077 SUPERSCRIPT SEVEN; sevensuperior
17635 \DeclareTextCommand{\textsevensuperior}{PU}{\9040\167}%* U+2077
17636 % U+2078 SUPERSCRIPT EIGHT; eightsuperior
17637 \DeclareTextCommand{\texteightsuperior}{PU}{\9040\170}%* U+2078
17638 % U+2079 SUPERSCRIPT NINE; ninesuperior
17639 \DeclareTextCommand{\textninesuperior}{PU}{\9040\171}%* U+2079
17640 % U+207A SUPERSCRIPT PLUS SIGN; plussuperior
17641 \DeclareTextCommand{\textplussuperior}{PU}{\9040\172}%* U+207A
17642 % U+207B SUPERSCRIPT MINUS
17643 \DeclareTextCommand{\textminussuperior}{PU}{\9040\173}%* U+207B
17644 % U+207C SUPERSCRIPT EQUALS SIGN; equalsuperior
17645 \DeclareTextCommand{\textequalsuperior}{PU}{\9040\174}%* U+207C
17646 % U+207D SUPERSCRIPT LEFT PARENTHESIS; parenleftsuperior
17647 \DeclareTextCommand{\textparenleftsuperior}{PU}{\9040\175}%* U+207D
17648 % U+207E SUPERSCRIPT RIGHT PARENTHESIS; parenrightsuperior
17649 \DeclareTextCommand{\textparenrightsuperior}{PU}{\9040\176}%* U+207E
17650 % U+207F SUPERSCRIPT LATIN SMALL LETTER N; nsuperior
17651 \DeclareTextCommand{\textnsuperior}{PU}{\9040\177}%* U+207F
17652 % U+2080 SUBSCRIPT ZERO; zeroinferior
17653 \DeclareTextCommand{\textzeroinferior}{PU}{\9040\200}%* U+2080
17654 % U+2081 SUBSCRIPT ONE; oneinferior
17655 \DeclareTextCommand{\textoneinferior}{PU}{\9040\201}%* U+2081
17656 % U+2082 SUBSCRIPT TWO; twoinferior
17657 \DeclareTextCommand{\texttwoinferior}{PU}{\9040\202}%* U+2082
17658 % U+2083 SUBSCRIPT THREE; threeminferior
17659 \DeclareTextCommand{\textthreeinferior}{PU}{\9040\203}%* U+2083
17660 % U+2084 SUBSCRIPT FOUR; fourinferior
17661 \DeclareTextCommand{\textfourinferior}{PU}{\9040\204}%* U+2084
17662 % U+2085 SUBSCRIPT FIVE; fiveinferior
17663 \DeclareTextCommand{\textfiveinferior}{PU}{\9040\205}%* U+2085
17664 % U+2086 SUBSCRIPT SIX; sixinferior
17665 \DeclareTextCommand{\textsixinferior}{PU}{\9040\206}%* U+2086
17666 % U+2087 SUBSCRIPT SEVEN; seveninferior
17667 \DeclareTextCommand{\textseveninferior}{PU}{\9040\207}%* U+2087
17668 % U+2088 SUBSCRIPT EIGHT; eightinferior
17669 \DeclareTextCommand{\texteightinferior}{PU}{\9040\210}%* U+2088
17670 % U+2089 SUBSCRIPT NINE; nineinferior
17671 \DeclareTextCommand{\textnineinferior}{PU}{\9040\211}%* U+2089
17672 % U+208A SUBSCRIPT PLUS SIGN
17673 \DeclareTextCommand{\textplusinferior}{PU}{\9040\212}%* U+208A
17674 % U+208B SUBSCRIPT MINUS

17675 \DeclareTextCommand{\textminusinferior}{PU}{\9040\213}%* U+208B
17676 % U+208C SUBSCRIPT EQUALS SIGN
17677 \DeclareTextCommand{\textequalsinferior}{PU}{\9040\214}%* U+208C
17678 % U+208D SUBSCRIPT LEFT PARENTHESIS; parenleftinferior
17679 \DeclareTextCommand{\textparenleftinferior}{PU}{\9040\215}%* U+208D
17680 % U+208E SUBSCRIPT RIGHT PARENTHESIS; parenrightinferior
17681 \DeclareTextCommand{\textparenrightinferior}{PU}{\9040\216}%* U+208E
17682 % U+2090 LATIN SUBSCRIPT SMALL LETTER A
17683 \DeclareTextCommand{\textainferior}{PU}{\9040\220}%* U+2090
17684 % U+2091 LATIN SUBSCRIPT SMALL LETTER E
17685 \DeclareTextCommand{\texteinferior}{PU}{\9040\221}%* U+2091
17686 % U+2092 LATIN SUBSCRIPT SMALL LETTER O
17687 \DeclareTextCommand{\textoinferior}{PU}{\9040\222}%* U+2092
17688 % U+2093 LATIN SUBSCRIPT SMALL LETTER X
17689 \DeclareTextCommand{\textxinferior}{PU}{\9040\223}%* U+2093
17690 % U+2094 LATIN SUBSCRIPT SMALL LETTER SCHWA
17691 \DeclareTextCommand{\textschwainferior}{PU}{\9040\224}%* U+2094
17692 % U+2095 LATIN SUBSCRIPT SMALL LETTER H
17693 \DeclareTextCommand{\texthinferior}{PU}{\9040\225}%* U+2095
17694 % U+2096 LATIN SUBSCRIPT SMALL LETTER K
17695 \DeclareTextCommand{\textkinferior}{PU}{\9040\226}%* U+2096
17696 % U+2097 LATIN SUBSCRIPT SMALL LETTER L
17697 \DeclareTextCommand{\textlinferior}{PU}{\9040\227}%* U+2097
17698 % U+2098 LATIN SUBSCRIPT SMALL LETTER M
17699 \DeclareTextCommand{\textminferior}{PU}{\9040\230}%* U+2098
17700 % U+2099 LATIN SUBSCRIPT SMALL LETTER N
17701 \DeclareTextCommand{\textninferior}{PU}{\9040\231}%* U+2099
17702 % U+209A LATIN SUBSCRIPT SMALL LETTER P
17703 \DeclareTextCommand{\textpinferior}{PU}{\9040\232}%* U+209A
17704 % U+209B LATIN SUBSCRIPT SMALL LETTER S
17705 \DeclareTextCommand{\textsinferior}{PU}{\9040\233}%* U+209B
17706 % U+209C LATIN SUBSCRIPT SMALL LETTER T
17707 \DeclareTextCommand{\texttinferior}{PU}{\9040\234}%* U+209C

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

17708 % U+20A1 COLON SIGN; *colonmonetary, colonsign
17709 \DeclareTextCommand{\textcolonmonetary}{PU}{\9040\241}% U+20A1
17710 % U+20A4 LIRA SIGN; afi08941, *lira
17711 \DeclareTextCommand{\textlira}{PU}{\9040\244}% U+20A4
17712 % U+20A6 NAIRA SIGN
17713 \DeclareTextCommand{\textnaira}{PU}{\9040\246}% U+20A6
17714 % U+20A7 PESETA SIGN; peseta
17715 \DeclareTextCommand{\textpeseta}{PU}{\9040\247}% U+20A7
17716 % U+20A9 WON SIGN; won
17717 \DeclareTextCommand{\textwon}{PU}{\9040\251}% U+20A9
17718 % U+20AB DONG SIGN; dong
17719 \DeclareTextCommand{\textdong}{PU}{\9040\253}% U+20AB
17720 % U+20AC EURO SIGN; *Euro, euro
17721 \DeclareTextCommand{\texteuro}{PU}{\9040\254}% U+20AC
17722 %* \texteuro -> \EurDig (marvosym)
17723 %* \texteuro -> \EURdig (marvosym)
17724 %* \texteuro -> \EurHv (marvosym)
17725 %* \texteuro -> \EURhv (marvosym)
17726 %* \texteuro -> \EurCr (marvosym)

17727 %* \texteuro -> \EURcr (marvosym)
 17728 %* \texteuro -> \EurTm (marvosym)
 17729 %* \texteuro -> \EURtm (marvosym)
 17730 %* \texteuro -> \Eur (marvosym)
 17731 % U+20B0 GERMAN PENNY SIGN; \Deleatur (marvosym)
 17732 \DeclareTextCommand{\textDeleatur}{PU}{\9040\260}%* U+20B0
 17733 %* \textDeleatur -> \Denarius (marvosym)
 17734 % U+20B1 PESO SIGN
 17735 \DeclareTextCommand{\textpeso}{PU}{\9040\261}% U+20B1
 17736 % U+20B2 GUARANI SIGN
 17737 \DeclareTextCommand{\textguarani}{PU}{\9040\262}% U+20B2

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

17738 % U+2103 DEGREE CELSIUS; centigrade
 17739 \DeclareTextCommand{\textcelsius}{PU}{\9041\003}% U+2103
 17740 % U+210F PLANCK CONSTANT OVER TWO PI; \hslash (AmS)
 17741 \DeclareTextCommand{\texthslash}{PU}{\9041\017}%* U+210F
 17742 % U+2111 BLACK-LETTER CAPITAL I (=imaginary part); Ifraktur; \Im (LaTeX)
 17743 \DeclareTextCommand{\textIm}{PU}{\9041\021}%* U+2111
 17744 % U+2113 SCRIPT SMALL L (=ell, liter); afi61289, lsquare; \ell (LaTeX)
 17745 \DeclareTextCommand{\textell}{PU}{\9041\023}%* U+2113
 17746 % U+2116 NUMERO SIGN; *afi61352, numero
 17747 \DeclareTextCommand{\textnumero}{PU}{\9041\026}% U+2116
 17748 % U+2117 SOUND RECORDING COPYRIGHT
 17749 \DeclareTextCommand{\textcircledP}{PU}{\9041\027}% U+2117
 17750 % U+2118 SCRIPT CAPITAL P (=Weierstrass elliptic function);
 17751 % weierstrass; \wp (LaTeX)
 17752 \DeclareTextCommand{\textwp}{PU}{\9041\030}%* U+2118
 17753 % U+211C BLACK-LETTER CAPITAL R (=real part); Rfraktur; \Re (LaTeX)
 17754 \DeclareTextCommand{\textRe}{PU}{\9041\034}%* U+211C
 17755 % U+211E PRESCRIPTION TAKE; prescription
 17756 \DeclareTextCommand{\textrecipe}{PU}{\9041\036}% U+211E
 17757 % U+2120 SERVICE MARK
 17758 \DeclareTextCommand{\textservicemark}{PU}{\9041\040}% U+2120
 17759 % U+2122 TRADE MARK SIGN; trademark
 17760 \DeclareTextCommand{\texttrademark}{PU}{\9041\042}% U+2122
 17761 % U+2126 OHM SIGN; Ohm, Omega
 17762 \DeclareTextCommand{\textohm}{PU}{\9041\046}% U+2126
 17763 % U+2127 INVERTED OHM SIGN
 17764 \DeclareTextCommand{\textmho}{PU}{\9041\047}%* U+2127
 17765 %* \textmho -> \agemO (wasysym)
 17766 % U+2129 TURNED GREEK SMALL LETTER IOTA; \riota (phonetic)
 17767 \DeclareTextCommand{\textriota}{PU}{\9041\051}%* U+2129
 17768 % U+212B ANGSTROM SIGN; angstrom
 17769 \DeclareTextCommand{\textangstrom}{PU}{\9041\053}% U+212B
 17770 % U+212E ESTIMATED SYMBOL; estimated
 17771 \DeclareTextCommand{\textestimated}{PU}{\9041\056}% U+212E
 17772 %* \textestimated -> \EstimatedSign (marvosym)
 17773 %* \textestimated -> \Ecommerce (marvosym)
 17774 % U+2132 TURNED CAPITAL F; \Finv (AmS)
 17775 \DeclareTextCommand{\textFinv}{PU}{\9041\062}%* U+2132
 17776 % U+2135 ALEF SYMBOL; aleph; \aleph (LaTeX)
 17777 \DeclareTextCommand{\textaleph}{PU}{\9041\065}%* U+2135

17778 % U+2136 BET SYMBOL; \beth (AmS, MnSymbol)
 17779 \DeclareTextCommand{\textbeth}{PU}{\9041\066}%* U+2136
 17780 % U+2137 GIMEL SYMBOL; \gimel (AmS, MnSymbol)
 17781 \DeclareTextCommand{\textgimel}{PU}{\9041\067}%* U+2137
 17782 % U+2138 DALET SYMBOL; \daleth (AmS, MnSymbol)
 17783 \DeclareTextCommand{\textdaleth}{PU}{\9041\070}%* U+2138
 17784 % U+213B FACSIMILE SIGN; \fax (marvosym)
 17785 \DeclareTextCommand{\textfax}{PU}{\9041\073}%* U+213B
 17786 % U+2141 TURNED SANS-SERIF CAPITAL G (=game); \Game
 17787 \DeclareTextCommand{\textGame}{PU}{\9041\101}%* U+2141
 17788 % U+214B TURNED AMPERSAND; \invamp (txfonts/pxfonts)
 17789 \DeclareTextCommand{\textinvamp}{PU}{\9041\113}% U+214B
 17790 %* \textinvamp -> \bindnasrepma (stmaryrd)
 17791 %* \textinvamp -> \parr (cml)

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

17792 % U+2150 VULGAR FRACTION ONE SEVENTH
 17793 \DeclareTextCommand{\textoneseventh}{PU}{\9041\120}% U+2150
 17794 % U+2151 VULGAR FRACTION ONE NINTH
 17795 \DeclareTextCommand{\textoneninth}{PU}{\9041\121}% U+2151
 17796 % U+2152 VULGAR FRACTION ONE TENTH
 17797 \DeclareTextCommand{\textonetenth}{PU}{\9041\122}% U+2152
 17798 % U+2153 VULGAR FRACTION ONE THIRD; onethird
 17799 \DeclareTextCommand{\textonethird}{PU}{\9041\123}% U+2153
 17800 % U+2154 VULGAR FRACTION TWO THIRDS; twothirds
 17801 \DeclareTextCommand{\texttwothirds}{PU}{\9041\124}% U+2154
 17802 % U+2155 VULGAR FRACTION ONE FIFTH
 17803 \DeclareTextCommand{\textonefifth}{PU}{\9041\125}% U+2155
 17804 % U+2156 VULGAR FRACTION TWO FIFTHS
 17805 \DeclareTextCommand{\texttwofifths}{PU}{\9041\126}% U+2156
 17806 % U+2157 VULGAR FRACTION THREE FIFTHS
 17807 \DeclareTextCommand{\textthreefifths}{PU}{\9041\127}% U+2157
 17808 % U+2158 VULGAR FRACTION FOUR FIFTHS
 17809 \DeclareTextCommand{\textfourfifths}{PU}{\9041\130}% U+2158
 17810 % U+2159 VULGAR FRACTION ONE SIXTH
 17811 \DeclareTextCommand{\textonesixth}{PU}{\9041\131}% U+2159
 17812 % U+215A VULGAR FRACTION FIVE SIXTHS
 17813 \DeclareTextCommand{\textfivesixths}{PU}{\9041\132}% U+215A
 17814 % U+215B VULGAR FRACTION ONE EIGHTH; oneeighth
 17815 \DeclareTextCommand{\textoneeighth}{PU}{\9041\133}% U+215B
 17816 % U+215C VULGAR FRACTION THREE EIGHTHS; threeeighths
 17817 \DeclareTextCommand{\textthreeeighths}{PU}{\9041\134}% U+215C
 17818 % U+215D VULGAR FRACTION FIVE EIGHTHS; fiveeighths
 17819 \DeclareTextCommand{\textfiveeighths}{PU}{\9041\135}% U+215D
 17820 % U+215E VULGAR FRACTION SEVEN EIGHTHS; seveeneighths
 17821 \DeclareTextCommand{\textseveeneighths}{PU}{\9041\136}% U+215E
 17822 % U+2184 LATIN SMALL LETTER REVERSED C
 17823 \DeclareTextCommand{\textrevc}{PU}{\9041\204}% U+2184
 17824 % U+2189 VULGAR FRACTION ZERO THIRDS
 17825 \DeclareTextCommand{\textzerthirds}{PU}{\9041\211}% U+2189

46.2.21 Arrows: U+2190 to U+21FF

17826 % U+2190 LEFTWARDS ARROW; arrowleft
 17827 \DeclareTextCommand{\textleftarrow}{PU}{\9041\220}%* U+2190

17828 % U+2191 UPWARDS ARROW; arrowup
17829 \DeclareTextCommand{\textuparrow}{PU}{\9041\221}%* U+2191
17830 % U+2192 RIGHTWARDS ARROW; arrowright
17831 \DeclareTextCommand{\textrightarrow}{PU}{\9041\222}%* U+2192
17832 %* \textrightarrow -> \MVRightArrow (marvosym)
17833 %* \textrightarrow -> \MVRightarrow (marvosym)
17834 % U+2193 DOWNWARDS ARROW; arrowdown
17835 \DeclareTextCommand{\textdownarrow}{PU}{\9041\223}%* U+2193
17836 %* \textdownarrow -> \MVArrowDown (marvosym)
17837 %* \textdownarrow -> \Force (marvosym)
17838 % U+2194 LEFT RIGHT ARROW; arrowboth; \leftrightharrow (LaTeX)
17839 \DeclareTextCommand{\textleftrightharrow}{PU}{\9041\224}%* U+2194
17840 % U+2195 UP DOWN ARROW; arrowupdn; \updownarrow (LaTeX)
17841 \DeclareTextCommand{\textupdownarrow}{PU}{\9041\225}%* U+2195
17842 % U+2196 NORTH WEST ARROW; arrowupleft; \nwarrow (LaTeX)
17843 \DeclareTextCommand{\textnwarrow}{PU}{\9041\226}%* U+2196
17844 % U+2197 NORTH EAST ARROW; arrowupright; \nearrow (LaTeX)
17845 \DeclareTextCommand{\textnearrow}{PU}{\9041\227}%* U+2197
17846 %* \textnearrow -> \textglobrise (tipa)
17847 % U+2198 SOUTH EAST ARROW; arrowdownright; \searrow (LaTeX)
17848 \DeclareTextCommand{\textsearrow}{PU}{\9041\230}%* U+2198
17849 %* \textsearrow -> \textglobfall (tipa)
17850 % U+2199 SOUTH WEST ARROW; arrowdownleft; \swarrow (LaTeX)
17851 \DeclareTextCommand{\textswarrow}{PU}{\9041\231}%* U+2199
17852 % U+219A LEFTWARDS ARROW WITH STROKE; \leftarrow (AmS)
17853 \DeclareTextCommand{\textleftarrow}{PU}{\9041\232}%* U+219A
17854 % U+219B RIGHTWARDS ARROW WITH STROKE; \rightarrow (AmS)
17855 \DeclareTextCommand{\textrightarrow}{PU}{\9041\233}%* U+219B
17856 % U+219E LEFTWARDS TWO HEADED ARROW; \twoheadleftarrow (AmS)
17857 \DeclareTextCommand{\texttwoheadleftarrow}{PU}{\9041\236}%* U+219E
17858 % \ntwoheadleftarrow (txfonts/pxfonts)
17859 \DeclareTextCommand{\textntwoheadleftarrow}{PU}{\9041\236\83\070}%* U+219E U+0338
17860 % U+219F UPWARDS TWO HEADED ARROW; \twoheaduparrow (MnSymbol)
17861 \DeclareTextCommand{\texttwoheaduparrow}{PU}{\9041\237}%* U+219F
17862 % U+21A0 RIGHTWARDS TWO HEADED ARROW;
17863 % \twoheadrightarrow (AmS)
17864 \DeclareTextCommand{\texttwoheadrightarrow}{PU}{\9041\240}%* U+21A0
17865 % \ntwoheadrightarrow (txfonts/pxfonts)
17866 \DeclareTextCommand{\textntwoheadrightarrow}{PU}{\9041\240\83\070}%* U+21A0 U+0338
17867 % U+21A1 DOWNWARDS TWO HEADED ARROW; \twoheaddownarrow (Mn-
Symbol)
17868 \DeclareTextCommand{\texttwoheaddownarrow}{PU}{\9041\241}%* U+21A1
17869 % U+21A2 LEFTWARDS ARROW WITH TAIL; \leftarrowtail (AmS)
17870 \DeclareTextCommand{\textleftarrowtail}{PU}{\9041\242}%* U+21A2
17871 % U+21A3 RIGHTWARDS ARROW WITH TAIL; \rightarrowtail (AmS)
17872 \DeclareTextCommand{\textrightarrowtail}{PU}{\9041\243}%* U+21A3
17873 % U+21A6 RIGHTWARDS ARROW FROM BAR; \mapsto (LaTeX)
17874 \DeclareTextCommand{\textmapsto}{PU}{\9041\246}%* U+21A6
17875 % U+21A9 LEFTWARDS ARROW WITH HOOK; \hookleftarrow (LaTeX)
17876 \DeclareTextCommand{\texthookleftarrow}{PU}{\9041\251}%* U+21A9
17877 % U+21AA RIGHTWARDS ARROW WITH HOOK; \hookrightarrow (LaTeX)
17878 \DeclareTextCommand{\texthookrightarrow}{PU}{\9041\252}%* U+21AA
17879 % U+21AB LEFTWARDS ARROW WITH LOOP; \looparrowleft (AmS)
17880 \DeclareTextCommand{\textlooparrowleft}{PU}{\9041\253}%* U+21AB

17881 % U+21AC RIGHTWARDS ARROW WITH LOOP; \looparrowright (AmS)
17882 \DeclareTextCommand{\textlooparrowright}{PU}{\9041\254}%* U+21AC
17883 % U+21AE LEFT RIGHT ARROW WITH STROKE; \nletrightarrow (AmS)
17884 \DeclareTextCommand{\textnletrightarrow}{PU}{\9041\256}%* U+21AE
17885 % U+21AF DOWNWARDS ZIGZAG ARROW; \lightning (stmaryrd)
17886 \DeclareTextCommand{\textlightning}{PU}{\9041\257}%* U+21AF
17887 %* \textlightning -> \Lightning (marvosym)
17888 % U+21B5 DOWNWARDS ARROW WITH CORNER LEFTWARDS;
17889 % \dls (mathabx)
17890 \DeclareTextCommand{\textdls}{PU}{\9041\265}%* U+21B5
17891 % U+21B6 ANTICLOCKWISE TOP SEMICIRCLE ARROW;
17892 % \curvearrowleft (AmS)
17893 \DeclareTextCommand{\textcurvearrowleft}{PU}{\9041\266}%* U+21B6
17894 % U+21B7 CLOCKWISE TOP SEMICIRCLE ARROW; \curvearrowright (AmS)
17895 \DeclareTextCommand{\textcurvearrowright}{PU}{\9041\267}%* U+21B7
17896 % U+21BC LEFTWARDS HARPOON WITH BARB UPWARDS; harpoonleft-
barbup;
17897 % \leftharpoonup (LaTeX)
17898 \DeclareTextCommand{\textleftharpoonup}{PU}{\9041\274}%* U+21BC
17899 % U+21BD LEFTWARDS HARPOON WITH BARB DOWNWARDS;
17900 % \leftharpoondown (LaTeX)
17901 \DeclareTextCommand{\textleftharpoondown}{PU}{\9041\275}%* U+21BD
17902 % U+21BE UPWARDS HARPOON WITH BARB RIGHTWARDS;
17903 % \upharpoonright (AmS)
17904 \DeclareTextCommand{\textupharpoonright}{PU}{\9041\276}%* U+21BE
17905 % U+21BF UPWARDS HARPOON WITH BARB LEFTWARDS;
17906 % \upharpoonleft (AmS)
17907 \DeclareTextCommand{\textupharpoonleft}{PU}{\9041\277}%* U+21BF
17908 % U+21C0 RIGHTWARDS HARPOON WITH BARB UPWARDS; harpoonright-
barbup
17909 % \rightharpoonup (LaTeX)
17910 \DeclareTextCommand{\textrightharpoonup}{PU}{\9041\300}%* U+21C0
17911 % U+21C1 RIGHTWARDS HARPOON WITH BARB DOWNWARDS;
17912 % \rightharpoondown (LaTeX)
17913 \DeclareTextCommand{\textrightharpoondown}{PU}{\9041\301}%* U+21C1
17914 % U+21C2 DOWNWARDS HARPOON WITH BARB RIGHTWARDS;
17915 % \downharpoonright (AmS)
17916 \DeclareTextCommand{\textdownharpoonright}{PU}{\9041\302}%* U+21C2
17917 % U+21C3 DOWNWARDS HARPOON WITH BARB LEFTWARDS;
17918 % \downharpoonleft (AmS)
17919 \DeclareTextCommand{\textdownharpoonleft}{PU}{\9041\303}%* U+21C3
17920 % U+21C4 RIGHTWARDS ARROW OVER LEFTWARDS ARROW;
17921 % \arrowrightoverleft; \rightleftarrows (MnSymbol)
17922 \DeclareTextCommand{\textrightleftarrows}{PU}{\9041\304}%* U+21C4
17923 % U+21C5 UPWARDS ARROW LEFTWARDS OF DOWNWARDS ARROW; ar-
rowupleftofdown;
17924 % \updownarrows (MnSymbol)
17925 \DeclareTextCommand{\textupdownarrows}{PU}{\9041\305}%* U+21C5
17926 % U+21C6 LEFTWARDS ARROW OVER RIGHTWARDS ARROW; arrowleft-
overright;
17927 % \leftrightarrows (AmS)
17928 \DeclareTextCommand{\textleftrightarrows}{PU}{\9041\306}%* U+21C6
17929 % U+21C7 LEFTWARDS PAIRED ARROWS; \leftleftarrows (AmS)
17930 \DeclareTextCommand{\textleftleftarrows}{PU}{\9041\307}%* U+21C7

17931 % U+21C8 UPWARDS PAIRED ARROWS; \upuparrows (AmS)
17932 \DeclareTextCommand{\textupuparrows}{PU}{\9041\310}%* U+21C8
17933 % U+21C9 RIGHTWARDS PAIRED ARROWS; \rightrightarrows (AmS)
17934 \DeclareTextCommand{\textrightarrows}{PU}{\9041\311}%* U+21C9
17935 % U+21CA DOWNWARDS PAIRED ARROWS; \downdownarrows (AmS)
17936 \DeclareTextCommand{\textdowndownarrows}{PU}{\9041\312}%* U+21CA
17937 % U+21CB LEFTWARDS HARPOON OVER RIGHTWARDS HARPOON;
17938 % \leftrightharpoons (AmS);
17939 \DeclareTextCommand{\textleftrightharpoons}{PU}{\9041\313}%* U+21CB
17940 % U+21CC RIGHTWARDS HARPOON OVER LEFTWARDS HARPOON;
17941 % \rightleftharpoons (LaTeX, AmS)
17942 \DeclareTextCommand{\textrightleftharpoons}{PU}{\9041\314}%* U+21CC
17943 % U+21CD LEFTWARDS DOUBLE ARROW WITH STROKE; arrowleftd-
blstroke;
17944 % \nLeftarrow (AmS)
17945 \DeclareTextCommand{\textnLeftarrow}{PU}{\9041\315}%* U+21CD
17946 % U+21CE LEFT RIGHT DOUBLE ARROW WITH STROKE; \nLeftrightar-
row (AmS)
17947 \DeclareTextCommand{\textnLeftrightarrow}{PU}{\9041\316}%* U+21CE
17948 % U+21CF RIGHTWARDS DOUBLE ARROW WITH STROKE; arrowrightd-
blstroke;
17949 % \nrightarrow (AmS)
17950 \DeclareTextCommand{\textnrightarrow}{PU}{\9041\317}%* U+21CF
17951 % U+21D0 LEFTWARDS DOUBLE ARROW; arrowdblleft, arrowleftdbl;
17952 % \Leftarrow (LaTeX)
17953 \DeclareTextCommand{\textLeftarrow}{PU}{\9041\320}%* U+21D0
17954 % U+21D1 UPWARDS DOUBLE ARROW; arrowdblup; \Uparrow (LaTeX)
17955 \DeclareTextCommand{\textUparrow}{PU}{\9041\321}%* U+21D1
17956 % U+21D2 RIGHTWARDS DOUBLE ARROW; arrowdblright, dblarrowright;
17957 % \rightarrow (LaTeX)
17958 \DeclareTextCommand{\textrightarrow}{PU}{\9041\322}%* U+21D2
17959 %* \textrightarrow -> \Conclusion (marvosym)
17960 % U+21D3 DOWNWARDS DOUBLE ARROW; arrowdbldown; \Downarrow (La-
TeX)
17961 \DeclareTextCommand{\textDownarrow}{PU}{\9041\323}%* U+21D3
17962 % U+21D4 LEFT RIGHT DOUBLE ARROW; arrowdblboth;
17963 % \Leftrightarrow (LaTeX)
17964 \DeclareTextCommand{\textLeftrightarrow}{PU}{\9041\324}%* U+21D4
17965 %* \textLeftrightarrow -> \Equivalence (marvosym)
17966 % U+21D5 UP DOWN DOUBLE ARROW; \Updownarrow (LaTeX)
17967 \DeclareTextCommand{\textUpdownarrow}{PU}{\9041\325}%* U+21D5
17968 % U+21D6 NORTH WEST DOUBLE ARROW; \Nwarrow (MnSymbol)
17969 \DeclareTextCommand{\textNwarrow}{PU}{\9041\326}%* U+21D6
17970 % U+21D7 NORTH EAST DOUBLE ARROW; \Nearrow (MnSymbol)
17971 \DeclareTextCommand{\textNearrow}{PU}{\9041\327}%* U+21D7
17972 % U+21D8 SOUTH EAST DOUBLE ARROW; \Searrow (MnSymbol)
17973 \DeclareTextCommand{\textSearrow}{PU}{\9041\330}%* U+21D8
17974 % U+21D9 SOUTH WEST DOUBLE ARROW; \Swarrow (MnSymbol)
17975 \DeclareTextCommand{\textSwarrow}{PU}{\9041\331}%* U+21D9
17976 % U+21DA LEFTWARDS TRIPLE ARROW; \Lleftarrow (AmS)
17977 \DeclareTextCommand{\textLleftarrow}{PU}{\9041\332}%* U+21DA
17978 % U+21DB RIGHTWARDS TRIPLE ARROW; \Rrightarrow (MnSymbol)
17979 \DeclareTextCommand{\textRrightarrow}{PU}{\9041\333}%* U+21DB
17980 % U+21DC LEFTWARDS SQUIGGLE ARROW; \leftsquigarrow (mathabx)

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17981 \DeclareTextCommand{\textleftsquigarrow}{PU}{\9041\334}%* U+21DC
17982 % U+21DD RIGHTWARDS SQUIGGLE ARROW; \rightsquigarrow (mathabx)
17983 \DeclareTextCommand{\textright squigarrow}{PU}{\9041\335}%* U+21DD
17984 % U+21E0 LEFTWARDS DASHED ARROW; arrowdashleft;
17985 % \dashleftarrow (AmS)
17986 \DeclareTextCommand{\textdashleftarrow}{PU}{\9041\340}%* U+21E0
17987 %* \textdashleftarrow -> \dashedleftarrow (MnSymbol)
17988 % U+21E1 UPWARDS DASHED ARROW; arrowdashup; \dasheduparrow (Mn-
Symbol)
17989 \DeclareTextCommand{\textdasheduparrow}{PU}{\9041\341}%* U+21E1
17990 % U+21E2 RIGHTWARDS DASHED ARROW; arrowdashright; \dashrightarrow
(AmS)
17991 \DeclareTextCommand{\textdashrightarrow}{PU}{\9041\342}%* U+21E2
17992 %* \textdashrightarrow -> \dashedrightarrow (MnSymbol)
17993 % U+21E3 DOWNWARDS DASHED ARROW; arrowdashdown; \dasheddownar-
row (MnSymbol)
17994 \DeclareTextCommand{\textdasheddownarrow}{PU}{\9041\343}%* U+21E3
17995 % U+21E8 RIGHTWARDS WHITE ARROW; \pointer (wasysym)
17996 \DeclareTextCommand{\textpointer}{PU}{\9041\350}%* U+21E8
17997 % U+21F5 DOWNWARDS ARROW LEFTWARDS OF UPWARDS ARROW;
17998 % \downuparrows (MnSymbol)
17999 \DeclareTextCommand{\textdownuparrows}{PU}{\9041\365}%* U+21F5
18000 % U+21FD LEFTWARDS OPEN-HEADED ARROW; \leftarrowtriangle (stmaryrd)
18001 \DeclareTextCommand{\textleftarrowtriangle}{PU}{\9041\375}%* U+21FD
18002 % U+21FE RIGHTWARDS OPEN-HEADED ARROW; \rightarrowtriangle (stmaryrd)
18003 \DeclareTextCommand{\textrightarrowtriangle}{PU}{\9041\376}%* U+21FE
18004 % U+21FF LEFT RIGHT OPEN-HEADED ARROW; \leftrightarrowtrian-
gle (stmaryrd)
18005 \DeclareTextCommand{\textleftrightarrowtriangle}{PU}{\9041\377}%* U+21FF

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

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18006 % U+2200 FOR ALL; forall; \forall (LaTeX)
18007 \DeclareTextCommand{\textforall}{PU}{\9042\000}%* U+2200
18008 % U+2201 COMPLEMENT; \complement (AmS)
18009 \DeclareTextCommand{\textcomplement}{PU}{\9042\001}%* U+2201
18010 % U+2202 PARTIAL DIFFERENTIAL; partialdiff; \partial (LaTeX)
18011 \DeclareTextCommand{\textpartial}{PU}{\9042\002}%* U+2202
18012 % U+2203 THERE EXISTS; existential; \exists (LaTeX)
18013 \DeclareTextCommand{\textexists}{PU}{\9042\003}%* U+2203
18014 % U+2204 THERE DOES NOT EXIST; \nexists (AmS)
18015 \DeclareTextCommand{\textnexists}{PU}{\9042\004}%* U+2204
18016 % U+2205 EMPTY SET; emptyset; \emptyset (LaTeX), \varnothing (AmS)
18017 \DeclareTextCommand{\textemptyset}{PU}{\9042\005}%* U+2205
18018 %* \textemptyset -> \varnothing (AmS)
18019 % U+2206 INCREMENT; increment, Delta; \triangle (LaTeX)
18020 \DeclareTextCommand{\texttriangle}{PU}{\9042\006}%* U+2206
18021 % U+2207 NABLA; nabla, gradient; \nabla (LaTeX)
18022 \DeclareTextCommand{\textnabla}{PU}{\9042\007}%* U+2207
18023 % U+2208 ELEMENT OF; element; \in (LaTeX)
18024 \DeclareTextCommand{\textin}{PU}{\9042\010}%* U+2208
18025 % U+2209 NOT AN ELEMENT OF; notelement, notelementof; \notin (LaTeX)
18026 \DeclareTextCommand{\textnotin}{PU}{\9042\011}%* U+2209
18027 % U+220A SMALL ELEMENT OF; \smallin (mathdesign)
18028 \DeclareTextCommand{\textsmallin}{PU}{\9042\012}%* U+220A

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18029 % U+220B CONTAINS AS MEMBER; suchthat; \ni (LaTeX)
18030 \DeclareTextCommand{\textni}{PU}{\9042\013}%* U+220B
18031 %* \textni -> \owns (mathabx)
18032 % U+220C DOES NOT CONTAIN AS MEMBER; \notowner (mathabx)
18033 \DeclareTextCommand{\textnotowner}{PU}{\9042\014}%* U+220C
18034 %* \textnotowner -> \notni (txfonts/pxfonts)
18035 % U+220D SMALL CONTAINS AS MEMBER; \smallowns (mathdesign)
18036 \DeclareTextCommand{\textsmallowns}{PU}{\9042\015}%* U+220D
18037 % U+220F N-ARY PRODUCT; \prod (LaTeX)
18038 \DeclareTextCommand{\textprod}{PU}{\9042\017}%* U+220F
18039 % U+2210 N-ARY COPRODUCT; \amalg (LaTeX)
18040 \DeclareTextCommand{\textamalg}{PU}{\9042\020}%* U+2210
18041 % U+2211 N-ARY SUMMATION; summation; \sum (LaTeX)
18042 \DeclareTextCommand{\textsum}{PU}{\9042\021}%* U+2211
18043 % U+2212 MINUS SIGN; minus
18044 \DeclareTextCommand{\textminus}{PU}{\9042\022}% U+2212
18045 % U+2213 MINUS-OR-PLUS SIGN; minusplus; \mp (LaTeX)
18046 \DeclareTextCommand{\textmp}{PU}{\9042\023}%* U+2213
18047 % U+2214 DOT PLUS; \dotplus (AmS)
18048 \DeclareTextCommand{\textdotplus}{PU}{\9042\024}%* U+2214
18049 % U+2215 DIVISION SLASH; divisionslash; \Divides (marvosym)
18050 \DeclareTextCommand{\textDivides}{PU}{\9042\025}%* U+2215
18051 % \DividesNot (marvosym)
18052 \DeclareTextCommand{\textDividesNot}{PU}{\9042\025\9040\322}%* U+2215 U+20D2
18053 % U+2216 SET MINUS; \setminus (LaTeX)
18054 \DeclareTextCommand{\textsetminus}{PU}{\9042\026}%* U+2216
18055 % U+2217 ASTERISK OPERATOR; asteriskmath; \ast (LaTeX)
18056 \DeclareTextCommand{\textast}{PU}{\9042\027}%* U+2217
18057 % U+2218 RING OPERATOR; \circ (LaTeX)
18058 \DeclareTextCommand{\textcirc}{PU}{\9042\030}%* U+2218
18059 % U+2219 BULLET OPERATOR; bulletoperator; \bullet (LaTeX)
18060 \DeclareTextCommand{\textbulletoperator}{PU}{\9042\031}% U+2219
18061 % U+221A SQUARE ROOT; radical
18062 \DeclareTextCommand{\textsqrt}{PU}{\9042\032}%* U+221A
18063 % U+221D PROPORTIONAL TO; proportional; \propto (LaTeX)
18064 \DeclareTextCommand{\textpropto}{PU}{\9042\035}%* U+221D
18065 %* \textpropto -> \varprop (wasysym)
18066 % U+221E INFINITY; infinity; \infty (LaTeX)
18067 \DeclareTextCommand{\textinfty}{PU}{\9042\036}%* U+221E
18068 % U+2220 ANGLE; angle; \angle (LaTeX)
18069 \DeclareTextCommand{\textangle}{PU}{\9042\040}%* U+2220
18070 % U+2221 MEASURED ANGLE; \measuredangle (mathabx, MnSymbol)
18071 \DeclareTextCommand{\textmeasuredangle}{PU}{\9042\041}%* U+2221
18072 % U+2222 SPHERICAL ANGLE; \sphericalangle (AmS)
18073 \DeclareTextCommand{\textsphericalangle}{PU}{\9042\042}%* U+2222
18074 %* \textsphericalangle -> \varangle (wasysym)
18075 %* \textsphericalangle -> \Anglesign (marvosym)
18076 %* \textsphericalangle -> \AngleSign (marvosym)
18077 % U+2223 DIVIDES; divides; \mid (LaTeX)
18078 \DeclareTextCommand{\textmid}{PU}{\9042\043}%* U+2223
18079 % U+2224 DOES NOT DIVIDE; \nmid (AmS)
18080 \DeclareTextCommand{\textnmid}{PU}{\9042\044}%* U+2224
18081 %* \textnmid -> \notdivides (mathabx)
18082 % U+2225 PARALLEL TO; parallel; \parallel (LaTeX)

18083 \DeclareTextCommand{\textparallel}{PU}{\9042\045}%* U+2225
18084 % U+2226 NOT PARALLEL TO; notparallel; \nparallel (AmS)
18085 \DeclareTextCommand{\textnparallel}{PU}{\9042\046}%* U+2226
18086 %* \textnparallel -> nUpdownline (MnSymbol)
18087 % U+2227 LOGICAL AND; logicaland; \wedge (LaTeX)
18088 \DeclareTextCommand{\textwedge}{PU}{\9042\047}%* U+2227
18089 % \owedge (stmaryrd)
18090 \DeclareTextCommand{\textowedge}{PU}{\9042\047\9040\335}%* U+2227 U+20DD
18091 %* \textowedge -> \varowedge (stmaryrd)
18092 % U+2228 LOGICAL OR; logicalor; \vee (LaTeX)
18093 \DeclareTextCommand{\textvee}{PU}{\9042\050}%* U+2228
18094 % \ovee (stmaryrd)
18095 \DeclareTextCommand{\textovee}{PU}{\9042\050\9040\335}%* U+2228 U+20DD
18096 %* \textovee -> \varovee (stmaryrd)
18097 % U+2229 INTERSECTION; intersection; \cap (LaTeX)
18098 \DeclareTextCommand{\textcap}{PU}{\9042\051}%* U+2229
18099 % U+222A UNION; union; \cup (LaTeX)
18100 \DeclareTextCommand{\textcup}{PU}{\9042\052}%* U+222A
18101 % U+222B INTEGRAL; integral; \int (LaTeX)
18102 \DeclareTextCommand{\textint}{PU}{\9042\053}%* U+222B
18103 %* \textint -> \varint (wasysym)
18104 % U+222C DOUBLE INTEGRAL; dblintegral; \iint (AmS)
18105 \DeclareTextCommand{\textiint}{PU}{\9042\054}%* U+222C
18106 % U+222D TRIPLE INTEGRAL; \iiint (AmS)
18107 \DeclareTextCommand{\textiiint}{PU}{\9042\055}%* U+222D
18108 % U+222E CONTOUR INTEGRAL; contourintegral; \oint (LaTeX)
18109 \DeclareTextCommand{\textoint}{PU}{\9042\056}%* U+222E
18110 %* \textoint -> \varoint (wasysym)
18111 % U+222F SURFACE INTEGRAL; \oiint (wasysym)
18112 \DeclareTextCommand{\textoiint}{PU}{\9042\057}%* U+222F
18113 % U+2232 CLOCKWISE CONTOUR INTEGRAL;
18114 % \ointclockwise (txfonts/pxfonts)
18115 \DeclareTextCommand{\textointclockwise}{PU}{\9042\062}%* U+2232
18116 % U+2233 ANTICLOCKWISE CONTOUR INTEGRAL; \ointctrackwise (tx-
fonts/pxfonts)
18117 \DeclareTextCommand{\textointctrackwise}{PU}{\9042\063}%* U+2233
18118 % U+2234 THEREFORE; therefore; \therefore (AmS)
18119 \DeclareTextCommand{\texttherefore}{PU}{\9042\064}%* U+2234
18120 %* \texttherefore -> uptherefore (MnSymbol)
18121 % U+2235 BECAUSE; because; \because (AmS)
18122 \DeclareTextCommand{\textbecause}{PU}{\9042\065}%* U+2235
18123 %* \textbecause -> \downtherefore (MnSymbol)
18124 % U+2236 RATIO; \vdots (MnSymbol)
18125 \DeclareTextCommand{\textvdotdot}{PU}{\9042\066}%* U+2236
18126 % U+2237 PROPORTION; \squaredots (MnSymbol)
18127 \DeclareTextCommand{\textsquaredots}{PU}{\9042\067}%* U+2237
18128 % U+2238 DOT MINUS; \dotminus (MnSymbol)
18129 \DeclareTextCommand{\textdotminus}{PU}{\9042\070}%* U+2238
18130 %* \textdotminus -> \textdotdiv (mathabx)
18131 % U+2239 EXCESS; \eqcolon (txfonts/pxfonts)
18132 \DeclareTextCommand{\texteqcolon}{PU}{\9042\071}%* U+2239
18133 % U+223C TILDE OPERATOR; similar; \sim (LaTeX)
18134 \DeclareTextCommand{\textsim}{PU}{\9042\074}%* U+223C
18135 %* \textsim -> \AC (wasysym)

18136 % U+223D REVERSED TILDE; reversedtilde; \backsim (AmS)
18137 \DeclareTextCommand{\textbacksim}{PU}{\9042\075}%* U+223D
18138 % \backsim (txfonts/pxfonts)
18139 \DeclareTextCommand{\textnbacksim}{PU}{\9042\075\83\070}%* U+223D U+0338
18140 % U+2240 WREATH PRODUCT; \wr (LaTeX)
18141 \DeclareTextCommand{\textwr}{PU}{\9042\100}%* U+2240
18142 %* \textwr -> \wreath (MnSymbol)
18143 % U+2241 NOT TILDE; \nsim (AmS)
18144 \DeclareTextCommand{\textnsim}{PU}{\9042\101}%* U+2241
18145 % U+2242 MINUS TILDE; \eqsim (MnSymbol)
18146 \DeclareTextCommand{\texteqsim}{PU}{\9042\102}%* U+2242
18147 % \neqsim (MnSymbol)
18148 \DeclareTextCommand{\textneqsim}{PU}{\9042\102\83\070}%* U+2242 U+0338
18149 % U+2243 ASYMPTOTICALLY EQUAL TO; asymptoticallyequal; \simeq (LaTeX)
18150 \DeclareTextCommand{\textsimeq}{PU}{\9042\103}%* U+2243
18151 % U+2244 NOT ASYMPTOTICALLY EQUAL TO; \nsimeq (txfonts/pxfonts)
18152 \DeclareTextCommand{\textnsimeq}{PU}{\9042\104}%* U+2244
18153 % U+2245 APPROXIMATELY EQUAL TO; approximatelyequal; \cong (LaTeX)
18154 \DeclareTextCommand{\textcong}{PU}{\9042\105}%* U+2245
18155 % U+2247 NEITHER APPROXIMATELY NOR ACTUALLY EQUAL TO;
18156 % \ncong (AmS)
18157 \DeclareTextCommand{\textncong}{PU}{\9042\107}%* U+2247
18158 % U+2248 ALMOST EQUAL TO; approxequal; \approx (LaTeX)
18159 \DeclareTextCommand{\textapprox}{PU}{\9042\110}%* U+2248
18160 % U+2249 NOT ALMOST EQUAL TO; \napprox (txfonts/pxfonts)
18161 \DeclareTextCommand{\textnapprox}{PU}{\9042\111}%* U+2249
18162 %* \textnapprox -> \nthickapprox (txfonts/pxfonts)
18163 % U+224A ALMOST EQUAL OR EQUAL TO; \approxeq (AmS)
18164 \DeclareTextCommand{\textapproxeq}{PU}{\9042\112}%* U+224A
18165 % \napproxeq (txfonts/pxfonts)
18166 \DeclareTextCommand{\textnapproxeq}{PU}{\9042\112\83\070}%* U+224A U+0338
18167 % U+224B TRIPLE TILDE; \triplesim (MnSymbol)
18168 \DeclareTextCommand{\texttriplesim}{PU}{\9042\113}%* U+224B
18169 %* \texttriplesim -> \VHF (wasysym)
18170 % \ntriplesim (MnSymbol)
18171 \DeclareTextCommand{\textntriplesim}{PU}{\9042\113\83\070}%* U+224B U+0338
18172 % U+224C ALL EQUAL TO; allequal; \backcong (MnSymbol)
18173 \DeclareTextCommand{\textbackcong}{PU}{\9042\114}%* U+224C
18174 % \nbackcong (MnSymbol)
18175 \DeclareTextCommand{\textnbackcong}{PU}{\9042\114\83\070}%* U+224C U+0338
18176 % U+224D EQUIVALENT TO; \asymp (LaTeX)
18177 \DeclareTextCommand{\textasymp}{PU}{\9042\115}%* U+224D
18178 % \nasymp (txfonts/pxfonts)
18179 \DeclareTextCommand{\textnasymp}{PU}{\9042\115\83\070}%* U+224D U+0338
18180 %* \textnasymp -> \notasymp (mathabx)
18181 % U+224E GEOMETRICALLY EQUIVALENT TO; \Bumpeq (AmS)
18182 \DeclareTextCommand{\textBumpeq}{PU}{\9042\116}%* U+224E
18183 % \nBumpeq (txfonts/pxfonts)
18184 \DeclareTextCommand{\textnBumpeq}{PU}{\9042\116\83\070}%* U+224E U+0338
18185 % U+224F DIFFERENCE BETWEEN; \bumpeq (AmS)
18186 \DeclareTextCommand{\textbumpeq}{PU}{\9042\117}%* U+224F
18187 % \nbumpeq (txfonts/pxfonts)
18188 \DeclareTextCommand{\textnbumpeq}{PU}{\9042\117\83\070}%* U+224F U+0338

18189 % U+2250 APPROACHES THE LIMIT; approaches; \doteq (LaTeX)
18190 \DeclareTextCommand{\textdoteq}{PU}{\9042\120}%* U+2250
18191 % \ndoteq (MnSymbol)
18192 \DeclareTextCommand{\textndoteq}{PU}{\9042\120\83\070}%* U+2250 U+0338
18193 % U+2251 GEOMETRICALLY EQUAL TO; geometricallyequal;
18194 % \doteqdot (AmS)
18195 \DeclareTextCommand{\textdoteqdot}{PU}{\9042\121}%* U+2251
18196 %* \textdoteqdot -> \Doteq (MnSymbol)
18197 % \nDoteq (MnSymbol)
18198 \DeclareTextCommand{\textnDoteq}{PU}{\9042\121\83\070}%* U+2251 U+0338
18199 % U+2252 APPROXIMATELY EQUAL TO OR THE IMAGE OF; approx-
equalorimage;
18200 % \fallingdotseq (AmS)
18201 \DeclareTextCommand{\textfallingdotseq}{PU}{\9042\122}%* U+2252
18202 % \nfallingdotseq (MnSymbol)
18203 \DeclareTextCommand{\textnfallingdotseq}{PU}{\9042\122\83\070}%* U+2252 U+0338
18204 % U+2253 IMAGE OF OR APPROXIMATELY EQUAL TO; imageorapproxi-
matelyequal;
18205 % \risingdotseq (AmS)
18206 \DeclareTextCommand{\textrisingdotseq}{PU}{\9042\123}%* U+2253
18207 % \nrisingdotseq (MnSymbol)
18208 \DeclareTextCommand{\textnrisingdotseq}{PU}{\9042\123\83\070}%* U+2253 U+0338
18209 % U+2254 COLON EQUALS; \colonequals (colonequals)
18210 \DeclareTextCommand{\textcolonequals}{PU}{\9042\124}%* U+2254
18211 % U+2255 EQUALS COLON; \equalscolon (colonequals)
18212 \DeclareTextCommand{\textequalscolon}{PU}{\9042\125}%* U+2255
18213 % U+2256 RING IN EQUAL TO; \eqcirc (AmS)
18214 \DeclareTextCommand{\texteqcirc}{PU}{\9042\126}%* U+2256
18215 % \neqcirc (MnSymbol)
18216 \DeclareTextCommand{\textneqcirc}{PU}{\9042\126\83\070}%* U+2256 U+0338
18217 % U+2257 RING EQUAL TO; \circeq (AmS)
18218 \DeclareTextCommand{\textcirceq}{PU}{\9042\127}%* U+2257
18219 % \ncirceq (MnSymbol)
18220 \DeclareTextCommand{\textncirceq}{PU}{\9042\127\83\070}%* U+2257 U+0338
18221 % U+2259 ESTIMATES; \hateq (MnSymbol)
18222 \DeclareTextCommand{\texthateq}{PU}{\9042\131}%* U+2259
18223 %* \texthateq -> \corresponds (mathabx)
18224 %* \texthateq -> \Corresponds (marvosym)
18225 % \nhateq (MnSymbol)
18226 \DeclareTextCommand{\textnhateq}{PU}{\9042\131\83\070}%* U+2259 U+0338
18227 % U+225C DELTA EQUAL TO; \triangleeq (AmS)
18228 \DeclareTextCommand{\texttriangleeq}{PU}{\9042\134}%* U+225C
18229 % U+2260 NOT EQUAL TO; notequal; \ne (LaTeX), \neq (LaTeX)
18230 \DeclareTextCommand{\textneq}{PU}{\9042\140}%* U+2260
18231 \DeclareTextCommand{\textne}{PU}{\9042\140}%* U+2260
18232 %* \textneq -> \nequal (MnSymbol)
18233 % U+2261 IDENTICAL TO; equivalence; \equiv (LaTeX)
18234 \DeclareTextCommand{\textequiv}{PU}{\9042\141}%* U+2261
18235 %* \textequiv -> \Congruent (marvosym)
18236 % U+2262 NOT IDENTICAL TO; notidentical; \nequiv (txfonts/pxfonts)
18237 \DeclareTextCommand{\textnequiv}{PU}{\9042\142}%* U+2262
18238 %* \textnequiv -> \NotCongruent (marvosym)
18239 %* \textnequiv -> \notequiv (mathabx)
18240 % U+2264 LESS-THAN OR EQUAL TO; lessequal; \le (LaTeX), \leq (LaTeX)

18241 \DeclareTextCommand{\textleq}{PU}{\9042\144}%* U+2264
18242 \DeclareTextCommand{\textle}{PU}{\9042\144}%* U+2264
18243 %* \textleq -> \LessOrEqual (marvosym)
18244 % U+2265 GREATER-THAN OR EQUAL TO; greaterequal;
18245 % \ge (LaTeX), \geq (LaTeX)
18246 \DeclareTextCommand{\textgeq}{PU}{\9042\145}%* U+2265
18247 \DeclareTextCommand{\textge}{PU}{\9042\145}%* U+2265
18248 %* \textgeq -> \LargerOrEqual (marvosym)
18249 % U+2266 LESS-THAN OVER EQUAL TO; lessorequal; \leqq (AmS)
18250 \DeclareTextCommand{\textleqq}{PU}{\9042\146}%* U+2266
18251 % \nleqq (txfonts/pxfonts)
18252 \DeclareTextCommand{\textnleqq}{PU}{\9042\146\83\070}%* U+2266 U+0338
18253 % U+2267 GREATER-THAN OVER EQUAL TO; greateroverequal; \geqq (AmS)
18254 \DeclareTextCommand{\textgeqq}{PU}{\9042\147}%* U+2267
18255 % \ngeqq (txfonts/pxfonts)
18256 \DeclareTextCommand{\textngeqq}{PU}{\9042\147\83\070}%* U+2267 U+0338
18257 % U+2268 LESS-THAN BUT NOT EQUAL TO; \nleqq (AmS)
18258 \DeclareTextCommand{\textnleqq}{PU}{\9042\150}%* U+2268
18259 % U+2269 GREATER-THAN BUT NOT EQUAL TO; \gneqq (AmS)
18260 \DeclareTextCommand{\textgneqq}{PU}{\9042\151}%* U+2269
18261 % U+226A MUCH LESS-THAN; muchless; \ll (LaTeX)
18262 \DeclareTextCommand{\textll}{PU}{\9042\152}%* U+226A
18263 % \nll (txfonts/pxfonts)
18264 \DeclareTextCommand{\textnll}{PU}{\9042\152\83\070}%* U+226A U+0338
18265 % U+226B MUCH GREATER-THAN; muchgreater; \gg (LaTeX)
18266 \DeclareTextCommand{\textgg}{PU}{\9042\153}%* U+226B
18267 % \ngg (txfonts/pxfonts)
18268 \DeclareTextCommand{\textngg}{PU}{\9042\153\83\070}%* U+226B U+0338
18269 % U+226C BETWEEN; \between (AmS)
18270 \DeclareTextCommand{\textbetween}{PU}{\9042\154}%* U+226C
18271 % U+226E NOT LESS-THAN; notless; \nless (AmS)
18272 \DeclareTextCommand{\textnless}{PU}{\9042\156}%* U+226E
18273 % U+226F NOT GREATER-THAN; notgreater; \ngtr (AmS)
18274 \DeclareTextCommand{\textngtr}{PU}{\9042\157}%* U+226F
18275 % U+2270 NEITHER LESS-THAN NOR EQUAL TO; notlessnorequal;
18276 % \nleq (AmS)
18277 \DeclareTextCommand{\textnleq}{PU}{\9042\160}%* U+2270
18278 % U+2271 NEITHER GREATER-THAN NOR EQUAL TO; notgreaternore-
equal; \ngeq (AmS)
18279 \DeclareTextCommand{\textngeq}{PU}{\9042\161}%* U+2271
18280 % U+2272 LESS-THAN OR EQUIVALENT TO; lessorequivalent; \lessim (AmS)
18281 \DeclareTextCommand{\textlessim}{PU}{\9042\162}%* U+2272
18282 %* \textlessim -> \apprle (wasysym)
18283 % U+2273 GREATER-THAN OR EQUIVALENT TO; greaterorequivalent; \gtr-
sim (AmS)
18284 \DeclareTextCommand{\textgtrsim}{PU}{\9042\163}%* U+2273
18285 %* \textgtrsim -> \apprge (wasysym)
18286 % U+2274 NEITHER LESS-THAN NOR EQUIVALENT TO; \nlessim (tx-
fonts/pxfonts)
18287 \DeclareTextCommand{\textnlessim}{PU}{\9042\164}%* U+2274
18288 % U+2275 NEITHER GREATER-THAN NOR EQUIVALENT TO; \ngtrsim (tx-
fonts/pxfonts)
18289 \DeclareTextCommand{\textngtrsim}{PU}{\9042\165}%* U+2275
18290 % U+2276 LESS-THAN OR GREATER-THAN; lessorgreater; \lessgtr (AmS)

18291 \DeclareTextCommand{\textlessgtr}{PU}{\9042\166}%* U+2276
18292 % U+2277 GREATER-THAN OR LESS-THAN; greaterorless; \gtrless (AmS)
18293 \DeclareTextCommand{\textgtrless}{PU}{\9042\167}%* U+2277
18294 % U+2278 NEITHER LESS-THAN NOR GREATER-THAN; \ngtrless (tx-
fonts/pxfonts)
18295 \DeclareTextCommand{\textnngtrless}{PU}{\9042\170}%* U+2278
18296 % U+2279 NEITHER GREATER-THAN NOR LESS-THAN; \nlessgtr (tx-
fonts/pxfonts)
18297 \DeclareTextCommand{\textnlessgtr}{PU}{\9042\171}%* U+2279
18298 % U+227A PRECEDES; precedes; \prec (LaTeX)
18299 \DeclareTextCommand{\textprec}{PU}{\9042\172}%* U+227A
18300 % U+227B SUCCEEDS; succeeds; \succ (LaTeX)
18301 \DeclareTextCommand{\textsucc}{PU}{\9042\173}%* U+227B
18302 % U+227C PRECEDES OR EQUAL TO; \preccurlyeq (AmS)
18303 \DeclareTextCommand{\textpreccurlyeq}{PU}{\9042\174}%* U+227C
18304 % U+227D SUCCEEDS OR EQUAL TO; \succcurlyeq (AmS)
18305 \DeclareTextCommand{\textsucccurlyeq}{PU}{\9042\175}%* U+227D
18306 % U+227E PRECEDES OR EQUIVALENT TO; \precsim (AmS)
18307 \DeclareTextCommand{\textprecsim}{PU}{\9042\176}%* U+227E
18308 % \nprecsim (txfonts/pxfonts)
18309 \DeclareTextCommand{\textnprecsim}{PU}{\9042\176\83\070}%* U+227E U+0338
18310 % U+227F SUCCEEDS OR EQUIVALENT TO; \succsim (AmS)
18311 \DeclareTextCommand{\textsuccsim}{PU}{\9042\177}%* U+227F
18312 % \nsuccsim (txfonts/pxfonts)
18313 \DeclareTextCommand{\textnsuccsim}{PU}{\9042\177\83\070}%* U+227F U+0338
18314 % U+2280 DOES NOT PRECEDE; notprecedes; \nprec (AmS)
18315 \DeclareTextCommand{\textnprec}{PU}{\9042\200}%* U+2280
18316 % U+2281 DOES NOT SUCCEED; notsucceeds; \nsucc (AmS)
18317 \DeclareTextCommand{\textnsucc}{PU}{\9042\201}%* U+2281
18318 % U+2282 SUBSET OF; propersubset; \subset (LaTeX)
18319 \DeclareTextCommand{\textsubset}{PU}{\9042\202}%* U+2282
18320 % U+2283 SUPERSET OF; propersuperset; \supset (LaTeX)
18321 \DeclareTextCommand{\textsupset}{PU}{\9042\203}%* U+2283
18322 % U+2284 NOT A SUBSET OF; notsubset; \nsubset (mathabx)
18323 \DeclareTextCommand{\textnsubset}{PU}{\9042\204}%* U+2284
18324 % U+2285 NOT A SUPERSET OF; notsuperset; \nsupset (mathabx)
18325 \DeclareTextCommand{\textnsupset}{PU}{\9042\205}%* U+2285
18326 % U+2286 SUBSET OF OR EQUAL TO; reflexsubset; \subseteq (LaTeX)
18327 \DeclareTextCommand{\textsubseteq}{PU}{\9042\206}%* U+2286
18328 % U+2287 SUPERSET OF OR EQUAL TO; reflexsuperset; \supseteq (LaTeX)
18329 \DeclareTextCommand{\textsupseteq}{PU}{\9042\207}%* U+2287
18330 % U+2288 NEITHER A SUBSET OF NOR EQUAL TO; \nsubseteq (AmS)
18331 \DeclareTextCommand{\textnsubseteq}{PU}{\9042\210}%* U+2288
18332 % U+2289 NEITHER A SUPERSET OF NOR EQUAL TO; \nsupseteq (AmS)
18333 \DeclareTextCommand{\textnsupseteq}{PU}{\9042\211}%* U+2289
18334 % U+228A SUBSET OF WITH NOT EQUAL TO; subsetnotequal; \subset-
neq (AmS)
18335 \DeclareTextCommand{\textsubsetneq}{PU}{\9042\212}%* U+228A
18336 % U+228B SUPERSET OF WITH NOT EQUAL TO; supersetnotequal; \supset-
neq (AmS)
18337 \DeclareTextCommand{\textsupsetneq}{PU}{\9042\213}%* U+228B
18338 % U+228D MULTISET MULTIPLICATION; \cupdot (MnSymbol)
18339 \DeclareTextCommand{\textcupdot}{PU}{\9042\215}%* U+228D
18340 % U+228E MULTISET UNION; \cupplus (MnSymbol)

18341 \DeclareTextCommand{\textcupplus}{PU}{\9042\216}%* U+228E
18342 % U+228F SQUARE IMAGE OF; \sqsubset (latexsym, ...)
18343 \DeclareTextCommand{\textsqsubset}{PU}{\9042\217}%* U+228F
18344 % \nsqsubset (txfonts/pxfonts)
18345 \DeclareTextCommand{\textnsqsubset}{PU}{\9042\217\83\070}%* U+228F U+0338
18346 % U+2290 SQUARE ORIGINAL OF; \sqsupset (latexsym, ...)
18347 \DeclareTextCommand{\textsqsupset}{PU}{\9042\220}%* U+2290
18348 % \nsqsupset (txfonts/pxfonts)
18349 \DeclareTextCommand{\textnsqsupset}{PU}{\9042\220\83\070}%* U+2290 U+0338
18350 % U+2291 SQUARE IMAGE OF OR EQUAL TO; \sqsubseteq (LaTeX)
18351 \DeclareTextCommand{\textsqsubseteq}{PU}{\9042\221}%* U+2291
18352 % \nsqsubseteq (txfonts/pxfonts)
18353 \DeclareTextCommand{\textnsqsubseteq}{PU}{\9042\221\83\070}%* U+2291 U+0338
18354 % U+2292 SQUARE ORIGINAL OF OR EQUAL TO; \sqsupseteq (LaTeX)
18355 \DeclareTextCommand{\textsqsupseteq}{PU}{\9042\222}%* U+2292
18356 % \nsqsupseteq (txfonts/pxfonts)
18357 \DeclareTextCommand{\textnsqsupseteq}{PU}{\9042\222\83\070}%* U+2292 U+0338
18358 % U+2293 SQUARE CAP; \sqcap (LaTeX)
18359 \DeclareTextCommand{\textsqcap}{PU}{\9042\223}%* U+2293
18360 % U+2294 SQUARE CUP; \sqcup (LaTeX)
18361 \DeclareTextCommand{\textsqcup}{PU}{\9042\224}%* U+2294
18362 % U+2295 CIRCLED PLUS; circleplus; \oplus (LaTeX)
18363 \DeclareTextCommand{\textoplus}{PU}{\9042\225}%* U+2295
18364 %* \textoplus -> \varoplus (stmaryrd)
18365 % U+2296 CIRCLED MINUS; minuscircle; \ominus (LaTeX)
18366 \DeclareTextCommand{\textominus}{PU}{\9042\226}%* U+2296
18367 %* \textominus -> \varominus (stmaryrd)
18368 % U+2297 CIRCLED TIMES; circlemultiply; \otimes (LaTeX)
18369 \DeclareTextCommand{\textotimes}{PU}{\9042\227}%* U+2297
18370 %* \textotimes -> \varotimes (stmaryrd)
18371 % U+2298 CIRCLED DIVISION SLASH; \oslash (LaTeX)
18372 \DeclareTextCommand{\textoslash}{PU}{\9042\230}%* U+2298
18373 %* \textoslash -> \varoslash (stmaryrd)
18374 % U+2299 CIRCLED DOT OPERATOR; circle(d?)ot; \odot (LaTeX)
18375 \DeclareTextCommand{\textodot}{PU}{\9042\231}%* U+2299
18376 %* \textodot -> \varodot (stmaryrd)
18377 % U+229A CIRCLED RING OPERATOR; \circledcirc (AmS)
18378 \DeclareTextCommand{\textcircledcirc}{PU}{\9042\232}%* U+229A
18379 %* \textcircledcirc -> \ocirc (mathabx)
18380 %* \textcircledcirc -> \varocircle (stmaryrd)
18381 % U+229B CIRCLED ASTERISK OPERATOR; \circledast (AmS)
18382 \DeclareTextCommand{\textcircledast}{PU}{\9042\233}%* U+229B
18383 %* \textcircledast -> \varoast (stmaryrd)
18384 %* \textcircledast -> \oasterisk (mathabx)
18385 % U+229D CIRCLED DASH; \circleddash (AmS)
18386 \DeclareTextCommand{\textcircleddash}{PU}{\9042\235}%* U+229D
18387 % U+229E SQUARED PLUS; \boxplus (AmS)
18388 \DeclareTextCommand{\textboxplus}{PU}{\9042\236}%* U+229E
18389 % U+229F SQUARED MINUS; \boxminus (AmS)
18390 \DeclareTextCommand{\textboxminus}{PU}{\9042\237}%* U+229F
18391 % U+22A0 SQUARED TIMES; \boxtimes (AmS)
18392 \DeclareTextCommand{\textboxtimes}{PU}{\9042\240}%* U+22A0
18393 % U+22A1 SQUARED DOT OPERATOR; \boxdot (AmS)
18394 \DeclareTextCommand{\textboxdot}{PU}{\9042\241}%* U+22A1

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18395 % U+22A2 RIGHT TACK; \vdash (LaTeX)
18396 \DeclareTextCommand{\textvdash}{PU}{\9042\242}%* U+22A2
18397 %* \textvdash -> \rightvdash (MnSymbol)
18398 % U+22A3 LEFT TACK; tackleft; \dashv (LaTeX)
18399 \DeclareTextCommand{\textdashv}{PU}{\9042\243}%* U+22A3
18400 %* \textdashv -> \leftvdash (MnSymbol)
18401 % \ndashv (mathabx)
18402 \DeclareTextCommand{\textndashv}{PU}{\9042\243\83\070}%* U+22A3 U+0338
18403 %* \textndashv -> \leftvdash (MnSymbol)
18404 % U+22A4 DOWN TACK (=top); tackdown; \top (LaTeX)
18405 \DeclareTextCommand{\textttop}{PU}{\9042\244}%* U+22A4
18406 %* \textttop -> \downvdash (MnSymbol)
18407 % \ndownvdash (MnSymbol)
18408 \DeclareTextCommand{\textndownvdash}{PU}{\9042\244\83\070}%* U+22A4 U+0338
18409 % U+22A5 UP TACK (=base, bottom); \bot (LaTeX)
18410 \DeclareTextCommand{\textbot}{PU}{\9042\245}%* U+22A5
18411 %* \textbot -> \upvdash (MnSymbol)
18412 % \nupvdash (MnSymbol)
18413 \DeclareTextCommand{\textnupvdash}{PU}{\9042\245\83\070}%* U+22A5 U+0338
18414 %* \textnupvdash -> \nperp (MnSymbol)
18415 % U+22A8 TRUE; \vDash (AmS)
18416 \DeclareTextCommand{\textvDash}{PU}{\9042\250}%* U+22A8
18417 %* \textvDash -> \models (LaTeX)
18418 %* \textvDash -> \rightmodels (MnSymbol)
18419 % U+22A9 FORCES; \Vdash (AmS)
18420 \DeclareTextCommand{\textVdash}{PU}{\9042\251}%* U+22A9
18421 %* \textVdash -> \rightVdash (MnSymbol)
18422 % U+22AA TRIPLE VERTICAL BAR RIGHT TURNSTILE; \Vvdash (AmS)
18423 \DeclareTextCommand{\textVvdash}{PU}{\9042\252}%* U+22AA
18424 % \nVvdash (mathabx)
18425 \DeclareTextCommand{\textnVvdash}{PU}{\9042\252\83\070}%* U+22AA U+0338
18426 % U+22AB DOUBLE VERTICAL BAR DOUBLE RIGHT TURNSTILE;
18427 % \VDash (mathabx)
18428 \DeclareTextCommand{\textVDash}{PU}{\9042\253}%* U+22AB
18429 %* \textVDash -> \rightModels (MnSymbol)
18430 % U+22AC DOES NOT PROVE; \nvDash (AmS)
18431 \DeclareTextCommand{\textnvDash}{PU}{\9042\254}%* U+22AC
18432 %* \textnvDash -> \nrightvdash (MnSymbol)
18433 % U+22AD NOT TRUE; \nvDash (AmS)
18434 \DeclareTextCommand{\textnvDash}{PU}{\9042\255}%* U+22AD
18435 %* \textnvDash -> \nrightmodels (MnSymbol)
18436 %* \textnvDash -> \nmodels (MnSymbol)
18437 % U+22AE DOES NOT FORCE; \nVdash (txfonts/pxfonts)
18438 \DeclareTextCommand{\textnVdash}{PU}{\9042\256}%* U+22AE
18439 %* \textnVdash -> \nrightVdash (MnSymbol)
18440 % U+22AF NEGATED DOUBLE VERTICAL BAR DOUBLE RIGHT TURN-
      STILE; \nVDash (AmS)
18441 \DeclareTextCommand{\textnVDash}{PU}{\9042\257}%* U+22AF
18442 %* \textnVDash -> \nrightModels (MnSymbol)
18443 % U+22B2 NORMAL SUBGROUP OF; \lhd (latexsym, ...)
18444 \DeclareTextCommand{\textlhd}{PU}{\9042\262}%* U+22B2
18445 %* \textlhd -> \lessclosed (MnSymbol)
18446 % U+22B3 CONTAINS AS NORMAL SUBGROUP; \rhd (latexsym, ...)
18447 \DeclareTextCommand{\textrhd}{PU}{\9042\263}%* U+22B3

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18448 %* \textrhd -> \gtrclosed (MnSymbol)
18449 % U+22B4 NORMAL SUBGROUP OF OR EQUAL TO; \unlhd (latexsym, ...)
18450 \DeclareTextCommand{\textunlhd}{PU}{\9042\264}%* U+22B4
18451 %* \textunlhd -> \leqclosed (MnSymbol)
18452 %* \textunlhd -> \trianglelefteq (MnSymbol)
18453 % U+22B5 CONTAINS AS NORMAL SUBGROUP OR EQUAL TO; \unrhd (la-
texsym, ...)
18454 \DeclareTextCommand{\textunrhd}{PU}{\9042\265}%* U+22B5
18455 %* \textunrhd -> \geqclosed (MnSymbol)
18456 %* \textunrhd -> \trianglerighteq (MnSymbol)
18457 % U+22B6 ORIGINAL OF; \multimapdotbothA (txfonts/pxfonts)
18458 \DeclareTextCommand{\textmultimapdotbothA}{PU}{\9042\266}%* U+22B6
18459 % U+22B7 IMAGE OF; \multimapdotbothB (txfonts/pxfonts)
18460 \DeclareTextCommand{\textmultimapdotbothB}{PU}{\9042\267}%* U+22B7
18461 % U+22B8 MULTIMAP; \multimap (AmS, txfonts/pxfonts)
18462 \DeclareTextCommand{\textmultimap}{PU}{\9042\270}%* U+22B8
18463 % U+22BB XOR; \veebar (AmS)
18464 \DeclareTextCommand{\textveebar}{PU}{\9042\273}%* U+22BB
18465 % U+22BC NAND; \barwedge (mathabx)
18466 \DeclareTextCommand{\textbarwedge}{PU}{\9042\274}%* U+22BC
18467 % U+22C6 STAR OPERATOR; \star (LaTeX)
18468 \DeclareTextCommand{\textstar}{PU}{\9042\306}%* U+22C6
18469 % U+22C7 DIVISION TIMES; \divideontimes (AmS)
18470 \DeclareTextCommand{\textdivideontimes}{PU}{\9042\307}%* U+22C7
18471 % U+22C8 BOWTIE; \bowtie (LaTeX)
18472 \DeclareTextCommand{\textbowtie}{PU}{\9042\310}%* U+22C8
18473 %* \textbowtie -> \Bowtie (wasysym)
18474 % U+22C9 LEFT NORMAL FACTOR SEMIDIRECT PRODUCT; \ltimes (AmS)
18475 \DeclareTextCommand{\textltimes}{PU}{\9042\311}%* U+22C9
18476 % U+22CA RIGHT NORMAL FACTOR SEMIDIRECT PRODUCT;
18477 % \rtimes (AmS)
18478 \DeclareTextCommand{\textrtimes}{PU}{\9042\312}%* U+22CA
18479 % U+22CB LEFT SEMIDIRECT PRODUCT; \leftthreetimes (AmS)
18480 \DeclareTextCommand{\textleftthreetimes}{PU}{\9042\313}%* U+22CB
18481 % U+22CC RIGHT SEMIDIRECT PRODUCT; \rightthreetimes (AmS)
18482 \DeclareTextCommand{\textrightthreetimes}{PU}{\9042\314}%* U+22CC
18483 % U+22CD REVERSED TILDE EQUALS; \backsimeq (AmS)
18484 \DeclareTextCommand{\textbacksimeq}{PU}{\9042\315}%* U+22CD
18485 % \nbacksimeq (txfonts/pxfonts)
18486 \DeclareTextCommand{\textnbacksimeq}{PU}{\9042\315\83\070}%* U+22CD U+0338
18487 % U+22CE CURLY LOGICAL OR; curlyor; \curlyvee (AmS)
18488 \DeclareTextCommand{\textcurlyvee}{PU}{\9042\316}%* U+22CE
18489 %* \textcurlyvee -> \varcurlyvee (stmaryrd)
18490 % U+22CF CURLY LOGICAL AND; curlyand; \curlywedge (AmS)
18491 \DeclareTextCommand{\textcurlywedge}{PU}{\9042\317}%* U+22CF
18492 %* \textcurlywedge -> \varcurlywedge (stmaryrd)
18493 % U+22D0 DOUBLE SUBSET; \Subset (AmS)
18494 \DeclareTextCommand{\textSubset}{PU}{\9042\320}%* U+22D0
18495 % \nSubset (txfonts/pxfonts)
18496 \DeclareTextCommand{\textnSubset}{PU}{\9042\320\83\070}%* U+22D0 U+0338
18497 % U+22D1 DOUBLE SUPERSET; \Supset (AmS)
18498 \DeclareTextCommand{\textSupset}{PU}{\9042\321}%* U+22D1
18499 % \nSupset (txfonts/pxfonts)
18500 \DeclareTextCommand{\textnSupset}{PU}{\9042\321\83\070}%* U+22D1 U+0338

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18501 % U+22D2 DOUBLE INTERSECTION; \Cap (AmS)
18502 \DeclareTextCommand{\textCap}{PU}{\9042\322}%* U+22D2
18503 %* \textCap -> \doublecap (mathabx)
18504 % U+22D3 DOUBLE UNION; \Cup (AmS)
18505 \DeclareTextCommand{\textCup}{PU}{\9042\323}%* U+22D3
18506 %* \textCup -> \doublecup (mathabx)
18507 % U+22D4 PITCHFORK; \pitchfork (mathabx)
18508 \DeclareTextCommand{\textpitchfork}{PU}{\9042\324}%* U+22D4
18509 % U+22D6 LESS-THAN WITH DOT; \lessdot (AmS)
18510 \DeclareTextCommand{\textlessdot}{PU}{\9042\326}%* U+22D6
18511 % U+22D7 GREATER-THAN WITH DOT; \gtrdot (AmS)
18512 \DeclareTextCommand{\textgtrdot}{PU}{\9042\327}%* U+22D7
18513 % U+22D8 VERY MUCH LESS-THAN; \lll (AmS)
18514 \DeclareTextCommand{\textlll}{PU}{\9042\330}%* U+22D8
18515 % U+22D9 VERY MUCH GREATER-THAN; \ggg (AmS)
18516 \DeclareTextCommand{\textggg}{PU}{\9042\331}%* U+22D9
18517 % U+22DA LESS-THAN EQUAL TO OR GREATER-THAN; lesseqqualorgreater;
18518 % \lesseqgtr (AmS)
18519 \DeclareTextCommand{\textlesseqgtr}{PU}{\9042\332}%* U+22DA
18520 % U+22DB GREATER-THAN EQUAL TO OR LESS-THAN; greaterequalorless;
18521 % \gtreqless (AmS)
18522 \DeclareTextCommand{\textgtreqless}{PU}{\9042\333}%* U+22DB
18523 % U+22DE EQUAL TO OR PRECEDES; \curlyeqprec (MnSymbol)
18524 \DeclareTextCommand{\textcurlyeqprec}{PU}{\9042\336}%* U+22DE
18525 % \ncurlyeqprec (mathabx)
18526 \DeclareTextCommand{\textncurlyeqprec}{PU}{\9042\336\83\070}%* U+22DE U+0338
18527 % U+22DF EQUAL TO OR SUCCEEDS; \curlyeqsucc (MnSymbol)
18528 \DeclareTextCommand{\textcurlyeqsucc}{PU}{\9042\337}%* U+22DF
18529 % \ncurlyeqsucc (mathabx)
18530 \DeclareTextCommand{\textncurlyeqsucc}{PU}{\9042\337\83\070}%* U+22DF U+0338
18531 % U+22E0 DOES NOT PRECEDE OR EQUAL; \npreccurlyeq (txfonts/pxfonts)
18532 \DeclareTextCommand{\textnpreccurlyeq}{PU}{\9042\340}%* U+22E0
18533 % U+22E1 DOES NOT SUCCEED OR EQUAL; \nsucccurlyeq (txfonts/pxfonts)
18534 \DeclareTextCommand{\textnsucccurlyeq}{PU}{\9042\341}%* U+22E1
18535 % U+22E2 NOT SQUARE IMAGE OF OR EQUAL TO; \nsqsubseteq (tx-
  fonts/pxfonts)
18536 \DeclareTextCommand{\textnqsubseteq}{PU}{\9042\342}%* U+22E2
18537 % U+22E3 NOT SQUARE ORIGINAL OF OR EQUAL TO; \nsqsupseteq (tx-
  fonts/pxfonts)
18538 \DeclareTextCommand{\textnqsupseteq}{PU}{\9042\343}%* U+22E3
18539 % U+22E4 SQUARE IMAGE OF OR NOT EQUAL TO; \sqsubsetneq (mathabx)
18540 \DeclareTextCommand{\textsqsubsetneq}{PU}{\9042\344}%* U+22E4
18541 %* \textsqsubsetneq -> \varsqsubsetneq (mathabx)
18542 % U+22E5 SQUARE ORIGINAL OF OR NOT EQUAL TO; \sqsupsetneq (math-
  abx)
18543 \DeclareTextCommand{\textsqsupsetneq}{PU}{\9042\345}%* U+22E5
18544 %* \textsqsupsetneq -> \varsqsupsetneq (mathabx)
18545 % U+22E6 LESS-THAN BUT NOT EQUIVALENT TO; \lnsim (AmS)
18546 \DeclareTextCommand{\textlnsim}{PU}{\9042\346}%* U+22E6
18547 % U+22E7 GREATER-THAN BUT NOT EQUIVALENT TO; \gnsim (AmS)
18548 \DeclareTextCommand{\textgnsim}{PU}{\9042\347}%* U+22E7
18549 % U+22E8 PRECEDES BUT NOT EQUIVALENT TO; \precsim (AmS)
18550 \DeclareTextCommand{\textprecsim}{PU}{\9042\350}%* U+22E8
18551 % U+22E9 SUCCEEDS BUT NOT EQUIVALENT TO; \succsim (AmS)

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18552 \DeclareTextCommand{\textsuccsim}{PU}{\9042\351}%* U+22E9
18553 % U+22EA NOT NORMAL SUBGROUP OF; \ntriangleleft (AmS)
18554 \DeclareTextCommand{\textntriangleleft}{PU}{\9042\352}%* U+22EA
18555 %* \textntriangleleft -> \nlessclosed (MnSymbol)
18556 % U+22EB DOES NOT CONTAIN AS NORMAL SUBGROUP; \ntriangleright
      lright (AmS)
18557 \DeclareTextCommand{\textntriangleright}{PU}{\9042\353}%* U+22EB
18558 %* \textntriangleright -> \ntrclosed (MnSymbol)
18559 % U+22EC NOT NORMAL SUBGROUP OF OR EQUAL TO;
18560 % \ntrianglelefteq (AmS)
18561 \DeclareTextCommand{\textntrianglelefteq}{PU}{\9042\354}%* U+22EC
18562 % U+22ED DOES NOT CONTAIN AS NORMAL SUBGROUP OR EQUAL;
18563 % \ntrianglerighteq (AmS)
18564 \DeclareTextCommand{\textntrianglerighteq}{PU}{\9042\355}%* U+22ED
18565 %* \textntrianglerighteq -> \textngeqclosed
18566 % U+22EE VERTICAL ELLIPSIS; \vdots (LaTeX)
18567 \DeclareTextCommand{\textvdots}{PU}{\9042\356}%* U+22EE
18568 % U+22EF MIDLINE HORIZONTAL ELLIPSIS; \cdots (LaTeX)
18569 \DeclareTextCommand{\textcdots}{PU}{\9042\357}%* U+22EF
18570 % U+22F0 UP RIGHT DIAGONAL ELLIPSIS; \udots (MnSymbol)
18571 \DeclareTextCommand{\textudots}{PU}{\9042\360}%* U+22F0
18572 % U+22F1 DOWN RIGHT DIAGONAL ELLIPSIS; \ddots (LaTeX)
18573 \DeclareTextCommand{\textddots}{PU}{\9042\361}%* U+22F1
18574 % U+22F6 ELEMENT OF WITH OVERBAR; \barin (mathabx)
18575 \DeclareTextCommand{\textbarin}{PU}{\9042\366}%* U+22F6

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

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18576 % U+2300 DIAMETER SIGN; \diameter (mathabx,wasysym)
18577 \DeclareTextCommand{\textdiameter}{PU}{\9043\000}%* U+2300
18578 % U+2310 REVERSED NOT SIGN; \backneg (MnSymbol)
18579 \DeclareTextCommand{\textbackneg}{PU}{\9043\020}%* U+2310
18580 % U+2311 SQUARE LOZENGE; \wasylozenge (wasysym)
18581 \DeclareTextCommand{\textwasylozenge}{PU}{\9043\021}%* U+2311
18582 % U+2319 TURNED NOT SIGN; \invbackneg (MnSymbol)
18583 \DeclareTextCommand{\textinvbackneg}{PU}{\9043\031}%* U+2319
18584 % U+231A WATCH; \clock (wasysym)
18585 \DeclareTextCommand{\textclock}{PU}{\9043\032}%* U+231A
18586 %* \textclock -> \Clocklogo (marvosym)
18587 %* \textclock -> \ClockLogo (marvosym)
18588 % U+231C TOP LEFT CORNER; \ulcorner (AmS)
18589 \DeclareTextCommand{\textulcorner}{PU}{\9043\034}%* U+231C
18590 % U+231D TOP RIGHT CORNER; \urcorner (AmS)
18591 \DeclareTextCommand{\texturcorner}{PU}{\9043\035}%* U+231D
18592 % U+231E BOTTOM LEFT CORNER; \llcorner (AmS)
18593 \DeclareTextCommand{\textllcorner}{PU}{\9043\036}%* U+231E
18594 % U+231F BOTTOM RIGHT CORNER; \lrcorner (AmS)
18595 \DeclareTextCommand{\textlrcorner}{PU}{\9043\037}%* U+231F
18596 % U+2322 FROWN; \frown (LaTeX)
18597 \DeclareTextCommand{\textfrown}{PU}{\9043\042}%* U+2322
18598 % U+2323 SMILE; \smile (LaTeX)
18599 \DeclareTextCommand{\textsmile}{PU}{\9043\043}%* U+2323
18600 % U+2328 KEYBOARD; \Keyboard (marvosym)
18601 \DeclareTextCommand{\textKeyboard}{PU}{\9043\050}%* U+2328
18602 % U+2329 LEFT-POINTING ANGLE BRACKET; \angleleft; \angle (LaTeX)

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18603 \DeclareTextCommand{\textlangle}{PU}{\9043\051}%* U+2329
18604 % U+232A RIGHT-POINTING ANGLE BRACKET; angleright; \rangle (LaTeX)
18605 \DeclareTextCommand{\textrangle}{PU}{\9043\052}%* U+232A
18606 % U+2339 APL FUNCTIONAL SYMBOL QUAD DIVIDE; \APLinv (wasysym)
18607 \DeclareTextCommand{\textAPLinv}{PU}{\9043\071}%* U+2339
18608 % U+233C APL FUNCTIONAL SYMBOL QUAD CIRCLE; \Tumbler (marvosym)
18609 \DeclareTextCommand{\textTumbler}{PU}{\9043\074}%* U+233C
18610 % U+233D APL FUNCTIONAL SYMBOL CIRCLE STILE; \baro (stmaryrd)
18611 \DeclareTextCommand{\textstmaryrdbaro}{PU}{\9043\075}%* U+233D
18612 %* \textstmaryrdbaro -> \baro (stmaryrd)
18613 % U+233F APL FUNCTIONAL SYMBOL SLASH BAR; \notslash (wasysym)
18614 \DeclareTextCommand{\textnotslash}{PU}{\9043\077}%* U+233F
18615 % U+2340 APL FUNCTIONAL SYMBOL BACKSLASH BAR;
18616 % \notbackslash (wasysym)
18617 \DeclareTextCommand{\textnotbackslash}{PU}{\9043\100}%* U+2340
18618 % U+2342 APL FUNCTIONAL SYMBOL QUAD BACKSLASH; \boxbackslash (mathabx)
18619 \DeclareTextCommand{\textboxbackslash}{PU}{\9043\102}%* U+2342
18620 % U+2347 APL FUNCTIONAL SYMBOL QUAD LEFTWARDS ARROW;
18621 % \APLleftarrowbox (wasysym)
18622 \DeclareTextCommand{\textAPLleftarrowbox}{PU}{\9043\107}%* U+2347
18623 % U+2348 APL FUNCTIONAL SYMBOL QUAD RIGHTWARDS ARROW;
18624 % \APLrightarrowbox (wasysym)
18625 \DeclareTextCommand{\textAPLrightarrowbox}{PU}{\9043\110}%* U+2348
18626 % U+2350 APL FUNCTIONAL SYMBOL QUAD UPWARDS ARROW; \APLuparrowbox (wasysym)
18627 \DeclareTextCommand{\textAPLuparrowbox}{PU}{\9043\120}%* U+2350
18628 % U+2357 APL FUNCTIONAL SYMBOL QUAD DOWNWARDS ARROW;
18629 % \APLdownarrowbox (wasysym)
18630 \DeclareTextCommand{\textAPLdownarrowbox}{PU}{\9043\127}%* U+2357
18631 % U+235E APL FUNCTIONAL SYMBOL QUOTE QUAD;
18632 % \APLinput (wasysym)
18633 \DeclareTextCommand{\textAPLinput}{PU}{\9043\136}%* U+235E
18634 % U+2370 APL FUNCTIONAL SYMBOL QUAD QUESTION; \Request (china2e)
18635 \DeclareTextCommand{\textRequest}{PU}{\9043\160}%* U+2370
18636 % U+2393 DIRECT CURRENT SYMBOL FORM TWO; \Beam (marvosym)
18637 \DeclareTextCommand{\textBeam}{PU}{\9043\223}%* U+2393
18638 % U+2394 SOFTWARE-FUNCTION SYMBOL; \hexagon (wasysym)
18639 \DeclareTextCommand{\texthexagon}{PU}{\9043\224}%* U+2394
18640 % U+2395 APL FUNCTIONAL SYMBOL QUAD; \APLbox (wasysym)
18641 \DeclareTextCommand{\textAPLbox}{PU}{\9043\225}%* U+2395
18642 % U+23ED BLACK RIGHT-POINTING DOUBLE TRIANGLE WITH VERTICAL BAR;
18643 % \ForwardToIndex (marvosym)
18644 \DeclareTextCommand{\textForwardToIndex}{PU}{\9043\355}%* U+23ED
18645 % U+23EE BLACK LEFT-POINTING DOUBLE TRIANGLE WITH VERTICAL BAR;
18646 % \RewindToIndex (marvosym)
18647 \DeclareTextCommand{\textRewindToIndex}{PU}{\9043\356}%* U+23EE

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

18648 % U+2422 BLANK SYMBOL
18649 \DeclareTextCommand{\textblank}{PU}{\9044\042}% U+2422

18650 % U+2423 OPEN BOX; blank
18651 \DeclareTextCommand{\textvisiblespace}{PU}{\9044\043}% U+2423

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

18652 % U+244A OCR DOUBLE BACKSLASH; \bbslash (stmaryrd)
18653 \DeclareTextCommand{\textbbslash}{PU}{\9044\112}%* U+244A
18654 %* \textbbslash -> \varparallelinv (txfonts/pxfonts)

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

18655 % U+2460 CIRCLED DIGIT ONE; onecircle
18656 \DeclareTextCompositeCommand{\textcircled}{PU}{1}{\9044\140}% U+2460
18657 % U+2461 CIRCLED DIGIT TWO; twocircle
18658 \DeclareTextCompositeCommand{\textcircled}{PU}{2}{\9044\141}% U+2461
18659 % U+2462 CIRCLED DIGIT THREE; threecircle
18660 \DeclareTextCompositeCommand{\textcircled}{PU}{3}{\9044\142}% U+2462
18661 % U+2463 CIRCLED DIGIT FOUR; fourcircle
18662 \DeclareTextCompositeCommand{\textcircled}{PU}{4}{\9044\143}% U+2463
18663 % U+2464 CIRCLED DIGIT FIVE; fivecircle
18664 \DeclareTextCompositeCommand{\textcircled}{PU}{5}{\9044\144}% U+2464
18665 % U+2465 CIRCLED DIGIT SIX; sixcircle
18666 \DeclareTextCompositeCommand{\textcircled}{PU}{6}{\9044\145}% U+2465
18667 % U+2466 CIRCLED DIGIT SEVEN; sevencircle
18668 \DeclareTextCompositeCommand{\textcircled}{PU}{7}{\9044\146}% U+2466
18669 % U+2467 CIRCLED DIGIT EIGHT; eightcircle
18670 \DeclareTextCompositeCommand{\textcircled}{PU}{8}{\9044\147}% U+2467
18671 % U+2468 CIRCLED DIGIT NINE; ninecircle
18672 \DeclareTextCompositeCommand{\textcircled}{PU}{9}{\9044\150}% U+2468
18673 % U+2469 CIRCLED NUMBER TEN; tencircle
18674 \DeclareTextCompositeCommand{\textcircled}{PU}{10}{\9044\151}% U+2469
18675 % U+246A CIRCLED NUMBER ELEVEN; elevencircle
18676 \DeclareTextCompositeCommand{\textcircled}{PU}{11}{\9044\152}% U+246A
18677 % U+246B CIRCLED NUMBER TWELVE; twelvecircle
18678 \DeclareTextCompositeCommand{\textcircled}{PU}{12}{\9044\153}% U+246B
18679 % U+246C CIRCLED NUMBER THIRTEEN; thirteencircle
18680 \DeclareTextCompositeCommand{\textcircled}{PU}{13}{\9044\154}% U+246C
18681 % U+246D CIRCLED NUMBER FOURTEEN; fourteencircle
18682 \DeclareTextCompositeCommand{\textcircled}{PU}{14}{\9044\155}% U+246D
18683 % U+246E CIRCLED NUMBER FIFTEEN; fifteencircle
18684 \DeclareTextCompositeCommand{\textcircled}{PU}{15}{\9044\156}% U+246E
18685 % U+246F CIRCLED NUMBER SIXTEEN; sixteencircle
18686 \DeclareTextCompositeCommand{\textcircled}{PU}{16}{\9044\157}% U+246F
18687 % U+2470 CIRCLED NUMBER SEVENTEEN; seventeencircle
18688 \DeclareTextCompositeCommand{\textcircled}{PU}{17}{\9044\160}% U+2470
18689 % U+2471 CIRCLED NUMBER EIGHTEEN; eighteencircle
18690 \DeclareTextCompositeCommand{\textcircled}{PU}{18}{\9044\161}% U+2471
18691 % U+2472 CIRCLED NUMBER NINETEEN; nineteencircle
18692 \DeclareTextCompositeCommand{\textcircled}{PU}{19}{\9044\162}% U+2472
18693 % U+2473 CIRCLED NUMBER TWENTY; twentycircle
18694 \DeclareTextCompositeCommand{\textcircled}{PU}{20}{\9044\163}% U+2473
18695 % U+24B6 CIRCLED LATIN CAPITAL LETTER A; Acircle
18696 \DeclareTextCompositeCommand{\textcircled}{PU}{A}{\9044\266}% U+24B6
18697 % \CircledA (marvosym)
18698 \DeclareTextCommand{\textCircledA}{PU}{\9044\266}%* U+24B6
18699 %* \textCircledA -> \CleaningA

18700 % U+24B7 CIRCLED LATIN CAPITAL LETTER B; Bcircle
18701 \DeclareTextCompositeCommand{\textcircled}{PU}{B}{\9044\267}% U+24B7
18702 % U+24B8 CIRCLED LATIN CAPITAL LETTER C; Ccircle
18703 \DeclareTextCompositeCommand{\textcircled}{PU}{C}{\9044\270}% U+24B8
18704 % U+24B9 CIRCLED LATIN CAPITAL LETTER D; Dcircle
18705 \DeclareTextCompositeCommand{\textcircled}{PU}{D}{\9044\271}% U+24B9
18706 % U+24BA CIRCLED LATIN CAPITAL LETTER E; Ecircle
18707 \DeclareTextCompositeCommand{\textcircled}{PU}{E}{\9044\272}% U+24BA
18708 % U+24BB CIRCLED LATIN CAPITAL LETTER F; Fcircle
18709 \DeclareTextCompositeCommand{\textcircled}{PU}{F}{\9044\273}% U+24BB
18710 % \CleaningF (marvosym)
18711 \DeclareTextCommand{\textCleaningF}{PU}{\9044\273}%* U+24BB
18712 % \CleaningFF (marvosym)
18713 \DeclareTextCommand{\textCleaningFF}{PU}{\9044\273\83\062}%* U+24BB U+0332
18714 % U+24BC CIRCLED LATIN CAPITAL LETTER G; Gcircle
18715 \DeclareTextCompositeCommand{\textcircled}{PU}{G}{\9044\274}% U+24BC
18716 % U+24BD CIRCLED LATIN CAPITAL LETTER H; Hcircle
18717 \DeclareTextCompositeCommand{\textcircled}{PU}{H}{\9044\275}% U+24BD
18718 % U+24BE CIRCLED LATIN CAPITAL LETTER I; Icircle
18719 \DeclareTextCompositeCommand{\textcircled}{PU}{I}{\9044\276}% U+24BE
18720 % U+24BF CIRCLED LATIN CAPITAL LETTER J; Jcircle
18721 \DeclareTextCompositeCommand{\textcircled}{PU}{J}{\9044\277}% U+24BF
18722 % U+24C0 CIRCLED LATIN CAPITAL LETTER K; Kcircle
18723 \DeclareTextCompositeCommand{\textcircled}{PU}{K}{\9044\300}% U+24C0
18724 % U+24C1 CIRCLED LATIN CAPITAL LETTER L; Lcircle
18725 \DeclareTextCompositeCommand{\textcircled}{PU}{L}{\9044\301}% U+24C1
18726 % U+24C2 CIRCLED LATIN CAPITAL LETTER M; Mcircle
18727 \DeclareTextCompositeCommand{\textcircled}{PU}{M}{\9044\302}% U+24C2
18728 % U+24C3 CIRCLED LATIN CAPITAL LETTER N; Ncircle
18729 \DeclareTextCompositeCommand{\textcircled}{PU}{N}{\9044\303}% U+24C3
18730 % U+24C4 CIRCLED LATIN CAPITAL LETTER O; Ocircle
18731 \DeclareTextCompositeCommand{\textcircled}{PU}{O}{\9044\304}% U+24C4
18732 % U+24C5 CIRCLED LATIN CAPITAL LETTER P; Pcircle
18733 \DeclareTextCompositeCommand{\textcircled}{PU}{P}{\9044\305}% U+24C5
18734 % \CleaningP (marvosym)
18735 \DeclareTextCommand{\textCleaningP}{PU}{\9044\305}%* U+24C5
18736 % \CleaningPP (marvosym)
18737 \DeclareTextCommand{\textCleaningPP}{PU}{\9044\305\83\062}%* U+24C5 U+0332
18738 % U+24C6 CIRCLED LATIN CAPITAL LETTER Q; Qcircle
18739 \DeclareTextCompositeCommand{\textcircled}{PU}{Q}{\9044\306}% U+24C6
18740 % U+24C7 CIRCLED LATIN CAPITAL LETTER R; Rcircle
18741 \DeclareTextCompositeCommand{\textcircled}{PU}{R}{\9044\307}% U+24C7
18742 % U+24C8 CIRCLED LATIN CAPITAL LETTER S; Scircle
18743 \DeclareTextCompositeCommand{\textcircled}{PU}{S}{\9044\310}% U+24C8
18744 % U+24C9 CIRCLED LATIN CAPITAL LETTER T; Tcircle
18745 \DeclareTextCompositeCommand{\textcircled}{PU}{T}{\9044\311}% U+24C9
18746 % U+24CA CIRCLED LATIN CAPITAL LETTER U; Ucircle
18747 \DeclareTextCompositeCommand{\textcircled}{PU}{U}{\9044\312}% U+24CA
18748 % U+24CB CIRCLED LATIN CAPITAL LETTER V; Vcircle
18749 \DeclareTextCompositeCommand{\textcircled}{PU}{V}{\9044\313}% U+24CB
18750 % U+24CC CIRCLED LATIN CAPITAL LETTER W; Wcircle
18751 \DeclareTextCompositeCommand{\textcircled}{PU}{W}{\9044\314}% U+24CC
18752 % U+24CD CIRCLED LATIN CAPITAL LETTER X; Xcircle
18753 \DeclareTextCompositeCommand{\textcircled}{PU}{X}{\9044\315}% U+24CD

18754 % U+24CE CIRCLED LATIN CAPITAL LETTER Y; Ycircle
18755 \DeclareTextCompositeCommand{\textcircled}{PU}{Y}{\9044\316}% U+24CE
18756 % U+24CF CIRCLED LATIN CAPITAL LETTER Z; Zcircle
18757 \DeclareTextCompositeCommand{\textcircled}{PU}{Z}{\9044\317}% U+24CF
18758 % U+24D0 CIRCLED LATIN SMALL LETTER A; acircle
18759 \DeclareTextCompositeCommand{\textcircled}{PU}{a}{\9044\320}% U+24D0
18760 % U+24D1 CIRCLED LATIN SMALL LETTER B; bcircle
18761 \DeclareTextCompositeCommand{\textcircled}{PU}{b}{\9044\321}% U+24D1
18762 % U+24D2 CIRCLED LATIN SMALL LETTER C; ccircle
18763 \DeclareTextCompositeCommand{\textcircled}{PU}{c}{\9044\322}% U+24D2
18764 % U+24D3 CIRCLED LATIN SMALL LETTER D; dcircle
18765 \DeclareTextCompositeCommand{\textcircled}{PU}{d}{\9044\323}% U+24D3
18766 % U+24D4 CIRCLED LATIN SMALL LETTER E; ecircle
18767 \DeclareTextCompositeCommand{\textcircled}{PU}{e}{\9044\324}% U+24D4
18768 % U+24D5 CIRCLED LATIN SMALL LETTER F; fcircle
18769 \DeclareTextCompositeCommand{\textcircled}{PU}{f}{\9044\325}% U+24D5
18770 % U+24D6 CIRCLED LATIN SMALL LETTER G; gcircle
18771 \DeclareTextCompositeCommand{\textcircled}{PU}{g}{\9044\326}% U+24D6
18772 % U+24D7 CIRCLED LATIN SMALL LETTER H; hcircle
18773 \DeclareTextCompositeCommand{\textcircled}{PU}{h}{\9044\327}% U+24D7
18774 % U+24D8 CIRCLED LATIN SMALL LETTER I; icircle
18775 \DeclareTextCompositeCommand{\textcircled}{PU}{i}{\9044\330}% U+24D8
18776 % U+24D9 CIRCLED LATIN SMALL LETTER J; jcircle
18777 \DeclareTextCompositeCommand{\textcircled}{PU}{j}{\9044\331}% U+24D9
18778 % U+24DA CIRCLED LATIN SMALL LETTER K; kcircle
18779 \DeclareTextCompositeCommand{\textcircled}{PU}{k}{\9044\332}% U+24DA
18780 % U+24DB CIRCLED LATIN SMALL LETTER L; lcircle
18781 \DeclareTextCompositeCommand{\textcircled}{PU}{l}{\9044\333}% U+24DB
18782 % U+24DC CIRCLED LATIN SMALL LETTER M; mcircle
18783 \DeclareTextCompositeCommand{\textcircled}{PU}{m}{\9044\334}% U+24DC
18784 % U+24DD CIRCLED LATIN SMALL LETTER N; ncircle
18785 \DeclareTextCompositeCommand{\textcircled}{PU}{n}{\9044\335}% U+24DD
18786 % U+24DE CIRCLED LATIN SMALL LETTER O; ocircle
18787 \DeclareTextCompositeCommand{\textcircled}{PU}{o}{\9044\336}% U+24DE
18788 % U+24DF CIRCLED LATIN SMALL LETTER P; pcircle
18789 \DeclareTextCompositeCommand{\textcircled}{PU}{p}{\9044\337}% U+24DF
18790 % U+24E0 CIRCLED LATIN SMALL LETTER Q; qcircle
18791 \DeclareTextCompositeCommand{\textcircled}{PU}{q}{\9044\340}% U+24E0
18792 % U+24E1 CIRCLED LATIN SMALL LETTER R; rcircle
18793 \DeclareTextCompositeCommand{\textcircled}{PU}{r}{\9044\341}% U+24E1
18794 % U+24E2 CIRCLED LATIN SMALL LETTER S; scircle
18795 \DeclareTextCompositeCommand{\textcircled}{PU}{s}{\9044\342}% U+24E2
18796 % U+24E3 CIRCLED LATIN SMALL LETTER T; tcircle
18797 \DeclareTextCompositeCommand{\textcircled}{PU}{t}{\9044\343}% U+24E3
18798 % U+24E4 CIRCLED LATIN SMALL LETTER U; ucircle
18799 \DeclareTextCompositeCommand{\textcircled}{PU}{u}{\9044\344}% U+24E4
18800 % U+24E5 CIRCLED LATIN SMALL LETTER V; vcircle
18801 \DeclareTextCompositeCommand{\textcircled}{PU}{v}{\9044\345}% U+24E5
18802 % U+24E6 CIRCLED LATIN SMALL LETTER W; wcircle
18803 \DeclareTextCompositeCommand{\textcircled}{PU}{w}{\9044\346}% U+24E6
18804 % U+24E7 CIRCLED LATIN SMALL LETTER X; xcircle
18805 \DeclareTextCompositeCommand{\textcircled}{PU}{x}{\9044\347}% U+24E7
18806 % U+24E8 CIRCLED LATIN SMALL LETTER Y; ycircle
18807 \DeclareTextCompositeCommand{\textcircled}{PU}{y}{\9044\350}% U+24E8

18808 % U+24E9 CIRCLED LATIN SMALL LETTER Z; zcircle
18809 \DeclareTextCompositeCommand{\textcircled}{PU}{z}{\9044\351}% U+24E9
18810 % U+24EA CIRCLED DIGIT ZERO
18811 \DeclareTextCompositeCommand{\textcircled}{PU}{0}{\9044\352}% U+24EA

46.2.27 Box Drawing: U+2500 to 257F

18812 % U+2504 BOX DRAWINGS LIGHT TRIPLE DASH HORIZONTAL; \Cutting-
Line (marvosym)
18813 \DeclareTextCommand{\textCuttingLine}{PU}{\9045\004}%* U+2504
18814 %* \textCuttingLine -> \Kutline (marvosym)
18815 %* \textCuttingLine -> \CutLine (marvosym)
18816 %* \textCuttingLine -> \Cutline (marvosym)

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

18817 % U+25B2 BLACK UP-POINTING TRIANGLE; \UParrow (wasysym)
18818 \DeclareTextCommand{\textUParrow}{PU}{\9045\262}%* U+25B2
18819 %* \textUParrow -> \MoveUp (marvosym)
18820 % U+25B3 WHITE UP-POINTING TRIANGLE; whiteuppointingtriangle;
18821 % \bigtriangleup (LaTeX)
18822 \DeclareTextCommand{\textbigtriangleup}{PU}{\9045\263}%* U+25B3
18823 %* \textbigtriangleup -> \APLup (wasysym)
18824 %* \textbigtriangleup -> \Bleech (marvosym)
18825 % U+25B6 BLACK RIGHT-POINTING TRIANGLE; \Forward (marvosym)
18826 \DeclareTextCommand{\textForward}{PU}{\9045\266}%* U+25B6
18827 % U+25B7 WHITE RIGHT-POINTING TRIANGLE (= z notation range restric-
tion);
18828 % whiterightpointingtriangle; \triangleright (LaTeX)
18829 \DeclareTextCommand{\texttriangleright}{PU}{\9045\267}%* U+25B7
18830 % U+25BA BLACK RIGHT-POINTING POINTER; \RHD (wasysym)
18831 \DeclareTextCommand{\textRHD}{PU}{\9045\272}%* U+25BA
18832 % U+25BC BLACK DOWN-POINTING TRIANGLE; \DOWNarrow (wasysym)
18833 \DeclareTextCommand{\textDOWNarrow}{PU}{\9045\274}%* U+25BC
18834 %* \textDOWNarrow -> \MoveDown (marvosym)
18835 % U+25BD WHITE DOWN-POINTING TRIANGLE; whitedownpointingtri-
angle;
18836 % \bigtriangledown (LaTeX)
18837 \DeclareTextCommand{\textbigtriangledown}{PU}{\9045\275}%* U+25BD
18838 %* \textbigtriangledown -> \APLdown (wasysym)
18839 % U+25C0 BLACK LEFT-POINTING TRIANGLE; \Rewind (marvosym)
18840 \DeclareTextCommand{\textRewind}{PU}{\9045\300}%* U+25C0
18841 % U+25C1 WHITE RIGHT-POINTING TRIANGLE (= z notation domain re-
striction);
18842 % whiteleftpointingtriangle; \triangleleft (LaTeX)
18843 \DeclareTextCommand{\texttriangleleft}{PU}{\9045\301}%* U+25C1
18844 % U+25C4 BLACK LEFT-POINTING POINTER; \LHD (wasysym)
18845 \DeclareTextCommand{\textLHD}{PU}{\9045\304}%* U+25C4
18846 % U+25C7 WHITE DIAMOND; whitediamond; \diamond (LaTeX)
18847 \DeclareTextCommand{\textdiamond}{PU}{\9045\307}%* U+25C7
18848 %* \textdiamond -> \Diamond (wasysym)
18849 % U+25CA LOZENGE; lozenge; \lozenge (AmS)
18850 \DeclareTextCommand{\textlozenge}{PU}{\9045\312}%* U+25CA
18851 % U+25D6 LEFT HALF BLACK CIRCLE; \LEFTCIRCLE (wasysym)
18852 \DeclareTextCommand{\textLEFTCIRCLE}{PU}{\9045\326}%* U+25D6
18853 % U+25D7 RIGHT HALF BLACK CIRCLE; \RIGHTCIRCLE (wasysym)

18854 \DeclareTextCommand{\textRIGHTCIRCLE}{PU}{\9045\327}%* U+25D7
 18855 % U+25E6 WHITE BULLET; *openbullet, whitebullet
 18856 \DeclareTextCommand{\textopenbullet}{PU}{\9045\346}%* U+25E6
 18857 % U+25EB WHITE SQUARE WITH VERTICAL BISECTING LINE;
 18858 % \boxbar (stmaryrd)
 18859 \DeclareTextCommand{\textboxbar}{PU}{\9045\353}%* U+25EB
 18860 % U+25EF LARGE CIRCLE; largecircle
 18861 \DeclareTextCommand{\textbigcircle}{PU}{\9045\357}%* U+25EF
 18862 %* \textbigcircle -> \varbigcirc (stmaryrd)
 18863 %

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

18864 % U+2601 CLOUD; \Cloud (ifsym)
 18865 \DeclareTextCommand{\textCloud}{PU}{\9046\001}%* U+2601
 18866 % U+2605 BLACK STAR; \FiveStar (bbding)
 18867 \DeclareTextCommand{\textFiveStar}{PU}{\9046\005}%* U+2605
 18868 % U+2606 WHITE STAR; \FiveStarOpen (bbding)
 18869 \DeclareTextCommand{\textFiveStarOpen}{PU}{\9046\006}%* U+2606
 18870 % U+260E BLACK TELEPHONE; telephoneblack; \Phone (bbding)
 18871 \DeclareTextCommand{\textPhone}{PU}{\9046\016}%* U+260E
 18872 %* \textPhone -> \Telefon (marvosym)
 18873 % U+2610 BALLOT BOX; \boxempty (stmaryrd)
 18874 \DeclareTextCommand{\textboxempty}{PU}{\9046\020}%* U+2610
 18875 %* \textboxempty -> \Box (wasysym)
 18876 % U+2611 BALLOT BOX WITH CHECK; \Checkedbox (marvosym)
 18877 \DeclareTextCommand{\textCheckedbox}{PU}{\9046\021}%* U+2611
 18878 %* \textCheckedbox -> \CheckedBox (marvosym)
 18879 % U+2612 BALLOT BOX WITH X; \Crossedbox (marvosym)
 18880 \DeclareTextCommand{\textCrossedbox}{PU}{\9046\022}%* U+2612
 18881 %* \textCrossedbox -> \XBox (wasysym)
 18882 %* \textCrossedbox -> \CrossedBox (marvosym)
 18883 % U+2615 HOT BEVERAGE; \Coffeecup (marvosym)
 18884 \DeclareTextCommand{\textCoffeecup}{PU}{\9046\025}%* U+2615
 18885 % U+261A BLACK LEFT POINTING INDEX; \HandCuffLeft (bbding)
 18886 \DeclareTextCommand{\textHandCuffLeft}{PU}{\9046\032}%* U+261A
 18887 % U+261B BLACK RIGHT POINTING INDEX; \HandCuffRight (bbding)
 18888 \DeclareTextCommand{\textHandCuffRight}{PU}{\9046\033}%* U+261B
 18889 % U+261C WHITE LEFT POINTING INDEX; \HandLeft (bbding)
 18890 \DeclareTextCommand{\textHandLeft}{PU}{\9046\034}%* U+261C
 18891 %* \textHandLeft -> \rightpointleft (fourier)
 18892 % U+261E WHITE RIGHT POINTING INDEX; \HandRight (bbding)
 18893 \DeclareTextCommand{\textHandRight}{PU}{\9046\036}%* U+261E
 18894 %* \textHandRight -> \leftpointright (fourier)
 18895 %* \textHandRight -> \PointingHand (marvosym)
 18896 %* \textHandRight -> \Pointinghand (marvosym)
 18897 % U+2622 RADIOACTIVE SIGN; \Radioactivity (marvosym)
 18898 \DeclareTextCommand{\textRadioactivity}{PU}{\9046\042}%* U+2622
 18899 %* \textRadioactivity -> \Radiation (ifsym)
 18900 % U+2623 BIOHAZARD SIGN; \Biohazard (marvosym)
 18901 \DeclareTextCommand{\textBiohazard}{PU}{\9046\043}%* U+2623
 18902 % U+2625 ANKH; \Ankh (marvosym)
 18903 \DeclareTextCommand{\textAnkh}{PU}{\9046\045}%* U+2625
 18904 % U+262F YIN YANG; \YinYang (marvosym)
 18905 \DeclareTextCommand{\textYinYang}{PU}{\9046\057}%* U+262F

18906 %* \textYinYang -> \Yinyang (marvosym)
18907 %* \textYinYang -> \YingYang (marvosym)
18908 %* \textYinYang -> \Yingyang (marvosym)
18909 % U+2639 WHITE FROWNING FACE; \frownie (wasysym)
18910 \DeclareTextCommand{\textfrownie}{PU}{\9046\071}%* U+2639
18911 %* \textfrownie -> \Frowny (marvosym)
18912 % U+263A WHITE SMILING FACE; \smiley (wasysym)
18913 \DeclareTextCommand{\textsmiley}{PU}{\9046\072}%* U+263A
18914 %* \textsmiley -> \Smiley (marvosym)
18915 % U+263B BLACK SMILING FACE; \blacksmiley (wasysym)
18916 \DeclareTextCommand{\textblacksmiley}{PU}{\9046\073}%* U+263B
18917 % U+263C WHITE SUN WITH RAYS; \sun (wasysym)
18918 \DeclareTextCommand{\textsun}{PU}{\9046\074}%* U+263C
18919 %* \textsun -> \Sun (marvosym)
18920 % U+263D FIRST QUARTER MOON; \leftmoon (wasysym, mathabx)
18921 \DeclareTextCommand{\textleftmoon}{PU}{\9046\075}%* U+263D
18922 % U+263E LAST QUARTER MOON; \rightmoon (wasysym, mathabx)
18923 \DeclareTextCommand{\textrightmoon}{PU}{\9046\076}%* U+263E
18924 % U+263F MERCURY; \mercury (wasysym)
18925 \DeclareTextCommand{\textmercury}{PU}{\9046\077}%* U+263F
18926 %* \textmercury -> \Mercury (marvosym)
18927 % U+2640 FEMALE SIGN; female; \female (wasysym)
18928 \DeclareTextCommand{\textPUfemale}{PU}{\9046\100}% U+2640
18929 %* \textPUfemale -> \textfemale (tipx)
18930 %* \textPUfemale -> \female (wasysym)
18931 %* \textPUfemale -> \venus (wasysym)
18932 %* \textPUfemale -> \Venus (marvosym)
18933 %* \textPUfemale -> \Female (marvosym)
18934 % U+2641 EARTH; \earth (wasysym)
18935 \DeclareTextCommand{\textearth}{PU}{\9046\101}%* U+2641
18936 %* \textearth -> \Earth (marvosym)
18937 % U+2642 MALE SIGN; male, mars; \male (wasysym)
18938 \DeclareTextCommand{\textmale}{PU}{\9046\102}%* U+2642
18939 %* \textmale -> \mars (wasysym)
18940 %* \textmale -> \Mars (marvosym)
18941 %* \textmale -> \Male (marvosym)
18942 % U+2643 JUPITER; \jupiter (wasysym)
18943 \DeclareTextCommand{\textjupiter}{PU}{\9046\103}%* U+2643
18944 %* \textjupiter -> \Jupiter (marvosym)
18945 % U+2644 SATURN; \saturn (wasysym)
18946 \DeclareTextCommand{\textsaturn}{PU}{\9046\104}%* U+2644
18947 %* \textsaturn -> \Saturn (marvosym)
18948 % U+2645 URANUS; \uranus (wasysym)
18949 \DeclareTextCommand{\texturanus}{PU}{\9046\105}%* U+2645
18950 %* \texturanus -> \Uranus (marvosym)
18951 % U+2646 NEPTUNE; \neptune (wasysym)
18952 \DeclareTextCommand{\textneptune}{PU}{\9046\106}%* U+2646
18953 %* \textneptune -> \Neptune (marvosym)
18954 % U+2647 PLUTO; \pluto (wasysym)
18955 \DeclareTextCommand{\textpluto}{PU}{\9046\107}%* U+2647
18956 %* \textpluto -> \Pluto (marvosym)
18957 % U+2648 ARIES; \aries (wasysym)
18958 \DeclareTextCommand{\textaries}{PU}{\9046\110}%* U+2648
18959 %* \textaries -> \Aries (marvosym)

18960 % U+2649 TAURUS; \taurus (wasysym)
18961 \DeclareTextCommand{\texttaurus}{PU}{\9046\111}%* U+2649
18962 %* \texttaurus -> \Taurus (marvosym)
18963 % U+264A GEMINI; \gemini (wasysym)
18964 \DeclareTextCommand{\textgemini}{PU}{\9046\112}%* U+264A
18965 %* \textgemini -> \Gemini (marvosym)
18966 % U+264B CANCER; \cancer (wasysym)
18967 \DeclareTextCommand{\textcancer}{PU}{\9046\113}%* U+264B
18968 %* \textcancer -> \Cancer (marvosym)
18969 % U+264C LEO; \leo (wasysym)
18970 \DeclareTextCommand{\textleo}{PU}{\9046\114}%* U+264C
18971 %* \textleo -> \Leo (marvosym)
18972 % U+264D VIRGO; \virgo (wasysym)
18973 \DeclareTextCommand{\textvirgo}{PU}{\9046\115}%* U+264D
18974 %* \textvirgo -> \Virgo (marvosym)
18975 % U+264E LIBRA; \libra (wasysym)
18976 \DeclareTextCommand{\textlibra}{PU}{\9046\116}%* U+264E
18977 %* \textlibra -> \Libra (marvosym)
18978 % U+264F SCORPIO; \scorpio (wasysym)
18979 \DeclareTextCommand{\textscorpio}{PU}{\9046\117}%* U+264F
18980 %* \textscorpio -> \Scorpio (marvosym)
18981 % U+2650 SAGITTARIUS; \sagittarius (wasysym)
18982 \DeclareTextCommand{\textsagittarius}{PU}{\9046\120}%* U+2650
18983 %* \textsagittarius -> \Sagittarius (marvosym)
18984 % U+2651 CAPRICORN; \capricornus (wasysym)
18985 \DeclareTextCommand{\textcapricornus}{PU}{\9046\121}%* U+2651
18986 %* \textcapricornus -> \Capricorn (marvosym)
18987 % U+2652 AQUARIUS; \aquarius (wasysym)
18988 \DeclareTextCommand{\textaquarius}{PU}{\9046\122}%* U+2652
18989 %* \textaquarius -> \Aquarius (marvosym)
18990 % U+2653 PISCES; \pisces (wasysym)
18991 \DeclareTextCommand{\textpisces}{PU}{\9046\123}%* U+2653
18992 %* \textpisces -> \Pisces (marvosym)
18993 % U+2660 BLACK SPADE SUIT; spade, spadesuitblack; \spadesuit (LaTeX)
18994 \DeclareTextCommand{\textspadesuitblack}{PU}{\9046\140}% U+2660
18995 %* \textspadesuitblack -> \spadesuit (MnSymbol)
18996 % U+2661 WHITE HEART SUIT; heartsuitwhite; \heartsuit (LaTeX)
18997 \DeclareTextCommand{\textheartsuitwhite}{PU}{\9046\141}% U+2661
18998 %* \textheartsuitwhite -> \Heart (marvosym)
18999 %* \textheartsuitwhite -> \heartsuit (MnSymbol)
19000 % U+2662 WHITE DIAMOND SUIT; diamondsuitwhite; \diamondsuit (LaTeX)
19001 \DeclareTextCommand{\textdiamondsuitwhite}{PU}{\9046\142}% U+2662
19002 %* \textdiamondsuitwhite -> \diamondsuit (MnSymbol)
19003 % U+2663 BLACK CLUB SUIT; club, clubsuitblack; \clubsuit (LaTeX)
19004 \DeclareTextCommand{\textclubsuitblack}{PU}{\9046\143}% U+2663
19005 %* \textclubsuitblack -> \clubsuit (MnSymbol)
19006 % U+2664 WHITE SPADE SUIT; spadesuitwhite
19007 \DeclareTextCommand{\textspadesuitwhite}{PU}{\9046\144}% U+2664
19008 % U+2665 BLACK HEART SUIT; heartsuitblack, heart
19009 \DeclareTextCommand{\textheartsuitblack}{PU}{\9046\145}% U+2665
19010 % U+2666 BLACK DIAMOND SUIT; diamond
19011 \DeclareTextCommand{\textdiamondsuitblack}{PU}{\9046\146}% U+2666
19012 % U+2667 WHITE CLUB SUIT; clubsuitwhite
19013 \DeclareTextCommand{\textclubsuitwhite}{PU}{\9046\147}% U+2667

19014 % U+2669 QUARTER NOTE; quarternote; \quarternote (wasysym, arev)
19015 \DeclareTextCommand{\textquarternote}{PU}{\9046\151}%* U+2669
19016 % U+266A EIGHTH NOTE; musicalnote; \textmusicalnote (textcomp)
19017 \DeclareTextCommand{\textmusicalnote}{PU}{\9046\152}% U+266A
19018 %* \textmusicalnote -> \eighthnote (wasysym, arev)
19019 % U+266B BEAMED EIGHTH NOTES; eighthnotebeamed; \twonotes (wasysym)
19020 \DeclareTextCommand{\texttwonotes}{PU}{\9046\153}%* U+266B
19021 % U+266C BEAMED SIXTEENTH NOTES; beamedsixteenthnotes; \sixteenth-
note (arev)
19022 \DeclareTextCommand{\textsixteenthnote}{PU}{\9046\154}%* U+266C
19023 % U+266D MUSIC FLAT SIGN; musicflatsign; \flat (LaTeX)
19024 \DeclareTextCommand{\textflat}{PU}{\9046\155}%* U+266D
19025 % U+266E MUSIC NATURAL SIGN; \natural (LaTeX)
19026 \DeclareTextCommand{\textnatural}{PU}{\9046\156}%* U+266E
19027 % U+266F MUSIC SHARP SIGN; musicsharpsign; \sharp (LaTeX)
19028 \DeclareTextCommand{\textsharp}{PU}{\9046\157}%* U+266F
19029 % U+2672 UNIVERSAL RECYCLING SYMBOL; \recycle (recycle)
19030 \DeclareTextCommand{\textrecycle}{PU}{\9046\162}%* U+2672
19031 %* \textrecycle -> \Recycling (marvosym)
19032 % U+267F WHEELCHAIR SYMBOL; \Wheelchair (marvosym)
19033 \DeclareTextCommand{\textWheelchair}{PU}{\9046\177}%* U+267F
19034 % U+2691 BLACK FLAG; \Flag (ifsym)
19035 \DeclareTextCommand{\textFlag}{PU}{\9046\221}%* U+2691
19036 %* \textFlag -> \VarFlag (ifsym)
19037 % U+2692 HAMMER AND PICK; \MineSign (marvosym)
19038 \DeclareTextCommand{\textMineSign}{PU}{\9046\222}%* U+2692
19039 % U+2694 CROSSED SWORDS; \dsmilitary (dictsym)
19040 \DeclareTextCommand{\textdsmilitary}{PU}{\9046\224}%* U+2694
19041 %* \textdsmilitary -> \textxswup (fourier)
19042 % U+2695 STAFF OF AESCULAPIUS; \dsmedical (dictsym)
19043 \DeclareTextCommand{\textdsmedical}{PU}{\9046\225}%* U+2695
19044 % U+2696 SCALES; \dsjuridical (dictsym)
19045 \DeclareTextCommand{\textdsjuridical}{PU}{\9046\226}%* U+2696
19046 % U+2697 ALEMBIC; \dschemical (dictsym)
19047 \DeclareTextCommand{\textdschemical}{PU}{\9046\227}%* U+2697
19048 % U+2698 FLOWER; \dsbiological (dictsym)
19049 \DeclareTextCommand{\textdsbiological}{PU}{\9046\230}%* U+2698
19050 % U+269A STAFF OF HERMES; \dscommercial (dictsym)
19051 \DeclareTextCommand{\textdscommercial}{PU}{\9046\232}%* U+269A
19052 % U+269D OUTLINED WHITE STAR; \manstar (manfnt)
19053 \DeclareTextCommand{\textmanstar}{PU}{\9046\235}%* U+269D
19054 % U+26A0 WARNING SIGN; \danger (fourier)
19055 \DeclareTextCommand{\textdanger}{PU}{\9046\240}%* U+26A0
19056 % U+26A2 DOUBLED FEMALE SIGN; \FemaleFemale (marvosym)
19057 \DeclareTextCommand{\textFemaleFemale}{PU}{\9046\242}%* U+26A2
19058 % U+26A3 DOUBLED MALE SIGN; \MaleMale (marvosym)
19059 \DeclareTextCommand{\textMaleMale}{PU}{\9046\243}%* U+26A3
19060 % U+26A4 INTERLOCKED FEMALE AND MALE SIGN; \FemaleMale (mar-
vosym)
19061 \DeclareTextCommand{\textFemaleMale}{PU}{\9046\244}%* U+26A4
19062 % U+26A5 MALE AND FEMALE SIGN; \Hermaphrodite (marvosym)
19063 \DeclareTextCommand{\textHermaphrodite}{PU}{\9046\245}%* U+26A5
19064 % U+26AA MEDIUM WHITE CIRCLE; \Neural (marvosym)
19065 \DeclareTextCommand{\textNeutral}{PU}{\9046\252}%* U+26AA

19066 % U+26AD MARRIAGE SYMBOL
 19067 \DeclareTextCommand{\textmarried}{PU}{\9046\255}% U+26AD
 19068 % U+26AE DIVORCE SYMBOL
 19069 \DeclareTextCommand{\textdivorced}{PU}{\9046\256}% U+26AE
 19070 % U+26B2 NEUTER; \textunconfemale (tipx)
 19071 \DeclareTextCommand{\textPUunconfemale}{PU}{\9046\262}% U+26B2
 19072 %* \textPUunconfemale -> \textunconfemale (tipx)
 19073 % U+26B9 SEXTILE; \hexstar (wasysym)
 19074 \DeclareTextCommand{\texthexstar}{PU}{\9046\271}%* U+26B9
 19075 % U+26BD SOCCER BALL; \Football (marvosym)
 19076 \DeclareTextCommand{\textSoccerBall}{PU}{\9046\275}% U+26BD
 19077 %* \textSoccerBall -> \Football (marvosym)
 19078 % U+26C5 SUN BEHIND CLOUD; \SunCloud (ifsym)
 19079 \DeclareTextCommand{\textSunCloud}{PU}{\9046\305}%* U+26C5
 19080 % U+26C6 RAIN; \Rain (ifsym)
 19081 \DeclareTextCommand{\textRain}{PU}{\9046\306}%* U+26C6
 19082 % U+26D4 NO ENTRY; \noway (fourier)
 19083 \DeclareTextCommand{\textnoway}{PU}{\9046\324}%* U+26D4
 19084 % U+26F0 MOUNTAIN; \Mountain (ifsym)
 19085 \DeclareTextCommand{\textMountain}{PU}{\9046\360}%* U+26F0
 19086 % U+26FA TENT; \Tent (ifsym)
 19087 \DeclareTextCommand{\textTent}{PU}{\9046\372}%* U+26FA

46.2.30 Dingbats: U+2700 to U+27BF

19088 % U+2701 UPPER BLADE SCISSORS; \ScissorRightBrokenBottom (bding)
 19089 \DeclareTextCommand{\textScissorRightBrokenBottom}{PU}{\9047\001}% U+2701
 19090 %* \textScissorRightBrokenBottom -> \CutLeft (marvosym)
 19091 %* \textScissorRightBrokenBottom -> \Cutright (marvosym)
 19092 % U+2702 BLACK SCISSORS; \ScissorRight (bding)
 19093 \DeclareTextCommand{\textScissorRight}{PU}{\9047\002}%* U+2702
 19094 %* \textScissorRight -> \RightScissors (marvosym)
 19095 %* \textScissorRight -> \Leftscissors (marvosym)
 19096 % U+2703 LOWER BLADE SCISSORS; \ScissorRightBrokenTop (bding)
 19097 \DeclareTextCommand{\textScissorRightBrokenTop}{PU}{\9047\003}%* U+2703
 19098 % U+2704 WHITE SCISSORS; \ScissorHollowRight (bding)
 19099 \DeclareTextCommand{\textScissorHollowRight}{PU}{\9047\004}%* U+2704
 19100 % U+2706 TELEPHONE LOCATION SIGN; \PhoneHandset (bding)
 19101 \DeclareTextCommand{\textPhoneHandset}{PU}{\9047\006}%* U+2706
 19102 % U+2707 TAPE DRIVE; \Tape (bding)
 19103 \DeclareTextCommand{\textTape}{PU}{\9047\007}%* U+2707
 19104 % U+2708 AIRPLANE; \Plane (bding)
 19105 \DeclareTextCommand{\textPlane}{PU}{\9047\010}%* U+2708
 19106 % U+2709 ENVELOPE; \Envelope (bding),
 19107 \DeclareTextCommand{\textEnvelope}{PU}{\9047\011}%* U+2709
 19108 %* \textEnvelope -> \Letter (marvosym)
 19109 % U+270C VICTORY HAND; \Peace (bding)
 19110 \DeclareTextCommand{\textPeace}{PU}{\9047\014}%* U+270C
 19111 % U+270D WRITING HAND; \WritingHand (marvosym)
 19112 \DeclareTextCommand{\textWritingHand}{PU}{\9047\015}%* U+270D
 19113 %* \textWritingHand -> \Writinghand (marvosym)
 19114 % U+270E LOWER RIGHT PENCIL; \PencilRightDown (bding)
 19115 \DeclareTextCommand{\textPencilRightDown}{PU}{\9047\016}%* U+270E
 19116 % U+270F PENCIL; \PencilRight (bding)
 19117 \DeclareTextCommand{\textPencilRight}{PU}{\9047\017}%* U+270F

19118 % U+2710 UPPER RIGHT PENCIL; \PencilRightUp (bding)
19119 \DeclareTextCommand{\textPencilRightUp}{PU}{\9047\020}%* U+2710
19120 % U+2711 WHITE NIB; \NibRight (bding)
19121 \DeclareTextCommand{\textNibRight}{PU}{\9047\021}%* U+2711
19122 % U+2712 BLACK NIB; \NibSolidRight (bding)
19123 \DeclareTextCommand{\textNibSolidRight}{PU}{\9047\022}%* U+2712
19124 % U+2713 CHECK MARK; checkmark; \Checkmark (bding)
19125 \DeclareTextCommand{\textCheckmark}{PU}{\9047\023}%* U+2713
19126 %* \textCheckmark -> \checkmark (MnSymbol)
19127 % U+2714 HEAVY CHECK MARK; \CheckmarkBold (bding)
19128 \DeclareTextCommand{\textCheckmarkBold}{PU}{\9047\024}%* U+2714
19129 % U+2715 MULTIPLICATION X; \XSolid (bding)
19130 \DeclareTextCommand{\textXSolid}{PU}{\9047\025}%* U+2715
19131 % U+2716 HEAVY MULTIPLICATION X; \XSolidBold (bding)
19132 \DeclareTextCommand{\textXSolidBold}{PU}{\9047\026}%* U+2716
19133 % U+2717 BALLOT X; \XSolidBrush (bding)
19134 \DeclareTextCommand{\textXSolidBrush}{PU}{\9047\027}%* U+2717
19135 % U+2719 OUTLINED GREEK CROSS; \PlusOutline (bding)
19136 \DeclareTextCommand{\textPlusOutline}{PU}{\9047\031}%* U+2719
19137 % U+271A HEAVY GREEK CROSS; \Plus (bding)
19138 \DeclareTextCommand{\textPlus}{PU}{\9047\032}%* U+271A
19139 % U+271B OPEN CENTRE CROSS; \PlusThinCenterOpen (bding)
19140 \DeclareTextCommand{\textPlusThinCenterOpen}{PU}{\9047\033}%* U+271B
19141 % U+271C HEAVY OPEN CENTRE CROSS; \PlusCenterOpen (bding)
19142 \DeclareTextCommand{\textPlusCenterOpen}{PU}{\9047\034}%* U+271C
19143 % U+271D LATIN CROSS; \Cross (bding)
19144 \DeclareTextCommand{\textCross}{PU}{\9047\035}%* U+271D
19145 % U+271E SHADOWED WHITE LATIN CROSS; \CrossOpenShadow (bding)
19146 \DeclareTextCommand{\textCrossOpenShadow}{PU}{\9047\036}%* U+271E
19147 % U+271F OUTLINED LATIN CROSS; \CrossOutline (bding)
19148 \DeclareTextCommand{\textCrossOutline}{PU}{\9047\037}%* U+271F
19149 % U+2720 MALTESE CROSS; \CrossMaltese (bding)
19150 \DeclareTextCommand{\textCrossMaltese}{PU}{\9047\040}%* U+2720
19151 % U+2721 STAR OF DAVID; \DavidStar (bding)
19152 \DeclareTextCommand{\textDavidStar}{PU}{\9047\041}%* U+2721
19153 %* \textDavidStar -> \davidstar (wasysym)
19154 % U+2722 FOUR TEARDROP-SPOKED ASTERISK; \FourAsterisk (bding)
19155 \DeclareTextCommand{\textFourAsterisk}{PU}{\9047\042}%* U+2722
19156 % U+2723 FOUR BALLOON-SPOKED ASTERISK; \JackStar (bding)
19157 \DeclareTextCommand{\textJackStar}{PU}{\9047\043}%* U+2723
19158 % U+2724 HEAVY FOUR BALLOON-SPOKED ASTERISK; \JackStarBold (bding)
19159 \DeclareTextCommand{\textJackStarBold}{PU}{\9047\044}%* U+2724
19160 % U+2725 FOUR CLUB-SPOKED ASTERISK; \CrossClowerTips (bding)
19161 \DeclareTextCommand{\textClowerTips}{PU}{\9047\045}%* U+2725
19162 % U+2726 BLACK FOUR POINTED STAR; \FourStar (bding)
19163 \DeclareTextCommand{\textFourStar}{PU}{\9047\046}%* U+2726
19164 % U+2727 WHITE FOUR POINTED STAR; \FourStarOpen (bding)
19165 \DeclareTextCommand{\textFourStarOpen}{PU}{\9047\047}%* U+2727
19166 % U+272A CIRCLED WHITE STAR; \FiveStarOpenCircled (bding)
19167 \DeclareTextCommand{\textFiveStarOpenCircled}{PU}{\9047\052}%* U+272A
19168 % U+272B OPEN CENTRE BLACK STAR; \FiveStarCenterOpen (bding)
19169 \DeclareTextCommand{\textFiveStarCenterOpen}{PU}{\9047\053}%* U+272B
19170 % U+272C BLACK CENTRE WHITE STAR; \FiveStarOpenDotted (bding)

19171 \DeclareTextCommand{\textFiveStarOpenDotted}{PU}{\9047\054}%* U+272C
19172 % U+272D OUTLINED BLACK STAR; \FiveStarOutline (bding)
19173 \DeclareTextCommand{\textFiveStarOutline}{PU}{\9047\055}%* U+272D
19174 % U+272E HEAVY OUTLINED BLACK STAR; \FiveStarOutlineHeavy (bding)
19175 \DeclareTextCommand{\textFiveStarOutlineHeavy}{PU}{\9047\056}%* U+272E
19176 % U+272F PINWHEEL STAR; \FiveStarConvex (bding)
19177 \DeclareTextCommand{\textFiveStarConvex}{PU}{\9047\057}%* U+272F
19178 % U+2730 SHADOWED WHITE STAR; \FiveStarShadow (bding)
19179 \DeclareTextCommand{\textFiveStarShadow}{PU}{\9047\060}%* U+2730
19180 % U+2731 HEAVY ASTERISK; \AsteriskBold (bding)
19181 \DeclareTextCommand{\textAsteriskBold}{PU}{\9047\061}%* U+2731
19182 % U+2732 OPEN CENTRE ASTERISK; \AsteriskCenterOpen (bding)
19183 \DeclareTextCommand{\textAsteriskCenterOpen}{PU}{\9047\062}%* U+2732
19184 % U+2734 EIGHT POINTED BLACK STAR; \EightStarTaper (bding)
19185 \DeclareTextCommand{\textEightStarTaper}{PU}{\9047\064}%* U+2734
19186 % U+2735 EIGHT POINTED PINWHEEL STAR; \EightStarConvex (bding)
19187 \DeclareTextCommand{\textEightStarConvex}{PU}{\9047\065}%* U+2735
19188 % U+2736 SIX POINTED BLACK STAR; \SixStar (bding)
19189 \DeclareTextCommand{\textSixStar}{PU}{\9047\066}%* U+2736
19190 % U+2737 EIGHT POINTED RECTILINEAR BLACK STAR; \EightStar (bding)
19191 \DeclareTextCommand{\textEightStar}{PU}{\9047\067}%* U+2737
19192 % U+2738 HEAVY EIGHT POINTED RECTILINEAR BLACK STAR; \EightStarBold (bding)
19193 \DeclareTextCommand{\textEightStarBold}{PU}{\9047\070}%* U+2738
19194 % U+2739 TWELVE POINTED BLACK STAR; \TwelveStar (bding)
19195 \DeclareTextCommand{\textTwelveStar}{PU}{\9047\071}%* U+2739
19196 % U+273A SIXTEEN POINTED ASTERISK; \SixteenStarLight (bding)
19197 \DeclareTextCommand{\textSixteenStarLight}{PU}{\9047\072}%* U+273A
19198 % U+273B TEARDROP-SPOKED ASTERISK; \SixFlowerPetalRemoved (bding)
19199 \DeclareTextCommand{\textSixFlowerPetalRemoved}{PU}{\9047\073}%* U+273B
19200 % U+273C OPEN CENTRE TEARDROP-SPOKED ASTERISK;
19201 % \SixFlowerOpenCenter (bding)
19202 \DeclareTextCommand{\textSixFlowerOpenCenter}{PU}{\9047\074}%* U+273C
19203 % U+273D HEAVY TEARDROP-SPOKED ASTERISK; \Asterisk (bding)
19204 \DeclareTextCommand{\textAsterisk}{PU}{\9047\075}%* U+273D
19205 % U+273E SIX PETALLED BLACK AND WHITE FLORETTE; \SixFlowerAlternate (bding)
19206 \DeclareTextCommand{\textSixFlowerAlternate}{PU}{\9047\076}%* U+273E
19207 % U+273F BLACK FLORETTE; \FiveFlowerPetal (bding)
19208 \DeclareTextCommand{\textFiveFlowerPetal}{PU}{\9047\077}%* U+273F
19209 % U+2740 WHITE FLORETTE; \FiveFlowerOpen (bding)
19210 \DeclareTextCommand{\textFiveFlowerOpen}{PU}{\9047\100}%* U+2740
19211 % U+2741 EIGHT PETALLED OUTLINED BLACK FLORETTE; \EightFlowerPetal (bding)
19212 \DeclareTextCommand{\textEightFlowerPetal}{PU}{\9047\101}%* U+2741
19213 % U+2742 CIRCLED OPEN CENTRE EIGHT POINTED STAR; \SunshineOpenCircled (bding)
19214 \DeclareTextCommand{\textSunshineOpenCircled}{PU}{\9047\102}%* U+2742
19215 % U+2743 HEAVY TEARDROP-SPOKED PINWHEEL ASTERISK; \SixFlowerAltPetal (bding)
19216 \DeclareTextCommand{\textSixFlowerAltPetal}{PU}{\9047\103}%* U+2743
19217 % U+2744 SNOWFLAKE; \SnowflakeChevron (bding)

19218 \DeclareTextCommand{\textSnowflakeChevron}{PU}{\9047\104}%* U+2744
 19219 % U+2745 TIGHT TRIFOLIATE SNOWFLAKE; \Snowflake (bding)
 19220 \DeclareTextCommand{\textSnowflake}{PU}{\9047\105}%* U+2745
 19221 % U+2746 HEAVY CHEVRON SNOWFLAKE; \SnowflakeChevronBold (bding)
 19222 \DeclareTextCommand{\textSnowflakeChevronBold}{PU}{\9047\106}%* U+2746
 19223 % U+2747 SPARKLE; \Sparkle (bding)
 19224 \DeclareTextCommand{\textSparkle}{PU}{\9047\107}%* U+2747
 19225 % U+2748 HEAVY SPARKLE; \SparkleBold (bding)
 19226 \DeclareTextCommand{\textSparkleBold}{PU}{\9047\110}%* U+2748
 19227 % U+2749 BALLOON-SPOKED ASTERISK; \AsteriskRoundedEnds (bding)
 19228 \DeclareTextCommand{\textAsteriskRoundedEnds}{PU}{\9047\111}%* U+2749
 19229 % U+274A EIGHT TEARDROP-SPOKED PROPELLER ASTERISK;
 19230 % \EightFlowerPetalRemoved (bding)
 19231 \DeclareTextCommand{\textEightFlowerPetalRemoved}{PU}{\9047\112}%* U+274A
 19232 % U+274B HEAVY EIGHT TEARDROP-SPOKED PROPELLER ASTERISK;
 19233 % \EightAsterisk (bding)
 19234 \DeclareTextCommand{\textEightAsterisk}{PU}{\9047\113}%* U+274B
 19235 % U+274D SHADOWED WHITE CIRCLE; \CircleShadow (bding)
 19236 \DeclareTextCommand{\textCircleShadow}{PU}{\9047\115}%* U+274D
 19237 % U+274F LOWER RIGHT DROP-SHADOWED WHITE SQUARE;
 19238 % \SquareShadowBottomRight (bding)
 19239 \DeclareTextCommand{\textSquareShadowBottomRight}{PU}{\9047\117}%* U+274F
 19240 % U+2750 UPPER RIGHT DROP-SHADOWED WHITE SQUARE;
 19241 % \SquareShadowTopRight (bding)
 19242 \DeclareTextCommand{\textSquareTopRight}{PU}{\9047\120}%* U+2750
 19243 % U+2751 LOWER RIGHT SHADOWED WHITE SQUARE;
 19244 % \SquareCastShadowBottomRight (bding)
 19245 \DeclareTextCommand{\textSquareCastShadowBottomRight}{PU}{\9047\121}%* U+2751
 19246 % U+2752 UPPER RIGHT SHADOWED WHITE SQUARE;
 19247 % \SquareCastShadowTopRight (bding)
 19248 \DeclareTextCommand{\textSquareCastShadowTopRight}{PU}{\9047\122}%* U+2752
 19249 % U+2756 BLACK DIAMOND MINUS WHITE X; \OrnamentDiamandSolid (b-
 ding)
 19250 \DeclareTextCommand{\textDiamandSolid}{PU}{\9047\126}%* U+2756
 19251 % U+2758 LIGHT VERTICAL BAR; \RectangleThin (bding)
 19252 \DeclareTextCommand{\textRectangleThin}{PU}{\9047\130}%* U+2758
 19253 % U+2759 MEDIUM VERTICAL BAR; \Rectangle (bding)
 19254 \DeclareTextCommand{\textRectangle}{PU}{\9047\131}%* U+2759
 19255 % U+275A HEAVY VERTICAL BAR; \RectangleBold (bding)
 19256 \DeclareTextCommand{\textRectangleBold}{PU}{\9047\132}%* U+275A

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

19257 % U+27C2 PERPENDICULAR; perpendicular; \perp (LaTeX)
 19258 \DeclareTextCommand{\textperp}{PU}{\9047\302}%* U+27C2
 19259 % \notperp (mathabx)
 19260 \DeclareTextCommand{\textnotperp}{PU}{\9047\302\83\070}%* U+27C2 U+0338
 19261 % U+27C7 OR WITH DOT INSIDE; \veedot (MnSymbol)
 19262 \DeclareTextCommand{\textveedot}{PU}{\9047\307}%* U+27C7
 19263 % U+27D1 AND WITH DOT; \wedgedot (MnSymbol)
 19264 \DeclareTextCommand{\textwedgedot}{PU}{\9047\321}%* U+27D1
 19265 % U+27DC LEFT MULTIMAP; \leftspoon (MnSymbol)
 19266 \DeclareTextCommand{\textleftspoon}{PU}{\9047\334}%* U+27DC
 19267 % U+27E6 MATHEMATICAL LEFT WHITE SQUARE BRACKET
 19268 \DeclareTextCommand{\textlbrackdbl}{PU}{\9047\346}%* U+27E6

19269 %* \textlbrackdbl -> \llbracket (stmaryrd)
19270 % U+27E7 MATHEMATICAL RIGHT WHITE SQUARE BRACKET
19271 \DeclareTextCommand{\textrbrackdbl}{PU}{\9047\347}%* U+27E7
19272 %* \textrbrackdbl -> \rrbracket (stmaryrd)

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

19273 % U+27F2 ANTICLOCKWISE GAPPED CIRCLE ARROW;
19274 % \circlearrowleft (AmS)
19275 \DeclareTextCommand{\textcirclearrowleft}{PU}{\9047\362}%* U+27F2
19276 % U+27F3 CLOCKWISE GAPPED CIRCLE ARROW; \circlearrowright (AmS)
19277 \DeclareTextCommand{\textcirclearrowright}{PU}{\9047\363}%* U+27F3
19278 % U+27F5 LONG LEFTWARDS ARROW; \longleftarrow (AmS)
19279 \DeclareTextCommand{\textlongleftarrow}{PU}{\9047\365}%* U+27F5
19280 % U+27F6 LONG RIGHTWARDS ARROW; \longrightarrow (AmS)
19281 \DeclareTextCommand{\textlongrightarrow}{PU}{\9047\366}%* U+27F6
19282 % U+27F7 LONG LEFT RIGHT ARROW; \longlefttrightarrow (AmS)
19283 \DeclareTextCommand{\textlonglefttrightarrow}{PU}{\9047\367}%* U+27F7
19284 % U+27F8 LONG LEFTWARDS DOUBLE ARROW; \Longleftarrow (AmS)
19285 \DeclareTextCommand{\textLongleftarrow}{PU}{\9047\370}%* U+27F8
19286 % U+27F9 LONG RIGHTWARDS DOUBLE ARROW; \Longrightarrow (AmS)
19287 \DeclareTextCommand{\textLongrightarrow}{PU}{\9047\371}%* U+27F9
19288 % U+27FA LONG LEFT RIGHT DOUBLE ARROW; \Longlefttrightarrow (AmS)
19289 \DeclareTextCommand{\textLonglefttrightarrow}{PU}{\9047\372}%* U+27FA
19290 % U+27FC LONG RIGHTWARDS ARROW FROM BAR; \longmapsto (AmS)
19291 \DeclareTextCommand{\textlongmapsto}{PU}{\9047\374}%* U+27FC
19292 % U+27FD LONG LEFTWARDS DOUBLE ARROW FROM BAR; \Longmaps-
from (stmaryrd)
19293 \DeclareTextCommand{\textLongmapsfrom}{PU}{\9047\375}%* U+27FD
19294 % U+27FE LONG RIGHTWARDS DOUBLE ARROW FROM BAR; \Longmap-
sto (stmaryrd)
19295 \DeclareTextCommand{\textLongmapsto}{PU}{\9047\376}%* U+27FE

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

19296 % U+2921 NORTH WEST AND SOUTH EAST ARROW; \nwsearrow (MnSym-
bol)
19297 \DeclareTextCommand{\textnwsearrow}{PU}{\9051\041}%* U+2921
19298 % U+2922 NORTH EAST AND SOUTH WEST ARROW; \neswarrow (MnSym-
bol)
19299 \DeclareTextCommand{\textneswarrow}{PU}{\9051\042}%* U+2922
19300 % U+2923 NORTH WEST ARROW WITH HOOK; \hooknwarrow (MnSymbol)
19301 \DeclareTextCommand{\textlhooknwarrow}{PU}{\9051\043}%* U+2923
19302 % U+2924 NORTH EAST ARROW WITH HOOK; \hooknearrow (MnSymbol)
19303 \DeclareTextCommand{\textrhooknearrow}{PU}{\9051\044}%* U+2924
19304 % U+2925 SOUTH EAST ARROW WITH HOOK; \hooksearrow (MnSymbol)
19305 \DeclareTextCommand{\textlhooksearrow}{PU}{\9051\045}%* U+2925
19306 % U+2926 SOUTH WEST ARROW WITH HOOK; \hookswarrow (MnSymbol)
19307 \DeclareTextCommand{\textrhookswarrow}{PU}{\9051\046}%* U+2926
19308 % U+2933 WAVE ARROW POINTING DIRECTLY RIGHT; \leadsto (wasysym)
19309 \DeclareTextCommand{\textleadsto}{PU}{\9051\063}%* U+2933
19310 % U+2934 ARROW POINTING RIGHTWARDS THEN CURVING UPWARDS;
19311 % \rcurvearrowne (MnSymbol)
19312 \DeclareTextCommand{\textrcurvearrowne}{PU}{\9051\064}%* U+2934
19313 % U+2935 ARROW POINTING RIGHTWARDS THEN CURVING DOWN-
WARDS;

19314 % \lcurvearrowse (MnSymbol)
19315 \DeclareTextCommand{\textlcurvearrowse}{PU}{\9051\065}%* U+2935
19316 % U+2936 ARROW POINTING DOWNWARDS THEN CURVING LEFT-
WARDS;
19317 % \lcurvearrowsw (MnSymbol)
19318 \DeclareTextCommand{\textlcurvearrowsw}{PU}{\9051\066}%* U+2936
19319 % U+2937 ARROW POINTING DOWNWARDS THEN CURVING RIGHT-
WARDS;
19320 % \rcurvearrowse (MnSymbol)
19321 \DeclareTextCommand{\textrcurvearrowse}{PU}{\9051\067}%* U+2937
19322 % U+2938 RIGHT-SIDE ARC CLOCKWISE ARROW; \lcurvearrowdown (Mn-
Symbol)
19323 \DeclareTextCommand{\textlcurvearrowdown}{PU}{\9051\070}%* U+2938
19324 %* \textlcurvearrowdown -> \RightTorque (marvosym)
19325 %* \textlcurvearrowdown -> \Righttorque (marvosym)
19326 % U+2939 LEFT-SIDE ARC ANTICLOCKWISE ARROW;
19327 % \rcurvearrowdown (MnSymbol)
19328 \DeclareTextCommand{\textrcurvearrowdown}{PU}{\9051\071}%* U+2939
19329 %* \textrcurvearrowdown -> \LeftTorque (marvosym)
19330 %* \textrcurvearrowdown -> \Lefttorque (marvosym)
19331 % U+293A TOP ARC ANTICLOCKWISE ARROW; \rcurvearrowleft (MnSym-
bol)
19332 \DeclareTextCommand{\textrcurvearrowleft}{PU}{\9051\072}%* U+293A
19333 % U+293B BOTTOM ARC ANTICLOCKWISE ARROW;
19334 % \rcurvearrowright (MnSymbol)
19335 \DeclareTextCommand{\textrcurvearrowright}{PU}{\9051\073}%* U+293B
19336 % U+294A LEFT BARB UP RIGHT BARB DOWN HARPOON; \leftrighthar-
poon (mathabx)
19337 \DeclareTextCommand{\textleftrightharpoon}{PU}{\9051\112}%* U+294A
19338 % U+294B LEFT BARB DOWN RIGHT BARB UP HARPOON; \rightlefthar-
poon (mathabx)
19339 \DeclareTextCommand{\textrightleftharpoon}{PU}{\9051\113}%* U+294B
19340 % U+294C UP BARB RIGHT DOWN BARB LEFT HARPOON;
19341 % \updownharpoonrightleft (MnSymbol)
19342 \DeclareTextCommand{\textupdownharpoonrightleft}{PU}{\9051\114}%* U+294C
19343 % U+294D UP BARB LEFT DOWN BARB RIGHT HARPOON;
19344 % \updownharpoonleftright (MnSymbol)
19345 \DeclareTextCommand{\textupdownharpoonleftright}{PU}{\9051\115}%* U+294D
19346 % U+2962 LEFTWARDS HARPOON WITH BARB UP ABOVE LEFTWARDS
19347 % HARPOON WITH BARB DOWN; \leftleftharpoons (mathabx)
19348 \DeclareTextCommand{\textleftleftharpoons}{PU}{\9051\142}%* U+2962
19349 % U+2963 UPWARDS HARPOON WITH BARB LEFT BESIDE UPWARDS
19350 % HARPOON WITH BARB RIGHT; \upupharpoons (mathabx)
19351 \DeclareTextCommand{\textupupharpoons}{PU}{\9051\143}%* U+2963
19352 % U+2964 RIGHTWARDS HARPOON WITH BARB UP ABOVE RIGHT-
WARDS HARPOON
19353 % WITH BARB DOWN; \rightrightarpoons (mathabx)
19354 \DeclareTextCommand{\textrightarpoons}{PU}{\9051\144}%* U+2964
19355 % U+2965 DOWNWARDS HARPOON WITH BARB LEFT BESIDE DOWN-
WARDS HARPOON
19356 % WITH BARB RIGHT; \downdownharpoons (mathabx)
19357 \DeclareTextCommand{\textdowndownharpoons}{PU}{\9051\145}%* U+2965
19358 % U+2966 LEFTWARDS HARPOON WITH BARB UP ABOVE LONG DASH;
19359 % \leftbarharpoon (mathabx)

19360 `\DeclareTextCommand{\textleftbarharpoon}{PU}{\9051\152}%* U+296A`
 19361 % U+296B LEFTWARDS HARPOON WITH BARB DOWN BELOW
 19362 % LONG DASH; `\barleftharpoon` (mathabx)
 19363 `\DeclareTextCommand{\textbarleftharpoon}{PU}{\9051\153}%* U+296B`
 19364 % U+296C RIGHTWARDS HARPOON WITH BARB UP ABOVE
 19365 % LONG DASH; `\rightbarharpoon` (mathabx)
 19366 `\DeclareTextCommand{\textrightbarharpoon}{PU}{\9051\154}%* U+296C`
 19367 % U+296D RIGHTWARDS HARPOON WITH BARB DOWN BELOW
 19368 % LONG DASH; `\barrightharpoon` (mathabx)
 19369 `\DeclareTextCommand{\textbarrightharpoon}{PU}{\9051\155}%* U+296D`
 19370 % U+296E UPWARDS HARPOON WITH BARB LEFT BESIDE DOWN-
 WARDS HARPOON
 19371 % WITH BARB RIGHT; `\updownharpoons` (mathabx)
 19372 `\DeclareTextCommand{\textupdownharpoons}{PU}{\9051\156}%* U+296E`
 19373 % U+296F DOWNWARDS HARPOON WITH BARB LEFT BESIDE UP-
 WARDS HARPOON
 19374 % WITH BARB RIGHT; `\downupharpoons` (mathabx)
 19375 `\DeclareTextCommand{\textdownupharpoons}{PU}{\9051\157}%* U+296F`
 19376 % U+297F DOWN FISH TAIL
 19377 `\DeclareTextCommand{\textmoo}{PU}{\9051\177\83\066}%* U+297F U+0336`

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

19378 % U+2987 Z NOTATION LEFT IMAGE BRACKET; `\lparenthesis` (stmaryrd)
 19379 `\DeclareTextCommand{\textllparenthesis}{PU}{\9051\207}%* U+2987`
 19380 % U+2988 Z NOTATION RIGHT IMAGE BRACKET; `\rrparenthesis` (stmaryrd)
 19381 `\DeclareTextCommand{\textrrparenthesis}{PU}{\9051\210}%* U+2988`
 19382 % U+29B0 REVERSED EMPTY SET; `\invdiameter` (wasysym)
 19383 `\DeclareTextCommand{\textinvdiameter}{PU}{\9051\260}%* U+29B0`
 19384 % U+29B6 CIRCLED VERTICAL BAR; `\obar` (stmaryrd)
 19385 `\DeclareTextCommand{\textobar}{PU}{\9051\266}%* U+29B6`
 19386 %* `\textobar -> \textvarobar` (stmaryrd)
 19387 % U+29B8 CIRCLED REVERSE SOLIDUS; `\obslash` (stmaryrd)
 19388 `\DeclareTextCommand{\textobslash}{PU}{\9051\270}%* U+29B8`
 19389 %* `\textobslash -> \circledbslash` (txfonts/pxfonts)
 19390 %* `\textobslash -> \obackslash` (mathabx)
 19391 %* `\textobslash -> \varobslash` (stmaryrd)
 19392 % U+29BA CIRCLE DIVIDED BY HORIZONTAL BAR AND TOP HALF
 DIVIDED BY VERTICAL BAR; `\obot` (mathabx)
 19394 `\DeclareTextCommand{\textobot}{PU}{\9051\272}%* U+29BA`
 19395 %* `\textobot -> \odplus` (ulsy)
 19396 % U+29BB CIRCLE WITH SUPERIMPOSED X; `\NoChemicalCleaning` (mar-
 vosym)
 19397 `\DeclareTextCommand{\textNoChemicalCleaning}{PU}{\9051\273}%* U+29BB`
 19398 % U+29C0 CIRCLED LESS-THAN; `\olessthan` (stmaryrd)
 19399 `\DeclareTextCommand{\textolessthan}{PU}{\9051\300}%* U+29C0`
 19400 %* `\textolessthan -> \varolessthan` (stmaryrd)
 19401 % U+29C1 CIRCLED GREATER-THAN; `\ogreaterthan` (stmaryrd)
 19402 `\DeclareTextCommand{\textogreaterthan}{PU}{\9051\301}%* U+29C1`
 19403 %* `\textogreaterthan -> \varogreaterthan` (stmaryrd)
 19404 % U+29C4 SQUARED RISING DIAGONAL SLASH; `\boxslash` (mathabx, stmaryrd)
 19405 `\DeclareTextCommand{\textboxslash}{PU}{\9051\304}%* U+29C4`
 19406 % U+29C5 SQUARED FALLING DIAGONAL SLASH; `\boxbslash` (stmaryrd)
 19407 `\DeclareTextCommand{\textboxbslash}{PU}{\9051\305}%* U+29C5`
 19408 % U+29C6 SQUARED ASTERISK; `\boxast` (stmaryrd)

19409 \DeclareTextCommand{\textboxast}{PU}{\9051\306}%* U+29C6
19410 % U+29C7 SQUARED SMALL CIRCLE; \boxcircle (stmaryrd)
19411 \DeclareTextCommand{\textboxcircle}{PU}{\9051\307}%* U+29C7
19412 % U+29C8 SQUARED SQUARE; \boxbox (stmaryrd)
19413 \DeclareTextCommand{\textboxbox}{PU}{\9051\310}%* U+29C8
19414 % U+29D3 BLACK BOWTIE; \Valve (marvosym)
19415 \DeclareTextCommand{\textValve}{PU}{\9051\323}%* U+29D3
19416 % U+29DF DOUBLE-ENDED MULTIMAP; \multimapboth (txfonts/pxfonts)
19417 \DeclareTextCommand{\textmultimapboth}{PU}{\9051\337}%* U+29DF
19418 % U+29E2 SHUFFLE PRODUCT; \shuffle (shuffle)
19419 \DeclareTextCommand{\textshuffle}{PU}{\9051\342}%* U+29E2

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

19420 % U+2A04 N-ARY UNION OPERATOR WITH PLUS; \uplus (LaTeX)
19421 \DeclareTextCommand{\textuplus}{PU}{\9052\004}%* U+2A04
19422 % U+2A07 TWO LOGICAL AND OPERATOR; \bigdoublewedge (MnSymbol)
19423 \DeclareTextCommand{\textbigdoublewedge}{PU}{\9052\007}%* U+2A07
19424 % U+2A08 TWO LOGICAL OR OPERATOR; \bigdoublevee (MnSymbol)
19425 \DeclareTextCommand{\textbigdoublevee}{PU}{\9052\010}%* U+2A08
19426 % U+2A1D JOIN; \Join (latexsym, amsfonts, amssymb, mathabx, txfonts,
19427 % pxfonts, wasysym)
19428 \DeclareTextCommand{\textJoin}{PU}{\9052\035}%* U+2A1D
19429 % U+2A1F Z NOTATION SCHEMA COMPOSITION; \fatsemi (stmaryrd)
19430 \DeclareTextCommand{\textfatsemi}{PU}{\9052\037}%* U+2A1F
19431 % U+2A22 PLUS SIGN WITH SMALL CIRCLE ABOVE; \circplus (mathabx)
19432 \DeclareTextCommand{\textcircplus}{PU}{\9052\042}%* U+2A22
19433 % U+2A2A MINUS SIGN WITH DOT BELOW; \minusdot (MnSymbol)
19434 \DeclareTextCommand{\textminusdot}{PU}{\9052\052}%* U+2A2A
19435 %* \textminusdot -> \divdot (mathabx)
19436 % U+2A30 MULTIPLICATION SIGN WITH DOT ABOVE; \dottimes (mathabx)
19437 \DeclareTextCommand{\textdottimes}{PU}{\9052\060}%* U+2A30
19438 % U+2A32 SEMIDIRECT PRODUCT WITH BOTTOM CLOSED;
19439 % \dtimes (mathdesign)
19440 \DeclareTextCommand{\textdtimes}{PU}{\9052\062}%* U+2A32
19441 % U+2A38 CIRCLED DIVISION SIGN; \odiv (mathabx)
19442 \DeclareTextCommand{\textodiv}{PU}{\9052\070}%* U+2A38
19443 % U+2A3C INTERIOR PRODUCT; \invneg (MnSymbol)
19444 \DeclareTextCommand{\textinvneg}{PU}{\9052\074}%* U+2A3C
19445 % U+2A4E DOUBLE SQUARE INTERSECTION; \sqdoublecap (mathabx)
19446 \DeclareTextCommand{\textsqdoublecap}{PU}{\9052\116}%* U+2A4E
19447 %* \textsqdoublecap -> \doublesqcap (MnSymbol)
19448 % U+2A40 INTERSECTION WITH DOT; \capdot (MnSymbol)
19449 \DeclareTextCommand{\textcapdot}{PU}{\9052\100}%* U+2A40
19450 % U+2A4F DOUBLE SQUARE UNION; \sqdoublecup (mathabx)
19451 \DeclareTextCommand{\textsqdoublecup}{PU}{\9052\117}%* U+2A4F
19452 %* \textsqdoublecup -> \doublesqcup (MnSymbol)
19453 % U+2A55 TWO INTERSECTING LOGICAL AND; \doublewedge (MnSymbol)
19454 \DeclareTextCommand{\textdoublewedge}{PU}{\9052\125}%* U+2A55
19455 % U+2A56 TWO INTERSECTING LOGICAL OR; \doublevee (MnSymbol)
19456 \DeclareTextCommand{\textdoublevee}{PU}{\9052\126}%* U+2A56
19457 %* \textdoublevee -> \merge (stmaryrd)
19458 % U+2A5E LOGICAL AND WITH DOUBLE OVERBAR;
19459 % \doublebarwedge (AmS)
19460 \DeclareTextCommand{\textdoublebarwedge}{PU}{\9052\136}%* U+2A5E

19461 % U+2A63 LOGICAL OR WITH DOUBLE UNDERBAR;
19462 % \veedoublebar (mahtabx)
19463 \DeclareTextCommand{\textveedoublebar}{PU}{\9052\143}%* U+2A63
19464 % U+2A66 EQUALS SIGN WITH DOT BELOW; \eqdot (MnSymbol)
19465 \DeclareTextCommand{\texteqdot}{PU}{\9052\146}%* U+2A66
19466 % \neqdot (MnSymbol)
19467 \DeclareTextCommand{\textneqdot}{PU}{\9052\146\83\070}%* U+2A66 U+0338
19468 % U+2A74 DOUBLE COLON EQUAL; \coloncolonequals (colonequals)
19469 \DeclareTextCommand{\textcoloncolonequals}{PU}{\9052\164}%* U+2A74
19470 % U+2A7D LESS-THAN OR SLANTED EQUAL TO; \leqslant (AmS)
19471 \DeclareTextCommand{\textleqslant}{PU}{\9052\175}%* U+2A7D
19472 % \nleqslant (txfonts/pxfonts)
19473 \DeclareTextCommand{\textnleqslant}{PU}{\9052\175\83\070}%* U+2A7D U+0338
19474 % U+2A7E GREATER-THAN OR SLANTED EQUAL TO; \geqslant (AmS)
19475 \DeclareTextCommand{\textgeqslant}{PU}{\9052\176}%* U+2A7E
19476 % \ngeqslant (txfonts/pxfonts)
19477 \DeclareTextCommand{\textngeqslant}{PU}{\9052\176\83\070}%* U+2A7E U+0338
19478 % U+2A85 LESS-THAN OR APPROXIMATE; \lessapprox (AmS)
19479 \DeclareTextCommand{\textlessapprox}{PU}{\9052\205}%* U+2A85
19480 % \nlessapprox (txfonts/pxfonts)
19481 \DeclareTextCommand{\textnlessapprox}{PU}{\9052\205\83\070}%* U+2A85 U+0338
19482 % U+2A86 GREATER-THAN OR APPROXIMATE; \gtrapprox (AmS)
19483 \DeclareTextCommand{\textgtrapprox}{PU}{\9052\206}%* U+2A86
19484 % \ngtrapprox (txfonts/pxfonts)
19485 \DeclareTextCommand{\textngtrapprox}{PU}{\9052\206\83\070}%* U+2A86 U+0338
19486 % U+2A87 LESS-THAN AND SINGLE-LINE NOT EQUAL TO; \lneq (AmS)
19487 \DeclareTextCommand{\textlneq}{PU}{\9052\207}%* U+2A87
19488 % U+2A88 GREATER-THAN AND SINGLE-LINE NOT EQUAL TO;
19489 % \gneq (AmS)
19490 \DeclareTextCommand{\textgneq}{PU}{\9052\210}%* U+2A88
19491 % U+2A89 LESS-THAN AND NOT APPROXIMATE; \lnapprox (AmS)
19492 \DeclareTextCommand{\textlnapprox}{PU}{\9052\211}%* U+2A89
19493 % U+2A8A GREATER-THAN AND NOT APPROXIMATE; \gnapprox (AmS)
19494 \DeclareTextCommand{\textgnapprox}{PU}{\9052\212}%* U+2A8A
19495 % U+2A8B LESS-THAN ABOVE DOUBLE-LINE EQUAL ABOVE GREATER-
THAN;
19496 % \lesseqgtr (AmS)
19497 \DeclareTextCommand{\textlesseqgtr}{PU}{\9052\213}%* U+2A8B
19498 % U+2A8C GREATER-THAN ABOVE DOUBLE-LINE EQUAL ABOVE LESS-
THAN;
19499 % \gtreqless (AmS)
19500 \DeclareTextCommand{\textgtreqless}{PU}{\9052\214}%* U+2A8C
19501 % U+2A95 SLANTED EQUAL TO OR LESS-THAN; \eqslantless (AmS)
19502 \DeclareTextCommand{\texteqslantless}{PU}{\9052\225}%* U+2A95
19503 % U+2A96 SLANTED EQUAL TO OR GREATER-THAN; \eqslantgtr (AmS)
19504 \DeclareTextCommand{\texteqslantgtr}{PU}{\9052\226}%* U+2A96
19505 % U+2AA6 LESS-THAN CLOSED BY CURVE; \leftslice (stmaryrd)
19506 \DeclareTextCommand{\textleftslice}{PU}{\9052\246}%* U+2AA6
19507 % U+2AA7 GREATER-THAN CLOSED BY CURVE; \rightslice (stmaryrd)
19508 \DeclareTextCommand{\textrightslice}{PU}{\9052\247}%* U+2AA7
19509 % U+2AAF PRECEDES ABOVE SINGLE-LINE EQUALS SIGN; \preceq (Mn-
Symbol)
19510 \DeclareTextCommand{\textpreceq}{PU}{\9052\257}%* U+2AAF
19511 % \npreceq (txfonts/pxfonts)

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19512 \DeclareTextCommand{\textnpreceq}{PU}{\9052\257\83\070}%* U+2AAF U+0338
19513 % U+2AB0 SUCCEEDS ABOVE SINGLE-LINE EQUALS SIGN; \succeq (Mn-
Symbol)
19514 \DeclareTextCommand{\textsucceq}{PU}{\9052\260}%* U+2AB0
19515 % \nsucceq (txfonts/pxfonts)
19516 \DeclareTextCommand{\textnsucceq}{PU}{\9052\260\83\070}%* U+2AB0 U+0338
19517 % U+2AB1 PRECEDES ABOVE SINGLE-LINE NOT EQUAL TO; \preceq
neq (mathabx)
19518 \DeclareTextCommand{\textpreceq}{PU}{\9052\261}%* U+2AB1
19519 % U+2AB2 SUCCEEDS ABOVE SINGLE-LINE NOT EQUAL TO; \succ
neq (mathabx)
19520 \DeclareTextCommand{\textsucceq}{PU}{\9052\262}%* U+2AB2
19521 % U+2AB3 PRECEDES ABOVE EQUALS SIGN; \preceqq (txfonts/pxfonts)
19522 \DeclareTextCommand{\textpreceqq}{PU}{\9052\263}%* U+2AB3
19523 % \npreceqq (txfonts/pxfonts)
19524 \DeclareTextCommand{\textnpreceqq}{PU}{\9052\263\83\070}%* U+2AB3 U+0338
19525 % U+2AB4 SUCCEEDS ABOVE EQUALS SIGN; \succeqq (txfonts/pxfonts)
19526 \DeclareTextCommand{\textsucceqq}{PU}{\9052\264}%* U+2AB4
19527 % \nsucceqq (txfonts/pxfonts)
19528 \DeclareTextCommand{\textnsucceqq}{PU}{\9052\264\83\070}%* U+2AB4 U+0338
19529 % U+2AB5 PRECEDES ABOVE NOT EQUAL TO; \preceqq (txfonts/pxfonts)
19530 \DeclareTextCommand{\textpreceqq}{PU}{\9052\265}%* U+2AB5
19531 % U+2AB6 SUCCEEDS ABOVE NOT EQUAL TO; \succneqq (txfonts/pxfonts)
19532 \DeclareTextCommand{\textsucceqq}{PU}{\9052\266}%* U+2AB6
19533 % U+2AB7 PRECEDES ABOVE ALMOST EQUAL TO; \preccapprox (AmS)
19534 \DeclareTextCommand{\textpreccapprox}{PU}{\9052\267}%* U+2AB7
19535 % \npreccapprox (txfonts/pxfonts)
19536 \DeclareTextCommand{\textnpreccapprox}{PU}{\9052\267\83\070}%* U+2AB7 U+0338
19537 % U+2AB8 SUCCEEDS ABOVE ALMOST EQUAL TO; \succapprox (AmS)
19538 \DeclareTextCommand{\textsuccapprox}{PU}{\9052\270}%* U+2AB8
19539 % \nsuccapprox (txfonts/pxfonts)
19540 \DeclareTextCommand{\textnsuccapprox}{PU}{\9052\270\83\070}%* U+2AB8 U+0338
19541 % U+2AB9 PRECEDES ABOVE NOT ALMOST EQUAL TO; \precnap
prox (AmS)
19542 \DeclareTextCommand{\textprecnapprox}{PU}{\9052\271}%* U+2AB9
19543 % U+2ABA SUCCEEDS ABOVE NOT ALMOST EQUAL TO; \succnap
prox (AmS)
19544 \DeclareTextCommand{\textsuccnapprox}{PU}{\9052\272}%* U+2ABA
19545 % U+2AC5 SUBSET OF ABOVE EQUALS SIGN; \subseteqq (AmS)
19546 \DeclareTextCommand{\textsubseteqq}{PU}{\9052\305}%* U+2AC5
19547 % \nsubseteqq (txfonts/pxfonts, mathabx)
19548 \DeclareTextCommand{\textnsubseteqq}{PU}{\9052\305\83\070}%* U+2AC5 U+0338
19549 % U+2AC6 SUPERSET OF ABOVE EQUALS SIGN; \supseteqq (AmS)
19550 \DeclareTextCommand{\textsupseteqq}{PU}{\9052\306}%* U+2AC6
19551 % \nsupseteqq (mathabx)
19552 \DeclareTextCommand{\textnsupseteqq}{PU}{\9052\306\83\070}%* U+2AC6 U+0338
19553 % U+2AE3 DOUBLE VERTICAL BAR LEFT TURNSTILE
19554 \DeclareTextCommand{\textdashV}{PU}{\9052\343}%* U+2AE3
19555 %* \textdashV -> \leftVdash (MnSymbol)
19556 % \ndashV (mathabx)
19557 \DeclareTextCommand{\textndashV}{PU}{\9052\343\83\070}%* U+2AE3 U+0338
19558 %* \textndashV -> \nleftVdash (MnSymbol)
19559 % U+2AE4 VERTICAL BAR DOUBLE LEFT TURNSTILE; \Dashv (mathabx)
19560 \DeclareTextCommand{\textDashv}{PU}{\9052\344}%* U+2AE4

```

19561 %* \textDashv -> \leftmodels (MnSymbol)
 19562 % \nDashv (mathabx)
 19563 \DeclareTextCommand{\textnDashv}{PU}{\9052\344\83\070}%* U+2AE4 U+0338
 19564 %* \textnDashv -> \leftmodels (MnSymbol)
 19565 % U+2AE5 DOUBLE VERTICAL BAR DOUBLE LEFT TURNSTILE;
 19566 % \DashV (mathabx)
 19567 \DeclareTextCommand{\textDashV}{PU}{\9052\345}%* U+2AE5
 19568 %* \textDashV -> \leftModels (MnSymbol)
 19569 % \nDashV (mathabx)
 19570 \DeclareTextCommand{\textnDashV}{PU}{\9052\345\83\070}%* U+2AE5 U+0338
 19571 %* \textnDashV -> \leftModels (MnSymbol)
 19572 % U+2AEA DOUBLE DOWN TACK; \downmodels (MnSymbol)
 19573 \DeclareTextCommand{\textdownmodels}{PU}{\9052\352}%* U+2AEA
 19574 % \ndownmodels (MnSymbol)
 19575 \DeclareTextCommand{\textndownmodels}{PU}{\9052\352\83\070}%* U+2AEA U+0338
 19576 % U+2AEB DOUBLE UP TACK; \upmodels (MnSymbol)
 19577 \DeclareTextCommand{\textupmodels}{PU}{\9052\353}%* U+2AEB
 19578 % \nupmodels (MnSymbol)
 19579 \DeclareTextCommand{\textnupmodels}{PU}{\9052\353\83\070}%* U+2AEB U+0338
 19580 % U+2AEF VERTICAL LINE WITH CIRCLE ABOVE; \upspoon (MnSymbol)
 19581 \DeclareTextCommand{\textupspoon}{PU}{\9052\357}%* U+2AEF
 19582 % U+2AF4 TRIPLE VERTICAL BAR BINARY RELATION;
 19583 % \interleave (stmaryrd)
 19584 \DeclareTextCommand{\textinterleave}{PU}{\9052\364}%* U+2AF4
 19585 % U+2AFD DOUBLE SOLIDUS OPERATOR; \sslash (stmaryrd)
 19586 \DeclareTextCommand{\textsslash}{PU}{\9052\375}%* U+2AFD
 19587 %* \textsslash -> \varparallel (txfonts\pxfonts)

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

19588 % U+2B20 WHITE PENTAGON; \pentagon (wasysym)
 19589 \DeclareTextCommand{\textpentagon}{PU}{\9053\040}%* U+2B20
 19590 % U+2B21 WHITE HEXAGON; \varhexagon (wasysym)
 19591 \DeclareTextCommand{\textvarhexagon}{PU}{\9053\041}%* U+2B21

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

19592 % U+2C7C LATIN SUBSCRIPT SMALL LETTER J
 19593 \DeclareTextCommand{\textjinferior}{PU}{\9054\174}%* U+2C7C

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

19594 % U+2E13 DOTTED OBELOS; \slashdiv (MnSymbol)
 19595 \DeclareTextCommand{\textslashdiv}{PU}{\9056\023}%* U+2E13
 19596 % U+2E18 INVERTED INTERROBANG; \textinterrobangdown (textcomp)
 19597 \DeclareTextCommand{\textinterrobangdown}{PU}{\9056\030}% U+2E18
 19598 % U+2E2D FIVE DOT MARK; \fivedots (MnSymbol)
 19599 \DeclareTextCommand{\textfivedots}{PU}{\9056\055}%* U+2E2D

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

19600 % U+A71B MODIFIER LETTER RAISED UP ARROW; \textupstep (tipa)
 19601 \DeclareTextCommand{\textupstep}{PU}{\9247\033}% U+A71B
 19602 % U+A71C MODIFIER LETTER RAISED DOWN ARROW;
 19603 % \textdownstep (tipa)
 19604 \DeclareTextCommand{\textdownstep}{PU}{\9247\034}% U+A71C

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

19605 % U+A727 LATIN SMALL LETTER HENG; \textheng (tipx)
 19606 \DeclareTextCommand{\textPUheng}{PU}{\9247\047}% U+A727
 19607 %* \textPUheng -> \textheng (tipx)
 19608 % U+A72C LATIN CAPITAL LETTER CUATRILLO; \textlhookfour (tipx)
 19609 \DeclareTextCommand{\textPUIhookfour}{PU}{\9247\054}% U+A72C
 19610 %* \textPUIhookfour -> \textlhookfour (tipx)
 19611 % U+A730 LATIN LETTER SMALL CAPITAL F; \textscf (tipx)
 19612 \DeclareTextCommand{\textPUScf}{PU}{\9247\060}% U+A730
 19613 %* \textPUScf -> \textscf (tipx)
 19614 % U+A735 LATIN SMALL LETTER AO; \textao lig (tipx)
 19615 \DeclareTextCommand{\textPUaolig}{PU}{\9247\065}% U+A735
 19616 %* \textPUaolig -> \textao lig (tipx)
 19617 % U+A74F LATIN SMALL LETTER OO; \oo (wsuipa)
 19618 \DeclareTextCommand{\textoo}{PU}{\9247\117}%* U+A74F
 19619 % U+A788 MODIFIER LETTER LOW CIRCUMFLEX ACCENT
 19620 \DeclareTextCommand{\textcircumlw}{PU}{\9247\210}% U+A788

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

19621 % U+FB01 LATIN SMALL LIGATURE FI; fi
 19622 \DeclareTextCommand{\textfi}{PU}{\9373\001}% U+FB01
 19623 % U+FB02 LATIN SMALL LIGATURE FL; fl
 19624 \DeclareTextCommand{\textfl}{PU}{\9373\002}% U+FB02

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

19625 % U+1D13B MUSICAL SYMBOL WHOLE REST; \GaPa (harmony)
 19626 \DeclareTextCommand{\textGaPa}{PU}{\9330\064\9335\073}%* U+1D13B
 19627 % U+1D13C MUSICAL SYMBOL HALF REST; \HaPa (harmony)
 19628 \DeclareTextCommand{\textHaPa}{PU}{\9330\064\9335\074}%* U+1D13C
 19629 % U+1D13D MUSICAL SYMBOL QUARTER REST; \ViPa (harmony)
 19630 \DeclareTextCommand{\textViPa}{PU}{\9330\064\9335\075}%* U+1D13D
 19631 % U+1D13E MUSICAL SYMBOL EIGHTH REST; \AcPa (harmony)
 19632 \DeclareTextCommand{\textAcPa}{PU}{\9330\064\9335\076}%* U+1D13E
 19633 % U+1D13F MUSICAL SYMBOL SIXTEENTH REST; \SePa (harmony)
 19634 \DeclareTextCommand{\textSePa}{PU}{\9330\064\9335\077}%* U+1D13F
 19635 % U+1D140 MUSICAL SYMBOL THIRTY-SECOND REST; \ZwPa (harmony)
 19636 \DeclareTextCommand{\textZwPa}{PU}{\9330\064\9335\100}%* U+1D140
 19637 % U+1D15D MUSICAL SYMBOL WHOLE NOTE; \fullnote (wasysym)
 19638 \DeclareTextCommand{\textfullnote}{PU}{\9330\064\9335\135}%* U+1D15D
 19639 %* \textfullnote -> \Ganz (harmony)
 19640 % U+1D15E MUSICAL SYMBOL HALF NOTE; \halfnote (wasysym)
 19641 \DeclareTextCommand{\texthalfnote}{PU}{\9330\064\9335\136}%* U+1D15E
 19642 %* \texthalfnote -> \Halb (harmony)
 19643 % U+1D15F MUSICAL SYMBOL QUARTER NOTE; \Vier (harmony)
 19644 \DeclareTextCommand{\textVier}{PU}{\9330\064\9335\137}%* U+1D15F
 19645 % U+1D160 MUSICAL SYMBOL EIGHTH NOTE; \Acht (harmony)
 19646 \DeclareTextCommand{\textAcht}{PU}{\9330\064\9335\140}%* U+1D160
 19647 % U+1D161 MUSICAL SYMBOL SIXTEENTH NOTE; \Sech (harmony)
 19648 \DeclareTextCommand{\textSech}{PU}{\9330\064\9335\141}%* U+1D161
 19649 % U+1D162 MUSICAL SYMBOL THIRTY-SECOND NOTE; \Zwdr (harmony)
 19650 \DeclareTextCommand{\textZwdr}{PU}{\9330\064\9335\142}%* U+1D162

46.2.43 Miscellaneous Symbols and Pictographs: U+1F300 to U+1F5FF

19651 % U+1F30D EARTH GLOBE EUROPE-AFRICA; \Mundus (marvosym)
 19652 \DeclareTextCommand{\textMundus}{PU}{\9330\074\9337\015}%* U+1F30D

19653 % U+1F319 CRESCENT MOON; \Moon (marvosym)
19654 \DeclareTextCommand{\textMoon}{PU}{\9330\074\9337\031}%* U+1F319
19655 % U+1F468 MAN; \ManFace (marvosym)
19656 \DeclareTextCommand{\textManFace}{PU}{\9330\075\9334\150}%* U+1F468
19657 % U+1F469 WOMAN; \WomanFace (marvosym)
19658 \DeclareTextCommand{\textWomanFace}{PU}{\9330\075\9334\151}%* U+1F469
19659 %* \textWomanFace -> \Womanface (marvosym)
19660 % U+1F4E0 FAX MACHINE; \Fax (marvosym)
19661 \DeclareTextCommand{\textFax}{PU}{\9330\075\9334\340}%* U+1F4E0
19662 %* \textFax -> \Faxmachine (marvosym)
19663 % U+1F525 FIRE; \Fire (ifsym)
19664 \DeclareTextCommand{\textFire}{PU}{\9330\075\9335\045}%* U+1F525

46.2.44 Transport and Map Symbols: U+1F680 to U+1F6FF

19665 % U+1F6B2 BICYCLE; \Bicycle (marvosym)
19666 \DeclareTextCommand{\textBicycle}{PU}{\9330\075\9336\262}%* U+1F6B2
19667 % U+1F6B9 MENS SYMBOL; \Gentsroom (marvosym)
19668 \DeclareTextCommand{\textGentsroom}{PU}{\9330\075\9336\271}%* U+1F6B9
19669 % U+1F6BA WOMENS SYMBOL; \Ladiesroom (marvosym)
19670 \DeclareTextCommand{\textLadiesroom}{PU}{\9330\075\9336\272}%* U+1F6BA

46.2.45 Miscellaneous

19671 \DeclareTextCommand{\SS}{PU}{SS}%
19672 % \textcopyleft (textcomp)
19673 \DeclareTextCommand{\textcopyleft}{PU}{\9041\204\9040\335}% U+2184 U+20DD
19674 % \ccnc (ccllicenses)
19675 \DeclareTextCommand{\textccnc}{PU}{\80\044\9040\340}%* U+0024 U+20E0
19676 % \ccnd (ccllicenses)
19677 \DeclareTextCommand{\textccnd}{PU}{=\9040\335}%* U+003D U+20DD
19678 % \ccsa (ccllicenses)
19679 \DeclareTextCommand{\textccsa}{PU}{\9047\362\9040\335}%* U+27F2 U+20DD
19680 % \Info (marvosym, china2e)
19681 \DeclareTextCommand{\textInfo}{PU}{\9330\065\9334\042\9040\336}%* U+1D422 U+20DE
19682 % \CESign (marvosym)
19683 \DeclareTextCommand{\textCESign}{PU}{\80\103\80\105}%* U+0043 U+0045
19684 %* \textCESign -> \CESign (marvosym)

46.2.46 Aliases

Aliases (german.sty)

19685 \DeclareTextCommand{\textglqq}{PU}{\quotedblbase}%
19686 \DeclareTextCommand{\textgrqq}{PU}{\textquotedblleft}%
19687 \DeclareTextCommand{\textglq}{PU}{\quotesinglbase}%
19688 \DeclareTextCommand{\textgrq}{PU}{\textquoteleft}%
19689 \DeclareTextCommand{\textflqq}{PU}{\guillemetleft}%
19690 \DeclareTextCommand{\textfrqq}{PU}{\guillemetright}%
19691 \DeclareTextCommand{\textflq}{PU}{\guilsinglleft}%
19692 \DeclareTextCommand{\textfrq}{PU}{\guilsinglright}%

Aliases (math names)

19693 \DeclareTextCommand{\textneg}{PU}{\textlogicalnot}%*
19694 \DeclareTextCommand{\texttimes}{PU}{\textmultiply}%*
19695 \DeclareTextCommand{\textdiv}{PU}{\textdivide}%*
19696 \DeclareTextCommand{\textpm}{PU}{\textplusminus}%*
19697 \DeclareTextCommand{\textcdot}{PU}{\textperiodcentered}%*

19698 `/puenc`

46.3 PU encoding, additions for VnTeX

This file is provided by Han The Thanh.

19699 `*pvnenc`

```
19700 \DeclareTextCommand{\abreve}{PU}{\81\003}% U+0103
19701 \DeclareTextCommand{\acircumflex}{PU}{\80\342}% U+00E2
19702 \DeclareTextCommand{\ecircumflex}{PU}{\80\352}% U+00EA
19703 \DeclareTextCommand{\ocircumflex}{PU}{\80\364}% U+00F4
19704 \DeclareTextCommand{\ohorn}{PU}{\81\241}% U+01A1
19705 \DeclareTextCommand{\uhorn}{PU}{\81\260}% U+01B0
19706 \DeclareTextCommand{\ABREVE}{PU}{\81\002}% U+0102
19707 \DeclareTextCommand{\ACIRCUMFLEX}{PU}{\80\302}% U+00C2
19708 \DeclareTextCommand{\ECIRCUMFLEX}{PU}{\80\312}% U+00CA
19709 \DeclareTextCommand{\OCIRCUMFLEX}{PU}{\80\324}% U+00D4
19710 \DeclareTextCommand{\OHORN}{PU}{\81\240}% U+01A0
19711 \DeclareTextCommand{\UHORN}{PU}{\81\257}% U+01AF

19712 \DeclareTextCompositeCommand{\'}{PU}{a}{\80\341}% U+00E1
19713 \DeclareTextCompositeCommand{\d}{PU}{a}{\9036\241}% U+1EA1
19714 \DeclareTextCompositeCommand{\`}{PU}{a}{\80\340}% U+00E0
19715 \DeclareTextCompositeCommand{\h}{PU}{a}{\9036\243}% U+1EA3
19716 \DeclareTextCompositeCommand{\~}{PU}{a}{\80\343}% U+00E3
19717 \DeclareTextCompositeCommand{\'}{PU}{\abreve}{\9036\257}% U+1EAF
19718 \DeclareTextCompositeCommand{\d}{PU}{\abreve}{\9036\267}% U+1EB7
19719 \DeclareTextCompositeCommand{\`}{PU}{\abreve}{\9036\261}% U+1EB1
19720 \DeclareTextCompositeCommand{\h}{PU}{\abreve}{\9036\263}% U+1EB3
19721 \DeclareTextCompositeCommand{\~}{PU}{\abreve}{\9036\265}% U+1EB5
19722 \DeclareTextCompositeCommand{\'}{PU}{\acircumflex}{\9036\245}% U+1EA5
19723 \DeclareTextCompositeCommand{\d}{PU}{\acircumflex}{\9036\255}% U+1EAD
19724 \DeclareTextCompositeCommand{\`}{PU}{\acircumflex}{\9036\247}% U+1EA7
19725 \DeclareTextCompositeCommand{\h}{PU}{\acircumflex}{\9036\251}% U+1EA9
19726 \DeclareTextCompositeCommand{\~}{PU}{\acircumflex}{\9036\253}% U+1EAB
19727 \DeclareTextCompositeCommand{\'}{PU}{e}{\80\351}% U+00E9
19728 \DeclareTextCompositeCommand{\d}{PU}{e}{\9036\271}% U+1EB9
19729 \DeclareTextCompositeCommand{\`}{PU}{e}{\80\350}% U+00E8
19730 \DeclareTextCompositeCommand{\h}{PU}{e}{\9036\273}% U+1EBB
19731 \DeclareTextCompositeCommand{\~}{PU}{e}{\9036\275}% U+1EBD
19732 \DeclareTextCompositeCommand{\'}{PU}{\ecircumflex}{\9036\277}% U+1EBF
19733 \DeclareTextCompositeCommand{\d}{PU}{\ecircumflex}{\9036\307}% U+1EC7
19734 \DeclareTextCompositeCommand{\`}{PU}{\ecircumflex}{\9036\301}% U+1EC1
19735 \DeclareTextCompositeCommand{\h}{PU}{\ecircumflex}{\9036\303}% U+1EC3
19736 \DeclareTextCompositeCommand{\~}{PU}{\ecircumflex}{\9036\305}% U+1EC5
19737 \DeclareTextCompositeCommand{\'}{PU}{i}{\80\355}% U+00ED
19738 \DeclareTextCompositeCommand{\d}{PU}{i}{\9036\313}% U+1ECB
19739 \DeclareTextCompositeCommand{\`}{PU}{i}{\80\354}% U+00EC
19740 \DeclareTextCompositeCommand{\h}{PU}{i}{\9036\311}% U+1EC9
19741 \DeclareTextCompositeCommand{\~}{PU}{i}{\81\051}% U+0129
19742 \DeclareTextCompositeCommand{\'}{PU}{o}{\80\363}% U+00F3
19743 \DeclareTextCompositeCommand{\d}{PU}{o}{\9036\315}% U+1ECD
19744 \DeclareTextCompositeCommand{\`}{PU}{o}{\80\362}% U+00F2
19745 \DeclareTextCompositeCommand{\h}{PU}{o}{\9036\317}% U+1ECF
19746 \DeclareTextCompositeCommand{\~}{PU}{o}{\80\365}% U+00F5
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19747 \DeclareTextCompositeCommand{\'}{PU}{\ocircumflex}{\9036\321}% U+1ED1
19748 \DeclareTextCompositeCommand{\d}{PU}{\ocircumflex}{\9036\331}% U+1ED9
19749 \DeclareTextCompositeCommand{\`}{PU}{\ocircumflex}{\9036\323}% U+1ED3
19750 \DeclareTextCompositeCommand{\h}{PU}{\ocircumflex}{\9036\325}% U+1ED5
19751 \DeclareTextCompositeCommand{\~}{PU}{\ocircumflex}{\9036\327}% U+1ED7
19752 \DeclareTextCompositeCommand{\'}{PU}{\ohorn}{\9036\333}% U+1EDB
19753 \DeclareTextCompositeCommand{\d}{PU}{\ohorn}{\9036\343}% U+1EE3
19754 \DeclareTextCompositeCommand{\`}{PU}{\ohorn}{\9036\335}% U+1EDD
19755 \DeclareTextCompositeCommand{\h}{PU}{\ohorn}{\9036\337}% U+1EDF
19756 \DeclareTextCompositeCommand{\~}{PU}{\ohorn}{\9036\341}% U+1EE1
19757 \DeclareTextCompositeCommand{\'}{PU}{u}{\80\372}% U+00FA
19758 \DeclareTextCompositeCommand{\d}{PU}{u}{\9036\345}% U+1EE5
19759 \DeclareTextCompositeCommand{\`}{PU}{u}{\80\371}% U+00F9
19760 \DeclareTextCompositeCommand{\h}{PU}{u}{\9036\347}% U+1EE7
19761 \DeclareTextCompositeCommand{\~}{PU}{u}{\81\151}% U+0169
19762 \DeclareTextCompositeCommand{\'}{PU}{\uhorn}{\9036\351}% U+1EE9
19763 \DeclareTextCompositeCommand{\d}{PU}{\uhorn}{\9036\361}% U+1EF1
19764 \DeclareTextCompositeCommand{\`}{PU}{\uhorn}{\9036\353}% U+1EEB
19765 \DeclareTextCompositeCommand{\h}{PU}{\uhorn}{\9036\355}% U+1EED
19766 \DeclareTextCompositeCommand{\~}{PU}{\uhorn}{\9036\357}% U+1EEF
19767 \DeclareTextCompositeCommand{\'}{PU}{y}{\80\375}% U+00FD
19768 \DeclareTextCompositeCommand{\d}{PU}{y}{\9036\365}% U+1EF5
19769 \DeclareTextCompositeCommand{\`}{PU}{y}{\9036\363}% U+1EF3
19770 \DeclareTextCompositeCommand{\h}{PU}{y}{\9036\367}% U+1EF7
19771 \DeclareTextCompositeCommand{\~}{PU}{y}{\9036\371}% U+1EF9
19772 \DeclareTextCompositeCommand{\'}{PU}{A}{\80\301}% U+00C1
19773 \DeclareTextCompositeCommand{\d}{PU}{A}{\9036\240}% U+1EA0
19774 \DeclareTextCompositeCommand{\`}{PU}{A}{\80\300}% U+00C0
19775 \DeclareTextCompositeCommand{\h}{PU}{A}{\9036\242}% U+1EA2
19776 \DeclareTextCompositeCommand{\~}{PU}{A}{\80\303}% U+00C3
19777 \DeclareTextCompositeCommand{\'}{PU}{\ABREVE}{\9036\256}% U+1EAE
19778 \DeclareTextCompositeCommand{\d}{PU}{\ABREVE}{\9036\266}% U+1EB6
19779 \DeclareTextCompositeCommand{\`}{PU}{\ABREVE}{\9036\260}% U+1EB0
19780 \DeclareTextCompositeCommand{\h}{PU}{\ABREVE}{\9036\262}% U+1EB2
19781 \DeclareTextCompositeCommand{\~}{PU}{\ABREVE}{\9036\264}% U+1EB4
19782 \DeclareTextCompositeCommand{\'}{PU}{\ACIRCUMFLEX}{\9036\244}% U+1EA4
19783 \DeclareTextCompositeCommand{\d}{PU}{\ACIRCUMFLEX}{\9036\254}% U+1EAC
19784 \DeclareTextCompositeCommand{\`}{PU}{\ACIRCUMFLEX}{\9036\246}% U+1EA6
19785 \DeclareTextCompositeCommand{\h}{PU}{\ACIRCUMFLEX}{\9036\250}% U+1EA8
19786 \DeclareTextCompositeCommand{\~}{PU}{\ACIRCUMFLEX}{\9036\252}% U+1EAA
19787 \DeclareTextCompositeCommand{\'}{PU}{E}{\80\311}% U+00C9
19788 \DeclareTextCompositeCommand{\d}{PU}{E}{\9036\270}% U+1EB8
19789 \DeclareTextCompositeCommand{\`}{PU}{E}{\80\310}% U+00C8
19790 \DeclareTextCompositeCommand{\h}{PU}{E}{\9036\272}% U+1EBA
19791 \DeclareTextCompositeCommand{\~}{PU}{E}{\9036\274}% U+1EBC
19792 \DeclareTextCompositeCommand{\'}{PU}{\ECIRCUMFLEX}{\9036\276}% U+1EBE
19793 \DeclareTextCompositeCommand{\d}{PU}{\ECIRCUMFLEX}{\9036\306}% U+1EC6
19794 \DeclareTextCompositeCommand{\`}{PU}{\ECIRCUMFLEX}{\9036\300}% U+1EC0
19795 \DeclareTextCompositeCommand{\h}{PU}{\ECIRCUMFLEX}{\9036\302}% U+1EC2
19796 \DeclareTextCompositeCommand{\~}{PU}{\ECIRCUMFLEX}{\9036\304}% U+1EC4
19797 \DeclareTextCompositeCommand{\'}{PU}{I}{\80\315}% U+00CD
19798 \DeclareTextCompositeCommand{\d}{PU}{I}{\9036\312}% U+1ECA
19799 \DeclareTextCompositeCommand{\`}{PU}{I}{\80\314}% U+00CC
19800 \DeclareTextCompositeCommand{\h}{PU}{I}{\9036\310}% U+1EC8

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19801 \DeclareTextCompositeCommand{\~}{PU}{I}{\81\050}% U+0128
19802 \DeclareTextCompositeCommand{\'}{PU}{O}{\80\323}% U+00D3
19803 \DeclareTextCompositeCommand{\d}{PU}{O}{\9036\314}% U+1ECC
19804 \DeclareTextCompositeCommand{\`}{PU}{O}{\80\322}% U+00D2
19805 \DeclareTextCompositeCommand{\h}{PU}{O}{\9036\316}% U+1ECE
19806 \DeclareTextCompositeCommand{\~}{PU}{O}{\80\325}% U+00D5
19807 \DeclareTextCompositeCommand{\'}{PU}{\OCIRCUMFLEX}{\9036\320}% U+1ED0
19808 \DeclareTextCompositeCommand{\d}{PU}{\OCIRCUMFLEX}{\9036\330}% U+1ED8
19809 \DeclareTextCompositeCommand{\`}{PU}{\OCIRCUMFLEX}{\9036\322}% U+1ED2
19810 \DeclareTextCompositeCommand{\h}{PU}{\OCIRCUMFLEX}{\9036\324}% U+1ED4
19811 \DeclareTextCompositeCommand{\~}{PU}{\OCIRCUMFLEX}{\9036\326}% U+1ED6
19812 \DeclareTextCompositeCommand{\'}{PU}{\OHORN}{\9036\332}% U+1EDA
19813 \DeclareTextCompositeCommand{\d}{PU}{\OHORN}{\9036\342}% U+1EE2
19814 \DeclareTextCompositeCommand{\`}{PU}{\OHORN}{\9036\334}% U+1EDC
19815 \DeclareTextCompositeCommand{\h}{PU}{\OHORN}{\9036\336}% U+1EDE
19816 \DeclareTextCompositeCommand{\~}{PU}{\OHORN}{\9036\340}% U+1EE0
19817 \DeclareTextCompositeCommand{\'}{PU}{U}{\80\332}% U+00DA
19818 \DeclareTextCompositeCommand{\d}{PU}{U}{\9036\344}% U+1EE4
19819 \DeclareTextCompositeCommand{\`}{PU}{U}{\80\331}% U+00D9
19820 \DeclareTextCompositeCommand{\h}{PU}{U}{\9036\346}% U+1EE6
19821 \DeclareTextCompositeCommand{\~}{PU}{U}{\81\150}% U+0168
19822 \DeclareTextCompositeCommand{\'}{PU}{\UHORN}{\9036\350}% U+1EE8
19823 \DeclareTextCompositeCommand{\d}{PU}{\UHORN}{\9036\360}% U+1EF0
19824 \DeclareTextCompositeCommand{\`}{PU}{\UHORN}{\9036\352}% U+1EEA
19825 \DeclareTextCompositeCommand{\h}{PU}{\UHORN}{\9036\354}% U+1EEC
19826 \DeclareTextCompositeCommand{\~}{PU}{\UHORN}{\9036\356}% U+1EEE
19827 \DeclareTextCompositeCommand{\'}{PU}{Y}{\80\335}% U+00DD
19828 \DeclareTextCompositeCommand{\d}{PU}{Y}{\9036\364}% U+1EF4
19829 \DeclareTextCompositeCommand{\`}{PU}{Y}{\9036\362}% U+1EF2
19830 \DeclareTextCompositeCommand{\h}{PU}{Y}{\9036\366}% U+1EF6
19831 \DeclareTextCompositeCommand{\~}{PU}{Y}{\9036\370}% U+1EF8
19832 </puvnenc>

```

46.4 PU encoding, additions for Arabi

This file is provided and maintained by Youssef Jabri.

```

19833 (*puarenc)
19834 % U+0621;afii57409;ARABIC LETTER HAMZA
19835 \DeclareTextCommand{\hamza}{PU}{\86\041}% U+0621
19836 % U+0622;afii57410;ARABIC LETTER ALEF WITH MADDA ABOVE
19837 \DeclareTextCommand{\alefmadda}{PU}{\86\042}% U+0622
19838 % U+0623;afii57411;ARABIC LETTER ALEF WITH HAMZA ABOVE
19839 \DeclareTextCommand{\alefhamza}{PU}{\86\043}% U+0623
19840 % U+0624;afii57412;ARABIC LETTER WAW WITH HAMZA ABOVE
19841 \DeclareTextCommand{\wawhamza}{PU}{\86\044}% U+0624
19842 % U+0625;afii57413;ARABIC LETTER ALEF WITH HAMZA BELOW
19843 \DeclareTextCommand{\aleflowerhamza}{PU}{\86\045}% U+0625
19844 % U+0626;afii57414;ARABIC LETTER YEH WITH HAMZA ABOVE
19845 \DeclareTextCommand{\yahamza}{PU}{\86\046}% U+0626
19846 % U+0627;afii57415;ARABIC LETTER ALEF
19847 \DeclareTextCommand{\alef}{PU}{\86\047}% U+0627
19848 % U+0628;afii57416;ARABIC LETTER BEH
19849 \DeclareTextCommand{\baa}{PU}{\86\050}% U+0628

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19850 % U+0629;afii57417;ARABIC LETTER TEH MARBUTA
19851 \DeclareTextCommand{\T}{PU}{\86\051}% U+0629
19852 % U+062A;afii57418;ARABIC LETTER TEH
19853 \DeclareTextCommand{\taa}{PU}{\86\052}% U+062A
19854 % U+062B;afii57419;ARABIC LETTER THEH
19855 \DeclareTextCommand{\thaa}{PU}{\86\053}% U+062B
19856 % U+062C;afii57420;ARABIC LETTER JEEM
19857 \DeclareTextCommand{\jeem}{PU}{\86\054}% U+062C
19858 % U+062D;afii57421;ARABIC LETTER HAH
19859 \DeclareTextCommand{\Haa}{PU}{\86\055}% U+062D
19860 % U+062E;afii57422;ARABIC LETTER KHAH
19861 \DeclareTextCommand{\kha}{PU}{\86\056}% U+062E
19862 % U+062F;afii57423;ARABIC LETTER DAL
19863 \DeclareTextCommand{\dal}{PU}{\86\057}% U+062F
19864 % U+0630;afii57424;ARABIC LETTER THAL
19865 \DeclareTextCommand{\dhal}{PU}{\86\060}% U+0630
19866 % U+0631;afii57425;ARABIC LETTER REH
19867 \DeclareTextCommand{\ra}{PU}{\86\061}% U+0631
19868 % U+0632;afii57426;ARABIC LETTER ZAIN
19869 \DeclareTextCommand{\zay}{PU}{\86\062}% U+0632
19870 % U+0633;afii57427;ARABIC LETTER SEEN
19871 \DeclareTextCommand{\seen}{PU}{\86\063}% U+0633
19872 % U+0634;afii57428;ARABIC LETTER SHEEN
19873 \DeclareTextCommand{\sheen}{PU}{\86\064}% U+0634
19874 % U+0635;afii57429;ARABIC LETTER SAD
19875 \DeclareTextCommand{\sad}{PU}{\86\065}% U+0635
19876 % U+0636;afii57430;ARABIC LETTER DAD
19877 \DeclareTextCommand{\dad}{PU}{\86\066}% U+0636
19878 % U+0637;afii57431;ARABIC LETTER TAH
19879 \DeclareTextCommand{\Ta}{PU}{\86\067}% U+0637
19880 % U+0638;afii57432;ARABIC LETTER ZAH
19881 \DeclareTextCommand{\za}{PU}{\86\070}% U+0638
19882 % U+0639;afii57433;ARABIC LETTER AIN
19883 \DeclareTextCommand{\ayn}{PU}{\86\071}% U+0639
19884 % U+063A;afii57434;ARABIC LETTER GHAIN
19885 \DeclareTextCommand{\ghayn}{PU}{\86\072}% U+063A
19886 % U+0640;afii57440;ARABIC TATWEEL
19887 \DeclareTextCommand{\tatweel}{PU}{\86\100}% U+0640
19888 % U+0641;afii57441;ARABIC LETTER FEH
19889 \DeclareTextCommand{\fa}{PU}{\86\101}% U+0641
19890 % U+0642;afii57442;ARABIC LETTER QAF
19891 \DeclareTextCommand{\qaf}{PU}{\86\102}% U+0642
19892 % U+0643;afii57443;ARABIC LETTER KAF
19893 \DeclareTextCommand{\kaf}{PU}{\86\103}% U+0643
19894 % U+0644;afii57444;ARABIC LETTER LAM
19895 \DeclareTextCommand{\lam}{PU}{\86\104}% U+0644
19896 % U+0645;afii57445;ARABIC LETTER MEEM
19897 \DeclareTextCommand{\meem}{PU}{\86\105}% U+0645
19898 % U+0646;afii57446;ARABIC LETTER NOON
19899 \DeclareTextCommand{\nun}{PU}{\86\106}% U+0646
19900 % U+0647;afii57470;ARABIC LETTER HEH
19901 \DeclareTextCommand{\ha}{PU}{\86\107}% U+0647
19902 % U+0648;afii57448;ARABIC LETTER WAW
19903 \DeclareTextCommand{\waw}{PU}{\86\110}% U+0648

19904 % U+0649;afii57449;ARABIC LETTER ALEF MAKSURA
19905 \DeclareTextCommand{\alefmaqsurah}{PU}{\86\111}% U+0649
19906 % U+064A;afii57450;ARABIC LETTER YEH
19907 \DeclareTextCommand{\ya}{PU}{\86\112}% U+064A

19908 % U+064B;afii57451;ARABIC FATHATAN
19909 \DeclareTextCommand{\nasb}{PU}{\86\113}% U+064B
19910 % U+064C;afii57452;ARABIC DAMMATAN
19911 \DeclareTextCommand{\raff}{PU}{\86\114}% U+064C
19912 % U+064D;afii57453;ARABIC KASRATAN
19913 \DeclareTextCommand{\jarr}{PU}{\86\115}% U+064D
19914 % U+064E;afii57454;ARABIC FATHA
19915 \DeclareTextCommand{\fatha}{PU}{\86\116}% U+064E
19916 % U+064F;afii57455;ARABIC DAMMA
19917 \DeclareTextCommand{\damma}{PU}{\86\117}% U+064F
19918 % U+0650;afii57456;ARABIC KASRA
19919 \DeclareTextCommand{\kasra}{PU}{\86\120}% U+0650
19920 % U+0651;afii57457;ARABIC SHADDA
19921 \DeclareTextCommand{\shadda}{PU}{\86\121}% U+0651
19922 % U+0652;afii57458;ARABIC SUKUN
19923 \DeclareTextCommand{\sukun}{PU}{\86\122}% U+0652

Farsi
19924 % U+067E ARABIC LETTER PEH; afii57506
19925 \DeclareTextCommand{\peh}{PU}{\86\176}% U+067E
19926 % U+0686 ARABIC LETTER TCHEH; afii57507
19927 \DeclareTextCommand{\tcheh}{PU}{\86\206}% U+0686
19928 % U+0698 ARABIC LETTER JEH; afii57508
19929 \DeclareTextCommand{\jeh}{PU}{\86\230}% U+0698
19930 % U+06A9 ARABIC LETTER KEHEH
19931 \DeclareTextCommand{\farsikaf}{PU}{\86\251}% U+06A9
19932 % U+06AF ARABIC LETTER GAF; afii57509
19933 \DeclareTextCommand{\gaf}{PU}{\86\257}% U+06AF
19934 % U+06CC ARABIC LETTER FARSI YEH
19935 \DeclareTextCommand{\farsiya}{PU}{\86\314}% U+06CC

19936 % U+200C ZERO WIDTH NON-JOINER; afii61664
19937 \DeclareTextCommand{\ZWNJ}{PU}{\9040\014}% U+200C
19938 % U+200D ZERO WIDTH JOINER; afii301
19939 \DeclareTextCommand{\textEncodingNoboundary}{PU}{\9040\015}% U+200D

19940 (/puarenc)

19941 (*psdextra)
19942 \Hy@VersionCheck{psdextra.def}
19943 \newcommand*{\psdmapshortnames}{%
19944 \let\MVPlus\textMVPlus
19945 \let\MVComma\textMVComma
19946 \let\MVMinus\textMVMinus
19947 \let\MVPeriod\textMVPeriod
19948 \let\MVDivision\textMVDivision
19949 \let\MVZero\textMVZero
19950 \let\MVOne\textMVOne
19951 \let\MVTwo\textMVTwo
19952 \let\MVThree\textMVThree
19953 \let\MVFour\textMVFour
19954 \let\MVFive\textMVFive

19955 \let\MVSix\textMVSix
19956 \let\MVSeven\textMVSeven
19957 \let\MVEight\textMVEight
19958 \let\MVNine\textMVNine
19959 \let\MVAt\textMVAt
19960 \let\copyright\textcopyright
19961 \let\twosuperior\texttwosuperior
19962 \let\threesuperior\textthreesuperior
19963 \let\onesuperior\textonesuperior
19964 \let\Thorn\textThorn
19965 \let\thorn\textthorn
19966 \let\hbar\texthbar
19967 \let\hausaB\texthausaB
19968 \let\hausaD\texthausaD
19969 \let\hausaK\texthausaK
19970 \let\barl\textbarl
19971 \let\inve\textinve
19972 \let\slashc\textslashc
19973 \let\scripta\textscripta
19974 \let\openo\textopeno
19975 \let\rtaild\textrtaild
19976 \let\reve\textreve
19977 \let\schwa\textschwa
19978 \let\niepsilon\textniepsilon
19979 \let\repsilon\textrepsilon
19980 \let\rhookrepsilon\texthookrepsilon
19981 \let\scriptg\textscriptg
19982 \let\scg\textscg
19983 \let\ipagamma\textipagamma
19984 \let\babygamma\textbabygamma
19985 \let\bari\textbari
19986 \let\niota\textniota
19987 \let\sci\textsci
19988 \let\scn\textscn
19989 \let\niphi\textniphi
19990 \let\longlegr\textlonglegr
19991 \let\scr\textscr
19992 \let\invscr\textinvscr
19993 \let\esh\textesh
19994 \let\baru\textbaru
19995 \let\niupsilon\textniupsilon
19996 \let\scriptv\textscriptv
19997 \let\turnv\textturnv
19998 \let\turnw\textturnw
19999 \let\turny\textturny
20000 \let\scy\textscy
20001 \let\yogh\textyogh
20002 \let\glotstop\textglotstop
20003 \let\revglotstop\textrevglotstop
20004 \let\invglotstop\textinvglotstop
20005 \let\Gamma\textGamma
20006 \let\Delta\textDelta
20007 \let\Theta\textTheta
20008 \let\Lambda\textLambda

20009 \let\Xi\textXi
20010 \let\Pi\textPi
20011 \let\Sigma\textSigma
20012 \let\Upsilon\textUpsilon
20013 \let\Phi\textPhi
20014 \let\Psi\textPsi
20015 \let\Omega\textOmega
20016 \let\alpha\textalpha
20017 \let\beta\textbeta
20018 \let\gamma\textgamma
20019 \let\delta\textdelta
20020 \let\epsilon\textepsilon
20021 \let\zeta\textzeta
20022 \let\eta\texteta
20023 \let\theta\texttheta
20024 \let\iota\textiota
20025 \let\kappa\textkappa
20026 \let\lambda\textlambda
20027 \let\mu\textmu
20028 \let\mugreek\textmugreek
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\тинferior\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\xrightarrow\textxrightarrow
 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\nleftarrow\textnleftarrow
 20134 \let\nrightarrow\textnrightarrow
 20135 \let\twoheadleftarrow\texttwoheadleftarrow
 20136 \let\ntwoheadleftarrow\textntwoheadleftarrow
 20137 \let\twoheaduparrow\texttwoheaduparrow
 20138 \let\twoheadrightarrow\texttwoheadrightarrow
 20139 \let\ntwoheadrightarrow\textntwoheadrightarrow
 20140 \let\twoheaddownarrow\texttwoheaddownarrow
 20141 \let\leftarrowtail\textleftarrowtail
 20142 \let\rightarrowtail\textrightarrowtail
 20143 \let\mapsto\textmapsto
 20144 \let\hookrightarrow\texthookrightarrow
 20145 \let\hookleftarrow\texthookleftarrow
 20146 \let\looparrowleft\textlooparrowleft
 20147 \let\looparrowright\textlooparrowright
 20148 \let\nleftrightarrow\textnleftrightarrow
 20149 \let\lightning\textlightning
 20150 \let\dlsh\textdlsh
 20151 \let\curvearrowleft\textcurvearrowleft
 20152 \let\curvearrowright\textcurvearrowright
 20153 \let\leftharpoonup\textleftharpoonup
 20154 \let\leftharpoondown\textleftharpoondown
 20155 \let\upharpoonright\textupharpoonright
 20156 \let\upharpoonleft\textupharpoonleft
 20157 \let\upharpoonright\textupharpoonright
 20158 \let\upharpoonleft\textupharpoonleft
 20159 \let\downharpoonright\textdownharpoonright
 20160 \let\downharpoonleft\textdownharpoonleft
 20161 \let\rightleftarrows\textrightleftarrows
 20162 \let\updownarrows\textupdownarrows
 20163 \let\leftrightarrows\textleftrightarrows
 20164 \let\leftleftarrows\textleftleftarrows
 20165 \let\upuparrows\textupuparrows
 20166 \let\rightrightarrow\textrightarrow
 20167 \let\downrightarrow\textdownrightarrow
 20168 \let\leftrightarrow\textleftrightarrow
 20169 \let\rightleftarrows\textrightleftarrows
 20170 \let\nLeftarrow\textnLeftarrow

20171 $\backslash\text{let}\backslash\text{nLeftrightarrow}\backslash\text{textnLeftrightarrow}$
20172 $\backslash\text{let}\backslash\text{nRightarrow}\backslash\text{textnRightarrow}$
20173 $\backslash\text{let}\backslash\text{Leftarrow}\backslash\text{textLeftarrow}$
20174 $\backslash\text{let}\backslash\text{Uparrow}\backslash\text{textUparrow}$
20175 $\backslash\text{let}\backslash\text{Rrightarrow}\backslash\text{textRrightarrow}$
20176 $\backslash\text{let}\backslash\text{Downarrow}\backslash\text{textDownarrow}$
20177 $\backslash\text{let}\backslash\text{Leftrightarrow}\backslash\text{textLeftrightarrow}$
20178 $\backslash\text{let}\backslash\text{Updownarrow}\backslash\text{textUpdownarrow}$
20179 $\backslash\text{let}\backslash\text{Nwarrow}\backslash\text{textNwarrow}$
20180 $\backslash\text{let}\backslash\text{Nearrow}\backslash\text{textNearrow}$
20181 $\backslash\text{let}\backslash\text{Searrow}\backslash\text{textSearrow}$
20182 $\backslash\text{let}\backslash\text{Swarrow}\backslash\text{textSwarrow}$
20183 $\backslash\text{let}\backslash\text{Lleftarrow}\backslash\text{textLleftarrow}$
20184 $\backslash\text{let}\backslash\text{Rrightarrow}\backslash\text{textRrightarrow}$
20185 $\backslash\text{let}\backslash\text{leftsquigarrow}\backslash\text{textleftsquigarrow}$
20186 $\backslash\text{let}\backslash\text{rightsquigarrow}\backslash\text{textrightsquigarrow}$
20187 $\backslash\text{let}\backslash\text{dashleftarrow}\backslash\text{texdashleftarrow}$
20188 $\backslash\text{let}\backslash\text{dasheduparrow}\backslash\text{texdasheduparrow}$
20189 $\backslash\text{let}\backslash\text{dashrightarrow}\backslash\text{texdashrightarrow}$
20190 $\backslash\text{let}\backslash\text{dasheddownarrow}\backslash\text{texdasheddownarrow}$
20191 $\backslash\text{let}\backslash\text{pointer}\backslash\text{textpointer}$
20192 $\backslash\text{let}\backslash\text{downuparrows}\backslash\text{texdownuparrows}$
20193 $\backslash\text{let}\backslash\text{leftarrowtriangle}\backslash\text{textleftarrowtriangle}$
20194 $\backslash\text{let}\backslash\text{rightarrowtriangle}\backslash\text{textrightarrowtriangle}$
20195 $\backslash\text{let}\backslash\text{leftrightarrowtriangle}\backslash\text{textleftrightarrowtriangle}$
20196 $\backslash\text{let}\backslash\text{forall}\backslash\text{textforall}$
20197 $\backslash\text{let}\backslash\text{complement}\backslash\text{textcomplement}$
20198 $\backslash\text{let}\backslash\text{partial}\backslash\text{textpartial}$
20199 $\backslash\text{let}\backslash\text{exists}\backslash\text{textexists}$
20200 $\backslash\text{let}\backslash\text{nexists}\backslash\text{textnexists}$
20201 $\backslash\text{let}\backslash\text{emptyset}\backslash\text{textemptyset}$
20202 $\backslash\text{let}\backslash\text{triangle}\backslash\text{texttriangle}$
20203 $\backslash\text{let}\backslash\text{nabla}\backslash\text{textnabla}$
20204 $\backslash\text{let}\backslash\text{in}\backslash\text{textin}$
20205 $\backslash\text{let}\backslash\text{notin}\backslash\text{textnotin}$
20206 $\backslash\text{let}\backslash\text{smallin}\backslash\text{textsmallin}$
20207 $\backslash\text{let}\backslash\text{ni}\backslash\text{textni}$
20208 $\backslash\text{let}\backslash\text{notowner}\backslash\text{textnotowner}$
20209 $\backslash\text{let}\backslash\text{smallowns}\backslash\text{textsmallowns}$
20210 $\backslash\text{let}\backslash\text{prod}\backslash\text{textprod}$
20211 $\backslash\text{let}\backslash\text{amalg}\backslash\text{textamalg}$
20212 $\backslash\text{let}\backslash\text{sum}\backslash\text{textsum}$
20213 $\backslash\text{let}\backslash\text{mp}\backslash\text{textmp}$
20214 $\backslash\text{let}\backslash\text{dotplus}\backslash\text{texdotplus}$
20215 $\backslash\text{let}\backslash\text{Divides}\backslash\text{textDivides}$
20216 $\backslash\text{let}\backslash\text{DividesNot}\backslash\text{textDividesNot}$
20217 $\backslash\text{let}\backslash\text{setminus}\backslash\text{textsetminus}$
20218 $\backslash\text{let}\backslash\text{ast}\backslash\text{textast}$
20219 $\backslash\text{let}\backslash\text{circ}\backslash\text{textcirc}$
20220 $\backslash\text{let}\backslash\text{surd}\backslash\text{textsurd}$
20221 $\backslash\text{let}\backslash\text{propto}\backslash\text{textpropto}$
20222 $\backslash\text{let}\backslash\text{infty}\backslash\text{textinfty}$
20223 $\backslash\text{let}\backslash\text{angle}\backslash\text{textangle}$
20224 $\backslash\text{let}\backslash\text{measuredangle}\backslash\text{textmeasuredangle}$

20225 `\let\sphericalangle\textsphericalangle`
20226 `\let\mid\textmid`
20227 `\let\nmid\textnmid`
20228 `\let\parallel\textparallel`
20229 `\let\nparallel\textnparallel`
20230 `\let\wedge\textwedge`
20231 `\let\owedge\textowedge`
20232 `\let\vee\textvee`
20233 `\let\ovee\textovee`
20234 `\let\cap\textcap`
20235 `\let\cup\textcup`
20236 `\let\int\textint`
20237 `\let\iint\textiint`
20238 `\let\iiint\textiiint`
20239 `\let\oint\textoint`
20240 `\let\oiint\textoiint`
20241 `\let\ointclockwise\textointclockwise`
20242 `\let\ointctrlockwise\textointctrlockwise`
20243 `\let\therefore\texttherefore`
20244 `\let\because\textbecause`
20245 `\let\vdotdot\textvdotdot`
20246 `\let\squaredots\textsquaredots`
20247 `\let\dotminus\textdotminus`
20248 `\let\eqcolon\texteqcolon`
20249 `\let\sim\textsimeq`
20250 `\let\backsim\textbacksim`
20251 `\let\nbacksim\textnbacksim`
20252 `\let\wr\textwr`
20253 `\let\sim\textnsim`
20254 `\let\eqsim\texteqsim`
20255 `\let\neqsim\textneqsim`
20256 `\let\simeq\textsimeq`
20257 `\let\nsimeq\textnsimeq`
20258 `\let\cong\textcong`
20259 `\let\ncong\textncong`
20260 `\let\approx\textapprox`
20261 `\let\napprox\textnapprox`
20262 `\let\approxeq\textapproxeq`
20263 `\let\napproxeq\textnapproxeq`
20264 `\let\triplesim\texttriplesim`
20265 `\let\ntriplesim\textntriplesim`
20266 `\let\backcong\textbackcong`
20267 `\let\nbackcong\textnbackcong`
20268 `\let\asymp\textasymp`
20269 `\let\nasymp\textnasymp`
20270 `\let\Bumpeq\textBumpeq`
20271 `\let\nBumpeq\textnBumpeq`
20272 `\let\bumpeq\textbumpeq`
20273 `\let\nbumpeq\textnbumpeq`
20274 `\let\dotseq\textdotseq`
20275 `\let\ndotseq\textndotseq`
20276 `\let\dotseqdot\textdotseqdot`
20277 `\let\ndotseq\textndotseq`
20278 `\let\fallingdotseq\textfallingdotseq`

20279 `\let\nfallingdoteq\textnfallingdoteq`
 20280 `\let\risingdoteq\textrisingdoteq`
 20281 `\let\nrisingdoteq\textnrisingdoteq`
 20282 `\let\colonequals\textcolonequals`
 20283 `\let\equalscolon\textequalscolon`
 20284 `\let\eqcirc\texteqcirc`
 20285 `\let\neqcirc\textneqcirc`
 20286 `\let\circeq\textcirceq`
 20287 `\let\ncirceq\textncirceq`
 20288 `\let\hateq\texthateq`
 20289 `\let\nhateq\textnhateq`
 20290 `\let\triangleeq\texttriangleeq`
 20291 `\let\neq\textneq`
 20292 `\let\ne\textne`
 20293 `\let\equiv\textequiv`
 20294 `\let\nequiv\textnequiv`
 20295 `\let\leq\textleq`
 20296 `\let\le\textle`
 20297 `\let\geq\textgeq`
 20298 `\let\ge\textge`
 20299 `\let\leqq\textleqq`
 20300 `\let\leqq\textleqq`
 20301 `\let\geqq\textgeqq`
 20302 `\let\ngeqq\textngeqq`
 20303 `\let\lneqq\textlneqq`
 20304 `\let\gneqq\textgneqq`
 20305 `\let\ll\textll`
 20306 `\let\nll\textnll`
 20307 `\let\gg\textgg`
 20308 `\let\ngg\textngg`
 20309 `\let\between\textbetween`
 20310 `\let\nless\textnless`
 20311 `\let\ngtr\textngtr`
 20312 `\let\nleq\textnleq`
 20313 `\let\ngeq\textngeq`
 20314 `\let\lesssim\textlesssim`
 20315 `\let\gtrsim\textgtrsim`
 20316 `\let\nlesssim\textnlesssim`
 20317 `\let\ngtrsim\textngtrsim`
 20318 `\let\lessgtr\textlessgtr`
 20319 `\let\gtrless\textgtrless`
 20320 `\let\ngtrless\textngtrless`
 20321 `\let\nlessgtr\textnlessgtr`
 20322 `\let\prec\textprec`
 20323 `\let\succ\textsucc`
 20324 `\let\preccurlyeq\textpreccurlyeq`
 20325 `\let\succcurlyeq\textsucccurlyeq`
 20326 `\let\precsim\textprecsim`
 20327 `\let\nprecsim\textnprecsim`
 20328 `\let\succsim\textsuccsim`
 20329 `\let\nsuccsim\textnsuccsim`
 20330 `\let\nprec\textnprec`
 20331 `\let\nsucc\textnsucc`
 20332 `\let\subset\textsubset`

20333 `\let\supset\textsupset`
20334 `\let\nsubset\textnsubset`
20335 `\let\nsupset\textnsupset`
20336 `\let\subseteq\textsubseteq`
20337 `\let\supseteq\textsupseteq`
20338 `\let\nsubseteq\textnsubseq`
20339 `\let\nsupseteq\textnsupseteq`
20340 `\let\subsetneq\textsubsetneq`
20341 `\let\supsetneq\textsupsetneq`
20342 `\let\cupdot\textcupdot`
20343 `\let\cupplus\textcupplus`
20344 `\let\sqssubset\textsqsubset`
20345 `\let\nsqsubset\textnsqsubset`
20346 `\let\sqsupset\textsqsupset`
20347 `\let\nsqsupset\textnsqsupset`
20348 `\let\sqssubseteq\textsqsubseteq`
20349 `\let\nsqsubseteq\textnsqsubseteq`
20350 `\let\sqsupseteq\textsqsupseteq`
20351 `\let\nsqsupseteq\textnsqsupseteq`
20352 `\let\sqcap\textsqcap`
20353 `\let\sqcup\textsqcup`
20354 `\let\oplus\textoplus`
20355 `\let\ominus\textominus`
20356 `\let\otimes\textotimes`
20357 `\let\oslash\textoslash`
20358 `\let\odot\textodot`
20359 `\let\circledcirc\textcircledcirc`
20360 `\let\circledast\textcircledast`
20361 `\let\circleddash\textcircleddash`
20362 `\let\boxplus\textboxplus`
20363 `\let\boxminus\textboxminus`
20364 `\let\boxtimes\textboxtimes`
20365 `\let\boxdot\textboxdot`
20366 `\let\vdash\textvdash`
20367 `\let\dashv\textdashv`
20368 `\let\ndashv\textndashv`
20369 `\let\top\texttop`
20370 `\let\ndownvdash\textndownvdash`
20371 `\let\bot\textbot`
20372 `\let\nupvdash\textnupvdash`
20373 `\let\vDash\textvDash`
20374 `\let\Vdash\textVdash`
20375 `\let\Vvdash\textVvdash`
20376 `\let\NVdash\textNVdash`
20377 `\let\VDash\textVDash`
20378 `\let\Nvdash\textNvdash`
20379 `\let\NVDash\textNVDash`
20380 `\let\NVdash\textNVdash`
20381 `\let\NVDash\textNVDash`
20382 `\let\lhd\textlhd`
20383 `\let\rhd\textrhd`
20384 `\let\unlhd\textunlhd`
20385 `\let\unrhd\textunrhd`
20386 `\let\multimapdotbothA\textmultimapdotbothA`

20387 `\let\multimapdotbothB\textmultimapdotbothB`
 20388 `\let\multimap\textmultimap`
 20389 `\let\veebar\textveebar`
 20390 `\let\barwedge\textbarwedge`
 20391 `\let\star\textstar`
 20392 `\let\divideontimes\textdivideontimes`
 20393 `\let\bowtie\textbowtie`
 20394 `\let\ltimes\textltimes`
 20395 `\let\rtimes\textrtimes`
 20396 `\let\leftthreetimes\textleftthreetimes`
 20397 `\let\rightthreetimes\textrightthreetimes`
 20398 `\let\backsimeq\textbacksimeq`
 20399 `\let\nbacksimeq\textnbacksimeq`
 20400 `\let\curlyvee\textcurlyvee`
 20401 `\let\curlywedge\textcurlywedge`
 20402 `\let\Subset\textSubset`
 20403 `\let\nSubset\textnSubset`
 20404 `\let\Supset\textSupset`
 20405 `\let\nSupset\textnSupset`
 20406 `\let\Cap\textCap`
 20407 `\let\Cup\textCup`
 20408 `\let\pitchfork\textpitchfork`
 20409 `\let\lessdot\textlessdot`
 20410 `\let\gtrdot\textgtrdot`
 20411 `\let\lll\textlll`
 20412 `\let\ggg\textggg`
 20413 `\let\lesseqgtr\textlesseqgtr`
 20414 `\let\gtreqless\textgtreqless`
 20415 `\let\curlyeqprec\textcurlyeqprec`
 20416 `\let\ncurlyeqprec\textncurlyeqprec`
 20417 `\let\curlyeqsucc\textcurlyeqsucc`
 20418 `\let\ncurlyeqsucc\textncurlyeqsucc`
 20419 `\let\preccurlyeq\textpreccurlyeq`
 20420 `\let\nsucccurlyeq\textnsucccurlyeq`
 20421 `\let\nqsubseteq\textnqsubseteq`
 20422 `\let\nqsupseteq\textnqsupseteq`
 20423 `\let\sqsubsetneq\textsqsubsetneq`
 20424 `\let\sqsupsetneq\textsqsupsetneq`
 20425 `\let\lnsim\textlnsim`
 20426 `\let\gnsim\textgnsim`
 20427 `\let\precnsim\textprecnsim`
 20428 `\let\succnsim\textsuccnsim`
 20429 `\let\ntriangleleft\textntriangleleft`
 20430 `\let\ntriangleright\textntriangleright`
 20431 `\let\ntrianglelefteq\textntrianglelefteq`
 20432 `\let\ntrianglerighteq\textntrianglerighteq`
 20433 `\let\vdots\textvdots`
 20434 `\let\cdots\textcdots`
 20435 `\let\udots\textudots`
 20436 `\let\ddots\textddots`
 20437 `\let\barin\textbarin`
 20438 `\let\diameter\textdiameter`
 20439 `\let\backneg\textbackneg`
 20440 `\let\wasylozenge\textwasylozenge`

20441 \let\invbackneg\textinvbackneg
20442 \let\clock\textclock
20443 \let\ulcorner\textulcorner
20444 \let\urcorner\texturcorner
20445 \let\llcorner\textllcorner
20446 \let\lrcorner\textlrcorner
20447 \let\frown\textfrown
20448 \let\smile\textsmile
20449 \let\Keyboard\textKeyboard
20450 \let\langle\textlangle
20451 \let\rangle\textrangle
20452 \let\APLinv\textAPLinv
20453 \let\Tumbler\textTumbler
20454 \let\notslash\textnotslash
20455 \let\notbackslash\textnotbackslash
20456 \let\boxbackslash\textboxbackslash
20457 \let\APLleftarrowbox\textAPLleftarrowbox
20458 \let\APLrightarrowbox\textAPLrightarrowbox
20459 \let\APLuparrowbox\textAPLuparrowbox
20460 \let\APLdownarrowbox\textAPLdownarrowbox
20461 \let\APLinput\textAPLinput
20462 \let\Request\textRequest
20463 \let\Beam\textBeam
20464 \let\hexagon\texthexagon
20465 \let\APLbox\textAPLbox
20466 \let\ForwardToIndex\textForwardToIndex
20467 \let\RewindToIndex\textRewindToIndex
20468 \let\bbslash\textbbslash
20469 \let\CircledA\textCircledA
20470 \let\CleaningF\textCleaningF
20471 \let\CleaningFF\textCleaningFF
20472 \let\CleaningP\textCleaningP
20473 \let\CleaningPP\textCleaningPP
20474 \let\CuttingLine\textCuttingLine
20475 \let\UParrow\textUParrow
20476 \let\bigtriangleup\textbigtriangleup
20477 \let\Forward\textForward
20478 \let\triangleright\texttriangleright
20479 \let\RHD\textRHD
20480 \let\DOWNarrow\textDOWNarrow
20481 \let\bigtriangledown\textbigtriangledown
20482 \let\Rewind\textRewind
20483 \let\triangleleft\texttriangleleft
20484 \let\LHD\textLHD
20485 \let\diamond\textdiamond
20486 \let\lozenge\textlozenge
20487 \let\LEFTCIRCLE\textLEFTCIRCLE
20488 \let\RIGHTCIRCLE\textRIGHTCIRCLE
20489 \let\openbullet\textopenbullet
20490 \let\boxbar\textboxbar
20491 \let\bigcircle\textbigcircle
20492 \let\Cloud\textCloud
20493 \let\FiveStar\textFiveStar
20494 \let\FiveStarOpen\textFiveStarOpen

20495 \let\Phone\textPhone
20496 \let\boxempty\textboxempty
20497 \let\Checkedbox\textCheckedbox
20498 \let\Crossedbox\textCrossedbox
20499 \let\Coffeecup\textCoffeecup
20500 \let\HandCuffLeft\textHandCuffLeft
20501 \let\HandCuffRight\textHandCuffRight
20502 \let\HandLeft\textHandLeft
20503 \let\HandRight\textHandRight
20504 \let\Radioactivity\textRadioactivity
20505 \let\Biohazard\textBiohazard
20506 \let\Ankh\textAnkh
20507 \let\YinYang\textYinYang
20508 \let\frownie\textfrownie
20509 \let\smiley\textsmiley
20510 \let\blacksmiley\textblacksmiley
20511 \let\sun\textsun
20512 \let\leftmoon\textleftmoon
20513 \let\rightmoon\textrightmoon
20514 \let\mercury\textmercury
20515 \let\earth\textearth
20516 \let\male\textmale
20517 \let\jupiter\textjupiter
20518 \let\saturn\textsaturn
20519 \let\uranus\texturanus
20520 \let\neptune\textneptune
20521 \let\pluto\textpluto
20522 \let\aries\textaries
20523 \let\taurus\texttaurus
20524 \let\gemini\textgemini
20525 \let\cancer\textcancer
20526 \let\leo\textleo
20527 \let\virgo\textvirgo
20528 \let\libra\textlibra
20529 \let\scorpio\textscorpio
20530 \let\sagittarius\textsagittarius
20531 \let\capricornus\textcapricornus
20532 \let\aquarius\textaquarius
20533 \let\pisces\textpisces
20534 \let\quarternote\textquarternote
20535 \let\twonotes\texttwonotes
20536 \let\sixteenthnote\textsixteenthnote
20537 \let\flat\textflat
20538 \let\natural\textnatural
20539 \let\sharp\textsharp
20540 \let\recycle\textrecycle
20541 \let\Wheelchair\textWheelchair
20542 \let\Flag\textFlag
20543 \let\MineSign\textMineSign
20544 \let\ds military\textds military
20545 \let\ds medical\textds medical
20546 \let\ds juridical\textds juridical
20547 \let\ds chemical\textds chemical
20548 \let\ds biological\textds biological

20549 \let\dscommercial\textdscommercial
 20550 \let\manstar\textmanstar
 20551 \let\danger\textdanger
 20552 \let\FemaleFemale\textFemaleFemale
 20553 \let\MaleMale\textMaleMale
 20554 \let\FemaleMale\textFemaleMale
 20555 \let\Hermaphrodite\textHermaphrodite
 20556 \let\Neutral\textNeutral
 20557 \let\hexstar\texthexstar
 20558 \let\SunCload\textSunCload
 20559 \let\Rain\textRain
 20560 \let\noway\textnoway
 20561 \let\Mountain\textMountain
 20562 \let\Tent\textTent
 20563 \let\ScissorRight\textScissorRight
 20564 \let\ScissorRightBrokenTop\textScissorRightBrokenTop
 20565 \let\ScissorHollowRight\textScissorHollowRight
 20566 \let\PhoneHandset\textPhoneHandset
 20567 \let\Tape\textTape
 20568 \let\Plane\textPlane
 20569 \let\Envelope\textEnvelope
 20570 \let\Peace\textPeace
 20571 \let\WritingHand\textWritingHand
 20572 \let\PencilRightDown\textPencilRightDown
 20573 \let\PencilRight\textPencilRight
 20574 \let\PencilRightUp\textPencilRightUp
 20575 \let\NibRight\textNibRight
 20576 \let\NibSolidRight\textNibSolidRight
 20577 \let\Checkmark\textCheckmark
 20578 \let\CheckmarkBold\textCheckmarkBold
 20579 \let\XSolid\textXSolid
 20580 \let\XSolidBold\textXSolidBold
 20581 \let\XSolidBrush\textXSolidBrush
 20582 \let\PlusOutline\textPlusOutline
 20583 \let\Plus\textPlus
 20584 \let\PlusThinCenterOpen\textPlusThinCenterOpen
 20585 \let\PlusCenterOpen\textPlusCenterOpen
 20586 \let\Cross\textCross
 20587 \let\CrossOpenShadow\textCrossOpenShadow
 20588 \let\CrossOutline\textCrossOutline
 20589 \let\CrossMaltese\textCrossMaltese
 20590 \let\DavidStar\textDavidStar
 20591 \let\FourAsterisk\textFourAsterisk
 20592 \let\JackStar\textJackStar
 20593 \let\JackStarBold\textJackStarBold
 20594 \let\CloverTips\textCloverTips
 20595 \let\FourStar\textFourStar
 20596 \let\FourStarOpen\textFourStarOpen
 20597 \let\FiveStarOpenCircled\textFiveStarOpenCircled
 20598 \let\FiveStarCenterOpen\textFiveStarCenterOpen
 20599 \let\FiveStarOpenDotted\textFiveStarOpenDotted
 20600 \let\FiveStarOutline\textFiveStarOutline
 20601 \let\FiveStarOutlineHeavy\textFiveStarOutlineHeavy
 20602 \let\FiveStarConvex\textFiveStarConvex

20603 \let\FiveStarShadow\textFiveStarShadow
20604 \let\AsteriskBold\textAsteriskBold
20605 \let\AsteriskCenterOpen\textAsteriskCenterOpen
20606 \let\EightStarTaper\textEightStarTaper
20607 \let\EightStarConvex\textEightStarConvex
20608 \let\SixStar\textSixStar
20609 \let\EightStar\textEightStar
20610 \let\EightStarBold\textEightStarBold
20611 \let\TwelveStar\textTwelveStar
20612 \let\SixteenStarLight\textSixteenStarLight
20613 \let\SixFlowerPetalRemoved\textSixFlowerPetalRemoved
20614 \let\SixFlowerOpenCenter\textSixFlowerOpenCenter
20615 \let\Asterisk\textAsterisk
20616 \let\SixFlowerAlternate\textSixFlowerAlternate
20617 \let\FiveFlowerPetal\textFiveFlowerPetal
20618 \let\FiveFlowerOpen\textFiveFlowerOpen
20619 \let\EightFlowerPetal\textEightFlowerPetal
20620 \let\SunshineOpenCircled\textSunshineOpenCircled
20621 \let\SixFlowerAltPetal\textSixFlowerAltPetal
20622 \let\SnowflakeChevron\textSnowflakeChevron
20623 \let\Snowflake\textSnowflake
20624 \let\SnowflakeChevronBold\textSnowflakeChevronBold
20625 \let\Sparkle\textSparkle
20626 \let\SparkleBold\textSparkleBold
20627 \let\AsteriskRoundedEnds\textAsteriskRoundedEnds
20628 \let\EightFlowerPetalRemoved\textEightFlowerPetalRemoved
20629 \let\EightAsterisk\textEightAsterisk
20630 \let\CircleShadow\textCircleShadow
20631 \let\SquareShadowBottomRight\textSquareShadowBottomRight
20632 \let\SquareTopRight\textSquareTopRight
20633 \let\SquareCastShadowBottomRight\textSquareCastShadowBottomRight
20634 \let\SquareCastShadowTopRight\textSquareCastShadowTopRight
20635 \let\DiamandSolid\textDiamandSolid
20636 \let\RectangleThin\textRectangleThin
20637 \let\Rectangle\textRectangle
20638 \let\RectangleBold\textRectangleBold
20639 \let\perp\textperp
20640 \let\notperp\textnotperp
20641 \let\veedot\textveedot
20642 \let\wedgedot\textwedgedot
20643 \let\leftspoon\textleftspoon
20644 \let\lbrackdbl\textlbrackdbl
20645 \let\rbrackdbl\textrbrackdbl
20646 \let\circlearrowleft\textcirclearrowleft
20647 \let\circlearrowright\textcirclearrowright
20648 \let\longleftarrow\textlongleftarrow
20649 \let\longrightarrow\textlongrightarrow
20650 \let\longleftarrowright\textlongleftarrowright
20651 \let\Longleftarrow\textLongleftarrow
20652 \let\Longrightarrow\textLongrightarrow
20653 \let\Longleftarrowright\textLongleftarrowright
20654 \let\longmapsto\textlongmapsto
20655 \let\Longmapsfrom\textLongmapsfrom
20656 \let\Longmapsto\textLongmapsto

20657 \let\nwsearrow\textnwsearrow
20658 \let\neswarrow\textneswarrow
20659 \let\lhooknarrow\textlhooknarrow
20660 \let\rhooknarrow\extrhooknarrow
20661 \let\lhooksearrow\textlhooksearrow
20662 \let\rhookswarrow\extrhookswarrow
20663 \let\leadsto\textleadsto
20664 \let\rcurvearrowne\textrcurvearrowne
20665 \let\lcurvearrowse\textlcurvearrowse
20666 \let\lcurvearrowsw\textlcurvearrowsw
20667 \let\rcurvearrowse\textrcurvearrowse
20668 \let\lcurvearrowdown\textlcurvearrowdown
20669 \let\rcurvearrowdown\textrcurvearrowdown
20670 \let\rcurvearrowleft\textrcurvearrowleft
20671 \let\rcurvearrowright\textrcurvearrowright
20672 \let\leftrightharpoon\textleftrightharpoon
20673 \let\rightleftharpoon\textrightleftharpoon
20674 \let\updownharpoonrightleft\textupdownharpoonrightleft
20675 \let\updownharpoonleftright\textupdownharpoonleftright
20676 \let\leftleftharpoons\textleftleftharpoons
20677 \let\upupharpoons\textupupharpoons
20678 \let\righttrightharpoons\textrighttrightharpoons
20679 \let\downdownharpoons\textdowndownharpoons
20680 \let\leftbarharpoon\textleftbarharpoon
20681 \let\barleftharpoon\textbarleftharpoon
20682 \let\rightbarharpoon\textrightbarharpoon
20683 \let\barrightharpoon\textbarrightharpoon
20684 \let\updownharpoons\textupdownharpoons
20685 \let\downupharpoons\textdownupharpoons
20686 \let\moo\textmoo
20687 \let\llparenthesis\textllparenthesis
20688 \let\rrparenthesis\textrrparenthesis
20689 \let\invdiameter\textinvdiameter
20690 \let\obar\textobar
20691 \let\obslash\textobslash
20692 \let\obot\textobot
20693 \let\NoChemicalCleaning\textNoChemicalCleaning
20694 \let\olessthan\textolessthan
20695 \let\ogreaterthan\textogreaterthan
20696 \let\boxslash\textboxslash
20697 \let\boxbslash\textboxbslash
20698 \let\boxast\textboxast
20699 \let\boxcircle\textboxcircle
20700 \let\boxbox\textboxbox
20701 \let\Valve\textValve
20702 \let\multimapboth\textmultimapboth
20703 \let\shuffle\textshuffle
20704 \let\uplus\textuplus
20705 \let\bigdoublewedge\textbigdoublewedge
20706 \let\bigdoublevee\textbigdoublevee
20707 \let\Join\textJoin
20708 \let\fatsemi\textfatsemi
20709 \let\circplus\textcircplus
20710 \let\minusdot\textminusdot

20711 `\let\dottimes\textdottimes`
20712 `\let\dtimes\textdtimes`
20713 `\let\odiv\textodiv`
20714 `\let\invneg\textinvneg`
20715 `\let\sqdoublecap\textsqdoublecap`
20716 `\let\capdot\textcapdot`
20717 `\let\sqdoublecup\textsqdoublecup`
20718 `\let\doublewedge\textdoublewedge`
20719 `\let\doublevee\textdoublevee`
20720 `\let\doublebarwedge\textdoublebarwedge`
20721 `\let\veedoublebar\textveedoublebar`
20722 `\let\eqdot\texteqdot`
20723 `\let\neqdot\textneqdot`
20724 `\let\coloncolonequals\textcoloncolonequals`
20725 `\let\leqslant\textleqslant`
20726 `\let\neqslant\textneqslant`
20727 `\let\geqslant\textgeqslant`
20728 `\let\ngeqslant\textngeqslant`
20729 `\let\lessapprox\textlessapprox`
20730 `\let\nlessapprox\textnlessapprox`
20731 `\let\gtrapprox\textgtrapprox`
20732 `\let\ngtrapprox\textngtrapprox`
20733 `\let\lneq\textlneq`
20734 `\let\gneq\textgneq`
20735 `\let\lnapprox\textlnapprox`
20736 `\let\gnapprox\textgnapprox`
20737 `\let\lesseqgtr\textlesseqgtr`
20738 `\let\gtreqless\textgtreqless`
20739 `\let\eqslantless\texteqslantless`
20740 `\let\eqslantgtr\texteqslantgtr`
20741 `\let\leftslice\textleftslice`
20742 `\let\rightslice\textrightslice`
20743 `\let\preceq\textpreceq`
20744 `\let\npreceq\textnpreceq`
20745 `\let\succeq\textsucceq`
20746 `\let\nsucceq\textnsucceq`
20747 `\let\precneq\textprecneq`
20748 `\let\succneq\textsuccneq`
20749 `\let\preceqq\textpreceqq`
20750 `\let\npreceqq\textnpreceqq`
20751 `\let\succeqq\textsucceqq`
20752 `\let\nsucceqq\textnsucceqq`
20753 `\let\precneqq\textprecneqq`
20754 `\let\succneqq\textsuccneqq`
20755 `\let\precapprox\textprecapprox`
20756 `\let\nprecapprox\textnprecapprox`
20757 `\let\succapprox\textsuccapprox`
20758 `\let\nsuccapprox\textnsuccapprox`
20759 `\let\precnapprox\textprecnapprox`
20760 `\let\succnapprox\textsuccnapprox`
20761 `\let\subseteqq\textsubseteqq`
20762 `\let\nsubseteqq\textnsubseteqq`
20763 `\let\supseteqq\textsupseteqq`
20764 `\let\nsupseteqq\textnsupseteqq`

20765 \let\dashV\textdashV
20766 \let\ndashV\textndashV
20767 \let\Dashv\textDashv
20768 \let\ndashv\textndashv
20769 \let\DashV\textDashV
20770 \let\ndashV\textndashV
20771 \let\downmodels\textdownmodels
20772 \let\ndownmodels\textndownmodels
20773 \let\upmodels\textupmodels
20774 \let\nupmodels\textnupmodels
20775 \let\upspoon\textupspoon
20776 \let\interleave\textinterleave
20777 \let\slash\textslash
20778 \let\pentagon\textpentagon
20779 \let\varhexagon\textvarhexagon
20780 \let\jinferior\textjinferior
20781 \let\slashdiv\textslashdiv
20782 \let\fivedots\textfivedots
20783 \let\oo\textoo
20784 \let\GaPa\textGaPa
20785 \let\HaPa\textHaPa
20786 \let\ViPa\textViPa
20787 \let\AcPa\textAcPa
20788 \let\SePa\textSePa
20789 \let\ZwPa\textZwPa
20790 \let\fullnote\textfullnote
20791 \let\halfnote\texthalfnote
20792 \let\Vier\textVier
20793 \let\Acht\textAcht
20794 \let\Sech\textSech
20795 \let\Zwdr\textZwdr
20796 \let\Mundus\textMundus
20797 \let\Moon\textMoon
20798 \let\ManFace\textManFace
20799 \let\WomanFace\textWomanFace
20800 \let\Fax\textFax
20801 \let\Fire\textFire
20802 \let\Bicycle\textBicycle
20803 \let\Gentsroom\textGentsroom
20804 \let\Ladiesroom\textLadiesroom
20805 \let\ccnc\textccnc
20806 \let\ccsa\textccsa
20807 \let\Info\textInfo
20808 \let\CESign\textCESign
20809 \let\neg\textneg
20810 \let\times\texttimes
20811 \let\div\textdiv
20812 \let\pm\textpm
20813 \let\cdot\textcdot
20814 }% \psdmapshortnames
20815 \newcommand*{\psdaliasnames}{%
20816 \let\epsdice\HyPsd@DieFace
20817 \let\fcdice\HyPsd@DieFace
20818 \let\MoonPha\HyPsd@MoonPha

20819 `\let\mathdollar\textdollar`
20820 `\let\EyesDollar\textdollar`
20821 `\let\binampersand\textampersand`
20822 `\let\with\textampersand`
20823 `\let\mathunderscore\textunderscore`
20824 `\let\textvertline\textbar`
20825 `\let\mathsterling\textsterling`
20826 `\let\pounds\textsterling`
20827 `\let\brokenvert\textbrokenbar`
20828 `\let\mathsection\textsection`
20829 `\let\S\textsection`
20830 `\let\mathparagraph\textparagraph`
20831 `\let\MultiplicationDot\textperiodcentered`
20832 `\let\Squaredot\textperiodcentered`
20833 `\let\vartimes\textmultiply`
20834 `\let\MVMultiplication\textmultiply`
20835 `\let\eth\dh`
20836 `\let\crossd\textcrd`
20837 `\let\textbard\textcrd`
20838 `\let\bard\textcrd`
20839 `\let\textcrh\texthbar`
20840 `\let\crossh\texthbar`
20841 `\let\planck\texthbar`
20842 `\let\eng\ng`
20843 `\let\engma\ng`
20844 `\let\crossb\textcrb`
20845 `\let\textbarb\textcrb`
20846 `\let\barb\textcrb`
20847 `\let\Florin\textflorin`
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