## The accsupp package

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### 2016/05/16 v0.4

#### Abstract

Since PDF 1.5 portions of a page can be marked for better accessibility support. For example, replacement texts or expansions of abbreviations can be provided. Package accsupp starts with providing a minimal low-level interface for programmers. Status is experimental.

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 $<sup>{\</sup>rm ^*Please\ report\ any\ issues\ at\ https://github.com/ho-tex/oberdiek/issues}$ 

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### 1 Documentation

#### 1.1 Macros

Section "10.8 Accessibility Support" of the PDF reference [1] lists some features that can be added by operators for marked content.

### \BeginAccSupp $\{\langle options \rangle\}$

It puts the operator BDC in the page stream:

```
/Span <<<...>> % property dictionary BDC
```

The contents of the dictionary is controlled by  $\langle options \rangle$ . See sections 1.1.1 and 1.1.2.

### $\EndAccSupp \{\langle options \rangle\}$

It puts the operator EMC in the page stream. The only option is pdfliteral, see section 1.3.1.

**Note:** The caller is responsible for the placement of \BeginAccSupp and \EndAccSupp pairs. Especially page breaks are not allowed in between.

#### 1.1.1 Feature options

The PDF reference [1] describes and explains the different features. The names of the feature options are the same as the key names for the property dictionary for operator BDC, see \BeginAccSupp.

**ActualText:** Provides a replacement text, see examples in section 2.

**Alt:** Provides an alternate description.

**E:** Provides the expansion of an abbreviation or an acronym.

**Lang:** Specifies the language.

### 1.1.2 Input methods

Except for Lang option method controls how the argument for ActualText, Alt, and E are interpreted.

**method=plain:** The string is only expanded and written without further treatment. Special characters are not protected, thus this method may result in an invalid PDF file.

**mehod=escape:** The string is expanded and special characters are escaped. The result is a valid PDF string.

**method=hex:** The string is given in hexadecimal notation. Section 2.1 shows an example.

**method=pdfstringdef:** If package hyperref is loaded, then its \pdfstringdef is used. This method is slow, but useful if the string contains arbitrary TeX code.

unicode: This option is needed, if the string is given as Unicode string (16 bit). Internally it adds the string prefix for Unicode. In case of method=pdfstringdef it passes the option to \hypersetup.

### 1.2 Workaround, option space

PDF specification says in "10.8.3 Replacement Text"

Just as alternative descriptions can be provided for images and other items that do not translate naturally into text (...), replacement text can be specified for content that does translate into text but that is represented in a nonstandard way. These nonstandard representations might include, for example, glyphs for ligatures or custom characters, or inline graphics corresponding to letters in an illuminated manustript or to dropped capitals.

However, the ActualText is ignored in Acrobat Reader (until version 9 at least), if the content does not contain glyphs. Option space adds such an invisible glyph, a space character. The font name can be configured by option spacefont, the default font is phvr8r. The character slot is given by option spacechar, default is 32, the usual position of the space character.

These options can also be given as package options or in macro \AccSuppSetup that takes a key value list as argument. Usually only option space is necessary, if the contents does not contain glyphs otherwise. Option space is enabled by space or space=true and disabled by space=false. It is disabled as default. The option is evaluated by \BeginAccSupp and ignored by \EndAccSupp.

Note: Even with option space I get sometimes wrong texts when cut & paste from AR7/Linux or AR8/Linux, e.g.

```
\begin{aligned} & \text{Hello} \rightarrow \text{Helo}, \, \text{Helol}, \, \text{Hell}, \, \dots \\ & \text{Hello World} \rightarrow \, \text{Helo WorldW}, \, \text{Helo World,} \, \dots \end{aligned}
```

I do not know what Acrobat Reader is doing here, thus feedback and insights are welcome.

#### 1.3 Driver options

Driver options are package options only. The special TEX compilers pdfTEX and XETEX are detected automatically. The default for unrecognized drivers can be set by defining \ActualTextDriverDefault. This can be done in the configuration file accsupp.cfg.

#### 1.3.1 Option pdftex

Package option pdftex is used for pdfTEX in PDF mode. Additionally \BeginAcc-Supp and \EndAccSupp understand option pdfliteral. It controls the modifier keyword for \pdfliteral:

```
pdfliteral=direct \Rightarrow \pdfliteral direct{...}
```

#### 1.3.2 Option dvipdfm

Package option dvipdfm and its aliases dvipdfmx xetex are used for drivers that support dvipdfm specials.

#### 1.3.3 Option dvips

Package option dvips and its alias dvipsone write pdfmark specials in the output. Unhappily these pdfmark operators are ignored by ghostscript (latest tested version is 8.54). Perhaps they are recognized by commercial distiller applications.

### 1.3.4 Turning off page stream compression

For debugging it is useful to have uncompressed page stream objects. This can be done afterwards via pdftk:

```
pdftk file.pdf output file-uncompressed.pdf uncompress
```

Or the PDF file is generated uncompressed:

```
pdfTeX: \pdfcompresslevel=0
dvipdfm: dvipdfm -z0 ...
dvipdfmx: dvipdfmx -z0 ...
ghostscript/ps2pdf: ps2pdf -dCompressPages=false input.ps output.pdf
```

### Example

### Example \notparallel

```
1 (*example1)
2 %<<END
3 \documentclass{article}
4 \usepackage{accsupp}[2007/11/14]
5 \usepackage{centernot}
6 % U+2226 NOT PARALLEL
7 % \mathrel{...} prevents page break in between
8 \mbox{newcommand} {\mbox{notparallel}}{\%}
9 \ensuremath{%
10
     \mathrel{%
      \BeginAccSupp{method=hex,unicode,ActualText=2226}%
11
      \centernot{\parallel}%
12
      \EndAccSupp{}%
13
     }%
14
15 }%
16 }
17 \begin{document}
18 \begin{equation}
19 A\notparallel B
20 \end{equation}
21 \end{document}
22 %END
23 (/example1)
```

#### Example with pdfstringdef 2.2

```
24 (*example2)
25 %<<END
26 \documentclass{article}
27 \usepackage[unicode]{hyperref}
```

```
28 \usepackage{accsupp}[2007/11/14]
29 \begin{document}
   \begin{equation}
30
     \BeginAccSupp{
31
32
      method=pdfstringdef,
33
      unicode,
34
      ActualText={%
35
        a\texttwosuperior +b\texttwosuperior
36
        =c\texttwosuperior
37
     }
38
     a^2 + b^2 = c^2
39
     \EndAccSupp{}
40
   \end{equation}
42 \end{document}
43 %END
44 (/example2)
```

### 3 Implementation

### 3.1 Package

```
45 (*package)
 46 \begingroup\catcode61\catcode48\catcode32=10\relax%
 47 \catcode13=5 % ^^M
 48 \endlinechar=13 %
 49 \catcode123=1 % {
 50 \catcode125=2 % }
 51 \catcode64=11 % @
 52 \def\x{\endgroup
                                \expandafter\edef\csname ACCSUPP@AtEnd\endcsname{%
 53
                                           \endlinechar=\the\endlinechar\relax
 54
                                           \catcode13=\the\catcode13\relax
 55
                                           \color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\t
 56
 57
                                           \color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\the\color=\t
 58
                                           \colored{catcode61=\label{catcode61}relax}
 59
                                           \colored{catcode64} \to \colored{catcode64}
 60
                                           \color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=\color=
                                           \verb|\catcode| 125 = \verb|\the| catcode| 125 \verb|\relax|
 61
                                }%
 62
63 }%
64 \x\catcode61\catcode48\catcode32=10\relax%
65 \catcode13=5 % ^^M
66 \endlinechar=13 %
 67 \catcode35=6 % #
 68 \catcode64=11 % @
 69 \catcode123=1 % {
 70 \catcode125=2 % }
 71 \def\TMP@EnsureCode#1#2{%
 72 \edef\ACCSUPP@AtEnd{%
                                \ACCSUPP@AtEnd
 73
                                \verb|\catcode#1=\\ the \verb|\catcode#1\\ relax|
 74
                     }%
 75
 76 \color=1=\#2\relax
 77 }
 78 \TMP@EnsureCode{10}{12}% ^^J
 79 \TMP@EnsureCode{33}{12}%!
 80 \TMP@EnsureCode{39}{12}% '
81 \TMP@EnsureCode{40}{12}% (
82 \TMP@EnsureCode{41}{12}%)
 83 \TMP@EnsureCode\{42\}\{12\}\% *
 84 \TMP@EnsureCode{44}{12}%,
```

```
85 \TMP@EnsureCode{45}{12}% -
86 \TMP@EnsureCode{46}{12}%.
87 \TMP@EnsureCode{47}{12}% /
88 \TMP@EnsureCode{58}{12}%:
89 \TMP@EnsureCode{60}{12}% <
90 \TMP@EnsureCode{62}{12}% >
91 \TMP@EnsureCode{94}{7}% ^ (superscript)
92 \TMP@EnsureCode{96}{12}%
93 \TMP@EnsureCode{254}{12}% ^^fe
94 \TMP@EnsureCode{255}{12}% ^{ff}
95 \edf\ACCSUPP@AtEnd\ACCSUPP@AtEnd\noexpand\endinput\}
   Package identification.
96 \NeedsTeXFormat{LaTeX2e}
97 \ProvidesPackage{accsupp}%
98 [2016/05/16 v0.4 Accessibility support by marked content (HO)]
99 \RequirePackage{pdfescape}[2007/02/25]
100 \RequirePackage{ifpdf}
101 \RequirePackage{ifxetex}
102 \RequirePackage{kvoptions}
103 \SetupKeyvalOptions{%
104 family=ACCSUPP,%
105 prefix=ACCSUPP@%
106 }
3.2
      Space setup
107 \DeclareBoolOption{space}
108 \DeclareStringOption[phvr8r]{spacefont}
109 \DeclareStringOption[32]{spacechar}
3.3 Driver detection and setup
Driver declarations.
110 \def\ACCSUPP@DefineDriverKey{%
111 \@dblarg\ACCSUPP@@DefineDriverKey
112 }
113 \def\ACCSUPP@@DefineDriverKey[#1]#2{%
114 \define@key{ACCSUPP}{#2}[]{%
115
    \def\ACCSUPP@driver{#1}%
116 }%
    \g@addto@macro\ACCSUPP@DisableOptions{%
117
     \DisableKeyvalOption{ACCSUPP}{#2}%
118
119 }%
120 }
121 \let\ACCSUPP@DisableOptions\@empty
122 \ACCSUPP@DefineDriverKey{pdftex}
123 \ACCSUPP@DefineDriverKey{dvips}
124 \ACCSUPP@DefineDriverKey[dvips]{dvipsone}
125 \ACCSUPP@DefineDriverKey{dvipdfm}
126 \ACCSUPP@DefineDriverKey[dvipdfm]{dvipdfmx}
127 \ACCSUPP@DefineDriverKey[dvipdfm]{xetex}
128 \let\ACCSUPP@driver\relax
129 \InputIfFileExists{accsupp.cfg}{}{}
130 \providecommand*{\ActualTextDriverDefault}{dvips}
131 \ifpdf
132 \def\ACCSUPP@driver{pdftex}%
133 \else
134 \ifxetex
135
     \def\ACCSUPP@driver{dvipdfm}%
136
    \else
     \ifx\ACCSUPP@driver\relax
137
       \let\ACCSUPP@driver\ActualTextDriverDefault
138
```

139

```
140 \fi
141 \fi
```

### Process options.

```
142 \ProcessKeyvalOptions*
143 \ACCSUPP@DisableOptions
```

#### Driver validation and loading.

```
144 \def\ACCSUPP@temp{pdftex}%
145 \ifpdf
           \ifx\ACCSUPP@temp\ACCSUPP@driver
146
147
            \else
148
                \PackageWarningNoLine{accsupp}{%
149
                    Wrong driver `\ACCSUPP@driver', using `pdftex' instead%
150
                \let\ACCSUPP@driver\ACCSUPP@temp
151
152 \fi
153 \else
\PackageError{accsupp}{%
155
                    Wrong driver, pdfTeX is not running in PDF mode.\MessageBreak
156
                    Package loading is aborted%
157
158
                \expandafter\expandafter\ACCSUPP@AtEnd
159
160
            \label{lem:lemp} $$ \ensurement $$
161
            \ifxetex
163
               \ifx\ACCSUPP@temp\ACCSUPP@driver
164
                    \PackageWarningNoLine{accsupp}{%
165
                        Wrong driver `\ACCSUPP@driver',\MessageBreak
166
                       using `dvipdfm' for XeTeX instead%
167
168
                    }%
                    \let\ACCSUPP@driver\ACCSUPP@temp
169
170
            \fi
171
172 \fi%
173 \ifx\ACCSUPP@driver\relax
           \PackageError{accsupp}{%
               Missing driver option.\MessageBreak
175
176
               Package loading is aborted%
177 }\@ehc
178 \expandafter\ACCSUPP@AtEnd
179 \fi%
180 \InputIfFileExists{accsupp-\ACCSUPP@driver.def}{}{%
181 \PackageError{accsupp}{%
               Unsupported driver `\ACCSUPP@driver'.\MessageBreak
182
183
               Package loading is aborted%
184 }\@ehc
185 \ACCSUPP@AtEnd
186 }%
```

#### 3.4 Main macro

```
187 \DeclareBoolOption{unicode}
188 \DeclareStringOption[page]{pdfliteral}
189 \DeclareStringOption{Lang}
190 \def\ACCSUPP@method{escape}
191 \define@key{ACCSUPP}{method}{%
192 \@ifundefined{ACCSUPP@method@#1}{%
193 \PackageError{accsupp}{%
```

```
Ignoring unknown method `#1'%
194
195
196
197
      \edef\ACCSUPP@method{#1}%
198
    }%
199 }
200 \let\ACCSUPP@Lang\relax
201 \def\ACCSUPP@temp#1{%
202 \expandafter\ACCSUPP@@temp\csname ACCSUPP@#1\endcsname{#1}%
203 }
204 \def\ACCSUPP@@temp#1#2{\%
205 \left| \frac{41}{r} \right|
    \define@key{ACCSUPP}{#2}{%
206
     \def#1{##1}%
207
     \ifx#1\@empty
208
209
      \def#1{()}%
210
       \csname ACCSUPP@method@\ACCSUPP@method\endcsname#1%
211
212
     \fi
213 }%
214 }
215 \ACCSUPP@temp{Alt}
216 \ACCSUPP@temp{ActualText}
217 \ACCSUPP@temp{E}
218 \newcommand*{\BeginAccSupp}[1]{%
219
    \begingroup
      \setkeys{ACCSUPP}{#1}%
220
      \edef\ACCSUPP@span{%
221
       /Span<<%
222
        \ifx\ACCSUPP@Lang\relax
223
        \else
224
         /Lang\ACCSUPP@Lang
225
226
227
        \ifx\ACCSUPP@Alt\relax
228
229
         /Alt\ACCSUPP@Alt
230
        \fi
        \ifx\ACCSUPP@ActualText\relax
231
232
        \else
         /ActualText\ACCSUPP@ActualText
233
234
        \fi
        \ifx\ACCSUPP@E\relax
235
236
237
         /E\ACCSUPP@E
238
        \fi
239
      >>%
     }%
240
      \ACCSUPP@bdc
241
     \ACCSUPP@space
242
243
    \endgroup
244 }
245 \newcommand*{\EndAccSupp}[1]{%
246 \begingroup
     \setkeys{ACCSUPP}{#1}%
247
248
     \ACCSUPP@emc
249 \endgroup
250 }
251 \def\ACCSUPP@space{%
252 \ifACCSUPP@space
253
     \begingroup
       \@ifundefined{ACCSUPP@Font}{%
254
        \global\font\ACCSUPP@Font=\ACCSUPP@spacefont\relax
255
```

```
}{}%
256
257
       \leavevmode
       \setbox\z@\hbox{\ACCSUPP@Font\char\ACCSUPP@spacechar}%
258
260
       ht\z@\z@
261
       \dp\z@\z@
262
       \copy\z@
263
      \endgroup
264
    \fi
265 }
266 \newcommand*{\AccSuppSetup}{%
    \setkeys{ACCSUPP}%
268 }
3.4.1 Input methods
269 \def\ACCSUPP@method@plain#1{%
270 \csname @safe@activestrue\endcsname
271 \edef#1{%
272
273
      \ifACCSUPP@unicode
274
       \sqrt{376} \sqrt{377\%}
275
276
      #1%
      )%
277
    }%
278
279
    \ensuremath{\verb{@onelevel@sanitize\#1\%}}
280 }
281 \def\ACCSUPP@method@escape#1{%
    \EdefEscapeString#1{%
      \ifACCSUPP@unicode
283
        ^^fe^^ff%
284
      \fi
285
      #1%
286
287 }%
    \edef#1{(#1)}%
288
289 }%
290 \def\ACCSUPP@method@hex#1{%
291 \edef#1{%
292
      \ifACCSUPP@unicode
293
294
       FEFF%
295
      \fi
296
      #1%
297
      >%
298
    }%
299 }
300 \ensuremath{\mbox{\sc NCCSUPP@method@pdfstringdef}\#1{\mbox{\sc NcCsupp}}\xspace
    \ifACCSUPP@unicode
301
      \@ifundefined{hypersetup}{}{%
302
       \hypersetup{unicode}%
303
      }%
304
305
    \@ifundefined{pdfstringdef}{%
306
      \PackageError{accsupp}{%
307
       Method `pdfstringdef' requires package `hyperref'%
308
309
      \let\ACCSUPP@temp\@empty
310
    }{%
311
      \begingroup
312
       \school=\hbox{%}
313
         \pdfstringdef\ACCSUPP@temp#1%
314
```

```
\global\let\ACCSUPP@temp\ACCSUPP@temp
315
316
317
      \endgroup
318 }%
319
    \edef#1{(\ACCSUPP@temp)}%
320 }
321 \ACCSUPP@AtEnd%
322 (/package)
3.5 Drivers
3.5.1 Driver pdftex
323 (*pdftex)
324 \NeedsTeXFormat{LaTeX2e}
325 \ProvidesFile{accsupp-pdftex.def}%
326 [2016/05/16 v0.4 accsupp driver for pdfTeX (HO)]%
327 \def\ACCSUPP@bdc{%
328 \pdfliteral\ACCSUPP@pdfliteral{\ACCSUPP@span BDC}%
329 }
330 \def\ACCSUPP@emc{%
331 \pdfliteral\ACCSUPP@pdfliteral{EMC}%
332 }
333 \langle /pdftex \rangle
3.5.2 Driver dvipdfm
334 (*dvipdfm)
335 \NeedsTeXFormat{LaTeX2e}
336 \ProvidesFile{accsupp-dvipdfm.def}%
337 [2016/05/16 v0.4 accsupp driver for dvipdfm (HO)]%
338 \def\ACCSUPP@bdc{%
339 \special{pdf:content \ACCSUPP@span BDC}%
340 }
341 \def\ACCSUPP@emc{%
342 \special{pdf:content EMC}%
343 }
344 (/dvipdfm)
3.5.3 Driver dvips
345 (*dvips)
346 \NeedsTeXFormat{LaTeX2e}
347 \ProvidesFile{accsupp-dvips.def}%
348 [2016/05/16 v0.4 accsupp driver for dvips (HO)]%
349 \def\ACCSUPP@bdc{%
350 \special{ps:[\ACCSUPP@span/BDC pdfmark}%
351 }
352 \def\ACCSUPP@emc{%
353 \special{ps:[/EMC pdfmark}%
354 }
355 (/dvips)
4
    Test
      Catcode checks for loading
356 (*test1)
357 \NeedsTeXFormat{LaTeX2e}
358 \documentclass{minimal}
359 \makeatletter
```

360 \def\RestoreCatcodes{}

```
361 \count@=0 %
362 \loop
    \edef\RestoreCatcodes{%
363
      \RestoreCatcodes
      \catcode\the\count@=\the\catcode\count@\relax
365
366 }%
367 \ifnum\count@<255 \%
368
    \advance\count@\@ne
369 \text{ } \text{repeat}
370
371 \def\RangeCatcodeInvalid#1#2\%
    \count@=#1\relax
372
373
    \loop
      \catcode\count@=15 %
374
    \index(0) = \frac{2\pi}{2}
375
      \advance\count@\@ne
377
   \repeat
378 }
379 \left\{ \text{Test} \right\}
380
    \RangeCatcodeInvalid{0}{47}%
    \RangeCatcodeInvalid{58}{64}%
381
    \RangeCatcodeInvalid{91}{96}%
382
    \RangeCatcodeInvalid{123}{127}%
383
    \catcode`\@=12 %
384
    \color=0 \%
385
    \color=1 \%
386
387
    \color= \color= 2 \%
    \color=6 \%
388
389
    \cite{12 }%
    \color=12 \%
390
    \color=14 \%
391
    \color=10 \%
392
393
    \catcode13=5 %
    \RequirePackage{accsupp}[2016/05/16]\relax
394
    \RestoreCatcodes
395
396 }
397 \Test
398 \csname @@end\endcsname
399 \end
400 (/test1)
```

### 5 Installation

### 5.1 Download

Package. This package is available on CTAN<sup>1</sup>:

CTAN:macros/latex/contrib/oberdiek/accsupp.dtx The source file.

CTAN:macros/latex/contrib/oberdiek/accsupp.pdf Documentation.

**Bundle.** All the packages of the bundle 'oberdiek' are also available in a TDS compliant ZIP archive. There the packages are already unpacked and the documentation files are generated. The files and directories obey the TDS standard.

CTAN:install/macros/latex/contrib/oberdiek.tds.zip

TDS refers to the standard "A Directory Structure for TEX Files" (CTAN:tds/tds.pdf). Directories with texmf in their name are usually organized this way.

<sup>&</sup>lt;sup>1</sup>http://ctan.org/pkg/accsupp

#### 5.2 Bundle installation

**Unpacking.** Unpack the oberdiek.tds.zip in the TDS tree (also known as texmf tree) of your choice. Example (linux):

```
unzip oberdiek.tds.zip -d ~/texmf
```

Script installation. Check the directory TDS:scripts/oberdiek/ for scripts that need further installation steps. Package attachfile2 comes with the Perl script pdfatfi.pl that should be installed in such a way that it can be called as pdfatfi. Example (linux):

```
chmod +x scripts/oberdiek/pdfatfi.pl
cp scripts/oberdiek/pdfatfi.pl /usr/local/bin/
```

### 5.3 Package installation

**Unpacking.** The .dtx file is a self-extracting docstrip archive. The files are extracted by running the .dtx through plain TFX:

```
tex accsupp.dtx
```

**TDS.** Now the different files must be moved into the different directories in your installation TDS tree (also known as texmf tree):

If you have a docstrip.cfg that configures and enables docstrip's TDS installing feature, then some files can already be in the right place, see the documentation of docstrip.

#### 5.4 Refresh file name databases

If your  $T_EX$  distribution (te $T_EX$ , mik $T_EX$ , ...) relies on file name databases, you must refresh these. For example, te $T_EX$  users run texhash or mktexlsr.

#### 5.5 Some details for the interested

Unpacking with I₄TEX. The .dtx chooses its action depending on the format:

plain T<sub>E</sub>X: Run docstrip and extract the files.

LATEX: Generate the documentation.

If you insist on using  $\LaTeX$  for docstrip (really, docstrip does not need  $\LaTeX$ ), then inform the autodetect routine about your intention:

```
latex \let\install=y\input{accsupp.dtx}
```

Do not forget to quote the argument according to the demands of your shell.

Generating the documentation. You can use both the .dtx or the .drv to generate the documentation. The process can be configured by the configuration file ltxdoc.cfg. For instance, put this line into this file, if you want to have A4 as paper format:

\PassOptionsToClass{a4paper}{article}

An example follows how to generate the documentation with pdfIATEX:

```
pdflatex accsupp.dtx
makeindex -s gind.ist accsupp.idx
pdflatex accsupp.dtx
makeindex -s gind.ist accsupp.idx
pdflatex accsupp.dtx
```

### 6 Catalogue

The following XML file can be used as source for the TEX Catalogue. The elements caption and description are imported from the original XML file from the Catalogue. The name of the XML file in the Catalogue is accsupp.xml.

```
401 (*catalogue)
402 <?xml version='1.0' encoding='us-ascii'?>
403 <!DOCTYPE entry SYSTEM 'catalogue.dtd'>
404 <entry datestamp='$Date$' modifier='$Author$' id='accsupp'>
405 <name>accsupp</name>
406 <caption>Better accessibility support for PDF files.</caption>
407
    <authorref id='auth:oberdiek'/>
     <copyright owner='Heiko Oberdiek' year='2007,2010'/>
408
     <license type='lppl1.3'/>
409
    <version number='0.4'/>
410
411
     <description>
      Since PDF 1.5 portions of a page can be marked for better accessibility
412
      support. For example, replacement texts or expansions of abbreviations can
413
      be provided. This package starts with providing a minimal low-level
414
      interface for programmers; its status is experimental.
415
416
      The package is part of the xref refid='oberdiek'>oberdiek bundle.
417
418 </description>
419 <documentation details='Package documentation'
       href='ctan:/macros/latex/contrib/oberdiek/accsupp.pdf'/>
420
421 <ctan file='true' path='/macros/latex/contrib/oberdiek/accsupp.dtx'/>
422 <miktex location='oberdiek'/>
423 <texlive location='oberdiek'/>
424 <install path='/macros/latex/contrib/oberdiek/oberdiek.tds.zip'/>
425 </entry>
426 (/catalogue)
```

### 7 References

[1] Adobe Systems Incorporated, *PDF Reference*, 6th edition, 2006. http://www.adobe.com/devnet/acrobat/pdfs/pdf\_reference.pdf

### 8 History

[2007/03/21 v0.1]

• First version.

### [2007/11/14 v0.2]

- Various bug fixes.
- Catcode section rewritten, test added.

### [2010/01/16 v0.3]

- \AccSuppSetup added.

### [2016/05/16 v0.4]

• Documentation updates.

### 9 Index

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