

The pdfrender package

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Abstract

The PDF format has some graphics parameter like line width or text rendering mode. This package provides an interface for setting these parameters.

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*Please report any issues at <https://github.com/ho-tex/oberdiek/issues>

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1 Documentation

This package `pdfrender` defines an interface for PDF specific parameters that affects the rendering of graphics or text. The interface and its implementation uses the same technique as package `color` for color settings. Therefore this package is loaded to enable L^AT_EX's color interface.

At different places L^AT_EX uses `\normalcolor` to avoid that header, footer or floats are print in the current color of the main text. `\setgroup@color` is used to start a save box with the color that is set at box saving time. Package `pdfrender` extends these macros to add its own hooks of its parameters. Therefore L^AT_EX3 should generalize L^AT_EX 2_ε's color interface.

1.1 Usage

In L^AT_EX the package is loaded as normal package. Options are not defined for this package.

```
\usepackage{pdfrender}
```

This package can also be used in plain T_EX and even iniT_EX:

```
input pdfrender.sty
```

1.2 Macros

`\pdfrender {⟨key value list⟩}`

The first parameter *⟨key value list⟩* contains a list of parameter settings. The key entry is the parameter name. The macro works like `\color` (without optional argument) for color setting.

`\textpdfrender {⟨key value list⟩} {⟨text⟩}`

In the same way as `\pdfrender` the first argument specifies the parameters that should be set. This parameter setting affects *⟨text⟩* only. Basically it works the same way as `\textcolor` (without optional argument).

1.3 Parameters

The following table shows an overview for the supported parameters and values:

Parameter	Value	Alias
TextRenderingMode	0	Fill
	1	Stroke
	2	FillStroke
	3	Invisible
	4	FillClip
	5	StrokeClip
	6	FillStrokeClip
	7	Clip
LineWidth	<i>positive number, unit is bp</i>	<i>TeX dimen</i>
LineCapStyle	0	Butt
	1	Round
	2	ProjectingSquare
LineJoinStyle	0	Miter
	1	Round
	2	Bevel
MiterLimit	<i>positive number</i>	
Flatness	<i>number between 0 and 100</i>	
LineDashPattern	<i>numbers in square brackets, followed by number, units are bp</i>	
RenderingIntent	AbsoluteColorimetric	
	RelativeColorimetric	
	Saturation	
	Perceptual	
FillColor		<i>color specification</i>
StrokeColor		<i>color specification</i>

1.3.1 Details

The description and specification of these parameters are available in the PDF specification [1]. Therefore they are not repeated here.

Value: The values in the second column lists or describe the values that are specified by the PDF specification.

Alias: Instead of magic numbers the package also defines some aliases that can be given as value. Example: `LineCapStyle=Round` has the same effect as `LineCapStyle=1`.

Number: The term *number* means an integer or real number. The real number is given as plain decimal number without exponent. The decimal separator is a period. At least one digit must be present.

LineWidth: As alias a TeX dimen specification can be given. This includes explicit specifications with number and unit, e.g. `LineWidth=0.5pt`. Also L^AT_EX length registers may be used. If ε -T_EX's `\dimexpr` is available, then it is automatically added. However package `calc` is not supported.

FillColor, StrokeColor: Package `color` or `xcolor` must be loaded before these options can be used (since version 1.2). L^AT_EX's color support sets both colors at the same time to the same value. However parameter `TextRenderingMode` offers the value `FillStroke` that makes only sense, if the two color types can be set separately. If one of the options `FillColor` or `StrokeColor` is specified, then also the color is set. For compatibility with the L^AT_EX color packages (`color` or `xcolor`), always both colors must be set. Thus if one of them is not specified, it is taken from the current color.

Both options `FillColor` and `StrokeColor` expect a L^AT_EX color specification as value. Also the optional color model argument is supported. Example:

```
FillColor=yellow,
StrokeColor=[cmyk]{1,.5,0,0}
```

1.4 Color stack

If the pdfT_EX version provides color stacks, then each parameter is assigned a page based color stack. The assignment of a stack takes place, when its parameter is set the first time. This avoids the use of color stacks that are not needed.

2 Implementation

```
1 <*package>
Reload check, especially if the package is not used with LATEX.
2 \begingroup\catcode61\catcode48\catcode32=10\relax%
3 \catcode13=5 % ^~M
4 \endlinechar=13 %
5 \catcode35=6 % #
6 \catcode39=12 % '
7 \catcode44=12 % ,
8 \catcode45=12 % -
9 \catcode46=12 % .
10 \catcode58=12 % :
11 \catcode64=11 % @
12 \catcode123=1 % {
13 \catcode125=2 % }
14 \expandafter\let\expandafter\x\csname ver@pdfrender.sty\endcsname
15 \ifx\x\relax % plain-TEX, first loading
16 \else
17 \def\empty{}%
18 \ifx\x\empty % LATEX, first loading,
19 % variable is initialized, but \ProvidesPackage not yet seen
20 \else
21 \expandafter\ifx\csname PackageInfo\endcsname\relax
22 \def\x#1#2{%
23 \immediate\write-1{Package #1 Info: #2.}%
24 }%
25 \else
26 \def\x#1#2{\PackageInfo{#1}{#2, stopped}}%
27 \fi
28 \x{pdfrender}{The package is already loaded}%
29 \aftergroup\endinput
30 \fi
31 \fi
```

```

32 \endgroup%
Package identification:
33 \begingroup\catcode61\catcode48\catcode32=10\relax%
34 \catcode13=5 % ^~M
35 \endlinechar=13 %
36 \catcode35=6 % #
37 \catcode39=12 % '
38 \catcode40=12 % (
39 \catcode41=12 % )
40 \catcode44=12 % ,
41 \catcode45=12 % -
42 \catcode46=12 % .
43 \catcode47=12 % /
44 \catcode58=12 % :
45 \catcode64=11 % @
46 \catcode91=12 % [
47 \catcode93=12 % ]
48 \catcode123=1 % {
49 \catcode125=2 % }
50 \expandafter\ifx\csname ProvidesPackage\endcsname\relax
51 \def\x#1#2#3[#4]{\endgroup
52 \immediate\write-1{Package: #3 #4}%
53 \xdef#1{#4}%
54 }%
55 \else
56 \def\x#1#2[#3]{\endgroup
57 #2[{#3}]%
58 \ifx#1\@undefined
59 \xdef#1{#3}%
60 \fi
61 \ifx#1\relax
62 \xdef#1{#3}%
63 \fi
64 }%
65 \fi
66 \expandafter\x\csname ver@pdfrender.sty\endcsname
67 \ProvidesPackage{pdfrender}%
68 [2018/11/01 v1.5 Access to some PDF graphics parameters (H0)]%
69 \begingroup\catcode61\catcode48\catcode32=10\relax%
70 \catcode13=5 % ^~M
71 \endlinechar=13 %
72 \catcode123=1 % {
73 \catcode125=2 % }
74 \catcode64=11 % @
75 \def\x{\endgroup
76 \expandafter\edef\csname PdfRender@AtEnd\endcsname{%
77 \endlinechar=\the\endlinechar\relax
78 \catcode13=\the\catcode13\relax
79 \catcode32=\the\catcode32\relax
80 \catcode35=\the\catcode35\relax
81 \catcode61=\the\catcode61\relax
82 \catcode64=\the\catcode64\relax
83 \catcode123=\the\catcode123\relax
84 \catcode125=\the\catcode125\relax
85 }%
86 }%
87 \x\catcode61\catcode48\catcode32=10\relax%
88 \catcode13=5 % ^~M

```

```

89 \endlinechar=13 %
90 \catcode35=6 % #
91 \catcode64=11 % @
92 \catcode123=1 % {
93 \catcode125=2 % }
94 \def\TMP@EnsureCode#1#2{%
95   \edef\PdfRender@AtEnd{%
96     \PdfRender@AtEnd
97     \catcode#1=\the\catcode#1\relax
98   }%
99   \catcode#1=#2\relax
100 }
101 \TMP@EnsureCode{10}{12}% ^^J
102 \TMP@EnsureCode{36}{3}% $
103 \TMP@EnsureCode{39}{12}% '
104 \TMP@EnsureCode{40}{12}% (
105 \TMP@EnsureCode{41}{12}% )
106 \TMP@EnsureCode{42}{12}% *
107 \TMP@EnsureCode{43}{12}% +
108 \TMP@EnsureCode{44}{12}% ,
109 \TMP@EnsureCode{45}{12}% -
110 \TMP@EnsureCode{46}{12}% .
111 \TMP@EnsureCode{47}{12}% /
112 \TMP@EnsureCode{58}{12}% :
113 \TMP@EnsureCode{59}{12}% ;
114 \TMP@EnsureCode{60}{12}% <
115 \TMP@EnsureCode{62}{12}% >
116 \TMP@EnsureCode{63}{12}% ?
117 \TMP@EnsureCode{91}{12}% [
118 \TMP@EnsureCode{93}{12}% ]
119 \TMP@EnsureCode{94}{7}% ^ (superscript)
120 \TMP@EnsureCode{96}{12}% `
121 \TMP@EnsureCode{124}{12}% |

122 \def\PdfRender@AtEndHook{}
123 \expandafter\def\expandafter\PdfRender@AtEnd\expandafter{%
124   \expandafter\PdfRender@AtEndHook
125   \PdfRender@AtEnd
126   \endinput
127 }

```

2.1 Look for pdfT_EX, its mode and features

\PdfRender@newif

```

128 \def\PdfRender@newif#1{%
129   \expandafter\edef\csname PdfRender@#1true\endcsname{%
130     \let
131     \expandafter\noexpand\csname ifPdfRender@#1\endcsname
132     \noexpand\iftrue
133   }%
134   \expandafter\edef\csname PdfRender@#1false\endcsname{%
135     \let
136     \expandafter\noexpand\csname ifPdfRender@#1\endcsname
137     \noexpand\iffalse
138   }%
139   \csname PdfRender@#1false\endcsname
140 }

```

\ifPdfRender@Stack

```

141 \PdfRender@newif{Stack}

\ifPdfRender@Match

142 \PdfRender@newif{Match}

\PdfRender@RequirePackage

143 \begingroup\expandafter\expandafter\expandafter\endgroup
144 \expandafter\ifx\csname RequirePackage\endcsname\relax
145   \def\PdfRender@RequirePackage#1[#2]{%
146     \expandafter\def\expandafter\PdfRender@AtEndHook\expandafter{%
147       \PdfRender@AtEndHook
148       \ltx@ifpackagelater{#1}{#2}{-}{%
149         \@PackageWarningNoLine{pdfrender}{%
150           You have requested version\MessageBreak
151           `#2' of package `#1',\MessageBreak
152           but only version\MessageBreak
153           \csname ver@#1.\ltx@pkgextension\endcsname'\MessageBreak
154           is available%
155         }%
156       }%
157     }%
158     \input #1.sty\relax
159   }%
160 \else
161   \let\PdfRender@RequirePackage\RequirePackage
162 \fi

```

Luatex compatibility

```

163 \ifx\pdfextension\@undefined\else
164   \def\pdfcolorstackinit {\pdffeedback colorstackinit}
165   \protected\def\pdfcolorstack    {\pdfextension colorstack}
166   \protected\def\pdfliteral      {\pdfextension literal}
167 \fi

168 \PdfRender@RequirePackage{ifpdf}[2010/01/28]
169 \PdfRender@RequirePackage{infwarerr}[2007/09/09]
170 \PdfRender@RequirePackage{ltxcmds}[2010/01/28]

171 \ifpdf
172   \ltx@ifundefined{pdfcolorstackinit}{%
173     \@PackageWarning{pdfrender}{%
174       Missing \string\pdfcolorstackinit
175     }%
176   }{%
177     \PdfRender@Stacktrue
178   }%
179   \ltx@ifundefined{pdfmatch}{%
180     \@PackageInfoNoLine{pdfrender}{%
181       \string\pdfmatch\ltx@space not found. %
182       Therefore the values\MessageBreak
183       of some parameters are not validated%
184     }%
185   }{%
186     \PdfRender@Matchtrue
187   }%
188 \else
189   \@PackageWarning{pdfrender}{%
190     Missing pdfTeX in PDF mode%
191   }%

```

```

192 \ltx@ifundefined{newcommand}{%
\pdfrender
193 \def\pdfrender#1{%
\textpdfrender
194 \long\def\textpdfrender#1#2{#2}%
195 }%
\pdfrender
196 \newcommand*\pdfrender[1]{%
\textpdfrender
197 \newcommand\textpdfrender[2]{#2}%
198 }%
199 \expandafter\PdfRender@AtEnd
200 \fi%

```

2.2 Enable color support of L^AT_EX

```

201 \ltx@ifpackageloaded{color}{%
202 \def\color@setgroup{\begingroup\set@color}%
203 \let\color@begingroup\begingroup
204 \def\color@endgroup{\endgraf\endgroup}%
205 \def\color@hbox{\hbox\bgroup\color@begingroup}%
206 \def\color@vbox{\vbox\bgroup\color@begingroup}%
207 \def\color@endbox{\color@endgroup\egroup}%
208 \ltx@ifundefined{bgroup}{%
209 \let\bgroup=\let\egroup=%
210 }{}%
211 \ltx@ifundefined{endgraf}{%
212 \let\endgraf=\par
213 }{}%
214 }

```

2.3 Hook into \normalcolor

The problem is that packages `color` and `xcolor` each overwrite `\normalcolor`. For example, after the package loading order `color`, `pdfrender` and `xcolor` the patched version of `\normalcolor` is overwritten by package `xcolor`. Also using `\AtBeginDocument` for patching is not enough. If package `hyperref` is loaded later, it might load package `color` using `\AtBeginDocument`.

```

\PdfRender@NormalColorHook
215 \def\PdfRender@NormalColorHook{}
\PdfRender@ColorSetGroupHook
216 \def\PdfRender@ColorSetGroupHook{}
\PdfRender@TestBox
217 \def\PdfRender@TestBox#1{%
218 \setbox0=\color@hbox#1\color@endbox
219 }

```

\PdfRender@PatchNormalColor

```
220 \def\PdfRender@PatchNormalColor{%
221   \ltx@ifundefined{normalcolor}{}%
222   \gdef\normalcolor{\PdfRender@NormalColorHook}%
223 }{%
224   \begingroup
225     \def\PdfRender@NormalColorHook{\let\PdfRender@temp=Y}%
226     \PdfRender@TestBox{%
227       \let\set@color\relax
228       \normalcolor
229       \ifx\PdfRender@temp Y%
230         \else
231           \ltx@GlobalAppendToMacro\normalcolor{%
232             \PdfRender@NormalColorHook
233           }%
234         \fi
235       }%
236     \endgroup
237   }%
238   \ifx\@nocument\relax
239     \global\let\PdfRender@PatchNormalColor\relax
240   \fi
241 }%
```

\PdfRender@PatchColorSetGroup

```
242 \def\PdfRender@PatchColorSetGroup{%
243   \begingroup
244     \def\PdfRender@ColorSetGroupHook{\let\PdfRender@temp=Y}%
245     \PdfRender@TestBox{%
246       \let\set@color\relax
247       \color@setgroup\color@endgroup
248       \ifx\PdfRender@temp Y%
249         \else
250           \ltx@GlobalAppendToMacro\color@setgroup{%
251             \PdfRender@ColorSetGroupHook
252           }%
253         \fi
254       }%
255     \endgroup
256     \ifx\@nocument\relax
257       \global\let\PdfRender@PatchColorSetGroup\relax
258     \fi
259 }%
```

\PdfRender@PatchColor

```
260 \def\PdfRender@PatchColor{%
261   \PdfRender@PatchNormalColor
262   \PdfRender@PatchColorSetGroup
263 }

264 \PdfRender@PatchColor
265 \ltx@ifundefined{AtBeginDocument}{}{%
266   \AtBeginDocument{\PdfRender@PatchColor}%
267 }
```

\AfterPackage is provided by package scrfile.

```
268 \ltx@ifundefined{AfterPackage}{}%
269 }{%
```

```

270 \AfterPackage{color}{\PdfRender@PatchColor}%
271 \AfterPackage{xcolor}{\PdfRender@PatchColor}%
272 \AfterPackage{etoolbox}{%
273   \AfterEndPreamble{\PdfRender@PatchColor}%
274 }%
275 }%

\AfterEndPreamble is provided by package etoolbox.
276 \ltx@ifundefined{AfterEndPreamble}{%
277 }{%
278   \AfterEndPreamble{\PdfRender@PatchColor}%
279 }%

280 \PdfRender@RequirePackage{kvsetkeys}[2010/01/28]

\PdfRender@texorpdfstring
281 \def\PdfRender@texorpdfstring{%
282   \ltx@ifundefined{texorpdfstring}\ltx@firstoftwo\texorpdfstring
283 }

\pdfrender
284 \ltx@ifundefined{DeclareRobustCommand}%
285 \ltx@firstoftwo\ltx@secondoftwo
286 {%
287   \def\pdfrender#1%
288 }{%
289   \newcommand{\pdfrender}{}%
290   \DeclareRobustCommand*\pdfrender[1]%
291 }%
292 {%
293   \PdfRender@texorpdfstring{%
294     \PdfRender@PatchNormalColor
295     \global\let\PdfRender@FillColor\ltx@empty
296     \global\let\PdfRender@StrokeColor\ltx@empty
297     \kvsetkeys{PDFRENDER}{#1}%
298     \PdfRender@SetColor
299   }{%
300 }

\textpdfrender
301 \ltx@ifundefined{DeclareRobustCommand}%
302 \ltx@firstoftwo\ltx@secondoftwo
303 {%
304   \long\def\textpdfrender#1#2%
305 }{%
306   \newcommand{\textpdfrender}{}%
307   \DeclareRobustCommand{\textpdfrender}[2]%
308 }%
309 {%
310   \PdfRender@texorpdfstring{%
311     \begingroup
312       \pdfrender{#1}%
313       #2%
314     \endgroup
315   }{#2}%
316 }

\ifPdfRender@Values
317 \PdfRender@newif{Values}

```

\PdfRender@NewClassValues

```
318 \def\PdfRender@NewClassValues#1#2#3#4{%  
319   \PdfRender@Valuestrue  
320   \PdfRender@NewClass{#1}{#2}{#3}{#4}{}%  
321 }
```

\PdfRender@NewClass

```
322 \def\PdfRender@NewClass#1#2#3#4#5{%  
323   \PdfRender@newif{Active#1}%  
324   \expandafter\def\csname PdfRender@Default#1\endcsname{#2}%  
325   \expandafter\let\csname PdfRender@Current#1\endcsname  
326     \csname PdfRender@Default#1\endcsname  
327   \ifPdfRender@Stack  
328     \expandafter\edef\csname PdfRender@Init#1\endcsname{%  
329       \global\chardef  
330       \expandafter\noexpand\csname PdfRender@Stack#1\endcsname=  
331         \noexpand\pdfcolorstackinit page direct{%  
332           \noexpand#3%  
333           \expandafter\noexpand\csname PdfRender@Default#1\endcsname  
334         }\relax  
335       \noexpand\@PackageInfo{pdfrender}{%  
336         New color stack `#1' = \noexpand\number  
337         \expandafter\noexpand\csname PdfRender@Stack#1\endcsname  
338       }%  
339       \gdef\expandafter\noexpand\csname PdfRender@Init#1\endcsname{%  
340       }%  
341       \expandafter\edef\csname PdfRender@Set#1\endcsname{%  
342         \expandafter\noexpand\csname PdfRender@Init#1\endcsname  
343         \noexpand\pdfcolorstack  
344         \expandafter\noexpand\csname PdfRender@Stack#1\endcsname  
345         push{%  
346           #3{\expandafter\noexpand\csname PdfRender@Current#1\endcsname}%  
347         }%  
348         \noexpand\aftergroup  
349         \expandafter\noexpand\csname PdfRender@Reset#1\endcsname  
350       }%  
351       \expandafter\edef\csname PdfRender@Reset#1\endcsname{%  
352         \expandafter\noexpand\csname PdfRender@Init#1\endcsname  
353         \noexpand\pdfcolorstack  
354         \expandafter\noexpand\csname PdfRender@Stack#1\endcsname  
355         pop\relax  
356       }%  
357     \else  
358       \expandafter\edef\csname PdfRender@Set#1\endcsname{%  
359         \noexpand\pdfliteral direct{%  
360           #3{\expandafter\noexpand\csname PdfRender@Current#1\endcsname}%  
361         }%  
362         \noexpand\aftergroup  
363         \expandafter\noexpand\csname PdfRender@Reset#1\endcsname  
364       }%  
365       \expandafter\edef\csname PdfRender@Reset#1\endcsname{%  
366         \noexpand\pdfliteral direct{%  
367           #3{\expandafter\noexpand\csname PdfRender@Current#1\endcsname}%  
368         }%  
369       }%  
370     \fi  
371   \expandafter\edef\csname PdfRender@Normal#1\endcsname{%  
372     \let
```

```

373 \expandafter\noexpand\csname PdfRender@Current#1\endcsname
374 \expandafter\noexpand\csname PdfRender@Default#1\endcsname
375 \noexpand\PdfRender@Set{#1}%
376 }%
377 \expandafter\ltx@GlobalAppendToMacro\expandafter\PdfRender@NormalColorHook
378 \expandafter{%
379 \csname PdfRender@Normal#1\endcsname
380 }%
381 \ltx@GlobalAppendToMacro\PdfRender@ColorSetGroupHook{%
382 \PdfRender@Set{#1}%
383 }%
384 \ifPdfRender@Values
385 \kv@parse@normalized{#4}{%
386 \expandafter\let\csname PdfRender@#1@\kv@key\endcsname\kv@key
387 \ifx\kv@value\relax
388 \else
389 \expandafter\let\csname PdfRender@#1@\kv@value\endcsname\kv@key
390 \fi
391 \ltx@gobbletwo
392 }%
393 \PdfRender@define@key{PDFRENDER}{#1}{%
394 \global\csname PdfRender@Active#1true\endcsname
395 \def\PdfRender@Current{##1}%
396 \PdfRender@SetValidateValues{#1}%
397 }%
398 \PdfRender@Valuesfalse
399 \else
400 \PdfRender@define@key{PDFRENDER}{#1}{%
401 \global\csname PdfRender@Active#1true\endcsname
402 \expandafter\def\csname PdfRender@Current#1\endcsname{##1}%
403 \ltx@ifundefined{PdfRender@PostProcess#1}{%
404 }{%
405 \csname PdfRender@PostProcess#1\endcsname
406 }%
407 \PdfRender@SetValidate{#1}{#4}{#5}%
408 }%
409 \fi
410 }%

```

\PdfRender@define@key

```

411 \ltx@ifundefined{define@key}{%
412 \def\PdfRender@define@key#1#2{%
413 \expandafter\def\csname KV@#1@#2\endcsname##1%
414 }%
415 }{%
416 \let\PdfRender@define@key\define@key
417 }

```

\PdfRender@Set

```

418 \def\PdfRender@Set#1{%
419 \csname ifPdfRender@Active#1\endcsname
420 \csname PdfRender@Set#1\expandafter\endcsname
421 \fi
422 }

```

\PdfRender@Reset

```

423 \def\PdfRender@Reset#1{%
424 \csname ifPdfRender@Active#1\endcsname

```

```

425     \csname PdfRender@Reset#1\expandafter\endcsname
426 \fi
427 }

\PdfRender@ErrorInvalidValue

428 \def\PdfRender@ErrorInvalidValue#1{%
429   \PackageError{pdfrender}{%
430     Ignoring parameter setting for `#1'\MessageBreak
431     because of invalid value %
432     ~\csname PdfRender@Current#1\endcsname'%
433   }{@ehc
434   \expandafter\let\csname PdfRender@Current#1\endcsname\ltx@empty
435 }%

\PdfRender@SetValidate

436 \ifPdfRender@Match
437   \def\PdfRender@SetValidate#1#2#3{%
438     \ifnum\pdfmatch{^(#2)$}\csname PdfRender@Current#1\endcsname}=1 %
439     \csname PdfRender@Set#1\expandafter\endcsname
440   \else
441     \PdfRender@ErrorInvalidValue{#1}%
442   \fi
443 }%
444 \else
445   \def\PdfRender@SetValidate#1#2#3{%
446     \expandafter\let\expandafter\PdfRender@Current
447     \csname PdfRender@Current#1\endcsname
448     #3%
449     \ifx\PdfRender@Current\@empty
450       \PdfRender@ErrorInvalidValue{#1}%
451     \else
452       \csname PdfRender@Set#1\expandafter\endcsname
453     \fi
454   }%
455 \fi

\PdfRender@SetValidateValues

456 \def\PdfRender@SetValidateValues#1{%
457   \ltx@ifundefined{PdfRender@#1@\PdfRender@Current}{%
458     \expandafter\let\csname PdfRender@Current#1\endcsname
459       \PdfRender@Current
460     \PdfRender@ErrorInvalidValue{#1}%
461   }{%
462     \expandafter\edef\csname PdfRender@Current#1\endcsname{%
463       \csname PdfRender@#1@\PdfRender@Current\endcsname
464     }%
465     \csname PdfRender@Set#1\endcsname
466   }%
467 }

\PdfRender@OpValue

468 \def\PdfRender@OpValue#1#2{#2\ltx@space#1}%

\PdfRender@OpName

469 \def\PdfRender@OpName#1#2{/#2\ltx@space#1}%

```

2.4 Declare and setup parameters

```

470 \PdfRender@NewClassValues{TextRenderingMode}%
471         {0}%
472         {\PdfRender@OpValue{Tr}}{%
473     0=Fill,%
474     1=Stroke,%
475     2=FillStroke,%
476     3=Invisible,%
477     4=FillClip,%
478     5=StrokeClip,%
479     6=FillStrokeClip,%
480     7=Clip,%
481 }%
482 \PdfRender@NewClass{LineWidth}{1}{\PdfRender@OpValue{w}}{%
483     [0-9]+\string\.[0-9]*|\string\.[0-9]+%
484 }{%
485     \ltx@ifundefined{dimexpr}{%
486         \def\PdfRender@dimexpr{%
487             {%
488                 \let\PdfRender@dimexpr\dimexpr
489             }
490         \def\PdfRender@PostProcessLineWidth{%
491             \begingroup
492             \afterassignment\PdfRender@PostProcessLineWidth
493             \dimen0=\PdfRender@dimexpr\PdfRender@CurrentLineWidth bp %
494             \PdfRender@let\PdfRender@relax\PdfRender@relax
495         }
496         \let\PdfRender@let\let
497         \let\PdfRender@relax\relax
498         \def\PdfRender@PostProcessLineWidth#1\PdfRender@let{%
499             \ifx\#1\%
500                 \endgroup
501             \else
502                 \dimen0=.996264\dimen0 % 72/72.27
503                 \edef\x{\endgroup
504                     \def\noexpand\PdfRender@CurrentLineWidth{%
505                         \strip@pt\dimen0%
506                     }%
507                 }%
508                 \expandafter\x
509             \fi
510         }
511     \PdfRender@NewClassValues{LineCapStyle}{0}{\PdfRender@OpValue{J}}{%
512         0=Butt,%
513         1=Round,%
514         2=ProjectingSquare,%
515     }%
516     \PdfRender@NewClassValues{LineJoinStyle}{0}{\PdfRender@OpValue{j}}{%
517         0=Miter,%
518         1=Round,%
519         2=Bevel,%
520     }%
521     \PdfRender@NewClass{MiterLimit}{10}{\PdfRender@OpValue{M}}{%
522         [0-9]*[1-9][0-9]*\string\.[0-9]*|
523         [0-9]*\string\.[0-9]*[1-9][0-9]*%
524     }{%
525     \PdfRender@NewClass{Flatness}{0}{\PdfRender@OpValue{i}}{%
526         100(\string\.[0-9]*|[0-9][0-9](\string\.[0-9]*)?|\string\.[0-9]+%

```

```

527 }{}%
528 \PdfRender@NewClass{LineDashPattern}{[]0}{\PdfRender@OpValue{d}}{%
529   \string\[%
530   ( ?([0-9]+\string\.[0-9]*|\string\.[0-9]+) ?)*%
531   \string\] ?%
532   ([0-9]+\string\.[0-9]*|\string\.[0-9]+)%
533 }{}%
534 \PdfRender@NewClassValues{RenderingIntent}%
535                               {RelativeColorimetric}%
536                               {\PdfRender@OpName{ri}}{%
537   AbsoluteColorimetric,%
538   RelativeColorimetric,%
539   Saturation,%
540   Perceptual,%
541 }%

```

2.5 Fill and stroke color support

```

542 \PdfRender@define@key{PDFRENDER}{FillColor}{%
543   \begin{group}
544     \def\PdfRender@Color{#1}%
545     \ifx\PdfRender@Color\ltx@empty
546       \global\let\PdfRender@FillColor\ltx@empty
547     \else
548       \PdfRender@ColorAvailable{%
549         \PdfRender@TestBox{%
550           \expandafter\PdfRender@TryColor\PdfRender@Color\ltx@empty
551           \PdfRender@GetFillColor
552           \ifx\PdfRender@FillColor\ltx@empty
553             \@PackageWarning{pdfrender}{%
554               Cannot extract fill color\MessageBreak
555               from value `#1'%
556             }%
557           \fi
558         }%
559       }%
560     \fi
561   \end{group}
562 }
563 \PdfRender@define@key{PDFRENDER}{StrokeColor}{%
564   \begin{group}
565     \def\PdfRender@Color{#1}%
566     \ifx\PdfRender@Color\ltx@empty
567       \global\let\PdfRender@StrokeColor\ltx@empty
568     \else
569       \PdfRender@ColorAvailable{%
570         \PdfRender@TestBox{%
571           \expandafter\PdfRender@TryColor\PdfRender@Color\ltx@empty
572           \PdfRender@GetStrokeColor
573           \ifx\PdfRender@StrokeColor\ltx@empty
574             \@PackageWarning{pdfrender}{%
575               Cannot extract stroke color\MessageBreak
576               from value `#1'%
577             }%
578           \fi
579         }%
580       }%
581     \fi
582   \end{group}

```

```

583 }

\PdfRender@ColorAvailable

584 \def\PdfRender@ColorAvailable{%
585   \@ifundefined{set@color}{%
586     \@PackageError{pdfrender}{%
587       Ignoring color options, because neither\MessageBreak
588       package `color' nor package `xcolor' is loaded%
589     }\@ehc
590     \global\let\PdfRender@ColorAvailable\ltx@gobble
591   }{%
592     \global\let\PdfRender@ColorAvailable\ltx@firstofone
593   }%
594   \PdfRender@ColorAvailable
595 }

\PdfRender@TryColor

596 \def\PdfRender@TryColor{%
597   \@ifnextchar[\color\PdfRender@@TryColor
598 }

\PdfRender@@TryColor

599 \def\PdfRender@@TryColor#1\ltx@empty{%
600   \expandafter\color\expandafter{\PdfRender@Color}%
601 }

\PdfRender@SetColor

602 \def\PdfRender@SetColor{%
603   \chardef\PdfRender@NeedsCurrentColor=0 %
604   \ifx\PdfRender@FillColor\ltx@empty
605     \ifx\PdfRender@StrokeColor\ltx@empty
606       \else
607         \edef\PdfRender@CurrentColor{%
608           \noexpand\PdfRender@FillColor\ltx@space\PdfRender@StrokeColor
609         }%
610         \chardef\PdfRender@NeedsCurrentColor=1 %
611       \fi
612     \else
613       \ifx\PdfRender@StrokeColor\ltx@empty
614         \edef\PdfRender@CurrentColor{%
615           \PdfRender@FillColor\ltx@space\noexpand\PdfRender@StrokeColor
616         }%
617         \chardef\PdfRender@NeedsCurrentColor=2 %
618       \else
619         \edef\current@color{%
620           \PdfRender@FillColor\ltx@space\PdfRender@StrokeColor
621         }%
622         \set@color
623       \fi
624     \fi
625     \ifnum\PdfRender@NeedsCurrentColor=1 %
626       \PdfRender@GetFillColor
627       \ifx\PdfRender@FillColor\ltx@empty
628         \@PackageWarning{pdfrender}{%
629           Cannot extract current fill color%
630         }%
631       \else
632         \edef\current@color{\PdfRender@CurrentColor}%

```

```

633     \set@color
634     \fi
635   \else
636     \ifnum\PdfRender@NeedsCurrentColor=2 %
637       \PdfRender@GetStrokeColor
638       \ifx\PdfRender@StrokeColor\ltx@empty
639         \@PackageWarning{pdfrender}{%
640           Cannot extract current stroke color%
641         }%
642       \else
643         \edef\current@color{\PdfRender@CurrentColor}%
644         \set@color
645       \fi
646     \fi
647   \fi
648 }

```

\PdfRender@PatternFillColor

```

649 \edef\PdfRender@PatternFillColor{ % space
650   (%)
651   [0-9\string\.] + g|%
652   [0-9\string\.] + [0-9\string\.] + [0-9\string\.] + rg|%
653   [0-9\string\.] + [0-9\string\.] + %
654   [0-9\string\.] + [0-9\string\.] + k%
655   ) % space
656   (.*)$%
657 }

```

\PdfRender@PatternStrokeColor

```

658 \edef\PdfRender@PatternStrokeColor{ % space
659   (%)
660   [0-9\string\.] + G|%
661   [0-9\string\.] + [0-9\string\.] + [0-9\string\.] + RG|%
662   [0-9\string\.] + [0-9\string\.] + %
663   [0-9\string\.] + [0-9\string\.] + K%
664   ) % space
665   (.*)$%
666 }

```

\PdfRender@MatchPattern

```

667 \def\PdfRender@MatchPattern#1{%
668   \ifnum\pdfmatch{\PdfRender@Pattern}{\PdfRender@String}=1 %
669     \xdef#1{%
670       \expandafter\strip@prefix\pdflastmatch 1%
671     }%
672     \edef\PdfRender@String{%
673       \expandafter\strip@prefix\pdflastmatch 2%
674     }%
675     \ifx\PdfRender@String\ltx@empty
676     \else
677       \expandafter\expandafter\expandafter\PdfRender@MatchPattern
678       \expandafter\expandafter\expandafter#1%
679     \fi
680   \fi
681 }

```

\PdfRender@GetFillColor

```

682 \def\PdfRender@GetFillColor{%

```

```

683 \global\let\PdfRender@FillColor\ltx@empty
684 \begingroup
685   \ifPdfRender@Match
686     \let\PdfRender@Pattern\PdfRender@PatternFillColor
687     \edef\PdfRender@String{\ltx@space\current@color\ltx@space}%
688     \PdfRender@MatchPattern\PdfRender@FillColor
689   \else
690     \edef\current@color{\current@color\ltx@space}%
691     \let\PdfRender@OP\relax
692     \PdfRender@FindOp{g}0%
693     \PdfRender@FindOp{G}1%
694     \PdfRender@FindOp{rg}0%
695     \PdfRender@FindOp{RG}1%
696     \PdfRender@FindOp{k}0%
697     \PdfRender@FindOp{K}1%
698     \PdfRender@FilterOp 0\PdfRender@FillColor
699   \fi
700 \endgroup
701 }

```

\PdfRender@GetStrokeColor

```

702 \def\PdfRender@GetStrokeColor{%
703   \global\let\PdfRender@StrokeColor\ltx@empty
704   \begingroup
705     \ifPdfRender@Match
706       \let\PdfRender@Pattern\PdfRender@PatternStrokeColor
707       \edef\PdfRender@String{\ltx@space\current@color\ltx@space}%
708       \PdfRender@MatchPattern\PdfRender@StrokeColor
709     \else
710       \edef\current@color{\current@color\ltx@space}%
711       \let\PdfRender@OP\relax
712       \PdfRender@FindOp{g}0%
713       \PdfRender@FindOp{G}1%
714       \PdfRender@FindOp{rg}0%
715       \PdfRender@FindOp{RG}1%
716       \PdfRender@FindOp{k}0%
717       \PdfRender@FindOp{K}1%
718       \PdfRender@FilterOp 1\PdfRender@StrokeColor
719     \fi
720   \endgroup
721 }

722 \ifPdfRender@Match
723   \expandafter\PdfRender@AtEnd
724 \fi%

```

\PdfRender@FindOp

```

725 \def\PdfRender@FindOp#1#2{%
726   \def\PdfRender@temp##1 #1 ##2\@nil{%
727     ##1%
728     \ifx\##2\%
729       \expandafter\@gobble
730     \else
731       \PdfRender@OP{#1}#2%
732       \expandafter\@firstofone
733     \fi
734     {%
735       \PdfRender@temp##2\@nil

```

```

736 }%
737 }%
738 \edef\current@color{%
739   \@firstofone{\expandafter\PdfRender@temp\current@color} #1 \@nil
740 }%
741 }

```

\PdfRender@FilterOp

```

742 \def\PdfRender@FilterOp#1#2{%
743   \expandafter\PdfRender@@FilterOp\expandafter#1\expandafter#2%
744   \current@color\PdfRender@OP{}}%
745 }

```

\PdfRender@@FilterOp

```

746 \def\PdfRender@@FilterOp#1#2#3\PdfRender@OP#4#5{%
747   \ifx\#4#5\%
748   \else
749     \ifnum#1=#5 %
750       \xdef#2{#3 #4}%
751     \fi
752     \expandafter\PdfRender@@FilterOp\expandafter#1\expandafter#2%
753   \fi
754 }

755 \PdfRender@AtEnd%
756 \</package>

```

3 Test

3.1 Catcode checks for loading

```

757 \<test1>

758 \catcode`\{=1 %
759 \catcode`\}=2 %
760 \catcode`\#=6 %
761 \catcode`\@=11 %
762 \expandafter\ifx\csname count@\endcsname\relax
763   \countdef\count@=255 %
764 \fi
765 \expandafter\ifx\csname @gobble\endcsname\relax
766   \long\def@gobble#1{}%
767 \fi
768 \expandafter\ifx\csname @firstofone\endcsname\relax
769   \long\def@firstofone#1{#1}%
770 \fi
771 \expandafter\ifx\csname loop\endcsname\relax
772   \expandafter\@firstofone
773 \else
774   \expandafter\@gobble
775 \fi
776 {%
777   \def\loop#1\repeat{%
778     \def\body{#1}%
779     \iterate
780   }%
781   \def\iterate{%
782     \body

```

```

783     \let\next\iterate
784     \else
785     \let\next\relax
786     \fi
787     \next
788 }%
789 \let\repeat=\fi
790 }%
791 \def\RestoreCatcodes{}
792 \count@=0 %
793 \loop
794   \edef\RestoreCatcodes{%
795     \RestoreCatcodes
796     \catcode\the\count@=\the\catcode\count@\relax
797   }%
798 \ifnum\count@<255 %
799   \advance\count@ 1 %
800 \repeat
801
802 \def\RangeCatcodeInvalid#1#2{%
803   \count@=#1\relax
804   \loop
805     \catcode\count@=15 %
806     \ifnum\count@<#2\relax
807       \advance\count@ 1 %
808     \repeat
809 }
810 \def\RangeCatcodeCheck#1#2#3{%
811   \count@=#1\relax
812   \loop
813     \ifnum#3=\catcode\count@
814     \else
815       \errmessage{%
816         Character \the\count@\space
817         with wrong catcode \the\catcode\count@\space
818         instead of \number#3%
819       }%
820     \fi
821     \ifnum\count@<#2\relax
822       \advance\count@ 1 %
823     \repeat
824 }
825 \def\space{ }
826 \expandafter\ifx\csname LoadCommand\endcsname\relax
827   \def\LoadCommand{\input pdfrender.sty\relax}%
828 \fi
829 \def\Test{%
830   \RangeCatcodeInvalid{0}{47}%
831   \RangeCatcodeInvalid{58}{64}%
832   \RangeCatcodeInvalid{91}{96}%
833   \RangeCatcodeInvalid{123}{255}%
834   \catcode`\@=12 %
835   \catcode`\=0 %
836   \catcode`\%=14 %
837   \LoadCommand
838   \RangeCatcodeCheck{0}{36}{15}%
839   \RangeCatcodeCheck{37}{37}{14}%
840   \RangeCatcodeCheck{38}{47}{15}%

```

```

841 \RangeCatcodeCheck{48}{57}{12}%
842 \RangeCatcodeCheck{58}{63}{15}%
843 \RangeCatcodeCheck{64}{64}{12}%
844 \RangeCatcodeCheck{65}{90}{11}%
845 \RangeCatcodeCheck{91}{91}{15}%
846 \RangeCatcodeCheck{92}{92}{0}%
847 \RangeCatcodeCheck{93}{96}{15}%
848 \RangeCatcodeCheck{97}{122}{11}%
849 \RangeCatcodeCheck{123}{255}{15}%
850 \RestoreCatcodes
851 }
852 \Test
853 \csname @@end\endcsname
854 \end
855 </test1>

```

3.2 Simple test file

```

856 (*test2)
857 \NeedsTeXFormat{LaTeX2e}
858 \ProvidesFile{pdfrender-test2.tex}[2018/11/01]
859 \documentclass{article}
860 \usepackage{color}
861 \usepackage{pdfrender}[2018/11/01]
862 \begin{document}
863 Hello World
864 \newpage
865 Start
866 \textpdfrender{%
867   TextRenderingMode=1,%
868   LineWidth=.1,%
869   LineCapStyle=2,%
870   LineJoinStyle=1,%
871   MiterLimit=1.2,%
872   LineDashPattern=[2 2]0,%
873   RenderingIntent=Saturation,%
874 }{Hello\newpage World}
875 Stop
876 \par
877 \newlength{\LineWidth}
878 \setlength{\LineWidth}{.5pt}
879 Start
880 \textpdfrender{%
881   FillColor=yellow,%
882   StrokeColor=[cmyk]{1,.5,0,0},%
883   TextRenderingMode=FillStroke,%
884   LineWidth=.5\LineWidth,%
885   LineCapStyle=Round,%
886   LineJoinStyle=Bevel,%
887 }{Out-\par\newpage line}
888 Stop
889 \end{document}
890 </test2>

```

3.3 Further tests

Robustness and bookmarks.

```

891 (*test3)
892 \NeedsTeXFormat{LaTeX2e}

```

```

893 \ProvidesFile{pdfrender-test3.tex}[2018/11/01]
894 \documentclass{article}
895 \usepackage{pdfrender}[2018/11/01]
896 \usepackage{hyperref}
897 \usepackage{bookmark}
898 \begin{document}
899 \tableofcontents
900 \section{%
901   \textpdfrender{%
902     TextRenderingMode=1,%
903     LineCapStyle=2,%
904     LineJoinStyle=1,%
905     MiterLimit=1.2,%
906     LineDashPattern=[2 2]0,%
907     RenderingIntent=Saturation,%
908   }{Hello World}%
909 }
910 \end{document}
911 </test3>

Color algorithm if \pdfmatch is not available.

912 <*test4>
913 \NeedsTeXFormat{LaTeX2e}
914 \ProvidesFile{pdfrender-test4.tex}[2018/11/01]
915 \documentclass[12pt]{article}
916 \usepackage{pdfrender}[2018/11/01]
917 \usepackage{color}
918 \usepackage{qstest}
919 \IncludeTests{*}
920 \LogTests{log}{*}{*}
921 \makeatletter
922 \newcommand*{\CheckColor}[1]{%
923   \Expect{#1}*{\current@color}%
924 }
925 \makeatother
926 \begin{document}
927   \begin{qstest}{color}{color}%
928     \CheckColor{0 g 0 G}%
929     \Huge\bfseries
930     \noindent
931     \textpdfrender{%
932       TextRenderingMode=2,%
933       LineWidth=.5,%
934       FillColor=yellow,%
935       StrokeColor=blue,%
936     }{%
937       \CheckColor{0 0 1 0 k 0 0 1 RG}%
938       Blue(Yellow)\%
939       \textpdfrender{%
940         FillColor=green,%
941       }{%
942         \CheckColor{0 1 0 rg 0 0 1 RG}%
943         Blue(Green)%
944       }\%
945       \CheckColor{0 0 1 0 k 0 0 1 RG}%
946       Blue(Yellow)\%
947       \textpdfrender{%
948         StrokeColor=red,%
949       }{%

```

```

950      \CheckColor{0 0 1 0 k 1 0 0 RG}%
951      Red(Yellow)%
952    }\\%
953      \CheckColor{0 0 1 0 k 0 0 1 RG}%
954      Blue(Yellow) %
955    }%
956  \end{qstest}%
957  \begin{qstest}{colorlast}{colorlast}%
958    \makeatletter
959    \def\Test#1#2#3{%
960      \begingroup
961        \def\current@color{#1}%
962        \textpdfrenderer{#2}{%
963          \CheckColor{#3}%
964        }%
965      \endgroup
966    }%
967    \Test{1 g 0 0 1 RG 0 0 1 0 k 0.5 G}%
968      {StrokeColor=green}%
969      {0 0 1 0 k 0 1 0 RG}%
970    \Test{1 g 0 0 1 RG 0 0 1 0 k 0.5 G}%
971      {FillColor=red}%
972      {1 0 0 rg 0.5 G}%
973  \end{qstest}%
974 \end{document}
975 </test4>

```

3.4 Compatibility with plain T_EX

```

976 <*test5>
977 \input luatex85.sty
978 \pdfoutput=1 %
979 \hsize=6.5in
980 \vsize=8.9in
981 \pdfpagewidth=\hsize
982 \pdfpageheight=\vsize
983 \parfillskip=0pt plus 1fil\relax
984 \input pdfrenderer.sty\relax
985 \catcode`\{=1 %
986 \catcode`\}=2 %
987 \let\OrgMakeFootLine\makefootline
988 \def\makefootline{%
989   \begingroup\normalcolor\OrgMakeFootLine\endgroup
990 }
991 \font\font=ec-lmr10 scaled 3000\relax
992 \font
993 Before %
994 \textpdfrenderer{%
995   TextRenderingMode=1,%
996   LineWidth=.1,%
997 }{Hello\par\vfill\penalty-10000 World} %
998 After %
999 \par
1000 \vfill
1001 \penalty-10000 %
1002 \csname @@end\endcsname\end
1003 </test5>

```

4 Installation

4.1 Download

Package. This package is available on CTAN¹:

[CTAN:macros/latex/contrib/oberdiek/pdfrender.dtx](#) The source file.

[CTAN:macros/latex/contrib/oberdiek/pdfrender.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.

4.2 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/
```

4.3 Package installation

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

```
tex pdfrender.dtx
```

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

<code>pdfrender.sty</code>	\rightarrow <code>tex/generic/oberdiek/pdfrender.sty</code>
<code>pdfrender.pdf</code>	\rightarrow <code>doc/latex/oberdiek/pdfrender.pdf</code>
<code>test/pdfrender-test1.tex</code>	\rightarrow <code>doc/latex/oberdiek/test/pdfrender-test1.tex</code>
<code>test/pdfrender-test2.tex</code>	\rightarrow <code>doc/latex/oberdiek/test/pdfrender-test2.tex</code>
<code>test/pdfrender-test3.tex</code>	\rightarrow <code>doc/latex/oberdiek/test/pdfrender-test3.tex</code>
<code>test/pdfrender-test4.tex</code>	\rightarrow <code>doc/latex/oberdiek/test/pdfrender-test4.tex</code>
<code>test/pdfrender-test5.tex</code>	\rightarrow <code>doc/latex/oberdiek/test/pdfrender-test5.tex</code>
<code>pdfrender.dtx</code>	\rightarrow <code>source/latex/oberdiek/pdfrender.dtx</code>

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`.

¹[CTAN:pkg/pdfrender](#)

4.4 Refresh file name databases

If your $\text{T}_{\text{E}}\text{X}$ distribution (te $\text{T}_{\text{E}}\text{X}$, mik $\text{T}_{\text{E}}\text{X}$, ...) relies on file name databases, you must refresh these. For example, te $\text{T}_{\text{E}}\text{X}$ users run `texhash` or `mktextlsr`.

4.5 Some details for the interested

Unpacking with $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$. The `.dtx` chooses its action depending on the format:

plain $\text{T}_{\text{E}}\text{X}$: Run `docstrip` and extract the files.

$\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$: Generate the documentation.

If you insist on using $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ for `docstrip` (really, `docstrip` does not need $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$), then inform the autodetect routine about your intention:

```
latex \let\install=y\input{pdfrender.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 pdf $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$:

```
pdflatex_pdfrender.dtx
makeindex_s_gind.ist_pdfrender.idx
pdflatex_pdfrender.dtx
makeindex_s_gind.ist_pdfrender.idx
pdflatex_pdfrender.dtx
```

5 Acknowledgement

Friedrich Vosberg asked in the newsgroup `de.comp.text.tex` for the font outline feature [2].

Gaius Pupus proposed the basic method using `\pdfliteral` in this thread [3].

Rolf Niepraschk added color support [4].

6 References

- [1] Adobe Systems Incorporated. *PDF Reference – Adobe Portable Document format – Version 1.7*. 6th ed. 2006. URL: http://www.adobe.com/devnet/acrobat/pdfs/pdf_reference_1-7.pdf.
- [2] Friedrich Vosberg, *Text in Buchstabenumrissen*, `de.comp.text.tex`, 2010-01-22. URL: <https://groups.google.com/group/de.comp.text.tex/msg/f442310ac8b2d506>.
- [3] Gaius Pupus, *Re: Text in Buchstabenumrissen*, `de.comp.text.tex`, 2010-01-23. URL: <https://groups.google.com/group/de.comp.text.tex/msg/95d890d77ac47eb1>.
- [4] Rolf Niepraschk, *Re: Text in Buchstabenumrissen*, `de.comp.text.tex`, 2010-01-24. URL: <https://groups.google.com/group/de.comp.text.tex/msg/4eb61a5879db54db>.

7 History

[2010/01/26 v1.0]

- The first version.

[2010/01/27 v1.1]

- Macros `\pdfrender` and `\textpdfrender` are made robust.
- Color extraction rewritten for the case that `\pdfmatch` is not available. This fixes wrong color assignments in case of nesting.
- Color extraction of case `\pdfmatch` is fixed for the case that the color string contains several fill or several stroke operations.

[2010/01/28 v1.2]

- Dependency from package `color` is removed.
- Compatibility for plain `TEX` and even `iniTEX` added.

[2016/05/14 v1.3]

- Use package `luatex85` for compatibility with new `LuaTEX`.

[2016/05/17 v1.4]

- Documentation updates.
- adjust `luatex85` reference so that it works in plain `TEX`.

[2018/11/01 v1.5]

- Remove `luatex85` dependency

8 Index

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