

The pdfrender package

Heiko Oberdiek

<heiko.oberdiek at gmail.com>

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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.

Contents

1	Documentation	2
1.1	Usage	2
1.2	Macros	2
1.3	Parameters	2
1.3.1	Details	3
1.4	Color stack	3
2	Implementation	4
2.1	Look for pdfTeX, its mode and features	6
2.2	Enable color support of L ^A T _E X	7
2.3	Hook into \normalcolor	7
2.4	Declare and setup parameters	12
2.5	Fill and stroke color support	13
3	Test	17
3.1	Catcode checks for loading	17
3.2	Simple test file	19
3.3	Further tests	20
3.4	Compatibility with plain T _E X	21
4	Installation	22
4.1	Download	22
4.2	Bundle installation	22
4.3	Package installation	22
4.4	Refresh file name databases	23
4.5	Some details for the interested	23
5	Acknowledgement	23
6	References	23
7	History	24
	[2010/01/26 v1.0]	24
	[2010/01/27 v1.1]	24
	[2010/01/28 v1.2]	24
8	Index	24

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>T_EX dimen</i>
LineCapStyle	0	Butt
	1	Round
	2	ProjectingSquare

Parameter	Value	Alias
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 \LaTeX length registers may be used. If $\varepsilon\text{-}\TeX$'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). \LaTeX '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 \LaTeX 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 \LaTeX 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 `pdf \TeX` 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 L^AT_EX.

```
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  [2010/01/28 v1.2 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 pdfTeX, 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

163 \PdfRender@RequirePackage{ifpdf}[2010/01/28]
164 \PdfRender@RequirePackage{infwarerr}[2007/09/09]
165 \PdfRender@RequirePackage{ltxcmds}[2010/01/28]

166 \ifpdf
167   \ltx@ifundefined{pdfcolorstackinit}{%
168     \@PackageWarning{pdfrender}{%
169       Missing \string\pdfcolorstackinit
170     }%
171   }%

```

```

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

\pdfrender

188     \def\pdfrender#1{%

\textpdfrender

189     \long\def\textpdfrender#1#2{#2}%

190 }{%

\pdfrender

191     \newcommand*\pdfrender[1]{}%

\textpdfrender

192     \newcommand{\textpdfrender}[2]{#2}%

193 }%
194 \expandafter\PdfRender@AtEnd
195 \fi%
```

2.2 Enable color support of L^AT_EX

```

196 \ltx@ifpackageloaded{color}{}%
197 \def\color@setgroup{\begingroup\set@color}%
198 \let\color@begingroup\begingroup
199 \def\color@endgroup{\endgraf\endgroup}%
200 \def\color@hbox{\hbox\bgroup\color@begingroup}%
201 \def\color@vbox{\vbox\bgroup\color@begingroup}%
202 \def\color@endbox{\color@endgroup\egroup}%
203 \ltx@ifundefined{bgroup}{%
204     \let\bgroup=\let\egroup=%
205 }{}%
206 \ltx@ifundefined{endgraf}{%
207     \let\endgraf=\par
208 }{}%
209 }
```

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
```

```
210 \def\PdfRender@NormalColorHook{}
```

```

\PdfRender@ColorSetGroupHook
211 \def\PdfRender@ColorSetGroupHook{}

\PdfRender@TestBox
212 \def\PdfRender@TestBox#1{%
213   \setbox0=\color@hbox#1\color@endbox
214 }

\PdfRender@PatchNormalColor
215 \def\PdfRender@PatchNormalColor{%
216   \ltx@ifundefined{normalcolor}{%
217     \gdef\normalcolor{\PdfRender@NormalColorHook}%
218   }{%
219     \begingroup
220       \def\PdfRender@NormalColorHook{\let\PdfRender@temp=Y}%
221       \PdfRender@TestBox{%
222         \let\set@color\relax
223         \normalcolor
224         \ifx\PdfRender@temp Y%
225           \else
226             \ltx@GlobalAppendToMacro\normalcolor{%
227               \PdfRender@NormalColorHook
228             }%
229           \fi
230         }%
231       \endgroup
232     }%
233     \ifx\@nodocument\relax
234       \global\let\PdfRender@PatchNormalColor\relax
235     \fi
236 }%

\PdfRender@PatchColorSetGroup
237 \def\PdfRender@PatchColorSetGroup{%
238   \begingroup
239     \def\PdfRender@ColorSetGroupHook{\let\PdfRender@temp=Y}%
240     \PdfRender@TestBox{%
241       \let\set@color\relax
242       \color@setgroup\color@endgroup
243       \ifx\PdfRender@temp Y%
244         \else
245           \ltx@GlobalAppendToMacro\color@setgroup{%
246             \PdfRender@ColorSetGroupHook
247           }%
248         \fi
249       }%
250     \endgroup
251     \ifx\@nodocument\relax
252       \global\let\PdfRender@PatchColorSetGroup\relax
253     \fi
254 }%

\PdfRender@PatchColor
255 \def\PdfRender@PatchColor{%
256   \PdfRender@PatchNormalColor
257   \PdfRender@PatchColorSetGroup
258 }

259 \PdfRender@PatchColor
260 \ltx@ifundefined{AtBeginDocument}{%
261   \AtBeginDocument{\PdfRender@PatchColor}%
262 }

```



```

\AfterPackage is provided by package scrfile.
263 \ltx@ifundefined{AfterPackage}{%
264 }{%
265   \AfterPackage{color}{\PdfRender@PatchColor}%
266   \AfterPackage{xcolor}{\PdfRender@PatchColor}%
267   \AfterPackage{etoolbox}{%
268     \AfterEndPreamble{\PdfRender@PatchColor}%
269   }%
270 }%

\AfterEndPreamble is provided by package etoolbox.
271 \ltx@ifundefined{AfterEndPreamble}{%
272 }{%
273   \AfterEndPreamble{\PdfRender@PatchColor}%
274 }%

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

```

\PdfRender@texorpdfstring

```

276 \def\PdfRender@texorpdfstring{%
277   \ltx@ifundefined{texorpdfstring}\ltx@firstoftwo\texorpdfstring
278 }

```

\pdfrender

```

279 \ltx@ifundefined{DeclareRobustCommand}%
280 \ltx@firstoftwo\ltx@secondoftwo
281 {%
282   \def\pdfrender#1%
283 }{%
284   \newcommand{\pdfrender}{}%
285   \DeclareRobustCommand*\pdfrender[1]%
286 }%
287 {%
288   \PdfRender@texorpdfstring{%
289     \PdfRender@PatchNormalColor
290     \global\let\PdfRender@FillColor\ltx@empty
291     \global\let\PdfRender@StrokeColor\ltx@empty
292     \kvsetkeys{PDFRENDER}{#1}%
293     \PdfRender@SetColor
294   }{}%
295 }

```

\textpdfrender

```

296 \ltx@ifundefined{DeclareRobustCommand}%
297 \ltx@firstoftwo\ltx@secondoftwo
298 {%
299   \long\def\textpdfrender#1#2%
300 }{%
301   \newcommand{\textpdfrender}{}%
302   \DeclareRobustCommand{\textpdfrender}[2]%
303 }%
304 {%
305   \PdfRender@texorpdfstring{%
306     \begingroup
307       \pdfrender{#1}%
308       #2%
309     \endgroup
310   }{#2}%
311 }

```

\ifPdfRender@Values

```

312 \PdfRender@newif{Values}

```

\PdfRender@NewClassValues

```
313 \def\PdfRender@NewClassValues#1#2#3#4{%
314   \PdfRender@Valuestrue
315   \PdfRender@NewClass{#1}{#2}{#3}{#4}{}%
316 }
```

\PdfRender@NewClass

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

```

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

```

\PdfRender@define@key

```

406 \ltx@ifundefined{define@key}{%
407   \def\PdfRender@define@key#1#2{%
408     \expandafter\def\csname KV@#1@#2\endcsname##1%
409   }%
410 }{%
411   \let\PdfRender@define@key\define@key
412 }

```

\PdfRender@Set

```

413 \def\PdfRender@Set#1{%
414   \csname ifPdfRender@Active#1\endcsname
415   \csname PdfRender@Set#1\expandafter\endcsname
416   \fi
417 }

```

\PdfRender@Reset

```

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

```

\PdfRender@ErrorInvalidValue

```

423 \def\PdfRender@ErrorInvalidValue#1{%
424   \PackageError{pdfrender}{%
425     Ignoring parameter setting for ‘#1’\MessageBreak

```

```

426     because of invalid value %
427     '\csname PdfRender@Current#1\endcsname'%
428   }\@ehc
429   \expandafter\let\csname PdfRender@Current#1\endcsname\ltx@empty
430 }%

```

\PdfRender@SetValidate

```

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

```

\PdfRender@SetValidateValues

```

451 \def\PdfRender@SetValidateValues#1{%
452   \ltx@ifundefined{PdfRender@#1@\PdfRender@Current}{%
453     \expandafter\let\csname PdfRender@Current#1\endcsname
454     \PdfRender@Current
455     \PdfRender@ErrorInvalidValue{#1}%
456   }{%
457     \expandafter\edef\csname PdfRender@Current#1\endcsname{%
458       \csname PdfRender@#1@\PdfRender@Current\endcsname
459     }%
460     \csname PdfRender@Set#1\endcsname
461   }%
462 }

```

\PdfRender@OpValue

```

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

```

\PdfRender@OpName

```

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

```

2.4 Declare and setup parameters

```

465 \PdfRender@NewClassValues{TextRenderingMode}%
466     {0}%
467     {\PdfRender@OpValue{Tr}}{%
468     0=Fill,%
469     1=Stroke,%
470     2=FillStroke,%
471     3=Invisible,%
472     4=FillClip,%
473     5=StrokeClip,%
474     6=FillStrokeClip,%
475     7=Clip,%
476 }%

```

```

477 \PdfRender@NewClass{LineWidth}{1}{\PdfRender@OpValue{w}}{%
478   [0-9]+\string\.[0-9]*|\string\.[0-9]+%
479 }{%
480 \ltx@ifundefined{dimexpr}{%
481   \def\PdfRender@dimexpr{%
482 }{%
483   \let\PdfRender@dimexpr\dimexpr
484 }
485 \def\PdfRender@PostProcessLineWidth{%
486   \begingroup
487   \afterassignment\PdfRender@@PostProcessLineWidth
488   \dimen0=\PdfRender@dimexpr\PdfRender@CurrentLineWidth bp %
489   \PdfRender@let\PdfRender@relax\PdfRender@relax
490 }
491 \let\PdfRender@let\let
492 \let\PdfRender@relax\relax
493 \def\PdfRender@@PostProcessLineWidth#1\PdfRender@let{%
494   \ifx\#1\%
495     \endgroup
496   \else
497     \dimen0=.996264\dimen0 % 72/72.27
498     \edef\x{\endgroup
499       \def\noexpand\PdfRender@CurrentLineWidth{%
500         \strip@pt\dimen0%
501       }%
502     }%
503     \expandafter\x
504   \fi
505 }
506 \PdfRender@NewClassValues{LineCapStyle}{0}{\PdfRender@OpValue{J}}{%
507   0=Butt,%
508   1=Round,%
509   2=ProjectingSquare,%
510 }%
511 \PdfRender@NewClassValues{LineJoinStyle}{0}{\PdfRender@OpValue{j}}{%
512   0=Miter,%
513   1=Round,%
514   2=Bevel,%
515 }%
516 \PdfRender@NewClass{MiterLimit}{10}{\PdfRender@OpValue{M}}{%
517   [0-9]*[1-9][0-9]*\string\.[0-9]*|%
518   [0-9]*\string\.[0-9]*[1-9][0-9]*%
519 }{%
520 \PdfRender@NewClass{Flatness}{0}{\PdfRender@OpValue{i}}{%
521   100(\string\.[0-9]*|\string\.[0-9]*|\string\.[0-9]+%
522 }{%
523 \PdfRender@NewClass{LineDashPattern}{[]0}{\PdfRender@OpValue{d}}{%
524   \string\[
525   ( ?([0-9]+\string\.[0-9]*|\string\.[0-9]+) ?)*%
526   \string\] ?%
527   ([0-9]+\string\.[0-9]*|\string\.[0-9]+)%
528 }{%
529 \PdfRender@NewClassValues{RenderingIntent}%
530   {RelativeColorimetric}%
531   {\PdfRender@OpName{ri}}{%
532   AbsoluteColorimetric,%
533   RelativeColorimetric,%
534   Saturation,%
535   Perceptual,%
536 }%

```

2.5 Fill and stroke color support

```

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

```

\PdfRender@ColorAvailable

```

579 \def\PdfRender@ColorAvailable{%
580   \@ifundefined{set@color}{%
581     \@PackageError{pdfrender}{%
582       Ignoring color options, because neither\MessageBreak
583       package ‘color’ nor package ‘xcolor’ is loaded%
584     }\@ehc
585     \global\let\PdfRender@ColorAvailable\ltx@gobble
586   }{%
587     \global\let\PdfRender@ColorAvailable\ltx@firstofone
588   }%
589   \PdfRender@ColorAvailable
590 }

```

\PdfRender@TryColor

```

591 \def\PdfRender@TryColor{%
592   \@ifnextchar[\color\PdfRender@@TryColor
593 }

```

\PdfRender@@TryColor

```

594 \def\PdfRender@TryColor#1\ltx@empty{%
595   \expandafter\color\expandafter{\PdfRender@Color}%
596 }

```

\PdfRender@SetColor

```

597 \def\PdfRender@SetColor{%
598   \chardef\PdfRender@NeedsCurrentColor=0 %
599   \ifx\PdfRender@FillColor\ltx@empty
600     \ifx\PdfRender@StrokeColor\ltx@empty
601       \else
602         \edef\PdfRender@CurrentColor{%
603           \noexpand\PdfRender@FillColor\ltx@space\PdfRender@StrokeColor
604         }%
605         \chardef\PdfRender@NeedsCurrentColor=1 %
606       \fi
607     \else
608       \ifx\PdfRender@StrokeColor\ltx@empty
609         \edef\PdfRender@CurrentColor{%
610           \PdfRender@FillColor\ltx@space\noexpand\PdfRender@StrokeColor
611         }%
612         \chardef\PdfRender@NeedsCurrentColor=2 %
613       \else
614         \edef\current@color{%
615           \PdfRender@FillColor\ltx@space\PdfRender@StrokeColor
616         }%
617         \set@color
618       \fi
619     \fi
620     \ifnum\PdfRender@NeedsCurrentColor=1 %
621       \PdfRender@GetFillColor
622       \ifx\PdfRender@FillColor\ltx@empty
623         \@PackageWarning{pdfrender}{%
624           Cannot extract current fill color%
625         }%
626       \else
627         \edef\current@color{\PdfRender@CurrentColor}%
628         \set@color
629       \fi
630     \else
631       \ifnum\PdfRender@NeedsCurrentColor=2 %
632         \PdfRender@GetStrokeColor
633         \ifx\PdfRender@StrokeColor\ltx@empty
634           \@PackageWarning{pdfrender}{%
635             Cannot extract current stroke color%
636           }%
637         \else
638           \edef\current@color{\PdfRender@CurrentColor}%
639           \set@color
640         \fi
641       \fi
642     \fi
643 }

```

\PdfRender@PatternFillColor

```

644 \edef\PdfRender@PatternFillColor{ % space
645   (%)
646   [0-9\string\.] + g|
647   [0-9\string\.] + [0-9\string\.] + [0-9\string\.] + rg|
648   [0-9\string\.] + [0-9\string\.] + %
649   [0-9\string\.] + [0-9\string\.] + k%
650   ) % space
651   (.*)$%

```

```

652 }

\PdfRender@PatternStrokeColor

653 \edef\PdfRender@PatternStrokeColor{ % space
654   (%)
655   [0-9\string\.] + G|%
656   [0-9\string\.] + [0-9\string\.] + [0-9\string\.] + RG|%
657   [0-9\string\.] + [0-9\string\.] + %
658   [0-9\string\.] + [0-9\string\.] + K%
659   ) % space
660   (.*)$%
661 }

\PdfRender@MatchPattern

662 \def\PdfRender@MatchPattern#1{%
663   \ifnum\pdfmatch{\PdfRender@Pattern}{\PdfRender@String}=1 %
664     \xdef#1{%
665       \expandafter\strip@prefix\pdflastmatch 1%
666     }%
667     \edef\PdfRender@String{%
668       \expandafter\strip@prefix\pdflastmatch 2%
669     }%
670     \ifx\PdfRender@String\ltx@empty
671     \else
672       \expandafter\expandafter\expandafter\PdfRender@MatchPattern
673       \expandafter\expandafter\expandafter#1%
674     \fi
675   \fi
676 }

\PdfRender@GetFillColor

677 \def\PdfRender@GetFillColor{%
678   \global\let\PdfRender@FillColor\ltx@empty
679   \begingroup
680     \if\PdfRender@Match
681       \let\PdfRender@Pattern\PdfRender@PatternFillColor
682       \edef\PdfRender@String{\ltx@space\current@color\ltx@space}%
683       \PdfRender@MatchPattern\PdfRender@FillColor
684     \else
685       \edef\current@color{\current@color\ltx@space}%
686       \let\PdfRender@OP\relax
687       \PdfRender@FindOp{g}0%
688       \PdfRender@FindOp{G}1%
689       \PdfRender@FindOp{rg}0%
690       \PdfRender@FindOp{RG}1%
691       \PdfRender@FindOp{k}0%
692       \PdfRender@FindOp{K}1%
693       \PdfRender@FilterOp 0\PdfRender@FillColor
694     \fi
695   \endgroup
696 }

\PdfRender@GetStrokeColor

697 \def\PdfRender@GetStrokeColor{%
698   \global\let\PdfRender@StrokeColor\ltx@empty
699   \begingroup
700     \if\PdfRender@Match
701       \let\PdfRender@Pattern\PdfRender@PatternStrokeColor
702       \edef\PdfRender@String{\ltx@space\current@color\ltx@space}%
703       \PdfRender@MatchPattern\PdfRender@StrokeColor
704     \else
705       \edef\current@color{\current@color\ltx@space}%

```



```

706 \let\PdfRender@OP\relax
707 \PdfRender@FindOp{g}0%
708 \PdfRender@FindOp{G}1%
709 \PdfRender@FindOp{rg}0%
710 \PdfRender@FindOp{RG}1%
711 \PdfRender@FindOp{k}0%
712 \PdfRender@FindOp{K}1%
713 \PdfRender@FilterOp 1\PdfRender@StrokeColor
714 \fi
715 \endgroup
716 }

717 \ifPdfRender@Match
718 \expandafter\PdfRender@AtEnd
719 \fi%

```

\PdfRender@FindOp

```

720 \def\PdfRender@FindOp#1#2{%
721 \def\PdfRender@temp##1 #1 ##2\@nil{%
722 ##1%
723 \ifx\##2\%
724 \expandafter\@gobble
725 \else
726 \PdfRender@OP{#1}#2%
727 \expandafter\@firstofone
728 \fi
729 {%
730 \PdfRender@temp##2\@nil
731 }%
732 }%
733 \edef\current@color{%
734 \@firstofone{\expandafter\PdfRender@temp\current@color} #1 \@nil
735 }%
736 }

```

\PdfRender@FilterOp

```

737 \def\PdfRender@FilterOp#1#2{%
738 \expandafter\PdfRender@@FilterOp\expandafter#1\expandafter#2%
739 \current@color\PdfRender@OP{#1}%
740 }

```

\PdfRender@@FilterOp

```

741 \def\PdfRender@@FilterOp#1#2#3\PdfRender@OP#4#5{%
742 \ifx\##4#5\%
743 \else
744 \ifnum#1=#5 %
745 \xdef#2{#3 #4}%
746 \fi
747 \expandafter\PdfRender@@FilterOp\expandafter#1\expandafter#2%
748 \fi
749 }

750 \PdfRender@AtEnd%
751 \endpackage

```

3 Test

3.1 Catcode checks for loading

```

752 \test1\
753 \catcode'\{=1 %

```

```

754 \catcode'\}=2 %
755 \catcode'\#=6 %
756 \catcode'\@=11 %
757 \expandafter\ifx\csname count@\endcsname\relax
758 \countdef\count@=255 %
759 \fi
760 \expandafter\ifx\csname @gobble\endcsname\relax
761 \long\def\@gobble#1{%
762 \fi
763 \expandafter\ifx\csname @firstofone\endcsname\relax
764 \long\def\@firstofone#1{#1}%
765 \fi
766 \expandafter\ifx\csname loop\endcsname\relax
767 \expandafter\@firstofone
768 \else
769 \expandafter\@gobble
770 \fi
771 {%
772 \def\loop#1\repeat{%
773 \def\body{#1}%
774 \iterate
775 }%
776 \def\iterate{%
777 \body
778 \let\next\iterate
779 \else
780 \let\next\relax
781 \fi
782 \next
783 }%
784 \let\repeat=\fi
785 }%
786 \def\RestoreCatcodes{
787 \count@=0 %
788 \loop
789 \edef\RestoreCatcodes{
790 \RestoreCatcodes
791 \catcode\the\count@=\the\catcode\count@\relax
792 }%
793 \ifnum\count@<255 %
794 \advance\count@ 1 %
795 \repeat
796
797 \def\RangeCatcodeInvalid#1#2{%
798 \count@=#1\relax
799 \loop
800 \catcode\count@=15 %
801 \ifnum\count@<#2\relax
802 \advance\count@ 1 %
803 \repeat
804 }
805 \def\RangeCatcodeCheck#1#2#3{%
806 \count@=#1\relax
807 \loop
808 \ifnum#3=\catcode\count@
809 \else
810 \errmessage{%
811 Character \the\count@\space
812 with wrong catcode \the\catcode\count@\space
813 instead of \number#3%
814 }%
815 \fi

```

```

816 \ifnum\count@<#2\relax
817 \advance\count@ 1 %
818 \repeat
819 }
820 \def\space{ }
821 \expandafter\ifx\csname LoadCommand\endcsname\relax
822 \def\LoadCommand{\input pdfrender.sty\relax}%
823 \fi
824 \def\Test{%
825 \RangeCatcodeInvalid{0}{47}%
826 \RangeCatcodeInvalid{58}{64}%
827 \RangeCatcodeInvalid{91}{96}%
828 \RangeCatcodeInvalid{123}{255}%
829 \catcode'\@=12 %
830 \catcode'\=0 %
831 \catcode'\%=14 %
832 \LoadCommand
833 \RangeCatcodeCheck{0}{36}{15}%
834 \RangeCatcodeCheck{37}{37}{14}%
835 \RangeCatcodeCheck{38}{47}{15}%
836 \RangeCatcodeCheck{48}{57}{12}%
837 \RangeCatcodeCheck{58}{63}{15}%
838 \RangeCatcodeCheck{64}{64}{12}%
839 \RangeCatcodeCheck{65}{90}{11}%
840 \RangeCatcodeCheck{91}{91}{15}%
841 \RangeCatcodeCheck{92}{92}{0}%
842 \RangeCatcodeCheck{93}{96}{15}%
843 \RangeCatcodeCheck{97}{122}{11}%
844 \RangeCatcodeCheck{123}{255}{15}%
845 \RestoreCatcodes
846 }
847 \Test
848 \csname @@end\endcsname
849 \end
850 </test1>

```

3.2 Simple test file

```

851 <*test2>
852 \NeedsTeXFormat{LaTeX2e}
853 \ProvidesFile{pdfrender-test2.tex}[2010/01/28]
854 \documentclass{article}
855 \usepackage{color}
856 \usepackage{pdfrender}[2010/01/28]
857 \begin{document}
858 Hello World
859 \newpage
860 Start
861 \textpdfrender{%
862 TextRenderingMode=1,%
863 LineWidth=.1,%
864 LineCapStyle=2,%
865 LineJoinStyle=1,%
866 MiterLimit=1.2,%
867 LineDashPattern=[2 2]0,%
868 RenderingIntent=Saturation,%
869 }(Hello\newpage World}
870 Stop
871 \par
872 \newlength{\LineWidth}
873 \setlength{\LineWidth}{.5pt}
874 Start
875 \textpdfrender{%

```

```

876 FillColor=yellow,%
877 StrokeColor=[cmyk]{1,.5,0,0},%
878 TextRenderingMode=FillStroke,%
879 LineWidth=.5\LineWidth,%
880 LineCapStyle=Round,%
881 LineJoinStyle=Bevel,%
882 }{Out-\par\newpage line}
883 Stop
884 \end{document}
885 \end{test2}

```

3.3 Further tests

Robustness and bookmarks.

```

886 (*test3)
887 \NeedsTeXFormat{LaTeX2e}
888 \ProvidesFile{pdfrender-test3.tex}[2010/01/28]
889 \documentclass{article}
890 \usepackage{pdfrender}[2010/01/28]
891 \usepackage{hyperref}
892 \usepackage{bookmark}
893 \begin{document}
894 \tableofcontents
895 \section{%
896   \textpdfrender{%
897     TextRenderingMode=1,%
898     LineCapStyle=2,%
899     LineJoinStyle=1,%
900     MiterLimit=1.2,%
901     LineDashPattern=[2 2]0,%
902     RenderingIntent=Saturation,%
903   }{Hello World}%
904 }
905 \end{document}
906 \end{test3}

```

Color algorithm if \pdfmatch is not available.

```

907 (*test4)
908 \NeedsTeXFormat{LaTeX2e}
909 \ProvidesFile{pdfrender-test4.tex}[2010/01/28]
910 \documentclass[12pt]{article}
911 \usepackage{pdfrender}[2010/01/28]
912 \usepackage{color}
913 \usepackage{qstest}
914 \IncludeTests{*}
915 \LogTests{log}{*}{*}
916 \makeatletter
917 \newcommand*{\CheckColor}[1]{%
918   \Expect{#1}{\current@color}%
919 }
920 \makeatother
921 \begin{document}
922   \begin{qstest}{color}{color}%
923     \CheckColor{0 g 0 G}%
924     \Huge\bfseries
925     \noindent
926     \textpdfrender{%
927       TextRenderingMode=2,%
928       LineWidth=.5,%
929       FillColor=yellow,%
930       StrokeColor=blue,%
931     }{%
932       \CheckColor{0 0 1 0 k 0 0 1 RG}%

```

```

933      Blue(Yellow)\%
934      \textpdfrender{%
935        FillColor=green,%
936      }{%
937        \CheckColor{0 1 0 rg 0 0 1 RG}%
938        Blue(Green)%
939      }\\%
940      \CheckColor{0 0 1 0 k 0 0 1 RG}%
941      Blue(Yellow)\%
942      \textpdfrender{%
943        StrokeColor=red,%
944      }{%
945        \CheckColor{0 0 1 0 k 1 0 0 RG}%
946        Red(Yellow)%
947      }\\%
948      \CheckColor{0 0 1 0 k 0 0 1 RG}%
949      Blue(Yellow) %
950    }%
951  \end{qstest}%
952  \begin{qstest}{colorlast}{colorlast}%
953    \makeatletter
954    \def\Test#1#2#3{%
955      \begingroup
956        \def\current@color{#1}%
957        \textpdfrender{#2}{%
958          \CheckColor{#3}%
959        }%
960      \endgroup
961    }%
962    \Test{1 g 0 0 1 RG 0 0 1 0 k 0.5 G}%
963      {StrokeColor=green}%
964      {0 0 1 0 k 0 1 0 RG}%
965    \Test{1 g 0 0 1 RG 0 0 1 0 k 0.5 G}%
966      {FillColor=red}%
967      {1 0 0 rg 0.5 G}%
968  \end{qstest}%
969 \end{document}
970 /test4)

```

3.4 Compatibility with plain T_EX

```

971 (*test5)
972 \pdfoutput=1 %
973 \hsize=6.5in
974 \vsize=8.9in
975 \pdfpagewidth=\hsize
976 \pdfpageheight=\vsize
977 \parfillskip=0pt plus 1fil\relax
978 \input pdfrender.sty\relax
979 \catcode'\{=1 %
980 \catcode'\}=2 %
981 \let\OrgMakeFootLine\makefootline
982 \def\makefootline{%
983   \begingroup\normalcolor\OrgMakeFootLine\endgroup
984 }
985 \font\f=ec-lmr10 scaled 3000\relax
986 \f
987 Before %
988 \textpdfrender{%
989   TextRenderingMode=1,%
990   LineWidth=.1,%
991 }{Hello\par\vfill\penalty-10000 World} %

```

```

992 After %
993 \par
994 \vfill
995 \penalty-10000 %
996 \csmname @@end\endcsmname\end
997 </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 T_EX 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 T_EX:

```
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):

```

pdfrender.sty      → tex/generic/oberdiek/pdfrender.sty
pdfrender.pdf      → doc/latex/oberdiek/pdfrender.pdf
test/pdfrender-test1.tex → doc/latex/oberdiek/test/pdfrender-test1.tex
test/pdfrender-test2.tex → doc/latex/oberdiek/test/pdfrender-test2.tex
test/pdfrender-test3.tex → doc/latex/oberdiek/test/pdfrender-test3.tex
test/pdfrender-test4.tex → doc/latex/oberdiek/test/pdfrender-test4.tex
test/pdfrender-test5.tex → doc/latex/oberdiek/test/pdfrender-test5.tex
pdfrender.dtx      → source/latex/oberdiek/pdfrender.dtx

```

¹<http://ftp.ctan.org/tex-archive/>

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`.

4.4 Refresh file name databases

If your \TeX distribution (`te\TeX`, `mik\TeX`, ...) relies on file name databases, you must refresh these. For example, `te\TeX` users run `texhash` or `mktextlsr`.

4.5 Some details for the interested

Attached source. The PDF documentation on CTAN also includes the `.dtx` source file. It can be extracted by AcrobatReader 6 or higher. Another option is `pdftk`, e.g. unpack the file into the current directory:

```
pdftk pdfrender.pdf unpack_files output .
```

Unpacking with \LaTeX . The `.dtx` chooses its action depending on the format:

plain \TeX : 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{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\LaTeX`:

```
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.

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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.

8 Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; plain numbers refer to the code lines where the entry is used.

Symbols			
<code>\#</code>	755	<code>\@undefined</code>	58
<code>\%</code>	831	<code>\[</code>	524
<code>\.</code>	478, 517, 518, 521, 525, 527, 646, 647, 648, 649, 655, 656, 657, 658	<code>\]</code>	494, 723, 742, 830, 933, 939, 941, 947
<code>\@</code>	756, 829	<code>\{</code>	753, 979
<code>\@PackageError</code>	581	<code>\}</code>	754, 980
<code>\@PackageInfo</code>	330	<code>\]</code>	526
<code>\@PackageInfoNoLine</code>	175	A	
<code>\@PackageWarning</code>	168, 184, 548, 569, 623, 634	<code>\advance</code>	794, 802, 817
<code>\@PackageWarningNoLine</code>	149	<code>\afterassignment</code>	487
<code>\@ehc</code>	428, 584	<code>\AfterEndPreamble</code>	268, 273
<code>\@empty</code>	444	<code>\aftergroup</code>	29, 343, 357
<code>\@firstofone</code>	727, 734, 764, 767	<code>\AfterPackage</code>	265, 266, 267
<code>\@gobble</code>	724, 761, 769	<code>\AtBeginDocument</code>	261
<code>\@ifnextchar</code>	592	B	
<code>\@ifundefined</code>	580	<code>\begin</code>	857, 893, 921, 922, 952
<code>\@nil</code>	721, 730, 734	<code>\bfseries</code>	924
<code>\@nodocument</code>	233, 251	<code>\body</code>	773, 777

C		F	
<code>\catcode</code>	2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 33, 34, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 69, 70, 72, 73, 74, 78, 79, 80, 81, 82, 83, 84, 87, 88, 90, 91, 92, 93, 97, 99, 753, 754, 755, 756, 791, 800, 808, 812, 829, 830, 831, 979, 980	<code>\f</code>	985, 986
<code>\chardef</code>	324, 598, 605, 612	<code>\font</code>	985
<code>\CheckColor</code>	917, 923, 932, 937, 940, 945, 948, 958	G	
<code>\color</code>	592, 595	<code>\gdef</code>	217, 334
<code>\color@begingroup</code>	198, 200, 201	H	
<code>\color@endbox</code>	202, 213	<code>\hbox</code>	200
<code>\color@endgroup</code>	199, 202, 242	<code>\hsize</code>	973, 975
<code>\color@hbox</code>	200, 213	<code>\Huge</code>	924
<code>\color@setgroup</code>	197, 242, 245	I	
<code>\color@vbox</code>	201	<code>\iffalse</code>	137
<code>\count@</code>	758, 787, 791, 793, 794, 798, 800, 801, 802, 806, 808, 811, 812, 816, 817	<code>\ifnum</code>	433, 620, 631, 663, 744, 793, 801, 808, 816
<code>\countdef</code>	758	<code>\ifpdf</code>	166
<code>\csname</code>	14, 21, 50, 66, 76, 129, 131, 134, 136, 139, 144, 153, 319, 320, 321, 323, 325, 328, 332, 334, 336, 337, 339, 341, 344, 346, 347, 349, 353, 355, 358, 360, 362, 366, 368, 369, 374, 381, 384, 389, 396, 397, 400, 408, 414, 415, 419, 420, 427, 429, 433, 434, 442, 447, 453, 457, 458, 460, 757, 760, 763, 766, 821, 848, 996	<code>\ifPdfRender@Match</code>	142, 431, 680, 700, 717
<code>\current@color</code>	614, 627, 638, 682, 685, 702, 705, 733, 734, 739, 918, 956	<code>\ifPdfRender@Stack</code>	141, 322
D		<code>\ifPdfRender@Values</code>	312, 379
<code>\DeclareRobustCommand</code>	285, 302	<code>\iftrue</code>	132
<code>\define@key</code>	411	<code>\ifx</code>	15, 18, 21, 50, 58, 61, 144, 224, 233, 243, 251, 382, 444, 494, 540, 547, 561, 568, 599, 600, 608, 622, 633, 670, 723, 742, 757, 760, 763, 766, 821
<code>\dimen</code>	488, 497, 500	<code>\immediate</code>	23, 52
<code>\dimexpr</code>	483	<code>\IncludeTests</code>	914
<code>\documentclass</code>	854, 889, 910	<code>\input</code>	158, 822, 978
E		<code>\iterate</code>	774, 776, 778
<code>\empty</code>	17, 18	K	
<code>\end</code>	849, 884, 905, 951, 968, 969, 996	<code>\kv@key</code>	381, 384
<code>\endcsname</code>	14, 21, 50, 66, 76, 129, 131, 134, 136, 139, 144, 153, 319, 320, 321, 323, 325, 328, 332, 334, 336, 337, 339, 341, 344, 346, 347, 349, 353, 355, 358, 360, 362, 366, 368, 369, 374, 381, 384, 389, 396, 397, 400, 408, 414, 415, 419, 420, 427, 429, 433, 434, 442, 447, 453, 457, 458, 460, 757, 760, 763, 766, 821, 848, 996	<code>\kv@parse@normalized</code>	380
<code>\endgraf</code>	199, 207	<code>\kv@value</code>	382, 384
<code>\endinput</code>	29, 126	<code>\kvsetkeys</code>	292
<code>\endlinchar</code>	4, 35, 71, 77, 89	L	
<code>\errmessage</code>	810	<code>\LineWidth</code>	872, 873, 879
<code>\Expect</code>	918	<code>\LoadCommand</code>	822, 832
F		<code>\LogTests</code>	915
<code>\f</code>	985, 986	<code>\loop</code>	772, 788, 799, 807
<code>\font</code>	985	<code>\ltx@empty</code>	290, 291, 429, 540, 541, 545, 547, 561, 562, 566, 568, 594, 599, 600, 608, 622, 633, 670, 678, 698
G		<code>\ltx@firstofone</code>	587
<code>\gdef</code>	217, 334	<code>\ltx@firstoftwo</code>	277, 280, 297
H		<code>\ltx@GlobalAppendToMacro</code>	226, 245, 372, 376
<code>\hbox</code>	200	<code>\ltx@gobble</code>	585
<code>\hsize</code>	973, 975	<code>\ltx@gobbletwo</code>	386
<code>\Huge</code>	924	<code>\ltx@ifpackagelater</code>	148
I		<code>\ltx@ifpackageloaded</code>	196
<code>\iffalse</code>	137	<code>\ltx@ifUndefined</code>	167, 174, 187, 260, 263, 271, 277, 279, 296, 398, 406, 452, 480
<code>\ifnum</code>	433, 620, 631, 663, 744, 793, 801, 808, 816	<code>\ltx@ifundefined</code>	203, 206, 216
<code>\ifpdf</code>	166	<code>\ltx@pkgextension</code>	153
<code>\ifPdfRender@Match</code>	142, 431, 680, 700, 717	<code>\ltx@secondoftwo</code>	280, 297
<code>\ifPdfRender@Stack</code>	141, 322	<code>\ltx@space</code>	176, 463, 464, 603, 610, 615, 682, 685, 702, 705
<code>\ifPdfRender@Values</code>	312, 379	L	
<code>\iftrue</code>	132	<code>\LineWidth</code>	872, 873, 879
<code>\ifx</code>	15, 18, 21, 50, 58, 61, 144, 224, 233, 243, 251, 382, 444, 494, 540, 547, 561, 568, 599, 600, 608, 622, 633, 670, 723, 742, 757, 760, 763, 766, 821	<code>\LoadCommand</code>	822, 832
<code>\immediate</code>	23, 52	<code>\LogTests</code>	915
<code>\IncludeTests</code>	914	<code>\loop</code>	772, 788, 799, 807
<code>\input</code>	158, 822, 978	<code>\ltx@empty</code>	290, 291, 429, 540, 541, 545, 547, 561, 562, 566, 568, 594, 599, 600, 608, 622, 633, 670, 678, 698
<code>\iterate</code>	774, 776, 778	<code>\ltx@firstofone</code>	587
K		<code>\ltx@firstoftwo</code>	277, 280, 297
<code>\kv@key</code>	381, 384	<code>\ltx@GlobalAppendToMacro</code>	226, 245, 372, 376
<code>\kv@parse@normalized</code>	380	<code>\ltx@gobble</code>	585
<code>\kv@value</code>	382, 384	<code>\ltx@gobbletwo</code>	386
<code>\kvsetkeys</code>	292	<code>\ltx@ifpackagelater</code>	148
L		<code>\ltx@ifpackageloaded</code>	196
<code>\LineWidth</code>	872, 873, 879	<code>\ltx@ifUndefined</code>	167, 174, 187, 260, 263, 271, 277, 279, 296, 398, 406, 452, 480
<code>\LoadCommand</code>	822, 832	<code>\ltx@ifundefined</code>	203, 206, 216
<code>\LogTests</code>	915	<code>\ltx@pkgextension</code>	153
<code>\loop</code>	772, 788, 799, 807	<code>\ltx@secondoftwo</code>	280, 297
<code>\ltx@empty</code>	290, 291, 429, 540, 541, 545, 547, 561, 562, 566, 568, 594, 599, 600, 608, 622, 633, 670, 678, 698	<code>\ltx@space</code>	176, 463, 464, 603, 610, 615, 682, 685, 702, 705
<code>\ltx@firstofone</code>	587	L	
<code>\ltx@firstoftwo</code>	277, 280, 297	<code>\LineWidth</code>	872, 873, 879
<code>\ltx@GlobalAppendToMacro</code>	226, 245, 372, 376	<code>\LoadCommand</code>	822, 832
<code>\ltx@gobble</code>	585	<code>\LogTests</code>	915
<code>\ltx@gobbletwo</code>	386	<code>\loop</code>	772, 788, 799, 807
<code>\ltx@ifpackagelater</code>	148	<code>\ltx@empty</code>	290, 291, 429, 540, 541, 545, 547, 561, 562, 566, 568, 594, 599, 600, 608, 622, 633, 670, 678, 698
<code>\ltx@ifpackageloaded</code>	196	<code>\ltx@firstofone</code>	587
<code>\ltx@ifUndefined</code>	167, 174, 187, 260, 263, 271, 277, 279, 296, 398, 406, 452, 480	<code>\ltx@firstoftwo</code>	277, 280, 297
<code>\ltx@ifundefined</code>	203, 206, 216	<code>\ltx@GlobalAppendToMacro</code>	226, 245, 372, 376
<code>\ltx@pkgextension</code>	153	<code>\ltx@gobble</code>	585
<code>\ltx@secondoftwo</code>	280, 297	<code>\ltx@gobbletwo</code>	386
<code>\ltx@space</code>	176, 463, 464, 603, 610, 615, 682, 685, 702, 705	<code>\ltx@ifpackagelater</code>	148

M	
<code>\makeatletter</code>	916, 953
<code>\makeatother</code>	920
<code>\makefootline</code>	981, 982
<code>\MessageBreak</code>	150, 151, 152, 153, 177, 425, 549, 570, 582
N	
<code>\NeedsTeXFormat</code>	852, 887, 908
<code>\newcommand</code> ...	191, 192, 284, 301, 917
<code>\newlength</code>	872
<code>\newpage</code>	859, 869, 882
<code>\next</code>	778, 780, 782
<code>\noindent</code>	925
<code>\normalcolor</code>	217, 223, 226, 983
<code>\number</code>	331, 813
O	
<code>\OrgMakeFootLine</code>	981, 983
P	
<code>\PackageError</code>	424
<code>\PackageInfo</code>	26
<code>\par</code>	207, 871, 882, 991, 993
<code>\parfillskip</code>	977
<code>\pdfcolorstack</code>	338, 348
<code>\pdfcolorstackinit</code>	169, 326
<code>\pdflastmatch</code>	665, 668
<code>\pdfliteral</code>	354, 361
<code>\pdfmatch</code>	176, 433, 663
<code>\pdfoutput</code>	972
<code>\pdfpageheight</code>	976
<code>\pdfpagewidth</code>	975
<code>\pdfrender</code>	2, 188, 191, 279, 307
<code>\PdfRender@@FilterOp</code>	738, 741
<code>\PdfRender@@PostProcessLineWidth</code>	487, 493
<code>\PdfRender@@TryColor</code>	592, 594
<code>\PdfRender@AtEnd</code>	95, 96, 123, 125, 194, 718, 750
<code>\PdfRender@AtEndHook</code>	122, 124, 146, 147
<code>\PdfRender@Color</code>	539, 540, 545, 560, 561, 566, 595
<code>\PdfRender@ColorAvailable</code>	543, 564, 579
<code>\PdfRender@ColorSetGroupHook</code>	211, 239, 246, 376
<code>\PdfRender@Current</code>	390, 441, 444, 452, 454, 458
<code>\PdfRender@CurrentColor</code>	602, 609, 627, 638
<code>\PdfRender@CurrentLineWidth</code>	488, 499
<code>\PdfRender@define@key</code>	388, 395, 406, 537, 558
<code>\PdfRender@dimexpr</code> ...	481, 483, 488
<code>\PdfRender@ErrorInvalidValue</code>	423, 436, 445, 455
<code>\PdfRender@FillColor</code>	290, 541, 547, 599, 603, 610, 615, 622, 678, 683, 693
<code>\PdfRender@FilterOp</code> ...	693, 713, 737
<code>\PdfRender@FindOp</code>	687, 688, 689, 690, 691, 692, 707, 708, 709, 710, 711, 712, 720
<code>\PdfRender@GetFillColor</code>	546, 621, 677
<code>\PdfRender@GetStrokeColor</code>	567, 632, 697
<code>\PdfRender@let</code>	489, 491, 493
<code>\PdfRender@MatchPattern</code>	662, 683, 703
<code>\PdfRender@Matchtrue</code>	181
<code>\PdfRender@NeedsCurrentColor</code>	598, 605, 612, 620, 631
<code>\PdfRender@NewClass</code>	315, 317, 477, 516, 520, 523
<code>\PdfRender@NewClassValues</code>	313, 465, 506, 511, 529
<code>\PdfRender@newif</code>	128, 141, 142, 312, 318
<code>\PdfRender@NormalColorHook</code>	210, 217, 220, 227, 372
<code>\PdfRender@OP</code> ..	686, 706, 726, 739, 741
<code>\PdfRender@OpName</code>	464, 531
<code>\PdfRender@OpValue</code>	463, 467, 477, 506, 511, 516, 520, 523
<code>\PdfRender@PatchColor</code>	255, 259, 261, 265, 266, 268, 273
<code>\PdfRender@PatchColorSetGroup</code>	237, 257
<code>\PdfRender@PatchNormalColor</code>	215, 256, 289
<code>\PdfRender@Pattern</code>	663, 681, 701
<code>\PdfRender@PatternFillColor</code>	644, 681
<code>\PdfRender@PatternStrokeColor</code>	653, 701
<code>\PdfRender@PostProcessLineWidth</code> ..	485
<code>\PdfRender@relax</code>	489, 492
<code>\PdfRender@RequirePackage</code>	143, 163, 164, 165, 275
<code>\PdfRender@Reset</code>	418
<code>\PdfRender@Set</code>	370, 377, 413
<code>\PdfRender@SetColor</code>	293, 597
<code>\PdfRender@SetValidate</code> ...	402, 431
<code>\PdfRender@SetValidateValues</code>	391, 451
<code>\PdfRender@Stacktrue</code>	172
<code>\PdfRender@String</code>	663, 667, 670, 682, 702
<code>\PdfRender@StrokeColor</code>	291, 562, 568, 600, 603, 608, 610, 615, 633, 698, 703, 713
<code>\PdfRender@temp</code>	220, 224, 239, 243, 721, 730, 734
<code>\PdfRender@TestBox</code>	212, 221, 240, 544, 565
<code>\PdfRender@texorpdfstring</code>	276, 288, 305
<code>\PdfRender@TryColor</code> ...	545, 566, 591
<code>\PdfRender@Valuesfalse</code>	393
<code>\PdfRender@Valuestrue</code>	314
<code>\penalty</code>	991, 995
<code>\ProvidesFile</code>	853, 888, 909
<code>\ProvidesPackage</code>	19, 67

R		<code>\textpdfrender</code> 2, 189, 192, 296, 861, 875, 896, 926, 934, 942, 957, 988
<code>\RangeCatcodeCheck</code>	805, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844	<code>\the</code> 77, 78, 79, 80, 81, 82, 83, 84, 97, 791, 811, 812
<code>\RangeCatcodeInvalid</code>	797, 825, 826, 827, 828	<code>\TMP@EnsureCode</code> 94, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121
<code>\repeat</code>	772, 784, 795, 803, 818	
<code>\RequirePackage</code>	161	
<code>\RestoreCatcodes</code> ..	786, 789, 790, 845	
S		U
<code>\section</code>	895	<code>\usepackage</code> 855, 856, 890, 891, 892, 911, 912, 913
<code>\set@color</code> 197, 222, 241, 617, 628, 639		
<code>\setbox</code>	213	V
<code>\setlength</code>	873	<code>\vbox</code> 201
<code>\space</code>	811, 812, 820	<code>\vfill</code> 991, 994
<code>\strip@prefix</code>	665, 668	<code>\vsize</code> 974, 976
<code>\strip@pt</code>	500	W
T		<code>\write</code> 23, 52
<code>\tableofcontents</code>	894	X
<code>\Test</code>	824, 847, 954, 962, 965	<code>\x</code> 14, 15, 18, 22, 26, 28, 51, 56, 66, 75, 87, 498, 503
<code>\texorpdfstring</code>	277	