

The pdfscape package

Heiko Oberdiek*

2016/05/14 v0.11

Abstract

Package `pdfscape` adds PDF support to the environment `landscape` of package `lscape` by setting the PDF page attribute `/Rotate`.

Contents

1	Documentation	2
1.1	Supported drivers	2
1.2	Caveat	2
1.3	Requirements	2
1.4	Usage	2
2	Implementation	2
2.1	Package identification	2
2.2	Driver options	2
2.3	Autodetection of driver	3
2.3.1	Driver <code>pdftex</code>	3
2.3.2	Driver <code>xetex</code>	3
2.3.3	Detect driver based on <code>\Gin@driver</code>	4
2.3.4	Driver <code>dvips</code>	4
2.4	Driver implementation	5
2.4.1	<code>pdfTeX</code>	5
2.4.2	PostScript driver	6
2.4.3	Driver <code>dvipdfm</code>	6
2.5	Driver independent stuff	6
3	Installation	7
3.1	Download	7
3.2	Bundle installation	8
3.3	Package installation	8
3.4	Refresh file name databases	8
3.5	Some details for the interested	8
4	History	9
	[2001/01/15 v0.1]	9
	[2001/02/04 v0.2]	9
	[2004/05/11 v0.3]	9
	[2004/05/12 v0.4]	9
	[2006/02/20 v0.5]	9
	[2006/04/24 v0.6]	9

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

[2007/04/11 v0.7]	9
[2007/04/17 v0.8]	9
[2007/10/21 v0.9]	9
[2008/08/11 v0.10]	9
[2016/05/14 v0.11]	10
5 Index	10

1 Documentation

1.1 Supported drivers

- pdf_{tex},lua_{tex}
- dvips, dvipsone, pct_{ex}32, pct_{ex}ps (and other drivers that provide a non-empty `\Gin@PS@raw`)
- dvipdfm

1.2 Caveat

Depending on the configuration Ghostscript adds a guessed rotation entry by its own. This can lead to two `/Rotate` entries per page. To prevent this behaviour set the parameter `AutoRotatePages` to `/None`, eg:

```
ps2pdf -dAutoRotatePages=/None
```

1.3 Requirements

- The package `lscape`.
- The package `atbegshi` for all drivers except pdf_{tex},lua_{tex}.

1.4 Usage

Load this package instead of or after package `lscape`:

```
\usepackage{pdflscape}
\begin{landscape}...\end{landscape}
```

2 Implementation

2.1 Package identification

```
1 \<*package>
```

Package identification.

```
2 \NeedsTeXFormat{LaTeX2e}
3 \ProvidesPackage{pdflscape}%
4 [2016/05/14 v0.11 Display of landscape pages in PDF (H0)]
```

2.2 Driver options

```
5 \let\PLS@option\@empty
6 \let\PLS@driver\@empty
7 \def\PLS@temp#1#2{%
8   \DeclareOption{#1}{%
9     \let\PLS@option\CurrentOption
```

```

10 \def\PLS@driver{#2}%
11 }%
12 }
13 \PLS@temp{pdftex}{pdftex}
14 \PLS@temp{luatex}{pdftex}
15 \PLS@temp{dvips}{dvips}
16 \PLS@temp{dvipsone}{dvips}
17 \PLS@temp{pctexps}{dvips}
18 \PLS@temp{dvipdfm}{dvipdfm}
19 \PLS@temp{dvipdfmx}{dvipdfm}
20 \PLS@temp{xetex}{dvipdfm}
21 \let\PLS@temp@empty
22 \DeclareOption*{%
23 \ifx\PLS@temp@empty
24 \let\PLS@temp\CurrentOption
25 \else
26 \edef\PLS@temp{\PLS@temp,\CurrentOption}%
27 \fi
28 }
29 \ProcessOptions*
30 \ifx\PLS@option@empty
31 \else
32 \expandafter\PassOptionsToPackage\expandafter{\PLS@option}{lscap}%
33 \fi
34 \ifx\PLS@temp@empty
35 \else
36 \expandafter\PassOptionsToPackage\expandafter{\PLS@temp}{lscap}%
37 \fi
38 \RequirePackage{lscap}

```

2.3 Autodetection of driver

2.3.1 Driver pdftex

```

39 \RequirePackage{ifpdf}[2006/02/20]
40 \def\PLS@temp{pdftex}
41 \ifpdf
42 \ifx\PLS@driver@empty
43 \let\PLS@driver\PLS@temp
44 \PackageInfo{pdfscape}{Auto-detected driver: \PLS@temp}%
45 \fi
46 \ifx\PLS@driver\PLS@temp
47 \else
48 \PackageError{pdfscape}{%
49 The driver option '\PLS@option' is not compatible\MessageBreak
50 with pdfTeX in PDF mode, using driver 'pdftex' instead%
51 }{\@ehc
52 \let\PLS@driver\PLS@temp
53 \fi
54 \fi

```

2.3.2 Driver xetex

```

55 \RequirePackage{ifxetex}%
56 \def\PLS@temp{dvipdfm}
57 \ifxetex
58 \ifx\PLS@driver@empty
59 \let\PLS@driver\PLS@temp
60 \PackageInfo{pdfscape}{%
61 Auto-detected driver: \PLS@temp\space(xetex)%

```

```

62 }%
63 \fi
64 \ifx\PLS@driver\PLS@temp
65 \else
66 \PackageError{pdfscape}{%
67   The driver option ‘\PLS@option’ is not compatible\MessageBreak
68   with XeTeX, using driver for XeTeX (dvipdfm) instead%
69 } \@ehc
70 \let\PLS@driver\PLS@temp
71 \fi
72 \fi

```

2.3.3 Detect driver based on \Gin@driver

```

73 \def\PLS@temp#1#2{%
74   \ifx\PLS@driver\@empty
75     \begingroup
76       \def\PLS@temp{#1.def}%
77     \expandafter\endgroup
78     \ifx\PLS@temp\Gin@driver
79       \def\PLS@driver{#2}%
80       \PackageInfo{pdfscape}{%
81         Auto-detected driver: \PLS@driver\space(#1)%
82       }%
83     \fi
84   \fi
85 }
86 \PLS@temp{dvipdfm}{dvipdfm}
87 \PLS@temp{dvipdfmx}{dvipdfm}
88 \PLS@temp{dvips}{dvips}
89 \PLS@temp{dvipsone}{dvips}
90 \PLS@temp{pctexps}{dvips}

```

2.3.4 Driver dvips

```

91 \ifx\PLS@driver\@empty
92   \def\PLS@temp{dvips}%
93   \ifnum 1=0\ifx\Gin@PS@raw\@undefined
94     \else
95       \ifx\Gin@PS@raw\relax
96       \else
97         \ifx\Gin@PS@raw\@empty
98         \else
99           1%
100         \fi
101       \fi
102     \fi
103     \space
104     \let\PLS@driver\PLS@temp
105     \PackageInfo{pdfscape}{%
106       Auto-detected driver: \PLS@temp\space(PostScript)%
107     }%
108   \fi
109 \fi
110 \ifx\PLS@driver\@empty
111   \PackageError{pdfscape}{%
112     Neither pdfTeX, PostScript, nor dvipdfm driver found%
113   } \@ehc
114 \fi

```

2.4 Driver implementation

- `\PLS@AddRotate #1`
it expects the correct rotation number in `#1` and implements the adding of the `/Rotate` entry in the `/Page` object of the current page.
- `\PLS@RemoveRotate`
it removes a previous `/Rotate` entry, if necessary.

2.4.1 pdfTeX

Not too nice is the global setting of `\pdfpageattr`. Perhaps this can be changed in future versions.

luatex compat.

```
115 \ifx\pdfpageattr\undefined
116   \ifx\pdfvariable\undefined\else
117     \protected\edef\pdfpageattr{\pdfvariable pageattr}
118   \fi
119 \fi
```

```
120 \def\PLS@temp{pdftex}
121 \ifx\PLS@temp\PLS@driver
122   \def\PLS@AddRotate#1{%
123     \ifnum#1=0 %
```

Already the default.

```
124     \else
125       \global\pdfpageattr\expandafter{%
126         \the\pdfpageattr
127         /Rotate #1%
128       }%
129     \fi
130   }%
```

Removes a `/Rotate` entry.

```
131   \def\PLS@RemoveRotate{%
132     \begingroup
133       \global\pdfpageattr\expandafter{\expandafter}%
134       \expandafter\PLS@@RemoveRotate
135       \the\pdfpageattr /Rotate\@nil
136     \endgroup
137   }%
138   \def\PLS@@RemoveRotate#1/Rotate#2\@nil{%
```

Append `/Rotate` free stuff to `\pdfpageattr`.

```
139     \global\pdfpageattr\expandafter{\the\pdfpageattr#1}%
140     \ifx\#2\%
```

Ready, because the detected `/Rotate` is part of the end marker: `/Rotate\@nil`

```
141     \else
```

First read in the argument of `/Rotate`, then continue parsing.

```
142       \afterassignment\PLS@@RemoveRotate
143       \count0=#2\@nil
144     \fi
145   }%
146 \fi
```

2.4.2 PostScript driver

```
147 \def\PLS@temp{dvips}
148 \ifx\PLS@temp\PLS@driver
149   \RequirePackage{atbegshi}%
150   \AtBeginShipout{\PLS@AtBeginShipout}%
151   \let\PLS@AtBeginShipout\@empty
152   \def\PLS@AddRotate#1{%
153     \ifnum#1=0 %
154     \else
155       \def\PLS@AtBeginShipout{%
156         \global\setbox\AtBeginShipoutBox\ vbox{%
157           \Gin@PS@raw{%
158             [{ThisPage}\string<\string</Rotate #1\string>\string}%
159             /PUT pdfmark%
160           }%
161           \box\AtBeginShipoutBox
162         }%
163       }%
164     \fi
165   }%
166   \def\PLS@RemoveRotate{\let\PLS@AtBeginShipout\@empty}%
167 \fi
```

2.4.3 Driver dvipdfm

```
168 \def\PLS@temp{dvipdfm}
169 \ifx\PLS@temp\PLS@driver
170   \RequirePackage{atbegshi}%
171   \AtBeginShipout{\PLS@AtBeginShipout}%
172   \let\PLS@AtBeginShipout\@empty
173   \def\PLS@AddRotate#1{%
174     \ifnum#1=0 %
175     \else
176       \def\PLS@AtBeginShipout{%
177         \global\setbox\AtBeginShipoutBox\ vbox{%
178           \special{pdf: put @thispage <</Rotate #1>>}%
179           \box\AtBeginShipoutBox
180         }%
181       }%
182     \fi
183   }%
184   \def\PLS@RemoveRotate{\let\PLS@AtBeginShipout\@empty}%
185 \fi
```

2.5 Driver independent stuff

The landscape environment is extended by adding the correct `/Rotate` entries.

```
186 \g@addto@macro{\landscape}{\PLS@Rotate{90}}
187 \g@addto@macro{\endlandscape}{\PLS@Rotate{0}}
```

`\PLS@Rotate` Main macro, that sets the `/Rotate` entry.

Argument: any TeX number or nothing, that means zero.

Driver independent.

```
188 \def\PLS@Rotate#1{%
189   \begingroup
1. Check and validate the argument.
190   \PLS@CheckAngle{#1}%
191   \expandafter\endgroup
```

192 \expandafter\PLS@RemoveRotate

```
193 \expandafter\PLS@AddRotate\expandafter{\the\count@}%
194 }
```

```
195 \def\PLS@CheckAngle#1{%
```

196 \ifx\|#1\%

```
197      \count@=0 %
```

```
198 \else
```

```
199 \count@=#1\relax
```

200 \fi

```
201  \@whilenum\count@>359\do{\advance\count@ -360 }%
```

```
202  \@whilenum\count@<-359\do{\advance\count@ 360 }%
```

```
203 \ifnum 1=0\ifnum\count@=0 \else
```

204 \ifnum\count@=90 \else

```
205 \ifnum\count@=-90 \els
```

206 \ifnum\count@=180 \else

```
207 \ifnum\count@=-180 \else
```

```
208 \ifnum\count@=270 \else
```

```
209 \ifnum\count@=-270 \else
```

210 1\fi\fi\fi\fi\fi\fi\fi\relax

```
211 \PackageError{pdfscape}{%
```

```
212 Invalid value \the\count@\space for /Rotate%
```

213 } \@ehc

214 \count@=0 %

215 \fi

216 }

217 </package>

3.1 Download

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

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.

TDS refers to the standard “A Directory Structure for T_EX Files” ([CTAN:pkg/tds](#)). Directories with `texmf` in their name are usually organized this way.

7

3.2 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
```

3.3 Package installation

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

```
tex pdfscape.dtx
```

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

```
pdfscape.sty      → tex/latex/oberdiek/pdfscape.sty
pdfscape.pdf      → doc/latex/oberdiek/pdfscape.pdf
test/pdfscape-test6.txt → doc/latex/oberdiek/test/pdfscape-test6.txt
test/ExtractRotate.java → doc/latex/oberdiek/test/ExtractRotate.java
pdfscape.dtx      → source/latex/oberdiek/pdfscape.dtx
```

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`.

3.4 Refresh file name databases

If your `TEX` distribution (`TEX` Live, `mikTEX`, ...) relies on file name databases, you must refresh these. For example, `TEX` Live users run `texhash` or `mktextlsr`.

3.5 Some details for the interested

Unpacking with L^AT_EX. The `.dtx` chooses its action depending on the format:

plain T_EX: Run `docstrip` and extract the files.

L^AT_EX: Generate the documentation.

If you insist on using L^AT_EX for `docstrip` (really, `docstrip` does not need L^AT_EX), then inform the autodetect routine about your intention:

```
latex \let\install=y\input{pdfscape.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 pdfL^AT_EX:

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


4 History

[2001/01/15 v0.1]

- First public version, published in `de.comp.text.tex`:
“Re: Querformat, pdfLaTeX und thumbpdf”²

[2001/02/04 v0.2]

- Minor documentation update.
- CTAN.

[2004/05/11 v0.3]

- Support for dvipdfm added.

[2004/05/12 v0.4]

- Bug fix: support for multipage landscape environment for all drivers except for pdftex.

[2006/02/20 v0.5]

- DTX framework.
- LPPL 1.3
- Code is not changed.

[2006/04/24 v0.6]

- Bug fix: `\PLS@RemoveRotate` reinserted for `\PLS@Rotate`.
- Fix for `\PLS@RemoveRotate` (dvips/dvipdfm): `\PLS@EverhShi` hook is cleared.

[2007/04/11 v0.7]

- Line ends sanitized.

[2007/04/17 v0.8]

- Package `atbegshi` replaces `everyshi`.

[2007/10/21 v0.9]

- Driver detection for X_YTeX added.
- Fix for rotation angles ≤ -360 or ≥ 360 .

[2008/08/11 v0.10]

- Code is not changed.
- URLs updated.

²Url: <https://groups.google.com/group/de.comp.text.tex/msg/e054c5795e52d2b8>

- LuaTeX Compatibility

5 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		M	
<code>\@ehc</code>	51, 69, 113, 213	<code>\MessageBreak</code>	49, 67
<code>\@empty</code> .	5, 6, 21, 23, 30, 34, 42, 58, 74, 91, 97, 110, 151, 166, 172, 184	N	
<code>\@nil</code>	135, 138, 143	<code>\NeedsTeXFormat</code>	2
<code>\@undefined</code>	93, 115, 116	P	
<code>\@whilenum</code>	201, 202	<code>\PackageError</code>	48, 66, 111, 211
<code>\@</code>	140, 196	<code>\PackageInfo</code>	44, 60, 80, 105
A		<code>\PassOptionsToPackage</code>	32, 36
<code>\advance</code>	201, 202	<code>\pdfpageattr</code>	
<code>\afterassignment</code>	142		115, 117, 125, 126, 133, 135, 139
<code>\AtBeginShipout</code>	150, 171	<code>\pdfvariable</code>	116, 117
<code>\AtBeginShipoutBox</code> .	156, 161, 177, 179	<code>\PLS@RemoveRotate</code>	134, 138, 142
B		<code>\PLS@AddRotate</code>	122, 152, 173, 193
<code>\box</code>	161, 179	<code>\PLS@AtBeginShipout</code>	150,
C			151, 155, 166, 171, 172, 176, 184
<code>\count</code>	143	<code>\PLS@CheckAngle</code>	190, <u>195</u>
<code>\count@</code>	193,	<code>\PLS@driver</code>	6, 10,
	197, 199, 201, 202, 203, 204,		42, 43, 46, 52, 58, 59, 64, 70, 74,
	205, 206, 207, 208, 209, 212, 214		79, 81, 91, 104, 110, 121, 148, 169
<code>\CurrentOption</code>	9, 24, 26	<code>\PLS@option</code>	5, 9, 30, 32, 49, 67
D		<code>\PLS@RemoveRotate</code> .	131, 166, 184, 192
<code>\DeclareOption</code>	8, 22	<code>\PLS@Rotate</code>	186, 187, <u>188</u>
<code>\do</code>	201, 202	<code>\PLS@temp</code>	7, 13, 14,
E			15, 16, 17, 18, 19, 20, 21, 23,
<code>\endlandscape</code>	187		24, 26, 34, 36, 40, 43, 44, 46,
G			52, 56, 59, 61, 64, 70, 73, 76,
<code>\g@addto@macro</code>	186, 187		78, 86, 87, 88, 89, 90, 92, 104,
<code>\Gin@driver</code>	78		106, 120, 121, 147, 148, 168, 169
<code>\Gin@PS@raw</code>	93, 95, 97, 157	<code>\ProcessOptions</code>	29
I		<code>\protected</code>	117
<code>\ifnum</code>	93, 123, 153, 174,	<code>\ProvidesPackage</code>	3
	203, 204, 205, 206, 207, 208, 209	R	
<code>\ifpdf</code>	41	<code>\RequirePackage</code> ..	38, 39, 55, 149, 170
<code>\ifx</code>	23, 30, 34, 42, 46, 58,	S	
	64, 74, 78, 91, 93, 95, 97, 110,	<code>\setbox</code>	156, 177
	115, 116, 121, 140, 148, 169, 196	<code>\space</code>	61, 81, 103, 106, 212
<code>\ifxetex</code>	57	<code>\special</code>	178
L		T	
<code>\landscape</code>	186	<code>\the</code>	126, 135, 139, 193, 212
V		V	
<code>\vbox</code>	156, 177		