

The pdfscape package

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Abstract

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

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

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1 Documentation

1.1 Supported drivers

If the PDF management is loaded by the use of `\DocumentMetadata{}` at the beginning of the document, the engines and backends supported by `l3backend` can be used. Driver options are passed to graphics and are typically only needed if \LaTeX is used with `dvipdfmx`.

Without the PDF management the following driver options can be used (many are simply aliases to each other):

- `pdftex,luatex`
- `dvips, dvipsone, pctexps` (and other drivers that provide a non-empty `\Gin@PS@raw`)
- `dvipdfm, dvipdfmx, xetex`

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 `lscope`.
- The package `atbegshi` for all drivers except `pdftex,luatex`.

1.4 Usage

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

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

2 Implementation

2.1 New version using the methods of the PDF management

Identification

```
1 (*package-new)
2 \NeedsTeXFormat{LaTeX2e}[2020/10/01]
3 \ProvidesExplPackage{pdfscape}{2022-10-27}{0.13}
4 {Display of landscape pages in PDF}%
```

Testing if the pdfmanagement is used

```
5 \ifl@t@r\fmtversion{2022-06-01}
6 {
7   \IfDocumentMetadataTF {}{\RequirePackageWithOptions{pdfscape-nometadata}}
8   \IfDocumentMetadataTF {}{\endinput}
9 }
10 {\RequirePackageWithOptions{pdfscape-nometadata}}
```

Load lscape, but don't pass the pdftex option as it would use \pdfpageattr which is incompatible with the pdf management.

```
11 \DeclareOption*{\PassOptionsToPackage\CurrentOption{graphics}}
12 \ProcessOptions
13 \RequirePackage{lscape}
```

this always turns in the same direction as the original code of pdfscape does. left and right would need \pdfmanagement_add:nnn{ThisPage}{Rotate}{. . .} on every page (e.g. in a shipout hook) and some option to control the wanted orientation.

```
14 \tl_new:N\g__pdfscape_saverotate_tl
15 \hook_gput_code:nnn {env/landscape/begin}{pdfscape}
16 {
17   \pdfmanagement_get:nnN {Page}{Rotate}\l_tmpa_tl
18   \tl_gset_eq:NN\g__pdfscape_saverotate_tl\l_tmpa_tl
19   \clearpage
20   \pdfmanagement_add:nnn{Page}{Rotate}{90}
21 }
22 \hook_gput_code:nnn {env/landscape/after}{pdfscape}
23 {
24   \quark_if_no_value:NTF\g__pdfscape_saverotate_tl
25   {\pdfmanagement_remove:nn{Page}{Rotate}}
26   {\pdfmanagement_add:nnx{Page}{Rotate}{\g__pdfscape_saverotate_tl}}
27 }
28 </package-new>
```

2.2 Old version without the PDF management

```
29 (*package)
```

Package identification.

```
30 \NeedsTeXFormat{LaTeX2e}
31 \ProvidesPackage{pdfscape-nometadata}%
32 [2022-10-28 v0.13 Display of landscape pages in PDF (HO)]
```

2.3 Driver options

```
33 \let\PLS@option\@empty
34 \let\PLS@driver\@empty
35 \def\PLS@temp#1#2{%
36   \DeclareOption{#1}{%
37     \let\PLS@option\CurrentOption
38     \def\PLS@driver{#2}%
39   }%
40 }
41 \PLS@temp{pdftex}{pdftex}
42 \PLS@temp{luatex}{pdftex}
43 \PLS@temp{dvips}{dvips}
44 \PLS@temp{dvipsone}{dvips}
45 \PLS@temp{pctexp}{dvips}
46 \PLS@temp{dvipdfm}{dvipdfm}
47 \PLS@temp{dvipdfmx}{dvipdfm}
48 \PLS@temp{xetex}{dvipdfm}
49 \let\PLS@temp\@empty
50 \DeclareOption*{%
51   \ifx\PLS@temp\@empty
```

```

52   \let\PLS@temp\CurrentOption
53   \else
54   \edef\PLS@temp{\PLS@temp,\CurrentOption}%
55   \fi
56 }
57 \ProcessOptions*
58 \ifx\PLS@option\@empty
59 \else
60   \expandafter\PassOptionsToPackage\expandafter{\PLS@option}{\lscap}%
61 \fi
62 \ifx\PLS@temp\@empty
63 \else
64   \expandafter\PassOptionsToPackage\expandafter{\PLS@temp}{\lscap}%
65 \fi
66 \RequirePackage{iftex}[2019/11/07]%
67 \RequirePackage{lscap}

```

2.4 Autodetection of driver

2.4.1 Driver pdftex

```

68 \def\PLS@temp{pdftex}
69 \ifpdf
70   \ifx\PLS@driver\@empty
71     \let\PLS@driver\PLS@temp
72     \PackageInfo{pdfscape}{Auto-detected driver: \PLS@temp}%
73   \fi
74   \ifx\PLS@driver\PLS@temp
75   \else
76     \PackageError{pdfscape}{%
77       The driver option '\PLS@option' is not compatible\MessageBreak
78       with pdfTeX in PDF mode, using driver 'pdftex' instead%
79     }\@ehc
80     \let\PLS@driver\PLS@temp
81   \fi
82 \fi

```

2.4.2 Driver xetex

```

83 \def\PLS@temp{dvipdfm}
84 \ifxetex
85   \ifx\PLS@driver\@empty
86     \let\PLS@driver\PLS@temp
87     \PackageInfo{pdfscape}{%
88       Auto-detected driver: \PLS@temp\space(xetex)%
89     }%
90   \fi
91   \ifx\PLS@driver\PLS@temp
92   \else
93     \PackageError{pdfscape}{%
94       The driver option '\PLS@option' is not compatible\MessageBreak
95       with XeTeX, using driver for XeTeX (dvipdfm) instead%
96     }\@ehc
97     \let\PLS@driver\PLS@temp
98   \fi
99 \fi

```

2.4.3 Detect driver based on \Gin@driver

```

100 \def\PLS@temp#1#2{%
101   \ifx\PLS@driver\@empty
102     \begingroup
103       \def\PLS@temp{#1.def}%
104     \expandafter\endgroup
105     \ifx\PLS@temp\Gin@driver
106       \def\PLS@driver{#2}%

```

```

107     \PackageInfo{pdfscape}{%
108       Auto-detected driver: \PLS@driver\space(#1)%
109     }%
110     \fi
111   \fi
112 }
113 \PLS@temp{dvipdfm}{dvipdfm}
114 \PLS@temp{dvipdfmx}{dvipdfm}
115 \PLS@temp{dvips}{dvips}
116 \PLS@temp{dvipsone}{dvips}
117 \PLS@temp{pctexps}{dvips}

```

2.4.4 Driver dvips

```

118 \ifx\PLS@driver\@empty
119   \def\PLS@temp{dvips}%
120   \ifnum 1=0\ifx\Gin@PS@raw\@undefined
121     \else
122       \ifx\Gin@PS@raw\relax
123       \else
124         \ifx\Gin@PS@raw\@empty
125         \else
126           1%
127         \fi
128       \fi
129     \fi
130     \space
131     \let\PLS@driver\PLS@temp
132     \PackageInfo{pdfscape}{%
133       Auto-detected driver: \PLS@temp\space(PostScript)%
134     }%
135     \fi
136 \fi

137 \ifx\PLS@driver\@empty
138   \PackageError{pdfscape}{%
139     Neither pdfTeX, PostScript, nor dvipdfm driver found%
140   }{\@ehc}
141 \fi

```

2.5 Driver implementation

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

2.5.1 pdfTeX

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

luatex compat.

```

142 \ifx\pdfpageattr\@undefined
143   \ifx\pdfvariable\@undefined\else
144     \protected\edef\pdfpageattr{\pdfvariable pageattr}
145   \fi
146 \fi

147 \def\PLS@temp{pdftex}
148 \ifx\PLS@temp\PLS@driver
149   \def\PLS@AddRotate#1{%
150     \ifnum#1=0 %

```

Already the default.

```
151   \else
152     \global\pdfpageattr\expandafter{%
153       \the\pdfpageattr
154       /Rotate #1%
155     }%
156   \fi
157 }%
```

Removes a /Rotate entry.

```
158 \def\PLS@RemoveRotate{%
159   \begingroup
160     \global\pdfpageattr\expandafter{\expandafter}%
161     \expandafter\PLS@@RemoveRotate
162     \the\pdfpageattr /Rotate\@nil
163   \endgroup
164 }%
165 \def\PLS@@RemoveRotate#1/Rotate#2\@nil{%
```

Append /Rotate free stuff to \pdfpageattr.

```
166   \global\pdfpageattr\expandafter{\the\pdfpageattr#1}%
167   \ifx\#2\%
```

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

```
168   \else
```

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

```
169     \afterassignment\PLS@@RemoveRotate
170     \count0=#2\@nil
171   \fi
172 }%
173 \fi
```

2.5.2 PostScript driver

```
174 \def\PLS@temp{dvips}
175 \ifx\PLS@temp\PLS@driver
176   \AddToHook{shipout/before}{\PLS@AtBeginShipout}%
177   \let\PLS@AtBeginShipout\@empty
178   \def\PLS@AddRotate#1{%
179     \ifnum#1=0 %
180       \else
181         \def\PLS@AtBeginShipout{%
182           \global\setbox\ShipoutBox\vbox{%
183             \Gin@PS@raw{%
184               [{ThisPage}\string<\string</Rotate #1\string>\string>%
185               /PUT pdfmark%
186             }%
187             \box\ShipoutBox
188           }%
189         }%
190       \fi
191     }%
192   \def\PLS@RemoveRotate{\let\PLS@AtBeginShipout\@empty}%
193 \fi
```

2.5.3 Driver dvipdfm

```
194 \def\PLS@temp{dvipdfm}
195 \ifx\PLS@temp\PLS@driver
196   \AddToHook{shipout/before}{\PLS@AtBeginShipout}%
197   \let\PLS@AtBeginShipout\@empty
198   \def\PLS@AddRotate#1{%
199     \ifnum#1=0 %
200     \else
```


3 Installation

3.1 Download

Package. This package is available on CTAN¹:

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

[CTAN:macros/latex/contrib/pdfscape/pdfscape.pdf](#) Documentation.

3.2 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/pdfscape/pdfscape.sty
pdfscape-nometadata.sty → tex/latex/pdfscape/pdfscape-nometadata.sty
pdfscape.pdf           → doc/latex/pdfscape/pdfscape.pdf
pdfscape.dtx           → source/latex/pdfscape/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`.

3.3 Refresh file name databases

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

3.4 Some details for the interested

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{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 pdf \LaTeX :

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

¹[CTAN:pkg/pdfscape](#)

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 $X_{\text{g}}\text{TeX}$ added.
- Fix for rotation angles ≤ -360 or ≥ 360 .

[2008/08/11 v0.10]

- Code is not changed.
- URLs updated.

[2016/05/14 v0.11]

- LuaTeX Compatibility

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

[2019/12/05 v0.12]

- Documentation updates.
- iftex package.

[2022-10-28 v0.13]

- Made the package compatible with the PDF management.
- Removed the dependency to atbegshi.

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