

# The pdfscape package

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## Abstract

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

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# 1 Documentation

## 1.1 Supported drivers

- pdftex
- dvips, dvipsone, pctex32, pctexps (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 `pdftex`.

## 1.4 Usage

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

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

# 2 Implementation

## 2.1 Package identification

```
1 (*package)
```

Package identification.

```
2 \NeedsTeXFormat{LaTeX2e}  
3 \ProvidesPackage{pdfscape}%  
4 [2007/04/17 v0.8 Landscape pages in PDF (H0)]
```

## 2.2 Driver options

```
5 \let\PLS@driver\@empty  
6 \DeclareOption{pdftex}{%  
7   \PassOptionsToPackage\CurrentOption{lscape}%  
8   \def\PLS@driver{pdftex}%  
9 }  
10 \DeclareOption{dvips}{%  
11   \PassOptionsToPackage\CurrentOption{lscape}%  
12   \def\PLS@driver{dvips}%  
13 }  
14 \DeclareOption{dvipsone}{%  
15   \PassOptionsToPackage\CurrentOption{lscape}%  
16   \def\PLS@driver{dvips}%  
17 }  
18 \DeclareOption{pctexps}{%  
19   \PassOptionsToPackage\CurrentOption{lscape}%  
20   \def\PLS@driver{dvips}%  
21 }  
22 \DeclareOption{dvipdfm}{%
```

```

23 \PassOptionsToPackage\CurrentOption{dvipdfm}%
24 \def\PLS@driver{dvipdfm}%
25 }
26 \DeclareOption*{\PassOptionsToPackage\CurrentOption{lscape}}
27 \ProcessOptions
28 \RequirePackage{lscape}

```

## 2.3 Autodetection of driver

### 2.3.1 Driver pdftex

```

29 \def\PLS@temp{pdftex}
30 \ifnum 1=0\ifx\pdfoutput\@undefined
31     \else
32     \ifx\pdfoutput\relax
33     \else
34     \ifnum\pdfoutput>0 %
35     1%
36     \fi
37     \fi
38     \fi
39     \space
40 \ifx\PLS@driver\@empty
41     \let\PLS@driver\PLS@temp
42     \PackageInfo{pdfscape}{Auto-detected driver: ‘\PLS@temp’}%
43 \fi
44 \ifx\PLS@driver\PLS@temp
45 \else
46     \PackageError{pdfscape}{%
47         The driver option ‘\PLS@driver’ is not compatible\MessageBreak
48         with pdfTeX in PDF mode, using driver ‘pdftex’ instead%
49     }\@ehc
50     \let\PLS@driver\PLS@temp
51 \fi
52 \fi

```

### 2.3.2 Driver dvips

```

53 \def\PLS@temp{dvips}
54 \ifnum 1=0\ifx\Gin@PS@raw\@undefined
55     \else
56     \ifx\Gin@PS@raw\relax
57     \else
58     \ifx\Gin@PS@raw\@empty
59     \else
60     1%
61     \fi
62     \fi
63     \fi
64     \space
65 \ifx\PLS@driver\@empty
66     \let\PLS@driver\PLS@temp
67     \PackageInfo{pdfscape}{Auto-detected driver: ‘\PLS@temp’}%
68 \fi
69 \ifx\PLS@driver\PLS@temp
70 \else
71     \PackageError{pdfscape}{%
72         The driver option ‘\PLS@driver’ is not compatible\MessageBreak
73         with detected PostScript driver,\MessageBreak
74         Will try using driver ‘dvips’%
75     }\@ehc
76     \let\PLS@driver\PLS@temp
77 \fi
78 \fi

```

### 2.3.3 Driver dvipdfm

```
79 \def\PLS@temp{dvipdfm.def}
80 \ifx\PLS@temp\Gin@driver
81   \def\PLS@temp{dvipdfm}%
82   \ifx\PLS@driver\@empty
83     \let\PLS@driver\PLS@temp
84     \PackageInfo{pdfscape}{Auto-detected driver: '\PLS@temp'}%
85   \fi
86   \ifx\PLS@driver\PLS@temp
87   \else
88     \PackageError{pdfscape}{%
89       Graphics driver 'dvipdfm.def' is loaded, but this\MessageBreak
90       is incompatible with driver '\PLS@driver'.\MessageBreak
91       Will try using driver 'dvipdfm'%
92     }\@ehc
93     \let\PLS@driver\PLS@temp
94   \fi
95 \fi
96
97 \ifx\PLS@driver\@empty
98   \PackageError{pdfscape}{%
99     Neither pdfTeX, PostScript, nor dvipdfm driver found%
100   }\@ehc
101 \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.

```
102 \def\PLS@temp{pdftex}
103 \ifx\PLS@temp\PLS@driver
104   \def\PLS@AddRotate#1{%
105     \ifnum#1=0 %
```

Already the default.

```
106     \else
107       \global\pdfpageattr\expandafter{%
108         \the\pdfpageattr
109         /Rotate #1%
110       }%
111     \fi
112   }%
```

Removes a /Rotate entry.

```
113   \def\PLS@RemoveRotate{%
114     \begingroup
115       \global\pdfpageattr\expandafter{\expandafter}%
116       \expandafter\PLS@@RemoveRotate
117       \the\pdfpageattr /Rotate\@nil
118     \endgroup
119   }%
120   \def\PLS@@RemoveRotate#1/Rotate#2\@nil{%
```

Append /Rotate free stuff to \pdfpageattr.

```
121 \global\pdfpageattr\expandafter{\the\pdfpageattr#1}%  
122 \ifx\#2\%
```

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

```
123 \else
```

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

```
124 \afterassignment\PLS@@RemoveRotate  
125 \count0=#2\@nil  
126 \fi  
127 }%  
128 \fi
```

## 2.4.2 PostScript driver

```
129 \def\PLS@temp{dvips}  
130 \ifx\PLS@temp\PLS@driver  
131 \RequirePackage{atbegshi}%  
132 \AtBeginShipout{\PLS@AtBeginShipout}%  
133 \let\PLS@AtBeginShipout\@empty  
134 \def\PLS@AddRotate#1{%  
135 \ifnum#1=0 %  
136 \else  
137 \def\PLS@AtBeginShipout{%  
138 \global\setbox\AtBeginShipoutBox\vbox{%  
139 \Gin@PS@raw{%  
140 [{ThisPage}\string<\string</Rotate #1\string>\string>%  
141 /PUT pdfmark%  
142 }%  
143 \box\AtBeginShipoutBox  
144 }%  
145 }%  
146 \fi  
147 }%  
148 \def\PLS@RemoveRotate{\let\PLS@AtBeginShipout\@empty}%  
149 \fi
```

## 2.4.3 Driver dvipdfm

```
150 \def\PLS@temp{dvipdfm}  
151 \ifx\PLS@temp\PLS@driver  
152 \RequirePackage{atbegshi}%  
153 \AtBeginShipout{\PLS@AtBeginShipout}%  
154 \let\PLS@AtBeginShipout\@empty  
155 \def\PLS@AddRotate#1{%  
156 \ifnum#1=0 %  
157 \else  
158 \def\PLS@AtBeginShipout{%  
159 \global\setbox\AtBeginShipoutBox\vbox{%  
160 \special{pdf: put @thispage <</Rotate #1>>}%  
161 \box\AtBeginShipoutBox  
162 }%  
163 }%  
164 \fi  
165 }%  
166 \def\PLS@RemoveRotate{\let\PLS@AtBeginShipout\@empty}%  
167 \fi
```

## 2.5 Driver independent stuff

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

```
168 \g@addto@macro{\landscape}{\PLS@Rotate{90}}  
169 \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.

```

170 \def\PLS@Rotate#1{%
171   \begingroup
1. Check and validate the argument.
172     \PLS@CheckAngle{#1}%
173   \expandafter\endgroup
2. Remove previous \Rotate entry.
174   \expandafter\PLS@RemoveRotate
3. Add /Rotate entry.
175   \expandafter\PLS@AddRotate\expandafter{\the\count@}%
176 }

```

**\PLS@CheckAngle** Validates the rotation angle.  
The result is stored in the count register `\count@`.  
Driver independent.

```

177 \def\PLS@CheckAngle#1{%
Nothing means zero:
178   \ifx\#1\%
179     \count@=0 %
180   \else
181     \count@=#1\relax
182   \fi
Normalise to interval  $-360 < \text{\count@} < 360$ .
183   \@whilenum\count@>359\do{\addtocounter\count@ -360 }%
184   \@whilenum\count@<-359\do{\addtocounter\count@ 360 }%
Check values: 0, +/-90, +/-180, +/-270
185   \ifnum 1=0\ifnum\count@=0 \else
186     \ifnum\count@=90 \else
187     \ifnum\count@=-90 \else
188     \ifnum\count@=180 \else
189     \ifnum\count@=-180 \else
190     \ifnum\count@=270 \else
191     \ifnum\count@=-270 \else
192       1\fi\fi\fi\fi\fi\fi\fi\relax
193   \PackageError{pdfscape}{%
194     Invalid value \the\count@\space for /Rotate%
195   }\@ehc
196   \count@=0 %
197   \fi
198 }
199 \</package>

```

## 3 Installation

### 3.1 Download

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

[CTAN:macros/latex/contrib/oberdiek/pdfscape.dtx](http://ftp.ctan.org/macros/latex/contrib/oberdiek/pdfscape.dtx) The source file.

[CTAN:macros/latex/contrib/oberdiek/pdfscape.pdf](http://ftp.ctan.org/macros/latex/contrib/oberdiek/pdfscape.pdf) Documentation.

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<sup>1</sup>[ftp://ftp.ctan.org/tex-archive/](http://ftp.ctan.org/tex-archive/)

**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:macros/latex/contrib/oberdiek/oberdiek-tds.zip

## 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
```

**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/
```

## 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
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, MikTeX, ...) relies on file name databases, you must refresh these. For example, TeX users run texhash or mktexlsr.

## 3.5 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 pdfscape.pdf unpack_files output .
```

**Unpacking with L<sup>A</sup>T<sub>E</sub>X.** The .dtx chooses its action depending on the format:

**plain-TeX:** Run docstrip and extract the files.

**L<sup>A</sup>T<sub>E</sub>X:** Generate the documentation.

If you insist on using L<sup>A</sup>T<sub>E</sub>X for docstrip (really, docstrip does not need L<sup>A</sup>T<sub>E</sub>X), 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<sup>A</sup>T<sub>E</sub>X:

```
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`.

### [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`.



## 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; numbers in roman refer to the code lines where the entry is used.

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