

The flippdf package*

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Abstract

The `pdfflip` package extends `pdfLATEX` and `LuaLATEX` making it possible to typeset a “mirrored” version of the document. This is sometimes required by publishers who use photographic printing processes that need “camera-ready” documents to be printable on transparent films, so that one reads the pages correctly by looking *through* the film with the *unprinted* side of the film towards his eyes. This package requires `everypage` by the same author and works exclusively with `pdfLATEX` and `LuaLATEX` in PDF output mode.

1 Introduction

This `LATEX` package makes it possible to typeset a document flipping its pages horizontally. This is sometimes required by publishers who use photographic printing process that need “camera-ready” documents to be printable on transparent films, so that one reads the pages correctly by looking *through* the film (i.e., with the *unprinted* side of the film towards his eyes).

It is also possible to activate the mirroring capability on a page by page basis.

This package requires `everypage` by the same author and works exclusively with `pdfLATEX` and `LuaLATEX` in PDF output mode.

2 User interface

By default, once loaded as:

```
\usepackage{pdfflip}
```

the `pdfflip` becomes immediately *active* (i.e., starts flipping horizontally every page). Conversely, by selecting the off option as in

```
\usepackage[off]{pdfflip}
```

The package is loaded but remains inactive.

`\FlipPDF`
`\UnFlipPDF`

The `\FlipPDF` command lets one switch on page flipping. Conversely, `\UnFlipPDF` switches off page flipping.

*This file (`flippdf.dtx`) has version number 2.0, last revised 2020/10/18.

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3 Examples

3.1 Plain case

In this example, every page of the document is flipped, relying on the automatic operation mode of the package.

```
1 \documentclass[a4paper]{article}
2 \usepackage{flippdf}
3 \usepackage{lipsum}
4
5 \title{Test document for the flippdf package}
6
7 \begin{document}
8 \maketitle
9 \lipsum[1-5]
10 \end{document}
```

3.2 Case with activation and deactivation

In this example, the page flipping is manually activated and deactivated.

```
11 \documentclass[a4paper]{article}
12 \usepackage[off]{flippdf}
13 \usepackage{lipsum}
14
15 \title{Test document for the flippdf package}
16
17 \begin{document}
18
19 \thispagestyle{empty}
20 {\Large Some non-mirrored initial info}
21
22 \bigskip
23
24 \lipsum[1]
25
26 \maketitle
27 \setcounter{page}{1}
28 \FlipPDF
29 \lipsum[2-6]
30
31 \clearpage
32 \UnFlipPDF
33 \thispagestyle{empty}
34 {\Large Some non-mirrored final info}
35
36 \bigskip
37
38 \lipsum[7]
39 \end{document}
```

4 Package redesign

Until Fall 2020, `flippdf` relied on package `everypage` for its operation. Recently, functionalities similar to those offered by `everypage` have been incorporated into \LaTeX and `everypage` has been deprecated, maintaining support for it just in view of compatibility for legacy packages still relying on it. As a consequence, `flippdf` has been redesigned to take advantage of the new \LaTeX features and to drop the dependence on `everypage`.

Version 2.0 of `flippdf` is the result of the redesign. Version 1.x remains available as `flippdf-1x` and modern `flippdf` knows how to fallback on it when used on a \LaTeX format missing the new features.

5 Implementation

5.1 Implementation of `flippdf`

Announce the name and version of the package, that requires $\LaTeX 2\mathcal{E}$ (actually `pdf \LaTeX` or `Lua \LaTeX`).

```
40 \NeedsTeXFormat{LaTeX2e}
41 \ProvidesPackage{flippdf}%
42 [2020/10/18 2.0 Horizontal flipping of pages with pdfLaTeX]
```

Depending on the actual functionalities provided by \LaTeX consider loading `flippdf-1x`. If so doing, warn about this, and hand over the operation to that package.

```
43 \@ifundefined{AddToHook}{%
44   \PackageWarningNoLine{flippdf}{%
45     You appear to be running a version of LaTeX\MessageBreak
46     unsupported by current flippdf.\MessageBreak
47     Forcing fallback to 'flippdf-1x' that\MessageBreak
48     uses an older code base}
49   \RequirePackage{flippdf-1x}
50   \endinput}{}
```

State package requirements, including `iftex`

```
51 \RequirePackage{iftex}
```

Error out if not working in PDF mode

```
52 \AtBeginDocument{%
53   \ifpdf
54     \relax
55   \else
56     \PackageError{flippdf}{%
57       package only works in pdf output mode.}%
58   \fi}
```

`\if@sc@flippdf` Define a boolean variable to remember if pages are to be flipped or not.

```
59 \newif\if@sc@flippdf
```

`\FlipPDF` Define the commands used to switch on and off the horizontal flipping of the document pages.
`\UnFlipPDF`

```
60 \newcommand\FlipPDF{\@sc@flippdftrue}
61 \newcommand\UnFlipPDF{\@sc@flippdffalse}
```

By default activate the flipping:

```
62 \FlipPDF
```

Set up the processing of options:

```
63 \DeclareOption{off}{\UnFlipPDF}
64 \ProcessOptions
```

And eventually, tell \LaTeX to flip every page, by using the `everypage` hook. First consider the case when running in `pdf \LaTeX`

```
65 \ifpdf
66 \AddToHook{shipout/background}{%
67   \if@sc@flippdf
68     \pdfliteral direct {-1 0 0 1 \strip@pt\paperwidth\space 0 cm}%
69   \fi}%
70 \fi
```

Then consider the case when running in `Lua \LaTeX`

```
71 \ifluatex
72 \AddToHook{shipout/background}{%
73   \if@sc@flippdf
74     \pdfextension literal direct {%
75       -1 0 0 1 \strip@pt\paperwidth\space 0 cm}%
76     \fi}%
77 \fi
```

5.2 Implementation of `flippdf-1x`

Announce the name and version of the package, that requires $\LaTeX 2\epsilon$ (actually `pdf \LaTeX` or `Lua \LaTeX`).

```
78 \NeedsTeXFormat{LaTeX2e}
79 \ProvidesPackage{flippdf-1x}%
80 [2020/10/17 1.1 Horizontal flipping of pages with pdfLaTeX]
```

Assure that the dependence on `everypage` is satisfied.

```
81 \RequirePackage{everypage}[2007/06/20]
```

Depend on `iftex` and error out if not working in PDF mode

```
82 \RequirePackage{iftex}
83 \AtBeginDocument{%
84   \ifpdf
85     \relax
86   \else
87     \PackageError{flippdf}{%
88       package only works in pdf output mode}%
89   \fi}
```

`\if@sc@flippdf` Define a boolean variable to remember if pages are to be flipped or not.

```
90 \newif\if@sc@flippdf
```

`\FlipPDF` Define the commands used to switch on and off the horizontal flipping of the document pages.
`\UnFlipPDF`

```
91 \newcommand\FlipPDF{\@sc@flippdftrue}
92 \newcommand\UnFlipPDF{\@sc@flippdffalse}
```

By default activate the flipping:

```
93 \FlipPDF
```

Set up the processing of options:

```
94 \DeclareOption{off}{\UnFlipPDF}
95 \ProcessOptions
```

And eventually, tell \LaTeX to flip every page, by using the `everypage` hook. First consider the case when running in `pdf \LaTeX`

```
96 \ifpdf
97   \AddEverypageHook{%
98     \if@sc@flippdf
99       \pdfliteral direct {-1 0 0 1 \strip@pt\paperwidth\space 0 cm}%
100    \fi}%
101 \fi
```

Then consider the case when running in `Lua \LaTeX`

```
102 \ifluatex
103   \AddEverypageHook{%
104     \if@sc@flippdf
105     \pdfextension literal direct {%
106       -1 0 0 1 \strip@pt\paperwidth\space 0 cm}%
107     \fi}%
108 \fi
```

Change History

R1.0b	General: Require <code>everypage</code> package to be at least at its 2007/06/20 (R1.1) release.	4	not PDF.	4	
			Extend package to work also with Lua \LaTeX	4, 5	
R1.1	General: Error out if output mode is		R2.0	General: Use modern \LaTeX features.	3

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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.

Symbols	<code>\@sc@flippdftrue</code> .	60, 91
<code>\@sc@flippdffalse</code>		61, 92

A	I	P
\AddEverypageHook 97, 103	\if@sc@flippdf	\pdfextension . . . 74, 105
\AddToHook 66, 72	59, 67, 73, 90, 98, 104	\pdfliteral 68, 99
F	\ifluatex 71, 102	U
\FlipPDF	\ifpdf 53, 84	\UnFlipPDF
. 1, 28, 60, 62, 91, 93	\ifpdftex 65, 96	. 1, 32, 60, 63, 91, 94