The **Flipbook** Package
— Documentation —

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Abstract

How to add flip book animations in the corners of your LaTeX documents.

1 About Flip Book Animations

1.1 Introduction

The LaTeX **flipbook** package is a small package intended to help you add flip book animations in the corners of your documents. A flip book (or "flick book") is a book in which each page represents one image of an animation, so that one obtains a smooth animation by quickly flipping the book's pages (usually by releasing the pages held with your thumb).[1]

The present package only serves to put such animations in corners of documents (in one of the four "external" corners of pages). This document for example has two flip book animations: one in the bottom right corner of odd pages, and one in the bottom left corner of even pages.

Useful links:

- `http://www.flipbook.info/`
- `http://en.wikipedia.org/wiki/Flip_book`

1.2 Ordering

An important observation is that, flip book animations from left and right corners go in opposite directions. In traditional flip books, full page animations are printed on right pages, and the animation starts on the first page. IMHO, for corner animations on standard A4/letter paper, it seems reasonable for the animations to go:

- from the end of the document to its beginning in (top/bottom) right corners, and
- from the beginning of the document to its end in (top/bottom) left corners.

[1] As anything you can think of is already somewhere on the internet, please go on youtube and check out a video on how to use a flipbook: `http://www.youtube.com/` .

"./Images/Anims/anASCII/an5.tex" NOT FOUND

The idea is that one uses its thumb to release new images (/pages) on top of previous images in the animation.

Whatever your choice of ordering, a consequence of the fact that left and right pages are associated with opposite orderings is that each of this package's commands comes in two versions: one for left corners and one for right corners. The commands defined in this package are of the form `\fbCOMMAND*` where `COMMAND` is the command name and `*` has to be replaced by `F` or `B` to specify if you want to use an animation going Forward of Backward.

2 About this Document

Below are instructions to use the **flipbook** package. The LaTeX source of two documents serve as examples of how to use `flipbook.sty` style file:

- `flipbook-doc.tex`: this documentation, which contains a very basic ASCII art animation, and can thus be compiled with both LaTeX of pdfLaTeX,
- `flipbook-ex.tex`: an example with animations based on PNG or PDF images, so that the compilation requires pdfLaTeX.

This package requires the following packages:

- `fancyhdr`,
- `graphicx`,
- `verbatim`,
- `scalefnt`,
- `everypage`,
- `ifthen`.

One could easily make a lighter version without some of them (e.g., in case of incompatibilities with other packages).

3 Creating Your Own Flip Book Animations

3.1 Initialization

Whatever the type of animation to use, using this package first requires going through the following two steps:

1. In most cases, your document will be printed on both sides (thanks to modern printers), requiring to distinguish left and right (even and odd) pages.

   You should thus make sure to specify the "twoside" option when specifying your documentclass. For example, the first line in the source code for this documentation is:

   ```
   \documentclass[a4paper,twoside]{article}
   ```

In case your document is to be printed on a single side, you can specify the "oneside" option for your documentclass instead, as in:

```
\documentclass[a4paper,oneside]{article}
```

Note that, in this case, all pages are considered to be right pages.

2. Then, to make use of the **flipbook** package, add the following line in the preamble:

```
\usepackage{flipbook}
```

3.2 Using Standard Graphics

Here are the instructions to create your own flip book animations using standard graphics (either vector or bitmap images):

1. For each animation, put a **numbered** sequence of eps/pdf/png/jpg images in a directory.

2. Use the `fancyhdr` commands (also in the preamble) to create your animations, for example (with two different approaches for placement):[2]

```
\lfoot[~ \\
  \fbImageF{./Images/Anims/an2/im}{pdf}{scale=0.18}]{}
\rfoot[]{\thepage
  \setlength\unitlength{1cm}
  \begin{picture}(0,0)
    \put(2.5,-2.5){
      \fbImageB{./Images/Anims/an3/im}{png}{scale=0.25}
    }
  \end{picture}
}
```

Please, be careful when placing your images: they should be as close to the corner as possible, but your printer should still print them properly (most printers leave a white border out).

3. An important point is the use of the `fbImage*` command (where `*` is `L` or `R` depending whether one is working in the left or right corner). Assuming:

   - that one set of images is in directory `DIR` with a name such as `PREFIXnn.png`,
   - and that you want all of them to be scaled by a factor of `.2` (other options of the `includegraphics` command are possible),

   then you have to use the command:
   `\fbImage*{./DIR/PREFIX}{png}{scale=0.2}`

Note: The `graphicx` package is used to display pictures using the `\includegraphics` command.

[2] See Section 4.1 if you need to use other commands.

3.3 Using ASCII Art

The previous section has shown how to use the `fbImage*` command to display images. Two other commands are provided to display text:

- `fbInput*`: allows including a `tex` file; in the present document it is used in the bottom right corner as follows:

  ```
  \fbInputB{./Images/Anims/anASCII/an}{tex}{0.3}
  ```

  the three arguments are (i) the directory and prefix of the "image" files, (ii) the suffix of the "image" files, and (iii) the scale;

- `fbVerb*`: allows including a raw text file (in verbatim mode); in the present document it is used in the bottom left corner as follows, showing the source of LaTeX files:

  ```
  \fbVerbF{./Images/Anims/anASCII/an}{tex}{0.3}
  ```

3.4 Debugging

If nothing appears, this may be because your images are placed outside the page (tune the coordinates of the `\put` command).

Another common cause of missing pictures is that your images are not found (no error message is displayed because there would typically be too many of them).

To facilitate tracking such mistakes, one can call the package with the "debug" option. It prints a warning message for each "missing file" (1) in the console, and (2) instead of the missing file (so, if no message is displayed, this may be that the coordinates are wrong).

4 Comments

4.1 Other Means of Controlling Headers and Footers

With some document classes (e.g., `book.cls` or `thloria.cls`), you may prefer using the `\OddHead`, `\EvenHead`, `\OddFoot`, `\EvenFoot` commands. Here is an example validated with `thloria.cls`:

```
%-----------------------------------------------------------------------
%                              flipbook
%-----------------------------------------------------------------------

% display flipbook at the bottom right of each normal page
\EvenHead{{\leftmark}{\thepage\hfil{\slshape\leftmark}}}
\OddHead{{\leftmark\rightmark}{{\slshape\rightmark}\hfil\thepage}}
\OddFoot{
  \hfil
  \setlength\unitlength{1cm}
  \begin{picture}(0,0)
    \put(0.25,-1.75){
```

```
      \fbImageB{../Images/Anims/an2/im}{pdf}{scale=0.25}
    }
  \end{picture}
}
\EvenFoot{}

% display also on special pages (chapter titles, etc)
\pagestyle{Fancy}
\fancyhf{}

\fancypagestyle{plain}{
  \fancyhead{}
  \renewcommand{\headrulewidth}{0pt}
  \fancyfoot[RO]{
    \setlength\unitlength{1cm}
    \begin{picture}(0,0)
      \put(0.25,-1.75){
        \fbImageB{../Images/Anims/an2/im}{pdf}{scale=0.25}
      }
    \end{picture}
  }
}
```

4.2 Warning: File Size

Do not forget that animations include many pictures and that each picture uses disk space. Be careful to prefer vector graphics, or possibly avoid high-quality bitmap pictures, if you want to keep your file size reasonable.

4.3 Going Further

This package provides simple commands to create flip books based on vector/bitmap images, or ASCII art.

It should be easy to use various packages to generate animations using LaTeX, e.g., using pstricks, tikz, or generating files thanks to external applications (using shell escape)...

4.4 TODO

Ideas for the future:

- Make it possible to define lists of animations (one per usable corner).
- Allow references to animations, as for floats (figure/table/algorithm/...), or at least to the interval of pages corresponding to a given animation.

4.5 Your Creations

I'd be happy to know about your LaTeX documents (reports/theses/books/...) including flip books.

4.6 Acknowledgments

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