

# PGF *more* Pages

Andrew Stacey  
loopspace@mathforge.org

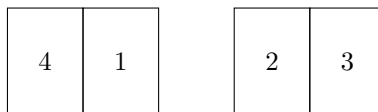
v1.00 from 2019/03/22

## 1 Introduction

The `pgfmorepages` package is a drop-in replacement for the `pgfpages` package which comes with TikZ/PGF. As it is a drop-in replacement, it *ought* to be fully backwards compatible with `pgfpages`.

`pgfpages` allows you the ability to place several pages of your document (hereafter *logical pages*) onto one page of the output (hereafter *physical pages*). `pgfmorepages` adds extra features, the primary one being that whereas `pgfpages` is “many to one”, `pgfmorepages` is “many to many”. That is, while `pgfpages` works one physical page at a time then `pgfmorepages` can juggle several logical pages onto several physical pages.

As an example of its capability, the layout `4 on 2`, `book format` places four logical pages onto two physical pages so that when folded it forms a booklet. The layout is therefore:



This requires knowing all four logical pages before the first physical page is output.

## 2 Usage

In your preamble:

```
\usepackage{pgfmorepages}
```

### 2.1 Layouts

The original `pgfpages` defined the following layouts:

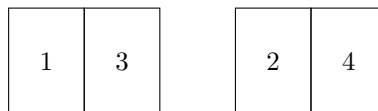
- `rounded corners`

- `resize to`
- two screens with lagging second
- two screens with optional second
- 2 on 1
- 4 on 1
- 6 on 1
- 8 on 1
- 16 on 1

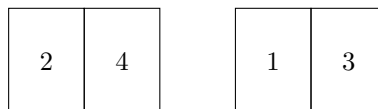
The `pgfmorepages` defines some extra layouts, which require the following command in your preamble:

`\pgfmorepagesloadextralayouts`

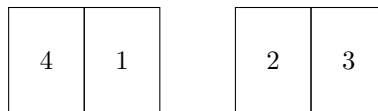
- 4 on 2, odd then even



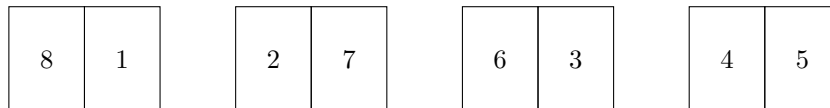
- 4 on 2, even then odd



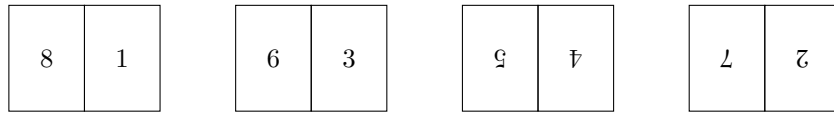
- 4 on 2, book format



- 8 on 4, book format



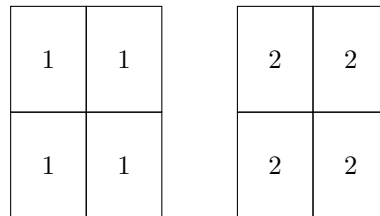
- 8 on 4, book format, reverse second, single sided



- 5 index cards
- repeated 2-up



- repeated 4-up



- 1 on 1

This is a layout that “resets” the mechanism back to one logical page on one physical page. It still uses the mechanics of the `pgfmorepages` package so is not quite the same as removing it altogether, but is effectively the same.

- discard

This layout discards all its pages. Useful to remove pages from a document without changing the source file too much.

To use a layout, use the command:

```
\pgfpagesuselayout{<layout name>}[<optional arguments>]
```

## 2.2 Options

The optional arguments are a superset of the ones that `pgfpages` allows.

- physical paper width
- physical paper height
- a0paper
- a1paper

- `a2paper`
- `a3paper`
- `a4paper`
- `a5paper`
- `a6paper`
- `letterpaper`
- `legalpaper`
- `executivepaper`
- `landscape`
- `border shrink`
- `border code`
- `corner width`
- `odd numbered pages right`
- `second right`
- `second left`
- `second top`
- `second bottom`

The only additional option is `border code` which, if the layout does anything with it, is designed for passing a command to the layout for the border path. The intention of this is that sometimes it is useful to draw the page border when designing a document but you might want to disable it for the final version. This makes it easy to switch between those (providing the layout supports it).

## 2.3 Changing Layout

The documentation for `pgfpages` states that it is possible to change layout mid-document. This turns out not to be correct for `pgfpages` as it doesn't reset everything correctly. `pgfmorepages` fixes this<sup>1</sup>. It is best practice to use a `\newpage` or `\clearpage` before doing so. The layout `1 on 1` is useful here as it sets the layout back to one logical page on one physical page.

---

<sup>1</sup>Or tries to – I keep discovering new options that I haven't reset properly.

### 3 Defining a New Layout

The best way to define a new layout is to start with one of the predefined ones and modify it. To that end, here is an example layout with comments.

```
% Set the name of the layout
\pgfpagesdeclarelayout{4 on 2, book format}%
{%
% Unless overridden, this layout uses the same paper size
% but rotated so that two logical pages fit naturally on
% one physical page
\edef\pgfpageoptionheight{\the\paperwidth}
\edef\pgfpageoptionwidth{\the\paperheight}
% Defaults for the border
\def\pgfpageoptionborder{Opt}
\def\pgfpageoptionbordercode{}
% Start with the first page of the document
\def\pgfpageoptionfirstshipout{1}
}%
{%
% These are the settings for the physical pages
\pgfpagesphysicalpageoptions
{%
% Each set consists of 4 logical and 2 physical pages
logical pages=4,%
physical pages=2,%
physical height=\pgfpageoptionheight,%
physical width=\pgfpageoptionwidth,%
current logical shipout=\pgfpageoptionfirstshipout%
}
% These are the settings for the logical pages.
% These hold for all the logical pages.
\pgfpagesetdefaults{%
border code=\pgfpageoptionbordercode
}
% Our arrangement is different for two portrait pages
% on one landscape as opposed to two landscape on
% one portrait.
% This is for two portrait on one landscape
\ifdim\paperheight>\paperwidth\relax
% put side-by-side
% There are several ways to declare which logical page
% goes on which physical page. This command sets the
% physical page for the following logical pages. The
% second argument is any options to be set for that
% physical page.
\pgfpagesphysicalpage{1}{}
% Our fourth logical page goes on the first physical page
\pgfpageslogicalpageoptions{4}
{%
```

```

        border shrink=\pgfpageoptionborder,%
        resized width=.5\pgfphysicalwidth,%
        resized height=\pgfphysicalheight,%
        center=\pgfpoint{.25\pgfphysicalwidth}{.5\pgfphysicalheight}%
    }%
% The second and third logical pages go on the second
% physical page.
\pgfpagesphysicalpage{2}{}
\pgfpageslogicalpageoptions{3}
{%
    border shrink=\pgfpageoptionborder,%
    resized width=.5\pgfphysicalwidth,%
    resized height=\pgfphysicalheight,%
    center=\pgfpoint{.75\pgfphysicalwidth}{.5\pgfphysicalheight}%
}%
\pgfpageslogicalpageoptions{2}
{%
    border shrink=\pgfpageoptionborder,%
    resized width=.5\pgfphysicalwidth,%
    resized height=\pgfphysicalheight,%
    center=\pgfpoint{.25\pgfphysicalwidth}{.5\pgfphysicalheight}%
}%
% The first logical page goes back on the first physical page.
\pgfpagesphysicalpage{1}{}
\pgfpageslogicalpageoptions{1}
{%
    border shrink=\pgfpageoptionborder,%
    resized width=.5\pgfphysicalwidth,%
    resized height=\pgfphysicalheight,%
    center=\pgfpoint{.75\pgfphysicalwidth}{.5\pgfphysicalheight}%
}%
\else
% These are essentially the same as above, except with
% two landscape pages on one portrait, so the pages
% are in different locations.
% stack on top of one another
\pgfpagesphysicalpage{1}{}
\pgfpageslogicalpageoptions{4}
{%
    border shrink=\pgfpageoptionborder,%
    resized width=\pgfphysicalwidth,%
    resized height=.5\pgfphysicalheight,%
    center=\pgfpoint{.5\pgfphysicalwidth}{.75\pgfphysicalheight}%
}%
\pgfpagesphysicalpage{2}{}
\pgfpageslogicalpageoptions{3}
{%
    border shrink=\pgfpageoptionborder,%
    resized width=\pgfphysicalwidth,%
    resized height=.5\pgfphysicalheight,%

```

```

        center=\pgfpoint{.5\pgfphysicalwidth}{.25\pgfphysicalheight}%
    }%
\pgfpageslogicalpageoptions{2}
{%
    border shrink=\pgfpageoptionborder,%
    resized width=\pgfphysicalwidth,%
    resized height=.5\pgfphysicalheight,%
    center=\pgfpoint{.5\pgfphysicalwidth}{.75\pgfphysicalheight}%
}%
\pgfpagesphysicalpage{2}{}
\pgfpageslogicalpageoptions{1}
{%
    border shrink=\pgfpageoptionborder,%
    resized width=\pgfphysicalwidth,%
    resized height=.5\pgfphysicalheight,%
    center=\pgfpoint{.5\pgfphysicalwidth}{.25\pgfphysicalheight}%
}%
\fi
}

```