

PGF *more* Pages

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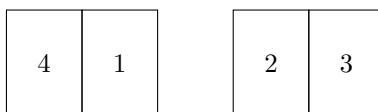
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1 Introduction

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:

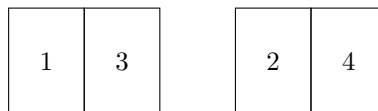
- `rounded corners`

- `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

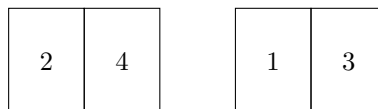
The `pgfmorepages` defines some extra layouts, which require the following command in your preamble:

`\pgfmorepagesloadextralayouts`

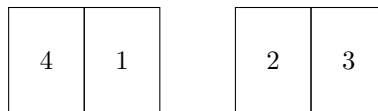
- 4 on 2, odd then even



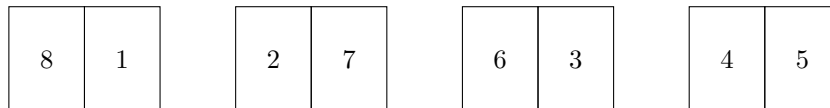
- 4 on 2, even then odd



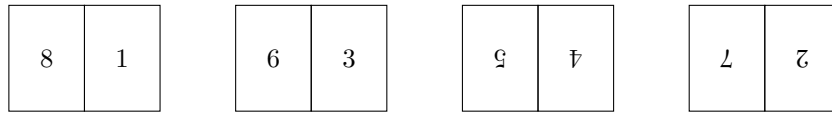
- 4 on 2, book format



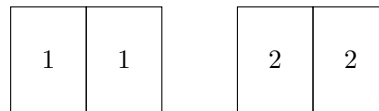
- 8 on 4, book format



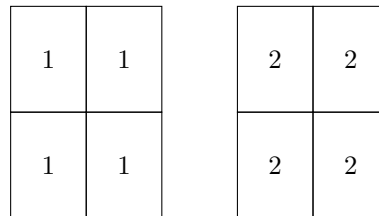
- 8 on 4, book format, reverse second, single sided



- 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 this¹. 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.

¹Or 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.
\pgfpagessetdefaults{%
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
}

```