

NAME

psnup - multiple pages per sheet

SYNOPSIS

```
psnup [ -wwidth ] [ -hheight ] [ -ppaper ] [ -Wwidth ] [ -Hheight ] [ -Ppaper ] [ -l ] [ -r ] [ -f ] [ -c ] [ -mmargin ] [ -bborder ] [ -dlwidth ] [ -sscale ] [ -nup ] [ -q ] [ infile [ outfile ] ]
```

DESCRIPTION

Psnup puts multiple logical pages onto each physical sheet of paper. The input PostScript file should follow the Adobe Document Structuring Conventions.

The *-w* option gives the paper width, and the *-h* option gives the paper height, normally specified in **cm** or **in** to convert PostScript's points (1/72 of an inch) to centimeters or inches. The *-p* option can be used as an alternative, to set the paper size to **a3**, **a4**, **a5**, **b5**, **letter**, **legal**, **tabloid**, **statement**, **executive**, **folio**, **quarto** or **10x14**. The default paper size is **a4**. The *-W*, *-H*, and *-P* options set the input paper size, if it is different from the output size. This makes it easy to impose pages of one size on a different size of paper.

The *-l* option should be used for pages which are in landscape orientation (rotated 90 degrees anticlockwise). The *-r* option should be used for pages which are in seascape orientation (rotated 90 degrees clockwise), and the *-f* option should be used for pages which have the width and height interchanged, but are not rotated.

Psnup normally uses 'row-major' layout, where adjacent pages are placed in rows across the paper. The *-c* option changes the order to 'column-major', where successive pages are placed in columns down the paper.

A margin to leave around the whole page can be specified with the *-m* option. This is useful for sheets of 'thumbnail' pages, because the normal page margins are reduced by putting multiple pages on a single sheet.

The *-b* option is used to specify an additional margin around each page on a sheet.

The *-d* option draws a line around the border of each page, of the specified width. If the *lwidth* parameter is omitted, a default linewidth of 1 point is assumed. The linewidth is relative to the original page dimensions, *i.e.* it is scaled down with the rest of the page.

The scale chosen by *psnup* can be overridden with the *-s* option. This is useful to merge pages which are already reduced.

The *-nup* option selects the number of logical pages to put on each sheet of paper. This can be any whole number; *psnup* tries to optimise the layout so that the minimum amount of space is wasted. If *psnup* cannot find a layout within its tolerance limit, it will abort with an error message. The alternative form *i nup* can also be used, for compatibility with other n-up programs.

Psnup normally prints the page numbers of the pages re-arranged; the *-q* option suppresses this.

EXAMPLES

The potential use of this utility is varied but one particular use is in conjunction with *psbook(1)*. For example, using *groff* to create a PostScript document and *lpr* as the UNIX print spooler a typical command line might look like this:

```
groff -Tps -ms file | psbook | psnup -2 | lpr
```

Where *file* is a 4 page document this command will result in a two page document printing two pages of *file* per page and rearranges the page order to match the input pages 4 and 1 on the first output page and pages 2 then 3 of the input document on the second output page.

AUTHOR

Copyright (C) Angus J. C. Duggan 1991-1995

SEE ALSO

psbook(1), *psselect(1)*, *pstops(1)*, *epsffit(1)*, *psnup(1)*, *psresize(1)*, *psmerge(1)*, *fixscribeps(1)*, *getafm(1)*, *fixdlsrps(1)*, *fixfmeps(1)*, *fixmacps(1)*, *fixpsditps(1)*, *fixpspps(1)*, *fixtpps(1)*, *fixwfwps(1)*, *fixwpps(1)*, *fixwwps(1)*, *extractres(1)*, *includeres(1)*

TRADEMARKS

PostScript is a trademark of Adobe Systems Incorporated.

BUGS

Psnup does not accept all DSC comments.