

**NAME**

psnup – multiple pages per sheet

**SYNOPSIS**

**psnup** [ **-w***width* ] [ **-h***height* ] [ **-p***paper* ] [ **-W***width* ] [ **-H***height* ] [ **-P***paper* ] [ **-l** ] [ **-r** ] [ **-f** ] [ **-c** ] [ **-m***margin* ] [ **-b***border* ] [ **-d***linewidth* ] [ **-s***scale* ] [ **-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 *linewidth* 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), fixfmps(1), fixmacps(1), fixpsditps(1), fixpspps(1), fixtps(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.