### **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 gi ves the paper height, normally specified in **cm** or **in**. The -p option can be used as an alternative, to set the paper size to **a0**, **a1**, **a2**, **a3**, **a4**, **a5**, **b5**, **letter**, **legal**, **tabloid**, **statement**, executive, folio, quarto or **10x14**. The default paper size is normally **a4**, but on a Debian system, /etc/papersize is consulted. 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 mer ge 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**

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#### SEE ALSO

psbook(1), psselect(1), pstops(1), epsffit(1), psnup(1), psresize(1), psmerge(1), fixscribeps(1), getafm(1), fixdlsrps(1), fixfmps(1), fixpspts(1), fixtpps(1), fixtpps(1), fixwfwps(1), fixwps(1), fixwps(1), extractres(1), includeres(1), showchar(1)

# TRADEMARKS

**PostScript** is a trademark of Adobe Systems Incorporated.

# **BUGS**

Psnup does not accept all DSC comments.