

**NAME**

*ra\_ps* - convert RADIANCE picture to a PostScript file

**SYNOPSIS**

***ra\_ps* [ *-blc* ] [ *-AIBIC* ] [ *-n ncopies* ] [ *-e +/-stops* ] [ *-g gamma* ] [ *-p paper* ] [ *-m[hlv] margin* ] [ *-d dpi* ] [ *input* [ *output* ] ]**

**DESCRIPTION**

*Ra\_ps* translates a RADIANCE picture to a color or greyscale Adobe PostScript file for printing on a laser printer or importing to a page layout program. The *-b* option tells *ra\_ps* to produce greyscale output. (The default is color, which may be specified explicitly with the *-c* option.)

The *-A* option specifies that the output should be in uncompressed ASCII hexstring format (the default). The *-B* option specifies that the output should be in uncompressed binary string format. The file size will be roughly half that of the ASCII equivalent, but some printers and especially some printer connections do not support binary transfer, so this option should be used with caution. The *-C* option specifies that the output should be in run-length compressed ASCII format. The file size will be one half to one tenth as large as the hexstring equivalent and can be sent over any network or by e-mail. The only disadvantage is that it will actually take longer to print on some printers, since the "readhexstring" procedure is generally faster than a custom replacement.

The *-n* option specifies the number of copies to print of this image. It is often preferable to use this option instead of the multiple copy option of the print spooler program, since the latter often results in duplication of the input file with a large associated cost.

The *-e* option specifies an exposure compensation in f-stops (powers of two). Only integer stops are allowed, for efficiency. The *-g* option specifies a power law for the printer transfer function. The default gamma setting for greyscale printers is 1.0 (linear), and the default gamma for color printers is 1.8 (commonly used in prepress). If your output seems to have too much contrast relative to its screen equivalent, print out the file "ray/lib/lib/gamma.hdr" to your printer without any gamma correction and using the *-d* option to set the dots-per-inch (see below). The best match between the small lines and the grey patch next to it indicate the approximate gamma of your printer, which you should use with the *-g* option for best contrast reproduction in subsequent conversions.

The standard print area assumes 8.5 by 11 inch (U.S. letter) paper, with 0.5 inch margins on all sides. The image will be rotated 90 degrees if it fits better that way in the available print area, and it will always be centered on the page. The *-p* and *-m* options to control the paper size and margins, respectively. The argument to the *-p* option is the common name for a given paper size, or WWxHH, where WW is the width (in inches) and HH is the height. If millimeters or centimeters are the preferred measurement unit, the 'x' may be replaced by 'm' or 'c', respectively. The WW and HH values are decimal quantities, of course. The current paper identifiers understood by the program may be discovered by giving a 0 argument to the *-p* option. They are currently:

<u>_Name</u>	<u>Width</u>	<u>Height</u>	(inches)
envelope	4.12	9.50	
executive	7.25	10.50	
letter	8.50	11.00	
lettersmall	7.68	10.16	
legal	8.50	14.00	
monarch	3.87	7.50	
statement	5.50	8.50	
tabloid	11.00	17.00	
A3	11.69	16.54	
A4	8.27	11.69	
A4small	7.47	10.85	
A5	6.00	8.27	
A6	4.13	6.00	
B4	10.12	14.33	
B5	7.17	10.12	

C5	6.38	9.01
C6	4.49	6.38
DL	4.33	8.66
hagaki	3.94	5.83

The paper size name may be abbreviated with three or more letters, and character case is ignored. The argument to the *-m* option is the margin width, which is 0.5 inches by default. A millimeter or centimeter quantity may be given instead of inches by immediately following the value with a 'm' or 'c' character, respectively. (Leave no space between the quantity and its unit letter.) If you wish to specify the horizontal and vertical margins separately, use the *-mh* and *-mv* options, instead.

The *-d* option may be used to explicitly set the print density (in dots per inch). If the input picture is lower resolution than the printer and has square pixels, then *ra\_ps* will adjust the image size so that pixels map to dot regions exactly. This may improve the appearance of fine detail, and may speed up the printing process as well, at the expense of a slightly smaller image area. If you wish to maximize print area and the input image contains no fine detail, then do not specify this option.

The output from *ra\_ps* is designed to be compatible with the Encapsulated PostScript standard, which means that the resulting file may be incorporated into documents by page layout programs that can read in EPS files. Unfortunately, there is currently no option for generating a preview bitmap, so the image will show up on the screen as a rectangular area only. To control the EPS image size directly, use the *-p* option as explained above with the WWxHH specification, and set *-m 0* to turn off the margins.

## AUTHOR

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## SEE ALSO

*pfilt*(1), *ra\_bmp*(1), *ra\_bn*(1), *ra\_pr*(1), *ra\_pr24*(1), *ra\_t8*(1), *ra\_t16*(1), *ra\_ppm*(1), *ra\_tiff*(1), *ximage*(1)