

**NAME**

imgtops2 - convert images to PostScript

**SYNOPSIS**

**imgtops2** [-t] [-e] [-d] [-h] [-c xcorner,ycorner ] [-s xsize,ysize ] [-o outputfile ] [*pnmfile*]

**DESCRIPTION**

Reads an image (binary PPM, binary PGM, JFIF/JPEG) and produces a Level 2 PostScript EPS file as output.

Level 2 PostScript contains support for more efficient encoding of binary data than the traditional hexadecimal representation. It also natively supports of JPEG-compressed image data. This program takes advantage of those features to produce PostScript files that are considerably smaller than those produced with older tools (such as *pnmtops* ). The resulting files will print only on PostScript devices supporting Level 2 features, but Level 2 has been around since 1991 so virtually all printers today support it.

The output of this program with no options will be a one-page PostScript document with the image centered on the page with one-inch margins. (The default paper size will be US letter or A4, depending on options given when the package was built.) The file will contain a tight bounding box for the image and other necessary DSC comments to make the output a legal Encapsulated PostScript (EPS) file, suitable for inclusion in other documents.

**INPUT IMAGES**

For PPM and PGM inputs, only binary (raw format) files are supported, and maxval is assumed to be 255.

If the input is a JFIF file (JPEG File Interchange Format, the format commonly known as "a JPEG file"), the program will directly encode the JPEG data as PostScript, without further loss of quality. Both color and grayscale JFIFs are supported. Only baseline JPEG is supported, since the PostScript standard does not specify support for progressive JPEG. If you give *imgtops2* a progressive JPEG, it will print a warning message but produce PostScript output anyway. Many PostScript devices will choke on this output, but you're welcome to try it.

*rdjpgcom -verbose* can be used to determine the encoding process used for a particular JFIF file. *jpegtran -optimize* will losslessly transcode progressive JPEG into baseline JPEG. Both programs are available from the Independent JPEG Group ([www.ijg.org](http://www.ijg.org)).

For all inputs, the output file should be approximately 25% larger than the input image file.

**OPTIONS**

The **-h** option causes the program to print a summary of the command-line options to stderr and exit.

The **-o** option causes output to be placed in the given file, rather than sent to stdout.

When the **-t** flag is present, the image may be rotated a quarter-turn counterclockwise on the page, if that allows the image to be scaled larger. Whether the output is turned or not will depend on the dimensions of the input image and the size of the printable area on the page. Without the **-t** option, the image will always appear upright.

Because EPS bounding boxes must be specified with integral coordinates, it might not be possible to produce a bounding box which exactly surrounds the image once it is scaled to fit the page. The bounding box produced will be conservative: the program will round so that the bounding box includes all of the image, but might include slightly more of the page. While the width of this extra border will never exceed 1/72", the **-e** option is provided for the serious purist. This causes the program to ignore the page size completely, and place the image upright, starting at the lower left corner of the page, scaled to one pixel per PostScript unit. This file will not be suitable for printing (few printers can print all the way to the edges of the page, and the image might be larger than the physical page), but the bounding box will *exactly* contain the image. Files produced with this option should only be used as EPS input to other programs.

The printable area on the page can be modified with the **-c** and **-s** options. The first sets the lower left corner of the printable area, relative to the lower left corner of the page. The second sets the width and height of the printable area. All values are specified in PostScript units (equal to 1/72" of an inch). The default is either US letter size with one inch margins (equivalent to "-c 72,72 -s 468,648") or A4 size with one inch margins (equivalent to "-c 72,72 -s 451,698"), depending on what option was

specified when the package was built. Use **-h** to see the default.

The **-d** option omits the image from the output file, but draws rectangles indicating the printable area (red), the image area and orientation (blue), and the bounding box (green). This may be useful for debugging image placement on the page.

**SEE ALSO**

pnm(5), pnmtops(1), jpegtran(1), rdjpgcom(1)

**AUTHOR**

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