# G3topbm User Manual

**g3topbm**

Updated: 28 February 2006
Table Of Contents

## NAME

g3topbm - convert a Group 3 fax file into a PBM image

## SYNOPSIS

**g3topbm** [**-kludge**] [**-reversebits**] [**-stretch**] [{**-width=***pixels* | paper_size={A3,A4,A5,A6,B4}] [**-stop_error**] [*g3file*]

Minimum unique abbreviation of option is acceptable. You may use double hyphens instead of single hyphen to denote options. You may use white space in place of the equals sign to separate an option name from its value.

## DESCRIPTION

This program is part of Netpbm.

**g3topbm** reads a Group 3 fax file as input and produces a PBM image as output.

**g3topbm** tolerates various deviations from the standard, so as to recover some of the image if there was a transmission error. One thing it tolerates is lines of varying length. The standard requires all the lines to be the same length; **g3topbm** makes the output image as wide as the longest line in the input and pads the others on the right. It warns you when it does this.

You can use the **stop_error** option to make **g3topbm** insist on valid input.

## OPTIONS

**-kludge**Tells **g3topbm** to ignore the first few lines of the file; sometimes fax files have some junk at the beginning.

**-reversebits**Tells **g3topbm** to interpret bits least-significant first, instead of the default most-significant first. Apparently some fax modems do it one way and others do it the other way. If you get a whole bunch of "bad code word" messages, try using this option.

**-stretch**This option tells **g3topbm** to stretch the image vertically by duplicating each row. This is for the low-quality transmission mode.

**-width=***pixels*This option tells **g3topbm** that the image is supposed to be *pixels* pixels wide. If any line in it is not that size, **g3topbm** issues a warning or fails, depending on whether you specify **-stop_error**.

You cannot specify both **-width** and **-paper_size**.

This option was new in Netpbm 10.33 (March 2006).

**-paper_size=**{**A3**,**A4**,**A5**,**A6**,**B4**}This option tells **g3topbm** for what size paper this image is supposed to be formatted. **g3topbm** uses the width of the paper the same way as with the **-width** option. **g3topbm** does not use the height of the paper for anything.

You cannot specify both **-width** and **-paper_size**.

This option was new in Netpbm 10.33 (March 2006).

**-stop_error**This option tells **g3topbm** to fail when it finds a problem in the input. "Fail" means it terminates with a nonzero status code with the contents of the output file undefined.

If you don't specify this option, **g3topbm** does its best to work around input errors and salvage as much of the image as possible in the output image. It first tries to resynchronize to a later line by searching for the next End Of Line marker, skipping any lines or partial lines in between. It saves the beginning of the line in which it encountered the problem. If the input file ends prematurely, **g3topbm** produces output containing the lines up to where it encountered the problem.

**g3topbm** issues warning messages when it continues in spite of input errors.

This option was new in Netpbm 10.24 (August 2004). Before that, **g3topbm** always failed when it encountered premature EOF and never failed when it encountered other problems.

## ABOUT G3

G3 is the near universal format used by fax machines. There is also a newer, more capable G4.

The standard for Group 3 fax is defined in CCITT Recommendation T.4. In the U.S., that is implemented by EIA standards EIA-465 and EIA-466. These standards cover the layers below the image format (which are irrelevant to **g3topbm** as well.

G3 faxes are 204 dots per inch (dpi) horizontally and 98 dpi (196 dpi optionally, in fine-detail mode) vertically. Since G3 neither assumes error free transmission nor retransmits when errors occur, the encoding scheme used is differential only over small segments never exceeding 2 lines at standard resolution or 4 lines for fine-detail. (The incremental G3 encoding scheme is called two-dimensional and the number of lines so encoded is specified by a parameter called k.)

## SEE ALSO

pbmtog3, pbm

---

**Table Of Contents**

SYNOPSIS
DESCRIPTION
OPTIONS
ABOUT G3
SEE ALSO