Pgmtoppm User Manual

pgmtoppm

Updated: 24 January 2001
Table Of Contents

NAME

pgmtoppm - colorize a PGM (grayscale) image into a PPM (color) image

SYNOPSIS

pgmtoppm *colorspec* [*pgmfile*]
pgmtoppm *colorspec1*-*colorspec2* [*pgmfile*]
pgmtoppm -map *mapfile* [*pgmfile*]

DESCRIPTION

This program is part of Netpbm.

pgmtoppm reads a PGM as input and produces a PPM file as output with a specific color assigned to each gray value in the input.

If you specify one color argument, black in the pgm file stays black and white in the pgm file turns into the specified color in the ppm file. Gray values in between are linearly mapped to differing intensities of the specified color.

If you specify two color arguments (separated by a dash), then black gets mapped to the first color and white gets mapped to the second and gray values in between get mapped linearly (across a three dimensional space) to colors in between.

Specify the color (*color*) as described for the argument of the **ppm_parsecolor()** library routine.

Also, you can specify an entire colormap with the **-map** option. The mapfile is just a **ppm** file; it can be any shape, all that matters is the colors in it and their order. In this case, black gets mapped into the first color in the map file, and white gets mapped to the last and gray values in between are mapped linearly onto the sequence of colors in between.

A more direct way to specify a particular color to replace each particular gray level is to use **pamlookup**. You make an index file that explicitly associates a color with each possible gray level.

NOTE - MAXVAL

The "maxval," or depth, of the output image is the same as that of the input image. The maxval affects the color resolution, which may cause quantization errors you don't anticipate in your output. For example, you have a simple black and white image as a PGM with maxval 1. Run this image through **pgmtoppm 0f/00/00** to try to make the image black and faint red. Because the output image will also have maxval 1, there is no such thing as faint red. It has to be either full-on red or black. **pgmtoppm** rounds the color 0f/00/00 down to black, and you get an output image that is nothing but black.

The fix is easy: Pass the input through **pamdepth** on the way into **pgmtoppm** to increase its depth to something that would give you the resolution you need to get your desired color. In this case, **pamdepth 16** would do it. Or spare yourself the unnecessary thinking and just say **pamdepth 255**.

PBM input is a special case. While you might think this would be equivalent to a PGM with maxval 1

since only two gray levels are necessary to represent a PBM image, **pgmtoppm**, like all Netpbm programs, in fact treats it as a maxval of 255.

SEE ALSO

pamdepth, **rgb3toppm**, **ppmtopgm**, **ppmtorgb3**, **ppm**, **pgm**

AUTHOR

Copyright (C) 1991 by Jef Poskanzer.

Table Of Contents

NAME
SYNOPSIS
DESCRIPTION
NOTE - MAXVAL
SEE ALSO
AUTHOR