Ppmhist User Manual

ppmhist

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NAME

ppmhist - print a histogram of the colors in a PPM image

SYNOPSIS

ppmhist [**-hexcolor** | **-float** | **-colorname** | **-map**] [**-nomap**] [**-noheader**] [**-sort=**{**frequency**,**rgb**}] [*ppm-file*]

DESCRIPTION

This program is part of Netpbm.

ppmhistreads a PPM image as input and generates a histogram of the colors in the image, i.e. a list of all the colors and how many pixels of each color are in the image.

Output Format

The output is in one of two basic formats: a report for humans and a PPM image for use by programs. The PPM image is actually quite readable by humans too.

Human Report

You get this format by specifying (or defaulting to) the **-nomap** option.

The format is one line for each color in the input image.

By default, there are two lines of column header at the top. Use the **-noheader** option to suppress those lines.

In each line, **ppmhist** identifies the color by red, green, and blue components. By default, it lists each of these in decimal, using the exact values that are in the PPM input. So if the image has a maxval of 255, the numbers in the listing range from 0 to 255. With the **-hexcolor** option, you can change these numbers to hexadecimal. With the **-float** option, the numbers are fractional, adjusted to a maxval of 1.

Each line lists the luminosity of the color. It is in decimal on the same scale as the rgb values (see above).

Each line lists the number of pixels in the image that have the color. This is in decimal.

PPM Output

You get this format with the **-map** option.

The output file is a genuine PPM image, but it is PPM Plain format and contains comments so that it is not a lot different from the human report described above.

As a PPM image, it can be useful as input to other programs that need some kind of palette. The image is a single row with one column for each distinct color in the image.

OPTIONS

-sort={frequency,rgb}The **-sort** option determines the order in which the colors are listed in the output. **frequency** means to list them in order of how pixels in the input image have the color, with the most represented colors first. **rgb** means to sort them first by the intensity of the red component of the color, then of the green, then of the blue, with the least intense first.

The default is **frequency**.

-hexcolor Print the color components in hexadecimal. See output format.

You may not specify this option along with **-float** or **map**.

-float Print the color components and the luminosity as floating point numbers in the range [0,1]. See output format.

You may not specify this option along with **-hexcolor** or **map**.

This option was added in Netpbm 10.19 (November 2003).

-map Generates a PPM file of the colormap for the image, with the color histogram as comments. See output format.

You may not specify this option along with **-float** or **hexcolor**.

-nomap Generates the histogram for human reading. This is the default.

-colorname Add the color name to the output. This is the name from the system color dictionary. If the exact color is not in the color dictionary, it is the closest color that is in the dictionary and is preceded by a '*'. If you don't have a system color dictionary, the program fails.

This option was added in Netpbm 10.10 (October 2002).

-noheader Do not print the column headings.

SEE ALSO

ppm, **pgmhist**, **pnmcolormmap**, **pnmhistmap**, **ppmchange**

AUTHOR

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