Pgmkernel User Manual

pgmkernel

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NAME

pgmkernel - generate a convolution kernel

SYNOPSIS

pgmkernel [**-weight** *w*] *width* [*height*]

DESCRIPTION

This program is part of Netpbm.

pgmkernel generates a convolution kernel that you can use with **pnmconvol**. The kernel is one where the weight of each location is inversely proportional to its distance from the center of the kernel.

pgmkernel generates a PGM image of size *width* by *height* (or *width* by *width* if you don't specify *height*).

pgmkernel computes the convolution function K as follows. K(i,j) = 1 / (1 + w * sqrt(i^2 + j^2)) where *w* is a coefficient specified via the **-weight** option. *i* and *j* are measured in pixels. K is zero everywhere beyond the specified kernel width and height.

pgmkernel generates the output PGM file in the Plain (text) variation of PGM.

OPTIONS

The optional **-weight** value should be a real number greater than -1. The default value is 6.0.

LIMITATIONS

The computation time is proportional to *width*height*. This increases rapidly with the increase of the kernel size. A better approach could be using a FFT in these cases.

SEE ALSO

pnmconvol, pnmsmooth pamgauss pgm

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