

NAME

pgmkernel - generate a convolution kernel

SYNOPSIS

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

DESCRIPTION

Generates a portable graymap array of size *width* x *height* (or *width* x *width* if *height* is not specified) to be used as a convolution file by **pnmconvol**. The data in the convolution array *K* are computed according to the formula:

$$K(i,j) = 1 / (1 + w * \sqrt{((i-width/2)^2 + (j-height/2)^2)})$$

where *w* is a coefficient specified via the **-weight** flag, and *width* and *height* are the X and Y filter sizes.

The output PGM file is always written out in ASCII format.

OPTIONS

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

BUGS

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(1), pnmsmooth(1)

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