Pamaddnoise User Manual

pamaddnoise

Updated: 14 November 1995
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NAME

pamaddnoise - add noise to a Netpbm image

SYNOPSIS

pamaddnoise [**-type** *noise_type*] [**-seed** *int*]
pamaddnoise -type gaussian [**-sigma1** *value*] [**-sigma2** *value*]
[**-seed** *int*] [*netpbmfile*]
pamaddnoise -type multiplicative_gaussian [**-msigma** *value*]
[**-seed** *int*] [*netpbmfile*]
pamaddnoise -type impulse [**-tolerance** *ratio*] [**-seed** *int*]
[*netpbmfile*]
pamaddnoise -type laplacian [**-lsigma** *value*] [**-seed** *int*]
[*netpbmfile*]
pamaddnoise -type poisson [**-lambda** *value*] [**-seed** *int*]
[*netpbmfile*]

DESCRIPTION

This program is part of Netpbm.

pamaddnoise adds the specified noise type to a Netpbm image. **pamaddnoise** treats a PPM image as 3 independent planes, not as a plane of colors in a color space.

OPTIONS

-lambda *value*Used for poisson noise only. The default value is 0.05.

-lsigma *value*Used for laplacian noise only. The default value is 10.0.

-msigma *value*Used for mutliplicative gaussian noise only. The default value is 0.5.

-seed *int*Used for all noise types. Set the initial random number generator seed value.

-sigma1 *value*Used for gaussian noise only. The default value is 4.0.

-sigma2 *value*Used for gaussian noise only. The default value is 20.0.

-tolerance *ratio*Used for impulse noise only. The default value is 0.10. This means that 5% of all pixel values will be set to 0 and 5% will be set to the maxval

-type *noise_type*Select type of noise by name. The following noise types are available: gaussian, multiplicative_gaussian, impulse, laplacian, poisson. Only enough letters to be unique are required for the noise type option. The default noise type is **gaussian**.

gaussian

mulitiplicative_gaussian

impulse

laplacian

poisson

REFERENCES

"Adaptive Image Restoration in Signal-Dependent Noise" by R. Kasturi Institute for Electronic Science, Texas Tech University, 1982

"Digital Image Processing Algorithms" by Ioannis Pitas, Prentice Hall, 1993 ISBN 0-13-145814-0

SEE ALSO

pgmnoise, pgmmedian, pnm, pam,

HISTORY

pamaddnoise was added to Netpbm in Version 10.29 (August 2005). It had been distributed by Mike Burns via his own web site before that (and continued to be so).

Burns' version, and the one in Netpbm 10.29, was called **pnmaddnoise** and worked only on PNM images. In Netpbm 10.30, it was converted to handle PAM images and renamed to **pamaddnoise**.

AUTHOR

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