Pgmtexture User Manual

pgmtexture

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NAME

pgmtexture - calculate textural features on a PGM image

SYNOPSIS

pgmtexture [**-d** *d*] [*pgmfile*]

DESCRIPTION

This program is part of Netpbm.

pgmtexture reads a PGM image as input and calculates textural features based on spatial dependence matrices at 0, 45, 90, and 135 degrees for a distance *d* (default = 1).

Textural features include:

- Angular Second Moment
- Contrast
- Correlation
- Variance
- Inverse Difference Moment
- Sum Average
- Sum Variance
- Sum Entropy
- Entropy
- Difference Variance
- Difference Entropy
- Information Measures of Correlation
- Maximal Correlation Coefficient

Algorithm taken from: Haralick, R.M., K. Shanmugam, and I. Dinstein. 1973. Textural features for image classification. *IEEE Transactions on Systems, Man, and Cybertinetics,* SMC-3(6):610-621.

LIMITATIONS

The program can run incredibly slow for large images (larger than 64 x 64) and command line options are limited. The method for finding the Maximal Correlation Coefficient, which requires finding the second largest eigenvalue of a matrix Q, does not always converge.

SEE ALSO

pgm, pamsharpness, pamsharpmap, pgmedge, pgmminkowski

AUTHOR

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