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Subject: image-convolution

Posted by [TERRAX](#) on Fri, 08 Mar 2013 07:27:11 GMT

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hello, idl-community. i (a IDL-beginner) have a problem with the creation of a window function for image processing. after many hours of tinkering, these problem-developed into a real nightmare for me. maybe you can help me.

context is the processing of a multi-spectral image. for example 250 x 250 pixels and 5 bands. on this image, i want implement the following function for an image-convolution :

$$c[i] = 0.25*n-1[i] + 0.5*n[i] + 0.25*n+1[i]$$

c [i] forms the value at pixel i in the smoothed image band.

n [i] is the original pixel values of the input image in band n.

n-1[i] is the corresponding pixel in the input band n-1 and n+1[i] is the corresponding pixel in the input band n+1.

the neighbors for smoothing are therefore the corresponding pixels of the adjacent bands.

for the implementation i took the Convol function and loops, but I failed miserably. I can idl not teach, that for convolution the same pixel from the adjacent bands to be used.

knows anyone a solution for this problem or could give tips or help.

many thanks in advance for your efforts.

best regards

alex

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