
Subject: Re: Help requested in eradicating FOR loops
Posted by [dplatten](#) on Wed, 19 Dec 2007 15:57:15 GMT
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On Dec 18, 1:23 pm, Spon <christoph.b...@gmail.com> wrote:

> On Dec 18, 11:00 am, dplat...@gmail.com wrote:

>

>

>

>>> Off the top of my head:

>>> 1-reform the points to match the size of the image: x1 =

>>> reform(x1,image_height,image_width)

>>> 2-make in "index" array: idx = findgen(image_height,image_width)

>>> 3-make x-index and y-index arrays: x = idx mod image_height & y = idx/

>>> image_height (or maybe those should be image_width?)

>>> 4-do the calculation: distance = ((y1-y2)*x + (x2-x1)*y + (x1*y2-

>>> x2*y1)) / SQRT((x2-x1)^2 + (y2-y1)^2)

>>> 5-put together the results matrix: results =

>>> [[reform(image,image_height*image_width)],[distance]] (I'd have to

>>> check the brackets, I always do)

>

>> Thanks for the reply - as I understand it I need to make an array to

>> hold x pixel positions and one to hold y pixel positions. For a 4 x 6

>> array they would look like this:

>

>> x locations: [0,1,2,3, 0,1,2,3, 0,1,2,3, 0,1,2,3, 0,1,2,3, 0,1,2,3]

>> y locations: [0,0,0,0, 1,1,1,1, 2,2,2,2, 3,3,3,3, 4,4,4,4, 5,5,5,5]

>

>> I can make the x array by doing this:

>

>> test_image = findgen(4, 6) ; a dummy test "image"

>> temp = findgen(4 * 6)

>> x_locations = temp mod 4

>

>> but I am having problems creating the y locations array. Some help

>> would be appreciated.

>

>> Thanks, David

>

> y_locations = fix(temp) / 4

Thanks for the response. I initially was using

y_locations = REFORM(ROTATE(REFORM(temp MOD 6, 6, 4), 1), 4*6)

which does work, but your suggestion is much more elegant!

I have found that this works a bit better:

y_locations = FLOOR(temp / 4)

Many thanks for the friendly help.

David
