
Subject: Re: (more) Efficient way to generate an array whose elements are the distance from the center

Posted by [Michael Galloy](#) on Sun, 08 Jul 2012 15:39:25 GMT

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On 7/6/12 2:53 PM, fawltlanguage@gmail.com wrote:

> On Friday, July 6, 2012 10:37:35 PM UTC+2, Mike F. wrote:

>> Hello all.

>>

>> I'm new to IDL (and coding in general), and I'm looking to find a more efficient way to generate an nxn array where each element is the distance from the center of the array.

>>

>> 3 x 3 Ex: 1.4 1 1.4

>> 1 0 1

>> 1.4 1 1.4

>>

>> All I can think of on my own is a nested FOR loop as such:

>>

>> FOR i = 0l, (n - 1) DO BEGIN

>> FOR j = 0l, (n - 1) DO BEGIN

>>

>> plane[i,j] = SQRT((i-n/2.)^2 + (j - n/2.)^2)

>>

>> ENDFOR

>> ENDFOR

>>

>> From what I've read on IDL forums, nested FOR loops are the pinnacle of sin, and I'd like to be a bit more pious if possible.

>>

>> Any tips would be appreciated!

>

> Look up DIST and SHIFT in the docs:

>

> IDL> print, shift(dist(3),1,1)

> 1.41421 1.00000 1.41421

> 1.00000 0.00000 1.00000

> 1.41421 1.00000 1.41421

>

> regards,

> Lajos

>

Also, DIST is written in dist.pro, so check it out in lib/ to look at how to do this.

Mike

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