Subject: Re: Problem with dist function in IDL
Posted by Paolo Grigis on Thu, 16 Aug 2007 10:13:58 GMT
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Gianguido Cianci wrote:
>> A graphical representation is also always useful...
>>
>> loadct,5
>> tvscl,shift(dist(512,512),256,256)
>>
>> Ciao,
>> Paolo
>
>
> Useful, but not sufficient in my case :-(
> In the case of dist(4,1), say, how do you get the values 0.00, 1.00,
> 2.00, 1.00 ?
>
> Never quite got it! :-(
>
> G
>

This program (not optimized) reproduces the functionality of DIST:

```
n=4
m=5

a=dist(n,m)
b=fltarr(n,m)

FOR i=0L,n-1 DO BEGIN
   FOR j=0L,m-1 DO BEGIN
      i2=min([i,n-i])
      j2=min([j,m-j])
      b[i,j]=sqrt(i2^2+j2^2)
   ENDFOR
ENDFOR
```

So dist[i,j] is the shortest distance from the euclidean
point with coordinates (i,j) to one of the points (0,0),
(0,m), (n,0) or (n,m).

Ciao,
Paolo