Subject: Re: Problem with dist function in IDL
Posted by Jean H. on Thu, 16 Aug 2007 00:34:52 GMT
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> 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

Here is a graphical explanation of Mike's answer:

so, let's create an empty row of size 4

[a,b,c,d]

then we want to compute the distance from the top left corner to every other cell, what the "dist" function does. To do that, let's assume we have an infinite array: ....,c,d,a,b,c,d,a,b, ...
Then the we can see that from A to B, there is 1 cell (pixel, unit, whatever), from A to C there is 2 cells and from A to D we have either 1 cell (because the beginning of the array is next to the last element of it), or 3 cells (through B and C). Dist() will return the smallest one... so you have dist(4,1) = 0,1,2,1

Now let's make it a tad bigger:
dist(10,10)
The last entry of the array is 1.41. From the first element, one has to jump UP one cell to get to the last row, and LEFT one cell to get to the last column... the distance is therefore 1.41

...
jean