Subject: 2D TO 3D ARRAY with different number of elements
Posted by AISHWARYA on Tue, 28 Jun 2011 10:25:33 GMT
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Hi IDL Users,

I was trying to convert a 2d array into 3d array. I tried congrid,
rebin and reform but couldn't succeed as the number of elements in the
final array was different. I have a 512*512 pixel data from Telescope.
I need to shift from Earth centre to Venus centre. Since the rpesent
data is in 2 dimension, I will have to convert it to 3 dimension with
the third dimension as distance between Earth's centre and Venus's
centre. Centre of the venus disc is 0.345 AU from Earth. So, how do I
now shift the z axis such that it matches with (0,0,0) of venus
centre.

Any help would be appreciated!

Thank you in advance,
Aishwarya.

Subject: Re: 2D TO 3D ARRAY with different number of elements
Posted by Craig Markwardt on Tue, 05 Jul 2011 04:07:41 GMT
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On Jun 28, 6:25 am, AISHWARYA <spacea...@gmail.com> wrote:
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>
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> centre. Centre of the venus disc is 0.345 AU from Earth. So, how do I
> now shift the z axis such that it matches with (0,0,0) of venus
> centre.

It's not clear if you want to make a 3D surface plot from 2D data, or
rebin a 2D array into a 3D array.

Rebinning is best done with a statement like this,
  arr_new = rebin(reform(arr_old,nx_old,ny_old,1) , nx_new, ny_new,
nz_new)
The use of REFORM() is necessary to force IDL to think of a NXxNy 2D
arra as a NXxNYx1 3D array.

Making a 3D surface plot will depend a lot on what your map projection is to begin with.

Craig
