Subject: Re: 2D Plot in IDL with shading?
Posted by penteado on Mon, 21 Jun 2010 19:15:56 GMT
View Forum Message <> Reply to Message

On Jun 21, 3:41 pm, Ally <ally.desh...@gmail.com> wrote:
> On Jun 21, 11:14 am, pp <pp.pente...@gmail.com> wrote:
>
>> On Jun 21, 12:09 pm, Ally <ally.desh...@gmail.com> wrote:
>
>>> Great, that's exactly what I needed! I'm working on creating it right
>>> now. Out of curiosity, is there any way to make a graph like that in
>>> 2D to start with, without a z-axis and just response plotted in color
>>> vs azimuth and elevation?
>
>> That is what would be called an image, which can be made with
>
>> iimage,response,elevation,azimuth
>
> I keep trying but can't seem to get isurface to graph it. I may be
> missing something basic but I've been reading through different
> examples and can't figure it out. Here is what I have:
>
> rows = 5273670
> OPENR, lun1, 'ss_raw_06.dat', /GET_LUN
> data = DBLARR(2,rows)
> READF, lun1, data
> response= data(1,*)
>
> OPENR, lun2, 'az.dat', /GET_LUN
> data2=DBLARR(2, rows)
> READF, lun2, data2
> az_g= data2(1,*)
>
> OPENR, lun3, 'sun_el_and_az.dat', /GET_LUN
> data3=DBLARR(2,rows)
> READF, lun3, data3
> az_s=data3(1,*)
> elevation=data3(0,*)
>
> azimuth=(az_s)-(az_g)
>
> isurface, response, elevation, azimuth
>
> It runs fine and the iSurface tool opens, there's just nothing
> graphed.

Have you checked that the data look right? You can check the
dimensions with

help,response,elevation,azimuth

And maybe min()/max() may be useful to tell if the values seem to make sense.

You are reading all 3 arrays as 1D. You indicated above that you have one response for each elevation and azimuth, which indicates that response should be reformed to 2D, with the proper dimensions:

response_2D=reform(response,nx,ny)

Where nx is the length of the fastest-varying dimension (leftmost), and ny is the other dimension. For this to be consistent with the way you called isurface, the fastest-varying dimension in the file where you read response from would have to be elevation, and the other would be the azimuth.

If you do not provide response as a 2D array, the itools will not know the connectivity of your points, and thus will start the gridding wizard, to interpolate them, guessing they were not on a regular grid, which is not your case.
