Subject: Re: surface plotting
Posted by Norbert Hahn on Wed, 14 Jan 2004 17:21:06 GMT
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Muks Raju <mpraju@harvest.eecs.umich.edu> wrote:

> Hello
> Yes you are right. I would like to picture the sphere as the earth
> and then project the colors which rep the diff densities on that earth. I
> guess I understand the concept but my data is in such a wierd form.
> I have a vector X = [X1,X2,X3.....X4880] and Y = [y1,y2,..y4880] and
> Z=[Z1,z2..z4880] and data=[d1,d2...d4880].. with the data in this format
> how do i do the said transformation? Any help would be much appreciated.

The transformation requires more than one step. CV_COORD will convert your coordinates contained in x,y,z to longitude, latitude (and radius).

sph_coord = CV_COORD (FROM_RECT=[x,y,z], /TO_SPHERE)

The longitude is contained in sph_coord (0,*), the latitude is in sph_coord(1,*). The radius will not be used for map projections. Ideally sph_coord(2,*) should contain the same values.

Next use MAP_SET to establish the map projection you want to use. Calling MAP_SET without any parameters will establish a default projection. After that IDL assumes all coordinates following are longitude, latitude and data.

CONTOUR will plot your data. The keyword IRREGULAR should be set. You may need to read the online help for each routine you call.

Norbert