Subject: Re: Plotting data on orthographic globe projection
Posted by David Fanning on Tue, 28 Feb 2012 21:43:11 GMT
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Sir Loin Steak writes:

> I have some data in a (72,36) array, corresponding to 72 longitudes
> and 36 latitudes. I am wanting to plot them onto a globe, and so have
> used IDLs map_set and contour routines. However, depending upon which
> angle I choose to view the image, there are problems with the filling
> of the contours.
>
> As an example, see the four images at http://www.physics.open.ac.uk/~lsteele/globe.png.
> I have plotted the exact same data in each image, the only difference
> being I changed the value of 'loncentre' in the plotting routine
> below:
>
> ;---------------------------------------
> lat = findgen(36)*180/35-90
> lon = findgen(72)*360/71-180
> latcentre=30
> loncentre=-70
> angle=0
> map_set,latcentre,loncentre,angle,/orthographic,/isotropic
> loadct, 13
> contour,reverse(vapour(*,*,250),2),lon,lat,/overplot,
> levels=findgen(30), /fill
> map_grid, latdel=5, londel=5, glinestyle=0, glinethick=0.5
> ;---------------------------------------
>
> Has anyone used these routines and experienced the same problem? Or
> can anyone suggest any other routines that produce something similar?
> I'm stumped!

I would try using the keyword CELL_FILL instead of FILL.
Not only will these problems probably disappear, but your
color will actually be correct! :-)

http://www.idlcoyote.com/color_tips/fill_colors.html

CELL_FILL should *always* be used to put filled contour
plots on map projections.

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")
