Subject: Re: Wrapping image on polar projection
Posted by David Fanning on Thu, 27 Feb 2014 13:26:35 GMT

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Vinay writes:

>
> Hi folks,
>
>
> Was anyone out there successful in wrapping images on polar projection using 'cg' routines.
Most of the other examples essentially uses cgCoutour. OK here is where, I got stuck.
>
> My data is similar to the example given in
> http://www.idlcoyote.com/map_tips/warptomap.php
>
>
> ------My code--------------------------
> Filein = 'test1.sav'
> RESTORE, Filein
> Help, image, lats, lons
>
> S = Size(image)
> lat = Rebin(lats, s(1), s(2))
> lon = Rebin(lons, s(1), s(2))
> image1 = Bytscl(image,min = 0.0, max = 0.15,/NaN)
>
> cgDisplay, Title='Polar Projection'
>
> map = Obj_New('cgMap', 'Polar Stereographic', LIMIT=[60, -180, 90, 180], Center_Lat=90,
Center_Lon=180, POSITION=[0.05, 0.05, 0.95, 0.95])
>
> warped = cgWarpToMap(Image1, lon, lat, MAP=map, MISSING=0, Resolution=[400, 300],
/SetRange)
> cgImage, warped, Position=[0.1, 0.1, 0.9, 0.9]
> cgMap_Grid, Map=map, /Label, Color='Blue'
> cgMap_Continents, MAP=map, Color='Blue'
> cgMap_Continents, MAP=map, Color='Blue', /Countries
> -----------------------------------
>
> It will be great, if anyone has any suggestions!!

The reason you are not seeing *anything* in your window is that you have
resized the latitude array incorrectly. You have this:

   lat = Rebin(lats, s(1), s(2))

And it should be this:

lat = Rebin(Reform(lats, 1, s(2)), s(1), s(2))

But, your other problem is that cgWarpToMap just doesn't deal well with
this kind of very low resolution data near the pole (always
problematic). Either of the two methods I outline in this article
"work", but I think the data itself limits our ability to get good
results.

    http://www.idlcoyote.com/code_tips/usegriddata.html

I've sent you a program with the code I wrote to test this.

Cheers,

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