Subject: Re: Plot curved line on a globe projection Posted by David Fanning on Sun, 28 Jul 2013 19:16:49 GMT

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> oplot, [10,30], [30,50], color=cgcolor('black')

ljs15@fsmail.net writes:

> device, /close

>

> I want to plot some straight line sections on a gridded globe plot (i.e. a line joining two points with different lat/lon coordinates), but want these lines to follow the curve of the globe. > I did a test (which I thought would work!) using the following code, but it just plots a straight line: > > :Coordinates etc > latcentre = 30 > loncentre = 0 > angle = 0 > > :Plot globe > set_plot, 'ps' > !p.font=0 > device, /encap, xsize=6, ysize=6, /inches > loadct, 0 > map set, latcentre, loncentre, angle, \$ /orthographic, /isotropic, /grid, /horizon, /noborder > map_grid, latdel=5, londel=5, glinestyle=0, glinethick=0.5, color=cgcolor('black')

> Can anyone offer any help? Is there anything simple I'm missing? I've searched online, but only seem to be able to find posts related to contouring on globe plots.

You can use Map 2Points to get the points making up a great circle route, but there won't be much difference. Here is an example. The green line is a straight line, the red is equally spaced in distance, and the blue is equally spaced in longitude.

```
:Coordinates etc
latcentre = 30
loncentre = 0
angle = 0
;Plot globe
;set_plot, 'ps'
:!p.font=0
;device, /encap, xsize=6, ysize=6, /inches
cgdisplay, 600, 600
loadct, 0
cgmap set, latcentre, loncentre, angle, limit=[30, 0, 50, 40], $
  /orthographic, /isotropic, /horizon, /noborder
```

cgmap_grid, latdel=5, londel=5, glinestyle=0, glinethick=0.5 cgPlotS, [10,30], [30,50], Color='grn7'; Straight line. cgPlotS, Map_2Points(10, 30, 30, 50, DPath=1, NPath=50), \$ Color='red'; Evenly spaced in distance cgPlotS, Map_2Points(10, 30, 30, 50, /RHUMB, NPath=50), \$ Color='blue'; Evenly spaced in longitude. ;device, /close END

Cheers,

David

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Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thue. ("Perhaps thou speakest truth.")