On Sunday, 28 July 2013 20:16:49 UTC+1, David Fanning  wrote:
> ljs15@fsmail.net writes:
>
>
>
>>  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')
>
>> oplot, [10,30], [30,50], color=cgcolor('black')
>
>> device, /close

>

>>

>

>> 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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>
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>
>
> --
>
> 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.")
```

Thanks David, that's just what I was after. I was actually wanting to plot a line with a large change in lat/lon, so the difference between a great circle and straight line is noticeable.

On a similar topic, does anyone know of a method which would allow a circle to be plotted on a globe, from a specification of the central lat/lon location and the radius?

I'm currently looking through the coyote routines and online, but if anyone knows off-hand a way of doing it, please let me know!

Thanks,

Liam