Subject: Re: Projected Meter Space and mapCoord
Posted by David Fanning on Wed, 09 Jul 2014 14:00:34 GMT
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Morgan Silverman writes:

> I'm looking more just for clarification so that I can understand further. I understand that latitude and longitude points have to be converted into projected meter space to be correctly placed on a map background. I've run my code 2 different ways, first using
>
> city_lats = [39.75, 41.29, 33.84, 45.49, 47.62, 40.22]
> city_lons = [-105.00, -95.92, -84.38, -122.69, -122.34, -74.78]
> xy = mapCoord->Forward(city_lons, city_lats)
> city_x = Reform(xy[0,*])
> city_y = Reform(xy[1,*])
> cgPlotS, city_x[j], city_y[j], Color=Byte(j+1), PSYM=16, SYMSize=2.0
>
>
> and the second just using
> city_lats = [39.75, 41.29, 33.84, 45.49, 47.62, 40.22]
> city_lons = [-105.00, -95.92, -84.38, -122.69, -122.34, -74.78]
> cgPlotS, city_lons(j), city_lats(j), map=mapCoord, Color=Byte(j+1), PSYM=16, SYMSize=2.0
>
> mapCoord has already been defined in both cases. I just abbreviated the code for simplicity. It appears that both graph exactly the same and look correct. I'm wondering if this is true and if it matters what method you use or if one is better, mapCoord->Forward(lon,lat) or cgPlotS, map=mapCoord. I would like to do things correctly and not incorrect but still have them seem to work for some reason.

The two methods are identical. When you pass mapCoord to cgPlotS in the second method, it simply allows you to perform the caculations you do by hand in the first method.

My point was that if you have NaNs in the latitude and logitude vectors that you are trying to display, neither of these two methods can be completed successfully. It sounded to me as if that was the problem you are experiencing.

Cheers,

David

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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.")