
Subject: Projected Meter Space and mapCoord

Posted by [morganlsilverman](#) on Wed, 09 Jul 2014 13:48:40 GMT

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Hello,

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 graphs are 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 incorrectly but still have them seem to work for some reason.

Thanks.

-Morgan
