
Subject: Re: Multiple plot with mapCoord

Posted by [morganlsilverman](#) on Thu, 03 Jul 2014 13:15:32 GMT

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On Wednesday, July 2, 2014 3:21:03 PM UTC-4, David Fanning wrote:

> Morgan Silverman writes:

>

>

>

>> Good article. I'm still missing something though. I'd like to use coyote graphics because I'm trying to make publication figures and from my understanding better quality can be gotten using cgWindow and ImageMagick. When I run my code I see the maps then they flash away and i'm left with just 4 colored lines that should be overlaid on the maps. I've tried with the mapCoord statements both inside and outside the loop both with the same results.

>

>

>

> Well, there are a lot of things are wrong with your code. :-)

>

>

>

> I would try something like this:

>

>

>

> ;*****

>

> PRO Map_Test

>

>

>

> cities = ['Denver','Omaha','Atlanta','Portland','Seattle','Trenton']

>

> 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]

>

>

>

> cgLoadCT, 33, NColors=6, Bottom=1

>

>

>

> lonmin = -125

>

> lonmax = -65

>

> latmin = 25

```

>
> latmax = 60
>
> centerlon = (lonmax-lonmin)/2.0 + lonmin
>
> centerlat = (latmax-latmin)/2.0 + latmin
>
> limit = [latmin, lonmin, latmax, lonmax]
>
> xrange = [lonmin, lonmax]
>
> yrange = [latmin, latmax]
>
> mapCoord = Obj_New('cgmap', 'Stereographic', Ellipsoid='WGS 84', $
>
>   Limit=limit, Center_Lat=centerlat, center_lon=centerlon)
>
>
>
> ; Convert city locations to projected meters.
>
> xy = mapCoord->Forward(city_lons, city_lats)
>
> city_x = Reform(xy[0,*])
>
> city_y = Reform(xy[1,*])
>
>
>
> ; Set up 3-col by 2-row grid.
>
> p = cgLayout([3,2], Aspect=0.5, YGAP=4, XGAP=6, $
>
>   OXMargin=[4,4], OYMargin=[4,6])
>
>
>
> ; Draw the plots.
>
> FOR j=0,5 DO BEGIN
>
>   pos = p[*,j]
>
>   mapCoord -> SetProperty, Position=pos, /Draw
>
>   cgMap_Grid, MAP=mapCoord, /Box
>
>   cgMap_Continents, MAP=mapCoord, /Continents, /Countries, /USA

```

```

>
>   cgPlotS, city_x[j], city_y[j], Color=Byte(j+1), PSYM=16, SYMSIZE=2.0
>
>   x = (pos[2]-pos[0])/2.0 + pos[0]
>
>   y = pos[3] + (!D.Y_CH_SIZE * 2) / Float(!D.Y_Size)
>
>   cgText, x, y, cities[j], /Normal, Alignment=0.5
>
> ENDFOR
>
> END
>
>
> ; Run the program in a cgWindow.
>
> cgWindow, 'Map_Test', WXSIZ=800, WYSIZ=400, WBackground='White'
>
> END
>
> ,*****
>
>
>
> 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.")

```

I'm sorry for all the trouble but I tried modifying your code to work with my data and I get both a black background IDL window (which didn't happen in your Map_Test) and a white background resizable graphics window that creates an infinite number of windows until I hard quit IDL. I think this is because Avg2000Lon=float(73) so my code is trying to create 73 windows. Map_Test is based on 6 discrete city lat/lons. How do I modify this to work with my array of values. I'm plotting trajectories so each window has several different trajectories plotted in each graph. Thanks.

```

Pro Plot6PanelTraj_MOZAICpaper
restore, './DAQPadonia_AvgBackTraj_Flight7.sav'

lonmin = -125
lonmax = -65
latmin = 25
latmax = 60
centerlon = (lonmax-lonmin)/2.0 + lonmin
centerlat = (latmax-latmin)/2.0 + latmin
limit = [latmin, lonmin, latmax, lonmax]
xrange = [lonmin, lonmax]
yrange = [latmin, latmax]
mapCoord = Obj_New('cgmap', 'Stereographic', Ellipsoid='WGS 84', Limit=limit, $
    center_lat=centerlat, center_lon=centerlon)

; Convert trajectory locations to projected meter space
xy = mapCoord->Forward(Avg2000Lon, Avg2000Lat)
locx = Reform(xy[0,*])
locy = Reform(xy[1,*])

; Set up 2-col by 3-row grid
p = cgLayout([2,3], Aspect=0.5, YGap=4, XGap=6, OXMargin=[4,4], OYMargin=[4,6])

; Draw plots
for j=0,5 do begin
    pos = p(*,j)
    mapCoord->SetProperty, Position=pos, /Draw
    cgMap_Grid, map=mapCoord, /box
    cgMap_Continents, map=mapCoord, /continents, /countries, /usa
    cgplotS, locx, locy, color='blue', thick=4
end

; Run the program in a cgWindow.
cgWindow, 'Plot6PanelTraj_MOZAICPaper', WXSize=800, WYSize=400, WBackground='White'

```
