
Subject: Re: Problem Plotting Symbols on a Map?
Posted by [grunes](#) on Wed, 07 Jun 1995 07:00:00 GMT
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In article <3r28t9\$4bpe@enzu.unm.edu> rdhunt@unm.edu writes:
> I am having trouble drawing filled circles on a map in IDL 4.0.

...

Actually your problem quite simple. Assuming RSI hasn't yet fixed their map_set routine, it simply doesn't draw things ere it says they are--e.g., features are drawn at the wrong coordinates.

I devised a junky solution, which served my own needs, bypassing map_set altogether, and using a very simple projection.

```
-----CUT HERE-----  
;  
; Routine to Draw a map.  
;  
pro draw_map,latmin,latmax,lonmin,lonmax,title  
  
    ;Draw a map. It will then be possible to  
    ; plot over the map using  
    ;   PLOTS,LON,LAT,NOCLIP=0  
    ; (LON and LAT are arrays in degrees).  
  
    ;latmin,latmax=minimum,maximum latitude (>0=north)  
    ;lonmin,lonmax=minimum,maximum longitude (>0=east)  
    ;title=plot title  
  
    ;By Mitchell Grunes.  
    ;Simplified from userlib procedure map_set.pro,  
    ; because I could not figure out a way to get  
    ; map_set.pro to give a simple rectangular  
    ; projection, and because it seemed to be drawing  
    ; things in the wrong places.  
  
    latmin2=latmin  
    latmax2=latmax  
    lonmin2=lonmin  
    lonmax2=lonmax  
    ;Adjust aspect, lat and lon boundaries so that  
    ;the lat and lon scales will be the same at map  
    ;center. Approximately valid for default postscript  
    ;in landscape mode.  
    aspect=8.3125/6.125/cos((latmin+latmax)/2.*!pi/180)  
    if (lonmax-lonmin) lt (latmax-latmin)*(aspect*.98) then begin  
        d=(latmax-latmin)*aspect-(lonmax-lonmin)
```

```

lonmin2=lonmin2-d/2
lonmax2=lonmax2+d/2
endif else if (latmax-latmin) lt (lonmax-lonmin)/(aspect*.98) then begin
  d=(lonmax-lonmin)/aspect-(latmax-latmin)
  latmin2=latmin2-d/2
  latmax2=latmax2+d/2
endif
xticks=fix(lonmax2-lonmin2)
yticks=fix(latmax2-latmin2)
if xticks lt 3 or xticks gt 15 or lonmin2 ne fix(lonmin2) $
  or lonmax2 ne fix(lonmax2) then xticks=0
if yticks lt 3 or yticks gt 15 or latmin2 ne fix(latmin2) $
  or latmax2 ne fix(latmax2) then yticks=0
plot,[lonmin2,lonmin2,lonmax2,lonmax2,lonmin2], $
  [latmin2,latmax2,latmax2,latmin2,latmin2],xstyle=1,ystyle=1, title=title, $
  ticklen=1,xticks=xticks,yticks=yticks
close,1
openr,1,FILEPATH('supmap.dat',subdir = "maps"),/xdr,/stream
fbyte = [ 0, 71612L, 165096L]
nsegs = [ 283, 325, 594 ]
ij=2 ;0=course resolution map,1=U.S. only,2=All
point_lun, 1, fbyte(ij)
for i=1,nsegs(ij) do begin
  npts = 0L
  maxlat=0. & minlat=0. & maxlon=0. & minlon=0.
  readu,1,npts,maxlat,minlat,maxlon,minlon
  npts = npts / 2 ;# of points
  xy = fltarr(2,npts)
  readu,1,xy
  if (maxlat lt latmin2) or (minlat gt latmax2) then goto,skipit
  if (maxlon lt lonmin2) or (minlon gt lonmax2) then BEGIN
    if (lonmax2 gt 180 and maxlon + 360 ge lonmin2) then goto,goon
    if ( lonmin2 lt -180 and minlon -360 le lonmax2) then goto,goon
    goto, skipit
  endif
endif
goon:
  lat = xy(0,*) & lon = xy(1,*)
  plots, lon,lat,NOCLIP=0,color=3*d.n_colors/9
  empty
skipit:
endfor
end

```
