Subject: Fitting a map to an image
Posted by Sean Raffuse on Thu, 06 Jun 2002 20:59:16 GMT
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Hello.

I have an image of known size and flat geocoordinates. I want to overlay
the US states vector in a display window on top of the image. My problem is
that I cannot get the two to match up properly. There seems to be a border
on the vector, but the image draws to the edge of the window. I tried using
the noborder keyword on my call to map_set and also tried setting the !x and
!y margins to zero. No luck. Can you help? Here is the relevant code. . .


```
;set margins to zero
x_margin = !x.margin
y_margin = !y.margin
!x.margin = [0,0]
!y.margin = [0,0]

;write output to screen
Device, decomposed=0
image = reverse(InArray1, 2)
LoadCT, 40
scaledImage = bytscl(image, Min=0, Max=0.5, Top=255)
window, 0, xsize=nscans, ysize=nlines
TV, scaledImage

;setup the map
xspan = pixelsize*nscans
yspan = pixelsize*nlines
upperleftlat = mc[3]
upperleftlon = mc[2]
lowerlat = upperleftlat - yspan
rightlon = upperleftlon + xspan
map_set, limit=[lowerlat,upperleftlon,upperleftlat,rightlon], /noborder,
/noerase
map_continents, /usa, color = 254, mlinethick=2

;write to jpeg
image = tvread(filename=out_name, /JPEG,  /nodialog, Quality=100)
```


thanks to David Fanning for the tvread procedure

-Sean Raffuse

Subject: sec : U Re: Fitting a map to an image
Posted by Andrew Cool on Thu, 06 Jun 2002 23:22:13 GMT
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Sean Raffuse wrote:
>
> Hello.
>
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> the US states vector in a display window on top of the image. My problem is
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> on the vector, but the image draws to the edge of the window. I tried using
> the noborder keyword on my call to map_set and also tried setting the !x and
> !y margins to zero. No luck. Can you help? Here is the relevant code. . .

I may as well throw in the example...

```
PRO USA

  Device, decomposed=0

  window
  LoadCT, 40
  !P.position=[0.1,0.1,0.9,0.9]
  lowerlat = 25
  upperleftlat = 50
  upperleftlon = 360-140
  rightlon = 360-60

 map_set,40,-110,0,limit=[lowerlat,upperleftlon,upperleftlat, rightlon],/merc
 image = DIST(800,250)
 geo_warped_image = map_image(image,startx,starty,$
                  LATMIN   = lowerlat,$
                  LATMAX   = upperleftlat,$
        LONMIN   = upperleftlon,$
      LONMAX   = rightlon,$
          COMPRESS = 1)

 TV, BYTSCL(geo_warped_image), startx,starty,/device

 map_continents, /usa, color = 200, mlinethick=2
 MAP_GRID,/BOX,color = 200

END
```

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Subject: Sec : U Re: Fitting a map to an image
Posted by Andrew Cool on Thu, 06 Jun 2002 23:30:33 GMT
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Sean Raffuse wrote:
>
> I don't know if this is unwise, but I don't want to warp the image any. It
> has already been georeferenced once using ENVI. All I need is a window and
> map setting that matches the image, which has defined size and
> geocoordinates with geographic lat/lon projection. I'd rather warp the map
> then the large image.
>
> -Sean

Well, I'll shut then, and leave it to the satellite guys out there.

But 3D into 2D doesn't normally go without something getting warped
along the way.

Andrew