## Subject: Re: MAP\_SET vs MAP\_PROJ\_\* Posted by Gadhavi on Tue, 08 Feb 2005 16:29:32 GMT

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## Dear Friends,

I tried to run the program given by Ben that is mapTest. I found that map\_continent and map\_grid subroutines are not accepting the keyword map\_structure. I am using IDL 5.6. The subroutine shown by Ben is very useful for my purpose. Any suggestion to overcome this problem Thanking you

HG

Ben Tupper wrote:

- > Liam Gumley wrote:
- >> Ken Mankoff wrote:
- >>
- >>
- >> I'd love to see a simple example of how the MAP\_PROJ routines may be
- >> used with direct graphics. The object graphics example in the IDL
- >> documentation is beyond me...
- >>
- >> For example, how do do you define a Lambert Azimuthal Equal Area
- >> Projection in direct graphics centered at a given lat/lon with a
- >> specified resolution, such as 1000 meters per pixel?
- >>
- >
- > Hi Liam,
- > I have tried to take up this challenge with limited success. There
- > place in the documentation that gives a bit of a hint (see MAP\_CONTINENTS near
- > the bottom.) That, with the shapefile demo in the documents, was just enough
- > fpr me to pull together part of the solution. The code below shows
- > generate a projected map with the State o' Maine filled. It ain't pretty, I
- > agree, but it's close.
- >
- > Tried to ...
- > center map a specified location (= done)
- use specified projection ( = done)
- use specified resolution ( = not done) >
- > > Note that ...
- Map axes are in !MAP.UV BOX coords not in LonLat. I guess a

function has to > be written to show the axes in lonlats using MAP\_PROJ\_FORWARD as they would be > shown using MAP\_GRID, /BOX\_AXES etc. I don't think that would be too hard > (fingers crossed.) I think the hard parts are figuring out the specified > resolution and a nice window shape for ISOTROPIC projections. I wonder if > MAP SET could be modified to accept a MAP STRUCTURE input keyword? > > > Here 'tis... > PRO mapTest > : GCTP Polar stereographic projection > myMap = MAP\_PROJ\_INIT(4, \$ LIMIT = [20, -150, 60, -60],\$ CENTER LONGITUDE = -120, \$ CENTER\_LATITUDE=45) > ; Create a plot window using the UV Cartesian range. PLOT, myMap.uv\_box[[0,2]],myMap.uv\_box[[1,3]], \$ /NODATA, /ISOTROPIC, XSTYLE=1, YSTYLE=1 > > MAP\_CONTINENTS, MAP\_STRUCTURE=myMap , /USA MAP GRID, MAP STRUCTURE=myMap > > Open the states Shapefile in the examples directory > myshape=OBJ\_NEW('IDLffShape', FILEPATH('states.shp', \$ SUBDIR=['examples', 'data'])) > ;Get the number of entities so we can parse through them myshape->IDLffShape::GetProperty, N ENTITIES=num ent > > > ; Parsing through the entities and only plotting the state of > ;Colorado > FOR x=1, (num\_ent-1) DO BEGIN ;Get the Attributes for entity x > attr = myshape->IDLffShape::GetAttributes(x) :See if 'Colorado' is in ATTRIBUTE 1 of the attributes for > > :entity x IF attr.ATTRIBUTE\_1 EQ 'Maine' THEN BEGIN > :Get entity > ent = myshape->IDLffShape::GetEntity(x) > xy = MAP PROJ FORWARD((\*ent.vertices)[0,\*],

```
(*ent.vertices)[1,*], $
       map = myMap)
>
      ;Plot entity
>
      POLYFILL, xy[0,*], xy[1,*]
>
      ;Clean-up of pointers
>
      myshape->IDLffShape::DestroyEntity, ent
>
    ENDIF
>
> ENDFOR
> ;Close the Shapefile
> OBJ_DESTROY, myshape
> End
```