Subject: Re: Map Projection Doom and Gloom Posted by David Fanning on Sun, 31 May 2009 03:34:02 GMT

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R.G. Stockwell writes:

```
> I call map_proj_init then the call window, and then immediately call
>
> IDL> mapStruct = MAP_PROJ_INIT(117,
> LIMIT=[-90,-180,90,180],CENTER_LONGITUDE=0)
> IDL> window,xsize = 1000,ysize = 500
> IDL> PLOT, mapStruct.uv_box[[0,2]],mapStruct.uv_box[[1,3],/nodata
>
> but then I do a lot of calculations, drawing polygons etc,
> and finally call the map_continents to overlay those lines.
>
> IDL> result = MAP_PROJ_FORWARD(lon,lat,map_structure = mapstruct)
> IDL> MAP_CONTINENTS, /hi,MAP_STRUCTURE = mapstruct,/coasts,/countries,/usa
>
> Am I in hell, and not noticing? :)
```

This is more or less what I am doing, too, although I am doing it in a widget program that allows you to select the projection you prefer. But, I have found it is EXCEEDINGLY hard to debug action-at-a-distance interactions, since it is nearly impossible to find a reproducible bug that you can fix! It really feels more like Whack-A-Mole to me. And, of course, 90% of your time is spent either scratching your head in disbelief or fixing things that don't really need to be fixed.

I now have a map projection object that will perform the MAP_PROJ_INIT call when I ask it for its map structure. If I don't dilly-dally using the damn thing, it *usually* does what it is suppose to do. My biggest problem now is unravelling all the "fixes" I've put in the past couple of days. :-(

And, by the way, the Meadow Larks were wonderful. :-)

Cheers,

David

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David Fanning, Ph.D. Fanning Software Consulting, Inc. Coyote's Guide to IDL Programming: http://www.dfanning.com/ Sepore ma de ni thui. ("Perhaps thou speakest truth.")