Subject: Re: Map Projection Doom and Gloom Posted by R.G. Stockwell on Sat, 30 May 2009 18:22:12 GMT

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"David Fanning" <news@dfanning.com> wrote in message news:MPG.248b0b41b41ca1f498a6ca@news.giganews.com...

- > Here is the crux of my advice: If you are going to use
- > a map structure for \*ANYTHING\* (and I really do mean
- > \*ANYTHING\*!!), then be absolutely sure you execute
- > the MAP\_PROJ\_INIT command \*IMMEDIATELY\* prior to using
- > the friggin' thing!

..

sounds scary.

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?:)

what is the problem you are finding?

cheers,

Subject: Re: Map Projection Doom and Gloom Posted by R.G. Stockwell on Sat, 30 May 2009 18:32:11 GMT View Forum Message <> Reply to Message

"R.G. Stockwell" <noemail87@please.com> wrote in message news:gvrtgr\$u47\$1@aioe.org...

- > "David Fanning" <news@dfanning.com> wrote in message
- > news:MPG.248b0b41b41ca1f498a6ca@news.giganews.com...

> ...

- >> Here is the crux of my advice: If you are going to use
  >> a map structure for \*ANYTHING\* (and I really do mean
  >> \*ANYTHING\*!!), then be absolutely sure you execute
  >> the MAP\_PROJ\_INIT command \*IMMEDIATELY\* prior to using
  >> the friggin' thing!
  > ...
  >
  > sounds scary.
- ok, read the web page.

lol, spooky action at a distance. Important to keep in mind.

wow, that is really unbelievable. It'd be interesting to see what is really going on. I bet when you pass the map stucutre, that the map routines are not using it but instead using the !Map variables.

A quick check shows !map is empty before and after, so that is not it. They must use a secret undocumented map system variable.

cheers, bob

Subject: Re: Map Projection Doom and Gloom Posted by David Fanning on Sun, 31 May 2009 03:34:02 GMT View Forum Message <> Reply to Message

## 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

--

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.")