Subject: Re: map: integerized sinusoidal
Posted by David Fanning on Tue, 17 Feb 2009 20:59:13 GMT
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Roman writes:

> After trying out for several days to map (hundreds of) MODIS MOD14A2
> products in IDL, I hope someone can help me here ! I went through
> older comments on that but I really don't know where is my mistake !
> The dataset and the boundaries of the continents/coast lines dont fitt
> to each other. In the upper right corner yes but than it gets worse to
> the lower right corner !
>
> Thank you in advance for any help - cheers Roman
> --------------------
> Datasets are HDF files, 1200 x 1200 rows/columns, resoultion 1 km in
> integerized sinusoidal projection.

Humm. Well, you seem surprised by this result, but nowhere
in your code do you set up an integerized sinusoidal projection.
You appear to be using a cylindrical projection. I'm pretty
sure that if the data is in one projection, and the overlays
are in another, that the chances of good alignment are pretty
poor, indeed. :-)

IDL does have an integerized sinusoidal projection, but
you will have to use MAP_PROJ_INIT to set it up, and you
will have to pass the map structure created by MAP_PROJ_INIT
to Map_Continents and Map_Grid, so they will be able to
draw on the map. I've never used this projection, but it has
a number of 131. I am not sure it will be available in your
version of IDL. It may have been added *after* IDL 5.6.

Your code will look something like this:

```
  window, xsize=800, ysize=800
  position = [0.1, 0.1, 0.9, 0.9]
  mapStruct = Map_Proj_Init(131, ...)
  TVScale, image, Position=position, /KEEP
  Plot, mapStruct.uv_box[[0,2]], mapStruct.uv_box[[1,3]], $
    Pos=position, /NODATA, /NOERASE
  Map_Continents, MAP_STRUCTURE=mapStruct
  Map_Grid, MAP_STRUCTURE=mapStruct
```

Cheers,

David

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