Subject: Re: Overlay images from WMS servers (web mapping servers) on map projections
Posted by liamgumley on Fri, 10 Feb 2006 17:18:50 GMT
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Sorry for the delay; I got busy with some other tasks.

I was initially equally frustrated with MAP_PROJ_INIT, however that changed when Ben Tupper posted some very good instructions on how to use it. Since then, I've had success in using MAP_PROJ_INIT to establish map projections which match up with GeoTIFF satellite images. I've created a brief example which is available at

ftp://ftp.ssec.wisc.edu/pub/gumley/IDL/geotiff/

In brief, here's how I use MAP_PROJ_INIT to overlay GSHHS coastlines on a MODIS true color GeoTIFF image:

```
image = read_tiff('t1.06026.1655.LakeMichigan.143.250m.tif')
help, image
swindow, xsize=1652, ysize=2061
imdisp, image, order=1, /noresize, /noscale
map = map_proj_init('UTM', limit=[46.13, -89.37, 41.52, -84.42], $
  zone=16)
plot, map.uv_box[[0, 2]], map.uv_box[[1, 3]], $
  position=[0.0, 0.0, 1.0, 1.0], $
  /nodata, /isotropic, xstyle=5, ystyle=5, /noerase
gshhs_plot, 'gshhs_h.b', map=map, level=2
```

I like MAP_PROJ_INIT and the related functions precisely because they are decoupled from the graphics device. I think the potentially weak link comes when you have to transfer the projection to the graphics device (i.e., the PLOT call). I have also observed some strange behavior when the POSITION keyword is set to a subset of the graphics window. However for cases where the projection spans the entire window, MAP_PROJ_INIT seems to work quite well. It also ties nicely into projection libraries such as GCTP and PROJ.4, and allows you to define a projection the same way in IDL as you would in the external library.

That said, I'd love to hear other examples of how people are using MAP_PROJ_INIT, particularly in conjunction with georegistered satellite images.

Cheers,
Liam.
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