Subject: Overlay images from WMS servers (web mapping servers) on map projections
Posted by Jan Kristian Jensen on Wed, 08 Feb 2006 14:01:37 GMT
View Forum Message <> Reply to Message

I thought I had a brilliant idea of how to combine images from WMS servers (OGC Web Mapping Services compliant servers) on map projections using map_set or map_proj_init functions. The result is not by far good enough - and I can't figure what's wrong.

First I use my favourite http client to send a OGC WMS getMap-request to my favourite WMS server. Part of the URL is a boundingbox (BBox) parameter containing coordinates for lower left and upper right corner, and how many x-y pixels there should be. Further the projection must be specified. An easy test case would be the equirectangular projection, or EPSG:4623 in OGC speak.

Then the easiest thing would be to open a window with the exact same size, call map_set with the appropriate projection and display the image. Something like this:

--- Example - you have to provide the wms file yourself ... -

```
; Limit = boundingBox coordinates to WMS server
limit = [ 59.5, 3.5, 61.0, 5.2]
map_set,  0, 0, /cylindrical, xmargin = 0, ymargin = 0, limit =   limit


wmsimage = read_png( filename, r, g, b)
tvlct, r, g, b
window, xsize = 1200, ysize = 1000
tv, wmsimage

; Add a nice grid
device, decomposed = 0
tek_color
map_Grid, latdel = 0.25, londel = 0.25, color = 2
```

My wmsimage example displays the coast contour and a grid line for every 0.25 degree lat/lon. This to compare with the lines from map_grid. The two set of grid lines are fairly close in the center of the image, but off by up to 1.9 km at the egde of the image. It is _/*very*_ apparent that the wms image and the map_grid lines do not match at all exept for

a small area near the center of the image.

I may have misunderstand something about projections and/or how to set them correctly: I think equirectangular = EPSG:4326 = cylindrical projection with standard parallell at 0 degrees, which should be the default projection for map_set.

The symmetry about the image center makes me suspect there is some border issue here. If I don't use the xmargin or ymargin keywords (or /noborder) I get an even larger error. I can thank this newsgroup for figuring that out :)

I'm quite frustrated at the moment: The result of the above method is NOT good enough. I can't bring my mind to accept that this method shouldn't work - but it doesn't, and I can't figure out why....

I know you can use map_projection_init and map_projection forward to get more fine granular control - but that really shouldn't be nescessary with this feeble task!!! If so, Ben Tupper posted an example (Nov 15 2004) of how to do this with direct graphics. I may start there...

Cheers, Jan
--
Jan Kristian Jensen

Remove the obvious from the email adress to email me.