Subject: Re: Map to data coordinate conversion
Posted by David Fanning on Thu, 18 Apr 2013 14:40:03 GMT
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Paul Mallas writes:

>
> Hello all,
>
> I am looking to convert, given a geotff image with map info, the lat/lon data to a pixel location in an image.
>
> What I want to do seems pretty easy, but I am having a hard time coding it in IDL for some reason. I must be missing something.
>
> Using the ENVI() API, this was straight forward:
>
> oEnvi = envi(/headless)
> eMask = oEnvi->openRaster(file)
> fid = ENVIRasterToFID(eMask)
> envi_convert_file_coordinates, fid, xf, yf, lon, lat
>
> with lon, lat being my predefined input and xf, yf being my desired output.
>
> The analogous way to do this in IDL is (I think):
>
> img = image(file, /buffer)
> xy = img->convertcoord(lon, lat, /to_data)
>
> however the image() function won't read the geotiff properly (but ENVI() accepts it just fine). Perhaps my geotiff tag is not properly formed or something. Ideas on another way?

I don't know how to do this in Function Graphics, but the general idea is to have an X and Y vector with the same dimensions as the image, scaled into the endpoints of the XY projected meter grid. To find a point in lat/lon space, you inverse transform these vectors to lat/lon with your map projection, then locate the specified point in the vectors with Value_Locate. The indices returned from Value_Locate are the pixel values.

Cheers,

David

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David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.idlcoyote.com/

Sepore ma de ni thue. ("Perhaps thou speakest truth.")