
Subject: Automatically Register GeoTIFF Images
Posted by [David Fanning](#) on Mon, 31 Aug 2009 05:38:49 GMT
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Folks,

I gave an IDL seminar last week, and in the discussion afterward I had a wonderful idea about how I could write a program that would automatically open GeoTIFF images and display them in a georegistered map coordinate system.

The idea was so compelling I basically gave up the last weekend of the summer to write the damn thing. (I really have got to get a life!)

Anyway, that's what I did. I don't claim the program, which translates a GeoTIFF structure obtained from `Query_TIFF` or `Read_TIFF` into a map coordinate object, works with every GeoTIFF image in the world. It may not even work with most of them. But it does work with all of the ones I had nearby while I was writing the program. That is to say, it appears to work with the GeoTIFF images I run into in my own work. The program is named GeoCoord.

<http://www.dfanning.com/programs/gocoord.pro>

If it doesn't work with yours, I'd be happy to have a look at it and see why not. I'd like this program to work with as many flavors of GeoTIFF files as possible.

To put the program to use, I've modified both `SelectImage` and `ImgWin` so that when they open GeoTiff image files now, they can georegister the image when necessary. This is incredibly useful to me, and I have ideas for how I can incorporate the same functionality into some netCDF files I run into at work.

You can read about the programs, and how I use them, in this article:

<http://www.dfanning.com/autogeoreg.html>

Naturally, a big idea like this exposes a hell of a lot of poor thinking and planning, not to mention bugs, in code that was previously thought to be perfect. :-(

I think in the end, about eight programs got rearranged some. Most of these were Catalyst Library routines (since the map

coordinate object lives here), and the one Coyote Library routine, SelectImage, now has a Catalyst Library dependency, so it more properly belongs in the Catalyst Library pile. I haven't moved it yet, but I probably will.

Or, I might just move the Catalyst Library under the auspices of the Coyote Library. Nearly everything I write lately uses it, so why am I fighting so hard to keep it separate?

But, there is a list at the end of the article described above if you want to get yourself up to speed with new programs, etc. Basically, if you haven't updated your Coyote and Catalyst Libraries in a while, now would be a good time to do it. :-)

<http://www.dfanning.com/catalyst/howtoinstall.html>

Cheers,

David

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

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