
Subject: Re: Automatically Register GeoTIFF Images
Posted by [TonyL](#) on Mon, 31 Aug 2009 12:12:20 GMT
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On Aug 31, 3:38 pm, David Fanning <n...@dfanning.com> wrote:

> 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
>
> --
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming:<http://www.dfanning.com/>
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")

The URL for David's georeg web page link is:

http://www.dfanning.com/map_tips/autogeoreg.html

Tony

Subject: Re: Automatically Register GeoTIFF Images
Posted by [David Fanning](#) on Mon, 31 Aug 2009 20:57:19 GMT
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TonyL writes:

> The URL for David's georeg web page link is:
>
> http://www.dfanning.com/map_tips/autogeoreg.html

Yikes, the problem with working close to midnight. :-(

Of course, the very first GeoTIFF file I faced at work
balked at being led through my GeoCoord translator. I

now know of four synonyms for "longitude" and three for "latitude". There are probably more.

To make this less trouble to maintain, I've reworked the code a bit. It now looks prettier (and probably works better because of it) than it did before. I also discovered another bug or two. You can get the latest here:

.../programs/catalyst/source/coordinates/geocoord.pro

where "..." means:

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

Cheers,

David

--

David Fanning, Ph.D.

Coyote's Guide to IDL Programming (www.dfanning.com)

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