Subject: Re: Band+Lat+Lon = georeferenced file?
Posted by liamgumley on Mon, 23 Feb 2009 21:49:24 GMT
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On Feb 23, 3:28 pm, wilfrid <wilfrid_schroe...@hotmail.com> wrote:
> Time and again I come back to the same situation where I have a bunch
> of satellite images with lat&lon values for each pixel and I need to
> create ENVI standard files (i.e., data file+header) or some other easy
> to handle file (e.g. geotiff) that I can manipulate with GIS
> softwares. My input data correspond to at-satellite data (swath data)
> - and it can come from geostationary or polar orbiters. Using
> ENVI_REGISTER_DOIT I get relatively large errors when I know the
> pixels are pretty well navigated (I'm using MODIS data). I assume the
> problem might be linked to my use of ENVI_PROJ_CREATE which I have set
> to (/geographic). Using Imagemap (written by Liam Gumley some years
> ago) I managed to display the data just fine (map outlines properly
> located) but I could not create a file with projection information out
> of that. This has consumed my weekend and now I feel like asking
> around as I am pretty sure this is one of those basic operations many
> of you might have attempted before.

If you are working with MODIS Level 1B data, then MRTSwath is a good
solution:

http://igskmncnwb001.cr.usgs.gov/landdaac/tools/mrtswath/

MRTSwath will resample MODIS Level 1B data to a variety of standard
map projections, and store the result in a GeoTIFF file.

If you are working with other polar orbiter (e.g., AVHRR) or
geostationary image data, then I don't know of a freely available
solution.

Cheers,
Liam.
Practical IDL Programming
http://www.gumley.com/

Subject: Re: Band+Lat+Lon = georeferenced file?
Posted by David Fanning on Mon, 23 Feb 2009 23:45:42 GMT
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Liam writes:

> If you are working with MODIS Level 1B data, then MRTSwath is a good
> solution:

> 
> http://igskmncnwb001.cr.usgs.gov/landdaac/tools/mrtswath/
> 
> MRTSwath will resample MODIS Level 1B data to a variety of standard
> map projections, and store the result in a GeoTIFF file.
> 
> If you are working with other polar orbiter (e.g., AVHRR) or
> geostationary image data, then I don't know of a freely available
> solution.

The HDFEOS-to-GeoTiff Conversion Tool (HEG) is another piece of software
(which conveniently also runs on Windows computers) that also does these
kinds of conversions.

At NSIDC, we typically run ms2gt, the MODIS Swath to Grid Toolbox to do these kinds of conversions:

http://nsidc.org/data/modis/ms2gt/

We like this tool because it can use weighted elliptical averaging when doing the re-gridding. This eliminates some of the re-gridding artifacts you sometimes see in other methods. This is available only on UNIX computers and, alas, the documentation of this product is somewhat out of date. You might need some help getting it set up.

Cheers,

David