
Subject: Re: Modis Georeferencing

Posted by [BLesht](#) on Wed, 21 Mar 2007 15:03:55 GMT

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Chitan,

Devin's GUI tool will be a welcome addition. I've played with an early version using MODIS ocean data and it is fine for doing interactive analysis - I haven't tried using it in batch mode, though. The batch mode programming isn't that difficult using existing ENVI routines, however. Assuming that you have ENVI+IDL, you just open the MODIS hdf file, extract the data you want including latitude and longitude using the HDF routines, write your data as an ENVI file, open the ENVI file, create the GLT file, and georeference using the GLT. Here is a extract from my code that does the above:

```
; Processing logic:
;      1. Write the calibrated MODIS L2 data to an ENVI
file in memory
;      2. Open that file
;      3. Create a GLT file mapping the original pixel
lat/lon to the standard projection (in memory)
;      4. Georeference the MODIS L2 data using the GLT
map (in memory)
;      5. Get map coordinages from geographic
definition of area of interest
;      6. Extract data from area of interest
;      7. Write extracted data
;
; geoData = calibrated data from original image
; enviName = ENVI file with calibrated data - mapped image
; geo_Points= A 16-element double floating array of geographic
coordinates for the four corners of the input data.
;
ENVI_WRITE_ENVI_FILE, geoData, BNames=geoNames,
GEOPOINTS=geo_Points, NB=nGeo, NL=nlines, NS=nsamps, $
/NO_OPEN,/IN_MEMORY, R_FID = fid1
ENVI_FILE_QUERY, fid1, NS=ns, NL=nl, NB=nb, DIMS=dims
;
ENVI_DOIT, 'ENVI_GLT_DOIT', DIMS=dims, I_PROJ=dataProj,
O_PROJ=gridProj, /IN_MEMORY, $
PIXEL_SIZE=pixel_size, R_FID=glT_FID, ROTATION=rotation,
$
X_FID=fid1, X_POS=xpos, Y_FID=fid1, Y_POS=ypos, /
NO_REALIZE
;
ENVI_FILE_QUERY, glt_Fid, DIMS=glT_dims, NS=nsglt, NL=nlglT
;
```

```
; At this point we've created the GLT file which gives the map
location for
; every pixel in the input file. Note the input file pixels are
referred to
; in a one-based coordinate system.
;
ENVI_DOIT, 'ENVI_GEOREF_FROM_GLT_DOIT', FID=fid1, GLT_DIMS=glt_dims,
GLT_FID=glt_FID, /IN_MEMORY, $
    MIN_PIXELS=1, $
    POS=LIndGen(nb), R_FID=map_FID
;
```

I hope this helps. Barry
