Subject: RE: trying to export pixel data from .dat files, based on coordinate loc
Posted by Snow53 on Mon, 12 Jul 2010 20:37:59 GMT
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Thanks to all who gave great advice. I almost have this up and running, but have a few more questions.

1. At the moment, I have tested this code based on two files that each have their own .hdr. For the real thing, I want to create only one .hdr that can be used for all (200+) files since they have the same dims, data type, etc. How can I modify this code to look for that one .hdr file and use information from that file when looping through each file in the folder?

2. The ENVI Available Bands GUI pops up when I run this. Is this supposed to happen? I read that envi_open_file was non-interactive in idl (with batch mode).

3. The way the code currently reads, it will output twice when I run it but only giving me pixel data from the first file read under 'file'. I think that I need to write a loop to specify to read from the 'file' list one at a time, go through the code, close that file, and then start with the next. I'm not sure, though, how to write this, and would appreciate advice.

4. I did notice that I'm not getting back the correct sample/line pixel file locations from my input map locations (x,y). They seem to be one pixel off. Has anyone else had this happen?

The code is shown below. Thanks again!

```
 Goal: Extract pixel data based on input coordinate location for each file (ENVI binary)
; within a specified folder location. Export this data to a .csv file.

pro extractdata4


;define path
 cd, 'X:\MERRA\HDF_Output_Lena\test\'

;open envi files within given folder
  file_array=file_search('*.dat', count=num_file)

for i=0, num_file-1 do begin
  file=file_array
```

```
  endfor
print, num_file
  print, file


;read ENVI binary files

  envi_open_file , file, r_fid=fid



;convert x,y map coordinates to corresponding pixel coordinates. note
that xmap and ymap can be single values or arrays if
;needed to extract info for multiple pixels.
  XMap=[109.55551335]
  YMap=[79.25]

  ENVI_CONVERT_FILE_COORDINATES, fid,XF, YF, XMap, YMap

XF_out=Round(XF)
YF_out=Round(YF)
print, 'x pix' ,XF_out
print, 'y pix', YF_out


;specify the data dims for the pixels who's info you want to extract.
pos specifies which band(s) you want to extract from.
;for example, if I have 4 bands and I only want to extract from bands
1 and 4, pos would be [0,3]. Then extract for these pixels/bands.
  dims=[-1, XF_out, XF_out, YF_out, YF_out]
  pos=[0]
  pixdata = ENVI_GET_DATA(fid=fid, dims=dims, pos=pos)

  print, pixdata
;open text file to write data to
OPENU, U, 'pixel_value.csv', /get_lun, /append
;write data
printf, U, pixdata
;close LUN
close, U



end
```