Subject: Re: reading envi file in IDL
Posted by Jeff N. on Thu, 23 Aug 2007 17:48:43 GMT
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On Aug 23, 12:09 pm, robinson....@gmail.com wrote:
> Dear All,
> I created a file using ENVI and its header file is below. Does
> somebody could show me how to read that file in IDL?
> In advance thank you very much
> Robinson Juarez
>
> ==========
> ENVI
> description = {
> File Resize Result, x resize factor: 1.000000, y resize factor:
> 1.000000.
> [Wed Aug 22 10:02:17 2007]}
> samples = 400
> lines = 400
> bands = 5
> header offset = 0
> file compression = 1
> file type = ENVI Standard
> data type = 4
> interleave = bsq
> sensor type = Unknown
> byte order = 0
> x start = 1323
> y start = 714
> map info = {UTM, 1.000, 1.000, 694231.500, 9759973.000, 2.8500000000e
> +001, 2.8500000000e+001, 20, South, WGS-84, units=Meters}
> wavelength units = Unknown
> band names = {
> Resize (Unmix (amazonas_p231r062_etm_071001_a5) EM:GV (X:4278 Y:
> 1152):MAO20071001_test1.em),
> Resize (Unmix (amazonas_p231r062_etm_071001_a5) EM:NPV (X:6152 Y:
> 928):MAO20071001_test1.em),
> Resize (Unmix (amazonas_p231r062_etm_071001_a5) EM:SOIL (X:5959 Y:
> 4199):MAO20071001_test1.em),
> Resize (Unmix (amazonas_p231r062_etm_071001_a5) EM:SHADE (X:2359 Y:
> 2415):MAO20071001_test1.em),
> Resize (RMS Error:MAO20071001_test1.em)}
> ========== ======

Well, if you look at the ENVI help files you'll see what all these
header values mean. The dimensions of the image are the samples,
lines, and bands. The bsq interleave tells you that the dimensions
are (400,400,5). The data type of 4 means float data (i'm pretty

sure, double check this). Header offset = 0 means the binary file is all data, no header bytes.

So, in this case it would normally boil down to a simple readu:

```
img = fltarr(400,400,5)
openr, lun, image_file_name, /get_lun
readu, lun, img
free_lun, lun
```

I say it *would* boil down to the code above b/c i've never seen the "file compression = 1" line in an envi header. If the file is compressed you're going to have to deal with the compression, however that was done.

Also check to make sure the byte order matches your machine (if you created the image file on the same machine you're reading it with, it shouldn't be an issue).

Hope that helps,
Jeff
