Subject: Re: envi_get_data
Posted by yychongzi on Fri, 25 Jan 2008 21:25:37 GMT
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Thank you Lorenzo and Pete.

Pete, you are right on the datatype. My input file is integer, it has to be changed. Now the program runs just fine :)

By the way, I have another question:
I used ENVI to do layer stacking, sometimes I got a big .ige file and a small .img file, sometimes, more often, I got a big .img file with a small .rrd file. I dont know why and the difference.

Thank you guys again.

On Jan 25, 10:18 am, Pete <peter.e...@shaw.ca> wrote:
> Hi,
> Typical ENVI format files are "usually" band sequential:
> Array=fltarr(ns, nl, nb) as its quickest to display.
> You can obtain the interleave within the ENVI_FILE_QUERY with the
> keyword Interleave=interleave where bsq=0, bil=1 and bip=2 - or by
> looking at the header. Next I would check the datatype of your input
> file. In your code you read in the file, query the datatype create a
> new float array then write the file with the datatype of your input.
> What if your input was byte or integer? Since you're output is float
> you could hardcode the data_type=4 (or 5 for double).
>
> For example you could do the following:
>
> pro cal
> envi, /restore_base_save_files
> envi_init, /batch_mode
> envi_open_file,'F:\testinput.img',r_fid=fid
> if (fid eq -1) then return
> envi_file_query, fid, ns=ns, nl=nl, nb=nb, data_type=data_type, $
> interleave=interleave, dims=dims
> ;Could have an "if" statement to check and set the interleave
> map_info = envi_get_map_info(fid = fid)
> ;dims = [-1L, 0, ns - 1, 0, nl - 1] **you can get the dimensions from
> the query above
> pos=lindgen(nb)
> image=fltarr(ns, nl, nb) ; storage array for multi band processing
> (loop over bands)
> ;image2=fltarr((nb,nl,ns) ** not required
> For i=0, nb-1 Do Begin
> ;read band and convert to float
> inBand = Float(envi_get_data (fid=fid,dims=dims,pos=i)) ;read the

> 2d array
> image[*,*,i]=inBand* 0.8 + 100 ;do processing and store in
> array
> Endfor
> ENVI_WRITE_ENVI_FILE,image,data_type=4,nb=nb,nl=nl,ns=ns,map _info=
> map_info, $
> out_name='F:\testoutput.img'
> END
>
> With this method you may run into memory problems, as you are reading
> by entire bands and storing the whole image. When the image gets
> larger you will have to look into ENVI's tiling routines.
>
> Hopefully this gets you started,
>
> Pete
