Subject: IDL 6.1 ENVI 4.1 Interation Problem
Posted by vinit on Fri, 18 Mar 2005 18:43:08 GMT
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Hello,

I am trying to write a program to calibrate AVHRR data using IDL 6.1. IDL, I believe, uses some built in ENVI 4.1 functions to actually process the data. I am new both to IDL and ENVI and am not sure if what I'm saying is fully correct.

The following program opens a file that has a list of all the files that need to be processed (called "inputFile") and processes them using the ENVI commands. The skeleton of this program was taken from an example (ENVI_AVHRR_CALIBRATE_DO_IT) in the online ENVI 4.1 (PDF) manual. The program compiles fine. Also, it runs without errors if one file is being processed. However, when I try to run the program, with more than one file (on my test run, I tried to run the program with 5 files that needed to be processed), the program gave the following output:

% Compiled module: TEST.
IDL> test
Processing file: 1_25_99_10_40_AM
Processing file: 1_25_99_12_09_PM
% Program caused arithmetic error: Floating illegal operand
Processing file: 1_26_99_10_29_AM
% Program caused arithmetic error: Floating illegal operand
Processing file: 1_26_99_12_01_PM
% Program caused arithmetic error: Floating illegal operand
Processing file: 1_27_99_10_19_AM
% Program caused arithmetic error: Floating illegal operand

Notice that for the first file the program does not output the following error: "Program caused arithmetic error: Floating illegal operand". However, after that this error is present. I have tried to get around this nagging bug (by trying to use the IDL function FILE_SEARCH, as suggested by the RSI tech support team. That didn't work so I've omitted the part involving FILE_SEARCH in this section of code entirely) but without success. I'd be grateful if someone could help me out.

Thanks very much,

Vinit

```
pro test

working_dir = 'E:\MyDir\'
out_dir = 'E:\MyDir\Output\'

envi, /restore_base_save_files

; ENVI Reference Guide ENVI_AVHRR_CALIBRATE_DOIT
; initialize ENVI and send all errors and warnings to the file
batch.txt

envi_batch_init, log_file='batch.txt'

; number of batch files
toprocess = ''
numfilestoprocess = 5

; get name of file to process from input batch file named "toprocess"
batchfile = working_dir + 'inputFile'

; assign a file unit
get_lun, batchunit

; open the file for reading
openr, batchunit, batchfile

; process in Batch numfiletoprocess number of image files
for firstfile=0, (numfilestoprocess-1) do begin

readf,batchunit,toprocess
print, "Processing file: " + toprocess

filetoprocess = working_dir + toprocess

envi_open_data_file, toprocess, $
r_fid=fid, /avhrr
if (fid eq -1) then begin
;print error message
print, openfid
return
end

; set the keywords
envi_file_query, fid, ns = ns, nl = nl, nb = nb

dims = [-1l, 0, ns - 1, 0, nl - 1]

; write the name of the output file
```

```
out_name = out_dir + toprocess + 'cal'

pos = lindgen(nb)

; call the doit

envi_doit, 'envi_avhrr_calibrate_doit', $
fid=fid, dims=dims, pos=pos, $
out_name = out_dir + toprocess + 'cal', /correct_solarz, $
r_fid=r_fid

envi_file_mng, id=fid, /remove

envi_file_mng, id=r_fid, /remove

close, fid

close, r_fid

free_lun, fid

free_lun, r_fid

endfor

close, batchunit

free_lun, batchunit

envi_batch_exit

exit

end
```