
Subject: Reading sequence of HDF files fails after some number of successes

Posted by [BLesht](#) on Tue, 20 Nov 2012 21:49:49 GMT

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I'm using IDL8.1 running on MacOS10.6.8 to process a number of HDF files (NASA MODIS L2). My code (too involved to reproduce in entirety here) includes a loop in which I open each file, check it to see if it is useful for my analysis, and then, if it passes, does some processing. The code seems to run fine through a number of files and then stops with an "HDF_SD_START: Invalid HDF file or filename (filename is here)" error. I have checked the file using `ncdump_hdf` and it is fine. While debugging I inserted a test:

```
PRINT, 'About to test HDF file', inFile & $
testHDF = HDF_OPEN(inFile, /READ) & $ ; Open the HDF file
PRINT, 'testHDF = ', testHDF & $
IF (testHDF NE -1L) THEN PRINT, inFile, ' passes HDF_OPEN test ' & $
HDF_CLOSE, testHDF & $
```

That results in:

```
About to test HDF file <filename is here>
testHDF = 536872618
<filename is here> passes HDF_OPEN test
```

but then goes on to issue the:

```
% HDF_SD_START: Invalid HDF file or filename (<filename is here>).
% Execution halted at: $MAIN$
```

Continuing the debugging, I removed the apparently offending file from the input list and the code stopped at exactly the same point but now the next file in the original list was the one that apparently caused the failure. This leads me to think the problem has something to do with the number of HDF files I've been trying to open (and possibly not closing properly?). The portion of the code that fails is:

```
fid = HDF_SD_START(inFile, /READ) & $
sdsNoLat = HDF_SD_NAMETOINDEX(fid, 'latitude') & $
varid = HDF_SD_SELECT(fid, sdsNoLat) & $
HDF_SD_GETDATA, varid, latitude & $
HDF_SD_ENDACCESS, varid & $
sdsNoLon = HDF_SD_NAMETOINDEX(fid, 'longitude') & $
varid = HDF_SD_SELECT(fid, sdsNoLon) & $
HDF_SD_GETDATA, varid, longitude & $
HDF_SD_ENDACCESS, varid & $
HDF_SD_END, fid & $ ; End the HDF_SD
```

This seems like it should be obvious, but I'm not seeing the problem. Any help would be sincerely appreciated.

