Subject: a little tip for reading modis data
Posted by bjy512 on Tue, 08 Aug 2017 05:55:54 GMT

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Hi, my name is Juyeon and i am newbie using idl.

i am working on my thesis paper which is related to dealing with the MODIS/TERRA sensor to retrieve AOD data.

i was struling for whole day some error occured in my code.

```
for i=0l,terra-1l do begin

 33        openw,lun,'/data/AOT_thesis_data/AOD_MODIS/MOD04/correct_m'+
name(i)+'.txt',/get_lun,/append
 34        print,i
 35        sds_name='Optical_Depth_Land_And_Ocean'
 36        sd_id=hdf_sd_start(filelist1(i),/read)
 37        sds_index=hdf_sd_nametoindex(sd_id,sds_name)
 38        sds_id=hdf_sd_select(sd_id,sds_index)

...

(there was code to retrieve latitude and longitude in here!)

...
 82        for o=0l,cnt-1l do begin
 83            for p=0, n-1 do begin
 84                if ((abs(slon(p)-lon(o)) le 0.1) and (abs(slat(p)-lat(o)) le 0.1)) then begin
 85                    printf,lun,day_terra(i),hour_terra(i),min_terra(i),aod(o),lo
n(o),lat(o),stn(p),f='(i4,2x,i2,2x,i2,2x,d14.10,2x,d9.5,2x,d 9.5,2x,i7)'
 86                endif
 87            endfor
 88        endfor
 89
 90        endif
 91        hdf_sd_endaccess,sds_id
 92        hdf_sd_endaccess,lon_id
 93        hdf_sd_endaccess,lat_id
 94        hdf_sd_end,sd_id
 95        free_lun,lun
 96    endfor
```

basically i wanted to shirink the data due to its too big size to use.
so i had to write data in other place.

but the error kept coming up looking just like below

HDF_SD_START error : invalid hdf file

I had searched all over in google but i could not find the answer.

but luckly i found the solution!!

if you are writing the information in other text file or such file, than you should write 'free_lun,lun' in exact place it has to be.

In my case i first i wrote free_lun,lun after the 96 row after the endfor, and error didn't stop.

so if you have a problem similar to mine, then look carefully your code again.

You will definitely find your solution!

cheers~!