Subject: MOD43B3 Col.4 Processing. unexpected error message. why?
Posted by kim20026 on Mon, 09 Jul 2007 17:46:19 GMT
View Forum Message <> Reply to Message

Good day, everyone. Even though I am still in the swamp and my previous question on MOD04 is left unsolved, I have to process MOD43B3 albedo product. I am trying to make image files from MOD43B3 hdf files now.

I did this way so far.

0. Variable (initialization/declaration)
1. Get hdf file info.
2. Input map info (sin projection)
3. Convert SIN to TM Korea

There was no problem in making images with one variable (black sky albedo), and then I added another similar variable, white sky albedo, in my new simulation. (This part is commented out and labed as part1 and part2)

However, I got unexpected error messages shown below.

Envi retrieve data: An error has occurred during processing.
Error: "Array dimensions must be greater than 0". The result may be invalid.

These messages are too broad for me and I don't know how to handle this. In addition, the ' Envi_retrieve_data' must be an internal function... something like that. I cannot find this function in ENVI help.

Any suggestions?

Harry

```
PRO MOD43B3_MakeImage_1km_03

; 0. Variable (initialization/declaration)
WorkDir = 'd:\MODIS_TSrad\MODIS_ALL\'
WorkDirOut = 'd:\MODIS_TSrad\MODIS43\Processed\'
batch_st = strcompress(WorkDir + 'batch_MOD43_TSrad.txt', /remove_all)
WorkDirSat = 'D:\MODIS_TSrad\MODIS43\MOD43\'
StrMOD = 'MOD43'
```

```
OpenR, lun, batch_st, /Get_Lun
numdates =file_lines(batch_st)
Dates = StrArr(numdates)

; Read input dates from batch file

OpenR, lun, batch_st, /Get_lun
ReadF, lun, Dates

Free_Lun, lun, /force

close, /all

FOR j = 0L, numDates-1 DO BEGIN

   ;- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - -

   print, "Now processing  MOD43 data from date: ", Dates[j], '
File ', j+1, ' out of ', numDates, $
            '  overpassing time. '

; 0. Get hdf file info.

   Filename     = WorkdirSat+Dates[j]
   FileID       = HDF_OPEN(filename, /Read)
   sdFileID     = HDF_SD_Start(filename, /Read)    ;The returned
value of this function is the SD ID of the HDF file
   sdsID_albedo = HDF_SD_Select(sdFileID, 0)   ; Albedo
   sdsID_qc     = HDF_SD_Select(sdFileID, 1)   ; QC

   hdf_sd_getdata, sdsID_albedo, albedo
   hdf_sd_getdata, sdsID_qc, qc

   ;print, 'j = ', j
   ;help, albedo, qc

   albedo_black = fltarr(1200, 1200)
   albedo_white = fltarr(1200, 1200)
   qc1 = ulonarr(1200, 1200)
   qc2 = ulonarr(1200, 1200)

   albedo_black[*, *]=albedo[0, 9, *, *]
   albedo_white[*, *]=albedo[1, 9, *, *]

   qc1[*,*] = qc[0,*,*]
   qc2[*,*] = qc[1,*,*]
```

```
    ;help, albedo_black, albedo_white, qc1, qc2


     ;VVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVV
VVVVV
    ;V  V  V                                      V  V  V
    ;V  V  V      1. Input map Information(SIN projection)   V  V  V
    ;V  V  V      2. Convert SIN to TM Korea               V  V  V
    ;V  V  V                                      V  V  V
     ;VVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVV
VVVVV

;   1. Input map information (SIN)

    mc=[0.5, 0.5, 11119968.509D, 4447338.766D]
    ps=[926.6254331D, 926.6254331D]
    units   =envi_translate_projection_units('Meters')
    params1=[6371007.181D, 0, 0, 0]
    Projection_Name1 = 'SIN_MODIS'
    map_info = ENVI_MAP_INFO_CREATE(type=16, name=Projection_Name1,
params=params1, $
         UNITS = units, MC = mc, PS = ps)

    ENVI_WRITE_ENVI_FILE, albedo_black,
out_name='albedo_black_map_4.img', map_info=map_info, out_dt=4,$
        r_fid=albedo_black_map, sensor_type=32

    envi_file_query, albedo_black_map, ns=ns, nl=nl, nb=nb
    dims   = [-1, 0, ns-1, 0, nl-1]
    pos_albedo_black = lindgen(nb)

     ;
 ============================================================
==============
    ; Part 1
    ; ENVI_WRITE_ENVI_FILE, albedo_white,
out_name='albedo_white_map_4.img', map_info=map_info, out_dt=4,$
    ;    r_fid=albedo_white_map, sensor_type=32
    ;
    ; envi_file_query, albedo_white_map, ns=ns, nl=nl, nb=nb
    ; dims   = [-1, 0, ns-1, 0, nl-1]
    ; pos_albedo_white = lindgen(nb)
     ;
 ============================================================
==============
;   2. Convert SIN to TM Korea
;    Names of MODIS products
```

```
;    MOD43B3.A2002177.h28v05.004.2003246195929.hdf

   StrDate   = STRMID(Dates[j], 9, 7)
   StrSat    = STRMID(Dates[j], 0, 7)

   out_name_albedo_black = WorkDirOut+StrSat+'\'+StrDate+'\'+StrDate
+'_albedo_black_1km_4'+'.img'
   out_name_albedo_white = WorkDirOut+StrSat+'\'+StrDate+'\'+StrDate
+'_albedo_white_1km_4'+'.img'

   DATUM          = 'Tokyo mean'
   Projection_Name2= 'Korea - TM (Middle)'
   Params2 = [6377397.2, 6356079.0, 38.000000D, 127.002890D,
200000.0, 500000.0, 1.000000]

   OUT_Proj = ENVI_PROJ_CREATE(type=3, name=Projection_Name2,
datum=Datum, params=Params2)

   envi_convert_file_map_projection, fid=albedo_black_map,
pos=pos_albedo_black, dims=dims, o_proj=OUT_Proj, $
       o_pixel_size=[1000, 1000],out_name=out_name_albedo_black,
warp_method=2, r_fid=albedo_black_TM, $
       resampling=0, background=0

   envi_file_query, albedo_black_TM, ns=ns, nl=nl, nb=nb
   dims   = [-1, 0, ns-1, 0, nl-1]
   pos_albedo_black_TM = lindgen(nb)

   ;
 ============================================================
==============
   ;  part 2
   ;    envi_convert_file_map_projection, fid=albedo_white_map,
pos=pos_albedo_white, dims=dims,       o_proj=OUT_Proj, $
   ;    o_pixel_size=[1000, 1000],out_name=out_name_albedo_white,
warp_method=2, r_fid=albedo_white_TM, $
   ;    resampling=0, background=0

   ;   envi_file_query, albedo_white_TM, ns=ns, nl=nl, nb=nb
   ;   dims   = [-1, 0, ns-1, 0, nl-1]
   ;   pos_albedo_white_TM = lindgen(nb)
    ;
 ============================================================
==============

   ;-----------------------------------------------------
   ; Cleaning memory
   ;envi_file_mng, id= albedo_black_map, /remove
```

```
    ;envi_file_mng, id= albedo_white_map, /remove
    ;---------------------------------------------------
    ; Done with SDS, close the interface
    HDF_SD_ENDACCESS, SDSID_albedo

    HDF_SD_END, sdFileID
    HDF_Close, FileID

 Close, /all, /force

ENDFOR
print, "C'est si bon! C'est fini!!!"
Free_Lun, lun, /force
close, /all

END
```