
Subject: Re: MOD43B3 Col.4 Processing. unexpected error message. why?
Posted by [devin.white](#) on Wed, 11 Jul 2007 17:12:50 GMT
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This is just an initial stab at what might be the problem, but I noticed that you're defining your albedo arrays as floating point:

```
albedo_black = fltarr(1200, 1200)
albedo_white = fltarr(1200, 1200)
```

MOD43B3 albedo is stored as integer, which is half the size. Your data are most likely getting written into the file, but ENVI is expecting them to take up more room. As it attempts to read in the file you've created, it's going beyond the boundaries of your data to do so--hence the ENVI_RETRIEVE_DATA error (there was no data to retrieve). You don't get floating point output unless you take the four-dimensional albedo array and apply the necessary scale and offset factors stored in the SD. Just a thought.

You really should try out the IDL programming interface that comes with the MODIS Conversion Toolkit. It will save you a great deal of time and trouble. I spent several months building that plugin so members of the ENVI/IDL user community, such as yourself, could avoid many of the headaches/hassles associated with ingesting MODIS data--including this one. You can download the plugin, for free, here:

<http://www.itvis.com/codebank/search.asp?FID=485>

I am always looking for feedback and suggestions for improvement. =)

On Jul 9, 1:46 pm, DirtyHarry <kim20...@gmail.com> wrote:

```
> 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 labeled 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, $

```



```

>     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

```
