Subject: Re: MOD43B3 Col.4 Processing. unexpected error message. why?
Posted by kim20026 on Sat, 14 Jul 2007 02:20:56 GMT
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Thank you James and Devin for your excellent suggestions and comments!!! I also made it without any errors. I think the problem was that I used too may envi_file_query statements.

There was no difference between using integer and float for albedo. However, as devin suggested, MOD43B3 albedo is stored as integer. I have no reason to use floating point for this... To avoid other unexpected errors, I need to use integer for albedo from now on.

Here is my final code.

```
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PRO MOD43B3_MakeImage_1km_final

WorkDir = 'd:\MODIS_ALL\'
WorkDirOut = 'd:\MODIS43\Processed\'
batch_st = strcompress(WorkDir + 'batch_MOD43.txt', /remove_all)
WorkDirSat = 'D:\MODIS43\MOD43\'
StrMOD = 'MOD43'

albedo = intarr(2, 10, 1200, 1200)

albedo_black = intarr(1200,1200)
albedo_white = intarr(1200,1200)

qc = ulonarr(2, 1200, 1200)
qc1 = ulonarr(1200, 1200)
qc2 = ulonarr(1200, 1200)

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 dates. '

   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

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

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

    ;VVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVV
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
    ;VVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVV
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)

 ;---------------------------------------------------------- ---
; albedo black and white

   ENVI_WRITE_ENVI_FILE, albedo_black,
out_name='albedo_black_map.img', map_info=map_info, out_dt=4,$
```

```
      r_fid=albedo_black_map, sensor_type=32, interleave = 0

   ENVI_WRITE_ENVI_FILE, albedo_white,
out_name='albedo_white_map.img', map_info=map_info, out_dt=4,$
      r_fid=albedo_white_map, sensor_type=32, interleave = 0

   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)

 ;---------------------------------------------------------- ---
; qc1 and qc2

   ENVI_WRITE_ENVI_FILE, qc1 , out_name='qc1_map.img',
map_info=map_info, out_dt=2, $
   r_fid=qc1_map, sensor_type=32

   ENVI_WRITE_ENVI_FILE, qc2 , out_name='qc2_map.img',
map_info=map_info, out_dt=2, $
   r_fid=qc2_map, sensor_type=32

   envi_file_query, qc1_map, ns=ns, nl=nl, nb=nb
   dims   = [-1, 0, ns-1, 0, nl-1]
   pos_qc1 = lindgen(nb)

;   2. Convert SIN to TM Korea
;   Names of MODIS products

;   MOD11A1.A2002001.h28v05.004.2003182143054.hdf
;   MOD07_L2.A2003148.1150.004.2003173192335.hdf
;   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'+'.img'
   out_name_Albedo_white = WorkDirOut+StrSat+'\'+StrDate+'\'+StrDate
+'_albedo_white_1km'+'.img'
   out_name_QC1    = WorkDirOut+StrSat+'\'+StrDate+'\'+StrDate
+'_QC1_1km'+'.img'
   out_name_QC2    = WorkDirOut+StrSat+'\'+StrDate+'\'+StrDate
+'_QC2_1km'+'.img'

 ;---------------------------------------------------------- ---
;    Converting to Korea TM

   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)

 ;---------------------------------------------------------- ---
; albedo black and white

    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_convert_file_map_projection, fid=albedo_white_map,
pos=pos_albedo_black, 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


 ;---------------------------------------------------------- ---
; qc1 and qc2

    envi_convert_file_map_projection, fid=qc1_map, pos=pos_qc1,
dims=dims, o_proj=OUT_Proj, $
    o_pixel_size=[1000, 1000],out_name=out_name_QC1, warp_method=2,
r_fid=qc1_TM, $
    resampling=0, background=0 ; NOTICE fid=qc1_map!

    envi_convert_file_map_projection, fid=qc2_map, pos=pos_qc1,
dims=dims, o_proj=OUT_Proj, $
    o_pixel_size=[1000, 1000],out_name=out_name_qc2, warp_method=2,
r_fid=qc2_TM, $
    resampling=0, background=0 ; NOTICE fid=qc2_map!

    Close, /all, /force

    ;-----------------------------------------------------
    ; Cleaning memory
    ;envi_file_mng, id= albedo_black_map, /remove
    ;envi_file_mng, id= albedo_white_map, /remove
    ;envi_file_mng, id= albedo_qc1_map, /remove
    ;envi_file_mng, id= albedo_qc2_map, /remove

    ;-----------------------------------------------------
```

```
    ; Done with SDS, close the interface
    HDF_SD_ENDACCESS, SDSID_albedo
    HDF_SD_ENDACCESS, SDSID_qc

    HDF_SD_END, sdFileID
    HDF_Close, FileID


ENDFOR

print, "Look's O.K!!!"
Free_Lun, lun, /force

END
```