Subject: Question on MODIS Conversion Toolkit
Posted by Harry Kim on Mon, 26 Apr 2010 11:45:34 GMT
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Hi, Everyone. I am back with MODIS Converision Toolkit (MCTK) Question.

Are there anyone working on MODIS data?

I am working on various MODIS products for ecohydrological processes in Korean penninsula. I tried to use MODIS Conversion Toolkit in programming mode. This tool seems to be useful to process various kinds of MODIS products.

AS some of you know this very well, we can do MCTK both in GUI mod and in batch (programming) mod. I have to process thousands of file, and I cannot do this in GUI mode.

Everytime I tried in programming mod, I got this error message.

"Map information contains an invaild pixel size. This file will not be georeferenced."

Strangely, there was no problem in making images when I tried with the same value in GUI mode.

This is what I have done so far. Please take a look, and let me know what to do.

Hyun Woo

```
------------------------------
PRO MCTK_MOD11
compile_opt idl2
modis_grid_file = 'D:\MODIS11\Data
\MYD11A1.005\MYD11A1.A2002189.h28v05.005.2007216150809.hdf'
output_location = 'D:\MODIS11\output'
output_rootname = 'MYD11_LST'
grid_name = 'MOD_Grid_Daily_1km_LST'
sd_names = ['LST_Day_1km']
out_method = 1
output_projection = envi_proj_create(/geographic)
;out_ps_x = 0.008365
;out_ps_y = 0.008365
interpolation_method = 6
   convert_modis_data, in_file=modis_grid_file, $
     out_path = output_location, out_root= output_rootname, $
     /higher_product, /grid, gd_name=grid_name, sd_names=sd_names, $
```

```
      out_method= out_method, out_proj=output_projection, $
     out_ps_x = 0.008365, out_ps_y = 0.08365, num_x_pts=50,
num_y_pts=50, interp_method=interpolation_method ;, $
     background = -999
end
---------------------------------------
```

Subject: Re: Question on MODIS Conversion Toolkit
Posted by Harry Kim on Thu, 29 Apr 2010 01:29:06 GMT
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Devin,

Sorry for the confusion. out_ps_y was already set to 0.008365. I made a mistake in re-typing my source code here.

Based on your suggestion, I changed my code using /UTM projection.

However, I got different error message this time saying that...

"Unable to attach to specified grid. Check name against HDF file contents."

I don't understand. The *.hdf file is in the location designated in the code.

```
---------------------------------
PRO MCTK_MOD11
compile_opt idl2

modis_grid_file = 'D:\MYD11A1.A2002191.h28v05.005.2007216150810.hdf'
output_location = 'D:\MODIS11\output'
output_rootname = 'MYD11_TEST'

grid_name = 'MOD_Grid_Daily_1km_LST'
sd_names = ['LST_Day_1km']

out_method = 1

output_projection = envi_proj_create(/UTM) ;/geographic) ;, /
datum=WGS-84)

;ps_x = 0.008365d
;ps_y = 0.008365d

ps_x = 1000.0
```

```
ps_y = 1000.0

print, 'Now IDL is making an image!!!'

interpolation_method = 6

    convert_modis_data, in_file=modis_grid_file, $
      out_path = output_location, out_root= output_rootname, $
      /higher_product, /grid, gd_name=grid_name, sd_names=sd_names, $
       out_method= out_method, out_proj=output_projection, $
      ;out_ps_x = 0.008365d, out_ps_y = 0.008365d, num_x_pts=50,
num_y_pts=50, interp_method=interpolation_method ;, $
      out_ps_x=ps_x, out_ps_y=ps_y, num_x_pts=50, num_y_pts=50,
interp_method=interpolation_method, $
      background = -999

print, 'It is done!'

end
```

Subject: Re: Question on MODIS Conversion Toolkit
Posted by devin.white on Thu, 29 Apr 2010 10:35:40 GMT
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I downloaded the same file you're using and ran it through a modified version of the example grid conversion program that comes with the MCTK user guide (below). All I changed was the file name, out path, out root, and pixel sizes. It runs as expected. If you cannot get this version to work for you and/or you require assistance with batch processing a large number of files, I suggest contacting ITT VIS Technical Support.

```
pro test_batch_modis_conversion_grid
  compile_opt idl2

  modis_grid_file = 'C:\MCTK
\MYD11A1.A2002189.h28v05.005.2007216150809.hdf'

  ;The specified output location MUST end in the appropriate path
  ;separator for your OS
  output_location = 'C:\MCTK\'

  output_rootname = 'MYD11A1_LST'

  grid_name = 'MODIS_Grid_Daily_1km_LST'
```

```
  sd_names = 'LST_Day_1km'

  ;Output method schema is:
  ;0 = Standard, 1 = Reprojected, 2 = Standard and reprojected
  out_method = 1

  output_projection = envi_proj_create(/geographic)

  ;Specify the output X and Y pixel sizes in double precision
floating
  ;point. Sizes must be in units relevant to selected output
projection
  ;(degrees in this example).
  out_ps_x = 0.008365d
  out_ps_y = 0.008365d

  ;The interp_method keyword uses the same numbering scheme as
  ;ENVI_REGISTER_DOIT's METHOD keyword
  ;Choosing Triangulation with Nearest Neighbor.
  interpolation_method = 6

  ;Set reprojection background and any native fill values to -999
  ;Setting num_x_pts to 50 and num_y_pts to 50 results in 2500 GCPs.
  ;That should be more than enough....
  convert_modis_data, in_file=modis_grid_file, $
    out_path=output_location, out_root=output_rootname, $
    /higher_product, /grid, gd_name=grid_name, sd_names=sd_names, $
    out_method=out_method, out_proj=output_projection, $
    out_ps_x=out_ps_x, out_ps_y=out_ps_y, num_x_pts=50, $
    num_y_pts=50, interp_method=interpolation_method, $
    background=-999, fill_replace_value=-999, $
    r_fid_array=r_fid_array, r_fname_array=r_fname_array

end
```

On Apr 28, 9:29 pm, Harry Kim <kim4ecohy...@gmail.com> wrote:
> Devin,
>
> Sorry for the confusion. out_ps_y was already set to 0.008365. I made
> a mistake in re-typing my source code here.
>
> Based on your suggestion, I changed my code using /UTM projection.
>
> However, I got different error message this time saying that...
>
> "Unable to attach to specified grid. Check name against HDF file
> contents."

>
> I don't understand. The *.hdf file is in the location designated in
> the code.
>
> --------------------------------
> PRO MCTK_MOD11
> compile_opt idl2
>
> modis_grid_file = 'D:\MYD11A1.A2002191.h28v05.005.2007216150810.hdf'
> output_location = 'D:\MODIS11\output'
> output_rootname = 'MYD11_TEST'
>
> grid_name = 'MOD_Grid_Daily_1km_LST'
> sd_names = ['LST_Day_1km']
>
> out_method = 1
>
> output_projection = envi_proj_create(/UTM) ;/geographic) ;, /
> datum=WGS-84)
>
> ;ps_x = 0.008365d
> ;ps_y = 0.008365d
>
> ps_x = 1000.0
> ps_y = 1000.0
>
> print, 'Now IDL is making an image!!!'
>
> interpolation_method = 6
>
>   convert_modis_data, in_file=modis_grid_file, $
>   out_path = output_location, out_root= output_rootname, $
>   /higher_product, /grid, gd_name=grid_name, sd_names=sd_names, $
>   out_method= out_method, out_proj=output_projection, $
>   ;out_ps_x = 0.008365d, out_ps_y = 0.008365d, num_x_pts=50,
> num_y_pts=50, interp_method=interpolation_method ;, $
>   out_ps_x=ps_x, out_ps_y=ps_y, num_x_pts=50, num_y_pts=50,
> interp_method=interpolation_method, $
>   background = -999
>
> print, 'It is done!'
>
> end

Subject: Re: Question on MODIS Conversion Toolkit
Posted by Harry Kim on Fri, 30 Apr 2010 05:08:32 GMT

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Thank you Devin, finally I got the image.

However, this minor message is still found.

"% HDF_SD_ATTRFIND: Unable to find the HDF-SD attribute named
add_offset."

What does that mean?

Subject: Re: Question on MODIS Conversion Toolkit
Posted by devin.white on Fri, 30 Apr 2010 09:42:03 GMT
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It happens all the time with MODIS files and is nothing to worry
about. Some scientific datasets (SDs) don't have scales and/or
offsets associated with them, but there's no way to tell without
checking for them. If you check and they aren't present, you get the
warning message.

On Apr 30, 1:08 am, Harry Kim <kim4ecohy...@gmail.com> wrote:
> Thank you Devin, finally I got the image.
>
> However, this minor message is still found.
>
> "% HDF_SD_ATTRFIND: Unable to find the HDF-SD attribute named
> add_offset."
>
> What does that mean?

Subject: Re: Question on MODIS Conversion Toolkit
Posted by lib07 on Wed, 25 Mar 2015 01:35:52 GMT
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Please check whether your input image format in grid or swath.....
here i think you are facing with resampling issue. I think if the image cannot be resample from swath to grid, so go ahead with original pixel size(it may be 5km not 1 km)), then convert it into grid format, then resample, or download grid format image from the www.ladsweb.nascom.nasa.gov