
Subject: Gridded MODIS lat/lon array

Posted by [dm_gty88](#) on Wed, 26 Mar 2014 10:20:52 GMT

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hi,

Is there a way I could do this: http://www.idlcoyote.com/map_tips/pixel_to_ll.html for a MODIS gridded product? I'm trying to avoid converting the images to geotiff so is it possible to do it for an HDF file? Thanks.

Subject: Re: Gridded MODIS lat/lon array

Posted by [Andy Sayer](#) on Wed, 26 Mar 2014 12:42:07 GMT

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Which specific 'MODIS gridded product' are you looking at? The various level 1, 2, and 3 MODIS products for atmospheres, oceans, and land have a variety of different gridding formats and conventions so the answer is likely to be (to an extent) dataset-specific.

Andy

On Wednesday, March 26, 2014 6:20:52 AM UTC-4, ddt88 wrote:

> hi,

>

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> Is there a way I could do this: http://www.idlcoyote.com/map_tips/pixel_to_ll.html for a MODIS gridded product? I'm trying to avoid converting the images to geotiff so is it possible to do it for an HDF file? Thanks.

Subject: Re: Gridded MODIS lat/lon array

Posted by [David Fanning](#) on Wed, 26 Mar 2014 13:05:47 GMT

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ddt88 writes:

> Is there a way I could do this: http://www.idlcoyote.com/map_tips/pixel_to_ll.html for a MODIS gridded product? I'm trying to avoid converting the images to geotiff so is it possible to do it for an HDF file?

You probably could. The real question is why would you want to? In any case, it is a reasonably good bet this information is already in the HDF file.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: Gridded MODIS lat/lon array

Posted by [dm_gty88](#) on Thu, 27 Mar 2014 01:44:18 GMT

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On Wednesday, March 26, 2014 8:42:07 PM UTC+8, AMS wrote:

> Which specific 'MODIS gridded product' are you looking at? The various level 1, 2, and 3 MODIS products for atmospheres, oceans, and land have a variety of different gridding formats and conventions so the answer is likely to be (to an extent) dataset-specific.

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Hi Andy, I'm looking at surface reflectance (MOD09GQ), land surface temperature and vegetation indices. They're gridded to a sinusoidal projection.

Subject: Re: Gridded MODIS lat/lon array

Posted by [dm_gty88](#) on Thu, 27 Mar 2014 01:46:46 GMT

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On Wednesday, March 26, 2014 9:05:47 PM UTC+8, David Fanning wrote:

> ddt88 writes:

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> David
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> David Fanning, Ph.D.
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> Fanning Software Consulting, Inc.
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Hello David, I'm working with a large number of files so I want to avoid having to convert each hdf to geotiff for processing efficiency. I'm quite confused with the geotiff info and can't understand how I could extract the same information from the metadata of HDF files.

Subject: Re: Gridded MODIS lat/lon array
Posted by [Andy Sayer](#) on Thu, 27 Mar 2014 13:06:24 GMT
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Ah, sadly that's one of the MODIS products I don't have much experience with.

I found this older thread of yours on the group, did this not work? Or is it a different problem?
<https://groups.google.com/forum/#!topic/comp.lang.idl-pvwave/2EiVqFZn1So>

On Wednesday, March 26, 2014 9:44:18 PM UTC-4, ddt88 wrote:

> On Wednesday, March 26, 2014 8:42:07 PM UTC+8, AMS wrote:
>
>> Which specific 'MODIS gridded product' are you looking at? The various level 1, 2, and 3 MODIS products for atmospheres, oceans, and land have a variety of different gridding formats and conventions so the answer is likely to be (to an extent) dataset-specific.
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Subject: Re: Gridded MODIS lat/lon array
Posted by [David Fanning](#) on Thu, 27 Mar 2014 13:13:26 GMT
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ddt88 writes:

> Hello David, I'm working with a large number of files so I want to avoid having to convert each hdf to geotiff for processing efficiency. I'm quite confused with the geotiff info and can't understand how I could extract the same information from the metadata of HDF files.

The information to navigate the image is in the metadata of the HDF file. You are given the projection information (Sinusoidal with spherical datum) and the projected XY meter locations of the upper left point and the lower right point of the image. Then, you are told the dimensions of the image (4800x4800 in my case). This is everything you need to know to navigate the image. For example, for the MOD09GQ image I have here, I set the map coordinate object up like this:

```
IDL> map =cgmap('sinusoidal', ellipsoid=9, $  
    xrange=[6671703.118000d, 7783653.637667d], $  
    yrange=[3335851.559000d, 4447802.078667d], $  
    position=[0,0,1,1])  
IDL> cgDisplay, 800, 800  
IDL> cgImage, image, Stretch=2  
IDL> cgMap_Grid, /Label, /cgGrid, Color='goldenrod', Map=map
```

I'm not sure why you think you need to make a GeoTiff file out of it for "processing efficiency".

I read the information out of the file with NCDF_Browser. But, I'm sure it is possible to read the metadata out of the file directly, too.

Cheers,

David

--

David Fanning, Ph.D.
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Sepore ma de ni thue. ("Perhaps thou speakest truth.")

Subject: Re: Gridded MODIS lat/lon array
Posted by [David Fanning](#) on Thu, 27 Mar 2014 14:06:33 GMT
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David Fanning writes:

> I read the information out of the file with NCDF_Browser. But, I'm sure
> it is possible to read the metadata out of the file directly, too.

You will find this page helpful in accessing the map projection
information in your file:

http://www.idlcoyote.com/map_tips/eosgrid.php

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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