
Subject: Extract pixel values from HDF-EOS file
Posted by [Snow53](#) on Fri, 23 Jul 2010 22:17:02 GMT
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Hello all. I'm now trying to work with HDF-EOS files. I've been using the IDL guide as a reference in trying to make this work. My data are associated with lat, long coordinates. These data originated from MODIS swath files (HDF4), but were converted to lat/long gridded HDF-EOS using ModisTool. In reading the IDL guide, it looks like I need to define the grid system for my file, attach the grid to my file, and then I can use EOS_GD_GETPIXVALUES (?) to extract pixel data. I've tried to set this project up as follows; currently I'm getting stuck at EOS_GD_CREATE (apparently I haven't created the grid properly). Would anyone be willing to do a quick read-through and throw out thoughts or suggestions?

Thanks!

```
pro hdfest1
```

```
; open and extract data from MODIS HDF-EOS file  
path = 'X:\MODIS_GPP\Lena\2003\test\'
```

```
file_array=file_search(path, '*.hdf', count=num_file)  
file=file_array
```

```
print, num_file  
;print, file
```

```
for i=0, num_file-1 do begin  
file_name=file_basename(file[i], '.hdf')  
;print, file_name
```

```
fid=EOS_GD_OPEN(file[i], /READ)
```

```
upx=172.763114356  
upy=79.9999999993  
lrx=116.952175961  
lry=69.999999994  
ydim=1110  
xdim=10239
```

```
gridname='geo'  
gridID=EOS_GD_CREATE ( fid, gridname, xdim, ydim, [upx, upy], [lrx,  
lry]) ; this part isn't working. need to fix. failed .  
print, gridID
```

```
;gridname=EOS_GD_INQGRID(file[i], gridlist)
;print, gridlist

out=EOS_GD_ATTACH(fid, gridname)
print, out

pixCol=[2,2]
pixRow=[2,2]

result=EOS_GD_GETPIXVALUES (out, 1, pixCol, pixRow,'Gpp_1km', buffer)
print, result

print, buffer

status=EOS_GD_CLOSE(fid)
endfor
end
```

Subject: Re: Extract pixel values from HDF-EOS file
Posted by [Snow53](#) on Mon, 26 Jul 2010 14:13:23 GMT

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On Jul 23, 4:17 pm, Snow53 <jennifer_wa...@hotmail.com> wrote:

```
> Hello all. I'm now trying to work with HDF-EOS files. I've been using
> the IDL guide as a reference in trying to make this work. My data are
> associated with lat, long coordinates. These data originated from
> MODIS swath files (HDF4), but were converted to lat/long gridded HDF-
> EOS using ModisTool. In reading the IDL guide, it looks like I need to
> define the grid system for my file, attach the grid to my file, and
> then I can use EOS_GD_GETPIXVALUES (?) to extract pixel data. I've
> tried to set this project up as follows; currently I'm getting stuck
> at EOS_GD_CREATE (apparently I haven't created the grid properly).
> Would anyone be willing to do a quick read-through and throw out
> thoughts or suggestions?
```

```
>
```

```
> Thanks!
```

```
>
```

```
> pro hdfest1
```

```
>
```

```
> ; open and extract data from MODIS HDF-EOS file
```

```
> path = 'X:\MODIS_GPP\Lena\2003\test\'
```

```
>
```

```
> file_array=file_search(path, '*.hdf', count=num_file)
```

```
>   file=file_array
```

```
>
```

```
>   print, num_file
```

```

> ;print, file
>
> for i=0, num_file-1 do begin
>   file_name=file_basename(file[i], '.hdf')
>   ;print, file_name
>
>   fid=EOS_GD_OPEN(file[i], /READ)
>
>   upx=172.763114356
>   upy=79.9999999993
>   lrx=116.952175961
>   lry=69.99999994
>   ydim=1110
>   xdim=10239
>
>   gridname='geo'
>   gridID=EOS_GD_CREATE ( fid, gridname, xdim, ydim, [upx, upy], [lrx,
>   lry]) ; this part isn't working. need to fix. failed .
>   print, gridID
>
>   ;gridname=EOS_GD_INQGRID(file[i], gridlist)
>   ;print, gridlist
>
>   out=EOS_GD_ATTACH(fid, gridname)
>   print, out
>
>   pixCol=[2,2]
>   pixRow=[2,2]
>
>   result=EOS_GD_GETPIXVALUES (out, 1, pixCol, pixRow,'Gpp_1km', buffer)
>   print, result
>
>   print, buffer
>
>   status=EOS_GD_CLOSE(fid)
>   endfor
>   end

```

Still trying to get the EOS_GD_CREATE to work. I've attempted to change the format to the following, but still no luck.

```

fid=EOS_GD_OPEN(file[i], /RDWR)
;print, fid

```

```

upl=dblarr(87.74131944, 80)

```

```

lowr=dblarr(179.957375, 70)

```

```

ydim=1110

```

xdim=10239

```
gridname='geo'  
gridID=EOS_GD_CREATE( fid, gridname, xdim, ydim, upl, lowr) ; this  
part isn't working. need to fix. failed .  
print, gridID
```

Subject: Re: Extract pixel values from HDF-EOS file
Posted by [Snow53](#) on Mon, 26 Jul 2010 15:16:04 GMT
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On Jul 26, 8:13 am, Snow53 <jennifer_wa...@hotmail.com> wrote:
> On Jul 23, 4:17 pm, Snow53 <jennifer_wa...@hotmail.com> wrote:
>
>
>
>
>
>> Hello all. I'm now trying to work with HDF-EOS files. I've been using
>> the IDL guide as a reference in trying to make this work. My data are
>> associated with lat, long coordinates. These data originated from
>> MODIS swath files (HDF4), but were converted to lat/long gridded HDF-
>> EOS using ModisTool. In reading the IDL guide, it looks like I need to
>> define the grid system for my file, attach the grid to my file, and
>> then I can use EOS_GD_GETPIXVALUES (?) to extract pixel data. I've
>> tried to set this project up as follows; currently I'm getting stuck
>> at EOS_GD_CREATE (apparently I haven't created the grid properly).
>> Would anyone be willing to do a quick read-through and throw out
>> thoughts or suggestions?
>
>> Thanks!
>
>> pro hdfest1
>
>> ; open and extract data from MODIS HDF-EOS file
>> path = 'X:\MODIS_GPP\Lena\2003\test\
>
>> file_array=file_search(path, '*.hdf', count=num_file)
>> file=file_array
>
>> print, num_file
>> ;print, file
>
>> for i=0, num_file-1 do begin
>> file_name=file_basename(file[i], '.hdf')
>> ;print, file_name
>

```

>> fid=EOS_GD_OPEN(file[i], /READ)
>
>> upx=172.763114356
>> upy=79.9999999993
>> lrx=116.952175961
>> lry=69.999999994
>> ydim=1110
>> xdim=10239
>
>> gridname='geo'
>> gridID=EOS_GD_CREATE ( fid, gridname, xdim, ydim, [upx, upy], [lrx,
>> lry]) ; this part isn't working. need to fix. failed .
>> print, gridID
>
>> ;gridname=EOS_GD_INQGRID(file[i], gridlist)
>> ;print, gridlist
>
>> out=EOS_GD_ATTACH(fid, gridname)
>> print, out
>
>> pixCol=[2,2]
>> pixRow=[2,2]
>
>> result=EOS_GD_GETPIXVALUES (out, 1, pixCol, pixRow,'Gpp_1km', buffer)
>> print, result
>
>> print, buffer
>
>> status=EOS_GD_CLOSE(fid)
>> endfor
>> end
>
> Still trying to get the EOS_GD_CREATE to work. I've attempted to
> change the format to the following, but still no luck.
> fid=EOS_GD_OPEN(file[i], /RDWR)
> ;print, fid
>
> upl=dblarr(87.74131944, 80)
>
> lowr=dblarr(179.957375, 70)
>
> ydim=1110
> xdim=10239
>
> gridname='geo'
> gridID=EOS_GD_CREATE( fid, gridname, xdim, ydim, upl, lowr) ; this
> part isn't working. need to fix. failed .
> print, gridID- Hide quoted text -

```

>
> - Show quoted text -

Ok, got that part working. Now trying to figure out why this attach
grid won't work.

pro hdftest1

```
; open and extract data from MODIS HDF-EOS file
path = 'X:\MODIS_GPP\Lena\2003\test\'
```

```
file_array=file_search(path, '*.hdf', count=num_file)
file=file_array
```

```
print, num_file
;print, file
```

```
for i=0, num_file-1 do begin
file_name=file_basename(file[i], '.hdf')
;print, file_name
```

```
fid=EOS_GD_OPEN(file[i], /READ)
print, fid
ffid=fid
upl=[87.74131944, 80]
```

```
lowr=[179.957375, 70]
```

```
ydim=1110
xdim=10239
```

```
gridname='geo'
gridID=EOS_GD_CREATE(ffid, gridname, xdim, ydim, upl, lowr)
print, gridID
```

```
out=EOS_GD_ATTACH(ffid, gridname)
print, ffid
print, gridname
```

Subject: Re: Extract pixel values from HDF-EOS file
Posted by [Snow53](#) on Mon, 26 Jul 2010 17:02:24 GMT
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On Jul 26, 9:16 am, Snow53 <jennifer_wa...@hotmail.com> wrote:
> On Jul 26, 8:13 am, Snow53 <jennifer_wa...@hotmail.com> wrote:

```

>
>
>
>
>
>> On Jul 23, 4:17 pm, Snow53 <jennifer_wa...@hotmail.com> wrote:
>
>>> Hello all. I'm now trying to work with HDF-EOS files. I've been using
>>> the IDL guide as a reference in trying to make this work. My data are
>>> associated with lat, long coordinates. These data originated from
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>>> at EOS_GD_CREATE (apparently I haven't created the grid properly).
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>>> thoughts or suggestions?
>
>>> Thanks!
>
>>> pro hdfctest1
>
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>>> path = 'X:\MODIS_GPP\Lena\2003\test\'
>
>>> file_array=file_search(path, '*.hdf', count=num_file)
>>>   file=file_array
>
>>>   print, num_file
>>> ;print, file
>
>>> for i=0, num_file-1 do begin
>>>   file_name=file_basename(file[i], '.hdf')
>>> ;print, file_name
>
>>> fid=EOS_GD_OPEN(file[i], /READ)
>
>>> upx=172.763114356
>>> upy=79.9999999993
>>> lrx=116.952175961
>>> lry=69.999999994
>>> ydim=1110
>>> xdim=10239
>
>>> gridname='geo'
>>> gridID=EOS_GD_CREATE ( fid, gridname, xdim, ydim, [upx, upy], [lrx,
>>> lry]) ; this part isn't working. need to fix. failed .

```

```

>>> print, gridID
>
>>> ;gridname=EOS_GD_INQGRID(file[i], gridlist)
>>> ;print, gridlist
>
>>> out=EOS_GD_ATTACH(fid, gridname)
>>> print, out
>
>>> pixCol=[2,2]
>>> pixRow=[2,2]
>
>>> result=EOS_GD_GETPIXVALUES (out, 1, pixCol, pixRow,'Gpp_1km', buffer)
>>> print, result
>
>>> print, buffer
>
>>> status=EOS_GD_CLOSE(fid)
>>> endfor
>>> end
>
>> Still trying to get the EOS_GD_CREATE to work. I've attempted to
>> change the format to the following, but still no luck.
>> fid=EOS_GD_OPEN(file[i], /RDWR)
>> ;print, fid
>
>> upl=dblarr(87.74131944, 80)
>
>> lowr=dblarr(179.957375, 70)
>
>> ydim=1110
>> xdim=10239
>
>> gridname='geo'
>> gridID=EOS_GD_CREATE( fid, gridname, xdim, ydim, upl, lowr) ; this
>> part isn't working. need to fix. failed .
>> print, gridID- Hide quoted text -
>
>> - Show quoted text -
>
> Ok, got that part working. Now trying to figure out why this attach
> grid won't work.
>
> pro hdfest1
>
> ; open and extract data from MODIS HDF-EOS file
> path = 'X:\MODIS_GPP\Lena\2003\test\
>
> file_array=file_search(path, '*.hdf', count=num_file)

```



```

> file=file_array
>
> print, num_file
> ;print, file
>
> for i=0, num_file-1 do begin
> file_name=file_basename(file[i], '.hdf')
> ;print, file_name
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> fid=EOS_GD_OPEN(file[i], /READ)
> print, fid
> ffid=fid
> upl=[87.74131944, 80]
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> lowr=[179.957375, 70]
>
> ydim=1110
> xdim=10239
>
> gridname='geo'
> gridID=EOS_GD_CREATE(ffid, gridname, xdim, ydim, upl, lowr)
> print, gridID
>
> out=EOS_GD_ATTACH(ffid, gridname)
> print, ffid
> print, gridname- Hide quoted text -
>
> - Show quoted text -

```

All is happy now :).

pro hdfctest1

```

; open and extract data from MODIS HDF-EOS file
path = 'X:\MODIS_GPP\Lena\2003\test\'

```

```

file_array=file_search(path, '*.hdf', count=num_file)
file=file_array

```

```

print, num_file
;print, file

```

```

for i=0, num_file-1 do begin
file_name=file_basename(file[i], '.hdf')
;print, file_name

```

```

fid=EOS_GD_OPEN(file[i], /READ)
print, fid

```

```
result=EOS_GD_INQGRID(file[i], gridlist)
;print, gridlist
gridname=gridlist
print, gridname

out=EOS_GD_ATTACH(fid, gridname)
print, fid
print, gridname

upl=[87.74131944, 80]

lowr=[179.957375, 70]

ydim=1110
xdim=10239

pixCol=[2]
pixRow=[2]

result=EOS_GD_GETPIXVALUES(out, 1, pixCol, pixRow,'Gpp_1km', buffer)
print, result

print, buffer

output=EOS_GD_DETACH(gridname)
status=EOS_GD_CLOSE(fid)
endfor

end
```
